

August 27, 2013

Rick Potts
The Colinas Group, Inc.
377 Maitland Avenue
Suite 2012
Altamonte Springs, FL 32701

RE: Workorder: A1306040 Sumter Co Landfill GW

Dear Rick Potts:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, August 14, 2013. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Myrna Santiago
MSantiago@AELLab.com

Enclosures: Sub lab report and field sheets

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SAMPLE SUMMARY

Workorder: A1306040 Sumter Co Landfill GW

Lab ID	Sample ID	Matrix	Date Collected	Date Received
A1306040001	MW-2	Water	8/13/2013 12:35	8/14/2013 14:26
A1306040002	MW-4	Water	8/13/2013 11:15	8/14/2013 14:26
A1306040003	MW-4A	Water	8/14/2013 11:06	8/14/2013 14:26
A1306040004	MW-4B	Water	8/14/2013 11:50	8/14/2013 14:26
A1306040005	MW-6A	Water	8/14/2013 13:00	8/14/2013 14:26
A1306040006	MW-8	Water	8/13/2013 11:50	8/14/2013 14:26
A1306040007	MW-9A	Water	8/14/2013 10:25	8/14/2013 14:26
A1306040008	MW-10	Water	8/13/2013 10:45	8/14/2013 14:26
A1306040009	MW-11	Water	8/13/2013 13:30	8/14/2013 14:26
A1306040010	EQ BLANK	Water	8/14/2013 09:10	8/14/2013 14:26

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040001**

Date Received: 08/14/13 14:26 Matrix: Water

Sample ID: **MW-2**

Date Collected: 08/13/13 12:35

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance			Analytical Method: DISRES					
Conductance	205	umhos/cm		1			8/13/2013 12:18	A^
Dissolved Oxygen	5.58	mg/L		1			8/13/2013 12:18	A^
Groundwater Elevation	45.81	feet		1			8/13/2013 12:18	A^
Temperature	27.49	°C		1			8/13/2013 12:18	A^
Turbidity	0.41	NTU		1			8/13/2013 12:18	A^
pH	6.76	pH unit		1			8/13/2013 12:18	A^

METALS

Analysis Desc: SW846 6010B Analysis,Water			Preparation Method: SW-846 3010A Analytical Method: SW-846 6010					
Aluminum	61	ug/L	U	1	200	61	8/22/2013 19:28	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	8/22/2013 19:28	J
Chromium	0.50	ug/L	U	1	1.0	0.50	8/22/2013 19:28	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	8/22/2013 19:28	J
Iron	38	ug/L	U	1	200	38	8/22/2013 19:28	J
Manganese	1.0	ug/L		1	1.0	0.24	8/22/2013 19:28	J
Sodium	2.3	mg/L		1	0.20	0.026	8/22/2013 19:28	J

Analysis Desc: SW846 6020B Analysis,Total			Preparation Method: SW-846 3010A Analytical Method: SW-846 6020					
Antimony	0.82	ug/L		1	0.70	0.076	8/20/2013 17:58	J
Lead	0.076	ug/L	U	1	0.70	0.076	8/20/2013 17:58	J
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 17:58	J
Thallium	0.082	ug/L	I	1	0.20	0.067	8/20/2013 17:58	J

Analysis Desc: SW846 7470A Analysis,Water			Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A					
Mercury	0.014	ug/L	U	1	0.10	0.014	8/22/2013 16:18	J

WET CHEMISTRY

Analysis Desc: IC,E300.0,Water			Analytical Method: EPA 300.0					
Chloride	2.3	mg/L		1	2.0	1.3	8/15/2013 11:34	M
Fluoride	0.30	mg/L	U	1	0.50	0.30	8/15/2013 11:34	M
Nitrate	1.4	mg/L		1	0.50	0.26	8/15/2013 11:34	M

Analysis Desc: Ammonia,E350.1,Water			Analytical Method: EPA 350.1					
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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040001**
Sample ID: **MW-2**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/13/13 12:35

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Ammonia (N)	0.0080	mg/L	U	1	0.010	0.0080	8/15/2013 14:21	G
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	140	mg/L		1	10	10	8/15/2013 09:01	A

Lab ID: **A1306040002**
Sample ID: **MW-4**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/13/13 11:15

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance		Analytical Method: DISRES						
Conductance	508	umhos/cm		1			8/13/2013 10:59	A^
Dissolved Oxygen	0.93	mg/L		1			8/13/2013 10:59	A^
Groundwater Elevation	45.64	feet		1			8/13/2013 10:59	A^
Temperature	26.6	°C		1			8/13/2013 10:59	A^
Turbidity	0.53	NTU		1			8/13/2013 10:59	A^
pH	7.12	pH unit		1			8/13/2013 10:59	A^

METALS

Analysis Desc: SW846 6010B Analysis,Water		Preparation Method: SW-846 3010A Analytical Method: SW-846 6010						
Aluminum	61	ug/L	U	1	200	61	8/22/2013 18:40	J
Cadmium	0.35	ug/L	I	1	0.60	0.32	8/22/2013 18:40	J
Chromium	0.78	ug/L	I	1	1.0	0.50	8/22/2013 18:40	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	8/22/2013 18:40	J
Iron	38	ug/L	U	1	200	38	8/22/2013 18:40	J
Manganese	3.8	ug/L		1	1.0	0.24	8/22/2013 18:40	J
Sodium	29	mg/L		1	0.20	0.026	8/22/2013 18:40	J
Analysis Desc: SW846 6020B Analysis,Total		Preparation Method: SW-846 3010A Analytical Method: SW-846 6020						
Antimony	0.59	ug/L	I	1	0.70	0.076	8/20/2013 19:03	J
Lead	0.076	ug/L	U	1	0.70	0.076	8/20/2013 19:03	J

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040002**
Sample ID: **MW-4**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/13/13 11:15

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 19:03	J
Thallium	0.11	ug/L	I	1	0.20	0.067	8/20/2013 19:03	J

Analysis Desc: SW846 7470A
Analysis, Water

Preparation Method: SW-846 7470A
Analytical Method: SW-846 7470A

Mercury	0.014	ug/L	U	1	0.10	0.014	8/22/2013 16:20	J
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WET CHEMISTRY

Analysis Desc: IC,E300.0, Water

Analytical Method: EPA 300.0

Chloride	12	mg/L		2	4.0	2.7	8/15/2013 10:20	M
Fluoride	0.60	mg/L	U	2	1.0	0.60	8/15/2013 10:20	M
Nitrate	4.1	mg/L		2	1.0	0.52	8/15/2013 10:20	M

Analysis Desc: Ammonia,E350.1, Water

Analytical Method: EPA 350.1

Ammonia (N)	0.019	mg/L		1	0.010	0.0080	8/15/2013 14:21	G
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Analysis Desc: Tot Dissolved Solids, SM2540C

Analytical Method: SM 2540C

Total Dissolved Solids	310	mg/L		1	10	10	8/15/2013 17:18	A
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Lab ID: **A1306040003**
Sample ID: **MW-4A**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/14/13 11:06

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance Analytical Method: DISRES								
Conductance	603	umhos/cm		1			8/14/2013 10:51	A^
Dissolved Oxygen	1.01	mg/L		1			8/14/2013 10:51	A^
Groundwater Elevation	45.76	feet		1			8/14/2013 10:51	A^
Temperature	26.14	°C		1			8/14/2013 10:51	A^
Turbidity	5.26	NTU		1			8/14/2013 10:51	A^
pH	7	pH unit		1			8/14/2013 10:51	A^

METALS

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040003**
Sample ID: **MW-4A**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/14/13 11:06

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: SW846 6010B		Preparation Method: SW-846 3010A						
Analysis, Water		Analytical Method: SW-846 6010						
Aluminum	61	ug/L	U	1	200	61	8/22/2013 19:33	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	8/22/2013 19:33	J
Chromium	1.3	ug/L		1	1.0	0.50	8/22/2013 19:33	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	8/22/2013 19:33	J
Iron	38	ug/L	U	1	200	38	8/22/2013 19:33	J
Manganese	1.3	ug/L		1	1.0	0.24	8/22/2013 19:33	J
Sodium	21	mg/L		1	0.20	0.026	8/22/2013 19:33	J
Analysis Desc: SW846 6020B		Preparation Method: SW-846 3010A						
Analysis, Total		Analytical Method: SW-846 6020						
Antimony	0.17	ug/L	I	1	0.70	0.076	8/20/2013 19:13	J
Lead	0.076	ug/L	U	1	0.70	0.076	8/20/2013 19:13	J
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 19:13	J
Thallium	0.20	ug/L	I	1	0.20	0.067	8/20/2013 19:13	J
Analysis Desc: SW846 7470A		Preparation Method: SW-846 7470A						
Analysis, Water		Analytical Method: SW-846 7470A						
Mercury	0.014	ug/L	U	1	0.10	0.014	8/22/2013 16:36	J
WET CHEMISTRY								
Analysis Desc: IC,E300.0, Water		Analytical Method: EPA 300.0						
Chloride	23	mg/L		2	4.0	2.7	8/15/2013 15:16	M
Fluoride	0.60	mg/L	U	2	1.0	0.60	8/15/2013 15:16	M
Nitrate	11	mg/L		2	1.0	0.52	8/15/2013 15:16	M
Analysis Desc: Ammonia,E350.1, Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.016	mg/L		1	0.010	0.0080	8/15/2013 14:21	G
Analysis Desc: Tot Dissolved Solids, SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	370	mg/L		1	10	10	8/15/2013 17:18	A

