



PASCO COUNTY, FLORIDA

DADE CITY (904) 521-4274
NEW PORT RICHEY (813) 847-8902

UTILITIES SERVICES BRANCH
PASCO COUNTY GOVT. COMPLEX
8864 GOVERNMENT DRIVE
NEW PORT RICHEY, FL 34654

June 28, 1994

Ms. Allison amram
Environmental Specialist III
Florida Department of
Environmental Protection
Waste Management Section
3804 Coconut Palm Drive
Tampa, Fl 33619-8318

RECEIVED
JUL 05 1994

Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

RE: Groundwater Monitoring Analyses

Dear Ms. Amram:

Enclosed are the groundwater monitoring analyses from Monitoring Wells 2MW1, 4MW1, 2MW2, 4MW2, 2MW4, 4MW4, 2MW5, 4MW5, 2MW6 and 4MW6 at the Resource Recovery Class I Landfill for the Quarter II (April - June) sampling period.

Initial testing yielded a high total coliform count for groundwater monitoring well 4MW4. Upon confirmation testing, however, the total coliform count was below the detectable limit of 1 cfu/100 ml. The result of this analysis is included for your records.

If you have any questions please feel free to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Candia E. Mulhern".

Candia E. Mulhern
Laboratory Manager

CEM/jb

cc: Chongman Lee, Florida Dept. of Environmental Protection, Waste Mgmt.
Section, Twin Towers Bldg., 2600 Blair Stone Rd. Tallahassee, Fl 32399-2400
Douglas S. Bramlett, Assistant County Administrator (Utilities Services)
Robert J. Sigmond, Utilities Fiscal Services/Special Projects Director



Florida Department of Environmental Regulation

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

DER Form # _____
Form Title _____
Effective Date _____
DER Application No _____ Filed in by DER# _____

QUARTERLY REPORT ON GROUND WATER MONITORING
Rule 17-4.245(6)(k)2.

GMS # 4051C 000258

DATE _____

DER PERMIT # PA87-23

RESOURCE RECOVERY - WEST PASCO CLASS I LANDFILL

Installation Name

HAYS ROAD HUDSON FLORIDA 34674 PASCO
Address City State Zip County

Candia E. Mulhern Laboratory Supervisor
Owner or Authorized Representative's Name Title

Method of Discharge _____

Type of Industry LANDFILL

Report for Period APRIL 1994 to JUNE 1994
date date

Attach monitoring data as approved in monitoring plan using parameter monitoring report forms. When applicable, attach additional sheets describing any changes in the background water quality and the discharge plume since the last reported description. Include any changes in size, direction of movement, rate of movement, and concentration changes of plume constituents in violation of the applicable standards.

NOTE: Pursuant to Rule 17-4.245(6)(k)3., at any time there is a change in the permitted volume, location or chemical, physical or microbiological composition of the discharge plume, the permittee shall notify the department and, if required by the department, submit a new report stating the volume and chemical, physical and microbiological compositions of the discharge at the point of release or contact with the ground water at the site boundary.

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Candia E. Mulhern
Owner or Authorized Representative's Signature

06/27/94
Date

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C 000258

Sample Date 06/02/94

Monitoring Well # 4051A 16506

Well Type: [] Background
[] Site Boundary
[] Intermediate
[] Compliance

Well Name 2mw-1

Classification of Groundwater Surficial

Well Developed* Prior to Sample Collection (Yes/No) YES

Ground Water Elevation (above MSL) Dry

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	<i>Dry</i>	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.		Std units	Unfiltered	Field
	Specific-cond.		(SM 205) reference		umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric		NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A		mg/L	Unfiltered	4°C
	Sulfate		375.4		mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B		mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1		mg/L	Unfiltered	Cool 4°C
	TOC		415.1		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Calculation		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	
	TN		Calculation	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	
	Nitrate		EPA 353.2	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	

