

Department of Environmental Protection

Jeb Bush Governor Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

Colleen Castille Secretary

By E-Mail smccash@wasteservicesinc.com

Mr. Shawn McCash Omni Waste Of Osceola County, LLC 1051 Omni Way St. Cloud, FL 34473 OCD-SW-06-0242

Osceola County – SW
Oak Hammock Disposal Facility, Class I
Leachate Collection System – Cell 3, Minor Modification
Modification Of Permit No. SO49-0199726-002
Permit Application No. SO49-0199726-003

Dear Mr. McCash:

In response to the request submitted on May 23, 2006, by Ayushman Gupta, P.E. of Geosyntec Consultants, Permit No. SO49-0199726-002 is modified to incorporate minor design changes to the primary leachate collection system in Cell 3. This permit modification authorizes the substitution of commercially available geocomposite products (such as PermaNet HL and PermaNet UL geocomposites manufactured by GSE) for use as the primary geocomposite drainage layer in Cell 3.

The permit modification also authorizes an additional leachate collection drain in Cell 3. The drain will prevent the maximum head on the primary geomembrane from exceeding 12 inches.

Cell 3 is one of the four Cells (Cells 1 through 4) of the currently permitted Phase 1 development of the Oak Hammock Disposal Facility (OPHDF).

The information submitted on May 23, 2006 on file at the Central District office, is made a part of the subject permit. The document is listed below:

Minor Modification Application For Cell 3 At Oak Hammock Disposal Facility Prepared by Geosyntec Consultants, Tampa, Florida date May 2006.

All other conditions of the subject permit remain unchanged.

This letter must be attached to Permit No. SO49-0199726-002 and becomes part of that permit. The new Permit No. is SO49-0199726-003.

Sincerely,

F. Thomas Lubozynski for

FThomas Jellyzus hi

Vivian F. Garfein

Director, Central District

Date: June 9, 2006

FILING AND ACKNOWLEDGEMENT

Filed, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

June 9, 2006

Clerk Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on June 9, 2006 to the listed persons.

Clerk

VFG/gc/ew

cc: Richard Tedder, P.E. – DEP – Tallahassee
Ayushman Gupta, P.E. – Geosyntec Consultants <u>agupta@geosyntec.com</u>

Site # 0199726	Site Name OA		CK DISPOSAL FACILITY		
Permit# 0199726-003 -SO	The state of the s	Туре	e/Subtype SO / M	M Received	05/23/2006
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Event	Begin Date	Period	Due Date Rn	nn Status	End Date
Receive Request	05/23/2006	1	05/24/2006	Done	05/23/2006
Fee Verification	05/23/2006	2	05/25/2006	Sufficient Fee	05/24/2006
Completeness Review	05/23/2006	30	06/22/2006	Complete	05/23/2006
Determine Agency Action	05/23/2006	90	08/21/2006	issue	06/09/2006
Issue Final Permit	06/09/2006	14	06/23/2006	issued	06/09/2006
ISSUE PERMIT	06/09/2006	1	06/10/2006	Issued	06/09/2006
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HISTORY SHEET

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Jeb Bush Governor

Department of Environmental Protection

Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

December 13, 2005

OCD-SW-05-0502

Colleen Castille Secretary

Mr. Timothy J. Salopek
BY ELECTRONIC MAIL tjsomni@aol.com
Omni Waste of Osceola County, LLC
100 Church Street
Kissimmee, Florida 34741

Osceola County – SW
Oak Hammock Disposal
Class I
DEP Permit No. SC49-0199726-001 & SC49-0199726-002—Appendix B

Dear Mr. Salopek:

Attached is a copy of the Appendix B, a table that reflects time-sensitive specific conditions in your current permit. We suggest you file the table with your permit and use it as a reference for required due dates.

Please contact me at (407) 893-3329 or james.bradner@dep.state.fl.us, if you have questions or need further information.

Sincerely, Games M. Bradner

James N. Bradner, P.E., Manager Solid and Hazardous Waste Program

JNB/zb

Attachment

APPENDIX B

Page 1 . DEP Permit #SC49-0199726-001 DEP Permit #SC49-0199726-002

Specific condition	Requirement	Action	Due date
8	Equipment breakdown causing temporary noncompliance with the permit	Notify the Department and implement corrective action	
21	Construction permit renewal (permit expires 8/28/2007)	Submit application for permit renewal	Before 6/29/2007 (at least 60 days prior to permit expiration)
25	Monitoring Plan Implementation Schedule (MPIS)	Conduct required semiannual ground water monitoring	Twice each year
26	Fires or burning of solid waste	Letter explaining cause, remedial action, and measures taken to prevent a recurrence	Within 5 days of fire
33	Control of nuisance conditions	Investigate complaints of nuisance conditions	Immediately upon discovery
38	Initial cover	Apply initial cover	At the end of each working day, working face may be covered with temporary cover if solid waste will be placed on it within 18 hours
38	Intermediate cover	Apply intermediate cover	If final cover or an additional lift is not to be applied within 180 days of cell completion, apply within 7 days
44	Routine maintenance	Inspect slopes and drainage structures for evidence of settling, erosion, washout and siltation	At least monthly and after major storm events
45	Gas monitoring	Monitor all waste filled areas for the presence of landfill gas and submit results to the Department within 30 days of receipt of data	Quarterly
48		Submit a report quarterly including a summary of the ypes and quantities of solid wastes received	Quarterly

APPENDIX B
Page 2
DEP Permit #SC49-0199726-001
DEP Permit #SC49-0199726-002

Specific condition	Requirement	Action	Due date
49	Permit renewal (permit expires 8/28/2007)	Submit application for permit renewal	Before 6/29/2007 (at least 60 days prior to permit expiration)
50	Closure permit requirements	Submit a closure permit application to the Department	At least 90 days prior to the date when wastes will not longer be accepted
54	Annual cost estimates and financial mechanism adjustments	Annually adjust the closure and long-term care cost estimates, and funding of the financial assurance mechanism	Submit between January 1 and March 1 of each year

Williams, Elizabeth

From:

KCargill@GeoSyntec.com

Sent:

Wednesday, January 14, 2004 8:41 AM

To:

Williams, Elizabeth

Subject:

RE: 0395 Oak Hammock permit modification and attachment

received in December, sorry for the delay. Ken Cargill

----Original Message-----

From: Williams, Elizabeth [mailto:Elizabeth.Williams@dep.state.fl.us]

Sent: Tuesday, December 16, 2003 10:24 AM

To: TJSOmni@aol.com

Cc: Tedder, Richard; Wick, Fred; Ken Cargill; ddee@landersandparsons.com; dshe@osceola.org

Subject: 0395 Oak Hammock permit modification and attachment

<<0395 Oak Hammock Permit Mod with attach.pdf>>

Adobe Acrobat Reader 5.0 can be downloaded for free at the following Internet

http://www.adobe.com/products/adobe/readstep.html

It is imperative that you reply to this e-mail indicating that you received this document. It is important that we track this information.

Elizabeth Williams elizabeth.williams@dep.state.fl.us Administrative Secretary Waste Management Department of Environmental Protection Telephone 408/893-3328 Suncom 325-3328 FAX 407/893-3124



Department of Environmental Protection

Jul

Jeb Bush Governor Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

David B. Struhs Secretary

Electronic Mail
TJSOmni@aol.com

Mr. Timothy J. Salopek, President Omni Waste of Osceola County, LLC Post Office Box 421613 Kissimmee, Florida 34742 OCD-SW-03-0395

Osceola County - SW
Oak Hammock Disposal, Class I -Letter Modification
Modification of Permit Nos. SC49-0199726-001 and SO49-0199726-002
DEP Permit No. SC49-0199726-003

Dear Mr. Salopek:

The Department hereby modifies DEP Permit Nos. SC49-0199726-001 and SO49-0199726-002 to incorperate phased financial assurance for cells 1-4 of the Oak Hammock disposal facility. The following sentence is added to Specific Condition #53. Financial Responsibility:

"Phased financial assurance will be provided to the Department in accordance with the proposal signed and sealed by Kenneth W. Cargill, P.E. on October 31, 2003, and accepted by the Department on November 3, 2003. The accepted proposal is Exhibit II."

A copy of the accepted proposal, including its appendices A and B are attached.

All other conditions of the subject permit remain unchanged.

This letter and its attachments must be attached to Permit Nos. SC49-0199726-001 and SO49-0199726-002 as Exhibit II. It becomes part of those permits.

Sincerely,

F. Thomas Lubozynski, P. E., CIH Waste Program Administrator

I Thomas Tollogyus hi

Date: December 16, 2003

FTL/jnb/ew Attachment

CC:

Richard Tedder, P.E. - DEP - Tallahassee

Fred Wick, DEP Financial Coordinator - Tallahassee

Kenneth W. Cargill, P.E.- GeoSyntec Consultants (<u>kcargill@geosyntec.com</u>)

David Dee, Esq.- Landers and Parsons (<u>ddee@landersandparsons.com</u>)

Danny Schaeffer- Osceola County Solid Waste Management dshe@osceola.org

31 October 2003

Mr. James N. Bradner, P.E.
Program Manager, Solid/Hazardous Waste
Florida Department of Environmental Protection, Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Subject: Clarification of Financial Assurance Conditions

Oak Hammock Disposal Facility

Osceola County, Florida

Permit Nos. SC49-0199726-001 and SO49-0199726-002

Dear Mr. Bradner:

GeoSyntec Consultants has prepared this letter on behalf of Omni Waste of Osceola County (Omni) to provide clarification of the financial assurance conditions for Phase 1 of the Oak Hammock Disposal Facility (OHDF) in Osceola County, Florida. Phase 1 of the OHDF is comprised of four cells separated by intercell berms, and it is separated from future landfill phases by similar intercell berms. Special Condition No. 53 of the referenced permits issued by the Florida Department of Environmental Protection (FDEP) requires that "Proof that the financial mechanisms are established and funded ... shall be submitted to the Department sixty (60) days prior to the acceptance of any solid waste at the facility".

The latest financial assurance estimate for Phase 1 of the OHDF was prepared in April 2003 by GeoSyntec and accounts for costs of closure and long-term care in compliance with Rule 62-701.630, Florida Administrative Code (F.A.C.). The total amount estimated was \$7,771,073 for all the cells in Phase 1 (i.e. cells 1 through 4). If a more accurate and realistic scenario is considered for the timing of cell construction and operation, the cost for the required financial assurance can be more accurately estimated. During the first year of operation of the landfill, only Cell 1 will receive waste, Cell 2 will be activated in year 2, Cell 3 in year 3, and Cell 4 in year 4. GeoSyntec understands that the financial assurance requirement can be adjusted to consider only the cells scheduled to contain waste during the period covered by the financial assurance. Cells not yet constructed would be financially assured prior to waste being disposed in them.

A summary of the total cost for closure and long-term care for each of the Cells 1 through 4 is provided in the table below. These costs are a breakdown of the estimated costs for each individual cell provided by the Financial Assurance Cost Estimate Form

RECYCLED AND RECYCLABLE

Mr. James N. Bradner, P.E. 31 October 2003 Page 2

provided to FDEP in April 2003. The tables included in Appendices A and B provide a further breakdown of the costs for each item obtained from the cost estimate form. The table below has allocated these costs to each cell.

	Cell 1	Cell 2	Cell 3	Cell 4	Total Cost
Closure	\$1,294,048	\$892,348	\$787,619	\$787,619	\$3,761,633
Long-Term Care (30 years)	\$2,427,793	\$566,422	\$507,612	\$507,612	\$4,009,440
· Total (Cost for Closure	and Long-Ter	m Care for Cell	s 1 through 4:	\$7,771,073

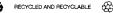
The table below provides a summary of the progressive financial assurance requirements for the OHDF during Phase 1. This table provides the cumulative closure and long-term care costs associated with each additional cell being constructed. Additional financial assurance will be provided prior to each additional cell accepting any waste. These values represent costs in 2003 and do not account for inflation that could occur between now and the time of construction of the cells. Therefore, the total costs will be inflated by the FDEP approved rate (currently 2 percent) annually. Also, the costs assume that no cell is closed during construction of the four cells.

Cells under Construction	Closure Cost	Long-Term Care Cost	Adjusted Estimate of Financial Assurance
1	\$1,294,048	\$2,427,793	\$3,721,840
1, 2	\$2,186,395	\$2,994,215	\$5,180,611
1, 2, 3	\$2,974,014	\$3,501,828	\$6,475,842
1, 2, 3, 4	\$3,761,633	\$4,009,440	\$7,771,073

Omni proposes to provide financial assurance for Cell 1 (i.e. \$3,721,840) prior to waste acceptance at the OHDF in accordance with permit special condition No. 53. Prior to waste acceptance in Cell 2, financial assurance will be supplemented to include the cost of closure and long-term care for Cell 1 and 2 (i.e. a total of \$5,180,611). Similarly, prior to acceptance of waste in Cell 3 or Cell 4, the financial assurance will be supplemented to reflect the cost of closure and long-term care for all cells intended to contain waste.

FX0521/Financial Assurance





Mr. James N. Bradner, P.E 31 October 2003 Page 3

On behalf of Omni, GeoSyntec requests your concurrence with this clarification of financial assurance conditions. Your earliest response would be appreciated as the time for establishment of financial assurance for Cell 1 is approaching. If you have any questions or need additional information, please do not hesitate to contact the undersigned.

Sincerely,

Kenneth W. Cargill, P.E.

Principal

Copy to: Tim Salopek, Omni Waste

Lenny Marion, Omni Waste

Frank Hornbrook, FDEP Solid Waste Section

APPENDIX A

OAK HAMMOCK DISPOSAL FACILITY ESTIMATED CLOSING COST FOR CELLS 1 TO 4

Area of Cells

·	Area
Cell	ac
1	18.04
2	12.44
3	10.98
4	10.98

Total area: 52.44

Item #	Work Description	Total Estimated Amount Cells 1, 2, 3, 4	Total Estimated Amount Cell 1	Total Estimated Amount Cell 2	Total Estimated Amount Cell 3	Total Estimated Amount Cell 4
1	Proposed Monitoring Wells	N/A	N/A	N/A	N/A	N/A
2	Slope and Fill	\$297,413	\$102,314	\$70,553	\$62,273	\$62,273
3	Cover Material (Barrier Layer)	\$1,899,767	\$653,543	\$450,669	\$397,777	\$397,777
4	Vegetative Soil Cover	\$106,220	\$36,541	\$25,198	\$22,241	\$22,241
5	Vegetative Layer	\$108,120	\$37,195	\$25,649	\$22,638	\$22,638
6	Stormwater Control System	\$99,122	\$34,099	\$23,514	\$20,754	\$20,754
7	Gas Controls: Active	\$104,007	\$35,780	\$24,673	\$21,777	\$21,777
8	Gas Control: Active Extraction	\$138,115	\$47,513	\$32,764	\$28,919	\$28,919
9	Security System	\$5,100	\$1,754	\$1,210	\$1,068	\$1,068
10	Engineering	\$102,520	\$35,268	\$24,320	\$21,466	\$21,466
11	Professional Services	\$433,925	\$149,275	\$102,937	\$90,856	\$90,856
	Subtotal of 1-11 Above:	\$3,294,309.0	\$1,133,282.5	\$781,487.5	\$689,769.5	\$689,769.5
12	Contingency (10% of Total)	\$329,431.0	\$113,328.3	\$78,148.7	\$68,977.0	\$68,977.0
	Closing Cost Subtotal:	\$3,623,740.0	\$1,246,610.8	\$859,636.2	\$758,746.5	\$758,746.5
13	Site Specific Costs:	\$137,893.0	\$47,436.9	\$32,711.5	\$28,872.3	\$28,872.3
	TOTAL CLOSING COSTS:	\$3,761,633.0	\$1,294,047.6	\$892,347.7	\$787,618.8	\$787,618.8

APPENDIX B

OAK HAMMOCK DISPOSAL FACILITY ANNUAL COST FOR LONG-TERM CARE FOR CELLS 1 TO 4

Area of Cells

Cell	Area
Cell	ac
1	18.04
2	12.44
3	10.98
4	10.98

Total area:

52.44

ltem#	Work Description	Total Estimated Amount Cells 1, 2, 3, 4	Total Estimated Amount Cell 1	Total Estimated Amount Cell 2	Total Estimated Amount Cell 3	Total Estimated Amount Cell 4
1	Groundwater Monitoring	\$45,441	\$45,441	\$0	\$0	\$0
2	Surface Water Monitoring	\$0	\$0	\$0	\$0	\$0
3	Gas Monitoring	\$3,060	\$3,060	\$0	\$0	\$0
4	Leachate Monitoring	\$5,175	\$1,294	\$1,294	\$1,294	\$1,294
5	Leachate Collection / Treatment Systems Maintenance	\$4,123	\$1,643	\$827	\$827	\$827
6	Leachate Collection / Treatment Systems Operation	\$7,956	\$2,737	\$1,887	\$1,666	\$1,666
7	Maintenance of Groundwater Monitoring Wells	\$357	\$357	\$0 .	\$0	\$0
8	Gas System Maintenance	\$108	\$22	\$43	\$22	\$22
9	Landscape	\$24,480	\$8,421	\$5,807	\$5,126	\$5,126
10	Erosion Control & Cover Maintenance	\$2,142	\$737	\$508	\$448	\$448
11	Storm Water Management System Maintenance	\$2,040	\$702	\$484	\$427	\$427
12	Security System Maintenance	\$1,116	\$384	\$265	\$234	\$234
13	Utilities	\$12,240	\$4,211	\$2,904	\$2,563	\$2,563
14	Administrative	\$13,260	\$4,562	\$3,146	\$2,776	\$2,776
	Subtotal of 1-14 Above:	\$121,498.00	\$73,569.37	\$17,164.29	\$15,382.17	\$15,382.17
15	Contingency (10% of Total)	\$12,150.00	\$7,357.06	\$1,716.46	\$1,538.24	\$1,538.24
	Annual Long-Term Care Cost (\$/Year)	\$133,648.00	\$80,926.43	\$18,880.75	\$16,920.41	\$16,920.41
16	Number of Years of Long-Term Care	30	30	30	30	30
	TOTAL CLOSING COSTS:	\$4,009,440.00	\$2,427,793	\$566,422	\$507,612	\$507,612

Williams, Elizabeth

From:

Janice [suny2455@bellsouth.net] Friday, October 18, 2002 3:01 PM

Sent: To:

Williams, Elizabeth

Subject:

Read: Oak Hammock Landfill, Class I permit with attachments



ATT115216.txt

This is a receipt for the mail you sent to <tjsomni@aol.com> at 10/18/02 2:11 PM

This receipt verifies that the message has been displayed on the recipient's computer at $10/18/02\ 3:00\ PM$



Department of Environmental Protection

Jeb Bush Governor Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

David B. Struhs Secretary

NOTICE OF PERMIT

In the matter of an Application for Permit by:

By E-mail tjsomni@aol.com

Mr. Timothy J. Salopek Omni Waste of Osceola County, LLC 100 Church Street Kissimmee, FL 34741

> Osceola County – SW Oak Hammock Disposal, Class I

Dear Mr. Salopek:

Enclosed is Permit Numbers SC49-0199726-001 & SO49-0199726-002, to construct and operate the Oak Hammock Disposal, Class I landfill, issued under section(s) 403.061(14) and 403.707, of the Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit under section 120.68 of the Florida Statutes, by the filing of a Notice of Appeal under rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

William M. Bostwick for

Vivian F. Garfein Director, Central District 3319 Maguire Boulevard, Suite 232 Orlando, FL 32803 407/894-7555

Date: October 18, 2002

"More Protection, Less Process"

Printed on recycled paper.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

e williams)

October 18, 2002

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on October 18, 2002 to the listed persons.

VFG/gc/ew
Enclosure
Copies furnished to:
Richard Tedder, P.E. – DEP – Tallahassee
Fred Wick – DEP – Tallahassee
L. Kozlov, P.E. - DEP - Air Section
Kenneth W. Cargill, P.E. - Geosyntec Consultants
KCargill@geosyntec.com
Gary L. Pickett
garpick1@juno.com
Jeanette Coughenour, Manager - Association of Poinciana Village, Inc.
apvmgr@jua.net
Ronald M. Kaplan, Esq. - Florida Counsel for Waste Management, Inc.
Janice Langenfeld
suny2455@bellsouth.net



Department of **Environmental Protection**

Jeb Bush Governor

Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

David B. Struhs Secretary

Permittee:

Omni Waste of Osceola County, LLC 100 Church Street Kissimmee, FL 34741

Attention: Mr. Timothy J. Salopek

Permit Numbers: SC49-0199726-001 &

SO49-0199726-002

Date of Issue:

Expiration Date: 8/28/2007

County: Osceola

Section/Township/Range: 11 & 14/28 South / 33 East

Latitude / Longitude:

28°02'57" North / 81°03'10" West

Project: Oak Hammock Disposal, Class I

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-701 and 62-711. The above named permittee is hereby authorized to perform the work and operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To construct and operate the Oak Hammock Disposal, Class I landfill. The present service area for the landfill is Osceola County and surrounding counties.

This five-year construct and operate permit will be for Phase I and will include four landfill cells with a footprint of approximately 53 acres and ancillary facilities supporting the operation of the landfill and providing stormwater management. The complete buildout of the facility will include 21 landfill cells with a footprint of approximately 264 acres within a property boundary of approximately 2179 acres. The anticipated life of the complete facility is 30 years.

Household trash, commercial waste, construction and demolition debris, and other waste classified as Class I waste may be disposed in the landfill. The waste will be from residential communities and commercial sources.

The Class I landfill is equipped with a double-composite liner system, which directs any liquid entering the landfill that may have contacted refuse to a leachate collection system (LCS). Collected leachate is pumped from the sumps into an on-site storage facility and trucked to a wastewater treatment plant (WWTP) periodically for treatment and disposal.

A gas management system will be implemented to control odors and migration of methane.

The project incorporates a ground water and surface water monitoring plan.

LOCATION: The landfill is located approximately 6.5 miles south of Holopaw, on the west side of U.S. Highway 441, in unincorporated Osceola County, Florida.

General Conditions are attached.

"More Protection, Less Process" Printed on recycled paper.

GENERAL CONDITIONS:

- 1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.) The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
- 4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup and auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under conditions of this permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - (a) A description of and cause of noncompliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section

403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- 11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code (F.A.C.), as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. This permit also constitutes:

()	Determination of Best Available Control Technology (BACT)
Ĺ)	Determination of Prevention of Significant Deterioration (PSD)
()	Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
Ĺ)	Compliance with New Source Performance Standards

- 14. The permittee shall comply with the following:
 - (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring information) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. the date, exact place, and time of sampling or measurements;
 - 2. the person responsible for performing the sampling or measurements;
 - 3. the dates analyses were performed;
 - 4. the person responsible for performing the analyses;
 - 5. the analytical techniques or methods used;
 - 6. the results of such analyses.
- 15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

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Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Attention: Mr. Timothy J. Salopek

Expiration Date: 8/28/2007

SPECIFIC CONDITIONS:

1. <u>Plans and Specifications:</u> Drawings, plans, documents and specifications submitted by the permittee are not attached hereto, but remain on file at the Central District office, and are made a part of this permit.

- 2. <u>Inspection Requirements:</u> A copy of the permit, with a complete copy of the permit application and engineering drawings, shall be kept on file at the landfill for inspection and review upon request.
- 3. Other Permits: This permit does not relieve the permittee from complying with any other appropriate stormwater, ERP or other permit requirements.
- 4. <u>Signs:</u> Signs indicating the name of the operating authority, traffic flow, hours of operation, charges for disposal and the types of wastes accepted shall be placed at all entrances to the site.
- 5. <u>Site Access:</u> Access to the site shall be restricted by an effective barrier designed to prevent unauthorized entry and dumping.
- 6. <u>Litter, Dust & Fire Protection</u>: The landfill shall have litter control devices, dust controls, fire protection and fire-fighting facilities. Litter is to be picked up and litter control devices are to be cleaned with the litter placed in the active cell.
- 7. <u>Safety Devices</u>: Safety devices shall be provided on equipment to shield and protect the operators from potential hazards during operation.
- 8. <u>Equipment Breakdown</u>: In the event of equipment malfunction, destruction, breakdown or other problems resulting in the permittee being temporarily unable to comply with any of the conditions of this permit, the Department is to be immediately notified by the permittee as to the cause, what steps are being taken to correct the problem and prevent its recurrence, as required by Rule 62-4.130, F.A.C.
- 9. <u>Effluent Discharge:</u> There shall be no discharge of liquid effluents or contaminated runoff to surface or ground water without prior approval from this Department.
- 10. <u>Surface Water Management:</u> All surface water runoff from the developed portions of the site shall be collected and treated to meet the requirements of Chapters 373 and 403, Florida Statutes (F.S.) prior to discharge off-site. The surface water management system shall prevent surface water flow into waste filled areas.
- 11. <u>Stormwater Leachate Contamination</u>: Stormwater that comes into contact with leachate shall be treated as leachate and any leachate emanating from the landfill shall be collected and treated as necessary to meet the requirements of Chapters 62-302, 62-4 and 62-520, F.A.C., unless the leachate is transmitted to a permitted treatment facility.
- 12. <u>Stormwater System Maintenance:</u> The stormwater system shall be maintained and visually inspected on a periodic basis and shall be cleaned as necessary to maintain proper operation.
- 13. Zone of Discharge: The zone of discharge for the facility shall be a three dimensional volume, defined in the vertical plane as extending from the top of the ground to the base of the surficial aquifer, and defined in the horizontal plane as extending 100 feet from the foot print of the waste disposal area or to the property boundary, whichever is less. Class G-II water quality standards must be met at the boundary of the zone of discharge in accordance with Rule 62-522.410, F.A.C.

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Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Attention: Mr. Timothy J. Salopek

Expiration Date: 8/28/2007

SPECIFIC CONDITIONS:

14. <u>Quality Assurance</u>: The Construction Quality Assurance (CQA) Plan submitted with the permit application shall be followed for installing and testing the liner system and related components. The CQA engineer or the engineer's designee shall be on-site at all times during construction of the liner systems to monitor the construction activities including the preparation of the subgrade, placement of the GCL, primary and secondary liners, and the placement of the soil drainage layer over the primary liner to ensure the underlying geosynthetics are not damaged during construction.

- 15. <u>Supervision</u>: A registered engineer qualified to practice in Florida shall supervise and evaluate the liner installation quality assurance/quality control program to ensure that the liner meets design specifications. Upon completion, the engineer shall submit a summary report to the Department as to the complete conformity to the plans and specifications as approved. This summary report shall include a documented control program of the liner installation, liner inspections and the quality assurance/quality control testing procedures and laboratory analyses. This report shall be included with the certification required in Specific Condition 22 of this permit.
- 16. <u>Base:</u> Prior to the liner installation, the subgrade shall be prepared to provide a firm unyielding foundation and if necessary, the base shall be brought up to grade by placement and compaction of fill material. The fill material and subgrade shall not contain rocks, roots, debris, shells, or other materials that could penetrate the liner material.
- 17. <u>Liner</u>: The liner system consists of a double-composite liner. The liner system, from top to bottom, consists of: 2 foot thick protective soil layer, primary geocomposite drainage layer, 60-mil thick primary HDPE textured geomembrane, primary geosynthetic clay liner (GCL), secondary geocomposite drainage layer, 60-mil thick HDPE secondary textured geomembrane, secondary GCL, and compacted subgrade.
- 18. <u>Liner Installation</u>: Installation of the liner shall be performed by an experienced installer who has installed similar type materials. The permittee shall notify the Department at least 10 days prior to the commencement of liner installation work in any cell.
- 19. <u>GCL Installation Limitation</u>: The number of geosynthetic clay liner (GCL) panels that may be deployed in any one day shall be limited to the number that can be placed in a dry condition and covered by the HDPE while still dry. No installation or seaming of GCL under wet conditions shall be allowed. The CQA plan requires the owner's inspector to inspect the subgrade each day prior to placing the GCL.
- 20. Geomembrane Testing: Non-destructive air pressure tests and/or vacuum test shall be conducted by the installer under the direction of the CQA engineer or his designee to test 100 percent of the field seams of the geomembrane. Destructive tests of the geomembrane field seams shall be in accordance with the approved CQA plan and at a frequency no less than one destructive test sample every 500 linear feet of field seam.
- 21. <u>Construction Permit Renewal</u>: The construction shall reasonably conform to the plans and supporting documents submitted as part of the application. If construction can not be completed before the expiration of this permit, the permittee must notify the Department, in writing, at least 60 days prior to the expiration of the construction permit and request a renewal of the construction permit.
- 22. <u>Certification:</u> After all significant initial construction has been completed, and prior to acceptance of any solid waste, the engineer of record shall complete a Certificate of Construction Completion, DEP Form 62-701.900(2), then contact the Department to arrange for Department representatives to inspect the facility in the company of the permittee, the engineer and the proposed on-site facility operator.

Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Expiration Date: 8/28/2007

Attention: Mr. Timothy J. Salopek

SPECIFIC CONDITIONS:

23. <u>Solid Waste Disposal</u>: The landfill shall not receive solid waste until the leachate collection system is in place and functional and Specific Conditions 15, 22 and 25 are satisfied.

- 24. <u>Liner Edge Staking</u>: The edge of the liner must be clearly and permanently marked or outlined by staking or other means so that solid waste is deposited at least 10 feet back from the edge of the liner.
- 25. Monitoring Plan Implementation Schedule: The Monitoring Plan Implementation Schedule attached as Exhibit I, is made a part of this permit. All wells shall be in place and sampled prior to placement of waste into the newly constructed cell.
- 26. <u>Solid Waste Burning:</u> Burning of solid waste is prohibited except as provided by Rule 62-701.300(3), F.A.C. Any unauthorized fires involving solid waste at the landfill must be reported to the Department within 5 days by letter explaining the cause, remedial action and measures taken to prevent a recurrence.
- 27. Improper Operations: When the Department, after investigation, has good reason (such as complaints, questionable maintenance of equipment, improper operations, etc.) to believe that any applicable standard contained in Chapter 62-701, F.A.C. or in this permit is being violated, it may require the owner or operator of the source to identify the nature of the problem and to submit a report to the Department on the results of the investigation and corrective action taken to prevent its recurrence.
- 28. Operation of Pollution Control Devices: The leachate and stormwater control systems shall be properly operated, monitored and maintained (Rule 62-701.500, F.A.C.) A record shall be kept of the amount of leachate collected, the date the leachate was taken offsite for disposal, and the identity of the wastewater treatment facility where the leachate was disposed.
- 29. <u>Leachate Collection and Removal System:</u> The primary leachate collection and removal system lying above the upper geomembrane shall be designed to limit the leachate head to one foot above the liner during routine landfill operations after placement of initial cover, except in sumps and leachate collection trenches.
- 30. <u>Leachate Storage Tanks</u>: The integrity of the leachate storage tanks and containment facilities shall be checked on a weekly basis so that no leachate releases to the soils will occur. The storage tanks and containment facilities shall be maintained and operated in accordance with Rule 62-701.400(6), F.A.C.
- 31. <u>Precipitation Records:</u> A recording rain gauge shall be operated and maintained to record precipitation at the landfill. Precipitation records shall be maintained and used by the permittee to compare with leachate generation rates.
- 32. <u>Hazardous Wastes:</u> Any incidental hazardous wastes received in connection with operation of this facility must be disposed of in accordance with Rule 62-730, F.A.C.
- 33. <u>Control of Nuisance Conditions:</u> The operating authority shall be responsible for the control of odors and fugitive particulates arising from this operation. Such controls shall prevent the creation of nuisance conditions that may arise from adverse odors on adjacent or nearby properties and users. Complaints received from the general public shall be immediately investigated by the permittee and where warranted, corrective action taken to abate the adverse odor.

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Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Attention: Mr. Timothy J. Salopek Expiration Date: 8/28/2007

SPECIFIC CONDITIONS:

34. Operations Plan: An operations plan prepared by the engineer of record shall be kept at the landfill. The operations plan shall include the sequence of filling, compaction, placement of cover, day to day operations, etc. The landfill operator shall be trained and knowledgeable about the plan.

- 35. <u>Initial Waste Placement:</u> The first layer of waste placed above the liner and leachate collection system shall be a minimum of four feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system.
- 36. <u>Initial Cover Stockpile:</u> An adequate supply of acceptable initial cover, as specified in the operations plan, shall be maintained at the landfill and be available at all times. All stockpiles shall be graded to minimize erosion potential. Silt fences or diversion berms shall be utilized around the stockpiles to control erosion.
- 37. Waste Compaction & Working Face: Except for the placement of the initial layer of waste, all solid waste shall be spread in layers of approximately two (2) feet in thickness and compacted to approximately one (1) foot in thickness or as thin a layer as practical before the next layer is applied. All compacted solid waste shall be formed into cells with the working face and the side grades above land surface at a slope no greater than three feet horizontal to one foot vertical rise. The working face shall be only large enough to efficiently accommodate vehicles discharging waste.
- 38. <u>Initial Cover and Intermediate Cover:</u> Initial cover shall be applied at the end of each working day except the working face may be covered with temporary cover if solid waste will be placed on it within 18 hours. If additional waste is to be deposited on the working face within 18 hours, the initial cover may consist of a temporary cover, such as tarpaulin, that may be removed prior to the placement of additional waste. An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion if final cover or an additional lift is not to be applied within 180 days of cell completion. All or part of the intermediate cover may be removed prior to placing additional waste or installing final cover.
- 39. <u>Final Cover Top:</u> In descending order, the final cover system on the top (5 percent) slopes of the landfill shall consist of: 0.5 ft. thick vegetative layer, 1.5 ft. thick protective soil layer, 40-mil thick smooth polyethylene (PE) geomembrane, and 1-ft. thick (minimum) intermediate cover layer over the compacted waste.
- 40. <u>Final Cover Side Slopes:</u> The final cover system on the 4H:1V side slopes of the landfill from top to bottom shall consist of: 0.5 -ft. thick vegetative layer, 1.5 ft. thick protective layer, a geocomposite drainage layer, a 40-mil thick textured PE geomembrane, and a 1 ft. thick (minimum) intermediate cover layer over the compacted waste.
- 41. <u>Erosion Minimization</u>: Erosion of the final cover system shall be minimized by final cover swales. The swales shall intercept sheet flow from the final cover system. The final cover swales shall direct the collected surfacewater runoff to downchutes and the perimeter swale. A vegetative cover placed on the final cover slopes of the landfill will minimize erosion and reduce loss from the final cover system. The final cover system shall be periodically inspected and erosion damage or vegetative stress shall be repaired before significant erosion develops.
- 42. <u>Side Slopes</u>: The side slopes shall not be steeper than 4 horizontal to 1 vertical and, when the final cover is installed, shall be sodded to minimize erosion.

Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Attention: Mr. Timothy J. Salopek

Expiration Date: 8/28/2007

SPECIFIC CONDITIONS:

43. <u>Final Cover Surface Gradient</u>: The top gradient of the final cover surface will have a gradient of 5 percent and shall take into consideration the effects of expected subsidence caused by settling and decomposition of the fill material to minimize ponding and erosion.

44. Routine Maintenance: Cracks or eroded sections in the surface of any filled and covered area shall be properly repaired and a regular maintenance program shall be followed to eliminate pockets or depressions that may develop as refuse settles. The slopes and drainage structures shall be inspected at least monthly and after major storm events for evidence of settling, erosion, washout or siltation.



- 45. <u>Gas Monitoring</u>: The permittee shall implement a gas management system to comply with Rule 62-701,530, F.A.C.
- 46. <u>Landfill Elevation</u>: The final (maximum) elevation of the Oak Hammock Disposal, Class I landfill, shall not exceed 178 feet NGVD.
- 47. <u>Operation Training Compliance:</u> The Oak Hammock Disposal, Class I landfill shall comply with Rule 62-701.320(15), F.A.C. Operator training.
- 48. Operations Report: An operations report shall be submitted to the Department on a quarterly basis. Reports shall include the following:
 - a) types of solid waste received, and
 - b) quantities of solid waste received.

All submittals in response to this specific condition shall be submitted to: Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, with a copy to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

- 49. <u>Operation Permit Renewal:</u> An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit. (Rule 62-4.090, F.A.C.).
- 50. <u>Closure Permit Requirements</u>: At least 90 days prior to the date when wastes will no longer be accepted, the owner or operator shall submit a closure permit application to the Department.
- 51. <u>Solid Waste Disposal Rate</u>: The average solid waste disposal rate for this source is 1700 tons per day as stated in the application. Actual operating rates may vary depending upon business conditions.
- 52. <u>Substantial Changes or Revisions</u>: The Department shall be notified and approval obtained prior to executing any substantial changes or revisions to the construction and operation authorized by this permit.
- 53. <u>Financial Responsibility</u>: The permittee shall maintain financial assurance in accordance with the requirements of Rule 62-701.630, F.A.C. Proof that the financial mechanisms are established and funded in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, F.A.C. shall be submitted to the Department sixty (60) days prior to the acceptance of any solid waste at the facility. All submittals in response to this specific condition shall be sent to: Department of Environmental Protection, Financial Coordinator, Solid Waste Section, Twin Towers Office Building, 2600 Blair Stone Road, MS-4565, Tallahassee, Florida 32399-2400, with a copy to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

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Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Attention: Mr. Timothy J. Salopek

Expiration Date: 8/28/2007

SPECIFIC CONDITIONS:

54. Annual Cost Estimates and Financial Instrument Adjustments: The permittee shall, in addition to annually adjusting the closure and long-term care cost estimates, adjust the financial assurance mechanism to reflect an increase in cost estimates. Cost estimate adjustments shall be in accordance with Rule 62-701.630(4), F.A.C. Instrument adjustments shall be in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264, Subpart H as adopted by reference in Rule 62-701.630, F.A.C. Documentation of financial mechanism increases shall be submitted to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, Twin Towers Office Building, 2600 Blair Stone Road, MS-4565, Tallahassee, Florida 32399-2400. All estimate update submittals shall be sent to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

- 55. Prevention of Significant Deterioration (PSD) Requirements: The landfill owner or operator is not required to obtain any air construction permit unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.
- 56. <u>Title V Permit Requirements:</u> The landfill owner or operator is not required to obtain any air operating permit unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is contiguous or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity as defined in 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and content requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the Central District Air Program Administrator.
- 57. 40 CFR 60 Requirements: The permittee shall comply with the applicable requirements of 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

ISSUED: October 18, 2002

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

William M. Bostwick for

William m. Q

Vivian F. Garfein Director, Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803

EXHIBIT I

OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

WACS FACILITY ID: 89455

MONITORING PLAN IMPLEMENTATION SCHEDULE

GENERAL

- 1. The permittee must install all monitoring wells and collect the initial ground-water quality samples in accordance with this Monitoring Plan prior to any waste being accepted by the facility.
- 2. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with **Chapter 62-160 Florida Administrative Code (F.A.C.)**. Approved methods as published by the Department or as published in Standard Methods, ASTM, or EPA Methods shall be used.
- 3. The organization collecting samples at this site must use the Field and Laboratory Standard Operating Procedures (DEP-SOP-001/01 and DEP SOP-002/01) in Chapter 62-160, F.A.C. Sampling personnel must have a copy of the SOP for purging and sampling in the field when sampling and must be knowledgeable of its contents, procedures, and forms. The laboratory designated to conduct the chemical analyses must be certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP). This Certification must be for the test method and analyte(s) that are reported.
- 4. If, at any time, analyses show that ground water standards or minimum criteria are exceeded in the detection wells or at the edge of the Zone of Discharge, the Permittee shall resample the wells within thirty (30) days after the sampling data are received, to confirm the data. Should the permittee choose not to resample, the Department will consider the water quality analysis as representative of current ground water conditions at the facility. If the data are confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department in writing within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring in accordance with Rule 62-701.510(7) F.A.C.
- 5. The Department must be notified in writing at least fourteen (14) days prior to the installation and/or sampling of any monitoring well(s).

GROUND WATER QUALITY MONITORING

6. The forty-five (45) ground water monitoring wells designated for water quality testing are listed on Attachment A and are shown on Attachment B. The piezometers intended to be used for water level measurements are shown on Attachment C (Note:

Landfill cells 1-4 will be constructed over piezometers DP-1, DP-2, DP-3 and DP-4 and these piezometers will be properly abandoned during site preparation activities).

NOTE: Unless otherwise approved by the Department, wells with high turbidities must be remediated or reinstalled to reduce the turbidity value to less than 20 NTU's prior to sample collection. Should any ground water sample exhibit dissolved oxygen concentrations greater than 20% of oxygen saturation at the field measured temperature, the sampled well must be repurged then resampled as soon as an acceptable dissolved oxygen value has been attained unless it can be demonstrated that insitu ground water contains higher levels of dissolved oxygen. All water quality analyses will be performed on unfiltered samples unless approved by the Department.

- 7. The initial samples collected from the forty-five (45) ground water monitoring wells shall be analyzed as follows: temperature (field), dissolved oxygen (field), pH (field), specific conductance (field), turbidity (field), total ammonia as N, chlorides, nitrate, total dissolved solids, iron, mercury, sodium, and the EPA 40 CFR, Part 258, Appendix I and Appendix II parameters. All analyses must use detection limits at or below state standards and/or minimum criteria for ground water quality unless dilution of the sample is necessary due to high contaminant concentrations or the Method Detection Limit using the most sensitive and currently available technology is higher than a specific criterion, in which case the practical quantitation limit must be used.
- 8. Samples from the forty-five (45) ground water monitoring wells shall be collected semi-annually and analyzed as follows: temperature (field), dissolved oxygen (field), pH (field), specific conductance (field), turbidity (field), total ammonia as N, chlorides, nitrate, total dissolved solids, iron, mercury, sodium, and the EPA 40 CFR, Part 258, Appendix I parameters. All analyses must use detection limits at or below state standards and/or minimum criteria for ground water quality unless dilution of the sample is necessary due to high contaminant concentrations or the Method Detection Limit using the most sensitive and currently available technology is higher than a specific criterion, in which case the practical quantitation limit must be used.
- 9. Ground water levels in all wells, whether sampled or not, and all piezometers must be measured to the nearest 0.01 foot and reported semiannually unless required more frequently by permit condition. All water level measurements must be made within a one day period. These measurements must be referenced to the National Geodetic Vertical Datum of 1929 (NGVD).

SURFACE WATER MONITORING

10. The two (2) surface water sites included in this monitoring plan are SW-3 and SW-4. They are listed on Attachment A and shown on Attachment D. Surface water samples should be collected during the semiannual ground water sampling events; however, no surface water sample will be collected during a semiannual sampling event in which the Bull Creek is not flowing. This does not preclude the permittee, however,

from voluntarily sampling the creek on an irregular frequency during the rainy season, or at other times, when there is flow in Bull Creek.

- 11. The initial samples from two (2) surface water monitoring sites shall be collected and analyzed as follows: temperature (field), dissolved oxygen (field), pH (field), specific conductance (field), turbidity (field), unionized ammonia (NH₃), total hardness as CaCO₃, total organic carbon, total dissolved solids, total suspended solids, biochemical oxygen demand (5 day), chemical oxygen demand, total nitrogen as N, nitrate as N, total phosphates as P, chlorophyll A, iron, mercury, and the EPA 40 CFR, Part 258, Appendix I parameters. All analyses must use detection limits at or below state standards and/or minimum criteria unless dilution of the sample is necessary due to high contaminant concentrations or the Method Detection Limit using the most sensitive and currently available technology is higher than a specific criterion, in which case the practical quantitation limit must be used.
- 12. Samples from the two (2) surface water monitoring sites shall be collected semi-annually and analyzed as follows: temperature (field), dissolved oxygen (field), pH (field), specific conductance (field), turbidity (field), unionized ammonia (NH3), total hardness as CaCO3, total organic carbon, total dissolved solids, total suspended solids, biochemical oxygen demand (5 day), chemical oxygen demand, total nitrogen as N, nitrate as N, total phosphates as P, chlorophyll A, iron, mercury, and the EPA 40 CFR, Part 258, Appendix I parameters. All analyses must use detection limits at or below state standards and/or minimum criteria unless dilution of the sample is necessary due to high contaminant concentrations or the Method Detection Limit using the most sensitive and currently available technology is higher than a specific criterion, in which case the practical quantitation limit must be used.
- 13. Surface water elevations at sampling locations SW-3 and SW-4 must be measured to the nearest 0.01 foot on the same day as ground water levels in the wells and piezometers and reported semiannually unless required more frequently by permit condition. All water level measurements must be made within a one day period. These measurements must be referenced to NGVD.

LEACHATE QUALITY MONITORING

- 14. The sites designated for leachate quality testing are L-1, L-2, L-3 and L-4. The sites are listed on Attachment A and shown on Attachment B.
- 15. Samples from the leachate monitoring sites shall be collected annually and analyzed for dissolved oxygen (field), pH (field), specific conductance (field) total ammonia as N, bicarbonate, chlorides, nitrate, total dissolved solids, iron, mercury, sodium and the EPA 40 CFR, Part 258, Appendix II parameters. All analyses must use detection limits at or below 40 CFR Part 261.24 standards.

MONITORING WELL REQUIREMENTS

- 16. If a monitoring well becomes damaged or inoperable, the Permittee shall notify the Department in writing within seven (7) days. The written report shall describe what problem has occurred and the remedial measures that have been taken to prevent a recurrence. The Department can require the replacement of inoperable monitoring wells.
- 17. New or replacement monitoring well design or placement must be approved by the Department. Proposed well construction details based on site specific borings must be submitted with all supporting data (grain size distribution analyses, in-situ hydraulic conductivity testing, depth to water, etc.) for Department approval prior to well installation. Use of hollow stem auger equipment is recommended. Other drilling methods must be approved by the Department prior to well installation.
- 18. All wells shall be clearly and permanently labeled and the well site maintained so that the well is visible at all times. Protective barriers must be installed at all wells which may be subject to damage by heavy equipment or traffic.
- 19. An abandonment plan for abandoning any well which is unsuitable for ground water monitoring must be approved by the Department prior to abandonment.

REPORTING REQUIREMENTS

GENERAL

- 20. Well completion reports for new monitoring wells must be submitted to the Department on the attached Ground Water Monitoring Well Completion Report Form thirty (30) days after installation. Note that the top of casing elevation of each well, to an accuracy of 0.01 feet, and the latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and certified by a Florida Registered Surveyor and provided on the form. In addition, as-built well construction diagrams and soil boring logs that cover the entire depth of the monitoring well(s) must be submitted to the Department.
- A drawing must be submitted within sixty (60) days following monitoring well installation showing the location of all monitoring wells (active and abandoned), water bodies and waste filled areas. The location of features on the drawing must be horizontally and vertically located by standard surveying techniques. The drawing shall include all monitoring well locations, each monitoring well name and identification (WACS) number, the top of casing, pad elevation, permanent benchmark(s) and/or corner monument marker(s) referenced to NGVD with an accuracy of 0.01 feet. The survey shall be conducted and certified by a Florida Registered Surveyor.
- 22. A total depth measurement must be made on all wells at time of permit renewal. This measurement is to be reported as total apparent depth below ground surface and should be compared to the original total depth of the well.

SEMI-ANNUALLY

The required monitoring results must be submitted to the Department within thirty 23. (30) days of receipt from the laboratory. These data shall be accompanied by a Ground Water Monitoring Report form (FDEP Form 62-522.900(2). A copy of this form is attached. The monitoring reports shall include all the parameters described above.

There are two options for reporting monitoring results.

- Paper Reporting: Parameter Report Forms FDEP Forms 62-522.900(2) are 1. attached for reporting semi-annual analyses. In order to facilitate entry of this data into the State computer system, these forms or exact replicas must be used and must not be altered as to content. The original copies of the forms should be retained so that the necessary information is available to properly complete future reports.
- Electronic Reporting: The monitoring data may be submitted electronically on floppy diskettes or compact disc media readable by a Microsoft Windows computer. The Department may use electronic-tools (e.g. Validator) to conduct data quality review and compliance checking. Electronic laboratory data must be submitted in a specific format called a tab-delimited text file with the first line of the file being the data field names. (Note: Microsoft Excel produces this file format when the "Save As" and "Text (Tab Delimited)" options are selected.) The following data fields must be present in the data:
- Analytical Method
- Date of Analysis
- Date of Preparation (if applicable)
- Date of Sampling
- س س س س **Detection Limit of the Analysis**
- DOH Certification Number of the Laboratory
- Matrix (Aqueous, Drinking Water, Saline/Estuarine, or Solids)
- ی پی Analytical Result
- Appropriate Data Qualifiers (as listed in Florida Administrative Code 62-160)
- Analytical Result Units
- WACS Testsite ID
- Parameter Name (Name of the Compound Analyzed for/Test Performed)
- STORET Parameter Code (as provided by the Department's Bureau of Solid and Hazardous Waste; must be six digits: e.g. 039430 for Isodrin)

All dates are to be submitted in MM/DD/YYYY HH:MI:SS format (e.g. 05/14/1973 17:18:00 for May 14, 1973, 5:18:00 p.m.). A sample of an acceptable data format will be posted to the Bureau of Laboratories web site, http://www.floridadep.org/labs/software

The submittal shall also include laboratory reports, Chain of Custody sheets, field data sheets, Water Sampling Logs (attached), ground water contour maps, a summary of any water quality standards or minimum criteria that are exceeded and any other required documents. These reports may be submitted electronically in portable document format (PDF) in lieu of a paper copy. If a specific document has a requirement to be signed and sealed, an original signed and sealed paper copy must also be submitted unless it is specifically permitted by law or rule to be signed electronically.