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040004**
Sample ID: **MW-4B**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/14/13 11:50

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance			Analytical Method: DISRES					
Conductance	115	umhos/cm		1			8/14/2013 11:33	A^
Dissolved Oxygen	7.37	mg/L		1			8/14/2013 11:33	A^
Groundwater Elevation	45.79	feet		1			8/14/2013 11:33	A^
Temperature	25.35	°C		1			8/14/2013 11:33	A^
Turbidity	2.37	NTU		1			8/14/2013 11:33	A^
pH	8.93	pH unit		1			8/14/2013 11:33	A^

METALS

Analysis Desc: SW846 6010B Analysis,Water			Preparation Method: SW-846 3010A Analytical Method: SW-846 6010					
Aluminum	130	ug/L	I	1	200	61	8/22/2013 19:37	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	8/22/2013 19:37	J
Chromium	1.7	ug/L		1	1.0	0.50	8/22/2013 19:37	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	8/22/2013 19:37	J
Iron	38	ug/L	U	1	200	38	8/22/2013 19:37	J
Manganese	0.50	ug/L	I	1	1.0	0.24	8/22/2013 19:37	J
Sodium	6.0	mg/L		1	0.20	0.026	8/22/2013 19:37	J

Analysis Desc: SW846 6020B Analysis,Total			Preparation Method: SW-846 3010A Analytical Method: SW-846 6020					
Antimony	0.15	ug/L	I	1	0.70	0.076	8/20/2013 19:22	J
Lead	0.081	ug/L	I	1	0.70	0.076	8/20/2013 19:22	J
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 19:22	J
Thallium	0.067	ug/L	U	1	0.20	0.067	8/20/2013 19:22	J

Analysis Desc: SW846 7470A Analysis,Water			Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A					
Mercury	0.014	ug/L	U	1	0.10	0.014	8/22/2013 16:49	J

WET CHEMISTRY

Analysis Desc: IC,E300.0,Water			Analytical Method: EPA 300.0					
Chloride	4.2	mg/L		2	4.0	2.7	8/15/2013 15:34	M
Fluoride	0.60	mg/L	U	2	1.0	0.60	8/15/2013 15:34	M
Nitrate	1.9	mg/L		2	1.0	0.52	8/15/2013 15:34	M

Analysis Desc: Ammonia,E350.1,Water			Analytical Method: EPA 350.1					
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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040004**

Date Received: 08/14/13 14:26 Matrix: Water

Sample ID: **MW-4B**

Date Collected: 08/14/13 11:50

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Ammonia (N)	0.0080	mg/L	U	1	0.010	0.0080	8/15/2013 14:21	G
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	82	mg/L		1	10	10	8/15/2013 17:18	A

Lab ID: **A1306040005**

Date Received: 08/14/13 14:26 Matrix: Water

Sample ID: **MW-6A**

Date Collected: 08/14/13 13:00

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance		Analytical Method: DISRES						
Conductance	258	umhos/cm		1			8/14/2013 12:44	A^
Dissolved Oxygen	7.22	mg/L		1			8/14/2013 12:44	A^
Groundwater Elevation	46.21	feet		1			8/14/2013 12:44	A^
Temperature	24.72	°C		1			8/14/2013 12:44	A^
Turbidity	16.5	NTU		1			8/14/2013 12:44	A^
pH	7.71	pH unit		1			8/14/2013 12:44	A^

METALS & WET CHEMISTRY

Analysis Desc: Ammonia,E350.1,Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.0080	mg/L	U	1	0.010	0.0080	8/15/2013 14:21	G
Analysis Desc: SW846 6010B Analysis,Water		Preparation Method: SW-846 3010A Analytical Method: SW-846 6010						
Aluminum	61	ug/L	U	1	200	61	8/22/2013 19:42	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	8/22/2013 19:42	J
Chromium	3.7	ug/L		1	1.0	0.50	8/22/2013 19:42	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	8/22/2013 19:42	J
Iron	38	ug/L	U	1	200	38	8/22/2013 19:42	J
Manganese	1.4	ug/L		1	1.0	0.24	8/22/2013 19:42	J
Sodium	2.9	mg/L		1	0.20	0.026	8/22/2013 19:42	J

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040005**
Sample ID: **MW-6A**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/14/13 13:00

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: SW846 6020B		Preparation Method: SW-846 3010A						
Analysis, Total		Analytical Method: SW-846 6020						
Antimony	0.079	ug/L	I	1	0.70	0.076	8/20/2013 19:31	J
Lead	0.082	ug/L	I	1	0.70	0.076	8/20/2013 19:31	J
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 19:31	J
Thallium	0.067	ug/L	U	1	0.20	0.067	8/20/2013 19:31	J
Analysis Desc: SW846 7470A		Preparation Method: SW-846 7470A						
Analysis, Water		Analytical Method: SW-846 7470A						
Mercury	0.014	ug/L	U	1	0.10	0.014	8/22/2013 16:51	J

WET CHEMISTRY

Analysis Desc: IC,E300.0,Water		Analytical Method: EPA 300.0						
Chloride	8.2	mg/L		2	4.0	2.7	8/15/2013 15:53	M
Fluoride	0.60	mg/L	U	2	1.0	0.60	8/15/2013 15:53	M
Nitrate	5.0	mg/L		2	1.0	0.52	8/15/2013 15:53	M
Analysis Desc: Tot Dissolved Solids, SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	160	mg/L		1	10	10	8/15/2013 17:18	A

Lab ID: **A1306040006**
Sample ID: **MW-8**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/13/13 11:50

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: FIELD - Conductance		Analytical Method: DISRES						
Conductance	324	umhos/cm		1			8/13/2013 11:35	A^
Dissolved Oxygen	5.01	mg/L		1			8/13/2013 11:35	A^
Groundwater Elevation	47.17	feet		1			8/13/2013 11:35	A^
Temperature	24.32	°C		1			8/13/2013 11:35	A^
Turbidity	0.29	NTU		1			8/13/2013 11:35	A^
pH	7.24	pH unit		1			8/13/2013 11:35	A^

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040006**
Sample ID: **MW-8**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/13/13 11:50

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis, Water			Preparation Method: SW-846 3010A Analytical Method: SW-846 6010					
Aluminum	61	ug/L	U	1	200	61	8/22/2013 19:47	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	8/22/2013 19:47	J
Chromium	3.1	ug/L		1	1.0	0.50	8/22/2013 19:47	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	8/22/2013 19:47	J
Iron	38	ug/L	U	1	200	38	8/22/2013 19:47	J
Manganese	0.65	ug/L	I	1	1.0	0.24	8/22/2013 19:47	J
Sodium	4.5	mg/L		1	0.20	0.026	8/22/2013 19:47	J
Analysis Desc: SW846 6020B Analysis, Total			Preparation Method: SW-846 3010A Analytical Method: SW-846 6020					
Antimony	0.076	ug/L	U	1	0.70	0.076	8/20/2013 19:40	J
Lead	0.076	ug/L	U	1	0.70	0.076	8/20/2013 19:40	J
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 19:40	J
Thallium	0.067	ug/L	U	1	0.20	0.067	8/20/2013 19:40	J
Analysis Desc: SW846 7470A Analysis, Water			Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A					
Mercury	0.014	ug/L	U	1	0.10	0.014	8/22/2013 16:54	J
WET CHEMISTRY								
Analysis Desc: IC,E300.0, Water			Analytical Method: EPA 300.0					
Chloride	7.5	mg/L		2	4.0	2.7	8/15/2013 10:39	M
Fluoride	0.60	mg/L	U	2	1.0	0.60	8/15/2013 10:39	M
Nitrate	1.7	mg/L		2	1.0	0.52	8/15/2013 10:39	M
Analysis Desc: Ammonia,E350.1, Water			Analytical Method: EPA 350.1					
Ammonia (N)	0.020	mg/L		1	0.010	0.0080	8/15/2013 14:21	G
Analysis Desc: Tot Dissolved Solids, SM2540C			Analytical Method: SM 2540C					
Total Dissolved Solids	200	mg/L		1	10	10	8/15/2013 17:18	A

