

PHASE II FIELD NOTES AND FORMS

06.28.21

TD

0900 Arrive at Salmon Cove Park
to prep for manual collection
of samples at Area 36.
T. Do, S. Replinger, A Vandevort,
B Quinisk > WW, and
James Brown

0905 H/S brief + COVID screen

0910 On site, set up, locate
locations.

0955 Collect SS696

1000 Collect IT696

1015 Collect SS695

1030 Collect IT695

1045 Collect SS693

1050 Collect IT693

1110 Collect SS691

1115 Collect IT691

1134 Collect SS692

1135 Collect IT692

1140 Location 697 underwater.
Suzanne called Kathy
to discuss either waiting
for tide to drop or collect
another day. Decided to
collect another day due

06.28.21

TD³

to excessive heat conditions

1155 Pack up to depart site

1215 James Brown departs.

1220 BC samples and COCs.

Depart site. End of
field sampling day.

~~1000
06.28.21~~

4 06.29.21

TDO

0630 Arrive at SPM.

TDO, 68°, sunny Begin loading supplies.

0645 Meet up w/ SEE: R/V Nancy Ann T. Thompson, D. Brownings D. Dickinson

0655 Kristen Kerns (USACE) arrives.

0700 SEE setting up coring eqpt.

0800 Health and Safety brief + COVID screen.

0840 Head to location 560.

10935 Attempt #1 at 560 Hit refusal at ~ 11.1 ft. pen.

9.1 ft. recovery, 82.0%
penetrate down to -14 ft MHW
(target is -16 ft MHW)

1055 Transfer core to support vessel.

1105 At location 558

1122 Attempt #1 at 558
Crove freely to ^{refusal} depth 18.25 ft.

16.8 ft. recovery, 92.1%
penetrated to > 25 ft. MHW +

1225 Transfer core to support vessel.

1230 Lunch break, prep for next

06.29.21

TDO 5

location, Kristen Kerns departs.

1320 At location 564

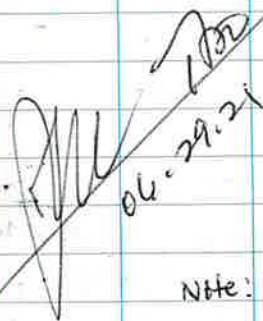
11324 Attempt #1 at 564

drove freely to refusal depth, 18.5
15.3 ft. recovery, 82.7%
penetrated to > 25 ft MHW

1444 Transfer core to support vessel.
Processing crew to not collect
any more cores today.

1450 At SPM, offload

1500 Depart marina. End of
on-water day.


06-29-21

NOTE: 1 "near miss"
core tube segment dropped
when handler sneezed,
NO injuries.

Return to the Rain.

8 06.30.21

TDO

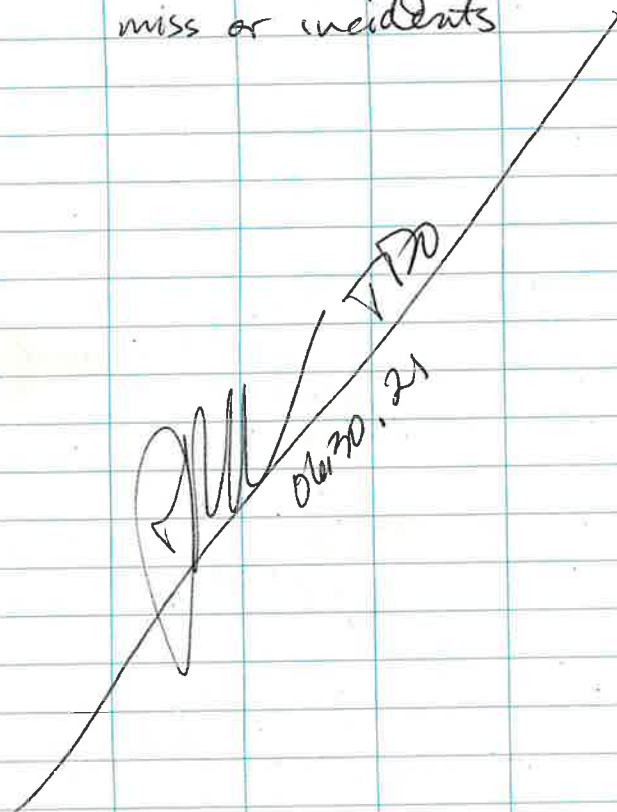
Penetrated to > -25 ft MLLW

1535 Head back to dock. No more coring today.

1540 Back at marina dock.

1605 Transfer core to support boat.

1645 Depart marina. End of on-water day. No near-miss or incidents



0701.21

TDO 9

0615 Arrive on-site at SPM.

60s, overcast. T-DO

Meet up w/ D. Dickinson (SEE)

Load supplies.

0700 D. Browning (SEE), T. Thompson (SEE) and Jeff Stern (~~SEE~~) arrives; crew sets up

0745 4/5 tailgate meeting + COVID screen.

0815 Depart marina for nav. check and head to 549. Note:

Abandoned utility lines nearby. Will proceed w/ caution.

0830 At location 549

0851 Attempt #1 at 549

hit refusal at 5.25 ft.

4.1 ft. recovered, 78.1% core rejected b/c not to

target depth.

[0931]

Attempt #2 at 549

drove w/ slight resistance to full penetration ~ 13.5 ft.

12.2 ft recovery, 90.4%

Penetrated to > -25 ft MLLW.

1015 Transfer core to support boat.

1030 Jeff Stern departs for processing

Rite in the Rain

10 07.01.21

TDO

barge, and Kristen Kerns arrives

1040 Head north to 509

1052 At location 509

1055 Attempt #1 at 509

steady drive for 10.7 ft, then little increases to penetration depth (12.5 ft)

9.9 ft recovered, 79.2%
Penetrated > -25 ft MLW

1140 Head to 513

1143 At location 513

1147 Attempt #1 at 513

Easy advance to penetration depth (12.2 ft)

10.4 ft recovered, 85.2%
Penetrated > -25 ft MLW

1236 Transfer cores to support boat.
Kristen Kerns departs for processing barge.

1240 Winch break.

1255 Head to 514

1258 At location 514

1305 Attempt #1 at 514

steady drive, a little resistance

07.01.21

TDO¹¹

during retrieval @ ~ 5 ft
10.4 ft recovery, 90.8%
Penetrated > -25 ft MLW.

1350 Head to location 517

1357 At location 517

Attempt #1 at location 517
Steady drive to pen depth (11.5 ft)
9.6 ft recovered, 83.5%

Penetrated to > -25 ft MLW

1445 Transfer cores to support boat.

And myself to support boat.
SEE crew wraps up and heads back to marina after navigation check.

1500 On processing boat to help out crew.

1515 SEE crew docks at marina.

1715 Depart processing barge to meet courier.

1730 Release custody of samples to AML courier. Depart.
End of on-water day.


JTW
07.01.21

12 07-02-21

TDD

0620 Arrive at SPM 60's, overcast.

T.D.

0630 Meet up w/ SBE crew: D. Dickinson,
T Thompson, D. Browning. Set up.

0700 H/S briefing + COMMS screen.

0730 Depart marina dock for road.

~~0745~~ check.

0745 Head to 520.

0755 At location 520.

0810 Attempt #1

Refusal at 9.1 ft drive.

6.4 ft recovery (70.3%)

core rejected. Clay material
inside.**10850** Attempt #2

Drove to pen. depth (10 ft)

8.4 ft recovery (84.0%)

Penetrated to > -25 ft MLW.

0920 Transfer core to support boat.

0930 Head to 521

0939 At location 521

10940 Attempt #1 at 521Steady drive to ~10 ft, then
quick drive to 12 ft.

11.6 ft recovery (96.7%)

07-02-21

TDD 13

Penetrated to > -25 ft MLW

1022 Transfer core to support boat.

1025 Head to 527

1029 At 527

1034 Attempt #1 at 527

Hit refusal ~4.5 ft below

~~1050~~ Core rejected. - washed out.

1058 Attempt #2

Steady drive to pen. depth (11 ft)

6.0 ft. recovery (54.5%)

Core rejected.

1145 Attempt #3, moved off location.

Steady drive to pen. depth (11 ft)

9.4 ft recovery (85.5%)

Penetrated to > -25 ft MLW

1220 Transfer core to support boat.

1225 Lunch break, head to 533

1245 At 533

1252 Attempt #1 at 533

Steady drive to pen. depth (11 ft)

9.4 ft recovery (85.5%)

Penetrated to > -25 ft MLW

1325 Transfer core to support boat

1330 Head to 531

1335 At 531

Return in the Rain.

07.02.21

TDO

1337 Attempt #1 at 531
 steady easy advance to pen depth (10ft)
 8.5 ft recovery (85.0%)
 Penetrated to > -25ft MUD

1423 Transfer core to support boat.

1424 Head to 532

1427 At location 532

1429 Attempt #1 at 532
 Easy drive to penetration depth (10ft)
 8.7 ft recovery (87.0%)
 Penetrated to > -25ft MUD

1510 Transfer ~~to~~ core to support boat

1513 Head to location 534

1517 At location 534

1519 Attempt #1 at 534
 Steady easy drive but
 only 7.3 ft recovery (73.0%)
 Core rejected

1609 Attempt #2
 Easy drive to pen depth (10ft)
 8.5 ft recovery (85.0%)
 Penetrated to > -25ft MUD

1705 Transfer core to support boat.
 This goes on support boat
 to help processing crew.

07.02.21

TDO 15

1716 SEE crew performs nav.
 check and head back to
 SPM.

~~1730~~ 1730 SEE crew at marina dock;
 demobilizes R/V Nancy Anne.

1900 Depart processing barge -
 processing complete.

1910 Load supplies/eqpt/samples

1930 Depart marina. End of
 on water field day. Head to
 storage unit.

~~TDO
 07.02.21~~

16
07-06-21

TID

- 0845 Arrive SPM. 60's nearest. TID
Offload supplies to bring to
processing barge.
- 0900 Load supplies, prep
- 0930 Meet up w/SEE crew: D.
Dickinson & T. Thompson on
ATV Peter R. Set up.
- 1010 H&S briefing & COVID
screening
- 1025 Depart marina for nav. check.
- 1033 Nav check, head to 581
- 1045 At 581
- ~~1121~~ 1053 Attempt #1 at 581
(tried 3 previous times -
not logged - but concrete
debris prevented placement
of vibrocorer). Moved ~ 17ft
off target, 1 ft slope
Drive 3ft to resistance,
refusal at 4ft but then
broke through then steady
to pen depth. (7ft)
85.6% recovery (6.2 ft)
- 1205 Transfer core to processing -
boat.

07-06-21

TID 17

- 1210 Head to 543
- 1216 At 543
- 1224 Attempt #1 at 543, 1/2' slope.
Slow drive to resistance at 6.2 ft
additional drive to refusal at 7'.
Recovery 5.3 ft (75.7%)
- 1310 Transfer to processing float.
- 1313 Head to 592
- 1325 At 592
- ~~1336~~ 1336 Attempt #1 at 592
NOT
Easy drive to full pen.
6.9 ft recovery (95.6%)
but core withdrawn out.
(core rejected for another
attempt)
- 1420 Attempt #2 at 592
Hard drive to 3ft. hitting
refusal at ~ 5 ft
4.1 ft recovery (72.2%)
core rejected, coarse sand
and gravel in nose.
- 1430 Rec'd message from Susan to
resample 543 due to poor
recovery after remeasured
on processing barge.

Rite in the Rain.

18 07.06.21

TDO

1531 Attempt 3 at 592
Steady drive until 4.5 ft.
with resistance to 7 ft.
6.5 ft recovery (92.9%)

1615 Transfer core to support boat

1620 Head to 604

1627 AT 604

1630 Attempt 1 at 604
steady drive to full pen (7 ft)
7.0 ft recovery (100%)

1650 Rec'd message from processing
crew that we do NOT need
to re-sample 543

1657 Transfer core to support boat.

1710 Head to 637

1712 AT 637

1716 Attempt #1 at 637
Drove to refusal at 6.4 ft.
6.4 ft recovery (100%)

1822 Head to processing barge to
drop off core and Thai.

1825 Drop off core to processing
float. Thai also hops off.

1830 SEE goes to perform nav
check and then to dock.

07.06.21

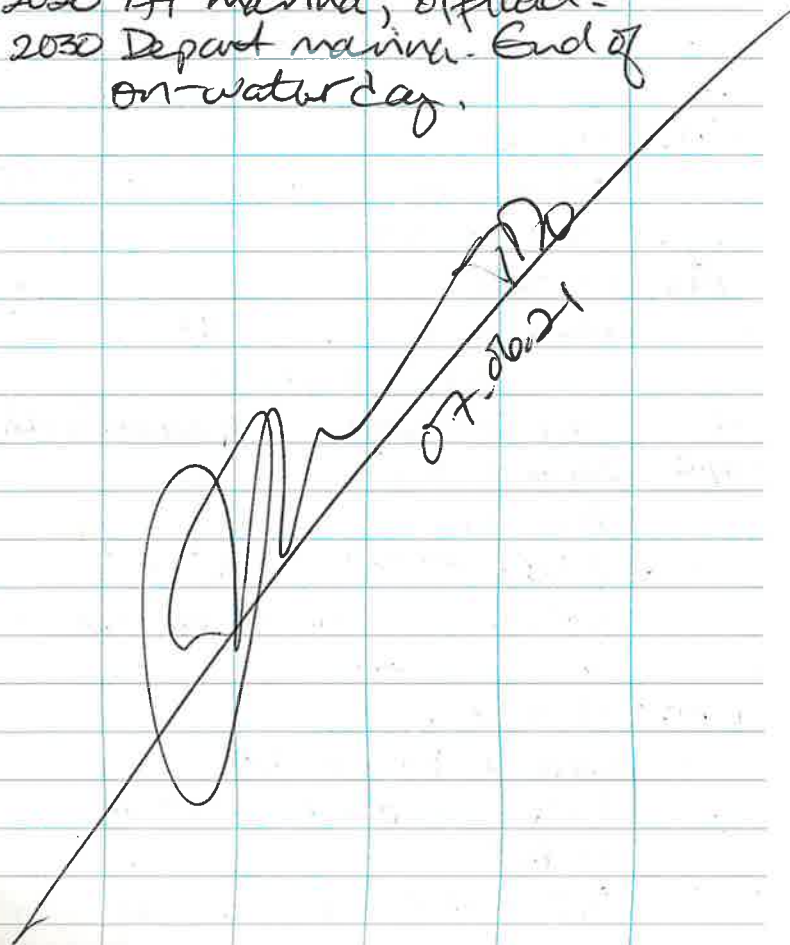
TDO¹⁹

1845 SEE at dock.

2015 Repair processing float.
Completed processing for the
day.

2020 AT marina, offload.

2030 Depart marina. End of
on-water day.



20

07-07-21

TDD

0830 Arrive at SPM, 60's, overcast,
light wind. TDD
Prep and load supplies.

0915 Meet up w/ SEE crew
D. Dickinson & Tim
Thompson. Load and
prep core barrels.

0945 it's briefing + covid screen.

1000 Depart marina for north cove.

1015 Head to S10

1018 At S10

1039 Attempt #1 at S10

Easy drive to pen depth (7ft)
4.2 ft recovery (60%), rejected

1108 Attempt #2 at S10

Easy drive to pen depth (7ft)
5.3 ft recovery (75.7%) accept.

1140 Transfer core to support boat

1147 Head to SB4

1200 At SB4

1204 Attempt #1 at SB4

Quick easy drive w/drop off ~2.5 ft
at first.

6.2 ft recovery (85-6%) accept.

1238 Transfer core to support boat

07-07-21

TDD 21

1247 Head to 593

1249 At 593

1254 Attempt #1 at 593 aborted.
(Tide too low)

1255 Head to 609

1300 At 609

1304 Attempt #1 at 609

Slow steady advance to full pen
4.6 ft recovery (65.7%) reject

1325 Attempt #2

Easy drive to ~5.5-6 ft. to
full pen (7 ft)

4.2 ft recovery (60.0%) reject.

1351 Attempt #3

Steady drive to full pen (7 ft)
5.9 ft recovery (84.3%) accept

1400 Transfer core to support boat

1440 Head to 615 (ENR)

1445 At 615

1451 Attempt #1 at 615

Steady drive to 4.4 refusal
3.6 ft recovery (81.8%) accept.

Note: took elevation & depth
after core was collected

1525 Transferred to support boat.

Rite in the Rain.

22 07.07.21

TDO

1535 Head to 617 (ENR)

1537 AT 617

1540 Attempt 1 at 617

Easy drive to firm pen-depth
at 4.5 ft.

3.6 ft recovery (80.0%) accept.

1600 Transfer core to support boat.

1615 Head to 618 (ENR)

1617 AT 618

1620 Attempt 1 at 618

Steady drive to pen depth
(4.6 ft)

3.8 ft recovery (82.6%) accept.

1650 Transfer to support boat

1655 Head to 624 (ENR)

1658 AT 624

1702 Attempt 1 at 624

Steady sluggish drive to
pen depth 4.6 ft.

3.8 ft recovery (82.6%) accept.

Transfer to support boat

1725 Head to 626 (ENR)

1730 AT 626

1735 Attempt 1 at 626

Steady drive to 2.5 ft then

07.07.21

TDO 23

resistance to pen depth
(4.6 ft)

2.75 ft recovered, (59.5%) reject.

1832 Attempt 2 at 626

steady drive to 3.7 then

hard drive to 4.9 ft. pen.

3.8 ft recovery (77.6%) accept.

1900 Thru + core transfer to
support boat to go to join
processing team

1905 On processing float.

1910 Offload core tubes (empty/clean)
to take back to storage. Head
to marina

1915 AT marina. Unload tubes.

1925 Depart marina to put into
storage.

1950 Depart storage. Head back
to marina.

1955 Meet up w/ Amana with
supplies.

2000 Depart marina. End of
field day.

~~TDO~~
07.07.21

07.08.21

TR

- 0845 Arrive at STM. TTD
 60's overcast, wind
- 0900 Meet up with STE (D. Dickinson
 and T. Thompson). Set up
 eqpt, load supplies
- 0945 H/S briefing + COVID screen.
- 0955 Depart marina for nav.
 check.
- 1008 Head to 519
- 1015 AT 519
- 1017** Attempt #1 at 519
 Easy drive to full pen at 7 ft.
 5.5 ft recovery (78.6%) accept.
- 1050 Head upriver to 640
- 1055 Transfer core, en route, to
 support boat. Continue upriver.
- 1111 AT 640
- 1116 Attempt #1 at 640
 Easy drive to ~6.5 ft, hand
 drive to 7' pen depth
 5.2 ft recovery (74.3%) reject
 (bottom of core winnailed out)
- 1200** Attempt #2 at 640
 Easy drive to full pen ~~at~~ 7 ft
 5.5 ft recovery (78.6%) accept.

07.08.21

TTD

- 1240 Transfer core to support boat.
- 1300 Head to 535
- 1310 AT 535
- 1317 Attempt #1 at 535.
 Easy drive to full pen (7 ft)
 recovery 2.2 ft (31.4%) rejected
- 1343** Attempt #2 at 535
 Easy drive to full pen (7 ft)
 Recovery 5.9 ft (84.3%) accept
- ~~1400~~ Penetrate down to 24.6 ft new
- 1400 Head to Transfer to support
 boat.
- 1410 Head to 635
- 1430 AT 635
- 1445 Attempt #1 at 635
 hit refusal at ~1.25 ft.
 Core rejected, clay in nose
- 1502** Attempt #2 at 635
 Hand drive to refusal at 4.6 ft.
- 1535 Recovery 4.4 ft (95.7%) accept.
- ~~1535~~ Transfer to support boat.
- 1540 Head to 654
- 1545 AT 654
- 1547** Attempt #1 at 654
 Easy drive to full pen (7 ft)

26

070521

TDD

6.5 ft recovery (92.9%) accept
1615 Transfer core to support boat

1617 Head to 649

1622 AT 649

1626 Attempt 1 at 649

Easy drive to full pen (7 ft)

6.5 ft recovery (92.9%) accept

1715 Transfer core to support boat.

1657 Head to 669

1658 AT 669

1702 Attempt at 669

Easy drive to full pen (7 ft)

Resistance in bottom 1 ft.

6.5 ft recovery, (92.9%) accept.

1740 Head to 598

1750 AT 598

1753 Attempt 1 at 598

Refusal at ~1.3 ft. R/rap.

Core rejected.

1806 Attempt 2 at 598, moved

"offshore" - off-target ~9 ft.

Resistance top 2.5 ft then
easy to full pen depth (7 ft)

6.3 ft recovery (90.0%) accept.

1840 Transfer core and Thai to

0705-21

- TDD²⁷

Support boat. Head to
processing float.

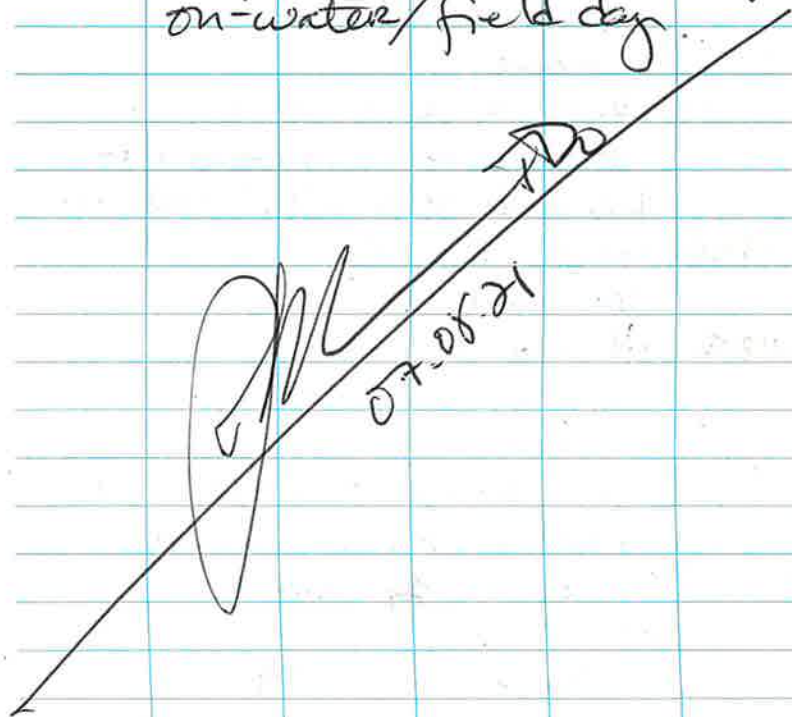
1842 AT processing float.

1930 SEE crew back at dock after
MAN. check.

2030 Complete core processing.

Head back to marina. Offload
samples and supplies.

2045 Depart marina. End of
on-water/field day.



28 070921

TDO

0500 Arrive at SPM, 60°s, sunny.
TDO. Offload supplies for
Gravity crew. Prep for
sampling.

0900 Meet up w/ STE - Dale
Dickinson & Tim Thompson.
Load core tubes & prep.

0910 Giovanna Pagnozzi (Geosynker)
arrives w/ Anne Fitzpatrick
- Check COVID vac card &
screen.

0930 Health & Safety brief +
COVID screen. + ~~check~~ TDO

0955 Head to 553, after nav check.

10959 At 553 will target ~9' s.
of target coord.

1028 Attempt #1 at 553
steady drive to full pen (7 ft)
5.9 ft recovery (84.3%), accept
penetrate to > -26 ft MLEW

1100 Transfer core to support boat.

~~1100~~ Head to ~~553~~ 554
At 554

1117 Attempt #1 at 554
steady drive, easy @ 1/4 throttle

070921

TDO 29

to full pen at 7 ft.

6.2 ft recovery (88.6%) accepted
penetrate to > -25 ft MLEW

1210 Transfer core to support boat.
Giovanna departs, Anne
Fitzpatrick arrives.

1211 Head to 591

1216 At 591

1224 Attempt 1 at 591
core tube lost/stuck in mud.

1253 Attempt 2 at 591

Easy drive to 6.9 ft pen.
6.7 ft recovery (97.1%) accept

1330 Transfer core to support
boat. Anne departs.

1348 Head to 607

1400 At 607

1409 Attempt #1 at 607

Easy drive to full pen (7 ft)
6.5 ft. recovery (92.9%) accept.
sheal material 2.06 ft / 62.8 cm
penetrate to > -18 ft MLEW

1453 Head to 593

1455 At 593

1505 Attempt 1 at 593

07.09.21

TDD

Hard drive to 6.9 ft. penetration.
2.0 ft recovery (29.0%) reject
brick/slag in nose.

1548 Attempt # 2 at 593

Hard drive 1st 2-ft. then easy
to 4 then refusal at 6.8 ft.

6.2 ft recovery (91.2%) accept

1627 Transfer core to support basket

1640 Head to ~~558~~ 577 ~~TR~~

1653 AT ~~558~~ 577 ~~TR~~

1708 Attempt # 1 at ~~558~~ 577 ~~TR~~

Easy drive to full pen (7 ft)

6.5 ft recovery (92.9%) accept

1745 Transfer core to processing
crew.

1755 Head to 545

1800 AT 545

1814 Attempt # 1 at 545

(a lot of boulders and large rocks
in area)

Attempt aborted. Boulders
all over. Unable to find suitable spot

Note: probed area around
588 - all concrete and brick
piles. Did not attempt today.

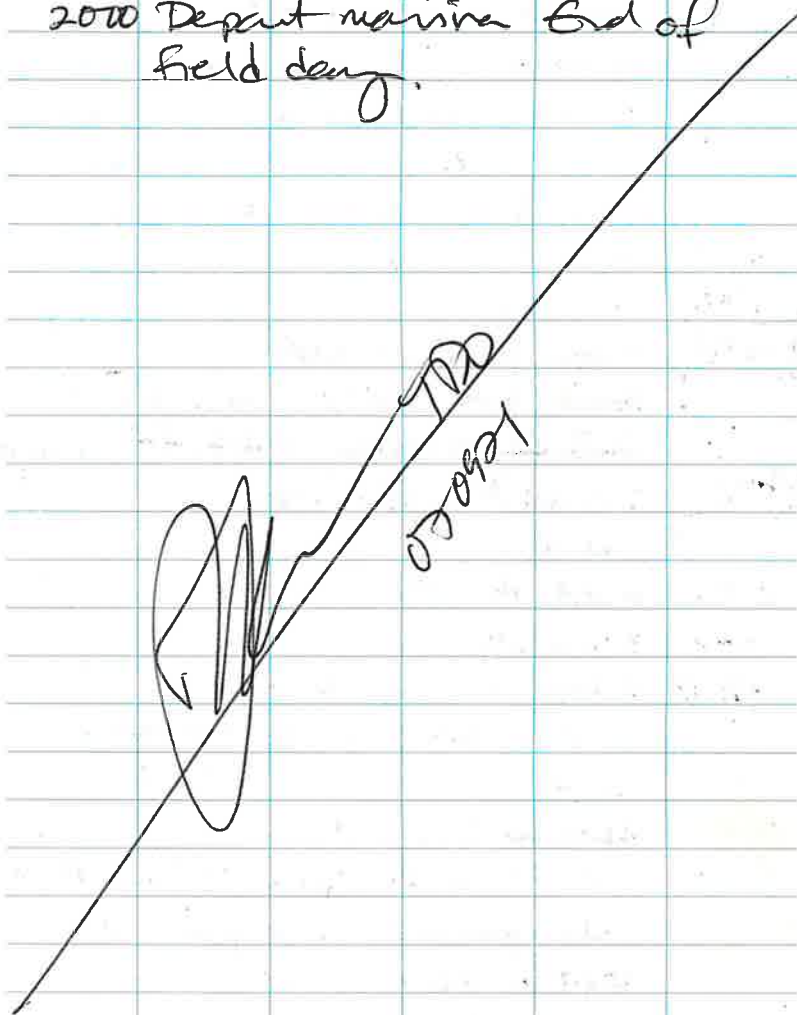
07.09.21

TDD 31

1858 Now check. Head back to
dock.

1920 AT dock. offload.

2000 Depart marina End of
field day.



07-12-21

TDD

- 0645 Arrive at SPM, 50's, sunny.
Meet up w/D. Dickinson (SEE)
- 0600 Load up and prep. Meet up w/
Tim Thompson (SEE)
- 0620 Health & safety briefing + CARD screen
- 0625 Head out of marina to perform
nav. check and then head
upriver to Area 31.
- 0635 Head to 665
- 0640 At 665
- 0645** Attempt 1 at 665
Hard drive to full pen depth (7 ft)
7.5 ft recovery (107.1%) accept.
6.5 ft (92.9%)
- 0725 Transfer core to support boat.
- 0730 Head to 664
- 0731 At 664
- 0732** Attempt 1 at 664
Steady drive with resistance
from ~4.5 to 5.5 ft, to full
pen depth (7 ft)
6.7 ft recovery, (95.7%) accept
- 0800 Transfer core to support boat.
- 0805 Head to 653
- 0807 At 653

07-12-21

TDD

- 0809** Attempt 1 at 653
Easy drive at 1/4 throttle to
full pen depth (7.0 ft)
7.2 ft recovery (102.9%) accept
- 0835 Head to 652
- 0839 At 652
- 0844** Attempt 1 at 652
Easy drive to 6 ft then resistance
to full pen (7 ft)
5.9 ft recovery (84.3%) accept
- 0908 Cores transferred to ~~the~~ support boat
- 0920 Head to 632
- 0925 At 632
- 0928** Attempt 1 at 632
Slow advance to ~4 ft then
picks up full pen (7 ft)
6.2 ft recovery (88.6%) accept.
- 1018 Head to 644
- 1020 At 644
- 1021 Attempt 1 at 644
Hard drive, refusal at 1.7 ft.
Rejected.
- ~~1024~~ Attempt 2 at 644
Hard refusal at 4.7 ft.
3.9 ft recovered (83.0%) reject
too little sediment *Rite in the Rain*

07.12.21

TDO

1111 Attempt #3 at 644
1/4 throttle, picks up speed at 2ft
then refusal at 6.9 ft.
Recovery 5.2 ft (75.3%) accept.

1130 Recon sites 588, 585 and
545.

1215 Head to 587

1222 At 587

1224 Attempt 1 at 587
Easy steady drive to full pen.
6.9 ft recovery (98.6%) accept.

1300 Head to 634

1302 At 634

1305 Attempt 1 at 634
Easy drive to full pen (7 ft)
6.8 ft recovery (97.1%)

1345 Transfer A cores to support
boat

1415 Head to 557

1423 At 557

1426 Attempt 1 at 557
Easy drive to full pen (7 ft)
6.5 ft recovery (92.6%)
Shoaling material = 4.02 ft / 22.5 cm

1510 Transfer core to processing
boat

07.12.21

TDO

35

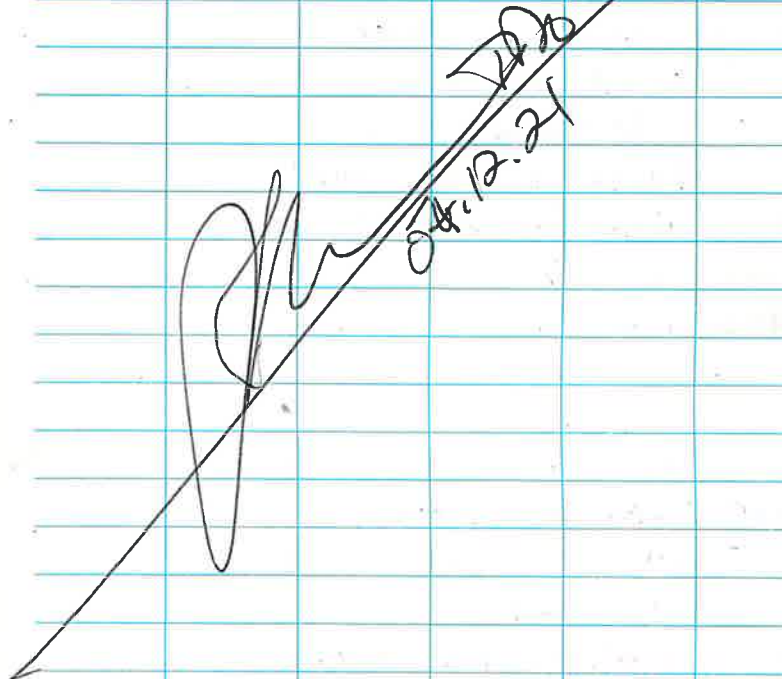
1515 Thai on board processing
boat, SEE goes for nav.
check.

1600 SEE back at marina

1640 Depart processing barge

1845 At marina dock. Offload.

1850 Depart marina. End of
on-water day.



071321

TD

0545 Arrive at SPM, 60's, overcast. TD

0600 Meet up w/ D. Dickinson (see)

0 Set up, prep for sampling

0615 T. Thompson arrives. Load core tubes

0630 H/S briefing + COVID screen

0635 Depart marina for row check and head up river to location 608

0655 At 608

0659 Attempt 1 at 608Hard drive for 1st foot then steady to full pen (7 ft)

6.6 ft recovery (94.3%) accept.

0735 Head up river to 662

0738 At 662

0742 Attempt 1 at 662

Steady easy advance to full pen (7 ft)

6.5 ft recovery (92.9%) accept

0810 Transfer cores to support boat

0815 Head to 659

0816 At 659

0817 Attempt 1 at 659

Steady advance to full pen (7 ft)

071321

TD 37

5.9 ft recovery (82.3%) accept

0850 Head to 658

0851 At 658

~~0901~~ 0852 Attempt 1 at 658

Steady advance to full pen (7 ft) except resistance briefly at 2 1/4 ft.

6.8 ft recovery (97.1%) accept.

0930 Transfer cores to support boat.

0931 Head to 657

0932 At 657

0938 Attempt 1 at 657

steady drive to full pen (7 ft)

6.0 ft recovery (85.7%) accept.

1005 Core rejected during sectioning because there was a large winnowed out section in bottom 2/3 of core tube. Will re-do.

1020 Attempt 2 at 657

Easy advance to full pen (7 ft)

5.9 ft recovery (84.3%); accept

1127 Head to 648

1129 At 648

1132 Attempt 1 at 648

38 07-13-21

TD

Easy drive to full pen (7 ft)
6.2 ft recovery (88.6%) accept

1200 Transfer cores to support boat

1209 Head to 630

1215 AT 630

1216 Attempt 1 at 630

Easy drive to full pen (7 ft)
Recovery 7.7 (110%), accept?

1300 Head to 596

1305 AT 596

1307 Attempt 1 at 596

Easy advance to full pen
Recovery 7.3 ft (104.3%) accept.
Void of 0.5 ft near core
no x

Recovery adjusted to 6.8 ft (97.1%)
accept.

1345 Transfer cores to support
boat

1350 Head to 562

1355 AT 562

1359 Attempt 1 at 562

Easy drive to full pen.
6.2 ft recovery (88.6%) accept.

1438 Transfer core and Thai to
processing boat.

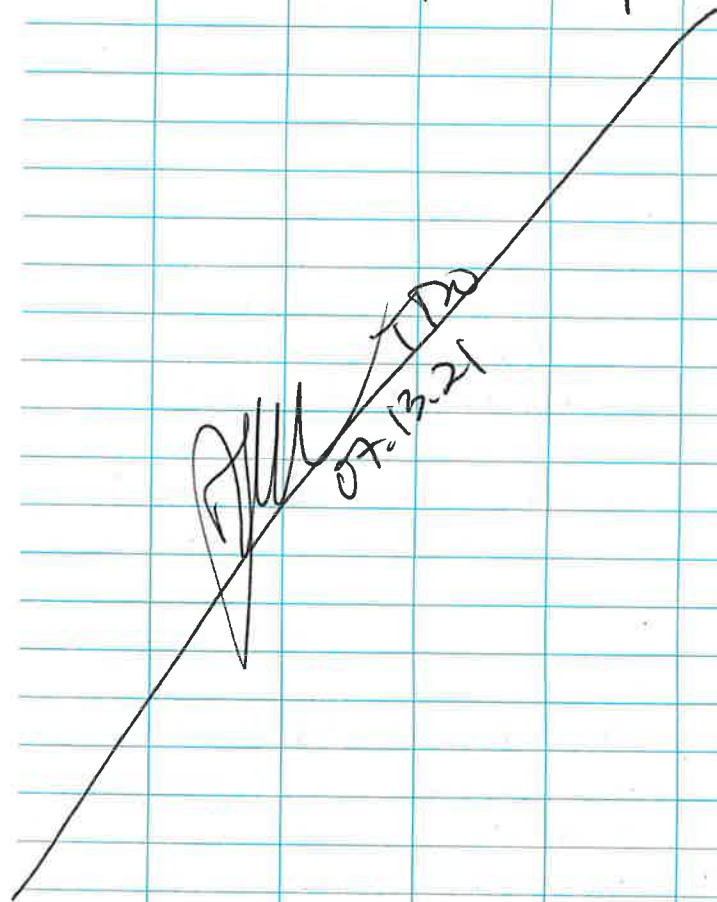
07-13-21

TD 39

1655 Depart processing barge.
Processing completed.

1700 Back at marina. Offload.

1715 Depart marina. End of
on-water field day.



40 07-14-21

TDO

0540 TDO arrives at SPN, 57°, overcast,
meets up w/ D. Rickinson (see),
preps eqpt and paperwork for
today

0605 T. Thompson (see) arrives

0620 H/S briefing + COVID screen

0630 Depart marina for nav. check.

0636 Head to 622

0645 At 622, target on slag pile/rip rap
need to move off location away
from wall to get away from
debris (~20 ft away)

0657 Attempt 1 at 622

Hard drive to full pen (7 ft)

~~0729~~ Recovery 4.2 ft (60%), reject.

0729 Attempt 2 at 622, move a
little farther out. (~24 ft away)
Easy drive to 2 ft then resistance
to ~3 ft, then advances quickly
to full pen (7 ft)
5.7 ft recovery (81.4%) accept.

0755 Head to 660

0759 At 660

0809 Attempt 1 at 660, off target
because of concrete slabs and

07-14-21

TDO.

41

debris, slow steady advance
to full pen (7 ft)

Recovery 5.2 ft (74.3%) reject.

0839 Attempt 2 at 660

slow steady advance to 6.0 ft
then hard drive to refusal at 6.6 ft
5.2 ft recovered (78.0%) accept

0924 Head to 588 (transferred cores to
support)

0926 At 588

0930 Attempt 1 at 588, away from
bulkhead wall & concrete/rip rap.
Hard drive to refusal at 3.0 ft.
Low/no recovery - all large angular
gravel, 12 ft off-target.

1003 Attempt 2 at 588, 17 ft off-target
slow advance to 2.5 ft then
quick to refusal at 6.7 ft.
5.5 ft. recovery (82.1%) accept.

1040 Head to 585, transferred core to
support boat

1045 At 585

1048 Attempt 1 at 585, away from
bulkhead wall & concrete/rip rap.
Hard drive to refusal at
3.3 ft., core rejected.

1118 Attempt 2 at 585, (22 ft off target)

Ret in the Rain

42

07-14-21

TDD

Easy steady advance to full pen (7.0 ft)

5.9 ft recovery (84.3%) accept

1145 Transfer core to support boat

1200 Head to 684

1215 At 684

1231 Attempt 1 at 684

Easy drive to full pen depth
5.0 ft recovery (71.4%) reject. (7 ft)

1245 Leave location due to outgoing tide. Will come back tomorrow.

1255 Head to 621

1303 At 621

1307 Attempt 1 at 621

Easy drive to full pen depth ^{6.8 ft} ~~(7 ft)~~
3.7 ft recovery (52.9%) reject.

Unable to red because of outgoing tide. Will come back tomorrow.

1335 Head to 571

1340 At 571

1342 Attempt 1 at 571

Hit refusal after 2.2 ft.
Wood in core nose, rejected

1400 Attempt 2 at 571

07-14-21

TDD 43

Slow sluggish at beginning but picks up until about 6 ft then slows to refusal at 6.7 ft.

5.9 ft recovery (88.1%) accept.

1420 Transfer core to processing bag

1442 Head to 568

1445 At 568

1448 Attempt 1 at 568

Easy drive to full pen (7 ft)
6.6 ft recovery (94.3%) accept.

1518 Transfer core to support boat.

1520 Head to 529

1526 At 529

1529 Attempt 1 at 529

Easy drive to full pen (7 ft)
6.2 ft recovery (88.6%) accept.

1548 Now check

1610 Transfer core and Thai to processing boat. SEE departs for manne.

1612 SEE at marina.

1800 Depart processing (completed)

1805 Back at marina. End of on-water field day.

[Signature]
07-14-21

Write in the Rain

44 07:15 21

TDO

0540 Arrive at SPM. 50's, overcast. TDO

Prep. and plan for today

0630 Meet up with Tim Thompson (SEE)

Boat captain running late

0700 Dale Dickinson arrives Prep boat / capt.

0720 H/S briefing + COND screen.

0735 Report marina for nav check

0740 Head upriver to 684

0755 At 684

0810 Attempt 2 at 684

Easy drive to 6f. Hard drive to refusal at 6.8 ft.

6.5 ft recovery (95.6%) accept.

0847 Head to 621

0855 At 621

0908 Attempt 2 at 621

Steady drive to full pen (7 ft)

4.3 ft recovery (61.4%) reject.

Very soft and soupy above w/ sand below

0942 Attempt 3 at 621

Steady drive to full pen (7 ft)

5.1 ft. recovery (72.9%)

Very soft above.

071521

TDO 45

1015 4th attempt at 621

Refusal early on at 4.1 ft.

3.9 ft recovery (95.1%) reject

Not enough penetrator.

1052 5th attempt at 621, off target

Slow advance w/ high

resistance to ~3.5 ft then

fast to full pen (7 ft)

4.8 ft recovery (68.6%) reject.

Talked to Susie, will keep core from 3rd attempt (72.9%)

1200 Transfer core to support boat.

1208 Head to 545

1215 At 545

1228 Attempt 1 at 545 ~25 ft off target (OK per EPA)

Steady advance to full pen. 7 ft.

5.4 ft. recovery (77.1%) accept

1245 Call from Amara. Core 621

does not have enough material

and we'll need to redo.

Can't do today given tide.

1300 Head to 537

1333 At 537

1338 Attempt 1 at 537

46 07.15.21

TDO

slow advance to full pen (7.0 ft)
Recovery 5.0 ft (71.4%) reject.

1409

Attempt 2 at 537

Steady advance then quick
to full pen. (7.0 ft)

Penetrated down to -24.68 ft new

1440 Head to 538

1442 At 538

1448 Attempt 1 at 538 - core tube

fell over. Reset. Transfer ⁵³⁷ to support
back

1501 Attempt 1 at 538

steady drive to pen depth (7 ft)

3.8 ft recovery (54.3%) reject.

Wood blockage in core nose.

1532 Attempt 2 at 538

Steady advance to resistance
at 6.7 ft.

3.9 ft recovery (58.2%) reject.

1624

Attempt 3 at 538, fingers w/ collar
Steady advance to hard resistance
at 7.0 ft.

7.5 ft recovery (107.1%) accepted.

off-target ~ 16 ft., > -25 ft new

1710

Transfer to processing barge within
SEE goes to perform new check and

07.15.21

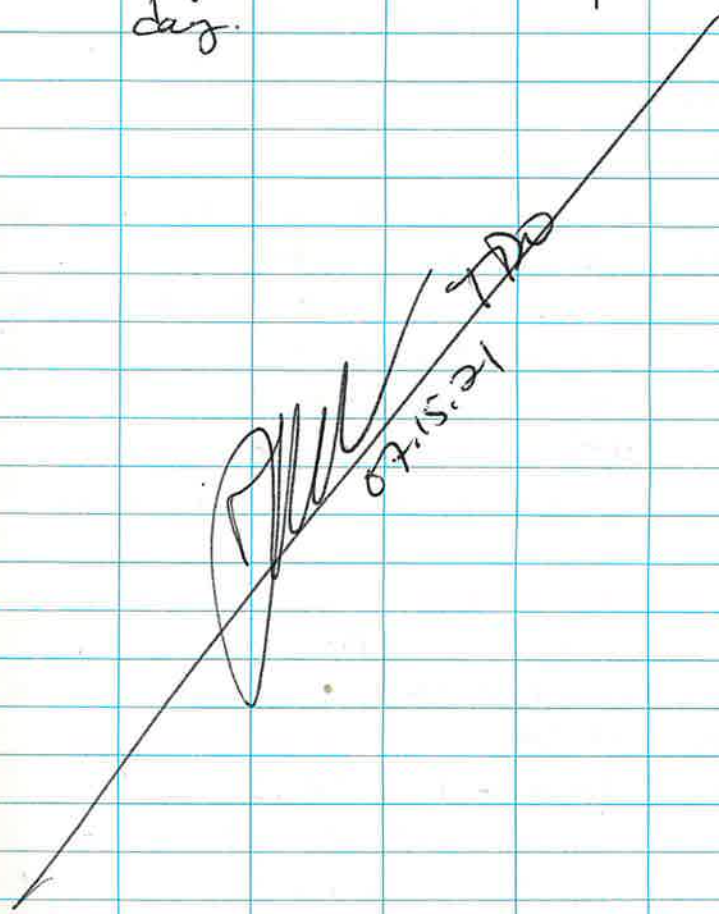
TDO 47

head back to marina.

1815 Complete processing. Head back
to marina.

1820 At marina. Offload.

1830 Depart marina. End of on water
day.



071621

TDO

0540 Arrive at SPM (TDO), 50's overcast.
Load supplies for Gravity boat. Meet up
with SEE (D. Dickinson)

0550 Prep boat, eqpt & paperwork
for day's work.

0630 T. Thompson arrives,

0635 H/S briefing + card screen

0645 Nav check. (depart dock)

0650 Head to 621

0657 At 621, set up tube w/ collar on fingers

0728 Attempt 6 at 621. Move
w/30 ft. off-target to NW per AQ
recommendations.

Steady drive to 6.9 ft.

~~7.5 ft~~ 5.8 ft recovery (58.4%) accept.
A lot of settling in bottom half
of core, may not be enough
material. Will check w/
processing crew.

0508 Head to 582

0815 At 582

0816 Attempt 1 at 582

Quick steady drive to 6.9 ft.

