

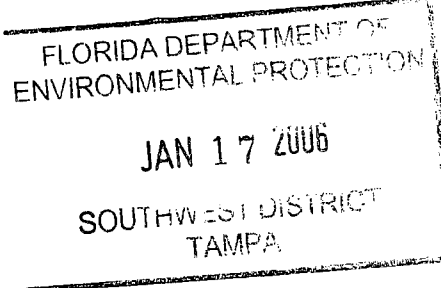


An employee-owned company

6-12-12 39884

SURFACE
WATER DATA
ONLY

January 12, 2006



Mr. John Morris, P.G.
Southwest District Office
Florida Department of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926

**Re: Semi-Annual Water Quality Monitoring Report
Second Half 2005 Sampling Event
Lena Road Landfill
WACS ID No. SWD/41/44795**

Dear Mr. Morris:

On behalf of the Solid Waste Division of Manatee County's Utility Operations Department, PBS&J is pleased to present this Semi-Annual Water Quality Monitoring Report for the second half 2005 sampling event at the Lena Road Landfill (LRL) in Manatee County. This document is designed to meet the requirements of Part E of the LRL's permit, and was prepared in general accordance with the guidelines promulgated in Chapter 62-701.510(9)(a) of the Florida Administrative Code (FAC).

BACKGROUND

The LRL facility is located at 3333 Lena Road in Bradenton, Florida. The LRL facility operates under Permit Number 39884-010-SO/01, which was issued on October 11, 2005 and is on file with the Florida Department of Environmental Protection (FDEP). The LRL is constructed with a perimeter slurry wall in three stages that are designated Stages I, II and III. Landfill leachate is collected by a leachate collection system.

Part E of the facility's permit stipulates that the water quality program involves monitoring of the leachate, surface water, and the groundwater in the surficial aquifer. The monitoring network consists of the following components:

- The leachate samples are collected from the lift stations.
- Groundwater samples are collected from a network of 18 monitoring wells, which are designated GW-1 through GW-17, and BGW-1. GW-1 through GW-17 are detection

wells and BGW-1 is a background well. There are 17 piezometers located on the inside of the slurry wall opposite of the GW-1 through GW-17, which are used to monitor the groundwater gradient across the slurry wall. The piezometers and monitoring wells were installed in July 2005, at the same time that the former well network was abandoned. Monitoring well GW-11 could not be installed because of a structure that was in the way, therefore well GC-6 was kept in place until the new well can be installed.

- The surface water samples are collected from two points along the Cypress Strand. One is located upstream of the LRL and is designated SW-2, and the other, designated SW-1, is located downstream of the LRL.

The layout of the water quality monitoring is illustrated in Figure 1.

A Florida Department of Environmental Protection (FDEP) Ground Water Monitoring Report form for the second half 2005 sampling event at the LRL is provided in Attachment A.

SECOND HALF 2005 SAMPLING EVENT

Sample Collection Methodology

Leachate, groundwater and surface water samples were collected from the LRL network for the second half 2005 sampling event during August 2005 by representatives of Southern Analytical Laboratories, Inc. (SAL). The samples were collected in general accordance with the FDEP's Standard Operating Procedure for Field Activities (SOP 001/01). Prior to sampling the wells, they were purged with a peristaltic pump using the "low-flow" method. A minimum equivalent of three well volumes was purged from each well prior to sample collection. Temperature, pH, conductivity, dissolved oxygen (DO), and turbidity measurements were monitored and recorded throughout the purging process to ensure that representative water samples were collected. Copies of the field data sheets from this sampling event are provided in Attachment B.

Depth-to-groundwater measurements were made from the top-of-casing (TOC) at each monitoring well prior to initiating the purging process. The water level measurements were subtracted from the TOC elevations to determine the elevation of the water table at each well. The TOC elevations are referenced in feet above the National Geodetic Vertical Datum (NGVD). The groundwater elevation data is presented in Table 1.

The samples were submitted to SAL's laboratory for analysis of organic parameters, and to Manatee County Utility Operations' Central Wastewater Laboratory for inorganic analysis. The leachate and surface water samples were analyzed for the parameters listed in Specific

Conditions 8(a) and 9(c), respectively of Part E of the permit. Because this was the initial sampling event for the new wells, the groundwater samples were analyzed for all of the constituents listed in Specific Condition 4(b) of the permit.

The leachate and the monitoring wells were resampled by SAL personnel in December 2005 in order to collect additional groundwater samples for sulfide analysis. The wells were purged and sampled in general accordance with the FDEP's SOP 001/01. The samples were carried to SAL's laboratory for analysis. Copies of the field data sheets from this sampling event are also provided in Attachment B.

Groundwater Flow Patterns

The water level elevation data from the August 2005 sampling event was plotted and contoured to generate the water table elevation contour map presented as Figure 2. The configuration of the water table indicates that the groundwater within the surficial aquifer beneath the LRL (outside the boundary of the landfill) was flowing in a north-northwesterly direction during this sampling event. The average horizontal gradient across the site measured 0.008 feet per foot (ft/ft). This flow direction and horizontal gradient are similar to those observed during the previous semiannual sampling events at the LRL.

Analytical Results

Leachate Analytical Results

Both inorganic and organic parameters were detected in the leachate during this sampling event. The inorganic constituents included all of those in Appendix II except for antimony, beryllium, cadmium, mercury, nitrate, silver, thallium, and tin (as SN). The organic parameters that were detected in at least one of the leachate samples included acetone, flourene, naphthalene, phenenathrene, 1, 4-dichlorobenzene, benzene, chlorobenzene, ethylbenzene, vinyl chloride and xylenes.

The concentration of the parameters that were detected in the leachate was compared to the regulatory levels listed in 40 CFR Part 261.24, as promulgated by the Florida solid waste regulations. A standard has not been established for every parameter. None of the parameter concentrations detected in the leachate exceeded their respective regulatory level.

A summary of the leachate analytical results is in presented Table 2. The complete leachate analytical report is provided in Attachment C-1.

Groundwater Analytical Results

Total sulfide was the only organic parameter detected in the groundwater monitoring network during this sampling event. It was detected in the samples collected at every monitoring well. All of the Appendix II inorganics except copper, lead, mercury, silver, and thallium were detected in at least one well location.

All of the parameters detected in the network were compared to their respective Maximum Contaminant Level (MCL) or Secondary Drinking Water Standard (SDWS) in accordance with the solid waste regulations. The MCLs and SDWSs for Drinking Water Standards, Monitoring, and Reporting are promulgated in Chapter 62-550 of the Florida Administrative Code (FAC). Not every parameter has an MCL or SDWS. The only parameters that exceeded its regulatory standard were pH, a field parameter, arsenic, iron, and total dissolved solids (TDS). A description of the detection patterns with these parameters is as follows:

- pH - The standard for pH is any reading outside of the range from 6.5 to 8.5. The pH was lower than 6.5 at 11 of the monitoring wells.
- Arsenic - Arsenic was detected at concentrations in excess of its MCL in the samples collected at well GW-1.
- Iron - Iron was detected at concentrations in excess of the SDWS in the samples collected at every shallow well except GW-7.
- TDS - TDS was detected at concentrations that exceed the SDWS in the samples collected at GW-2 and GW-14.

These detection patterns are consistent with the results observed with the former groundwater monitoring network during previous sampling events with exception to that of arsenic. During the previous events, arsenic was consistently detected at elevated concentrations at two or three wells located on the west side of the landfill, whereas the sample that exceeded the standard during this event was collected at well GW-1, which is located at the northeast corner of the landfill.

A summary of the results is presented in Table 3. The complete groundwater analytical report is provided in Attachment C-2.

Surface Water Analytical Results

There were no organic constituents detected in the surface water at the LRL during this sampling event. There were, however, numerous inorganic parameters detected, including all of those that were tested except antimony, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, silver and thallium. The concentrations of the inorganic parameters were compared to their respective Surface Water Cleanup Target Levels (SWCTLs) for Class III fresh water as a relative measure of the water quality. The SWCTLs are promulgated in Chapter 62-777, FAC. The only parameters that were detected in the surface water at concentrations in excess of its SWCTL were DO at both sampling locations, which were actually lower than the SWCTL of 5 or more milligrams per liter (mg/L), fecal coliform at sampling location SW-1, and iron at both sampling locations. These results are consistent with those of the previous semiannual sampling events at the LRL.

A summary of the surface water analytical results for each sampling event is presented in Table 4. The complete surface water analytical report is provided in Attachment C-3.

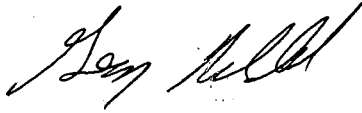
SUMMARY AND CONCLUSIONS

The results of the second half 2005 sampling event at the LRL were consistent with those of previous semiannual sampling events with consistent detections of organic analytes in the leachate, groundwater, and surface water, and scattered detections of organic analytes. The only parameters that were detected at concentrations in excess of the regulatory standards pH, iron, arsenic, and TDS in the groundwater, and DO, fecal coliform, and iron in the surface water. The most serious exceedances were the arsenic in the groundwater and the fecal coliform in the surface water. Arsenic has a primary standard, but was detected in excess of the standard at one well. The well is located at the northeast corner of the landfill; arsenic was consistently detected at elevated concentrations at several wells located on the west side of the landfill during the previous sampling events. The fecal coliform in the surface water exceeded the standard at one of the sampling locations, the same location where the fecal coliform concentration was consistently detected at elevated concentrations during previous semiannual sampling events.

Please call me at (407) 647-7275, ext. 4339 if you have any questions or need any additional information.

Mr. John Morris
January 12, 2006
Page 6

Very truly yours,



Greg Mudd, P.G.
Senior Geologist

C: Gus DiFonzo, Solid Waste Division, Manatee County Utility Operations Department
(2 copies)
File, 120498.94 0300

U:\OldG\HAZARD\Manatee\LenaRoadLandfill\SemiAnnualReportSecondHalf2005\Lean Road Second Half 2005 Summary Report.doc

TABLES

**Table 4 - Lena Road Surface Water Analytical Summary
Second Half 2005**

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		8/10/2005	8/10/2005
	Standard(1)	Units		
Field Measurements				
Temperatrue		deg. C	28.1	28.4
pH		STD	7.2	7.2
Conductivity		umhos/cm	450	501
Dissolved Oxygen (DO)	>5	mg/l	4.0	3.4
Turbidity	29	NTU	6.4	6.9
Inorganics				
Antimony	4.3	mg/l	<0.0015	<0.0015
Arsenic	0.05	mg/l	<0.007	0.034
Barium		mg/l	0.011	0.022
Beryllium	0.13	mg/l	<0.0002	<0.0002
Carbonaceous BOD		mg/l	3.75	<2.00
Cadmium	Note 2	mg/l	<0.0005	<0.0005
Chemical Oxygen Demand (COD)		mg/l	56.1	72.0
Chloropyll A		mg/m3	2	46
Chromium	Note 3	mg/l	<0.001	<0.001
Cobalt		mg/l	<0.001	<0.001
Copper	Note 4	mg/l	<0.005	<0.005
Fecal coliform	800	cfu/100ml	1800	380
Iron	1	mg/l	1.19	5.49
Lead	Note 5	mg/l	<0.005	<0.005
Mercury	12	ug/l	<0.100	<0.100
Nickel	Note 6	mg/l	0.002	0.001
Nitrate		mg/l	0.104	<0.006
Selenium	0.005	mg/l	0.0004	0.0004
Silver	0.07	mg/l	<0.002	<0.002
Thallium	0.0063	mg/l	<0.0004	<0.0004
Total Dissolved Solids (TDS)		mg/l	330	373
Total Hardness		mg/l	110	134
Total Nitrogen		mg/l	1.3	1.3
Total Organic Carbon (TOC)		mg/l	19.3	19.7
Total phosphorous		mg/l	0.432	0.706
Total Suspended Solids (TSS)		mg/l	6.00	280
Unionized ammonia	0.02	mg/l	0.0018	0.0008
Vanadium		mg/l	0.002	0.001
Zinc	Note 7	mg/l	0.019	0.019
Organics				
Acetone		ug/l	<9.9	<9.9
Acrylonitrile		ug/l	<1.2	<1.2
Benzene		ug/l	<0.27	<0.27