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

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C.000258

Sample Date 06/02/94

Monitoring Well # 4051A16511

Well Type: [] Background
[] Site Boundary
[] Intermediate
[] Compliance

Well Name 4mw-1

Classification of Groundwater Floridan

Well Developed* Prior to Sample Collection (Yes/No) yes

Ground Water Elevation (above MSL) 29.99

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	140	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1	<0.01	mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1	0.06	mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1	3.10	mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1	35.8	mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1	<0.02	mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.	7.12	Std units	Unfiltered	Field
	Specific-cond.		(SM 205) reference	1000	umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric	0.30	NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A	203	mg/L	Unfiltered	4°C
	Sulfate		375.4	32.8	mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B	522	mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1	116	mg/L	Unfiltered	Cool 4°C
	TOC		415.1	4.63	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Calculation	<0.02	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TN		Calculation	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Nitrate		EPA 353.2	<0.10	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TOTAL COLIFORM		MF	1.1	MF/100	UNFILTERED	Cool 4°C

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PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C 000258

Sample Date 06/02/94

Monitoring Well # 4051A/6507

Well Type: [] Background
[] Site Boundary
[] Intermediate
[] Compliance

Well Name 2 MW-2

Classification of Groundwater Surficial

Well Developed* Prior to Sample Collection (Yes/No) Yes

Ground Water Elevation (above MSL) 30.21

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	9.94	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1	0.13	mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1	0.07	mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1	3.53	mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1	3.30	mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1	0.46	mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.	6.61	Std. units	Unfiltered	Field
	Specific cond.		(SM 205) reference	120	umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric	1.63	NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A	4.7	mg/L	Unfiltered	4°C
	Sulfate		375.4	<1	mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B	81	mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1	7	mg/L	Unfiltered	Cool 4°C
	TOC		415.1	27.68	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Calculation	<0.02	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TN		Calculation	0.15	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Nitrate		EPA 353.2	0.15	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Total Col.		MF	<1.1	MF/100	Unfiltered	Cool 4°C

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

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C000258

Sample Date 06/02/94

Monitoring Well # 4051A16512

Well Type: [] Background
[] Site Boundary
[] Intermediate
[] Compliance

Well Name 4MW-2

Classification of Groundwater Floridan

Well Developed* Prior to Sample Collection (Yes/No) Yes

Ground Water Elevation (above MSL) 29.56

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	30.6	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1	<0.01	mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1	0.06	mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1	0.77	mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1	2.55	mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1	<0.02	mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.	7.20	Std. units	Unfiltered	Field
	Specific-cond.		(SM 205) reference	160	umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric	0.084	NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A	3.6	mg/L	Unfiltered	4°C
	Sulfate		375.4	<1	mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B	236	mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1	73	mg/L	Unfiltered	Cool 4°C
	TOC		415.1	3.36	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Cal-culation	<0.02	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TN		Cal-culation	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Nitrate		EPA 353.2	<0.10	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Total Col.		MF	<1.1	MF/100	Unfiltered	Cool 4°C

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PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C000258

Sample Date 06/02/94

Monitoring Well # 4051A16508

Well Type: [] Background
[] Site Boundary
[] Intermediate
[] Compliance

Well Name 2mw-4

Classification of Groundwater Surficial

Well Developed* Prior to Sample Collection (Yes/No) Yes

Ground Water Elevation (above MSL) Dry

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	Dry	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.		Std Units	Unfiltered	Field
	Specific-cond.		(SM 205) reference		umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric		NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A		mg/L	Unfiltered	4°C
	Sulfate		375.4		mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B		mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1		mg/L	Unfiltered	Cool 4°C
	TOC		415.1		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Calculation		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	
	TN		Calculation	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	
	Nitrate		EPA 353.2	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	

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

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C 000258

Sample Date 06/02/94

Monitoring Well # 4051A16513

Well Type: [] Background
[] Site Boundary
[] Intermediate
[] Compliance

Well Name 4MW-4

Classification of Groundwater Floridan

Well Developed* Prior to Sample Collection (Yes/No) Yes

Ground Water Elevation (above MSL) 22.36

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	54.0	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1	<0.01	mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1	0.08	mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1	1.37	mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1	2.95	mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1	0.32	mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.	7.20	Std units	Unfiltered	Field
	Specific cond.		(SM 205) reference	290	umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric	3.56	NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A	4.8	mg/L	Unfiltered	4°C
	Sulfate		375.4	7.6	mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B	202	mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1	144	mg/L	Unfiltered	Cool 4°C
	TOC		415.1	5.93	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Cal-culation	<0.02	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TN		Cal-culation	0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Nitrate		EPA 353.2	<0.02	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TOTAL COLI.		MF	>23.0	MF/100	UNFILTERED	COOL 4°C

