



STEINWATCHEE '94  
Key

3



FIELD BOOK

No. 8152-60

CANDY TRIMBLE  
Property of FL. GEOL. SURVEY  
DEPT. ENV. PROTECTION  
Address \_\_\_\_\_  
Tallahassee, FL  
Telephone 488-9380

FAK FGS  
488-8086

see Edmiston's work on  
Appalachian Bay (w/ Chip)

- measuring daily salinity changes  
every 30 minutes

- using FSA ~~statistics~~ to do

- line - series average

these averages will be used  
to correlate w/ daily rainfall  
(locally) and water temperature

- D.O. is a problem for long-term  
analyses because of the  
monotony

- D.O. can change because of  
tidal mixing

- will also change from  
day to night

D.O. is also produced in areas  
where there are sea-grass & S.

- flux also occurs in tidal  
creeks

- sulfur cycle will mix your  
results

To calibrate

- buy buffer packs you mix up  
(pH)
- NTH < 20 in their work
- highest was 40 NTH

Their paper:

Statistical analyses will be done  
@ end of September

check @ St Marks to find out  
what kind of data exists

24 hour studies over several days  
@ different seasons to look @  
seasonal changes

can  
work  
could we do  
this?

outside batteries (source)?  
for our setup.

Calibration  
Sulimix

- buy sea-salt @ pet store i.e. use  
as standard to calibrate the  
sea salt soln you've made up

pH & Salinity don't change much  
so things aren't hard to do

Using this data to calculate  
hydro period

- looks like wind direction has  
as great an effect as rainfall - or  
perhaps more

Get other data from

- USGS - river flow has to  
be upstream of tidal influence

- wind
- tide
- rainfall

Multivariate analysis -

with data on these 2 - avg flow  
- avg wind

See if you can find that paper w/  
former equations C2M '93

Next they'll add Nutrient data  
to this background by taking  
water samples and measuring  
w/ a spectrophotometer

WMD using 54 current meters to  
determine the effects of current  
on nutrient loads

To get the Loran to work

- turn off depth fender
- use hot buttons
- keep it away from big metal objects

which could act as antennas

Question the <sup>FGS</sup> Survey could help  
answer:

How much influence does the ground  
water from Tate's Well (East Point)  
have on the flow rate of fresh water  
in Apalachicola

1) How would you calculate  
something like that?

2) Which aquifer are the flowing  
wells discharging from?

3) There are some homes on the west  
side of East Bay with wells

Lee thinks these are shallow & may  
not penetrate the Floridan

NWFWMD

Sample ponds

- want bottom salinities: the  
recorders are installed on the bottom.

for sand near  
ditch going in

- probes are about a foot off the bottom

- ① @ East Bay on map. and
- ② east of St. George Causeway on 7<sup>th</sup> telephone pole
- ③ on the intercoastal waterway
- ④ on cat point in shallow water off St. Vincent Island.

Lee Edmiston

Research Coordinator

Apalachicola National Estuarine  
Research Reserve

FDEP

Div. of Marine Resources  
201-7<sup>th</sup> Street

Apalachicola FL 32320

404 653-8063

How should we begin our research

- 1) go to River search on  
salinity + estuaries  
turbidity + estuaries  
DO + estuaries  
pH + estuaries

- 2) Go back to C&M book and read  
Denise's paper. *Send to Lee*

- 3) Find out what kind of <sup>(or other)</sup> meteorological  
data is being taken regularly  
on the St. Marks River

*Joe White (904) 925-6121*

\* Cto. National Weather Service

• for nearest weather collection  
station to St Mark Wildlife  
refuge.

\* ask @ the Love Bldg.

\* ask National Ocean Service  
NOS

Look in USGS pubs - each water body  
has also a list of stations

their purpose:

To see if river determines where oysters  
are i.e. where salinities are  
low, nutrients should be high  
& so should #s of oysters

---

Oysters in St. Mark's?