Please note that the Department of Environmental Protection's (DEP's) new Standard Operating Procedures for Field Activities, DEP-SOP-001/01, January 01, 2002, become effective on April 9, 2002. The revised protocols, including those for ground water sampling (FS2200), can be accesses at the DEP's Internet address http://www.dep.state.fl.us/labs/qa/sops.htm

- 24. Water levels in all monitoring wells, whether sampled or not, and all surface water sites must be measured to the nearest 0.01 foot and reported semi-annually unless required more frequently by permit condition. All water level measurements must be made within a one day period. These measurements should be reported in a table that includes well or surface water point name, date water level measured, measuring point elevation referenced to NGVD, depth to water and calculated water level elevation referenced to NGVD.
- 25. A ground water elevation contour map for each monitored aquifer zone must be submitted semi-annually to the Department. Ground water elevation contour map(s) should include monitoring well locations, ground water elevation at each monitoring well location referenced to NGVD, a bar scale, ground water contour interval, date of measurement and ground water flow direction. The map(s) must incorporate adjacent and on-site surface water elevations where appropriate. These maps shall be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a registered professional who is able to demonstrate competence in this subject area.

BIENNIALLY

- 26. A technical report shall be submitted to the Department every two years, and shall be updated at the time of permit renewal. The report shall summarize and interpret the water quality data and water level measurements collected during the past four years. The report shall contain, at a minimum, the following:
 - a. Tabular and graphical displays of any data which shows that a monitoring parameter has been detected, including hydrographs for all monitoring wells.
 - b. Trend analyses of any monitoring parameters detected.
 - c. Comparisons among shallow, middle, and deep zone wells.
 - d. Comparison between upgradient and downgradient wells.
 - e. Correlation between related parameters such as total dissolved solids and specific conductance.
 - f. Discussion of erratic and/or poorly correlated data.

- g. An interpretation of the ground water contour maps, including an evaluation of ground water flow rates.
- h. An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

This report must be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a registered professional who is able to demonstrate competence in the subject area(s) addressed within the sealed document.

ATTACHMENT A

OAK HAMMOCK DISPOSAL, CLASS I LANDFILL WACS FACILITY ID: 89544 MONITORING SITES

TESTSITE SITE NAME	WACS TESTSITE ID	TYPE	ZONE/LOCATION MONITORED
GROUND WATE	ER		
MW-1A	19900	<u>B</u>	UPPER SURFICIAL
MW-1B	19901	В	INTERMEDIATE SURFICIAL
MW-1C	19902	<u>B</u>	DEEP SURFICIAL
MW-2A	19903	<u>B</u>	UPPER SURFICIAL
MW-2B	19904	В	INTERMEDIATE SURFICIAL
MW-2C	19905	В	DEEP SURFICIAL
MW-3A	19906	В	UPPER SURFICIAL
MW-3B	19907	<u>B</u>	INTERMEDIATE SURFICIAL
MW-3C	19908	<u>B</u>	DEEP SURFICIAL
MW-4A	19909	<u>B</u>	UPPER SURFICIAL
MW-4B	19910	<u>B</u>	INTERMEDIATE SURFICIAL
MW-4C	19911	<u>B</u>	DEEP SURFICIAL
MW-5A	19912	<u>B</u>	UPPER SURFICIAL
MW-5B	19913	В	INTERMEDIATE SURFICIAL
MW-5C	19914	<u>B</u>	DEEP SURFICIAL
MW-6A	19915	<u>B</u>	UPPER SURFICIAL
MW-6B	19916	<u>B</u>	INTERMEDIATE SURFICIAL
MW-6C	19917	<u>B</u>	DEEP SURFICIAL
MW-7A	19918	<u>C</u>	UPPER SURFICIAL

ATTACHMENT A

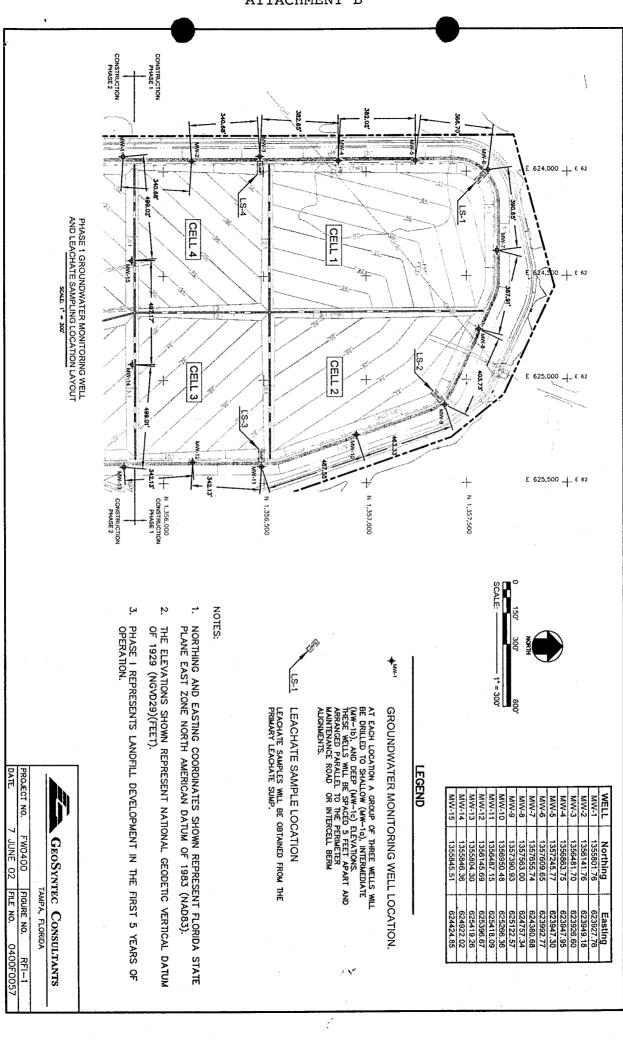
OAK HAMMOCK DISPOSAL, CLASS I LANDFILL WACS FACILITY ID: 89544 MONITORING SITES

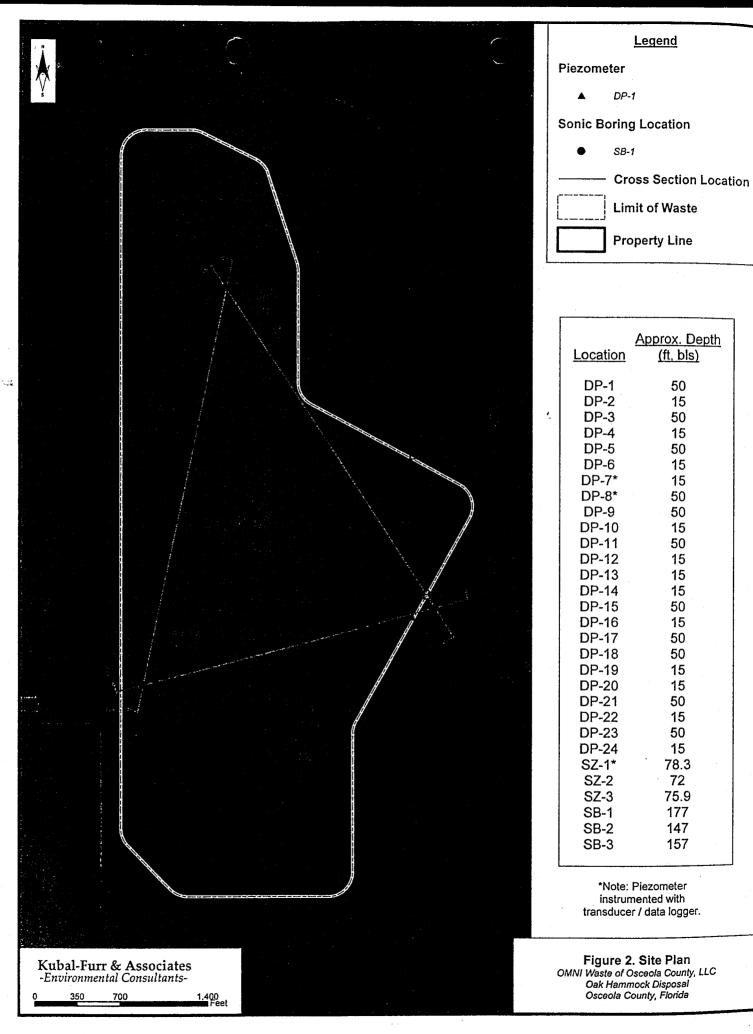
TESTSITE SITE NAME	WACS TESTSITE ID	TYPE	ZONE/LOCATION MONITORED
MW-7B	19919	С	INTERMEDIATE SURFICIAL
MW-7C	19920	С	DEEP SURFICIAL
MW-8A	19921	<u>C</u>	· UPPER SURFICIAL
_MW-8B	19922	С	INTERMEDIATE SURFICIAL
MW-8C	19923	С	DEEP SURFICIAL
MW-9A	19924	<u>C</u>	UPPER SURFICIAL
MW-9B	19925	<u>C</u>	INTERMEDIATE SURFICIAL
MW-9C	19926	<u>C</u>	DEEP SURFICIAL
MW-10A	19927	<u>C</u>	UPPER SURFICIAL
MW-10B	19928	<u>C</u>	INTERMEDIATE SURFICIAL
MW-10C	19929	<u>C</u>	DEEP SURFICIAL
MW-11A	19930	C	UPPER SURFICIAL
<u>MW-11B</u>	19931	<u>C</u>	INTERMEDIATE SURFICIAL
MW-11C	19932	<u>C</u>	DEEP SURFICIAL
<u>MW-12A</u>	19933	<u>C</u>	UPPER SURFICIAL
<u>MW-12B</u>	19934	<u>C</u>	INTERMEDIATE SURFICIAL
<u>MW-12C</u>	19935	<u>C</u>	DEEP SURFICIAL
MW-13A	19936	<u>C</u>	UPPER SURFICIAL
MW-13B	19937	<u>C</u>	INTERMEDIATE SURFICIAL
<u>MW-13C</u>	19938	<u>C</u>	DEEP SURFICIAL
			/Y

ATTACHMENT A

OAK HAMMOCK DISPOSAL, CLASS I LANDFILL WACS FACILITY ID: 89544 MONITORING SITES

TESTSITE SITE NAME	WACS TESTSITE ID	TYPE	ZONE/LOCATION MONITORED
	-		
MW-14A	19939	<u>C</u>	UPPER SURFICIAL
MW-14B	19940	<u>C</u>	INTERMEDIATE SURFICIAL
MW-14C	19941	<u>C</u>	DEEP SURFICIAL
MW-15A	19942	C	UPPER SURFICIAL
MW-15B	19943	С	INTERMEDIATE SURFICIAL
MW-15C	19944	<u>C</u>	DEEP SURFICIAL
SURFACE WATE	ER		
SW-3	19945	<u>C</u>	DOWN STREAM ON BULL CREEK
SW-4	19946	В	UP STREAM NW OF SITE
LEACHATE			
<u>L-1</u>	19947	<u>C</u>	CELL 1 PRIMARY RISER
L-2	19948	<u>C</u>	CELL 2 PRIMARY RISER
<u>L-3</u>	19949	<u>C</u>	CELL 3 PRIMARY RISER
<u>L-4</u>	19950	<u>C</u>	CELL 4 PRIMARY RISER





Legend

Approx. Depth

(ft, bls)

78.3

75.9

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 1 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE	
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	WELL TYPE: (B) Background (D) Detection	
CLASSIFICATION OF GROUNDWATER G-II	(C) Compliance (O) Other	

Collection (Yes/No)	Ground	Water Ele		VD)		
	SAMPLING	FIELD			LINITO	DETECTION LIMITS/ UNITS
	METHOD	FILTERED	METHOD	RESULT		LIMITS/ UNITS
Temperature (field)				4		
Dissolved Oxygen (field by probe)					mg/L	
pH (field)					STD	
Spec. Conductance (field)					umhos/cm	
Turbidity (field)					NTU's	
Total Ammonia as N					mg/L	
Chlorides					mg/L	
Nitrate as N					mg/L	
Total Dissolved Solids					mg/L	
Bicarbonate as HCO,		,			mg/L	
METALS				·	;	
Antimony					ug/L	
Arsenic					ug/L	
Barium					ug/L	
Beryllium					ug/L	
Cadmium					ug/L	
Chromium					ug/L	
Cobalt					ug/L	
Copper					ug/L	
Iron					ug/L	
Lead					ug/L	
Mercury					ug/L	
Nickel		18			ug/L	
Selenium					ug/L	·
	pH (field) Spec. Conductance (field) Turbidity (field) Total Ammonia as N Chlorides Nitrate as N Total Dissolved Solids Bicarbonate as HCO ₂ METALS Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Iron Lead Mercury Nickel	PARAMETER MONITORED Temperature (field) Dissolved Oxygen (field by probe) pH (field) Spec. Conductance (field) Turbidity (field) Total Ammonia as N Chlorides Nitrate as N Total Dissolved Solids Bicarbonate as HCO. METALS Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Iron Lead Mercury Nickel	PARAMETER MONITORED Temperature (field) Dissolved Oxygen (field by probe) pH (field) Spec. Conductance (field) Turbidity (field) Total Ammonia as N Chlorides Nitrate as N Total Dissolved Solids Bicarbonate as HCO., METALS Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Iron Lead Mercury Nickel	PARAMETER MONITORED Temperature (field) Dissolved Oxygen (field by probe) pH (field) Spec. Conductance (field) Turbidity (field) Total Ammonia as N Chlorides Nitrate as N Total Dissolved Solids Bicarbonate as HCO ₂ METALS Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Iron Lead Mercury Nickel	PARAMETER MONITORED Temperature (field) Dissolved Oxygen (field by probe) pH (field) Spec. Conductance (field) Total Ammonia as N Chlorides Nitrate as N Total Dissolved Solids Bicarbonate as HCO ₂ METALS Antimony Arsenic Barium Beryllium Cadmium Chromium Chromium Cobalt Copper Iron Lead Mercury Nickel	PARAMETER MONITORED PARAMETER MONITORED Temperature (field) Dissolved Oxygen (field by probe) pH (field) Spec. Conductance (field) Turbidity (field) Total Ammonia as N Chlorides Nitrate as N Total Dissolved Solids Bicarbonate as HCO, METALS Antimony Arsenic Barium Beryllium Cadmium Chromium Chromium Choper Iron Lead Mercury Nickel

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 2 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE	
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	WELL TYPE: (B) Background (D) Detection	
CLASSIFICATION OF GROUNDWATER G-II	(C) Compliance (O) Other	

Sample	Sample Collection (Yes/No) Ground Water Elevation (NGVD)						
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
01077	Silver		·			ug/L	
00929	Sodium	,				mg/L	
01059	Thallium					ug/L	۲۰
01102	Tin					ug/L	
01087	Vanadium					ug/L	
01092	Zinc					ug/L	
	ORGANIC CONSTITUENTS					•	
34205	Acenaphthene					ug/l	
34200	Acenaphthylene				·	ug/l	
81552	Acetone					ug/L	
76997	Acetonitrile; Methyl cyanide					ug/L	·
81553	Acetophenone					ug/L	
73501	2-Acetylaminofluorene; 2-AAF or Acetamide,N-(9H-Fluoren-2yl)-		-	-		ug/L	
34210	Acrolein					ug/L	
34215	Acrylonitrile					ug/L	
39330	Aldrin			·		ug/L	
78109	Allyl chloride					ug/L	
77581	4-Aminobiphenyl					ug/L	
34220	Anthracene					ug/l	
34030	Benzene					ug/L	
34526	Benzo(a)anthracene					ug/l	
34230	Benzo(b)fluoranthene					ug/L	
34242	Benzo(k)fluoranthene		18			ug/l	
34247	Benzo(a)pyrene					ug/l	·

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 3 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE
TESTSITE SITE NAMECLASSIFICATION OF GROUNDWATER <u>G-II</u>	WELL TYPE:(B) Background (D) Detection (C) Compliance (O) Other

Sample	Collection (Yes/No)	Ground	Water Ele	vation (NG	(VD)		
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS .		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
34521	Benzo(g,h,i)perylene			:		ug/l	
77147	Benzyl alcohol					ug/l	
39337	alpha-BHC					ug/L	
39338	beta-BHC					ug/L	
46323 39340	delta-BHC gamma-BHC; Lindane				·	ug/L ug/L	
34273	Bis(2-chloroethyl)ether					ug/l	
34278	Bis(2-chloroethoxy)methane					ug/l	
34283	Bis (2-chloro-1-methylethyl) ether	·				ug/L	
39100	or propane, 2,2'-oxybis(1-chloro)- or Bis(2-chloroisopropyl) ether Bis(2-ethylhexyl)phthalate			,		ug/l	
73085	Bromochloromethane					ug/L	
32101	Bromodichloromethane					ug/L	
32104	Bromoform					ug/L	
34636	4-Bromophenyl phenyl ether					ug/l	
34292	Butyl benzyl phthalate			,		ug/L	
77041	Carbon Disulfide					ug/L	
32102	Carbon Tetrachloride				·	ug/L	
39350	Chlordane					ug/L	
73529	p-Chloroaniline					ug/L	
34301	Chlorobenzene					ug/L	
39460	Chlorobenzilate					ug/L	
34452	p-chloro-m-cresol	·	14			ug/l	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 4 of 10)

WACS FACILITY ID 89544	SAMPLE DATE					
WACS TESTSITE ID	ANALYSIS DATE					
TESTSITE SITE NAME	WELL TYPE:	(B) (D)	Background Detection			
CLASSIFICATION OF GROUNDWATER G-II		(C) (O)	Compliance Other			

Well Purged* prior to Sample Collection (Yes/No)_____ Ground Water Elevation (NGVD)_

STORET	Collection (Tes/No)	SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
34311	Chloroethane					ug/L	
32106	Chloroform					ug/L	
34581	2-Chloronaphthalene					ug/l	• ,
34586	2-Chlorophenol					ug/l	
34641	4-Chlorophenyphenyl ether			-		ug/l	
81520	Chloroprene					ug/L	
34320	Chrysene					ug/L	
77151	m-Cresol					ug/L	
77152 77146	o-Cresol p-Cresol					ug/L ug/L	
00720	Cyanide			·		mg/l	
39730	2,4-D; 2,4-Dichlorophenoxyacetic					ug/L	
39360	4,4-DDD					ug/L	
39365	4,4-DDE					ug/L	
39370	4,4-DDT					ug/L	-
73540	Diallate					ug/L	
34556	Dibenz(a,h)anthracene					ug/L	
81302	Dibenzofuran					ug/L	
32105	Dibromochloromethane					ug/L	-
49146	1,2-Dibromo-3-chloropropane			,		ug/L	
77651	1,2-Dibromoethane					ug/L	
39110	Di-n-butylphthalate		·			ug/l	
34536	1,2-Dichlorobenzene		1.4	·		ug/L	ı
34566	1,3-Dichlorobenzene	,				ug/l	
		<u> </u>		J	J	<u> </u>	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 5 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE						
WACS TESTSITE ID	ANALYSIS DATE						
TESTSITE SITE NAME	WELL TYPE:	(B) (D)	Background Detection				
CLASSIFICATION OF GROUNDWATER <u>G-II</u>		(C)	Compliance				

Sample	Collection (Yes/No)	Ground	Water Ele	vation (NG			
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS .		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
34571	1,4-Dichlorobenzene					ug/L	
34631	3,3-Dichlorobenzidine					ug/l	
77268	trans-1,4-Dichloro-2-butene					ug/L	
34668	Dichlorodifluoromethane				·	ug/L	
34496	1,1-Dichloroethane					ug/L	
34531	1,2-Dichloroethane					ug/L	
34501	1,1-Dichloroethene				·	ug/L	
77093	cis-1,2-Dichloroethene					ug/L	·
34546	trans-1,2-Dichloroethene					ug/L	
34601	2,4-Dichlorophenol				·	ug/l	·
77541	2,6-Dichlorophenol					ug/L	
34541	1,2-Dichloropropane					ug/L	
77173	1,3-Dichloropropane		•			ug/L	
77170	2,2-Dichloropropane					ug/L	·
77168	1,1-Dichloropropene					ug/L	
34704	cis-1,3-Dichloropropene		·			ug/L	
34699	trans-1,3-Dichloropropene					ug/L	
39380	Dieldrin				17	ug/L	
34336	Diethyl phthalate					ug/l	
73553	Thionazin					ug/L	
46314	Dimethoate					ug/L	
73558	p-(Dimethylamino)azobenzene					ug/L	
73559	7,12-Dimethylbenz(a)anthracene		18			ug/L	
82213	3,3-Dimethylbenzidine					ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 6 of 10)

	WACS	-ACILITY ID <u>89544</u>		_	SAMPLE [DATE			
WACS TESTSITE ID									
	TESTSI	TE SITE NAME				'E:		ackground	_
		FICATION OF GROUNDWAT	ГЕR <u>G-II</u>				(D) De (C) Co	etection ompliance	
<u>.</u>	Sample	ged* prior to e Collection (Yes/No)	Groun	d Water Fl	evation (N0	-1/L)	(O) Ot	her	
	STORET	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS, RESULT	UNITS	DETECTION	\neg
	34606	2,4-Dimethylphenol					ug/l	LIMITS/ UNITS	\dashv
	34341	Dimethyl phthalate					ug/l		
	45622	m-Dinitrobenzene					ug/L		
	34657	2-Methyl-4,6-dinitrophenol					ug/l	·	
	34616	2,4-Dinitrophenol							
	34611	2,4-Dinitrotoluene					ug/l		
	34626	2,6-Dinitroltoluene					ug/l		
	81287	DNBP (Dinoseb)					ug/l		
	34596	Di-n-octyl phthalate					ug/L		
	77579	Diphenylamine					ug/l		
	81888	Disulfoton					ug/L		
	34361	Endosulfan I					ug/L	· !	
	34356	Endosulfan II		-			ug/L		
	34351	Endosulfan sulfate		1			ug/L		
	39390	Endrin					ug/L		
	34366	Endrin aldehyde					ug/L		
	34371	Ethylbenzene					ug/L		
	73570	Ethyl methacrylate					ug/L		
	73571	Ethyl methanesulfonate					ug/L		
	38462	Famphur					ug/L		
	34376	Fluoranthene					ug/L		
		, idoidifficité				[ug/l		į

34381

39410

Fluorene

Heptachlor

DEP Form 62-522.900(2) Effective April 14, 1994

ug/l

ug/L

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 7 of 10)

WACS FACILITY ID 89544	SAMPLE DATE					
WACS TESTSITE ID	ANALYSIS DATE	<u> </u>				
TESTSITE SITE NAME	WELL TYPE:	(B) (D)	Background Detection			
CLASSIFICATION OF GROUNDWATER <u>G-II</u>		(C) (O)	Compliance Other			

gyeli Pulge Sample i	ed* prior to Collection (Yes/No)	Ground	Water Ele	vation (NG	VD)		
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS	UNITS	DETECTION LIMITS/ UNITS
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ CIVITS
39420	Heptachlor epoxide					ug/L	
39700	Hexachlorobenzene					ug/l	
34391	Hexachlorobutadiene					ug/l	
34386	Hexachlorocyclopentadiene					ug/L	•*
34396	Hexachloroethane					ug/l	
73576	Hexachloropropene					ug/L	
34403	Indeno (1,2,3-c,d) pyrene					ug/l	
77033	Isobutyl alcohol					ug/L	
39430	Isodrin					ug/L	
34408	Isophorone	·				ug/l	
73582	Isosafrole	,				ug/L	
81281	Kepone					ug/L	
81593	Methacrylonitrile					ug/L	
73589	Methapyrilene					ug/L	
39480	Methoxychlor					ug/L	
34413	Methyl bromide						
77103	Methyl butyl ketone					ug/L	
34418	Methyl chloride					ug/L	
73591	3-Methylcholanthrene					ug/L	
81595	Methyl ethyl ketone					ug/L	
77424	Methyl iodide					ug/L	
81597	Methyl methacrylate		/		1	ug/L	
73595	Methyl methanesulfonate				1	ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 8 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE				
WACS TESTSITE ID	ANALYSIS DATE				
TESTSITE SITE NAME	WELL TYPE:	_ (B) (D)	Background Detection		
CLASSIFICATION OF GROUNDWATER <u>G-II</u>		(C) (O)	Compliance Other		

Sample	Collection (Yes/No)	Ground Water Elevation (NGVD)						
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION	
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS	
77416	2-Methylnaphthalene					ug/L		
39600	Methyl Parathion					ug/L		
77596	Methylene Bromide					ug/L		
34423	Methylene Chloride					ug/L		
81596	Methyl isobutyl ketone				·	ug/L		
34696	Naphthalene					ug/l		
73599	1,4-Naphthoquinone or					ug/L		
73600	1,4-Naphthalenedione 1-Naphthylamine				·	ug/L		
73601	2-Naphthylamine					ug/L		
78142	o-Nitroaniline					ug/L		
78300	m-Nitroaniline					ug/L		
30342	p-Nitroaniline or					ug/L		
34447	4-nitro-benzenamine Nitrobenzene					ug/l		
34591	2-Nitrophenol					ug/l		
34646	4-Nitrophenol					ug/l		
73609	N-Nitrosodi-n-butylamine					ug/L	•	
73611	N-Nitrosodiethylamine					ug/L		
34438	N-Nitrosodimethylamine					ug/l		
34428	N-Nitrosodipropylamine					ug/l		
34433	N-Nitrosodiphenylamine				·	ug/l		
73613	N-Nitrosomethylethalamine					ug/L		
73619	N-Nitrosopiperidine		/\			ug/L		
1			1					

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 9 of 10)

WACS FACILITY ID 89544	SAMPLE DATE	
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	WELL TYPE: (B) Background (D) Detection	
CLASSIFICATION OF GROUNDWATER G-II	(C) Compliance (O) Other	

-Well Purged* prior to Sample Collection (Yes/No)

Sample	Collection (Yes/No)	Ground	l Water Ele	evation (NG	(DVD)		
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS :		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
78206	N-Nitrosopyrrolidine					ug/L	
73622	5-Nitro-o-toluidine					ug/L	
39540	Parathion			:		ug/L	
77793	Pentachlorobenzene					ug/L	
81316	Pentachloronitrobenzene					ug/L	
39032	Pentachlorophenol					ug/l	·
73626	Phenacetin					ug/L	
34461	Phenanthrene					ug/l	
34694	Phenol	•				ug/l	
73628	p-Phenylenediamine					ug/L	
46313	Phorate					ug/L	
39516	Polychlorinated biphenyls					ug/L	
39080	Pronamide					ug/L	
77007	Propionitrile					ug/L	
34469	Pyrene					ug/l	
77545	Safrole					ug/L	
39760	Silvex; 2,4,5-TP					ug/L	
77128	Styrene					ug/L	·
00745	Sulfide					ug/L	,
39740	2,4,5-Trichlorophenoxyacetic acid		·			ug/L	
77734	1,2,4,5-Tetrachlorobenzene			-		ug/L	
77562	1,1,1,2-Tetrachloroethane		/ V *		r e ter	ug/l	
34516	1,1,2,2-Tetrachloroethane					ug/L	
	1		· ·		1		l

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 10 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE		
WACS TESTSITE ID	ANALYSIS DATE		·
TESTSITE SITE NAME		(B) Background (D) Detection	
CLASSIFICATION OF GROUNDWATER <u>Ġ-II</u>		(C) Compliance (O) Other	

Sample	Collection (Yes/No)	Ground		vation (NG			
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS .	10070	DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
34475	Tetrachloroethene					ug/L .	
77770	2,3,4,6-Tetrachlorophenol					ug/L	
34010	Toluene					ug/L	·
77142	o-Totuidine					ug/L	
39400	Toxaphene					ug/L	
34551	1,2,4-Trichlorobenzene	•				ug/l	
34506	1,1,1-Trichloroethane					ug/L	
34511	1,1,2-Trichloroethane					·ug/L	
39180	Trichloroethene					ug/L	
34488	Trichlorofluoromethane					ug/L	1 ·
77687	2,4,5-Trichlorophenol					ug/l	,
34621	2,4,6-Trichlorophenol					ug/l	
77443	1,2,3-Trichloropropane					ug/L	
73652	0,0,0-Triethyl phosphorothioate					ug/L	* - * - £
73653	sym-Trinitrobenzene					ug/L	
77057	Vinyl Acetate					ug/L	
39175	Vinyl Chloride					ug/L	
34020	Xylenes					ug/L	
72020	Elev.(Ft) above mean sealevel Or						
82545	Water/Sea Level	·					
				į			
							1
			18"				
ļ			,				

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Semi-Annual Ground Water Monitoring (Page 1 of 4)

SAMPLE DATE _____

WACS TESTSITE ID				ANALYSI	S DATE		
TESTSITE SITE NAME				WELL TY	′PE:	(B) Back	ground
CI	CLASSIFICATION OF GROUNDWATER G-II					(D) Dete (C) Com (O) Othe	pliance
	ell Purged* Sample Co	prior to llection (Yes/No)	Gro	und Water El	evation (NG\		
Γ	STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS
t	00010	Temperature (field)	WILTIOD	TIETERED	III III III	T T T T T T T T T T T T T T T T T T T	°C
	00299	Dissolved Oxygen (field by probe)				:	mg/L
	00406	pH (field)					STD
	00094	Spec. Conductance (field)					umhos/cm
	82078	Turbidity (field)					NTU's
	00610	Total Ammonia as N			:		mg/L
	00940	Chlorides			÷		mg/L
	00620	Nitrate as N					mg/L
	70300	Total Dissolved Solids					mg/L
	·	METALS					
	01097	Antimony					ug/L
	01002	Arsenic					ug/L
	01007	Barium					ug/L
	01012	Beryllium					ug/L
	01027	Cadmium		- -			ug/L
	01034	Chromium					ug/L
	01037	Cobalt			•		ug/L
	01042	Copper		,			ug/L
	01042	Iron					ug/L
	01051	Lead					ug/L

Mercury

01051.

71900

^{*}Well Purging is the process of pumping the well prior to sampling in order to obtain a representative ground water

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Semi-Annual Ground Water Monitoring (Page 2 of 4)

SAMPLE DATE _____

WACS TESTSITE ID			<u>-</u>	ANALYSI	S DATE		
TESTSITE SITE NAME				WELL TY	PE:	(D) Detection	
С	LASSIFICA	TION OF GROUNDWATER <u>G</u>	<u>6-11 </u>			(C) Com (O) Othe	pliance r
V	/ell Purged* Sample Col	prior to lection (Yes/No)	Grou	ınd Water El	evation (NG	VD)	!
	STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS
	01067	Nickel					ug/L
	01147	Selenium					ug/L
	01077	Silver					ug/L
	00929	Sodium					mg/L
	01059	Thallium					ug/L
	01087	Vanadium					ug/L
	01092	Zinc					ug/L
		ORGANIC CONSTITUENTS					
	81552	Acetone					ug/L
	34215	Acrylonitrile					ug/L
	34030	Benzene					ug/L
	73085	Bromochloromethane					ug/L
	32101	Bromodichloromethane					ug/Ľ
	34413	Bromomethane					ug/L
	32104	Bromoform					ug/L
	77041	Carbon Disulfide					ug/L
	32102	Carbon Tetrachloride					ug/L
	34301	Chlorobenzene					ug/L
	34311	Chloroethane			·		ug/L
	32106	Chloroform		Ÿ.	· · · · · · · · · · · · · · · · · · ·		ug/L

DEP Form 62-522.900(2) Effective April 14, 1994

^{*}Well Purging is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Semi-Annual Ground Water Monitoring (Page 3 of 4)

SAMPLE DATE ____

W	WACS TESTSITE ID			ANALYSIS DATE					
TI	ESTSITE SI	TE NAME		WELL TYP	PE:	(B) Back (D) Detec	ground		
С	LASSIFICA	TION OF GROUNDWATER <u>G</u>	<u>-11</u>				oliance		
Ŋ	/ell Purged* Sample Co	prior to llection (Yes/No)	Grou	ınd Water Ele	evation (NG	VD)	F		
	STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS		
Ì	34418	Chloromethane				1	ug/L		
	32105	Dibromochloromethane	·			:	ug/L		
	49146	1,2-Dibromo-3-chloropropane					ug/L		
	77651	1,2-Dibromoethane			•		ug/L		
	77596	Methylene Bromide or					ug/L		
	46361 34536	Dibromomethane 1,2-Dichlorobenzene					ug/L		
			·				ug/L		
	34571	1,4-Dichlorobenzene					ug/L		
	77268	trans-1,4-Dichloro-2-butene	·			,			
	34496	1,1-Dichloroethane					ug/L		
	34531	1,2-Dichloroethane					ug/L		
	34501	1,1-Dichloroethene					ug/L		
	77093	cis-1,2-Dichloroethene					ug/L		
	34546	trans-1,2-Dichloroethene					ug/L		
	34541	1,2-Dichloropropane					ug/L		
	34704	cis-1,3-Dichloropropene		,			ug/L		
	34699	trans-1,3-Dichloropropene					ug/L		
	34371	Ethylbenzene					ug/L		
	77103	Methyl butyl ketone					ug/L		
	81595	Methyl ethyl ketone					ug/L		
	77424	Methyl iodide					ug/L		
	1	<u>'</u>		!		1	1		

*Well Purging is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Semi-Annual Ground Water Monitoring (Page 4 of 4)

SAMPLE DATE _____

ACS TESTSITE ID			ANALYSIS DATE				
	ASSIFICATION OF GROUNDWATER G-II		WELL TY	PE:	(B) Background(D) Detection(C) Compliance(O) Other		
/ell Purged* Sample Col	prior to llection (Yes/No)	Gro	und Water Ele	evation (NG	, ,		
STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	
81596	Methyl isobutyl ketone					ug/L	
77128	Styrene					ug/L	
77562	1,1,1,2-Tetrachloroethane	·				ug/l	
34516	1,1,2,2-Tetrachloroethane					ug/L	
34475	Tetrachloroethene					ug/L	
34010	Toluene					ug/L	
34506	1,1,1-Trichloroethane					ug/L	
34511	1,1,2-Trichloroethane					ug/L	
39180	Trichloroethene					ug/L	
34488	Trichlorofluoromethane					ug/L	
77443	1,2,3-Trichloropropane					ug/L	
77057	Vinyl Acetate					ug/L	
39175	Vinyl Chloride					ug/L	
34020	Xylenes					ug/L	
72020	Elev.(Ft) above mean sealevel			,			
82545	Or Water/Sea Level						

^{*}Well Purging is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 1 of 9)

WACS FACILITY ID <u>89455</u>	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

TESTSITE	SITE NAME			• .			
STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
CODE	1 AIVAMETER MONTO ONED	WEITIOD	HETERCO	1/1211103	1,2002.		
00010	Temperature (field)					°C .	•
·· 00299	Dissolved Oxygen (field by probe)				,	mg/L	
00406	pH (field)				•.	STD	•
00094	Spec. Conductance (field)					umhos/cm	
00610	Total Ammonia as N					mg/L	·
00940	Chlorides					mg/L	
00620	Nitrate as N					mg/L	
70300	Total Dissolved Solids			·		mg/L	
00440	Bicarbonate as HCO2					mg/L	
	METALS			:			
01097	Antimony					ug/L .	
01002	Arsenic					ug/L	
01007	Barium					ug/L	
01012	Beryllium					ug/L	
01027	Cadmium			1		ug/L	
01034	Chromium					ug/L	
01037	Cobalt					ug/L	
01042	Copper					ug/L	-
01045	iron	-				ug/L	
01051	Lead					ug/L	
71900	Mercury					ug/L	
01067	Nickel					ug/L	
01147	Selenium				i	ug/L	
01077	Silver					ug/L	
00929	Sodium					mg/L	
01059	Thallium		18			ug/L	
01102	Tin					ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 2 of 9)

WACS FACILITY ID 89455	SAMPLE DATE	
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME		

ΙĿ	SI	SI	ΙE	SI	ΤE	NA	ME

T	ESTSITI	SITE NAME				•	•	
	STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
		,						
- 14	01087	Vanadium			·		ug/L	
	01092	Zinc					ug/L	
		ORGANIC CONSTITUENTS				Ī.		
	34205	Acenaphthene					ug/l	
	34200	Acenaphthylene					ug/l	
	81552	Acetone					ug/L	i i
İ	76997	Acetonitrile; Methyl cyanide					ug/L	
	81553	Acetophenone					ug/L	
	73501	2-Acetylaminofluorene; 2-AAF or Acetamide,N-(9H-Fluoren-2yl)-			-		ug/L	
	34210	Acrolein					ug/L	
	34215	Acrylonitrile					ug/L	
	39330	Aldrin				•	ug/L	
	78109	Allyl chloride					ug/L	
	77581	4-Aminobiphenyl					ug/L	
	34220	Anthracene			!		ug/l	·
	34030	Benzene					ug/L	
	34526	Benzo(a)anthracene					ug/l	
	34230	Benzo(b)fluoranthene					ug/L	
	34242	Benzo(k)fluoranthene					ug/l	
	34247	Benzo(a)pyrene					ug/l	.*
	34521	Benzo(g,h,i)perylene					ug/l	
	77147	Benzyl alcohol					ug/l	
	39337	alpha-BHC					ug/L	
	39338	beta-BHC					ug/L	.
	46323	delta-BHC		/ \			ug/L	
L DE	P Form 6	2-522.900(2) Effective April 14	1004	,	<u></u>			

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 3 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

STORET	SITE NAME	SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
39340	gamma-BHC; Lindane					ug/L	
34273	Bis(2-chloroethyl)ether					ug/l	
34278	Bis(2-chloroethoxy)methane					ug/l	
034283	Bis (2-chloro-1-methylethyl) ether					ug/L	
	or propane, 2,2'-oxybis(1-chloro)- or Bis(2-chloroisopropyl) ether						
39100	Bis(2-ethylhexyl)phthalate					ug/l	
73085	Bromochloromethane					ug/L	
32101	Bromodichloromethane		:			ug/L	
32104	Bromoform					ug/L	
34636	4-Bromophenyl phenyl ether					ug/l	
34292	Butyl benzyl phthalate					ug/L	
77041	Carbon Disulfide					ug/L	
32102	Carbon Tetrachloride					ug/L	
39350	Chlordane					ug/L	
73529	p-Chloroaniline					ug/L	
34301	Chlorobenzene					ug/L	
39460	Chlorobenzilate					ug/L	
34452	p-chloro-m-cresol					ug/l	
34311	Chloroethane					ug/L	
32106	Chloroform					ug/L	
34581	2-Chloronaphthalene					ug/l	' '
34586	2-Chlorophenol					ug/l	
34641	4-Chlorophenyphenyl ether					ug/l	
81520	Chloroprene					ug/L	
34320	Chrysene		1	,		ug/L	
77151	m-Cresol					ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 4 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

TESTSIT	E SITE NAME				·		DETECTION
STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
CODL	T AIVAMETER MONTORED	METTOD					
				•		ug/L	
77152	o-Cresol				,	ug/L	
77146	p-Cresol				•		•
00720	Cyanide		<u>.</u>			mg/l	
39730	2,4-D; 2,4-Dichlorophenoxyacetic					ug/L	
39360	4,4-DDD					ug/L	
39365	4,4-DDE					ug/L	
39370	4,4-DDT					ug/L	
73540	Dialiate		·			ug/L	
34556	Dibenz(a,h)anthracene					ug/L	
81302	Dibenzofuran		·			ug/L	
32105	Dibromochloromethane					ug/L	
49146	1,2-Dibromo-3-chloropropane			-		ug/L	
77651	1,2-Dibromoethane			·		ug/L	
39110	Di-n-butylphthalate					ug/l	
34536	1,2-Dichlorobenzene	<u> </u>				ug/L	
34566	1,3-Dichlorobenzene					ug/l	
34571	1,4-Dichlorobenzene					ug/L	
34631	3,3-Dichlorobenzidine					ug/l	
77268	trans-1,4-Dichloro-2-butene					ug/L	
34668	Dichlorodifluoromethane					ug/L	
34496	1,1-Dichloroethane					ug/L	
34531	1,2-Dichloroethane					ug/L	
34501	1,1-Dichloroethene					ug/L	
77093	cis-1,2-Dichloroethene					ug/L	
34546	trans-1,2-Dichloroethene) /	_		ug/L	
34601	2,4-Dichlorophenol					ug/i	
1 0.501		1			<u></u>		

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 5 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

STORET	SITE NAME	SAMPLING	FIELD	ANALYSIS	ANALYSIS	UNITS	DETECTION LIMITS/ UNITS
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITO	LIMITO/ UNITS
77541	2,6-Dichlorophenol					ug/L	
34541	1,2-Dichloropropane				ا. د	ug/L	
77173	1,3-Dichloropropane					ug/L	
77170	2,2-Dichloropropane				·	ug/L	
77168	1,1-Dichloropropene					ug/L	
34704	cis-1,3-Dichloropropene					ug/L	
34699	trans-1,3-Dichloropropene					ug/L	
39380	Dieldrin					ug/L	
34336	Diethyl phthalate					ug/l	
73553	Thionazin					ug/L	
46314	Dimethoate					ug/L	
73558	p-(Dimethylamino)azobenzene					ug/L	
73559	7,12-Dimethylbenz(a)anthracene			•	·	ug/L	
82213	3,3-Dimethylbenzidine					ug/L	
34606	2,4-Dimethylphenol	·				ug/l	
34341	Dimethyl phthalate					ug/l	·
45622	m-Dinitrobenzene					ug/L	
34657	2-Methyl-4,6-dinitrophenol			·	<u> </u>	ug/l	
34616	2,4-Dinitrophenol					ug/l	
34611	2,4-Dinitrotoluene					ug/l	
34626	2,6-Dinitroltoluene					ug/l	
81287	DNBP (Dinoseb)					ug/L	
34596	Di-n-octyl phthalate	1				ug/l	
77579	Diphenylamine					ug/L	
81888	Disulfoton		/8	_		ug/L	
34361	Endosulfan I	1				ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 6 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

STORET	SITE NAME	SAMPLING	FIELD	ANALYSIS	ANALYSIS	LINUTO	DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
						!	, or
34356	Endosulfan II					ug/L	· !
34351	Endosulfan sulfate					ug/L	
39390	Endrin				:	ug/L	
34366	Endrin aldehyde					ug/L	
34371	Ethylbenzene					ug/L	
73570	Ethyl methacrylate					ug/L	
73571	Ethyl methanesulfonate					ug/L	
38462	Famphur					ug/L	
34376	Fluoranthene					ug/l	·
34381	Fluorene					ug/l	·
39410	Heptachlor			<u> </u>		ug/L	
39420	Heptachlor epoxide					ug/L	
39700	Hexachlorobenzene					ug/l	,
34391	Hexachlorobutadiene					ug/l	
34386	Hexachlorocyclopentadiene					ug/L	
34396	Hexachloroethane					ug/l	
73576	Hexachloropropene					ug/L	
						ug/l	
34403	Indeno (1,2,3-c,d) pyrene						
77033	Isobutyl alcohol					ug/L 	
39430	Isodrin					ug/L	
34408	Isophorone	,				ug/l	
73582	Isosafrole					ug/L	
81281	Kepone					ug/L	
81593	Methacrylonitrile		/8			ug/L	
73589	Methapyrilene					ug/L	1

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 7 of 9)

WACS FACILITY ID <u>89455</u>	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
20400	Mathaurahlar						a a
39480	Methoxychlor					ug/L	
34413	Methyl bromide Methyl butyl ketone					ug/L	
77103						ug/L	
34418	Methyl chloride					ug/L	
73591	3-Methylcholanthrene					ug/L	
81595	Methyl ethyl ketone		ļ ·	-			:
77424	Methyl iodide					ug/L	
81597	Methyl methacrylate	·				ug/L	
73595	Methyl methanesulfonate					ug/L	
77416	2-Methylnaphthalene					ug/L	
39600	Methyl Parathion					ug/L	
77596	Methylene Bromide					ug/L	
34423	Methylene Chloride				,	ug/L	
81596	Methyl isobutyl ketone					ug/L	
34696	Naphthalene					ug/l	
73599	1,4-Naphthoquinone or 1,4-Naphthalenedione					ug/L	
73600	1-Naphthylamine					ug/L	
73601	2-Naphthylamine					ug/L	
78142	o-Nitroaniline					ug/L	
78300	m-Nitroaniline					ug/L	
30342	p-Nitroaniline or 4-nitro-benzenamine					ug/L	
34447	Nitrobenzene					ug/l	
34591	2-Nitrophenol					ug/l	
34646	4-Nitrophenol		/ / /			ug/l	
73609	N-Nitrosodi-n-butylamine					ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 8 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

T	ESTSITE	SITE NAME						
	STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
r	CODL	1 AIVAMETER MONTORED	METTIOD	7,2,721,022				
. tg							ug/L	
١	73611	N-Nitrosodiethylamine				,		
1	34438	N-Nitrosodimethylamine				•	ug/l	
	34428	N-Nitrosodipropylamine					ug/l	·
	34433	N-Nitrosodiphenylamine					ug/l	
	73613	N-Nitrosomethylethalamine					ug/L	
	73619	N-Nitrosopiperidine					ug/L	
	78206	N-Nitrosopyrrolidine					ug/L	
	73622	5-Nitro-o-toluidine					ug/L	
	39540	Parathion					ug/L	
	77793	Pentachlorobenzene					ug/L	
	81316	Pentachloronitrobenzene				1	ug/L	
	39032	Pentachlorophenol					ug/l	
	73626	Phenacetin					ug/L	
	34461	Phenanthrene					ug/I	
	34694	Phenol					ug/l	
	73628	p-Phenylenediamine					ug/L	
	46313	Phorate					ug/L	
	39516	Polychlorinated biphenyls					ug/L	
	39080	Pronamide					ug/L	
	77007	Propionitrile					ug/L	
	34469	Pyrene					ug/l	
	77545	Safrole					ug/L	
	39760	Silvex; 2,4,5-TP					ug/L	
	77128	Styrene		18			ug/L	
	00745	Sulfide		c			ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 9 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

TESTSITE SITE NAME

Τ	ESTSITE	SITE NAME						
	STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
	CODE	FARAMILTER MORNITORED	WILTHOD	TILILINED	WETTOD	NEGOLI	011110	Limitor Ottito
	ί.					•		
	39740	2,4,5-Trichlorophenoxyacetic acid					ug/L	
	77734	1,2,4,5-Tetrachlorobenzene				.	· ug/L	
	77562	1,1,1,2-Tetrachloroethane					ug/l	
	34516	1,1,2,2-Tetrachloroethane					ug/L	
	34475	Tetrachloroethene ·					ug/L	
	77770	2,3,4,6-Tetrachlorophenol				•	ug/L	
	34010	Toluene					ug/L	
	77142	o-Toluidine					ug/L	
	39400	Toxaphene					ug/L	
	34551	1,2,4-Trichlorobenzene					ug/l	
	34506	1,1,1-Trichloroethane					ug/L	
	34511	1,1,2-Trichloroethane				-	ug/L	
	39180	Trichloroethene					ug/L	
	34488	Trichlorofluoromethane					ug/L	
	77687	2,4,5-Trichlorophenol				·	ug/l	
	34621	2,4,6-Trichlorophenol					ug/l	
	77443	1,2,3-Trichloropropane					ug/L	
	73652	0,0,0-Triethyl phosphorothioat					ug/L	
	73653	sym-Trinitrobenzene					ug/L	
	77057	Vinyl Acetate					ug/L	
	39175	Vinyl Chloride					ug/L	
	34020	Xylenes					ug/L	
						·		
				/\				
		·		ı				

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Surface Water Monitoring (Page 1 of 4)

WACSFACILITY ID 89455				SAMPLE DATE						
WACS TESTSITE ID TESTSITE SITE NAME				ANALYSIS DATE						
					Ft					
	STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS		
	00010	Temperature (field)					°C			
ļ	00299	Dissolved Oxygen (field by probe)					mg/L			
	00406	pH (field)					STD			
	00094	Spec. Conductance (field)	•				umhos/cm			
	82078	Turbidity (field)					NTU's			
	00612	Un-ionized Ammonia as N					mg/L			
İ	00900	Total Hardness as CaCO ₃		<u>.</u>			mg/L			
	00680	Total Organic Carbon					mg/L			
	70300	Total Dissolved Solids					mg/L			
	00530	Total Suspended Solids					mg/L			
	00310	BOD (5 Day) @ 20 °C					mg/L			
	00340	Chemical Oxygen Demand	·				mg/L			
	00600	Total Nitrogen as N					mg/L			
	00620	Nitrate as N	ļ				mg/L			
	00650	Total Phosphates as PO ₄					mg/L			
	32211	Chlorophyll A	<u> </u>				ug/L			
		METALS								
	01097	Antimony					ug/L			
-	01002	Arsenic			·		ug/L			
	01007	Barium					ug/L			
Ì	01012	Beryllium					ug/L			

Cadmium

Chromium

Cobalt

01027

01034

01037

ug/L

ug/L

ug/L

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Surface Water Monitoring (Page 2 of 4)

WACSFACILITY ID 89455	SAMPLE DATE	
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	Surface Water Elevation (NGVD)	Ft

STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
01042	Copper		·			ug/L	
 01045	Iron					ug/L	
01051	Lead					ug/L	
71900	Mercury					ug/l	
01067	Nickel			-		ug/L	
01147	Selenium					ug/L	
01077	Silver					ug/L	
01059	Thallium					ug/L	
01087	Vanadium				•	ug/L	
01092	Zinc					ug/L	
	ORGANIC CONSTITUENTS						
81552	Acetone					ug/L	
34215	Acrylonitrile		· }			ug/L	
34030	Benzene					ug/L	
73085	Bromochloromethane					ug/L	
32101	Bromodichloromethane					ug/L	
34413	Bromomethane					ug/L	
32104	Bromoform					ug/L	
77041	Carbon Disulfide					ug/L	
32102	Carbon Tetrachloride					ug/L	
34301	Chlorobenzene	·				ug/L	
34311	Chloroethane					ug/L	·
32106	Chloroform					ug/L	
34418	Chloromethane		15			ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Surface Water Monitoring (Page 3 of 4)

WACSFACILITY ID 89455	SAMPLE DATE	
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	Surface Water Elevation (NGVD)	Ft

TESTSITE SITE NAME			Surface Water Elevation (NGVD)				
STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
32105	Dibromochloromethane					ug/L	
049146	1,2-Dibromo-3-chloropropane				,	ug/L	
46369	1,2-Dibromoethane					ug/L	
46361	Dibromomethane					ug/L	
34536	1,2-Dichlorobenzene				:	ug/L	
34571	1,4-Dichlorobenzene				,	ug/L	
77268	trans-1,4-Dichloro-2-butene					ug/L	
34496	1,1-Dichloroethane					ug/L	
34531	1,2-Dichloroethane	·				ug/L	
34501	1,1-Dichloroethene					ug/L	
77093	cis-1,2-Dichloroethene					ug/L	
34546	trans-1,2-Dichloroethene					ug/L	
34541	1,2-Dichloropropane					ug/L	
34704	cis-1,3-Dichloropropene				·	ug/L	
34699	trans-1,3-Dichloropropene					ug/L	
34371	Ethylbenzene					ug/L	
77103	Methyl butyl ketone					ug/L	
81595	Methyl ethyl ketone					ug/L	
77424	Methyl iodide					ug/L	
34423	Methylene Chloride					ug/L	
81596	Methyl isobutyl ketone					ug/L	
77128	Styrene					ug/L	
77562	1,1,1,2-Tetrachloroethane					ug/l	
34516	1,1,2,2-Tetrachloroethane			\- <u>-</u>		ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Surface Water Monitoring (Page 4 of 4)

WACSFACILITY ID <u>89455</u>			SAMPLE DATE						
WACS TESTSITE ID TESTSITE SITE NAME			ANALYSIS DATE						
			Surface Water Elevation (NGVD)						
ETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS			
					ug/L				
Toluene					ug/L				
-Trichloroethane		·			ug/L				
-Trichloroethane					ug/L	•			
ichloroethene					ug/L				
orofluoromethane					ug/L				
Trichloropropane	1				ug/L				
inyl Acetate					ug/L				
inyl Chloride					ug/L				
Xylenes					ug/L	·			
ecal coliform					#/100				
					ì				
						1			
	ETER MONITORED rachloroethene Toluene -Trichloroethane ichloroethene orofluoromethane -Trichloropropane /inyl Acetate	MESAMPLING METHOD rachloroethene Toluene -Trichloroethane ichloroethene orofluoromethane -Trichloropropane /inyl Acetate /inyl Chloride Xylenes	MESAMPLING FIELD FILTERED SAMPLING FIELD FILTERED ANALYSIS ME	ANALYSIS DATE ME	ANALYSIS DATE Surface Water Elevation (NGVD) ETER MONITORED SAMPLING METHOD FILTERED ANALYSIS RESULT UNITS rachloroethene Toluene -Trichloroethane ichloroethane ichloroethene orofluoromethane -Trichloropropane /inyl Acetate /inyl Chloride Xylenes				

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

	D	ATE			
EACH ITY NAME: Oak Hammoo	k Disposal, Class I Landfill				
DED DEDMIT NO :	WACS FAC	WACS FACILITY ID: 89455			
NACS TESTSITE ID.:	TESTSITE	TESTSITE SITE NAME:			
WELL TYPE: BACKGROUND	DETECTION	CTION COMPLIANCE			
ATITUDE AND LONGITUDE:					
AOLIIFER MONITORED:		•			
DDILLING METHOD:	DATE II	NSTALLED:			
INSTALLED BY	·				
BORE HOLF DIAMETER:	TOTAL DEP	TH:	(BLS)		
CASING TYPE	CASING DIAMETER:	CASING LENGTH:			
SCREEN TYPE	SCREEN SLOT SIZE:	SCREEN LENGTH:			
SCREEN DIAMETER	SCREEN INTERVAL:	TO	(BL9)		
CII TED DACK TVDE	FILTER PACK G	GRAIN SIZE:			
INTERVAL COVERED:	TO		(DLS)		
SEALANT TYPE	SEALANT INTERVAL:	10	(DLS)		
GROUT TYPE	GROUT INTERVAL:	10	(BLS)		
TOP OF CASING ELEVATION	(NGVD): GROUNI	D SURFACE ELEVATION (NGVD):			
DESCRIBE WELL DEVELOPM	ENT:				
DECOMBE WELL BEILD					
POST DEVELOPMENT WATE	R LEVEL ELEVATION (NGVD):				
DATE AND TIME MEASURED					
REMARKS:		· · · · · · · · · · · · · · · · · · ·			
		·			
NAME OF PERSON PREPARI	NG REPORT:	Dhono No \			
	(Name, Or	rganization, Phone No.)			

ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG. (NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

(BLS) = BELOW LAND SURFACE

NOTE

Florida Department of Environmental Protection 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

GROUND WATER MONITORING REPORT

Rule 62-522.600(11)

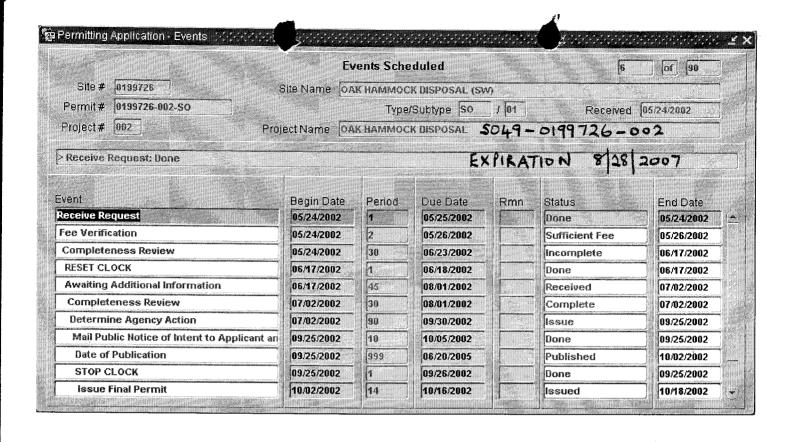
PART I GENERAL INFORMATION		
(1) Facility Name Oak Hammock Disposal, Class	I Landfill	
Address		
City	Zip	County
Telephone Number ()		
(2) WACS Facility ID 89455	•	
(3) DEP Permit Number		
(4) Authorized Representative's Name		Title
Address		
City	Zip	County
Telephone Number ()		
(5) Type of Discharge		
(6) Method of Discharge		
(6)		
	CERTIFICATION	
I certify under penalty of law that I have perso document and all attachments and that, based or information, I believe that the information is true, for submission of false information including the p	accurate, and complete. I am	aware that there are significant penalties
Data Owner or A	outhorized Representative's Sign	nature
	•	
PART II QUALITY ASSURANCE REQUIREMEN	TS	
Sampling Organization Comp QAP #		
Analytical Lab Comp QAP #/ HRS Certification _		
Lab Name		
Address		
Phone Number ()		

DER Form 62-522.900(2) Effective April 14, 1994



PURGING DATA ELL	TE AME: Oak	Hammock Di	sposal, Cla	ss I Land	ifill		SITE LOCATION:		DATE		
TOTAL WELL DEPTH TO WELL DEPTH TO WATER (b) WATER (b) WATER (c)	ACS TES	ISITE SITE N	AME:		SA	MPLE ID:				·	
TOTAL WELL DEPTH (TO DEP						PH	RGING DAT	A	•		
MAMETER (in):				TO	TAL WELL						
URGE METHOD: PURGE INITIATED AT: WELL CUMUIL PURGE (gpm) PH CC) (gpm) PH CC) WIND COLL VOLUME PURGED (gpm) PH CC) WIND COLL (gpm) PH CC) WIND CO	AMETER	(in):		DE	PTH (ft):					CAPACITY (gal/ft):	
PURGE METHOD: PURGE NITIATED AT: PURGING PURGING PURGING PURGING PURGING PURGING PURGING PURGING PURGING	WELL VO	LUME (gal) =	(TOTAL W	ELL DEF	TH - DEP	TH TO WAT	ER) X WELL CAF				
NUMBER PURSED P	1	=	() X		IPCING		
VOLUME PURGED (gpm) pH (°C) (umhos) OXYGEN NTUS APPEARANCE COLOR ODOI SAMPLED BY / SAMPLED BY / SAMPLED BY / SEMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLED S	JRGE ME	THOD:						EN	IDED AT:		
SAMPLED BY / SAMPLED BY / SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLING SAMPLED DECONTAMINATION: Y N FIELD-FILTERED: Y N DUPLICATE: Y N SAMPLE PRESERVATION NO. MATERIAL CODE PRESERVATIVE USED REMARKS:	VOLS. URGED	VOLUME PURGED	RATE	pН	TEMP (°C)		DISSOLVED OXYGEN	TURBIDITY		COLOR	ODOR
SAMPLED BY / AFFILIATION SAMPLING METHOD(S): SIGNATURE(S) SAMPLING INTITATED AT SAMPLE CONTAINER SPECIFICATION NO. MATERIAL CODE SAMPLE PRESERVATION PRESERVATIVE USED SAMPLE PRESERVATION ADDED IN FIELD (m) PH ADDED IN FIELD (m											<u> </u>
SAMPLED BY / AFFILIATION SAMPLING METHOD(S): FIELD DECONTAMINATION: Y N FIELD-FILTERED: Y N DUPLICATE: Y N SAMPLE CONTAINER SAMPLE PRESERVATION SPECIFICATION NO. MATERIAL CODE VOLUME CODE PRESERVATIVE ADDED IN FIELD (mi) PH TOTAL VOLUME ADDED IN FIELD (mi) PH REMARKS:									-		
SAMPLED BY / AFFILIATION SAMPLING METHOD(S): FIELD DECONTAMINATION: Y N FIELD-FILTERED: Y N DUPLICATE: Y N SAMPLE CONTAINER SAMPLE PRESERVATION SPECIFICATION NO. MATERIAL CODE VOLUME CODE PRESERVATIVE ADDED IN FIELD (mi) PH TOTAL VOLUME ADDED IN FIELD (mi) PH REMARKS:											
SAMPLED BY / AFFILIATION SAMPLING METHOD(S): FIELD DECONTAMINATION: Y N FIELD-FILTERED: Y N DUPLICATE: Y N SAMPLE CONTAINER SAMPLE PRESERVATION SPECIFICATION NO. MATERIAL VOLUME OODE VOLUME USED TOTAL VOLUME ADDED IN FIELD (ml) PH REMARKS:											
SAMPLED BY / AFFILIATION SAMPLING METHOD(S): FIELD DECONTAMINATION: Y N FIELD-FILTERED: Y N DUPLICATE: Y N SAMPLE CONTAINER SAMPLE PRESERVATION SPECIFICATION NO. MATERIAL VOLUME OODE VOLUME USED TOTAL VOLUME ADDED IN FIELD (ml) PH REMARKS:				-							
SAMPLED BY / AFFILIATION SAMPLING METHOD(S): FIELD DECONTAMINATION: Y N FIELD-FILTERED: Y N DUPLICATE: Y N SAMPLE CONTAINER SAMPLE PRESERVATION SPECIFICATION NO. MATERIAL VOLUME OODE VOLUME USED TOTAL VOLUME ADDED IN FIELD (ml) PH REMARKS:										_	
SAMPLED BY / AFFILIATION SAMPLING METHOD(S): FIELD DECONTAMINATION: Y N FIELD-FILTERED: Y N DUPLICATE: Y N SAMPLE CONTAINER SAMPLE PRESERVATION SPECIFICATION NO. MATERIAL VOLUME OODE VOLUME USED TOTAL VOLUME ADDED IN FIELD (ml) PH REMARKS:			-								
ARPLIATION METHOD(S): SAMPLING SAMPLED	BY /				SA	SAMPLER(S)					
FIELD DECONTAMINATION: Y N FIELD-FILTERED: Y N DUPLICATE: Y N SAMPLE CONTAINER SPECIFICATION NO. MATERIAL CODE VOLUME USED ADDED IN FIELD (ml) PH PRESERVATIVE USED ADDED IN FIELD (ml) PH REMARKS:	SAMPLING	G					SAMPLING				
SAMPLE CONTAINER SPECIFICATION NO. MATERIAL CODE VOLUME ADDED IN FIELD (mi) VOLUME VOLUME ADDED IN FIELD (mi) VOLUME VOLUME ADDED IN FIELD (mi) VOLUME ADDED IN FIELD (mi) VOLUME AND/OR METHOD			TION:			FIELD-FIL			DUF	LICATE: Y	N
NO. MATERIAL CODE VOLUME USED ADDED IN FIELD (ml) PH ADDED IN FIELD		SAMPLE CON	TAINER	·		SAMPL	E PRESERVATIO	N	li li	NTENDED ANALYS	SIS
REMARKS:	NO 1	MATERIAL		ME.		VATIVE	TOTAL VOLUME FINAL AND/OR METHOD) 	
	NO.	CODE	VOLO		US	ED	ADDED IN FILLD	(1117 P.1.			
					<u>.</u>						
									 		
	REMARK	(S:				1				*	
MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O= OTHER (SPECIFY) WELL CAPACITY: 1.25" = 0.06 gal/ft; 4' = 0.65 gal/ft; 6" = 1.47 gal/ft; 12" = 5.88 gal/ft	144750	AL CODEC: 1	C - AMDE	B CI AC	S: CG = C	LEAR GLAS	SS; HDP = HIGH	DENSITY POLY	ETHYLENE; O=	OTHER (SPECIF)	′)

NOTE: The above do not constitute all of the information required by Chapter 62-160, F.A.C.



RED	YELLOW	GREEN	NO PERMIT REQ
			<u> </u>

HISTORY SHEET

SITE/WAFR/AIR#: 49-0/99126-00/ TYPE: SUBTYPE: 0/ SITE/WAFR/AIR NAME: Oak Jammock Oigosol										
PROJECTION NAME:	PROJECT NAME:									
DATE	TIME BEGIN	TIME END	TOTAL TIME	COMMENTS	POSITION TITLE					
ENTERED	MAY 2	8 2002	30		OAS					
					1					

RED	YELLOW	GREEN	NO PERMIT REO

HISTORY SHEET

SITE/W	AFR/AII	R#: <u>49-6</u>	0199226	-002	TYPE: <u>50</u>	SU	BTYPE: <u>0/</u>
SITE/W NAME:	AFR/AIF	e (Pak	Han	nnoch	D	Island
PROJECT NAME:							
DATE	TIME BEGIN	TIME END	TOTAL TIME	СОМ	MENTS	÷	POSITION TITLE
ENTERED_	MAY 2	8 2002	30				nAS
							<i>(///</i>
		·					
			·				
		·					

Deola County su



14055 Riveredge Drive, Suite 300 Tampa, Florida 33637 • USA Telephone (813) 558-0990 • Fax (813) 558-9726

Two cis to Air 11/22

22 November 2002

Mr. James N. Bradner, P.E.
Program Manager, Solid/Hazardous Waste
Florida Department of Environmental Protection, Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

RECEIVED

NOV 2 2 2002

Central Dist. - DEP

Subject:

Prevention of Significant Deterioration (PSD) Requirements

Permit Nos. SC49-0199726-001 and SO49-0199726-002

Oak Hammock Disposal Facility

Osceola County, Florida

Dear Mr. Bradner:

This letter addresses the Specific Condition No. 55 "Prevention of Significant Deterioration (PSD) Requirements", in the above referenced construction and operation permit issued for the Oak Hammock Disposal (OHD) facility in Osceola County, Florida. The permit was issued to Omni Waste of Osceola County, LLC (Omni) by the Florida Department of Environmental Protection (FDEP) on 18 October 2002 and is valid for a period of 5 years. This letter establishes the inapplicability of the PSD requirements of Chapter 62-212, Florida Administrative Code (F.A.C.), to the Phase 1 development of the OHD facility. Phase 1 includes the first 5 years of the OHD facility construction and operation, for which the permit was issued by FDEP.

BACKGROUND

The permit application to construct and operate the OHD Class I municipal solid waste (MSW) landfill was submitted to FDEP in May 2002. The application supports a 5-year construction and operation period and a conceptual plan for development of the OHD facility over an estimated 30-year period. The 5-year construction and operation permit includes four cells in the Phase 1 development of the OHD facility with a total footprint of approximately 53 acres. The complete build-out of the OHD facility includes 21 landfill cells with a total footprint of approximately 264 acres. The proposed 264-acre landfill is expected to provide airspace for a period of approximately 30 years based on an average disposal rate of 474,000 tons of MSW per year. Phase 1 development of the OHD facility is expected to provide airspace for a period greater than 5 years based on the disposal rate of 474,000 tons of MSW per year.

As discussed in Section 5 of the permit application, entitled "Landfill Gas Management", the gas extraction system (GES) will be installed in conjunction with the construction of the final cover system. The installation of the initial final cover system and the GES is expected to begin in the 5th year of the landfill operation as indicated on Sheet 27 of 50 of the permit drawings. The GES will consist of vertical gas extraction wells, gas transmission pipes, and, ultimately, four flare stations. The installation of 3-ft diameter vertical gas extraction wells at a spacing of approximately 300 feet will begin when the total quantity of disposed waste reaches approximately 2.75 million tons, in compliance with 40 CFR Part 60, Subpart WWW.

As mentioned in the Section 5 of the permit application, in accordance with Rule 62-204.800(7)(b)72, F.A.C., an Application for Air Permit – Title V Source (DEP form no. 62-210.900(1)) will be submitted within 180 days of issuance of the solid waste permit to meet the operation permit requirements of Chapter 62-213, F.A.C. This letter only addresses issues related to the PSD requirements of Chapter 62-212, F.A.C.

APPLICABLE REGULATIONS

The regulations related to the PSD requirements of Chapter 62-212, F.A.C., are listed below. The applicability to the PSD requirements of each of the following regulations is also briefly discussed below.

Chapter 62-204, Air Pollution Control – General Provisions
Chapter 62-210, Stationary Sources – General Requirements
Chapter 62-212, Stationary Sources – Preconstruction Review
Chapter 62-296, Stationary Sources – Emission Standards
40 CFR 60, Subpart WWW, Standards of Performance for MSW Landfills

Chapter 62-204, F.A.C., adopts and incorporates the federal air pollution control regulations by reference. Chapter 62-204, F.A.C., adopts and incorporates 40 CFR 60 Subpart WWW in Rule 62-204.800(7)(b)72, F.A.C.

Chapter 62-210, F.A.C., provides the criteria for determining the need to obtain an air construction or operation permit. Chapter 62-210, F.A.C., also includes definitions of words and phrases used in this chapter and in Chapters 62-212 and 62-296, F.A.C.

Chapter 62-212, F.A.C., establishes the preconstruction review requirements for proposed new emissions units or facilities and their modifications. The PSD

A

preconstruction review requirements for emissions units or facilities are included in this chapter.

Chapter 62-296, F.A.C., establishes the emission limiting standards and compliance requirements for stationary sources of air pollution. With respect to MSW landfills, Chapter 62-296, F.A.C., states that standards for any "new" facility or emissions unit shall be the federal standards of performance for new stationary sources adopted by reference in Rule 62-204.800(7), F.A.C.

The 40 CFR 60, Subpart WWW establishes the standards for air emissions (with respect to operation, test methods and procedure, compliance, monitoring, reporting, and record keeping) for MSW landfills constructed after 30 May 1991. The 40 CFR 60.754(c) in Subpart WWW recommends using USEPA AP-42 for estimating MSW landfill emissions for PSD purposes.

APPROACH

The mass emission rates of the applicable regulated air pollutants and/or landfill gas (LFG) constituents for the expected 30-year operating life of the OHD facility are presented and discussed in the following sections. Based on the computed maximum mass emission rates, it will be shown that the OHD facility is not a major facility during the first 5 years of operation in accordance with Rule 62-210.200(157), F.A.C. Therefore, the OHD facility is a *minor facility* (in accordance with Rule 62-210.200(165), F.A.C.) for the duration of the construction and operation permit issued by FDEP. In accordance with Rule 62-212.400(2)(d)1, F.A.C., new minor facilities are not subject to the PSD preconstruction review requirements. Therefore, for the Phase 1 development of the OHD facility, Omni is not required to obtain an air construction permit subject to the PSD requirements of Chapter 62-212, F.A.C.

As a minor facility, OHD facility is not subject to any air permitting requirements. However, it is recognized that as a MSW landfill subject to 40 CFR 60, Subpart WWW, and having a design capacity greater than 2.75 million tons, the OHD facility is subject to the operation permit requirements of Chapter 62-213, F.A.C.

REGULATED AIR POLLUTANTS AND LANDFILL GAS CONSTITUENTS

The regulated air pollutants are listed in Chapter 62-212, F.A.C., Table 212.400-2 (Specific Authority 403.061 Florida Statutes (FS)). The LFG constituents for MSW

11/22/02

landfills are listed in USEPA AP-42 Section 2.4 (1998), entitled "Emission Factor Documentation for Municipal Solid Waste Landfills". It is noted that 40 CFR 60.754(c) in Subpart WWW recommends using USEPA AP-42 for estimating MSW landfill emissions for PSD purposes.

The LFG constituents (per USEPA AP-42) that are regulated air pollutants (per Table 212.400-2) include carbon monoxide (CO), total reduced sulfur compounds (measured as sulfur, S, or sulfur dioxide, SO₂), and non-methane organic compounds (NMOC). The mass emission rates of these three regulated air pollutants were computed using the methodology outlined in USEPA AP-42 and are presented in Figures 1 through 3, respectively, included with this letter. As the landfill develops, the proposed GES will use up to four flares as control devices. As a result of the installation of the flare(s), nitrogen oxide (NO₂) and particulate matter (PM), which are also regulated air pollutants, will be emitted at the OHD facility. The mass emission rates of these two regulated air pollutants were also computed using the methodology outlined in USEPA AP-42 and are presented in Figures 4 and 5, respectively. The mass emission rates of the LFG constituents acrylonitrile (a hazardous air pollutant) and total hazardous air pollutants (HAP) are presented in Figures 6 and 7, respectively.

The USEPA AP-42 methodology used in computing the mass emission rates of the LFG constituents is detailed in the calculation package included as Attachment 1 with this letter. Some of the results presented in Figures 1 through 7 were verified with the uncontrolled mass emission rates obtained using USEPA software entitled "Landfill Gas Emissions Model (Version 2.01)". The uncontrolled mass emission rates computed using this software are included in Attachment 2.

Figures 1 through 7 present uncontrolled and controlled mass emission rates of the applicable regulated air pollutants and/or LFG constituents for the anticipated 30-year operating life of the OHD facility. The *uncontrolled emissions* represent mass emission rates assuming that no GES is installed throughout the operating life of the OHD facility. The *controlled emissions* are mass emission rates assuming that the proposed GES is installed beginning in the 5th year of the landfill operation. The controlled mass emission rates represent the sum of the potential emissions and the quantifiable fugitive emissions from the OHD facility in accordance with Rule 62-212.400(2)(f), F.A.C.

As discussed in Attachment 1, the controlled emission rates presented in the figures assume that the collection efficiency of the GES is 75 percent, i.e., only 75 percent of the gas generated by the landfill is collected by the GES and the remaining 25 percent

escapes as uncontrolled emissions. It is noted that 75 percent collection efficiency is the recommended average collection efficiency for landfill GES by USEPA AP-42. The controlled emission rates presented in the figures also incorporate control device efficiency (i.e., flare(s) efficiency), ranging from 98.0 to 99.7 percent, as recommended by USEPA AP-42.

As expected, the controlled emission rates of the regulated air pollutants and/or LFG constituents are less than the uncontrolled emission rates except for CO. The controlled emission rates for CO are higher than the uncontrolled emission rates because of the CO generated by the flares (which will be used as control devices in the GES at the OHD facility). It is noted that NO₂ and PM are not LFG constituents and are generated only by the flare. Therefore, only controlled emission rates are presented for NO₂ and PM, which will be generated after installation of the GES beginning in the 5th year of the landfill operation.

The maximum uncontrolled and controlled emission rates for the first 5 years and for the 30-year operating life of the OHD facility are presented in Table 1. Five years correspond to the duration of the construction and operation permit issued by FDEP for the Phase 1 development of the OHD facility and 30 years correspond to the expected operating life of the OHD facility.

APPLICABILITY OF PSD REQUIREMENTS

In accordance with Rule 62-210.200(157), F.A.C., a "Major Facility", is any facility that emits or has potential to emit:

- (a) 5 tons per year of lead or lead compounds, measured as elemental lead;
- (b) 30 tons per year or more of acrylonitrile; or
- (c) 100 tons per year or more of any other air pollutant subject to regulation under Chapter 403, FS.

In accordance with USEPA AP-42, lead or lead compounds are not a constituent of the LFG or the emissions generated by a flare, which will be used as the control device in the GES at the OHD facility. As noted in Table 1 and Figure 6, the maximum mass emission rate of acrylonitrile is less than 1 ton per year. The mass emission rates of regulated air pollutants are discussed below.



5 Years - Phase 1 Development

As noted in Table 1, during the first 5 years of the OHD facility operation, the maximum uncontrolled emission rates of the applicable regulated air pollutants (listed in Chapter 62-212, F.A.C., Table 212.400-2, Specific Authority 403.061 FS) are less than 3 tons per year except for the emission rate of NMOC of about 33 tons per year. The maximum controlled emission rates of the applicable regulated air pollutants are less than 9 tons per year except for the emission rate of CO of about 78 tons per year. In essence, the maximum uncontrolled or controlled emission rate of any applicable regulated air pollutant is less than 100 tons per year. Therefore, the OHD facility is not a major facility during the first 5 years of operation. Thus, for the duration of the construction and operation permit issued by FDEP for the Phase 1 development, the OHD facility is a minor facility in accordance with Rule 62-210.200(165), F.A.C.

In accordance with Rule 62-212.400(2)(d)1, F.A.C., new minor facilities are not subject to the PSD preconstruction review requirements. Therefore, for the Phase 1 development of the OHD facility, Omni is not required to obtain an air construction permit subject to the PSD requirements of Chapter 62-212, F.A.C.

30 Years – Operating Life of the OHD Facility

As noted in Table 1, for the 30-year operating life of the OHD facility, the maximum controlled emission rates of the applicable regulated air pollutants are less than 33 tons per year except for the emission rate of CO of about 300 tons per year. It is noted that the maximum mass emission rate of CO from the landfill without the GES (i.e., uncontrolled emission) is less than 10 tons per year, i.e., practically all of the CO is generated by the flares in the controlled situation. In essence, except for the emission rate of CO from the flares, the OHD facility is a minor facility throughout its 30-year operating life.

The emission rate of CO from the flare was computed using the default emission factors recommended in USEPA AP-42. The GES installation is expected to begin in the 5th year of the landfill operation and will incorporate flare(s) as the control device. Prior to future phased developments of the OHD facility, the emission rate of CO from the flare(s) will be analyzed. Based on the results of the analysis, whether or not an air construction permit (subject to the PSD requirements of Chapter 62-212, F.A.C.) is required for the future developments of the OHD facility will be re-evaluated.

CONCLUSION

Based on the mass emission rates of the applicable regulated air pollutants and LFG constituents during the Phase 1 development of the OHD facility, Omni is <u>not</u> required to obtain an air construction permit as referenced in the Specific Condition No. 55 of the construction and operation permit issued by FDEP on 18 October 2002.

It is requested that FDEP issue a letter verifying agreement with the inapplicability of the PSD requirements of Chapter 62-212, F.A.C., to the Phase 1 development of the OHD facility. If you have any questions or need additional information, please do not hesitate to contact the undersigned.

Sincerely,

Kenneth W. Cargill, P.E.

Principal

Copy to: Len Koslov, FDEP, Central District

Al Linero, FDEP, Tallahassee Tim Salopek, Omni Waste Bill Kozuh, Omni Waste

David Dee, Landers & Parsons



Table 1

POLLUTANTS AND LANDFILL GAS CONSTITUENTS MASS EMISSION RATES FOR REGULATED AIR

	3			daximum Mass Emi	Maximum Mass Emission Rates (tons/yr)	
Pollutant/Constituent	Regulated Air	Landfill Gas	5 Years - Phase 1 Development	1 Development	30 Years - O	30 Years - Operating Life
	Pollutant '	Constituent 7	Uncontrolled ³	Controlled ⁴	Uncontrolled ³	Controlled 4
Carbon Monoxide (CO)	Yes	Yes	2.5	6.77	2.6	300.4
Total Reduced Sulfur (as S or SO ₂) ⁵	Yes	Yes	1.0	1.9	3.7	7.4
Non-Methane Organic Compounds (NMOC)	Yes	Yes	32.8	8.4	126.4	32.4
Nitrogen Dioxide (NO ₂)	Yes	ON	NA ⁶	4.2	NA ⁶	16.1
Particulate Matter (PM)	Yes	ON	NA ⁶	1.7	9 VN	6.7
Acrylonitrile (a HAP)	No	sə _人	0.21	0.05	0.83	0.21
Total Hazardous Air Pollutants (HAP)	No	Yes	4.3	1.1	16.6	4.3
M - 4						

Notes:

- ¹ Per Chapter 62-212, F.A.C., Table 212.400-2 (Specific Authority 403.061 FS).
 - ² Per USEPA AP-42 Section 2.4 (1998).
- 3 Assuming no gas extraction system (GES) is installed.
- ⁴ Assuming the proposed GES is installed beginning in the 5th year of operation. See text for other assumptions.
- 6 Not Applicable. NO₂ and PM are not landfill gas constituents and are generated only by the flare(s). $^{\rm 5}$ Uncontrolled and controlled emissions are reported as S and ${\rm SO}_{\rm 2},$ respectively.

FW0400\PSD Permit\Table 1.xls

Figure 1

MASS EMISSION RATES
CARBON MONOXIDE (CO)

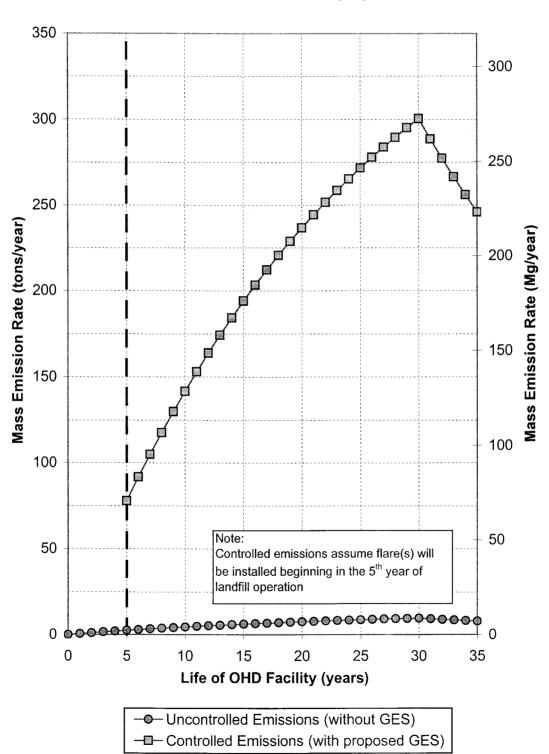


Figure 2

MASS EMISSION RATES

TOTAL REDUCED SULFUR (as S or SO₂)

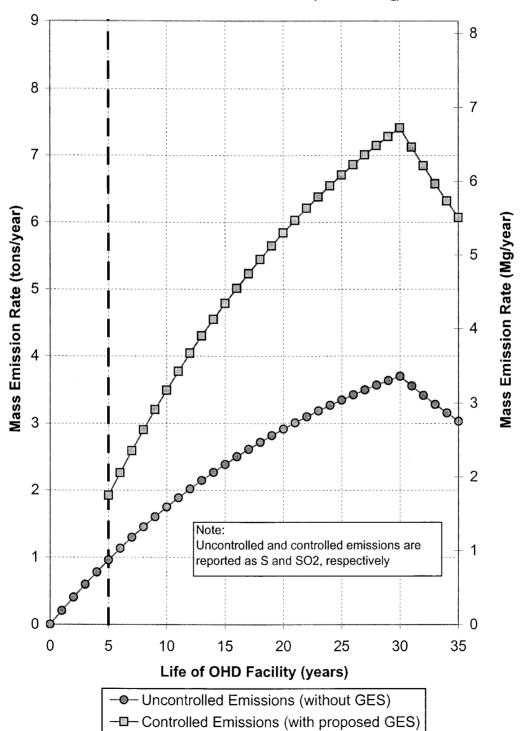


Figure 3

MASS EMISSION RATES
NON-METHANE ORGANIC COMPOUNDS (NMOC)

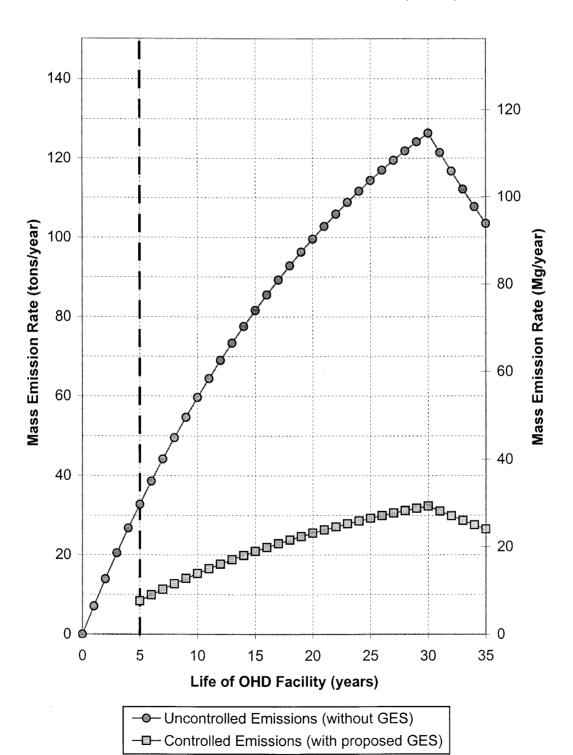


Figure 4

MASS EMISSION RATES

TOTAL NITROGEN DIOXIDE (NO₂)

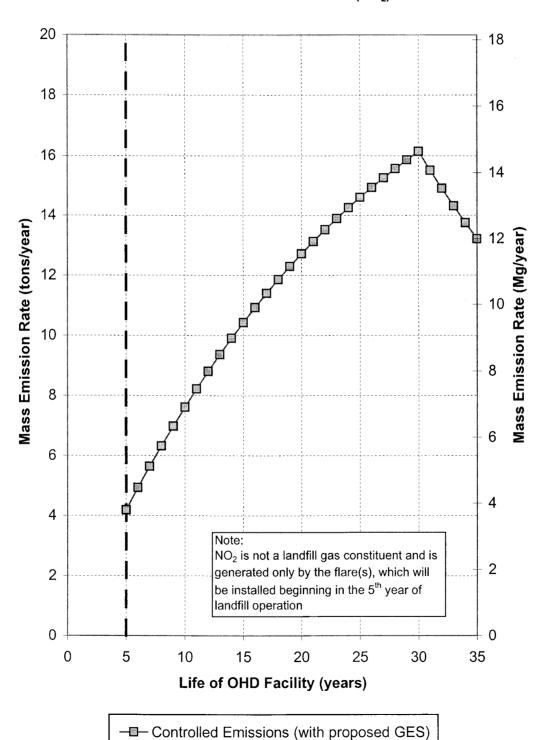


Figure 5

MASS EMISSION RATES
PARTICULATE MATTER (PM)

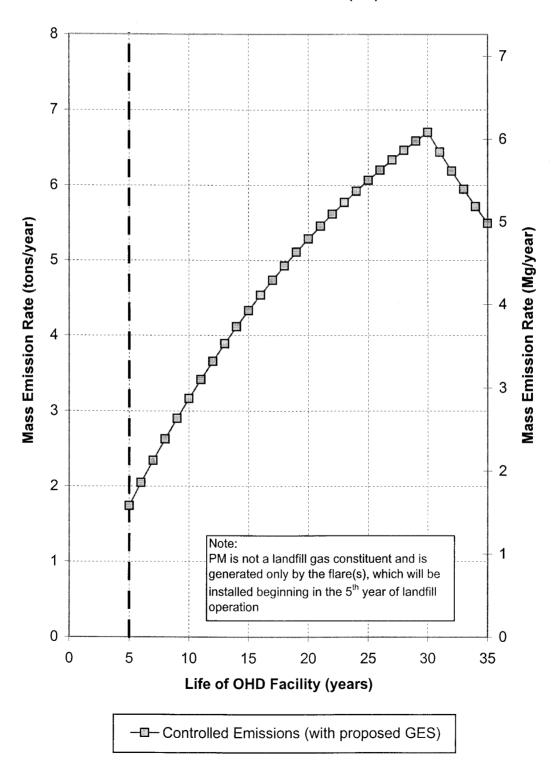
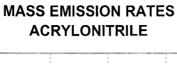
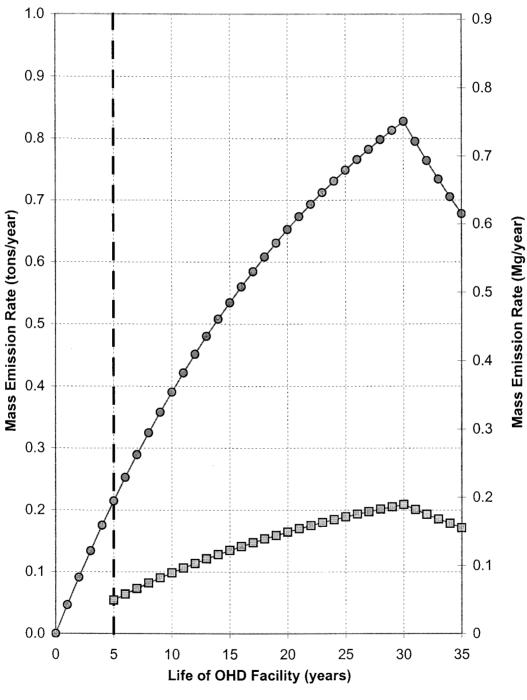


Figure 6



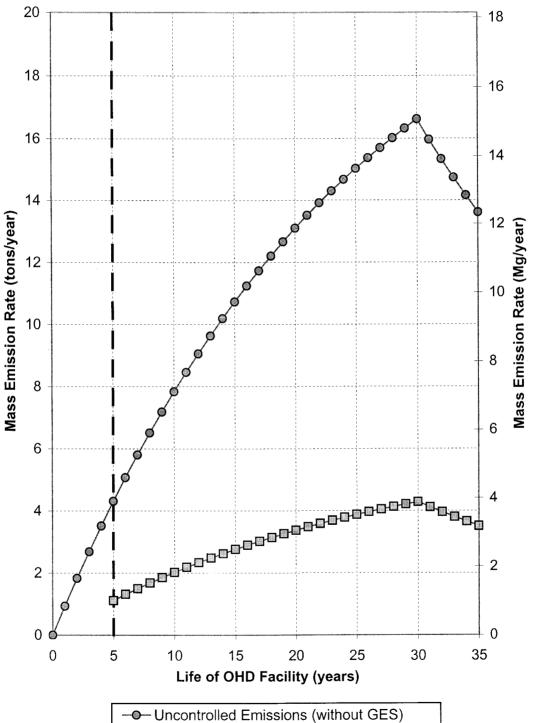


Uncontrolled Emissions (without GES)

— Controlled Emissions (with proposed GES)

Figure 7





-- Controlled Emissions (with proposed GES)

Attachment 1

LANDFILL GAS CONSTITUENTS EMISSION ESTIMATED USING AP-42 SECTION 2.4

The methane (CH₄) generation rate and the landfill gas (LFG) constituents emission rates were estimated using the procedure outlined in USEPA AP-42 (Fifth Edition, Volume I), entitled "Compilation of Air Pollutant Emission Factors". USEPA AP-42 Section 2.4, entitled "Emission Factor Documentation for Municipal Solid Waste Landfills", (Supplement E, November 1998), referenced herein simply as AP-42, was used to estimate the emissions of relevant LFG constituents for the Oak Hammock Disposal (OHD) facility.

The LFG constituents, for which uncontrolled and controlled mass emission rates were computed, include carbon monoxide (CO), total reduced sulfur (as sulfur, S, or sulfur dioxide, SO₂), non-methane organic compounds (NMOC), total hazardous air pollutants (HAP), and acrylonitrile (an HAP). Flare(s) will be used as the control device in the proposed gas extraction system (GES) at the OHD facility. Secondary compounds exiting the flare(s) for which controlled mass emission rates were computed include CO, nitrogen dioxide (NO₂), and particulate matter (PM).

Methane Generation Rate

The methane generation rate for the OHD facility was estimated using the following Landfill Air Emissions Estimation model equation developed by EPA:

$$Q_{CH_4} = L_0 R \left(e^{-kc} - e^{-kt} \right) \tag{1}$$

where:

 $Q_{CH_4} = CH_4$ generation rate at time t, m³/yr;

 L_0 = CH₄ generation potential, m³ of CH₄ per megagrams (Mg) of refuse;

R = average annual refuse acceptance rate during active life, Mg/yr;

e = natural log, unitless;

k = CH₄ generation rate constant, yr⁻¹;

c = time since landfill closure, yrs (c=0 for active landfills); and

t = time since initial refuse placement, yrs.

An L_0 value of $100~\text{m}^3/\text{Mg}$ was used as recommended in AP-42. A k value of 0.04/year was used corresponding to areas with annual rainfall of 25 inches or more. An average refuse acceptance rate (R) of 474,000 tons/year (approximately 430,000 Mg/yr) was used in the above equation to estimate the methane generation rate. The methane generation rate was computed for each year of the anticipated 30-year life of the OHD

facility and for the first 5 years after closure of the facility. The computed rates are presented in Figure A1-1.

Uncontrolled Emissions

The uncontrolled emission rate of relevant LFG constituents (e.g. NMOC) were estimated using the following equation:

$$Q_P = 1.82 Q_{CH_4} * \frac{C_P}{(1 \times 10^6)}$$
 (2)

where:

Q_P = uncontrolled emission rate of pollutant P (e.g. NMOC), m³/yr;

Q_{CH₄} = CH₄ generation rate, m³/yr (from Equation 1); C_P = concentration of pollutant P in LFG, ppmv (ppm by volume); and

1.82 = multiplication factor assuming 55 percent of LFG (by volume) is CH₄.

The concentrations (CP) of relevant LFG constituents used in computing the uncontrolled emission rates are presented in Table A1-1. It is noted that a concentration of 595 ppmv as hexane was used for NMOC, as recommended by AP-42 for "no or unknown co-disposal", since the landfill will primarily contain municipal solid waste.

The uncontrolled mass emissions rate of relevant LFG constituents (e.g. NMOC) were estimated using the following equation:

$$UM_{P} = Q_{P} * \left[\frac{MW_{P} * 1 atm}{(8.205 \times 10^{-5} \ m^{3} * atm / gmol * {}^{\circ}K) (1000 \ g / kg) (273 + T)} \right]$$
(3)

where:

UM_P = uncontrolled mass emission rate of pollutant P (e.g. NMOC), kg/yr;

MW_P = molecular weight of pollutant P, g/gmol;

Q_P = emission rate of pollutant P, m³/yr (from Equation 2); and

= temperature of landfill gas, °C.

The molecular weights (MW_P) of relevant LFG constituents used in computing the uncontrolled mass emission rates are also presented in Table A1-1. It was assumed that the operating pressure of the system is 1 atmosphere and the temperature of the LFG is 25°C, as recommended by AP-42.

Controlled Emissions

The controlled mass emission rate of relevant LFG constituents (except for total reduced sulfur) were estimated using the following equation:

$$CM_{P} = \left[UM_{P} * \left(1 - \frac{\eta_{col}}{100}\right)\right] + \left[UM_{P} * \frac{\eta_{col}}{100} * \left(1 - \frac{\eta_{cnt}}{100}\right)\right]$$
(4)

where:

CM_P = controlled mass emission rate of pollutant P, kg/yr;

UM_P = uncontrolled mass emissions of pollutant P, kg/yr (from Equation 3);

?_{col} = collection efficiency of GES, percent; and

?_{cnt} = control efficiency of the GES control device (i.e., flare), percent.

A collection efficiency of 75 percent was assumed for the GES (i.e., only 75 percent of the gas generated by the landfill is collected by the GES and the remaining 25 percent escapes as uncontrolled emissions). It is noted that 75 percent collection efficiency is the recommended average collection efficiency for landfill GES in AP-42. Flare(s) will be used as the control device in the proposed GES. Therefore, control efficiencies for flare(s), ranging from 98.0 to 99.7 percent, recommended in AP-42 were used in Equation 4.

The following equation was used to estimate the controlled mass emission rate of total reduced sulfur (as SO₂):

$$CM_{SO_2} = UM_S * \frac{\eta_{col}}{100} * 2.0$$
 (5)

where:

CM_{SO₂} = Controlled mass emission rate of SO₂, kg/yr;

 UM_S = Uncontrolled mass emission rate of total reduced sulfur (as S),

kg/yr (from Equation 3);

?_{col} = Collection efficiency of the GES, percent (assumed as 75 percent); and

2.0 = Ratio of the molecular weight of SO_2 to S.

Controlled mass emissions of secondary compounds exiting the flare(s) (i.e., the control device in the proposed GES) were estimated using the emission factors recommended in AP-42. It is noted that the controlled mass emissions of secondary compounds exiting the flare(s) were computed based on the amount of methane reaching the flare (i.e., 75% of the total methane generated by the landfill), corresponding to the assumed collection efficiency of the GES. Since the proposed GES installation will begin in the 5th year of landfill operation, the controlled mass emissions of secondary

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compounds exiting the flare(s) were estimated starting in the 5th year of the OHD facility life.

The controlled emission rates of CO presented include the CO emissions from the flare and the CO that will be released directly from the landfill due to the collection and control device inefficiencies. It is noted that the controlled emission rates of total reduced sulfur are presented as SO₂. However, it is recognized that the total reduced sulfur that will be released directly from the landfill due to the collection and control device inefficiencies, will be released as S. The mass emission rates of total HAPs were estimated by summing the mass emission rates of individual HAPs.

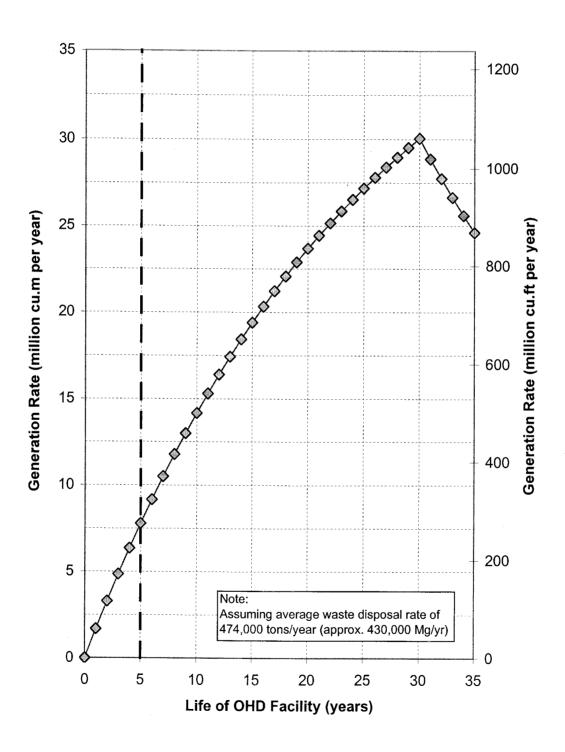
Table A1-1

CONCENTRATIONS AND MOLECULAR WEIGHTS USED IN ESTIMATING LANDFILL GAS CONSTITUENTS EMISSIONS

Compound	Concentration C _P (ppmv)	Molecular Weight MW _P (g/gmol)
Carbon Monoxide (CO)	141.00	28.01
Total Reduced Surfur (as S)	46.90	32.06
Non-Methane Organic Compound (NMOC)	595.00	86.18
Acrylonitrile	6.33	53.06
Hazardous Air Pollutants (HAP)		·
1,1,1-Trichloroethane	0.48	133.42
1,1,2,2-Tetrachloroethane	1.11	167.85
1,1-Dichloroethane (ethylidene)	2.35	98.95
1,1-Dichloroethane (vinylidene)	0.20	96.94
1,2-Dichloroethane	0.41	98.96
1,2-Dichloropropane	0.18	112.98
Acrylonitrile	6.33	53.06
Butane	5.03	58.12
Carbon disulfide	0.58	76.13
Carbon tetrachloride	0.00	153.84
Carbonyl sulfide	0.49	60.07
Chlrorobenzene	0.25	112.56
Chloroethane	1.25	64.52
Chloroform	0.03	119.39
Dichlorobenzene	0.21	147.00
Dichloromethane	14.30	84.94
Ethylbenzene	4.61	106.16
Ethyl dibromide	0.00	187.88
Hexane	6.57	86.18
Mercury	0.00	200.61
Methyl ethyl keytone	7.09	72.11
Methyl isobutyl keytone	1.87	100.16
Perchloroethylene	3.73	165.83
Vinyl chloride	7.34	62.50
Xylenes	12.10	106.16

Figure A1-1

METHANE GENERATION RATE



Attachment 2

LANDFILL GAS CONSTITUENTS EMISSION ESTIMATED USING USEPA SOFTWARE

The methane (CH₄) generation rate and some of the landfill gas (LFG) constituents emission were also estimated using USEPA software entitled "Landfill Gas Emissions Model (Version 2.01)". The software was downloaded from the USEPA's official website. The results obtained using the USEPA software were used to verify the CH₄ generation rate presented in Figure A1-1 and the uncontrolled mass emission rates of CO, NMOC, and acrylonitrile presented in Figures 1, 3, and 6, respectively.

