

SOKKIA

MADE IN CHINA

SOKKIA



Research

2023 -

**FIELD
BOOK**

No. 8152-4

INDEX

Property of Dr. SN Garrison

NSF Seawater Study

Address Geology Department

UGA

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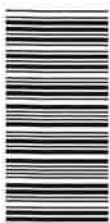
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PN6

COE: 9090

This Book is manufactured using a paper made from wood-free materials and is acid-free and archive safe.

815260



P.1 - Met. BR (Gibson's)

to update ROI to

Blue OS.

P.24-27, GSM studies A

Blue light minerals -

grain mounts.

P.28-AMS ages, GRIMs, Reef

SAL (rocks)

P.40-68, Bang 13 research

Quartz and Osh studies.

P.69-82: DETHD upload

activity; NW files converted;

P.83 began decommissioning
of Van & NSF project.

Meeting w/ G. Jones

4

Blue Robotics 10.11.2023,

11AM

1. Test not working band with

S9.2 Test #1 MBPS upload

30.46

62.314 Test #2

27.580

58.674 Test #3

26.14 D

2. Comparison/OGC - Tilt Test

Tilt Test of the changed

Decordor settings.

NVIDIA: Dixelization -

Same 1/2 hour

Tilt Control: Same 1/2

1280 x 720 Current Size

3. Blue OS - Download to

Flash drive. Begun

Download to Flash Drive

via WiFi. Done. Inserted to

Desktoping PC. Testing Blue OS

setup.

Ti
fr
ar

P 2

Te

Ac

Ph

10-11-2023

2/ BR Meeting conf. -
G. Torres,

Viewed Cockpit - to
replace QGC. BR.

Camera w/o Internet.

Reformat SD card w/
Blue OS. Done.

Boot Blue OS. No Int
but... ReFlashed SD

card. Eject card.

Changed EXTI box

Changed 0.1h. Default

gate Dan disabled.

Spread QGC but no video

Blue OS - no connection

on other FireFox Chrome.

Moved to Desktop. Laptop

reformatting. Done.

Splitload to Chrome.

Blue OS booted. 1:11 PM

Doing settings in QGC.

Cannot load Cockpit w/o

WiFi.

BR meeting 10.11.2023 conf. -

End of call @ 4:05 PM.

Will do Cockpit download

Tomorrow if I have time.

all/mos. login request.

LAB

10/13/2023

Verizon

Used Arey's hotspot (Samsung)

and it connected to Blue OS

→ Downloaded cockpit successfully

→ no problem, small 110

when camera hit

7:00

25 FPS

Bandwidth 4th:

1: ↑ 61.2 Mbps

↓ 15.42 Mbps

2: ↑ 70.87 Mbps

↓ 43.13 Mbps

3: ↑ 65.82 Mbps

↓ 44.98 Mbps

changed camera 1080p + 30fps

→ camera might be too

hot w/c not in view

TI
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Ac

Pr

10-17-23

4

BR (S. Torres) emailed BR
would exchange our Pixtanks,
Dove & remaining video issue.

10/31/2023

Got Raspberry Pi on Thursday,
installed today - Still Raspberry
Pi 3 to go w/ Pixtanks.
Need to test w/ Copilot to
check latency. Also need to
do a tank test + test
for temperature issues w/
camera. Set Thursday.
POV turned on. All working
well.

11/2/2023

Turned on POV and went to Copilot.
Lots of lag and frozen screens.
Copilot will not open on Firefox.
Running Latency test
⇒

5/

11/2/2023

Latency tests

(Mbps)

Upload +
Download Speed
is 1000

1) ↓ 8.83

↑ 53.80

3) ↓ 24.21

↑ 60.51

2) ↓ 17.58

↑ 58.90

4) ↓ 23.34

↑ 60.44

Video still incredibly laggy.
Now cannot get hit. There is a
lockd with network "Blue OS (Teelet)".
that needs a network security key
Everything on cockpit lag, not
just video but attempting to
click on anything takes time to
load. Says joystick is connected,
can tell when joystick is not
connected, yet is not reading any
joystick commands like tilt and
arm. Says Blue OS is up-to-date.

5) ↓ 20.80

↑ 56.52

↓ "error in fetching
online tags: Cannot
connect to host
auth.driver ip: 443
ssl: default"

6) ↓ 20.89

↑ 65.31

11/7/2023

6

- So we had the default gateway (192.168.2.2) off from our last call w/ G. When opening cockpit, it wouldn't even connect to the vehicle ("vehicle disconnected") even though all of our lights on FXTI were on. I then re-added the default gateway—which is also the BlueOS IP—and got video connection and less lag (still some).
- When small or slow movements, there is no lag. It is bigger and faster movements that there is lag and small freezing.
- Still lag when applying camera tilt function
- Shock - burst camera tilt buffers or doesn't go until more tilt is applied. Checking joystick settings ⇒ cannot change joystick settings live in QGC

11/7/2023

7

- Checked on BlueOS, had an alert saying: "The vehicle is running its 'factory' version of BlueOS. This generally means something went wrong, and the system reverted to this version in order to recover."
- Switching tabs from cockpit to BlueOS local takes a second for the camera to come back online. Now cannot use camera tilt + connection goes in-and-out.
- Took off IP default gateway, now have vehicle connection again with almost non-existent lag when tilting (happens maybe every third attempt.)
 - ↳ Why? Why do we have to disconnect and reconnect. Which is the correct one? Will we have to continue doing this?
- Also attempting to flash ArduSub companion onto extra SD card to see if we can use QGC - much prefer QGC over BlueOS/cockpit +

8.

9

11/7/2023 - LAB

- Now have connected to wifi for the video call. Do not know if it is due to time + heat or wifi connection, but there is slightly more lag again on covepit.

- Running bandwidth tests:

1) ↓ 7.24 Mbps 2) ↓ 31.73 Mbps
↑ 69.92 Mbps ↑ 67.80 Mbps

3) ↓ 31.55 Mbps 4) ↓ 14.71 Mbps
↑ 58.56 Mbps ↑ 48.67 Mbps

↳ Why did the speeds drastically change from #3 to #4? All tests done consecutively...

- G might be right that the computer cannot handle it. However, the computer is still new and runs well. If this is the issue, we should use QGC until the computer has reached the end of its life.

- We also do not like that we cannot easily see cockpit on Firefox and have to use a chrome.

Chat w/ Torres

- Switch tether electronics from blue lives to any other color → orange. Change in FXT1 box as well. This should help w/ bandwidth

↳ + download speed
↳ cannot change tether electronic connections are

- Contact BlueLink about issues w/ tether ⇒ BlueLink would have to fix it due to modified penetrator. Our tether penetrator is not and has never been what Ble Robotics sells. G is on call w/ Jeff to explain this and look for a solution.

Possible solutions

- Jeff tells G how to fix, G tells us
- We send it to Jeff/Aaron and they fix it.

- Trying bandwidth test w/ other FXT1 box

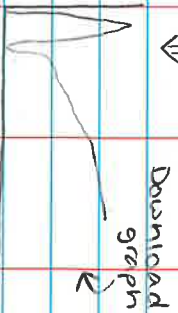
11/7/2023

Bandwidth test w/ newer EXT1 box

1) ↓ 18.98 Mbps 2) ↓ 14.88 Mbps
↑ 53.59 Mbps ↑ 57.63 Mbps

3) ↓ 17.81 Mbps 4) ↓ 19.73 Mbps
↑ 53.75 Mbps ↑ 55.89 Mbps

• I don't know if it is normal, but the download speeds start off strong and jump up to ~20 Mbps before dropping almost down to ~5 Mbps before gradually climbing to their final speed.



- Checked cockpit, seemingly no lag however it is ~~not recognizing our~~ ~~gas~~ ~~controller~~ ~~functioning~~ ~~at~~ ~~replugged~~ ~~socket~~ ~~works~~.
- Also, default gateway was put back.
- Tank test Wednesday.

10

11

11-8-2023

TANK
Foot Test

• Aarin says that our bandwidth tests (pg.10) are still lower than he'd like. He wants us to disconnect the GPs from within the PCV. Will do next week.

• Also going to switch to Arduino next week and try that.