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		8/10/2005	8/10/2005
	Standard(1)	Units		
Bromochloromethane		ug/l	<0.58	<0.58
Bromodichloromethane		ug/l	<0.35	<0.35
Carbon disulfide		ug/l	<0.85	<0.85
Carbon tetrachloride	4.42	ug/l	<0.42	<0.42
Chlorobenzene		ug/l	<0.63	<0.63
Chloroethane		ug/l	<0.8	<0.8
Dibromomethane		ug/l	<0.41	<0.41
Dibromochloromethane		ug/l	<0.34	<0.34
1,2-Dichlorobenzene		ug/l	<0.44	<0.44
1,4-Dichlorobenzene		ug/l	<0.52	<0.52
Dichloromethane	1580	ug/l	<4.0	<4.0
1,2-Dibromo-3-chloropropane		ug/l	<0.74	<0.74
1,1-Dichloroethane		ug/l	<0.52	<0.52
1,2-Dichloroethane		ug/l	<0.50	<0.50
1,1-Dichloroethene		ug/l	<0.45	<0.45
cis-1,2-Dichloroethene	3.2	ug/l	<0.65	<0.65
trans-1,2-Dichloroethene		ug/l	<0.44	<0.44
1,2-Dichloropropane		ug/l	<0.52	<0.52
cis-1,3-Dichloropropene		ug/l	<0.14	<0.14
trans-1,3-Dichloropropene		ug/l	<0.14	<0.14
Ethylbenzene		ug/l	<0.44	<0.44
Ethylene Dibromide		ug/l	<0.57	<0.57
2-Hexanone		ug/l	<4.4	<4.4
Iodomethane		ug/l	<0.67	<0.67
Methyl bromide		ug/l	<0.66	<0.66
Chloromethane		ug/l	<0.64	<0.64
2-Butanone		ug/l	<8.4	<8.4
4-Methyl-2-pentanone		ug/l	<3.8	<3.8
Styrene		ug/l	<0.98	<0.98
1,1,1,2-Tetrachloroethane		ug/l	<0.63	<0.63
1,1,2,2-Tetrachloroethane	10.8	ug/l	<0.14	<0.14
t-1,4-Dichloro-2-butene		ug/l	<2.5	<2.5
Tetrachloroethene		ug/l	<0.34	<0.34
Toluene		ug/l	<0.51	<0.51
1,1,1-Trichloroethane		ug/l	<0.46	<0.46
1,1,2-Trichloroethane		ug/l	<0.47	<0.47
Tribromomethane		ug/l	<0.58	<0.58
Trichloroethene	80.7	ug/l	<0.28	<0.28
Trichloromethane		ug/l	<0.90	<0.90
Trichlorofluoromethane		ug/l	<0.98	<0.98
1,2,3-Trichloropropane		ug/l	<0.15	<0.15
Vinyl acetate		ug/l	<1.5	<1.5

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		8/10/2005	8/10/2005
	Standard(1)	Units		
Vinyl chloride		ug/l	<0.50	<0.50
Total xylenes		ug/l	<0.30	<0.30

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

Notes:

(1) Surface water standards presented in Chapter 62-302, FAC. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

(2) Ca less than or equal to $e(0.7852(\ln H)-3.49)$

(3) Cr less than or equal to $e(0.819(\ln H)+0.6848)$

(4) Cu less than or equal to $e(0.845(\ln H)-1.702)$

(5) Pb less than or equal to $e(1.273(\ln H)-4.705)$

(6) Ni less than or equal to $e(0.846(\ln H)+0.0584)$

(7) Zn less than or equal to $e(0.8473(\ln H)+0.884)$

FIGURES

LEGEND:

- GW-2 MONITORING WELL LOCATIONS
- SW-1 SURFACE WATER SAMPLING POINT
- P-10 PIEZOMETER LOCATIONS
- SG-3 STAFF GAUGE LOCATION
- LEACHATE LIFT STATIONS
- SLURRY WALL
- PROPERTY BOUNDARY

PROPERTY LINE



0 500 1000
GRAPHIC SCALE
SCALE: 1" = 1000'

STAGE II
LANDFILL
(INACTIVE NO SOLID WASTE)

LIFT STATION
NO. 4

LIFT STATION
NO. 3

LIFT STATION
NO. 1

STAGE III
LANDFILL
(ACTIVE)

STAGE I LANDFILL
(INACTIVE WITH SOLID WASTE)

LIFT STATION
NO. 2

STORM
WATER
POND

POND

SLURRYWALL
(TYP.)

POND

POND

POND

PBS&J

LENA ROAD LANDFILL
MANATEE COUNTY, FLORIDA

PROPOSED WATER QUALITY
MONITORING NETWORK

FIG. 1

\\ORLFS1\EC\OLDHLS\ENV\CAD\WASTE\MAN\MANATEE\LENA\RD\PERMIT-RENEWAL-2004\MONITORING\WALLLOCATION-FIG-1(010906).DGN

ATTACHMENT B

Field Data Sheets

Date: 8/10/05

surfacewater sampling log sheet.xls

SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

SAL Project# 52778
Date: 8/10/05

Surface Water Sampling Log

Client Name:	Manatee County Utilities, Inc.	Location:	Lena Road Landfill	Contact:	Jeff Goodwin
				Phone:	941-792-8811 X 5235
Surface Water Description:	SW-2 (AEO 7057)	Sample ID:	52778-02	GPS LONG:	
				GPS LAT:	
Date Sampled:	8/10/05				

Sampling Data

Sampled By / Affiliation	SAL	Sampler Signature:	<i>Jimmy R. Wood</i>		
Sampling Device:	Direct to Container	Time Collected:	1400 8/10/05		
Sampling location relative to shore		From Shore			
Method of approach (wading, boat, overhang, etc.)		From Shore			
Depth of sample (ft.)		2"			
Est. Flow Rate (if applicable)					
pH		7.2			
Specific Conductance (umhos)		501			
Temperature (°C)		28.4			
Dissolved Oxygen (mg/L)		3.42			
Turbidity (NTU)		0.87			
Sample Appearance		TANIC			
Sample Odor					
Field Decontamination:	Y ☒	Field Filtered:	Y ☒	Duplicate:	Y ☒
Preservation Checked in the field?	☒	N	Initials:	CPW	
Field Cleaned (List sequence and all solutions used):					

Site and Weather Conditions:

Comments (use back of form if necessary)

Shore on Surface

BGP 8/18/05

ATTACHMENT C

Laboratory Analytical Reports

Attachment C-3

Surface Water Analytical Report



REPORT OF ANALYSIS
MANATEE COUNTY UTILITY OPERATIONS
CENTRAL WASTEWATER LABORATORY
5101 65 TH STREET WEST
BRADENTON, FL 34210

Phone: (941) 792-8811 ext. 5285

Fax: (941) 795-3452

FDOHLAB ID: E54560

USEPA LAB CODE: FL00031

Laboratory Contact: Jeff Goodwin

PREPARED FOR: Mr. Gus Difonzo
MCUOD Solid Waste Division
4410 66th Street West
Bradenton, FL 34210

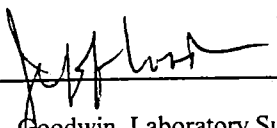
SAMPLE RECEIPT DATE: 08/10/2005

REPORT DATE: 10/31/2005

PROJECT NAME: Lena Road Semi-Annual
Surface Water Monitoring
Report

Data Release Authorization:

The Methods of analysis in this report are in accordance with MCUOD Central Wastewater laboratory's Quality Assurance Manual and meet all NELAC standards except where noted. Results pertain only to items tested and to the samples specified. This report may not be reproduced, except in full, without the written approval of this laboratory.



Jeffrey A. Goodwin, Laboratory Supervisor





DATA QUALIFIER CODES

A	Value reported is the mean (average) of two or more determinations
B	Results based upon colony counts outside the acceptable range. This code applies to microbiological tests, specifically to membrane filter colony counts, and is used only if the colony count is generated from a plate in which the total number of coliform colonies <u>exceeds</u> the method indicated ideal ranges.
C	Analysis performed by contract laboratory
F	When reporting species, this code indicates the female sex.
H	Holiday
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J	Estimated value, may not be accurate. Use of this code requires justification for its use and is used in the following situations: 1. Exceeding of surrogate recovery limits 2. Existence of no quality control criteria for a component 3. Failure to meet established precision and accuracy criteria 4. Matrix interference 5. Questionable data due to improper field or lab protocols "J" Values are exclusive and are not used in conjunction with other codes
K	Indicates off scale low and the actual value is known to be less than the value listed. Used if the value is less than the lowest calibration standard when the calibration curve is known to be non-linear. Can also be used if the actual value is known to be less than the reported value based on sample size, dilution.
L	Off scale high and the actual value is known to be greater than the reported value. Used when the sample concentration of the analyte exceeds the linear range or highest calibration standard and the calibration curve is known to exhibit a negative deflection.
M	To be used for chemical analysis: the presence of the analyte is verified but not quantified and the actual value is less than the value reported.
N	Presumptive evidence of presence of compound. To be used when the compound has been determined by TIC (mass spectral library search) or if presence of the compound cannot be confirmed using alternate procedures.
O	Indicates analysis was lost or not performed
Q	Analyzed after holding time expired
R	Re-sample
T	Reported value is less than the laboratory method detection limit. The value is reported for informational purposes only and is not used in statistical analysis.
U	Less than the method detection limit
U1	Analyte was not detected; indicated concentration is method detection limit. Radiochemistry MDL is sample specific and matrix dependent.
V	Blank contamination. Results are valid and can be reported
X	Time of collection not provided
Y	Laboratory analysis was performed on sample, which was unpreserved or improperly preserved, therefore, the data may be inaccurate.
Z	Too many colonies present. (TNTC)
%	Below FDEP limits.
*	Analysis was not performed due to interference
#	No sample received
?	Indicates that the data should not be used since some or all quality control data for the analyte fall outside limits and the presence or absence of the analyte cannot be determined from the data
"-"	no data reported

