



P.O. Box 398  
Fort Myers, Florida 33902-0398  
(813) 335-2111  
**(813) 338-3100**

**BOARD OF COUNTY COMMISSIONERS**

*Writer's Direct Dial Number*

**March 25, 1994**  
**SL-94-211**

John E. Manning  
*District One*

Douglas R. St. Cerny  
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*County Attorney*

Diana M. Parker  
*County Hearing Examiner*

**Florida Department of Environmental Protection**  
**2295 Victoria Avenue, Suite 364**  
**Fort Myers, Fl. 33901**

**Attention: Phillip Barbacia**

**RE: Lee County Solid Waste Energy Recovery Facility**  
**Power Plant Site Certification Case # PA 90-30**

**Dear Mr. Barbacia:**

In accordance with the subject certification, Condition XIV D. 3.d. & e, please find attached a copy of the quarterly groundwater sampling results. The analysis for sample #42646 (surface water) dated 2/3/94 is also included.

We previously sent you certified prints with monitoring well identifications, locations and elevations.

If you have any questions, please call me at 338-3100.

Sincerely,

**DEPARTMENT OF SOLID WASTE MANAGEMENT**

**Lindsey J. Sampson, P.E.**  
**Director**

LJS/acs

**Attachment**

**cc: L. Johnson**  
**D. Dee**  
**S. Coughanour w/attachment**  
**D. Markley w/attachment**  
**L. P. Young w/attachment**  
**K. Johnson w/attachment**  
**II A418**

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**APR 01 1994**

**D.E.P. SOUTH DISTRICT**

**(4403)**

Lee County Environmental Laboratory  
60 Danley Drive # 2  
Fort Myers, Florida 33907  
(813) 278-7288  
HRS ID 45031/E45049

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APR 01 1994

March 17, 1994

D.E.P. SOUTH DISTRICT

Mr. Lindsey Sampson  
L.C. Dept. of Solid Waste  
cc: Malcom Perney

Dear: Mr. Sampson:

Below are the results of analysis of 12 samples received for examination on January 24, 1994:

**Sample I.D. AA42380** Location code: WTE-1S  
Location Description: Waste to Energy M.W. # 1-S  
Sample collector: VICKI  
Sample collection date: 01/24/94 Time: 10:00  
Lab submittal date: 01/24/94 Time: 13:52

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	0.003	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	8.32	0.03
Lead, AA furnace technique	ug/L	Not detected	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.1	
Total Dissolved Solids	mg/L	440	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.79	0.01
Specific Conductance @ 25oC	umhos/cm	727	1
Elevation, Water Table	Feet NGVD	18.83	0.01

**Sample I.D. AA42381** Location code: WTE-1D  
Location Description: Waste to Energy M.W. # 1-D  
Sample collector: VICKI  
Sample collection date: 01/24/94 Time: 10:00  
Lab submittal date: 01/24/94 Time: 13:52

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	Not detected	0.03

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Lead, AA furnace technique	ug/L	1	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.2	
Total Dissolved Solids	mg/L	504	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.67	0.01
Specific Conductance @ 25oC	umhos/cm	1000	1
Elevation, Water Table	Feet NGVD	17.94	0.01

**Sample I.D. AA42382** Location code: WTE-2S  
 Location Description: Waste to Energy M.W. # 2-S  
 Sample collector: VICKI  
 Sample collection date: 01/24/94 Time: 10:00  
 Lab submittal date: 01/24/94 Time: 13:52

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	0.02	0.01
Iron by flame AA	mg/L	2.04	0.03
Lead, AA furnace technique	ug/L	Not detected	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.0	
Total Dissolved Solids	mg/L	478	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.84	0.01
Specific Conductance @ 25oC	umhos/cm	788	1
Elevation, Water Table	Feet NGVD	18.93	0.01

**Sample I.D. AA42383** Location code: WTE-2D  
 Location Description: Waste to Energy M.W. # 2-D  
 Sample collector: VICKI  
 Sample collection date: 01/24/94 Time: 10:00  
 Lab submittal date: 01/24/94 Time: 13:52

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	Not detected	0.03
Lead, AA furnace technique	ug/L	Not detected	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.7	
Total Dissolved Solids	mg/L	632	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.39	0.01
Specific Conductance @ 25oC	umhos/cm	1100	1
Elevation, Water Table	Feet NGVD	18.72	0.01