• PCV needs some maintenance, specifically securing electronics housing + Pixhawk. Also for next week.

• Camera mount was loose - 1 screw completely fell out. Screws are not seating. Seems like manufacture error. Using thread-lock. No joy.

• Probably going to do tank test next week. Finally fixed issues in electronics housing of Hobby Lobby sensors.

Lab 11-14-2023

12

RoF - Bin OS / Cockpit tank test.

RoF in tank. Camera has some lag. Cockpit works - sort of.

Camera freezes w/ motion tests but unfreezes w/ delay.

baser not functional until we set relay for this.

Sweeping SD card to ArduSub companion ~~replacing~~ GHS

Successfully swapped back to QGC and ArduSub

- Still pixelation, but no lag
- seems at this point we have to choose lag or pixelation. I prefer QGC over Cockpit, as long as video doesn't drop

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11/14/2023

ArduSub Bandwidth Tests

1) ↓ 54.43 Mbps
↑ 72.02 Mbps

2) ↓ 50.18 Mbps
↑ 66.95 Mbps

3) ↓ 55.42 Mbps
↑ 66.88 Mbps

4) ↓ 22.98 Mbps
↑ 65.55 Mbps

5) ↓ 25.99 Mbps
↑ 63.98 Mbps

6) ↓ 52.96 Mbps
↑ 67.14 Mbps

• Changed frame size to 1280x720 and framerate to 25 fps and saw significantly less pixelation

7) ↓ 61.665 Mbps
↑ 64.74 Mbps

For tests 6+7, I disabled the GPS driver and changed frame size

ArduSub = 192.168.2.2:2770/frame + rate

• Still some pixelation

• No video drop when heavily jostled.

Doing tank test again

• Test good! No video drop, barely any pixelation!

11/14/23

14

- Barge 10 Bag 2 (4/16/23) Part 3

Shake down for 10 minutes

Sieve #	wt.	Total Weight
#5	100g	
#10	51.5g	after sieve:
#18	57.2g	
#35	115.1g	1090.6g
#60	345.9g	
#120	395.9g	
#230	23.8g	
CP	1.2g	

Paper: 4.1g

~~Need to do sample starts~~

- Barge 10 Bag 2 pt. 3 in GRADISTAT

15

11/14/23

- Barge 10 Bag 1 (4/16/23) Sieve pt. 1

- Shake down for 10 minutes

- Initial wt: 776.2g Final wt: 776.6g

Sieve #	Weight	Paper wt: 4.0g
#5	78.4g	
#10	44.1g	
#18	50.5g	
#35	91.5g	
#60	204.4g	
#120	286.0g	
#230	20.7g	
CP	2g	

Paper: 18g

447g - 18g = 425g

- Barge 10 Bag 2

pt. 1 in

369.2g - 18g = 351.2g

GRADISTAT

Total - 776.2g
Initial Weight.

11/14/23

16

17

A-15-23

Barge to Bag 1 pt. 2 (4/16/23)

- Shakedown for 10 minutes

Sieve #	Weight	Pan wt: 18.2g
#5	136.6g	
#10	77.2g	475.8g - 18.2g = 457.6g
#18	95.2g	544.4g - 18.2g = 526.2g
#35	162.2g	274.0g - 18.2g = 255.8g
#60	336.7g	
#120	245.7g	Paper: 4.3g
#230	179.4g	
CP	1.4g	

Initial Weight: 1239.6g

Final Weight: 1234.4g

Barge to Bag 1 pt. 2 in GRADSTAT

lab

Checked for A/C. All discarded.

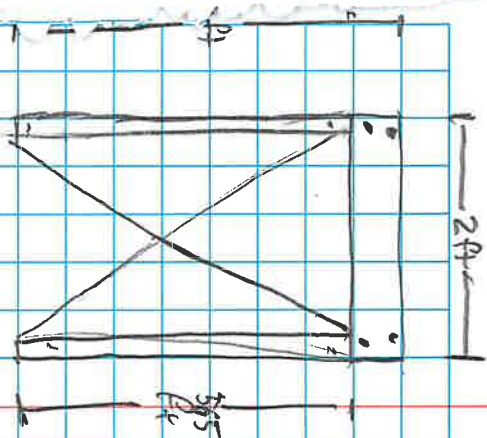
Moved Barge to collection to bench.

Checked during settlement sample in Canada Balsam. Placed in clay digestion for 15 minutes. Some solidification observed. Adding to dry further helped applying epoxy.

holds)

11-20-23

Discarded Canada Balsam idea. It will not solidify and does illustrate the deterioration of sediments. No epoxy holds should be the same. The epoxy again. No holds are in Canada Balsam. No holds. Parcells did two samples this weekend. Yasmine and I will examine today.

Feb 16 2023 17

Box
 24x36 in (10)
 1 sheet 1/4" Ply (1)
 1/4" wood screws (25)

Bought Conductivity Stand / Shelf
 from Lowes) \$86 vs \$900.

Grain mounts for Box & Topmore's
 Motherlode were successful.
 Bottomcore for Box & failed.

Need to use 4" of epoxy

Set up Emily's Office Station
 in John Dwyer's office.

11-21-23

Lab

Soldered resistivity probe wire. Multimeter died so we have to go back to G/G to get new batteries for it to test.

11-28-23

Lab/GSM

Polished grain mounts (2) ready. Will take to GSM.

Dropped off grain mounts @ GSM (11:30 AM). Dr. Faroo will polish and notify us as to schedule to send back on FTE-GSM (SDX).

11-30-23

Geochem Lab

F. Jones and E. Garrison

Made 4 grain mounts in the Geochem Lab.

Two previous mounts being polished for EOT next week @ GSM (SDX).

* Supplemental notes attached



TEXAS A&M
UNIVERSITY

11/30/2023
Geochem Lab

GALVESTON CAMPUS.

4 ~~mm~~
Made ~~X~~ grain mounts: 1) J Reef - #5 * "uncooked"

2) Box 8 core - bottom

- used mineral oil for the releasing separating agent *

- waiting 1 hour

3) Sagebrush grab #14

4) Box 8 core - top

1 PM: All samples have hardened. Some leaking, to be expected... Now letting them cool off for 15 minutes

3 mounts hardened by 2 PM.

Lab

12-1-23

19

Stacked Accession for NSF Boxes.

11-21-23

lab

Soldered resistivity probe wire. Multimeter died so we have to go back to G/G to get new batteries for it to use.

lab

12-1-23 19

Started Accession for NSF Boxes.

Boxes 1-3 completed.

4 grain mounts prepared for SEM-GEN.

12/5/2023

Set appointment w/ GEM

on Thursday (12/7) for ion milling

-Eric has already sent back one SEM report

Worked on Conductivity Meter. Got set

up. Farm 1 file seems to be corrupted.

EMAS = (CMT +)

GPS = (DM 6) Got both working

-Blue tooth PIN for EMAS is 1234

12/7

GEM Lab

20

- with ^{Dr. G} Eric Formo and SU3700
- need to cut/sand/polish 2 mounts (J-reef 5 + Motherlode 5)
- Looking @ Box 8 ^{1st} sample done by Dr. G, * has
- Some Feldspar, lots of quartz, calcites
- most grains are sub-angular, very few subrounded
- possible foraminifera spotted!
- We have some LOT samples and some "unlocked". J-reef is one of these. Will compare SEM results...
- Looking @ Sagebrush sample (grab #114)
- LOT sample mostly
- lots of calcium + phosphorus (apatite) (possible shells), lots of quartz
- very small grain sizes
- Looking @ Box 8 bottom from 1130
- Row, not LOT
- K in 1st scan, center image. grains (small) are clustered. Feldspar.
- B/K
- 2nd scan mainly Si, just quartz

GEM Lab

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12/7

- Box 8 Bottom (1130) continued
- 3rd scan: mainly Si, interestingly has Fe in it!! With Al peak
- possibly mica
- 51% Si
- 31% Al
- 10% K
- 5% Fe
- no calcite in this scan
- 4th scan: edge of mount
- mainly quartz and calcite (small grains)
- Tuesday 12/12 = cut/polish grain mounts: J-reef 5 + Motherlode 5 (too big)
- (Thursday 12/14 = work on GSA abstract)
- 12/12
- Timed Motherlode 5 & J-reef
- oxygen mounts on Tim's 5 & Row
- Prep (GG),
- * Eric Formo indicated the small area shown, the experts repairs soon.