- at Spring Creek
  - <sup>they are</sup> exposed during tides are Coon oysters
- 

Where to dive - OARS 70-100' of water

SM 1

1/6/94

@ Δ 21 see

SM 1 on top 12:00

SM 2 SR-2's, SRC-2

SM 3 - see map  
S. mouth of Popoist Creek

Contents  
#2 Steinhatchee 7/12 - 7/13  
#3 " 8/18  
#4 5/4 -

Key Field Trip: Carbonates

①

7/12

STEINHATCHEE METALS -  
BASELINE STUDY  
C. TRIMBLE; C. Garrett;  
R. Hornstine; P. Ragland

DATA RECORDER = Trimble  
SAMPLING = Garrett + Triple R.

\* O-37 = A071215A ✓ 11:36  
Shell hash - fine gravel ~~7.8~~ depth  
~~7.4~~ 7.4

29° 39' 43.8N 10-12" sed  
83° 27' 17.1W over 1st.

\* C-52 A071216B ✓ 12:28  
sandy mud 4' d.

A071216C = NULL  
\* C-53 A071216D ✓ 12:50  
sandy mud

13:35:45

1:30 P.M.

\*  
B-13

A071217A

2 ft

29° 39' 55.0" N

83° 25' 49.0" W

B-10

13:50:51

A071217B

1:45 PM

29° 40' 01.1" N

1.5 ft

83° 25' 49.4" W

XB-9

A071217C

2:00 PM

29° 40' 10.7" N

14:07:39

2 ft

83° 25' 28.1" W

XB-3

(Triple Read w/ YSI)

2:20 PM

A071218A

29° 40' 07.0" N

14:26:11

2 ft

83° 25' 15.0" W

\*B-8

14:42:29

A071218B

29° 40' 02.9" N

83° 25' 09.5" W

2 ft

7/12/94 (2)

2:50 PM

\*O-49

A071218C

5 ft

14:55:00

29° 40' 06.5" N

83° 24' 52.1" W

XC-2

TRIPLE DATA

(ignore #1

all same depth

Read last 3)

A071219A

15:14:28

3:10 PM

29° 40' 24.4" N

83° 24' 56.6" W

\*S-29

TRIPLE DATA

YSI

(3mm sand)

A071219B

3:17 PM

29° 40' 12.7" N

83° 25' 06.2" W

\*S-4A

(Muddy! b.8d)

3:42 PM

29° 40' 15.6" N

83° 25' 22.6" W

15:45:18

A071219C

\*C4-B (Sand)

3:54pm

Triple re-YSI

A071219D

take last 3 readings

29°40'11.6"N

15:59:36

83°25'23.0"W

\*C-51

A071220A

4:10 p.m.

16:15:06

29°40'25.4"N

83°25'26.6"W

\*S-24

TRIPLE YSI

4:22pm

A071220B

29°40'20.6"N

16:24:34

83°25'30.3"W

\*S-25

A07120C

4:57 p.m.

~4ft depth

17:00:00

29°40'29.3"N

83°25'45.9"W

YSI - 2 @ Bottom

7/13/94 (3)

Prod - Caps

Con - YSI

Recon - Samples

Candy - GPS

9:36 am

\*O-6

(looked pretty sandy)

~~S-33~~

Triple YSI d=2ft

A071313A ✓

LAT 29°40'17.7"N

LONG 83°23'22.0"W

9:40:17

\*S-33

Triple YSI

Last 3

A071313B ✓

d=18"

29°40'23.8"N

83°23'45.0"W

\*O-1

Triple YSI

d=18"

10:11:23

A071314A ✓

?

29°40'26.8"N

10:10:51 83°24'07.0"W

\*O-46

A071314B ✓

d=1.75'

TRIPLE YSI

29°40'13.5"N

83°24'04.8"W

10:22:43

10:20? \*  
(Mucky clay)

TRIPLE YSI

- 54

A071314C ✓

10:34:41

d ~? 2.0-2.5

29° 46' 17.2" N

83° 24' 23.8" W

(Best Bet for clay!)