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Sample ID AE07056		Collection Date / Time		08/10/2005 14:30					
Sample Point		Lena Road Surface Water 1							
Nitrate as N by Ion Chromatography	EPA 300.0	< MDL	mg/L	U	08/11/2005	20:46	0.005	0.015	IR
Nitrate as N by Ion Chromatography	EPA 300.0	0.104	mg/L		08/11/2005	20:46	0.006	0.030	IR
Carbonaceous BOD (5 day)	SM 5210 B	3.75	mg/L	J5	08/15/2005	09:00	2.00		LK/ IR
Chemical Oxygen Demand	EPA 410.4	56.1	mg/L		08/19/2005	15:00	3.00		IR
Total Organic Carbon	EPA 415.1	19.3	mg/L		08/18/2005	14:50	0.100	0.500	Reed
Field pH	FIELD	7.2	Std. units	C	08/10/2005	14:30	0.010		LRW
Field Temperature	FIELD	28.1	Degrees C	C	08/10/2005	14:30			LRW
Landfill Metals									
Magnesium	EPA 200.7	9.29	mg/L		10/12/2005	12:06	0.005	0.015	WWC
Lead	EPA 200.7	< MDL	mg/L	U	10/12/2005	12:06	0.005	0.015	WWC
Nickel	EPA 200.7	0.002	mg/L	I	10/12/2005	12:06	0.001	0.003	WWC
Silver	EPA 200.7	< MDL	mg/L	U	10/12/2005	12:06	0.002	0.006	WWC
Vanadium	EPA 200.7	0.002	mg/L	I	10/12/2005	12:06	0.0005	0.002	WWC
Zinc	EPA 200.7	0.019	mg/L	I	10/12/2005	12:06	0.010	0.030	WWC
Cobalt	EPA 200.7	< MDL	mg/L	U	10/12/2005	12:06	0.001	0.003	WWC
Cadmium	EPA 200.7	28.9	mg/L		10/12/2005	12:06	0.010	0.030	WWC
Chromium	EPA 200.7	< MDL	mg/L	U	10/12/2005	12:06	0.001	0.003	WWC
Sodium	EPA 200.7	51.5	mg/L		10/12/2005	12:06	0.500	1.50	WWC
Iron	EPA 200.7	1.19	mg/L		10/12/2005	12:06	0.010	0.030	WWC
Beryllium	EPA 200.7	< MDL	mg/L	U	10/12/2005	12:06	0.0002	0.001	WWC
Barium	EPA 200.7	0.011	mg/L		10/12/2005	12:06	0.0005	0.002	WWC
Arsenic	EPA 200.7	< MDL	mg/L	U	10/12/2005	12:06	0.007	0.021	WWC
Cadmium	EPA 200.7	< MDL	mg/L	U	10/12/2005	12:06	0.0005	0.002	WWC
Copper	EPA 200.7	< MDL	mg/L	U	10/12/2005	12:06	0.005	0.015	WWC
Total Hardness	SM 2340 B	110	mg/L		10/27/2005	15:55			JAG
Mercury Cold Vapor	EPA 245.1	< MDL	ug/L	U	09/02/2005	13:55	0.100	0.300	WC
Antimony by GFAAS	EPA 204.2	< MDL	mg/L	U	09/21/2005	16:18	0.0015	0.006	WC
Selenium by GFAAS	EPA 270.2	0.0004	mg/L	I	10/05/2005	17:45	0.0002	0.001	WC
Thallium by GFAAS	EPA 279.2	< MDL	mg/L	U	09/16/2005	16:23	0.0004	0.002	WC
Fecal Coliforms	SM 9222D	1800	cfu/100 ml		08/13/2005	14:00	1		EM/IR/LF

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Ammonia	EPA 350.1	0.132	mg/L		08/15/2005 15:19	0.011	0.054	EMM
Total Kjeldahl Nitrogen	EPA 351.2	1.16	mg/L		08/16/2005 15:10	0.075	0.225	EMM
Total Nitrogen	EPA 351.2/300.0	1.3	mg/L		08/19/2005 13:51			IR
Total Phosphate as P	EPA 365.1	0.432	mg/L		08/12/2005 14:49	0.005	0.015	KLINE
Un-ionized Ammonia	DEP SOP 10/3/83	0.0018	mg/L		08/24/2005 13:00			ECC
Total Dissolved Solids	SM 2540 C	330	mg/L		08/13/2005 11:35	2.50	7.50	EM/LK
Total Suspended Solids	SM 2540 D	6.00	mg/L		08/11/2005 13:55	2.50	7.50	EMM

Sample ID AE07057 Collection Date / Time 08/10/2005 14:00

Sample Point Lena Road Surface Water 2

Nitrite as N by Ion Chromatography	EPA 300.0	< MDL	mg/L	U	08/11/2005 21:17	0.005	0.015	IR
Nitrate as N by Ion Chromatography	EPA 300.0	< MDL	mg/L	U	08/11/2005 21:17	0.006	0.030	IR
Carbonaceous BOD (5 day)	SM 5210 B	<MDL	mg/L	U, V	08/15/2005 09:00	2.00		LK/ IR
Chemical Oxygen Demand	EPA 410.4	72.0	mg/L		08/19/2005 15:00	3.00		IR
Total Organic Carbon	EPA 415.1	19.7	mg/L		08/18/2005 15:17	0.100	0.500	Reed
Field pH	FIELD	7.2	Std. units	C	08/10/2005 14:00	0.010		LRW
Field Temperature	FIELD	28.4	Degrees C	C	08/10/2005 14:00			LRW
Landfill Metals								
Cobalt	EPA 200.7	< MDL	mg/L	U	10/12/2005 12:12	0.001	0.003	WWC
Sodium	EPA 200.7	64.0	mg/L		10/12/2005 12:12	0.500	1.50	WWC
Magnesium	EPA 200.7	9.25	mg/L		10/12/2005 12:12	0.005	0.015	WWC
Calcium	EPA 200.7	38.4	mg/L		10/12/2005 12:12	0.010	0.030	WWC
Iron	EPA 200.7	5.49	mg/L		10/12/2005 12:12	0.010	0.030	WWC
Zinc	EPA 200.7	0.019	mg/L		10/12/2005 12:12	0.010	0.030	WWC
Vanadium	EPA 200.7	0.001	mg/L	I	10/12/2005 12:12	0.0005	0.002	WWC
Silver	EPA 200.7	< MDL	mg/L	U	10/12/2005 12:12	0.002	0.006	WWC
Nickel	EPA 200.7	0.001	mg/L	I	10/12/2005 12:12	0.001	0.003	WWC
Copper	EPA 200.7	< MDL	mg/L	U	10/12/2005 12:12	0.005	0.015	WWC
Chromium	EPA 200.7	< MDL	mg/L	U	10/12/2005 12:12	0.001	0.003	WWC
Cadmium	EPA 200.7	< MDL	mg/L	U	10/12/2005 12:12	0.0005	0.002	WWC
Beryllium	EPA 200.7	< MDL	mg/L	U	10/12/2005 12:12	0.0002	0.001	WWC
Barium	EPA 200.7	0.022	mg/L		10/12/2005 12:12	0.0005	0.002	WWC
Arsenic	EPA 200.7	0.034	mg/L		10/12/2005 12:12	0.007	0.021	WWC

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Lead	EPA 200.7	< MDL	mg/L	U	10/12/2005	12:12	0.005	0.015	WWC
Total Hardness	SM 2340 B	134	mg/L		10/27/2005	15:55			JAG
Mercury Cold Vapor	EPA 245.1	< MDL	ug/L	U	09/02/2005	12:22	0.100	0.300	WC
Antimony by GFAAS	EPA 204.2	< MDL	mg/L	U	09/21/2005	11:16	0.0015	0.006	WC
Selenium by GFAAS	EPA 270.2	0.0004	mg/L	I	10/05/2005	17:53	0.0002	0.001	WC
Thallium by GFAAS	EPA 279.2	< MDL	mg/L	U	09/16/2005	11:34	0.0004	0.002	WC
Fecal Coliforms	SM 9222D	380	cfu/100 ml		08/13/2005	14:00	1		EM/IR/LF
Ammonia	EPA 350.1	0.061	mg/L		08/15/2005	15:21	0.011	0.054	EMM
Total Kjeldahl Nitrogen	EPA 351.2	1.34	mg/L		08/16/2005	15:13	0.075	0.225	EMM
Total Nitrogen	EPA 351.2/300.0	1.3	mg/L		08/19/2005	13:51			IR
Total Phosphate as P	EPA 365.1	0.706	mg/L		08/12/2005	14:50	0.005	0.015	KLINE
Un-ionized Ammonia	DEP SOP 10/3/83	0.0008	mg/L		08/24/2005	13:02			ECC
Total Dissolved Solids	SM 2540 C	373	mg/L		08/13/2005	11:35	2.50	7.50	EM/LK
Total Suspended Solids	SM 2540 D	280	mg/L		08/11/2005	13:55	2.50	7.50	EMM

Sample ID AE07079 Collection Date / Time 08/10/2005 14:30

Sample Point Lena Road Surface Water Field Duplicate

Fecal Coliforms	SM 9222D	1700	cfu/100 ml		08/13/2005	14:00	1		EM/IR/LF
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Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name SLFMETALS-4624		QA Sample ID AE07182						
Samples AE07056 AE07057								
Method Blank for Landfill Metals								
Cobalt		< MDL	mg/L	U	10/12/2005 11:10			WWC
Sodium		< MDL	mg/L	U	10/12/2005 11:10			WWC
Magnesium		0.006	mg/L	I	10/12/2005 11:10			WWC
Calcium		< MDL	mg/L	U	10/12/2005 11:10			WWC
Iron		< MDL	mg/L	U	10/12/2005 11:10			WWC
Zinc		< MDL	mg/L	U	10/12/2005 11:10			WWC
Vanadium		< MDL	mg/L	U	10/12/2005 11:10			WWC
Silver		< MDL	mg/L	U	10/12/2005 11:10			WWC
Nickel		< MDL	mg/L	U	10/12/2005 11:10			WWC
Copper		< MDL	mg/L	U	10/12/2005 11:10			WWC
Chromium		< MDL	mg/L	U	10/12/2005 11:10			WWC
Cadmium		< MDL	mg/L	U	10/12/2005 11:10			WWC
Beryllium		< MDL	mg/L	U	10/12/2005 11:10			WWC
Barium		< MDL	mg/L	U	10/12/2005 11:10			WWC
Arsenic		< MDL	mg/L	U	10/12/2005 11:10			WWC
Lead		< MDL	mg/L	U	10/12/2005 11:10			WWC
Continuing Cal. Blank for Landfill Metal								
Calcium		< MDL	mg/L	U	10/12/2005 13:16			WWC
Magnesium		< MDL	mg/L	U	10/12/2005 13:16			WWC
Strontium		< MDL	mg/L	U	10/12/2005 13:16			WWC
Iron		< MDL	mg/L	U	10/12/2005 13:16			WWC
Zinc		< MDL	mg/L	U	10/12/2005 13:16			WWC
Vanadium		< MDL	mg/L	U	10/12/2005 13:16			WWC
Silver		< MDL	mg/L	U	10/12/2005 13:16			WWC
Nickel		< MDL	mg/L	U	10/12/2005 13:16			WWC
Lead		< MDL	mg/L	U	10/12/2005 13:16			WWC
Copper		< MDL	mg/L	U	10/12/2005 13:16			WWC
Cobalt		< MDL	mg/L	U	10/12/2005 13:16			WWC
Chromium		< MDL	mg/L	U	10/12/2005 13:16			WWC
Cadmium		< MDL	mg/L	U	10/12/2005 13:16			WWC
Beryllium		< MDL	mg/L	U	10/12/2005 13:16			WWC
Arsenic		< MDL	mg/L	U	10/12/2005 13:16			WWC
Sodium		< MDL	mg/L	U	10/12/2005 13:16			WWC
Continuous Calibration for Landfill Meta								
Iron		9.99	mg/L		10/12/2005 13:01			WWC