22
GS Conf -

12/12/23

Examined trimmed section
under dissecting scope in
Geology Lab. Took
photo micrograph of host
M. (S) and T-Rod
grain mounts (thinmed).
Dropped off T-Rod & M. (S)
with Form. Said we'd try to get
the machine to show on Wednesday
(possibly Thursday).

lab

23

12-13-2023

• Kelsey & Yab boxed & created
accession sheets for NSF
collection.
Boxes 4 -

• Prepared AMS submission forms
for:

1. Reef SALvest (2023)
2. Gray's Reef oyster (2023)
3. 30th (SALMS) wood (2013)

12/14/2023

• Submitted SE GSA Abstracts

UGA - GEM

12-19-23 24

Mother lode

- 1 grain of feldspar - pyroxene (heavy)
- lots of calcite $\leftarrow$ main components of selected areas
- lots of quartz (more quartz than calcite)
- lot of titanium ^{in grain} rutile, a common heavy mineral grains in sand
- Sub-angular grains
- Feldspars
- more rutile found + some apatite + more quartz (scan 5)
- Scan 6: quartz-heavy, some calcite

Box 8 Top - low grain density, subangular

- First 2 scans: pretty much nothing
- Image 3 = quartz grains, some K = feldspars, (along w/ calcite; cluster of quartz, feldspar, + calcite)
- Image 3+4; 4 = zoomed in
- Image 5 = new location on mount
- bottom edge of grain mount
- mostly quartz w/ some calcite, feldspar

UGA - GEM

12-19-23 25

T Reef - high grain density

Image 1: (left of center, middle chunk)

- high levels of Si + Ca (expected)

47% Si

35% Ca

= quartz, calcite, apatite

7% Mg

3% P

2% Al

- low, if any, feldspars

- 4 is grains of Al + Si

• high Si + K levels along w/ Al, = feldspar

- dolomite; high Mg + Ca

• Image 2: further left, probably still middle chunk

- feldspars (definitely multiple)

- 3 apatite grains, some bright in SEM

- very calcite-heavy, what's expected

- where there is Si + Si, calcite makes up for it

- 3 reef does not seem to have many

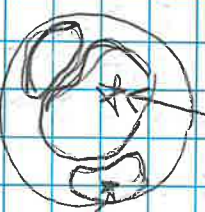
wavy lines 20 mi. offshore, Monrovia

is closer in shore

• Image 3: to the right, other chunk

- looks to be more apatite (3-4 grains)

- surrounded by quartz + calcite



Ue, A - GEM

12	19	20	23
----	----	----	----

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3 pef, continued

◦ Image 3 continued

- interesting amount of Mg - probably caused by dolomitic materials

- Overall, T-test has lots^{er} of negative in comparison to other locations

- Image 4: bottom left corner

- quartz, calcite

- 7% Mg lots of sweat in image

4.1.5

491.51

32% Ca

- Phosphorus also very bright in SEM like oxygen is

Surprises from Rutilic $\Rightarrow$ Apatite

Notes for SEM-EDX study 12-19-2023

Three grain mount samples: Motherlode Ponar Grab 5; Box Core 8, top; J Reef

Unit used: Hitachi 3900 SU3900. Operator: Dr. Eric Forno. Scientists: E. Garrison, E. Jones, K. Williams

Motherlode sample had rutile grains as primary heavy mineral seen in grain mount photomicrographs. Calcite and quartz as expected. Quartz dominant as expected. Best scans toward center of the mount.

Box Core 8, top: Surprisingly sparse distribution of grains throughout the sample. Center of mount had quartz and feldspar. Mineral assemblage not readily comparable to 12-7-2023 grain mount results.

J Reef mount had high density of grains in the three areas examined. Apatite grains frequent as a surprisingly prevalent mineral. The grains have high brightness in BSE and other views. Quartz and feldspars present in relatively equal amounts: 49 % Si; 32 % Ca; 4% P. DOLOMITE inferred based on 7% Mg present in the mapped areas.

28 10/6

1-3-2024

Discussed vessel availability
for spring semester w/ Tahiti
Pichay (SUO) RV SAVANNAH
is available for teaching
Cruise this summer/2024.
The RV SAVANNAH can be used
for 4/20/2024 - 5/10/2024 in Oahu
March.
Barge 5 trip in April?

AMS-Radiocarbon ages
Received (see p. 29).
Reef SAV, GReef (2),
Reef oyster, oyster, oyster.

Dear Dr. Garrison,

Enclosed please find the results of ^{14}C Radiocarbon analyses and Stable Isotope Ratio $\delta^{13}\text{C}$ analyses for the samples received by our laboratory on December 13, 2023.

UGAMS#	Sample ID	Material	$\delta^{13}\text{C}, \text{‰}$	^{14}C age years, BP	$\pm$	pMC	$\pm$
67124	Gray's Reef	oyster	-1.00	44250	410	0.41	0.02
67125	30In	wood	-25.85	11140	40	24.98	0.11
67126	Reef SAV	root	-24.59	37560	220	0.93	0.02

UGA

AMS-Rc DATES

12-13-2023

Results 1-3-24

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UGA LAB

1-10-2024

30

E. Jones, E. Garrison

Set up Video Accession
Sheet format:

[NSF video-accession, X|SX]

All video files to be placed
in this folder and stored
on new, dedicated flash drive.

UGA Lab

1-10-24

Jones & Garrison began
transfer of HP video files
to SLRGS Drive.

3-20-24 - TB drive failed;

Purchased a new flash
drive for Curator to
accompany SPM 370
drive.
New drive is a SanDisk SLR.

Lab 3-20-24

31

Continued curator activities
for digitized data folders -
Part 8 video.

3-13/3-15/24 = Finalized &

submitted article manuscript -
"Moffet and Combs' to

Quaternary Science Reviews;

3-20-24. E. Jones formatted

SE-GST Presentation;

E. Garrison and K.

Williams advised Part 8

Accession Sheet and

extra folders and SPM 370

Procedure for Curator

Lab

5-14-24

32

Uploaded SE-GSA PPT onto
GSA presentation Portal (Spencer
Conway). Checked for Emily
refund.

Revised "Blue light" manuscript
to incorporate SE-GSA text
and reduce article to
English. Lab results e.g.
removed references to
Ocean/Lab Blue light
images (removed).

Lab

5-16-24

Edits for Blue light manuscript.
Done by EGS.

Testing PAR10 (unimodal)

Particle size analyzer) with

Skidaway Narrows-Sandpiper sample
(catchpan, #230, ~~4#192~~)

→ 30g sample (combined)

→ letting sample sit in dispersant
overnight - will run test tomorrow

Lab

33 5/16/24

- 100 ml dispersant + 250 ml DI water
- mix into 30g sample and let sit
→ will continue tomorrow @ 9AM
→ run for 6 hours

Lab

5-17-24

Met Amy @ 9AM Bananas 1b,
Set PAR10 run.

Skidaway Narrows sample dispersed
overnight.

PAR10 CLASSE gel up @ 9:10 AM.
Program will just run. Checking.
Re Set. Function restored @
0930. Return in 6 hours.

ca. 4PM. Kudos/Kuwait will check.
File: SHUPLER (Desktop)

Analysis end @ 3:40

54: Sand 36%

Silt 10%

Clay 54%

Canard and wet sieve. Dry
w/til Monday 4/Deigh.

lab

34
5-20-24

All sieves dry except catch pan.
Some (~2-3 ml) water left
undried. Set on outside of lab.
Turned on drying oven to 85°C
in case drying is not completed
by 10 AM.

Drying oven on!
In. 8:50 AM.

out.

Turned drying temperature to 25°C

@ 10 AM.