10:46 \* B-20

Triple YSI ✓

A071314D d=1.0

Oyster b.

29° 40' 01.4" N

83° 24' 36.1" W

10:46:47

\*  
10:55 S-30

A071315E ✓

d=25'

fine sand

TRIPLE YSI

29° 39' 53.5" N

83° 24' 48.3" W

10:58:38

11:13:31 \*  
B-7

A071315A ✓

d=2ft

Oyster  
Bioturm

29° 39' 49.5" N

83° 25' 02.8" W

11:15:32

TRIPLE YSI

7/13/94 (4)

C-56

11:32.35

d=2ft

max.  
sand.  
shell.  
grass

A071315B ✓

29° 39' 42.1" N

11:35:08

83° 25' 27.2" W

\* B-12

11:46:28

TRIPLE YSI

Oyster  
Bioturm

A071315C ✓

d=2ft

29° 39' 41.6" N

83° 25' 50.6" W

11:50:09

\* B-11

11:57:17

d=2.5ft

mixed  
sand-  
shell-  
grass

A071315D ✓

29° 39' 37.1" N

11:59:43

83° 25' 53.5" W

\* C-59

12:19:36

d=6.5ft

Sandy  
shell &  
grass

A071316A ✓

29° 39' 32.5" N

12:22:28

83° 24' 23.8" W

\*C-58

12:30:49

d=7ft

A=071316B

\* sandy  
shell  
&  
grass

29° 39' 31.8"N

12:34:15

83° 26' 39.0"W

\*C-63

12:56:38

~4.5 ft

mucky  
Bottom

A=071316C

29° 39' 25.2"N 12:58:27

83° 25' 50.6"W

\*C-57

1:10:49

A=071317A

Biogenic?  
sandy  
Bottom

29° 39' 12.1"N 13:51:45

83° 25' 09.4"W

\*C-62

1:32:59

4.2 Ft.

A=071317B

Very  
fine sand  
&  
red grass  
scallops  
bottom

29° 38' 32.4"N

13:35:49

83° 25' 24.5 W

7/13/94 (5)

\*C-61a

A071317C ✓ 1:53:40

v. fine sand

"scallop bottom"

29° 38' 21.7"N

13:55:12

+0.5 to LST

83° 25' 00.7"W

3-6" to LST

\*S-35

A071318A ✓

2:08:30

\* muddy

29° 38' 35.6"N

bottom

83° 24' 37.2"W

14:10:51

(lots CO<sub>2</sub>)

\*S-34

TRIPLE YSI ✓

A071318B

2:28:56

sandy

29° 38' 49.7"N

14:26:13

83° 24' 15.0"W

O-47A

TRIPLE YSI ✓

2:37:49

Sandy  
Bottom

A071318C

29° 38' 59.0"

83° 24' 25.6"

O-47B

muck

same GPS

location

Behind the berm in  
grasses

Apr log  
8/1/94

7/13/94 (6)

Oyster  
Bioherm  
more shell  
B-14A

Triple YSI  
(taken on 047 2:57:20  
1st time)

A0171318D

29° 39' 12.5" N  
83° 24' 19.5 W 15:00:50

Sandies  
B-14B

Says  
(B14)

Mud  
Shelly  
Oyster  
Bioherm  
B-17

TRIPLE YSI  
A0171319A 15:15:53

29° 39' 19.3" N  
83° 24' 26.1" W 15:

3:27.47 B-19

TRIPLE YSI  
A0171319B 15:27:40

29° 39' 22.8 N  
83° 24' 31.3 W

mayhem  
Bioherm  
4

3:33.51 O-48  
M-F sand

A0171319C d=4 ft  
29° 39' 19.7" N 15:37:03  
83° 24' 42.9" W

3:42.35 \* B-18 A0171319D d=4 ft  
muddy sand? 29° 39' 27.8" N 15:45:52  
83° 24' 44.6" W

4:03:13 S-5 TRIPLE YSI  
A0171320A  
sandy w/ CD3 29° 40' 11.5" N 16:05:23  
83° 23' 22.5 W

T4071212.ZIP  
T4071218.ZIP

T4071312.ZIP  
T4071318.ZIP

@ LIBRARY:

Q12FAX202 \*

~~PROPLUS~~ R PLUS

password: Steinhatchee  
when in pg down  
to get Kermit  
men...