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040007**
Sample ID: **MW-9A**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/14/13 10:25

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance			Analytical Method: DISRES					
Conductance	928	umhos/cm		1			8/14/2013 10:10	A^
Dissolved Oxygen	0.82	mg/L		1			8/14/2013 10:10	A^
Groundwater Elevation	44.85	feet		1			8/14/2013 10:10	A^
Temperature	25.26	°C		1			8/14/2013 10:10	A^
Turbidity	10.5	NTU		1			8/14/2013 10:10	A^
pH	6.42	pH unit		1			8/14/2013 10:10	A^

METALS & WET CHEMISTRY

Analysis Desc: IC,E300.0,Water			Analytical Method: EPA 300.0					
Chloride	20	mg/L		2	4.0	2.7	8/15/2013 16:12	M
Fluoride	0.60	mg/L	U	2	1.0	0.60	8/15/2013 16:12	M
Nitrate	0.52	mg/L	U	2	1.0	0.52	8/15/2013 16:12	M

Analysis Desc: SW846 6010B
Analysis,Water

Preparation Method: SW-846 3010A
Analytical Method: SW-846 6010

Aluminum	70	ug/L	I	1	200	61	8/22/2013 19:51	J
Cadmium	0.95	ug/L		1	0.60	0.32	8/22/2013 19:51	J
Chromium	1.6	ug/L		1	1.0	0.50	8/22/2013 19:51	J
Cobalt	20	ug/L		1	4.0	0.60	8/22/2013 19:51	J
Iron	1700	ug/L		1	200	38	8/22/2013 19:51	J
Manganese	100	ug/L		1	1.0	0.24	8/22/2013 19:51	J
Sodium	23	mg/L		1	0.20	0.026	8/22/2013 19:51	J

Analysis Desc: SW846 6020B
Analysis,Total

Preparation Method: SW-846 3010A
Analytical Method: SW-846 6020

Antimony	0.085	ug/L	I	1	0.70	0.076	8/20/2013 19:50	J
Lead	0.29	ug/L	I	1	0.70	0.076	8/20/2013 19:50	J
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 19:50	J
Thallium	0.22	ug/L		1	0.20	0.067	8/20/2013 19:50	J

Analysis Desc: SW846 7470A
Analysis,Water

Preparation Method: SW-846 7470A
Analytical Method: SW-846 7470A

Mercury	0.058	ug/L	I	1	0.10	0.014	8/22/2013 16:56	J
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WET CHEMISTRY

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040007**
Sample ID: **MW-9A**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/14/13 10:25

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Ammonia (N)	0.549	mg/L		1	0.010	0.0080	8/15/2013 14:21	G
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	530	mg/L		1	10	10	8/15/2013 17:18	A

Lab ID: **A1306040008**
Sample ID: **MW-10**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/13/13 10:45

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance		Analytical Method: DISRES						
Conductance	582	umhos/cm		1			8/13/2013 10:26	A^
Dissolved Oxygen	0.82	mg/L		1			8/13/2013 10:26	A^
Groundwater Elevation	46.05	feet		1			8/13/2013 10:26	A^
Temperature	25.13	°C		1			8/13/2013 10:26	A^
Turbidity	4.38	NTU		1			8/13/2013 10:26	A^
pH	6.74	pH unit		1			8/13/2013 10:26	A^

METALS

Analysis Desc: SW846 6010B Preparation Method: SW-846 3010A
Analysis,Water Analytical Method: SW-846 6010

Aluminum	61	ug/L	U	1	200	61	8/22/2013 19:56	J
Cadmium	0.47	ug/L	I	1	0.60	0.32	8/22/2013 19:56	J
Chromium	0.50	ug/L	U	1	1.0	0.50	8/22/2013 19:56	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	8/22/2013 19:56	J
Iron	130	ug/L	I	1	200	38	8/22/2013 19:56	J
Manganese	17	ug/L		1	1.0	0.24	8/22/2013 19:56	J
Sodium	6.4	mg/L		1	0.20	0.026	8/22/2013 19:56	J

Analysis Desc: SW846 6020B Preparation Method: SW-846 3010A
Analysis,Total Analytical Method: SW-846 6020

Antimony	0.18	ug/L	I	1	0.70	0.076	8/20/2013 19:59	J
Lead	0.096	ug/L	I	1	0.70	0.076	8/20/2013 19:59	J

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040008**
Sample ID: **MW-10**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/13/13 10:45

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 19:59	J
Thallium	0.067	ug/L	U	1	0.20	0.067	8/20/2013 19:59	J

Analysis Desc: SW846 7470A
Analysis, Water

Preparation Method: SW-846 7470A
Analytical Method: SW-846 7470A

Mercury	0.014	ug/L	U	1	0.10	0.014	8/22/2013 16:58	J
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WET CHEMISTRY

Analysis Desc: IC,E300.0, Water

Analytical Method: EPA 300.0

Chloride	6.8	mg/L		2	4.0	2.7	8/15/2013 10:02	M
Fluoride	0.60	mg/L	U	2	1.0	0.60	8/15/2013 10:02	M
Nitrate	1.9	mg/L		2	1.0	0.52	8/15/2013 10:02	M

Analysis Desc: Ammonia,E350.1, Water

Analytical Method: EPA 350.1

Ammonia (N)	0.018	mg/L		1	0.010	0.0080	8/15/2013 14:21	G
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Analysis Desc: Tot Dissolved Solids, SM2540C

Analytical Method: SM 2540C

Total Dissolved Solids	320	mg/L		1	10	10	8/15/2013 17:18	A
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Lab ID: **A1306040009**
Sample ID: **MW-11**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/13/13 13:30

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance Analytical Method: DISRES								
Conductance	311	umhos/cm		1			8/13/2013 13:14	A^
Dissolved Oxygen	1.94	mg/L		1			8/13/2013 13:14	A^
Groundwater Elevation	45.61	feet		1			8/13/2013 13:14	A^
Temperature	26.03	°C		1			8/13/2013 13:14	A^
Turbidity	2.13	NTU		1			8/13/2013 13:14	A^
pH	6.05	pH unit		1			8/13/2013 13:14	A^

METALS & WET CHEMISTRY

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040009**
Sample ID: **MW-11**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/13/13 13:30

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: IC,E300.0,Water		Analytical Method: EPA 300.0						
Chloride	2.4	mg/L		1	2.0	1.3	8/21/2013 17:29	M
Fluoride	0.60	mg/L	U	2	1.0	0.60	8/15/2013 11:53	M
Nitrate	4.6	mg/L		2	1.0	0.52	8/15/2013 11:53	M
Analysis Desc: SW846 6010B Analysis,Water		Preparation Method: SW-846 3010A Analytical Method: SW-846 6010						
Aluminum	61	ug/L	U	1	200	61	8/22/2013 20:01	J
Cadmium	1.9	ug/L		1	0.60	0.32	8/22/2013 20:01	J
Chromium	0.98	ug/L	I	1	1.0	0.50	8/22/2013 20:01	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	8/22/2013 20:01	J
Iron	38	ug/L	U	1	200	38	8/22/2013 20:01	J
Manganese	1.9	ug/L		1	1.0	0.24	8/22/2013 20:01	J
Sodium	6.6	mg/L		1	0.20	0.026	8/22/2013 20:01	J
Analysis Desc: SW846 6020B Analysis,Total		Preparation Method: SW-846 3010A Analytical Method: SW-846 6020						
Antimony	0.23	ug/L	I	1	0.70	0.076	8/20/2013 20:27	J
Lead	0.076	ug/L	U	1	0.70	0.076	8/20/2013 20:27	J
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 20:27	J
Thallium	0.11	ug/L	I	1	0.20	0.067	8/20/2013 20:27	J
Analysis Desc: SW846 7470A Analysis,Water		Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A						
Mercury	0.014	ug/L	U	1	0.10	0.014	8/22/2013 17:06	J
WET CHEMISTRY								
Analysis Desc: Ammonia,E350.1,Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.0080	mg/L	U	1	0.010	0.0080	8/15/2013 14:21	G
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	200	mg/L		1	10	10	8/15/2013 17:18	A