Wet Sieve Data

Sieve +
Sample

Triple Beam Electronic

Sieve

Sample

#35 133.2 134.7 137.4 0.3 coarse

#60 133. 134.6 134.3 0.3 medium

#120 140.3 141.2 131.2 11 fine

#230 141.0 142.4 128.6 13.8 very fine

CP 143.8 143.8 141.5 23 silt + clay

Raw Goodistat

97.4%

5.4% clay

Five- Very Fine sand primarily

lab

35
5-21-24

Emily, Kuaka & EG met
discussed discrepancy
between PARD & wet sieve.
Thursday, Kuaka & EG will
run new sample in PARD.
A Claiborne well.

Emily & EG will monitor on
Thursday.

Thursday, Complete reports

Test results

139.45 g. TB

140.00 g. Electronic

41.15 g

lab 5.23.24

Kuaka and EG selected

around 300 g of wood 10,

baled 130-140 m.

Add dispersant, allow to

stand overnight.

Run PARD on 5-24-24

36 5-24-24

Boards P&ID analysis of
Well #10 130-9140 m

Sample: 9:25 AM

P&ID Sample: 3:35 PM

Sieve Weights (Well #10, Sample 1)

Reference Triple (Sample Triple) (Sample 2)

# 35	134.9	133.3	140	4.7
# 60	134.1	133.3	137.5	7.2
# 120	131.1	130.	134.6	7.6
# 230	128.6	127.8	130.4	2.6
CP	141.6	141.6		

1.1 / 195.119.29

5-28-24

Lab

• Did wet sieve on the P&ID

(Well #10 Sample. Drying Sample 1

• Making another ~~P&ID~~ sample

from Well #10 (Sample 2)

- 100 g

- going thru. manual sieve for 10 minutes

- separated pans/sieves out

37 5/28

Well #10, Sample 2 Dry weights

(100g)

Sieve # Gross weight Sample weight boat = 2.5g

10	2.6	0.1	2000
18	3.1	0.6	1000 (4m)
35	25.5	23.0	500
60	31.1	28.6	250
120	5.6	3.1	125
230	36.5	34.0	63
Catch	12.7	10.2	

99.6 g total

- GRADISTAT

→ mainly very fine sand

→ 6.7% clay

Grad's test

Wet Sieve g/L 12g

- 93.8% sand

- 4.1% clay

lab

38

5-23-24 cont-

Emily and EG reviewed Notulabode
2021 doc video to determine
if it should be embedded in scans.
Compared w/ published coquina
found online. Could not
determine if shell were same
dorsal (Mellita, Encope) or
scaleop (Placopetia).
No examples were found in
opals or box cores.

lab

5-28-24 cont-

Emily & EG discussed Tene ops.
Set Tuesday, 6-4-24 as Tank
test for Junior, 6-6-24 as Pool
test.

lab

5-29-24

completed wet sieve PSA.

see pp. 36-37.

lab

6-6-24

39

Revised Heritage Manuscript.
Revised SUID moving.

lab

6-7-2024

Ms. Williams started digital
archive on DEAD platform.
Login via ORCID.

[email
1455474020@uconn.edu]

Dryad data set description.
Upload instructions files.
Note data → description, etc.
entered as text.

Uploads rather slow (8g).
Dryad is upload and FREE.*

Accession 2021 loaded. ☺

* Caused. DEAD now have
additional changes. PSD dataset.
Checking.

lab 6-10-24 ⁴⁰

Dryd response. USK in not a
 subscription. \$150 charge per lost set.

lab 6-11-24

E. Jones & E. Garrison discuss
 weekend plans.

Dive plans discussed to include
 NOAA diver (Krisin Soss)
 Resubmitted to Scott Noakes.
 Checked w/ Travis McGuire
 (SKTD) about diving. Not
 available Saturday. Checked
 on availability Sunday, 6-16-24.
 Frank is checking status. X
 Bennett contacted. Addressed
 Saturday cruise date set.

Phone: 912-598-2434 (call/text)
ben.pruett@noaa.gov

302 Tanglewood Road
 Savannah, GA 31419

SKTD 6-14-24 ⁴¹

Left USK at 11 AM, arrived
 SKTD at 4 PM.

Drive to Hazards Creek
 docks and Met Bacon

12 off loaded dive tanks
 and pumping equipment.

Met Bond Sarah Pruett
 at their home for dinner.
 Returned to SKTD.

Ms. Jones arrives later at
 1 AM.
 Meet and drive to boat
 dock at 7 AM.

ELIZABETH II 6-15-24

Roles

Ben Pruett - Diver	Kyle Shepard - Capt.
Maya Barboza - Diver	
Bennett Bacon - Diver	
Emily Jones - Logs	Deputy Chief Scientist
Erin Garrison - Record Keeping	Dive Master *
Quentin Spencer - Tanks + labor	

* Chief Scientist

Elizabeth III

6/15/2024 42

Dive Itinerary

Dive I: Place tape line along barge length. Do video survey along tape line

Dive II: Relocate trees & fossil site. Use bags to collect fossils. Make notes on clipboard

Dive III: Sediment cores at trees and root sites. Objective is to recover exposed soil @ sites. Two methods: Metal box + hand corer

Seas are 1-2 ft; small swell; wind < 5 knots; sunny, no clouds so FAR @ 8:15 AM; currently 78°F, high at 85°F - 90°F today; Sea - surface temp. of 10K

Went over Dive Itinerary, materials, instruments, and goals w/ Divers on drive out to Barge 13. Set up supplies (dive bags - 5, stakes, 100m measure, cameras).

Stop 1: ~ 8:45 AM, Barge 13

Coordinates: 31° 54.650' N

80° 47.197' W

Depth: ~ 40 ft

decimals subject to change w/ drift 31° 54.11' N 80° 47.11' W

Elizabeth IV

6/15/2024 43

Dive 1 Start: 9:25 AM

Dive 5: B. Pucitt - 9:18 AM

N. Barbosa - 9:22 AM

B. Bacon - 9:20 AM

- Bacon's ~~PC~~ has slow, gradual leak - will probably come up before rest of group

- Hit bottom @ 9:28 AM

- Objective: Place tape line along barge length. Do video survey along the length of the tape line

Divers up @ 10:03 AM

- ~10 ft visibility

- did not find the tree

- got transect down on right side

Bear did not observe stumps but area is correct. 3-4' wood

Pits up to 4-6' in depth. Will sample and plants on

Dive 2

- Didn't use Dive 1 bags -> going to use Dive 1 bags for Dive 2

Elizabeth II

6/15/2024

44

Dive 2: Start 11:15 AM

Divers B, Pruitt: 11:11 AM

M. Parboza: 11:12 AM

B. Balon: 11:11 AM

- using bags labelled 'Dive 1',

AVA: Christmas bags

- Depth: ~41 ft.

- Objective: try to find the trees.

Pick up fossils, any old looking

shell. Take more GoPro video

- Gave Ben 2 extra bags - Christmas

Bags, labelled "Dive 2" this time

- Fair amount of current

Maya up @ 11:35 AM

Ben + Bennett up @ 12:00 PM

→ 2 big pits

- Ben found the tree + Balon broke

off a fresh piece from mud pit 1

Saw roots, but they are covered

→ 5 ft. away from Base, around

60 ft. (N to S); should be

in Ben's notes

Elizabeth II

6/15/2024

45

- all Dive 2 collection bags are

double bagged and labelled

appropriately

→ Don't say too much

attention to the first bag's

label, the 2nd bag will

be properly labelled

→ 1st bag = wet bag, taken

underwater

→ 2nd bag = dry bag, re-bag

the 1st bag

- Ben says better visibility this

round

- Dive 3 will take auger at base

of pit and (hopefully) core

at middle of slope



- lunch, hot dogs

- Maya to do video

Elizabeth II

6/15/2021 46

Dive III: Start: 1:13 PM

Divers: B. Prieett 1:08 PM

~~M. Barbosa 1:07 PM~~

B. Bacon: 1:09 PM

- Objective: take sediment cores w/

auger + core. Take more video.

→ auger will be 3 parts:

Shallow, middle, deep;

will be in 3 bags labelled

accordingly

- Maya is coming back on board, will

not be doing this dive (nausea)

- more current,

- Depth: ~44 ft

→ 31° 54, 666' N

80° 47, 258' W

Current temp. is 84°F; sunny,

no clouds; minimal to no wind;

waves are still 1-2'; tide came in,

~4-5 ft. difference; current has

been gradually getting stronger.