5.5 ft recovery (79.7%) accept.

0825 Transfer core 621 to Support boat.



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WON'T WORK
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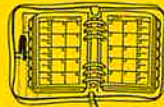
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² 071621

TDO

(Cont'd from Book 1)

0845 Processing crew called and core
021 not acceptable.

~~0855~~
Transfer core 582 to support boat

0905 Call from Ross Pickering asking
about availability for see
to take some vertical cores
in bank

0940 Back at 621

0941 Attempt 7 at 621

Easy drive to near refusal (6.5 ft)
3.6 ft recovery (55.4%) reject.

1021 Attempt 8 at 621

Easy drive to refusal at 4.9 ft.
3.9 ft recovery (79.6%) reject
low recovery material

1030 Talked to Susie. Will move
on.

1045 Tim & Dale on a call with
Tom to talk about vertical
core samples on banks

1115 Head to 579

1120 At 579

1123 Attempt ~~5~~ 11 at 579

~ b/c of riprap/concrete

071621

TDO³

debris on and around target,
identified during probing of
area

~~110210~~ Easy steady drive to 6.5 ft.
5.4 ft recovery (79.4%) accept.

1200 Transfer to support boat

1215 Head to 635 to re-do

(3rd attempt) b/c of insufficient
recovery length from before.

1220 At 635

~~1232~~ Attempt 3 at 635

1256 moved off target b/c of wood
debris, (11 ft)

Easy drive to refusal at 7.0 ft.
5.4 ft recovered (77.1%) accept

1343 Transfer core to support boat.

1400 Head to 597

1401 At 597

1407 Attempt 1 at 597

Easy steady drive to full pen (7 ft)
5.5 ft recovery (78.8%) accept

1438 Transfer core to support boat.

1443 Head to 539

1459 At 539

1507 Attempt 1 at 539

4 07.16.21

TDD

Easy & steady drive to 7.0 ft.
4.5 ft recovery (64.3%) reject.

1543

Attempt 2 at 539

Easy & steady drive to 7.0 ft.
5.3 ft recovery (75.7%) accept.

1615 Transfer core & then to support boat.

1625 On processing boat

1630 See deans boat, new check.

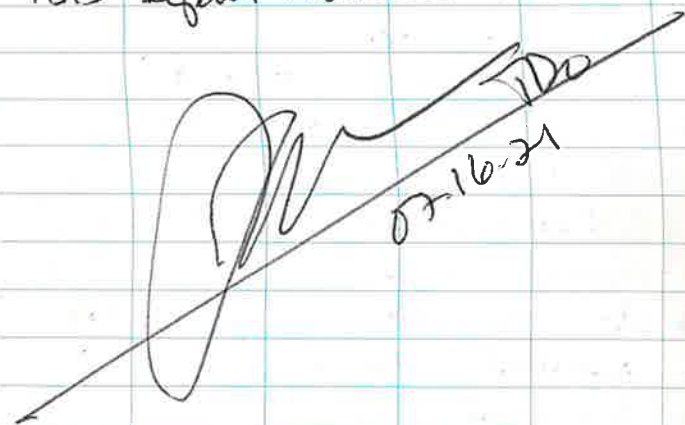
1700 See vessel back at dock.

1715 Complete processing. Depart bare for marina.

1720 At marina. Offload supplies and samples

1730 End of on-water field day.

1815 Depart marina.


TDD
07.16.21

07.19.21

TDD

0800 On site at SPM, 60's, sunny.
Prep supplies/paperwork - Plan for day.

0830 Meet up w/D. Dickinson (SEE).
Brad Helland & Dave Browning.
Prep boat & eqpt.

0845 H/S brief + COVID screening.

0900 Depart marina for new check

0907 New check. Head up river to 604

0930 At 604 (to resample)

¹⁰³⁷
~~TDD 0941~~ Attempt 3 at 604 (probed around at 3 other spots but kept encountering debris and hard material.

Easy drive to full pen (7 ft)
3.5 ft recovery (50%) reject.

1110 Head to 605

1116 At 605 (to resample)

1121

Attempt 2 at 605

Easy drive to 7 ft.

6.7 ft recovery (95.7%) accept.

1222 Head to 606

1226 At 606 (at toe of rip rap)

1230

Attempt 1 at 606

Steady advance to full pen (7 ft)

Retire in the Rain.

6 07-19-21

TDO

6.7 ft recovery (95.7%) accept
(Arch. monitor core)

1310 Head to 663

1312 At 663, toe of rip rap.

1318 Attempt 1 at 663

Steady drive to full pen (7 ft)
w/ resistance in upper 3.5 ft.

3.1 ft recovery (44.3%) reject.

1320 Transfer cores 665 & 666 to support boat.

1401 Attempt 2 at 663, ~1 ft off target to avoid rip rap.

Steady drive to full pen (7 ft)

3.2 ft recovery (45.7%) reject.

1444 Attempt 3 at 663 ~1 ft off target

Easy drive to full pen (7 ft)

6.1 ft recovery (87.1%) ^{accept} reject.

1525 Head to 655

1630 At 655

1540 Attempt 1 at 655 ~10 ft off target

Easy drive to full pen (7 ft)

5.9 ft recovery (84.3%) accept.

1620 Transfer cores to support boat, w/ Thai to help process

1630 On processing boat.

07-19-21

TDO 7

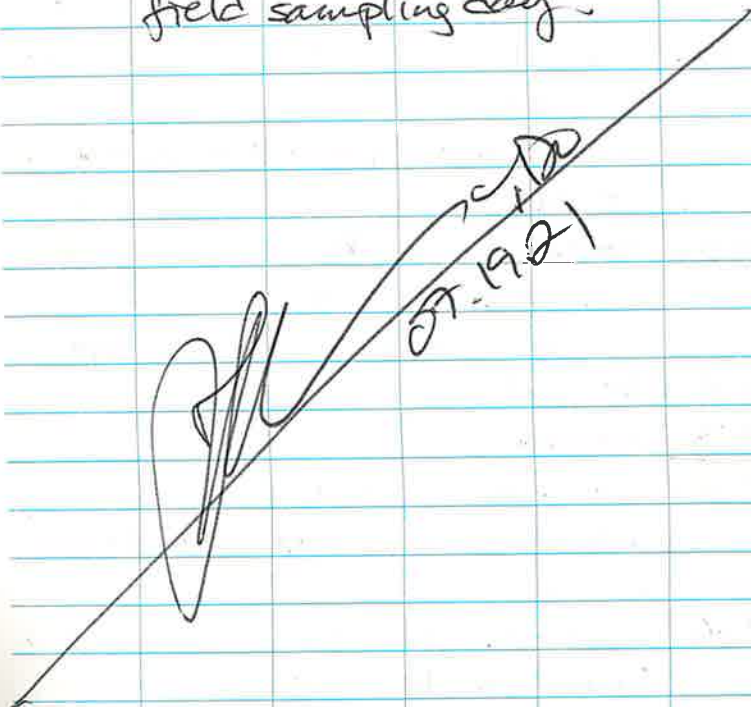
1700 See vessel and crew back at marina after noon check.

2030 Complete core processing on barge. Head back to marina.

2055 At marina. Offload samples and supplies

2045 End of air-water day

2100 Depart marina. End of field sampling day.



8 0720.21

TDO

0530 Meet up w/ Brantly crew
(E. Sloan & R. McClure), 50's, overcast

0535 H&S brief + COVID screen. Prep
boat

0545 Depart marina. Head downriver

0600 At 500

0614 Attempt 1 at 500
Free drive to 5.0 ft.
4.8 ft recovery (84.0%) accept.

0629 At 505

0636 Attempt 1 at 505
Free drive to 3.5 ft.
3.0 ft recovery (85.7%) accept.

0650 At 506

0654 Attempt 1 at 506
Free drive to 3.0 ft.
2.6 ft recovery (86.7%) accept.

0709 At 501

0715 Attempt 1 at 501
Free drive to 3.5 ft.
3.4 ft recovery (97.1%) accept

0727 At 502

0732 Attempt 1 at 502
Free drive to 4.0 ft.
3.5 ft. recovery (87.5%) accept

07.20.21

TDO 9

0740 Transferred 5 cores to support boat

0747 At 508

0753 Attempt 1 at 508
Free drive to 3.5 ft.
3.2 ft recovery (90.4%) accept.

0804 At 515

0808 Attempt 1 at 515
Free drive to 3.5 ft.
3.3 ft recovery (94.3%) accept.

0819 At 522

0824 Attempt 1 at 522
Free drive to 3.5 ft.
3.0 ft recovery (85.7%) accept.

0831 At 523

0837 Attempt 1 at 523
Free drive to 3.5 ft.
3.1 ft recovery (88.6%) accept.

0850 Transferred 4 cores to support boat

0900 At 516

0904 Attempt 1 at 516
Free drive to 3.5 ft.
3.0 ft recovery (85.7%) accept.

0919 At 536

0923 Attempt 1 at 536
Free drive to 3.5 ft.

07.20.21

TDD

- 2.7 ft. recovery (77.1%) accept
- 0940 Transfer 2 cores to processing boat.
- 1005 At 548
- 1009** Attempt 1 at 548
Hard drive to refusal at 4.0 ft.
3.4 ft recovery (85.0%), accept
- 1033 At 563
- 1038 Attempt 1 at 563
Free drive to 3.5 ft.
2.5 ft recovery (71.4%) reject.
- 1048** Attempt 2 at 563
Free drive to 3.5 ft.
3.2 ft recovery (91.4%) accept.
0.43 ft shoaling material (13.1 cm)
- 1115 At 628
- 1118** Attempt 1 at 628 (28.7 cm shoaling material)
Easy drive to 4.5 ft.
4.3 ft. recovery (95.6%) accept.
- 1145 Transfer 3 cores to processing boat.
- 1200 At 511
- 1202** Attempt 1 at 511
Free drive to 3.0 ft.
2.6 ft recovery (86.7%) accept
- 1215 Transfer to processing boat.
- 1220 Head back to marina.

07.20.21

TDD

- 1225 Meet up w/ SEE crew. H&S briefing + covid screen, (nav ^{check} completed earlier). D. Dickinson, B. Helms
- 1230 Depart marina. Head upriver to Area 31.
- 1233 At 664 (re-sample)
- 1241** Attempt 2 at 664
Easy steady drive to full pen (6.9 ft)
6.9 ft. recovery (100.0%) accept.
- 1320 Transfer core to support boat.
- 1335 Head to 670
- 1337 At 670
- 1342** Attempt 1 at 670
Slow steady advance to full pen. (7.0 ft)
5.4 ft. recovery (77.1%) accept.
- 1420 Transfer core to support boat
- 1430 Head to 650 (resample for geotech)
- 1433 At 650
- 1439** Attempt 4 at 650
steady advance to full pen (7.0 ft)
5.6 ft recovery (80.0%) accept.
- 1515 Transfer core to support boat
- 1516 Talked to Garrett Timm (Anchor) and decided we will try to get vertical extent core at 694 for

07.20.21

TDO

them.

1525 Head to 694

1540 At 694

1545 Attempt 1 at 694

Hard drive, easing to easy to
full pen (7 ft)

4.7 ft recovery (67.1%) reject.

~~1615~~ Attempt 2 at 694Easy steady advance to full pen. (70 ft)
5.0 ft recovery (71.4%) reject.

1639 Attempt 3 at 694

Easy advance to full pen.
5.7 ft recovery (81.4%) accept.

1722 Transfer core to support boat.

1723 Thai hops on to go to processing
barge. Head downriver to
processing float.

1735 At processing float.

1755 SEE vessel does nav check and
returns to S.P.M.1940 Depart processing barge for
maina1941 At maina. Offload supplies
and samples.

2000 Depart maina. End of field day

~~TDO~~
072021

2 S. Replinger

6.30.2021

1405 - S. Replinger and D. Williston depart processing barge to collect 0-10cm sample at SS559 (South Park Marina).

Weather: Sunny, 70s.

1415 - Locate sample on rip rap bank. Shift location slightly to patch of accessible sediment.

1420 - Collect sample at SS559. Lots of angular gravel and brick fragments throughout. Attempted to remove gravel when filling jars.

1500 - Return to processing barge and process SS559, removing as much gravel/rock as possible.

All other daily activities recorded on processing barge logbook

S. Replinger
6.30.2021

S. Replinger

7.6.2021 3

0940 - Arrive at SPM to prep for sampling.

Load supplies onto boat.

1000 - Conduct H&S Meeting

Crew S. Replinger (NW)

Ed Sloan

Ryan McEliece } Grouty

Christitches (uber boat)

1015 Depart SPM to begin sampling.

Weather: overcast, 60s

(forecast for sunny, low 80s)

1030 Arrive at Area 28 Barges have not been relocated. Contact Katy and move on to Area 18 to sample.

1040 Collect core at 1T580. Accepted. (Area 18)

1100 Collect core at 1T578. Accepted. (Area 18)

1110 Arrive at processing barge to drop off cores and provide demo of how to open.

1130 Depart processing barge.

1145 Collect core at 1T542 (Area 7).

Accepted (82% recovery).

1205 Collect core at 1T518. (Area 2)

Accepted (98% recovery).

1225 Collect core at 1T507. (Area 1)

Accepted (97% recovery).

1245 Dropped core off at processing barge.

Rite in the Rain

4 S. Replinger

7.6.2021

- 1255 Talked w/ Kathy Godthausen regarding processing of vert ~~90581~~. Because of change in material at ~30cm, decided to take secondary archives (A1 + A2) within 0-60cm RAL interval.
Prepped additional core tubes for sample collection.
- 1330 Head to Area 18 to continue sampling.
- 1345 Collect core at 1T600 (Area 18).
Attempt 1 rejected. (insufficient recovery & penetration).
- 1355 Collect core at 1T600 - 2nd attempt.
Accepted (80% recovery).
- 1410 Collect core at 1T601 (Area 18).
Accepted (83% recovery).
Transferred cores to processing barge (via taxi boat).
- 1420 Head upriver to check clearance for Area 37. (for Friday sampling)
- 1430 Measure bridge clearance
tide = +8.28 ft
Access Area 37 when tide is ≤ 7.5 ft.
- 1440 Collect core at 1T697. (Area 36).
Rejected.
- 1450 2nd attempt at 1T697.
75% recovery.

S. Replinger

7.6.2021

5

- 1500 3rd Attempt at 1T697.
Accepted. (87% recovery).
- 1525 Hand off cores to taxi boat.
Per request from processing barge make 3rd attempt at 1T600 to attempt better recovery (measured ~~too~~⁵⁷ much less material on barge).
- 1530 Collect core at 1T600 (3rd attempt).
Rejected.
- 1540 Drop core at processing barge & prep additional core tubes.
- 1545 Chat w/ Susie McGroddy + Kathy Godthausen regarding settling of material and confirm that settling post-collection is acceptable - soft intertidal material is expected to be compacted prior to processing.
- 1640 Collect core at 1T638 (Area 28). Now that barges have been relocated.
Accepted. (85% recovery).
- 1650 Collect core at 1T639. (Area 28).
Accepted (86% recovery).
- 1700 Send cores back to processing barge.
- 1715 Collect core at 1T602 (Area 18).
Accepted (92% recovery).

Rite in the Rain

6 S. Replinger

7-6-2021

- 1725 Collect core at IT603 (Area 18).
Accepted (92% recovery).
- 1735 Head to processing barge. Finished collecting short cores for the day.
- 1750 Transfer last cores to processing barge.
- 1755 Ed Sloan + Ryan McEliece depart.
Suzanne to processing barge to help process samples.
- 2025 Depart processing barge and return to SPM dock. Offload supplies.
End of field day.

~~S. Replinger 7-6-2021~~

Note: Core from 697 rejected by processing crew b/c of extremely high compaction.

S. Replinger

7-8-2021

- 0900 Arrive at SPM. Prep for sampling.
- 0915 Conduct H&S briefing.
Crew: S. Replinger }
K. McPeak }
Ed Sloan }
Ryan McEliece } Gravity
- Weather: overcast, 60s.
- 0935 Depart SPM and head to Area 18 to continue sampling.
- 1005 Collect core at SC583 (Area 18).
Accepted. (91% recovery).
- 1030 Collect core at SC586 (Area 18).
Accepted (83% recovery).
- 1105 Collect core at SC590 (Area 18).
Accepted (98% recovery).
- 1135 Collect core at SC589 (Area 18).
Accepted. (99% recovery).
- 1145 Head to processing barge to prep additional tubes.
- 1300 Collect core at SC599 (Area 18).
Accepted (91% recovery).
- 1345 Collect core at IT647 (Area 31).
Accepted. (95% recovery).
- 1405 Head to Area 2-3 to attempt core in ENRIAC plot.

Rite in the Rain.

8 S. Replinger

7.7.2021

- 1430 Collect core at IT626 (Area 23).
Rejected. No penetration.
- 1445 2nd attempt at IT626.
Rejected (67% recovery).
- 1505 3rd attempt at IT626.
Rejected (26% recovery).
Determine that ENR/AC plots best
sampled by SEE vessel.
- 1515 Head to Area 20.
- 1550 Collect sample at IT611. (Area 20)
Rejected - insufficient penetration &
recovery (59%)
- 1610 Collect core at IT611 (attempt 2)
Accepted (93% recovery)
- 1635 Head to Area 20, IT606
- 1640 Collect core at IT606
Rejected (over-penetrated)
2nd attempt at IT606
Accepted (95% recovery)
- 1705 Head to Area 19
- 1720 Collect core at ~~IT605~~ km IT605
Accepted (83% recovery)
- 1735 Depart IT605 for processing barge
to deliver cores
- 1740 Arrive processing float
- 1745 K. McPeck and S. Replinger stay on

S. Replinger / K. McPeck

7.7.21 9

- 1745 processing barge; E. Sloan and R. McElreath
(cont.) depart for marina
- 1845 S. Replinger and K. McPeck depart
processing barge
- 1847 Off-water, end of field day

K. McPeck
7/7/21

10 K. McPeck

7/8/21

- 0845 Arrive South Park Marina, prep for sampling
- 0915 Conduct H&S briefing
Crew: K. McPeck (Windward)
E. Slean (Gravity)
R. McEliece (Gravity)
Weather: overcast, 60
- 0925 Depart SPM and head to Area 18 to continue sampling
- 0940 Collect core at SC594 (Area 18)
Accepted (93% recovery)
- 0955 Collect core at SC595 (Area 18)
Accepted (95% recovery)
- 1010 Head to Area 20
- 1015 Collect core at SC612 (Area 20)
Accepted (93% recovery)
- 1030 Collect core at SC610 (Area 20)
Accepted (83% recovery)
- 1050 Head to Area 23
- 1055 Collect core at SC623 (Area 23)
Accepted (76% recovery)
- 1128 Head to Area 22
- 1135 Collect core at SC614 (Area 22)
Accepted (84% recovery)
- 1150 Head to Area 23
~~Collect core at SC620 (Area 23) KM~~

K. McPeck

7/8/21

11

- 1157 SC620 blocked by barge; will return later. Head to Area 31
- 1205 Collect core at IT651 (Area 31)
Accepted - 86% recovery
- 1225 Collect core at IT656
Accepted - (97% recovery)
- 1315 Head to SPM, troubleshoot engine issue
- 1345 Depart SPM for Area 27
- 1405 Collect core at IT636 (Area 27)
Accepted (77% recovery)
- 1420 Head to Area 23, cannot access IT627; will return later. Head to Area 31.
- 1435 Collect core at IT668 (Area 31)
Accepted (93% recovery)
- 1450 Head to Area 30, IT641 blocked, head to Area 23 ^{by vert. core boat}
- 1505 Collect core at IT627 (Area 23)
Accepted (95% recovery)
- 1515 Head to Area 30
- 1520 Collect core at IT641 (Area 30)
Accepted (100% recovery)
- 1550 Head to Area 23, IT625 not accessible by boat due to vegetation and riprap head to Area 33.
- 1610 Collected core at IT679 (Area 33)
Accepted (100% recovery) *Return the Rain.*

12 K. McPeck

7/8/21

1620 Head to processing barge, unload cores. Finished collecting short cores for the day.

1635 Gravity departs processing float, K. McPeck stays to process samples

2035 Depart processing barge and return to SPM

2050 Offload supplies, end of field day

7/8/21
K. McPeck

K. McPeck

7/9/21

13

0800 Arrive SPM, prep for sampling

0830 Conduct H+S briefing

Crew: Kate McPeck } Windward
Suzanne Replingar }
Chad Durand - Clearway }
Ed Sloan } Gravity
Kevin Smith }
Kristen Kerns - OSACE

Weather: 60s, sunny

0915 Depart SPM for Area 31, scope SS661 for hand collection - not accessible. Will return later. Head to Area 8.

0945 Collect grab at SS552 (Area 8)
Attempt 1: rejected; underpenetrated

0965 Attempt 2: rejected; underpenetrated

1000 Attempt 3: rejected; underpenetrated

1010 Attempt 4: acceptable; 15 cm penetration

1025 Head to Area 1

1030 Collect grab at SS508 (Area 1)
Acceptable: 17 cm penetration

1045 Collect grab at SS511 (Area 1)
Acceptable: 21 cm penetration

1100 Collect grab at SS513 (Area 1)

Acceptable: 20 cm penetration *Ret in the Rain*

- 1110 Collect grab at SSS14 (Area 1)
Accepted: 17 cm penetration
- 1120 Head to Area 7
- 1130 Collect grab at SSS42 (Area 7)
rejected; under-penetrated. Will
return later when water is higher
- 1135 Head to Area 18
- 1150 Collect grab at SS602, hand collected
acceptable: 10 cm (Area 18)
- 1200 Collect grab at SS603, hand collected
acceptable: 10 cm (Area 18)
- 1220 Head to SPM
- 1230 Arrive SPM, S. Replinger and K Kerns
depart
- 1255 Depart SPM for Area 18
- 1300 Collect grab at ~~SS580~~^{SS578} (Area 18)
Attempt 1: rejected; winnowed
- 1310 Attempt 2: acceptable: 16 cm
penetration
- 1330 Collect grab at SSS80 (Area 18)
Acceptable: 19 cm penetration
- 1345 Collect grab at SSS90 (Area 18)
Attempt 1: rejected; under-penetrated
(10.5 cm)
- 1355 Attempt 2: acceptable: 19 cm
penetration

- 1405 Head to Area 31. Scooped
SS661; will return when water
is deeper to avoid geo core
tracks
- 1420 Head to Area 7
- 1435 Collect grab at SSS42 (Area 7)
Attempt 2 (Attempt 1 @ 1130):
under-penetrated; rejected
- 1440 Attempt 3: rejected; under-
penetrated and winnowed
- 1445 Attempt 4: accepted: 12 cm penetration
Collect grab at ~~SS546~~^{SS546} (Area 7)
- 1515 Accepted: 16 cm penetration ← Attempt 2 -
failure in jaws
on 1st attempt
@ 1510
- 1520 Head to Area 31
- 1535 Collect ~~grab~~^{grab} at SS661 (Area 31)
collected -9' North of target due to
disturbed sediment from geo sampling
Accepted: 17 cm penetration
- 1555 Head to Area 27
- 1600 Collect grab at SS631
Attempt 1: rejected: debris in jaws
- 1605 Attempt 2: accepted: 17 cm penetration
- 1620 Head to SPM
- 1635 Arrive SPM, K. McPeck and C. Durand
Unload samples and start paperwork +
sample OC; off-water *Red in the Rain*

16 K. McPeck

7/9/21

1730 ARI courier arrives, transfer
samples to courier. C. Durand
departs.

1800 K. McPeck departs; end of field day

K. McPeck

7/9/21

S. Replinger

7.12.2021 17

0615 Arrive SPM. Prep for sampling

0630 Conduct H&S Briefing.

Crew: S. Replinger (lead)

Chad Durand (Clearways)

Ed Sloan

Ryan McEliece

} (Granty)

Weather: Sunny, 60s

0650 Depart SPM to begin collecting surface
grab samples.

0710 Collect grab at SS668. Acceptable,
12cm penetration.

0722 Collect grab at SS667.
Accepted. 15cm penetration.

0735 Collect grab at SS651.
Accepted. 19cm penetration.

0755 Collect grab at SS636
Accepted. 13cm penetration.

0808 Collect grab at SS633.
Accepted. 14cm penetration.

0823 Collect grab at SS600. (Tier 2)
Accepted. 17cm penetration.

0838 Collect grab at SS643
Accepted. 13cm penetration.

Also collect FD. (LDW21-SS643-FD)

0855 Collect grab at SS645
Accepted. 17cm penetration.

Rite in the Rain

18 S. Replinger

7.12.2021

- 0925 Collect grab at SS681. (Tier 2)
Rejected. 1 cm penetration.
Move away from shore / nr rap slope.
- 0928 Second attempt at SS681.
Rejected. 6 cm penetration.
- 0930 Third attempt at SS681.
Accepted. 11 cm penetration.
- 0945 Collect grab at SS686. (Tier 2)
Accepted. 19 cm penetration.
- 1005 Collect grab at SS694
Hand-collected on beach. Accepted.
- 1025 Collect grab at SS656.
Accepted. 18 cm penetration.
- 1035 Collect grab at SS647.
Accepted. 15 cm penetration.
- 1053 Collect grab at SS641.
Accepted. 13 cm penetration.
- 1105 Collect grab at SS642.
Over-penetrated - rejected.
- 1108 Second attempt at SS642.
Accepted. 16 cm penetration.
- 1115 Collect grab at SS634.
Rejected - over-penetrated.
- 1118 Second attempt at SS634.
Rejected. 5 cm penetration.

S. Replinger

7.12.2021 19

- 1122 Third attempt at SS634.
Accepted. 15 cm penetration.
- 1135 Collect grab at SS623.
Accepted. 17 cm penetration.
- 1140 James Brown (arch. monitor w/ Still) arrives. Conduct HFS briefing.
- 1150 Collect grab at SS620.
Accepted. 20 cm penetration.
- 1202 Collect grab at SS599.
Accepted. 16 cm penetration.
Also collect FD (LDW21-SS599-FD).
- 1220 S. Replinger, C. Durand, James Brown disembark boat at Area 23 to hand-collect sediment at 616 and 619.
- 1240 Collect IT616 using hand auger.
Both A interval (0-~~30~~⁴⁵ cm) and B interval (~~30~~⁴⁵-75 cm).
- 1320 Collect SS616. (hand-collect using spoon).
10 cm penetration.
- 1345 Collect IT619 using hand auger.
Location shifted to N after original target could not be accessed. Also tried location to S, but could not penetrate due to rafts.
59 cm penetration. Collect IT619A (0-45 cm), IT619B (45-49 cm).

20 S Replinger

7.12.2021

- 1415 Collect SS619 (hand-collected).
Acceptable. 10 cm pen.
- 1430 Leave beach and re-board boat.
QC samples & finish processing.
- 1530 Arrive at processing barge to help
process vertical cores.
- 1650 Depart processing barge to meet
cutter.
- 1730 Depart SPM. End of field day.

S. Replinger
7.12.2021

K. McPeck

7.13.21

21

- 0600 Arrive SPM. Prep for sampling.
- 0620 Conduct H+S Meeting
Crew: K. McPeck (Windward)
Chad Durand (Clearway)
Ed Sloan } Gravity
Ryan McEliece }
- Weather: 60s, partly cloudy
- 0640 Depart SPM to begin collecting surface
grabs
- 0700 Collect grab at SS688 (Area 35)
Attempt 1: rejected, under-penetrated
- 0705 Attempt 2: rejected, rock in jaws
- 0710 Attempt 3: rejected, under-penetrated
- 0715 Attempt 4: rejected, under-penetrated
No sample collected at SS688
- 0725 Collect grab at SS682 (Area 34)
Attempt 1: rejected, rock in jaws
- 0730 Attempt 2: rejected, rock in jaws
- 0735 Attempt 3: rejected, washed-out
- 0740 Attempt 4: acceptable, 13 cm pen.
Additional volume needed for toxicity
- 0745 Attempt 5: acceptable, 13 cm pen.
- 0800 Attempt 6: acceptable, 12 cm pen.
- 0810 Attempt 7: acceptable, 12 cm pen.
- 0855 Collect grab at SS685 (Area 34)
Attempt 1: rejected, rock in jaws *Rite in the Rain*

22 K. McPeck

7/13/21

- 0900 SS685 Attempt 2: rejected, rock
in jaws
- 0905 Attempt 3: accepted, 13 cm pen.
Additional volume needed for toxicity
- 0910 Attempt 4: accepted, 12 cm pen.
- 0915 Attempt 5: accepted, 16 cm pen.
- 0955 Head to processing barge to pick up
supplies
- 1025 Head to Area 21
- 1035 Collect grab at SS613 (Area 21)
Attempt 1: rejected, no recovery
- 1040 Attempt 2: accepted, 11 cm pen.
Additional volume needed for toxicity
- 1045 Attempt 3: rejected, no recovery
- 1047 Attempt 4: rejected, rock in jaws
- 1050 Attempt 5: accepted, 11 cm pen.
- 1055 Attempt 6: rejected, underpenetrated
(9 cm)
- 1100 Attempt 7: rejected, no recovery
- 1102 Attempt 8: rejected, rock in jaws
- 1105 Attempt 9: rejected, underpenetrated
(2 cm)
- 1110 Attempt 10: accepted, 11 cm pen.
- 1115 Attempt 11: rejected, rock in jaws
- 1117 Attempt 12: accepted, 11 cm pen.
- 1122 Attempt 13: rejected, rock in jaws

K. McPeck

7/13/23

- 1130 SS613 attempt 14: accepted -
collected remaining by hand
just off bow of boat
- 1200 Head to Area 7
- 1205 Collect grab at SS544 (Area 7)
^{Attempt 1:} rejected, no recovery
- 1210 Attempt 2: accepted, 21 cm pen.
- 1230 Head to SPM for lunch
- 1250 Head to Area 34
- 1315 Collect grab at SS680 (Area 34)
Accepted, 19 cm pen.
- 1335 Head to Area 37
- 1350 Collect grab at SS700 (Area 37)
accepted, 11 cm pen.
- 1415 Collect grab at SS705 (Area 37)
Accepted, 21 cm pen.
- 1445 Collect grab at SS704 (Area 37)
Attempt 1: rejected, no recovery
- 1447 Attempt 2: rejected, no recovery
- 1455 Attempt 3: accepted, 17 cm pen.
- 1520 Head to Area 32 to scope accessibility
of surface grab and core locations
- 1540 All locations for grabs and short cores
accessible in Area 32
- 1545 Head to processing barge to leave
Tier 2 cooler (1 sample) *Return to Rain.*

24 K. McPeck

7/13/21

- 1600 Transfer Tier 2 sample to processing crew, depart for SPM
- 1605 Arrive SPM, unload samples, begin sample QC, K. McPeck and C. Durand off-water
- 1630 C. Durand departs
Courier arrives, K. McPeck departs,
- 1715 end of field day

← K. McPeck
7/13/21

K. McPeck

7/14/21²⁵

- 0615 Arrive SPM, prepare boat for core sampling
- 0630 Conduct H&S briefing
Crew: K. McPeck (windward)
E. Sloan } (Gravity)
R. McEliece }
- Weather: 50s, cloudy
- 0645 Depart SPM for processing barge, Gravity conducting boat maintenance
- 0720 Depart processing barge for Area 34
- 0740 Collect core at 1T682 - Attempt 1 (Area 34)
Accepted, 97.8% recovery
Additional volume needed for toxicity
- 0800 Attempt 2 @ 1T682
Rejected, under-penetrated
- 0810 Attempt 3 @ 1T682
Accepted, 100% recovery
- 0825 Attempt 4 @ 1T682
Accepted, 91.4% recovery
- 0835 Attempt 5 @ 1T682
Accepted, 93.3% recovery
- 0845 Attempt 6 @ 1T682
Accepted, 76.7% recovery
- 0920 Collect core at 1T685 - Attempt 1 (Area 34)
Accepted, 89.3% recovery
Additional cores needed for toxicity testing *Rite in the Rain*

26 K. McPeck

7/13/21

- 0930 Attempt 2 @ IT685
Accepted, 92.6% recovery
- 0940 Attempt 3 @ IT685
Accepted, 77.8% recovery
- 0950 Attempt 4 @ IT685
Accepted, 97.1% recovery
- 0955 Attempt 5 @ IT685
Accepted, 83.3% recovery
- 1025 Collect core at IT681 (Area 34)
Accepted, 94.3% recovery
- 1130 Collect core at SC680 (Area 34)
Accepted, 90.0% recovery
Additional volume needed for toxicity testing
- 1140 Attempt 2 @ SC680
Accepted, 88.9% recovery
- 1200 Vibracore electrical fault, return to SPM to troubleshoot
- 1430 Depart SPM for Area 34 to continue coring
- 1455 Collect core at SC680 - attempt 3
rejected; hit refusal at 2 ft
- 1510 Attempt 4 @ SC680
Accepted, 87.5% recovery
- 1525 Attempt 5 @ SC680
Accepted, 87.5% recovery

K. McPeck

7/14/21²⁷

- 1540 Head to processing barge
- 1555 Arrive processing barge,
K. McPeck stays to help process,
Gravity heads to SPM
- 1720 K. McPeck departs barge to
next carrier
- 1730 ARI carrier arrives, transfer
custody of samples
- 1755 K. McPeck departs, end of field
day

~~McPeck~~
7/14/21

28 K. McPeak

7/15/21

- 0645 Arrive SPM, prepare boat for core sampling
- 0700 Conduct H+S briefing
- Crew: Kate McPeak - Windward
Ed Sloan } Gravity
Ryan McEliece }
- Weather: 50s, cloudy
- 0720 Depart SPM for Area 23
- 0735 Scope IT625. Not accessible by boat. Location is next to a metal seawall.
- 0805 Collect core at IT697, attempt 4.
(Attempts 1-3 collected 7/6/21; location needs to be re-collected)
rejected, under-penetrated (69.0% recovery) *
- 0825 Attempt ^{km} 65 at Sta IT697 (Area 36).
accepted, 100% recovery
- 0850 Head to Area 34
- 0910 Collect core at IT686 (Area 34)
Attempt 1: rejected; core tube tipped over
- 0925 Attempt 2 at IT686
rejected, recovery > 100%
- 0945 Attempt 3 at IT686
accepted, 97.0% recovery
- 1000 Head to Area 23

K. McPeak

7/15/21²⁹

- 1015 Collect core at SC620 (Area 23)
Accepted, 97.5% recovery
- 1030 Deliver cores to processing barge
and transport IDW to SeaHorse barge
- 1130 Head to Area 32
- 1150 Collect core at SC672 (Area ^{km} 32)
Accepted, 95.3% recovery
- 1235 Collect core at SC676 (Area 32)
Accepted, 95.0% recovery
- 1245 Collect core at SC675 (Area 32)
Accepted, 97.6% recovery
- 1300 Collect core at SC677 (Area 32)
Accepted, 100% recovery
- 1315 Collect core at SC671 (Area 32)
Accepted, 97.6% recovery
- 1325 Head to processing barge
- 1410 Depart processing barge, head to Area 3
- 1425 Collect core at SC525 (Area 3)
Accepted, 97.6% recovery
- 1455 Collect core at SC5^{km}24 (Area 3)
Accepted, 92.7% recovery
- 1520 Collect core at SC528 (Area 3)
Accepted, 92.5% recovery
- 1525 Head to processing barge

Rite in the Rain.

30 K. McPeak

7/15/21

1535 Arrive processing barge, unload cores.

K. McPeak stays to help process cores.

Gravity departs.

^{km}
1725 K. McPeak departs processing barge
to meet courier

1730 H&S courier arrives

1745 K. McPeak departs, end of Reid
day

McPeak

7/15/21

S. Replinger

7/16/2021 31

0615 Arrive at SPM. Prep for sampling.

Crew: S. Replinger — w/w

Chad Durand — Clearways

Ryan McEvee } Gravity
Ed Sloan }

Weather: overcast, 60s/60s

0645 Conduct H&S briefing.

0700 Depart SPM to begin collecting
surface grab samples.

0735 Collect surface grab at SS707.

Rejected (9 cm penetration)

0738 2nd Attempt at SS707.

Accepted. 14 cm penetration.

0750 Collect grab at SS703.

Rejected. No sediment in grab

Contact^(SP) Motion to SS706 while
checking on location details

0800 Collect grab at SS706.

Rejected. Over penetration.

0805 Collect grab at SS706 (2nd attempt)

Accepted. 21 cm penetration.

Also collect FD (LDW21-SS706-FD).

0820 Return to SS703. Target location appears
to be on land and not sampleable.

Concrete apron around cutoff prevents
sampling at closest point.

Rite in the Rain

32 S. Replinger

7.16.2021

- 0825 Collect grab at SS703. Location shifted just south of aftall ground fence (9.5 ft from target). Rejected. Rain in jaw.
- 0827 3rd attempt at SS703. Rejected. Hit concrete apron; no penetration.
- 0829 4th attempt at SS703. Shifted slightly farther from target. (11 ft).
- 0831 5th attempt at SS703. Accepted. 15 cm penetration 10.7 ft from target.
- 0855 Hand-collect sediment at SS701. 10 cm penetration; accepted.
- 0920 Recon Area 35. Decide to return at lower tide to sample by hand due to low water level. Head to Slip 6.
- 0943 Collect grab at SS675. Rejected. Over-penetrated.
- 0945 2nd attempt at SS675. Rejected. 0 cm penetration
- 0947 3rd attempt at SS675. Accepted. 16 cm penetration.
- 1003 Collect grab at SS676. Rejected. Over-penetration.
- 1007 2nd attempt at SS676. Accepted. 15 cm penetration.

S. Replinger

7.16.2021

33

- 1022 Collect grab at SS678. Rejected. Over-penetration.
- 1024 2nd attempt at SS678. Accepted. 19 cm penetration.
- 1047 Collect grab at SS646. Target location on rip rap slope; shifted location away from slope to closest sampleable area. Rejected. 0 cm penetration.
- 1050 2nd attempt at SS646. Rejected. 0 cm penetration. Still on rip rap.
- 1052 3rd attempt at SS646. Shifted farther from slope (15 ft) Rejected. Rock in jaw Moving on from location - will return at lower tide to hand-collect.
- 1109 Collect grab at SS503. Target on rip rap slope. Move away from bank to attempt sample. Will attempt hand collection at lower tide.
- 1112 Collect grab at SS504. Accepted. 11 cm penetration.
- 1125 Collect grab at SS507. Rejected. 9 cm penetration.
- 1127 2nd attempt at SS507. Accepted. 15 cm penetration. *Rain in the Rain.*

S. Replinger

7.16.2021

- 1138 Collect grab at SS518
Rejected (over-penetration)
- 1140 2nd attempt at SS518.
Accepted; 17 cm penetration
- 1150 Collect grab at SS516.
Accepted. 18 cm penetration.
- 1203 Collect grab at SS500.
Accepted. 19 cm penetration.
- 1212 Collect grab at SS501
Accepted. 16 cm penetration.
- 1223 Collect grab at SS502
Accepted. 17 cm penetration.
- 1320 Collect grab at SS517. - hand-collect.
Accepted (10 cm).
- 1410 Hand-collect tox test grab at SS689
Accepted. 10 cm penetration.
- 1510 Hand-collect tox test grab at SS688.
Accepted. 10 cm penetration.
- 1610 Arrive at SPM.
Chad Drand departs.
- 1620 Hand-collect tox test grab at SS503.
Accepted; 10 cm penetration.
- 1640 Arrive a processing barge.
Prep samples for courier.
- 1700 Load barge to take samples to
next courier.

S. Replinger

7.16.2021

- 1713 Offload supplies and coolers.
Prep samples for courier.
- 1735 Courier arrives. Load coolers &
sign COCs.
- 1800 Depart SPM; end of field day.

~~S. Replinger
7.16.2021~~

7/19/21

- 0800 Arrive SPM, prep for sampling
- 0830 Conduct H+S meeting
 Crew: K. McPeak - Windward
 E. Sloan } Gravity
 R. McEliece }
- Weather: 60s, sunny
- 0850 Depart SPM for Area 32 to collect vertical cores
- 0920 Collect vertical core at SC674
 Accepted, 100% recovery
- 0950 Collect vertical core at SC673
 Accepted, 99.0% recovery
- 1010 Head to Area 23
- 1025 Collect vertical core at ^{km}SC IT621,
 attempt 9 (previous attempts by
 SEE); Accepted - 82.2% recovery
- 1045 Head to Area 18
- 1055 Collect core at IT600, attempt 4
 Accepted, 95.1% recovery
- 1110 Head to processing barge to deliver
 cores and take lunch break
- 1210 Head to Area 1
- 1245 Collect core at IT563
 Accepted = 94.3% recovery
- 1300 Collect core at IT504
 Accepted, 82.5% recovery

7/19/21

- 1320 Collect core at IT512
 Accepted, 76.3% recovery
- 1335 Head to Area 16
- 1350 Collect core at SC570
 Accepted, 86.8% recovery
- 1405 Collect core at SC573
 Accepted, 92.5% recovery
- 1420 Head to Area 34
- 1435 Collect vertical core at IT684,
 attempt 4 (previous attempts by SEE)
 Accepted, 83.3% recovery
- 1450 Head to processing barge to deliver
 cores and transport 10W
- 1540 Head to SPM for restroom break, make
 plan for coring tomorrow
- 1620 Head to processing barge
- 1635 K. McPeak stays on processing barge
 to help process cores, Gravity
 departs
- ~~1820~~ 2035 Depart processing barge for SPM,
 unload samples and supplies
- 2045 OFF-water, end of field day

7/19/21

38 K. McPeck

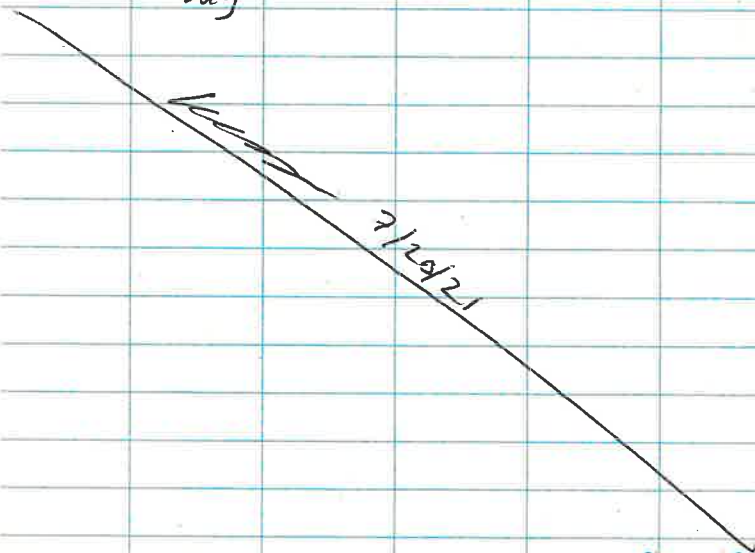
7/20/21

- 0945 K. McPeck arrives SPM, prep for sample processing on Sea Horse
- 1000 Depart SPM for processing barge to collect supplies and head back to SPM
- 1020 Arrive SPM
- 1030 Susie McGrody arrives
- 1045 Rachel Crowley arrives
- 1100 Cindy Fields arrives
- Crew: S. McGrody } Windward
K. McPeck }
R. Crowley - Clearway
C. Fields - Anchor
- Weather: 6ds, cloudy
- 1120 Depart SPM for Sea Horse barge to process cores
- 1140 H+S meeting on Sea Horse (conducted by Anchor)
- 1250 Arrive SC674
- 1320 Collect core at SC674 (sonic drilling) keep material from 11ft to 21ft, process core (77% recovery)
- 1430 Arrive SC673
- 1450 Collect core at SC673 (sonic drilling) attempt 1 - rejected, ~~66%~~^{61%} 61.0% recovery

K. McPeck

7/20/21

- 1550 Attempt 2 at SC673 - not successful. Hit rock ^(rip rap) at ~ 10ft. will reposition and try again
- 1615 Attempt 3 at SC673 collected about 10.2 ft from target Accepted, 80% recovery, process core
- 1745 Depart Sea Horse for SPM, unload samples and meet ARI carrier
- 1810 S. McGrody, C. Fields, and R. Crowley depart SPM
- 1845 K. McPeck departs SPM, end of field day



40 K. McPeak

7/21/21

- 0745 Arrive SPM, prepare for surface grab sampling
- 0800 H&S meeting
Crew: K. McPeak - Windward
C. Durand - Clearway
E. Sloan } Gravity
R. McEliece }
- Weather: 60, cloudy
- 0825 Depart SPM for Area 35; will return later with higher water
- 0850 Head to Area 18
- 0920 Collect grab at S5583
Accepted, 22 cm penetration
- 0930 Collect grab at S5586
Accepted, 20 cm penetration
- 0940 Head to Area 16
- 0945 Collect grab at S5570 Attempt 1
~~0945~~ Rejected, no recovery
- 0950 Attempt 2 at S5570
Accepted, 18 cm penetration
- 1000 Head to Area 10
- 1005 Collect grab at S5556
Accepted, 16 cm penetration
- 1015 Collect grab at S5555
Accepted, 14 cm penetration
Collected field duplicate

K. McPeak

7/21/21⁴¹

- 1030 Head to Area 5
- 1035 Collect grab at S5536
Accepted, 22 cm penetration
- 1050 Collect grab at S5541, attempt 1
Rejected, 10 cm penetration (under-penetrated)
- 1055 Attempt 2 at S5541
Accepted, 18 cm penetration
- 1105 Head to SPM to meet Giovanna Pagnozzi (Geosyntec)
- 1125 G. Pagnozzi arrives, conduct H&S briefing and Covid screening
- 1135 Depart SPM for Area 35
- 1200 Access S5690 by foot; target location not accessible due to fence and thick marsh vegetation. Called S. McGrady; will sample as close as possible to target
- 1230 Collect grab at S5690 by hand
Collected as close to target as accessible (~32 ft away), Extra volume collected for toxicity testing.
- 1330 Tried to access S5687 but area not accessible due to tide - ~~not enough~~ too much water to ^{Retain the Rain} access by foot + previous attempts

42 K. McPeck

7/21/21

- 1330^{cont.} with power grab not successful.
Discussed with S. McGrady + K. Gross.
Will sample near fence line when we
return to avoid potential access by
geotech crew.
- 1345 Head to Area 17
- 1415 Collect grab at SS575 attempt 1
Rejected, over-penetrated
- 1417 Attempt 2 at SS575
Accepted, 22 cm penetration
- 1430 Head to Area 1
- 1440 Collect grab at SS505
Accepted, 17 cm penetration
- 1455 Collect grab at SS506
Accepted, 15 cm penetration
- 1505 Head to Area 23
- 1520 Scope SS627; located next to
metal seawall - will hand collect
another time
- 1530 Head to SPM
- 1535 Arrive SPM
- 1540 G. Pagnozzi departs SPM
- 1625 C. Durand and Granby depart SPM,
K. McPeck stays to QC samples and
wait for carrier
- 1715 Transfer samples to ARI courier, K. McPeck
departs SPM

S. Replinger

7-22-2021 43

- 0550 Arrive SPM. Prep for sampling.
Crew: S. Replinger } windows
T. Do }
Ed Sloan } Granby
Ryan McEliece }
- Weather: partly cloudy, 60s
- 0615 Conduct H&S briefing.
- 0625 Depart SPM to begin sampling.
- 0645 Collect SS687 by hand in Area 35.
Toxicity sample. 10 cm penetration.
Finish Area 35 sample collection.
- 0750 Collect SS625 and IT625 by
hand. Samples collected as close as
possible to target location; was necessary
to shift location slightly away from bank
due to np rap slope. 10 cm / 45 cm penetration.
- 0810 Collect SS627 (hand-collected) next to
hole from IT627. 10 cm. penetration.
- 0820 Return to boat to process samples
from 625 and 627.
- 0910 Collect core at SC569.
Accepted. 47.5% recovery.
- 0920 Collect core at SC567.
Location shifted ~9 ft to SE to avoid
geotech spud location.
Rejected (55% recovery)
- Rain in the Rain.*

44 S. Replinger

7.22.2021

- 0930 Chris arrives to transport cores to processing barge. Thai Do departs to join barge crew.
- 0934 Second attempt at SC567.
Accepted. 78.8% recovery.
- 0948 Collect core at SC566. Location shifted to N to avoid grotch spid location.
Accepted. 95.6% recovery.
- 1009 Collect core at SC561.
Accepted. 82.5% recovery.
- 1026 Collect core at SC526.
Accepted. 78.6% recovery.
- 1040 Collect core at SC530.
Rejected - no penetration.
- 1044 Second attempt at SC530.
Accepted. 77.5% recovery.
- 1058 Collect core at SC540.
Accepted. 80% recovery.
- 1120 Collect core at SC574.
Accepted. ~~81.4%~~⁸² reco 84.4% recovery.
- 1150 Collect grab at SS646.
Hand collected. Sample collected from between rocks / rip rap on slope as close to target location as possible while still penetrating 10cm.
Process sample.