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ANALYTICAL RESULTS

Workorder: A1306040 Sumter Co Landfill GW

Lab ID: **A1306040010**
Sample ID: **EQ BLANK**

Date Received: 08/14/13 14:26 Matrix: Water
Date Collected: 08/14/13 09:10

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B Analysis, Water			Preparation Method: SW-846 3010A Analytical Method: SW-846 6010					
Aluminum	61	ug/L	U	1	200	61	8/22/2013 20:06	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	8/22/2013 20:06	J
Chromium	0.50	ug/L	U	1	1.0	0.50	8/22/2013 20:06	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	8/22/2013 20:06	J
Iron	38	ug/L	U	1	200	38	8/22/2013 20:06	J
Manganese	0.87	ug/L	I	1	1.0	0.24	8/22/2013 20:06	J
Sodium	0.058	mg/L	I	1	0.20	0.026	8/22/2013 20:06	J
Analysis Desc: SW846 6020B Analysis, Total			Preparation Method: SW-846 3010A Analytical Method: SW-846 6020					
Antimony	0.094	ug/L	I	1	0.70	0.076	8/20/2013 20:36	J
Lead	0.076	ug/L	U	1	0.70	0.076	8/20/2013 20:36	J
Silver	0.059	ug/L	U	1	0.50	0.059	8/20/2013 20:36	J
Thallium	0.067	ug/L	U	1	0.20	0.067	8/20/2013 20:36	J
Analysis Desc: SW846 7470A Analysis, Water			Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A					
Mercury	0.014	ug/L	U	1	0.10	0.014	8/22/2013 17:08	J
WET CHEMISTRY								
Analysis Desc: IC,E300.0, Water			Analytical Method: EPA 300.0					
Chloride	1.3	mg/L	U	1	2.0	1.3	8/15/2013 17:07	M
Fluoride	0.30	mg/L	U	1	0.50	0.30	8/15/2013 17:07	M
Nitrate	0.26	mg/L	U	1	0.50	0.26	8/15/2013 17:07	M
Analysis Desc: Ammonia,E350.1, Water			Analytical Method: EPA 350.1					
Ammonia (N)	0.014	mg/L		1	0.010	0.0080	8/15/2013 14:21	G
Analysis Desc: Tot Dissolved Solids, SM2540C			Analytical Method: SM 2540C					
Total Dissolved Solids	10	mg/L	U	1	10	10	8/20/2013 09:15	A

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ANALYTICAL RESULTS QUALIFIERS

Workorder: A1306040 Sumter Co Landfill GW

PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

LAB QUALIFIERS

- A DOH Certification #E53076(AEL-A)(FL NELAC Certification)
- A^ Not Certified
- G DOH Certification #E82001(AEL-G)(FL NELAC Certification)
- J DOH Certification #E82574(AEL-JAX)(FL NELAC Certification)
- M DOH Certification #E82535(AEL-M)(FL NELAC Certification)

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QUALITY CONTROL DATA

Workorder: A1306040 Sumter Co Landfill GW

QC Batch: WCAg/2839 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Prepared:
Associated Lab Samples: A1306040001, A1306040002, A1306040003, A1306040004, A1306040005, A1306040006, A1306040007,

METHOD BLANK: 1280660

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY Ammonia (N)	mg/L	0.0080	0.0080 U

LABORATORY CONTROL SAMPLE: 1280661

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
WET CHEMISTRY Ammonia (N)	mg/L	0.5	0.511	102	90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1280664 1280665 Original: A1306040005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
WET CHEMISTRY Ammonia (N)	mg/L	0.007	0.4	0.390	0.417	98	104	90-110	7	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1280667 1280668 Original: G1305003003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
WET CHEMISTRY Ammonia (N)	mg/L	0.051	0.4	0.444	0.463	98	103	90-110	4	10	

QC Batch: DGMj/1914 Analysis Method: SW-846 6020
QC Batch Method: SW-846 3010A Prepared: 08/16/2013 08:30
Associated Lab Samples: A1306040001, A1306040002, A1306040003, A1306040004, A1306040005, A1306040006, A1306040007,

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QUALITY CONTROL DATA

Workorder: A1306040 Sumter Co Landfill GW

METHOD BLANK: 1281089

Parameter	Units	Blank Result	Reporting Limit Qualifiers
METALS			
Silver	ug/L	0.059	0.059 U
Antimony	ug/L	0.076	0.076 U
Thallium	ug/L	0.067	0.067 U
Lead	ug/L	0.076	0.076 U

LABORATORY CONTROL SAMPLE & LCSD: 1281090 1281091

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
METALS										
Silver	ug/L	100	85	87	85	87	80-120	2	20	
Antimony	ug/L	100	98	100	98	100	80-120	2	20	
Thallium	ug/L	100	95	95	95	95	80-120	0	20	
Lead	ug/L	100	97	97	97	97	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1281092 1281093 Original: A1306040001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
METALS											
Silver	ug/L	0.027	100	82	86	82	86	75-125	5	20	
Antimony	ug/L	0.82	100	100	100	101	100	75-125	1	20	
Thallium	ug/L	0.082	100	98	98	98	98	75-125	1	20	
Lead	ug/L	0.043	100	99	99	99	99	75-125	0	20	

QC Batch: WCAm/2187 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Prepared:

Associated Lab Samples: A1306040001, A1306040002, A1306040006, A1306040008, A1306040009

METHOD BLANK: 1281400

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Fluoride	mg/L	0.30	0.30 U
Chloride	mg/L	1.3	1.3 U

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QUALITY CONTROL DATA

Workorder: A1306040 Sumter Co Landfill GW

METHOD BLANK: 1281400

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Nitrate	mg/L	0.26	0.26 U

LABORATORY CONTROL SAMPLE: 1281401

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
WET CHEMISTRY					
Fluoride	mg/L	7.5	8.0	107	90-110
Chloride	mg/L	7.5	7.4	99	90-110
Nitrate	mg/L	7.5	7.8	105	90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1281402 1281403 Original: A1306040009

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
WET CHEMISTRY											
Fluoride	mg/L	0.24	20	19	19	95	96	90-110	1	10	
Chloride	mg/L	2.4	20	19	19	85	84	90-110	1	10	
Nitrate	mg/L	4.6	20	23	23	95	94	90-110	0	10	

QC Batch: WCAm/2191 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Prepared:

Associated Lab Samples: A1306040003, A1306040004, A1306040005, A1306040007, A1306040010

METHOD BLANK: 1281549

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Fluoride	mg/L	0.30	0.30 U
Chloride	mg/L	1.3	1.3 U
Nitrate	mg/L	0.26	0.26 U

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QUALITY CONTROL DATA

Workorder: A1306040 Sumter Co Landfill GW

LABORATORY CONTROL SAMPLE: 1281550

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
Fluoride	mg/L	7.5	8.2	109	90-110	
Chloride	mg/L	7.5	7.6	101	90-110	
Nitrate	mg/L	7.5	8.0	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1281551 1281552 Original: A1306040007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
WET CHEMISTRY											
Fluoride	mg/L	0.23	20	19	20	97	98	90-110	1	10	
Chloride	mg/L	20	20	38	38	91	92	90-110	0	10	
Nitrate	mg/L	0.5	20	18	18	92	91	90-110	1	10	

QC Batch: WCAa/1759

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Prepared:

Associated Lab Samples: A1306040001

METHOD BLANK: 1281858

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
Total Dissolved Solids	mg/L	10	10 U	

LABORATORY CONTROL SAMPLE: 1281859

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
Total Dissolved Solids	mg/L	660	680	104	75-125	

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QUALITY CONTROL DATA

Workorder: A1306040 Sumter Co Landfill GW

SAMPLE DUPLICATE: 1281860 Original: A1305973002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
Total Dissolved Solids	mg/L	260	250	1	5

SAMPLE DUPLICATE: 1281861 Original: A1306040001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
Total Dissolved Solids	mg/L	140	130	3	5

QC Batch: WCAa/1760

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Prepared:

Associated Lab Samples: A1306040002, A1306040003, A1306040004, A1306040005, A1306040006, A1306040007, A1306040008, A1306040009

METHOD BLANK: 1281899

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
Total Dissolved Solids	mg/L	10	10 U

LABORATORY CONTROL SAMPLE: 1281900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
WET CHEMISTRY					
Total Dissolved Solids	mg/L	660	670	102	75-125

SAMPLE DUPLICATE: 1281901 Original: A1306040003

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
Total Dissolved Solids	mg/L	370	310	18	5

QC Batch: WCAm/2206

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Prepared:

Associated Lab Samples: A1306040009

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QUALITY CONTROL DATA

Workorder: A1306040 Sumter Co Landfill GW

METHOD BLANK: 1283904

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Chloride	mg/L	1.3	1.3	U

LABORATORY CONTROL SAMPLE: 1283905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY Chloride	mg/L	7.5	7.0	93	90-110	

QC Batch: WCAa/1768

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Prepared:

Associated Lab Samples: A1306040010

METHOD BLANK: 1284672

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY Total Dissolved Solids	mg/L	10	10	U

LABORATORY CONTROL SAMPLE: 1284673

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY Total Dissolved Solids	mg/L	660	680	103	75-125	

SAMPLE DUPLICATE: 1284674

Original: A1306132001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY Total Dissolved Solids	mg/L	10U	10	0	5	

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QUALITY CONTROL DATA

Workorder: A1306040 Sumter Co Landfill GW

QC Batch: DGMj/1940 Analysis Method: SW-846 7470A
QC Batch Method: SW-846 7470A Prepared: 08/22/2013 11:00
Associated Lab Samples: A1306040001, A1306040002

METHOD BLANK: 1285039

Parameter	Units	Blank Result	Reporting Limit Qualifiers
METALS			
Mercury	ug/L	0.014	0.014 U

LABORATORY CONTROL SAMPLE & LCSD: 1285040 1285041

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
METALS										
Mercury	ug/L	2	2.1	2.1	106	107	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1285042 1285043 Original: M1302047001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
METALS											
Mercury	ug/L	0	2	2.3	2.2	113	112	80-120	1	20	

QC Batch: DGMj/1941 Analysis Method: SW-846 7470A
QC Batch Method: SW-846 7470A Prepared: 08/22/2013 11:00
Associated Lab Samples: A1306040003, A1306040004, A1306040005, A1306040006, A1306040007, A1306040008, A1306040009, A1306040010

METHOD BLANK: 1285077

Parameter	Units	Blank Result	Reporting Limit Qualifiers
METALS			
Mercury	ug/L	0.014	0.014 U

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QUALITY CONTROL DATA

Workorder: A1306040 Sumter Co Landfill GW

LABORATORY CONTROL SAMPLE & LCSD: 1285078 1285079									
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD Qualifiers
METALS									
Mercury	ug/L	2	2.2	2.2	110	110	80-120	0	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1285080 1285081 Original: A1306040003									
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD Qualifiers
METALS									
Mercury	ug/L	0	2	2.3	2.3	117	117	80-120	1 20

QC Batch: DGMj/1942 Analysis Method: SW-846 6010
QC Batch Method: SW-846 3010A Prepared: 08/22/2013 03:30
Associated Lab Samples: A1306040001, A1306040002, A1306040003, A1306040004, A1306040005, A1306040006, A1306040007,

METHOD BLANK: 1285284

Parameter	Units	Blank Result	Reporting Limit Qualifiers
METALS			
Aluminum	ug/L	61	61 U
Cadmium	ug/L	0.32	0.32 U
Cobalt	ug/L	0.60	0.60 U
Chromium	ug/L	0.50	0.50 U
Iron	ug/L	38	38 U
Manganese	ug/L	0.24	0.24 U
Sodium	mg/L	0.026	0.026 U

LABORATORY CONTROL SAMPLE & LCSD: 1285285 1285286									
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD Qualifiers
METALS									
Aluminum	ug/L	25000	24000	24000	94	94	80-120	0	20
Cadmium	ug/L	400	370	370	92	93	80-120	2	20
Cobalt	ug/L	400	370	380	94	94	80-120	1	20
Chromium	ug/L	400	370	380	93	95	80-120	2	20
Iron	ug/L	30000	27000	27000	89	89	80-120	0	20

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QUALITY CONTROL DATA

Workorder: A1306040 Sumter Co Landfill GW

LABORATORY CONTROL SAMPLE & LCSD: 1285285 1285286									
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD Qualifiers
Manganese	ug/L	400	360	370	90	92	80-120	1	20
Sodium	mg/L	55	52	52	94	94	80-120	0	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1286058 1286059 Original: A1306040002									
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD Qualifiers
METALS									
Aluminum	ug/L	0	25000	24000	24000	94	94	75-125	0 20
Cadmium	ug/L	0.35	400	380	380	94	95	75-125	2 20
Cobalt	ug/L	0.36	400	380	380	95	96	75-125	1 20
Chromium	ug/L	0.78	400	380	380	95	96	75-125	1 20
Iron	ug/L	3.1	30000	27000	28000	90	91	75-125	0 20
Manganese	ug/L	3.8	400	370	380	92	93	75-125	1 20
Sodium	mg/L	29	55	82	83	96	96	75-125	0 20

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: A1306040 Sumter Co Landfill GW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
A1306040001	MW-2			EPA 350.1	WCAg/2839
A1306040002	MW-4			EPA 350.1	WCAg/2839
A1306040003	MW-4A			EPA 350.1	WCAg/2839
A1306040004	MW-4B			EPA 350.1	WCAg/2839
A1306040005	MW-6A			EPA 350.1	WCAg/2839
A1306040006	MW-8			EPA 350.1	WCAg/2839
A1306040007	MW-9A			EPA 350.1	WCAg/2839
A1306040008	MW-10			EPA 350.1	WCAg/2839
A1306040009	MW-11			EPA 350.1	WCAg/2839
A1306040010	EQ BLANK			EPA 350.1	WCAg/2839
A1306040001	MW-2	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040002	MW-4	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040003	MW-4A	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040004	MW-4B	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040005	MW-6A	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040006	MW-8	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040007	MW-9A	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040008	MW-10	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040009	MW-11	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040010	EQ BLANK	SW-846 3010A	DGMj/1914	SW-846 6020	ICMj/1197
A1306040001	MW-2			EPA 300.0	WCAm/2187
A1306040002	MW-4			EPA 300.0	WCAm/2187
A1306040006	MW-8			EPA 300.0	WCAm/2187
A1306040008	MW-10			EPA 300.0	WCAm/2187
A1306040009	MW-11			EPA 300.0	WCAm/2187
A1306040003	MW-4A			EPA 300.0	WCAm/2191
A1306040004	MW-4B			EPA 300.0	WCAm/2191
A1306040005	MW-6A			EPA 300.0	WCAm/2191
A1306040007	MW-9A			EPA 300.0	WCAm/2191
A1306040010	EQ BLANK			EPA 300.0	WCAm/2191

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: A1306040 Sumter Co Landfill GW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
A1306040001	MW-2			SM 2540C	WCAa/1759
A1306040002	MW-4			SM 2540C	WCAa/1760
A1306040003	MW-4A			SM 2540C	WCAa/1760
A1306040004	MW-4B			SM 2540C	WCAa/1760
A1306040005	MW-6A			SM 2540C	WCAa/1760
A1306040006	MW-8			SM 2540C	WCAa/1760
A1306040007	MW-9A			SM 2540C	WCAa/1760
A1306040008	MW-10			SM 2540C	WCAa/1760
A1306040009	MW-11			SM 2540C	WCAa/1760
A1306040009	MW-11			EPA 300.0	WCAm/2206
A1306040010	EQ BLANK			SM 2540C	WCAa/1768
A1306040001	MW-2	SW-846 7470A	DGMj/1940	SW-846 7470A	CVAj/1186
A1306040002	MW-4	SW-846 7470A	DGMj/1940	SW-846 7470A	CVAj/1186
A1306040003	MW-4A	SW-846 7470A	DGMj/1941	SW-846 7470A	CVAj/1187
A1306040004	MW-4B	SW-846 7470A	DGMj/1941	SW-846 7470A	CVAj/1187
A1306040005	MW-6A	SW-846 7470A	DGMj/1941	SW-846 7470A	CVAj/1187
A1306040006	MW-8	SW-846 7470A	DGMj/1941	SW-846 7470A	CVAj/1187
A1306040007	MW-9A	SW-846 7470A	DGMj/1941	SW-846 7470A	CVAj/1187
A1306040008	MW-10	SW-846 7470A	DGMj/1941	SW-846 7470A	CVAj/1187
A1306040009	MW-11	SW-846 7470A	DGMj/1941	SW-846 7470A	CVAj/1187
A1306040010	EQ BLANK	SW-846 7470A	DGMj/1941	SW-846 7470A	CVAj/1187
A1306040001	MW-2	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511
A1306040002	MW-4	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511
A1306040003	MW-4A	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511
A1306040004	MW-4B	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511
A1306040005	MW-6A	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511
A1306040006	MW-8	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: A1306040 Sumter Co Landfill GW