The parameters discussed in Attachment 1 were used as input parameters in the USEPA software. The USEPA software output for CH₄ generation rate and uncontrolled mass emission rates of CO, NMOC, and acrylonitrile are presented in Tables A2-1 through A2-4 and in Figures A2-1 through A2-4. As noted, the results obtained from the software are in general agreement with the results presented in Figures 1, 3, 6, and A1-1.

The uncontrolled mass emission rates of CO, NMOC, and acrylonitrile estimated using the USEPA software are about 10 to 15 percent higher than those estimated using the procedure outlined in AP-42 (Attachment 1). The main reason for this difference is that the USEPA software assumes 50 percent of the LFG is CH₄ (by volume) whereas the procedure outlined in AP-42 assumes 55 percent of the LFG is CH₄. Since total LFG generated is estimated based on CH₄ generation rate, the total LFG estimated using the USEPA software is higher, which in turn results in higher uncontrolled mass emission rates of the LFG constituents.

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TABLE A2-1: METHANE GENERATION RATE

Model Parameters

Lo: 100.00 m^3 / Mg k: 0.0400 1/yr

NMOC: 595.00 ppmv Methane: 50.0000 % volume

Carbon Dioxide : 50.0000 % volume

Landfill Parameters

Landfill type : No Co-Disposal

Year Opened: 2003 Current Year: 2033 Closure Year: 2033

Capacity : 12900000 Mg

Average Acceptance Rate Required from

Current Year to Closure Year: 0.00 Mg/year

Model Results

Year	Refuse In Place (Mg)		Emission Rate (Cubic m/yr)
		(Mg/yr) ====================================	(Cubic m/yr)
2004	4.300E+05	1.147E+03	1.720E+06
2005	8.600E+05	2.250E+03	3.373E+06
2006	1.290E+06	3.309E+03	4.960E+06
2007	1.720E+06	4.327E+03	6.486E+06
2008	2.150E+06	5.305E+03	7.952E+06
2009	2.580E+06	6.244E+03	9.360E+06
2010	3.010E+06	7.147E+03	1.071E+07
2011	3.440E+06	8.014E+03	1.201E+07
2012	3.870E+06	8.847E+03	1.326E+07
2013	4.300E+06	9.648E+03	1.446E+07
2014	4.730E+06	1.042E+04	1.561E+07
2015	5.160E+06	1.116E+04	1.672E+07
2016	5.590E+06	1.187E+04	1.779E+07
2017	6.020E+06	1.255E+04	1.881E+07
2018	6.450E+06	1.320E+04	1.979E+07
2019	6.880E+06	1.383E+04	2.074E+07
2020	7.310E+06	1.444E+04	2.164E+07
2021	7.740E+06	1.502E+04	2.251E+07
2022	8.170E+06	1.558E+04	2.335E+07
2023	8.600E+06	1.612E+04	2.416E+07
2023	9.030E+06	1.663E+04	2.493E+07
2025	9.460E+06	1.713E+04	2.567E+07
2026	9.890E+06	1.760E+04	2.638E+07
2027	1.032E+07	1.806E+04	2.707E+07
2027	1.032E+07 1.075E+07		2.707E+07
2020	1.118E+07	1.850E+04	2.773E+07 2.836E+07
2029		1.892E+04	2.836E+07 2.897E+07
	1.161E+07	1.933E+04	
2031	1.204E+07	1.972E+04	2.955E+07
2032	1.247E+07	2.009E+04	3.011E+07
2033	1.290E+07	2.045E+04	3.065E+07
2034	1.290E+07	1.965E+04	2.945E+07
2035	1.290E+07	1.888E+04	2.830E+07
2036	1.290E+07	1.814E+04	2.719E+07
2037	1.290E+07	1.743E+04	2.612E+07
2038	1.290E+07	1.674E+04	2.510E+07
2039	1.290E+07	1.609E+04	2.411E+07
2040	1.290E+07	1.546E+04	2.317E+07
2041	1.290E+07	1.485E+04	2.226E+07
2042	1.290E+07	1.427E+04	2.139E+07
2043	1.290E+07	1.371E+04	2.055E+07
2044	1.290E+07	1.317E+04	1.974E+07
2045	1.290E+07	1.265E+04	1.897E+07
2046	1.290E+07	1.216E+04	1.822E+07
2047	1.290E+07	1.168E+04	1.751E+07
2048	1.290E+07	1.122E+04	1.682E+07
2049	1.290E+07	1.078E+04	1.616E+07

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TABLE A2-2: CO EMISSION RATE

Model Parameters

Lo : 100.00 m^3 / Mq k : 0.0400 1/yrNMOC : 595.00 ppmv

Methane: 50.0000 % volume

Carbon Dioxide : 50.0000 % volume Air Pollutant : Carbon Monoxide

Molecular Wt = 28.01 Concentration = 141.000000 ppmV

Landfill Parameters

Landfill type : No Co-Disposal

Year Opened: 2003 Current Year: 2033 Closure Year: 2033

Capacity: 12900000 Mg

Average Acceptance Rate Required from

Current Year to Closure Year: 0.00 Mg/year

		Model Results		
V		Carbon Mono	xide Emission Rate (Cubic m/yr)	
Year ======	Refuse In Place (Mg)	(Mg/yr) 	(Cubic m/yr)	==
2004	4.300E+05	5.651E-01	4.850E+02	
2005	8.600E+05	1.108E+00	9.511E+02	
2006	1.290E+06	1.630E+00	1.399E+03	
2007	1.720E+06	2.131E+00	1.829E+03	
2008	2.150E+06	2.612E+00	2.242E+03	
2009	2.580E+06	3.075E+00	2.639E+03	
2010	3.010E+06	3.519E+00	3.021E+03	
2011	3.440E+06	3.947E+00	3.388E+03	
2012	3.870E+06	4.357E+00	3.740E+03	
2013	4.300E+06	4.751E+00	4.078E+03	
2014	4.730E+06	5.130E+00	4.403E+03	
2015	5.160E+06	5.494E+00	4.716E+03	
2016	5.590E+06	5.844E+00	5.016E+03	
2017	6.020E+06	6.179E+00	5.304E+03	
2018	6.450E+06	6.502E+00	5.581E+03	
2019	6.880E+06	6.812E+00	5.847E+03	
2020	7.310E+06	7.110E+00	6.103E+03	
2021	7.740E+06	7.397E+00	6.349E+03	
2022	8.170E+06	7.672E+00	6.585E+03	
2023	8.600E+06	7.936E+00	6.812E+03	
2024	9.030E+06	8.190E+00	7.030E+03	
2025	9.460E+06	8.434E+00	7.239E+03	
2026	9.890E+06	8.668E+00	7.440E+03	
2027	1,032E+07	8.893E+00	7.634E+03	
2028	1.075E+07	9.110E+00	7.819E+03	
2029	1.118E+07	9.318E+00	7.998E+03	
2030	1.161E+07	9.517E+00	8.169E+03	
2031	1.204E+07	9.709E+00	8.334E+03	
2032	1.247E+07	9.894E+00	8.492E+03	
2033	1.290E+07	1.007E+01	8.644E+03	
2034	1.290E+07	9.676E+00	8.305E+03	
2035	1.290E+07	9.296E+00	7.980E+03	
2036	1.290E+07	8.932E+00	7.667E+03	
2037	1.290E+07	8.582E+00	7.366E+03	
2038	1.290E+07	8.245E+00	7.077E+03	
2039	1.290E+07	7.922E+00	6.800E+03	
2040	1.290E+07	7.611E+00	6.533E+03	
2041	1.290E+07	7.313E+00	6.277E+03	
2042	1.290E+07	7.026E+00	6.031E+03	
2043	1.290E+07	6.751E+00	5.794E+03	
2044	1.290E+07	6.486E+00	5.567E+03	
2045	1.290E+07	6.232E+00	5.349E+03	
2046	1.290E+07	5.987E+00	5.139E+03	
2047	1.290E+07	5.753E+00	4.938E+03	

Source: C:\EPALAN~1\OMNI.PRM

TABLE A2-3: NMOC EMISSION RATE

Model Parameters

Lo: 100.00 m^3 / Mg k: 0.0400 1/yr NMOC: 595.00 ppmv

Methane: 50.0000 % volume

Carbon Dioxide: 50.0000 % volume

Landfill Parameters

Landfill type : No Co-Disposal

Year Opened: 2003 Current Year: 2033 Closure Year: 2033

Capacity : 12900000 Mg

Average Acceptance Rate Required from

Current Year to Closure Year: 0.00 Mg/year

Model Results

		NMOC Emission Rate		
Year	Refuse In Place (Mg)	(Mg/yr)	(Cubic m/yr)	
2004	4.300E+05	 7.337E+00	2.047E+03	
2004	8.600E+05	1,439E+01	4.013E+03	
2005	1.290E+06	2.116E+01	5.903E+03	
2007	1.720E+06		7.718E+03	
2007	2.150E+06	2.767E+01 3.392E+01	9.462E+03	
2009	2.130E+06 2.580E+06			
2009	3.010E+06	3.992E+01 4.570E+01	1.114E+04 1.275E+04	
2010			1.273E+04 1.430E+04	
2011	3.440E+06 3.870E+06	5.124E+01	1.430E+04 1.578E+04	
2012	4.300E+06	5.657E+01	1.721E+04	
		6.169E+01		
2014	4.730E+06	6.660E+01	1.858E+04	
2015	5.160E+06	7.133E+01	1.990E+04	
2016	5.590E+06	7.587E+01	2.117E+04	
2017	6.020E+06	8.023E+01	2.238E+04	
2018	6.450E+06	8.442E+01	2.355E+04	
2019	6.880E+06	8.845E+01	2.468E+04	
2020	7.310E+06	9.232E+01	2.575E+04	
2021	7.740E+06	9.603E+01	2.679E+04	
2022	8.170E+06	9.960E+01	2.779E+04	
2023	8.600E+06	1.030E+02	2.875E+04	
2024	9.030E+06	1.063E+02	2.966E+04	
2025	9.460E+06	1.095E+02	3.055E+04	
2026	9.890E+06	1.125E+02	3.140E+04	
2027	1.032E+07	1.155E+02	3.221E+04	
2028	1.075E+07	1.183E+02	3.300E+04	
2029	1.118E+07	1.210E+02	3.375E+04	
2030	1.161E+07	1.236E+02	3.447E+04	
2031	1.204E+07	1.261E+02	3.517E+04	
2032	1.247E+07	1.285E+02	3.584E+04	
2033	1.290E+07	1.308E+02	3.648E+04	
2034	1.290E+07	1.256E+02	3.505E+04	
2035	1.290E+07	1.207E+02	3.367E+04	
2036	1.290E+07	1.160E+02	3.235E+04	
2037	1.290E+07	1.114E+02	3.108E+04	
2038	1.290E+07	1.071E+02	2.987E+04	
2039	1.290E+07	1.029E+02	2.869E+04	
2040	1.290E+07	9.882E+01	2.757E+04	
2041	1.290E+07	9.495E+01	2.649E+04	
2042	1.290E+07	9.122E+01	2.545E+04	
2043	1.290E+07	8.765E+01	2.445E+04	
2044	1.290E+07	8.421E+01	2.349E+04	
2045	1.290E+07	8.091E+01	2.257E+04	
2046	1.290E+07	7.774E+01	2.169E+04	
2047	1.290E+07	7.469E+01	2.084E+04	
2048	1.290E+07	7.176E+01	2.002E+04	
2049	1.290E+07	6.895E+01	1.923E+04	

TABLE A2-4: ACRYLONITRILE EMISSION RATE

Model Parameters

______ Lo : 100.00 m^3 / Mg k : 0.0400 1/yr

NMOC : 595.00 ppmv

Methane: 50.0000 % volume

Carbon Dioxide : 50.0000 % volume

Air Pollutant : Acrylonitrile (HAP/VOC)

Molecular Wt = 53.06 Concentration = 6.330000 ppmV

Landfill Parameters

Landfill type : No Co-Disposal

Year Opened: 2003 Current Year: 2033 Closure Year: 2033

Capacity : 12900000 Mg

2042

2047

1.290E+07

1.290E+07

Average Acceptance Rate Required from

Current Year to Closure Year: 0.00 Mg/year

2.708E+02

2.217E+02

	<u> </u>	Model Results	
Year	Refuse In Place (Mg)	Acrylonitrile (Mg/yr)	(HAP/VOC) Emission Rate (Cubic m/yr)
2004	4.300E+05	4.806E-02	2.178E+01
2005	8.600E+05	9.423E-02	4.270E+01
2006	1.290E+06	1.386E-01	6.280E+01
2007	1.720E+06	1.812E-01	8.211E+01
2008	2.150E+06	2.222E-01	1.007E+02
2009	2.580E+06	2.615E-01	1.185E+02
2010	3.010E+06	2.993E-01	1.356E+02
2011	3.440E+06	3.356E-01	1.521E+02
0010	0 0 0 0 0 0 0 0		4 600 - 00

2010	3.010E+06	2.993E-01	1.356E+02
2011	3.440E+06	3.356E-01	1.521E+02
2012	3.870E+06	3.705E-01	1.679E+02
2013	4.300E+06	4.041E-01	1.831E+02
2014	4.730E+06	4.363E-01	1.977E+02
2015	5.160E+06	4.672E-01	2.117E+02
2016	5.590E+06	4.970E-01	2.252E+02
2017	6.020E+06	5.255E-01	2.381E+02
2018	6.450E+06	5.530E-01	2.506E+02
2019	6.880E+06	5.793E-01	2.625E+02
2020	7.310E+06	6.047E-01	2.740E+02
2021	7.740E+06	6.290E-01	2.850E+02

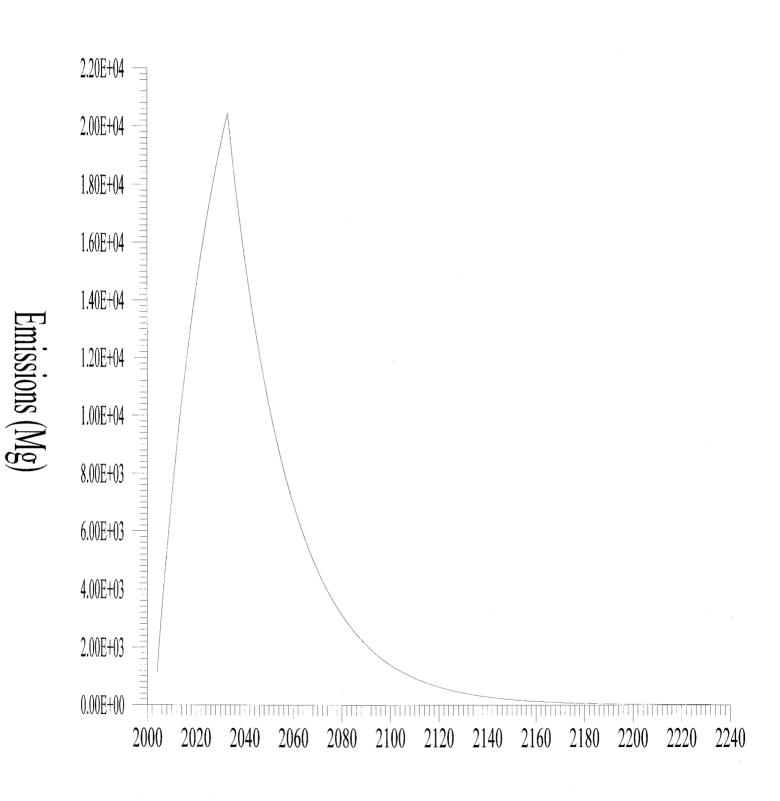
2020	/.3IOE+06	6.047E-01	2.740E+02
2021	7.740E+06	6.290E-01	2.850E+02
2022	8.170E+06	6.524E-01	2.956E+02
2023	8.600E+06	6.749E-01	3.058E+02
2024	9.030E+06	6.965E-01	3.156E+02
2025	9.460E+06	7.172E-01	3.250E+02
2026	9.890E+06	7.372E-01	3.340E+02
2027	1.032E+07	7.563E-01	3.427E+02
2028	1.075E+07	7.747E-01	3.510E+02
2029	1.118E+07	7.924E-01	3.591E+02
2030	1.161E+07	8.094E-01	3.667E+02
2031	1.204E+07	8.257E-01	3.741E+02
2032	1.247E+07	8.414E-01	3.812E+02
2033	1.290E+07	8.564E-01	3.881E+02
2034	1.290E+07	8.229E-01	3.729E+02

2035	1.290E+07	7.906E-01	3.582E+02
2036	1.290E+07	7.596E-01	3.442E+02
2037	1.290E+07	7.298E-01	3.307E+02
2038	1.290E+07	7.012E-01	3.177E+02
2039	1.290E+07	6.737E-01	3.053E+02
2040	1.290E+07	6.473E-01	2.933E+02
2041	1.290E+07	6.219E-01	2.818E+02
2042	1 0000.07	5 0757 01	0 7005.00

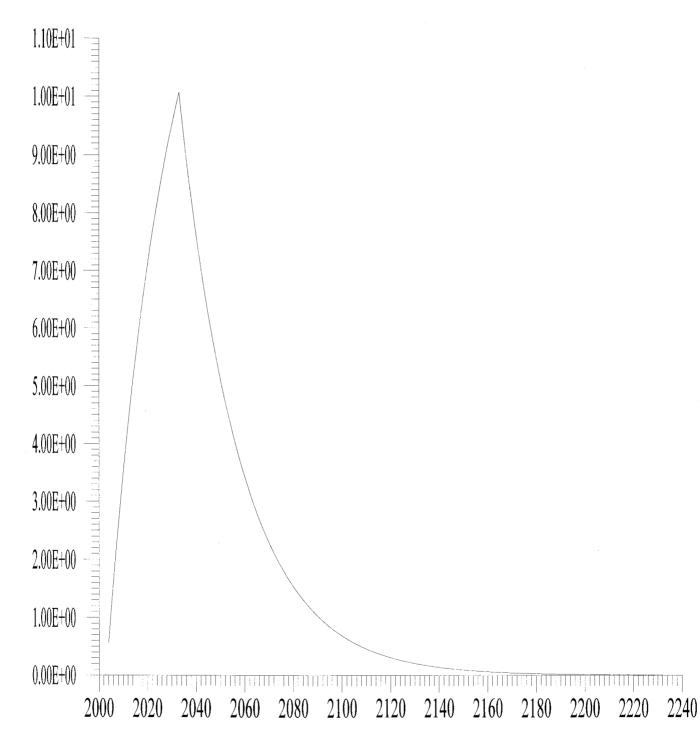
5.975E-01 1.290E+07 5.741E-01 2043 2.601E+02 2044 1.290E+07 5.516E-01 2.499E+02 5.300E-01 2045 1.290E+07 2.401E+02 1.290E+07 2046 5.092E-01 2.307E+02

4.892E-01

Projected Methane Emissions

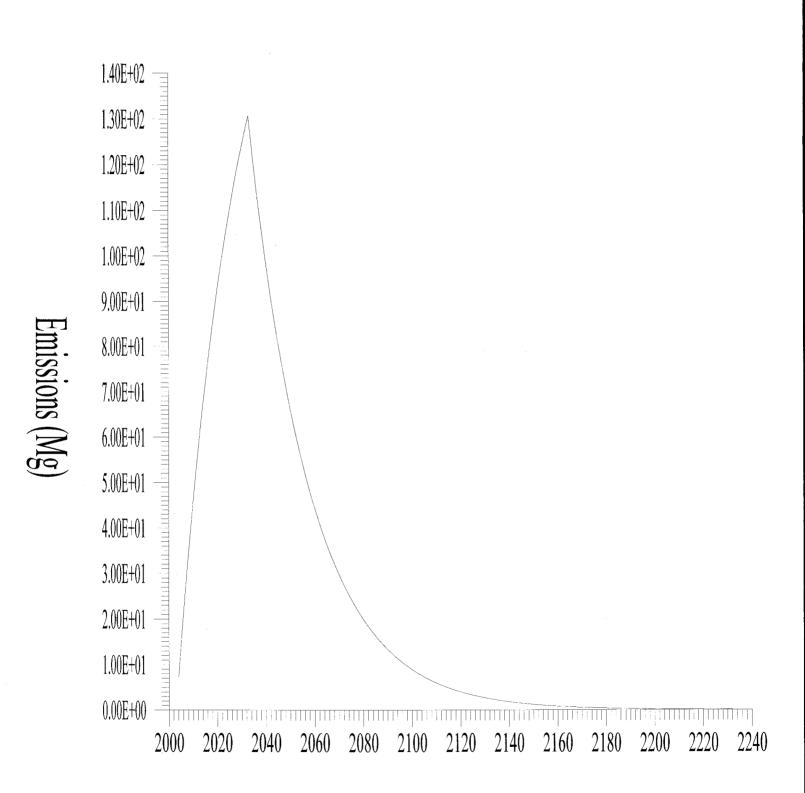


Projected Carbon Monoxide Emissions

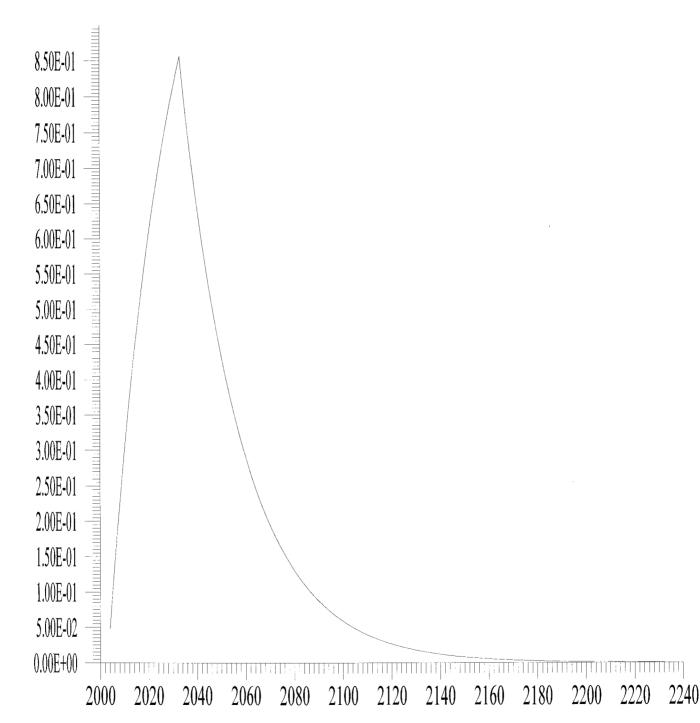


Emissions (Mg)

Projected NMOC Emissions



Projected Acrylonitrile (HAP/VOC) Emissions



Emissions (Mg)



P.O. Box 421613 Kissimmee, FL 34742 407-957-7284 Phone 407-957-7202 Fax

October 16, 2002

Mr. James Bradner, P.E. Florida Department of Environmental Protection 3319 Maguire Blvd, Suite 232 Orlando, FL 32803

RE: Affidavit of Publication of Proposed Agency Action Oak Hammock Disposal Facility, Holopaw, Florida Sections 11, 13 and 14 Township 28 South, Range 32 East Section 18, Township 28 South, Range 33 East

Dear Mr. Bradner:

Please find enclosed the *original* Affidavit of Publication of Proposed Agency Action. This information was published on 02 October 2002 in the Osceola County section of the Orlando Sentinel. Also enclosed are copies of the certified letters regarding the Notice of Intent, which were sent to Chairman Owen of the Board of County Commissioners for Osceola County, State Senator Howard Futch and State Representative Frank Attkisson. If you need additional information please feel free to contact me.

Sincerely,

Timothy J. Salopek

Vin Salopek SS

President

TJS/ss

Enclosures

ce: David Dee/Landers & Parsons: with enclosures Ken Cargill/GeoSyntec Consultants: with enclosures

Orlando Sentinel

Published Daily

State of Florida S.S.

Before the undersigned authority personally appeared <u>BEVERLYC.STMMONS</u>
who on oath savs
that he/she is the Legal Advertising Representative of Orlando Sentinel, a daily
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ASCEALA County, Florida:
that the attached copy of advertisement, being a STATE OF ELORIDA
that the attached copy of advertisement, being a STATE OF FLORIDA in the matter of SC49-0199726-001, S049-0199726-002
in the OSCEOLA Court,
was published in said newspaper in the issue; of
Arrived to the state of the sta
Affiant further says that the said Orlando Sentinel is a newspaper published at in said
C. I. Flavida
and that the said newspaper has heretofore been continuously published in
said 076 701 ACounty, Florida,
said OSCEOLA County, Florida, each Week Day and has been entered as second-class mail matter at the post
office in KISSIMMFFin said
OSCIPAL A County, Florida,
for a period of one year next preceding the first publication of the attached
copy of advertisement: and affiant further says that he/she has neither paid
nor promised any person, firm or corporation any discount, rebate,
nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for
publication in the said newspaper.
Sully . Aldris
The foregoing instrument was acknowledged before me this 2nd day of
CYTO BETTER C STMMONS
, 20 <u>02</u> , by <u>Divinity</u> , 20 , by
who is personally known to me and who dig take an oath.
(SEAL)
DEBORAH M TONEY
My Comm Exp. 11/18/2005
No. DD 072954

Personally Known [] Other I.D.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENT PROTECTION NOTICE OF PROPOSED AGENCY ACTION

The Department of Environmental Protection gives Notice of Intent to Issue a construction and operation permit to Omni Waste of Osceola County, LLC/Timothy J. Salopek, 100 Church St., Kissimmee FL 34741, to construct and operate the Oak Hammock Disposal, Class I landfill, in Osceola County, Florida. The landfill is located approximately 6.5 miles south of Holopaw, on the west side of U.S. 441, in unincorporated Osceola County, FL.

The Department has assigned File Numbers SC49-0199726-001 & SO49-0199726-002, to the project and has considered the effects of this landfill on ground water and surface water.

The Department's file on this matter is available for public inspection during normal business hours, 8:90 normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except le-gal; haildays, at Depart-ments Central District Of-fice, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803, Telephone 407/893-3328.

A person whose substantial interests are affected by the above proposed agency action may petition for an ad-ministrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, Marjory Stoneman Douglas Building, 3900 Commonwealth Boules vard, Mail Station 35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within 14 days of publication of this notice or receipt of the written notice, whichever occurs first. The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Fiorida Statutes, or to intervene in this proceeding and participate as a party to

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Street, Apt. No.; or PO Box No.

September 27, 2002

Honorable Paul Owen, Chairman Osceola County Board of County Commissioners 1 Courthouse Square, Suite 4700 Kissimmee, Florida 34741

RE:

Oak Hammock Disposal Facility Osceola County, FL

Dear Chairman Owen:

On September 24, 2002, the Florida Department of Environmental Protection (FDEP) gave notice of its intent to issue a permit to Omni Waste of Osceola County, LLC, for the construction and operation of the proposed Oak Hammock Landfill in Osceola County, Florida.

To comply with the requirements of FDEP Rule 62-701.320(8)(b), Florida Administrative Code, I am providing you with a copy of FDEP's "Intent to Issue" the permit to Omni.

If you have any questions about this project, you may call me or Mr. James Bradner, P.E., at the FDEP. My phone number is (407) 957-7284. Mr. Bradner's phone number is (407) 893-3329.

Sincerely,

Tim Salopek President

TS/ss

cc:

Attachment: Notice of Proposed Agency Action

Mr. James Bradner, P.E., FDEP



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September 27, 2002

Honorable Frank Attkisson, State Representative District 79 323 Pleasant Street Kissimmee, Florida 34741-5763

RE:

Oak Hammock Disposal Facility

Osceola County, FL

Dear Representative Attkisson:

On September 24, 2002, the Florida Department of Environmental Protection (FDEP) gave notice of its intent to issue a permit to Omni Waste of Osceola County, LLC, for the construction and operation of the proposed Oak Hammock Landfill in Osceola County, Florida.

To comply with the requirements of FDEP Rule 62-701.320(8)(b), Florida Administrative Code, I am providing you with a copy of FDEP's "Intent to Issue" the permit to Omni.

If you have any questions about this project, you may call me or Mr. James Bradner, P.E., at the FDEP. My phone number is (407) 957-7284. Mr. Bradner's phone number is (407) 893-3329.

Sincerely,

Tim Salopek President

TS/ss

cc:

Attachment: Notice of Proposed Agency Action

Mr. James Bradner, P.E., FDEP



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City, State,

September 27, 2002

Honorable Howard E. Futch, State Senator District 18 134 Fifth Avenue Suite 103 Indialantic, Florida 32903

RE:

Oak Hammock Disposal Facility Osceola County, FL

Dear Senator Futch:

On September 24, 2002, the Florida Department of Environmental Protection (FDEP) gave notice of its intent to issue a permit to Omni Waste of Osceola County, LLC, for the construction and operation of the proposed Oak Hammock Landfill in Osceola County, Florida.

To comply with the requirements of FDEP Rule 62-701.320(8)(b), Florida Administrative Code, I am providing you with a copy of FDEP's "Intent to Issue" the permit to Omni.

If you have any questions about this project, you may call me or Mr. James Bradner, P.E., at the FDEP. My phone number is (407) 957-7284. Mr. Bradner's phone number is (407) 893-3329.

Sincerely,

Tim Salopek President

TS/ss

Attachment:

Notice of Proposed Agency Action

cc: Mr. James Bradner, P.E., FDEP

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature Agent Addressee B. Received by (Printed Name) C. Date of Delivery
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2. Article Number (Transfer from service label) 7002 20	130 0000 0276 7286
	_
SENDER: COMPLETE THIS SECTION ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 1. Article Addressed to: Howard E, Fotcl State Senator 134 Fifth Auenul	A. Signature A. Signature A. Agent Addressee B. Received by (Printed Name) C. Date of Delivery D. Is delivery address different from item 1? Yes If YES, enter delivery address below:
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Howard E, Fotch 	A. Signature A. Agent Addressee B. Received by (Printed Name) C. Date of Delivery D. Is delivery address different from item 1?
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Howard E, Fotel State Senator 34 Fifth Quence 103 Indialantic Fl 3903 Article Number (Transfer from service label) 7002 7002 	A. Signature A. Signature Adgent Addressee B. Received by (Printed Name) C. Date of Delivery D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No 3. Service Type Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D. 4. Restricted Delivery? (Extra Fee)

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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1. Article Addressed to: Commissioner Owen 1 Courthouse Square Suite 4700	D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No
Kissimmee FL 34741	3. Service Type Certified Mail ☐ Express Mail ☐ Registered ☒ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D. 4. Restricted Delivery? (Extra Fee) ☐ Yes
2. Article Number (Transfer from service labe: 7002 2030	0000 0276 7293
PS Form 3811, August 2001 Domestic Retu	urn Receipt 102595-01-M-2509

Williams, Elizabeth

Full Name:

Kaplan, Ronald M. Kaplan Ronald

Last Name:

First Name: Job Title:

Company:

Esq. FI Counsel for Waste Management, Inc.

Business Address:

2700 NW 48th St. Pompano Beach, FL 33703

Williams, Elizabeth

From:

Carter, Kathy

Sent:

Friday, October 18, 2002 9:20 AM

To:

Williams, Elizabeth

Subject:

RE: Omni Waste/Oak Hammock Disposal, Class I

Elizabeth:

Sorry you ran into problems. I checked the Microsoft directory and it is correct. I haven't heard of any problems with my phone, but no telling what could have happened. My SC number into my office is 205-2212, the number 205-2242 is to the main OGC number.

I got a call yesterday from outside the agency regarding these two, and I had nothing filed on either of them.

Hope you have a great day!

----Original Message----

From:

Williams, Elizabeth

Sent:

Friday, October 18, 2002 8:19 AM

To:

Carter, Kathy Bradner, James

Cc: Subject:

Omni Waste/Oak Hammock Disposal, Class I

Kathv:

I was unable to reach you by phone. All numbers that were given to me are non-working numbers (even directory assistance gave me incorrect numbers). I was told that the new numbers don't work either.

Please check to see if anyone has called for a hearing on Oak Hammock Disposal, Class I solid waste permit application, numbers

SC49-0199726-001 & SO49-0199726-002. We are ready to issue the permit but need this information BEFORE we can issue it.

Thank you.

Elizabeth Williams

Adobe Acrobat Reader 5.0 can be downloaded for free at the following Internet site: http://www.adobe.com/products/acrobat/readstep.html

It is imperative that you reply to this e-mail indicating that you received this document. It is important that we track this information.

Elizabeth Williams
elizabeth.williams@dep.state.fl.us
Administrative Secretary
Waste Management
Department of Environmental Protection
Telephone 407/893-3328
Suncom 325-3328
Fax 407/893-3124



FACSIMILE

P.O. Box 421613 Kissimmee, FL 34742 (407) 957-7284 Telephone (407) 957-7202 Fax

TO: Jim Bradner / Elizabeth Williams
FROM: Sharon Stanfill
FAX#: 407-893-3104
SUBJECT: Dak Hammock
DATE: 10-18-02
PAGES: (including cover sheet)



October 16, 2002

Mr. James Bradner, P.E. Florida Department of Environmental Protection 3319 Maguire Blvd, Suite 232 Orlando, FL 32803

407-957-7202

Affidavit of Publication of Proposed Agency Action RE: Oak Hammock Disposal Facility, Holopaw, Florida Sections 11, 13 and 14 Township 28 South, Range 32 East Section 18, Township 28 South, Range 33 East

Dear Mr. Bradner:

Please find enclosed the original Affidavit of Publication of Proposed Agency Action. This information was published on 02 October 2002 in the Osceola County section of the Orlando Sentinel. Also enclosed are copies of the certified letters regarding the Notice of Intent, which were sent to Chairman Owen of the Board of County Commissioners for Osceola County, State Senator Howard Futch and State Representative Frank Attkisson. If you need additional information please feel free to contact me.

Sincerely,

Timothy J. Salopek

Vin Salapek SS

President

TJS/ss

Enclosures

David Dee/Landers & Parsons: with enclosures cc: Ken Cargill/GeoSyntec Consultants: with enclosures



State of Florida s.s.

in the 020501 A was published in said newspaper in the issue; of 10/02/03

who is personally known to me and who did tak

(SEAL)







U.S. Postal Service:

CERTIFIED MAIL: RECEIPT

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AVI SUPPL 103

City, Seise, 374

AVI SUPPL 103

September 27, 2002

Honorable Howard E. Futch, State Senator District 18 134 Fifth Avenue Suite 103 Indialantic, Florida 32903

RE:

Oak Hammock Disposal Facility

Osceola County, FL

Dear Senator Futch:

On September 24, 2002, the Florida Department of Environmental Protection (FDEP) gave notice of its intent to issue a permit to Omni Waste of Osceola County, LLC, for the construction and operation of the proposed Oak Hammock Landfill in Osceola County, Florida.

To comply with the requirements of FDEP Rule 62-701.320(8)(b), Florida Administrative Code, I am providing you with a copy of FDEP's "Intent to Issue" the permit to Omni.

If you have any questions about this project, you may call me or Mr. James Bradner, P.E., at the FDEP. My phone number is (407) 957-7284. Mr. Bradner's phone number is (407) 893-3329.

Sincerely,

Tim Salopek President

TS/ss

Attachment: Notice of Proposed Agency Action

cc: Mr. James Bradner, P.E., FDEP



U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only: No Insurance Coverage Provided) 1220 0000 2030 n

September 27, 2002

Honorable Frank Attkisson, State Representative District 79 323 Pleasant Street Kissimmee, Florida 34741-5763

407-957-7202

RE:

Oak Hammock Disposal Facility

Osceola County, FL

Dear Representative Attkisson:

On September 24, 2002, the Florida Department of Environmental Protection (FDEP) gave notice of its intent to issue a permit to Omni Waste of Osceola County, LLC, for the construction and operation of the proposed Oak Hammock Landfill in Osceola County, Florida.

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If you have any questions about this project, you may call me or Mr. James Bradner, P.E., at the FDEP. My phone number is (407) 957-7284. Mr. Bradner's phone number is (407) 893-3329.

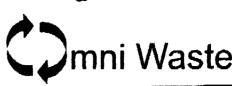
Sincerely,

President

TS/ss

Notice of Proposed Agency Action Attachment:

Mr. James Bradner, P.E., FDEP cc;



U.S. Postal Service (CERTIFIED MAIL. RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com.

Postage

Certified Fee (Endorsement Required)

Restricted Delivery Fee (Endorsement Required)

Total Postage & Fees (Sant To Court Mail C

September 27, 2002

Honorable Paul Owen, Chairman Osceola County Board of County Commissioners 1 Courthouse Square, Suite 4700 Kissimmee, Florida 34741

RE:

Oak Hammock Disposal Facility

Osceola County, FL

Dear Chairman Owen:

On September 24, 2002, the Florida Department of Environmental Protection (FDEP) gave notice of its intent to issue a permit to Omni Waste of Osceola County, LLC, for the construction and operation of the proposed Oak Hammock Landfill in Osceola County, Florida.

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If you have any questions about this project, you may call me or Mr. James Bradner, P.E., at the FDEP. My phone number is (407) 957-7284. Mr. Bradner's phone number is (407) 893-3329.

Sincerely,

Tim Salopek President

TS/ss

cc:

Attachment: Notice of Proposed Agency Action

Mr. James Bradner, P.E., FDEP

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DILL	VENT
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the malipiece, or on the front if space permits. 	A. Signatura X. Andra Jackson	☐ Agent ☐ Addressee
	B. Received by (Printed Name) Letter (Printed Name) D. Is delivery address different from its	C. Date of Delivery
1. Article Addressed to: Commissioner Owen 1 Courthouse Square Suite 4700 Kissimmee FL 34741	If YES, enter delivery address below:	
Kissimmer FL 34741	3. Service Type Certifled Mail Reglatered Insured Mail C.O.D.	lait celpt for Merchandise
	4. Restricted Delivery? (Extra Fee)	☐ Yes
2. Article Number (Transfer from service labe. 7002 203	0 0000 0276 7293	
PS Form 3811, August 2001 Domestic Re	turn Receipt	102595-01-M-2509

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mallplece, or on the front if space permits. 	A Signature A Clarest Agent G. Dets of Delivery
1. Article Addressed to: Howard E. Fotel State Senator 134 FIFTH Queme	D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No
134 FIFTH QUENUR 50 ite 103 Indialantic FL 30903	3. Service Type 2. Certified Mail C Registered Insured Mail C.O.D.
	4. Restricted Delivery? (Extra Fee)
2. Article Number (Transfer from service label) 7002 203	0 0000 0276 7279
PS Form 3811, August 2001 Domestic Ref	urn Receipt 102595-01-M-2606

407-957-7202

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3, Also complete item 4 if Restricted Delivery Is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailplace or on the front if space permits. 	V 2 700 40040
1. Article Addressed to: Fran K AHKISSON State Representative 303 Pleasant Street Kissimmee Fl 34741	D. is delivery address different from item 17
Kissimmee +C 34741	3. Service Type Contifled Mail
2. Article Number (Transfer from service label) 7002	2030 0000 0276 7286
PS Form 3811, August 2001 Domes	stic Return Receipt 102595-01-M-2509



September 27, 2002

Honorable Paul Owen, Chairman Osceola County Board of County Commissioners 1 Courthouse Square, Suite 4700 Kissimmee, Florida 34741

RE:

Oak Hammock Disposal Facility

Osceola County, FL

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If you have any questions about this project, you may call me or Mr. James Bradner, P.E., at the FDEP. My phone number is (407) 957-7284. Mr. Bradner's phone number is (407) 893-3329.

Sincerely,

Tim Salopek President

TS/ss

Attachment: Notice

Notice of Proposed Agency Action

cc: Mr. Jan

Mr. James Bradner, P.E., FDEP



September 27, 2002

CERTIFIED MAIL

Honorable Frank Attkisson, State Representative District 79 323 Pleasant Street Kissimmee, Florida 34741-5763

RE:

Oak Hammock Disposal Facility

Osceola County, FL

Dear Representative Attkisson:

On September 24, 2002, the Florida Department of Environmental Protection (FDEP) gave notice of its intent to issue a permit to Omni Waste of Osceola County, LLC, for the construction and operation of the proposed Oak Hammock Landfill in Osceola County, Florida.

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Sincerely,

Tim Salopek President

TS/ss

Attachment:

Notice of Proposed Agency Action

cc:

Mr. James Bradner, P.E., FDEP



September 27, 2002

CERTIFIED MAII

Honorable Howard E. Futch, State Senator District 18 134 Fifth Avenue Suite 103 Indialantic, Florida 32903

RE:

Oak Hammock Disposal Facility

Osceola County, FL

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Sincerely,

Tim Salopek

President

TS/ss

Attachment: Notice of Proposed Agency Action

cc: Mr. James Bradner, P.E., FDEP

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

By E-mail tjsomni@aol.com

In the Matter of an Application for Permit by:

Omni Waste of Osceola County, LLC 100 Church Street Kissimmee, FL 34741

Attention: Mr. Timothy J. Salopek

Osceola County - SW Oak Hammock Disposal, Class I

DEP File Nos. SC49-0199726-001 & SO49-0199726-002

INTENT TO ISSUE

The Department of Environmental Protection gives notice of its intent to issue a permit (copy of conditions attached) for the proposed project as detailed in the application specified above, for the reasons stated below.

The applicant, Omni Waste of Osceola County, LLC/Timothy J. Salopek, applied on May 24, 2002, to the Department of Environmental Protection for a permit to construct and operate the Oak Hammock Disposal, Class I landfill, in Osceola County, Florida.

The Department has permitting jurisdiction under Section 403.707(1), F.S. and Chapters 62-4, 62-701 and 62-711, F.A.C. The project is not exempt from permitting procedures. The Department has determined that a construction and operation permit is required for the proposed work.

Pursuant to Section 403.815, F.S., you are required to publish at your own expense the enclosed Notice of Proposed Agency Action. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. You must provide proof of publication to the Department at the address listed below as soon as practical after publication. Department of Environmental Protection, 3319 Maguire Boulevard, Suite 232, Orlando, FL 32803, telephone 407/893-3328.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Petitions by the applicant or any of the parties listed below must be filed within 14 days of receipt of this written notice. Petitions filed by other persons must be filed within 14 days of publication of the notice or receipt of the written notice, whichever occurs first. Under Section 120.60(3), F.A.C., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of such notice, regardless of the date of publication. The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;

(d) A statement of all material facts disputed by petitioner or a statement that there are no disputed facts;

(e) A statement of the ultimate facts alleged, including a statement of the specific facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and

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

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

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

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein

Director, Central District

3319 Maguire Boulevard, Suite 232

Orlando, Florida 32803

407/894-7555

Date: Agotember 24,2002

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

To la vient

Date:

CERTIFICATE OF SERVICE

Enclosures

Copies furnished to:

Richard B. Tedder, P.E. - DEP - Tallahassee

Fred Wick - DEP - Tallahassee (w/o attachments)

L. Kozlov - DEP - Air Section

Kenneth W. Cargill, P.E. - Geosyntec Consultants

KCargill@geosyntec.com

Gary L. Pickett

garpick1@juno.com

Jeannette Coughenour, Manager - Association of Poinciana Village, Inc.

apvmgr@kua.net

Ronald M. Kaplan, Esq. - Florida Counsel for Waste Management, Inc.

Janice Langenfeld

suny2455@bellsouth.net

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF PROPOSED AGENCY ACTION

The Department of Environmental Protection gives Notice of its Intent to issue a construction and operation permit to Omni Waste of Osceola County, LLC/Timothy J. Salopek, 100 Church St., Kissimmee, FL 34741, to construct and operate the Oak Hammock Disposal, Class I landfill, in Osceola County, Florida. The landfill is located approximately 6.5 miles south of Holopaw, on the west side of U. S. 441, in unincorporated Osceola County, FL.

The Department has assigned File Numbers SC49-0199726-001 & SO49-0199726-002, to the project and has considered the effects of this landfill on ground water and surface water.

The Department's file on this matter is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Department of Environmental Protection, Central District office, 3319 Maguire Boulevard, Suite 232, Orlando, FL 32803, Telephone 407/893-3328.

A person whose substantial interests are affected by the above proposed agency action may petition for an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, Marjory Stoneman Douglas Building, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within 14 days of publication of this notice or receipt of the written notice, whichever occurs first. The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of all material facts disputed by petitioner or a statement that there are no disputed facts;
- (e) A statement of facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301 of the Florida Administrative Code.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In accordance with Section 120.573, F.S., the Department advises that mediation is not available in this case as an alternative to filing a petition for an administrative determination.



Department ofEnvironmental Protection

Jeb Bush Governor Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

David B. Struhs Secretary

NOTICE OF PERMIT

In the matter of an Application for Permit by:

By E-mail tjsomni@aol.com

Mr. Timothy J. Salopek Omni Waste of Osceola County, LLC 100 Church Street Kissimmee, FL 34741

> Osceola County - SW Oak Hammock Disposal, Class I

Dear Mr. Salopek:

Enclosed is Permit Numbers SC49-0199726-001 & SO49-0199726-002, to construct and operate the Oak Hammock Disposal, Class I landfill, issued under section(s) 403.061(14) and 403.707, of the Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit under section 120.68 of the Florida Statutes, by the filing of a Notice of Appeal under rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filled with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein Director, Central District 3319 Maguire Boulevard, Suite 232 Orlando, FL 32803 407/894-7555

Date:_____

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

[Clerk]	[Da	te]

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on to the listed persons.

VFG/gc/ew Enclosure Copies furnished to: Richard Tedder, P.E. - DEP - Tallahassee Fred Wick - DEP - Tallahassee L. Kozlov, P.E. - DEP - Air Section Kenneth W. Cargill, P.E. - Geosyntec Consultants KCargill@geosyntec.com Gary L. Pickett garpick1@juno.com Jeanette Coughenour, Manager - Association of Poinciana Village, Inc. ORAFI apvmgr@jua.net Ronald M. Kaplan, Esq. - Florida Counsel for Waste Management, Inc. Janice Langenfeld suny2455@bellsouth.net



Department ofEnvironmental Protection

Jeb Bush Governor Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

David B. Struhs Secretary

Permittee:

Omni Waste of Osceola County, LLC 100 Church Street Kissimmee. FL 34741

Attention: Mr. Timothy J. Salopek

Permit Numbers: SC49-0199726-001 &

SO49-0199726-002

Date of Issue:

Expiration Date: 8/28/2007

County: Osceola

Section/Township/Range: 11 & 14/ 28 South / 33 East

Latitude / Longitude:

28°02'57" North / 81°03'10" West

Project: Oak Hammock Disposal, Class I

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-701 and 62-711. The above named permittee is hereby authorized to perform the work and operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To construct and operate the Oak Hammock Disposal, Class I landfill. The present service area for the landfill is Osceola County and surrounding counties.

This five-year construct and operate permit will be for Phase I and will include four landfill cells with a footprint of approximately 53 acres and ancillary facilities supporting the operation of the landfill and providing stormwater management. The complete buildout of the facility will include 21 landfill cells with a footprint of approximately 264 acres within a property boundary of approximately 2179 acres. The anticipated life of the complete facility is 30 years.

Household trash, commercial waste, construction and demolition debris, and other waste classified as Class I waste may be disposed in the landfill. The waste will be from residential communities and commercial sources.

The Class I landfill is equipped with a double-composite liner system, which directs any liquid entering the landfill that may have contacted refuse to a leachate collection system (LCS). Collected leach this pumped from the sumps into an on-site storage facility and trucked to a wastewater treatment plant (VWIP) periodically for treatment and disposal.

A gas management system will be implemented to control odors and migration of methane.

The project incorporates a ground water and surface water monitoring plan.

LOCATION: The landfill is located approximately 6.5 miles south of Holopaw, on the west side of U. S. Highway 441, in unincorporated Osceola County, Florida.

General Conditions are attached.