Lat  $29^{\circ} 39' 40.5''$  N  
Long  $83^{\circ} 24' 25.6''$  W.

$29^{\circ} 39' 49.0''$   
 $83^{\circ} 24' 09.2''$

$29^{\circ} 39' 47.2''$   
 $83^{\circ} 24' 27.8''$

$29^{\circ} 39' 38.8''$   
 $83^{\circ} 24' 15.4''$

⑦

8/18/94

Steinhatchee (cont)  
C. Trimble; C. Garrett  
R. Hoentine; Jim

\*B-21

A081815A

d ~ 4.0 ft

sand w/ grass / little  
some mud

2 YSI

0-48\* A+B → \*C48B

A081815B

d = 20 ft

Organic ~~sand~~  
v. little sand

2 YSI

\*S-32A+B

A081815C

mucky sand

d = 3.0 ft

[S-32B turn over to cap. 7

2 YSI

\*S-31

A081815D

d = 3 ft

mucky sand

~~over~~

2 YSI

The salinity readings  
are quite low  
due to Tropical Storm  
Beryl (8/15-8/16)

Creeks & distributaries  
filled w/ fresh water

low tides running  
quite high!  
compared to normal.

? Beryl caused sediment/erosion.  
Erosion exposed Palmetto  
roots  $\pm 1.5$  ft  
marshgrass  $\pm 0.6$  "

⑧

\*B15

Lat

$29^{\circ} 39' 24.5'' N$

~~A081815B~~ A  $83^{\circ} 24' 13.8'' W$  d ~ 3.0 ft  
mucky sand

2 YSI

\*C55

0:3

d ~ 3.5 ft

A081816B

shelly w/  
Nuct

Lat  $30^{\circ} 21' 44.6'' N$   
Long  $84^{\circ} 17' 54.5'' W$   
2 YSI

12:26.56  
 $29^{\circ} 34' 53.6'' N$   
 $84^{\circ} 23' 54.5'' W$

\*B16

~~A081816C~~

A081817A

1 YSI

Oyster  
Bar  
 $d = 2'$

$30^{\circ} 21' 44.6'' N$   
 $84^{\circ} 17' 54.5'' W$

$29^{\circ} 39' 11.9'' N$   
 $83^{\circ} 24' 11.1'' W$   
13:49:20

(9)

203

\*042

A081818A

3.5 to 4 ft

mucky

2 YSL

Lat 29° 39' 12.6 N

Lon 83° 24' 03.8 W

14:07:06

2:14:46 \*038

A081818B

Mucky

d ~ 3.0

Lat 29° 39' 05.9" N

2 YSL

Long 83° 24' 08.7" W

14:19:15

2:30:28

\*043

A081818C

Sandy - Mucky?

2 YSL

Sandy?

d ~ 2.5 - 3'

Lat 29° 39' 53.6" N

14:33.06

Long 83° 24' 54.2" W

\*044

A081818D

v. Sandy

2 YSL

Lat. 29° 39' 52 N

14:44.31

Lon. 83° 23' 48 W

labeled <sup>10</sup>  
C60 C<sub>10</sub> A081818E 2:54:49

245I

Lat  $29^{\circ} 38' 52.1'' N$

Lon  $83^{\circ} 23' 41.0'' W$

muddy  
w/ grass  
rocks

14:57:33

\*O45 A081819A

3ft'