S. Replinger

7.22.2021

45

- 1304 Collect core at SC550.
Rejected. 47.5% recovery and less than 60 cm of material. Fighting strong current.
- 1314 Second attempt at SC550
Rejected. Insufficient material. For sample.
- 1345 Return to processing barge to make more core tubes and offload waste barrels.
- 1500 Thai Do returns to Gravity vessel.
Return to Area 8 to finish sampling.
- 1519 Collect core at SC551.
Rejected. 42.2% recovery & insufficient material.
- 1532 Second attempt at SC551.
Accepted. 91.3% recovery
- 1545 Return to SC550.
- 1530 Third attempt at SC550.
Rejected. 15% recovery.
- 1606 Fourth attempt at SC550.
Rejected. 25% recovery.
- 1617 Fifth attempt at SC550.
Rejected. 41.3% recovery.
- 1630 Sixth attempt at SC550.
Rejected. 37.5% recovery
- 1638 Seventh attempt at SC550. Shifted to SW. 50% recovery.
- Put in the Rain.*

1645 Called Kathy + Susie regarding SC550.
Will make one more attempt w/
longer core tube. Otherwise use Attempt 7

1657 Eighth attempt at SC550 and archive below.

Accepted. 72.5% recovery
but accepted per conversation w/
Kathy/Susie.

1720 Return to processing barge.

1752 Discuss processing of SC550 with
Kathy and Susie. Processing team
found ~13 cm at bottom of ^{core} ~~sample~~ was
empty. Likely that bottom of core washed
out. Determined that it would be best to
use total depth (88 cm) to calculate
recovery for processing. Interval below
RAL (SC550-AA) will be archived.

1820 Finish processing. Load Gravit boat and
prepare to head back to SPM.

1830 Return to SPM. Offload supplies.

1906 Depart SPM. End of field day.

~~S. Replinger
7.22.2021~~

08.02.2021

S Replinger

13

0845 Arrive at SPM to prep for sampling.

0900 Meet Granly crew. Load supplies

Crew: S Replinger - windows

Ed Sloan

Perez Trudeau } Granly

Weather: sunny, 70s

0915 Conduct H&S briefing.

0935 Head upstream to Area 37 to begin sampling (IT698, 699, 702, 703).

1000 Talk to Kathy Godfredsen - will plan to recollect 621 if time allows due to issue with how core was processed.

1024 Collect core at IT699 using revised target location (attempt 1) - IT699x
~~Rejected~~ ^(SP) - 1.5 ft penetration.1044 Collect second attempt at IT699. - core y.
~~Rejected~~ ^(SP) - 2.5 ft penetration then hit refusal.1101 Third attempt at IT699.
Rejected - refusal at 2.5 ft.

1127 Fourth attempt at IT699 - shifted farther away from bank.

Rejected - refusal at ~1.5 ft.

1153 Fifth attempt at IT699
Accepted. 83.3% recovery.
Process as IT699z.

Rite in the rain.

14 08-02-2021

S. Replinger

1210 Processing notes - for location IT699, attempt 1 will be core IT699x, attempt 2 will be core IT699y, and attempt 5 will be core IT699z.

1210 Move to location IT703 along at fall.

1215 First attempt at IT703.
65% recovery, 4 ft penetration.

1255 Second attempt at IT703.
(Note - had to stop to prep core tubes prior to collecting core).

Vibracore stopped working with tube about 6.7 ft in mud. Working on troubleshooting problem.

50% recovery, 6.5 ft penetration.

1405 Talked to Kathy - will process attempt 1 as IT703x. Attempt #2 will be discarded.

Continued working on vibracore fix. Headed downstream of bridge to avoid getting stuck by tide.

1505 Vibracore seems to be working again. Head to IT621 to test vibracore and attempt sample.

1513 First attempt at IT621 (10th attempt overall)
Accepted. 97.9% recovery.

08-02-2021

S. Replinger

15

1530 Head back upstream to Area 37.

1600 Third attempt at IT703.
53% recovery, 8 ft penetration.

1619 Fourth attempt at IT703
Vibracore died after drive of ~2 ft. 85% recovery.

1635 Talked to Kathy. Agrees to retain Attempt #3 as core Y (IT703Y); attempt 4 will be discarded.

1655 Return to processing barge to help finish processing cores. Grady departs to fix vibracore and prep for next day.

1737 Depart barge.

~~1749~~

1749 Offload supplies off water.

1757 Depart SPM. End of field day.

S. Replinger
08-02-2021

16 08.03.2021

S. Replinger

1045 Arrive at SPM. Prep for sampling.

1055 Load supplies onto boat.

1100 Conduct H&S briefing.

Crew: S. Replinger (inv)

Ed Sloan

Chad Furlie } Gravity

Weather: Sunny, 70s.

1107 Depart SPM. Head to Area 37 to continue sampling (IT 703, 702, 698).

1125 Arrive at IT703. X and Y cores were collected at this location yesterday - still attempting to get full penetration core.

1137 Fifth attempt at IT703.

76.3% recovery, 8 ft drive.

Accepted. Process as IT7032.

1204 First attempt at IT698. Revised target is just away from bank w/ rip rap on slope.
5 ft drive, 58.0% recovery.

1218 Second attempt at IT698 - shifted about 10 ft back from target - 1st attempt.

Refusal at 2 ft, 80% recovery.

1234 Third attempt at IT698 - shifted another 15 ft away from shore.

Hit refusal at 4 ft, 85.0% recovery.

08.03.2021

S. Replinger

17

1249 Fourth attempt at IT698. Shifted another 12 ft away from shore.

Refusal at ~~2~~^{2.5} ft, 97.6% recovery

1318 Fifth attempt at IT698. Shifted another ~~2~~³ ft from last attempt.

Refusal at 1.5 ft - no recovery.

1259 Talked to Kathy. Agreed to retain attempts 1 and 3 pending additional attempt, will discard attempts 2 and 4 for IT698.

1341 Sixth attempt at IT698 - moved downstream of attempt no. 3.

Refusal at 1.4 ft, 0% recovery.

1420 Seventh attempt at IT698. Shifted upstream of attempt 3 - between wall & pilings.
7.5 ft drive, 76.7% recovery.

1430 Talked to Kathy - will do one more attempt at IT698 closer to target to try to get better recovery.

1453 Eighth attempt at IT698.
9 ft drive, 74.4% recovery

About 9 ft from revised target

1500 Talked to Kathy - will process attempt 8 as core X and attempt 7 as core Y.
All others will be discarded.

1510 Head to 702.

08-03-2021

S. Replinger

- 1526 First attempt at 1T702 (8 ft from target)
Refusal at 4.3 ft, 89.5% recovery.
- 1551 Second attempt at 1T702. (7 ft from target)
Refusal at 5 ft, 64% recovery.
- 1622 Third attempt at 1T702 (22 ft from target)
Refusal at 5 ft (woody debris in shoe),
93% recovery.
- 1650 Fourth attempt at 1T702.
Refusal at 6.5 ft, 88.5% recovery.
About 13 ft from target (downstream)
- 1700 Talked to Kathy. Will process 1T702 as:
Attempt 1 = core X
Attempt 4 = core Y
Attempts 2+3 will be discarded.
- 1720 Wapup sampling. Depart Area 37.
- 1745 Arrive at processing barge. Offload
supplies and begin to help process.
- 1800 Gravity departs
- 1910 Depart processing barge & return to
SPM. Offwater at 1930.
- 1945 Depart SPM. End of field day.

~~S. Replinger~~
8.3.2021

2 6/29/21

Sunny, clear, 70s

7:00 Brandi Quinlisk + Amara Vandervort arrive

7:20 On-water (AU+BQ)

Begin barge setup

7:50 - AU+BQ off water

8:00 Healthy + Safety Tailgate

A Vandervort Cindy Fields

B Quinlisk Andy Zacek

S McGroddy Rachel Crowley

Ed Sloan Mik Bacher

Tarek Akkari

8:40 on-water (all)

- Set-up processing barge

- decon equipment

12:40-17:00 Kristen Kems on barge

- 1200 begin processing vertical

cores - pers. S. McGroddy cores w/ < 3 in.

17:00 completed distance from boat measurement

- Samples to lab courier @ 20 do not require additional collection

1750 pack up and leave barge

1756 off water

6:15 - SM, ES, CF, AZ, RC, NB, TA leave

6:30 - AU+BQ prep for 6/30 + leave

6/30/21

Overcast 60's

8:30 Safety-tailgate

Amara Vandervort

Brandi Quinlisk

Suzanne Replinger

Rachel Crowley

Cindy Fields

Andy Zacek

Tarek Akkari

Mik Bacher

Katy Gross (oversight)

8:45 - All on-water except for

Suzanne and Amara and setup at processing barge.

9:10 - Suzanne and Amara

on water after samples to lab courier.

10:50 Begin processing vertical cores

10:00 - Debra W on barge 4:00 Debra W off

5:30 complete core processing + begin barge decon.

5:45 samples to lab courier

6:00 Off water

SR, ES, CF, AZ, RC, NB, + TA leave

6:15 - AU+BQ prep for 7/1, then leave

4 7/1/2021

cloudy 60s

8:15 Brandi Quinisk and
Amara Vandervoort arrive
unload supplies

8:40 Health + Safety Tailgate
Brandi Quinisk Tarek AKKari
Amara Vandervoort N.K Bacher
Rachel Crowley Kristen Kerns
Cindy Fields Andy Zacek
Chris Stokes

8:56 On water - Setup processing

12:45 barge, Kristen K leaves barge - 10:30 +
10:30 - Jeff Stokes ^{on barge} 1:30 Kathy G. arrives ^{3:30}
11:20 process cores ^{on barge}
5:26 Samples to courier 3:00 Thai D.
6:05 de mob 5:15 on barge

6:20 off water

all but AU + BQ leave
- AU + BQ - logistics / supplies
6:45 AU + BQ leave

~~AU 7/1/21~~

overcast mid 60s

7/2/2021 5

8:20 Brandi Quinisk and
Amara Vandervoort arrive
and start paperwork

8:25 Samples to courier

8:30 Safety tailgate

Brandi Quinisk Tarek AKKari
Amara Vandervoort N.K Bacher
Rachel Crowley Kristen Kerns
Cindy Fields ~~Andy~~ Jim Hearsy
AV

8:55 on water - Setup processing
barge

9:30 begin processing cores

12:00 Kristen K left barge
5:45 Samples to laboratory
5:15 Thai D. - arrives on barge
6:40 De mob and move used cores

7:30 leave marina / off water
move cores to storage unit
8:00 end of field day

~~AU 7/2/21~~

6 7/16/21

65+ cloudy

8:55 Brandi Dunlick +
Amara Vandenberg arrive and
Unload supplies + prep
10:05 Safety gate
Amara Vandenberg Tarek AKKari
Brandi Dunlick Cindy Fields
Rachel Crowley Nik Bucher
Andy Zacet Jean Hirayama
10:30 on water - setup processing
barge. Begin processing.

12:55 SC58

silt to sand with the RAL
interval. (a 30cm) Spoke to
Kathy G. RAL interval to be
processed as 0-60³⁰ Archive
collected for A1 (0-30) + A2
(30-50-2cm)

16

~~11:15~~ Matt Breidenthal arrives on
barge.

~~11:30~~ IT 697 - very light silt, unconsolidated,
114cm drive 71cm measured core
upon opening core, sample was
majority water. ~38cm of sample
core rejected & will be re-collected.
moving forward a blue pump will

(cont.)

7/16/21 7

be used on this type of sample.

17

~~11:30~~ Samples to courier
J. Hirayama off water

18

~~11:50~~ S. Replinghof on barge

19

~~12:25~~ T. Do on barge

~~16:00~~ 19:00 M Breidenthal off barge

~~11:40~~ spoke w/ Susie McGroddy RE
processing recovery percentages for
samples w/ high liquid content and
setting of fine sediment. Agreed to
check w/ collection boat to verify
core consistency and proceed w/
compaction correction.

20:00

~~8:00~~ pack up barge

20:25 off water

20:30 leave marina

AV
7/16/21

8 7/7/21 low 60s cloudy
9:15 Brandi Qunlisk + Amara Vandervoort
arrive and load supplies on boat.

10957 Safety-tailgate
N Kristin Kerns Brandi Qunlisk
Amara Vandervoort Nik Bacher
Andy Zacek Cindy Fields
Tarek Akkari Rachel Crowley

10:05 Samples to courier

10:15 on water; Setup processing barge

11:00 ~ begin processing cores

3:00 - S. McGroddy + D. on barge

5:30 - Samples to courier.

5:45 S. Replinger + K. McPeck
on barge

6:45 S. Replinger + K. McPeck
leave barge

7:10 Tarek Akkari leaves barge

7:30 - Pack up barge for the day

7:45 everyone else off water

AV

7/7/21

low 60s cloudy 7/8/21 9
9:15 Brandi Qunlisk + Amara Vandervoort
arrive + load supplies on boat.

10:00 - Samples to lab courier

10:05 - Safety-tailgate.
Amara Vandervoort Brandi Qunlisk
Andy Zacek Kristin Kerns
Tarek Akkari Nik Bacher
Rachel Crowley Cindy Fields

10:20 on water; Setup processing
barge

10:45 begin processing cores

~~11:30 AM~~

11:30 Core IT 635 has 4 intervals past
RAL (A-E) instead of 5. Core hit
refusal (piling material in the
catcher) Processing core after
checking w/ Susie M + Kristen K.

11:33 Kate McPeck on barge.

1724 Samples to lab courier
Kristin Kerns left barge

1842 Thai Do on barge

Plot in the Rain

10 7/18/21 pg 2 of 2

2020 Pack up barge
2030 off water
2045 left manna.

~~NS
7/18/21~~

70s Sunny

7/19/21

11

9:00 Brandy Quinist arrives
and transports field supplies
9:15 Amara Vanderhoff arrives
and transports supplies
10:05 Safety tailgate
Amara Vanderhoff Rachel Crowley
Brandy Quinist Tarek Akkar
Nick Bachor Ann Fitzpatrick
1038 Samples to lab courier
1045 on water
Setup processing barge
1121 Nick Eckhardt on barge
1130 Begin processing cores
1209 Ann Fitzpatrick leaves barge
1215 Giovanna Pagnozzi arrives
on barge
1333 G. Pagnozzi leaves barge
1727 Samples to lab courier
R. Crowley leaves barge
1845 pack up barge all but BA + AV
19:00 off water + left manna
20:00 finish demob + cover for ~~next week~~ ~~head~~
AV + BA 7/19/21

7/12/21 70's sunny

0631 - A Vandervort arrives to resupply processing barge

0645 - Nick Eckhardt arrives to supply barge.

0700 Safety talk
 Nick Eckhardt Andy Zacek
 Nik Bacher Tarck Akkar
 Amara Vandervort

0718 on-water; setup processing barge

0807 begin processing cores

1209 Leave barge for waste barrel transfer off water / Jim Hearsey ^{arrives} _{meets}

1315 Back on water / continue ^{finance} processing cores

1515 Thai Do on barge

1530 Suzanne Replinger on barge and Chad Durand on barge

1605 Chad Durand off barge

1700 Samples to lab courier
 Suzanne Replinger off barge

80's sunny

7/12/21 13
 Pg 2 of 2

1828 Pickup barge

1840 Back @ manha / off water

1850 Leave manna

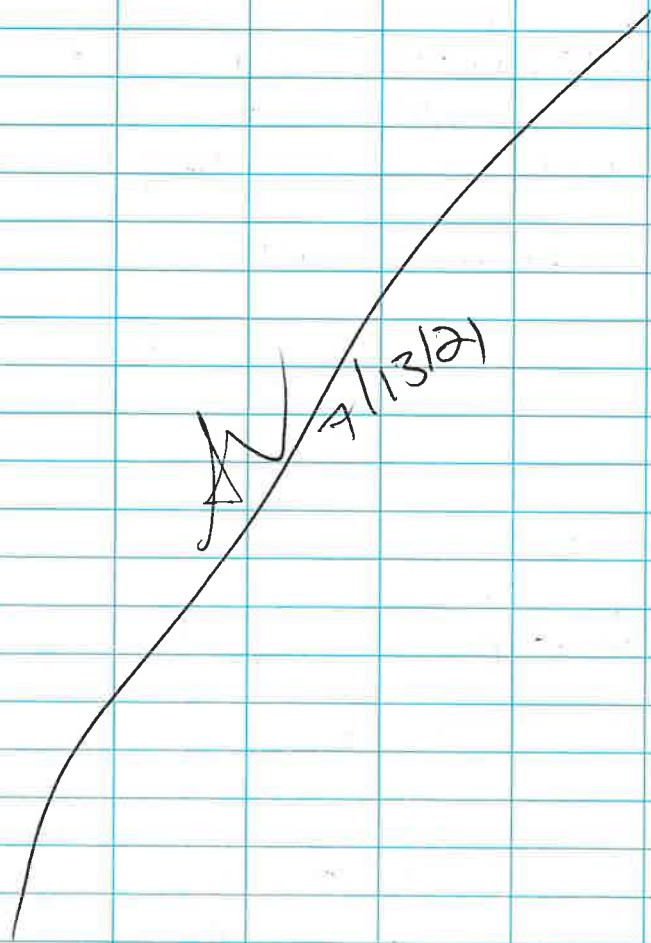
T. Do + A Vandervort to storage unit.

1912 Leave storage unit / end of field day

~~Vandervort~~
 7/12/21

¹⁴ 7/13/21 pg 1 of 2 @ Nercast, 60s
~~1832~~ Amara Vandervoort arrives
 w/ ice & supplies
~~1855~~ Nick Eckhardt arrives w/
 ice & supplies
 0705 Safety tailgate
 Amara Vandervoort Rachel Cowley
 Nick Eckhardt Andy Zacek
 Steve Strenl Tarek Akkari
 N.K. Bacher
 0726 All on water except A Vandervoort
 0730 Set up processing barge
 0736 Samples to lab courier.
 0748 A Vandervoort on water
 0811 Begin processing cores
 1538 Thai DO arrives on barge.
⁶
~~1733~~ Pack up barge
^{AN}
 1655 Leave barge
~~1855~~ arrive @ manna toffnada
^{AN}
 1700

pg 2 of 2 7/13/21 ¹⁵
 1705 all but Nick E + Amara V leave
 1724 Samples to lab courier
 1730 NE + AN leave manna



16

7/14/21

60's overcast

0645 - Nick Eckhardt + Amara Vandervoort
arrive + resupply barge

0659 - Safety tailgate

Tarek Akkari	Steve Sirehl
Rachel Crawley	Nik Bacher
Andy Zacet	James Brown
Amara Vandervoort	Nick Eckhardt

0715 load boat / on water

0728 setup processing barge

0759 Cheronne Oreiro arrives on
barge

0832 begin processing cores

1454 James Brown leaves barge

1555 Kate McPeck on barge

1610 Thai Do on barge

1721 Samples to lab counter
Thru Kate M. off of barge

1800 Pack up + leave barge all gear except
T.O., A. Vandervoort

1805 Alanna - off water

1810 Call w/ Kathy Gross re field core
1830 Leave Salt Park memorial / AV 7/14

60's overcast.

7/15/21 17

0700 - Nick Eckhardt + Amara Vandervoort
arrive + unload supplies

0720 - Amara Vandervoort arrives +

0743 - Unloads supplies
0743 - Samples to laboratory

0800 - Safety tailgate.
Amara Vandervoort

0821 on water / setup processing
barge

0950 begin processing cores

1016 James Brown on barge

1222 Call w/ S. McGroddy RE IT 621
5.1 ft recovery in field 4.1 ft on barge
headspace + 2 cm void. 75% of

Core was sand which would
not account for low recovery core
pressed samples were jarred.

Kate McPeck arrives on barge

1554 Call w/ S. McGroddy RE CAT push
cores. 3 at top + @ 650 with
≤ 3.5 ft penetration - Sand lock off in the rain

18 7/15/21 (cont.)

1534 - lifted Aligo off surface. Same situation @ 655. Decision was made to process what ~~AV~~ was depth collected and send to lab to archive.

~~1731 Kate AV~~

1710 Thai DO arrives on barge

1731 Kate McPeck and James Braw
Leave barge
Samples to lab courier

1750 pickup barge

1800 off water

1807 Leave marina

~~AV 7/15/21~~

Cloudy, 60's

7/16/2021 19

0800 Arrive at South Park Marina

08:05 H+S tailgate and COVID screen conducted by Brandi Quinlisk
Attendees:

Amara Vandervort	Jim Hearshey
Kristen Kerns	Cheronne Oreiro
Tarak Akkari	Steve Strehl
Rachel Crowley	

0815 Amara, Steve + Rachel on water

0845 All others on water

10:00 Kristen Kerns leaves barge.
10:45 Cindy Bartlett, Geosyntec
arrives on barge.

H+S briefing + COVID screen

12:50 Cindy Bartlett leaves barge

16:00 Amara Vandervort leaves barge for the day.

16:30 Thai DO arrives on barge

17:15 off barge (all)

17:20 All off water

17:30 Tarak, Rachel, Jim, Cheronne + Steve leave site

18:00 Thai DO and Brandi Quinlisk leave site

BQ 7/16/2021 *Plot in the Rain*

7/19/2021

Sunny, low 70's

0830 Nick Eckhardt arrive at South Park Marina.

0845 Brandi Quinlisk arrive on site

0900 All crew onsite and conduct H+S

tailgate briefing

Brandi Quinlisk (conducted)

Rachel Crowley Cindy Fields

Andy Zacek Steve Stehl

Jim Hearsby Nick Eckhardt

09:30 ON water

09:35 on barge load and prep
for processing12:45 Matt Breidenthal (archeologist)
arrives at barge.COVID screen + H+S briefing
conducted.

10:30 Cores SC673 and SC674
received. Processing barge
measured sediment: recovery depth
greater than collection recovery
depth. May be due to sediment
settling from water in tube. Discussed
with Susie McBroddy and she
directed to process at 100% CF.
Same principle applied when
received core for SC671621.

(92)

16:30 Thai Do came onto barge.

16:35 Kate McPeak came onto
the barge to help process.

20:35 All crew leave barge

20:45 All crew off water.

21:00 All crew leave site.

BD
7/19/2021

22 cloudy, light rain
low 60's

7/20/2021

- 0715 Brandi Quinlisk arrive at site.
- 0725 Nick Eckhardt arrive at site.
- 0800 BQ conduct H+S tailgate, present:
Nick Eckhardt Jim Hearshey
Andy Zacek
Steve Stehl
- 08:15 On - water, ad crew
- 1150 SC54B collected with no swaling
material. Discussed with Susie Malsodaly
and she said to process the core as a
0-60 core only - no z layer (0-30cm)
Sample should be taken.
- 13:38 Matt Breidenthal arrives on
barge for archeology
monitoring.
- 1735 Thai Do arrives on barge to
help process cores.
- 1830 Matt Breidenthal leaves
barge and site for the day.
- 19:50 Remaining crew leave barge.
- 20:02 All crew leave site.

BQ
7/20/2021

mostly sunny, low 70's

7/22/2021 23

- 0800 Brandi Quinlisk arrive
on site and begin loading.
- 0830 BQ conduct H+S tailgate
those present:
Rachel Crowley Cheronne Oreiro
Andy Zacek Steve Stehl
- 08:45 on water
- 0850 At barge and setup for
processing.
- 09:35 Thai Do arrives on barge to
help process.
- 11:45 Thai Do leaves barge.
- 12:10 Thai Do back on barge.
- 14:00 Thai Do leaves the barge.
- 17:02 Cheronne O. and Andy Z.
leave barge for the day and
to meet lab courier at the
Marina.
- 17:20 Thai Do + Suzanne Replinger
arrive on barge to help process.
- 18:30 All remaining crew leave barge
for marina.
- 19:00 All crew leave site.

BQ
7/22/2021

Rite in the Rain

7/27/2021

Sunny, Low 70's

- 0830 Brandi Quinlisk arrive at South Park marina. Load supplies
- 0900 Remaining crew arrive onsite
- 0906 H+S tailgate briefing, conducted by Brandi Q. those present:
 Rachel Crowley Cheronne Oreiro
 Steve Strehl James Brown
- 09:19 All crew on water
- 09:26 arrive at barge and begin processing.
- 10:29 Discuss with Susie McGroddy
 IT 701-2. Confirmed collection penetration depth of 2.75ft.
 Processing recovery depth = 60cm but field collection recovery depth = 2ft (or 60cm). Susie said this is okay and to proceed with processing.
 F interval is approximately 3cm shy of 30cm - okay per Susie.
- 11:34 All crew leave barge.
- 11:42 All crew off water.
- 11:46 All crew leave site.

BQ

7/27/2021

8/2/21

Sunny, 70's

- 0900 Brandi Quinlisk arrive at South Park marina. Discussion on logistics for today w/Suzanne R.
- 0915 Nick Eckhardt arrive onsite
 BQ + NE begin loading supplies
- 1000 All crew arrive onsite
- 1002 Conduct health & safety mtg.
 Those present:
 Brandi Q Tarek Akkan
 Nick Eckhardt James Brown
 Rachel Crowley Steve Strehl
 Kate McPeck
- 10:12 All crew on water
- 10:15 Arrive at barge & setup for processing.
- 13:32 IT699Z - per Suzanne sediment slipped from bottom of core upon collection. Therefore, processed core using field recovery depth and field recovery percentage from core collection form.

When processing X, Y, Z cores at Area 37.

Rite in the Rain

8/2/21 cont.

if interval lumping due to lithology or end of core, etc., was necessary - sediment was lumped if less than 10cm instead of the usual 15cm, per conversation/instructions from Susie McBroddey on 7/26/21.

17:11 James Brown; arch monitor
 leaves barge for the day.



16:55 Suzanne Replinger arrives on barge to help process.

17:37 All remaining crew leave barge for marina

17:49 All crew off water

17:57 All crew leave site.

~~BQ
8/2/2021~~

Mostly sunny, 70's

8/3/2021

11:55 Brandi Quinlisk arrive onsite and begin loading boat for barge.

11:30 Nick Eckhardt arrive onsite

12:00 All other crew arrive, BQ

12:02 conduct H+S briefing.

Present:

Nick Eckhardt

Steve Strahl

Kate M^oPeck

James Brown

Tarek Akkan

12:13 All crew on water

12:16 Arrive at barge & begin setup for processing.

17:45 Suzanne arrives on barge to help process.

~~17:45~~

19:10 Leave barge

19:30 All crew off water

19:45 All crew leave site.

~~BQ
8/3/2021~~

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 07-20-19
 Weather: 50% overcast
 Logged By: TD

Location ID: 500
 Attempt No.: 1
 Core Type: Intertidal ~~Subtidal~~ Shoaling
 Field Staff: TD ES RM

Field Collection Coordinates:
 Lat/Northing: 197744.69

Long/Easting: 1273162.90

A. Water Depth

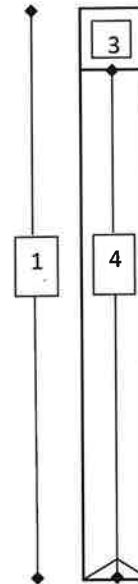
DTM Depth Sounder: 12.51 ft
 DTM Lead Line: 12.7 ft
 -14.0

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0614
 Height: 12.35 ft + 1.71
 -12.29
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5.0 ft
2. Penetration Depth: 5.0 ft / 152.4 cm
3. Headspace Measurement: 0.8 ft
4. Field Recovery Depth: 4.2 ft cm
5. Field Recovery Percentage: 84.0
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 124.5 cm
8. Adjusted Recovery Percentage: 81.7%



Core Sections To Process:

- A: 0-60 cm
 B: See processing log.
 C:
 D:

Drive Notes:

free drive w/d resistance

Shoe Description: sand/silt

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Sediment Core Collection Form

Project: AOC4 Phase 2
Date: 072021
Weather: SOS overcast
Logged By: TDO

Location ID: 501
Attempt No.: 1
Core Type: Intertidal (Subtidal) Shoaling
Field Staff: TD, ES, RM

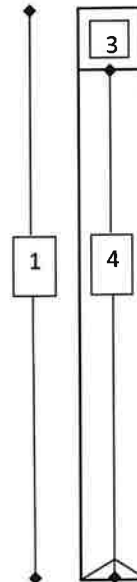
Field Collection Coordinates:
Lat/Northing: 197787.81

Long/Easting: 1273196.47

A. Water Depth
DTM Depth Sounder: -16.95ft
DTM Lead Line: -17.0 ft (current)

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 075 -17.21
Height: -0.26 ft
Source: LDW RTK tide station Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
1. Core Tube Length: 5.0 ft
2. Penetration Depth: 3.5 ft 106.7 cm
3. Headspace Measurement: 1.6 ft
4. Field Recovery Depth: 3.4 ft cm
5. Field Recovery Percentage: 97.1
6. Core Accepted: Yes No
7. Processing Recovery Depth: ft 103 cm
8. Adjusted Recovery Percentage: 96.5%



Core Sections To Process:

- A: 0-60 cm
B: see processing log
C:
D:

Drive Notes:
Free drive w/no resistance

Shoe Description: silt/sand, fill

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Project: AOC4 Phase 2
Date: 072021
Weather: 50S overcast
Logged By: TD

Location ID: 502
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD CS RM

Field Collection Coordinates:
Lat/Northing: 197846.51

Long/Easting: 1273248.07

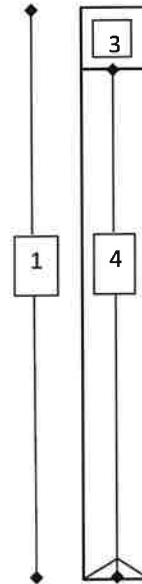
A. Water Depth
DTM Depth Sounder: -17.5ft
DTM Lead Line: -17.0 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 0732 -17.64
Height: -0.59 ft

Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 5.0 ft
- 2. Penetration Depth: 4.0 ft 121.9 cm
- 3. Headspace Measurement: 1.5 ft
- 4. Field Recovery Depth: 3.5 ft cm
- 5. Field Recovery Percentage: 87.5
- 6. Core Accepted: Yes / No
- 7. Processing Recovery Depth: ft 111.5 cm
- 8. Adjusted Recovery Percentage: 91.5



Core Sections To Process:

- A: 0-60cm
see processing log.
- B:
- C:
- D:

Drive Notes:
Free drive to 4.0 ft

Shoe Description: silt/sand mix.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Project: LOW ADCY Phase II
Date: 7/19/21
Weather: 60s, sun
Logged By: KM

Location ID: 17503
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: KM, ES, RM

Field Collection Coordinates:
Lat/Northing: 197 628.91

Long/Easting: 1273122.64

A. Water Depth

DTM Depth Sounder: 3.7 ft
DTM Lead Line: 3.8 ft

B. Water Level Measurements

Time: 1245
Height: 8.36
Source: LOW RTK
tide station

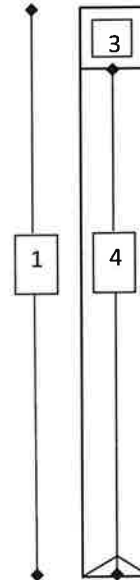
C. Mudline Elevation (ft MLLW)

4.6 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 5 ft
- 2. Penetration Depth: 3.5 ft / 107.7 cm
- 3. Headspace Measurement: 1.7 ft
- 4. Field Recovery Depth: 3.3 ft / 100.6 cm
- 5. Field Recovery Percentage: 94.3%
- 6. Core Accepted: (Yes) No
- 7. Processing Recovery Depth: ft 94.5 cm
- 8. Adjusted Recovery Percentage: 87.7



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

drove somewhat slowly to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 6.8ft from target

Project: LOW A-24 Phase II
 Date: 7/19/21
 Weather: 70s, Sun
 Logged By: KM

Location ID: ITS04
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 197679.62

Long/Easting: 1273169.86

A. Water Depth

DTM Depth Sounder: 12.5 ft
 DTM Lead Line: 12.0 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

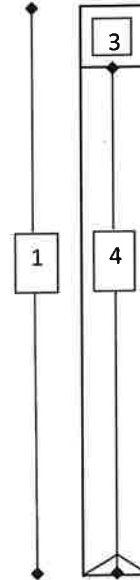
Time: 1300
 Height: 8.64 ft
 Source: LOW RTK
fide station

-3.4 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.0 ft 121.9 cm
3. Headspace Measurement: 1.7 ft
4. Field Recovery Depth: 3.3 ft 100.6 cm
5. Field Recovery Percentage: 82.5%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: 3.3 ft 102 cm
8. Adjusted Recovery Percentage: 83.7



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 24 ft from target

Project: AOC4 Phase 2
 Date: 07.20.12
 Weather: SDS MUCAS
 Logged By: TR

Location ID: SDS
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: TD ED RM

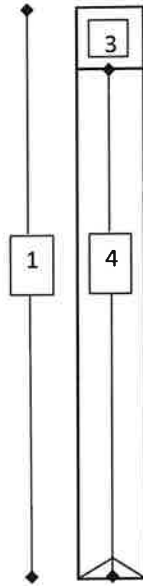
Field Collection Coordinates:
 Lat/Northing: 197719.04

Long/Easting: 1273204.74

A. Water Depth
 DTM Depth Sounder: 13.6ft
 DTM Lead Line: -13.6ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 0636
 Height: +1.15 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
- Core Tube Length: 5.0 ft
 - Penetration Depth: 3.5 ft / 106.7 cm
 - Headspace Measurement: 2.0 ft
 - Field Recovery Depth: 3.0 ft / 106.7 cm (100%)
 - Field Recovery Percentage: 85.7
 - Core Accepted (Yes / No)
 - Processing Recovery Depth: ft 89.0 cm
 - Adjusted Recovery Percentage: 83.4%



- Core Sections To Process:
- A: 0-60 cm
 - B: see processing log
 - C:
 - D:

Drive Notes:
 free drive w/no resistance

Shoe Description: full, sand/silt

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Project: AOC4 Phase 2
 Date: 072019
 Weather: SDS ANCHOR
 Logged By: TDO

Location ID: 506
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD ES RM

Field Collection Coordinates:
 Lat/Northing: 197819.18

Long/Easting: 1273291.06

A. Water Depth

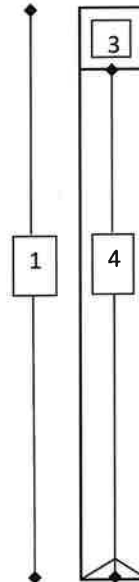
DTM Depth Sounder: 17.05ft
 DTM Lead Line: 16.8 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0654
 Height: +0.62ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5.0 ft
2. Penetration Depth: 3.0 ft 91.4 cm
3. Headspace Measurement: 2.4 ft
4. Field Recovery Depth: 2.6 ft cm
5. Field Recovery Percentage: 86.7
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 75 cm
8. Adjusted Recovery Percentage: 82.1



Core Sections To Process:

- A: 0-60 cm
 See processing log
- B:
- C:
- D:

Drive Notes:

free drive to pen depth.

Shoe Description: empty, w- silt/sand.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Sediment Core Collection Form

Project: LDW A0CA - Phase II
 Date: 7-6-2021
 Weather: sunny, 70s
 Logged By: SP

Location ID: 1T507
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SK, RM, ES

Field Collection Coordinates:
 Lat/Northing: 1273205.72

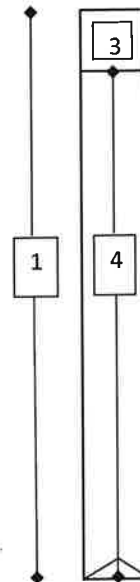
Long/Easting: 197635.96

A. Water Depth
 DTM Depth Sounder: 6.35 ft
 DTM Lead Line: 6.4 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1225
 Height: 3.31 ft
 Source: LDW RTK tide station
 -3.1 ft MLLW

- Core Collection Recovery Details:**
1. Core Tube Length: 5 ft
 2. Penetration Depth: 3.5 ft ft 106.7 cm
 3. Headspace Measurement: 1.6 ft
 4. Field Recovery Depth: 3.4 ft ft 103.6 cm
 5. Field Recovery Percentage: 97%
 6. Core Accepted: (Yes) / No
 7. Processing Recovery Depth: 3.26 ft 99.5 cm
 8. Adjusted Recovery Percentage: 93.3

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: 0-45cm
 B:
 C:
 D:

Drive Notes:
 freely drove to target penetration.

Shoe Description: See processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
 About 1.2 ft from target.

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 072024
 Weather: SO₂ overcast
 Logged By: TTD

Location ID: 508
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD GS RM

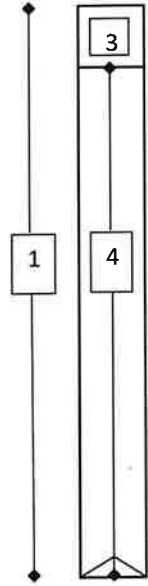
Field Collection Coordinates:
 Lat/Northing: 197717.91

Long/Easting: 1273293.67

A. Water Depth
 DTM Depth Sounder: -16.45ft
 DTM Lead Line: -17.0 ft
 current.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 0753
 Height: -0.84 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
1. Core Tube Length: 5.0 ft
 2. Penetration Depth: 3.5 ft 106.7cm
 3. Headspace Measurement: 1.8 ft
 4. Field Recovery Depth: 3.2 ft cm
 5. Field Recovery Percentage: 90.4
 6. Core Accepted: Yes / No
 7. Processing Recovery Depth: ft 94.5 cm
 8. Adjusted Recovery Percentage: 88.6



- Core Sections To Process:
- A: 0-60 cm
 - B: see processing log
 - C:
 - D:

Drive Notes:
 Free drive w/ no resistance

Shoe Description: silt and sand mix.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Project: AOC4 Phase 2
Date: 07-01-21
Weather: 60.5 overcast
Logged By: TDW

Location ID: 509
Attempt No.: 1
Core Type: Intertidal (Subtidal) Shoaling
Field Staff: TD, DD, TT, DB + Kristen Kerns

Field Collection Coordinates:
Lat/Northing: 47.532463

Long/Easting: 172.319376

A. Water Depth

DTM Depth Sounder: NA
DTM Lead Line: -25.1 ft.

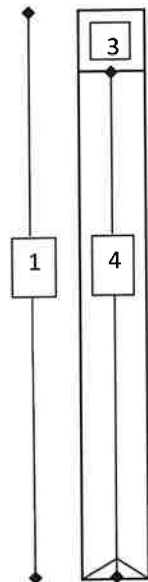
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1055
Height: +7.95
Source: LDW RTK tide station

-17.15 ft.
Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 15
- 2. Penetration Depth: 12.5 ft cm
- 3. Headspace Measurement: 5.1
- 4. Field Recovery Depth: 9.9 ft cm
- 5. Field Recovery Percentage: 79.2
- 6. Core Accepted: Yes / No
- 7. Processing Recovery Depth: 9.5 ft cm
- 8. Adjusted Recovery Percentage: 70.0



Core Sections To Process:

- A: See core processing form
- B: A-L
- C:
- D:

Drive Notes:
~ 3 ft. free fall
1/2 throttle, steady drive
Flutters out ~ 7 ft.
Full throttle with little increases to target penetration depth (12.5 ft)

Shoe Description: black silty sand w/ tr. organics, tr. gravel

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-8)(8-9.5)(9.5-9.9) 4 segments

Notes:

Project: ADCA Phase 2
 Date: 07.07.21
 Weather: WDS AMVICAT
 Logged By: TBO

Location ID: 510
 Attempt No.: 2
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.532159

Long/Easting: 122,319647

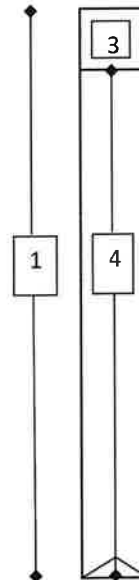
A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: -11.4 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1108 -11.55
 Height: -0.15 ft.
 Source: LDW BTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 3 ft.
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 2.7
4. Field Recovery Depth: 5.3 ft cm
5. Field Recovery Percentage: 75.7
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 5.2 ft cm
8. Adjusted Recovery Percentage: 73.6



Core Sections To Process:

- A: See processing
 B: log
 C: A-F
 D:

Drive Notes:

4.25 ft freefall (controlled)
easy drive to full penetration

Shoe Description: shoe empty, tr. sand/silt.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3)(3-4.4)(4.9-5.3) 3 segments

Notes:

Project: AD04 Phase 2
 Date: 072021
 Weather: 60s overcast
 Logged By: TD

Location ID: 511
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD ES RM

Field Collection Coordinates:
 Lat/Northing: 197618.42

Long/Easting: 1273300.90

A. Water Depth

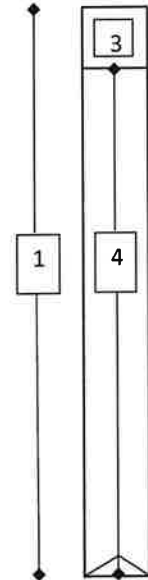
DTM Depth Sounder: -16.62 ft.
 DTM Lead Line: -16.0 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1202
 Height: +4.94
 Source: LDW RTK tide station
 Recovery Measurements (prior to cuts) -11.05

Core Collection Recovery Details:

1. Core Tube Length: 5.0 ft
2. Penetration Depth: 3.0 ft / 91.44 cm
3. Headspace Measurement: 2.4 ft
4. Field Recovery Depth: 2.6 ft cm
5. Field Recovery Percentage: 56.7
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 81.0 cm
8. Adjusted Recovery Percentage: 88.6



Core Sections To Process:

- A: 0-60 cm
see processing log
 B: _____
 C: _____
 D: _____

Drive Notes:

Free drive w/no resistance

Shoe Description: silt/sand, gray

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Project: LDW AOCY Phase II
Date: 7/19/21
Weather: 70s, Sun
Logged By: KM

Location ID: 17512
Attempt No.: 1
Core Type: (Intertidal) Subtidal Shoaling
Field Staff: KM, ES, RM

Field Collection Coordinates:
Lat/Northing: 197573.64

Long/Easting: 1273278.28

A. Water Depth
DTM Depth Sounder: 10.8 ft
DTM Lead Line: 11.3 ft

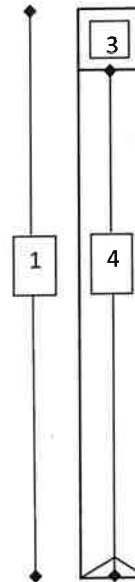
B. Water Level Measurements
Time: 1320
Height: 8.87
Source: LDW RTK
tide station

C. Mudline Elevation (ft MLLW)
-2.4 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 5 ft
- 2. Penetration Depth: 3.8 ft / 115.8 cm
- 3. Headspace Measurement: 2.1 ft
- 4. Field Recovery Depth: 2.9 ft / 88.4 cm
- 5. Field Recovery Percentage: 76.3%
- 6. Core Accepted: (Yes) / No
- 7. Processing Recovery Depth: ft 05.5 cm
- 8. Adjusted Recovery Percentage: 73.8



Core Sections To Process:

A: 0-45 cm

B:

C:

D:

Drive Notes:

drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 2.4 ft Rem target

Project: ADCA Phase 2
 Date: 07.01.21
 Weather: WDS, overcast
 Logged By: TDD

Location ID: 513
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TDD, DD, TT, DB + Kristen Kerns

Field Collection Coordinates:
 Lat/Northing: 47.532068

Long/Easting: 122.319189

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: -25.3 ft.