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
A1306040007	MW-9A	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511
A1306040008	MW-10	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511
A1306040009	MW-11	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511
A1306040010	EQ BLANK	SW-846 3010A	DGMj/1942	SW-846 6010	ICPj/1511
A1306040001	MW-2			DISRES	FLDa/1018
A1306040002	MW-4			DISRES	FLDa/1018
A1306040003	MW-4A			DISRES	FLDa/1018
A1306040004	MW-4B			DISRES	FLDa/1018
A1306040005	MW-6A			DISRES	FLDa/1018
A1306040006	MW-8			DISRES	FLDa/1018
A1306040007	MW-9A			DISRES	FLDa/1018
A1306040008	MW-10			DISRES	FLDa/1018
A1306040009	MW-11			DISRES	FLDa/1018

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GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-2		SAMPLE ID: MW-2	
		DATE: 8/13/13	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL	STATIC DEPTH 23.32'	PURGE PUMP TYPE							
DIAMETER (Inches):	DIAMETER (Inches):	DEPTH: feet to feet	TO WATER (feet):	OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
Well Vol = (31.92' feet - 23.32' feet) X 1.16 gallons/foot = 1.376 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
1 Equip Vol = .02 gallons + (.006 gallons/foot X feet) + .125 gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 25'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 25'	PURGING INITIATED AT: 1156	PURGING ENDED AT: 1218	TOTAL VOLUME PURGED (gallons): 1.76							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1214	1.44	1.44	.08	23.45	6.81	22.54	209	5.60	0.50	Clear	None
1216	.16	1.60	.08	23.45	6.79	22.56	208	5.68	0.41	Clear	None
1218	.16	1.76	.08	23.45	6.76	22.49	205	5.58	0.41	Clear	None
									No. shown		
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.		SAMPLER(S) SIGNATURES: 		SAMPLING INITIATED AT: 1219	SAMPLING ENDED AT: 1235
PUMP OR TUBING DEPTH IN WELL (feet): 25'		SAMPLE PUMP		TUBING	
FIELD DECONTAMINATION: Y N Probe		FLOW RATE (mL per minute): < 250 mL		MATERIAL CODE: PE	
FIELD DECONTAMINATION: Y N Probe		FIELD-FILTERED: Y N Probe		FILTER SIZE: µm	
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION		DUPLICATE: Y N	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)
MW-2	2	PE	1 Ltr	HN03	None
	1	PE	250 mL	H2S04	None
	1	PE	250 mL	HN03	None
	1	PE	500 mL	None	None
INTENDED ANALYSIS AND/OR METHOD					
GrossAlpha, RA226RA228					
Total Ammonia					
Metals					
Chloride, Fluoride, Nitrate, TDS					
SAMPLING EQUIPMENT CODE					
APP					

REMARKS:

1156: Set dedicated 1/4" PE tubing at ~25' bacc and started pump at .08 gpm.

1202: WL 23.45' at .08 gpm, GW is clear.

1207: WL 23.45' at .08 gpm, drawdown is stable.

1212: WL 23.45' at .08 gpm, drawdown is stable. DO is high at 5.73 mg/L, but is typical for this well. All other parameters are stable or in range. Will use optional stabilization criteria for DO.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
EQUIPMENT CODES: RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)


GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-4	SAMPLE ID: MW-4	DATE: 8/13/13	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL	STATIC DEPTH 24.72	PURGE PUMP TYPE							
DIAMETER (Inches):	DIAMETER (Inches):	DEPTH: feet to feet	TO WATER (feet):	OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY											
only fill out if applicable)											
= (36.35' feet - 24.72' feet) X 0.0026 gallons/foot = 0.3058 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME											
(only fill out if applicable)											
1 Equip Vol = 0.02 gallons + (0.0026 gallons/foot X 36' feet) + .125 gallons = 0.186 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~30'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~30'	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1055	.56	.56	.07	24.91	7.11	26.68	507	1.20	1.35	Clear	None
1057	.14	.70	.07	24.91	7.11	26.63	507	1.02	0.85	Clear	None
1059	.14	.84	.07	24.91	7.12	26.60	508	0.93	0.53	Clear	None
No Screen											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.		SAMPLER(S) SIGNATURES: 		SAMPLING INITIATED AT: 1100	SAMPLING ENDED AT: 1115			
PUMP OR TUBING DEPTH IN WELL (feet): ~30'		SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL		TUBING MATERIAL CODE: PE				
FIELD DECONTAMINATION: (Y) N probe only		FIELD-FILTERED: Y (N) FILTER SIZE: μm		DUPLICATE: Y (N)				
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
MW-4	2	PE	1 Ltr	HN03	None	---	GrossAlpha, RA226RA228	APP-ESP
"	1	PE	250 mL	H2S04	None	---	Ammonia	APP-ESP
"	1	PE	250 mL	HN03	None	---	Metals	APP-ESP
"	1	PE	500 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS	APP-ESP

REMARKS:

1047: Set dedicated 1/4" PE tubing at ~30' stop and started pump at .07 gpm.

1052: WL 24.91' at .07 gpm, GW is clear.

1054: WL 24.91' at .07 gpm. Drawdown is stable. All parameters are stable or in range.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

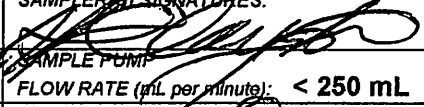
GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-4A	SAMPLE ID: MW-4A	DATE: 8/14/13	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL	STATIC DEPTH 29.97'	PURGE PUMP TYPE							
DIAMETER (inches):	DIAMETER (inches):	DEPTH: feet to feet	TO WATER (feet):	OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY											
only fill out if applicable)											
= (45.23' feet - feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME X3 = 1.245											
(only fill out if applicable)											
1 Equip Vol = .02 gallons + (.006 gallons/foot X 45' feet) + 1.125 gallons = 1.415 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~40'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~40'	PURGING INITIATED AT: 1037	PURGING ENDED AT: 1051	TOTAL VOLUME PURGED (gallons): 4.20							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1042	3.00	3.00	.3	30.10'	6.96	26.28	604	1.18	10.1	Clear	None
1049	.6	3.60	.3	30.11'	6.98	26.21	604	1.08	8.16	Clear	None
1051	.6	4.20	.3	30.11'	7.00	26.14	603	1.03	5.26	Clear	None
								1.01			
									No Slime		
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.				SAMPLER SIGNATURES: 				SAMPLING INITIATED AT: 1052		SAMPLING ENDED AT: 1106	
PUMP OR TUBING DEPTH IN WELL (feet): ~40'				SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL				TUBING MATERIAL CODE: PE			
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N				FIELD-FILTERED: <input checked="" type="radio"/> Y <input type="radio"/> N FILTER SIZE: _____ µm				DUPLICATE: <input type="radio"/> Y <input checked="" type="radio"/> N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
MW-4A	2	PE	1 Ltr	HN03	None	---	Gross Alpha, RA226RA228		ESP		
"	1	PE	250 mL	H2SO4	None	---	Total Ammonia		ESP		
"	1	PE	250 mL	HN03	None	---	Metals		ESP		
"	1	PE	500 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS		ESP		

REMARKS:

1037: Inserted SS ESP and dedicated 3/8" PE tubing to ~40' static and started pump at .3 gpm.

1042: WL 30.10' at .3 gpm, GW is slightly turbid at 31 NTU's.

1046: WL 30.10' at .3 gpm, drawdown is stable. All parameters are stable or in range.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

PURGING DATA

DATE: 8/14/13

SAMPLING DATA

REMARKS:

1115: Inserted SS ESP and dedicated 3/8" PE tubing to ~ 30' btoe and started pump at ~ 3 gpm.

1119: WL 28-24' at ~ 3 gpm, GW is clear.

1122: WL 28-28' at ~ 3 gpm, DO and pH are high at 7.71 mg/L and 8.94 s/u's respectively, but is typical for this well. Will use optional stabilization criteria for both.