245F

3:13.2

lost  
map  
here Lat  $29^{\circ} 38' 49.9'' N$

Lon  $83^{\circ} 24' 09.0'' W$

Muddy 3' less

15:16:21

(SW pt Lazy Island 3:33.07  
\*S-22 A081819B d ~ 2.5'

60M Sanderling

Lat  $29^{\circ} 39' 24.8'' N$  0:

Lon  $83^{\circ} 24' 32.3'' W$

15:37.31

(11)

W. pt → Lazy Isl.

\*S-23 V Sandy (black ridge  
100 ft berm)  
A081819CLat  $29^{\circ} 39' 30.9''$  N  $d=6''$ Lon  $83^{\circ} 24' 32.3''$  W

2451

45 15:48:05

Palmetto roots exposed by storm

\*S-26

N. corner Lazy Isl

V. sandy  
100m

A081819D 08

 $d=2$  ftLat  $29^{\circ} 39' 40.2''$  N2454 Lon  $83^{\circ} 24' 51.0''$  W

15:02:41

2 ft \*S-27 NW of Bivens Ck

A081820A

Lat  $29^{\circ} 40' 28.9''$  NLon  $83^{\circ} 26' 00.0''$  W

16:18:18

Mucky  
Sand \*S-28  
A081820B

300 yds

NW of S-27

Lat  $29^{\circ} 40' 28.9''$  NLon  $83^{\circ} 26' 13.0''$  W

16:31:40

Files: PFPRO/DATA/PFINDER/STEIN  
A081815A - A081820C

(12)

\* BIVENS Creek  
S-31A (By core) 2ft  
A081820C  
+ sand  
mouth of River Crk

\* 0-40 on shore d=0.0'  
near dam  
VSI + GPS lat long

Lat 29° 40' 31.1 N  
83° 25' 43.0 W

Location Relative to  
River landing RL=0.0

✓ S5 = 0  
 ✓ O46 = 200  
 ✓ \* S33 = 3200  
 ✓ O1 = ~~4500~~  
           4500  
 ✓ O46 = 4500  
   C54

\* measured linearly along  
 central river channel ~~then~~  
~~from~~ up to pt S33 then  
 S33 + dist from S33

(for pts 046, 01, + C54 only)

|     | S33                       | +dist                   | total    |
|-----|---------------------------|-------------------------|----------|
| S5  | <u>          </u>         |                         | 0.0      |
| B8  | 3200 +                    | 6700                    | 9900.0   |
| B10 | 3200 +                    | 12,000                  | 15,200.0 |
| O46 | <del>3200</del><br>3200 + | 1300                    | 4500.0   |
| C48 | 3200 +                    | <del>7700</del><br>7700 | 10,900.0 |
| S4A | 3200 +                    | 7650                    | 10,850.0 |
| S29 | 3200 +                    | 6233                    | 9433.0   |
| B20 | 3200 +                    | 3950                    | 7150.0   |
| S24 | 3200                      | 8250                    | 11,450.0 |

| origin | S33  | <del>total</del> | dist | total  |
|--------|------|------------------|------|--------|
| * S5   |      |                  |      | 0.0    |
| - O46  | 3200 |                  | 1300 | 4500.0 |
| - O1   | 3200 |                  | 1400 | 4600.0 |

