

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SPRINGS SAMPLING FIELD SHEET

Entered
11-5-10
New

ion Information

KA-2010-09-06-26

STATION ID: _____ DATE: 9/29/10 (MM/DD/YYYY) TIME (EST): 17:51 (24 hr)
(Final field measurements; start of sampling)
SPRING NAME: Manatee Sanctuary Spg VENT ID: _____
WEATHER CONDITIONS (Circle One) Clear Partly Cloudy Cloudy Rain

Water Quality Measurements

Secchi Depth: 4.6 (meters) Secchi Visible on Bottom Yes No (Circle One)

Stage (if available): _____ (Feet)

Estimated depth in vent from which laboratory samples were collected: 9.3 (meters)

Analytes collected for this site are as listed per the container inventory, including QA/QC samples Yes No

Field Measurements (if field measurement result has to be qualified, enter F next to the value below):

Estimated Depth (meters)	Meter Id	Measure ment #	pH (s.u.)	D.O. (mg/L)	% D.O.	Temperature (°C)	Conductivity (uS/cm)
<u>9.3</u>	<u>QD00976- QT00970</u>	<u>17</u>	<u>7.6</u>	<u>4.45</u>	<u>53.7</u>	<u>24.7</u>	<u>1084</u>

Sample Preservation

Was a new 0.45-micron capsule filter used to collect the final metals and nutrients/anions samples? Yes No (Circle One)

Were all appropriate samples preserved within 15 minutes? Yes No

Were total nutrient samples preserved with sulfuric acid? Yes No Total volume added 40.5 (mL) Final pH 5.2 (s.u.)

Were filtered nutrient samples preserved with sulfuric acid? Yes No Total volume added _____ (mL) Final pH _____ (s.u.)

Were total metal samples preserved with nitric acid? Yes No Total volume added _____ (mL) Final pH _____ (s.u.)

Were filtered metal samples preserved with nitric acid? Yes No Total volume added _____ (mL) Final pH _____ (s.u.)

additional bottles for the nutrient or metal samples were preserved, note volume of acid added and final pH for each one in the Comments)

Were all appropriate samples, in accordance with the container inventory, put on wet ice at 4°C? Yes No

COMMENTS:

- no boil present
- 2 pages of stability monitoring
- H₂SO₄ #094515 exp: 6/4/11

QA/QC TAKEN? No

TIME COLLECTED _____

(Circle One)

EQUIPMENT BLANK

FIELD BLANK

Blanks collected in accordance with
Springs Initiative Monitoring SOP

Samplers Signatures (all team members present):

Laura [Signature]

Place
Barcode
Label
Here

STATION ID: _____

DATE: 9/29/10TIME (EST): 17:51

CHEMICAL STABILITY MONITORING

#	TIME (00:00)	pH (s.u.)	TEMP. (°C)	SP. COND (uS/cm)	DO (mg/L)	% SAT DO (%)	COMMENTS
1	17:10	7.55	24.61	962	4.57	55.1	Began purging @ 17:00
2	17:12	7.58	24.60	1048	4.61	55.6	
3	17:14	7.62	24.64	1111	4.56	54.9	
4	17:16	7.63	24.58	987	4.53	54.6	
5	17:18	7.64	24.62	1219	4.51	54.3	
6	17:20						problem w/ flow chamber filling; stopped, fixed + repurged.
7	17:29	7.67	24.63	877	4.64	55.9	
8	17:31	7.63	24.65	997	4.54	54.9	
9	17:33	7.62	24.63	1119	4.63	55.8	
10	17:35	7.61	24.61	976	4.48	54.0	
11	17:37	7.58	24.65	884	4.41	53.0	
12	17:39	7.55	24.68	794	4.28	51.5	
13	17:41	7.56	24.71	1133	4.55	55.1	⊖
14	17:43	7.57	24.66	900	4.44	53.5	
15	17:45	7.57	24.65	1008	4.49	54.1	

Meter Id: QD00976-Q+00970Field Measurements Analyzed By: LH (initials)Field Measurements Recorded By: LH (initials)