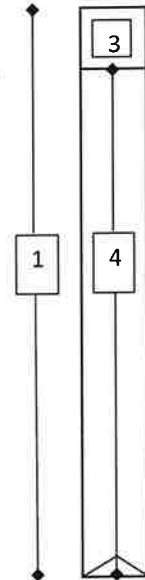
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1147 -17.45 ft.
 Height: +7.85
 Source: IDW RTR
tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 15 ft.
2. Penetration Depth: 12.2 ft cm
3. Headspace Measurement: 4.6
4. Field Recovery Depth: 10.4 ft cm
5. Field Recovery Percentage: 85.2
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 10.1 ft cm
8. Adjusted Recovery Percentage: 82.9



Core Sections To Process:

- A: See core
 B: processing form
 C: A-K
 D:

Drive Notes:

~ 3.25 free fall
1/4 throttle easy advance
flashes out ~ 8 ft. and then
advances to penetration depth
smooth retrieval

Shoe Description:

silty sand w/ minor amt of wood fragments.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-8)(8-10)(10-10.4) 4 segments

Notes:

Sediment Core Collection Form

Project: ADU4 Phase 2
 Date: 07.01.21
 Weather: 70s, overcast
 Logged By: TDO

Location ID: 514
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, DD, TT, DB

Field Collection Coordinates:
 Lat/Northing: 47.532200

Long/Easting: 122.319008

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: -24.3 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

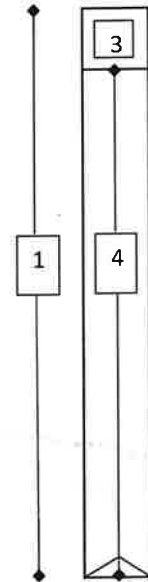
Time: 1305
 Height: +6.85
 Source: CDW RTK tide station
 Recovery Measurements (prior to cuts) -17.45

Core Collection Recovery Details:

1. Core Tube Length: 15 ft
2. Penetration Depth: 12.0 ft cm
3. Headspace Measurement: 4.1
4. Field Recovery Depth: 12.9 ft cm
5. Field Recovery Percentage: 90.8
6. Core Accepted Yes / No
7. Processing Recovery Depth: 10.4 ft cm
8. Adjusted Recovery Percentage: 86.7

Drive Notes:

5.25 ft free fall
stiffness at 5' drive during retrieval



Core Sections To Process:

- A: See processing of core form
 B:
 C: A-K
 D:

Shoe Description: silt w/ med. sand, plant debris, slight H₂S, dk gray, wet.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-8)(8-10.5)(10.5-10.9) 4 segments

Notes:

Project: AOC4 Phase 2
 Date: 072021
 Weather: 50s overcast
 Logged By: TD

Location ID: 515
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD GS RM

Field Collection Coordinates:
 Lat/Northing: 197592.60

Long/Easting: 1273481.18

A. Water Depth
 DTM Depth Sounder: -16.98 ft
 DTM Lead Line: -17.0 ft

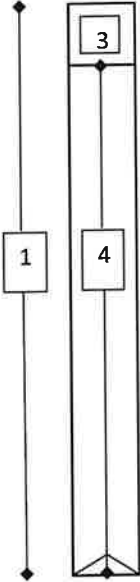
B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 0808 -18.03

Height: -1.05 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5.0 ft
2. Penetration Depth: 2.5 ft 106.7 cm
3. Headspace Measurement: 1.7 ft
4. Field Recovery Depth: 3.3 ft cm
5. Field Recovery Percentage: 94.3
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 101.5 cm
8. Adjusted Recovery Percentage: 95.1

Drive Notes:
 Free drive w/o resistance



Core Sections To Process:
 A: 0-60 cm
 B: See processing log
 C:
 D:

Shoe Description: silt/sand, dk gray

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 07/20/21
 Weather: SOS, overcast
 Logged By: TTD

Location ID: 516
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD ES RM

Field Collection Coordinates:
 Lat/Northing: 197526.94

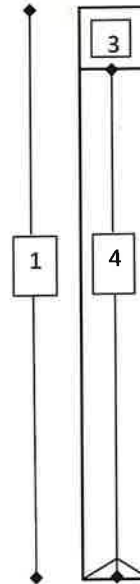
Long/Easting: 1273482.18

A. Water Depth
 DTM Depth Sounder: -16.98 ft
 DTM Lead Line: -16.5 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 0904 -17.31
 Height: -0.81 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5.0 ft
2. Penetration Depth: 3.5 ft 106.7 cm
3. Headspace Measurement: 2.0 ft
4. Field Recovery Depth: 3.0 ft cm
5. Field Recovery Percentage: 85.7
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 90.0 cm
8. Adjusted Recovery Percentage: 84.3



Core Sections To Process:

A: 0-60 cm

B: see processing

C: form

D:

Drive Notes:

Free drive to 3.5 ft, no resistance.

Shoe Description: gray silt w/ f. sand

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Project: ADOC Phase 2
 Date: 07-01-21
 Weather: 70s overcast
 Logged By: TDO

Location ID: 517
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff:

Field Collection Coordinates:
 Lat/Northing: 47.531972

Long/Easting: 172.310575

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: -22.8 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

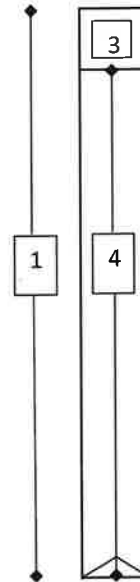
Time: 1356
 Height: +6.02 ft.
 Source: LOW RIR tide station

-16.78

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 15 ft.
2. Penetration Depth: 11.5 ft cm
3. Headspace Measurement: 5.4
4. Field Recovery Depth: 9.6 ft cm
5. Field Recovery Percentage: 83.5
6. Core Accepted: Yes No
7. Processing Recovery Depth: 9.4 ft cm
8. Adjusted Recovery Percentage: 83.5



Core Sections To Process:

- A: See core processing form
 B: form
 C: A-K
 D:

Drive Notes:

Slight slope
~4.75 ft freefall
Steady drive to penetration depth

Shoe Description: dk med. sand.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4) (4-8) (8-9.2) (9.2-9.6) 4 segments to
(0-4.6) (4.6-9.2) (9.2-9.6) 3 segments

Notes:

Sediment Core Collection Form

Project: LDW-A004-Phase II
 Date: 7.6.2021
 Weather: partly cloudy, 70s
 Logged By: SR

Location ID: ITS18
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, RM, ES

Field Collection Coordinates:
 Lat/Northing: 1273413.90

Long/Easting: 197402.41

A. Water Depth
 DTM Depth Sounder: 4.19 ft
 DTM Lead Line: 4.1 ft.

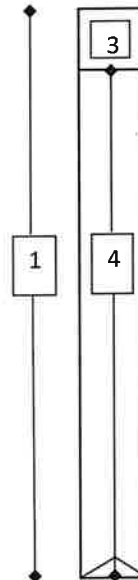
B. Water Level Measurements
 Time: 1205
 Height: 2.79 ft
 Source: LDW RTK
 tide station

C. Mudline Elevation (ft MLLW)
-1.3 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft.
2. Penetration Depth: 3 ft ft 91.4 cm
3. Headspace Measurement: 2.05 ft
4. Field Recovery Depth: 2.95 ft ft 89.9 cm
5. Field Recovery Percentage: 98%
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 89.9 cm
8. Adjusted Recovery Percentage: 98%



Core Sections To Process:

- A: 0-45cm
 B: /
 C: /
 D: /

Drive Notes:
freely drove to target penetration.

Shoe Description:

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Target location on armored slope, moved offshore to closest sampleable area.
About 9.5 ft from target.

Project: AOC4 phase 2
Date: 07.08.11
Weather: 60s overcast, wind
Logged By: TDO

Location ID: 519
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD DD TT

Field Collection Coordinates:
Lat/Northing: 47.531610

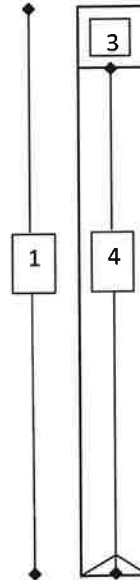
Long/Easting: 122.318682

A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: -12.0 ft.

B. Water Level Measurements
Time: 1017
Height: -0.81 ft.
Source: low RTR tide station
C. Mudline Elevation (ft MLLW)
-11.19

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
1. Core Tube Length: 8 ft.
 2. Penetration Depth: 7.0 ft cm
 3. Headspace Measurement: 2.5
 4. Field Recovery Depth: 5.5 ft cm
 5. Field Recovery Percentage: 78.6%
 6. Core Accepted: Yes / No
 7. Processing Recovery Depth: 5.3 ft cm
 8. Adjusted Recovery Percentage: 75.5%



Core Sections To Process:

- A: See processing log
B: A-F
C:
D:

Drive Notes:
6 ft freefall, easy drive to pen depth.
Easy retrieval

Shoe Description: sandy silt

Core Field Observations and Description:

(0-4)(4-5.1)(5.1-5.5)
3 segments

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Sediment Core Collection Form

Project: ADCL4 Phase 2
Date: 07-02-21
Weather: 60s overcast
Logged By: TDO

Location ID: 520
Attempt No.: 2
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD, DR, TL, DB

Field Collection Coordinates:
Lat/Northing: 47.531707

Long/Easting: 122.318550

A. Water Depth
DTM Depth Sounder: -22.0 ft.
DTM Lead Line: NA

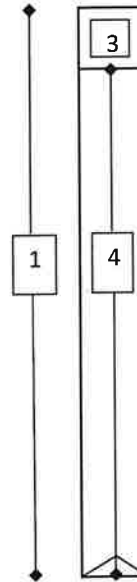
B. Water Level Measurements
Time: 0850
Height: +4.62 ft.
Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-17.38

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 15 ft
- 2. Penetration Depth: 10.4 ft cm
- 3. Headspace Measurement: 6.6
- 4. Field Recovery Depth: 8.4 ft cm
- 5. Field Recovery Percentage: 84.0
- 6. Core Accepted: Yes / No
- 7. Processing Recovery Depth: 8.2 ft cm
- 8. Adjusted Recovery Percentage: 84.0



Core Sections To Process:

- A: See processing core form
- B: core form
- C: A-I
- D:

Drive Notes:
5 ft. freefall
1/2 throttle - steady drive to pen. depth
slow steady retrieval.

Shoe Description: sand/clay mix

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-8)(8-8.4) 3 segments
Stopper Set @ 10ft.

Notes:

Project: ADC4 Phase 2
Date: 07.02.21
Weather: WOs overcast
Logged By: TDO

Location ID: 521
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD, DD, JT, DB

Field Collection Coordinates:
Lat/Northing: 47.53169Z

Long/Easting: 122.318076

A. Water Depth

DTM Depth Sounder: 223 ft
DTM Lead Line: -22.6

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

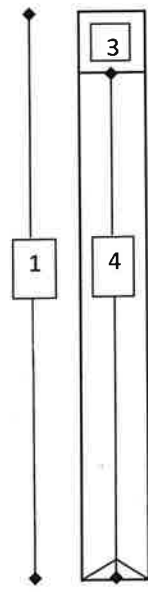
Time: 0940
Height: +5.42
Source: LDW RTR
tide station

-16.88'

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 15 ft
- 2. Penetration Depth: 12.0 ft cm
- 3. Headspace Measurement: 3.4
- 4. Field Recovery Depth: 11.6 ft cm
- 5. Field Recovery Percentage: 96.7
- 6. Core Accepted: Yes / No
- 7. Processing Recovery Depth: 11.2 ft cm
- 8. Adjusted Recovery Percentage: 0.924 93.5



Core Sections To Process:

- A: see processing form
- B: ~~A-I~~
- C: A-K
- D:

Drive Notes: Av

5 ft free fall
slow steady drive to ~9.0 ft.
then quick penetration for last
bit to pen-depth.

slow, steady retrieval

Shoe Description: Slight silty fine sand.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4) (4-8) (8-11.2) (11.2-11.6) 4 segments

Notes: Stopper at 12 ft.

Project: AOC4 Phase 2
 Date: 072021
 Weather: 505 overcast
 Logged By: TDB

Location ID: 522
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD ES RM

Field Collection Coordinates:
 Lat/Northing: 197443.67

Long/Easting: 1273639.90

A. Water Depth

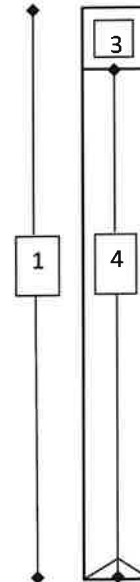
DTM Depth Sounder: 17.0 ft
 DTM Lead Line: 16.7 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0824
 Height: -1.13 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 5.0 ft
- 2. Penetration Depth: 2.5 ft 106.7 cm
- 3. Headspace Measurement: 2.0 ft
- 4. Field Recovery Depth: 3.0 ft cm
- 5. Field Recovery Percentage: 85.7
- 6. Core Accepted: Yes / No
- 7. Processing Recovery Depth: ft 42.5 cm
- 8. Adjusted Recovery Percentage: 86.7



Core Sections To Process:

- A: 0-60 cm
See processing log
- B:
- C:
- D:

Drive Notes:

Free drive w/no resistance

Shoe Description: silt w/sand, gray

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 072021
 Weather: 50s overcast
 Logged By: TR

Location ID: 523
 Attempt No.: 1
 Core Type: Intertidal ~~Subtidal~~ Shoaling
 Field Staff: TD ES RM

Field Collection Coordinates:
 Lat/Northing: 197374.08

Long/Easting: 1273641.37

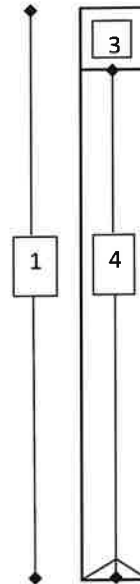
A. Water Depth
 DTM Depth Sounder: -15.57
 DTM Lead Line: -15.5 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 0837 -16.65
 Height: -1.08 ft

Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5.0 ft
2. Penetration Depth: 3.5 ft 106.7 cm
3. Headspace Measurement: 1.9 ft
4. Field Recovery Depth: 3.1 ft cm
5. Field Recovery Percentage: 88.6
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 95 cm
8. Adjusted Recovery Percentage: 89.0



Core Sections To Process:

- A: 0-60 cm
see processing log
- B: _____
- C: _____
- D: _____

Drive Notes:
Free drive to

Shoe Description:

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Sediment Core Collection Form

Project: LDW AOC4 Phase II
 Date: 7/15/21
 Weather: lcls, partly sunny
 Logged By: KM

Location ID: SC524
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 197390.61

Long/Easting: 1273746.74

A. Water Depth

DTM Depth Sounder: 16.4 ft
 DTM Lead Line: 16.9 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

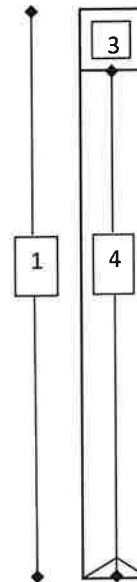
Time: 1455
 Height: 0.72 ft
 Source: LDW RTK
 tide station

- 16.2 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.1 ft / 125.0 cm
3. Headspace Measurement: 1.2 ft
4. Field Recovery Depth: 3.8 ft / 115.8 cm
5. Field Recovery Percentage: 92.7%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 112.5 cm
8. Adjusted Recovery Percentage: 90.0%



Core Sections To Process:

- A: 0-60 cm
- B: See processing
- C: from
- D:

Drive Notes:

drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 5.3 ft from target

Sediment Core Collection Form

Project: LOW AOCY Phase II
 Date: 7/15/21
 Weather: 60s, mostly cloudy
 Logged By: KM

Location ID: SC525
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, KM, ES

Field Collection Coordinates:
 Lat/Northing: 197268.56

Long/Easting: 1273718.89

A. Water Depth
 DTM Depth Sounder: 14.3 ft
 DTM Lead Line: 15.4 ft

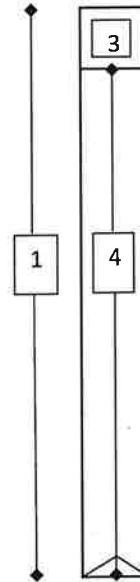
B. Water Level Measurements
 Time: 1425
 Height: 1.18 ft
 Source: LOW RTK tide station

C. Mudline Elevation (ft MLLW)
- 14.2 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.2 ft / 128.0 cm
3. Headspace Measurement: 0.9 ft
4. Field Recovery Depth: 4.1 ft / 125.0 cm
5. Field Recovery Percentage: 97.6%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 124 cm
8. Adjusted Recovery Percentage: 96.9%



Core Sections To Process:

A: 0-60cm

B: _____

C: _____

D: _____

Drive Notes:

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 5.2 ft from target

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 7-22-2021
 Weather: Sunny, 60s
 Logged By: S. Replinger

Location ID: SC526
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: SR, ES, RM

Field Collection Coordinates:
 Lat/Northing: 197311.89

Long/Easting: 1273759.54

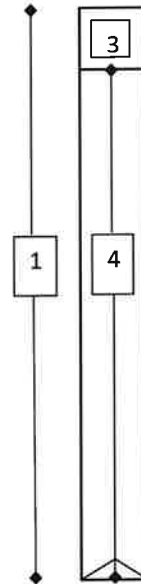
A. Water Depth
 DTM Depth Sounder: 15.27 ft
 DTM Lead Line: 15.2 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1026 -17.6 ft MLLW
 Height: -2.34 ft

Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft ft
2. Penetration Depth: 3.5 ft ft 106.7 cm
3. Headspace Measurement: 2.25 ft
4. Field Recovery Depth: 2.75 ft 83.3 cm
5. Field Recovery Percentage: 78.6%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 82 cm
8. Adjusted Recovery Percentage: 76.9



Core Sections To Process:

- A: 0-60cm
 B: See processing log.
 C:
 D:

Drive Notes:

freely drove to 22ft, then slight resistance to target.

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 1.9 ft from target.

Project: AOC4 Phase 2
 Date: 07.02.21
 Weather: 60s overcast
 Logged By: TDO

Location ID: 527
 Attempt No.: 3
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: TD, DD, TT, DB

Field Collection Coordinates:
 Lat/Northing: 47.531335

Long/Easting: 122.317502

A. Water Depth

DTM Depth Sounder: 23.9 ft.
 DTM Lead Line: NA

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

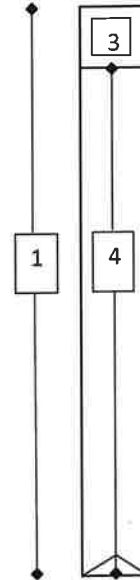
Time: 1145
 Height: +7.56
 Source: LDJ etic tide station

-16.34

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 15 ft
2. Penetration Depth: 11.0 ft cm
3. Headspace Measurement: 5.6
4. Field Recovery Depth: 9.4 ft cm
5. Field Recovery Percentage: 85.5
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 9.2 ft cm
8. Adjusted Recovery Percentage: 85.5



Core Sections To Process:

- A: See core
 B: processing form
 C:
 D: A-K

Drive Notes:

4.5 ft free fall
1/4 throttle, steady to pen depth.
easy steady retrieval.

Shoe Description: dark gray silt / sand.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.5)(4.5-9)(9-9.4) 3 segments

Notes:

stopper set at 11 ft.

Sediment Core Collection Form

Project: LDW AOC4 Phase II
Date: 7/15/21
Weather: GDS, partly sunny
Logged By: KM

Location ID: SC528
Attempt No.: 1
Core Type: Intertidal (Subtidal) Shoaling
Field Staff: KM, RM, ES

Field Collection Coordinates:
Lat/Northing: 197305.32

Long/Easting: 1273830.50

A. Water Depth

DTM Depth Sounder: 17.2 ft
DTM Lead Line: 17.3 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

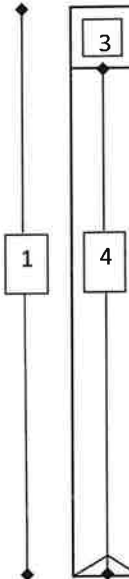
Time: 1520
Height: 0.64 ft
Source: LDW RTK tide station

-16.7 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 5 ft
2. Penetration Depth: 4.0 ft 121.9 cm
3. Headspace Measurement: 1.3 ft
4. Field Recovery Depth: 3.7 ft 112.8 cm
5. Field Recovery Percentage: 92.5%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 107.8 cm
8. Adjusted Recovery Percentage: 97.8



Core Sections To Process:

A: 0-60 cm

B:

C:

D:

Drive Notes:

drive freely to depth

Shoe Description: see processing notes

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.7 ft from target

Project: A014 Phase 2
 Date: 07/14/21
 Weather: 70s sunny
 Logged By: TDO

Location ID: 529
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: TDO DD TI

Field Collection Coordinates:
 Lat/Northing: 47.530818

Long/Easting: 122.317380

A. Water Depth
 DTM Depth Sounder: N/A
 DTM Lead Line: -11.6

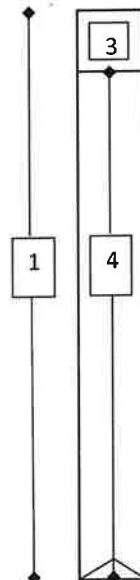
B. Water Level Measurements
 Time: 1529
 Height: +0.06 ft.
 Source: LOW RTR Tide Station

C. Mudline Elevation (ft MLLW)
-11.054

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 50.9
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.8
4. Field Recovery Depth: 6.2 ft cm
5. Field Recovery Percentage: 88.6
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 6.1 ft cm
8. Adjusted Recovery Percentage: AV 91.9%, AV 87.1%



Core Sections To Process:

- A: See processing
- B: form
- C: H -> F
- D:

Drive Notes:

4.1 ft free fall
Easy drive, slight open, to pen
depth (7 ft)

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-5.8)(5.8-6.2) 3 segments

Notes:

Project: AOC4 Phase 2
 Date: 7-22-2021
 Weather: Sunny, 60s
 Logged By: S. Replinger

Location ID: SC530
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, RM, ES

Field Collection Coordinates:
 Lat/Northing: 197234.17

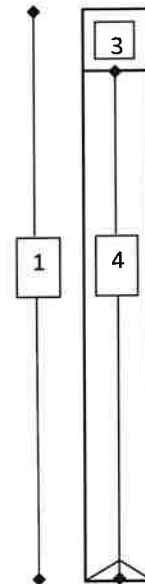
Long/Easting: 1273880.77

A. Water Depth
 DTM Depth Sounder: 14.98 ft
 DTM Lead Line: 15 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1044
 Height: -2.34 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft ft
2. Penetration Depth: 4 ft ft 121.9 cm
3. Headspace Measurement: 1.9 ft
4. Field Recovery Depth: 3.1 ft ft 94.5 cm
5. Field Recovery Percentage: 77.5%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 94 cm
8. Adjusted Recovery Percentage: 77.1



Core Sections To Process:

- A: 0-60 cm
 B: See processing log.
 C:
 D:

Drive Notes:
 freely drove to target penetration

Shoe Description: see processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
 About 3 ft from target

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 07.02.21
 Weather: WOS overcast
 Logged By: TDO

Location ID: 531
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: TD, DD, JT, DB

Field Collection Coordinates:
 Lat/Northing: 47.530891

Long/Easting: 122.316858

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: -24.8 ft

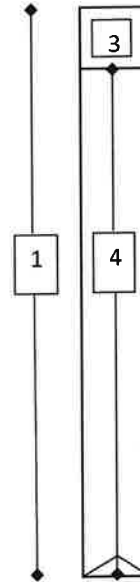
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1337
 Height: +7.50 ft
 Source: WDW RTK tide station
 -17.22

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 15 ft.
- 2. Penetration Depth: 10.0 ft cm
- 3. Headspace Measurement: 6.2
- 4. Field Recovery Depth: 8.8 ft cm
- 5. Field Recovery Percentage: 88.0
- 6. Core Accepted: (Yes) No
- 7. Processing Recovery Depth: 8.6 ft cm
- 8. Adjusted Recovery Percentage: 88.0



Core Sections To Process:

- A: See core
- B: processing
- C: for
- D: A-I

Drive Notes:

3 ft free fall
 1/4 throttle, easy advance to pen depth
 easy retrieval

Shoe Description: dk gray sandy silt

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.2) (4.2-8.4) (8.4-8.8) 3 segments

Notes:

Stopper set at 10 ft.

Sediment Core Collection Form

Project: ADCU Phase 2
 Date: 07.07.21
 Weather: 70s, partly cloudy
 Logged By: TB

Location ID: 532
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TB, PP, TT, DB

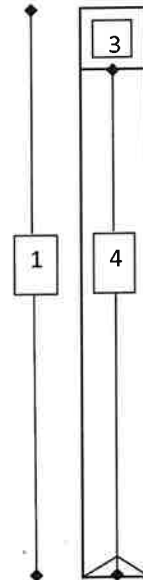
Field Collection Coordinates:
 Lat/Northing: 47,530,719

Long/Easting: 122,316,551

A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: -24.5 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1429
 Height: +7.1 ft tidal
 Source: LDW RTK station -17.4
 Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
1. Core Tube Length: 15 ft.
 2. Penetration Depth: 10.0 ft cm
 3. Headspace Measurement: 6.3
 4. Field Recovery Depth: 8.7 ft cm
 5. Field Recovery Percentage: 87.0
 6. Core Accepted: (Yes) No
 7. Processing Recovery Depth: 8.4 ft cm
 8. Adjusted Recovery Percentage: 83.7



- Core Sections To Process:
- A: See process log
 - B: core found
 - C: A-I
 - D: _____

Drive Notes:

3 ft. freefall
1/4 throttle, easy steady drive
a little resistance @ 8 ft then
full pen. depth
steady easy retrieval

Shoe Description: moist diatom/gray slightly sandy silty clay

Core Field Observations and Description: (0-4.1)(4.1-8.3)(8.3-8.7)
3 segments

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
stopper set at 10 ft.

Project: AOC4 Phase 2
 Date: 07.02.21
 Weather: W05 overcast
 Logged By: TDO

Location ID: 533
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, DD, TT, DB

Field Collection Coordinates:
 Lat/Northing: 47.530550

Long/Easting: 122.316215

A. Water Depth

DTM Depth Sounder: N/A
 DTM Lead Line: 25.0 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1252
 Height: +7.81 ft.
 Source: LDW RTK tide station

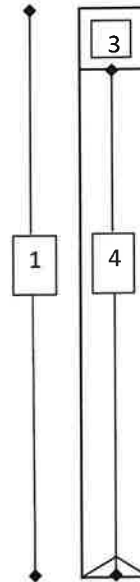
-17.19
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 15 ft.
2. Penetration Depth: 11.0 ft cm
3. Headspace Measurement: 5.6
4. Field Recovery Depth: 9.4 ft cm
5. Field Recovery Percentage: 85.5
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 9.0 ft cm
8. Adjusted Recovery Percentage: 82.70

Drive Notes:

3 ft. of free fall
sloped surface
1/4 throttle, little hesitation @ 9 ft.
easy drive to full pen. depth.
steady easy retrieval.



Core Sections To Process:

- A: See core
 B: processing form
 C:
 D: A-I

Shoe Description: soft moist, sandy clay-silt.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.5) (4.5-9.0) (9.0-9.4) 3 segments

Notes:

Strapper set at 11 ft.

Sediment Core Collection Form

Project: ADCY Phase 2
 Date: 07.02.20
 Weather: FOS overcast, pthly cloudy
 Logged By: TDD

Location ID: 534
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, DD, TT, DB

Field Collection Coordinates:
 Lat/Northing: 47.530324

Long/Easting: 122.315919

A. Water Depth

DTM Depth Sounder: -23.1 ft.
 DTM Lead Line: NA

B. Water Level Measurements

Time: 1609
 Height: +5.73 ft.
 Source: LDW RTK tide station

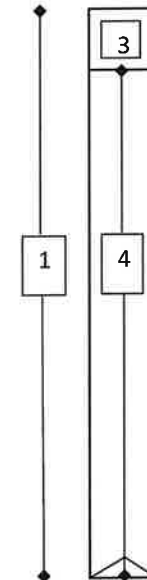
C. Mudline Elevation (ft MLLW)

-17.37

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 15 ft.
2. Penetration Depth: 10.0 ft cm
3. Headspace Measurement: 6.5
4. Field Recovery Depth: 8.5 ft cm
5. Field Recovery Percentage: 85.0
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 8.0 ft cm
8. Adjusted Recovery Percentage: 79.6



Core Sections To Process:

- A: see processing
 B: core form
 C: A-I
 D:

Drive Notes:

2.5 ft free fall
 slow drive to penetration depth
 easy retrieval.

Shoe Description: silty fine sand.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-8.1)(8.1-8.5) 3 segments

Notes:

Stopper set at 10 ft.

Project: AOCU Phase 2
Date: 07-08-21
Weather: WDS ALCMMS
Logged By: TD

Location ID: 535
Attempt No.: 2
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD DD JT

Field Collection Coordinates: TD
Lat/Northing: 47. 530101

Long/Easting: 122. 315595

A. Water Depth

DTM Depth Sounder: 20.6 ft

DTM Lead Line: MA (current)

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1343 1343

Height: 12.98 ft.

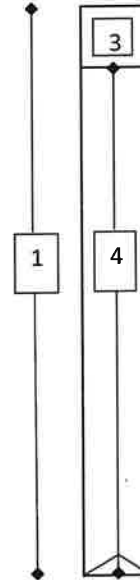
Source: LOW RTK tide station

-17.62

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 8 ft.
- 2. Penetration Depth: 7.0 ft cm
- 3. Headspace Measurement: 2.1
- 4. Field Recovery Depth: 5.9 ft cm
- 5. Field Recovery Percentage: 34.3
- 6. Core Accepted: Yes / No
- 7. Processing Recovery Depth: 5.6 ft cm
- 8. Adjusted Recovery Percentage: 80.0



Core Sections To Process:

- A: See processing
- B: log
- C: A-F
- D:

Drive Notes:

3.2 ft free fall
1/4 shackle, easy drive to full
pen depth.

Shoe Description: sandy silt

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-5.5)(5.5-5.9) 3 segments

Notes:

(penetrate to - 24.6 ft MLLW)

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 072021
 Weather: 50s overcast
 Logged By: TDO

Location ID: 536
 Attempt No.: 1
 Core Type: Intertidal, Subtidal, Shoaling
 Field Staff: TD ES RM

Field Collection Coordinates:
 Lat/Northing: 196774.64

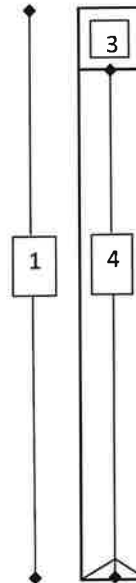
Long/Easting: 1274291.06

A. Water Depth
 DTM Depth Sounder: -16.67 ft
 DTM Lead Line: -16.5 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 0923 -17.05
 Height: -0.55 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5.0 ft
2. Penetration Depth: 3.5 ft 106.7 cm
3. Headspace Measurement: 2.3 ft.
4. Field Recovery Depth: 2.7 ft cm
5. Field Recovery Percentage: 77.1
6. Core Accepted: Yes/ No
7. Processing Recovery Depth: ft 89.5 cm
8. Adjusted Recovery Percentage: 83.9



Core Sections To Process:

- A: 0 - 60cm
 see processing log.
 B:
 C:
 D:

Drive Notes:
 Free drive to pen depth
 NO resistance

Shoe Description: silt, gray

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Sediment Core Collection Form

Project: MOBY Phase 2
 Date: 07/15/21
 Weather: WDS OVERCAST
 Logged By: TDO

Location ID: 537
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.529938

Long/Easting: 122.315231

A. Water Depth
 DTM Depth Sounder: -19.2 ft.
 DTM Lead Line: (current)

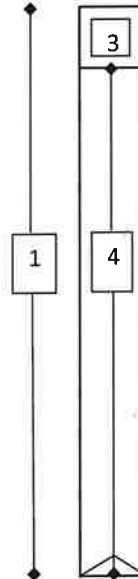
B. Water Level Measurements
 Time: 1408
 Height: +1.52
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-17.68
 Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
1. Core Tube Length: 8.0 ft.
 2. Penetration Depth: 3.0 ft cm
 3. Headspace Measurement: 2.6
 4. Field Recovery Depth: 5.4 ft cm
 5. Field Recovery Percentage: 77.1
 6. Core Accepted: (Yes) No
 7. Processing Recovery Depth: 5.0 ft cm
 8. Adjusted Recovery Percentage: 71.4%

Drive Notes:

2.2 ft freefall
1/4 throttle, steady advance to 3.4 ft.
1/2 throttle breaks through from 4.5-
ftil pen. 4.5-6.0 - fast



- Core Sections To Process:
- A: See processing
- B: form
- C: A -> F
- D:

Shoe Description: empty.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0)(3.0-5.0)(5.0-5.4) 3 segments.

Notes:

Project: ROCU Phase 2
 Date: 07/15/21
 Weather: 70s sun
 Logged By: TR

Location ID: 538
 Attempt No.: 3
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD JT

Field Collection Coordinates:
 Lat/Northing: 47.529694

Long/Easting: 122.314915

A. Water Depth
 DTM Depth Sounder: 20.3 ft
 DTM Lead Line: -21.2

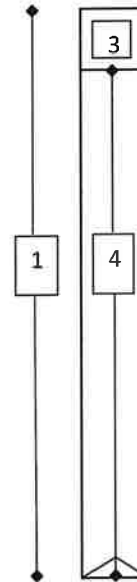
B. Water Level Measurements
 Time: 1621
 Height: +1.34 ft.
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-19.86

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 0
4. Field Recovery Depth: 7.5 ft cm
5. Field Recovery Percentage: 107.1
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 4.0 ft cm
8. Adjusted Recovery Percentage: 85.7



Core Sections To Process:

- A: see processing
 B: log (A-F)
 C: _____
 D: _____

Drive Notes:

2.0 ft freefall
1/4 throttle to 4.3 ft. easy advance
1/2 throttle to 5.1 steady advance
to 7.0 ft refusal/penetration depth.
Collar placed on fingers - v soft.
sediment overlying

Shoe Description:

sand silt, empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0 - 4.0) (4.0 - 7.1) (7.1 - 7.5) 3 segments.

Notes:

ANVROD 16 FT @ 206 °T

Sediment Core Collection Form

Project: AOC4 Phase 2
Date: 07/16/21
Weather: 100S, increased
Logged By: TDO

Location ID: 539
Attempt No.: 2
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD AD TT

Field Collection Coordinates:
Lat/Northing: 47.529628

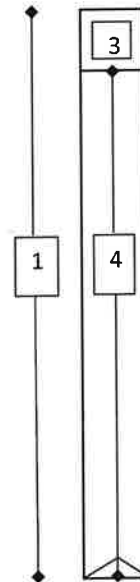
Long/Easting: 122.314506

A. Water Depth
DTM Depth Sounder: 21.3 ft
DTM Lead Line: NA

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 1545
Height: +2.36 ft
Source: low RKE tide station
Recovery Measurements (prior to cuts)
-18.94

- Core Collection Recovery Details:
1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 7.0 ft 213.4 cm
3. Headspace Measurement: 2.7
4. Field Recovery Depth: 5.3 ft cm
5. Field Recovery Percentage: 75.7
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 5.0 ft 150 cm
8. Adjusted Recovery Percentage: 70.2

Drive Notes: add collar to fingers
1.0 ft freefall
1/4 Easy steady drive to full pen (7 ft)



Core Sections To Process:
A: see processing
B: log (A-F)
C:
D:

Shoe Description: empty

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota
(0-3.0)(3.0-4.9)(4.9-5.3) 3 segments

Notes:

Project: LDW AOC4 - Phase II
 Date: 7-22-2021
 Weather: Sunny, 60s
 Logged By: SR

Location ID: SC540
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: SR, RM, ES

Field Collection Coordinates:
 Lat/Northing: 196650.31

Long/Easting: 1274476.66

A. Water Depth

DTM Depth Sounder: 16.69
 DTM Lead Line: 17.0 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

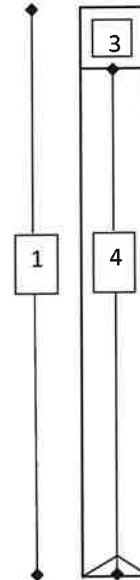
Time: 1058
 Height: -2.11 ft
 Source: LDW RTK tide station

-18.8 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4 ft ft 121.9 cm
3. Headspace Measurement:
4. Field Recovery Depth: 3.2 ft ft 97.5 cm
5. Field Recovery Percentage: 80.0%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 94.5 cm
8. Adjusted Recovery Percentage: 77.5%



Core Sections To Process:

- A: 0-60 cm
 B: See processing log
 C:
 D:

Drive Notes:

freely down to ~3 ft,
 encountered resistance from 3-4 ft

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.9 ft from target.

Sediment Core Collection Form

Project: LDW AOC1 - Phase II
 Date: 7.6.2021
 Weather: overcast, 70s
 Logged By: SR

Location ID: 1T542
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SR, RM, ES

Field Collection Coordinates:
 Lat/Northing: 1274392.17

Long/Easting: 196589.66

A. Water Depth
 DTM Depth Sounder: 5.9 ft
 DTM Lead Line: 6.0 ft

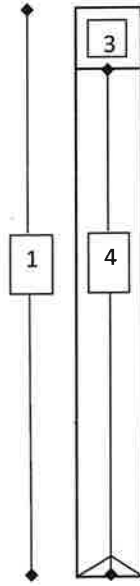
B. Water Level Measurements
 Time: 1145
 Height: +2.3 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
 -3.6 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft.
2. Penetration Depth: 3 ft ft 91.4 cm
3. Headspace Measurement: 2.55 ft
4. Field Recovery Depth: 2.45 ft 74.7 cm
5. Field Recovery Percentage: 82%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 2.28 ft 689 cm
8. Adjusted Recovery Percentage: 74.4% 75.4%



Core Sections To Process:

- A: 0-45cm
- B:
- C:
- D:

Drive Notes:
 freely drove to target penetration.

Shoe Description: See processing log

Core Field Observations and Description:
 Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
 About 3.2 ft. from target.

Project: AOC4 Phase 2
Date: 07-06-21
Weather: 60s, sunny
Logged By: TD

Location ID: 543
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD, DD, TT

Field Collection Coordinates:
Lat/Northing: 47 529150

Long/Easting: 122,314 838

A. Water Depth

DTM Depth Sounder: NA
DTM Lead Line: -6.8 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

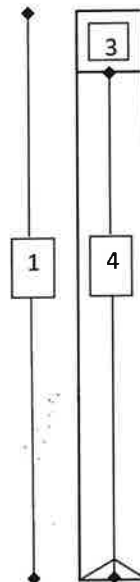
Time: 1224
Height: +3.31
Source: RTK tide station
Mudline: -3.5 -3.49

Core Collection Recovery Details:

- 1. Core Tube Length: 8 ft.
- 2. Penetration Depth: 7.0 ft cm
- 3. Headspace Measurement: 2.7
- 4. Field Recovery Depth: 5.3 ft cm
- 5. Field Recovery Percentage: 75.7
- 6. Core Accepted (Yes) / No
- 7. Processing Recovery Depth: 4.1 ft cm
- 8. Adjusted Recovery Percentage: 58.6%

Drive Notes:

1' ft freefall
1/4 throttle, full penetration depth
3/4 throttle slow drive to refusal
at 6.2 ft.
additional drive to refusal
at 7.0 ft.
1/2 ft slope



Core Sections To Process:

- A: See processing log
- B: (A to F)
- C:
- D:

Shoe Description: Rock in shoe (brick)

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-4.9)(4.9-5.3) 3 segments.

Notes:

Project: AOC4 Phase 2
 Date: 071621
 Weather: 60S Overcast
 Logged By: TDO

Location ID: 545
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.520923 TD
 520990

Long/Easting: 122.314872 TD
 314800 TD

A. Water Depth

DTM Depth Sounder: N/A
 DTM Lead Line: -5.0 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

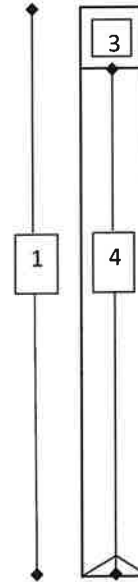
Time: 12:28
 Height: +4.93
 Source: LDW RTK tide station

-0.07

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 2.6
4. Field Recovery Depth: 5.4 ft cm
5. Field Recovery Percentage: 77.1
6. Core Accepted: Yes / No AV
7. Processing Recovery Depth: 5.2 ft 4.5 ft cm
8. Adjusted Recovery Percentage: 75.7 (64.3% Rec)



Core Sections To Process:

- A: see processing
 B: form
 C: A → F
 D:

Drive Notes:

0.6 ft free fall
 1/4 throttle to 1.5 ft.
 1/2 throttle to full pen.

1/2 ft slope.

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0) (3.0-5.0) (5.0 to 5.4)

Notes:

~25 ft OCF target 0090
 OK per EPA

Project: AOC4 Phase 2
 Date: 072021
 Weather: 1015 overcast
 Logged By: TTD

Location ID: 548
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) (Shoaling)
 Field Staff: TD ES RM

Field Collection Coordinates:
 Lat/Northing: 196557.92

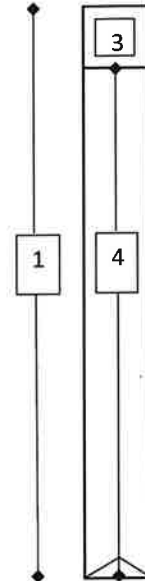
Long/Easting: 1274544.53

A. Water Depth
 DTM Depth Sounder: -16.69 ft
 DTM Lead Line: -16.0 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1009
 Height: +0.45 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)
 -15.5

- Core Collection Recovery Details:
- Core Tube Length: 5.0 ft
 - Penetration Depth: 4.0 ft 121.9 cm
 - Headspace Measurement: 1.6
 - Field Recovery Depth: 3.4 ft cm
 - Field Recovery Percentage: 85.0
 - Core Accepted (Yes/No)
 - Processing Recovery Depth: ft 100 cm
 - Adjusted Recovery Percentage: 82.0

Drive Notes:
 Hand drive to refusal



Core Sections To Process:
 A: 0-60cm
 B: See processing log
 C:
 D:

Shoe Description:

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoaling material -15.5 to -17.0
 no shoaling material - OK to accept per Kathy/Suñe

Notes:
 ~9 ft off target due to bridge structure/fender rails & pilings.
 Picked area, and no shallower depths reachable by vessel in area.

Project: A004 Phase 2
 Date: 11-1-21
 Weather: 100% overcast
 Logged By: TDO

Location ID: 549
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TDO, DD, JT, DB + J. Skon.

Field Collection Coordinates:
 Lat/Northing: 47.528956

Long/Easting: 122.313896

A. Water Depth

DTM Depth Sounder: 22.5 ft
 DTM Lead Line: 22.3 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

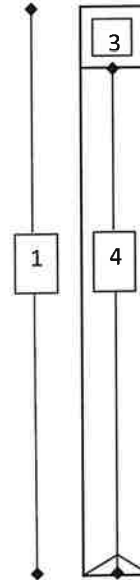
Time: 0931
 Height: +7.31 ft.
 Source: LDW RTK tide station
 Recovery Measurements (prior to cuts) -15.0 ft.

Core Collection Recovery Details:

1. Core Tube Length: 15 ft
2. Penetration Depth: 13.5 ft cm
3. Headspace Measurement: 2.8
4. Field Recovery Depth: 12.2 ft cm
5. Field Recovery Percentage: 90.4
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 11.8 ft cm
8. Adjusted Recovery Percentage: 87.7% AV

Drive Notes:

~ 7.75 ft freefall
1/2 full throttle, little moment.
pull 1/2 throttle, slow steady advance to
full penetration ~ 13.5 ft.



Core Sections To Process:

- A: See core processing form
 B: process. n.g form
 C: A-M
 D: _____

Shoe Description: dark gray silt/sand mix

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoal material - None
(0-4)(4-8)(8-11.8)(11.8 to 12.2) 4 segments.

Notes:

Project: AOC4 Phase 2
 Date: 7.22.2021
 Weather: Sunny, 70s
 Logged By: seaplunger

Location ID: SC550
 Attempt No.: 8
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: SR, TD, RM, ES

Field Collection Coordinates:
 Lat/Northing: 196589.98

Long/Easting: 1274575.11

A. Water Depth
 DTM Depth Sounder: 33.12 ft
 DTM Lead Line: NA ft

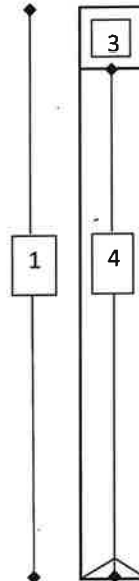
B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1657 -21.6 ft MLLW
 Height: 11.52 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 12 ft ft
2. Penetration Depth: 4 ft ft 121.9 cm
3. Headspace Measurement: 2.1 ft
4. Field Recovery Depth: 2.9 ft ft 88.39 cm
5. Field Recovery Percentage: 72.5%
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 83.6 cm 88 cm
8. Adjusted Recovery Percentage: ~~72.9%~~ ~~67.5%~~ 72.2%

Drive Notes:

Core tipped after 4ft



Core Sections To Process:

- A: 0-60cm (sample 10 se550)
- B: See processing log.
- C:
- D: 60-90cm interval processed and sampled as tier 2 archive. Sample 10 is se550AA

Shoe Description: see processing log.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

On processing barge discovered that bottom 13cm of core was empty. Based on discussion w/ Kathy and Susie, agreed that bottom of core likely slipped out. Thus, recovery correction based on tubl measured depth on barge of 88cm (72.2%).

Notes:

About 7.3 ft from target.