| SAMPLE STA     | ORIGIN to <del>LM</del> DIST | PT FROM <del>LM</del>  | TOTAL DIST          |
|----------------|------------------------------|------------------------|---------------------|
| * S5           |                              | 5800                   | 0.0                 |
| ✓ C 59         | 5800                         | <del>5800</del> 11,500 | 14,300.0            |
| ✓ B 8          | 5800                         | 4200                   | 10,000.0            |
| ✓ B 10         | <del>5700</del> 5800         | 7700                   | 13,500.0            |
| ✓ C 48         |                              | 5250                   | 11,050              |
| ✓ S 4A         |                              | 5300                   | 11,100              |
| ✓ S 29         |                              | 3250                   | 9,050               |
| ✓ B 20         |                              | 1100                   | 6,900               |
| ✓ S 24         |                              | <del>5950</del>        | <del>11,750</del> ? |
| ✓ C 2          | 5800                         | 3200                   | 9,000               |
| ✓ O 4.9        | 5800                         | 2600                   | 8,400               |
| ✓ S 30         | 5800                         | 2950                   | 8,750               |
| ✓ B 7          |                              | 4150                   | 9,950               |
| ✓ S 29         |                              | 3770                   | 9,570               |
| ✓ B 3          |                              | 4520                   | 10,320              |
|                | ③ 9400                       |                        |                     |
|                | ② light 9600                 |                        |                     |
| ✓ B 24         | 7600                         | 2500                   | 10,100              |
|                |                              | <del>3100</del>        |                     |
| ✓ O 48A+B      |                              | 3150                   | 10,750              |
| ✓ S 32A+B      |                              | 3650                   | 11,250              |
| ✓ S 31         |                              | 4000                   | 11,600              |
|                | ④ 15,250                     | <del>5800</del>        |                     |
| LM = Land Mark |                              |                        |                     |

| SAMPLE    | ORIGIN to LM DIST | L.M. to PT | Total Dist |
|-----------|-------------------|------------|------------|
| ✓ B 49    | ① 9400            |            |            |
| ✓ B 19    | ② 7600            | 5500       | 13,100     |
| ✓ B 15    | ② 7600            | 6700       | 14,300     |
| ✓ C 55    | 7600              | 7550       | 15,150     |
| ✓ O 42    | 7600              | 8020       | 15,620     |
| ✓ B 14A+B | ③ 15,250          | 1920       | 17,170     |
| ✓ B 16    | 15,250            | 1870       | 17,120     |
| ✓ S 35    | 15,250            | 1220       | 16,470     |
| ✓ S 34    |                   | 2650       | 17,900     |
| ✓ O 45    |                   | 3100       | 18,350     |
| ✓ O 44    |                   | 5200       | 20,450     |
| ✓ C 60    |                   | 5900       | 21,150     |
| ✓ O 47A+B |                   | 3070       | 18,320     |
| ✓ C 61    |                   | 4700       | 19,950     |
| ✓ C 57    | ③ 9400            | 4900       | 14,300     |
| ✓ C 62    |                   | 5250       | 14,650     |
| ✓ C 56    |                   | 3070       | 12,470     |
| ✓ C 63    |                   | 5200       | 14,600     |
| ✓ B 11    |                   | 5000       | 14,400     |
| ✓ B 12    |                   | 4920       | 14,320     |
| ✓ C 59    |                   | 7900       | 17,300     |
|           |                   | 9700       |            |
| ✓ C 58    |                   | 8920       | 18,320     |
| ✓ O 37    | 9400              | 13,000     | 22,400     |

| SAMPLE | ORIGIN TO<br>L.M | L.M #<br>SMP SITE | Total<br>DIST |
|--------|------------------|-------------------|---------------|
| ✓ B.9  | ③ 7600           | 4320              | 11,920        |
| 8.24   | ↓                | 5490              | 13,090        |
| ✓ C.51 | ↓                | 6090              | 13,690        |
| ✓ 040  | ↓                | 6820              | 14,420        |
| ✓ S31A | ↓                | 6840              | 14,440        |
| ✓ S25  | ↓                | 6870              | 14,470        |
| ✓ S27  | ↓                | 7820              | 15,420        |
| ✓ S28  | ↓                | 8720              | 16,320        |
| ✓ C.53 | ↓                | 9320              | 16,920        |
| ✓ C.52 | ↓                | 13020             | 20,620        |
| x B13  | ↓                | 6150              | 13,750        |
| x C54  | 3200             | 2500              | 5,700         |
| x S26  | 7600             | 2600              | 10,200        |
| x S23  | ③ 9400           | 3300              | 12,700        |
| x B18  | 9400             | 3800              | 13,200        |
| x S22  | 9400             | 4800              | 14,200        |
| x 048  | ↓                | 5600              | 15,000        |
| x B17  | ↓                | 4150              | 13,550        |
| x 038  | ② 7600           | 9120              | 16,720        |
| x 043  |                  | 10260             | 17,860        |