Elizabeth II

47

Up @ 2:03 PM

- Auger

(1) 1 ft, deep - perfect, bagged

in shallow

- Middle was a 'shall', so it

came up empty, so they made

a new hole next to it

(2) New hole (2), they took a

shallow, left it, and then

took a middle and a deep

from Hole 2, in "middle" bag.

Deep came back empty.

Leaving @ 2:20 PM for dock

Dock @ 3:10 PM

- Bacon put 1 tree sample in

another bag. Found it further

up slope, couldn't find roots,

didn't know if it was a stump or

a buried piece of driftwood = why

we separated it +

NOES-DEBRIEF

a dinner

48

Type T stand

Ben Pruitt

Bennett Bacon

Early Jones

Dr. J. H. Spencer

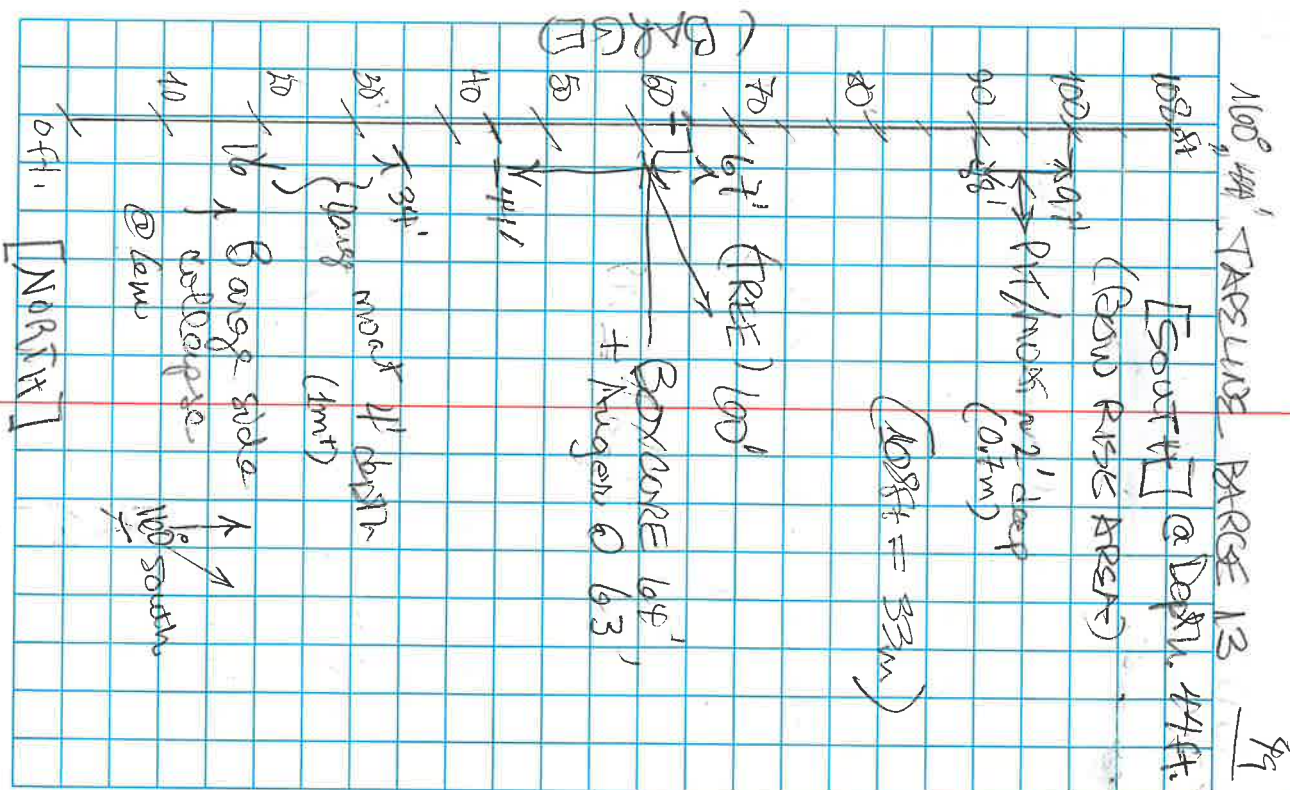
Ennen Statistic

(p. 49)

Ben clarified sketching map of
hwy 13 - tape line transect

the order parameter expansion
around equilibrium and DUE3
needs 5 samples.

Bennett/Ben saw light completely thru base and one panel. Bennett neglected swap coming through the gaps in the base. This must contribute to scores.



SKID

50

Departed SKID ~ 7:45 AM
Arrived Lab @ 12:12 PM

Offloaded samples: EGS-

Lab 6-17-24

Withdrew 800 ml of water
from three sediment
sample bags.

Dire #2 bag: Wood. Shrimp
fragments and vest/limb
segment.

Dire #3: Upper Anga Sample:
Organic & Invertebrate.

"SHRIMP"

Wet Mussels: 5/4/1

"Middle" Anga Sample:
Wet Mussels: 5/4/1

Lab

Examined video/still p

7.25.24 NOTES ON DIRS 13

Best Tag Blue video. (Maya)

9.24
9.24
17

53

7:45 AM
12:12 PM

plan: SGT5-

6-17-24

1 m of water
sediment

ced. stump
18.30m

Sample:
wood.

5/4/1

muffle:
5/4/1

Lab

Examined video/still photo.

6-17-24

7.25.24 NOTES ON DARS13

Baseline Video.

GoPro 998- Good baseline video

GoPro 996. Ben Fournet traverses
length of baseline N→S, 108 ft/
33 m.

fallen
tapeline crosses barge section
@ 6m.

Back on comet @ 37'

Debris/wood ? @ 43'

'Stump' @ 18.30m, Moat
& argillic soil horizon.
(62')

Survey arrow @ 69';

tires on barge

Bow area @ 92'; scum moat
deep moat @ 99'; Survey arrow
@ 76'/104'

Dist tape line video. (M&P)

Lapline/Baseline Ends @ 108' on corner beyond bar

7-25-24 cont.

7-25-24 cont. - Video Review.
GoPro 998. Map

traverses baseline south-to-north, 6-15-24.

Bow is west of line start.

Moat begins near 104' (survey arrow)

Moat is narrow but deep (1.5+ m)
from bow to trees @ 72'.

Moat widens ~ 64'

Swim ends @ collapsed section ~ 6+ m.

GoPro 1633. Ben Pruitt camera.
Bennett Bacon in moat @ 56'.

Moat depth > 1.5 m between
56' - 63'.

SKTD

50

Departed

SKTD ~ 7:45 AM

Arrived Lab @ 12:12 PM

Lab

6-17-24

51

Examined video/still photo.

Canyon: 3 frames. One good section of tape line @ 39 ft. soil outcrop on west slope.

"Golf 1": Still photos, ¹⁰⁰ft. Tapline panorama. Cypress stump @ 13 ft.

@ 30 m. Pond collapse

Video struck @ 30 m. ~ 200-300 MB each.

"Golf 2" (ndcap): All video 12 ft by 1 still image. Average location.

Excellent footage of box cano activity. Very clear

Footage. Best tapline video. (Maya)

lab

6-18.24 52

Drying Auger sediment.

Placed wood specimen
and root segment in

refrigerator.

Freezer drawer is denser in
Geelwan - Clay lab.Returned dive tanks to
Dolphin Scuba Shop.Afternoon - sediment not
completely dry. Placed in
drying oven in Oke lab.
overnight @ 25°C.
lab 6.19.24

Auger samples dry.

Shallow (Dive 3) ^{Bag + Spl} 50.7g ^{Spl. only} 57g
Munsell (dry) 515/1Middle (Dive 3) 119.9g 75.4g
Munsell (dry) 515/1

* see p. 68.

lab

6-19.24 53Auger Sample Length: 35cm. 1

Note: Sediment trapped in

barrel above 30cm. ~ 40cm.

Sample collected.

Net weight. 13.1g
Munsell (wet) 514/1Trapped sediment named "Deep"
Auger sample. Can't be sure
it was trapped on Deep
auger attempt.Ben did say the auger penetrated
w/o resistance. This seems to
indicate a void space. If
the auger did contact sediment
it would have been in the
open spoon section and
not the closed portion of
the upper barrel.