Project: AOC4 Phase 2
 Date: 7.22.2021
 Weather: sunny, 70s
 Logged By: S. Reppinger

Location ID: SC551
 Attempt No.: 2
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: SR, TD, RM, ES

Field Collection Coordinates:
 Lat/Northing: 196639.55

Long/Easting: 1274608.44

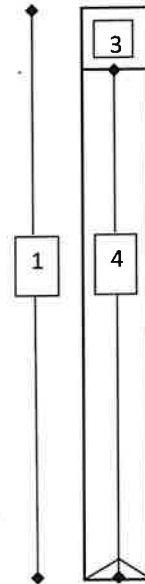
A. Water Depth
 DTM Depth Sounder: 29.42 ft
 DTM Lead Line: NA ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1532 -19.85 ft MLLW
 Height: 9.57 ft

Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft ft
2. Penetration Depth: 4 ft ft 121.9 cm
3. Headspace Measurement: 1.35 ft
4. Field Recovery Depth: 3.65 ft 111.3 cm
5. Field Recovery Percentage: 91.3%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 112 cm
8. Adjusted Recovery Percentage: 91.9



Core Sections To Process:

- A: 0-60cm
 B: See processing log
 C:
 D:

Drive Notes:

- freely drove to target penetration
- strong current

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 39 ft from target

Sediment Core Collection Form

Project: AOC4 PMSZ
 Date: 11/09/21
 Weather: 005 sunny
 Logged By: TDO

Location ID: 553
 Attempt No.: 1
 Core Type: ~~Intertidal~~ Subtidal Shoaling
 Field Staff: TD, DD, TT

Field Collection Coordinates:
 Lat/Northing: 47.529220

Long/Easting: 122.313814

A. Water Depth

DTM Depth Sounder: -19.3
 DTM Lead Line: N/A too much current.

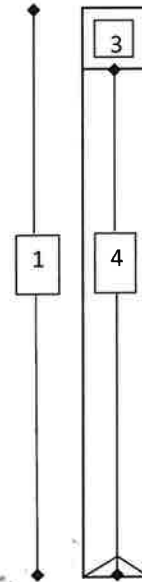
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1125
 Height: -0.7 ft
 Source: (VDH) ebb tide station
 Recovery Measurements (prior to cuts) -20.0

Core Collection Recovery Details:

1. Core Tube Length: 3 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 2.1
4. Field Recovery Depth: 5.9 ft cm
5. Field Recovery Percentage: 84.3
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 5.8 ft cm
8. Adjusted Recovery Percentage: 82.9

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: see processing
- B: log (A-F)
- C:
- D:

Drive Notes:

1.16 ft free fall
 1/4 throttle, steady drive to full pen
 (7 PA)

Shoe Description: sand (med)

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-5.5)(5.5-5.9) 3 segments

Notes:

Moved 9 ft @ 14 ft from ORIGINAL TARGET

Project: ADCA Phase 2
 Date: 07-09-21
 Weather: 100% sunny
 Logged By: TDO

Location ID: 55A
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, BZ, JT

Field Collection Coordinates:
 Lat/Northing: 47.529031

Long/Easting: 122.313487

A. Water Depth

DTM Depth Sounder: -16.7 ff
 DTM Lead Line: -17.6 ft
 (strong current)

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

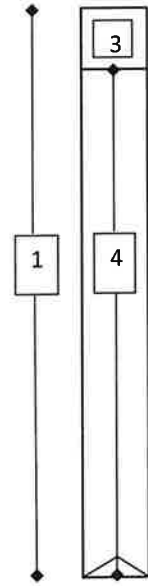
Time: 1117
 Height: -1.52 ft.
 Source: LDW RTK
 + tide station

-18.22

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8 ft.
2. Penetration Depth: 7.8 ft cm
3. Headspace Measurement: 1.8
4. Field Recovery Depth: 6.2 ft cm
5. Field Recovery Percentage: 88.6
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 5.8 ft 177 cm
8. Adjusted Recovery Percentage: 83.0%



Core Sections To Process:

- A: See processing
 B: log (A-F)
 C: _____
 D: _____

Drive Notes:

2.2 ft free fall
easy drive, 1/4 throttle to
full pen.
easy retrieval.

Shoe Description: 1/2 full w/ m. sand.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-5.8)(5.8-6.2) 3 segments

Notes:

Project: AOCU Phase 2
 Date: 07/22/11
 Weather: FOS sunny, wind
 Logged By: TDO

Location ID: 557
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TDO TDO TT

Field Collection Coordinates:
 Lat/Northing: 47.528509

Long/Easting: 122.313169

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: -10.3 ft

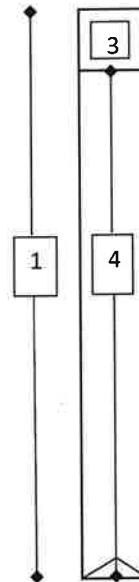
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1426 -10.98
 Height: -0.68 ft
 Source: EDW BTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.5
4. Field Recovery Depth: 6.5 ft cm
5. Field Recovery Percentage: 92.6
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 6.1 ft cm
8. Adjusted Recovery Percentage: 87.1



Core Sections To Process:

- A: See processing log
 B: log
 C: A-D
 D:

Drive Notes:

5.2 ft controlled freefall
easy drive to full pen. (7 ft)

Shoe Description: shoe full, sandy silt

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoaling material -10.98 to -15.00 = 4.02 ft / 122.5 cm
(0-4)(4-6.1)(6.1-6.5) 3 segments.

Notes:

Project: ADCH Phase 2
 Date: 06.29.21
 Weather: 70S, sunny
 Logged By: TDO

Location ID: 558
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TDO, D.D, TT, DB

Field Collection Coordinates:
 Lat/Northing: 47.528342

Long/Easting: 122.312907

A. Water Depth

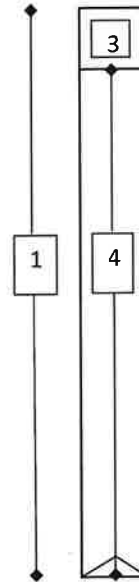
DTM Depth Sounder:
 DTM Lead Line: 17.3 ft
16.4 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1122
 Height: 6.86 ft
 Source: CDWRTE
Tide station

10.41 - 9.54

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: See processing sheet
- B: Sheet
- C: A-D
- D: _____

Core Collection Recovery Details:

1. Core Tube Length: 20 ft
2. Penetration Depth: 18.25 ft cm
3. Headspace Measurement: 3.2
4. Field Recovery Depth: 16.8 ft cm
5. Field Recovery Percentage: 92.1
6. Core Accepted: (Yes / No)
7. Processing Recovery Depth: 16.7 ft cm
8. Adjusted Recovery Percentage: 92.1

Drive Notes:

Adjusted base to provide 1ft angle w/c of slope
9.2 ft free fall
free drive

Shoe Description: sandy material

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoaling material -9.54 to -15 ft MLLW (5.46 ft/16.6 #/cm) SM
(0-4)(4-8)(8-12)(12-16.4)(16.4-16.8) 5 segments.

Notes:

Project: ADCH Phase 2
 Date: 06.29.21
 Weather: sunny 70s
 Logged By: T. Do

Location ID: 560
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: T. Do, D. Dickinson, T. Thompson, D. Browning

Field Collection Coordinates:
 Lat/Northing: 47.527226

Long/Easting: 122.311985

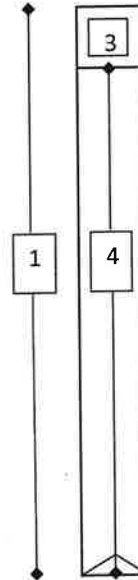
A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: -12.5 ft.

B. Water Level Measurements **C. Mudline Elevation (ft MLLW)**
 Time: 0939 -2.94 ft.
 Height: 9.56 ft.
 Source: RTK tide station
LDW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 20 ft.
2. Penetration Depth: 11.1 ft cm
3. Headspace Measurement: 10.9
4. Field Recovery Depth: 9.1 ft cm
5. Field Recovery Percentage: 82.0
6. Core Accepted: (Yes/No) No
7. Processing Recovery Depth: 8.75 ft cm
8. Adjusted Recovery Percentage: 82.0



Core Sections To Process:

- A: See processing sheet
 B: A-I
 C: _____
 D: _____

Drive Notes:

6.6 ft. free fall
hit refusal at ~ 11.1 ft.
clay in core nose

Shoe Description: clay in nose

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-8.6)(8.6-9.1) 3 segments.

Notes:

Project: AOC4 Phase 2
 Date: 7.22.2021
 Weather: Sunny 60s
 Logged By: S. Reisinger

Location ID: SC561
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, ES, RM

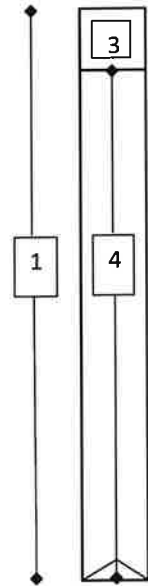
Field Collection Coordinates:
 Lat/Northing: 196063.62

Long/Easting: 1275248.71

A. Water Depth
 DTM Depth Sounder: 15.41 ft
 DTM Lead Line: 15.4 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1009 -17.75 ft MLLW
 Height: -2.34 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
 1. Core Tube Length: 5 ft
 2. Penetration Depth: 3.3 ft 121.9 cm
 3. Headspace Measurement: 1.7 ft
 4. Field Recovery Depth: 3.3 ft 100.6 cm
 5. Field Recovery Percentage: 82.5 %
 6. Core Accepted: (Yes) / No
 7. Processing Recovery Depth: ft 99 cm
 8. Adjusted Recovery Percentage: 81.2 %



Core Sections To Process:
 A: 0-60cm
 B: See processing log
 C: _____
 D: _____

Drive Notes:
freely drive to target penetration.

Shoe Description: see processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
About 5 ft from target location.

Sediment Core Collection Form

Project: ADCU Phase 2
 Date: 07/13/21
 Weather: 70s sunny
 Logged By: TDO

Location ID: 502
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.527582

Long/Easting: 122.311490

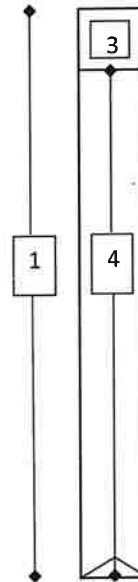
A. Water Depth
 DTM Depth Sounder:
 DTM Lead Line: -10.2 ft.

B. Water Level Measurements
 Time: 1359
 Height: -1.21 ft
 Source: UPW RTK tide station

C. Mudline Elevation (ft MLLW)
-11.41

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 8.0 ft.
 - Penetration Depth: 7.0 ft cm
 - Headspace Measurement: 1.8
 - Field Recovery Depth: 6.2 ft cm
 - Field Recovery Percentage: 88.6
 - Core Accepted: (Yes) / No
 - Processing Recovery Depth: 5.8 ft cm
 - Adjusted Recovery Percentage: 82.9%



Core Sections To Process:

- A: See processing
 B: log A-D
 C:
 D:

Drive Notes:
5 ft. freefall
easy drive to full pen.

Shoe Description: full, black, wet sand/silt

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

shoaling material -11.41 to -15 ft MLLW = 3.59 ft / 109.4 cm
(0-4.0 ft) (4.0-5.8 ft) (5.8-6.2 ft) 3 segments

Notes:

Project: AOCY Phax2
 Date: 07-20-21
 Weather: 60S overcast
 Logged By: TDO

Location ID: 563
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD ES, RPT

Field Collection Coordinates:
 Lat/Northing: 195946.67

Long/Easting: 1275294.78

A. Water Depth

DTM Depth Sounder: -16.49
 DTM Lead Line: -16.4 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

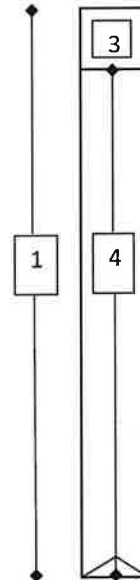
Time: 1048
 Height: +1.83 ft
 Source: Low RTK tide station

-14.57

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5.0
2. Penetration Depth: 3.5 ft / 106.7 cm
3. Headspace Measurement: 1.8 ft
4. Field Recovery Depth: 3.2 ft cm
5. Field Recovery Percentage: 91.4
6. Core Accepted: Yes No
7. Processing Recovery Depth: ft 94 cm
8. Adjusted Recovery Percentage: 88.1



Core Sections To Process:

- A: 0-73.1 (A)
- B: 73.1-103.1 (B)
- C: See processing
- D: form

Drive Notes:

Free drive to pen depth.

Shoe Description: Silt, gray, sand.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoaling material -14.57 to -15.0 ft MLLW =
0.43 ft / 13.1 cm

Notes:

Project: AOC4 Phase 2
 Date: 06.29.21
 Weather: 80° sunny
 Logged By: JDO

Location ID: 564
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: TD, DD, TT, DB

Field Collection Coordinates:
 Lat/Northing: 47.527411

Long/Easting: 122.311290

A. Water Depth

DTM Depth Sounder: N/A
 DTM Lead Line: 11.5 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

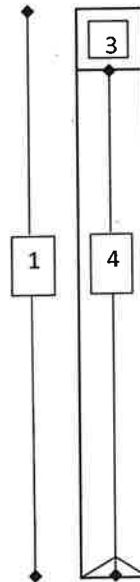
Time: 1324
 Height: 2.2 ft
 Source: LDW RTR
tide station

-9.3

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 20 ft.
2. Penetration Depth: 18.5 ft cm
3. Headspace Measurement: 4.7
4. Field Recovery Depth: 15.3 ft cm
5. Field Recovery Percentage: 82.7
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 14.8 ft cm
8. Adjusted Recovery Percentage: 80.0



Core Sections To Process:

- A: See processing sheet
 B: Sheet
 C: A-Q N
AV
 D: _____

Drive Notes:

3.15 ft. Greafall
drive freely to depth/refusal ~
18.2 ft.

Shoe Description:

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoal material -9.3 to -15 = 5.7 ft / 173.7 cm
(0-4)(4-8)(8-12)(12-14.9)(14.9-15.3) 5 segments

* note: lost ~ 2" of sediment from bottom of segment 2 (fell off and onto ground)

Notes:

Project: ADCA Phase 2
 Date: 06/30/21
 Weather: _____
 Logged By: TDD

Location ID: 565
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, DD, TT, DB

Field Collection Coordinates:
 Lat/Northing: 47.527049

Long/Easting: 122.310725

A. Water Depth

DTM Depth Sounder: NR
 DTM Lead Line: -10.7 ft.

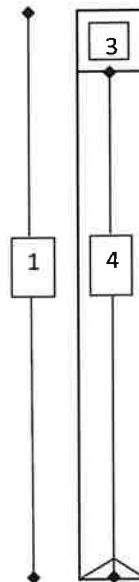
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0912 -10.06
 Height: +8.64 ft
 Source: LDW RTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 20 ft.
2. Penetration Depth: 10.1 ft cm
3. Headspace Measurement: 39
4. Field Recovery Depth: 10.1 ft cm
5. Field Recovery Percentage: 89.0
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 15.9 ft cm
8. Adjusted Recovery Percentage: 87.0



Core Sections To Process:

- A: See processing log
- B: A-N
- C: _____
- D: _____

Drive Notes:

~1A slope
3.6 ft. freefall
free drive to ~16.5 ft depth
slow firm drive to drive/penetration depth

Shoe Description:

dark gray sand/silt/clay mix with H₂S odor, slightly plastic, moist
 Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Core Field Observations and Description:

Shoaling material -10.06 to -15 = 4.94 ft / 150.6 cm

(0-4)(4-8)(8-12)(12-15.7)(15.7-16.1) 5 segments
surface sheen on water

Notes:

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 7.22.2021
 Weather: Sunny, 60s
 Logged By: S. Replinger

Location ID: SC566
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, ES, RM

Field Collection Coordinates:
 Lat/Northing: 195704.39

Long/Easting: 1275649.28

A. Water Depth
 DTM Depth Sounder: 16.69 ft
 DTM Lead Line: 16.5 ft

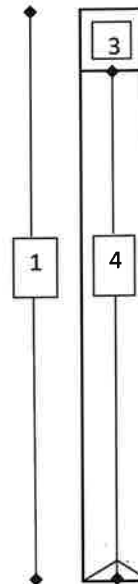
B. Water Level Measurements
 Time: 0948
 Height: -2.34 ft
C. Mudline Elevation (ft MLLW)
-19.03 ft MLLW

Source: LDW RTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft ft
2. Penetration Depth: 4.5 ft ft 137.2 cm
3. Headspace Measurement: 0.7 ft
4. Field Recovery Depth: 4.3 ft 131.1 cm
5. Field Recovery Percentage: 95.6%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 135 cm
8. Adjusted Recovery Percentage: 98.4

Drive Notes:
freely drove to target penetration



Core Sections To Process:

- A: 0-60 cm
 B: See processing log.
 C: _____
 D: _____

Shoe Description: See processing log.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Shuffled location to N bic of geotech (About 7 ft).

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 7.22.2021
 Weather: sunny, 60s
 Logged By: S. Replinger

Location ID: SC567
 Attempt No.: 2
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: SR, ES, RM

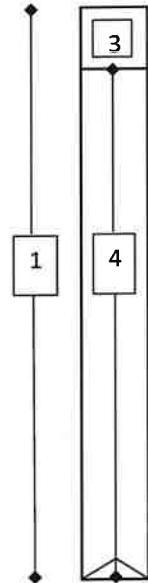
Field Collection Coordinates:
 Lat/Northing: 195618.25

Long/Easting: 1275670.02

A. Water Depth
 DTM Depth Sounder: 13.24 ft
 DTM Lead Line: 14.0 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 0934 -15.6 ft MLLW
 Height: -2.33 ft
 Source: LDW RTK tide station Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
- Core Tube Length: 5 ft ft
 - Penetration Depth: 4 ft ft 121.9 cm
 - Headspace Measurement: 1.85 ft
 - Field Recovery Depth: 3.15 ft ft 96.0 cm
 - Field Recovery Percentage: 78.8%
 - Core Accepted: (Yes) / No
 - Processing Recovery Depth: ft 93 cm
 - Adjusted Recovery Percentage: 76.3



- Core Sections To Process:
- A: 0-60cm
 - B: See processing log.
 - C:
 - D:

Drive Notes:
 freely drove to target penetration

Shoe Description: see processing log.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
 Sh. filed location SE because of geotech spuds. (4.3 ft from target)

Sediment Core Collection Form

Project: AOC4 Phase 2
Date: 07.14.21
Weather: 70 sunny
Logged By: TTD

Location ID: 5100
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD DD JT

Field Collection Coordinates:
Lat/Northing: 47.526788

Long/Easting: 122.309657

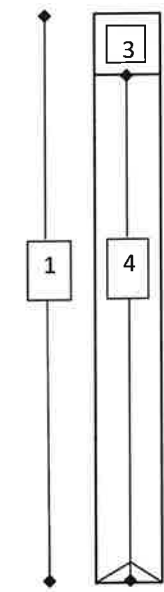
A. Water Depth
DTM Depth Sounder: -16.5 ft
DTM Lead Line: -18.0 ft

B. Water Level Measurements
Time: 1448
Height: -0.4 ft
Source: low tide station

C. Mudline Elevation (ft MLLW)
-18.4

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.4
4. Field Recovery Depth: 6.6 ft cm
5. Field Recovery Percentage: 94.3
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 6.4 ft cm
8. Adjusted Recovery Percentage: 91.4%



- Core Sections To Process:
A: See processing
B: form
C: A-F
D:

Drive Notes:
1 ft free fall
1/4 throttle easy drive to full pen. (7.0 ft)

Shoe Description: 1/2 full, silty sand

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0) (4.0-6.2) (6.2-6.6) 3 segments

Notes:

Sediment Core Collection Form

Project: LDW ACCA - Phase II
 Date: 7.22.2021
 Weather: Sunny, 60s
 Logged By: S. Reisinger

Location ID: SC569
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: SP, TD, ES, RM

Field Collection Coordinates:
 Lat/Northing: 195618.54

Long/Easting: 1275738.26

A. Water Depth
 DTM Depth Sounder: 14.09 ft
 DTM Lead Line: 14.5 ft

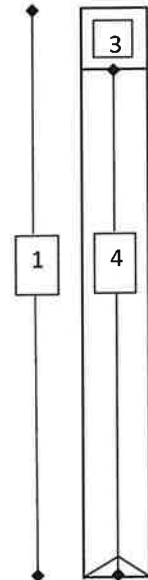
B. Water Level Measurements
 Time: 0910
 Height: -1.72 ft
 Source: RTK No. station

C. Mudline Elevation (ft MLLW)
 -15.8 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4 ft ft 121.9 cm
3. Headspace Measurement: 1.1 ft
4. Field Recovery Depth: 3.9 ft 118.9 cm
5. Field Recovery Percentage: 97.5%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 119.5 cm
8. Adjusted Recovery Percentage: 98.0%



Core Sections To Process:

- A: 0-60 cm
- B: See processing log.
- C:
- D:

Drive Notes:
 freely drive to target penetration.

Shoe Description: see processing log.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
 About 2.7 ft from target.

Project: LOW A014 Phase 11
 Date: 7/19/21
 Weather: 70s, SW
 Logged By: KM

Location ID: SC570
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 195486.27

Long/Easting: 1275620.83

A. Water Depth

DTM Depth Sounder: 17.0 ft
 DTM Lead Line: 18.1 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

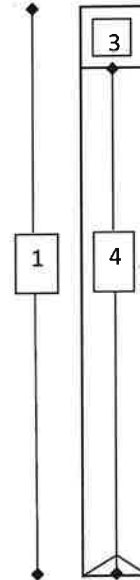
Time: 1350
 Height: 9.25 ft
 Source: LOW RTK
tide station

-8.9 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.8 ft 115.8 cm
3. Headspace Measurement: 1.7 ft
4. Field Recovery Depth: 3.3 ft 100.6 cm
5. Field Recovery Percentage: 86.8%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 99 cm
8. Adjusted Recovery Percentage: 85.5%



Core Sections To Process:

A: 0-60 cm

B: _____

C: _____

D: _____

Drive Notes:

drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 2.4 ft from target

Project: A004 PH022
 Date: 07/14/21
 Weather: 60S sunny
 Logged By: TDO

Location ID: 571
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.526127

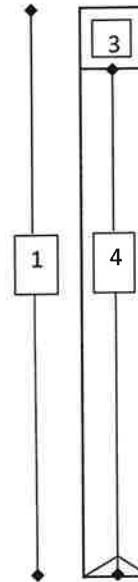
Long/Easting: 122.309882

A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: -6.7 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1400
 Height: -0.3
 Source: LDW RTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
 1. Core Tube Length: 8.0 ft
 2. Penetration Depth: 6.7 ft cm
 3. Headspace Measurement: 2.1
 4. Field Recovery Depth: 5.9 ft cm
 5. Field Recovery Percentage: 88.1
 6. Core Accepted: Yes/ No
 7. Processing Recovery Depth: 5.8 ft cm
 8. Adjusted Recovery Percentage: 86.6%



Core Sections To Process:

A: see processing
 B: for
 C: A → E
 D:

Drive Notes:
 0.5 ft free fall
 1/2 throttle, sluggish
 full throttle, v. slow
 picks up for another couple feet
 and slows down to refusal at
 6.7 ft.

Shoe Description: Full, sand/silt

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0. - 4.0) (4.0 - 5.5) (5.5 - 5.9) 3 segments

Notes:

Project: ADCA Phase 2
 Date: 06.30.21
 Weather: 70S sunny, light wind
 Logged By: TJD

Location ID: 572
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, DD, TT, DP

Field Collection Coordinates:
 Lat/Northing: 47.526123

Long/Easting: 122,309628

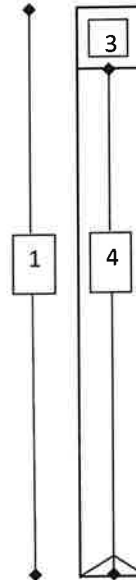
A. Water Depth
 DTM Depth Sounder: -17.1
 DTM Lead Line: NA

B. Water Level Measurements C. **Mudline Elevation (ft MLLW)**
 Time: 1345 -13.4
 Height: +3.7 ft
 Source: LOW RTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 15 ft.
2. Penetration Depth: 14.0 ft cm
3. Headspace Measurement: 2.2
4. Field Recovery Depth: 11.8 ft cm
5. Field Recovery Percentage: 84.3
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 11.3 ft cm
8. Adjusted Recovery Percentage: 80.7



Core Sections To Process:

- A: See processing log
 B: (A to L)
 C: _____
 D: _____

Drive Notes:

~ 10.5 ft. freefall (minor stop at ~ 4.5ft)
Crane freely to penetration depth.

Shoe Description: dark gray sand, moist

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoal material -13.4 to -15. = 1.6 ft. / 48.8 cm

(0-4)(4-8)(8-11.4)(11.4-11.8) 4 segments

Notes:

Project: LOW AOCY Phase II
Date: 7/19/21
Weather: 76s, SW
Logged By: KM

Location ID: SCS73
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: KM, ES, RM

Field Collection Coordinates:
Lat/Northing: 195364.64

Long/Easting: 1275665.83

A. Water Depth

DTM Depth Sounder: 16.0 ft
DTM Lead Line: 17.7 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

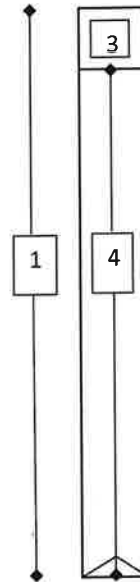
Time: 1405
Height: 9.4 ft
Source: LOW RTK
tide station

- 8.3 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.0 ft 121.9 cm
3. Headspace Measurement: 1.3 ft
4. Field Recovery Depth: 3.7 ft 112.8 cm
5. Field Recovery Percentage: 92.5%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 111.5 cm
8. Adjusted Recovery Percentage: 91.5



Core Sections To Process:

- A: 0-60 cm
- B: See processing
- C: form
- D: _____

Drive Notes:

drove freely to depth

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 1.0 ft from target

Sediment Core Collection Form

Project: LDW AOC4 - Phase 11
 Date: 7-22-2021
 Weather: Sunny, 60s
 Logged By: S. Replinger

Location ID: SC574
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SP, RM, ES

Field Collection Coordinates:
 Lat/Northing: 195340.27

Long/Easting: 1275829.15

A. Water Depth

DTM Depth Sounder: 15.47 ft
 DTM Lead Line: 15.5 ft

B. Water Level Measurements

Time: 1120
 Height: -1.73 ft
 Source: LDW RTK tide station

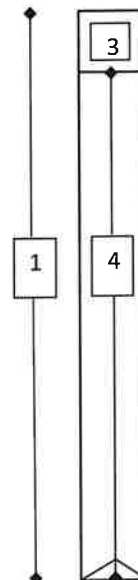
C. Mudline Elevation (ft MLLW)

-17.2 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.5 ft ft 137.2 cm
3. Headspace Measurement: 1.15 ft
4. Field Recovery Depth: 3.85 ft ft 117.3 cm
5. Field Recovery Percentage: 84.4%
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 115 cm
8. Adjusted Recovery Percentage: 83.8%



Core Sections To Process:

- A: 0-60 cm
- B: See processing log
- C:
- D:

Drive Notes:

freely draw to target penetration.

Shoe Description: see processing log.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.1 ft from target.

Sediment Core Collection Form

Project: ADCU Phase 2
 Date: 06.30.21
 Weather: 70s, sunny, light wind
 Logged By: JDO

Location ID: 576
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, DD, TT, DB

Field Collection Coordinates:
 Lat/Northing: 47.525762

Long/Easting: 122.368961

A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: -18.4 ft

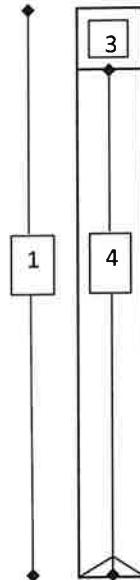
B. Water Level Measurements
 Time: 1500
 Height: +1.87
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-16.53

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 15 ft
2. Penetration Depth: 14.0 ft cm
3. Headspace Measurement: 1.7
4. Field Recovery Depth: 12.3 ft cm
5. Field Recovery Percentage: 87.9
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 11.9 ft cm
8. Adjusted Recovery Percentage: 84.6



Core Sections To Process:
See processing log
 A: Log
 B: (A to M)
 C:
 D:

Drive Notes:
Freefall ~ 6.5 ft
steady penetration at half throttle
to full penetration depth

Shoe Description:
black silty fine sand

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-8)(8-11.9)(11.9-12.3) 4 segments

Notes:

Sediment Core Collection Form

Project: ABC4 Phase 2
Date: 07/04/21
Weather: 70s sun, wind
Logged By: TDO

Location ID: 577
Attempt No.:
Core Type: Intertidal, Subtidal, Shoaling
Field Staff:

Field Collection Coordinates:
Lat/Northing: 47.525272

Long/Easting: 122.308571

A. Water Depth

DTM Depth Sounder: 19.0 ft
DTM Lead Line: 21.3 ft

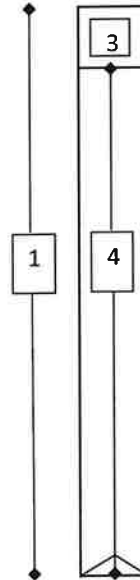
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1708
Height: +10.04 ft
Source: LDW RTK tide Station
Mudline Elevation: -11.29

Core Collection Recovery Details:

- 1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft
3. Headspace Measurement: 1.5
4. Field Recovery Depth: 6.5 ft
5. Field Recovery Percentage: 92.9
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 6.3 ft
8. Adjusted Recovery Percentage: 90.0%

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: see processing
B: log (A-F)
C:
D:

Drive Notes:

4.6 ft freefall,
v. easy drive (< 1/4 throttle) to
full pen (7 ft)

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-6.1)(6.1-6.5) 3 segments

Notes:

Sediment Core Collection Form

Project: LDW AOC4
 Date: 7-6-2021
 Weather: overcast, 60s
 Logged By: SR

Location ID: 1T578
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SR, RM, ES

Field Collection Coordinates:
 Lat/Northing: 1275996.42

Long/Easting: 195111.16

A. Water Depth

DTM Depth Sounder: 4.25 ft
 DTM Lead Line: 3.5 ft

B. Water Level Measurements

Time: 1100
 Height: +1.07 ft
 Source: LDW PTK
 tide station

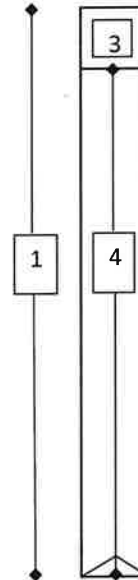
C. Mudline Elevation (ft MLLW)

- 2.43 ft

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft. 91.5 cm
2. Penetration Depth: 3.0 ft ft 91.4 cm
3. Headspace Measurement: 2.4 ft. 73 cm
4. Field Recovery Depth: 2.6 ft ft 79 cm
5. Field Recovery Percentage: 87%
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 77.5 cm
8. Adjusted Recovery Percentage: 84.7



Core Sections To Process:

- A: 0-45 cm
 B:
 C:
 D:

Drive Notes:
 freely drove to target penetration depth

Shoe Description: dark gray, silty sand.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Approx 1.4 ft from target.

Notes:

Sediment Core Collection Form

Project: AOO4 Phase 2
 Date: 07/16/21
 Weather: 10 overcast
 Logged By: TD

Location ID: 579
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.525306

Long/Easting: 122.308313

A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: 8.4

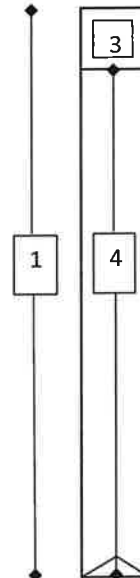
B. Water Level Measurements
 Time: 1123
 Height: 77.75 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-0.65

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 6.8 ft 207.3 cm
3. Headspace Measurement: 2.6
4. Field Recovery Depth: 5.4 ft cm
5. Field Recovery Percentage: 79.4
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 5.0 ft 151 cm
8. Adjusted Recovery Percentage: 72.0



Core Sections To Process:

- A: A-F
 B: See processing log.
 C: _____
 D: _____

Drive Notes:

1.6 ft freefall
1.6
1/4 throttle, easy drive to 3 ft.
continues when 1/2 throttle steady
to 6 ft and then to full pen.
6.8 ft

Shoe Description: empty.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0)(3.0-5.1)(5.1 to 5.4) 3 segments

Notes:

13 ft off target (avoid concrete/rip-rap piles)
2/12

Sediment Core Collection Form

Project: AOC4 Phase II
 Date: 7.6.2021
 Weather: overcast, 60S
 Logged By: S. Replinger

Location ID: ^{SR} TT680 SC580
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, RE, ES

Field Collection Coordinates:
 Lat/Northing: 127.5976.40

Long/Easting: 195038.66

A. Water Depth
 DTM Depth Sounder: 11.2 ft
 DTM Lead Line: —

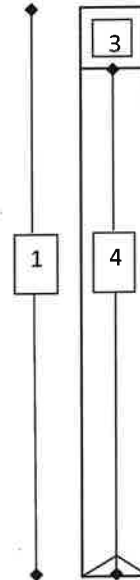
B. Water Level Measurements
 Time: 1040
 Height: 0.53 0.79 ft
 Source: SPM - LDW

C. Mudline Elevation (ft MLLW)
~~SP# 976~~ 10.4 ft

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 5 ft
 - Penetration Depth: 3.5 ft 107 cm
 - Headspace Measurement: 2.05 ft
 - Field Recovery Depth: 2.95 ft 90 cm
 - Field Recovery Percentage: 84%
 - Core Accepted: Yes / No
 - Processing Recovery Depth: ft 85 cm
 - Adjusted Recovery Percentage: 79%

RTK rds
 Station



Core Sections To Process:

- A: 0-60 cm
 B:
 C:
 D:

Drive Notes:
 freely drive to target penetration.

Shoe Description: dark gray, silty sand.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Project: AOC4 Phase 2
 Date: 07.06.21
 Weather: WDS BKNCAST
 Logged By: TDO

Location ID: SB1
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, DD, JT

Field Collection Coordinates:
 Lat/Northing: 47.525017

Long/Easting: 122.308268

A. Water Depth

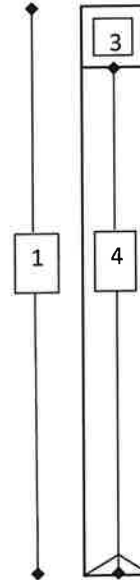
DTM Depth Sounder: NA
 DTM Lead Line: -4.2

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 11:30 11:21
 Height: +1.42 ft
 Source: LDW RTK tide station
 Recovery Measurements (prior to cuts) -2.78

Core Collection Recovery Details:

1. Core Tube Length: 8 ft.
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.8
4. Field Recovery Depth: 6.2 ft cm
5. Field Recovery Percentage: 85.6
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 179 cm
8. Adjusted Recovery Percentage: 83.7



Core Sections To Process:

- A: See processing log
- B: (A+B)
- C: _____
- D: _____

Drive Notes:

0.8 ft refusal
full throttle, 3 ft until resistance,
refusal at 4 ft but broke through.
steady drive to pen. depth

Shoe Description: (mostly empty), fr. m. sand

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)/(4-5.8)/(5.8-6.2) 3 segments

Notes:

Sediment Core Collection Form

Project: ADCH Phase 2
 Date: 07/16/21
 Weather: 50s overcast
 Logged By: TRD

Location ID: 582
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD JT

Field Collection Coordinates:
 Lat/Northing: 47.525054

Long/Easting: 122.308210

A. Water Depth

DTM Depth Sounder: PK
 DTM Lead Line: -7.4 ft

B. Water Level Measurements

Time: 0816
 Height: +7.17 ft
 Source: LEW RTK tide station

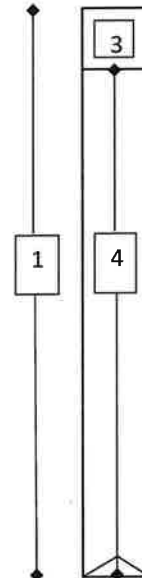
C. Mudline Elevation (ft MLLW)

TDA - 0.23

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 6.9 ft cm
3. Headspace Measurement: 2.5 ft ⁷⁸
4. Field Recovery Depth: 5.5 5.6 ft cm ⁷⁸
5. Field Recovery Percentage: 79.7
6. Core Accepted (Yes) / No
7. Processing Recovery Depth: 5.2 ft cm
8. Adjusted Recovery Percentage: 75.4



Core Sections To Process:

- A: See processing
 B: log ✓
 C: A-F
 D: _____

Drive Notes:

1.0 ft freefall
to 1/2 throttle quick drive to 6ft, then steady to 6.9ft

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-30)(3.0-5.2)(5.2-5.5) 3 segments

Notes:

Project: LDW ACC4 - Phase II
 Date: July 7, 2021
 Weather: overcast, 60s
 Logged By: SR

Location ID: SC583
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: SR, LM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 194926.69

Long/Easting: 1275977.14

A. Water Depth
 DTM Depth Sounder: 12.95 ft
 DTM Lead Line: 12.8 ft

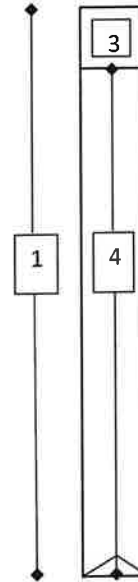
B. Water Level Measurements
 Time: 1005
 Height: -0.56 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
 -13.4 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4 ft ft 121.9 cm
3. Headspace Measurement: 1.35 ft
4. Field Recovery Depth: 3.65 ft 111.3 cm
5. Field Recovery Percentage: 91%
6. Core Accepted: Yes / No ~~99%~~ 111.0
7. Processing Recovery Depth: ft 81.1 cm
8. Adjusted Recovery Percentage: ~~81.2~~ 91.1



Core Sections To Process:

- A: 0-60cm
 B:
 C:
 D:

Drive Notes:
 freely drove to penetration depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.0 ft from target location.

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 07.07.21
 Weather: WDS overcast, wind
 Logged By: TDO

Location ID: 584
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47, 524761

Long/Easting: 122, 308226

A. Water Depth

DTM Depth Sounder: NK
 DTM Lead Line: 5.1 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

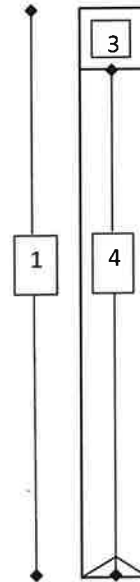
Time: 1204
 Height: +1.31
 Source: LDW RTR
tide station

-3.79

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8 ft
2. Penetration Depth: 7 ft ft cm
3. Headspace Measurement: 0.8
4. Field Recovery Depth: 6.2 ft cm
5. Field Recovery Percentage: 88.6
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 4.8 ft 146 cm
8. Adjusted Recovery Percentage: 69.4



Core Sections To Process:

- A: Seaprocessing
 B: log
 C: A-E
 D: _____

Drive Notes:

6" freefall
quick drive, w/drop off ~2.5 ft
initially.

Shoe Description: med-fine sand

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-5.8)(5.8-6.2) 3 segments

Notes:

Sediment Core Collection Form

Project: ADCY Phase 2
 Date: 07.14.21
 Weather: 60s overcast
 Logged By: TD

Location ID: 585
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.524757

Long/Easting: 122.308159

A. Water Depth

DTM Depth Sounder: VA
 DTM Lead Line: -6.7 ft.

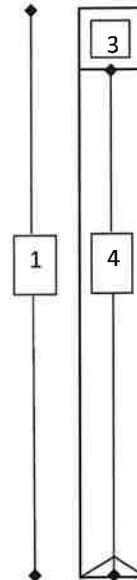
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1118
 Height: +4.93 ft
 Source: LDW RTK tide station

-1.77
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 2.1
4. Field Recovery Depth: 3.9 ft cm
5. Field Recovery Percentage: 34.3
6. Core Accepted: (yes) / No
7. Processing Recovery Depth: 5.5 ft cm
8. Adjusted Recovery Percentage: 78.6



Core Sections To Process:

- A: See processing
 B: form
 C: A → F
 D: _____

Drive Notes:

1.8 ft freefall
1/4 throttle to 2.5 ft, picks up speed
to 4 ft then goes down fast to
full pen.

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0 ft) (4.0-5.5 ft) (5.5-5.9 ft) 3 segments

Notes: 242"

22ft off target away from bulkhead wall and concrete/rip-rap piles.

Project: LDW AOC4 - Phase II
 Date: July 7, 2021
 Weather: overcast, 6.05
 Logged By: SR

Location ID: SC586
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 194844.72

Long/Easting: 1275987.48

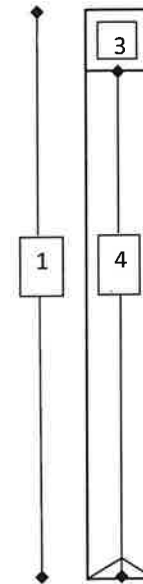
A. Water Depth
 DTM Depth Sounder: 12.95
 DTM Lead Line: 12.5 ft

B. Water Level Measurements
 Time: 1030
 Height: -0.43
 Source: LDW RTK

C. Mudline Elevation (ft MLLW)
 -12.9 ft MLLW
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4 ft ft 121.9 cm
3. Headspace Measurement: 1.15 ft (SR)
4. Field Recovery Depth: ~~3.85~~ 3.3 ft 101.6 cm
5. Field Recovery Percentage: ~~96%~~ 83% (SR)
6. Core Accepted: Yes / No (SR)
7. Processing Recovery Depth: ~~3.3~~ ft 101 cm
8. Adjusted Recovery Percentage: 82.9



Core Sections To Process:

- A: 0-60 cm
 B:
 C:
 D:

Drive Notes:

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 6 ft from target location.

Sediment Core Collection Form

Project: ADCL Phase 2
 Date: 07.12.21
 Weather: WDS sunny
 Logged By: TJU

Location ID: 587
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TJ DD TJ

Field Collection Coordinates:
 Lat/Northing: 47.524468

Long/Easting: 122.308248

A. Water Depth

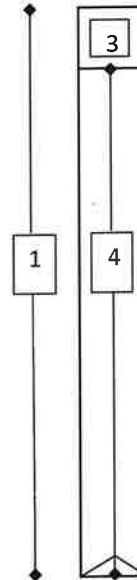
DTM Depth Sounder: -8.4 ft
 DTM Lead Line: ~~4.1 ft~~ current

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1224
 Height: -1.07 ft.
 Source: TJU RIK tide station
 Recovery Measurements (prior to cuts) -9.47

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.1
4. Field Recovery Depth: 6.9 ft cm
5. Field Recovery Percentage: 98.6
6. Core Accepted (Yes) No
7. Processing Recovery Depth: 6.7 ft cm
8. Adjusted Recovery Percentage: 95.7



Core Sections To Process:

- A: See processing
 B: log
 C:
 D: A-F

Drive Notes:
4.1 ft depth
1/4 throttle, easy steady drive
to full pen.
Easy retrieval

Shoe Description: full of sandy silt.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-6.5)(6.5-6.9) 3 segments

Notes:

Project: ADOC Phase 2
 Date: 07.14.21
 Weather: 100% overcast
 Logged By: TDO

Location ID: 588
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD JT

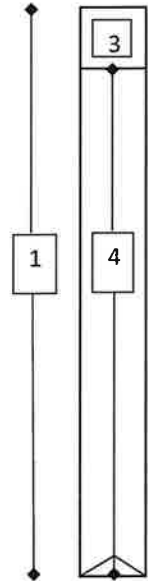
Field Collection Coordinates:
 Lat/Northing: 47.524506

Long/Easting: 122.308015

A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: -7.0 ft.

B. Water Level Measurements **C. Mudline Elevation (ft MLLW)**
 Time: 1003 +0.55
 Height: +7.55
 Source: WDW BTK tide station Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
 1. Core Tube Length: 8.0 ft.
 2. Penetration Depth: 6.7 ft cm
 3. Headspace Measurement: 2.5
 4. Field Recovery Depth: 5.5 ft cm
 5. Field Recovery Percentage: 82.1
 6. Core Accepted: Yes No
 7. Processing Recovery Depth: 4.9 ft cm
 8. Adjusted Recovery Percentage: 73.1%



Core Sections To Process:
 A: see processing
 B: toxin
 C: A → P
 D:

Drive Notes:
0.2 ft free fall
1/2 throttle slow advance
3/4 throttle to ~2.5 ft then
advances quickly to refusal at
6.7 ft.

Shoe Description: empty, sheen coating shoe.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0)(3.0-5.1)(5.1-5.5) 3 segments

Notes:
Moved further offshore to avoid concrete piles/rip rap. ~17' off-target.
241°

Sediment Core Collection Form

Project: LOWA004 - Phase II
 Date: 7-7-2021
 Weather: overcast, 60s
 Logged By: SR

Location ID: SC589
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194770.20

Long/Easting: 1276005.37

A. Water Depth

DTM Depth Sounder: 14.49
 DTM Lead Line: 14.5 ft

B. Water Level Measurements

Time: 1135
 Height: 0.51
 Source: LDW RTK tide station

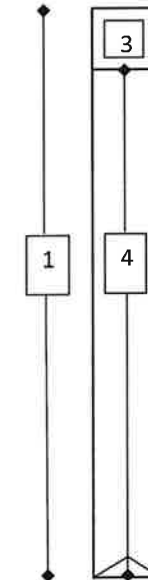
C. Mudline Elevation (ft MLLW)

-13.99 14.0 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.5 ft 106.7 cm
3. Headspace Measurement: 0.00 ft 1.55 ft
4. Field Recovery Depth: 3.45 ft 1052 cm
5. Field Recovery Percentage: 99%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: 3.4 ft 103.5 cm
8. Adjusted Recovery Percentage: 97.0



Core Sections To Process:

A: 0-60 cm

B: _____

C: _____

D: _____

Drive Notes:

freely drive to target depth, very soft material

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 5 ft from target

Sediment Core Collection Form

Project: LOW AREA - Phase II
 Date: July 7, 2021
 Weather: overcast, 60S
 Logged By: SR

Location ID: SC590
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR

Field Collection Coordinates:
 Lat/Northing: 194714.62

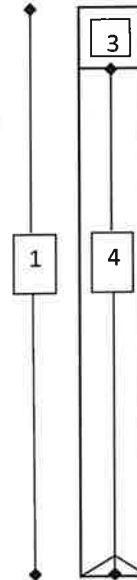
Long/Easting: 1276026.49

A. Water Depth
 DTM Depth Sounder: 13 ft
 DTM Lead Line: 12.8 ft

B. Water Level Measurements **C. Mudline Elevation (ft MLLW)**
 Time: 1105 12.95 ft MLLW
 Height: -0.15 ft
 Source: LDW RTK tide station

- Core Collection Recovery Details:**
- Core Tube Length: 5 ft
 - Penetration Depth: 4 ft ft 121.9 cm
 - Headspace Measurement: 1.1 ft
 - Field Recovery Depth: 3.9 ft 118.9 cm
 - Field Recovery Percentage: 98%
 - Core Accepted: Yes / No
 - Processing Recovery Depth: ft 118.5 cm
 - Adjusted Recovery Percentage: 97.2

Recovery Measurements (prior to cuts)



Gore Sections To Process:

- A: 0-60cm.
 B: _____
 C: _____
 D: _____

Drive Notes:
freely drive to penetration depth,
very soft material

Shoe Description: see processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
About 3.7 ft from target

Project: AOC4 Phase 2
 Date: 07.06.21
 Weather: WDS sunny
 Logged By: JDO

Location ID: 592
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.524488

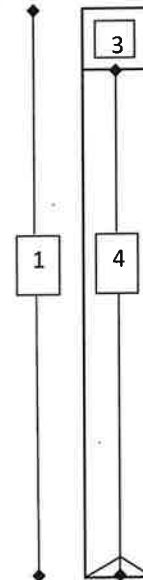
Long/Easting: 122.307878

A. Water Depth
 DTM Depth Sounder: NK
 DTM Lead Line: 11.1 ft

B. Water Level Measurements **C. Mudline Elevation (ft MLLW)**
 Time: 1531 -2.03
 Height: +9.07 ft.
 Source: low tide station

- Core Collection Recovery Details:**
1. Core Tube Length: 8 ft
 2. Penetration Depth: 7.0 ft cm
 3. Headspace Measurement: 1.5
 4. Field Recovery Depth: 6.5 ft cm
 5. Field Recovery Percentage: 92.9
 6. Core Accepted: (Yes) No
 7. Processing Recovery Depth: ft/62 cm
 8. Adjusted Recovery Percentage: 75.9

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: SUC processing
 B: log (A-G)
 C: _____
 D: _____

Drive Notes:
1 ft. free fall
1/2 throttle, steady easy drive
to 3ft, stiff to 4.5
steady to 7ft.
easy retrieval

Shoe Description: empty, trace sand.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-2)(4-6.2)(6.2-6.5) 3 segments

Notes:

Project: AOCU Phase 2
 Date: 07/01/21
 Weather: POS SUN
 Logged By: JDO

Location ID: 593
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 17.524229

Long/Easting: 122.307671

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: 8.4 ft.