**Sample I.D. AA42384** Location code: WTE-3S  
 Location Description: Waste to Energy M.W. # 3-S  
 Sample collector: VICKI  
 Sample collection date: 01/24/94 Time: 10:00  
 Lab submittal date: 01/24/94 Time: 13:52

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	1.44	0.03
Lead, AA furnace technique	ug/L	1	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.4	
Total Dissolved Solids	mg/L	524	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.82	0.01
Specific Conductance @ 25oC	umhos/cm	868	1
Elevation, Water Table	Feet NGVD	19.15	0.01

**Sample I.D. AA42385** Location code: WTE-3D  
 Location Description: Waste to Energy M.W. # 3-D  
 Sample collector: VICKI  
 Sample collection date: 01/24/94 Time: 10:00  
 Lab submittal date: 01/24/94 Time: 13:52

March 17, 1994

Mr. Lindsey Sampson Sample I.D. AA42385 (continued)

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	Not detected	0.03
Lead, AA furnace technique	ug/L	Not detected	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.9	
Total Dissolved Solids	mg/L	506	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.43	0.01
Specific Conductance @ 25oC	umhos/cm	1030	1
Elevation, Water Table	Feet NGVD	18.85	0.01

Sample I.D. AA42386

Location code: WTE-4S

Location Description: Waste to Energy M.W. # 4-S

Sample collector: VICKI

Sample collection date: 01/24/94 Time: 10:00

Lab submittal date: 01/24/94 Time: 13:52

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	1.63	0.03
Lead, AA furnace technique	ug/L	1	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.3	
Total Dissolved Solids	mg/L	866	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.69	0.01
Specific Conductance @ 25oC	umhos/cm	1430	1
Elevation, Water Table	Feet NGVD	18.99	0.01

Sample I.D. AA42387

Location code: WTE-4D

Location Description: Waste to Energy M.W. # 4-D

Sample collector: VICKI

Sample collection date: 01/24/94 Time: 10:00

Lab submittal date: 01/24/94 Time: 13:52

March 17, 1994

Mr. Lindsey Sampson Sample I.D. AA42387 (continued)

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	Not detected	0.03
Lead, AA furnace technique	ug/L	3	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.7	
Total Dissolved Solids	mg/L	436	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.31	0.01
Specific Conductance @ 25oC	umhos/cm	936	1
Elevation, Water Table	Feet NGVD	18.62	0.01

**Sample I.D. AA42388**

Location code: WTE-5S

Location Description: Waste to Energy M.W. # 5-S

Sample collector: VICKI

Sample collection date: 01/24/94 Time: 10:00

Lab submittal date: 01/24/94 Time: 13:52

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	1.20	0.03
Lead, AA furnace technique	ug/L	2	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.1	
Total Dissolved Solids	mg/L	450	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.86	0.01
Specific Conductance @ 25oC	umhos/cm	766	1
Elevation, Water Table	Feet NGVD	18.83	0.01

**Sample I.D. AA42389**

Location code: WTE-5D

Location Description: Waste to Energy M.W. # 5-D

Sample collector: VICKI

Sample collection date: 01/24/94 Time: 10:00

Lab submittal date: 01/24/94 Time: 13:52

March 17, 1994

Mr. Lindsey Sampson Sample I.D. AA42389 (continued)

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	Not detected	0.03
Lead, AA furnace technique	ug/L	2	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.4	
Total Dissolved Solids	mg/L	638	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.79	0.01
Specific Conductance @ 25oC	umhos/cm	1280	1
Elevation, Water Table	Feet NGVD	18.56	0.01

**Sample I.D. AA42390**

Location code: WTE-6S

Location Description: Waste to Energy M.W. # 6-S

Sample collector: VICKI

Sample collection date: 01/24/94 Time: 10:00

Lab submittal date: 01/24/94 Time: 13:52

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	0.01	0.01
Iron by flame AA	mg/L	0.99	0.03
Lead, AA furnace technique	ug/L	2	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.2	
Total Dissolved Solids	mg/L	540	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.66	0.01
Specific Conductance @ 25oC	umhos/cm	853	1
Elevation, Water Table	Feet NGVD	18.80	0.01