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PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C000258

Sample Date 06/02/94

Monitoring Well # 4051A16509

Well Type: Background
 Site Boundary
 Intermediate
 Compliance

Well Name 2mw-5

Classification of Groundwater Surficial

Well Developed* Prior to Sample Collection (Yes/No) Yes

Ground Water Elevation (above MSL) Dry

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	<i>Dry</i>	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.		Std units	Unfiltered	Field
	Specific-cond.		(SM 205) Reference		umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric		NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A		mg/L	Unfiltered	4°C
	Sulfate		375.4		mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B		mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1		mg/L	Unfiltered	Cool 4°C
	TOC		415.1		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Cal-culation		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	
	TN		Cal-culation	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	
	Nitrate		EPA 353.2	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	

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PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C000258

Sample Date 06/02/94

Monitoring Well # 4051A16514

Well Type: [] Background
[] Site Boundary
[] Intermediate
[] Compliance

Well Name 4mw-5

Classification of Groundwater Floridan

Well Developed* Prior to Sample Collection (Yes/No) YES

Ground Water Elevation (above MSL) 23.21

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	39.5	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1	20.01	mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1	0.06	mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1	0.91	mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1	3.37	mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1	20.02	mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.	7.53	Std. units	Unfiltered	Field
	Specific cond.		(SM 205) reference	210	umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric	0.27	NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A	14.5	mg/L	Unfiltered	4°C
	Sulfate		375.4	47.9	mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B	144	mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1	91	mg/L	Unfiltered	Cool 4°C
	TOC		415.1	3.15	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2	20.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Calculation	20.02	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	20.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TN		Calculation	20.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Nitrate		EPA 353.2	20.02	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TOTAL COL.		MF	< 1.1	MF/100	UNFILTERED	COOL 4°C

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

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C000258

Sample Date 06/01/94

Monitoring Well # 4051A16510

Well Type: [] Background
[] Site Boundary
[] Intermediate
[] Compliance

Well Name 2 MW-6

Classification of Groundwater Surficial

Well Developed* Prior to Sample Collection (Yes/No) Yes

Ground Water Elevation (above MSL) DRY

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	DRY	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1		mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.		Std. units	Unfiltered	Field
	Specific-cond.		(SM 205) Reference		umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric		NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A		mg/L	Unfiltered	4°C
	Sulfate		375.4		mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B		mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1		mg/L	Unfiltered	Cool 4°C
	TOC		415.1		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Cal-culation		mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	
	TN		Cal-culation	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	
	Nitrate		EPA 353.2	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C	