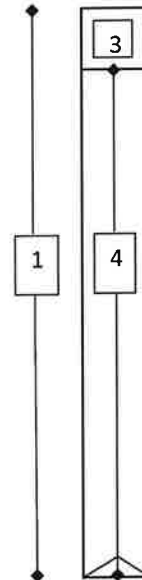
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1548 - 0.99
 Height: +7.41 ft.
 Source: WV RTC tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 6.8 ft 207.3 cm
3. Headspace Measurement: 1.5
4. Field Recovery Depth: 6.2 ft cm
5. Field Recovery Percentage: 91.2
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: (22) ft 106 cm 173 cm
8. Adjusted Recovery Percentage: 90.0 83.5 %



Core Sections To Process:

- A: see processing log (A-F)
 B: log (A-F)
 C: _____
 D: _____

Drive Notes:

0.9 ft free fall
hard drive then easy at 2 ft.
to about 4 ft then refusal
at 6.8 ft.
easy retrieval

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-5.6)(5.6-6.2) 3 segments

Notes:

Project: LDW ADCY - Phase II
 Date: July 8, 2021
 Weather: 60, cloudy
 Logged By: KM

Location ID: SC594
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194637.71

Long/Easting: 1276060.04

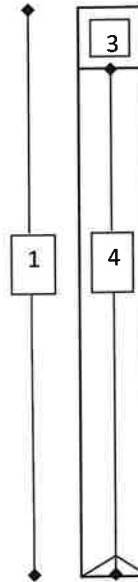
A. Water Depth
 DTM Depth Sounder: 11.0 ft
 DTM Lead Line: 10.9 ft

B. Water Level Measurements
 Time: 0940
 Height: 0.14 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-10.8 ft MLLW
 Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 5 ft
 - Penetration Depth: 4 ft 121.9 cm
 - Headspace Measurement: 1.3 ft
 - Field Recovery Depth: 3.7 ft 112.8 cm
 - Field Recovery Percentage: 93%
 - Core Accepted: (Yes) No
 - Processing Recovery Depth: ft 113 cm
 - Adjusted Recovery Percentage: 93%

Drive Notes:
drove freely to depth



Core Sections To Process:

- A: 0-60 cm
 B: _____
 C: _____
 D: _____

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
About 1.4 ft from target

Project: LDW AOCY-Phase II
 Date: July 8, 2021
 Weather: 60, cloudy
 Logged By: KM

Location ID: SC595
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194590.75

Long/Easting: 1276059.16

A. Water Depth

DTM Depth Sounder: 11.9 ft
 DTM Lead Line: 11.8 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

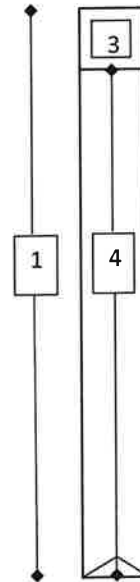
Time: 0955
 Height: -0.19 ft
 Source: LDW RTK
fide station

-12.0 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.2 ft 128.0 cm
3. Headspace Measurement: 1 ft
4. Field Recovery Depth: 4.0 ft 121.9 cm
5. Field Recovery Percentage: 95%
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 3.95 ft 120.5 cm
8. Adjusted Recovery Percentage: 94.1



Core Sections To Process:

A: 0-60 cm

B: _____

C: _____

D: _____

Drive Notes:

drive freely to depth

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 0.8 ft from target

Sediment Core Collection Form

Project: AOC4 Phase 2
Date: 07.13.21
Weather: 70, sunny
Logged By: TDO

Location ID: 596
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TDO DD TT

Field Collection Coordinates:
Lat/Northing: 47.523937

Long/Easting: 122.308008

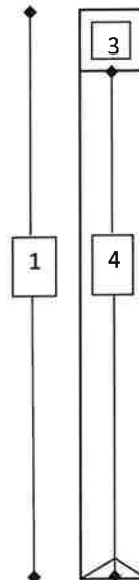
A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: -7.2

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 1307
Height: -0.78 ft
Source: LDO RTK tide station
-7.98

Core Collection Recovery Details:

- 1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0-7.1 ft cm
3. Headspace Measurement: 0.7
4. Field Recovery Depth: 6.8-7.3 ft cm
5. Field Recovery Percentage: 100% 97.1
6. Core Accepted: (yes) No
7. Processing Recovery Depth: 6.3 ft cm
8. Adjusted Recovery Percentage: 90%

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: See processing
B: foam
C: A-F
D:

Drive Notes:

1/2 ft freefall
1/4 throttle, easy advance
1st 4 ft easy, last couple feet quick.

Shoe Description: full, dry, sandy/silt hard packed

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-6.9)(6.9-7.3) 3 segments

Notes:

Core advanced just past 7 ft, no material pushed up against piston, overlying water present.
There was a 0.5' void at bottom between bottom and core nose. Recovery & % adjusted.

Sediment Core Collection Form

Project: ADCU Phase 2
 Date: 071621
 Weather: clouds overcast
 Logged By: TD

Location ID: 597
 Attempt No.: 1
 Core Type: intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.523955

Long/Easting: 122.307803

A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: -4.5

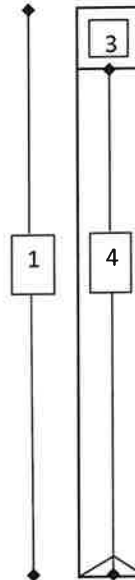
B. Water Level Measurements
 Time: 1407
 Height: +4.27 ft.
 Source: LDW RTZ tide station

C. Mudline Elevation (ft MLLW)
-0.23

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length:	<u>8.0 ft.</u>
2. Penetration Depth:	<u>7.0 ft</u> cm
3. Headspace Measurement:	<u>2.5</u>
4. Field Recovery Depth:	<u>5.5 ft</u> cm
5. Field Recovery Percentage:	<u>78.8</u>
6. Core Accepted:	<u>(Yes) No</u>
7. Processing Recovery Depth:	<u>5.3 ft</u> <u>162 cm</u>
8. Adjusted Recovery Percentage:	<u>75.7</u>



Core Sections To Process:

A: A-F
See core processing log
 B: processing log
 C: _____
 D: _____

Drive Notes:

2.0 ft free fall
1/4 throttle, easy steady drive to full pen

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0)(3.0-5.1)(5.1-5.5) 3 segments

Notes:

Project: ADCL Phase 2
 Date: 07.08.21
 Weather: 70S sunny
 Logged By: TTU

Location ID: 598
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, DD, JT

Field Collection Coordinates:
 Lat/Northing: 47.524033

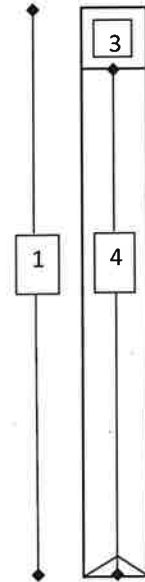
Long/Easting: 122.307567

A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: - 8.2 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1506 +3.2
 Height: +11.41 ft
 Source: LOW RTR tide station

Core Collection Recovery Details:
 1. Core Tube Length: 8 ft
 2. Penetration Depth: 7.0 ft cm
 3. Headspace Measurement: 1.7
 4. Field Recovery Depth: 6.3 ft cm
 5. Field Recovery Percentage: 90.0
 6. Core Accepted: (Yes) / No
 7. Processing Recovery Depth: 6.0 ft cm
 8. Adjusted Recovery Percentage: 85.8

Recovery Measurements (prior to cuts)



Core Sections To Process:

A: See processing log
 B: log
 C: A - H
 D: _____

Drive Notes:
1.5 ft freefall
full throttle resistance for first 2-3 ft then pickup to full pen depth (7-ft)
about 8-9 ft off-target.
Firm breakout for 2 ft then easy retrieval.

Shoe Description: sand, gravel and silt, (fill nose)

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota
(0-4)(4-5.9)(5.9-6.3) 3 segments

Notes:

Project: LDN A004- Phase II
 Date: July 7, 2021
 Weather: overcast, 60s
 Logged By: KM

Location ID: SC599
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 194565.37

Long/Easting: 127 6105.22

A. Water Depth
 DTM Depth Sounder: 10.85 ft
 DTM Lead Line: 10.0 ft

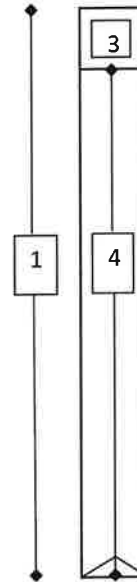
B. Water Level Measurements
 Time: 1300
 Height: 3.35 ft
 Source: LDN RTK tide station

C. Mudline Elevation (ft MLLW)
-6.65 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4 ft ft 121.9 cm
3. Headspace Measurement: 1.35 ft
4. Field Recovery Depth: 3.65 ft 111.3 cm
5. Field Recovery Percentage: 91%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 102 cm
8. Adjusted Recovery Percentage: 83.7



Core Sections To Process:

A: 0-60 cm

B: _____

C: _____

D: _____

Drive Notes:

soft material for top 2ft of drive;
less soft after 2ft

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 2.5 ft from target

Project: LDW A04 Phase II
 Date: 7/19/21
 Weather: 60s, sun
 Logged By: KM

Location ID: 1T600
 Attempt No.: 4
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194579.98

Long/Easting: 1276153.30

A. Water Depth

DTM Depth Sounder: 3.0 ft
 DTM Lead Line: 4.9 ft

B. Water Level Measurements

Time: 1055
 Height: 4.52 ft
 Source: LDW RTK
tide station

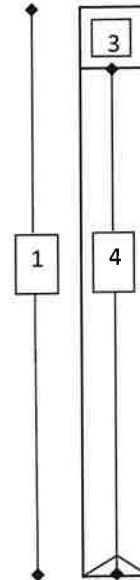
C. Mudline Elevation (ft MLLW)

-0.4 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.1 ft 125.0 cm
3. Headspace Measurement: 1.1 ft
4. Field Recovery Depth: 3.9 ft 118.9 cm
5. Field Recovery Percentage: 95.1 %
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 119 cm
8. Adjusted Recovery Percentage: 95.2



Core Sections To Process:

- A: 0-45 cm
 B: See processing form
 C: form
 D: _____

Drive Notes:

drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 2.7 ft from target

Sediment Core Collection Form

Project: LDW AOC4 - Phase II
 Date: 7.6.2021
 Weather: Sunny, 70s
 Logged By: SP

Location ID: 1T601
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SP, RM, ES

Field Collection Coordinates:
 Lat/Northing: 1276201.58

Long/Easting: 194596.61

A. Water Depth

DTM Depth Sounder: 2.48 ft
 DTM Lead Line: 4.3 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

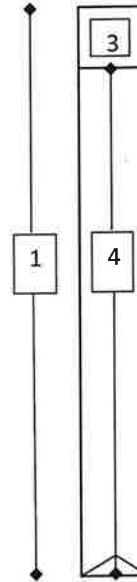
Time: 1410
 Height: 7.29 ft
 Source: LDW RTK tide Station

+3 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.5 ft ft 107 cm
3. Headspace Measurement: 2.1 ft
4. Field Recovery Depth: 2.9 ft ft 88.4 cm
5. Field Recovery Percentage: 83%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 2.9 ft 88.0 cm
8. Adjusted Recovery Percentage: 82.2



Core Sections To Process:

A: 0-45cm

B:

C:

D:

Drive Notes:

freely drive to target penetration.

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.1 ft from target location.

Sediment Core Collection Form

Project: LDW AOC4-Phase II
 Date: 7-6-2021
 Weather: Sunny, 80
 Logged By: SR

Location ID: 1T602
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, RM, ES

Field Collection Coordinates:
 Lat/Northing: 194553.82

Long/Easting: 1276219.41

A. Water Depth

DTM Depth Sounder: 4.68
 DTM Lead Line: 5.5 ft

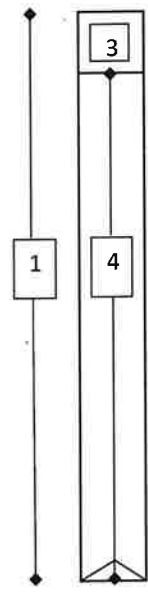
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1715
 Height: 10.54 ft
 Source: LDW RTK
 tide station

+5 ft MLLW
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.5 ft ft 137.2 cm
3. Headspace Measurement: 0.85 ft
4. Field Recovery Depth: 4.15 ft 126.5 cm
5. Field Recovery Percentage: 92%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 121.5 cm
8. Adjusted Recovery Percentage: 88.6%



Core Sections To Process:

- A: 0-45cm
- B:
- C:
- D:

Drive Notes:

Hard material at ~1.5/2 ft, then able to punch through and drive freely to 4.5 ft penetration.

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 5.8 ft from target

Sediment Core Collection Form

Project: LDW AOC4 - Phase II
 Date: 7-6-2021
 Weather: Sunny, 80s
 Logged By: SR

Location ID: 1T603
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, RN, ES

Field Collection Coordinates:
 Lat/Northing: 194525.10

Long/Easting: 1276196.42

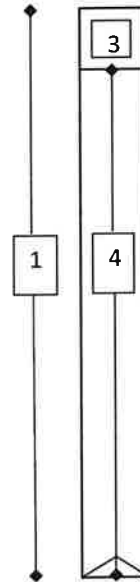
A. Water Depth
 DTM Depth Sounder: 8.09 ft.
 DTM Lead Line: 8.5 ft

B. Water Level Measurements
 Time: ~~6:43~~ 1725
 Height: 10.51 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
 + 2.0 ft mllw

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
- Core Tube Length: 5 ft
 - Penetration Depth: ~~3.4 ft~~ 4.5 ft 137.2 cm
 - Headspace Measurement: 0.95 ft
 - Field Recovery Depth: 4.05 ft 123.4 cm
 - Field Recovery Percentage: 90%
 - Core Accepted: Yes / No
 - Processing Recovery Depth: ft 123 cm
 - Adjusted Recovery Percentage: 89.7



Core Sections To Process:

- A: 0.45 cm
 B:
 C:
 D:

Drive Notes:
 Drove to refusal at 4.5 ft

Shoe Description: See processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
 About 2 ft from target location.

Sediment Core Collection Form

Project: ADCU Phase 2
 Date: 07.06.21
 Weather: 70-85 sunny
 Logged By: T. Do

Location ID: 604
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: TD, DD, TT

Field Collection Coordinates:
 Lat/Northing: 47.523693

Long/Easting: 122.307389

A. Water Depth

DTM Depth Sounder: NK
 DTM Lead Line: -4.1 ft

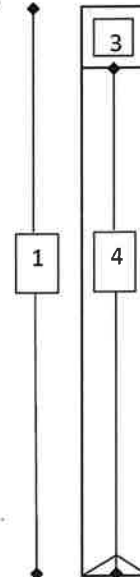
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1630 + 6.37
 Height: +10.42 ft
 Source: LDW RTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 0
4. Field Recovery Depth: 7.0 ft cm
5. Field Recovery Percentage: 100.0
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 6.5 ft cm
8. Adjusted Recovery Percentage: 92.8



Core Sections To Process:

- A: See processing log
 B: (A to C)
 C: _____
 D: _____

Drive Notes:

0.4 ft freefall
steady drive
resistance ~ 3 ft. half throttle
easy drive to pen. depth
easy retrieval

Shoe Description: empty.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-6.6)(6.6-7.0) 3 segments

Notes:

Project: LDW AOCY Phase II
 Date: July 7, 2021
 Weather: Fog, sun
 Logged By: KM

Location ID: IT605
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SR, KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: ~~194798.00~~ 194799.16
 km

Long/Easting: ~~1275788.00~~ 1275788.52
 km

A. Water Depth
 DTM Depth Sounder: 10.9 ft
 DTM Lead Line: 12.0 ft

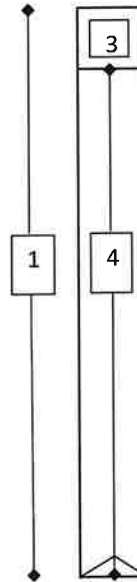
B. Water Level Measurements
 Time: 1720
 Height: 10.88 ft
 Source: LDW KTK
tide station

C. Mudline Elevation (ft MLLW)
-1.1 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3 ft 91.4 cm
3. Headspace Measurement: 2.5 ft
4. Field Recovery Depth: 2.5 ft 76.2 cm
5. Field Recovery Percentage: 83.3%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 74.5 cm
8. Adjusted Recovery Percentage: 81.5



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

drove freely to 3 ft

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 1.2 ft from target

Sediment Core Collection Form

Project: AOCH Phase 2
 Date: 07.09.21
 Weather: 60s sunny wind
 Logged By: TDO

Location ID: 607
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TI

Field Collection Coordinates:
 Lat/Northing: 47.524189

Long/Easting: 122.308838

A. Water Depth
 DTM Depth Sounder: -15.4 ft
 DTM Lead Line: wind/current

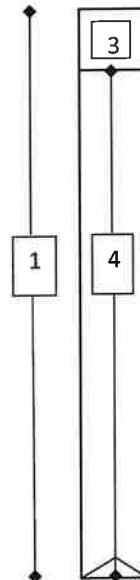
B. Water Level Measurements
 Time: 1409
 Height: +2.46 ft.
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-12.94

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.5
4. Field Recovery Depth: 6.5 ft cm
5. Field Recovery Percentage: 92.9
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 6.3 ft cm
8. Adjusted Recovery Percentage: 90%



Core Sections To Process:

- A: See processing
 B: log (A-C)
 C: _____
 D: _____

Drive Notes:

5.5 ft free fall
slight throttle to full penetration
at
smooth steady retrieval

Shoe Description: full, stiff, sandy/clay/silt.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoal material -12.94 to -15. ft MLLW = 2.06 ft = 62.8cm
(0-4)(4-6.1)(6.1-6.5) 3 segments.

Notes:

Project: ADCH Phase 2
 Date: 07.13.21
 Weather: 105 sunny-overcast
 Logged By: TDO

Location ID: 608
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.524012

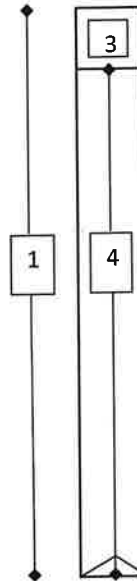
Long/Easting: 122.309301

A. Water Depth
 DTM Depth Sounder: N/A
 DTM Lead Line: 3.3 ft

B. Water Level Measurements **C. Mudline Elevation (ft MLLW)**
 Time: 0659 +6.53
 Height: +9.83
 Source: low RTR Tide Station

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
1. Core Tube Length: 8.0 ft
 2. Penetration Depth: 7.0 ft cm
 3. Headspace Measurement: 1.4
 4. Field Recovery Depth: 6.6 ft cm
 5. Field Recovery Percentage: 94.3
 6. Core Accepted: Yes / No
 7. Processing Recovery Depth: 6.2 ft cm
 8. Adjusted Recovery Percentage: 88.0



Core Sections To Process:

- A: See processing
 B: Log
 C: A-G
 D: _____

Drive Notes:
10ft. freefall
hand drive at full throttle first foot
then steady advance to full pen.
1/2 ft slope

Shoe Description: sandy silt

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-6.2)(6.2-6.6) 3 segments

Notes:

Project: AD04 Phase 2
Date: 07.07.21
Weather: 60s overcast, windy
Logged By: TJD

Location ID: 609
Attempt No.: 3
Core Type: Intertidal Subtidal Shoaling
Field Staff: TJ, DD, TT

Field Collection Coordinates:
Lat/Northing: 47.524072

Long/Easting: 172,309073

A. Water Depth

DTM Depth Sounder: NA
DTM Lead Line: -10.3 ft.

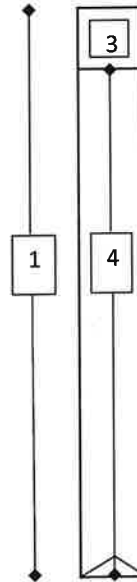
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1351
Height: +5.32 ft
Source: LDW RTK tide station

-4.98
Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 8 ft.
- 2. Penetration Depth: 70 ft cm
- 3. Headspace Measurement: 2.3 2.1 ft
- 4. Field Recovery Depth: 5.57 ft cm
- 5. Field Recovery Percentage: 81.4% 84.3
- 6. Core Accepted: (Yes) / No
- 7. Processing Recovery Depth: 4.9 ft cm
- 8. Adjusted Recovery Percentage: 69.8%



Core Sections To Process:

- A: see processing
- B: log CA-F
- C: _____
- D: _____

Drive Notes:

2.3 ft free fall
steady drive picks up speed
at 4.5 ft to full pen. (7 ft)

Shoe Description: empty, nr. med-f. sand.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.2)(4.2-5.5)(5.5-5.9) - 3 segments

Notes:

Project: LDW AOCY-Phase II
 Date: JULY 8, 2021
 Weather: 60, cloudy
 Logged By: KM

Location ID: SC610
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194673.03

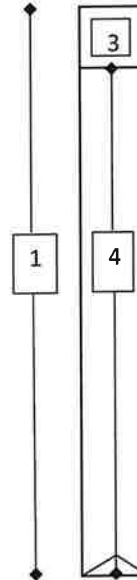
Long/Easting: 1275856.65

A. Water Depth
 DTM Depth Sounder: 8.2 ft
 DTM Lead Line: 8.5 ft

B. Water Level Measurements
 Time: 1030
 Height: -0.98 ft
 Source: LDW RTR
tide station

C. Mudline Elevation (ft MLLW)
-9.5 ft MLLW
 Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 5 ft
 - Penetration Depth: 3.5 ft 106.7 cm
 - Headspace Measurement: 2.1 ft
 - Field Recovery Depth: 2.9 ft 88.4 cm
 - Field Recovery Percentage: 83%
 - Core Accepted: (Yes) / No
 - Processing Recovery Depth: ft 68.5 cm
 - Adjusted Recovery Percentage: 63.0



Core Sections To Process:

A: 0-60 cm

B: _____

C: _____

D: _____

Drive Notes:
drove freely to depth

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 1 ft from target

Project: LOW AOCY - Phase II
 Date: JULY 7, 2021
 Weather: SUNNY, 70s
 Logged By: KM

Location ID: IT611
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194560.91

Long/Easting: 1275781.50

A. Water Depth
 DTM Depth Sounder: 4.45 ft
 DTM Lead Line: 5 ft

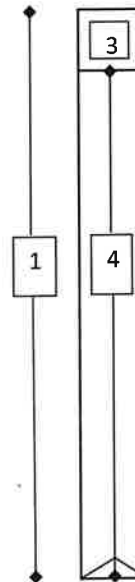
B. Water Level Measurements
 Time: 1610
 Height: 9.85 ft
 Source: LOW RTK
fide station

C. Mudline Elevation (ft MLLW)
4.85 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 2 ft 61.0 cm
3. Headspace Measurement: 3.15 ft
4. Field Recovery Depth: 1.85 ft 56.4 cm
5. Field Recovery Percentage: 93%
6. Core Accepted (Yes) No
7. Processing Recovery Depth: ft 52 cm
8. Adjusted Recovery Percentage: 85.2



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

sloping, long drive time

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 6.4 ft from target

Project: LDW A04-Phase II
 Date: July 8, 2021
 Weather: 60, cloudy
 Logged By: KM

Location ID: SC612
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194595.32

Long/Easting: 1275851.25

A. Water Depth
 DTM Depth Sounder: 4.3 ft
 DTM Lead Line: 4.8 ft

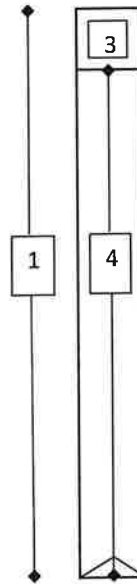
B. Water Level Measurements
 Time: 1015
 Height: -0.81 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-5.6 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4 ft 121.9cm
3. Headspace Measurement: 1.3 ft
4. Field Recovery Depth: 3.7 ft 112.8 cm
5. Field Recovery Percentage: 93%
6. Core Accepted: (Yes) No NO
7. Processing Recovery Depth: ft 114.5 cm
8. Adjusted Recovery Percentage: 92.7 113



Core Sections To Process:

A: 0-60 cm

B: _____

C: _____

D: _____

Drive Notes:

drove freely to depth

Shoe Description: dark grey, no odor, fine sand and silt

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 1.3 ft from target

Project: LDW ADCY - Phase II
 Date: JULY 8, 2021
 Weather: 60s, cloudy
 Logged By: KM

Location ID: SC614
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194540.40

Long/Easting: 1275883.23

A. Water Depth
 DTM Depth Sounder: 8.5 ft
 DTM Lead Line: 7.8 ft

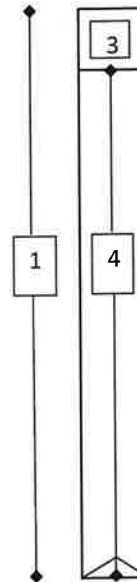
B. Water Level Measurements
 Time: 1135
 Height: -0.54 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-9.0 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.8 ft 115.8 cm
3. Headspace Measurement: 1.8 ft
4. Field Recovery Depth: 3.2 ft 97.5 cm
5. Field Recovery Percentage: 84%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 97.5 cm
8. Adjusted Recovery Percentage: 84.2



Core Sections To Process:

A: 0-60 cm

B: _____

C: _____

D: _____

Drive Notes:

drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 1 ft off target

Project: ADC4 Phase 2
Date: 07.07.21
Weather: 60S, overcast, wind
Logged By: TD

Location ID: 615
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD, DD, TI

Field Collection Coordinates:
Lat/Northing: 47.523551

Long/Easting: 122.307598

A. Water Depth

DTM Depth Sounder: WA
DTM Lead Line: 7.2 ft @ 1513

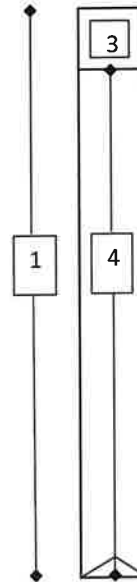
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1451 → 1513 tide gauge +0.97 ft.
Height: +8.17 ft at 1513
Source: LOW TIDE station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 8 ft.
- 2. Penetration Depth: 4.4 ft cm
- 3. Headspace Measurement: 4.4
- 4. Field Recovery Depth: 3.6 ft cm
- 5. Field Recovery Percentage: 31.8
- 6. Core Accepted: Yes / No
- 7. Processing Recovery Depth: 3.4 ft cm
- 8. Adjusted Recovery Percentage: 77.5%



Core Sections To Process:

- A: See processing log
- B: log
- C: A-C
- D:

Drive Notes:

0.6 ft Prefall
steady drive to pen depth.
4.4 ft. refusal.

Shoe Description: dk gray clay/silt mix

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.2)(3.2-3.6) 2 segments

Notes:

FUR

Sediment Core Collection Form

Project: AOC4 Phase 2
Date: 07.07.21
Weather: 100% overcast, wind
Logged By: TPO

Location ID: 617
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD, DP, TI

Field Collection Coordinates:
Lat/Northing: 47.523280

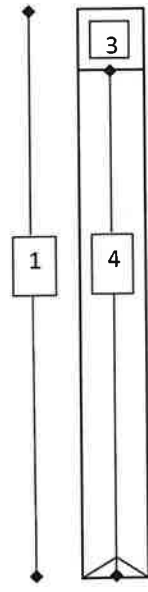
Long/Easting: 122.307413

A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: -7.8 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 1540 + 1.33
Height: +9.13 ft.
Source: low tide station

- Core Collection Recovery Details:**
1. Core Tube Length: 8 ft.
 2. Penetration Depth: 4.5 ft. cm
 3. Headspace Measurement: 4.4
 4. Field Recovery Depth: 3.6 ft cm
 5. Field Recovery Percentage: 80.0
 6. Core Accepted: Yes / No
 7. Processing Recovery Depth: 3.5 ft cm
 8. Adjusted Recovery Percentage: 78.0

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: See processing
- B: log
- C: A-C
- D: _____

Drive Notes:

1.1 ft free fall, easy drive to firm penetration depth at 4.5 ft.

Shoe Description: silty black sandy material

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.2)(3.2-3.6) 2 segments

Notes: ENR

Sediment Core Collection Form

Project: ADCL Phase 2
 Date: 07.07.21
 Weather: 60s, sunny, wind
 Logged By: TD

Location ID: 618
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, OD, JT

Field Collection Coordinates:
 Lat/Northing: 47523109

Long/Easting: 122.307449

A. Water Depth

DTM Depth Sounder: N/A
 DTM Lead Line: -9.2 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

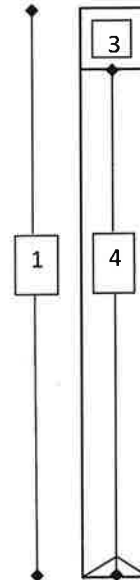
Time: 11020
 Height: +10.12 ft.
 Source: TDW RTK Tide Station

+0.92

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8 ft.
2. Penetration Depth: 4.6 ft ft cm
3. Headspace Measurement: 4.2
4. Field Recovery Depth: 3.8 ft cm
5. Field Recovery Percentage: 82.6%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 3.7 ft cm
8. Adjusted Recovery Percentage: 79.9%



Core Sections To Process:

- A: See processing
 B: form
 C: A-C
 D: _____

Drive Notes:

0.4 ft freefall
drove steadily to pen. depth.
4.6 ft.

Shoe Description: black, f. grain clayey, full

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.4) (3.4-3.8) 2 segments

Notes:

ENR

Sediment Core Collection Form

Project: LOW AOC4 Phase II
 Date: 7/15/21
 Weather: 6ds, cloudy
 Logged By: KM

Location ID: SC620
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 194247.43

Long/Easting: 1276165.42

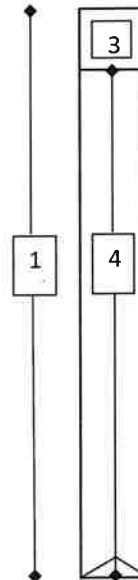
A. Water Depth
 DTM Depth Sounder: 17.2 ft
 DTM Lead Line: 17.1 ft

B. Water Level Measurements
 Time: 1015
 Height: 8.25
 Source: LOW RTK
tide station

C. Mudline Elevation (ft MLLW)
- 8.9 ft MLLW

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 5 ft
 - Penetration Depth: 4.0 ft 121.9 cm
 - Headspace Measurement: 1.1 ft
 - Field Recovery Depth: 3.9 ft 118.9 cm
 - Field Recovery Percentage: 97.5%
 - Core Accepted: (Yes) / No
 - Processing Recovery Depth: ft 115.0 cm
 - Adjusted Recovery Percentage: 94.5%



Core Sections To Process:

A: 0-60 cm

B: _____

C: _____

D: _____

Drive Notes:
drove freely to depth

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 6.5 ft from target

Project: LDW A004 - Phase II
 Date: 8.2.2021
 Weather: sunny, 70s
 Logged By: J. Replinger

Location ID: IT621
 Attempt No.: 10
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: JR, ES, RT

Field Collection Coordinates:
 Lat/Northing: 194212.60

Long/Easting: 1276215.82

A. Water Depth
 DTM Depth Sounder: 10.55 ft
 DTM Lead Line: 10.0 ft

B. Water Level Measurements
 Time: 1513
 Height: 9.15
 Source: LDW RTK tide station

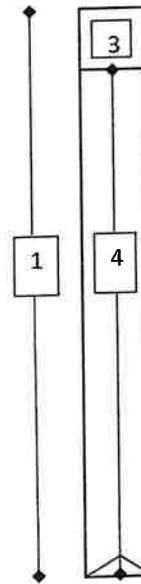
C. Mudline Elevation (ft MLLW)
 -1.4 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 9 ft 213.4 cm
2. Penetration Depth: 8 ft 7 in ft 243.8 cm
3. Headspace Measurement: 2.15 ft
4. Field Recovery Depth: 6.85 ft ft 208.8 cm
5. Field Recovery Percentage: 47.9%
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 1.70 cm 170
8. Adjusted Recovery Percentage: 85.3% 79.7%

Drive Notes:
 freely drove to target penetration.



Core Sections To Process:

- A: A-6
 B: See processing log
 C:
 D:

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 1-2 ft from target location.

Project: ADOLE PHASE 2
 Date: 07.14.21
 Weather: SOS overcast
 Logged By: TDO

Location ID: 622
 Attempt No.: 2
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.572889

Long/Easting: 172.307171

A. Water Depth

DTM Depth Sounder: N/A
 DTM Lead Line: -8.8 ft.

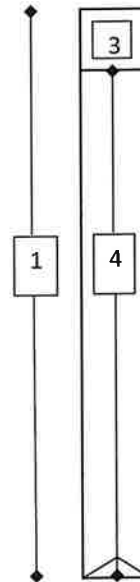
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0729
 Height: +9.36 ft.
 Source: LOW PRT tide station

+0.56
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 2.3
4. Field Recovery Depth: 5.7 ft cm
5. Field Recovery Percentage: 81.4
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: 4.8 ft cm
8. Adjusted Recovery Percentage: 68.6



Core Sections To Process:

- A: See processing form
 B: form
 C: A → F
 D: _____

Drive Notes:

0.7 ft free fall
1/4 throttle easy drive to 2 ft then
stiffens, 1/2 throttle, slow steady
penetration increases quickly to
3 ft then advances quickly/easily
to full pen

Shoe Description: empty.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-5.3)(5.3 to 5.7) 3 segments

Notes:

Moved off target away from bulkhead wall to avoid
slag and wrap (w/24 ft off target 249°)

Sediment Core Collection Form

Project: LOW AOCY- Phase II
 Date: July 8, 2021
 Weather: 60, cloudy
 Logged By: KM

Location ID: SC623
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194140.20

Long/Easting: 1276182.85

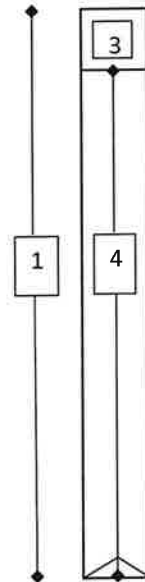
A. Water Depth
 DTM Depth Sounder: 7.5 ft
 DTM Lead Line: 8.0 ft

B. Water Level Measurements **C. Mudline Elevation (ft MLLW)**
 Time: 1055 - 9.0 ft MLLW
 Height: -1.0 ft
 Source: RTK tide station

Core Collection Recovery Details:

1. Core Tube Length: 5 ft km 115.8 cm
2. Penetration Depth: 38.4 ft 121.9 cm
3. Headspace Measurement: 2.1 ft
4. Field Recovery Depth: 2.9 ft 88.4 cm
5. Field Recovery Percentage: 76%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 88.5 cm
8. Adjusted Recovery Percentage: 76.4

Recovery Measurements (prior to cuts)



Core Sections To Process:

A: 0-60cm

B: _____

C: _____

D: _____

Drive Notes:

drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 6 ft from target

Sediment Core Collection Form

Project: ADCU Phase 2
 Date: 17.01.21
 Weather: 60s sunny, wind
 Logged By: TDO

Location ID: 624
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD, DD, TT

Field Collection Coordinates:
 Lat/Northing: 47.522725

Long/Easting: 122.307175

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: - 8.6 ft.

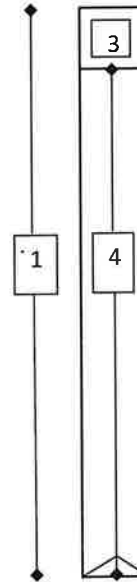
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1702
 Height: +10.76 ft
 Source: LOW RTR tide station

+2.16 ft.
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8 ft.
2. Penetration Depth: 4.6 ft. cm
3. Headspace Measurement: 4.2
4. Field Recovery Depth: 3.8 ft. cm
5. Field Recovery Percentage: 82%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 3.5 ft. cm
8. Adjusted Recovery Percentage: 75.6%



Core Sections To Process:

- A: See processing log
 B: log
 C: A-C
 D: _____

Drive Notes:

0.4 ft freefall
1/4 throttle, steady but sluggish
advance to pen depth. 4.6 ft

Shoe Description: empty.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.4) (3.4-3.8) 2 segments

Notes:

ENR

Sediment Core Collection Form

5
A
5
DU

Project: AOU Phase 2
Date: 07/07/21
Weather: 70s sunny, wind
Logged By: TD

Location ID: 626
Attempt No.: 2
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD PD TT

Field Collection Coordinates:
Lat/Northing: 47.522228

Long/Easting: 122.307075

A. Water Depth

DTM Depth Sounder: NA
DTM Lead Line: -9.2

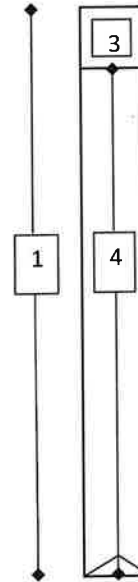
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1832 +1.69
Height: +10.89
Source: low tide station

Core Collection Recovery Details:

- 1. Core Tube Length: 8 ft
- 2. Penetration Depth: 4.9 ft cm
- 3. Headspace Measurement: 4.2
- 4. Field Recovery Depth: 3.8 ft cm
- 5. Field Recovery Percentage: 77.6
- 6. Core Accepted: Yes / No
- 7. Processing Recovery Depth: 3.5 ft cm
- 8. Adjusted Recovery Percentage: 71.6

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: See processing log
- B: log
- C: A-C
- D: _____

Drive Notes:

0.5' freefall
1/2 throttle, steady drive to
3.7 ft, then hard drive
to 4.9 ft.

Easy retrieval

Shoe Description: dk gray / blk silty / clay material

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.4)(3.4-3.8) 2 segments

Notes:

TD

Sediment Core Collection Form

Project: LDW AOC4-Phase II
 Date: July 8, 2021
 Weather: 60s, partly sunny
 Logged By: KM

Location ID: 1T627
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 194005.51

Long/Easting: 1276360.03

A. Water Depth

DTM Depth Sounder: 3.3 ft
 DTM Lead Line: 3.3 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

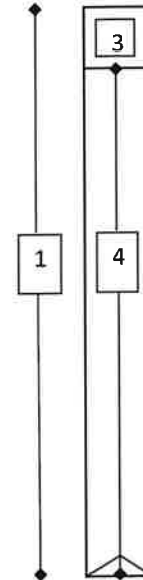
Time: 1505
 Height: 7.05 ft
 Source: LDW RTK tide station

3.8 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4 ft 121.9 cm
3. Headspace Measurement: 1.2 ft
4. Field Recovery Depth: 3.8 ft 115.8 cm
5. Field Recovery Percentage: 95%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 111.5 cm
8. Adjusted Recovery Percentage: 91.5



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 6.3 ft from target

Sediment Core Collection Form

Project: ACC4 Phase 2
 Date: 072021
 Weather: 60s, overcast
 Logged By: TJ

Location ID: 628
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD ES RM

Field Collection Coordinates:
 Lat/Northing: 194273.24

Long/Easting: 1276058.10

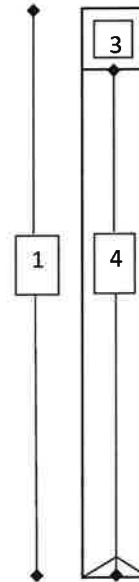
A. Water Depth
 DTM Depth Sounder: -16.98
 DTM Lead Line: N/A (current)

B. Water Level Measurements
 Time: 1118
 Height: +2.92
 Source: LOW RTR tide station

C. Mudline Elevation (ft MLLW)
-14.06

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
1. Core Tube Length: 5.0 ft.
 2. Penetration Depth: 4.55 ft / 137.2 cm
 3. Headspace Measurement: 0.7
 4. Field Recovery Depth: 4.3 ft cm
 5. Field Recovery Percentage: 95.6
 6. Core Accepted: (Yes) No
 7. Processing Recovery Depth: ft 135 cm
 8. Adjusted Recovery Percentage: 96.4



Core Sections To Process:

- A: 0-87.3
 B: 87.3-114.8
 C: _____
 D: _____

Drive Notes:
Easy drive to pen depth.

Shoe Description: silt/sand

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoaling material -14.06 to -15.0 ft MLLW
0.94 ft / 28.7 cm

Notes:

Project: AOC4 Phase 2
Date: 06.30.21
Weather: 60s, ptly cloudy, wind.
Logged By: TDD

Location ID: 629
Attempt No.: 1
Core Type: Intertidal (Subtidal) (Shoaling)
Field Staff: TD, DD, TT, DB

Field Collection Coordinates:
Lat/Northing: 47.522942

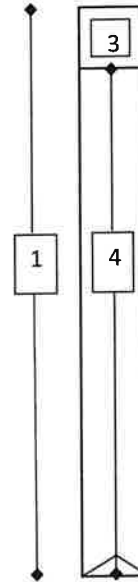
Long/Easting: 122.307872

A. Water Depth
DTM Depth Sounder: 21.6 ft
DTM Lead Line: - 21.9 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 1100
Height: + 8.08
Source: Low tide station
-13.52

- Core Collection Recovery Details:
1. Core Tube Length: 15 ft.
 2. Penetration Depth: 14.0 ft cm
 3. Headspace Measurement: 1.0 ft
 4. Field Recovery Depth: 13.0 ft cm
 5. Field Recovery Percentage: 92.9
 6. Core Accepted: (Yes) No
 7. Processing Recovery Depth: 12.6 ft cm
 8. Adjusted Recovery Percentage: 89.8

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: See processing log
B: A-L
C:
D:

Drive Notes:
6.25 ft. free fall.
steady even drive, half pressure
drive until full penetration

Shoe Description: woody fibers, sandy silt, v. wet.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shoaling material -13.52 to -15 = 1.48 ft. / 45.1 cm
(0-4) (4-5) (5-12.6) (12.6 to 13) 4 segments

Notes:

Sediment Core Collection Form

Project: AOC4 Phase 2
 Date: 071321
 Weather: 60s sunny
 Logged By: TDO

Location ID: 630
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: TD DD TI

Field Collection Coordinates:
 Lat/Northing: 47.522190

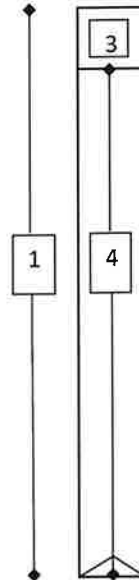
Long/Easting: 122.307370

A. Water Depth
 DTM Depth Sounder: -8.9 ft
 DTM Lead Line: -8.8 ft (current)

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1216
 Height: +0.39 ft
 Source: low RTR tide station
 -8.51

- Core Collection Recovery Details:**
1. Core Tube Length: 8.0 ft
 2. Penetration Depth: 7.0 ft cm
 3. Headspace Measurement: 0.3
 4. Field Recovery Depth: 7.7 ft cm
 5. Field Recovery Percentage: 110.0
 6. Core Accepted: (Yes) / No
 7. Processing Recovery Depth: 6.02 ft cm
 8. Adjusted Recovery Percentage: 88.6

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: See processing log
 B:
 C: A-F
 D:

Drive Notes:
 4.1 ft freefall
 1/4 throttle, easy drive to full pen
 very soft, with suction during last portion of retrieval

Shoe Description: firm sandy silt, petroleum/hydrocarbon odor

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-7.3)(7.3-7.7) 3 segments

Notes:
 Very soft bottom - frame likely sunk into surface and collecting surface material before the coring drive. NO material pushed past the piston at top (no loss of material through top of core tube)

Project: AOC4 Phase 2
Date: 07.12.21
Weather: 60s sunny
Logged By: TD

Location ID: 632
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD DD TI

Field Collection Coordinates:
Lat/Northing: 47522109

Long/Easting: 122.306837

A. Water Depth

DTM Depth Sounder: D/A
DTM Lead Line: -3.1

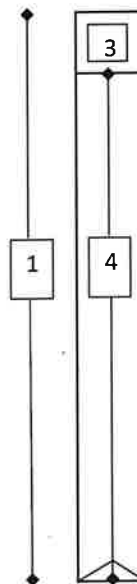
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0928
Height: +6.17
Source: low RTK tide station
+3.07

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 8.0 ft.
- 2. Penetration Depth: 7.0 ft cm
- 3. Headspace Measurement: 1.8
- 4. Field Recovery Depth: 6.2 ft cm
- 5. Field Recovery Percentage: 88.6
- 6. Core Accepted: (yes) / No
- 7. Processing Recovery Depth: 5.7 ft cm
- 8. Adjusted Recovery Percentage: 81.4%



Core Sections To Process:

- A: See processing
- B: log
- C: A & F
- D:

Drive Notes:

2.4 ft freefall
1/2 throttle, slow advance to
4 ft - picks up to full
pen.