GENERAL CONDITIONS:

- 1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.) The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
- 4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup and auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- 7. The permittee, by accepting this permit, specifically agrees to allow authorized be a ment personnel, upon presentation of credentials or other documents as may be required by law and attreasonable times, access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under conditions of this permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - (a) A description of and cause of noncompliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section

403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- 11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code (F.A.C.), as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. This permit also constitutes:
 - () Determination of Best Available Control Technology (BACT)() Determination of Prevention of Significant Deterioration (PSD)
 - () Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
 - () Compliance with New Source Performance Standards
- 14. The permittee shall comply with the following:
 - (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring information) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. the date, exact place, and time of sampling or measurements;
 - 2. the person responsible for performing the sampling or measurements;
 - 3. the dates analyses were performed:
 - 4. the person responsible for performing the analyses;
 - 5. the analytical techniques or methods used;
 - 6. the results of such analyses.
- 15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Attention: Mr. Timothy J. Salopek

Expiration Date: 8/28/2007

SPECIFIC CONDITIONS:

1. <u>Plans and Specifications:</u> Drawings, plans, documents and specifications submitted by the permittee are not attached hereto, but remain on file at the Central District office, and are made a part of this permit.

- 2. <u>Inspection Requirements:</u> A copy of the permit, with a complete copy of the permit application and engineering drawings, shall be kept on file at the landfill for inspection and review upon request.
- 3. Other Permits: This permit does not relieve the permittee from complying with any other appropriate stormwater, ERP or other permit requirements.
- 4. <u>Signs:</u> Signs indicating the name of the operating authority, traffic flow, hours of operation, charges for disposal and the types of wastes accepted shall be placed at all entrances to the site.
- 5. <u>Site Access:</u> Access to the site shall be restricted by an effective barrier designed to prevent unauthorized entry and dumping.
- 6. <u>Litter, Dust & Fire Protection</u>: The landfill shall have litter control devices, dust controls, fire protection and fire-fighting facilities. Litter is to be picked up and litter control devices are to be cleaned with the litter placed in the active cell.
- 7. <u>Safety Devices</u>: Safety devices shall be provided on equipment to shield and protect the operators from potential hazards during operation.
- 8. Equipment Breakdown: In the event of equipment malfunction, destruction, breakdown or other problems resulting in the permittee being temporarily unable to comply with any of the conditions of this permit, the Department is to be immediately notified by the permittee as to the cause, what steps are being taken to correct the problem and prevent its recurrence, as required by Rule 62-4.130, F.A.C.
- 9. <u>Effluent Discharge:</u> There shall be no discharge of liquid effluents or contaminated runoff to surface or ground water without prior approval from this Department.
- 10. <u>Surface Water Management:</u> All surface water runoff from the developed portions of the site shall be collected and treated to meet the requirements of Chapters 373 and 403, Florida Statutes (F.S.) prior to discharge offsite. The surface water management system shall prevent surface water flow into waste filled areas.
- 11. <u>Stormwater Leachate Contamination</u>: Stormwater that comes into contact with leachate shall be treated as leachate and any leachate emanating from the landfill shall be collected and treated as necessary to meet the requirements of Chapters 62-302, 62-4 and 62-520, F.A.C., unless the leachate is transmitted to a permitted treatment facility.
- 12. <u>Stormwater System Maintenance:</u> The stormwater system shall be maintained and visually inspected on a periodic basis and shall be cleaned as necessary to maintain proper operation.
- 13. <u>Zone of Discharge:</u> The zone of discharge for the facility shall be a three dimensional volume, defined in the vertical plane as extending from the top of the ground to the base of the surficial aquifer, and defined in the horizontal plane as extending 100 feet from the foot print of the waste disposal area or to the property boundary, whichever is less. Class G-II water quality standards must be met at the boundary of the zone of discharge in accordance with Rule 62-522.410, F.A.C.

Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Attention: Mr. Timothy J. Salopek Expiration Date: 8/28/2007

SPECIFIC CONDITIONS:

14. <u>Quality Assurance</u>: The Construction Quality Assurance (CQA) Plan submitted with the permit application shall be followed for installing and testing the liner system and related components. The CQA engineer or the engineer's designee shall be on-site at all times during construction of the liner systems to monitor the construction activities including the preparation of the subgrade, placement of the GCL, primary and secondary liners, and the placement of the soil drainage layer over the primary liner to ensure the underlying geosynthetics are not damaged during construction.

- 15. <u>Supervision</u>: A registered engineer qualified to practice in Florida shall supervise and evaluate the liner installation quality assurance/quality control program to ensure that the liner meets design specifications. Upon completion, the engineer shall submit a summary report to the Department as to the complete conformity to the plans and specifications as approved. This summary report shall include a documented control program of the liner installation, liner inspections and the quality assurance/quality control testing procedures and laboratory analyses. This report shall be included with the certification required in Specific Condition 22 of this permit.
- 16. <u>Base:</u> Prior to the liner installation, the subgrade shall be prepared to provide a firm unyielding foundation and if necessary, the base shall be brought up to grade by placement and compaction of fill material. The fill material and subgrade shall not contain rocks, roots, debris, shells, or other materials that could penetrate the liner material.
- 17. <u>Liner</u>: The liner system consists of a double-composite liner. The liner system, from top to bottom, consists of: 2 foot thick protective soil layer, primary geocomposite drainage layer, 60-mil thick primary HDPE textured geomembrane, primary geosynthetic clay liner (GCL), secondary geocomposite drainage layer, 60-mil thick HDPE secondary textured geomembrane, secondary GCL, and compacted subgrade.
- 18. <u>Liner Installation</u>: Installation of the liner shall be performed by an experienced installation similar type materials. The permittee shall notify the Department at least 10 days pair to the commencement of liner installation work in any cell.
- 19. <u>GCL Installation Limitation</u>: The number of geosynthetic clay liner (GCL) panels that may be deployed in any one day shall be limited to the number that can be placed in a dry condition and covered by the HDPE while still dry. No installation or seaming of GCL under wet conditions shall be allowed. The CQA plan requires the owner's inspector to inspect the subgrade each day prior to placing the GCL.
- 20. <u>Geomembrane Testing:</u> Non-destructive air pressure tests and/or vacuum test shall be conducted by the installer under the direction of the CQA engineer or his designee to test 100 percent of the field seams of the geomembrane. Destructive tests of the geomembrane field seams shall be in accordance with the approved CQA plan and at a frequency no less than one destructive test sample every 500 linear feet of field seam.
- 21. <u>Construction Permit Renewal</u>: The construction shall reasonably conform to the plans and supporting documents submitted as part of the application. If construction can not be completed before the expiration of this permit, the permittee must notify the Department, in writing, at least 60 days prior to the expiration of the construction permit and request a renewal of the construction permit.
- 22. <u>Certification:</u> After all significant initial construction has been completed, and prior to acceptance of any solid waste, the engineer of record shall complete a Certificate of Construction Completion, DEP Form 62-701.900(2), then contact the Department to arrange for Department representatives to inspect the facility in the company of the permittee, the engineer and the proposed on-site facility operator.

Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Expiration Date: 8/28/2007

Attention: Mr. Timothy J. Salopek

SPECIFIC CONDITIONS:

23. <u>Solid Waste Disposal</u>: The landfill shall not receive solid waste until the leachate collection system is in place and functional and Specific Conditions 15, 22 and 25 are satisfied.

- 24. <u>Liner Edge Staking:</u> The edge of the liner must be clearly and permanently marked or outlined by staking or other means so that solid waste is deposited at least 10 feet back from the edge of the liner.
- 25. <u>Monitoring Plan Implementation Schedule</u>: The Monitoring Plan Implementation Schedule attached as Exhibit I, is made a part of this permit. All wells shall be in place and sampled prior to placement of waste into the newly constructed cell.
- 26. <u>Solid Waste Burning:</u> Burning of solid waste is prohibited except as provided by Rule 62-701.300(3), F.A.C. Any unauthorized fires involving solid waste at the landfill must be reported to the Department within 5 days by letter explaining the cause, remedial action and measures taken to prevent a recurrence.
- 27. <u>Improper Operations:</u> When the Department, after investigation, has good reason (such as complaints, questionable maintenance of equipment, improper operations, etc.) to believe that any applicable standard contained in Chapter 62-701, F.A.C. or in this permit is being violated, it may require the owner or operator of the source to identify the nature of the problem and to submit a report to the Department on the results of the investigation and corrective action taken to prevent its recurrence.
- 28. Operation of Pollution Control Devices: The leachate and stormwater control systems shall be properly operated, monitored and maintained (Rule 62-701.500, F.A.C.) A record shall be kept of the amount of leachate collected, the date the leachate was taken offsite for disposal, and the identity of the wastewner treatment facility where the leachate was disposed.
- 29. <u>Leachate Collection and Removal System:</u> The primary leachate collection and removal system lying above the upper geomembrane shall be designed to limit the leachate head to one foot above the liner during routine landfill operations after placement of initial cover, except in sumps and leachate collection trenches.
- 30. <u>Leachate Storage Tanks</u>: The integrity of the leachate storage tanks and containment facilities shall be checked on a weekly basis so that no leachate releases to the soils will occur. The storage tanks and containment facilities shall be maintained and operated in accordance with Rule 62-701.400(6), F.A.C.
- 31. <u>Precipitation Records:</u> A recording rain gauge shall be operated and maintained to record precipitation at the landfill. Precipitation records shall be maintained and used by the permittee to compare with leachate generation rates.
- 32. <u>Hazardous Wastes:</u> Any incidental hazardous wastes received in connection with operation of this facility must be disposed of in accordance with Rule 62-730, F.A.C.
- 33. Control of Nuisance Conditions: The operating authority shall be responsible for the control of odors and fugitive particulates arising from this operation. Such controls shall prevent the creation of nuisance conditions that may arise from adverse odors on adjacent or nearby properties and users. Complaints received from the general public shall be immediately investigated by the permittee and where warranted, corrective action taken to abate the adverse odor.

Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Expiration Date: 8/28/2007

Attention: Mr. Timothy J. Salopek

SPECIFIC CONDITIONS:

- 34. Operations Plan: An operations plan prepared by the engineer of record shall be kept at the landfill. The operations plan shall include the sequence of filling, compaction, placement of cover, day to day operations, etc. The landfill operator shall be trained and knowledgeable about the plan.
- 35. <u>Initial Waste Placement:</u> The first layer of waste placed above the liner and leachate collection system shall be a minimum of four feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system.
- 36. <u>Initial Cover Stockpile:</u> An adequate supply of acceptable initial cover, as specified in the operations plan, shall be maintained at the landfill and be available at all times. All stockpiles shall be graded to minimize erosion potential. Silt fences or diversion berms shall be utilized around the stockpiles to control erosion.
- 37. Waste Compaction & Working Face: Except for the placement of the initial layer of waste, all solid waste shall be spread in layers of approximately two (2) feet in thickness and compacted to approximately one (1) foot in thickness or as thin a layer as practical before the next layer is applied. All compacted solid waste shall be formed into cells with the working face and the side grades above land surface at a slope no greater than three feet horizontal to one foot vertical rise. The working face shall be only large enough to efficiently accommodate vehicles discharging waste.
- 38. Initial Cover and Intermediate Cover: Initial cover shall be applied at the end of each working day except the working face may be covered with temporary cover if solid waste will be placed on it within 18 hours. If additional waste is to be deposited on the working face within 18 hours, the initial cover may consist of a temporary cover, such as tarpaulin, that may be removed prior to the placement of additional waste. An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover while the applied within seven (7) days of cell completion if final cover or an additional lift is not to be applied within 180 days of cell completion. All or part of the intermediate cover may be removed prior to place the additional waste or installing final cover.
- 39. <u>Final Cover Top:</u> In descending order, the final cover system on the top (5 percent) slopes of the landfill shall consist of: 0.5 ft. thick vegetative layer, 1.5 ft. thick protective soil layer, 40-mil thick smooth polyethylene (PE) geomembrane, and 1-ft. thick (minimum) intermediate cover layer over the compacted waste.
- 40. <u>Final Cover Side Slopes:</u> The final cover system on the 4H:1V side slopes of the landfill from top to bottom shall consist of: 0.5 -ft. thick vegetative layer, 1.5 ft. thick protective layer, a geocomposite drainage layer, a 40-mil thick textured PE geomembrane, and a 1 ft. thick (minimum) intermediate cover layer over the compacted waste.
- 41. <u>Erosion Minimization</u>: Erosion of the final cover system shall be minimized by final cover swales. The swales shall intercept sheet flow from the final cover system. The final cover swales shall direct the collected surfacewater runoff to downchutes and the perimeter swale. A vegetative cover placed on the final cover slopes of the landfill will minimize erosion and reduce loss from the final cover system. The final cover system shall be periodically inspected and erosion damage or vegetative stress shall be repaired before significant erosion develops.
- 42. <u>Side Slopes</u>: The side slopes shall not be steeper than 4 horizontal to 1 vertical and, when the final cover is installed, shall be sodded to minimize erosion.

Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Attention: Mr. Timothy J. Salopek

Expiration Date: 8/28/2007

SPECIFIC CONDITIONS:

43. Final Cover Surface Gradient: The top gradient of the final cover surface will have a gradient of 5 percent and shall take into consideration the effects of expected subsidence caused by settling and decomposition of the fill material to minimize ponding and erosion.

- 44. Routine Maintenance: Cracks or eroded sections in the surface of any filled and covered area shall be properly repaired and a regular maintenance program shall be followed to eliminate pockets or depressions that may develop as refuse settles. The slopes and drainage structures shall be inspected at least monthly and after major storm events for evidence of settling, erosion, washout or siltation.
- 45. Gas Monitoring: The permittee shall implement a gas management system to comply with Rule 62-701.530, F.A.C.
- 46. Landfill Elevation: The final (maximum) elevation of the Oak Hammock Disposal, Class I landfill, shall not exceed 178 feet NGVD.
- 47. Operation Training Compliance: The Oak Hammock Disposal, Class I landfill shall comply with Rule 62-701.320(15), F.A.C. - Operator training.
- 48. Operations Report: An operations report shall be submitted to the Department on a quarterly basis Reports shall include the following:
 - a) types of solid waste received, and
 - b) quantities of solid waste received.

All submittals in response to this specific condition shall be submitted to: Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, with a copy to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

- 49. Operation Permit Renewal: An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit. (Rule 62-4.090, F.A.C.).
- 50. Closure Permit Requirements: At least 90 days prior to the date when wastes will no longer be accepted, the owner or operator shall submit a closure permit application to the Department.
- 51. Solid Waste Disposal Rate: The average solid waste disposal rate for this source is 1700 tons per day as stated in the application. Actual operating rates may vary depending upon business conditions.
- 52. Substantial Changes or Revisions: The Department shall be notified and approval obtained prior to executing any substantial changes or revisions to the construction and operation authorized by this permit.
- 53. Financial Responsibility: The permittee shall maintain financial assurance in accordance with the requirements of Rule 62-701.630, F.A.C. Proof that the financial mechanisms are established and funded in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, F.A.C. shall be submitted to the Department sixty (60) days prior to the acceptance of any solid waste at the facility. All submittals in response to this specific condition shall be sent to: Department of Environmental Protection, Financial Coordinator, Solid Waste Section, Twin Towers Office Building, 2600 Blair Stone Road, MS-4565, Tallahassee, Florida 32399-2400, with a copy to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

Permit/Certification Numbers:

SC49-0199726-001 & SO49-0199726-002

Date of Issue:

Expiration Date: 8/28/2007

Attention: Mr. Timothy J. Salopek

SPECIFIC CONDITIONS:

- 54. Annual Cost Estimates and Financial Instrument Adjustments: The permittee shall, in addition to annually adjusting the closure and long-term care cost estimates, adjust the financial assurance mechanism to reflect an increase in cost estimates. Cost estimate adjustments shall be in accordance with Rule 62-701.630(4), F.A.C. Instrument adjustments shall be in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264, Subpart H as adopted by reference in Rule 62-701.630, F.A.C. Documentation of financial mechanism increases shall be submitted to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, Twin Towers Office Building, 2600 Blair Stone Road, MS-4565, Tallahassee, Florida 32399-2400. All estimate update submittals shall be sent to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.
- 55. Prevention of Significant Deterioration (PSD) Requirements: The landfill owner or operator is not required to obtain any air construction permit unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.
- 56. <u>Title V Permit Requirements:</u> The landfill owner or operator is not required to obtain any air operating permit unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is contiguous or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity as defined in 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and content requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the Central District Air Program Administrator.
- 57. 40 CFR 60 Requirements: The permittee shall comply with the applicable requirements of 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

ISSUED_
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein Director, Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803

EXHIBIT I

OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

WACS FACILITY ID: 89455

MONITORING PLAN IMPLEMENTATION SCHEDULE

GENERAL

- 1. The permittee must install all monitoring wells and collect the initial ground-water quality samples in accordance with this Monitoring Plan prior to any waste being accepted by the facility.
- 2. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with **Chapter 62-160 Florida Administrative Code (F.A.C.)**. Approved methods as published by the Department or as published in Standard Methods, ASTM, or EPA Methods shall be used.
- 3. The organization collecting samples at this site must use the Field and Laboratory Standard Operating Procedures (DEP-SOP-001/01 and DEP SOP-002/01) in Chapter 62-160, F.A.C. Sampling personnel must have a copy of the SOP for purging and sampling in the field when sampling and must be knowledgeable of its contents, procedures, and forms. The laboratory designated to conduct the chemical analyses must be certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP). This Certification must be for the test method and analyte(s) that are reported.
- 4. If, at any time, analyses show that ground water standards or minimum criteria are exceeded in the detection wells or at the edge of the Zone of Discharge, the Permittee shall resample the wells within thirty (30) days after the sampling data are received, to confirm the data. Should the permittee choose not to resample, the Department will consider the water quality analysis as representative of current ground water conditions at the facility. If the data are confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department in writing within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring in accordance with Rule 62-701.510(7) F.A.C.
- 5. The Department must be notified in writing at least fourteen (14) days prior to the installation and/or sampling of any monitoring well(s).

GROUND WATER QUALITY MONITORING

6. The forty-five (45) ground water monitoring wells designated for water quality testing are listed on Attachment A and are shown on Attachment B. The piezometers intended to be used for water level measurements are shown on Attachment C (Note:

Landfill cells 1-4 will be constructed over piezometers DP-1, DP-2, DP-3 and DP-4 and these piezometers will be properly abandoned during site preparation activities).

NOTE: Unless otherwise approved by the Department, wells with high turbidities must be remediated or reinstalled to reduce the turbidity value to less than 20 NTU's prior to sample collection. Should any ground water sample exhibit dissolved oxygen concentrations greater than 20% of oxygen saturation at the field measured temperature, the sampled well must be repurged then resampled as soon as an acceptable dissolved oxygen value has been attained unless it can be demonstrated that insitu ground water contains higher levels of dissolved oxygen. All water quality analyses will be performed on unfiltered samples unless approved by the Department.

- 7. The initial samples collected from the forty-five (45) ground water monitoring wells shall be analyzed as follows: temperature (field), dissolved oxygen (field), pH (field), specific conductance (field), turbidity (field), total ammonia as N, chlorides, nitrate, total dissolved solids, iron, mercury, sodium, and the EPA 40 CFR, Part 258, Appendix I and Appendix II parameters. All analyses must use detection limits at or below state standards and/or minimum criteria for ground water quality unless dilution of the sample is necessary due to high contaminant concentrations or the Method Detection Limit using the most sensitive and currently available technology is higher than a specific criterion, in which case the practical quantitation limit must be used.
- 8. Samples from the forty-five (45) ground water monitoring wells shall be collected semi-annually and analyzed as follows: temperature (field), dissolved oxygen (field), pH (field), specific conductance (field), turbidity (field), total ammonia as N, chlorides, nitrate, total dissolved solids, iron, mercury, sodium, and the EPA 40 CFR, Part 258, Appendix I parameters. All analyses must use detection limits at or below state standards and/or minimum criteria for ground water quality unless dilution of the sample is necessary due to high contaminant concentrations or the Method Detection Limit using the most sensitive and currently available technology is higher than a specific criterion, in which case the practical quantitation limit must be used.
- 9. Ground water levels in all wells, whether sampled or not, and all piezometers must be measured to the nearest 0.01 foot and reported semiannually unless required more frequently by permit condition. All water level measurements must be referenced to the National Geodetic Vertical Datum of 1929 (NGVD).

SURFACE WATER MONITORING

10. The two (2) surface water sites included in this monitoring plan are SW-3 and SW-4. They are listed on Attachment A and shown on Attachment D. Surface water samples should be collected during the semiannual ground water sampling events; however, no surface water sample will be collected during a semiannual sampling event in which the Bull Creek is not flowing. This does not preclude the permittee, however,

from voluntarily sampling the creek on an irregular frequency during the rainy season, or at other times, when there is flow in Bull Creek.

- The initial samples from two (2) surface water monitoring sites shall be collected 11. and analyzed as follows: temperature (field), dissolved oxygen (field), pH (field), specific conductance (field), turbidity (field), unionized ammonia (NH3), total hardness as CaCO₃, total organic carbon, total dissolved solids, total suspended solids, biochemical oxygen demand (5 day), chemical oxygen demand, total nitrogen as N, nitrate as N, total phosphates as P, chlorophyll A, iron, mercury, and the EPA 40 CFR, Part 258, Appendix I parameters. All analyses must use detection limits at or below state standards and/or minimum criteria unless dilution of the sample is necessary due to high contaminant concentrations or the Method Detection Limit using the most sensitive and currently available technology is higher than a specific criterion, in which case the practical quantitation limit must be used.
- Samples from the two (2) surface water monitoring sites shall be collected semiannually and analyzed as follows: temperature (field), dissolved oxygen (field), pH (field), specific conductance (field), turbidity (field), unionized ammonia (NH3), total hardness as CaCO3, total organic carbon, total dissolved solids, total suspended solids, biochemical oxygen demand (5 day), chemical oxygen demand, total nitrogen as N, nitrate as N, total phosphates as P, chlorophyll A, iron, mercury, and the EPA 40 CFR, Part 258, Appendix I parameters. All analyses must use detection limits at or below state standards and/or minimum criteria unless dilution of the sample is necessary due to high contaminant concentrations or the Method Detection Limit using the most sensitive and currently available technology is higher than a specific criterion, in which case the practical quantitation limit must be used.
- Surface water elevations at sampling locations SW-3 and SW-4 must be measured to the nearest 0.01 foot on the same day as ground water levels in the wells and piezometers and reported semiannually unless required more frequently by permit condition. All water level measurements must be made within a one day period. These DRAFT measurements must be referenced to NGVD.

LEACHATE QUALITY MONITORING

- The sites designated for leachate quality testing are L-1, L-2, L-3 and L-4. The sites are listed on Attachment A and shown on Attachment B.
- Samples from the leachate monitoring sites shall be collected annually and analyzed for dissolved oxygen (field), pH (field), specific conductance (field) total ammonia as N, bicarbonate, chlorides, nitrate, total dissolved solids, iron, mercury, sodium and the EPA 40 CFR, Part 258, Appendix II parameters. All analyses must use detection limits at or below 40 CFR Part 261.24 standards.

MONITORING WELL REQUIREMENTS

- 16. If a monitoring well becomes damaged or inoperable, the Permittee shall notify the Department in writing within seven (7) days. The written report shall describe what problem has occurred and the remedial measures that have been taken to prevent a recurrence. The Department can require the replacement of inoperable monitoring wells.
- 17. New or replacement monitoring well design or placement must be approved by the Department. Proposed well construction details based on site specific borings must be submitted with all supporting data (grain size distribution analyses, in-situ hydraulic conductivity testing, depth to water, etc.) for Department approval prior to well installation. Use of hollow stem auger equipment is recommended. Other drilling methods must be approved by the Department prior to well installation.
- 18. All wells shall be clearly and permanently labeled and the well site maintained so that the well is visible at all times. Protective barriers must be installed at all wells which may be subject to damage by heavy equipment or traffic.
- 19. An abandonment plan for abandoning any well which is unsuitable for ground water monitoring must be approved by the Department prior to abandonment.

REPORTING REQUIREMENTS

GENERAL

- 20. Well completion reports for new monitoring wells must be submitted to the Department on the attached Ground Water Monitoring Well Completion Report Form thirty (30) days after installation. Note that the top of casing elevation of each well, to an accuracy of 0.01 feet, and the latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and certified by a Florida Registered Surveyor and provided on the form. In addition, as-built well construction diagrams and soil boring logs that cover the latitude and the population of the monitoring well(s) must be submitted to the Department.
- A drawing must be submitted within sixty (60) days following monitoring well installation showing the location of all monitoring wells (active and abandoned), water bodies and waste filled areas. The location of features on the drawing must be horizontally and vertically located by standard surveying techniques. The drawing shall include all monitoring well locations, each monitoring well name and identification (WACS) number, the top of casing, pad elevation, permanent benchmark(s) and/or corner monument marker(s) referenced to NGVD with an accuracy of 0.01 feet. The survey shall be conducted and certified by a Florida Registered Surveyor.
- 22. A total depth measurement must be made on all wells at time of permit renewal. This measurement is to be reported as total apparent depth below ground surface and should be compared to the original total depth of the well.

SEMI-ANNUALLY

The required monitoring results must be submitted to the Department within thirty 23. (30) days of receipt from the laboratory. These data shall be accompanied by a Ground Water Monitoring Report form (FDEP Form 62-522.900(2). A copy of this form is attached. The monitoring reports shall include all the parameters described above.

There are two options for reporting monitoring results.

- Paper Reporting: Parameter Report Forms FDEP Forms 62-522.900(2) are attached for reporting semi-annual analyses. In order to facilitate entry of this data into the State computer system, these forms or exact replicas must be used and must not be altered as to content. The original copies of the forms should be retained so that the necessary information is available to properly complete future reports.
- Electronic Reporting: The monitoring data may be submitted electronically on floppy diskettes or compact disc media readable by a Microsoft Windows computer. The Department may use electronic-tools (e.g. Validator) to conduct data quality review and compliance checking. Electronic laboratory data must be submitted in a specific format called a tab-delimited text file with the first line of the file being the data field names. (Note: Microsoft Excel produces this file format when the "Save As" and "Text (Tab Delimited)" options are selected.) The following data fields must be present in the data:
- Analytical Method
- Date of Analysis
- Date of Preparation (if applicable)
- Date of Sampling
- **Detection Limit of the Analysis**
- DOH Certification Number of the Laboratory
- Matrix (Aqueous, Drinking Water, Saline/Estuarine, or Solids)
- Analytical Result
- Appropriate Data Qualifiers (as listed in Florida Administrative Code 62-160)
- بحريح **Analytical Result Units**
- **WACS Testsite ID**
- Parameter Name (Name of the Compound Analyzed for/Test Performed)
- STORET Parameter Code (as provided by the Department's Bureau of Solid and Hazardous Waste; must be six digits: e.g. 039430 for Isodrin)

All dates are to be submitted in MM/DD/YYYY HH:MI:SS format (e.g. 05/14/1973 17:18:00 for May 14, 1973, 5:18:00 p.m.). A sample of an acceptable data format will be posted to the Bureau of Laboratories web site,

http://www.floridadep.org/labs/software

The submittal shall also include laboratory reports, Chain of Custody sheets, field data sheets, Water Sampling Logs (attached), ground water contour maps, a summary of any water quality standards or minimum criteria that are exceeded and any other

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required documents. These reports may be submitted electronically in portable document format (PDF) in lieu of a paper copy. If a specific document has a requirement to be signed and sealed, an original signed and sealed paper copy must also be submitted unless it is specifically permitted by law or rule to be signed electronically.

Please note that the Department of Environmental Protection's (DEP's) new Standard Operating Procedures for Field Activities, DEP-SOP-001/01, January 01, 2002, become effective on April 9, 2002. The revised protocols, including those for ground water sampling (FS2200), can be accesses at the DEP's Internet address http://www.dep.state.fl.us/labs/qa/sops.htm

- 24. Water levels in all monitoring wells, whether sampled or not, and all surface water sites must be measured to the nearest 0.01 foot and reported semi-annually unless required more frequently by permit condition. All water level measurements must be made within a one day period. These measurements should be reported in a table that includes well or surface water point name, date water level measured, measuring point elevation referenced to NGVD, depth to water and calculated water level elevation referenced to NGVD.
- 25. A ground water elevation contour map for each monitored aquifer zone must be submitted semi-annually to the Department. Ground water elevation contour map(s) should include monitoring well locations, ground water elevation at each monitoring well location referenced to NGVD, a bar scale, ground water contour interval, date of measurement and ground water flow direction. The map(s) must incorporate adjacent and on-site surface water elevations where appropriate. These maps shall be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a registered professional who is able to demonstrate competence in this subject area.

BIENNIALLY

- 26. A technical report shall be submitted to the Department every two years, and shall be updated at the time of permit renewal. The report shall summarize and interpret the water quality data and water level measurements collected during the past four years. The report shall contain, at a minimum, the following:
 - a. Tabular and graphical displays of any data which shows that a monitoring parameter has been detected, including hydrographs for all monitoring wells.
 - b. Trend analyses of any monitoring parameters detected.
 - c. Comparisons among shallow, middle, and deep zone wells.
 - d. Comparison between upgradient and downgradient wells.
 - e. Correlation between related parameters such as total dissolved solids and specific conductance.
 - f. Discussion of erratic and/or poorly correlated data.

- g. An interpretation of the ground water contour maps, including an evaluation of ground water flow rates.
- h. An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

This report must be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a registered professional who is able to demonstrate competence in the subject area(s) addressed within the sealed document.

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ATTACHMENT A

OAK HAMMOCK DISPOSAL, CLASS I LANDFILL WACS FACILITY ID: 89544 MONITORING SITES

TESTSITE SITE NAME	WACS TESTSITE ID	TYPE	TYPE ZONE/LOCATION MONITORED		
GROUND WA	TER				
MW-1A	19900	<u>B</u>	UPPER SURFICIAL		
MW-1B	19901	В	INTERMEDIATE SURFICIAL		
MW-1C	19902	В	DEEP SURFICIAL		
MW-2A	19903	В	UPPER SURFICIAL		
MW-2B	19904	<u>B</u>	INTERMEDIATE SURFICIAL		
MW-2C	19905	<u>B</u>	DEEP SURFICIAL		
MW-3A	19906	<u>B</u>	UPPER SURFICIAL		
MW-3B	19907	В	INTERMEDIATE SURFICAL		
MW-3C	19908	В	DEEP SURFICIAL		
MW-4A	19909	<u>B</u>	UPPER SURFICIAL		
MW-4B	19910	В	INTERMEDIATE SURFICIAL		
MW-4C	19911	<u>B</u>	DEEP SURFICIAL		
MW-5A	19912	<u>B</u>	UPPER SURFICIAL		
MW-5B	19913	В	INTERMEDIATE SURFICIAL		
MW-5C	19914	<u>B</u>	DEEP SURFICIAL		
MW-6A	19915	В	UPPER SURFICIAL		
MW-6B	19916	<u>B</u>	INTERMEDIATE SURFICIAL		
MW-6C	19917	<u>B</u>	DEEP SURFICIAL		
MW-7A	19918	C	UPPER SURFICIAL		

ATTACHMENT A

OAK HAMMOCK DISPOSAL, CLASS I LANDFILL WACS FACILITY ID: 89544 MONITORING SITES

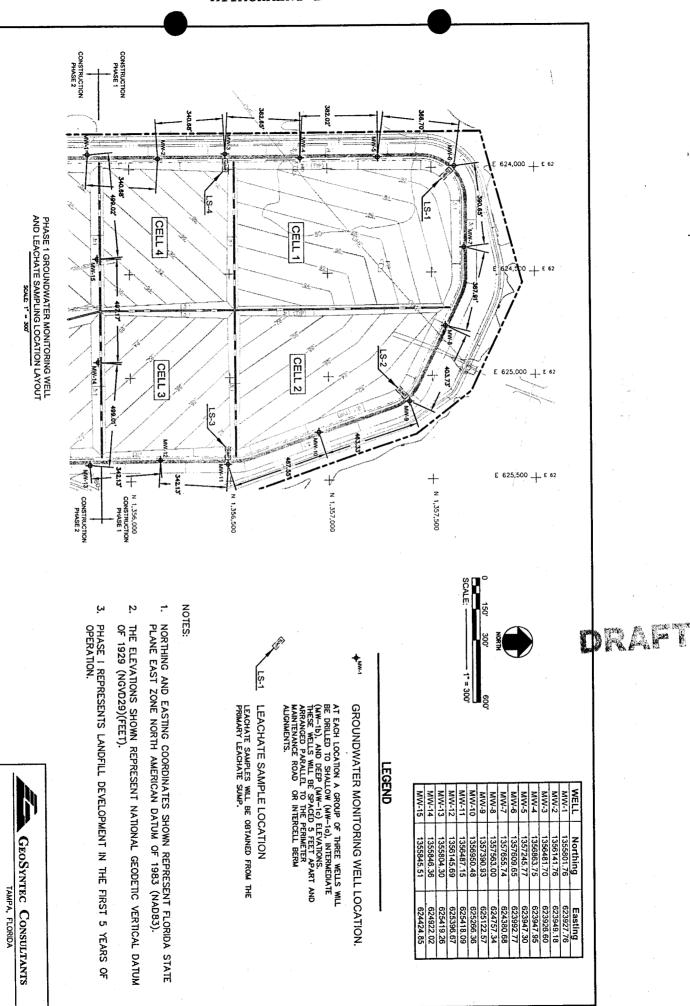
TESTSITE SITE NAME	WACS TESTSITE ID	TYPE	ZONE/LOCATION MONITORED
MW-7B	19919	C	INTERMEDIATE SURFICIAL
MW-7C	19920	<u>C</u>	DEEP SURFICIAL
MW-8A	19921	<u>C</u>	UPPER SURFICIAL
MW-8B	19922	<u>C</u>	INTERMEDIATE SURFICIAL
MW-8C	19923	<u>C</u>	DEEP SURFICIAL
MW-9A	19924	<u>C</u>	UPPER SURFICIAL
MW-9B	19925	<u>C</u>	INTERMEDIATE SURFICIAL
MW-9C	19926	<u>C</u>	DEEP SURFICIAL
MW-10A	19927	<u>C</u>	UPPER SURFICIAL
MW-10B	19928	<u>C</u>	INTERMEDIATE SURFICIAL
MW-10C	19929	<u>C</u>	DEEP SURFICIAL
MW-11A	19930	<u>C</u>	UPPER SURFICIAL
MW-11B	19931	<u>C</u>	INTERMEDIATE SURFICIAL
MW-11C	19932	<u>C</u>	DEEP SURFICIAL
MW-12A	19933	<u>c</u>	UPPER SURFICIAL
MW-12B	19934	<u>C</u>	INTERMEDIATE SURFICIAL
MW-12C	19935	<u>C</u>	DEEP SURFICIAL
MW-13A	19936	<u>C</u>	UPPER SURFICIAL
MW-13B	19937	<u>C</u>	INTERMEDIATE SURFICIAL
<u>MW-13C</u>	19938	<u>C</u>	DEEP SURFICIAL

ATTACHMENT A

OAK HAMMOCK DISPOSAL, CLASS I LANDFILL WACS FACILITY ID: 89544 MONITORING SITES

TESTSITE SITE NAME	WACS TESTSITE ID	TYPE	ZONE/LOCATION MONITORED
MW-14A	19939	C	UPPER SURFICIAL
MW-14B	19940	<u>C</u>	INTERMEDIATE SURFICIAL
MW-14C	19941	<u>C</u>	DEEP SURFICIAL
MW-15A	19942	<u>C</u>	UPPER SURFICIAL
MW-15B	19943	<u>C</u>	INTERMEDIATE SURFICIAL
MW-15C	19944	<u>C</u>	DEEP SURFICIAL
SURFACE WATE	ER		
SW-3	19945	<u>C</u>	DOWN STREAM ON BULL CREEK
SW-4	19946	<u>B</u>	UP STREAM NW OF SITE
LEACHATE			DRAFI
<u>L-1</u>	19947	<u>C</u>	CELL 1 PRIMARY RISER
<u>L-2</u>	19948	<u>C</u>	CELL 2 PRIMARY RISER
<u>L-3</u>	19949	<u>C</u>	CELL 3 PRIMARY RISER
<u>L-4</u>	19950	<u>C</u>	CELL 4 PRIMARY RISER

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ROJECT NO.

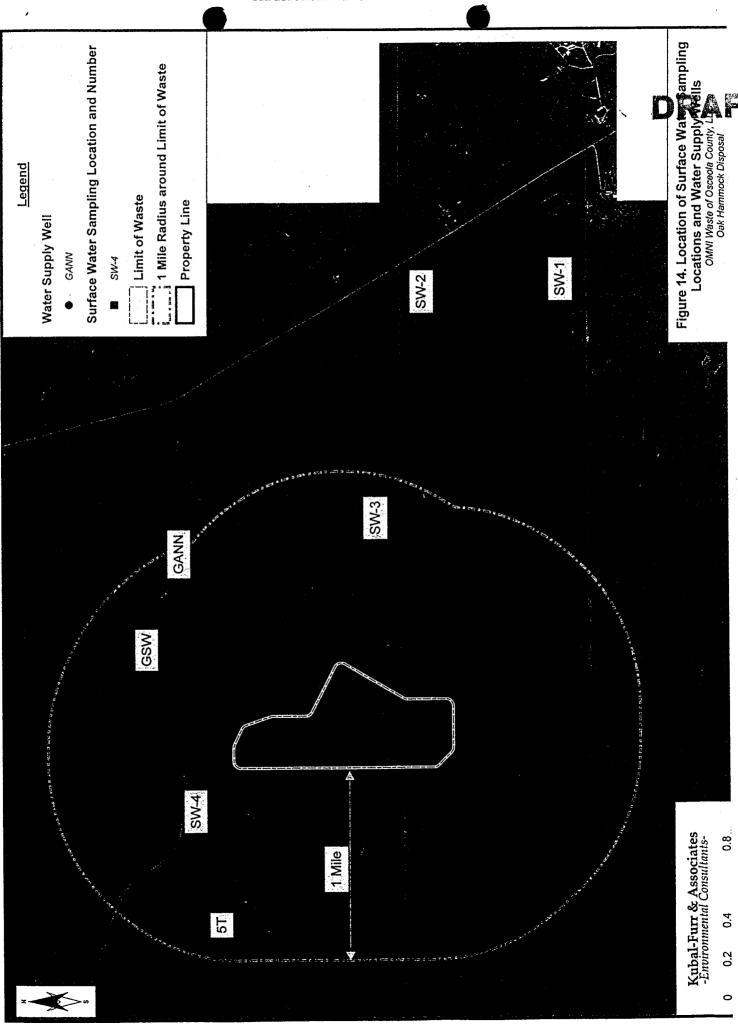
FW0400

FIGURE NO.

RFI-1

02

FILE NO.



PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 1 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE			
WACS TESTSITE ID	ANALYSIS DATE			
TESTSITE SITE NAME	WELL TYPE:	_ (B) (D)	Background Detection	
CLASSIFICATION OF GROUNDWATER <u>G-II</u>		(C) (O)	Compliance Other	

	Collection (Yes/No)	Ground	Water Ele	evation (NG	SVD)		<u> </u>
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS	LINITO	DETECTION
00010	PARAMETER MONITORED Temperature (field)	METHOD	FILTERED	METHOD	RESULT	UNITS °C	LIMITS/ UNITS
00299	Dissolved Oxygen (field by probe)					mg/L	
	'						
00406	pH (field)					STD	2.3
00094	Spec. Conductance (field)					umhos/cm	
82078	Turbidity (field)					NTU's	
00610	Total Ammonia as N					mg/L	
00940	Chlorides					mg/L	
00620	Nitrate as N					mg/L	
70300	Total Dissolved Solids					mg/L	
00440	Bicarbonate as HCO2					mg/le	
1	METALS)- A	
01097	Antimony					ug/L	•
01002	Arsenic					ug/L	1. A.
01007	Barium					ug/L	
01012	Beryllium		-			ug/L	•
01027	Cadmium					ug/L	
01034	Chromium					ug/L	
01037	Cobalt			÷		ug/L	
01037	Copper					ug/L	
01045	lron					ug/L 	
01051	Lead					ug/L	
71900	Mercury	÷				ug/L	
01067	Nickel					ug/L	
01147	Selenium					ug/L	
1			!]	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 2 of 10)

WACS FACILITY ID 89544	SAMPLE DATE					
WACS TESTSITE ID	ANALYSIS DATE	· · · · · · · · · · · · · · · · · · ·				
TESTSITE SITE NAME	WELL TYPE:	(B) Background (D) Detection				
CLASSIFICATION OF GROUNDWATER <u>G-II</u>		(C) Compliance (O) Other				

	ed prior to Collection (Yes/No)	Ground	Water Ele	evation (NG	iVD)		
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
01077	Silver					ug/L	
00929	Sodium			•		mg/L	
01059	Thallium		:			ug/L	رد .
01102	Tin			*		ug/L	
01087	Vanadium					ug/L	
01092	Zinc					ug/L	
	ORGANIC CONSTITUENTS						
34205	Acenaphthene					ug/l	,
34200	Acenaphthylene			·	·	ug/l	
81552	Acetone				-	"togil" s	
76997	Acetonitrile; Methyl cyanide					ug/L	
81553	Acetophenone					ug/L	
73501	2-Acetylaminofluorene; 2-AAF or Acetamide,N-(9H-Fluoren-2yl)-	-				ug/L	·
34210	Acrolein					ug/L	
34215	Acrylonitrile		,			ug/L	
39330	Aldrin			-		ug/L	
78109	Allyl chloride	·				ug/L	
77581	4-Aminobiphenyl					ug/L	
34220	Anthracene					ug/l	-
34030	Benzene	,				ug/L	
34526	Benzo(a)anthracene					_ ug/l	
34230	Benzo(b)fluoranthene					ug/L	
34242	Benzo(k)fluoranthene					ug/l	
34247	Benzo(a)pyrene		4			ug/l	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 3 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE		
WACS TESTSITE ID	ANALYSIS DATE	 	
TESTSITE SITE NAME	WELL TYPE: (B) Background (D) Detection	l ·	
CLASSIFICATION OF GROUNDWATER <u>G-II</u>	(C) Compliance)	

Well Purged* prior to

Ground Water Elevation (NGVD) Sample Collection (Yes/No) **ANALYSIS** ANALYSIS DETECTION SAMPLING FIELD STORET **METHOD RESULT UNITS** LIMITS/ UNITS **METHOD FILTERED** PARAMETER MONITORED CODE ug/l 34521 Benzo(g,h,i)perylene ug/l 77147 Benzyl alcohol ug/L alpha-BHC 39337 ug/L beta-BHC 39338 ug/L 46323 delta-BHC ug/L 39340 gamma-BHC; Lindane ug/l 34273 Bis(2-chloroethyl)ether ug/l 34278 Bis(2-chloroethoxy)methane ug/L 34283 Bis (2-chloro-1-methylethyl) ether propane, 2,2'-oxybis(1-chloro)- or Bis(2-chloroisopropyl) ether ug/l 39100 Bis(2-ethylhexyl)phthalate ug/L 73085 Bromochloromethane ug/L 32101 Bromodichloromethane ug/L 32104 Bromoform ug/l 34636 4-Bromophenyl phenyl ether ug/L 34292 Butyl benzyl phthalate 77041 Carbon Disulfide ug/L ug/L 32102 Carbon Tetrachloride ug/L 39350 Chlordane ug/L 73529 p-Chloroaniline ug/L 34301 Chlorobenzene ug/L 39460 Chlorobenzilate ug/l 34452 p-chloro-m-cresol

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 4 of 10)

WACS FACILITY ID 89544	SAMPLE DATE	
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	WELL TYPE: (B)	Background Detection
CLASSIFICATION OF GROUNDWATER G-II	(C) (O)	Compliance Other

Sample	Collection (Yes/No)	Ground	Water Ele	vation (NG	(VD)		
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
34311	Chloroethane					ug/L	
32106	Chloroform					ug/L	
34581	2-Chloronaphthalene					ug/l	
34586	2-Chlorophenol					ug/i	·
34641	4-Chlorophenyphenyl ether					ug/l	
81520	Chloroprene		·			ug/L	·
34320	Chrysene					ug/L	
77151	m-Cresol					ug/L	
77152 77146	o-Cresol p-Cresol					ug/L ug/L	
00720	Cyanide					: mg/l	
39730	2,4-D; 2,4-Dichlorophenoxyacetic			٠		ug/L	
39360	4,4-DDD		<u> </u> -			ug/L	
39365	4,4-DDE			·		ug/L	
39370	4,4-DDT					ug/L	
73540	Diallate					ug/L	
34556	Dibenz(a,h)anthracene					ug/L	
81302	Dibenzofuran					ug/L	
32105	Dibromochloromethane	·				ug/L	
49146	1,2-Dibromo-3-chloropropane			•		ug/L	
77651	1,2-Dibromoethane					ug/L	
39110	Di-n-butylphthalate					ug/l	
34536	1,2-Dichlorobenzene					ug/L	,
34566	1,3-Dichlorobenzene			:		ug/l	
					L	<u> </u>	1

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 6 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE
TESTSITE SITE NAME	WELL TYPE: (B) Background (D) Detection
CLASSIFICATION OF GROUNDWATER G-II	(C) Compliance

Sample C	Collection (Yes/No)	Ground	Water Ele	evation (NG			
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS	LAUTO	DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
34606	2,4-Dimethylphenol			:		ug/l	
34341	Dimethyl phthalate	•	·			ug/l	
45622	m-Dinitrobenzene					ug/L	
34657	2-Methyl-4,6-dinitrophenol		,			ug/l	
34616	2,4-Dinitrophenol					ug/l	
34611	2,4-Dinitrotoluene					ug/l	
34626	2,6-Dinitroltoluene					ug/l /	
81287	DNBP (Dinoseb)			: _:		ag/L	
34596	Di-n-octyl phthalate			:		ug/l	
77579	Diphenylamine					ug/L	
81888	Disulfoton			·		ug/L	
34361	Endosulfan I					ug/L	
34356	Endosulfan II					ug/L	
34351	Endosulfan sulfate		-			ug/L	
39390	Endrin					ug/L	
34366	Endrin aldehyde		·			ug/L	
34371	Ethylbenzene					ug/L	
73570	Ethyl methacrylate					ug/L	
73571	Ethyl methanesulfonate					ug/L	
38462	Famphur					ug/L	
34376	Fluoranthene					ug/l	
34381	Fluorene					ug/l	
39410	Heptachlor					ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 7 of 10)

WACS FACILITY ID 89544	SAMPLE DATE	<u></u>
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	WELL TYPE: (B) Background (D) Detection	
CLASSIFICATION OF GROUNDWATER G-II	(C) Compliance	

Sample	Collection (Yes/No)	Ground	Water Ele	vation (NG			
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
39420	Heptachlor epoxide		· ·			ug/L	
39700	Hexachlorobenzene					ug/l	
34391	Hexachlorobutadiene					ug/l	·
34386	Hexachlorocyclopentadiene					ug/L	
34396	Hexachloroethane					ug/l	·
73576	Hexachloropropene					ug/L	
34403	Indeno (1,2,3-c,d) pyrene	v.				ug/l	
77033	Isobutyl alcohol					ug/L	
39430	Isodrin					ug/L	
34408	Isophorone	·				ug/l	
73582	Isosafrole	·				ug/L	
81281	Kepone					ug/L	
81593	Methacrylonitrile		-		*	ug/L	
73589	Methapyrilene			-		ug/L	
39480	Methoxychlor					ug/L	
34413	Methyl bromide					<u>.</u>	
77103	Methyl butyl ketone					ug/L	. •
34418	Methyl chloride					ug/L	
73591	3-Methylcholanthrene					ug/L	
81595	Methyl ethyl ketone	·				ug/L	
77424	Methyl iodide					ug/L	
81597	Methyl methacrylate					ug/L	
73595	Methyl methanesulfonate			,	'	ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 8 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE			
WACS TESTSITE ID	ANALYSIS DATE _			
TESTSITE SITE NAME	WELL TYPE:	(B) (D)	Background Detection	
CLASSIFICATION OF GROUNDWATER G-II		(C)	Compliance	

Sample	Collection (Yes/No)	Ground	Water Ele	evation (NG	(VD)		
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
77416	2-Methylnaphthalene			·		ug/L	
39600	Methyl Parathion					ug/L	
77596	Methylene Bromide					ug/L	
34423	Methylene Chloride					ug/L	
81596	Methyl isobutyl ketone	·	•			ug/L	-
34696	Naphthalene					ug/l	
73599	1,4-Naphthoquinone or 1,4-Naphthalenedione					ug/L	
73600	1-Naphthylamine					ug/L	
73601	2-Naphthylamine					ug/L	
78142	o-Nitroaniline					ug/L	
78300	m-Nitroaniline					úg/Ĺ	
30342	p-Nitroaniline or	,				ຶ ug/L	
34447	4-nitro-benzenamine Nitrobenzene		:			ug/l	
34591	2-Nitrophenol					ug/l	
34646	4-Nitrophenol					ug/l	
73609	N-Nitrosodi-n-butylamine					ug/L	
73611	N-Nitrosodiethylamine					ug/L	
34438	N-Nitrosodimethylamine					ug/l	
			,	=			
34428	N-Nitrosodipropylamine					ug/l	
34433	N-Nitrosodiphenylamine					ug/l	
73613	N-Nitrosomethylethalamine	·				ug/L	
73619	N-Nitrosopiperidine					ug/L	
1		l	L				

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 9 of 10)