MDI article proofed. Submitted.

Lab

6-20-24

S4

West Prosserwood agrees to pay
invoices for data including
periodically ERAD.

Note on Auger & Box (Rush) cores

Auger samples taken in
lower part of moat. The
box sample is on slope;
auger below it.

Box open @ 12:40 PM, intact.

Onions contact @ 80 cm.

Overall length is 46 cm.

Upper soil is an g.D.C.

Second section is sandier.

2 distinct colors for soil:

① Top of core = SY 4/1 → more sandy

② Bottom of core = SY 4/2 → more w/ shells

↓
more silt/clay

Lab

6-20-24

S5

Preparation core. Still fragile
& vides.

Saved carthium - still alive.

New lab pet! 'Genie'.

Collected bottom samples:
3 bags.

14 cm, 30 cm, 44 cm.

Cone on allie layer solid to
34 cm. Sand begins below
to 44 cm.

Maybe artefact of collection
process.

Crabs @ 18 cm, 29 cm, & 46 cm (top)
removed; crabs are smallest @ 18 cm,
largest @ 46 cm

Shell @ contact. Bagged complete
venues @ 22 cm.

lab

6-20-24

56

Box analysis cont. -

Two sediment samples
taken from PSA.

10cm

53.7g (1.2g boat wt)

52.5g sample wt

30cm

52.6g (1.2g boat wt)

51.4g sample wt

6/21/24

10cm after drying: 29.0g + boat

Musell: 57.6/19

30cm after drying: 41.0g + boat

Pollen bag samples in

hobo fridge after upper
shelf

LAB

6-20-24

57

WOOD INVENTORY BIRGE 13 MOAT

1. Single sample (nut/trot)

2. Two samples - soft block,
rest/link (in soil)

3. Large block (2 pieces)
of wood. Foundation soil/
moat

4. Stump - across

5. 8 samples - across

13 new wood specimens

lab

6-21-24

Moved box to Geolux lab (5g)
fridge.

Lab

6-25-24 58

Changed batteries in Minolta camera. Macro light working.
No batteries needed.

Freeze Drier maintenance.

Hydraulic pump oil changed.

Arrives Thursday.

Ream glass fittings. Dr.

Schubert submitted Ticket to FWD Refrigeration to check unit.

PSA. Do analytical horizons from Barge 13.

E. Jones and E.G. discussed which sample to do PSA.

"Under the boat" sample

~ 90g, chosen.

Munsell color changed to B horizon of PANSEY Btg on SUPREMO Btg 1

Lab

6-26-24 59

DEAD & DEAD CONTEXT. ✓
K. Williams

Pump oil delivery today.

FWD request for freeze drier check.

collected 15ml samples for

pollen analysis from

Reef SAV Barge 13 (6-15-24)

shallow and middle larger

- wetland lithol

- clay soil horizon

✓ Sending to Deblinland at USGS

• 2022 NSF Research Master File uploaded and submitted to Dryad

• left off at upload step for 2023 NSF Research Master File

• Pulverized "below the boat" soil, 40g, 100mm PMSO.

Lab

6-26-24

60

Washed 30g of "Under-the-boat"
paludose sample.
Added to DI & Dispersant
Pail. Will add to sit
borewater. Run PKID in A.M.

Lab

6-27-24

✓ Started PKID analysis of
Bang 13, "Under-the-boat"
sample at 8:05 AM;
6 hours analysis (ca. 2:15 PM).

✓ Filled CHS-AMS form for
new core analysis & org.
Submit 7-1-24.

✓ Upload Video (60s) 6-5-24
to OneDrive; Shared.
Checked PKID @ 2:45 PM.

Analysis completed. 79% sand, 20% silt,
2% clay.

Lab

6-27-24

61

Net sieved residual
sample. 230 sieve &
catch for org.
Significant amount of
fine sand in 230 sieve.
Surprisingly, organic
detritus is very obvious.
Soil Res OM.

Lab

6-28-24

Began pipette measurement
of Catch Pan (500 ml)
"Under-the-Boat".

✓ 1st min. sample @ 8:30 AM
3:50 min. sample @ 8:33:50 AM
8:14 sample @ 4:13

Note: Significant silt & clay
in CF. (borewater)

Placed 3 min, 3:50 min samples in
drying oven.

lab

6-28-24

62

Recovered KTK Gradistat records. Original analyzed not found in digital form. 6 grabs total. Uploaded to hdrive.

Weights of Pipette samples:

Sample Weight (g)

φ min. 0.2 g

3:50 min. 0.1 g

8 hour + 0.1 g

(4:45 PM) cont. drying oven *

• uploading files for 2023 Master File

* left in drying oven over weekend.

Pipette Results: Under-the-boat Silt.

$$\% \text{ coarse silt } \frac{50(0.2)}{30} 100 = 93\%$$

$$\% \text{ fine \& medium silt: } \frac{50(0.1)}{30} 100 = 17\%$$

$$\% \text{ clay } \frac{50(0.1)}{30} 100 = 17\%$$

lab

7-1-2024

63

wt of graduated cylinder + wet CP fraction: 246.4 g

water level: 90 ml

Sample (?) level: 75 ml.

Solid fraction: ~25 ml.

wt of cylinder w/ 90 ml H₂O on dry 187.6 g

water wt. ~ 23.8 g

wt of cylinder: 118.8 g

$$\text{wt. of CP fraction} = 92.6$$

$$\text{wt. of H}_2\text{O} = 23.8$$

$$(2) \text{ CP } \sim \frac{68.8 \text{ g}}{2} \text{ silt wt.}$$

drying CP fraction in oven:

$$\text{Dry wt.} = 11.4 \text{ g}$$

$$\text{Total: } 11.4 + 3.1 + .2 + 1.4 = 14.9 \text{ g}$$

$$\text{"Under the Boat" = CP + 250} \rightarrow 159.9 \text{ g}$$

Lab

7-1-24

64

Robert & I took "Under-the-Boat" wood sample to CHIS for AMS analysis. Half sample saved for Miss. State U. Lab.

"Under-the-Boat" ASL Summary:

- 11.9 CP fraction
- 3.1g ^{*}230 fraction
- 15.0g. Total wt.
- ⇒ ~25% + 33% Sand
- 67-75% silt/clay*

Lab

7-2-2024

✓ L.O.I. of #230 fraction Under-the-Boat

✓ DRYAD: Removing All video files/
People ~~Glenn~~ in video.

• Bluebird manuscript

* ~50% silt

~25% clay

Lab

7-2-2024

65

Placed #230 under-the-boat soil fraction in Muffle Furnace @ 11:40 AM, Greenwood Lab.

• Weight of LOI Sample: 3.1g.

• Weight of LOI: 2.9423g.

• LOI = 0.1577g.

[out @ 2:40 PM]

Max Temp. 350°C

Soil temp. 219°C

LOI (loss-on-ignition)

4.2373 Part. sp.

1.2950 Part. sp.

2.9423g 5% loss

• 5% organic matter at the very least

Lab

7-3-24

66

Added to introduction of Blue
Digit draft. Sent to SCT.

Behind the boat #230 fraction
examined w/ 10X microscope.
Sand-sized inclusions
obvious along w/ rootlets
(carbonized).

Took photomicrographs of #230
fraction. Added Blue light as well.
Transferred to PC.

Scanned field book to
PC folder: "Field Notebook 2023
-2024"

To Reset Printer on 7-5-24
FOIT

7:51 AM

Ms. Cate reset Printer Scan.
Scans in B&W are now
legible.

Lab

7-5-24

67

Apr 14th.

Notes on 6-15-24 video.

Folder: GoPro 2.

13 files.