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name	SLFMETALS-4624	QA Sample ID	AE07182					
Samples	AE07056 AE07057							
Continuous Calibration for Landfill Meta								
Barium		2.01	mg/L		10/12/2005 13:01			WWC
Beryllium		0.516	mg/L		10/12/2005 13:01			WWC
Cadmium		2.09	mg/L		10/12/2005 13:01			WWC
Chromium		2.04	mg/L		10/12/2005 13:01			WWC
Cobalt		2.01	mg/L		10/12/2005 13:01			WWC
Copper		2.11	mg/L		10/12/2005 13:01			WWC
Lead		1.99	mg/L		10/12/2005 13:01			WWC
Nickel		2.01	mg/L		10/12/2005 13:01			WWC
Silver		0.529	mg/L		10/12/2005 13:01			WWC
Zinc		1.97	mg/L		10/12/2005 13:01			WWC
Arsenic		2.08	mg/L		10/12/2005 13:01			WWC
Magnesium		49.6	mg/L		10/12/2005 13:01			WWC
Calcium		51.9	mg/L		10/12/2005 13:01			WWC
Vanadium		2.06	mg/L		10/12/2005 13:01			WWC
Sodium		106	mg/L		10/12/2005 13:01			WWC
Cont Calb Rec for Landfill Metals								
Barium		100	%		10/27/2005 15:05			WWC
Beryllium		103	%		10/27/2005 15:05			WWC
Cadmium		104	%		10/27/2005 15:05			WWC
Chromium		102	%		10/27/2005 15:05			WWC
Copper		106	%		10/27/2005 15:05			WWC
Arsenic		104	%		10/27/2005 15:05			WWC
Silver		106	%		10/27/2005 15:05			WWC
Cobalt		100	%		10/27/2005 15:05			WWC
Vanadium		103	%		10/27/2005 15:05			WWC
Zinc		98.5	%		10/27/2005 15:05			WWC
Iron		99.9	%		10/27/2005 15:05			WWC
Calcium		104	%		10/27/2005 15:05			WWC
Magnesium		99.2	%		10/27/2005 15:05			WWC
Sodium		106	%		10/27/2005 15:05			WWC
Nickel		100	%		10/27/2005 15:05			WWC
Lead		99.5	%		10/27/2005 15:05			WWC
Sample Dup for Landfill Metals								
Copper		< MDL	mg/L	U	10/12/2005 11:54			WWC
Arsenic		0.012	mg/L		10/12/2005 11:54			WWC
Barium		0.076	mg/L		10/12/2005 11:54			WWC

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Batch Name	SLFMETALS-4624		QA Sample ID		AE07182				
Samples	AE07056 AE07057								
Sample Dup for Landfill Metals									
Beryllium		< MDL	mg/L	U	10/12/2005	11:54			WWC
Cadmium		< MDL	mg/L	U	10/12/2005	11:54			WWC
Cobalt		0.0025	mg/L		10/12/2005	11:54			WWC
Lead		< MDL	mg/L	U	10/12/2005	11:54			WWC
Nickel		0.0015	mg/L		10/12/2005	11:54			WWC
Magnesium		25.3	mg/L		10/12/2005	11:54			WWC
Chromium		< MDL	mg/L	U	10/12/2005	11:54			WWC
Sodium		6.24	mg/L		10/12/2005	11:54			WWC
Silver		< MDL	mg/L	U	10/12/2005	11:54			WWC
Calcium		91.3	mg/L		10/12/2005	11:54			WWC
Iron		2.12	mg/L		10/12/2005	11:54			WWC
Zinc		0.018	mg/L		10/12/2005	11:54			WWC
Vanadium		0.022	mg/L		10/12/2005	11:54			WWC
Initial Calibration for Landfill Metals									
Lead		0.978	mg/L		10/12/2005	11:15			WWC
Iron		4.91	mg/L		10/12/2005	11:15			WWC
Asenic		1.01	mg/L		10/12/2005	11:15			WWC
Zinc		0.980	mg/L		10/12/2005	11:15			WWC
Vanadium		1.02	mg/L		10/12/2005	11:15			WWC
Silver		0.256	mg/L		10/12/2005	11:15			WWC
Nickel		0.989	mg/L		10/12/2005	11:15			WWC
Calcium		25.6	mg/L		10/12/2005	11:15			WWC
Cobalt		0.981	mg/L		10/12/2005	11:15			WWC
Magnesium		24.5	mg/L		10/12/2005	11:15			WWC
Chromium		1.00	mg/L		10/12/2005	11:15			WWC
Cadmium		1.04	mg/L		10/12/2005	11:15			WWC
Beryllium		0.253	mg/L		10/12/2005	11:15			WWC
Barium		0.990	mg/L		10/12/2005	11:15			WWC
Copper		1.03	mg/L		10/12/2005	11:15			WWC
Sodium		50.6	mg/L		10/12/2005	11:15			WWC
Init Calb Rec for Landfill Metals									
Sodium		101	%		10/27/2005	15:05			WWC
Nickel		98.9	%		10/27/2005	15:05			WWC
Vanadium		102	%		10/27/2005	15:05			WWC
Iron		98.2	%		10/27/2005	15:05			WWC
Lead		97.8	%		10/27/2005	15:05			WWC

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name	SLFMETALS-4624	QA Sample ID	AE07182					
Samples	AE07056 AE07057							
Calb Rec for Landfill Metals								
Magnesium		98.0	%		10/27/2005 15:05			WWC
Silver		102	%		10/27/2005 15:05			WWC
Calcium		102	%		10/27/2005 15:05			WWC
Cobalt		98.1	%		10/27/2005 15:05			WWC
Chromium		100	%		10/27/2005 15:05			WWC
Caadium		104	%		10/27/2005 15:05			WWC
Beryllium		101	%		10/27/2005 15:05			WWC
Barium		99.0	%		10/27/2005 15:05			WWC
Arsenic		101	%		10/27/2005 15:05			WWC
Copper		103	%		10/27/2005 15:05			WWC
Zinc		98.0	%		10/27/2005 15:05			WWC
S Result for Landfill Metals								
Barium		1.06	mg/L		10/12/2005 11:25			WWC
Magnesium		24.5	mg/L		10/12/2005 11:25			WWC
Calcium		25.4	mg/L		10/12/2005 11:25			WWC
Iron		4.95	mg/L		10/12/2005 11:25			WWC
Zinc		1.00	mg/L		10/12/2005 11:25			WWC
Vanadium		1.02	mg/L		10/12/2005 11:25			WWC
Silver		0.254	mg/L		10/12/2005 11:25			WWC
Nickel		0.998	mg/L		10/12/2005 11:25			WWC
Lead		0.985	mg/L		10/12/2005 11:25			WWC
Copper		1.04	mg/L		10/12/2005 11:25			WWC
Beryllium		0.252	mg/L		10/12/2005 11:25			WWC
Arsenic		1.03	mg/L		10/12/2005 11:25			WWC
Cobalt		0.993	mg/L		10/12/2005 11:25			WWC
Sodium		51.1	mg/L		10/12/2005 11:25			WWC
Chromium		1.00	mg/L		10/12/2005 11:25			WWC
Caadium		1.03	mg/L		10/12/2005 11:25			WWC
LCS Recovery for Landfill Metals								
Nickel		99.8	%		10/27/2005 15:05			WWC
Sodium		102	%		10/27/2005 15:05			WWC
Magnesium		98.0	%		10/27/2005 15:05			WWC
Calcium		102	%		10/27/2005 15:05			WWC
Iron		99.0	%		10/27/2005 15:05			WWC
Zinc		100	%		10/27/2005 15:05			WWC
Silver		102	%		10/27/2005 15:05			WWC

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name	SLFMETALS-4624	QA Sample ID	AE07182					
Samples	AE07056 AE07057							
US Recovery for Landfill Metals								
Lead		98.5	%		10/27/2005 15:05			WWC
Copper		104	%		10/27/2005 15:05			WWC
Antimony		103	%		10/27/2005 15:05			WWC
Chromium		100	%		10/27/2005 15:05			WWC
Cadmium		103	%		10/27/2005 15:05			WWC
Beryllium		101	%		10/27/2005 15:05			WWC
Barium		106	%		10/27/2005 15:05			WWC
Cobalt		99.3	%		10/27/2005 15:05			WWC
Vanadium		102	%		10/27/2005 15:05			WWC
Landfill Metals								
Copper		< MDL	mg/L	U	10/12/2005 11:49			WWC
Lead		< MDL	mg/L	U	10/12/2005 11:49			WWC
Nickel		0.001	mg/L	I	10/12/2005 11:49			WWC
Silver		< MDL	mg/L	U	10/12/2005 11:49			WWC
Vanadium		0.022	mg/L		10/12/2005 11:49			WWC
Iron		2.10	mg/L		10/12/2005 11:49			WWC
Magnesium		25.0	mg/L		10/12/2005 11:49			WWC
Cobalt		0.003	mg/L	I	10/12/2005 11:49			WWC
Zinc		0.018	mg/L	I	10/12/2005 11:49			WWC
Sodium		6.15	mg/L		10/12/2005 11:49			WWC
Cadmium		< MDL	mg/L	U	10/12/2005 11:49			WWC
Beryllium		< MDL	mg/L	U	10/12/2005 11:49			WWC
Barium		0.076	mg/L		10/12/2005 11:49			WWC
Antimony		0.011	mg/L		10/12/2005 11:49			WWC
Calcium		90.7	mg/L		10/12/2005 11:49			WWC
Chromium		< MDL	mg/L	U	10/12/2005 11:49			WWC
Samp Dup Precision for Landfill Metals								
Sodium		1.45	%		10/12/2005 11:49			WWC
Chromium		0.00	%		10/12/2005 11:49			WWC
Cadmium		0.00	%		10/12/2005 11:49			WWC
Beryllium		0.00	%		10/12/2005 11:49			WWC
Barium		0.00	%		10/12/2005 11:49			WWC
Antimony		8.33	%		10/12/2005 11:49			WWC
Magnesium		1.19	%		10/12/2005 11:49			WWC
Cobalt		7.69	%		10/12/2005 11:49			WWC
Lead		0.00	%		10/12/2005 11:49			WWC

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name	SLFMETALS-4624	QA Sample ID	AE07182					
Samples	AE07056 AE07057							
Sample Dup Precision for Landfill Metals								
Calcium		0.659	%		10/12/2005 11:49			WWC
Iron		0.948	%		10/12/2005 11:49			WWC
Nickel		14.3	%		10/12/2005 11:49			WWC
Zinc		0.00	%		10/12/2005 11:49			WWC
Silver		0.00	%		10/12/2005 11:49			WWC
Vanadium		0.00	%		10/12/2005 11:49			WWC
Copper		0.00	%		10/12/2005 11:49			WWC
MS Recovery for Landfill Metals								
Magnesium		99.2	%		10/27/2005 15:05			WWC
Chromium		99.8	%		10/27/2005 15:05			WWC
Arsenic		104	%		10/27/2005 15:05			WWC
Barium		106	%		10/27/2005 15:05			WWC
Beryllium		101	%		10/27/2005 15:05			WWC
Cadmium		102	%		10/27/2005 15:05			WWC
Cobalt		99.4	%		10/27/2005 15:05			WWC
Copper		105	%		10/27/2005 15:05			WWC
Sodium		104	%		10/27/2005 15:05			WWC
Calcium		105	%		10/27/2005 15:05			WWC
Iron		99.0	%		10/27/2005 15:05			WWC
Zinc		97.6	%		10/27/2005 15:05			WWC
Vanadium		102	%		10/27/2005 15:05			WWC
Silver		104	%		10/27/2005 15:05			WWC
Nickel		99.9	%		10/27/2005 15:05			WWC
Lead		97.7	%		10/27/2005 15:05			WWC
Selenium		104	%		10/27/2005 15:05			WWC
MS Result for Landfill Metals								
Magnesium		49.8	mg/L		10/12/2005 12:00			WWC
Sodium		58.1	mg/L		10/12/2005 12:00			WWC
Cobalt		0.997	mg/L		10/12/2005 12:00			WWC
Arsenic		1.05	mg/L		10/12/2005 12:00			WWC
Barium		1.14	mg/L		10/12/2005 12:00			WWC
Beryllium		0.253	mg/L		10/12/2005 12:00			WWC
Nickel		1.00	mg/L		10/12/2005 12:00			WWC
Chromium		0.998	mg/L		10/12/2005 12:00			WWC
Calcium		117	mg/L		10/12/2005 12:00			WWC
Copper		1.05	mg/L		10/12/2005 12:00			WWC