WACS FACILITY ID 89544	SAMPLE DATE			
WACS TESTSITE ID	ANALYSIS DATE			
TESTSITE SITE NAME	WELL TYPE:	_ (B) (D)	Background Detection	
CLASSIFICATION OF GROUNDWATER G-II		(C)	Compliance Other	

Sample	Collection (Yes/No)	Ground	Water Ele	vation (NG	(VD)		
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
78206	N-Nitrosopyrrolidine					ug/L	
73622	5-Nitro-o-toluidine					ug/L	
39540	Parathion					ug/L	
77793	Pentachlorobenzene					ug/L	
81316	Pentachloronitrobenzene					ug/L	
39032	Pentachlorophenol					ug/l	
73626	Phenacetin	·				ug/L	
34461	Phenanthrene				·	ug/l	
34694	Phenol			,		ug/l	
73628	p-Phenylenediamine					ug/L	
46313	Phorate					ug/L	
39516	Polychlorinated biphenyls					eug/€	
39080	Pronamide	•				ug/L	
77007	Propionitrile		-			ug/L	
34469	Pyrene					ug/l	
77545	Safrole					ug/L	
39760	Silvex; 2,4,5-TP					ug/L	
77128	Styrene				·	ug/L	
00745	Sulfide		,			ug/L	
39740	2,4,5-Trichlorophenoxyacetic acid		e e e			ug/L	
77734	1,2,4,5-Tetrachlorobenzene					ug/L	
77562	1,1,1,2-Tetrachloroethane	*				ug/l	
34516	1,1,2,2-Tetrachloroethane					ug/L	
					L	<u> </u>	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Initial Ground Water Monitoring (Page 10 of 10)

WACS FACILITY ID <u>89544</u>	SAMPLE DATE				
WACS TESTSITE ID	ANALYSIS DATE				
TESTSITE SITE NAME	WELL TYPE:	_ (B)	Background Detection		
CLASSIFICATION OF GROUNDWATER G-II		(C)	Compliance Other		

Well Purged* prior to Sample Collection (Yes/No)

	Collection (Vec/Ne)	Ground	Mater Ele	evation (NG	:VD)		
	Collection (Yes/No)	SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
STORET CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
34475	Tetrachloroethene					ug/L	
77770	2,3,4,6-Tetrachlorophenol	·				ug/L	
34010	Toluene					ug/L	
77142	o-Toluidine					ug/L	
39400	Toxaphene					ug/L	
34551	1,2,4-Trichlorobenzene					ug/l	
34506	1,1,1-Trichloroethane					ug/L	
34511	1,1,2-Trichloroethane					·ug/L	
39180	Trichloroethene					ug/L	
34488	Trichlorofluoromethane					ug/L	
77687	2,4,5-Trichlorophenol			. 1		ug/l	. 1
34621	2,4,6-Trichlorophenol					ug 7	
77443	1,2,3-Trichloropropane					ug/L	
73652	0,0,0-Triethyl phosphorothioate		-			ug/L	
73653	sym-Trinitrobenzene					ug/L	
77057	Vinyl Acetate					ug/L	
39175	Vinyl Chloride					ug/L	
34020	Xylenes				1	ug/L	
72020	Elev.(Ft) above mean sealevel Or						
82545	Water/Sea Level					·	•
·							
				·			
	·						

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Semi-Annual Ground Water Monitoring (Page 1 of 4)

SAMPLE DATE

V	WACS TESTSITE ID			ANALYSI	S DATE		
Т	ESTSITE S	ITE NAME	· · ·	WELL TYPE:			ground
С	LASSIFICA	TION OF GROUNDWATER <u>G</u>	<u>II</u>			(D) Dete (C) Com (O) Othe	pliance
٧	/ell Purged* Sample Co	rprior to llection (Yes/No)	Gro	und Water El	evation (NG\	VD)	
[STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS	LIMITO
	CODE 00010	PARAMETER MONITORED Temperature (field)	METHOD	FILTERED	METHOD	RESULT	UNITS °C
	00299	Dissolved Oxygen (field by probe)		: 	·		mg/L
	00406	pH (field)					STD
	00094	Spec. Conductance (field)					umhos/cm
	82078	Turbidity (field)					NTU's
	00610	Total Ammonia as N					mg/L
	00940	Chlorides					mg/L
	00620	Nitrate as N					mg/L
	70300	Total Dissolved Solids					mg/L
		METALS					
	01097	Antimony.					ug/L
	01002	Arsenic					ug/L
	01007	Barium					ug/L
	01012	Beryllium					ug/L
	01027	Cadmium					ug/L
	01034	Chromium					ug/L
	01037	Cobalt	·				ug/L
	01042	Copper					ug/L
	01045	iron					ug/L
	01051	Lead		·			ug/L
			1		l	1	1

Mercury

WACS FACILITY ID 89544

^{*}Well Purging is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Semi-Annual Ground Water Monitoring (Page 2 of 4)

٧	VACS FACI	LITY ID <u>89544</u>		SAMPLE DATE					
٧	VACS TEST	SITE ID		ANALYSI	S DATE	·			
٦	TESTSITE S	ITE NAME		WELL TY	PE:		ckground		
	CLASSIFICATION OF GROUNDWATER G-II			·					
٧	Vell Purged* Sample Co	rprior to llection (Yes/No)	Grou	und Water El	evation (NG\	/D)	Ft		
	STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS		
	01067	Nickel					ug/L		
	01147	Selenium					ug/L		
	01077	Silver					ug/L		
	00929	Sodium					mg/L		
	01059	Thallium					ug/L		
	01087	Vanadium					ug/L		
	01092	Zinc					ug/L		
		ORGANIC CONSTITUENTS	·						
:	81552	Acetone					ug/L		
	34215	Acrylonitrile	·			. 200	re ug/L		
	34030	Benzene					ug/L		
	73085	Bromochloromethane	·				ug/L		
	32101	Bromodichloromethane	,	-			ug/L		
	34413	Bromomethane					ug/L		
	32104	Bromoform					ug/L		
	77041	Carbon Disulfide					ug/L		
	32102	Carbon Tetrachloride					ug/L		
	34301	Chlorobenzene					ug/L		
	34311	Chloroethane	·			·	ug/L		
	32106	Chloroform				;	ua/L		

^{*}Well Purging is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Semi-Annual Ground Water Monitoring (Page 3 of 4)

WACS FACIL	LITY ID <u>89544</u>	<u></u>	SAMPLE DATE					
WACS TEST	SITE ID		ANALYSI	S DATE				
TESTSITE SITE NAME			WELL TYPE: (B) Backgro					
CLASSIFICATION OF GROUNDWATER G-II					(D) Detection(C) Compliance(O) Other			
Well Purged* Sample Co	prior to llection (Yes/No)	Gro	und Water Ele	evation (NG\	• •	Ft		
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS			
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS		
34418	Chloromethane					ug/L		
32105	Dibromochloromethane					ug/L		
49146	1,2-Dibromo-3-chloropropane					ug/L		
77651	1,2-Dibromoethane					ug/L		
77596	Methylene Bromide or					ug/Ĺ		
46361 34536	Dibromomethane 1,2-Dichlorobenzene					ug/L		
34571	1,4-Dichlorobenzene					ug/L		
77268	trans-1,4-Dichloro-2-butene					ug/L		
34496	1,1-Dichloroethane				Francisco de la constante de l	ug/L		
34531	1,2-Dichloroethane				:	ug/L		
34501	1,1-Dichloroethene					ug/L		
						ug/L		
77093	cis-1,2-Dichloroethene							
34546	trans-1,2-Dichloroethene					ug/L		
34541	1,2-Dichloropropane			·		ug/L		
34704	cis-1,3-Dichloropropene		·			ug/L		
34699	trans-1,3-Dichloropropene					ug/L		
34371	Ethylbenzene					ug/L		
77103	Methyl butyl ketone					ug/L		
81595	Methyl ethyl ketone				r .	ug/L		
77424	Methyl iodide		·			ug/L		

*Well Purging is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

DEP Form 62-522.900(2) Effective April 14, 1994

Methylene Chloride

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Semi-Annual Ground Water Monitoring (Page 4 of 4)

SAMPLE DATE

W	ACS FACIL	LITY ID <u>89544</u>		SAMPLE DATE					
W	ACS TEST	SITE ID	<u> </u>	ANALYSIS DATE					
T	ESTSITE SI	ITE NAME		WELL TY	PE:	(B) Back	ground ction		
	CLASSIFICATION OF GROUNDWATER G-II					(C) Com (O) Othe	pliance r		
W	/ell Purged* Sample Co	prior to llection (Yes/No)	Gro	und Water El	evation (NG\	/D)		Ft	
	STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS		
	81596	Methyl isobutyl ketone					ug/L		
	77128	Styrene					ug/L		
	77562	1,1,1,2-Tetrachloroethane					ug/l		
	34516	1,1,2,2-Tetrachloroethane					ug/L		
	34475	Tetrachloroethene					ug/L		
	34010	Toluene					ug/L		
	34506	1,1,1-Trichloroethane					ug/L		
	34511	1,1,2-Trichloroethane					ug/L		
- 1	39180	Trichloroethene				ORAF	ug/L		
	34488	Trichlorofluoromethane					ug/L		
	77443	1,2,3-Trichloropropane					ug/L		
	77057	Vinyl Acetate					ug/L		
	39175	Vinyl Chloride					ug/L		
	34020	Xylenes			·		ug/L		
	72020	Elev.(Ft) above mean sealevel							
	82545	Or Water/Sea Level							

^{*}Well Purging is the process of pumping the well prior to sampling in order to obtain a representative ground water

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 1 of 9)

WACS FACILITY ID <u>89455</u>	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

TEST	-		\sim	~~~		
		-	<u> </u>	I }	NL	1 N // I
		_	\mathbf{O}	-	1 1/	11VIL

TESTSITE	SITE NAME						
STORET CODE	DADAMETED MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
CODE	PARAMETER MONITORED	METHOD	TILTLICED	WETTOO	(NEOOE)	011110	
00010	Temperature (field)			: !		°C	. • N
00299	Dissolved Oxygen (field by probe)					mg/L	
00406	pH (field)	1				STD	•.
00094	Spec. Conductance (field)					umhos/cm	
00610	Total Ammonia as N					mg/L	·
00940	Chlorides					mg/L	
00620	Nitrate as N					mg/L	
70300	Total Dissolved Solids					mg/L	
00440	Bicarbonate as HCO,					mg/L	
	METALS						
01097	Antimony	·				ug/L	and the same of th
01002	Arsenic					ug/L	
01007	Barium					hayr	
01012	Beryllium					ug/L	
01027	Cadmium					ug/L	
01034	Chromium		·			ug/L	
01037	Cobalt		-			ug/L	
01042	Copper					ug/L	
01045	Iron			ļ		ug/L	
01051	Lead					ug/L	
71900	Mercury					ug/L	
01067	Nickel					ug/L	
01147	Selenium					ug/L	
01077	Silver					ug/L	
00929	Sodium					mg/L	
01059	Thallium					ug/L	
01102	Tin				<u></u>	ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 2 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

TESTSITE	SITE NAME						
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS	LINUTO	DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
						•	
01087	Vanadium			-		ug/L	
01092	Zinc	,				ug/L	
	ORGANIC CONSTITUENTS						
34205	Acenaphthene					ug/l	
34200	Acenaphthylene					ug/l	
81552	Acetone					ug/L	
76997	Acetonitrile; Methyl cyanide					ug/L	
81553	Acetophenone					ug/L	
73501	2-Acetylaminofluorene; 2-AAF or Acetamide,N-(9H-Fluoren-2yl)-				÷	ug/L	
34210	Acrolein					ug/L	
34215	Acrylonitrile	·				ug/L	
39330	Aldrin					ug/L	• • •
78109	Allyl chloride					ug/L	
77581	4-Aminobiphenyl					ug/L	
34220	Anthracene					ug/l	
34030	Benzene					ug/L	
34526	Benzo(a)anthracene					ug/l	
34230	Benzo(b)fluoranthene					gg/L-	
34242	Benzo(k)fluoranthene					ug/l	
34247	Benzo(a)pyrene		-			ug/l	
34521	Benzo(g,h,i)perylene					ug/l	
77147	Benzyl alcohol					ug/l	
39337	alpha-BHC					ug/L	
39338	beta-BHC	,				ug/L	
46323	delta-BHC					ug/L	
.3323							

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 3 of 9)

WACS FACILITY ID <u>89455</u>	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

TESTSITE	SITE NAME	· .					
STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS	10070	DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
39340	gamma-BHC; Lindane			•		ug/L	
34273	Bis(2-chloroethyl)ether					ug/l	
34278	Bis(2-chloroethoxy)methane					ug/l	
034283	Bis (2-chloro-1-methylethyl) ether					ug/L	
7	or propane, 2,2'-oxybis(1-chloro)- or Bis(2-chloroisopropyl) ether				:		
39100	Bis(2-ethylhexyl)phthalate					ug/l	
73085	Bromochloromethane					ug/L	
32101	Bromodichloromethane	:				ug/L	
32104	Bromoform		·			ug/L	
34636	4-Bromophenyl phenyl ether					ug/l	
34292	Butyl benzyl phthalate	:				ug/L	
77041	Carbon Disulfide	· :				ug/L	***
32102	Carbon Tetrachloride	•	-		e con	ug/L	
39350	Chlordane				3	üg/L	
73529	p-Chloroaniline					ug/L	
34301	Chlorobenzene				·	ug/L	
39460	Chlorobenzilate			•		ug/L	
34452	p-chloro-m-cresol					ug/l	
34311	Chloroethane					ug/L	
32106	Chloroform					ug/L	
34581	2-Chloronaphthalene					ug/l	
34586	2-Chlorophenol	·				ug/l	
34641	4-Chlorophenyphenyl ether					ug/l	
81520	Chloroprene					ug/L	
34320	Chrysene					ug/L	
77151	m-Cresol					ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 4 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

IES ISHE	SITE NAME						
STORET	DADAMETED MONITORED	SAMPLING	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
CODE	PARAMETER MONITORED	METHOD	FILTERED	WETHOD	RESULI	UNITS	LIMITO/ ONITO
			•				
77152	o-Cresol					ug/L	
77146	p-Cresol					ug/L	
00720	Cyanide					mg/l	
39730	2,4-D; 2,4-Dichlorophenoxyacetic					ug/L	
39360	4,4-DDD					ug/L	
39365	4,4-DDE					ug/L	
39370	4,4-DDT		·			ug/L	
73540	Dialiate					ug/L	
34556	Dibenz(a,h)anthracene					ug/L	
81302	Dibenzofuran					ug/L	-
32105	Dibromochloromethane					ug/L	
49146	1,2-Dibromo-3-chloropropane			٠		ug/L	
77651	1,2-Dibromoethane					ug/L	
39110	Di-n-butylphthalate					ug/l	
34536	1,2-Dichlorobenzene					T) up (
34566	1,3-Dichlorobenzene					ug/l	
34571	1,4-Dichlorobenzene		·			ug/L	
34631	3,3-Dichlorobenzidine					ug/l	
77268	trans-1,4-Dichloro-2-butene					ug/L	
34668	Dichlorodifluoromethane					ug/L	
34496	1,1-Dichloroethane					ug/L	
34531	1,2-Dichloroethane					ug/L	
34501	1,1-Dichloroethene					ug/L	
77093	cis-1,2-Dichloroethene					ug/L	
34546	trans-1,2-Dichloroethene					ug/L	
34601	2,4-Dichlorophenol					ug/l	
		<u> </u>	<u> </u>	<u> </u>	L	<u> </u>	L

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 5 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE
WACS TESTSITE ID	ANALISIS DATE

STORET	SITE NAME	SAMPLING	FIELD	ANALYSIS	ANALYSIS		DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
77541	2,6-Dichlorophenol		:			ug/L	
34541	1,2-Dichloropropane					ug/L	
77173	1,3-Dichloropropane		·			ug/L	
77170	2,2-Dichloropropane					ug/L	¥
77168	1,1-Dichloropropene					ug/L	
34704	cis-1,3-Dichloropropene	•				ug/L	
34699	trans-1,3-Dichloropropene					ug/L	
39380	Dieldrin					ug/L	
34336	Diethyl phthalate					ug/l	
73553	Thionazin					ug/L	
46314	Dimethoate					ug/L	
73558	p-(Dimethylamino)azobenzene					ug/L	
73559	7,12-Dimethylbenz(a)anthracene					ug/L	
82213	3,3-Dimethylbenzidine			·		ug/L	
34606	2,4-Dimethylphenol					ug A	
34341	Dimethyl phthalate					ug/l	
45622	m-Dinitrobenzene		-			ug/L	
34657	2-Methyl-4,6-dinitrophenol				-	ug/l	
34616	2,4-Dinitrophenol				-	ug/l	
34611	2,4-Dinitrotoluene					ug/l	
34626	2,6-Dinitroltoluene					ug/l	
81287	DNBP (Dinoseb)					ug/L	
34596	Di-n-octyl phthalate					ug/l	
77579	Diphenylamine					ug/L	
81888	Disulfoton					ug/L	
34361	Endosulfan I					ug/L	
	62 522 000(2) Effective April 14	<u> </u>	<u> </u>	l	L	L	L

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 6 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

		SITE NAME	CAMPING	FIELD.	ANALVOIC	ANAL VOIC	<u> </u>	DETECTION
STOF		PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	LIMITS/ UNITS
				٠				
343	356	Endosulfan II					ug/L	
343		Endosulfan sulfate					ug/L	
393	- [Endrin					ug/L	·
343	866	Endrin aldehyde		:		:	ug/L	
343	371	Ethylbenzene					ug/L	
735	570	Ethyl methacrylate					ug/L	,
735	571	Ethyl methanesulfonate					ug/L	
384	62	Famphur					ug/L	
343	376	Fluoranthene				:	ug/l	,
343	881	Fluorene					ug/l	·
394	110	Heptachlor					ug/L	
394	120	Heptachlor epoxide					ug/L	
397	700	Hexachlorobenzene					ug/l p	
343	391	Hexachlorobutadiene					- 10g/l	
343	386	Hexachlorocyclopentadiene					ug/L	*
343	396	Hexachloroethane				·	ug/l	
735	576	Hexachloropropene			-		ug/L	
344	103	Indeno (1,2,3-c,d) pyrene					ug/l	
770	033	Isobutyl alcohol					ug/L	
394	130	Isodrin					ug/L	
344	108	Isophorone					ug/l	
735	582	Isosafrole					ug/L	
812	281	Kepone					ug/L	
815	593	Methacrylonitrile					ug/L	
735	589	Methapyrilene					ug/L	
1							<u> </u>	l

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 7 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

	SITE NAME	·					
STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
CODE	PARAIVIETER WONTONED	METHOD	FILTERED	METHOD	NEGULI	ONTO	LIMITS/ CIVITS
39480	Methoxychlor			•		,	
34413	Methyl bromide					ug/L	
77103	Methyl butyl ketone					ug/L	
34418	Methyl chloride					ug/L	and the second
73591	3-Methylcholanthrene					ug/L	
81595	Methyl ethyl ketone					ug/L	*
77424	Methyl iodide					ug/L	
81597	Methyl methacrylate					ug/L	
73595	Methyl methanesulfonate	:				ug/L	
77416	2-Methylnaphthalene					ug/L	
39600	Methyl Parathion					ug/L	
77596	Methylene Bromide					ug/L	one. West Birth
34423	Methylene Chloride						
81596	Methyl isobutyl ketone		-		59	ug/L	
34696	Naphthalene					ug/l	
73599	1,4-Naphthoquinone or 1,4-Naphthalenedione				· :	ug/L	
73600	1-Naphthylamine		. •			ug/L	
73601	2-Naphthylamine					ug/L	·
78142	o-Nitroaniline		·			ug/L	
78300	m-Nitroaniline					ug/L	
30342	p-Nitroaniline or 4-nitro-benzenamine					ug/L	
34447	Nitrobenzene		,			ug/l	
34591	2-Nitrophenol					ug/l	
34646	4-Nitrophenol					ug/l	
73609	N-Nitrosodi-n-butylamine					ug/L	,
L	l				L		

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 8 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

TESTSITE	SITE NAME						
STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
	,			,			
73611	N-Nitrosodiethylamine					ug/L	
34438	N-Nitrosodimethylamine				·	ug/l	
34428	N-Nitrosodipropylamine					ug/l	
34433	N-Nitrosodiphenylamine					ug/l	
73613	N-Nitrosomethylethalamine					ug/L	
73619	N-Nitrosopiperidine					ug/L	
78206	N-Nitrosopyrrolidine					ug/L	
73622	5-Nitro-o-toluidine					ug/L	
39540	Parathion					ug/L	
77793	Pentachlorobenzene		•		·	ug/L	
81316	Pentachloronitrobenzene			·		ug/L	333
39032	Pentachlorophenol					RAT	
73626	Phenacetin					ug/L	. · ·
34461	Phenanthrene					ug/l	·
34694	Phenol					ug/l	
73628	p-Phenylenediamine					ug/L	1. •
46313	Phorate					ug/L	
39516	Polychlorinated biphenyls					ug/L	
39080	Pronamide	:				ug/L	
77007	Propionitrile					ug/L	·
34469	Pyrene					ug/l	
77545	Safrole					. ug/L	
39760	Silvex; 2,4,5-TP					ug/L	
77128	Styrene					ug/L 	
00745	Sulfide					ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Annual Leachate Monitoring (Page 9 of 9)

WACS FACILITY ID 89455	SAMPLE DATE
WACS TESTSITE ID	ANALYSIS DATE

	SITE NAME	04145: 1110	FIFE	41111111111	ANALYON		DETECTION
STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
39740	2,4,5-Trichlorophenoxyacetic acid					ug/L	
77734	1,2,4,5-Tetrachlorobenzene				·	ug/L	
77562	1,1,1,2-Tetrachloroethane					ug/l	
34516	1,1,2,2-Tetrachloroethane					ug/L	
34475	Tetrachloroethene					ug/L	
77770	2,3,4,6-Tetrachlorophenol					ug/L	
34010	Toluene					ug/L	·
77142	o-Toluidine					ug/L	
39400	Toxaphene					ug/L	
34551	1,2,4-Trichlorobenzene					ug/l	. *
34506	1,1,1-Trichloroethane					ug/L	
34511	1,1,2-Trichloroethane					ا/ugg بادي دي	
39180	Trichloroethene	•	·		4.0	ug/L	28
34488	Trichlorofluoromethane	·			·	ug/L	
77687	2,4,5-Trichlorophenol					ug/l	
34621	2,4,6-Trichlorophenol		_			ug/l	
77443	1,2,3-Trichloropropane		-			ug/L	
73652	0,0,0-Triethyl phosphorothioat			·		ug/L	
73653	sym-Trinitrobenzene					ug/L	
77057	Vinyl Acetate					ug/L	
39175	Vinyl Chloride					ug/L	
34020	Xylenes					ug/L	
				•		e	
		' 					

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Surface Water Monitoring (Page 1 of 4)

WACSFACILITY ID 89455	SAMPLE DATE	·
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	Surface Water Elevation (NGVD)	Ft

STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS
00010	Temperature (field)					°C ×	• •
00299	Dissolved Oxygen (field by probe)					mg/L	
00406	pH (field)					STD	
00094	Spec. Conductance (field)	·				umhos/cm	
82078	Turbidity (field)					NTU's	
00612	Un-ionized Ammonia as N					mg/L	
00900	Total Hardness as CaCO ₃					mg/L	
00680	Total Organic Carbon					mg/L	
70300	Total Dissolved Solids					mg/L	
00530	Total Suspended Solids					mg/L	
00310	BOD (5 Day) @ 20 °C					mg/L	
00340	Chemical Oxygen Demand					mg/L	mantilina
00600	Total Nitrogen as N	·				MOVE THE	
00620	Nitrate as N					mg/L	
00650	Total Phosphates as PO ₄					mg/L	
32211	Chlorophyll A					ug/L	
	<u>METALS</u>						
01097	Antimony		.			ug/L	
01002	Arsenic					ug/L	
01007	Barium					ug/L	
01012	Beryllium					ug/L	
01027	Cadmium					ug/L	
01034	Chromium					ug/L	
01037	Cobalt					ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Surface Water Monitoring (Page 2 of 4)

WACSFACILITY ID 89455	SAMPLE DATE	
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	Surface Water Elevation (NGVD)	Ft

TESTSITE	SITE NAME	· · · · · · · · · · · · · · · · · · ·	Surface	Water Elev	ation (NGV	D)	Ft Ft
STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/UNITS
01042	Copper					ug/L	
01045	Iron					ug/L	
01051	Lead					ug/L	
71900	Mercury					ug/l	
01067	Nickel					ug/L	
01147	Selenium					ug/L	,
01077	Silver					ug/L	
01059	Thallium					ug/L	
01087	Vanadium					ug/L	
01092	Zinc				:	ug/L	
	ORGANIC CONSTITUENTS						
⊤81552	Acetone					ug/L	
34215	Acrylonitrile					ug/L	
34030	Benzene					ug/L	
73085	Bromochloromethane					ug/L	
32101	Bromodichloromethane		-			ug/L	
34413	Bromomethane					ug/L	
32104	Bromoform					ug/L	
77041	Carbon Disulfide					ug/L	
32102	Carbon Tetrachloride					ug/L	
34301	Chlorobenzene					ug/L	
34311	Chloroethane					ug/L	
32106	Chloroform					ug/L	
34418	Chloromethane					ug/L	·

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Surface Water Monitoring (Page 3 of 4)

WACSFACILITY ID 89455	SAMPLE DATE	
WACS TESTSITE ID	ANALYSIS DATE	
TESTSITE SITE NAME	Surface Water Elevation (NGVD)	Ft

STORET		SAMPLING	FIELD	ANALYSIS	ANALYSIS	·	DETECTION
CODE	PARAMETER MONITORED	METHOD	FILTERED	METHOD	RESULT	UNITS	LIMITS/ UNITS
32105	Dibromochloromethane					ug/L	
049146	1,2-Dibromo-3-chloropropane					ug/L	
46369	1,2-Dibromoethane					ug/L	
46361	Dibromomethane	-		·		ug/L	
34536	1,2-Dichlorobenzene					ug/L	•
34571	1,4-Dichlorobenzene					ug/L	
77268	trans-1,4-Dichloro-2-butene			·		ug/L	
34496	1,1-Dichloroethane					ug/L	
34531	1,2-Dichloroethane					ug/L	
34501	1,1-Dichloroethene	ļ				ug/L	
77093	cis-1,2-Dichloroethene					ug/L	
34546	trans-1,2-Dichloroethene					ug/L	₫ .
34541	1,2-Dichloropropane			·		ug/L	
34704	cis-1,3-Dichloropropene					ug/L	
34699	trans-1,3-Dichloropropene					ug/L	
34371	Ethylbenzene		-			ug/L	
77103	Methyl butyl ketone					ug/L	
81595	Methyl ethyl ketone					ug/L	
77424	Methyl iodide					ug/L	
34423	Methylene Chloride					ug/L	
81596	Methyl isobutyl ketone					ug/L	
77128	Styrene					ug/L	
77562	1,1,1,2-Tetrachloroethane					ug/l	
34516	1,1,2,2-Tetrachloroethane				1	ug/L	
34516	1,1,2,2-Tetrachloroethane					ug/L	

PARAMETER MONITORING REPORT

(Rule 62-701.510)

Surface Water Monitoring (Page 4 of 4)

WACSFACILITY ID 89455 WACS TESTSITE ID									
STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DETECTION LIMITS/ UNITS		
34475	Tetrachloroethene					ug/L			
34010	Toluene			·	l	ug/L			
34506	1,1,1-Trichloroethane					ug/L			
34511	1,1,2-Trichloroethane					ug/L			
39180	Trichloroethene					ug/L			
34488	Trichlorofluoromethane				!	ug/L			
77443	1,2,3-Trichloropropane				mention 1 th	ug/L			
77057	Vinyl Acetate					ug/E			
39175	Vinyl Chloride					ug/L			
34020	Xylenes					ug/L			
031616	Fecal coliform				:	#/100			
·			1 1 1						
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						* *			

Florida Department of Environmental Protection 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

		DATE		
FACILITY NAME: Oak Hammock	CDisposal, Class I Landfill			
DER PERMIT NO.:	WAG	CS FACILITY ID: 89	455	
WACS TESTSITE ID.:				
WELL TYPE: BACKGROUND				
LATITUDE AND LONGITUDE:				
AQUIFER MONITORED:				
DRILLING METHOD:		DATE INSTALLED:		
INSTALLED BY:				
BORE HOLE DIAMETER:				(BLS)
CASING TYPE:	CASING DIAMETER:	CASIN	G LENGTH:	
SCREEN TYPE:	SCREEN SLOT SIZE:	SCREE	EN LENGTH:	
SCREEN DIAMETER:	SCREEN INTERVAL:	то		(BLS)
FILTER PACK TYPE:	FILTER F	PACK GRAIN SIZE:_		
INTERVAL COVERED:	TO .			(BLS)
SEALANT TYPE:	SEALANT INTER\	/AL:	то	(BLS)
GROUT TYPE:	GROUT INTERVA	L:	то	(BLS)
TOP OF CASING ELEVATION (N	NGVD): GI	ROUND SURFACE	ELEVATION (NGVD)	·
DESCRIBE WELL DEVELOPME				
			DRAF	
POST DEVELOPMENT WATER	LEVEL ELEVATION (NGVD):			
DATE AND TIME MEASURED:_				
REMARKS:				
NAME OF PERSON PREPARING	2 DEDODT:			
NAME OF FERSON PREPARING	JILFUNI.			

(Name, Organization, Phone No.)

ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG. NOTE (BLS) = BELOW LAND SURFACE (NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

Florida Department of Environmental Protection 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

GROUND WATER MONITORING REPORT

Rule 62-522.600(11)

PART I GENERAL INFORMATION		
(1) Facility Name Oak Hammock Disposal, Class I La	andfill	
Address		·
City	Zip	County
Telephone Number ()		
(2) WACS Facility ID 89455		
(3) DEP Permit Number		·
(4) Authorized Representative's Name		Title
Address		
City	Zip	County
Telephone Number ()		
(5) Type of Discharge		
(6) Method of Discharge		
	·	
C	ERTIFICATION	
I certify under penalty of law that I have personally document and all attachments and that, based on my information, I believe that the information is true, accifor submission of false information including the possil	inquiry of those individual urate, and complete. I ar	Is immediately responsible for obtaining the n aware that there are significant penalties nent.
		ORAFI
Date Owner or Author	rized Representative's Sig	nature
PART II QUALITY ASSURANCE REQUIREMENTS	•	
Sampling Organization Comp QAP #		
Analytical Lab Comp QAP #/ HRS Certification		
Lab Name		
Address		
Phone Number ()		

DER Form 62-522.900(2) Effective April 14, 1994



NAME	le Hammanle D	Nonenal Cla	aa I I andfi	11		SITE LOCATION:						
	k Hammock D STSITE SITE N		ss i Landii		PLE ID:	LOCATION:			DATE:			
				1	DHE	RGING DAT	۸					
WELL			TOTA	AL WELL	PUF	DEPTI		<u> </u>	WE			
DIAMETER			DEPT	ΓΗ (ft):		WATE	R (ft):		CAI	PACITY (gal/ft):	
I WELL VO			ELL DEPT	H – DEPT	H TO WATI	ER) X WELL CAP						
PURGE ME		: (PURGE) X	=	PURGI	NG			
		PURGE	INITIATED AT:			TOTAL VOLUME PURGED (gal):			AT:			· · · · · · · · · · · · · · · · · · ·
VOLS. V	VOLUME PURGED (gal)	RATE (gpm)	рН	TEMP. (°C)	COND. (umhos)	DISSOLVED OXYGEN (mg/L)	TURBIDI NTUs	TY	PEARANCE	COLO	OR	ODOF
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AFFILIATION SAMPLING	ON				SAM	SAMPLER(S) SIGNATURE(S) SAMPLING INITIATED AT			SAMPLII ENDED	NG		
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S.	ON S): CONTAMINAT AMPLE CONT SPECIFICAT MATERIAL	TAINER	Pi	RESERVA	SAMPLE	SAMPLER(S) SIGNATURE(S) SAMPLING INITIATED AT ERED: Y PRESERVATION TOTAL VOLUME	N FIN		SAMPLII ENDED DUPLIC,	NG AT:	NALYSIS	
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AFFILIATIO SAMPLINO METHOD(S FIELD DEC	ON S): CONTAMINAT AMPLE CONT SPECIFICAT MATERIAL	TAINER TION	Pi	RESERVA	SAMPLE	SAMPLER(S) SIGNATURE(S) SAMPLING INITIATED AT ERED: Y PRESERVATION TOTAL VOLUME	N FIN		SAMPLII ENDED DUPLIC,	NG AT: ATE: NDED AN	NALYSIS	
AFFILIATIO SAMPLINO METHOD(S FIELD DEC	ON S): CONTAMINAT AMPLE CONT SPECIFICAT MATERIAL	TAINER TION	Pi	RESERVA	SAMPLE	SAMPLER(S) SIGNATURE(S) SAMPLING INITIATED AT ERED: Y PRESERVATION TOTAL VOLUME	N FIN		SAMPLII ENDED DUPLIC,	NG AT: ATE: NDED AN	NALYSIS	
AFFILIATIO SAMPLINO METHOD(S FIELD DEC	ON S): CONTAMINAT AMPLE CONT SPECIFICAT MATERIAL	TAINER TION	Pi	RESERVA	SAMPLE	SAMPLER(S) SIGNATURE(S) SAMPLING INITIATED AT ERED: Y PRESERVATION TOTAL VOLUME	N FIN		SAMPLII ENDED DUPLIC,	NG AT: ATE: NDED AN	NALYSIS	
AFFILIATIO SAMPLINO METHOD(S FIELD DEC	ON S): CONTAMINAT AMPLE CONT SPECIFICAT MATERIAL	TAINER TION	Pi	RESERVA	SAMPLE	SAMPLER(S) SIGNATURE(S) SAMPLING INITIATED AT ERED: Y PRESERVATION TOTAL VOLUME	N FIN		SAMPLII ENDED DUPLIC,	NG AT: ATE: NDED AN	NALYSIS	
AFFILIATION SAMPLING METHOD(STELL DEC	ON S): CONTAMINAT AMPLE CONT SPECIFICAT IATERIAL CODE	TAINER TION	Pi	RESERVA	SAMPLE	SAMPLER(S) SIGNATURE(S) SAMPLING INITIATED AT ERED: Y PRESERVATION TOTAL VOLUME	N FIN		SAMPLII ENDED DUPLIC,	NG AT: ATE: NDED AN	NALYSIS	
AFFILIATION SAMPLINO METHODOS SAMPLINO	ON S): CONTAMINAT AMPLE CONT SPECIFICAT IATERIAL CODE	TAINER TION	Pi	RESERVA	SAMPLE AL	SAMPLER(S) SIGNATURE(S) SAMPLING INITIATED AT ERED: Y PRESERVATION TOTAL VOLUME	N FIN		SAMPLII ENDED DUPLIC,	NG AT: ATE: NDED AN	NALYSIS	
AFFILIATION SAMPLING METHOD(STELL DEC	ON S): CONTAMINAT AMPLE CONT SPECIFICAT IATERIAL CODE	TAINER TION	Pi	RESERVA	SAMPLE	SAMPLER(S) SIGNATURE(S) SAMPLING INITIATED AT ERED: Y PRESERVATION TOTAL VOLUME	N FIN		SAMPLII ENDED DUPLIC,	NG AT: ATE: NDED AN D/OR ME	NALYSIS	

NOTE: The above do not constitute all of the information required by Chapter 62-160, F.A.C.

CERTIFICATION

Oak Hammock Disposal, Class I

Permit Application Nos. SC49-0199726-001 & SO49-0199726-002

I HEREBY CERTIFY that the engineering features described in the referenced application for a landfill construction and operation permit provides reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 62. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

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

James N. Braoner, P.E.

Seal

Date: 9/24/200

RECORD OF TELEPHONE COMMUNICATION

PERSON CALLING: Ed Yaun, SFWMD PHONE: 407-858-6106 x 3824
PERSON CONTACTED: James Bradner PHONE: 407-893-3329
FILE/CASE NAME/#: Oala Hammock Land Lill COUNTY: Osceola
TIME From: 2:35 pm. To: 2:40 pm DATE: 9/25/2002
SUMMARY Ed four continued that the South Florida
Water Management District does not need a
Water Management District does not need a apy of the Eolid waste construction and
operation pennit application for the out
Hammach Land Lill. The FDER Control District
copy at least though the public comment
perill following publication of the notice of
proposed dancy action in case STUMP
news it our opy of the application.
ACTION REQUIRED
CC:
SIGNED: DATE: 4/25/2002

RECORD OF TELEPHONE COMMUNICATION

PERSON CALLING: James Brudner PHONE: 407-893-3329
PERSON CONTACTED: Alan Leavens, 5 FWMD PHONE: 407-858-6100 x 3812
FILE/CASE NAME/#: Oak Hummock Lun & Lill COUNTY: Oscerla
TIME From: 1:20 pm To: 1:25 pm DATE: 9/25/2002
Summary I confirmed with Alan that the South Florida Water Management District doer not need a enoy of the solid waste construction and operation permit application. A enoy of the application will be available for the Secump in the Later, At it newson.
ACTION REQUIRED Also contact Ed Your at 417-898-6100, 3824 to contion presions on yersation on the sume subject.
CC:

Bradner, James

From:

Bradner, James

Sent:

Tuesday, September 24, 2002 1:56 PM

To:

'ddee@landersandparsons.com'

Cc:

Bostwick, William; Cheryan, George; Williams, Elizabeth

Subject:

RE: Omni

Good afternoon, David:

This will confirm that I received your electronic mail message as well as your voicemail, and I will submit the notice of proposed agency action to Vivian Garfein for signature.

Thanks,

Jim Bradner

----Original Message----

From: David S. Dee [mailto:ddee@landersandparsons.com]

Sent: Tuesday, September 24, 2002 1:42 PM

To: Bradner, James

Cc: Tim Salopek; Ken Cargill

Subject: Omni

Jim,

Please issue the notice of intent for Omni's landfill permit.

Thanks.

Septer Ron K Florida Waste

BOARD OF COUNTY COMMISSIONERS

District I Paul Owen Chairman

District II Mary Jane Arrington

> District III Ken Shipley

District IV Ken Smith Vice-Chairman

District V Chuck Dunnick

Acting County Manager Laura Blackmon

County Attorney Jo O. Thacker

Commission Auditor Katherine Wall

Osceola County

1 Courthouse Square Kissimmee, Fl 34741 (407) 343-2200 Fax (407) 343-2210 September 18, 2002

Ron Kaplan Florida Counsel Waste Management Inc. of Florida 2700 NW 48th Street Pompano Beach, Fla. 33073

Re: Oak Hammock Landfill

Dear Mr. Kaplan:

As you may know, Osceola County and Waste Management Inc., of Florida (WMIF) have enjoyed a mutually beneficial working relationship for many years. WMIF has prospered while providing solid waste collection services to the County's residents. I hope that the County's cooperative relationship with WMIF will continue under WMIF's current contract and for many years to come.

Osceola County is working closely with Omni Waste to ensure that the permits for its Oak Hammock Landfill to be built here in Osceola County are issued as expeditiously as possible. The County's existing landfill is nearing its maximum capacity. When the existing landfill is full, the County plans to use the Oak Hammock Landfill pursuant to the County's ten year agreement with Omni.

Given this background, I was disappointed to learn that WMIF may be planning to challenge the issuance of the environmental permits for the proposed Oak Hammock Landfill. If WMIF'S actions delay the issuance of the permits for the Oak Hammock Landfill, it will have direct and significant adverse effects on the County's residents.

It is my understanding that WMIF or its representatives/consultants have met with the Florida Department of Environmental Protection and U.S. Army Corps of Engineers to oppose the permitting of this project, and taken other steps which suggest that WMIF is contemplating appeals or other dilatory actions. Since I am not aware of any facts which suggest that WMIF has a legitimate environmental interest in the Oak Hammock Landfill, I can only assume that WMIF is trying to protect its own economic interests. If I am correct about these matters, WMIF's actions would seem inappropriate, anti competitive in nature and directly contrary to the interest of the County's citizens.

I hope that WMIF will recognize the value of maintaining a cooperative working relationship with Osceola County, and trust that WMIF will not take any



action, directly or through others, to delay or impede the issuance of the state and federal permits for the Oak Hammock Landfill.

In closing, let me say that the feelings expressed herein are strictly personal, and that I have not discussed this matter with the other members of the Board of County Commissioners.

Sincerely,

PAUL OWEN, Chairman Osceola County Board of County Commissioners

Copies to:

Vivian Garfein, DEP Allan Bedwell, DEP John Hall, U.S. Army Corps of Engineers Tim Salopek

Bradner, James

From:

David S. Dee

Sent:

Monday, September 02, 2002 10:16 AM

To:

Bradner, James

Cc:

Ken Cargill

Subject: Oak Hammock

Jim,

I reviewed the draft permit for Oak Hammock and offer the following comments for your consideration:

- 1. Cover page, first paragraph, second sentence, third line: "work and operate the facility . . ." Delete "or".
- 2. General Conditions, No. 11: the correct citation is "62-730.300, Florida Administrative Code . . . " Add the "7"
- 3. Specific Conditions, No.1: delete the comma after "the permittee".
- 4. Specific Conditions, No. 2: add a comma after "engineering drawings".
- 5. S.C. 33, last sentence, last line: delete "take" (but not "taken").
- 6. S.C. 38, second line: delete "which".
- 7. S.C. 42: "... vertical <u>and</u>, when the final cover is installed, [and] shall be sodded" Delete the existing "and" and move it, as shown.
- 8. S.C. 57, first sentence, first line: "The permittee shall comply with the <u>applicable</u> requirements of" Subparts WWW and Cc. Add "applicable".

All of these comments are relatively insignificant. However, No. 8 is noteworthy because Subpart Cc may not be applicable here. Subpart Cc may only apply to existing landfills, not new landfills (which are covered by WWW).

Please call me if you have any questions. 850-681-0311.

David Dee

Helle, Deborah

From:

Bradner, James

Sent:

Thursday, September 05, 2002 8:19 AM

To:

Helle, Deborah

Subject:

FW: Oak Hammock Revised MPIS



Cak Hammock MPIS Rev.doc



Oak Hammock Map C.pdf



Oak Hammock Map

Please see me about proposed changes to the Oak

Hammock MPIS.

-----Original Message-----

From: Jerry Kubal [mailto:jkubal@kubal-furr.com] Sent: Wednesday, September 04, 2002 3:05 PM

To: Bradner, James

Subject: Oak Hammock Revised MPIS

Jim, attached are my suggestions for revising the MPIS to be consistent with permit conditions and the monitoring plan presented in the application.

I've done the following:

- (1). Deleted text is shown in red
- (2). Inserted text is shown in blue and double underlined.
- (3). Former Attachment C (Map C) now becomes Attachment D (Map D) and is attached. Please change the Attachment letter on your original.
- (4). A new Attachment C is attached. It shows the location of all piezometers. Rather than make a new drawing not shown in the application, I've just added text to note several piezometers will be covered by cells 1-4 and will be abandoned.

I've renumbered paragraphs after 16 which was deleted. It was a redundancy.

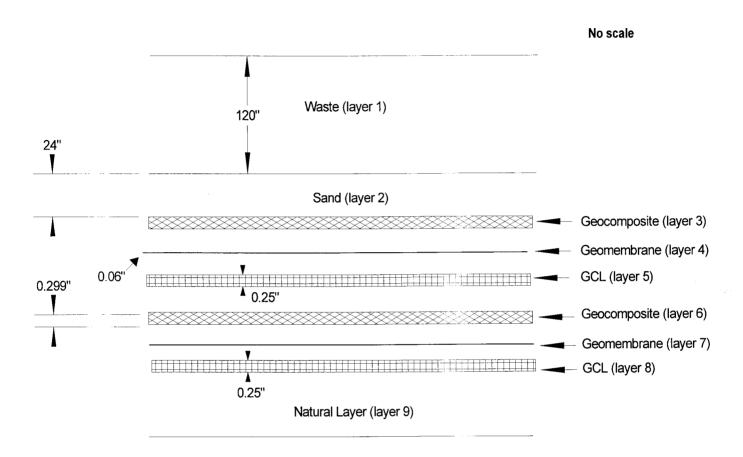
I think this is it, Jim. Call me with any questions.

Thanks.