GoPro 993, MP4 → GoPro 1000, MP4

GoPro 993: No much useful

GoPro 994: Same as 993

GoPro 995: Some footage, mostly
used as ref up for 996

*GoPro 996: Baseline survey from
North 'Zero' to South

"Bar"

GoPro 997: 3 seconds only

*GoPro 998: 2:49 Start @ South
end "Bar" area. 108'

GoPro 999: 3 seconds

GoPro 1000: 21 seconds, Baseline

GoPro 1001: 33 seconds, Baseline

GoPro 1002: 17 seconds, Stump

GoPro 1003: 17 seconds

*GoPro 1004: Box soil sample collection

lab

68

Preparing abstract submission for
Asst Session on Quaternary
Sea level. Due date is 7/3/24.

lab

7-9-24

Washed auger samples
Bury 13 msh, 6-15.24.

1. Shallow Auger Munsell (DRY)
576/1

80.6 spl - 23.6 (pan) = 57 g (dry)
+ pan

2. Middle Auger Munsell (DRY)
576/1

99.0 - 23.6 = 75.4 g (dry)
(spl + pan)

* Need weight of push box samples

5.8 kg core + box ←

3.4 kg box

3, 2.4 kg Sample / box

approx. .25kg loss in transfer from
core box to curation.

lab

7-9-2024

69

DRYD File cleanup. Kolsey
Williams. Removed BOT files
and added facsimile of other
video files.

Transferred soil samples from
core box (metal) to curation
containers. Packed back in
Geolum lab fridge.

lab

7.10.24

Continued data entry into
DRYD.

Problem w/ Geolum data
of video. Added 7511.

Solved problem w/ purchase
of file converter program

* Fabricated containers from core
storage box insets.

Lab

7.10.24

70

Drafted AGU abstract.

Lab

7.11.24

McWilliams edited MKV → MP4.

Searched portable journals for Blue light article.
E.J. submitting to Geochim. et Cosm. Acta.

- 2022 NSF Master File editing and removal of faces completed
- waiting for final submission to Dryad

- In process of editing 2023 NSF Master File

- Removing .ass files from all datasets
- blurring faces in images
- cropping videos to remove faces

- Scour "Moat's" articles connected to all datasets

Lab

7-11-24

71

- all datasets connected thru DOIs and referenced in Related Works

- Convertio online file converter used to change .mkv files to

- MP4 file when editing is necessary

- .mkv files will NOT save after editing

- removed 80+ files from 2023 Master File

- Dryad, data entry - Kelsey W.

Lab

7-15-24

- uploading edited videos and photos to 2022 Master File
- final preparations for release of 2022 NSF Research Master File
- Submitted 2022 Master File !!

Lab

7-17-24 72

PSA of Under-the-board sample

Weight: 13g

Fractions (PSA)

#60 4.6

#120 0.1

#230 4.0

#400 4.3

13.0 (99.9%)

PSA:

35% coarse sand

30.8% v. fine sand

14.5% v. coarse silt → fine silt

21.6% clay

Pipette: 17% clay (P. 62)

Lab

7-18-24 73

Berg and Hall NSF - final Report.

Die in 18th century. Fast lane

log in: email, 14.45% Yreabon

Metrol E. Jones. Colored Blue

light manuscript Textature

submision on Tuesday, 7-23-24.

No work on DEAD.

Lab

7-19-24

No report

Lab

7-22-24

Treeed up oil changed. vacuums
achieved range to drying 7-23-24.

Range 13, wood, surface (6.15.24)
selected.

lab

7-23-24 74

DRAD
Loaded Wood "Under-the-board"
into freeze dryer. Unit
@ high vacuum by 4 PM.
Wood slowly drying.

lab

7-24-24

Selected 7 more wood
samples for freeze drying.
Moist, Baumg 13,

lab

7-25-24

"Under-the-board" wood samples
left in freeze dryer. Robert
can remove and add new
samples from the moist.
Baumg 1 and 2 in Geodrum lab
freezer.

Examined video from 6-15-24
p. 51.

lab

7-30-24 75

Worked on Blue Light article.
redefinition of 50 1000.
Additional segments added.

Bagger lost wood sample
(in soil) and took it w/ the
typress knoe to Geodrum.
Tree for freeze drying.

lab

7-31-24

Ms. Williams wood on Daba
and Diba 2023, DRAD.

R/V SHANNAN (cruised)
approved for October 16, 2024.
October 16, 2024.

Fabricated drive core liners w/
core catchers.

lab

1 Aug 24

No DRAD Entry.
NS. 10ms in
Photographed freeze dried wood.

16
Lab

8-1-24

Ms. Williams uploading/editing
Eds for DEXAD.

Sending boat samples to Miss.
State U. for i.e.

Examined 2023 .mkr video files
Mikterode drives. Telemetry
appears on playback at VHC
player.

LAB

8-2-2024

- continue editing and reinserting
files for Dryad

- telemetry not on video files
when .mkr is opened in
media player, but telemetry
logs accompany the files on
their own

Wood samples sent for analysis
to Miss. State U.

8-5-24

8.6.24

77

Linux Desktop upgraded to DSD
11 by FOTF.

No software lost in OS upgrade.

QGroundControl software
updated but would not
start RV connection.

E. Jones determined the issue
was DNS or IP Address
data in OS upgrade. She
Entered IP addresses:
{ Subnet: 255.255.255.0 }
{ Default Gateway: 102.168.2.2 }

Functionality restored.

Entered blue light article
into journal portal.

8.7.24

1000

Checked base drive, lost current
stamp/encoding.

lab

8-8-24

78

E. Jones, E. Garrison discussed NSF curation. Box 12/ wood is to be curated. Boxes of sediments; shell loss probable due to costs for curation (\$80/box).

E. Jones out next week. DETHD entry of Blue light folder to be done by K. Williams.

lab

8-15-24

No activity. first week of classes.

lab

8-20-24

Ms. Jones out. No contact w/ Ms. Williams.

Dr. Walker gave lab Jones specimen boxes

Reboxed Barge 13 wood into Sally's curatorial boxes (2).

lab

8-22-24

79

Ms. Jones out. Set up DETHD meeting for Sept. 10, 11 AM. Discuss uploads and payment.

Reef SAV Barge 13 soil samples bagged for curation. Shred bagged in Box 5 NSF.

lab

8-23-24

Transferred Dip 2 wood sample w/ soil to Sediment lab for Conservation. (Freeze drying).

lab

8-27-24

Ms. Williams resumed Dryad entry. Ms. Jones next Tuesday. 2021, 2022 Master files entered.

Verify DOI for Heritage & QR articles. Removed join etc. files from submission. These require software to read.

lab

8.27.24

80

Dryad. 2022 resubmitted.
2023 linked to Heritage DOI.
Submitting 2023.

Submit Blue light manuscript
next Tuesday.

2021 next data set.

lab

9-3-24

Uploaded blue light manuscript
to Geoderm. Ada. Submitted.

Discussed SHANNATH course
plan. Early prep work
instructing. Quadrat site:
Range 5, Reef SAV.

lab

9-4-24

Ms. Williams doing Master
file 2021 for Dryad.
Beegu sampling 2024.

81

lab

9.9.2024

Uploaded data sets (2024)
to Dryad. Ms. Williams
working on identification
for Adon are requested.

Next of files and others:
1. Blue light data/images/DOI;
2. Range 13, dune/seedbank
data & images/videos.
Submitted to Dryad. (2024)

lab

9-10-24

Approved new Dryad in voice
for 2023 Data set.

lab

9-11-24

No activity in lab today.

lab

9-12-24

Dryad data sets.
DOI, Citation connections,
Blue light manuscript ✓
Dryad corrections for 2021 dataset

9-17-24

82

83/

Lab

Dryad accepted 2021 Dataset.

Invoice submitted.

2021-23 data sets leave

paid invoices submitted

for payment. 2024 data set

awaiting review by DRYAD.

Lab

9-19-24

Responded to DRYAD question for

2024 Data Set.

Re-patted video converter

for VideoRay ROL.

Reviewed still and video for

class ROL exercise. Ricca

pictures good; GoPro

Lab

9-26-24

Ms. Jones last official day.

lunch w/ her & Ms. Dillmans.

Lab

9-24-24

Begin decommissioning of lab.

Lab

9-30-24

Box 9 video/ipeg, decontamination

and SP-70 drive. Exact

location to be determined.

Box 8 scallop bay species.

NOT packaged.

Sand dollar, box 2 is Bangee.