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

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 4051C000258

Sample Date 06/01/94

Monitoring Well # 4051A16515

Well Type: [] Background
[] Site Boundary
[] Intermediate
[] Compliance

Well Name 4 MW-6

Classification of Groundwater Floridan

Well Developed* Prior to Sample Collection (Yes/No) Yes

Ground Water Elevation (above MSL) 26.63

STORET Code	Parameter Monitored	Sampling Method	Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	Calcium	Well	215.1	23.0	mg/L	Unfiltered	HNO ₃ ; 4°C
	Manganese	Wizard	243.1	<0.01	mg/L	Unfiltered	HNO ₃ ; 4°C
	Zinc	Ded.	289.1	0.08	mg/L	Unfiltered	HNO ₃ ; 4°C
	Magnesium	Mon.	242.1	0.61	mg/L	Unfiltered	HNO ₃ ; 4°C
	Sodium	System	273.1	2.92	mg/L	Unfiltered	HNO ₃ ; 4°C
	Iron		236.1	40.02	mg/L	Unfiltered	HNO ₃ ; 4°C
	pH		Electro.	7.0	Std units	Unfiltered	Field
	Specific cond.		(SM 205) reference	130	umhos/cm	Unfiltered	Field
	Turbidity		Nephelometric	0.01	NTU	Unfiltered	Cool 4°C
	Chloride		SM 407A	3.6	mg/L	Unfiltered	4°C
	Sulfate		375.4	3.5	mg/L	Unfiltered	Cool 4°C
	TDS		SM 209B	65	mg/L	Unfiltered	Cool 4°C
	Bicarb.		310.1	55	mg/L	Unfiltered	Cool 4°C
	TOC		415.1	3.52	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₃ -N		EPA 350.2	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	NH ₄ -N		Cal-culation	<0.02	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Org. N		EPA 351.2	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TN		Cal-culation	<0.07	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	Nitrate		EPA 353.2	<0.02	mg/L	Unfiltered	H ₂ SO ₄ ; 4°C
	TOTAL COLI.		MF	<1.1	MF/100	Unfiltered	Cool 4°C

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



PASCO COUNTY, FLORIDA

REPORT OF ANALYSES

RESOURCE RECOVERY
14230 HAYS ROAD
SPRING HILL, FL 34610-
Attn: ROBERT TIETZ

DATE: 06/17/94
DHRS # 54237, E44123

RESOURCE RECOVERY GWM - QTR II 1994 (Page 1 of 4)

LAB No.	SAMPLE			DELIVERY TO LAB	
	DATE	TIME	SAMPLER	DATE	TIME MATRIX
25243	06/01/94	1530	CHRIS CHILDRESS	06/01/94	1610 WA
25329	06/02/94	1115	CHRIS CHILDRESS	06/02/94	1640 WA
25330	06/02/94	1215	CHRIS CHILDRESS	06/02/94	1640 WA

CLIENT STATION ID: 4MW6 (RES RECOV 4MW2 (RES REC) 2MW2 (RES REC)
ERY)

LAB #: 25243 25329 25330

WATER LEVEL	FEET	26.63	29.56	30.21
FIELD PH	STD. UNITS	7.00	7.20	6.61
FIELD TEMPERATURE	DEGREES C	25.10	34.60	34.30
FIELD CONDUCTIVITY	umhos/cm	130	160	120
ALKALINITY, BICARB.	mg/l	55	73	7
TOT. ORGANIC CARBON	mg/L	3.52	3.36	27.68
CHLORIDE	mg/L	3.6	3.6	4.7
TOTAL COLIFORM MPN	MPN/100 ml	<1.1	<1.1	<1.1
AMMONIA NITROGEN	mg/L	<0.07	<0.07	<0.07
UN-IONIZED AMMONIA N	mg/L	<0.02	<0.02	<0.02
TOTAL ORGANIC N	mg/L	<0.07	<0.07	<0.07
NITRATE/NITRITE	mg/l	<0.02	<0.10	0.15
TOTAL NITROGEN	MG/L	<0.07	<0.07	0.15
PH, LAB	std units	7.73	7.41	6.31
TOTAL DISS. SOLIDS	mg/L	65	236	81
SPEC. CONDUCTIVITY	umhos	93	107	90
SULFATE	mg/L	3.5	<1	<1
TURBIDITY	NTU	0.1	.084	1.63
CALCIUM, TOTAL	mg/L	23.0	30.6	9.94

LABORATORY DIRECTOR



PASCO COUNTY, FLORIDA

REPORT OF ANALYSES

RESOURCE RECOVERY
14230 HAYS ROAD
SPRING HILL, FL 34610-
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DATE: 06/17/94
DHRS # 54237, E44123

RESOURCE RECOVERY GWM - QTR II 1994 (Page 3 of 4)

LAB No.	SAMPLE		SAMPLER	DELIVERY TO LAB	
	DATE	TIME		DATE	TIME MATRIX
25243	06/01/94	1530	CHRIS CHILDRESS	06/01/94	1610 WA
25329	06/02/94	1115	CHRIS CHILDRESS	06/02/94	1640 WA
25330	06/02/94	1215	CHRIS CHILDRESS	06/02/94	1640 WA