6/28/95

Steinhatchee

\*Resample several stations (E)

O-6-E

12:23 pm

Lat  $29^{\circ}40'40''$

Lat

Long  $83^{\circ}23'39''$

Long

YSI

pH 7.73

28.5°C

O<sub>2</sub> 4.75 mg/L

Cond ~~12.56~~ m 131 mC/s<sup>2</sup>

Sal 7.5 ‰

10 NTU

D = 2.8'

Haenstine  
Spencer  
Donoghue  
Trimble

12:41 PM  
S-33 E  
pH 7.72 28.0°C  
O<sub>2</sub> 5.05 mg/l  
Cond 15.63 mO  
Sal 9.1 ‰  
turb 3 NTU  
depth 2.2'  
Lat 29° 40' 35"  
Long 83° 23.56'

SR01 146 PM  
B15E

pH 7.94 29.7°  
O<sub>2</sub> 6.42 mg/L  
Cond 34.07  
Sal 21.2 ‰  
turb 4.0 NTU

Lat 29° 39' 57"  
Long 83° 24.13'

SR02 1:56 PM  
C55E

pH 8.02 29.9°  
O<sub>2</sub> 6.56 mg/L  
Cond 34.47  
Sal 21.5 ‰  
turb 4.  
depth 2.6  
just off left

Lat 29° 39.53'  
Long 83° 24.07'

SK03

2:07

042E

pH 8.04 30.2°

O<sub>2</sub> 6.96 mg/l

Cond 35.57

Sal 22.3 ‰

Turb 3

depth 4.4'

lat 29° 39.32'

long 83° 24.08'

SK04

2:18

038E

pH 7.97

34.4 °C

O<sub>2</sub> ~~30.4~~ 6.93

Cond 35.62

Sal 22.3 ‰

Turb 6

depth 2.6'

lat 29° 39.14'

lon 83° 24.13'

SK05

043E

pH 8.14

30.3°

O<sub>2</sub> 7.33 mg/l

Cond 36.64

Sal 23.0 ‰

Turb 2

depth 3.2'

lat 29° 39.02'

long 83° 23.91'

SK06

2:39

044E

pH 8.12

30.3°

O<sub>2</sub> 7.23

Cond 36.12

Sal 22.6

Turb 5

depth 3.2'

lat 29° 38.98'

long 83° 23.82'

SR 07

B14A-E

Time 3:09

Depth 2.6'

pH 8.09

T 30.3

DO 7.14

Con 36.00

S 22.6

Turb 6

Lat 29° 39.45'

Long 83° 24.41'

SR 08

B18E

3:18 pm

pH 8.08

29.8

DO 6.76

Cond 36.87

Sal 23.3

d 2.4'

Turb 4

Lat 29° 31.52'

Lon 83° 24.52'

Steinhatchee

\* Resample

Stations

6/29  
(E)

SR 09

040E

pH

9:55 AM

O<sub>2</sub>

Cond

Sal

Turb

Lat 29° 40.73'

Long 83° 26.17'

SKIP

S24E

pH 7.48

21°C

10:33 AM

O<sub>2</sub> 3.16 mg/L

Cond 29.75

depth 1'

Sal 18.3

Turb 3

Lat 29° 40.79'

Long 83° 25.52'

Greenstina  
Spencer  
Trimble

SR11

C51E ? location

10:42 AM

pH 7.56

O<sub>2</sub>

Cond

Sal

Turb

Lat 29° 40.75'

Long 83° 25.45'

depth 1.5'

SR12 S4A E

11:05 am

pH 7.77

28.9°

O<sub>2</sub> 5.69 mg/l

Cond 33.06 or 35.7

Sal ~~42.4~~ 21.7

Turb 8

Lat 29° 40.51'

Long 83° 25.47'

1' depth

SR13

C2E

Water too shallow to  
access @ tide -  
need hi tide max  
to reach.