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Batch Name SLFMETALS-4624		QA Sample ID AE07182							
Samples AE07056 AE07057									
Method Result for Landfill Metals									
Zinc		0.994	mg/L		10/12/2005	12:00			WWC
Cadmium		1.02	mg/L		10/12/2005	12:00			WWC
Iron		7.05	mg/L		10/12/2005	12:00			WWC
Vanadium		1.04	mg/L		10/12/2005	12:00			WWC
Silica		0.259	mg/L		10/12/2005	12:00			WWC
Lead		0.977	mg/L		10/12/2005	12:00			WWC
Batch Name AMM-4250		QA Sample ID AE07047							
Samples AE07056 AE07057									
Ammonia		32.8	mg/L		08/15/2005	15:28			EMM
Method Blank for Ammonia		<MDL	mg/L	U	08/15/2005	15:15			EMM
Continuing Cal. Blank for Ammonia		<MDL	mg/L	U	08/15/2005	15:31			EMM
Continuous Calibration for Ammonia		2.91	mg/L		08/15/2005	15:30			EMM
Cont Calb Rec for Ammonia		97.0	%		08/15/2005	15:30			EMM
Sample Dup for Ammonia		32.8	mg/L		08/15/2005	15:29			EMM
Initial Calibration for Ammonia		1.04	mg/L		08/15/2005	15:16			EMM
Initial Calb Rec for Ammonia		104	%		08/15/2005	15:16			EMM
Sample Dup Precision for Ammonia		0.00	%		08/15/2005	15:28			EMM
Batch Name AMM-4250A		QA Sample ID AE07056							
Samples AE07056 AE07057									
Ammonia Spiked for Ammonia		0.500	mg/L		08/15/2005	15:20			EMM
Ammonia		0.132	mg/L		08/15/2005	15:19			EMM
MS Recovery for Ammonia		100	%		08/15/2005	15:19			EMM
Method Result for Ammonia		0.632	mg/L		08/15/2005	15:20			EMM
Batch Name CBOD-4213		QA Sample ID AE07052							
Samples AE07056 AE07057									
Carbonaceous BOD (5 day)		66.5	mg/L	V	08/15/2005	09:00			LK/ IR
Sample Dup for CBOD		64.5	mg/L	V	08/15/2005	09:00			LK/ IR
Sample Dup Precision for CBOD		3.05	%		08/15/2005	09:00			LK/ IR
Batch Name COD-4301		QA Sample ID AE07056							
Samples AE07056 AE07057									
Ammonia Spiked for COD		100	mg/L		08/19/2005	15:00			IR
Method Blank for COD		<MDL	mg/L	U	08/19/2005	15:00			IR
Continuing Cal. Blank for COD		<MDL	mg/L	U	08/19/2005	15:00			IR
Cont. Calib. for COD		300	mg/L		08/19/2005	15:00			IR
Cont Calb Conc for COD		300	mg/L		08/19/2005	15:00			IR

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Batch Name COD-4301		QA Sample ID		AE07056					
Samples AE07056 AE07057									
Cont Calb Rec for COD		100	%		08/19/2005	15:00			IR
Chemical Oxygen Demand		56.1	mg/L		08/19/2005	15:00			IR
Sample Dup for COD		53.4	mg/L		08/19/2005	15:00			IR
Initial Calibration for COD		360	mg/L		08/19/2005	15:00			IR
Int Calb Conc for COD		343	mg/L		08/19/2005	15:00			IR
Int Calb Rec for COD		105	%		08/19/2005	15:00			IR
Samp Dup Precision for COD		4.93	%		08/19/2005	15:00			IR
MS Recovery for COD		101	%		08/19/2005	15:00			IR
MS Result for COD		157	mg/L		08/19/2005	15:00			IR
Batch Name FC-4224		QA Sample ID		AE07057					
Samples AE07056 AE07057 AE07079									
Method Blank for Fecal Coliforms		<MDL	cfu/100 ml	U	08/13/2005	14:00			EM/IR/LF
Cont. Cal. Blank for Fecal Coliforms		<MDL	cfu/100 ml	U	08/13/2005	14:00			EM/IR/LF
Sample Dup for Fecal Coliforms		330	cfu/100 ml		08/13/2005	14:00			EM/IR/LF
Fecal Coliforms		380	cfu/100 ml		08/13/2005	14:00			EM/IR/LF
Samp Dup Precision for Fecal Coliforms		Pass	%		08/13/2005	14:40			LSK
Batch Name HG-4369		QA Sample ID		AE07181					
Samples AE07057									
Method Blank for Mercury		< MDL	ug/L	U	09/02/2005	12:10			WC
Continuing Cal. Blank for Mercury		< MDL	ug/L	U	09/02/2005	12:49			WC
Continuous Calibration for Mercury		2.54	ug/L		09/02/2005	12:47			WC
Cont Calb Rec for Mercury		102	%		09/02/2005	12:47			WC
Sample Dup for Mercury		< MDL	ug/L	U	09/02/2005	12:15			WC
Mercury Cold Vapor		< MDL	ug/L	U	09/02/2005	12:12			WC
Initial Calibration for Mercury		2.61	ug/L		09/02/2005	12:04			WC
Int Calb Rec for Mercury		104	%		09/02/2005	12:04			
Samp Dup Precision for Mercury		Passed	%		09/06/2005	12:15			WC
MS Recovery for Mercury		115	%		09/02/2005	12:12			WC
MS Result for Mercury		1.15	ug/L		09/02/2005	12:20			WC
Batch Name HG-4371		QA Sample ID		AE07180					
Samples AE07056									
Continuing Cal. Blank for Mercury		< MDL	ug/L	U	09/02/2005	14:03			WC
Continuous Calibration for Mercury		0.206	ug/L		09/02/2005	13:58			WC
Cont Calb Rec for Mercury		103	%		09/02/2005	13:58			WC
Sample Dup for Mercury		< MDL	ug/L	U	09/02/2005	13:31			WC
Mercury Cold Vapor		< MDL	ug/L	U	09/02/2005	13:36			WC

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Batch Name HG-4371		QA Sample ID AE07180							
Samples AE07056									
Sample Dup Precision for Mercury		Passed	%		09/06/2005	13:31		WC	
MS Recovery for Mercury		107	%		09/02/2005	13:36			
MS Result for Mercury		1.07	ug/L		09/02/2005	13:33		WC	
Batch Name NO2IC-4219		QA Sample ID AE07067							
Samples AE07056 AE07057									
Method Blank for Nitrite		< MDL	mg/L	U	08/11/2005	10:06		IR	
Cont. Blank for Nitrite		< MDL	mg/L	U	08/11/2005	22:18		IR	
Cont. Cal. for Nitrite		4.94	mg/L		08/11/2005	21:48		IR	
Cont Calb Rec for Nitrite		98.8	%		08/11/2005	21:48		IR	
Sample Dup for Nitrite		< MDL	mg/L	U	08/11/2005	12:39		IR	
Initial Cal. Std. for NO2IC		0.976	mg/L		08/11/2005	10:37		IR	
Init. Cal. Conc. for NO2IC		1.00	mg/L		08/11/2005	10:37		IR	
Int. Cal. Rec. for NO2IC		97.6	%		08/11/2005	10:37		IR	
Nitrite as N by Ion Chromatography		< MDL	mg/L	U	08/11/2005	11:38		IR	
Sample Dup Prec. for Nitrite		ACCEPTABLE	%		08/11/2005	11:08		IR	
MS Recovery for Nitrite		96.5	%		08/11/2005	11:38		IR	
MS Result for Nitrite		0.965	mg/L		08/11/2005	13:40		IR	
Batch Name NO3IC-4220		QA Sample ID AE07067							
Samples AE07056 AE07057									
Method Blank for Nitrate		< MDL	mg/L	U	08/11/2005	10:06		IR	
Cont. Blank for Nitrate		< MDL	mg/L	U	08/11/2005	22:18		IR	
Cont. Cal. for Nitrate		9.78	mg/L		08/11/2005	21:48		IR	
Cont Calb Rec for Nitrate		97.8	%		08/11/2005	21:48		IR	
Sample Dup for Nitrate		4.21	mg/L		08/11/2005	12:39		IR	
Init. Cal. for Nitrate		21.9	mg/L		08/11/2005	11:08		IR	
Int. Calb Conc for Nitrate		22.8	mg/L		08/11/2005	11:08		IR	
Int Calb Rec for Nitrate		96.0	%		08/11/2005	11:08		IR	
Nitrate as N by Ion Chromatography		4.22	mg/L		08/11/2005	11:38		IR	
Sample Dup Prec. for Nitrate		0.237	%		08/11/2005	11:38		IR	
MS Recovery for Nitrate		96.0	%		08/11/2005	11:38		IR	
MS Result for Nitrate		5.18	mg/L		08/11/2005	13:40		IR	
Batch Name SBAA-4422		QA Sample ID AE07181							
Samples AE07057									
Method Blank for Antimony		< MDL	mg/L	U	09/21/2005	10:37		WC	
Continuing Cal. Blank for Antimony		< MDL	mg/L	U	09/21/2005	11:00		WC	
Sample Dup for Antimony		<MDL	mg/L	U	09/22/2005	10:23		WWC	

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Batch Name SBAA-4422		QA Sample ID AE07181							
Samples AE07057									
Initial Calibration for Antimony		0.048	mg/L		09/21/2005	10:45		WC	
Int Calb Rec for Antimony		96.0	%		09/21/2005	10:45		WC	
Sample Dup Precision for Antimony		Passed	%		09/22/2005	11:00		WWC	
MS Recovery for Antimony		98.0	%		09/21/2005	10:53		WC	
MS Result for Antimony		0.049	mg/L		09/22/2005	11:08		WWC	
Antimony by GFAAS		< MDL	mg/L	U	09/21/2005	10:53		WC	
Batch Name SBAA-4424		QA Sample ID AE07180							
Samples AE07056									
Continuing Cal. Blank for Antimony		< MDL	mg/L	U	09/21/2005	15:02		WC	
Sample Dup for Antimony		<MDL	mg/L	U	09/21/2005	15:02		WWC	
Sample Dup Precision for Antimony		Passed	%		09/22/2005	15:02		WWC	
MS Recovery for Antimony		104	%		09/21/2005	14:54		WC	
MS Result for Antimony		0.052	mg/L		09/22/2005	15:04		WWC	
Antimony by GFAAS		< MDL	mg/L	U	09/21/2005	14:54		WC	
Batch Name SEAA-4679		QA Sample ID AE07186							
Samples AE07056 AE07057									
Cont. Cal. Blank for Selenium		< MDL	mg/L	U	10/05/2005	18:17		WC	
Continuous Calibration for Selenium		0.102	mg/L		10/05/2005	18:09		WC	
Cont Calb Rec for Selenium		102	%		10/05/2005	18:09		WC	
Sample Dup for Selenium		0.001	mg/L		10/05/2005	16:43		WC	
Sample Dup Precision for Selenium		0.00	%		10/05/2005	16:43		WC	
MS Recovery for Selenium		94.0	%		10/05/2005	16:43		WC	
MS Result for Selenium		0.048	mg/L		10/05/2005	16:51		WC	
Selenium by GFAAS		0.001	mg/L		10/05/2005	16:43		WC	
Batch Name TDS-4204		QA Sample ID AE07041							
Samples AE07056 AE07057									
Method Blank for TDS		<MDL	mg/L	U	08/13/2005	11:35		EM/LK	
Sample Dup for TDS		2800	mg/L		08/13/2005	11:35		EM/LK	
Initial Calibration for TDS		302	mg/L		08/13/2005	11:35		EM/LK	
Int Calb Conc for TDS		300	mg/L		08/13/2005	11:35		EM/LK	
Int Calb Rec for TDS		101	%		08/13/2005	11:35		EM/LK	
Sample Dup Precision for TDS		Pass	%		08/13/2005	14:36		LSK	
Total Dissolved Solids		2900	mg/L		08/13/2005	11:35		EM/LK	
Batch Name TKN-4264		QA Sample ID AE07056							
Samples AE07056 AE07057									
Method Blank for Total Kjeldahl Nitrogen		<MDL	mg/L	U	08/16/2005	15:07		EMM	