CLIENT STATION ID: 4MW6 (RES RECOV 4MW2 (RES REC) 2MW2 (RES REC)
ERY)

LAB #: 25243 25329 25330

IRON, TOTAL	mg/L	<0.02	<0.02	0.46
MAGNESIUM, TOTAL	mg/L	0.61	0.77	3.53
MANGANESE, TOTAL	mg/L	<0.01	<0.01	0.13
SODIUM, TOTAL	mg/L	2.92	2.55	3.30
ZINC, TOTAL	mg/L	0.08	0.06	0.07

LABORATORY DIRECTOR



PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 25243, 25329, 25330, 25331, 25332, 25333,
Page 1

Analyte	LAB ID	Precision Data			Accuracy Data		Reference Sample Data			
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
ALKALINITY, BICARB. NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS										
EPA310.1										
mg/l										
TOT. ORGANIC CARBON										
EPA 415.1	25330	27.68	27.32	0.36	1.31	-----	KHP	20.000	18.020	90.10
mg/L	25330	27.68	27.32	0.36	1.31	-----	KHP	40.000	37.540	93.85
	25330	27.68	27.32	0.36	1.31	-----	KHP	20.000	18.020	90.10
	25436	20.07	19.62	0.45	2.27	-----	KHP	40.000	37.540	93.85
	25436	20.07	19.62	0.45	2.27	-----	KHP	20.000	20.090	100.45
	25436	20.07	19.62	0.45	2.27	-----	-----	-----	-----	-----
CHLORIDE										
EPA 325.3	25225	54.5	54.3	0.20	0.37	-----	STD	20.0	19.3	96.70
mg/L	25244	41.4	41.1	0.30	0.73	-----	std	20.0	20.3	101.70
	23288	60.0	60.2	0.20	0.33	-----	-----	-----	-----	-----
TOTAL COLIFORM MPN NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS										
908A										
MPN/100 ml										
AMMONIA NITROGEN										
EPA350.1	940602	9.97	9.97	0	0.00	-----	-----	-----	-----	-----
mg/L	940609	10.16	10.22	0.060	0.59	-----	-----	-----	-----	-----
UN-IONIZED AMMONIA N NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS										
EPA 350.1										
mg/L										
TOTAL ORGANIC N NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS										
CALC-351.3										
mg/L										



PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 25243, 25329, 25330, 25331, 25332, 25333,
Page 2

Analyte	LAB ID	Precision Data		Range	RPD %	Accuracy Data	Reference Sample Data			
		Replicate A	Replicate B			% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
NITRATE/NITRITE	-----	-----	-----	-----	-----	-----	STD	0.200	0.220	110.00
EPA 353.2	-----	-----	-----	-----	-----	-----	STD	0.400	0.440	110.00
mg/l	-----	-----	-----	-----	-----	-----	STD	1.000	1.120	112.00
	-----	-----	-----	-----	-----	-----	QC-9956	3.47	3.55	102.30
TOTAL NITROGEN CALC. MG/L	NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS									
PH, LAB EPA150.1 std units	NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS									
TOTAL DISS.SOLIDS	-----	-----	-----	-----	-----	-----	STD	293	297	101.40
EPA160.1 mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
SPEC.CONDUCTIVITY EPA120.1 umhos	NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS									
SULFATE	25333	32.8	33.2	0.40	1.21	-----	STD	20.0	21.0	105.00
EPA375.4 mg/L	-----	-----	-----	-----	-----	-----	STD	30.	29.5	98.20
TURBIDITY EPA180.1 NTU	NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS									



PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 25243, 25329, 25330, 25331, 25332, 25333,
Page 3