Jerry

Jerry E. Kubal Kubal-Furr & Associates P.O. Box 273210 Tampa, FL 33688-3210 813-265-2338 Fax-265-3649

Liner System Case 1 (Base Case)



LINER SYSTEM CASE 1 (Base Case)

FW0400/03 Dec/17/01

WEATHER DATA AND SOIL LAYERS PROPERTIES

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A. Evapoualispilation data		
Data	Value	Units
Nearby city	Orlando	
State	Florida	
Latitude	27.8	
Evaporative zone depth	12	
bare	10	
fair	22	
excellent.	40	
Maximum leaf area index	0	
bare ground	0	
poor stand of grass	~	
fair stand of grass	2	
good stand of grass	3.5	
excellent stand of grass	2	
Growing season start day	0	
Growing season end day	367	
Average wind speed	8.6	mph
First quarter relative humidity	72	%
Second quarter relative humidity	72	%
Third quarter relative humidity	80	%
Fourth quarter relative humidity	92	%

B. Precipitation	
Data	Value
Nearby city	Tampa
State	Florida
Years for data generatic	25
Normal mean monthly precipitation (in)	precipitation (in
January 2.17	July

Normal mean	monthly	Normal mean monthly precipitation (in)	
January	2.17	July	7.35
February	3.04	August	7.64
March	3.46	September	6.23
April	1.82	October	2.34
May	3.38	November	1.87
June	5.29	December	2.14
			46.73

Runoff curve number		
Slope	2	%
Slope length	1000	Ħ
Soil texture	18	waste type
Vegetation	_	bare ground
Runoff curve number	79	
Area of runoff	0	%

C. Temperature	re			
Data		Value		
Nearby city		Orlando		
State		Florida		
Years for data generation	generation	25		
Normal mean monthly temperature (°F)	monthly tem	perature (°F)		
January	60.5	July	82.4	
February	61.5	August	82.5	
March	8.99	September	81.1	
April	72	October	74.9	
May	77.3	November	67.5	

May 77.3	November	67.5
June 80.9	December	62
D. Solar Radiation		
Data		Value
Nearby city		Orlando
State		Florida
Years for data generation		25
E. Geomembrane and Area		

E. Geomembrane and Area	
Placement of geomembrane	poob
Pinhole (# of defects/area)	2
Defect density per acre	2
Area assumed in program (acre)	~
Total area (acre)	195

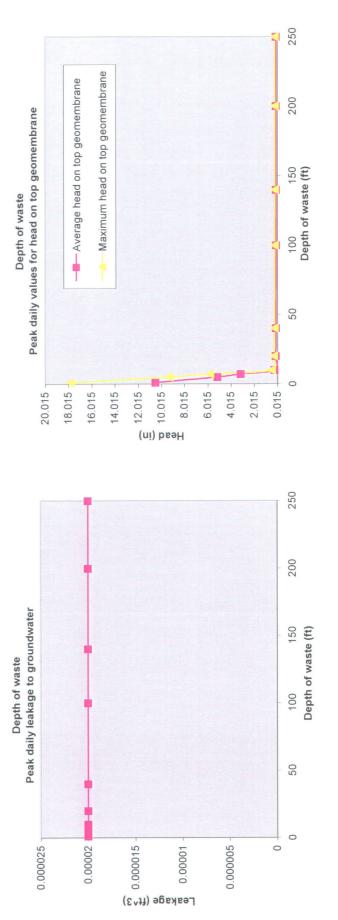
layers	
of soil	MINIB
perties	ō
F. Prop	File:

Layer	Type	Description	Thickness	Texture	Porosity	Field cap.	Wilting point	Wilting point Conductivity Length Drain	Length Drain	Slope
			ï	number	lov/lov	lov/lov	vol/vol	cm/sec	ft	%
-	1	Vertical percolation	120	18	0.168	0.073	0.019	0.001		
2	~	Vertical percolation	24	_	0.417	0.045	0.018	0.010		
3	2	Lateral drainage	0.299		0.85	0.01	0.005	13.16	1000	2
4	4	Geomembrane liner	0.060	35				2E-13		
2	8	GCL	0.250	17	0.750	0.747	0.400	3.00E-09		
9	2	Lateral drainage	0.299		0.850	0.010	0.005	13.16	1000	2
7	4	Geomembrane liner	0.060	35				2E-13		
00	е	GCL	0.250	17	0.750	0.747	0.400	3.00E-09		
0		Vertical percolation	120.000	2	0.457	0.131	0.058	0.001		

FILE: OMNIB1

Geocomposite		
Manufacturer:	TENAX	
Code:	Tendrain 770-2/7100-2	2/7100-2
Gradient:	0.1	
Stress:	25000	psf
	1197.006	кРа
Transmissivity:	1.00E-04	m^2/sec
Thickness:	7.6	mm
Conductivity:	1.32	cm/sec
Cover soils	daily	
Area	_	ACTA

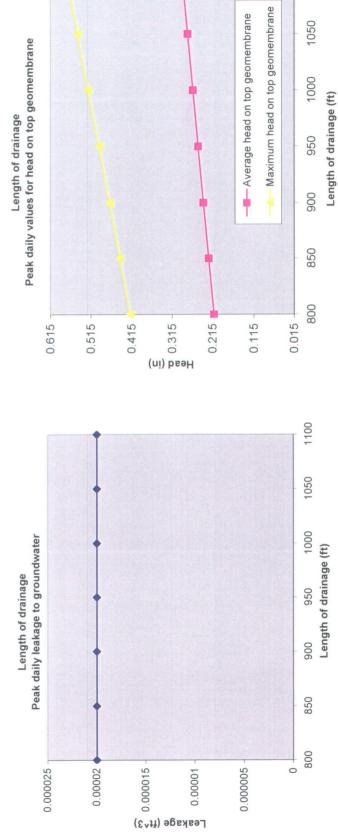
				Base Case						
Average Annual Total Head on Top Layer 4 (in)	0.074	0.022	0.017	0.016	0.016	0.016	0.016	0.016	0.016	0.016
Peak Day Average Head (in)	10.531	5.187	3.175	0.264	0.162	0.136	0.118	0.115	0.112	0.110
Peak Day Max Head (in)	17.830	9.335	5.832	0.523	0.321	0.270	0.236	0.229	0.221	0.220
Average Annual Total Leakage to Groundwater (in)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0000.0
Average Annual Average Annual Total Leakage Total Leakage to Groundwater to Groundwater (ft^3)	600.0	0.009	0.009	600.0	0.009	0.009	600.0	0.009	600.0	0.009
Peak Daily Leakage to Groundwater (in)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Peak Daily Leakage to Groundwater (ft^3)	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
Waste Thickness (ft)	1	5	7	10	20	40	100	140	200	250



FILE: OMNIB2

Geocomposite		
Manufacturer:	TENAX	
Code:	Tendrain 770-2/7100-2	-2/7100-2
Gradient:	0.1	
Stress	25000	psf
	1197.006	кРа
Transmissivity:	1.00E-03	m^2/sec
Thickness:	7.6	шш
Conductivity:	13.16	cm/sec
Cover soils	daily	
Δ. Γ. Ε.	_	ACTO

					Base Case		
Average Annual Total Head on Top Layer 4 (in)	0.013	0.014	0.015	0.016	0.016	0.017	0.018
Peak Day Average Head (in)	0.212	0.225	0.238	0.251	0.264	0.277	0.290
Peak Day Max Head (in)	0.419	0.445	0.470	0.496	0.523	0.548	0.573
verage Annual Average Annual Total Leakage Total Leakage o Groundwater to Groundwater (ft^3)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Annual Total Leakage to Groundwater (ft^3)	600.0	0.009	0.009	600.0	600.0	600.0	0.009
Peak Daily Leakage to Groundwater (in)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Peak Daily Leakage to Groundwater (ft^3)	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
Length of Drainage (ft)	800	850	006	950	1000	1050	1100



1100

Dec/17/01 FW0400/03

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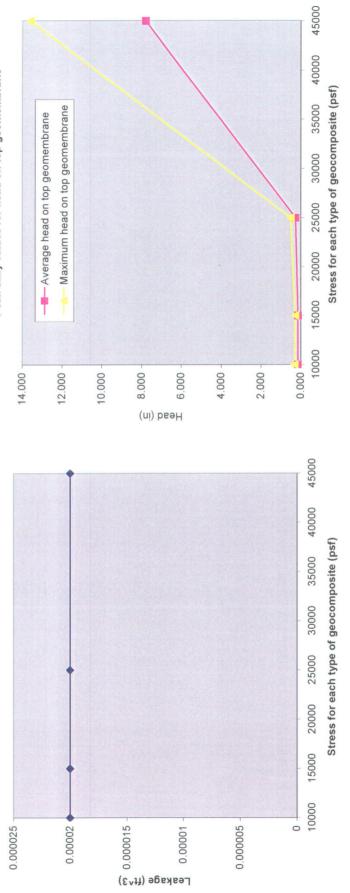
FILE

0				
Average Annual Total Head on Top Layer 4 (in)	0.010	0.009	0.016	0.173
Peak Day Average Head (in)	0.162	0.146	0.264	7.800
Peak Day Max Head (in)	0.321	0.291	0.523	13.591
Average Annual Total Leakage to Groundwater (ft^3)	600.0	600.0	600.0	600.0
Peak Daily Leakage to Groundwater (ft^3)	0.00002	0.00002	0.00002	0.00002
Waste Thickness (ft)	10	10	10	10
Conductivity (cm/sec)	21.43	23.68	13.16	4.49
Thickness (mm)	7.0	7.6	7.6	7.8
Transmissivity m^2/sec	1.50E-03	1.80E-03	1.00E-03	3.50E-04
Stress (kPa)	478.803	718.204	1197.006	2154.612
Stress (psf)	10000	15000	25000	45000
Gradient	0.1	0.1	0.1	0.1
Tendrain	570-2/5100-2	770-2/7100-2	770-2/7100-2	970-2/9100-2

Type of geocomposite Peak daily values for head on top geomembrane

Type of geocomposite Peak daily leakage to groundwater

Base Case



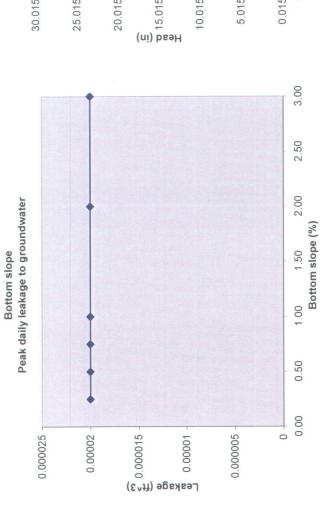
FILE: OMNIB4

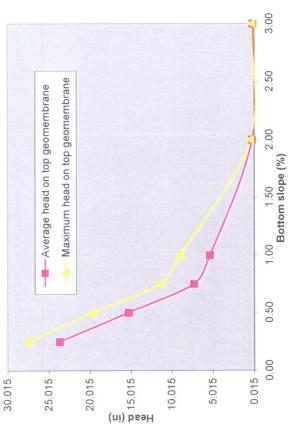
Geocomposite			
Manufacturer:	TENAX		COMMON
Code:	Tendrain 770-2/7100-2	-2/7100-2	THE OWNER OF THE OWNER, THE OWNER, THE OWNER, THE OWNER, THE OWNER, THE OWNER, THE OWNER, THE OWNER, THE OWNER,
Gradient:	0.1		
Stress:	25000	psf	-
	1197.006	кРа	
Transmissivity:	1.00E-03	m^2/sec	CONTRACTOR OF THE PARTY.
Thickness:	9.7	mm	-
Conductivity:	13.16	cm/sec	
Cover soils	daily		NAME OF TAXABLE PARTY.
()	τ	OLOC	

Bottom slope (%)	Peak Daily Leakage to Groundwater (ft^3)	Peak Daily Leakage to Groundwater (in)	Average Annual Average Annual Total Leakage Total Leakage to Groundwater to Groundwater (ft^3)	Average Annual Total Leakage to Groundwater (in)	Peak Day Max Head (in)	Peak Day Average Head (in)	Average Annual Total Head on Top Layer 4 (in)
0.25	0.00002	0.000000	0.009	0.00000	27.606	23.653	2.176
0.50	0.00002	0.000000	0.009	0.00000	19.760	15.293	0.546
0.75	0.00002	0.000000	0.009	0.00000	11.474	7.299	0.145
~	0.00002	0.000000	0.009	0.00000	9.094	5.384	0.053
2	0.00002	0.000000	600.0	0.00000	0.523	0.264	0.016
8	0.00002	0.000000	0.009	0.00000	0.351	0.176	0.011

Base Case

Bottom slope Peak daily values for head on top geomembrane





FILE: OMNIB5

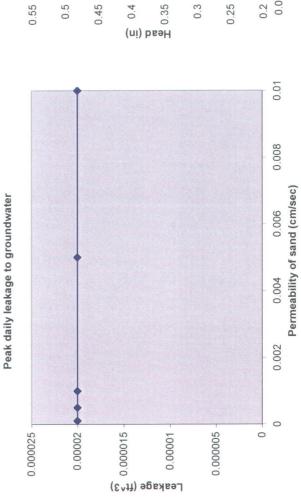
Geocomposite		
Manufacturer:	TENAX	
Code:	Tendrain 770-2/7100-2	-2/7100-2
Gradient:	0.1	
Stress:	25000	psf
	1197.006	кРа
Transmissivity:	1.00E-03	m^2/sec
Thickness:	7.6	mm
Conductivity:	13.16	cm/sec
Cover soils	daily	
VEO 3.	7	Orce

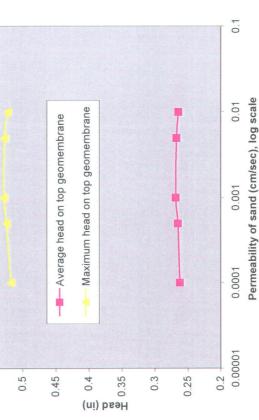
y Average Annual sad Total Head on Top Layer 4 (in)	0.016	0.016	0.016	0.016	0.016
Peak Day Average Head (in)	0.262	0.265	0.268	0.267	0.264
Peak Day Max Head (in)	0.5180	0.5250	0.5290	0.5280	0.5230
werage Annual Average Annual Total Leakage O Groundwater to Groundwater (ft^3) (in)	0.00000	0.00000	0.00000	0.00000	0.00000
Average Annual Arotal Leakage to Groundwater (ff^3)	600.0	0.009	600.0	0.009	600.0
Peak Daily Leakage to Groundwater (in)	0.000000	0.000000	0.000000	0.000000	0.000000
Peak Daily Leakage to Groundwater (ft^3)	0.00002	0.00002	0.00002	0.00002	0.00002
Permeability of sand (cm/sec)	0.0001	0.0005	0.001	0.005	0.01

Base Case

Permeability of sand Peak daily values for head on top geomembrane

Permeability of sand





DIFFERENT DESIGNS FOR THE LINER SYSTEM

Design 1 (Base case, OMNIB)

Layer	Description	Thickness (in)	Texture	Porosity (vol/vol)	Field cap. (vol/vol)	Field cap. Wilting point Conductivity (vol/vol) (vol/vol) (cm/sec)	Conductivity (cm/sec)
-	Vertical percolation	120	18	0.168	0.073	0.019	0.001
2	Vertical percolation	24	_	0.417	0.045	0.018	0.010
က	Lateral drainage	0.299		0.85	0.01	0.005	13.16
4	Geomembrane liner	0.060	35				2E-13
2	GCL	0.250	17	0.750	0.747	0.400	3.00E-09
9	Lateral drainage	0.299		0.850	0.010	0.005	13.16
7	Geomembrane liner	0.060	35				2E-13
80	GCL	0.250	17	0.750	0.747	0.400	3.00E-09
6	Vertical percolation	120.000	5	0.457	0.131	0.058	0.001

FW0400/03 Dec/17/01

RESULTS				
Design	Peak Daily Leakage to groundwater (ft^3)	Average Annual Total Leakage to groundwater (ft^3)	Peak Day Max Head (in)	Peak Day Average Head (in)
1	0.00002	600.0	0.523	0.264
2	0.00004	0.010	0.475	0.240
8	0.00003	0.009	0.523	0.264
4	0.00703	0.474	0.475	0.240
5	0.00028	0.014	0.523	0.264

Design 2 (Take out top GCL, OMNIC)	Description	Vertical percolation	Vertical percolation	Lateral drainage	Geomembrane liner	take out	Lateral drainage	Geomembrane liner	GCL	Vertical percolation
Design 2 (Ta	Layer	-	2	8	4		2	9	7	80

Design 3 (Take out bottom GCL, OMNID)

Layer Description Vertical percolation Vertical percolation Lateral drainage Geomembrane liner _ateral drainage - 0 m 4 m 0 r

Geomembrane liner

Vertical percolation

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take out

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Design 4 (R	resign 4 (Replace bottom GCL With Soil, UMINIE)	, OMINIE)					
Layer	Description	Thickness	Texture	Porosity	Field cap.	Wilting point Conductivity	Conductivity
		Ŀ	number	vol/vol	lov/lov	lov/lov	cm/sec
1	Vertical percolation	120	18	0.168	0.073	0.019	0.001
2	Vertical percolation	24	_	0.417	0.045	0.018	0.010
က	Lateral drainage	0.299		0.85	0.01	0.005	13.16
4	Geomembrane liner	0.060	35				2E-13
	take out						
5	Lateral drainage	0.299		0.850	0.010	0.005	13.16
9	Geomembrane liner	0.060	35				2E-13
7	Barrier soil liner	0000.9		0.475	0.378	0.265	1.00E-05
8	Vertical percolation	120.000	5	0.457	0.131	0.058	0.001

Design 5 (One liner system, OMNIF)	Description	Vertical percolation	Vertical percolation	Lateral drainage	Geomembrane liner	GCL	take out	take out	take out	Vertical percelation
Design 5 (On	Layer	1	2	က	4	2				U

Bradner, James

From:

Janice [suny2455@bellsouth.net] Friday, August 30, 2002 4:43 PM

Sent: To:

Bradner, James

Subject:

Re: Proposed Oak Hammock Landfill

sure do appreicate it....
have a great weekend and holiday
try to stay dry!
blessins.....Jan

---- Original Message -----

From: Bradner, James <James.Bradner@dep.state.fl.us>

To: Janice <suny2455@bellsouth.net>

Cc: Williams, Elizabeth <Elizabeth.Williams@dep.state.fl.us>

Sent: Friday, August 30, 2002 3:18 PM

Subject: RE: Proposed Oak Hammock Landfill

Good afternoon, Janice:

As you requested, I've attached the current working draft permit for the Oak Hammock Landfill. The attached document is what you would find in the file today if you came to the Central District office for a file review. The draft permit may be further revised before we propose final agency action.

I hope you find this helpful, and I wish you a safe and pleasant holiday.

Regards,

Jim

Bradner, James

From:

David S. Dee

Sent:

Monday, September 02, 2002 10:16 AM

To:

Bradner, James

Cc:

Ken Cargill

Subject: Oak Hammock

Jim,

I reviewed the draft permit for Oak Hammock and offer the following comments for your consideration:

1. Cover page, first paragraph, second sentence, third line: "work and operate the facility . . ." Delete "or".

2. General Conditions, No. 11: the correct citation is "62-730.300, Florida Administrative Code . . . " Add the "7".

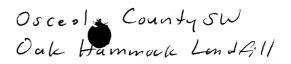
- 3. Specific Conditions, No.1: delete the comma after "the permittee".
- 4. Specific Conditions, No. 2: add a comma after "engineering drawings".
- 5. S.C. 33, last sentence, last line: delete "take" (but not "taken").
- 6. S.C. 38, second line: delete "which".
- 7. S.C. 42: "... vertical <u>and</u>, when the final cover is installed, [and] shall be sodded" Delete the existing "and" and move it, as shown.
- 8. S.C. 57, first sentence, first line: "The permittee shall comply with the <u>applicable</u> requirements of" Subparts WWW and Cc. Add "applicable".

All of these comments are relatively insignificant. However, No. 8 is noteworthy because Subpart Cc may not be applicable here. Subpart Cc may only apply to existing landfills, not new landfills (which are covered by WWW).

Please call me if you have any questions. 850-681-0311.

David Dee





Department of Environmental Protection

Jeb Bush Governor Central District 3319 Maguire Boulevard Suite 232 Orlando, Florida 32803-3767

David B. Struhs Secretary

MEETING ATTENDANCE RECORD								
Purpose: OMNI WASTE	Date: 445 28, 2007							
Name (please print)	Affiliation							
GEORGE CHERYAN	DEP							
WILLIAM J. KOZUH	ONNI- 407-957-7284							
KAY TOBEY	CITY OF ST. CLOUD							
7Im SALOPEK	OMUT WASTE							
LENNY MERION	OSCEOLA Cfy Sold WASTE							
JERRY E KUBAL	KUBAL- FURR & ASSOCIATES							
ren Cargill	Gres Synten Cons. 813-558-0990							
Ayushman Gusta	es ly es la es							
BILL DOSTWICK	FUED							
Jim Dradner.	FDED							
Dand Dee	L4P 850-681-0311							
•								
PARTERILLO ATT								
WILLINGAL	TENDANCE RECORD							

Williams, Elizabeth

From:

Ken Cargill [KCargill@GeoSyntec.com]

Sent:

Tuesday, July 30, 2002 4:54 PM

To:

Bradner, James

Cc:

Cheryan, George; Williams, Elizabeth; Bill Kozuh (E-mail); David S. Dee (E-mail); Timothy J.

Salopek (E-mail)

Subject:

RE: Oak Hammock Disposal Facility



geomembrane penetration.pdf

Jim

Thanks for the opportunity to respond to Lee Martin's comment regarding the geomembrane penetrations in the final cover system of the closed landfill.

Lee is absolutely correct in that the detail as originaly shown would be very hard to monitor and maintain as the landfill goes through waste consolidation after the cap is installed.

We propose to revise the detail as shown in the attached PDF file. As you can see in the detail, there will be an HDPE sleeve, which will be clamped and sealed to the geomembrane boot, around the penetrating HDPE pipe. The sleeve and the penetrating pipe will be sealed with a Fernco-type connector, which will be above the soil cover, where it can be routinely observed and adjusted as the waste consolidates.

We think this is a good fix and will solve the problem, which Lee pointed out.

I will furnish you copies of the revised drawing showing the detail to replace the sheets previously submitted within the next few days. (I will also take the opportunity to furnish you full-size revised sheets of Addendum 2 to the ERP, which we just forwared to Scott W.)

Jim, if you, George, or Lee need further information on this clarification or have other suggestions, please let me know. Thanks again for the opportunity to respond.

Best regards, Ken Cargill

----Original Message----

From: Bradner, James [mailto:James.Bradner@dep.state.fl.us]

Sent: Thursday, July 18, 2002 1:30 PM

To: kcargill@geosyntec.com

Cc: Cheryan, George; Williams, Elizabeth Subject: Oak Hammock Disposal Facility

Good afternoon, Ken:

It was a pleasure meeting with you yesterday, and I appreciate your assistance in sending the results of the liner comparison study to Richard Tedder. We spoke by phone today, and he asked me to let you know that he was

looking forward to receiving the information.

George Cheryan and I have reviewed your reply to my June 17 letter, and found $\ensuremath{\text{S}}$

your responses to be satisfactory. In the interim, we received the following

comment from our colleague Lee Martin in Tallahassee:

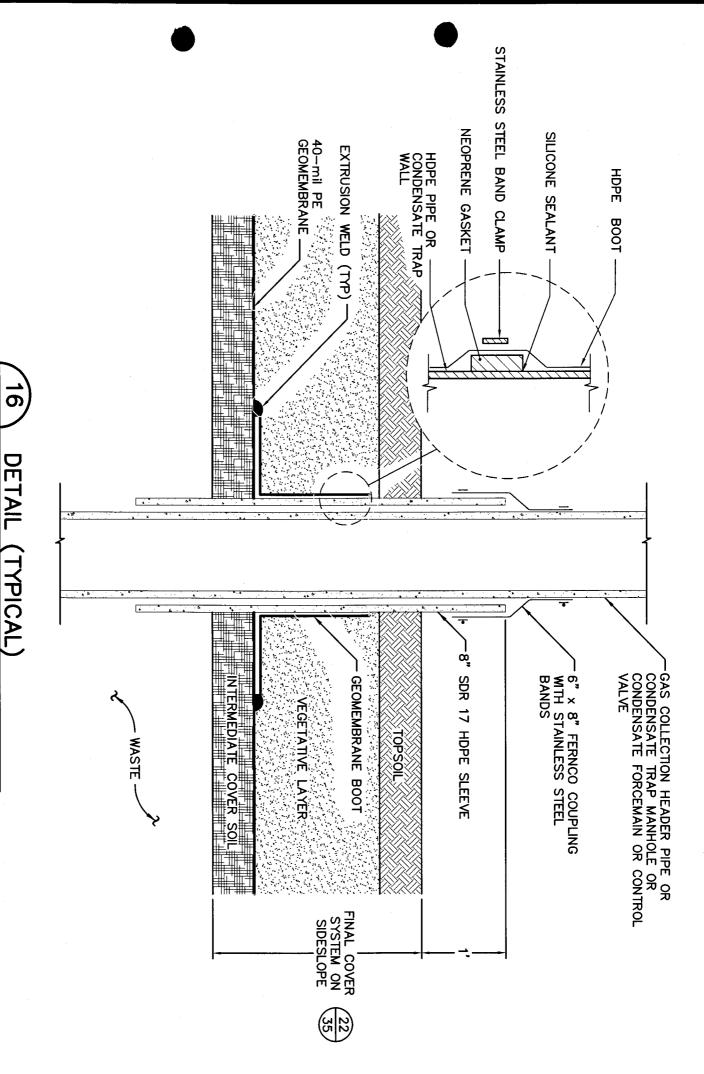
"On sheet 31 of 50, detail 16/31, there seems to be very little expansion capability in the flexible boot for the gas collection wells. Once the 20' of waste under the well settles and compacts, the well may become more or less stationary while the waste above and the cap continue to settle. The narrative indicated settlement of up to 2' at the peak. Since the detail is not to scale, it is hard to tell if the clamp connecting the boot will be visible after the final cover is in place and have the capability of being adjusted as settlement takes place and I couldn't find any inspection requirement in the operations plan after the cap is complete to ensure the boot does not pull away from the liner or the gas collection well. This is something they may want address with a different type of boot or additional inspection requirements."

Rather than send an additional request for information, I would appreciate your response either by email or telephone. I expect you or Bill will have the answer readily available, or would be willing to discuss whether any minor design changes are necessary.

Thanks again, and I will look forward to hearing from you.

Regards,

Jim Bradner



SCALE: N.T.S. XREF: 0400X1041.DWG

GEOMEMBRANE PENETRATION

Florida Department Of Environmental Protection

OCD-SW-02-0304

CENTRAL DISTRICT

TO:

Financial Coordinator

Solid Waste Section

MS-4565

Division of Waste Management

FROM:

James N. Bradner, P.E.

Program Manager

Solid and Hazardous Waste,

DATE:

July 29, 2002

SUBJECT:

Osceola County - SW

Oak Hammock Disposal, Class I

Permit Application Nos. SC49-0199726-001 & SO49-0199726-002

We have reviewed the enclosed closure and long-term care cost estimates dated April 30, 2002, for the subject facility and believe that they are adequate for the site at this time.

Please feel free to contact me if you need any additional information.

JNB/gc/ew

Enclosures

cc: Frank Hornbrook - DEP - Tallahassee - MS-4565



Florida Department of Environmental Protection Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

DEP Form # 62	2-701.900(28)
Form Title Fin	ancial Assurance Cost Estimate Form
Effective Date	05-27-01
_	
DEP Application	n No.

FINANCIAL ASSURANCE COST ESTIMATE FORM

Date:	30 APRIL 2002	Date	e of DEP Ap	proval: _			
I. GENERAL INI	FORMATION:						
Facility Name:	OAK HAMMOO	K DISPOSA	1		WACS or GM	SID #: _	
Permit / Applicat							
	HIGHWAY U.S.	441					
	OMNI WASTE		LA COUN	TY, LLC	•		
	: 100 CHURCH S		mmee,	•	_		
		Longitude: <u>Ø</u> /			or	UTM:_	
PHASE 1 Phase / Cell 1 2 3 4	Acres 18.04 12.44 10.98	A PK	Date Unit Began Accepting Waste ROPOSED ROPOSED ROPOSED		Design Life of From Date of Receipt of V 5 YEAR 5 YEAR 5 YEAR 5 YEAR	f Initial Vaste S S S S	
Total Landfill A	creage included in this e	estimate. <u>5</u>	52.44	Closure	52.44		Long-Term Care
Type of landfill:	X	_Class I		Class III			C&D Debris
II. TYPE OF F	INANCIAL ASSURANC	E DOCUMENT	Check Type)	WILL BE PERMIT	PROVIDED TO ISSVANCE.	FDEP	PRIOR TO
	Letter of Credit*		····	Insurance	Certificate		*Indicates mechanisms that
	Performance Bond*			Escrow Ad	count		require use of a Standby Trust Fund
	Guaranty Bond*			Trust Fund	d Agreement		Agreement

40 CFR Part 264 Subpart H as adopted cost estimate adjustment. Cost estimate closure in current dollars. Select one of	tes may be adjuste	ed by using an inflation fact	or or by recalculating	ts forth the method of annual the maximum costs of
(a) Inflation Factor Adjustment Inflation adjustment using an inflation factorages have occurred in the facility of derived from the most recent Implicit Posurvey of Current Business. The inflation previous year. The inflation factor may	actor may only be peration which wor rice Deflator for Gr on factor is the res	uld necessitate modification loss National Product publis sult of dividing the latest pul	n to the closure plan. shed by the U.S. Dep blished annual Deflat	partment of Commerce in its tor by the Deflator for the
This adjustment is based on	the Department a	approved closure cost es	timate dated:	NA
Latest Department Approved		Current Year		Inflation Adjusted
NA	x	N/A	=	<u>NA</u>
This adjustment is based on the	Department app	roved long-term care cos	st estimate dated:	<u>N</u> A
Latest Department Approved Annual Long-Term Care Cost Estimate:		Current Year Inflation Factor		Inflation Adjusted Annual Long-Term Care Cost Estimate:
<u> </u>	X	NA	=	<u> </u>
Number of Years Inflation Adjusted			x =	N/A N/A
This is to certify that the Financial Ass management facility have been exam professional judgement, the Cost Estilong-term care of the facility and com Department of Environmental Protect Estimates shall be submitted to the Department of Engineer **ENNETH W. CARGILL P.E.** Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.** **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.* **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.* **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.* **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.* **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.* **Name & Title (please type) **Signature of Engineer** **ENNETH W. CARGILL P.E.* **Name & Title (please type) **Signature of Engineer** **Title P.E.* **Title	surance Cost Esting ined by me and for mates are a true, on ply with the required ion rules, and state epartment annual PRINCIPAL	und to conform to engineer correct and complete representations of Florida Administrates of the State of Florida. Iv, revised or adjusted as Florida. Signature Timot Name & Ti (4) Telephone FL 33637 Cowner/Op	ing principals applicate sentation of the finantiative Code (F.A.C.), It is understood that required by Rule 62-7 of Owner/Operator (THY J. SALOPE) itle (please type)	cial liabilities for closing and Rule 62-701.630 and all other the Financial Assurance Cost 01.630(4), F.A.C. EK, PRESIDENT . com

III. ESTIMATE ADJUSTMENT

V. RECALCULATE ESTIMATED CLOSING COST

For the time period in the landfill operation when the extent and manner of its operation makes closing most expensive.

- ** Third Party Estimate / Quote must be provided for each item
- ** Costs must be for a third party providing all material and labor

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
1. Proposed Monitoring Wells 💥	(Do not	include wells already in e	xistence.)	
	EA	N/A WEUS	TO BE INSTAURD	PRIOR TO TAKING WASTE
2. Slope and Fill (bedding layer between	n waste and I	barrier layer): 💥		
Excavation	CY))		
Placement and Spreading	CY }	84,975	# 4.50	# 552,338
Compaction	CY,))	
Off-Site Material	CY			<u> </u>
Delivery	CY			<u>NA</u>
		Subtotal M	onitoring Wells :	<i>\$ 552,338</i>
3. Cover Material (Barrier Layer): 💥				
Off-Site Clay	CY			N/A
Synthetics - 40 mil Texture D PE GEOMEMBRAN	SY	143,316	# 5.50	# 788,238
Synthetics - GCL 40 mil Smooth De Geomembe		111,610	\$ 5.00	<u>\$ 558,050</u>
Synthetics - Geonet	SY	143,316	# 4.50	\$ 644, 922
Synthetics - Other	SY			<u> </u>
		Subtotal Ba	rrier Layer Cover:	\$1,991,210
VEGETATIVE SOIL 4. Top So il Cover: ★				
Off-Site Material	CY			N/A
Delivery	CY			N/A
Spread	CY	42,488	# 4.00	<i>\$169,952</i>
		Subtotal	Top Soil Cover:	\$ 169,952

* SEE ATTACHED NOTES AND CALCULATIONS

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
5. Vegetative Layer *				
Sodding	SY			N/A
Hydroseeding)	AC)			
Fertilizer	AC	53 ACRES	# 2,000 /Acce	\$ 106,000
Mulch)	AC)			
Other	SY			<u> </u>
		Subtotal \	/egetative Layer:	\$ 106,000
6. Stormwater Control System: 💥				
Earthwork	CY	20,000	\$ 6.50	# 130,000
Grading	SY			<u>N/A</u>
Piping /CONNECTORS	LF			# 17,247
Ditches	LF			<u>NA</u>
Berms	LF			N/A
Control Structures	EA	<u> </u>	\$ 1,884	# 11,304
Other	LS			<u>NA</u>
		Subtotal St	ormwater Controls:	<u>\$ 158,551</u>
ACTIVE 7. Gas Controls: Passive *				
Wells	EA		# 95.75/H	\$ 90,963
Pipe and Fittings	LF)	
Monitoring Probes	EA		\$50/H	\$ 11,000
NSPS/Title V requirements	LS			N/A
		Subtotal Pa	assive Gas Control:	# 101,963

SEE ATTACHED NOTES AND CALCULATIONS

SCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
Gas Control: Active Extraction				
Traps	EA		# 850	# 850
Sump	EA	1	# 7,500	# 7,500
Flare Assembly	EA	1	\$ 76,550	# 76,550
Flame Arrestor	EA	1	# 4,000	# 4,000
Mist Eliminator	EA	1	# 3,900	4 3,900
Flow Meter	EA	1	# 4,200	\$ 4,200
Blowers	EA	1	# 17,000	# 17,000
	LUMPSUM			<i>\$ 21,413</i>
Collection System	-2.7			NA
Other (describe)			tive Gas Extraction:	# 135,413
Security System: *	LF)			Nla
·	- 1	mp sum cost		#5,000 N/A
Fencing Gate(s)	EA LU		Security System:	
Fencing Gate(s)	EA LUI		Security System:	# 5,000 N/A # 5,000
Fencing Gate(s) Sign(s)	EA LUI		Security System:	# 5,000 N/A # 5,000 N/A
Fencing Gate(s) Sign(s) Engineering:	EA LV		Security System:	# 5,000 N/A # 5,000
Fencing Gate(s) Sign(s) Engineering: * Closure Plan report Certified	EA LVA			# 5,000 N/A # 5,000 N/A INCLUDE N/A N/A
Fencing Gate(s) Sign(s) Engineering: * Closure Plan report Certified Engineer	EA LVA		\$ 7,500	# 5,000 N/A # 5,000 N/A N/A N/A N/A N/A ** ** ** ** ** ** ** ** **
Fencing Gate(s) Sign(s) Engineering: * Closure Plan report Certified Engineer NSPS/Title V Air Permit	EA LVA			# 5,000 N/A # 5,000 N/A INCLUDE N/A N/A

11. Professional Services 💥

_	Contract Mana	agement	Quality A	Assurance	_	
_	Hours	LS	Hours	LS		Total
P.E. Supervisor		<u>N/A</u>		NA	_	NA
On-Site Engineer _		NA		NA	_	NA
Office Engineer		_N/A_		NA	_	N/A
On-Site Technician _		NA		NA	_	NA
Other (explain)	4	128,817		* 225,43	<u>30</u>	354 , 247
DESCRIPTION		UNIT	QUANTITY	UNIT COS	ST	TOTAL
Quality Assurance Tes	ting	LS		# 128,0	000	* 128,000
			Subtotal	Professional Se	ervices:	# 482,247
			Subtotal of 1-	11 Above:	# 3,7	78,674
12. Contingency *	10	% of Total				# 377,867
•			Closing Cost	Subtotal:	# 4	;156,541
13. Site Specific Costs	s (explain) 🔻					
<u>Mobilizatior</u>	<u>]</u>				# 1	61,021
Waste Tire	Facility		<u> </u>		-	NA
Materials R	Recovery Facility				<u></u>	NIA
Special Wa	ıstes					NIA
	/lanagement Syst	em Modification				NA
Other						NA
						NIA
-	,		Subtotal Site Sp	ecific Costs:	#	
					# 1	161,021 4,317,562
			TOTAL CLOSI	NG COSTS		1/2

VI. ANNUAL COST FOR LONG-TERM CARE		((Check Term Length)	
	5 Years	20 Years	X _30 Years	Other
			0(11)b. F.A.C. for required long-term care length as "0	
	** Third Party Estima ** Costs must be for a	ite / Quote must be pro third party providing		
All items must		detailed explanation	for all items marked not app	olicable (N/A)
Description	Sampling Frequency (events/yr.)	Number of Wells	\$ / Well / Event	\$ / Year
1. Groundwater Monitor	ring (62-701.510(6), and (_{(8)(a))} ★		
Monthly	12			NA
Quarterly	4			NA
Semi-Annual	2	<u>45</u>	# 495	# 44,55
Annual	1			NA
		Subtotal (Groundwater Monitoring:	# 44,5
Surface Water Monit	toring (62-701.510(4), and		Ů	
				. \$
Monthly	12		-	<u> </u>
Quarterly	4			<u>NA</u>
Semi-Annual	2			<u>NJA</u>
Annual	1			NA
		Subtotal S	urface Water Monitoring:	NA
3. Gas Monitoring 🛠				
Monthly	12			NA
Quarterly	4	I EVENT	# 750/EVENT	* 3,000
Semi-Annual	2			NA
Annual	1			NA
	ES AND CALOUATIO		otal Gas Monitoring:	\$ 3,00

Description	Sampling Frequency (events/yr.)	Number of Locations	\$/Location/Event	\$ / Year
Leachate Monitoring (62-70	01.510(5), (6)(b) an	d 62-701.510(8)(c) 🔻		
Monthly	12		***************************************	NA
Quarterly	4			NA
Semi-Annual	2		Web Array Inc.	NIA
Annual	1		# 1,268	\$ 5,072
Other				NIA
		Subtotal I	Leachate Monitoring:	\$ 5,072
DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COS
Collection Pipes Sumps, Trap s PUMPS	LF EA			# 1,733 # 1,733
Maintenance				4
Sumps, Traps AIMPS	EA			# 1,733
Lift Stations	EA			NA
Cleaning	LS			Na
Tanks	EA			NIA
mpoundments				
Liner Repair	SY			₩ 800
Sludge Removal	CY			NA
Aeration Systems	CY			N)A
Floating Aerators	EA		Weekley	NIA
Spray Aerators	EA		Section 1 de la constant de la const	NA
Disposal				
Off-site (Include Transportation an	Lume sum 1999 gallon ad Disposal)			4 175
DEP FORM 62-701.900(28) Effective 05-27-01				Page 8 of 11

6. Leachate Collection/Treatme	ent Systems Op	eration 🔨		
Operation		<u>Hours</u>	\$/Hour	Total
P.E. Supervisor	HR	-		<u>N)A</u>
On-Site Engineer	HR			NA
Office Engineer	HR			NIA
OnSite Technician	HR	156	\$ 50	\$ 7,800
Materials	LS			NA
Subtot	al Loachate Coll	ection/Treatment System M	aintenance & Operatio	n: \$ 11,841
			amonanoo a operane	
7. Maintenance of Groundwate	_	ens ·v		NA
Monitoring Wells	LF)	/	(\$ 350
Replacement	EA 👌		<u> </u>	NIA
Abandonment <i>)</i>	EA /	<i>)</i>)
		Subtotal Groundwater Mor	nitoring Well Maintenar	nce: # 350
DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
8. Gas System Maintenance	*			
Piping, Vents	LF			<u>N/A</u>
Blowers	EA			# 1,200 /30y
Flaring Units	EA			# 850 / 30 yk
Meters, Valves	EA			\$ 600 / 30y
Compressors	EA			# 300 / 30 y
Flame Arrestors	EΑ			\$ 250 /30 yr
Operation	LS			NA
		SubTo	otal Gas System:	# 106 /YR
0. Landaana ¥				
9. Landscape	AC	60 Acres x 4 Times	YR	\$ 24,000

DEP FORM 62-701.900(28) Effective 05-27-01

Fertilizer

Page 9 of 11

Subtotal Landscape Maintenance:

24,000

AC

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
10. Erosion Control & Cover Ma	aintenance			
Sodding	SY	500	# 1.80	# 900
Regrading	AC			NA
Liner Repair	SY	1 EVENT	\$ 1,200	\$ 1,200
Clay	CY			NA
		Subtottal Erosion Contro	ol and Cover Maintenance:	# 2,100
11. Storm Water Management	System Mainte	enance	,,	
Conveyance Maintenance	LS		\$ 2,000	\$ 2,000
		Subtotal Storm Water	er System Maintenance:	\$2,000
12. Security System Maintena	nce			
Fences	LF	100	* 7.50	# 750
Gate(s)	EA		# 310	# 310
Sign(s)	EA	2	<u>* 17 </u>	# 34
		Subtotal Se	ecurity System:	# 1,094
13. Utilities 💥	LS			# 12,000
14. Administrative 💥		<u>Hours</u>	\$/Hour	Total
P.E. Supervisor	HR			NIA
On-Site Engineer	HR			NA
Office Engineer	HR			<u>NA</u>
OnSite Technician	HR			NA
Other (explain)				# 13,000
		Subtotal A	Subtotal Administrative:	
15. Contingency /D	% of Total	1070 OF \$	10% OF \$ 119,113	
* SEE ATTACHED NOTES	AND CALC	UU47/0NS Subtotal	Contingency:	# 11,911

16. Site Specific Costs (explain)	UNIT COST	-
	LS	NA
	LS	NA
	LS	<u>N/A</u>
AN	INUAL LONG-TERM CARE COST (\$/Year):	# 131,024
NU	UMBER OF YEARS OF LONG-TERM CARE	30
	TOTAL LONG-TERM CARE COST (\$)	# 3,930,720

Oak Hammock Disposal Notes and Calculations to Accompany 2002 Financial Cost Estimate

The items listed below were derived by item/ unit pricing from contractors and manufacturers. Any estimated or assumed quantities are based on State and Federal guidelines. All estimated costs are for work to be performed by a third party.

Closure Costs

1. Monitoring Wells

Ground water monitoring wells will be installed during construction of Phase I (i.e., Cells 1-4) and, therefore are not included as part of the closure construction estimate.

2. Slope and Fill (Intermediate Cover)

During construction of the first phase, borrow area soils will be used for future use as initial/intermediate cover. CADD estimated cubic yardage is 84,975 cy for 1 ft. of intermediate cover over waste surface.

Cost per cubic yard includes excavation, hauling, placement, spreading and compaction.

84,975 cy @ \$6.50 / cy = \$552,338

3. Cover Material (Barrier Layer)

The final cover system for the Phase I cells is comprised of (from bottom to top) 40-mil PE textured (4:1 slopes) and smooth (5% grades) geomembrane, geocomposite drainage layer on 4:1 side slopes and 18 inch layer of cover protective soil. Cover protective soil will consist of material obtained from on-site borrow area. Cost for cover protective soil includes excavation, hauling, placement, spreading and compaction. Cost for geosynthetics includes material and installation costs. CADD generated quantities are:

127,463 cy soils @ \$6.50 cy = \$828,510

143,316 sy 40-mil PE textured geomembrane @ \$5.50 sy = \$788,238

111,610 sy 40-mil PE smooth geomembrane @ \$5.00 sy = \$558,050

143,316 sy geocomposite drainage layer @ 4.50 sy = 644,922

Total = \$1,991,210

Closure Costs (Continued)

4. Top Soil Cover (Vegetative Soil Layer)

Vegetative soil layer material will be stripped from the Phase I footprint area and stockpiled on-site for use in the cover system. Vegetative soil layer material will also be available from adjacent future cells (i.e., cells 5-21). The vegetative soil layer consists of 6 in. layer over entire cover area. Cost per cubic yard includes hauling, placing and spreading. CADD generated quantity: 42,488 cy. 42,488 cy. 42,488 cy. 42,488 cy. 42,488 cy. 42,488 cy. 42,488 cy.

5. Vegetative layer

The final cover area will be hydro-seeded. Hydro-seeding cost includes all labor and materials. CADD generated quantity: 53 acres 53 acres x \$ 2,000/ acre = \$ 106,000.

6. Stormwater Control System

The perimeter and site storm water control system components will be installed as part of the landfill construction and therefore are not included as part of the closure construction estimate. Storm water control components for the Phase I closure will consist of drainage swales, drains and HDPE corrugated pipe downchutes. Drainage swales will be constructed as part of protective cover soil placement and grading. Additional earthwork associated with installation of drains and downchutes is estimated to include 20,000 cy. Earthwork estimate is to include excavation, backfilling and compaction.

Earth work: 20,000 cy @ \$6.50 cy = \$ 130,000

Piping: 180 If of 36" HDPE pipe @ \$26.28/ft = \$4,730

840 lf of 24" HDPE pipe @ \$13.24/ft = \$11,122

 3×24 " "T" connector @ \$430 ea. = \$1,290

6 x 24" couplers @ \$17.54 ea. = \$105

Each downchute requires an energy dissipater (total of 6) @ \$1,884 ea. = \$11,304 Total cost = \$158,551

7. Gas Controls: Active System

The Oak Hammock Disposal facility will have an active gas extraction system installed. Nineteen gas extraction wells are to be installed as part of the gas control system. Cost per well: \$95.75/ft. Cost per foot includes all labor and materials for installation. Landfill gas monitoring probes will be installed at a minimum spacing of 500 lf around the perimeter of the landfill. Cost per monitoring probe: \$50/ft, cost per foot includes all labor and materials for installation.

Gas extraction well installation cost = $$95.75/\text{ft} \times 50 \text{ ft.}$ (average depth) x 19 wells = \$90,963.

Closure Costs (Continued)

4 / + 1

Landfill gas monitoring probe installation cost = $$50/\text{ft} \times 20 \text{ ft.}$ (average depth) x 11 = \$11,000

8. Gas Control: Active System

Active gas system components based on permit design package. Components and associated costs are listed below. Costs include labor and materials.

1 Trap @ \$850

1 Sump @ \$7,500

1 Flare Assembly @ \$76,550

1 Flame Arrestor @ \$4,000

1 Mist Eliminator @ \$3,900

1 Flow Meter @ \$4,200

1 Blower @ \$17,000

Main header pipe: 500 lf 12" solid wall SDR-17 HDPE pipe installed @ \$8.76 lf = \$4,380

Header pipe: 3,065 lf 8" solid wall SDR-17 HDPE pipe installed @ \$3.98 lf = \$12.199

Collector pipe: 2,912 lf 4" solid wall SDR-17 HDPE pipe installed @ 1.66 lf = 4.834

Total Active Gas Extraction = \$ 135,413

9. Security System

Perimeter fencing, gates and signs will be repaired, if required for closure. A \$5,000 lump sum allowance has been estimated for this work. Note that perimeter fencing and gates will be installed as part of the Phase I construction and therefore have not been included as part of the closure costs. Closure signs will be installed as required.

10. Engineering

Certification report to include preparation of report and certification by Florida registered professional engineer: \$ 16,500.

Other: Construction Drawings and Technical Specifications: \$52,000

11. Professional Services

Estimate that 4% of construction cost will be needed for contract/construction management i.e., $0.04 \times \$3,220,427 = \$128,817$

Closure Costs (Continued)

Estimate that 7% of construction cost will be needed for construction quality assurance i.e., $0.07 \times \$3,220,427 = \$225,430$

Quality Assurance testing based on requirements of CQA Plan and estimated quantities.

12. Contingency

Estimate contingency of 10 % of closure cost.

13. Site Specific Costs:

Contractor mobilization estimated to be 5 % of construction cost, not including professional services costs (i.e., 5% of \$3,220,427) = \$161,021.

Annual Costs for Long Term Care

1. Ground Water Monitoring

Forty-five ground water monitoring wells are to be installed for Phase I construction. Assume that all wells are sampled on semi-annual basis per F.A.C. Cost to sample each well: \$495. Cost includes all labor, equipment and laboratory analyses required per F.A.C.

 $45 \times $495 = $22,275 \times 2 \text{ times/year} = $44,550 / year$

2. Surface Water Monitoring

The Oak Hammock facility has been designed to retain all water from a 100-year storm event on-site. No off-site discharge of surface water is anticipated, therefore, no associated monitoring costs have been included.

3. Landfill Gas Monitoring

Landfill gas monitoring probes will be installed a minimum of 500 lf around the perimeter of Phase I construction as part of the closure plan. The monitoring probes will be monitored quarterly for concentrations of combustible gases. Quarterly landfill gas monitoring cost: \$750 / event x 4 events/year = \$3,000 year

4. Leachate Monitoring

Phase I of the Oak Hammock Disposal consists of four cells. A leachate sample would be collected from each cell annually. Each leachate sampling cost includes all labor, equipment and laboratory analyses required per F.A.C. Annual leachate monitoring cost: \$1,268 /leachate sample x 4 leachate samples/year = \$5,072\$ year.

5. Leachate Collection/Treatment System Maintenance

For the long term care, assume the following maintenance activities.

Leachate collection pipes: Estimate that each cell will require one cleaning within the 30-year monitoring period. 4 cells x \$10,000 cell = \$40,000 / 30 years = \$1,333 /year.

Leachate pumps: Estimate pumps require annual maintenance and each cell will require a replacement pump during the 30-year monitoring period. Annual maintenance = 4 cells x \$250/cell = \$1,000 /year. Leachate pump replacement cost = 4 pumps x \$5,500/pump /30 years = \$733. Estimated annual cost for pumps = \$1,733

Leachate storage containers: Assume each of the three flexible storage bladders will require replacement over the 30 year monitoring period. Replacement cost of \$8,000 per flexible bladder. 3 bladders x $$8,000 / bladder / 30 years = \frac{$800 / year}{}$.

Annual Costs for Long Term Care (Continued)

Leachate disposal: After closure, for each cell estimate leachate production rate of 1.0 gal/day x 365 days/year x 4 cells = 1,460 gallons of leachate/year x \$.12 / gallon for transportation and treatment = \$175/year. Total leachate system maintenance = \$4,041 /year.

6. Leachate Collection/Treatment Systems Operation

Estimate that leachate system operation is monitored on a weekly basis by a technician for total of 3 hours/week x 52 weeks/year x \$50 /hour = \$7,800/year.

7. Maintenance of Groundwater Monitoring Wells

Estimate that 3 wells require abandonment and replacement within the 30-year monitoring period. Abandonment cost: \$500 per well x 3 wells = \$1,500 / 30 years = \$50 / year. Replacement cost: 60 ft x 50 / ft x 3 wells = \$9,000 / 30 years = \$300 / year. Total estimated annual cost = \$350 / year

8. Gas System Maintenance

Estimate that the equipment listed on DEP form will require replacement once within the 30-year maintenance period. Annual cost = \$3,200 / 30 years = \$106 / year.

9. Landscape

Estimate 60-acre area requiring maintenance and that the grass will require cutting four times/year at a cost of \$100 per acre. Mowing/maintenance: 4 times year x 60 acres $\times $100/acre = $24,000$

10. Erosion Control and Cover Maintenance

As indicated on DEP form.

11. Storm water Management System Maintenance

As indicated on DEP form.

12. Security System Maintenance

As indicated on DEP form.

Annual Costs for Long Term Care (Continued)

13. Utilities

Estimate power requirements for site equipment (i.e., pumps, lights, blowers, etc.) to be $1,000 / \text{month } x 12 \text{ months} = \frac{12,000 / \text{year.}}{12,000 / \text{month}}$

14. Administrative

Estimate that lump sum administrative/overhead costs for Phase I: = \$13,000 / year.

15. Contingency

Estimate contingency of 10 % of total long term annual care cost (i.e., 0.10 x \$119,113 = \$11,911 / year).

Williams, Elizabeth

From:

Bradner, James

Sent:

Thursday, July 18, 2002 1:30 PM

To:

'kcargill@geosyntec.com'

Cc:

Cheryan, George; Williams, Elizabeth

Subject:

Oak Hammock Disposal Facility

Good afternoon, Ken:

It was a pleasure meeting with you yesterday, and I appreciate your assistance in sending the results of the liner comparison study to Richard Tedder. We spoke by phone today, and he asked me to let you know that he was looking forward to receiving the information.

George Cheryan and I have reviewed your reply to my June 17 letter, and found your responses to be satisfactory. In the interim, we received the following comment from our colleague Lee Martin in Tallahassee:

"On sheet 31 of 50, detail 16/31, there seems to be very little expansion capability in the flexible boot for the gas collection wells. Once the 20' of waste under the well settles and compacts, the well may become more or less stationary while the waste above and the cap continue to settle. The narrative indicated settlement of up to 2' at the peak. Since the detail is not to scale, it is hard to tell if the clamp connecting the boot will be visible after the final cover is in place and have the capability of being adjusted as settlement takes place and I couldn't find any inspection requirement in the operations plan after the cap is complete to ensure the boot does not pull away from the liner or the gas collection well. This is something they may want address with a different type of boot or additional inspection requirements."

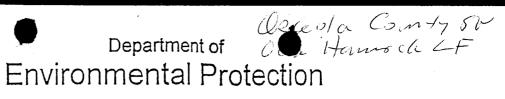
Rather than send an additional request for information, I would appreciate your response either by email or telephone. I expect you or Bill will have the answer readily available, or would be willing to discuss whether any minor design changes are necessary.