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Batch Name TKN-4264		QA Sample ID AE07056							
Samples AE07056 AE07057									
Continuing Cal. Blank for Total Kjeldahl		<MDL	mg/L	U	08/16/2005	15:29		EMM	
Continuous Calibration for Total Kjeldahl		5.21	mg/L		08/16/2005	15:28		EMM	
Cont Calb Rec for Total Kjeldahl Nitroge		104	%		08/16/2005	15:28		EMM	
Sample Dup for Total Kjeldahl Nitrogen		1.17	mg/L		08/16/2005	15:11		EMM	
Initial Calibration for Total Kjeldahl N		2.12	mg/L		08/16/2005	15:08		EMM	
Int Calb Rec for Total Kjeldahl Nitrogen		106	%		08/16/2005	15:07		EMM	
Samp Dup Precision for Total Kjeldahl Ni		0.858	%		08/16/2005	15:10		EMM	
Total Kjeldahl Nitrogen		1.16	mg/L		08/16/2005	15:10		EMM	
Batch Name TKN-4264A		QA Sample ID AE07057							
Samples AE07056 AE07057									
Amr Spiked for Total Kjeldahl Nitrogen		2.00	mg/L		08/16/2005	15:14		EMM	
MS Recovery for Total Kjeldahl Nitrogen		105	%		08/16/2005	15:13		EMM	
MS Result for Total Kjeldahl Nitrogen		3.44	mg/L		08/16/2005	15:14		EMM	
Total Kjeldahl Nitrogen		1.34	mg/L		08/16/2005	15:13		EMM	
Batch Name TLAA-4416		QA Sample ID AE07181							
Samples AE07057									
Method Blank for Thallium		< MDL	mg/L	U	09/16/2005	10:53		WC	
Continuing Cal. Blank for Thallium		< MDL	mg/L	U	09/16/2005	12:58		WC	
Continuous Calibration for Thallium		0.100	mg/L		09/16/2005	11:21		WC	
Cont Calb Rec for Thallium		100	%		09/16/2005	12:49		WC	
Sample Dup for Thallium		Passed	mg/L		09/16/2005	11:18		WWC	
Initial Calibration for Thallium		0.050	mg/L		09/16/2005	11:01		WC	
Int Calb Rec for Thallium		100	%		09/16/2005	11:01		WC	
Samp Dup Precision for Thallium		Passed	%		09/20/2005	11:18		WWC	
MS Recovery for Thallium		102	%		09/16/2005	11:26		WC	
MS Result for Thallium		0.051	mg/L		09/16/2005	11:26		WC	
Thallium by GFAAS		< MDL	mg/L	U	09/16/2005	11:10		WC	
Batch Name TLAA-4418		QA Sample ID AE07180							
Samples AE07056									
Continuing Cal. Blank for Thallium		< MDL	mg/L	U	09/16/2005	16:40		WC	
Continuous Calibration for Thallium		0.101	mg/L		09/16/2005	16:32		WC	
Cont Calb Rec for Thallium		101	%		09/16/2005	16:32		WC	
Sample Dup for Thallium		Passed	mg/L		09/16/2005	15:10		WWC	
Samp Dup Precision for Thallium		Passed	%		09/20/2005	15:10		WWC	
MS Recovery for Thallium		102	%		09/16/2005	15:18		WC	
MS Result for Thallium		0.051	mg/L		09/16/2005	15:18		WC	

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Batch Name TLAA-4418		QA Sample ID AE07180							
Samples AE07056									
Thallium by GFAAS		< MDL	mg/L	U	09/16/2005	15:02			WC
Batch Name TOC-4297		QA Sample ID AE07075							
Samples AE07056 AE07057									
Method Blank for Total Organic Carbon		< MDL	mg/L	U	08/18/2005	10:02			Reed
Cont. Cal. Blank for TOC		< MDL	mg/L	U	08/18/2005	15:58			Reed
Continuous Calibration for Total Organic		9.75	mg/L		08/18/2005	15:42			Reed
Cont Calb Rec for Total Organic Carbon		97.5	%		08/18/2005	15:42			REED
Sample Dup for Total Organic Carbon		1.68	mg/L		08/18/2005	11:22			Reed
Initial Calibration for Total Organic Ca		4.76	mg/L		08/18/2005	10:27			Reed
Int Calb Rec for Total Organic Carbon		95.2	%		08/18/2005	10:27			REED
Samp Dup Precision for Total Organic Car		0.593	%		08/18/2005	10:54			REED
MS Recovery for Total Organic Carbon		91.0	%		08/18/2005	10:54			REED
MS Result for Total Organic Carbon		6.24	mg/L		08/18/2005	11:49			Reed
Total Organic Carbon		1.69	mg/L		08/18/2005	10:54			Reed
Batch Name T-P-4233		QA Sample ID AE07029							
Samples AE07056 AE07057									
Method Blank for Total Phosphate as P		<MDL	mg/L	U	08/12/2005	14:42			LSK
Continuing Cal. Blank for Total Phosphat		<MDL	mg/L	U	08/12/2005	14:51			LSK
Continuous Calibration for Total Phospha		1.98	mg/L		08/12/2005	14:51			LSK
Cont Calb Rec for Total Phosphate as P		99.0	%		08/12/2005	14:43			LSK
Sample Dup for Total Phosphate as P		4.01	mg/L		08/12/2005	14:44			KLINE
Initial Calibration for Total Phosphate		1.07	mg/L		08/12/2005	14:43			LSK
Int Calb Rec for Total Phosphate as P		107	%		08/12/2005	14:42			LSK
Samp Dup Precision for Total Phosphate a		0.498	%		08/12/2005	14:44			KLINE
Total Phosphate as P		4.03	mg/L		08/12/2005	14:44			KLINE
Batch Name T-P-4233A		QA Sample ID AE07027							
Samples AE07056 AE07057									
As Spiked for Total Phosphate as P		2.00	mg/L		08/12/2005	14:45			KLINE
MS Recovery for Total Phosphate as P		102	%		08/12/2005	14:46			KLINE
MS Result for Total Phosphate as P		4.69	mg/L		08/12/2005	14:45			KLINE
Total Phosphate as P		2.66	mg/L		08/12/2005	14:46			KLINE
Batch Name TSS-4214		QA Sample ID AE07071							
Samples AE07056 AE07057									
Method Blank for TSS		<MDL	mg/L	U	08/11/2005	13:55			EMM
Sample Dup for TSS		<MDL	mg/L	U	08/11/2005	13:55			EMM
Initial Calibration for TSS		99.3	mg/L		08/11/2005	13:55			EMM

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name	TSS-4214	QA Sample ID	AE07071					
Samples	AE07056 AE07057							
Int Calb Conc for TSS		100	mg/L		08/11/2005 13:55		EMM	
Int Calb Rec for TSS		99.3	%		08/11/2005 13:55		EMM	
Sampl Dup Precision for TSS		Pass	%		08/11/2005 13:55		EMM	
Total Suspended Solids		<MDL	mg/L	U	08/11/2005 13:55		EMM	

Client Name Manatee County Utility Operations										Contact / Phone: Jeff Goodwin 941/792-8811									
Project Name / Location Surface Water Analyses - Lena Road Landfill										Turn Around Time Requested (*Surcharges may apply) 24 Hour ☐ 48 Hour ☐ 5 Bus. Days ☐ 10 Bus. Days ☒									
Samplers: (Signature) <i>Big R</i>										PARAMETER / CONTAINER DESCRIPTION									
Matrix Codes: DW-Drinking Water WW-Wastewater SW-Surface Water SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water																			
SAL Use Only	Sample No.	Sample Description	Date	Time	Matrix	Composite	Grab	1LP, Cool 4°C CBOD, TSS	250mL P, Cool 4°C TDS	250mL P, Cool 4°C Nitrate, Nitrite	250mL P, H ₂ SO ₄ Ammonia, TKN	250mL P, H ₂ SO ₄ Total Phosphorus	250mL P, H ₂ SO ₄ COD	40mL Amber V, H ₂ SO ₄ TOC	250mL P, HNO ₃ Metals*, Ca, Mg, Fe, Hg	100mL P, Cool 4°C Fecal Coliform			
	01	SW-1 AEU 7056	8/10/05	1430	SW		X	1	1	1	1	1	1	2	1	2			
	02	SW-2 AEU 7057	8/10/05	1400	SW		X	1	1	1	1	1	1	2	1	2			
	03	SW Field Dup AEU 7079	8/10/05	1430	SW		X												
Samples to be delivered to MCUOD Central Laboratory.																			
Containers Prepared/Relinquished:		Date/Time:	Received:		Date/Time:		Seal Intact?		Y N N/A		Instructions / Remarks *40 CFR Part 258 Appendix I Metals.								
Relinquished:		Date/Time:	Received:		Date/Time:		Samples Intact upon arrival?		Y N N/A										
Relinquished:		Date/Time:	Received:		Date/Time:		Received on ice? Temp _____		Y N N/A										
Relinquished:		Date/Time:	Received:		Date/Time:		Proper preservatives indicated?		Y N N/A										
Relinquished:		Date/Time:	Received:		Date/Time:		Rec'd within holding time?		Y N N/A										
Relinquished:		Date/Time:	Received:		Date/Time:		Volatiles rec'd w/out headspace?		Y N N/A										
Relinquished:		Date/Time:	Received:		Date/Time:		Proper containers used?		Y N N/A										

SAL Report Page ____ of ____

*1 Sample disposed - not required - per 8/10/05

SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218



Manatee County Utility Operations Central Laboratory/ Industrial
Compliance
5101 65th Street West
Bradenton, FL 34210-

August 22, 2005
Project No: 52778

Laboratory Report

Project Name Surface Water Analyses - Lena Road Landfill
Sample Description SW-1 (AE0 7056)
Matrix Surface Water
SAL Sample Number 52778.01
Date/Time Collected 08/10/05 14:30
Date/Time Received 08/10/05 17:00