Analyte	LAB ID	Precision Data				Accuracy Data	Reference Sample Data			
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
CALCIUM, TOTAL 215.1 mg/L	25243	2.36	2.24	0.12	5.22	100.70	-----	-----	-----	-----
IRON, TOTAL 236.2 mg/L	25425	0.202	0.195	0.0070	3.53	105.40	-----	-----	-----	-----
MAGNESIUM, TOTAL 242.1 mg/L	25330	.355	.351	0.0040	1.13	100.80	-----	-----	-----	-----
MANGANESE, TOTAL 243.2 mg/L	25330	0.096	0.095	0.0010	1.05	105.10	-----	-----	-----	-----
SODIUM, TOTAL 273.1 mg/L	25490	3.71	3.71	0	0.00	101.00	-----	-----	-----	-----
ZINC, TOTAL 289.1 mg/L	25330	0.068	0.071	0.0030	4.32	101.60	-----	-----	-----	-----



PASCO COUNTY, FLORIDA

DATE, TIME, ANALYST REPORT

ANALYSIS	METHOD	ANALYSIS		ANALYST
		DATE	TIME	
BICARB. ALK	EPA310.1	06/13/94	1400	JK
CA/T/FLAA	215.1	06/10/94	1540	TER
CL-	EPA 325.3	06/01/94	1600	JK
CL-	EPA 325.3	06/07/94	1000	JK
COND	EPA120.1	06/01/94	1600	CC
COND	EPA120.1	06/06/94		CEM
COND, FIELD	EPA 120.1	06/01/94	1530	CHR
COND, FIELD	EPA 120.1	06/02/94	1115	CHR
FE/T/AA	236.2	06/10/94	1400	TER
FIELD TEMP	EPA 170.1	06/01/94	1530	CHR
FIELD TEMP	EPA 170.1	06/02/94	1115	CHR
H2O LEVEL	FIELD	06/01/94	1530	CHR
H2O LEVEL	FIELD	06/02/94	1115	CHR
MG/T/FLAA	242.1	06/10/94	1600	TER
MN/T/AA	243.2	06/10/94	1440	TER
NA/T/FLAA	273.1	06/10/94	1145	TER
NH3	EPA350.1	06/02/94	1400	TER
NH3	EPA350.1	06/09/94	1600	TER
NH3-UNION	EPA 350.1	06/03/94	1200	CEM
NH3-UNION	EPA 350.1	06/10/94	0800	CEM
NO2+NO3	EPA 353.2	06/07/94	1000	IF
NO2+NO3	EPA 353.2	06/07/94	1000	IF
NO2+NO3	EPA 353.2	06/07/94	1000	IF
NO2+NO3	EPA 353.2	06/08/94	1000	IF
PH	EPA150.1	06/01/94	1600	CC
PH	EPA150.1	06/06/94		CC
PH, FIELD	EPA 150.0	06/01/94	1530	CHR
PH, FIELD	EPA 150.0	06/02/94	1115	CHR
SO4	EPA375.4	06/16/94	1000	JK
TC MPN	908A	06/01/94	1630	MR
TC MPN	908A	06/02/94	1630	MR
TDS	EPA160.1	06/09/94	1500	JK
TN	CALC.	06/10/94	1400	CEM
TOC	EPA 415.1	06/08/94	0900	IF
TON	CALC-351.3	06/02/94	1400	TER
TON	CALC-351.3	06/09/94	1600	TER
TURB	EPA180.1	06/01/94	1600	CC
TURB	EPA180.1	06/02/94	1630	CSC
ZN/T/FLAA	289.1	06/10/94	1425	TER



PASCO COUNTY, FLORIDA

REPORT OF ANALYSES

RESOURCE RECOVERY
14230 HAYS ROAD
SPRING HILL, FL 34610-
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DATE: 06/17/94
DHRS # 54237, E44123

RESOURCE RECOVERY GWM - QTR II 1994 (Page 2 of 4)

LAB No.	SAMPLE			DELIVERY TO LAB	
	DATE	TIME	SAMPLER	DATE	TIME MATRIX
25331	06/02/94	1315	CHRIS CHILDRESS	06/02/94	1640 WA
25332	06/02/94	1510	CHRIS CHILDRESS	06/02/94	1640 WA
25333	06/02/94	1610	CHRIS CHILDRESS	06/02/94	1640 WA