1128: WL 28-28' at ~ 3 gpm, draw down is stable. DO and pH are still high, all other parameters are stable or in range.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

2. **STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H:** ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: $\pm 5\%$; Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2), optionally, $\pm .02$ mg/L or $\pm 10\%$ (whichever is greater); Turbidity: all readings < 20 NTU, optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)


GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill	SITE LOCATION: Sumterville, FL
WELL NO: MW-8	SAMPLE ID: MW-8 DATE: 8/13/13

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL	STATIC DEPTH 22.09	PURGE PUMP TYPE							
DIAMETER (Inches):	DIAMETER (Inches):	DEPTH: feet to feet	TO WATER (feet):	OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY											
only fill out if applicable)											
= (43.24' feet - feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME											
(only fill out if applicable)											
1 Equip Vol = 0.0026 gallons + (0.0007 gallons/foot X 43') + .125 gallons = 0.0311 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~38'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~38'	PURGING INITIATED AT: 1123	PURGING ENDED AT: 1135	TOTAL VOLUME PURGED (gallons): 1.20							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1123	.80	.80	.1	22.12	7.21	24.41	325	5.05	0.45	Clear	None
1133	.2	1.00	.1	22.12	7.23	24.36	324	5.12	0.23	Clear	None
1135	.2	1.20	.1	22.12	7.24	24.32	324	5.01	0.29	Clear	None
No Screen											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.				SAMPLER(S) SIGNATURES: 				SAMPLING INITIATED AT: 1136		SAMPLING ENDED AT: 1150	
PUMP OR TUBING DEPTH IN WELL (feet): ~38'				SAMPLE PUMP				TUBING			
FIELD DECONTAMINATION: N				FLOW RATE (ml per minute): < 250 mL				MATERIAL CODE: PE			
FIELD DECONTAMINATION: N				FIELD-FILTERED: Y N FILTER SIZE: µm				DUPLICATE: Y N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
MW-8	2	PE	1 Ltr	HN03	None	---	GrossAlpha, RA226RA228		ESP		
"	1	PE	250 mL	H2S04	None	---	Total Ammonia		ESP		
"	1	PE	250 mL	HN03	None	---	Metals		ESP		
"	1	PE	600 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS		ESP		

REMARKS:

1123: Set dedicated 1/4" PE tubing at ~38' stop and started pump at .1 gpm.

1128: WL 22.12' at .1 gpm, GW is clear.

1130: WL 22.12' at .1 gpm, drawdown is stable. DO is high at 5.10 mg/L, but is typical for this well. All other parameters are stable or in range. Will use optional stabilization criteria for DO.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

MATERIAL CODES:	AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES:	APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)


GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-9A	SAMPLE ID: MW-9A	DATE: 8/14/13	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL						STATIC DEPTH 29.41		PURGE PUMP TYPE OR BAILER: ESP	
DIAMETER (Inches):	DIAMETER (Inches):	DEPTH:		feet to feet		TO WATER (feet):					
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY only fill out if applicable) = (50.17' feet – feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) X 3 = 1.335 1 Equip Vol = .02 gallons + (.006 gallons/foot X 50' feet) + .125 gallons = .445 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT:		PURGING ENDED AT:		TOTAL VOLUME PURGED (gallons):			
~45'		~45'		0940		1010		15.0			
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1006	14.00	14.00	.25	32.61	6.40	25.32	930	0.96	14.7	Clear	Sulfur
1008	.5	14.50	.25	32.61	6.42	25.27	928	0.89	12.2	Clear	Same
1010	.5	15.00	.25	32.62	6.42	25.26	928	0.82	10.5	Clear	Same
									No stream		
WELL CAPACITY (Gallons Per Foot): .75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.				SAMPLER(S) SIGNATURES: 			SAMPLING INITIATED AT: 1011		SAMPLING ENDED AT: 1025	
PUMP OR TUBING DEPTH IN WELL (feet): ~45'				SAMPLE PUMP FLOW RATE (mL per minute):			TUBING		MATERIAL CODE: PE	
FIELD DECONTAMINATION: (Y) N				FIELD-FILTERED: Y (N)			FILTER SIZE: _____ µm		DUPLICATE: Y (N)	
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-9A	2	PE	1 Ltr	HN03	None	---	Gross Alpha, RA226RA228		ESP	
"	1	PE	250 mL	H2S04	None	---	Total Ammonia		ESP	
"	1	PE	250 mL	HN03	None	---	Metals		ESP	
"	1	PE	600 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS		ESP	

REMARKS:

0940: Inserted SS ESP and dedicated 3/8" PE tubing to ~45' Etoc and started pump at 175 gpm. This well is typically extremely turbid at beginning of purge and requires higher flow rate to clean it up.

0955: Turbidity is at 91 NTU's, reduced flow to .25 gpm.

1004: Turbidity has dropped to 19 NTUs, all other parameters are stable or in range. WL is 32.6' at .25 gpm and is stable.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.

Notes: 1. The above do not constitute all the information required by Chapter 32-100, F.A.C.
2. **STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H:** ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: $\pm 5\%$; Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2), optionally, $\pm .02$ mg/L or $\pm 10\%$ (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)


GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-10		SAMPLE ID: MW-10	
		DATE: 8/13/13	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH 22.23' TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESPEC PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY only fill out if applicable)											
= (45.35' feet - 22.23' feet) X 0.006 gallons/foot = 0.139 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
1 Equip Vol = 0.006 gallons + (0.006 gallons/foot X 45' feet) + .125 gallons = .242 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~40'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~40'	PURGING INITIATED AT: 1015	PURGING ENDED AT: 1026	TOTAL VOLUME PURGED (gallons): 1.32							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1022	.84	.84	.12	22.87	6.71	25.17	585	0.99	5.39	Clear	None
1024	.24	1.08	.12	22.87	6.73	25.08	584	0.90	5.03	Clear	None
1026	.24	1.32	.12	22.87	6.74	25.13	582	0.82	4.38	Clear	None
No Screen											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.		SAMPLER(S) SIGNATURES: 		SAMPLING INITIATED AT: 1027	SAMPLING ENDED AT: 1045
PUMP OR TUBING DEPTH IN WELL (feet): ~40'		SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL		TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: (Y) N Probe only		FIELD-FILTERED: (Y) N Filtration Equipment Type: (N)		FILTER SIZE: µm DUPLICATE: Y (N)	
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)
MW-10	2	PE	1 Ltr	HN03	None
"	1	PE	250 mL	H2S04	None
"	1	PE	250 mL	HN03	None
"	1	PE	500 mL	None	None
				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
				GrossAlpha, RA226RA228	APP ESPEC
				Total Ammonia	APP ESPEC
				Metals	APP ESPEC
				Chloride, Fluoride, Nitrate, TDS	APP ESPEC

REMARKS:

1015: Set dedicated 1/4" PE tubing at ~40' stoc and started pump at 12 gpm.

1019: WL 22.87' at 12 gpm, GW is clear.

1021: WL 22.87' at 12 gpm, drawdown is stable. All parameters are stable or in range.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-11	SAMPLE ID: MW-11	DATE: 8/13/13	

PURGING DATA

WELL 2" PVC DIAMETER (inches):	TUBING 3/8" DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= (40.15' feet - feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME X 3 = 68' (only fill out if applicable)											
1 Equip Vol = 0.22 gallons + (0.006 gallons/foot X 40' feet) + .125 gallons = 2.29 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~35'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~35'	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1310	2.90	2.90	.1	24.60	6.01	1.82	300	1.82	2.84	Clear	None
1312	.2	3.10	.1	24.60	6.03	26.04	305	1.89	2.55	Clear	None
1314	.2	3.30	.1	24.60	6.05	26.03	311	1.94	2.13	Clear	None
No Sheen											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.		SAMPLER'S SIGNATURES: 		SAMPLING INITIATED AT: 1315	SAMPLING ENDED AT: 1330			
PUMP OR TUBING DEPTH IN WELL (feet): ~35'		SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL		TUBING MATERIAL CODE: PE				
FIELD DECONTAMINATION: (Y) N W/Prose		FIELD-FILTERED: (Y) (N) FILTER SIZE: _____ µm		DUPLICATE: (Y) (N)				
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION						
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
MW-11	2	PE	1 Ltr	HN03	None	---	GrossAlpha, RA226,RA228	ESP
"	1	PE	250 mL	H2S04	None	---	Total Ammonia	ESP
"	1	PE	250 mL	HN03	None	---	Metals	ESP
"	1	PE	500 mL	None	None	---	Chloride,Fluoride, Nitrate, TDS	ESP

REMARKS:

1241: Set dedicated 1/4" PE tub: 13 at ~35' b/c and started pump at .1 gpm.

1246: WL 24.61' at .1 gpm, GW is Clear.