Thanks again, and I will look forward to hearing from you.

Regards.

Jim Bradner





Central District 3319 Maguire Blvd, Ste 232 Orlando FL 32803

MEETING ATTENDANCE RECORD

Purpose:		Date:
Omni Waste of Osceola	County LF	July 17 2002.
Name (Please Print):	Affiliation & Phone Numl	
Scott Wesson	FDEP (ERP)	407-893-3312
KellieBoston	FDEP 11	407-893-3317
John Bailey	Biological Research	ASSOC. 813-664-4500
David Dee	Laudeus + Persons	850-681-034
Lienny MARION	OSCEOLA COUNTY	407-847-4481
Ken Cara:11	Greo Syster Consultant	\$13 558 0990
HARKY TOMLINGON	GROSYNTEL	(561) 995-0900
Sharon Stanfill	Omn, waste	407 -957-7284
WILLIAM J. KOZUH	OUNI WASTE	/1
SAID IRAVANI	Geosyntec	813-558-0990
Jim Bradner	FDEP Sulid + Haz	Waste 427-893-3329
BILL BOSTWICK	FOEP WASTE MGT.	407 893-3327
Tamy Tolbu	FDEP	407-893-3326
	·	
•		
-:		
	•	
- Contract of the Contract of		

Cheryan, George

From:

Tedder, Richard

Sent:

Monday, July 15, 2002 9:50 AM

To:

Cheryan, George

Cc:

Bradner, James; Martin, Lee

Subject:

Oak Hammock Landfill: SC49-0199726-001, SO49-0199726-002

George,

I have reviewed the comments dated June 28, 2002 in response to your RAI for the Oak Hammock Landfill project. I am OK with their response to the question on slope stability I sent you earlier. Just wanted you to know. Thanks. - RT

Environmental Protection

CENTRAL DISTRICT

TO:

Jim Bradner, P.E

FROM:

Deborah Helle, P.G

DATE:

July 8, 2002

SUBJECT:

Oak Hammock New Class I Permit RAI 1 Review

I have reviewed the referenced document. My RAI questions have been answered satisfactorily.

Memorandum

Florida Deartment of Environmental Protection

TO:	Deborah Helle, P.G. R. TEDDER P.E. / LEE MARTIN, P.E
FROM:	Jim Bradner, P.E.
DATE:	July 8, 2002
SUBJECT:	County: OSCEOLA Permit/OGE: SC49-0199726-001 & S049-0199726-002 Facility: OAK HAMMOCK DISPOSAL, CLASSI-CONSTR 4 OPERAT Attachment:
The attached	d is being sent to you for:
	Information only
	Review and comments
If review com	iments are needed, please respond:
	Solid Waste deadline is July 22, 2002
	As soon as possible for your schedule.
Comments: _	

Memorandum

Florida Partment of

Environmental Protection

TO:	Deborah Helle, P.G.
FROM:	Jim Bradner, P.E.
DATE:	July 8, 2002
SUBJECT:	County: DSCEOLA Permit/OGG: SC49-0199726-001 & SO49-0199726-002 Facility: DAK HAMMOCK DISPOSAL, CLASSI-CONSTR& OPERA Attachment:
The attached	d is being sent to you for:
•	
	Information only
•	Review and comments
f review com	nments are needed, please respond:
	By: (Solid Waste deadline is July 22, 2002) As soon as possible for your schedule.
• •	
omments: _	
· · · · · · · · · · · · · · · · · · ·	

28 June 2002

Mr. James N. Bradner, P.E.

Program Manager, Solid/Hazardous Waste

Florida Department of Environmental Protection, Central District
3319 Maguire Boulevard, Suite 232

Orlando, Florida 32803-3767

Subject:

Addendum 1, Construction/Operation Permits

Oak Hammock Disposal Facility

Permit Application Nos. SC49-0199726-001 and SO49-0199726-002

Omni Response to FDEP Request for Additional Information

Dear Mr. Bradner:

The purpose of this letter is to address the request for additional information (RAI) on the above referenced permit applications from the Florida Department of Environmental Protection (FDEP). The RAI were addressed to Mr. Timothy J. Salopek by letter dated 17 June 2002. An original and five copies of this response to the RAI are being provided to FDEP so that the response can be incorporated into each of the five copies of the permit application previously submitted. Each RAI has been reproduced in italic font below and the response to the RAI is given in normal font.

Item 1:

Submit proof of publication of Notice of Application that was published in a newspaper of general circulation in the area where the facility will be located for a permit to construct and operate a Class I landfill to be known as the Oak Hammock Disposal

Response:

A Notice of Application was published in the Osceola section of the Orlando Sentinel on Wednesday, 22 May 2002. A copy of the proof of publication is submitted as Attachment 1.

Item 2:

Submit proof of receipt of Notice of Application to the Chair of the Board of County Commissioners and the State Senator and Representative serving the jurisdiction in which the Class I landfill to be known as the Oak Hammock Disposal will be located.

Response:

On 22 May 2002, Notice of Application was sent to the Chair of the Osceola County Board of County Commissioners (Honorable Paul Owen), the State Senator (Honorable Howard E. Futch), and State Representative (Honorable Frank Attikisson) serving the jurisdiction in which Oak Hammock Disposal will be located. Proof of receipt is submitted herewith as Attachment 2.

Item 3:

Vol. 1, Page 10, Section 2.7.2 states the construction and demolition debris and other waste classified as Class I waste may be disposed in the OHD landfill. Provide a description of the construction and demolition debris and other waste that will be disposed in the OHD Class I landfill.

Response:

Only wastes classified as Class I solid waste will be disposed at Oak Hammock Disposal facility. Based on recently issued FDEP guidance, it is understood that CCA-treated lumber may be classified as Class I solid waste. Construction and demolition debris (C&D) meets the definition of Class I solid waste and the facility will accept C&D. Clean debris consisting of asphalt and concrete may be accepted and stored at the landfill for use for on-site road construction and maintenance.

Item 4:

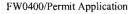
Item A-12, on Page 5 of 40, DEP Form 62-701.900(1) needs to be completed. Submit the revised page.

Response:

A revised Page 5 of 40, DEP Form 62-701.900(1) is submitted as Attachment 3.

Population given in Item A-12 considers that the facility primarily will serve the needs of the citizens of Osceola County and possibly may serve the needs of surrounding counties. According to population figures available from the Osceola





County Planning Department, the County had a population of 172,493 in 2001 and the projected population for the county area in the year 2010 is projected to be 231,500, which leads to a five-year projection of about 211,831 (year 2007). According to the Florida Association of Counties, surrounding counties had a population of over 2,000,000 in 2001. The surrounding counties would have a population of about 2,456,000 in 2007 using the Osceola County rate of growth. Therefore, the current and projected population is about 2.2 million and 2.7 million respectively in the potential service area.

The date given in Item A-13 considers that the initial landfill cell is estimated to be completed and ready for inspection between March and June of 2003.

Item 5:

Items B-2 and B-16 on Pages 6 and 7 of 40, on DEP Form 62-701.900(1) needs to be completed. Submit the revised pages.

Response:

Revised Pages 6 and 7 of 40, DEP Form 62-701.900(1), including completed Items B-2 and B-16, are submitted as Attachment 4. The facility site supervisor is Mr. Timothy J. Salopek, President, Omni Waste of Osceola County, LLC (Item B-2). The working face will be covered at the end of each working day (Item B-16).

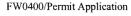
Item 6:

Vol. 1, Page 21, Section 4.2.1 states that leachate will be transported by truck to a wastewater treatment plant. Submit the name and address of the wastewater treatment plant and the name and phone number of the contact person at the wastewater treatment plant.

Response:

Leachate will be transported by truck to the city of St. Cloud Wastewater Treatment Plant located at 2800A Lakeshore Blvd., St. Cloud, Florida 34769. Mr. Ray Tobey is the contact person, and he can be reached at 407-957-7263.





Item 7:

Vol. 1, Page 2, Section 1.2 states that the OHD site is located in Sections 11, 13 and 14 and Sections 17 and 18. The site ownership in Appendix C refers to Sections 13 and 14, and Section 18. Page 4 of 40, DEP Form 62-701.900(1) refers to Sections 11 and 14. Please clarify.

Response:

The Oak Hammock Disposal facility will encompass all of Sections 13 and 14 and portions of Sections 11, 17, and 18 as shown on Sheet 2 of 50 of the permit drawings. Omni owns all of Section 11 (see Attachment 5) but is permitting only the western portion as shown on Sheet 2 of 50 of the permit drawings. Omni holds options to purchase all of Sections 13 and 14 and the relevant portions of Sections 17 and 18. Under the option agreements, Omni has the right to acquire these areas upon issuance of an FDEP permit to construct the Class I landfill. A letter from the current property owner (Bronsons) confirming that Omni has legal authorization from the owner to use the site for a solid waste management facility is also enclosed herewith in Attachment 5.

Page 4 of 40 of the FDEP form refers only to Sections 11 and 14 because these sections contain the footprint of the landfill.

Item 8:

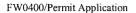
Vol. 1, Page 7, Section 2.2 states that yard trash, white goods, and whole tires will be accepted for processing, reuse or recycling. Submit details.

Response:

For the convenience of the individual public users, a drop-off center, consisting of separate roll-off boxes for each type of waste, will be established at the Oak Hammock Disposal facility in the designated area near the scale house as shown on Sheet 43 of 50 of the permit drawings. Residents will be allowed to drop off typical household quantities of yard trash, white goods, and whole tires. However, these materials will not be disposed, processed, or reused at the Oak Hammock Disposal facility except as discussed below. These items will be shipped to off-site licensed disposal or recycling facilities whenever the designated roll-off box is full.

Omni may choose from time to time to process whole tires for use as a liner protective layer as indicated on Sheet 14 of 50 of the permit drawing. Omni will obtain a permit modification for processing the material, if required.





Omni plans to "chip" yard waste and other similar materials from time to time. The finished products will be either offered to the public, used as augmentation of on-site soils for final cover soils, if needed, or shipped to off-site licensed disposal or recycling facilities.

The required records of monthly, quarterly and annual reports required by the regulations will be kept current and available for FDEP inspection for 3 years for all of these activities as described in the permit application.

Item 9:

Vol. I of III is not signed and sealed by a professional engineer registered in the state of Florida. Submit Vol. I of III signed and sealed by a professional engineer registered in the state of Florida.

Response:

Submitted herewith as Attachment 6 are cover sheets for the narrative portion of the permit application, which have been signed and sealed by a professional engineer registered in the state of Florida. Please substitute these cover sheets for the cover sheet submitted with the permit application. The FDEP Form No. 62-701.900(1), all calculation packages, and all permit drawings have been previously signed and sealed.

Item 10:

Will a potable water well be installed on the site for the office and other potable uses?

Response:

Omni plans to provide bottled water for all drinking water and other potable water needs on site. Omni plans to provide a water supply well for all non-drinking water supply needs. The application for the location and construction of this well will be made by Omni to Osceola County during the construction of the facility. The non-drinking water supply well will provide water for the offices and scale house needs such as hand washing and toilet/shower facilities. Non-potable water also will be obtained on site from borrow areas and will be used for dust control, soil compaction and other miscellaneous needs.





Item 11:

Locate the office and scales on the map.

Response:

The office and scales are shown on Sheet 43 of 50 of the permit drawings, which were submitted with the permit application on May 24, 2002

Item 12:

On Sheet 41 of 50, the sideslope of the drainage swale is steeper than 3 horizontal to 1 vertical. Please explain how erosion of this swale will be controlled so that there will be no damage to the final cover.

Response:

At an inclination for 2H:1V, the sideslope of the proposed typical final cover drainage swale is steeper than 3H:1V (the maximum allowable slope for a landfill cover). However, the average slope of the landfill cover is 4H:1V. Because the length of the proposed drainage swale sideslope is only approximately 12 feet, erosion can be adequately controlled with vegetation. The final cover sideslopes exceeding 3H:1V, including the drainage swales as indicated on Sheet 41 of 50 of the permit drawings, will be covered with Argentinean Bahia grass sod in accordance with Technical Specification Section 02930, presented in Appendix P of the permit application. GeoSyntec's experience indicates that with proper irrigation and maintenance as described in the Operation Plan presented in Appendix O of the permit application, the sod will provide adequate protection against erosion.

Item 13:

Financial responsibility arrangements for the facility are to be made with the Financial Coordinator, Solid Waste Section, Department of Environmental Protection, MS-4565, 2600 Blair Stone Road, Tallahassee, FL 32399-2400, and a copy of the approval letter submitted to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-2767.

Response:

Omni has been in contact with Mr. Fred Wick, the Financial Coordinator, Solid Waste Section, in Tallahassee to address this issue as suggested. However, Omni





requests that FDEP issue the construction/operation permit conditioned on the proof of arrangement for financial responsibility for the facility. FDEP regulations provide for this arrangement be in place 60 days prior to acceptance of any solid waste at the facility. Omni requests FDEP to issue a landfill construction permit subject to the following condition: "A financial mechanism for Oak Hammock Disposal shall be created, and alternate financial mechanisms (if any) shall be fully funded, at least 60 days prior to the acceptance of any solid waste at the facility."

Omni believes this condition is appropriate because Omni expects a construction period of 6 months to a year for the initial phase of this facility and because the condition is consistent with the provisions of Section 62-701.630(2)(b), F.A.C. There will be adequate time to create the financial mechanism and obtain FDEP approval and activation of said mechanisms prior to accepting waste.

If you or your staff has any further questions or need additional information, please feel free to contact the undersigned.

Sincerely,

Kenneth W. Cargill, P.E.

Principal

Attachments

Copy: Timothy J. Salopek, Omni Waste
David S. Dee, Landers and Parsons
Bill Kozuh, Omni Waste
Jerry Kubal, Kubal-Furr & Associates
Steve Godley, BRA



Orlando Sentinel

Published Daily

State of Florida county of Grange s.s.

who on oath says that he/she is the Legal Advertising Representative of Orlando Sentinel, a daily newspaper published at KISSIMMEE County, Florida; that the attached copy of advertisement, being a _ STATE OF FLORIDA in the matter of OAK HAMMOCK DISPOSAL in the OSCFOLA Court. was published in said newspaper in the issue; of \$\,05/22/112 Affiant further says that the said Orlando Sentinel is a newspaper published at KIZZIMWEE , in said OSCFOLA County, Florida, and that the said newspaper has heretofore been continuously published in said OSCFOLA County, Florida, each Week Day and has been entered as second-class mail matter at the post office in KISSIMMFF in said OZCEOLA County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper. The foregoing instrument was acknowledged before me this d/ay of , 20 02 by DEBORAH TONEY who is personally known to me and who diktake an oath. (SEAL) OFFICIAL NOTARY SEAL **IULIA NICHOLS** NOTARY PUBLIC STATE OF FLORIDA COMMISSION NO. DD054311 MY COMMISSION EXP. SEPT 23,2005

Before the undersigned authority personally appeared <u>DEBORAH TONEY</u>

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF APPLICATION

The Department of Environmental Protection announces receipt of an application for permit from Omni Waste of Osceola County, LLC to construct and appears to a Class | landfill to be known as Dak Hammock Disposal. This project is located approximately, five miles south of Phologay, Osceola County, Florida on the west side of highway U.S. 441.

This application is being processed and is available for public inspection during normal business hours, 8:00 d.m. to 5:00 p.m. Monday through Friday, except legal holidays at the Department of Environmental Protection, 3319 Maguire, Boulevard, Suite 232, Orlando, Florida 32803-3761, telephone (407) 893-328. Any comments or objections should be filed in writing with the Department at this address. Comments or objections should be submitted as soon as possible to ensure that there is adequate time for them to be considered in the Department decision on the application.



J.S. Postal Service IFIED MAIL R'

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(Domestic Mail Only; No Insura. Coverage Provided)

> rive, Suite 300 å 33637 • USA 813) 558-9726

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Honorable Howard E. Futch State Senator District 18 134 Fifth Avenue, Suite 103 Indialantic, Florida 32903

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Dear Senator Futch:

On behalf of Omni Waste of Osceola County, LLC, I am sending you this letter to formally notify you that Omni has filed an application with the Florida Department of Environmental Protection (FDEP) for a permit to construct and operate a new "Class I" landfill (i.e., a landfill that will receive typical household garbage and similar materials). The landfill will be located in unincorporated Osceola County, approximately five miles south of Holopaw, on the west side of U.S. 441.

To comply with the requirements of Section 62-701.320(8), F.A.C., this notice is being provided to you, State Representative Frank Attkisson, and Mr. Paul Owen, the Chairman of the Board of County Commissioners of Osceola County. In addition, the attached notice will be published in the Orlando Sentinel.

This firm has been hired to design the landfill and provide other engineering services for Omni. Please call me at 813-558-0990 if you have any questions about this project.

Sincerely,

Kenneth W. Cargill, P.E.

Principal

KWC:vds

Attachment: Notice of Application

Mr. Lenny Marion, Osceola County cc:

Mr. Ray Tobey, City of St. Cloud

Mr. Timothy J. Salopek, Omni Waste

Mr. James Bradner, P.E., FDEP

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SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVER	Y
Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 1. Article Addressed to: Senator Futch 134 5th Auc, Suite 103 I Naialalawtic, FL 32903	A. Signature X Helen Franta	☐ Agent ☐ Addressee Date of Delivery
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Honorable Paul Owen, Chairman Osceola County Board of County O 1 Courthouse Square, Suite 5700 Kissimmee, Florida 34741

Certified Mail No. 7002 0510 0003

Total Postage & Fees \$ Commissioner Courthouse Squane # 5700 or PO Box No.

Postmark Here

Dear Chairman Owen:

On behalf of Omni Waste of Osceola County, LLC, I am sending you this letter to formally notify you that Omni has filed an application with the Florida Department of Environmental Protection (FDEP) for a permit to construct and operate a new "Class I" landfill (i.e., a landfill that will receive typical household garbage and similar materials). The landfill will be located in unincorporated Osceola County, approximately five miles south of Holopaw, on the west side of U.S. 441.

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Mr. Lenny Marion, Osceola County cc:

Mr. Ray Tobey, City of St. Cloud

Mr. Timothy J. Salopek, Omni Waste

Mr. James Bradner, P.E., FDEP

	 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. 	A. Signature X John Hermann Agent Addressee
	 Attach this card to the back of the mailpiece, or on the front if space permits. 1. Article Addressed to: Commussioner Owen 	B. Received by Printed Paner Productive Delivery D. Is delivery address different from item 1? Yes ' If YES, enter delivery address below: No
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Honorable Frank Attkisson
State Representative
District 79
323 Pleasant Street
Kissimmee, Florida 34741-576
Certified Mail No. 7002 0510 (

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Dear Representative Attkisson:

On behalf of Omni Waste of Osceola County, LLC, I am sending you this letter to formally notify you that Omni has filed an application with the Florida Department of Environmental Protection (FDEP) for a permit to construct and operate a new "Class I" landfill (i.e., a landfill that will receive typical household garbage and similar materials). The landfill will be located in unincorporated Osceola County, approximately five miles south of Holopaw, on the west side of U.S. 441.

J.S. Postal Service

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This firm has been hired to design the landfill and provide other engineering services for Omni. Please call me at 813-558-0990 if you have any questions about this project.

Sincerely,

Kenneth W. Cargill, P.E.

Principal

KWC:vds

Attachment: Notice of Application

cc: Mr. Lenny Marion, Osceola County

Mr. Ray Tobey, City of St. Cloud

Mr. Timothy J. Salopek, Omni Waste

Mr. James Bradner, P.E., FDEP



	SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
	 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature Agent Addressee B. Received by (Printed Name) Date of Delivery
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e'		4. Restricted Delivery? (Extra Fee)
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_	TIMOTHY J. SALOPE	K Telephone:	(401) <u>45</u>	7- 1284
Title: PRESI	DENT	V		
		tjsomni@ a E-Mail addr	NoL.Com ess (if ava	ilable)
Authorized agent/	Consultant: 660SyN7			
	•			33637
	Street or P.O.	Box City	State	Zip
Contact person: <u>K</u>	ENNETH W. CARGIU,	P.E. Telephone:	(<u>813</u>) <u>5</u> 51	3-0990
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LANDFILL KNOWN AS THE OAK HAMMOCK DISPOSAL FACILITY. UNDER THIS PERMIT
THE INITIAL LANDFILL CEUS, NO.S I THROUGH 4, WILL BE CONSTRUCTED AND
OPERATED. A CONCEPTUAL DESIGN FOR A TOTAL OF 21 CELLS TOTALING 264 ACRE
IS SUBMITTED. THE ANTICIPATED LIFE OF THE COMPLETE FACILITY IS 30 YEARS.
Facility site supervisor: Timothy J. Salopek
Title: President Telephone: (407) 957-7284
E-Mail address (if available)
Disposal area: Total 264 acres; Used N/A acres; Available 264 acres
Weighing scales used: [X] Yes [] No
Security to prevent unauthorized use: 💢] Yes [] No
Charge for waste received:\$/yds³\$/ton
Surrounding land use, zoning:
[] Residential [] Industrial [X] Agricultural [] None [] Commercial [] Other Describe:
Types of waste received:
[X] Residential [X] C & D debris [] Incinerator/WTE ash [] Treated biomedical [] Water treatment sludge [] Air treatment sludge [] Agricultural [] Asbestos [] Other Describe:
Salvaging permitted: [] Yes [X] No UNLESS VOLVME OF RECYCLABLE GOODS IS SUFFICIENT FOR SEPARATION
Attendant: [] Yes [] No Trained operator: X Yes [] No

13.	Property recorded as a Disposal Site in County Land Records: 💢 Yes [] No
14.	Days of operation: MONDAY THROUGH FRIDAY, HALF DAY ON SATURDAY
15.	Hours of operation: TYPKAL HOURS: 7:00a.m 6:00 p.m. M-F; B:00 a.m NOON SAT
16.	Days Working Face covered: Each working day.
17.	Elevation of water table: 79.0 Ft. (NGVD 1929)
18.	Number of monitoring wells: 45
19.	Number of surface monitoring points: 4
20.	Gas controls used: [X] Yes [] No Type controls: [X] Active [] Passive
	Gas flaring: [X] Yes [] No Gas recovery: [] Yes [X] No
21.	Landfill unit liner type:
	[] Natural soils [] Double geomembrane [] Single clay liner [] Geomembrane & composite [] Single geomembrane [X] Double composite [] Single composite [] None [] Slurry wall [] Other Describe: ADDITIONAL LOW-PERMEABILITY SOIL VAYER. TO BE USED BENEATH SUMP AREAS.
22.	Leachate collection method:
	[X] Collection pipes [X] Geonets (GEOCOMPOSITES) [] Well points [] Perimeter ditch [] Other Describe: [X] Sand layer [] Gravel layer [] Interceptor trench [] None
23.	Leachate storage method:
	[] Tanks X] Surface impoundments WITH FLEXIBLE STORAGE CONTAINERS [] Other Describe:
24.	Leachate treatment method:
	[] Oxidation [] Chemical treatment [] Secondary [] Settling [] Advanced [X] None [] Other

PREPARED BY:

Wm. Patrick Fulford, Esq. Wright, Fulford, Moorhead & Brown, P.A. Post Office Box 2828 Orlando, Florida 32802

Record and Return to:

Wm. Patrick Fulford, Esq. Wright, Fulford, Moorhead & Brown, P.A. Post Office Box 2828 Orlando, Florida 32802

SPACE ABOVE THIS LINE FOR RECORDING DATA

WARRANTY DEED

THIS WARRANTY DEED made the 4 day of June, 2002, by EVADNE J. GANNARELLI, a single woman, who has a mailing address of Coaches Lane, St. Cloud, Florida 34773, hereinafter called the Grantor, to OMNI WASTE OF OSCEOLA COUNTY LLC, an Ohio limited liability company, which has a mailing address of Post Office Box 2116, Dayton, Ohio 45401, hereinafter called the Grantee:

(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations and public bodies.)

WITNESSETH

THAT THE GRANTOR, for and in consideration of the sum of \$10.00 and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee, all that certain land situate in Osceola County, Florida, more particularly described to wit:

SEE EXHIBIT "A" ATTACHED HERETO AS LEGAL DESCRIPTION

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

TO HAVE AND TO HOLD, the same in fee simple forever.

AND the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land; that the Grantor hereby fully warrants the title to said land will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2001.

SUBJECT TO all easements, restrictions, reservations and right-of-ways of record.

IN WITNESS WHEREOF, the said Grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in the presence in the presence of:

Sign Dancey E. Durant, WA

Print Darrey E. Durant, CIA

Print Wm. Parrick Fred

EVADNE J. GANNARELLI

STATE OF COUNTY OF

The foregoing instrument was acknowledged before me this 14th day of June, 2002, by EVADNE J. GANNARELLI, who is personally known to me or has produced FDL# as identification.

G564-200-50-963-0

DARCEY E. DURANT
MY COMMISSION # CC 884020
EXPIRES: December 27, 2003
Bonded Thru Notary Public Underwriters

Printed Durcey E. Durant, U.A.

Notary Public, State of Florida

EXHIBIT "A"

PARCEL 1

All of Sections 1 and 2, Township 28 South, Range 32 East, Osceola County, Florida, lying West of U.S. Highway 441, LESS

Beginning at the intersection of the North line of Section 1, Township 28 South, Range 32 East, Osceola County, Florida and the Westerly right of Way line of U.S. Highway No. 441, said Right of Way line being 50.00 feet West of the centerline of the existing roadway, run North 89 degrees 52 minutes 01 seconds West, along the North line of said Section 1, 1438.76 feet to a 4" x 4" concrete monument marking the Southwest corner of Section 36, Township 27 South, Range 32 East; continuing along the North line of aforesaid Section 1, run North 89 degrees 41 minutes 03 seconds West, 1706.90 feet; run thence South 00 degrees 26 minutes 56 seconds West, 1320.00 feet; run thence South 89 degrees 40 minutes 16 seconds East, 3496.39 feet to the aforesaid West right of way line of U.S. Highway No. 441, said right of way line being 50.0 feet West of the centerline of the existing roadway; run thence North 14 degrees 25 minutes 30 seconds West, along said right of way line, 1366.39 feet to the POINT OF BEGINNING.

PARCEL 2

All of Section 11, Township 28 South, Range 32 East, Osceola County, Florida,

PARCEL 3

All of Section 12, Township 28 South, Range 32 East, Osceola County, Florida.

PARCEL 4

That portion of Section 7, Township 28 South, Range 33 East, Osceola County, Florida, lying West of U.S. Highway 441.

LESS AND EXCEPT that portion of the above described parcel lying within the land conveyed to the State of Florida in the Deed recorded in Official Records Book 662, Page 608, Public Records of Orange County, Florida, described as follows:

BORROW PIT LEFT (WEST) STATION 435.20.26

THAT PART OF:

The Southwest Quarter of Section 7, Township 28 South, Range 33 East, Osceola County, Florida, lying within the following described boundaries:

Commence on the South line of Section 7, Township 28 South, Range 33 East, at a point 1997.45 feet South 89 degrees 35 minutes 11 seconds West of the Southeast corner of said Section 7; thence run North 30 degrees 40 minutes 00 seconds West, a distance of 1556.10 feet; thence run South 59 degrees 20 minutes 00 seconds West a distance of 600 feet for the POINT OF BEIGNNING; thence continue South 59 degrees 20 minutes 00 seconds West, a distance of 300 feet; thence run North 30 degrees 40 minutes 00 seconds West, a distance of 300 feet; thence run North 59 degrees 20 minutes 00 seconds East, a distance of 300 feet; thence run South 39 degrees 40 minutes 00 seconds East, a distance of 300 feet to the POINT OF BEGINNING.

HAUL ROAD LEFT (WEST) STATION 436,06,33

THAT PART OF:

The Southwest Quarter of Section 7, Township 28 South, Range 33 East, Osceola County, Florida, lying within the following described boundaries:

Commence on the South line of Section 7, Township 28 South, Range 33 East at a point 1997.45 feet, South 89 degrees 35 minutes 11 seconds West of the Southeast corner of said Section 7; thence run North 30 degrees 40 minutes 00 seconds West, a distance of 1642.17 feet; thence run South 59 degrees 20 minutes 00 seconds West, a distance of 50 feet to the Westerly right of way line of State Road 15 and the POINT OF BEGINNING for the Haul Road herein described; thence run South 50 degrees 26 minutes 23 seconds West, a distance of 556.69 feet; thence run North 30 degrees 40 minutes 00 seconds West a distance of 50.60 feet; thence run North 50 degrees 26 minutes 23 seconds East a distance of 556.69 feet to the said Westerly right of way line; thence run South 30 degrees 40 minutes 00 seconds East, a distance of 50.60 feet to the POINT OF BEGINNING.

PARCEL 5

That portion of Section 6, Township 28 South, Range 33 East, Osceola County, Florida, lying West of U.S. Highway 441.



June 26, 2002

To Whom It May Concern:

This letter authorizes Omni Waste of Osceola County, LLC (Omni) to seek all permits, licenses, and approvals necessary for the construction of a Class I landfill, access road, stormwater management system, and related facilities and appurtenances (collectively "the Project"), upon land owned by Bronsons, a Florida General Partnership, in Sections 13 and 14, Township 28 South, Range 32 East, and in Sections 17 (west of Highway 441) and 18, Township 28 South, Range 33 East, in Osceola County, Florida. Omni and Bronsons have entered into an agreement that gives Omni the right to acquire these lands, subject to certain terms and conditions, and use the property for the Project.

Sincerely,

Bronsons, a Florida General Partnership

Dan Lackey - General Manager

IRLO "BUD" BRONSON, JR. MANAGING PARTNER

ATTACHMENT 6

Prepared for



Omni Waste of Osceola County, LLC

100 Church Street Kissimmee, Florida 34741

APPLICATION FOR A PERMIT TO CONSTRUCT AND OPERATE A CLASS I LANDFILL OAK HAMMOCK DISPOSAL FACILITY

Prepared by



■ GeoSyntec Consultants

14055 Riveredge Drive, Suite 300 Tampa, Florida 33637

Project Number FW0400

May 2002

Reissued 28 June 2002

A SWOY

MOYLE, FLANIGAN, KATZ, RAYMOND & SHEEHAN, P.A.

ATTORNEYS AT LAW

625 North Flagler Drive - 9th Floor West Palm Beach, Florida 33401-4025

P.O. Box 3888 West Palm Beach, Florida 33402-3888

Telephone: (561) 659-7500 Facsimile: (561) 659-1789

PETER L. BRETON

BOARD CERTIFIED REAL ESTATE LAWYER

Direct Line: (561) 822-0385 E-mail: pbreton@moylelaw.com Tallahassee Office (850) 681-3828

June 27, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Florida Department of Environmental Protection - Central District 3319 Maguire Boulevard, Suite 232 Orlando, FL 32803-3767

Attn: William M. Bostwick, Jr.

Waste Management Administrator

Re: Oak Hammock Disposal Site

Applicant: Omni Waste of Osceola County LLC Application No. 199726-001 and 199726-002

Dear Mr. Bostwick:

I represent Waste Management Inc. of Florida. My client is interested in the above-captioned solid waste permit applications. Please add Waste Management Inc. of Florida, Attention: Ronald M. Kaplan, Esq., Florida Counsel for Waste Management, Inc., 2700 NW 48 Street, Pompano Beach, FL 33073 to the mailing list for the Notice of Intent and all other notices for these permits. Thank you for your cooperation.

Very truly yours,

Peter L. Breton

PLB:smw

cc: Carolyn McCreedy

Ronald M. Kaplan, Esq.



Department of Environmental Protection

Jeb Bush Governor Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

David B. Struhs Secretary

By E-mail tjsomni@aol.com

Mr. Timothy J. Salopek Omni Waste of Osceola County, LLC 100 Church Street Kissimmee, FL 34741 OCD-SW-02-0210

Osceola County - SW
Oak Hammock Disposal, Class I
Permit Application Nos. SC49-0199726-001 & SO49-0199726-002

Dear Mr. Salopek:

This is to acknowledge receipt of your application for the subject facility. The status of your application is as follows:

- (X) Your application for permit received on May 24, 2002, is incomplete. Please provide the information listed on the attached sheet promptly. Evaluation of your application will be delayed until all the requested information has been received.
- () The additional information received on , was reviewed, however, the items listed on the attached memo remain incomplete. Evaluation of your application will continue to be delayed until we receive all requested information.

Pursuant to Section 120.60(2), Florida Statutes, the Department may deny an application, if the applicant, after receiving timely notice, fails to correct errors, omissions or supply additional information within a reasonable period of time. Please submit three copies of the requested information to the Department and reference the above application permit number in your correspondence.

If you have any questions, please contact me at (407) 893-3328.

Sincerely,

James N. Bradner, P.E.

James B. Brashan

Program Manager

Solid and Hazardous Waste

Date: June 17, 2002

JNB/gc/ew Enclosure

cc: Kenneth W. Cargill, P.E. - Geosyntec Consultants

KCarqill@geosyntec.com

- 1. Submit proof of publication of Notice of Application that was published in a newspaper of general circulation in the area where the facility will be located for a permit to construct and operate a Class I landfill to be known as the Oak Hammock Disposal.
- 2. Submit proof of receipt of Notice of Application to the Chair of the Board of County Commissioners and the State Senator and Representative serving the jurisdiction in which the Class I landfill to be know as the Oak Hammock Disposal will be located.
- 3. Vol. I, Page 10, Section 2.7.2 states that construction and demolition debris and other waste classified as Class I waste may be disposed in the OHD landfill. Provide a description of the construction and demolition debris and other waste that will be disposed in the OHD Class I landfill.
- 4. Item A-12, on Page 5 of 40, DEP Form 62-701.900(1), needs to be completed. Submit the revised page.
- 5. Items B-2 and B-16 on Pages 6 and 7 of 40, on DEP Form 62-701.900(1), needs to be completed. Submit the revised pages.
- 6. Vol. I, Page 21, Section 4.2.1 states that leachate will be transported by truck to a wastewater treatment plant. Submit the name and address of the wastewater treatment plant and the name and phone number of the contact person at the wastewater treatment plant.
- 7. Vol. I, Page 2, Section 1.2 states that the OHD site is located in Sections 11, 13 and 14 and Sections 17 and 18. The site ownership in Appendix C refers to Sections 13 and 14, and Section 18. Page 4 of 40, DEP Form 62-701.900(1) refers to Sections 11 and 14. Please clarify.
- 8. Vol. I, Page 7, Section 2.2 states that yard trash, white goods, and whole tires will be accepted for processing, reuse or recycling. Submit details.
- 9. Vol. I of III is not signed and sealed by a professional engineer registered in the State of Florida. Submit Vol. I of III signed and sealed by a professional engineer registered in the State of Florida.
- 10. Will a potable water well be installed on the site for the office and other potable uses?
- 11. Locate the office and scales on the map.
- 12. On Sheet 41 of 50, the sideslope of the drainage swale is steeper than 3 horizontal to 1 vertical. Please explain how erosion of this swale will be controlled so that there will be no damage to the final cover.
- 13. Financial responsibility arrangements for the facility are to be made with the Financial Coordinator, Solid Waste Section, Department of Environmental Protection, MS-4565, 2600 Blair Stone Road, Tallahassee, FL 32399-2400, and a copy of the approval letter submitted to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, FL 32803-3767.



11 June 2002

Mr. James N. Bradner, P.E. Program Manager, Solid/Hazardous Waste Florida Department of Environmental Protection, Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

Subject:

Response to Request for Information

Class I Landfill Permit Application Oak Hammock Disposal Facility Omni Waste of Osceola County, LLC

Dear Mr. Bradner:

This response is prepared to address the request for information by Ms. Deborah Helle, P.G., via e-mail dated 4 June 2002, for clarification regarding leachate sampling locations. Attached please find Figure RFI-1 titled "Phase 1 Groundwater Monitoring Well and Leachate Sampling Location Layout." A digital copy of this figure has been sent to Ms. Helle as a PDF file via e-mail.

If you or your staff has any questions or need additional information, please feel free to contact the undersigned.

Sincerely,

Kenneth W. Cargill, P.E.

Principal

Enclosures

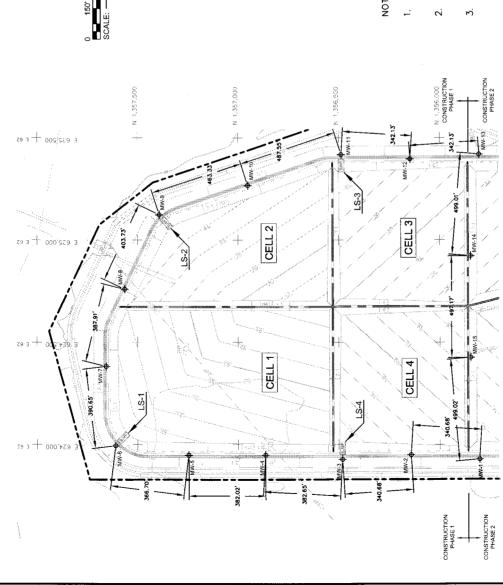
copy: Timothy J. Salopek, Omni Waste

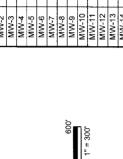
David S. Dee, Landers & Parsons

Bill Kozuh, Omni Waste

Jerry Kubal, Kubal-Furr & Associates







WELL	Northing	Easting
MW-1	1355801.76	623927.76
MW-2	1356141.76	623949.18
MW-3	1356481.70	623926.60
MW-4	1356863.75	623947.95
MW-5	1357245.77	623947.30
9-MM	1357609.65	623992.77
MW-7	1357655.74	624380.68
MW-8	1357563.00	624757.34
6-WM	1357390.93	625122.57
MW-10	1356950.48	625266.36
MW-11	1356487.15	625418.09
MW-12	1356145.69	625396.67
MW-13	1355804.30	625419.26
MW-14	1355846.36	624922.02
MW-15	1355845.51	624424.85

LEGEND

GROUNDWATER MONITORING WELL LOCATION.

₩w-1

AT EACH LOCATION A GROUP OF THREE WELLS WILL BE DRILLED TO SHALLOW (MW-10), INTERMEDIATE (MW-10), AND DEEP (KW-10) ELEVATIONS. HESS WELLS WILL BE SPACED 5 FEET APART AND ARRANGED PARALLE. TO THE PERINETER MAINTENANCE ROAD OR INTERCELL BERM ALGOMENTS.

LS-1 LEACHAT

LEACHATE SAMPLE LOCATION

LEACHATE SAMPLES WILL BE OBTAINED FROM THE PRIMARY LEACHATE SUMP.

NOTES:

- 1. NORTHING AND EASTING COORDINATES SHOWN REPRESENT FLORIDA STATE PLANE EAST ZONE NORTH AMERICAN DATUM OF 1983 (NAD83).
- THE ELEVATIONS SHOWN REPRESENT NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29)(FEET).
- PHASE I REPRESENTS LANDFILL DEVELOPMENT IN THE FIRST 5 YEARS OF OPERATION.



PHASE 1 GROUNDWATER MONITORING WELL AND LEACHATE SAMPLING LOCATION LAYOUT SOLE: 1' = 300'

0400F005

JUNE 02 FILE NO.

DATE.

Cheryan, George

From:

Tedder, Richard

Sent:

Wednesday, June 12, 2002 10:58 AM

To: Subject: Cheryan, George Oak Hammock LF

George,

I finally decided to send you only one comment.

1. On Sheet 41 of 50, the sideslope of the drainage swale is steeper than 3 horizontal to 1 vertical. Please explain how erosion of this swale will be controlled so that there will be no damage to the final cover.

Good luck! - RT

CC : J. BRADNER

Environmental Protection

CENTRAL DISTRICT

TO:

Jim Bradner, P.E.

FROM:

Deborah Helle, P.G.

DATE:

June 10, 2002

SUBJECT:

Oak Hammock New Class I Permit Application Review

I have reviewed the referenced document and following are my comments:

and other patable uses

- 1. Will a potable water well be installed on the site for the office?
- 2. Locate the office and scales on the map.

The Whom it May Concern; 6/2/02 In reference to the Omni Waste "explication to construct a Class I landfill, know as Cak Hammock Bisporal. (5 mi se of Holopaw) My objection were, home been, and still are, that this Company Currot quarantee that an eccological disaster amost or will not occur as a result of building a landfill in such close proximity to the head water of kull Creek. This Creek flows into the water source for Se Grenard Co, and Shoreld be of some to the It Johns Water Management District. The actual

sight is in the South Fla WM district, and the impact there is Mobally Mills The Osciola & Commission de you are Protably aware initally turned down their (Cannis) request for a landuse Change. After which Comni filed Duit against the B. Then Blackmill the Co by agreeing to knop the low suit of the Co would grant the land use change. (which the Co did). My view is, " Just the kind of Larbage a Larbage or would full. Illing Commis figures on

Hospital leaker of their liner,

I recall a 1cm hole/Acre 20 on an area of 190 Acres We how a cumbative leak potential of almost a Six Foot hole. This may be on acceptable figure to some, but a De 190 acres X 75 to 90' high pouring leachate through a Kole of that Dameter (cumbatine) into on area as sensature as this area is just doesn't seem right to me.

Lleave take a long hard look at this were and do whats right for the Azople of Excerola and Brevard Co. 1/R Lang Prihitt 417-957-2059 37. Cloud 21 34773



Soughenour 5/30/00

14055 Riveredge Drive, Suite 300 Tampa, Florida 33637 • USA Telephone (813) 558-0990 • Fax (813) 558-9726

22 May 2002

Honorable Paul Owen, Chairman Osceola County Board of County Commissioners 1 Courthouse Square, Suite 5700 Kissimmee, Florida 34741

Certified Mail No. 7002 0510 0003 0581 6022

Dear Chairman Owen:

On behalf of Omni Waste of Osceola County, LLC, I am sending you this letter to formally notify you that Omni has filed an application with the Florida Department of Environmental Protection (FDEP) for a permit to construct and operate a new "Class I" landfill (i.e., a landfill that will receive typical household garbage and similar materials). The landfill will be located in unincorporated Osceola County, approximately five miles south of Holopaw, on the west side of U.S. 441.

To comply with the requirements of Section 62-701.320(8), F.A.C., this notice is being provided to you, State Senator Howard E. Futch and State Representative Frank Attkisson. In addition, the attached notice will be published in the Orlando Sentinel.

This firm has been hired to design the landfill and provide other engineering services for Omni. Please call me at 813-558-0990 if you have any questions about this project.

Sincerely,

Kenneth W. Cargill, P.E.

Principal

KWC:vds

Attachment: Notice of Application

cc: Mr. Lenny Marion, Osceola County

Mr. Ray Tobey, City of St. Cloud

Mr. Timothy J. Salopek, Omni Waste

Mr. James Bradner, P.E., FDEP

Gary L. Pickett

Jeanette Coughenour, Manager, Association of Poinciana Village, Inc.

Orlando Sentinel Central Florida Edition

WEDNESDAY

May 22, 2002

Osceola

Orlando Sentinel Orlando Sentinel.com WEDNESDAY, MAY 22, 2002

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF APPLICATION

The Department of Environmental Protection announces receipt of an application for permit from Omni Waste of Osceola County, LLC to construct and operate a Class I landfill to be known as Oak Hammock Disposal. This project is located approximately five miles south of Holopaw, Osceola County, Florida on the west side of highway U.S. 441.

This application is being processed and is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays at the Department of Environmental Protection, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767, telephone (407) 893-3328. Any comments or objections should be filed in writing with the Department at this address. Comments or objections should be submitted as soon as possible to ensure that there is adequate time for them to be considered in the Department decision on the application. OSCL4474868 May 22, 2002



Honorable Paul Owen, Chairman Osceola County Board of County Commissioners 1 Courthouse Square, Suite 5700 Kissimmee, Florida 34741

Certified Mail No. 7002 0510 0003 0581 6022

Dear Chairman Owen:

On behalf of Omni Waste of Osceola County, LLC, I am sending you this letter to formally notify you that Omni has filed an application with the Florida Department of Environmental Protection (FDEP) for a permit to construct and operate a new "Class I" landfill (i.e., a landfill that will receive typical household garbage and similar materials). The landfill will be located in unincorporated Osceola County, approximately five miles south of Holopaw, on the west side of U.S. 441.

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Sincerely,

Kenneth W. Cargill, P.E.

Principal

KWC:vds

Attachment: Notice of Application

cc: Mr. Lenny Marion, Osceola County

Mr. Ray Tobey, City of St. Cloud

Mr. Timothy J. Salopek, Omni Waste

√Mr. James Bradner, P.E., FDEP





Honorable Frank Attkisson State Representative District 79 323 Pleasant Street Kissimmee, Florida 34741-5763

Certified Mail No. 7002 0510 0003 0581 6039

Dear Representative Attkisson:

On behalf of Omni Waste of Osceola County, LLC, I am sending you this letter to formally notify you that Omni has filed an application with the Florida Department of Environmental Protection (FDEP) for a permit to construct and operate a new "Class I" landfill (i.e., a landfill that will receive typical household garbage and similar materials). The landfill will be located in unincorporated Osceola County, approximately five miles south of Holopaw, on the west side of U.S. 441.

To comply with the requirements of Section 62-701.320(8), F.A.C., this notice is being provided to you, State Senator Howard E. Futch, and Mr. Paul Owen, the Chairman of the Board of County Commissioners of Osceola County. In addition, the attached notice will be published in the Orlando Sentinel.

This firm has been hired to design the landfill and provide other engineering services for Omni. Please call me at 813-558-0990 if you have any questions about this project.

Sincerely,

Kenneth W. Cargill, P.E.

Principal

KWC:vds

Attachment: Notice of Application

Mr. Lenny Marion, Osceola County cc:

Mr. Ray Tobey, City of St. Cloud

Mr. Timothy J. Salopek, Omni Waste

Mr. James Bradner, P.E., FDEP



Honorable Howard E. Futch State Senator District 18 134 Fifth Avenue, Suite 103 Indialantic, Florida 32903

Certified Mail No. 7002 0510 0003 0581 6046

Dear Senator Futch:

On behalf of Omni Waste of Osceola County, LLC, I am sending you this letter to formally notify you that Omni has filed an application with the Florida Department of Environmental Protection (FDEP) for a permit to construct and operate a new "Class I" landfill (i.e., a landfill that will receive typical household garbage and similar materials). The landfill will be located in unincorporated Osceola County, approximately five miles south of Holopaw, on the west side of U.S. 441.

To comply with the requirements of Section 62-701.320(8), F.A.C., this notice is being provided to you, State Representative Frank Attkisson, and Mr. Paul Owen, the Chairman of the Board of County Commissioners of Osceola County. In addition, the attached notice will be published in the Orlando Sentinel.

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Sincerely,

Kenneth W. Cargill, P.E.

Principal

KWC:vds

Attachment: Notice of Application

cc: Mr. Lenny Marion, Osceola County

Mr. Ray Tobey, City of St. Cloud

Mr. Timothy J. Salopek, Omni Waste

Mr. James Bradner, P.E., FDEP





,			
то: R.	Tedder P. 1	E./LEE MARTIN, P.E.	-
FROM: J	BRADNER	, P.E	
	1AY 28, 200		
SUBJECT:	County Osc		26-001&
	Facility OAK	HAMMOCK DISPOSAL, CLASSI - CON	26-002 ISTR.40PERATI
•	Attachment Vc	DLT, TI, TI & DRAWINGS	
The attached	is being sent to you	ı for: Information only	
		Review and comments	*gis +v
If review and	comments are need	ded, please respond:	
		By JUNE 14, 2002 (Solid Waste deadline date is)	
	***	As soon as possible for your schedule.	
Comments: _			
			
			

Florida Department of

Memorandum

Environmental Protection

TO:	Deborah Helle, P.G.				
FROM:	Jim Bradner, P.E.				
DATE:	May 28, 2000				
SUBJECT:	County: OSCEOLA				
	Permit/OGC: SC 49 - 0199726-001 & S049-0199726-002				
	Facility: OAK HAMMOCK DISPOSAL, CLASS I - CONS Attachment: & OPERAT				
The attached	d is being sent to you for:				
	Information only				
•	Review and comments				
If review com	nments are needed, please respond:				
	By: (Solid Waste deadline is JUNE 12, 2002)				
	As soon as possible for your schedule.				
Comments: _					

Mr. James N. Bradner, P.E. Program Manager, Solid/Hazardous Waste Florida Department of Environmental Protection, Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

Subject:

Class I Landfill Construct and Operate Permit Application

Oak Hammock Disposal Facility Omni Waste of Osceola County, LLC

Dear Mr. Bradner:

Transmitted herewith are five copies of the subject permit application package, which was prepared by GeoSyntec Consultants on behalf of Omni Waste of Osceola County, LLC. This submittal includes information and data responding to the requirements of Chapter 62-701, FAC and consists of:

Volume I: Through Appendix D;

• Volume II: Appendix E through J;

• Volume III: Appendix K through R; and

• Permit Drawings: Sheets 1 through 50

A check in the amount of \$20,000 is also enclosed with this permit application. An application for an Environmental Resources Permit is being submitted separately. If you, or your staff, have any questions or need additional information, please feel free to contact the undersigned.

Sincerely,

Kenneth W. Cargill, P.E.

Principal

Enclosures

copy: Timothy J. Salopek, Omni Waste