The final three measurements will be evaluated for each of the field parameters listed above (only the values in mg/L for DO) to ensure that representative measurements have been collected for a site. The lowest and highest values for the three measurements must be within 20% when calculating the relative percent difference (RPD). If these values are not within 20%, the final field measurement value will be qualified as being estimated with an F value qualifier.

$$RPD = \frac{(\text{Highest Value} - \text{Lowest Value})}{(\text{Mean Value of Highest and Lowest Values})} \times 100\%$$

382
1698

885
20

235
1016.5

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SPRINGS SAMPLING FIELD SHEET

Location Information

STATION ID: _____ DATE: 9/29/10 TIME (EST): 17:51 (24 hr)
(MM/DD/YYYY) (Final field measurements; start of sampling)

SPRING NAME: Manatee Sanctuary VENT ID: _____

WEATHER CONDITIONS (Circle One) Clear Partly Cloudy Cloudy Rain

Water Quality Measurements

Secchi Depth: _____ (meters) Secchi Visible on Bottom Yes No (Circle One)

Stage (if available): _____ (Feet)

Estimated depth in vent from which laboratory samples were collected: _____ (meters)

Analytes collected for this site are as listed per the container inventory, including QA/QC samples Yes No

Field Measurements (if field measurement result has to be qualified, enter F next to the value below):

Estimated Depth (meters)	Meter Id	Measurement #	pH (s.u.)	D.O. (mg/L)	% D.O.	Temperature (°C)	Conductivity (uS/cm)

Sample Preservation

Was a new 0.45-micron capsule filter used to collect the final metals and nutrients/anions samples? Yes No (Circle One)

Were all appropriate samples preserved within 15 minutes? Yes No

Were total nutrient samples preserved with sulfuric acid? Yes No Total volume added _____ (mL) Final pH _____ (s.u.)

Were filtered nutrient samples preserved with sulfuric acid? Yes No Total volume added _____ (mL) Final pH _____ (s.u.)

Were total metal samples preserved with nitric acid? Yes No Total volume added _____ (mL) Final pH _____ (s.u.)

Were filtered metal samples preserved with nitric acid? Yes No Total volume added _____ (mL) Final pH _____ (s.u.)

If additional bottles for the nutrient or metal samples were preserved, note volume of acid added and final pH for each one in the Comments)

Were all appropriate samples, in accordance with the container inventory, put on wet ice at 4°C? Yes No

COMMENTS:

-stability monitoring results continued on back
- H₂SO₄ #094515 exp: 6/4/11

QA/QC TAKEN?

TIME COLLECTED _____

(Circle One)

EQUIPMENT BLANK

FIELD BLANK

Blanks collected in accordance with Springs Initiative Monitoring SOP

Samplers Signatures (all team members present):

Laura [Signature]

Place
Barcode
Label
Here

STATION ID: _____

DATE: 9/29/10TIME (EST): 17:51

CHEMICAL STABILITY MONITORING

#	TIME (00:00)	pH (s.u.)	TEMP. (°C)	SP. COND (uS/cm)	DO (mg/L)	% SAT DO (%)	COMMENTS
1	17:47	7.56	24.68	1080	4.43	53.5	
2	17:49	7.58	24.69	1099	4.63	55.7	
3	17:51	7.56	24.65	1084	4.45	53.7	
4							
5							
6							
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9							
10							
11							
12							
13							
14							
15							

Meter Id: QD00976-QT00970Field Measurements Analyzed By: UH (initials)Field Measurements Recorded By: UH (initials)

$$\frac{1.2}{4.53} = 4.4\%$$

The final three measurements will be evaluated for each of the field parameters listed above (only the values in mg/L for DO) to ensure that representative measurements have been collected for a site. The lowest and highest values for the three measurements must be within 20% when calculating the relative percent difference (RPD). If these values are not within 20%, the final field measurement value will be qualified as being estimated with an F value qualifier.

$$\frac{1.9}{1089.5} = 1.7\%$$

$$\text{RPD} = \frac{(\text{Highest Value} - \text{Lowest Value})}{(\text{Mean Value of Highest and Lowest Values})} \times 100\%$$