1248: WL 24.61' at .1 gpm, drawdown is stable. DO is high at 3.49 mg/L, but is slowly dropping. pH is lower than normal at 5.85 sl/u's and is slowly going up. Will purge until both are in range or stable. All other parameters are stable or in range.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)	
SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump EQUIPMENT CODES: RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)	

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

2. **STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H:** ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: $\pm 5\%$; Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2), optionally, $\pm .02$ mg/L or $\pm 10\%$ (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)



LABORATORY SERVICES

2742 N. Florida Ave.
P.O. Box 1833
Tampa, Florida 33601
(813) 229-2879
Fax (813) 229-0002

Report Date: August 26, 2013

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: MW-2
A1306040001
Sample Collection: 08-13-13/1235
Lab ID No: 13.6229
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	0.8 U \pm 0.4	08-23-13/0800	EPA 900.0	0.8
Combined Radium (Radium-226 + Radium 228)	pCi/l	1.1 \pm 0.6	Calc	Calc	
Radium-226	pCi/l	1.1 I \pm 0.6	08-18-13/1240	EPA 903.0	0.7
Radium-228	pCi/l	1.0 U \pm 0.7	08-19-13/1120	EPA Ra-05	1.0

Alpha Standard: Th-230

U = indicates that the compound was analyzed for but not detected.

I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit.

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



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Report Date: August 26, 2013

Advanced Environmental Labs
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Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: MW-4
A1306040002
Sample Collection: 08-13-13/1115
Lab ID No: 13.6230
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	6.5 ± 1.5	08-23-13/0800	EPA 900.0	1.4
Combined Radium (Radium-226 + Radium 228)	pCi/l	1.5 ± 0.6	Calc	Calc	
Radium-226	pCi/l	1.5 ± 0.6	08-24-13/1435	EPA 903.0	0.8
Radium-228	pCi/l	1.0 U ± 0.8	08-24-13/1220	EPA Ra-05	1.0

Alpha Standard: Th-230

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A handwritten signature in cursive script that reads "James W. Hayes".

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



LABORATORY SERVICES

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528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: MW-4A
A1306040003
Sample Collection: 08-14-13/1106
Lab ID No: 13.6231
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	1.3 U \pm 0.9	08-22-13/0800	EPA 900.0	1.3
Combined Radium (Radium-226 + Radium 228)	pCi/l	1.1 I \pm 0.6	Calc	Calc	
Radium-226	pCi/l	1.1 I \pm 0.6	08-24-13/1435	EPA 903.0	0.7
Radium-228	pCi/l	1.0 U \pm 0.8	08-24-13/1220	EPA Ra-05	1.0

Alpha Standard: Th-230

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James W. Hayes
Laboratory Manager

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Report Date: August 26, 2013

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: MW-4B
A1306040004
Sample Collection: 08-14-13/1150
Lab ID No: 13.6232
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	0.9 ± 0.6	08-22-13/0800	EPA 900.0	0.8
Combined Radium (Radium-226 + Radium 228)	pCi/l	0.6 ± 0.5	Calc	Calc	
Radium-226	pCi/l	0.6 U ± 0.5	08-24-13/1435	EPA 903.0	0.6
Radium-228	pCi/l	1.0 U ± 0.7	08-26-13/0950	EPA Ra-05	1.0

Alpha Standard: Th-230

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James W. Hayes
Laboratory Manager

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Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: MW-6A
A1306040005
Sample Collection: 08-14-13/1300
Lab ID No: 13.6233
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	1.0 U ± 0.7	08-22-13/0800	EPA 900.0	1.0
Combined Radium (Radium-226 + Radium 228)	pCi/l	0.6 ± 0.5	Calc	Calc	
Radium-226	pCi/l	0.6 U ± 0.5	08-24-13/1435	EPA 903.0	0.6
Radium-228	pCi/l	1.0 U ± 0.6	08-26-13/0950	EPA Ra-05	1.0

Alpha Standard: Th-230

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Laboratory Manager

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Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: MW-8
A1306040006
Sample Collection: 08-13-13/1150
Lab ID No: 13.6234
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	1.3 ± 0.9	08-22-13/0800	EPA 900.0	1.2
Combined Radium (Radium-226 + Radium 228)	pCi/l	1.1 I ± 0.6	Calc	Calc	
Radium-226	pCi/l	1.1 I ± 0.6	08-24-13/1435	EPA 903.0	0.6
Radium-228	pCi/l	1.0 U ± 0.7	08-26-13/0950	EPA Ra-05	1.0

Alpha Standard: Th-230

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Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: MW-9A
A1306040007
Sample Collection: 08-14-13/1025
Lab ID No: 13.6235
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	8.3 ± 2.5	08-22-13/0800	EPA 900.0	2.4
Combined Radium (Radium-226 + Radium 228)	pCi/l	7.0 ± 1.2	Calc	Calc	
Radium-226	pCi/l	5.8 ± 1.2	08-24-13/1435	EPA 903.0	0.6
Radium-228	pCi/l	1.2 I ± 0.8	08-26-13/0950	EPA Ra-05	1.0

Alpha Standard: Th-230

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James W. Hayes
Laboratory Manager

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Report Date: August 26, 2013

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: MW-10
A1306040008
Sample Collection: 08-13-13/1045
Lab ID No: 13.6236
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	9.3 ± 1.6	08-22-13/0800	EPA 900.0	1.1
Combined Radium (Radium-226 + Radium 228)	pCi/l	2.1 ± 0.8	Calc	Calc	
Radium-226	pCi/l	2.1 ± 0.8	08-24-13/1435	EPA 903.0	0.6
Radium-228	pCi/l	1.0 U ± 0.7	08-26-13/0950	EPA Ra-05	1.0

Alpha Standard: Th-230

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I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit.

James W. Hayes
Laboratory Manager

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Fax (813) 229-0002

Report Date: August 26, 2013

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: MW-11
A1306040009
Sample Collection: 08-13-13/1330
Lab ID No: 13.6237
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	11.5 ± 1.8	08-23-13/0800	EPA 900.0	1.2
Combined Radium (Radium-226 + Radium 228)	pCi/l	5.3 ± 1.0	Calc	Calc	
Radium-226	pCi/l	3.0 ± 1.0	08-24-13/1435	EPA 903.0	0.7
Radium-228	pCi/l	2.3 ± 0.9	08-26-13/0950	EPA Ra-05	1.0

Alpha Standard: Th-230

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A handwritten signature in cursive script that reads "James W. Hayes".

James W. Hayes
Laboratory Manager

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Report Date: August 26, 2013

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(813) 229-2879
Fax (813) 229-0002

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: EQ BLANK
A1306040010
Sample Collection: 08-14-13/0910
Lab ID No: 13.6238
Lab Custody Date: 08-15-13/1132
Sample description: water

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	0.0 ± 0.3	08-23-13/0800	EPA 900.0	0.7
Combined Radium (Radium-226 + Radium 228)	pCi/l	0.5 ± 0.3	Calc	Calc	
Radium-226	pCi/l	0.5 U ± 0.3	08-24-13/1435	EPA 903.0	0.5
Radium-228	pCi/l	1.0 U ± 0.7	08-26-13/0950	EPA Ra-05	1.0

Alpha Standard: Th-230

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I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit.

James W. Hayes
Laboratory Manager

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Chain of Custody

Results Requested By 8/25/2013

KNL-FL
KNL Laboratory Services, Inc.
2742 North Florida Avenue
Tampa, FL 33602
Phone _____
Fax _____

bve: 8-27-13

13.6229-38

Chain of Custody

Document 30150 - HBN 24496

Workorder

Sumter Co Landfill GW

Results Requested By 8/25/2013

Myrna Santiago
Advanced Environmental Laboratories, Inc.
6681 Southpoint Parkway
Jacksonville, FL 32216
Phone (904)363-9350
Fax (904)363-9354

KNL-FL
KNL Laboratory Services, Inc.
2742 North Florida Avenue
Tampa, FL 33602
Phone
Fax

Report To	Subcontract To	Requested Analysis
Myrna Santiago Advanced Environmental Laboratories, Inc. 6681 Southpoint Parkway Jacksonville, FL 32216 Phone (904)363-9350 Fax (904)363-9354	KNL-FL KNL Laboratory Services, Inc. 2742 North Florida Avenue Tampa, FL 33602 Phone Fax	

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	HNO3	Preserved Containers	EPA 903.1	EPA Ra-05	EPA 900	Comments	LAB USE ONLY
11											
12											
13											
14											

Report	Electronic Data Deliverables
<input type="checkbox"/> Standard (Results only) <input type="checkbox"/> Standard with Batch QC <input type="checkbox"/> CLP <input type="checkbox"/> Other _____	<input type="checkbox"/> SEDD Stage 2A <input type="checkbox"/> SEDD Stage 2B <input type="checkbox"/> SEDD Stage 3 <input type="checkbox"/> Other _____

Preservative	Transfers	Released By	Date/Time	Received By	Date/Time
HNO3 = HNO3	1	[Signature]	8/14/13 1946	[Signature]	8/15/13 1116
	2				
	3				
	4				
	5				