Parameters	Units	Results	Method	Detection Limit	Date/Time Analyzed	Date/Time Prep	Analyst
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	ug/l	0.63 U,S13	EPA 8260	0.63	08/16/05 17:55	08/16/05 17:55	
1,1,1-Trichloroethane	ug/l	0.46 U,S13	EPA 8260	0.46	08/16/05 17:55	08/16/05 17:55	
1,1,2,2-Tetrachloroethane	ug/l	0.14 U,S13	EPA 8260	0.14	08/16/05 17:55	08/16/05 17:55	
1,1,2-Trichloroethane	ug/l	0.47 U,S13	EPA 8260	0.47	08/16/05 17:55	08/16/05 17:55	
1,1-Dichloroethane	ug/l	0.52 U,S13	EPA 8260	0.52	08/16/05 17:55	08/16/05 17:55	
1,1-Dichloroethene	ug/l	0.45 U,S13	EPA 8260	0.45	08/16/05 17:55	08/16/05 17:55	
1,2,3-Trichloropropane	ug/l	0.15 U,S13	EPA 8260	0.15	08/16/05 17:55	08/16/05 17:55	
1,2-Dibromo-3-chloropropane	ug/l	0.74 U,S13	EPA 8260	0.74	08/16/05 17:55	08/16/05 17:55	
1,2-Dibromoethane	ug/l	0.50 U,S13	EPA 8260	0.50	08/16/05 17:55	08/16/05 17:55	
1,2-Dichlorobenzene	ug/l	0.44 U,S13	EPA 8260	0.44	08/16/05 17:55	08/16/05 17:55	
1,2-Dichloroethane	ug/l	0.57 U,S13	EPA 8260	0.57	08/16/05 17:55	08/16/05 17:55	
1,2-Dichloropropane	ug/l	0.52 U,S13	EPA 8260	0.52	08/16/05 17:55	08/16/05 17:55	
1,4-Dichlorobenzene	ug/l	0.52 U,S13	EPA 8260	0.52	08/16/05 17:55	08/16/05 17:55	
2-Hexanone	ug/l	4.4 U,S13	EPA 8260	4.4	08/16/05 17:55	08/16/05 17:55	
Acetone	ug/l	9.9 U,S13	EPA 8260	9.9	08/16/05 17:55	08/16/05 17:55	
Acrylonitrile	ug/l	1.2 U,S13	EPA 8260	1.2	08/16/05 17:55	08/16/05 17:55	
Benzene	ug/l	0.24 U,S13	EPA 8260	0.27	08/16/05 17:55	08/16/05 17:55	
Bromochloromethane	ug/l	0.58 U,S13	EPA 8260	0.58	08/16/05 17:55	08/16/05 17:55	
Bromodichloromethane	ug/l	0.35 U,S13	EPA 8260	0.35	08/16/05 17:55	08/16/05 17:55	
Bromoform	ug/l	0.58 U,S13	EPA 8260	0.58	08/16/05 17:55	08/16/05 17:55	
Bromomethane	ug/l	0.66 U,S13	EPA 8260	0.66	08/16/05 17:55	08/16/05 17:55	
Carbon disulfide	ug/l	0.85 U,S13	EPA 8260	0.85	08/16/05 17:55	08/16/05 17:55	
Carbon tetrachloride	ug/l	0.42 U,S13	EPA 8260	0.42	08/16/05 17:55	08/16/05 17:55	
Chlorobenzene	ug/l	0.63 U,S13	EPA 8260	0.63	08/16/05 17:55	08/16/05 17:55	
Chloroethane	ug/l	0.80 U,S13	EPA 8260	0.80	08/16/05 17:55	08/16/05 17:55	
Chloroform	ug/l	0.90 U,S13	EPA 8260	0.90	08/16/05 17:55	08/16/05 17:55	
Chloromethane	ug/l	0.64 U,S13	EPA 8260	0.64	08/16/05 17:55	08/16/05 17:55	
cis-1,2-Dichloroethene	ug/l	0.65 U,S13	EPA 8260	0.65	08/16/05 17:55	08/16/05 17:55	
cis-1,3-Dichloropropene	ug/l	0.14 U,S13	EPA 8260	0.14	08/16/05 17:55	08/16/05 17:55	
Dibromochloromethane	ug/l	0.34 U,S13	EPA 8260	0.34	08/16/05 17:55	08/16/05 17:55	
Dibromomethane	ug/l	0.41 U,S13	EPA 8260	0.41	08/16/05 17:55	08/16/05 17:55	
Ethylbenzene	ug/l	0.44 U,S13	EPA 8260	0.44	08/16/05 17:55	08/16/05 17:55	
Iodomethane	ug/l	0.67 U,S13	EPA 8260	0.67	08/16/05 17:55	08/16/05 17:55	
MEK (2-Butanone)	ug/l	8.4 U,S13	EPA 8260	8.4	08/16/05 17:55	08/16/05 17:55	
Methylene chloride	ug/l	4.0 U,S13	EPA 8260	4.0	08/16/05 17:55	08/16/05 17:55	
MIBK (4-Methyl-2-pentanone)	ug/l	3.8 U,S13	EPA 8260	3.8	08/16/05 17:55	08/16/05 17:55	
Styrene	ug/l	0.98 U,S13	EPA 8260	0.98	08/16/05 17:55	08/16/05 17:55	
Tetrachloroethene	ug/l	0.34 U,S13	EPA 8260	0.34	08/16/05 17:55	08/16/05 17:55	
Toluene	ug/l	0.51 U,S13	EPA 8260	0.51	08/16/05 17:55	08/16/05 17:55	
trans-1,2-Dichloroethene	ug/l	0.44 U,S13	EPA 8260	0.44	08/16/05 17:55	08/16/05 17:55	

SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218



Manatee County Utility Operations Central Laboratory/ Industrial
Compliance
5101 65th Street West
Bradenton, FL 34210-

August 22, 2005
Project No: 52778

Laboratory Report

Project Name Surface Water Analyses - Lena Road Landfill
Sample Description SW-1 (AE0 7056)
Matrix Surface Water
SAL Sample Number 52778.01
Date/Time Collected 08/10/05 14:30
Date/Time Received 08/10/05 17:00

Parameters	Units	Results	Method	Detection Limit	Date/Time Analyzed	Date/Time Prep	Analyst
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	ug/l	0.63 U,S13	EPA 8260	0.63	08/16/05 17:55	08/16/05 17:55	
1,1,1-Trichloroethane	ug/l	0.46 U,S13	EPA 8260	0.46	08/16/05 17:55	08/16/05 17:55	
1,1,2,2-Tetrachloroethane	ug/l	0.14 U,S13	EPA 8260	0.14	08/16/05 17:55	08/16/05 17:55	
1,1,2-Trichloroethane	ug/l	0.47 U,S13	EPA 8260	0.47	08/16/05 17:55	08/16/05 17:55	
1,1-Dichloroethane	ug/l	0.52 U,S13	EPA 8260	0.52	08/16/05 17:55	08/16/05 17:55	
1,1-Dichloroethene	ug/l	0.45 U,S13	EPA 8260	0.45	08/16/05 17:55	08/16/05 17:55	
1,2,3-Trichloropropane	ug/l	0.15 U,S13	EPA 8260	0.15	08/16/05 17:55	08/16/05 17:55	
1,2-Dibromo-3-chloropropane	ug/l	0.74 U,S13	EPA 8260	0.74	08/16/05 17:55	08/16/05 17:55	
1,2-Dibromoethane	ug/l	0.50 U,S13	EPA 8260	0.50	08/16/05 17:55	08/16/05 17:55	
1,2-Dichlorobenzene	ug/l	0.44 U,S13	EPA 8260	0.44	08/16/05 17:55	08/16/05 17:55	
1,2-Dichloroethane	ug/l	0.57 U,S13	EPA 8260	0.57	08/16/05 17:55	08/16/05 17:55	
1,2-Dichloropropane	ug/l	0.52 U,S13	EPA 8260	0.52	08/16/05 17:55	08/16/05 17:55	
1,4-Dichlorobenzene	ug/l	0.52 U,S13	EPA 8260	0.52	08/16/05 17:55	08/16/05 17:55	
2-Hexanone	ug/l	4.4 U,S13	EPA 8260	4.4	08/16/05 17:55	08/16/05 17:55	
Acetone	ug/l	9.9 U,S13	EPA 8260	9.9	08/16/05 17:55	08/16/05 17:55	
Acrylonitrile	ug/l	1.2 U,S13	EPA 8260	1.2	08/16/05 17:55	08/16/05 17:55	
Benzene	ug/l	0.24 U,S13	EPA 8260	0.27	08/16/05 17:55	08/16/05 17:55	
Bromochloromethane	ug/l	0.58 U,S13	EPA 8260	0.58	08/16/05 17:55	08/16/05 17:55	
Bromodichloromethane	ug/l	0.35 U,S13	EPA 8260	0.35	08/16/05 17:55	08/16/05 17:55	
Bromoform	ug/l	0.58 U,S13	EPA 8260	0.58	08/16/05 17:55	08/16/05 17:55	
Bromomethane	ug/l	0.66 U,S13	EPA 8260	0.66	08/16/05 17:55	08/16/05 17:55	
Carbon disulfide	ug/l	0.85 U,S13	EPA 8260	0.85	08/16/05 17:55	08/16/05 17:55	
Carbon tetrachloride	ug/l	0.42 U,S13	EPA 8260	0.42	08/16/05 17:55	08/16/05 17:55	
Chlorobenzene	ug/l	0.63 U,S13	EPA 8260	0.63	08/16/05 17:55	08/16/05 17:55	
Chloroethane	ug/l	0.80 U,S13	EPA 8260	0.80	08/16/05 17:55	08/16/05 17:55	
Chloroform	ug/l	0.90 U,S13	EPA 8260	0.90	08/16/05 17:55	08/16/05 17:55	
Chloromethane	ug/l	0.64 U,S13	EPA 8260	0.64	08/16/05 17:55	08/16/05 17:55	
cis-1,2-Dichloroethene	ug/l	0.65 U,S13	EPA 8260	0.65	08/16/05 17:55	08/16/05 17:55	
cis-1,3-Dichloropropene	ug/l	0.14 U,S13	EPA 8260	0.14	08/16/05 17:55	08/16/05 17:55	
Dibromochloromethane	ug/l	0.34 U,S13	EPA 8260	0.34	08/16/05 17:55	08/16/05 17:55	
Dibromomethane	ug/l	0.41 U,S13	EPA 8260	0.41	08/16/05 17:55	08/16/05 17:55	
Ethylbenzene	ug/l	0.44 U,S13	EPA 8260	0.44	08/16/05 17:55	08/16/05 17:55	
Iodomethane	ug/l	0.67 U,S13	EPA 8260	0.67	08/16/05 17:55	08/16/05 17:55	
MEK (2-Butanone)	ug/l	8.4 U,S13	EPA 8260	8.4	08/16/05 17:55	08/16/05 17:55	
Methylene chloride	ug/l	4.0 U,S13	EPA 8260	4.0	08/16/05 17:55	08/16/05 17:55	
MIBK (4-Methyl-2-pentanone)	ug/l	3.8 U,S13	EPA 8260	3.8	08/16/05 17:55	08/16/05 17:55	
Styrene	ug/l	0.98 U,S13	EPA 8260	0.98	08/16/05 17:55	08/16/05 17:55	
Tetrachloroethene	ug/l	0.34 U,S13	EPA 8260	0.34	08/16/05 17:55	08/16/05 17:55	
Toluene	ug/l	0.51 U,S13	EPA 8260	0.51	08/16/05 17:55	08/16/05 17:55	
trans-1,2-Dichloroethene	ug/l	0.44 U,S13	EPA 8260	0.44	08/16/05 17:55	08/16/05 17:55	

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Manatee County Utility Operations Central Laboratory/ Industrial
Compliance
5101 65th Street West
Bradenton, FL 34210-

August 22, 2005
Project No: 52778

Laboratory Report

Project Name Surface Water Analyses - Lena Road Landfill
Sample Description SW-1 (AE0 7056)
Matrix Surface Water
SAL Sample Number 52778.01
Date/Time Collected 08/10/05 14:30
Date/Time Received 08/10/05 17:00

Parameters	Units	Results	Method	Detection Limit	Date/Time Analyzed	Date/Time Prep	Analyst
<u>Volatile Organic Compounds</u>							
trans-1,3-Dichloropropene	ug/l	0.14 U,S13	EPA 8260	0.14	08/16/05 17:55	08/16/05 17:55	
trans-1,4-Dichloro-2-butene	ug/l	2.5 U,S13	EPA 8260	2.5	08/16/05 17:55	08/16/05 17:55	
Trichloroethene	ug/l	0.28 U,S13	EPA 8260	0.28	08/16/05 17:55	08/16/05 17:55	
Trichlorofluoromethane	ug/l	0.98 U,S13	EPA 8260	0.98	08/16/05 17:55	08/16/05 17:55	
Vinyl acetate	ug/l	1.5 U,S13	EPA 8260	1.5	08/16/05 17:55	08/16/05 17:55	
Vinyl chloride	ug/l	0.50 U,S13	EPA 8260	0.50	08/16/05 17:55	08/16/05 17:55	
Xylenes, Total	ug/l	0.30 U,S13	EPA 8260	0.30	08/16/05 17:55	08/16/05 17:55	
<u>Field Parameter</u>							
Specific Conductance	umhos/cm	450	DEP FT1200		08/10/05 14:30		LRW
Water Temperature	C	28.1	DEP FT1400		08/10/05 14:30		LRW
pH	Units	7.2	DEP FT1100		08/10/05 14:30		LRW
Dissolved Oxygen	mg/l	4.0	DEP FT1500		08/10/05 14:30		LRW
Turbidity	NTU	6.4	DEP FT1600		08/10/05 14:30		LRW
<u>Inorganics</u>							
Chlorophyll a, corrected	mg/m3	2 U	SM 10200H	2	08/13/05 11:53	08/11/05 15:02	RJT