Varies

Keys Trip

10/15

12:03

Photo's

1st Stop → The Gang @  
Elliot Key

2.6 → Patch Reef  
Monasteria  
Pointies?

10/16

→ Long Key

- Cassiopeia (Gelley  
Fish Spawning Ground)  
w/ ~~Algae~~ Algae (algae)  
in Tidal Flat  
Mangrove

- Golden  
Orb Trail

Mangrove Creek

Typic - Meander Tidal Creek  
- Coarse Lag of  
CO<sub>2</sub> granules in  
Bottom (lag)  
oft X-Bed

- Corallites - Oculina

\* Windley Key Quarry  
key Largo Limestone  
#20 + 21

Photos of Corallites  
on Quarry Wall  
@ stop 73 & 74

#22 Huge Coral Head  
su Rk Hammer  
for Acal

Brain Coral → Diploria

Other Monasteria

#23 Corallium - ?  
? solution breccia?

Did  
I take  
this

#24 → laminated  
Crust...

[Picts → Suvarat]

10/17

Miami Oolite

SW 72 Ave + 124

just 1 block past  
ST Louis Catholic Church

outcrop @ intersection  
of x-bed oolite  
I took samples

[Picts. - Goe, Suvarat & Carolyn]

MMS-1

5/4/94  
81° Windy

## STEINHATCHEE

Green 24 Bay

200 meters S of #25 at edge of grass (high tide)

12:05 p.m.

Water Depth - 3'

salinity

muddy sand

Sample KM 94F

Top 2 cm muddy sand

" KM 9

2-4 cm

"

Stein 1

pH 7.65

pH 7.84

sal 21.0

tem 26.8

con

O<sub>2</sub> 4.58

turb

Con 33.23

Sal 20.9 ppt

turb 10 NTU

Stein 2

off #19

30' off

1:07 p.m.

N side channel

Water depth 1.5'

SAMPLE KM 26

Top 2 cm MS

" KM 21

2-4 cm MS

pH 7.6

O<sub>2</sub> 4.42 62.4 27.3°C

Cond 32.46

Sal 20.9 ppt

Turb 18 NTU depth 2.2 ft

1:31 p.m.  
Stein #3

SAMPLE 1-2 MIN  
Km 34 top 3 cm  
~~334 344 43 53 63~~  
Km 48 3-4 cm

30' East of Oyster Bar  
depth 3.25'  
pH 7.95 27.5°C  
O<sub>2</sub> 4.93 71.0  
Cond 38.44  
Sal 24.4 ppt  
Turb 28-33 NTU 3.4' depth

1:58 p.m.

Stein #4A - Sandy - channel S  
tidal channel

Sample KM 5A top 5 cm

2:11 p.m.

Stein #4B - mud - grass bank KM  
81 km top 5 cm

pH 7.47 27.9°C  
O<sub>2</sub> 4.44 63.1  
Cond 32.38  
Sal 20.1 ppt  
Turb 13 NTU 4 FT

Stein #5

2:35

~ 10' shore upstream of boat ramp

Sample KM 1A 0-5 cm S

pH 7.57 27.3°C

O<sub>2</sub> 3.86 50.6

Cond 20.14

Sal 12.0 ppt

Turb 5 NTU 2.2' depth

Stein #6

2:56

at shore downstream of  
Marina M

Sample KM 94A 0-5 cm

pH 7.64 27.3

O<sub>2</sub> 4.12 55.3

Cond 20.83

Sal 12.4 ppt

Turb 17 NTU 1.4'