Box 9 files found on C1

but exact directory not

found - yet.

FOIT Ticket

Lab

10-1-24

PRD procedure discussed w/

Ann Hansenstein. Sieve

data must be entered into

single class on % S1 + total

sample T131 fit to add

data (sand + silt/clay).

Feb

10-10, 24 84

Ordered last of test tank animals.
Boxed.

Prepped equipment for October 16
SAUNA Dist. trial cruise.

Changed GoPros.

Rough 2001 drop core.

300m ROV prep. Completed.

Cameras ready.

Field Trip to SK10 10-15 →
for Underwater Arch. 10-16

CASS

Massaw Sound.

10/16/2024

RV SAV

E. Jones, Deputy

CTD

Chief Scientist

Deployed EBF meter in Massaw

Sound, salinity @ 28 ppt

~ 11 AM-ish

Getting RV ready, going to
video multi-core

* camera has some issues,

NO LAG, but it does have

"lines" → probably due to age

85/ RV SAV-Massaw Sound 10/16/2024

-ROV camera issues?

not make-or-break, still

functional + operational, just

annoying. To keep in mind

that it will probably need

a new primary camera

within a year.

Deploying Multi-core @ 11:52 AM

Deploying ROV @ 11:55 AM

back up by 12:05 PM

low visibility / zero.

-PONAR grid after lunch near

Massaw Island + Fort

Deployed CTD @ 1:32 PM

Salinity @ 27.3 ppt

Deployed multi-lens (approx. the surface)

low salinity from a bit.

Crane sound is / day / night.

Deck @ 3:18 AM.

Transit to Athens.

lab

10-22-24 86

Prepared ASU iPoster and
podcast. Template chosen.

Clay from push cores and
beds examined in University's
XRD. Wm. Bell and Paul
Schroeder ran data.
Results are in preparation
Will use in ASU poster
and draft of journal
submission.

lab

10-29-2024

Examined 6-2024 photos &
GoPro video for images
data for (a) scum depth
(b) auger site (c) good profile
images, (c) perspective
images of scum slope
w/ envision to determine
geometry of the site.

lab

11-20-24 87

Measure of Push Core, Barge 13
span (core depth) Texture
0-30cm: 5/5/1 sandy clay
30-40cm: 5/4/2 sand w/ clay

Contact leaves between upper
and lower portions of core,
0-30cm, angle B
20-40cm, angle B =

11-26-24

Completed iPoster for ASU
presentation. Auditions are
for Samson and Ms.
Domen. Poster uploaded.

12-9-24

ASU iPoster online.

12-10-24

Took Box 1 to laboratory
of Archaeology for analysis.
Price: \$400.

$$\frac{88}{12.17.2024}$$

100

$$\frac{87}{12.30.2024}$$

12-31-2024

Return 1-1-2025

Remaining piece of wood from Dongo
13 will be freely dried and
taken to duna-duna.

Mr. Pic-Dou: 13.6g

10.4.25 1.9.25 1-13.25

Non-polarised light

39.2 mm length (max.)

23.3 months

Museo	10423/1	darkest
	10426/2	lighter

lab

20

Clearing collection for curation
cont. 20

Wood from Barge 13 - long
root, air dried, Too
large for freeze dryer

and set of wood from Gray's
Reef 30 dm site. Collected by
J. Cook Hale in 2013.

#1

54.2 - 35.1 = 19.1 g. wet wt

#2 71.6 - 35.3 = 36.3 g wet wt

Muswell aster (wet): 10 YR 2/1

Photographed w/ Minolta.

Astromos Report submitted to
NSF on 11-12-2025. Revised
Report - completed.

lab

1-14-2025 21

Photographed Barge 13 wood
items (under-the-boat) (see p.
89). Ricco Camera set
on MACRO. Road battery
used in camera.

30 dm wood fragments
placed in Sealham lab
freeze dryer (1-13-2025)
Samples are drying
quite rapidly.

Root section from Barge 13
(6-14-2023) wrapped in wet
pelt w/ for 30 dm.
Will add to air dry overnight.
Positive reviewed @ 5 PM.
Photograph root section:
RICCH.

Wood dry by noon: 1-15-2025
Photographed.

30 dm wood freeze drying
stopped @ 12:15 PM 1-17-2025

Lab

1-17-2025

92

Weights.

30IN #1: 7.1g

30IN #2: 3.2g

Photographed: RCH

Packaged for loan to:

Dr. Jessica Cook Hall

University of Bradford

Sent, 1-21-2025

50000 1-21/22/2025

Lab. 1-23-2025

Discussed Blue light
Submission w/ ELS.
Will enter into Sequences
portal.

Lab

1-24-2025 93

Reviewed KTK video on
SP370 Seaflooring.

Reviewed KTK grab samples
for possible correlation.

Summary: Do not curate.

Reviewed Reef SN Range 6
Grabs 1 & 2, 10-22-2022.

Summary: Curate. Fossil
fragment found in Grab
#1.

Collected Grabs w/ Box Core
Samples.

Reviewed CCA Grab Collection
Shed collected from beam
sorted and identified by
Dr. Simon.

Curate CCA in Bureau.
2-3-2025

Lab

2-3-2025 94

10 boxes NSF collection.

1 box submitted to

curator - Two boxes (?)

being prepared. Several

boxes to be left in

Geochronology Lab.

Box 8: Box Cores 9 & 2.

Curate in Geochronology Lab

Box 9: Box Cores 8, 11 & 12
site.

Removed Box 13 & 14
from Box 9; Moved to
new Box 11

Box 1: Box 6, Reef 5A

Curate in Geochronology
Lab

Curate Box 10 KC-8,
into Box 3. Curate in

Geochronology Lab.

Lab

2-4-2025 95

Box 5 was curated on 12-10-24
as NSF Box 1, Laboratory of Anthropology

Box 6 is consolidated to

Reef KTK materials only.

A bag of Reef 5A materials
moved to Box 8.

Curate Box 6 in Geochronology
Lab.

Box 4, Reef CCA, Grains #14

Two heavy mineral grains w/
ventral pyritized shell
fragments. Heavily pulverized.
large medium sand fraction.

Curate Box 4 in Geochronology
Lab.

Box 2, CCA 4-2023 collection,
Curate in Geochronology
Lab.

Box 7, Reef 5A-Sagharwell.
Curate in Geochronology Lab.

Job

2-4-2025

96

Completed assessment of NSF
Collection.

Box 8 & Box 11 to be

transferred to permanent
curation @ laboratory of
Archaeology, USA.

2-5-2025

No response yet, from lab
of Archaeology and curation
transfer.

* Notes on lower strata of
Box Core 9 (Methenode)
and Box Core 2 (Baag 6)

This note concerns the
sediment comparison of the
sand below level (Box Core 2)
w/ that of the equivalent,
lower stratum of Box Core
9 (Methenode).
8/21 RNDuring @ Methenode
observed in situ shell (Scollap)

Job

2-5-2025

97

cont. -

Sand below?

Both levels are gray & silty fine
sand.

No vid @ Baag 6 indicates
paleosol exposure. Shd &
medium fine sand in
moat. Box Core 9 penetrated
to earlier deposits?

Both Box 2 & Box 8 are
fine silty deposits?

Vid @ 2021 indeterminate
as to shd i.d. Sand
depos?

2-12-2025

Transferred two more curation
boxes to USA Laboratory
of Archaeology. Ms. Kristine
Silvick accepted boxes.
NSF curation completed.

2-20-2025

Final Report still stuck.
Submitting & not functioning.

lab 2.26.2025

28

Scheduled April cruise to
Greene Creek, Tree Tuns area
w/ SKIO skiff

lab

2.24.2025

New lab website up &
published,
<http://gaarchaeology.usg.edu>

lab

Week of 3/4/2025

Final Report problem continues.
NSF has not responded.

NSAA updated curatorial
transfer status: On hold
until they have more
clarity on their budget.

3/6/2025

29

NSF Final Report
submitted and approved.

4-30-2025

Greene Creek

Bank Survey
Tim Wilson, Mary Sorell,
Cassandra Under, Simon
Garrison

Boat Operator: Fran Lopella,
SKIO

SOKKIA

MADE IN CHINA