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Manatee County Utility Operations Central Laboratory/ Industrial
Compliance
5101 65th Street West
Bradenton, FL 34210-

August 22, 2005
Project No: 52778

Laboratory Report

Project Name Surface Water Analyses - Lena Road Landfill
Sample Description SW-2 (AE0 7057)
Matrix Surface Water
SAL Sample Number 52778.02
Date/Time Collected 08/10/05 14:00
Date/Time Received 08/10/05 17:00

Parameters	Units	Results	Method	Detection Limit	Date/Time Analyzed	Date/Time Prep	Analyst
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	ug/l	0.63 U,S13	EPA 8260	0.63	08/16/05 18:19	08/16/05 18:19	
1,1,1-Trichloroethane	ug/l	0.46 U,S13	EPA 8260	0.46	08/16/05 18:19	08/16/05 18:19	
1,1,2,2-Tetrachloroethane	ug/l	0.14 U,S13	EPA 8260	0.14	08/16/05 18:19	08/16/05 18:19	
1,1,2-Trichloroethane	ug/l	0.47 U,S13	EPA 8260	0.47	08/16/05 18:19	08/16/05 18:19	
1,1-Dichloroethane	ug/l	0.52 U,S13	EPA 8260	0.52	08/16/05 18:19	08/16/05 18:19	
1,1-Dichloroethene	ug/l	0.45 U,S13	EPA 8260	0.45	08/16/05 18:19	08/16/05 18:19	
1,2,3-Trichloropropane	ug/l	0.15 U,S13	EPA 8260	0.15	08/16/05 18:19	08/16/05 18:19	
1,2-Dibromo-3-chloropropane	ug/l	0.74 U,S13	EPA 8260	0.74	08/16/05 18:19	08/16/05 18:19	
1,2-Dibromoethane	ug/l	0.50 U,S13	EPA 8260	0.50	08/16/05 18:19	08/16/05 18:19	
1,2-Dichlorobenzene	ug/l	0.44 U,S13	EPA 8260	0.44	08/16/05 18:19	08/16/05 18:19	
1,2-Dichloroethane	ug/l	0.57 U,S13	EPA 8260	0.57	08/16/05 18:19	08/16/05 18:19	
1,2-Dichloropropane	ug/l	0.52 U,S13	EPA 8260	0.52	08/16/05 18:19	08/16/05 18:19	
1,4-Dichlorobenzene	ug/l	0.52 U,S13	EPA 8260	0.52	08/16/05 18:19	08/16/05 18:19	
2-Hexanone	ug/l	4.4 U,S13	EPA 8260	4.4	08/16/05 18:19	08/16/05 18:19	
Acetone	ug/l	9.9 U,S13	EPA 8260	9.9	08/16/05 18:19	08/16/05 18:19	
Acrylonitrile	ug/l	1.2 U,S13	EPA 8260	1.2	08/16/05 18:19	08/16/05 18:19	
Benzene	ug/l	0.27 U,S13	EPA 8260	0.27	08/16/05 18:19	08/16/05 18:19	
Bromochloromethane	ug/l	0.5 U,S13	EPA 8260	0.58	08/16/05 18:19	08/16/05 18:19	
Bromodichloromethane	ug/l	0.35 U,S13	EPA 8260	0.35	08/16/05 18:19	08/16/05 18:19	
Bromoform	ug/l	0.58 U,S13	EPA 8260	0.58	08/16/05 18:19	08/16/05 18:19	
Bromomethane	ug/l	0.66 U,S13	EPA 8260	0.66	08/16/05 18:19	08/16/05 18:19	
Carbon disulfide	ug/l	4.0 S13	EPA 8260	0.85	08/16/05 18:19	08/16/05 18:19	
Carbon tetrachloride	ug/l	0.42 U,S13	EPA 8260	0.42	08/16/05 18:19	08/16/05 18:19	
Chlorobenzene	ug/l	0.63 U,S13	EPA 8260	0.63	08/16/05 18:19	08/16/05 18:19	
Chloroethane	ug/l	0.80 U,S13	EPA 8260	0.80	08/16/05 18:19	08/16/05 18:19	
Chloroform	ug/l	0.90 U,S13	EPA 8260	0.90	08/16/05 18:19	08/16/05 18:19	
Chloromethane	ug/l	0.64 U,S13	EPA 8260	0.64	08/16/05 18:19	08/16/05 18:19	
cis-1,2-Dichloroethene	ug/l	0.65 U,S13	EPA 8260	0.65	08/16/05 18:19	08/16/05 18:19	
cis-1,3-Dichloropropene	ug/l	0.14 U,S13	EPA 8260	0.14	08/16/05 18:19	08/16/05 18:19	
Dibromochloromethane	ug/l	0.34 U,S13	EPA 8260	0.34	08/16/05 18:19	08/16/05 18:19	
Dibromomethane	ug/l	0.41 U,S13	EPA 8260	0.41	08/16/05 18:19	08/16/05 18:19	
Ethylbenzene	ug/l	0.44 U,S13	EPA 8260	0.44	08/16/05 18:19	08/16/05 18:19	
Iodomethane	ug/l	0.67 U,S13	EPA 8260	0.67	08/16/05 18:19	08/16/05 18:19	
MEK (2-Butanone)	ug/l	8.4 U,S13	EPA 8260	8.4	08/16/05 18:19	08/16/05 18:19	
Methylene chloride	ug/l	4.0 U,S13	EPA 8260	4.0	08/16/05 18:19	08/16/05 18:19	
MIBK (4-Methyl-2-pentanone)	ug/l	3.8 U,S13	EPA 8260	3.8	08/16/05 18:19	08/16/05 18:19	
Styrene	ug/l	0.98 U,S13	EPA 8260	0.98	08/16/05 18:19	08/16/05 18:19	
Tetrachloroethene	ug/l	0.34 U,S13	EPA 8260	0.34	08/16/05 18:19	08/16/05 18:19	
Toluene	ug/l	0.51 U,S13	EPA 8260	0.51	08/16/05 18:19	08/16/05 18:19	
trans-1,2-Dichloroethene	ug/l	0.44 U,S13	EPA 8260	0.44	08/16/05 18:19	08/16/05 18:19	

SOUTHERN ANALYTICAL LABORATORIES, INC.

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Manatee County Utility Operations Central Laboratory/ Industrial
Compliance
5101 65th Street West
Bradenton, FL 34210-

August 22, 2005
Project No: 52778

Laboratory Report

Project Name Surface Water Analyses - Lena Road Landfill
Sample Description SW-2 (AE0 7057)
Matrix Surface Water
SAL Sample Number 52778.02
Date/Time Collected 08/10/05 14:00
Date/Time Received 08/10/05 17:00

Parameters	Units	Results	Method	Detection Limit	Date/Time Analyzed	Date/Time Prep	Analyst
<u>Volatile Organic Compounds</u>							
trans-1,3-Dichloropropene	ug/l	0.14 U,S13	EPA 8260	0.14	08/16/05 18:19	08/16/05 18:19	
trans-1,4-Dichloro-2-butene	ug/l	2.5 U,S13	EPA 8260	2.5	08/16/05 18:19	08/16/05 18:19	
Trichloroethene	ug/l	0.28 U,S13	EPA 8260	0.28	08/16/05 18:19	08/16/05 18:19	
Trichlorofluoromethane	ug/l	0.98 U,S13	EPA 8260	0.98	08/16/05 18:19	08/16/05 18:19	
Vinyl acetate	ug/l	1.5 U,S13	EPA 8260	1.5	08/16/05 18:19	08/16/05 18:19	
Vinyl chloride	ug/l	0.50 U,S13	EPA 8260	0.50	08/16/05 18:19	08/16/05 18:19	
Xylenes, Total	ug/l	0.30 U,S13	EPA 8260	0.30	08/16/05 18:19	08/16/05 18:19	
<u>Field Parameter</u>							
Specific Conductance	umhos/cm	501	DEP FT1200		08/10/05 14:00		LRW
Water Temperature	C	28.4	DEP FT1400		08/10/05 14:00		LRW
pH	Units	7.2	DEP FT1100		08/10/05 14:00		LRW
Dissolved Oxygen	mg/l	3.4	DEP FT1500		08/10/05 14:00		LRW
Turbidity	NTU	6.9	DEP FT1600		08/10/05 14:00		LRW
<u>Inorganics</u>							
Chlorophyll a, corrected	mg/m3	46	SM 10200H	2	08/13/05 11:53	08/11/05 15:02	RJT

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5101 65th Street West
Bradenton, FL 34210-

August 22, 2005
Project No: 52778

Laboratory Report

Footnotes

- * Test results presented in this report meet all the requirements of the NELAC standards.
- ** A statement of estimated uncertainty of test results is available upon request.
- S13 Analysis subcontracted to STL, FDOH Cert. No. E84282.
- U Analyte was undetected. Indicated concentration is method detection limit.
- U,S13 Analyte was not detected; indicated concentration is method detection limit. Analysis subcontracted to STL, FDOH Cert. No. E84282.

SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

Project 53778

Client Name Manatee County Utility Operations										Contact / Phone: Jeff Goodwin 941/792-8811									
Project Name / Location Surface Water Analyses - Lena Road Landfill										Turn Around Time Requested (*Surcharges may apply) 24 Hour* ☐ 48 Hour* ☐ 5 Bus. Days* ☐ 10 Bus. Days ☒									
Samplers: (Signature) <i>B. J. [Signature]</i>										PARAMETER / CONTAINER DESCRIPTION									
Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water		Date	Time	Matrix	Composite	Grab	1LG, Cool 4°C Chlorophyll a	40mL V, HCl 40 CFR Part 258 Appendix I Organics					Field Parameters						
SAL Use Only Sample No.	Sample Description																		
01	SW-1	8/10/05	1430	SW		X	1	3					See Field Sheet						
02	SW-2	8/10/05	1400	SW		X	1	3					See Field Sheet						
03	Trip Blank	8/8/05		R		X		1											
Containers Prepared/Relinquished: <i>[Signature]</i>		Date/Time: 1010 8/8/05	Received: <i>[Signature]</i>				Date/Time: 1545 8/10/05	Seal intact? Y N ☒		Instructions / Remarks Field Parameters: Specific Conductance, pH, Dissolved Oxygen, Turbidity, Colors & Sheens, Temperature									
Relinquished: <i>[Signature]</i>		Date/Time: 1700 8/10/05	Received: <i>Sara Holmes</i>				Date/Time: 1700 8/10/05	Samples intact upon arrival? ☒ N N/A											
Relinquished:		Date/Time:	Received:				Date/Time:	Received on ice? Temp. ☒ N N/A											
Relinquished:		Date/Time:	Received:				Date/Time:	Proper preservatives indicated? ☒ N N/A											
Relinquished:		Date/Time:	Received:				Date/Time:	Rec'd within holding time? ☒ N N/A											
Relinquished:		Date/Time:	Received:				Date/Time:	Volatiles rec'd w/out headspace? ☒ N N/A											
Relinquished:		Date/Time:	Received:				Date/Time:	Proper containers used? ☒ N N/A											