Shoe Description: shoe empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0.4-0)(4.0-5.8)(5.8-6.2) 3 segments

Notes:

Sediment Core Collection Form

Project: AOCU Phase 2
 Date: 07-17-21
 Weather: 60s sunny
 Logged By: TJD

Location ID: 634
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TJD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.521873

Long/Easting: 122.307199

A. Water Depth

DTM Depth Sounder:
 DTM Lead Line: -4.9 ft.

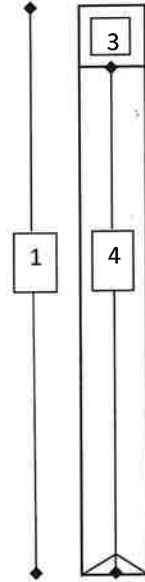
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 13051311
 Height: -1.57 ft.
 Source: UW RPK tide station

-6.47
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.2
4. Field Recovery Depth: 6.8 ft cm
5. Field Recovery Percentage: 97.1
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 6.6 ft cm
8. Adjusted Recovery Percentage: 94.3%



Core Sections To Process:

- A: See processing log
 B: log
 C: A-F
 D: _____

Drive Notes:

1.4 ft free fall
easy drive to full pen.

Shoe Description: 1/2 full w/ med. sand.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-6.4)(6.4-6.8) 3 segments

Notes:

Project: ADRIEL Phase 2
Date: 07/16/21
Weather: 60% overcast
Logged By: TDO

Location ID: 635
Attempt No.: 3
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD DD TT

Field Collection Coordinates:
Lat/Northing: 47.521740

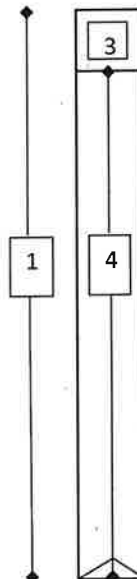
Long/Easting: 122.306864

A. Water Depth
DTM Depth Sounder: NA
DTM Lead Line: -5.3 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 1256 +0.91
Height: +6.21 ft
Source: CPW RTK-tide station

- Core Collection Recovery Details:**
1. Core Tube Length: 8.0 ft
 2. Penetration Depth: 7.0 ft 213.4 cm
 3. Headspace Measurement: 2.6
 4. Field Recovery Depth: 5.4 ft cm
 5. Field Recovery Percentage: 77.1
 6. Core Accepted: Yes, No
 7. Processing Recovery Depth: 5.2 ft 159 cm
 8. Adjusted Recovery Percentage: 74.5

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: A-6
see core processing log.
- B:
- C:
- D:

Drive Notes:
1.3 ft free fall
1/4 throttle, easy drive to refusal
at full pen.

Shoe Description: fine sand, loose

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0)(3.0-5.1)(5.1-5.4) 3 segments

Notes:
Moved 11' from target to avoid debris

Sediment Core Collection Form

Project: LDWA004-Phase II
 Date: July 8, 2021
 Weather: 60s, partly sunny
 Logged By: KM

Location ID: IT636
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 193818.69

Long/Easting: 1276366.45

A. Water Depth

DTM Depth Sounder: 3.2 ft
 DTM Lead Line: 3.2 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

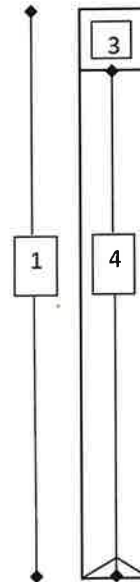
Time: 1405
 Height: 4.33 ft
 Source: LOW RTK
tide station

1.1 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.5 ft 106.7 cm
3. Headspace Measurement: 2.3 ft
4. Field Recovery Depth: 2.7 ft 82.3 cm
5. Field Recovery Percentage: 77%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 77 cm
8. Adjusted Recovery Percentage: 72.2



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

hit refusal at drive depth; drove freely to 3.5 ft

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 1.2 ft from target

Project: MOU Phase 2
 Date: 07-06-21
 Weather: 205 sunny
 Logged By: TJD

Location ID: 637
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TJD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.521535

Long/Easting: 122.308526

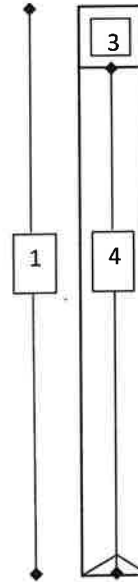
A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: ~ 10.7 ft.

B. Water Level Measurements **C. Mudline Elevation (ft MLLW)**
 Time: 1716 +0.16
 Height: +10.54 ft.
 Source: LDW RTV tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8 ft.
2. Penetration Depth: 6.4 ft cm
3. Headspace Measurement: 2.0
4. Field Recovery Depth: 6.4 ft cm
5. Field Recovery Percentage: 100.0
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 6.3 ft 192.5 cm
8. Adjusted Recovery Percentage: 98.4



Core Sections To Process:

- A: See processing log.
 B: log.
 C: A-F
 D: _____

Drive Notes:

Ø free fall
slow advance at full throttle.
easy advance at 305 ft to 6 ft
slow advance to refusal at
6.4 ft.
easy retrieval

Shoe Description:

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-0.3)(0.3-4.3)(4.3-6.0)(6.0-6.4) 4 segments

shoaling material +0.16 to 15 ft MLLW ~~76~~

Notes:

(misjudged cut location of 1st interval)

Sediment Core Collection Form

Project: LDW AOC4- Phase II
 Date: 7.6.2021
 Weather: Sunny, 70s
 Logged By: SP

Location ID: IT638
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SP, RM, ES

Field Collection Coordinates:
 Lat/Northing: ~~+27~~ 193752.20

Long/Easting: 1275985.58

A. Water Depth
 DTM Depth Sounder: 15.0 ft
 DTM Lead Line: 14.5 ft

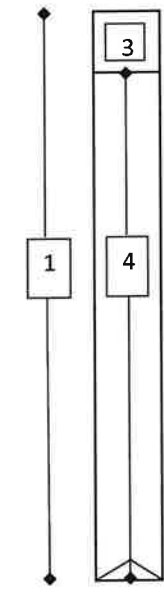
B. Water Level Measurements
 Time: 1640
 Height: 10.42
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
 -4.1 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4 ft ^{6m} ft 121.9 cm
3. Headspace Measurement: ~~2.6~~ 1.6 ft
4. Field Recovery Depth: ~~3.25~~ 3.4 ft 103.6 cm
5. Field Recovery Percentage: ⁶⁵ 85%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 102 cm
8. Adjusted Recovery Percentage: 83.7%



Core Sections To Process:

A: 0-45cm
 B:
 C:
 D:

Drive Notes:
 drive freely to target penetration very soft material.

Shoe Description: See processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
 About 5.1 ft from target.

Sediment Core Collection Form

Project: LDW AOCA - Phase II
 Date: 7.6.2021
 Weather: Sunny, 70s/80s
 Logged By: SR

Location ID: IT639
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SR, RM, ES

Field Collection Coordinates:
 Lat/Northing: 19.3689.26

Long/Easting: 1275965.29

A. Water Depth
 DTM Depth Sounder: 12.3 ft
 DTM Lead Line: 12 ft

B. Water Level Measurements
 Time: 1650
 Height: 10.47 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
 -1.5 ft MLLW

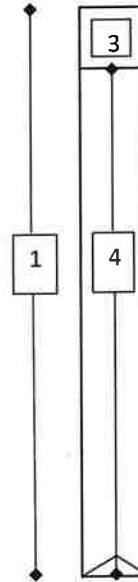
Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.5 ft ft 106.7 cm
3. Headspace Measurement: 2 ft
4. Field Recovery Depth: 3.0 ft ft 91.4 cm
5. Field Recovery Percentage: 86%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 91.0 cm
8. Adjusted Recovery Percentage: 85.3

Drive Notes:

freely drove to target penetration.
 Soft material.

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: 0-45cm
 B:
 C:
 D:

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 4 ft from target.

Project: ADCU Drive 2
 Date: 07-05-21
 Weather: overcast, LOS
 Logged By: TDC

Location ID: 640
 Attempt No.: 2
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: TD, DD, TT

Field Collection Coordinates:
 Lat/Northing: 47.521629

Long/Easting: 122.307069

A. Water Depth
 DTM Depth Sounder: N/A
 DTM Lead Line: 5.2 ft

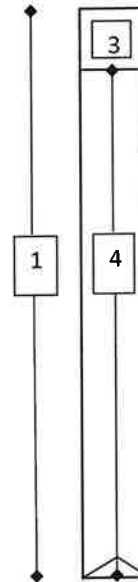
B. Water Level Measurements
 Time: 1200
 Height: +0.03 ft
 Source: LDW RTR tide station.

C. Mudline Elevation (ft MLLW)
-4.9 ft.

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8 ft.
2. Penetration Depth: 2.0 ft cm
3. Headspace Measurement: 2.5
4. Field Recovery Depth: 5.5 ft cm
5. Field Recovery Percentage: 78.6
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 5.1 ft cm
8. Adjusted Recovery Percentage: 72.6



Core Sections To Process:

- A: See processing log
 B: log
 C: A-F
 D:

Drive Notes:
3.4 ft freefall
1/4 throttle to full pen (7 ft)

Shoe Description: empty w/ dr. sand

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-5.1)(5.1-5.5) 3 segments

Notes:

Project: LDW ADCY-Phase II
 Date: July 8, 2021
 Weather: 60s, Misty sunny
 Logged By: KM

Location ID: IT641
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, ES, RA

Field Collection Coordinates:
 Lat/Northing: 193753.06

Long/Easting: 1276365.49

A. Water Depth

DTM Depth Sounder: 7.7 ft
 DTM Lead Line: 7.8 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

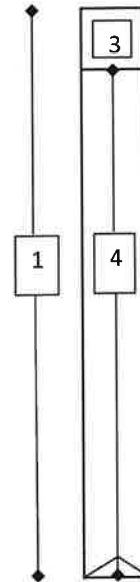
Time: 1520
 Height: 7.66 ft
 Source: LDW RTK
Fide station

- 0.1 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.3 ft 131.0 cm
3. Headspace Measurement: 0.7 ft
4. Field Recovery Depth: 4.3 ft 131.0 cm
5. Field Recovery Percentage: 100%
6. Core Accepted: Yes No
7. Processing Recovery Depth: ft 131 cm
8. Adjusted Recovery Percentage: 100%



Core Sections To Process:

A: 0-45cm

B: _____

C: _____

D: _____

Drive Notes:

drove slowly to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.8 ft from target

Project: ADCU Phase 2
 Date: 07/22/11
 Weather: 6:05 sunny
 Logged By: TDO

Location ID: 644
 Attempt No.: 3
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.521513

Long/Easting: 122.306895

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: 1.9 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

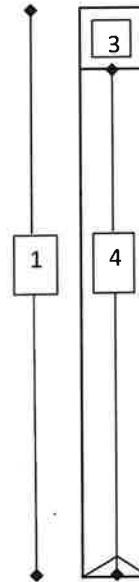
Time: 1111
 Height: +1.48
 Source: DWREN tide station

-0.42

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 6.9 ~~7.0~~ ~~7.1~~ cm
3. Headspace Measurement: 2.8
4. Field Recovery Depth: 5.2 ft cm
5. Field Recovery Percentage: 75.3
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 5.1 ft cm
8. Adjusted Recovery Percentage: 73.9%



Core Sections To Process:

- A: See processing
 B: log
 C: AF
 D: _____

Drive Notes:

0.9 ft freefall
1/4 throttle, picks up speed
at 2 ft in to refusal at 6 ft.

Shoe Description: empty shoe

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0) (3.0-4.8) (4.8-5.2) 3 segments.

Notes:

move 12 ft. 207° offshore due to wood debris/logs

Sediment Core Collection Form

Project: LDW AOC4-Phase II
 Date: July 7, 2021
 Weather: overcast, 60s
 Logged By: KM

Location ID: 1T647
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SR, KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 193493.80

Long/Easting: 1276410.27

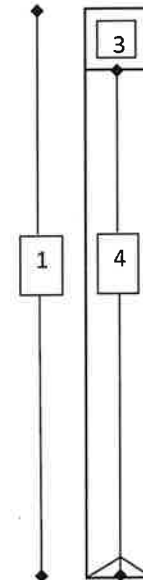
A. Water Depth
 DTM Depth Sounder: 7.27 ft
 DTM Lead Line: 7.5 ft

B. Water Level Measurements
 Time: 1345
 Height: 5.32 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-2.2 ft MLLW

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 5 ft
 - Penetration Depth: 4 ft ft 121.9 cm
 - Headspace Measurement: 1.2 ft
 - Field Recovery Depth: 3.8 ft 115.8 cm
 - Field Recovery Percentage: 95%
 - Core Accepted: (Yes) No
 - Processing Recovery Depth: ft 116 cm
 - Adjusted Recovery Percentage: 95.2



Core Sections To Process:

A: 0-45 cm

B:

C:

D:

Drive Notes:
frothy drove to target penetration,
soft material

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.7 ft from target

Project: ADCP Phase 2
 Date: 07 13 21
 Weather: WDS sunny
 Logged By: TDD

Location ID: 648
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.520858

Long/Easting: 122.306400

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: -2.5 ft.

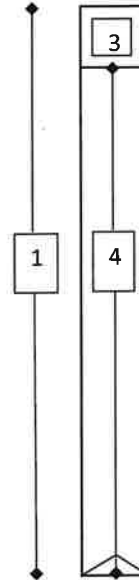
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1132 -0.33
 Height: +2.17 ft.
 Source: LDW RTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.5
4. Field Recovery Depth: 6.2 ft cm
5. Field Recovery Percentage: 88.6
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 5.7 ft cm
8. Adjusted Recovery Percentage: 81.4



Core Sections To Process:

- A: See processing
 B: log
 C: A -> F
 D: _____

Drive Notes:

2.6 ft. freefall
1/4 throttle, easy drive to full
pen.

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-5.8)(5.8-6.2) 3 segments

Notes:

Project: ADOC4 Phase 2
 Date: 07.08.21
 Weather: 70s sunny
 Logged By: TD

Location ID: 649
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.520969

Long/Easting: 122.305834

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: -4.6 ft.

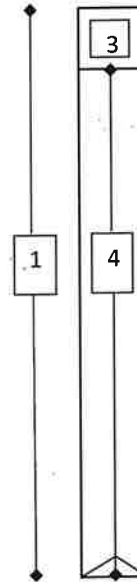
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1626 75.06
 Height: +9.66
 Source: low tide station

Core Collection Recovery Details:

1. Core Tube Length: 5 ft.
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.5
4. Field Recovery Depth: 6.5 ft cm
5. Field Recovery Percentage: 92.9
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: 5.8 ft cm
8. Adjusted Recovery Percentage: 83.4%

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: See processing log
 B: log
 C: A-G
 D: _____

Drive Notes:

1.3 ft. free fall
1/2 throttle to full pen. (7 ft)
easy drive

Shoe Description: shoe empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-6.1)(6.1-6.5) 3 segments

Notes:

Sediment Core Collection Form

Project: AOCH Phase 2
 Date: 072021
 Weather: 60's overcast
 Logged By: TDO

Location ID: 650
 Attempt No.: 4
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD BH

Field Collection Coordinates:
 Lat/Northing: 47.520986

Long/Easting: 122-365682

A. Water Depth

DTM Depth Sounder: N/A ft
 DTM Lead Line: -2.8 ft

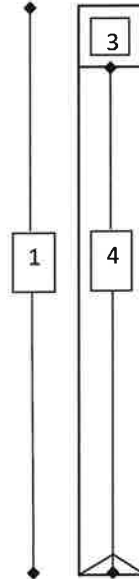
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1439 ^{High} 1446 -6.97 +7.10
 Height: 19.77 ft 9.98
 Source: low ebb tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft 213.4 cm
3. Headspace Measurement: 2.4 ft
4. Field Recovery Depth: 5.6 ft cm
5. Field Recovery Percentage: 80.0
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 159 cm
8. Adjusted Recovery Percentage: 74.5



Core Sections To Process:

- A: A-F
 B: See Processing log
 C: log
 D:

Drive Notes:

0.3 ft free fall
1/4 thimble, sluggish advance but steady
speeds up ~ 1.25 ft down,
steady to full pen.

Shoe Description: 70% fin, br. sand

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0)(3.0-5.2)(5.2 to 5.6)

Notes:

MINED 7' ARCHAEOLOGICAL MONITOR LOCATION
229°

Project: LDW AOCY
 Date: July 8, 2021
 Weather: 60s, cloudy
 Logged By: KM

Location ID: IT651
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 193403.70

Long/Easting: 1276451.28

A. Water Depth
 DTM Depth Sounder: 2.0 ft
 DTM Lead Line: 1.4 ft

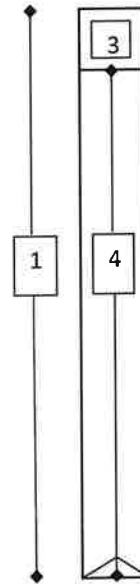
B. Water Level Measurements
 Time: 1205
 Height: 0.03 ft
 Source: LDW RTK
tide station

C. Mudline Elevation (ft MLLW)
-1.4 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.6 ft 109.7 cm
3. Headspace Measurement: 1.9 ft
4. Field Recovery Depth: 3.1 ft 94.5 cm
5. Field Recovery Percentage: 86%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 90.5 cm
8. Adjusted Recovery Percentage: 82.5



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 5 ft from target

Project: ROCK Phase 2
Date: 07 12 21
Weather: 100% sunny
Logged By: TDO

Location ID: 652
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: TD, DD, JT

Field Collection Coordinates:
Lat/Northing: 47.520600

Long/Easting: 122, 306311

A. Water Depth

DTM Depth Sounder: N/A
DTM Lead Line: -6.9 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

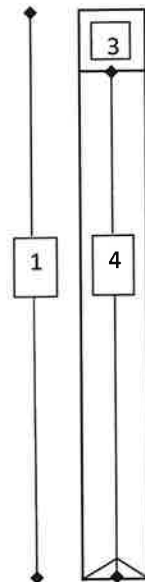
Time: 0844
Height: +7.81 ft
Source: LOW RTK tide station

+0.91

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 8.0 ft
- 2. Penetration Depth: 7.0 ft cm
- 3. Headspace Measurement: 2.1
- 4. Field Recovery Depth: 5.9 ft cm
- 5. Field Recovery Percentage: 84.3
- 6. Core Accepted: (Yes) / No
- 7. Processing Recovery Depth: 4.8 ft cm
- 8. Adjusted Recovery Percentage: 60.10



Core Sections To Process:

- A: See processing
- B: log
- C: /
- D: A-F

Drive Notes:

1.0 ft free fall
1/4 throttle easy, steady drive to
2.6 ft stiffer to full pen
(7 ft)

Shoe Description: Shoe is empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-5.5)(5.5-5.9) 3 segments

Notes:

Project: ADCL4 PHASE 2
 Date: 07.12.21
 Weather: 60, SUNNY
 Logged By: TDO

Location ID: 653
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.520657

Long/Easting: 122.306038

A. Water Depth
 DTM Depth Sounder: N/A
 DTM Lead Line: ~ 5.4 ft

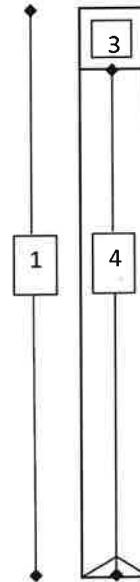
B. Water Level Measurements
 Time: 0809
 Height: +8.69 ft.
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
+3.29

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 0.8
4. Field Recovery Depth: 7.2 ft cm
5. Field Recovery Percentage: 102.9
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: 6.5 ft cm
8. Adjusted Recovery Percentage: 92.9%



Core Sections To Process:

- A: see processing
 B: Form
 C: A-G
 D: _____

Drive Notes:

2.2 ft free fall
easy drive 1/4 throttle to full
pen depth (7.0 ft)

Shoe Description: full shoe w/ sandy silt.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-6.9)(6.9-7.2) 3 segments

Notes:

Sediment Core Collection Form

Project: MOCH Phase 2
 Date: 070521
 Weather: 705 Sunny
 Logged By: TDU

Location ID: 054
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TI

Field Collection Coordinates:
 Lat/Northing: 47.520697

Long/Easting: 122.305783

A. Water Depth

DTM Depth Sounder: VA
 DTM Lead Line: -4.6 ft.

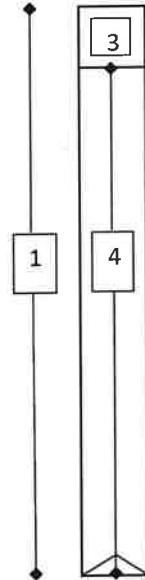
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1547 +4.12
 Height: +3.72
 Source: IDW eik tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8 ft.
2. Penetration Depth: 7 ft. ft cm
3. Headspace Measurement: 1.5
4. Field Recovery Depth: 6.5 ft cm
5. Field Recovery Percentage: 92.9
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 5.8 ft cm
8. Adjusted Recovery Percentage: 82.9%



Core Sections To Process:

- A: See processing log
 B: log
 C: A-G
 D: _____

Drive Notes:

1.5 ft freefall
easy drive and retrieval
to full pen depth (7')

Shoe Description: shoe empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-6.1)(6.1-6.5) 3 segments

Notes:

Sediment Core Collection Form

Project: ADCC Phase 2
Date: 07.19.21
Weather: 70s, sunny
Logged By: TDO

Location ID: 655
Attempt No.: 2
Core Type: Intertidal
Field Staff: TD DD DB BA

Field Collection Coordinates:
Lat/Northing: 47.520742

Long/Easting: 122.305594

A. Water Depth
DTM Depth Sounder: N/A
DTM Lead Line: -3.2 ft.

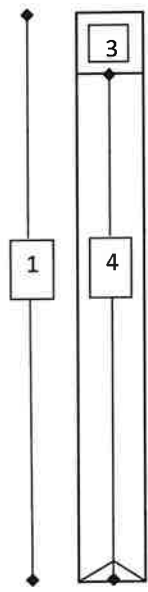
B. Water Level Measurements
Time: 1540
Height: +9.38 ft.
Source: LDW DTK tide station

C. Mudline Elevation (ft MLLW)
+6.18

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft 213.4cm
3. Headspace Measurement: 2.1
4. Field Recovery Depth: 5.9 ft cm
5. Field Recovery Percentage: 84.3
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 164 cm
8. Adjusted Recovery Percentage: 77.8



Core Sections To Process:

- A: A-F
B: See processing logs
C:
D:

Drive Notes:

0.3 ft freefall
light pressure easy drive to ~4.5ft.
Yushuttle to full pen. (7ft)

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-5.5)(5.5-5.9) 3 segments

Notes:

251'
moved off ~10ft to avoid riprap, at toe
ARCHAEOLOGICAL MONITORING LOCATION

Project: LDW AOCY - Phase II
Date: July 8, 2021
Weather: 60s, cloudy
Logged By: KM

Location ID: IT656
Attempt No.: 1
Core Type: (Intertidal) Subtidal Shoaling
Field Staff: KM, ES, RM

Field Collection Coordinates:
Lat/Northing: 193272.26

Long/Easting: 1276473.59

A. Water Depth
DTM Depth Sounder: 2.4 ft
DTM Lead Line: 2.6 ft

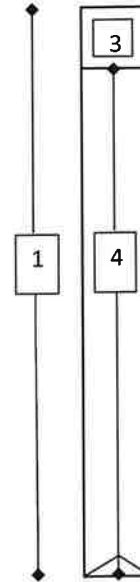
B. Water Level Measurements
Time: 1225
Height: 0.42 ft
Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-2.0 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 5 ft
2. Penetration Depth: 3.8 ft 115.8 cm
3. Headspace Measurement: 1.3 ft
4. Field Recovery Depth: 3.7 ft 112.8 cm
5. Field Recovery Percentage: 97%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 107 cm
8. Adjusted Recovery Percentage: 92.4%



Core Sections To Process:

A: 0-45 cm

B:

C:

D:

Drive Notes:

drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 2.4 ft from target

Project: AD 04 Phase 2
 Date: 07/13/21
 Weather: 60s overcast
 Logged By: TDO

Location ID: 657
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.520332

Long/Easting: 122.306246

A. Water Depth

DTM Depth Sounder: 6.4 ft
 DTM Lead Line: 6.6 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

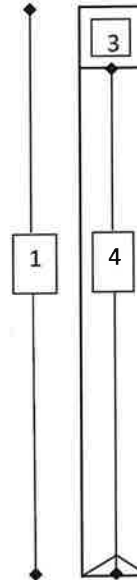
Time: 1020 -0.97

Height: +5.43
 Source: WW RTR tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 2.1
4. Field Recovery Depth: 5.9 ft cm
5. Field Recovery Percentage: 84.3
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 5.5 ft cm
8. Adjusted Recovery Percentage: 79.6



Core Sections To Process:

- A: See processing
 B: log
 C: A-F
 D: _____

Drive Notes:

2.4 ft freefall
1/4 throttle, easy advance
slowing down at ~4 ft.
1/2 throttle, quick advance
rounds off at 5 ft to full pen.

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-5.5)(5.5-5.9) 3 segments

Notes:

Sediment Core Collection Form

Project: AOC4 Phaz 2
 Date: 07.13.21
 Weather: LOS overcast
 Logged By: TDW

Location ID: 658
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TI

Field Collection Coordinates:
 Lat/Northing: 47.520389

Long/Easting: 02.305977

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: -5.2

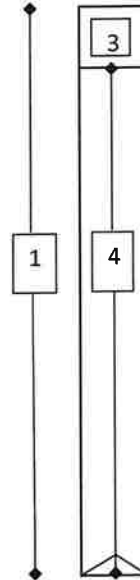
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0901
 Height: +5.09 ft
 Source: low R.T. tide station
 +2.89

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5.0 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 1.3
4. Field Recovery Depth: 6.8 ft cm
5. Field Recovery Percentage: 97.1
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: 6.4 ft cm
8. Adjusted Recovery Percentage: 91.4



Core Sections To Process:

- A: See processing
 B: log
 C: A-G
 D:

Drive Notes:

1.0 ft freefall
 1/4 throttle then 1/2 throttle
 resistance ~ 2 1/4 ft then
 steady advance to full pen.
 Easy retrieval w/ similar
 resistance at ~ 2 1/4 ft.

Shoe Description: sand-silt, packed,

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-6.4)(6.4-6.8) 3 segments

Notes:

Project: ADCA Phase 2
 Date: 07.13.21
 Weather: WDS Sunny
 Logged By: TD

Location ID: 659
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47520432

Long/Easting: 122.305702

A. Water Depth

DTM Depth Sounder: N/A
 DTM Lead Line: -4.8 ft.

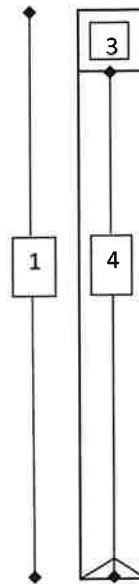
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0817 +4.38
 Height: +9.18
 Source: LDW RTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft cm
3. Headspace Measurement: 2.1
4. Field Recovery Depth: 5.9 ft cm
5. Field Recovery Percentage: 82.3
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 5.6 ft cm
8. Adjusted Recovery Percentage: 90.0



Core Sections To Process:

- A: See processing log
 B: log
 C: A-C
 D:

Drive Notes:

2.7 ft free fall to abrupt stop
1/2 throttle, steady advance to full
pen.

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-5.5)(5.5-5.9) 3 segments

Notes:

Sediment Core Collection Form

Project: AA04 Phase 2
 Date: 07.14.21
 Weather: SDS, overcast
 Logged By: TDC

Location ID: 1060
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.520448

Long/Easting: 122.305520

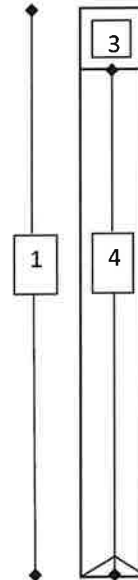
A. Water Depth
 DTM Depth Sounder: V/A
 DTM Lead Line: -3.6

B. Water Level Measurements
 Time: 08:39
 Height: +9.4 ft.
 Source: LOW RTR tide station

C. Mudline Elevation (ft MLLW)
+5.8
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 6.6 ft cm
3. Headspace Measurement: 2.8
4. Field Recovery Depth: 5.2 ft cm
5. Field Recovery Percentage: 78.0
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: 4.9 ft cm
8. Adjusted Recovery Percentage: 74.2%



Core Sections To Process:

- A: See processing
 B: form
 C: A -> F
 D:

Drive Notes:
1.2 ft free fall
1/4 throttle, steady advance to 1/2 throttle,
slow steady advance to 6 ft.
Full throttle, very slow hand drive
to refusal at 6.6 ft.

Shoe Description: large med. sand

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0.30)(3.0-4.8)(4.8-5.2) 3 segments

Notes:

Project: AD04 Phase 2
 Date: 071321
 Weather: WDS sunny-overcast
 Logged By: TDO

Location ID: 1062
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TD DD TT

Field Collection Coordinates:
 Lat/Northing: 47.520121

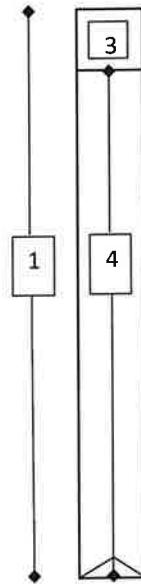
Long/Easting: 122.305637

A. Water Depth
 DTM Depth Sounder: NA
 DTM Lead Line: -5.5 ft.

B. Water Level Measurements **C. Mudline Elevation (ft MLLW)**
 Time: 0742 +4.29
 Height: +9.79 ft.
 Source: LOW RTK tide station

- Core Collection Recovery Details:**
1. Core Tube Length: 8.0 ft
 2. Penetration Depth: 7.0 ft cm
 3. Headspace Measurement: 1.5
 4. Field Recovery Depth: 6.5 ft cm
 5. Field Recovery Percentage: 92.9
 6. Core Accepted: (Yes) / No
 7. Processing Recovery Depth: 6.2 ft cm
 8. Adjusted Recovery Percentage: 89.6

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: See processing
 B: Log
 C: A-G
 D: _____

Drive Notes:

1.8 ft freefall
1/4 throttle slows down ~ 3 ft
but still steady advance to
full pen.

Shoe Description: full, sand-silt, hard packed

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-6.1)(6.1-6.5) 3 segments

Notes:

Sediment Core Collection Form

Project: ADCH Phase 2
 Date: 07.19.21
 Weather: 70s Sunny
 Logged By: TR

Location ID: 1d63
 Attempt No.: 3
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TR DD DB BA

Field Collection Coordinates:
 Lat/Northing: 47.520120

Long/Easting: 122.305507

A. Water Depth

DTM Depth Sounder: N/A
 DTM Lead Line: 1.85 - 4.2 ft

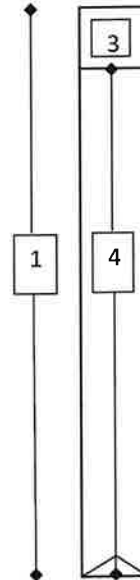
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1444
 Height: +9.5
 Source: LDW RTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 80 ft
2. Penetration Depth: 7.0 ft 213.4 cm
3. Headspace Measurement: 1.9
4. Field Recovery Depth: 6.1 ft cm
5. Field Recovery Percentage: 87.1
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 181 cm
8. Adjusted Recovery Percentage: 84.8



Core Sections To Process:

- A: see processing log
 B: A-G
 C:
 D:

25.4

Drive Notes:

1.85 ft freefall
1/4 throttle, easy drive to full pen (7 ft)

Shoe Description: tr. gray sand, mostly empty.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents; odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-5.7)(5.7-6.1) 3 segments.

Notes:

11 ft off target to avoid wrap
215° ARCH. MONITOR LOCATION

Project: ADCH Phase 2
 Date: 072021
 Weather: W05 Breeze
 Logged By: TDO

Location ID: 66A
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TT DD BH

Field Collection Coordinates:
 Lat/Northing: 47.519844

Long/Easting: 122.305774

A. Water Depth

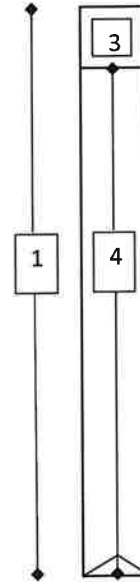
DTM Depth Sounder: NA ft.
 DTM Lead Line: -4.1 ft.

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1241
 Height: +6.2 ft.
 Source: LOW RTK tide station
 Recovery Measurements (prior to cuts) +2.1

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 6.9 ft 210.3 cm
3. Headspace Measurement: 1.1 ft.
4. Field Recovery Depth: 6.9 ft cm
5. Field Recovery Percentage: 100.0
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 198 cm
8. Adjusted Recovery Percentage: 94.2



Core Sections To Process:

- A: See processing log.
 B: _____
 C: A → F
 D: _____

Drive Notes:

0.6 ft freefall
1/4 throttle, drive increase at ~1 ft, upto
1/2 throttle, slows down around 5.8 ft
then steady but sluggish to full pen

Shoe Description: silt w/ f sand, packed full

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4.0)(4.0-6.5)(6.5-6.9) 3 segments

Notes:

27.4

Sediment Core Collection Form

Project: AOC4 Phase 2
Date: 07.14.21
Weather: 60s sunny.
Logged By: TTD

Location ID: 665
Attempt No.: 2
Core Type: Intertidal Subtidal Shoaling
Field Staff: DD DB BH

Field Collection Coordinates:
Lat/Northing: 47.519873

Long/Easting: 122.305574

A. Water Depth
DTM Depth Sounder: N/A
DTM Lead Line: -2.3 ft.

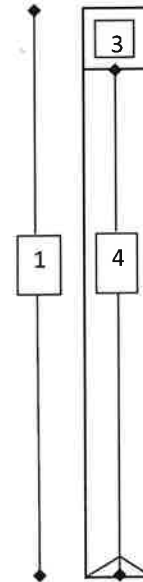
B. Water Level Measurements
Time: 1121
Height: +5.58
Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
+3.28

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft 213.4 cm
3. Headspace Measurement: 1.3
4. Field Recovery Depth: 6.7 ft cm
5. Field Recovery Percentage: 95.7
6. Core Accepted: Yes / No
7. Processing Recovery Depth: 6.4 ft 195 cm
8. Adjusted Recovery Percentage: 91.4



Core Sections To Process:

- A: A-G
B: See processing log.
C:
D:

Drive Notes:

1.5 ft freefall
1/4 throttle, resistance at 2.5 ft
1/2 throttle, steady advance to 4 ft,
stops down to 5.25 then picks
up to fill pen.

Shoe Description: gray, silt/clay, fill

Core Field Observations and Description:
(0-4.0)(4.0-6.3)(6.3-6.7)
3 segments.

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Project: ARCH Phase 2
 Date: 07.19.21
 Weather: WS sunny
 Logged By: TDO

Location ID: 1066
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: TD

Field Collection Coordinates:
 Lat/Northing: 47.519907

Long/Easting: 122.305367

A. Water Depth

DTM Depth Sounder: VA
 DTM Lead Line: -1.1

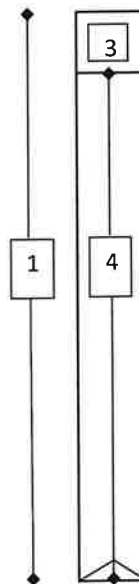
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1230
 Height: +7.96 ft.
 Source: LTD RTK tide station

+6.86
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 7.0 ft 213.4 cm
3. Headspace Measurement: 1.3
4. Field Recovery Depth: 6.7 ft cm
5. Field Recovery Percentage: 95.7
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 169 cm
8. Adjusted Recovery Percentage: 79.2



Core Sections To Process:

- A: A - F
See processing log
 B: _____
 C: _____
 D: _____

Drive Notes:

Ø freefall
1/2 throttle, slow penetration
picks up at 3-4 ft. to full pen

Shoe Description: empty.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0 - 4.0) (4.0 - 6.4) (6.4 - 6.7) 3 segments:

Notes:

5' offshore. ARCH-MONITOR SITE.

Project: LDW AOC4-Phase II
 Date: JULY 8, 2021
 Weather: WS, Sunny
 Logged By: KM

Location ID: IT668
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 193046.06

Long/Easting: 1276651.94

A. Water Depth

DTM Depth Sounder: 2.9 ft
 DTM Lead Line: 2.6 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

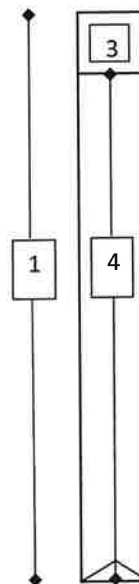
Time: 1435
 Height: 5.71 ft
 Source: LDW RTK
tide station

3.1 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft 128.0 cm
2. Penetration Depth: 4.2 ft 128.0 cm
3. Headspace Measurement: 1.1 ft
4. Field Recovery Depth: 3.9 ft 118.9 cm
5. Field Recovery Percentage: 93%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 3.8 ft 115 cm
8. Adjusted Recovery Percentage: 89.8



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

drove to refusal at 4.2 ft

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.1 ft from target

Project: AOCY Phase 2
 Date: 070821
 Weather: 70s sunny
 Logged By: TDO

Location ID: 0609
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: TD PD TT

Field Collection Coordinates:
 Lat/Northing: 47.519645

Long/Easting: 172.305410

A. Water Depth

DTM Depth Sounder: N/A
 DTM Lead Line: 5.7 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

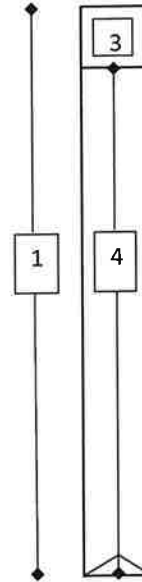
Time: 1702
 Height: +10.7 ft
 Source: idw RTK tide station

+5.0 ft

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8 ft
2. Penetration Depth: 17.0 ft ft cm
3. Headspace Measurement: 1.5
4. Field Recovery Depth: 6.5 ft cm
5. Field Recovery Percentage: 92.9
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: 6.2 ft cm
8. Adjusted Recovery Percentage: 89.6



Core Sections To Process:

- A: See processing
 B: log
 C: A-G
 D: _____

Drive Notes:

1.7 ft free fall
1/2 shackle easy drive to 6 ft.
resistance in last 1 ft to full
pen (7 ft)

Shoe Description: empty

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-4)(4-6.1)(6.1-6.5) 3 segments

Notes:

Sediment Core Collection Form

Project: ADCL Phase 2
 Date: 072021
 Weather: 60s overcast
 Logged By: TRD

Location ID: 670
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: TRD DP BH

Field Collection Coordinates:
 Lat/Northing: 47.519674

Long/Easting: 122.305256

A. Water Depth

DTM Depth Sounder: NA
 DTM Lead Line: -0.8 ft

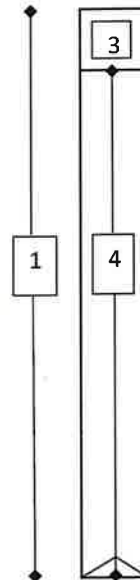
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1342
 Height: +8.32 ft
 Source: 120 RTK tide station

+7.52
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 8.0 ft
2. Penetration Depth: 7.0 ft 213.4 cm
3. Headspace Measurement: 2.6
4. Field Recovery Depth: 5.4 ft cm
5. Field Recovery Percentage: 77.1
6. Core Accepted: (yes) / No
7. Processing Recovery Depth: ft 153 cm
8. Adjusted Recovery Percentage: 71.7



Core Sections To Process:

- A: A-F
 B: See processing log
 C: _____
 D: _____

Drive Notes:

0.4 ft free fall
1/4 throttle, slow steady drive
easier after 1.5 ft.
continues to full pen (7 ft)

Shoe Description: silty sand, brown.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0)(3.0-5.1)(5.1-5.4) 3 segments

Notes:

ALERT. MONITOR LOCATION

Sediment Core Collection Form

Project: LDW AOC4 Phase II
 Date: 7/15/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: SC671
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 192850.14

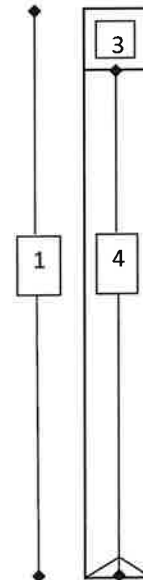
Long/Easting: 1277283.49

A. Water Depth
 DTM Depth Sounder: 11.3 ft
 DTM Lead Line: 11.4 ft

B. Water Level Measurements
 Time: 1315
 Height: 2.83 ft
 Source: RTR tide station

C. Mudline Elevation (ft MLLW)
-8.6 ft MLLW
 Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 5 ft
 - Penetration Depth: 4.1 ft / 125.0 cm
 - Headspace Measurement: 1.0 ft
 - Field Recovery Depth: 4.0 ft / 121.9 cm
 - Field Recovery Percentage: 97.6%
 - Core Accepted: (Yes) No
 - Processing Recovery Depth: ft / 120.0 cm
 - Adjusted Recovery Percentage: 96.0%



- Core Sections To Process:
- A: 0-60 cm
- B: _____
- C: _____
- D: _____

Drive Notes:
drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
About 2.1 ft from target

Sediment Core Collection Form

Project: LDW A04 Phase II
 Date: 7/15/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: SC672
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, KM, ES

Field Collection Coordinates:
 Lat/Northing: 192808.18

Long/Easting: 1277353.75

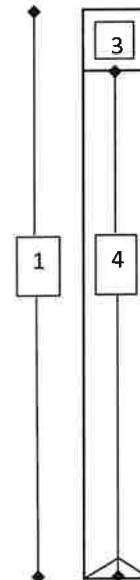
A. Water Depth
 DTM Depth Sounder: 12.2 ft
 DTM Lead Line: 12.3 ft

B. Water Level Measurements
 Time: 1150
 Height: 5.96 ft
 Source: LDW RTK
tide station

C. Mudline Elevation (ft MLLW)
-6.3 ft MLLW

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 5 ft
 - Penetration Depth: 4.3 ft 131.1 cm
 - Headspace Measurement: 0.9 ft
 - Field Recovery Depth: 4.1 ft 125.0 cm
 - Field Recovery Percentage: 95.3%
 - Core Accepted: (Yes) / No
 - Processing Recovery Depth: ft 122.0 cm
 - Adjusted Recovery Percentage: 93.1%



Core Sections To Process:

- A: 0-60 cm
 B: See processing
 C: for
 D: _____

Drive Notes:
drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
About 6.2 ft from target

Sediment Core Collection Form

Project: LDW AOC4 Phase II
 Date: 7/19/21
 Weather: 60s, sun
 Logged By: icm

Location ID: SC673
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 192818.35

Long/Easting: 1277386.94

A. Water Depth

DTM Depth Sounder: 8.7 ft
 DTM Lead Line: 8.5 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

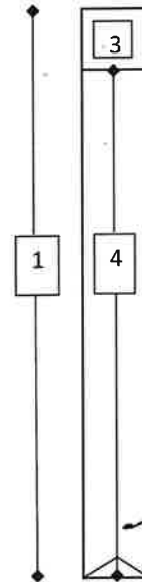
Time: 0950
 Height: 2.49 ft
 Source: LDW RTK
tide station

-6.6 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 12 ft
2. Penetration Depth: 10.2 ft 310.9 cm
3. Headspace Measurement: 1.9 ft
4. Field Recovery Depth: 10.1 ft 307.8 cm
5. Field Recovery Percentage: 99.0%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 309 cm
8. Adjusted Recovery Percentage: 99.8% 100%



Core Sections To Process:

- A: See processing
 B: form
 C: A → I
 D: _____

Drive Notes:

drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 0.5 ft run target

Project: LDW AOC4 Phase II
 Date: 7/20/21
 Weather: 70s, partly sunny
 Logged By: KM

Location ID: SC673
 Attempt No.: 3
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, SM, RC, CF

Field Collection Coordinates:
 Lat/Northing: 192832.62

Long/Easting: 1277385.30

A. Water Depth

DTM Depth Sounder: n/a
 DTM Lead Line: 16.0 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

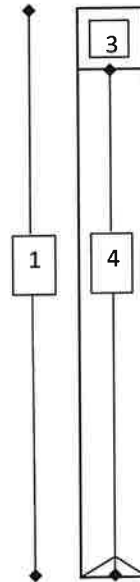
Time: 1615
 Height: 10.33 ft
 Source: LDW RTK
tide station

- 5.7 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: n/a
2. Penetration Depth: n/a 10.0 ft 304.8 cm
3. Headspace Measurement: n/a
4. Field Recovery Depth: 8.0 ft 243.8 cm
5. Field Recovery Percentage: 80%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 8.0 ft 243.8 cm
8. Adjusted Recovery Percentage: 80%



Core Sections To Process:

- A: AB - ~~JB~~ KB
 B: see processing
 C: log
+ KB (802 jar only)
 D:

Drive Notes:

collected with sonic drill rig on Sea Horse. Target: 10-20 ft

Shoe Description: n/a

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 10.7 ft from target

Sediment Core Collection Form

Project: LOW ARCH Phase II
 Date: 7/17/21
 Weather: 100% Sun
 Logged By: KM

Location ID: SC674
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 192854.44

Long/Easting: 1277369.37

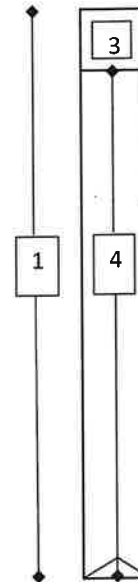
A. Water Depth
 DTM Depth Sounder: 10.0 ft
 DTM Lead Line: 10.0 ft