**Sample I.D. AA42391**

Location code: WTE-6D

Location Description: Waste to Energy M.W. # 6-D

Sample collector: VICKI

Sample collection date: 01/24/94 Time: 10:00

Lab submittal date: 01/24/94 Time: 13:52

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique	mg/L	Not detected	0.001
Cadmium by flame AA	mg/L	Not detected	0.005
Chromium by flame AA	mg/L	Not detected	0.01
Iron by flame AA	mg/L	Not detected	0.03
Lead, AA furnace technique	ug/L	2	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nitrate	mg/L as N	Not detected	0.01
Nitrite	mg/L as N	Not detected	0.001
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.4	
Total Dissolved Solids	mg/L	804	2
Selenium, AA furnace technique	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.22	0.01
Specific Conductance @ 25°C	umhos/cm	1560	1
Elevation, Water Table	Feet NGVD	18.51	0.01

Please advise should you have questions concerning these data.

Respectfully submitted,



Keith A. Kibbey  
Laboratory Director  
Division of Natural Resources Management



Lee County Environmental Laboratory  
 60 Danley Drive # 2  
 Fort Myers, Florida 33907  
 (813) 278-7288  
 HRS ID 45031/E45049

March 17, 1994

Mr. Lindsey Sampson  
 L.C. Dept. of Solid Waste  
 cc: Malcolm Pirnie, Inc.

Dear: Mr. Sampson:

Below are the results of analysis of 1 sample received for examination on February 3, 1994:

**Sample I.D. AA42646** Location code: WTESW  
 Location Description: Waste to Energy Surface Water  
 Sample collector: VICKI  
 Sample collection date: 02/03/94 Time: 12:00  
 Lab submittal date: 02/03/94 Time: 13:36

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Alkalinity, Total	mg/L as CaCO3	170	1
Chemical Oxygen Demand	mg/L	8	1
Oxygen, Dissolved, Winkler	mg/L	7.0	0.1
pH (electrometric)	pH units	7.0	
Specific Conductance @ 25oC	umhos/cm	465	1
Total Organic Carbon	mg/L	26	1
Total Suspended Solids	mg/L	18	1
Turbidity (Nephelometric)	NTU	36	0.01

Multicomponent analysis: EDB and DBCP by microextraction  
 1,2-Dibromoethane ug/L Not detected 5.0  
 1,2-Dibromo-3-chloropropane ug/L Not detected 5.0

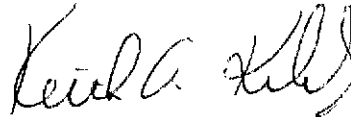
Multicomponent analysis: Volatile Organics by P&T PID\HAL

Trichloroethene	ug/L	Not detected	0.5
Tetrachloroethene	ug/L	Not detected	0.5
Carbon tetrachloride	ug/L	Not detected	0.5
Vinyl chloride	ug/L	Not detected	0.5
1,1,1-trichloroethane	ug/L	Not detected	0.5
1,2-dichloroethane	ug/L	Not detected	0.5
Benzene	ug/L	Not detected	0.5
p-dichlorobenzene	ug/L	Not detected	0.5
1,1-dichloroethene	ug/L	Not detected	0.5
Oil & Grease	mg/L	Not detected	5
Aluminum, AA, direct asperation	mg/L	0.11	0.10
Antimony by flame AA	mg/L	Not detected	0.2
Beryllium by flame AA	ug/L	Not detected	5
Cadmium by flame AA	mg/L	Not detected	0.005
Copper by flame AA	mg/L	Not detected	0.01
Cyanide, Total	mg/L	Not detected	0.02
Iron by flame AA	mg/L	0.25	0.03

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Lead, AA furnace technique	ug/L	Not detected	1
Mercury, AA cold vapor technique	ug/L	Not detected	0.2
Nickel by flame AA	mg/L	Not detected	0.04
Selenium, AA furnace technique	mg/L	0.002	0.002
Silver by flame AA	mg/L	Not detected	0.01
Zinc by flame AA	mg/L	Not detected	0.01

Please advise should you have questions concerning these data.

Respectfully submitted,



Keith A. Kibbey  
Laboratory Director  
Division of Natural Resources Management