CLIENT STATION ID:	4MW4 (RES REC)	4MW5 (RES REC)	4MW1 (RES REC)
LAB #:	25331	25332	25333

WATER LEVEL	FEET	22.36	23.21	29.99
FIELD PH	STD. UNITS	7.20	7.53	7.12
FIELD TEMPERATURE	DEGREES C	33.60	33.80	32.70
FIELD CONDUCTIVITY	umhos/cm	290	210	1000
ALKALINITY, BICARB.	mg/l	144	91	116
TOT. ORGANIC CARBON	mg/L	5.93	3.15	4.63
CHLORIDE	mg/L	4.8	14.5	203
TOTAL COLIFORM MPN	MPN/100 ml	>23.0	<1.1	1.1
AMMONIA NITROGEN	mg/L	<0.07	<0.07	<0.07
UN-IONIZED AMMONIA N	mg/L	<0.02	<0.02	<0.02
TOTAL ORGANIC N	mg/L	0.07	<0.07	<0.07
NITRATE/NITRITE	mg/l	<0.02	<0.02	<0.10
TOTAL NITROGEN	MG/L	0.07	<0.07	<0.07
PH, LAB	std units	7.35	7.92	7.30
TOTAL DISS. SOLIDS	mg/L	202	144	522
SPEC. CONDUCTIVITY	umhos	195	156	625
SULFATE	mg/L	7.6	47.9	32.8
TURBIDITY	NTU	3.56	0.27	.299
CALCIUM, TOTAL	mg/L	54.0	39.5	140

LABORATORY DIRECTOR



PASCO COUNTY, FLORIDA

REPORT OF ANALYSES

RESOURCE RECOVERY
14230 HAYS ROAD
SPRING HILL, FL 34610-
Attn: ROBERT TIETZ

DATE: 06/17/94
DHS # 54237, E44123

RESOURCE RECOVERY GWM - QTR II 1994 (Page 4 of 4)

LAB No.	SAMPLE			DELIVERY TO LAB	
	DATE	TIME	SAMPLER	DATE	TIME MATRIX
25331	06/02/94	1315	CHRIS CHILDRESS	06/02/94	1640 WA
25332	06/02/94	1510	CHRIS CHILDRESS	06/02/94	1640 WA
25333	06/02/94	1610	CHRIS CHILDRESS	06/02/94	1640 WA

CLIENT STATION ID:	4MW4 (RES REC)	4MW5 (RES REC)	4MW1 (RES REC)
LAB #:	25331	25332	25333

IRON, TOTAL	mg/L	0.32	<0.02	<0.02
MAGNESIUM, TOTAL	mg/L	1.37	0.91	3.10
MANGANESE, TOTAL	mg/L	<0.01	<0.01	<0.01
SODIUM, TOTAL	mg/L	2.95	3.37	35.8
ZINC, TOTAL	mg/L	0.08	0.06	0.06

LABORATORY DIRECTOR



PASCO COUNTY, FLORIDA

REPORT OF ANALYSES

RESOURCE RECOVERY
14230 HAYS ROAD
SPRING HILL, FL 34610-
Attn: ROBERT TIETZ

PROJECT NAME: RR GWM QII RECK
DATE: 06/16/94
DHRS # 54237, E44123

RESOURCE RECOVERY GWM RECHECK - QTR II 1994

SAMPLE NUMBER- 25570 SAMPLE ID- 4MW4 (RESOURCE R)
DATE SAMPLED- 06/13/94
DATE RECEIVED- 06/13/94 SAMPLER- CHRIS CHILDRESS
TIME RECEIVED- 1600 DELIVERED BY- CHRIS CHILDRESS

SAMPLE MATRIX- WA
TIME SAMPLED- 1415
RECEIVED BY- JB
TYPE SAMPLE- Grab

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ANALYSIS	METHOD	ANALYSIS			RESULT UNITS
		DATE	TIME	BY	
TOTAL COLIFORM MF	909A	06/13/94	1600	MR	<1 MF/100 ml

LABORATORY DIRECTOR

A handwritten signature in black ink, appearing to read "Candice E. Miller", is written over a horizontal line.