B. Water Level Measurements
 Time: 0920
 Height: 1.73 ft
 Source: LOW RTR
tide station

C. Mudline Elevation (ft MLLW)
-8.3 ft MLLW

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 12 ft
 - Penetration Depth: 10.8 ft 329.2 cm
 - Headspace Measurement: 1.2 ft
 - Field Recovery Depth: 10.8 ft 329.2 cm
 - Field Recovery Percentage: 100%
 - Core Accepted: (Yes) No
 - Processing Recovery Depth: 11.3 ft 342 cm
 - Adjusted Recovery Percentage: 100%



Core Sections To Process:

- A: A-J
 B: see processing
 C: log.
 D:

Drive Notes:
drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
About 1.4 ft from target

Project: LDW A004 Phase II
 Date: 7/20/21
 Weather: 6.6s, cloudy
 Logged By: KM

Location ID: SC674
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, SM, RC, CP

Field Collection Coordinates:
 Lat/Northing: 192856.61

Long/Easting: 1277371.69

A. Water Depth

DTM Depth Sounder: —
 DTM Lead Line: 15.25 ft @ 1310
16.0 ft @ 1335

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

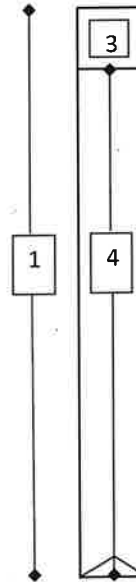
Time: +310^{PM} 1320
 Height: 7.35 ft 7.86 ft
 Source: LDW RTK
tide station

-7.9 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: N/A - sonic drilling
2. Penetration Depth: 10 ft 304.8 cm
3. Headspace Measurement: N/A
4. Field Recovery Depth: 7.7 ft 234.7 cm
5. Field Recovery Percentage: 77%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 7.7 ft 234.7 cm
8. Adjusted Recovery Percentage: 77.0%



Core Sections To Process:

- A: _____
 B: AB-JB
 C: See processing log
 D: _____

Drive Notes:

collected with sonic drilling on Sea Horse
Target (10-20 ft)

Shoe Description: N/A

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Sediment Core Collection Form

Project: LDW AOCY Phase II
 Date: 7/15/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: SC675
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 192871.06

Long/Easting: 1277411.79

A. Water Depth
 DTM Depth Sounder: 12.0 ft
 DTM Lead Line: 12.0 ft

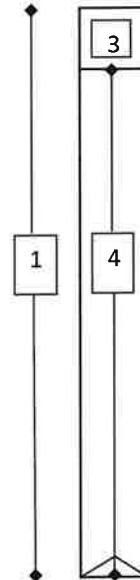
B. Water Level Measurements
 Time: 1245
 Height: 3.86
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-8.1 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.2 ft 128.0 cm
3. Headspace Measurement: 0.9 ft
4. Field Recovery Depth: 4.1 ft 125.0 cm
5. Field Recovery Percentage: 97.6 %
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 125 cm
8. Adjusted Recovery Percentage: 97.7 %



Core Sections To Process:

- A: 0-60cm
- B: see processing
- C: for
- D: _____

Drive Notes:
Drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
About 0.3 ft from target

Sediment Core Collection Form

Project: LDW AOC4 Phase II
Date: 7/15/21
Weather: 60s, cloudy
Logged By: KM

Location ID: SC676
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: KM, ES, RM

Field Collection Coordinates:
Lat/Northing: 192895.94

Long/Easting: 1277471.15

A. Water Depth
DTM Depth Sounder: 11.7 ft
DTM Lead Line: 11.6 ft

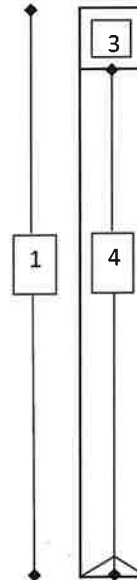
B. Water Level Measurements
Time: 1235
Height: 4.4 ft
Source: LDW RTR tide station

C. Mudline Elevation (ft MLLW)
-7.2 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 5 ft
2. Penetration Depth: 4.0 ft 121.9cm
3. Headspace Measurement: 1.2 ft
4. Field Recovery Depth: 3.8 ft 115.8 cm
5. Field Recovery Percentage: 95.0%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 111 cm
8. Adjusted Recovery Percentage: 91.0%



Core Sections To Process:

A: 0-60 cm

B:

C:

D:

Drive Notes:

drove freely to depth

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 4.9 ft from target

Project: LDW Area Phase II
Date: 7/15/21
Weather: bcs, cloudy
Logged By: KM

Location ID: SC677
Attempt No.: 1
Core Type: Intertidal (Subtidal) Shoaling
Field Staff: KM, GS, RM

Field Collection Coordinates:
Lat/Northing: 192928.87

Long/Easting: 1277462.12

A. Water Depth
DTM Depth Sounder: 11.6 ft
DTM Lead Line: 11.6 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 1300
Height: 3.32 ft
Source: LDW RTK tide station
- 8.3 ft MLLW

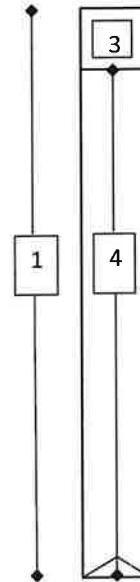
Core Collection Recovery Details:

- 1. Core Tube Length: 5 ft
2. Penetration Depth: 4.2 ft 1280 cm
3. Headspace Measurement: 0.8 ft
4. Field Recovery Depth: 4.2 ft 128.0 cm
5. Field Recovery Percentage: 100%
6. Core Accepted (Yes) / No
7. Processing Recovery Depth: ft 119.5 cm
8. Adjusted Recovery Percentage: 93.4%

Drive Notes:

drive freely to depth

Recovery Measurements (prior to cuts)



Core Sections To Process:

A: 0-60 cm

B:

C:

D:

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.2 ft from target

Sediment Core Collection Form

Project: LDW AOCY Phase II
 Date: July 8, 2021
 Weather: 60s, sun
 Logged By: KM

Location ID: 17679
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, ES, RM

Field Collection Coordinates:
 Lat/Northing: 192196.12

Long/Easting: 1276437.38

A. Water Depth
 DTM Depth Sounder: 13.0 ft
 DTM Lead Line: 13.1 ft

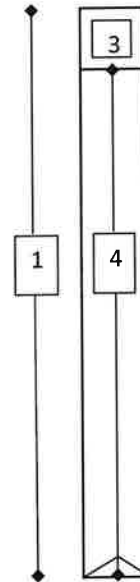
B. Water Level Measurements
 Time: 1610
 Height: 9.23 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-3.9 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.2 ft 128.0 cm
3. Headspace Measurement: 0.8 ft
4. Field Recovery Depth: 4.2 ft 128.0 cm
5. Field Recovery Percentage: 100%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 127.0 cm
8. Adjusted Recovery Percentage: 99.2%



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 7 ft from target

Sediment Core Collection Form

Project: LDW ARCY Phase II
 Date: 7/14/21
 Weather: 60s. cloudy
 Logged By: KM

Location ID: SC680
 Attempt No.: 1
 Core Type: Intertidal (Subtidal) Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190570.82

Long/Easting: 1277238.08

A. Water Depth
 DTM Depth Sounder: 9.6 ft
 DTM Lead Line: could not measure due to current

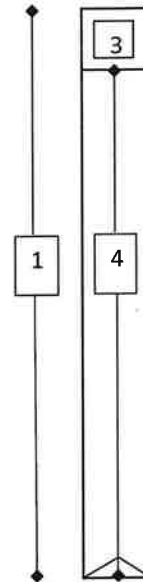
B. Water Level Measurements
 Time: 1130
 Height: 4.34 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
-5.3 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.0 ft 91.4 cm
3. Headspace Measurement: 2.3 ft
4. Field Recovery Depth: 2.7 ft 82.3 cm
5. Field Recovery Percentage: 90.0%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 80 cm
8. Adjusted Recovery Percentage: 87.5



Core Sections To Process:

- A: 0-60cm
- B: 52.5cm
- C: processed based on
- D: recovery percentage

Drive Notes:
drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 0.7 ft from target
Additional volume needed for toxicity testing (more cores collected)

Project: LDW AOC4 Phase U
Date: 7/14/21
Weather: 60s, cloudy
Logged By: KM

Location ID: SC680
Attempt No.: 2
Core Type: Intertidal (Subtidal) Shoaling
Field Staff: KM, RM, ES

Field Collection Coordinates:
Lat/Northing: 190568.77

Long/Easting: 1277235.57

A. Water Depth
DTM Depth Sounder: 8.1 ft
DTM Lead Line: could not measure due to current

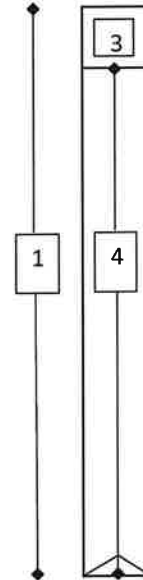
B. Water Level Measurements
Time: 1140
Height: 4.34 ft
Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
~~-3.88~~ -3.8 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 5 ft
- 2. Penetration Depth: 2.7 ft 82.3 cm
- 3. Headspace Measurement: 2.6 ft
- 4. Field Recovery Depth: 2.4 ft 73.2 cm
- 5. Field Recovery Percentage: 88.9%
- 6. Core Accepted (Yes) / No
- 7. Processing Recovery Depth: ft 74.0 cm
- 8. Adjusted Recovery Percentage: 89.9



Core Sections To Process:

- A: 0-60 cm
- B: 53.9 processed
- C: based recovery
- D: percentage

Drive Notes:
drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 2.7 ft from target
Additional volume needed for toxicity testing (more cores collected)

Project: LOW AOCY Phase II
 Date: 7/14/21
 Weather: 70s, Sun
 Logged By: KM

Location ID: SC680
 Attempt No.: 5
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190564.61

Long/Easting: 1277235.25

A. Water Depth
 DTM Depth Sounder: 4.5 ft
 DTM Lead Line: 4.8 ft

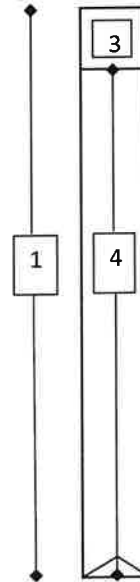
B. Water Level Measurements
 Time: 1525
 Height: 0.06 ft
 Source: LOW RTK
tide station

C. Mudline Elevation (ft MLLW)
-9.7 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.0 ft 121.9 cm
3. Headspace Measurement: 1.5 ft
4. Field Recovery Depth: 3.5 ft 106.7 cm
5. Field Recovery Percentage: 87.5%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 101 cm
8. Adjusted Recovery Percentage: 82.9



Core Sections To Process:

- A: 0-60 cm
- B: 49.7 cm
- C: processed based on recovery
- D: Percentage

Drive Notes:
drove freely to 2 ft, changed frequency at 2 ft, then drove freely to 4 ft

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 6 ft from target

Project: LDW AOCY Phase II
 Date: 7/14/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: 1T681
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190647.55

Long/Easting: 1277305.41

A. Water Depth

DTM Depth Sounder: 3.5 ft
 DTM Lead Line: 3.9 ft

B. Water Level Measurements

Time: 1025
 Height: 7.11 ft
 Source: RTK tide LDW station

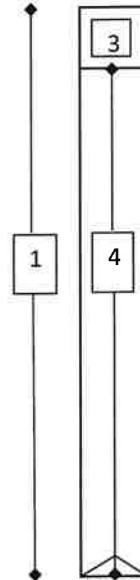
C. Mudline Elevation (ft MLLW)

3.2 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.5 ft 106.7 cm
3. Headspace Measurement: 1.7 ft
4. Field Recovery Depth: 3.3 ft cm
5. Field Recovery Percentage: 94.3%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 87 cm
8. Adjusted Recovery Percentage: 81.5%



Core Sections To Process:

A: 0-45 cm

B: _____

C: _____

D: _____

Drive Notes:

drive freely to depth

Shoe Description: see processing log-KM log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.6 ft from target

Project: LOW AOC4 Phase II
 Date: 7/14/21
 Weather: 50s, cloudy
 Logged By: KM

Location ID: 1T682
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190614.37

Long/Easting: 1277340.26

A. Water Depth

DTM Depth Sounder: 8.8 ft
 DTM Lead Line: 8.1 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

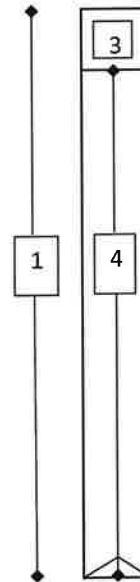
Time: 0740
 Height: 9.52 ft
 Source: LOW RTK
tide station

1.4 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 4.5 ft 137.2 cm
3. Headspace Measurement: 0.6 ft
4. Field Recovery Depth: 4.4 ft 134.1 cm
5. Field Recovery Percentage: 97.8
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: 133 cm
8. Adjusted Recovery Percentage: 99.2 96.9%



Core Sections To Process:

- A: 0-45 cm
- B: processed
- C: 43.6 cm
- D: based on recovery correction

Drive Notes:

drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 2.7 ft from target
Additional volume needed for toxicity testing (more cores collected)

Sediment Core Collection Form

Project: LDW AOCY Phase II
 Date: 7/14/21
 Weather: 50%, cloudy
 Logged By: KM

Location ID: IT682
 Attempt No.: 3
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190610.46

Long/Easting: 1277337.89

A. Water Depth

DTM Depth Sounder: 9.6 ft
 DTM Lead Line: 9.0 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

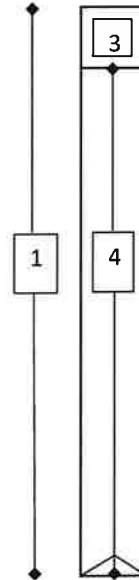
Time: 0810
 Height: 9.57 ft
 Source: LDW RTK tide station

0.6 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.2 ft 97.5 cm
3. Headspace Measurement: 1.8 ft
4. Field Recovery Depth: 3.2 ft 97.5 cm
5. Field Recovery Percentage: 100%
6. Core Accepted: YES/ No
7. Processing Recovery Depth: ft 97.5 cm
8. Adjusted Recovery Percentage: 100%



Core Sections To Process:

A: 0-45 cm

B:

C: processed 450 cm

D:

Drive Notes:

drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 6.3 ft from target
 Additional volume needed for toxicity testing (more cores collected)

Project: LOW AOCY Phase II
 Date: 7/19/21
 Weather: SDs, cloudy
 Logged By: KM

Location ID: IT682
 Attempt No.: 4
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190612.61

Long/Easting: 1277342.79

A. Water Depth

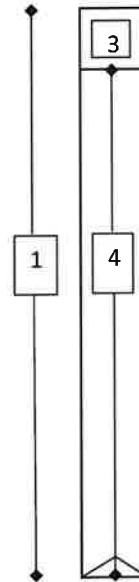
DTM Depth Sounder: 9.1
 DTM Lead Line: 8.0 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0825
 Height: 9.56 ft
 Source: LOW RTK tide station

1.6 ft MLLW

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: 0-45 cm
- B: processed
- C: 43.0 cm based on recovery collection
- D: on recovery collection

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.5 ft 106.7 cm
3. Headspace Measurement: 1.8 ft
4. Field Recovery Depth: 3.2 ft 97.5 cm
5. Field Recovery Percentage: 91.4%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 95.5 cm
8. Adjusted Recovery Percentage: 89.5

Drive Notes:

draw freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 1.1 ft from target
Additional volume needed for toxicity testing (more cores collected)

Sediment Core Collection Form

Project: LDW AOCY Phase II
 Date: 7/14/21
 Weather: 50s, cloudy
 Logged By: KM

Location ID: ITC82
 Attempt No.: 5
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190610.74

Long/Easting: 1277341.59

A. Water Depth

DTM Depth Sounder: 9.1 ft
 DTM Lead Line: 8.9 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

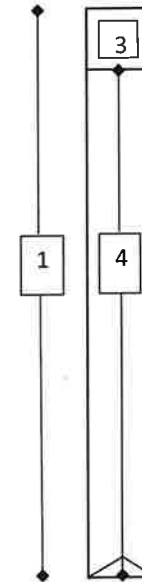
Time: 0835
 Height: 9.4 ft
 Source: LDW RTR
tide station

1.5 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3 ft ft 91.4 cm
3. Headspace Measurement: 2.2 ft
4. Field Recovery Depth: 2.8 ft 85.3 cm
5. Field Recovery Percentage: 93.3%
6. Core Accepted: Yes No
7. Processing Recovery Depth: ft 85.3 cm
8. Adjusted Recovery Percentage: 93.0



Core Sections To Process:

- A: 0-45 cm
- B: processed
- C: 41.9 cm based
- D: on recovery collection

Drive Notes:

drive freely to depth

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.5 ft from target
Additional core needed for toxicity testing

Project: LDW ADCY Phase II
 Date: 7/14/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: IT682
 Attempt No.: 6
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 1906 10.71

Long/Easting: 1277343.04

A. Water Depth
 DTM Depth Sounder: 8.9 ft
 DTM Lead Line: 8.2 ft

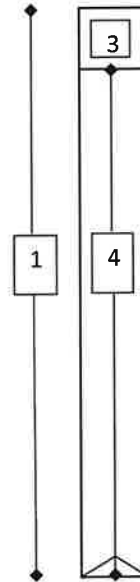
B. Water Level Measurements
 Time: 0845
 Height: 9.23 ft
 Source: LDW RTR
tide station

C. Mudline Elevation (ft MLLW)
1.0 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3 ft 91.4 cm
3. Headspace Measurement: 2.7 ft
4. Field Recovery Depth: 2.3 ft 70.1 cm
5. Field Recovery Percentage: 76.7 %
6. Core Accepted Yes No
7. Processing Recovery Depth: ft 67.0 cm
8. Adjusted Recovery Percentage: 73.3



Core Sections To Process:

- A: 0-45 cm
- B: processed 33 cm
- C: based on recovery correction,
- D:

Drive Notes:
drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.3 ft from target

29.3
 41.4
 70.7

SEDIMENT CORE COLLECTION FORM



Sediment Core Collection Form

Project: LDW PDI Phase II 180067-02.03
Date: 7.20.21
Weather: clouds 60°F
Logged By: G. Timm

Location ID: ~~683~~ 683
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: G. Timm & Conettee

Field Collection Coordinates:

Lat/Northing: _____ Long/Easting: 2277370.11 N E, 19067.49ft

A. Water Depth

DTM Depth Sounder: _____
 DTM Lead Line: _____

B. Water Level Measurements

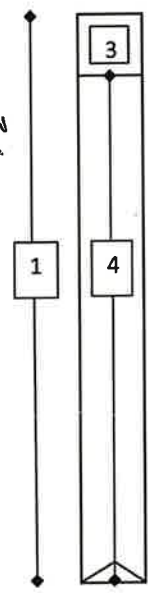
Time: 1427
 Height: 7.7ft - 3ft = 4.7ft
 Source: drop tape

C. Mudline Elevation (ft MLLW)

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

- 1. Core Tube Length: 3.5 (683-1) 3.5 (683-2)
 - 2. Penetration Depth: _____
 - 3. Headspace Measurement: 12.7" 0.6"
 - 4. Recovery Depth: _____
 - 5. Recovery Percentage: 84%
 - 6. Core Accepted: Yes / No
- $42" \cdot 12.7" = 29.3 / 42 = 69\%$
 $7 \times 12 = 84 - 13.3 = 70.7 / 84 = 84\%$



Core Sections To Process:

- A: 0 to 3.5
- B: 3.5 to 7.0
- C: _____
- D: Processed intervals A-F see core processing log.

Drive Notes:

0 to 3.5 hit mudline @ 1430 683-1
3.5 to 7ft Start @ 1450 to 1455
TD to ML before 2nd push = 8.1ft
3ft TD to water; DML @ 1446 = 5.1ft

Shoe Description: 66mm O.D.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

under water, no observation
BML
push 0 to 3.5 ft; pull & package;
then lower to 3.5ft & sample again to 7ft BML

Core processing details:

Penetration depth: 213.4 cm (3.5ft plus 3.5ft)
Field recovery depth: 179.6 cm (core tube length minus headspace for 683-1 & 683-2 combined)
Processing recovery depth: 166 cm (measured on processing barge)
Adjusted recovery percentage: 77.8 % (processing recovery depth divided by penetration depth)

Notes:

Bank covered in large bushy vegetation; occasional concrete debris on partially armored slope.

Project: LOW AIC4 Phase II
 Date: 7/19/21
 Weather: 70s, sun
 Logged By: KM

Location ID: IT684
 Attempt No.: 4
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190592.97

Long/Easting: 1277370.17

A. Water Depth
 DTM Depth Sounder: 9.5 ft
 DTM Lead Line: 8.9 ft

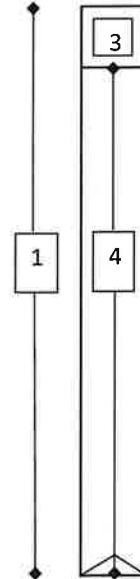
B. Water Level Measurements
 Time: 1435
 Height: 9.5 ft
 Source: LOW RTK tide station

C. Mudline Elevation (ft MLLW)
0.6 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 10 ft
2. Penetration Depth: 9.0 ft 274.3 cm
3. Headspace Measurement: 2.5 ft
4. Field Recovery Depth: 7.5 ft 228.6 cm
5. Field Recovery Percentage: 83.3%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 226.0 cm
8. Adjusted Recovery Percentage: 82.4



Core Sections To Process:

- A: 0-45 cm KM
 B: A-H
 C: See processing log
 D: _____

Drive Notes:

drove slowly for first ~7 ft, last 2 ft were harder to penetrate

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 0.9 ft from target

Sediment Core Collection Form

Project: LDN AOC4 Phase II
 Date: 7/14/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: 17685
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190588.18

Long/Easting: 1277386.95

A. Water Depth
 DTM Depth Sounder: 6.9 ft
 DTM Lead Line: 7.5 ft

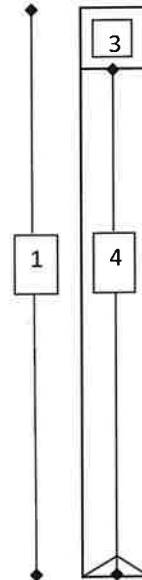
B. Water Level Measurements
 Time: 0920
 Height: 8.68 ft
 Source: LDN RTK
tide station

C. Mudline Elevation (ft MLLW)
1.2 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 2.8 ft 85.3 cm
3. Headspace Measurement: 2.5 ft
4. Field Recovery Depth: 2.5 ft 76.2 cm
5. Field Recovery Percentage: 89.3 %
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 73.0 cm
8. Adjusted Recovery Percentage: 85.6



Core Sections To Process:

- A: 0-45 cm
- B: 38.5 cm
processed based
- C: on recovery
- D: percentage

Drive Notes:
drove freely to depth

Shoe Description: See processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 3.0 ft from target
Additional cores needed for toxicity testing

Project: LDW AOCY Phase II
 Date: 7/14/21
 Weather: WS, cloudy
 Logged By: KM

Location ID: IT685
 Attempt No.: 2
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190588.13

Long/Easting: 1277381.94

A. Water Depth
 DTM Depth Sounder: 6.6 ft
 DTM Lead Line: 7.5 ft

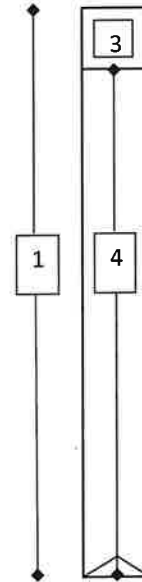
B. Water Level Measurements
 Time: 0930
 Height: 8.36 ft
 Source: LDW ETK tide station

C. Mudline Elevation (ft MLLW)
0.9 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 2.7 ft 82.3 cm
3. Headspace Measurement: 2.5 ft
4. Field Recovery Depth: 2.5 ft 76.2 cm
5. Field Recovery Percentage: 92.6%
6. Core Accepted (Yes) / No
7. Processing Recovery Depth: ft 73 cm
8. Adjusted Recovery Percentage: 88.7



Core Sections To Process:

- A: 0-45 cm
- B: 39.9 cm processed
- C: based on recovery percentage
- D: percentage

Drive Notes:
drove freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 8 ft from target
Additional cores needed for toxicity testing

Project: LOW ADCY Phase II
 Date: 7/14/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: IT 685
 Attempt No.: 3
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190586.42

Long/Easting: 1277386.42

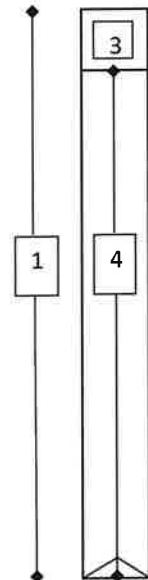
A. Water Depth
 DTM Depth Sounder: 6.7 ft
 DTM Lead Line: 7.3 ft

B. Water Level Measurements
 Time: 0940
 Height: 8.36 ft
 Source: LOW RTK
tide station

C. Mudline Elevation (ft MLLW)
1.1 ft MLLW
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 2.7 ft 82.3 cm
3. Headspace Measurement: 2.9 ft
4. Field Recovery Depth: 2.1 ft 64.0 cm
5. Field Recovery Percentage: 77.8%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 58.5 cm
8. Adjusted Recovery Percentage: 71.1



Core Sections To Process:

- A: 0-45 cm
- B: 32.0 cm
- C: processed based on recovery percentage
- D:

Drive Notes:
draw freely to depth

Shoe Description: see processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
About 4 ft from target
Additional cores needed for toxicity testing

Project: LOW AOCY Phase II
 Date: 7/14/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: 1T685
 Attempt No.: 4
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190587.01

Long/Easting: 1277392.29

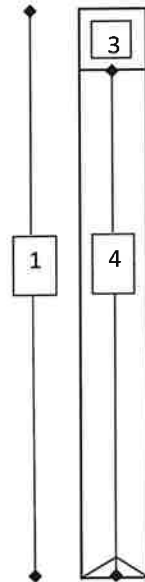
A. Water Depth
 DTM Depth Sounder: 6.1 ft
 DTM Lead Line: 6.5 ft

B. Water Level Measurements
 Time: 0950
 Height: 7.95 ft
 Source: LOW RTK tide station

C. Mudline Elevation (ft MLLW)
1.5 ft MLLW
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.5 ft 106.7 cm
3. Headspace Measurement: 1.6 ft
4. Field Recovery Depth: 3.4 ft 103.6 cm
5. Field Recovery Percentage: 97.1%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 90.5 cm
8. Adjusted Recovery Percentage: 94.8%



Core Sections To Process:

- A: 0-45 cm
- B: 38.2 cm
- C: processed based on recovery percentage
- D: percentage

Drive Notes:
Drive freely to depth with some resistance at ~2 ft

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 2.5 ft from target
Additional core needed for toxicity testing

Sediment Core Collection Form

Project: LOW AOC4 Phase II
 Date: 7/14/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: 17685
 Attempt No.: 5
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, RM, GS

Field Collection Coordinates:
 Lat/Northing: 190586.07

Long/Easting: 1277384.99

A. Water Depth

DTM Depth Sounder: 6.4 ft
 DTM Lead Line: 6.9 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

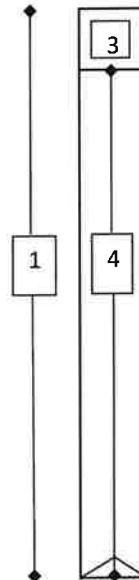
Time: 0955
 Height: 7.95 ft
 Source: LDW RTU
tide station

1.1 ft MLLW

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 3.0 ft 91.4 cm
3. Headspace Measurement: 2.5 ft
4. Field Recovery Depth: 2.5 ft 76.2 cm
5. Field Recovery Percentage: 83.3%
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft 72.0 cm
8. Adjusted Recovery Percentage: 78.8



Core Sections To Process:

- A: 0-45 cm
- B: 35.5 cm processed
- C: based on recovery percentage
- D: percentage

Drive Notes:

drive freely to depth

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 5.4 ft from target

Project: CDW ADCY Phase II
 Date: 7/15/21
 Weather: 60s, cloudy
 Logged By: KM

Location ID: IT686
 Attempt No.: 3
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: KM, RM, ES

Field Collection Coordinates:
 Lat/Northing: 190551.03

Long/Easting: 1277436.56

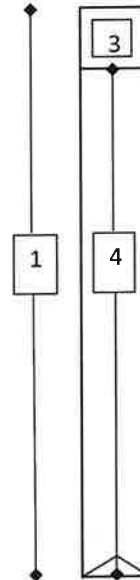
A. Water Depth
 DTM Depth Sounder: 11.5 ft
 DTM Lead Line: 11.1 ft

B. Water Level Measurements
 Time: 0945
 Height: 8.74 ft
 Source: CDW RTK
tide station

C. Mudline Elevation (ft MLLW)
-2.4 ft MLLW

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 5 ft
 - Penetration Depth: 3.3 ft 100.6 cm
 - Headspace Measurement: 1.8 ft
 - Field Recovery Depth: 3.2 ft 97.5 cm *km 97.5 cm*
 - Field Recovery Percentage: 97.0 %
 - Core Accepted (Yes) No
 - Processing Recovery Depth: ft 97 cm
 - Adjusted Recovery Percentage: 96.4%



Core Sections To Process:

- A: 0-45 cm
 B: see processing form
 C: form
 D: _____

Drive Notes:

Shoe Description: See processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
About 7.1 ft from target

Sediment Core Collection Form

Project: AOC4 Phase 2
Date: 07.20.21
Weather: 70s, overcast
Logged By: IDO

Location ID: 694
Attempt No.: 3
Core Type: Intertidal
Field Staff: TD DD BH

Field Collection Coordinates:
Lat/Northing: 47.511526

Long/Easting: 122.302095

A. Water Depth

DTM Depth Sounder: NA
DTM Lead Line: -1.7 ft.

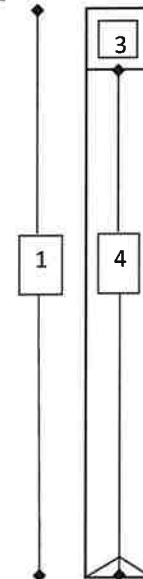
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1639
Height: +10.24 ft.
Source: up RTK tide station
Mudline Elevation: +8.54

Core Collection Recovery Details:

- 1. Core Tube Length: 8.0 ft.
2. Penetration Depth: 7.0 ft / 213.4 cm
3. Headspace Measurement: 2.3 ft.
4. Field Recovery Depth: 5.7 ft / cm
5. Field Recovery Percentage: 81.4
6. Core Accepted: (Yes) No
7. Processing Recovery Depth: ft / 153 cm
8. Adjusted Recovery Percentage: 71.7

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: A-F
B: See processing core
C:
D:

Drive Notes:

0.4 ft free fall
Full throttle, easy advance to full pen

Shoe Description: brown-gray sand, coarse

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(0-3.0)(3.0-5.3)(5.3-5.7)
ID ID

Notes:

9 ft of target
0060
ARCHAEOLOGICAL MONITOR LOCATION

Sediment Core Collection Form

Project: LDW AOC4 Phase II
 Date: 7/15/21
 Weather: SOS, cloudy
 Logged By: km

Location ID: 1T697
 Attempt No.: 5
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: km, CS, RM

Field Collection Coordinates:
 Lat/Northing: 190024.94

Long/Easting: 1277570.06

A. Water Depth

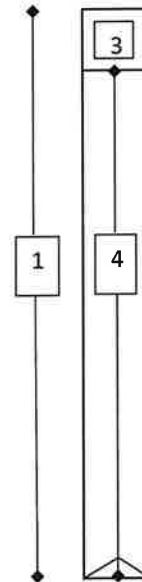
DTM Depth Sounder: 8.3 ft
 DTM Lead Line: 7.6 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 0825
 Height: 8.95 ft
 Source: RTK tide
LDW station

1.3 ft MLLW

Recovery Measurements (prior to cuts)



Core Sections To Process:

A: 0-45cm

B: _____

C: _____

D: _____

Core Collection Recovery Details:

1. Core Tube Length: 5 ft
2. Penetration Depth: 2.4 ft 73.2 cm
3. Headspace Measurement: 2.6 ft
4. Field Recovery Depth: 2.4 ft 73.2 cm
5. Field Recovery Percentage: 100%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 72 cm
8. Adjusted Recovery Percentage: 98.4%

Drive Notes:

drive to reusal

Shoe Description: see processing log

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 6.3 ft from target

Project: LDW AOCA - Phase II
 Date: 8-3-2021
 Weather: sun/clouds, 70s
 Logged By: S. Replinger

Location ID: IT698 (X)
 Attempt No.: 8
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, CF, ES

Field Collection Coordinates:
 Lat/Northing: 190386.64

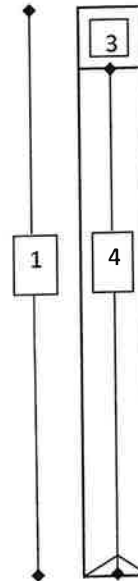
Long/Easting: 1278257.54

A. Water Depth
 DTM Depth Sounder: 10.6 ft
 DTM Lead Line: 10.6 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1453
 Height: 9.59 ft
 Source: LDW RTK
 tide station
 -1.0 ft MLLW

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
- Core Tube Length: 10 ft
 - Penetration Depth: 9 ft ft 274.3 cm
 - Headspace Measurement: 3.3 ft
 - Field Recovery Depth: 6.7 ft ft 204.2 cm
 - Field Recovery Percentage: 74.4%
 - Core Accepted: (Yes) No
 - Processing Recovery Depth: ft 202 cm
 - Adjusted Recovery Percentage: 73.6%



Core Sections To Process:

- A: A-H
 B: See processing log.
 C:
 D:

Drive Notes:
 Slow steady drive;
 went 9 ft towards end
 Stopped at 9 ft drive.

Shoe Description:

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 9.2 ft from target (reversed).

Project: LDWAOC4-Phase II
Date: Aug 3, 2021
Weather: Sun/Clouds 70s
Logged By: S. Replinger

Location ID: 1T698 (Y)
Attempt No.: 7
Core Type: (Intertidal) Subtidal Shoaling
Field Staff: SE, ES, CF

Field Collection Coordinates:
Lat/Northing: 190376.77

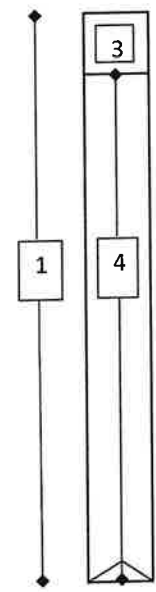
Long/Easting: 1278256.06

A. Water Depth
DTM Depth Sounder: 14.72 ft
DTM Lead Line: 15.1 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 1420
Height: 9.18 ft
Source: LDW RTK tide station
-5.9 ft MLLW

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
1. Core Tube Length: 9 ft
 2. Penetration Depth: 7.5 ft ft 228.6 cm
 3. Headspace Measurement: 3.25 ft
 4. Field Recovery Depth: 5.75 ft ft 175.3 cm
 5. Field Recovery Percentage: 76.7%
 6. Core Accepted: (Yes) / No
 7. Processing Recovery Depth: ft 75 cm
 8. Adjusted Recovery Percentage: 76.6%



Core Sections To Process:

A: A-G

B: See processing log.

C:

D:

Drive Notes:

freely drive to target penetration (7.5 ft)

Shoe Description:

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 19 ft from revised target

Sediment Core Collection Form

Project: LDW ADCA-Phase II
 Date: 9.2.2021
 Weather: Sunny, 70s
 Logged By: S. Replinger

Location ID: IT699 (X)
 Attempt No.: 1
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SR, ES, RT

Field Collection Coordinates:
 Lat/Northing: 190350.16

Long/Easting: 1278344.62

A. Water Depth
 DTM Depth Sounder: 8.02 ft
 DTM Lead Line: 7.2 ft

B. Water Level Measurements
 Time: 1024
 Height: 4.01 ft
 Source: LDW RTR tide station

C. Mudline Elevation (ft MLLW)
-3.2 ft MLLW

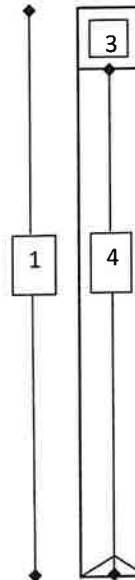
Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 9 ft
2. Penetration Depth: 1.5 ft 45.7 cm
3. Headspace Measurement: 7.5
4. Field Recovery Depth: 1.5 ft 45.7 cm
5. Field Recovery Percentage: 100%
6. Core Accepted: Yes No na
7. Processing Recovery Depth: ft 45.0 cm
8. Adjusted Recovery Percentage: 90.5%

Drive Notes:

hit refusal at ~1.5 ft



Core Sections To Process:

A: A - site processing log

B: _____

C: _____

D: na

Shoe Description:

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

Location just down from rip rap slope. Likely hit piece of rock/concrete. About 1 ft from target.

Sediment Core Collection Form

Project: LDW21 - ACCA Phase II
 Date: 8-2-2021
 Weather: Sunny 70s
 Logged By: S. Replinger

Location ID: IT699 (Y)
 Attempt No.: 2
 Core Type: (Intertidal) Subtidal Shoaling
 Field Staff: SR, ES, RT

Field Collection Coordinates:
 Lat/Northing: 19 0342.54

Long/Easting: _____

A. Water Depth (S) 12.5 - 12.45 ft
 DTM Depth Sounder: 12.45 ft
 DTM Lead Line: 10.3 ft
11.5

B. Water Level Measurements C. **Mudline Elevation (ft MLLW)**
 Time: 1044 -6.6 ft MLLW
 Height: 4.86 ft
 Source: LDW RTK tide station

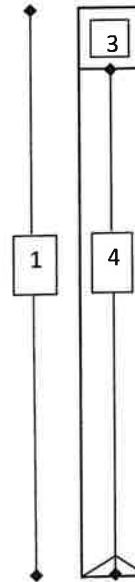
Core Collection Recovery Details:

1. Core Tube Length: 10 ft ^{10 ft}
2. Penetration Depth: 2.5 ft ft 76.2 cm
3. Headspace Measurement: 7.75 ft
4. Field Recovery Depth: 2.25 ft ft 68.6 cm
5. Field Recovery Percentage: 90%
6. Core Accepted: (Yes) / (No) (S)
7. Processing Recovery Depth: ft 70 cm
8. Adjusted Recovery Percentage: 93.2% 91.9% _(log)

Drive Notes:

Easy drive, then hit refusal at 2.5 ft

Recovery Measurements (prior to cuts)



Core Sections To Process:

- A: A-B
 B: see processing log
 C: _____
 D: _____

Shoe Description:

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 2.5 ft from target

Project: LDW AOC4 - Phase II
 Date: 8-2-2021
 Weather: Sunny, 70s
 Logged By: S. Replinger

Location ID: IT699 (2)
 Attempt No.: 5
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, ES, RT

Field Collection Coordinates:
 Lat/Northing: 190305.47

Long/Easting: 1278333.33

A. Water Depth

DTM Depth Sounder: 11.34
 DTM Lead Line: 10.9 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1153
 Height: 6.69
 Source: LDW PTK
 tide station

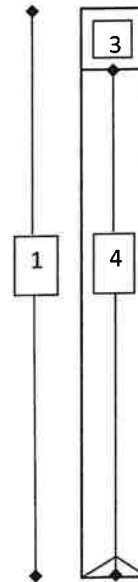
-4.7 ft MLLW
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 10 ft
2. Penetration Depth: 9 ft ft 274.3 cm
3. Headspace Measurement: 2.5 ft
4. Field Recovery Depth: 7.5 ft ft 228.6 cm
5. Field Recovery Percentage: 83.3%
6. Core Accepted: (Yes) / No
7. Processing Recovery Depth: ft 228.6 cm
8. Adjusted Recovery Percentage: 83.3%

Drive Notes:

freely drove to target penetration.



Core Sections To Process:

- A: See processing log.
 B:
 C: A-G
 D:

Shoe Description:

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Gap in sediment as a result of material lost at bottom.

Notes:

Lost some material at bottom of core when bringing on board. (About 1.3-1.4 ft)
 About 45 ft from reused target (away from shore).
 Process 25 IT6992.

copy w/ edits ; for review

Project: ~~AC04 Phase 2~~ LDW21
Date: 7/26/21
Weather: 82° Sunny
Logged By: ATB & GT

Location ID: 701-1
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: ATB, GT, SM correct

Field Collection Coordinates:
Lat/Northing: 190301.34

Long/Easting: 1278471.33

A. Water Depth
DTM Depth Sounder: X ft
DTM Lead Line: -1.9 ft (-3)
↳ TOD to mid

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
Time: 18:10
Height: 8.25 ft
Source: LDW RTK tide station Recovery Measurements (prior to cuts)

can confirm once GPS data is processed by GIS team

negative symbols added.

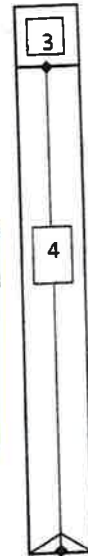
ok, now add 3ft not subtract. Water column height is 7.9-3=4.9 ft

Core Collection Recovery Details:

- 1. Core Tube Length: 3.5 ft
- 2. Penetration Depth: 3.5 ft 106.7 cm
- 3. Headspace Measurement: D.O. AB
- 4. Field Recovery Depth: 2.9 ft cm
- 5. Field Recovery Percentage: 82.8
- 6. Core Accepted (Yes / No)
- 7. Processing Recovery Depth: ft 89 cm
- 8. Adjusted Recovery Percentage: 83.4%

what is (-3) referring to? what does TOD stand for?

"TOD": top of deck
Distance from TOD to top of the water is 3ft; i.e. barge deck is 3ft above the surface of the water within the drilling moon hole/pool



Core Sections To Process:

- A: A - D (partial)
- B: see processing log
- C:
- D:

Shoe Description:

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Looks to be Sand in shoe

ARCHAEOLOGICAL

Bags added to base of sample

What does this mean?

Notes: As close as possible to location

to prevent cross contamination during storage within the cooler on the processing barge - of any water escaping the tube, and going past the seal (tape); a plastic zip lock bag was also secured to the base of each tube.

copy w/ edits, for review

Sediment Core Collection Form

Project: LDW21
Date: 7/26/21
Weather: 77° Sunny
Logged By: ATB/BGT

Location ID: 701 - Second interval
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: ATB, GT, SM

correct

Field Collection Coordinates:
Lat/Northing: 190309.34

Long/Easting: 1278471.33

negative symbol added

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: -8.95+

B. Water Level Measurements
Time: 18:12
Height: +8.3
Source: LDW SAK Station

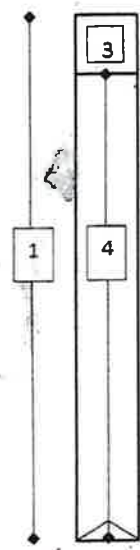
C. Mudline Elevation (ft MLLW)
-0.6 can confirm after processing of GPS data is completed

- Core Collection Recovery Details:
1. Core Tube Length: 3.5
 2. Penetration Depth: 3.5 - 0.25 ft 83.8 cm
 3. Headspace Measurement: 1.5
 4. Field Recovery Depth: 2 ft cm
 5. Field Recovery Percentage: 73%
 6. Core Accepted: (Yes / No)
 7. Processing Recovery Depth: ft 66 cm
 8. Adjusted Recovery Percentage: 78%

ok; water column height is 8.9-3=5.9 ft

2.75 ft 5cm penetration

Recovery Measurements (prior to cuts)



- Core Sections To Process:
- A: D(cont.) - F
 - B: see processing log.
 - C:
 - D:

Drive Notes: Second interval on 701
 Refusal @ 75 inches (6.25ft)
 Sand layer from other attempt reached (see 699)
 Drive distance 2.75ft

Shoe Description: Dark Black medium silt & sand

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

ARCHAEOLOGICAL

Notes: Second interval smaller than first, very similar material
no second attempts required Bags Added to Bottom

Project: LDW AOC4-Phase II
 Date: Aug 3 2021
 Weather: sun/clouds, 70s
 Logged By: S. Replinger

Location ID: IT 702 (X)
 Attempt No.: 1
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, ES, CF

Field Collection Coordinates:
 Lat/Northing: 190258.59

Long/Easting: 1278522.24

A. Water Depth

DTM Depth Sounder: ND (too shallow)
 DTM Lead Line: 3.9 ft

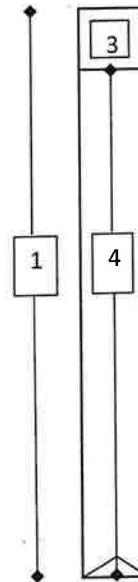
B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 15:26
 Height: 9.85 ft
 Source: LDW RTK tide station

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 10 ft
2. Penetration Depth: 4.3 ft ft 131.1 cm
3. Headspace Measurement: 6.15 ft
4. Field Recovery Depth: 3.85 ft ft 117.3 cm
5. Field Recovery Percentage: 89.5%
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 115 cm
8. Adjusted Recovery Percentage: 87.7%



Core Sections To Process:

- A: A → D
 B: See processing log
 C:
 D:

Drive Notes:

Located soft spot amid rocks/debris.
 Steady drive until hit refusal at 4.3 ft.

Shoe Description:

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 7.8 ft from target location.

Project: LDW A004-Phase II
 Date: 08-03-2021
 Weather: sun/clouds, 70s
 Logged By: S. Replinger

Location ID: 1T702 (Y)
 Attempt No.: 4
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, ES, CF

Field Collection Coordinates:
 Lat/Northing: 190263.03

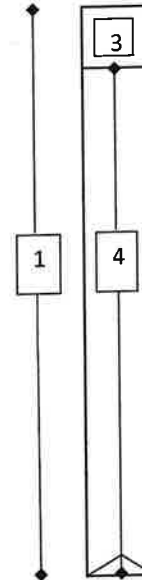
Long/Easting: 1278514.14

A. Water Depth
 DTM Depth Sounder: NA (too shallow)
 DTM Lead Line: 3.5 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)
 Time: 1650
 Height: 9.95 ft
 Source: LDW RTK tide station
 +6.5 ft MLLW

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
1. Core Tube Length: 10 ft
 2. Penetration Depth: 6.5 ft ft 198.1 cm
 3. Headspace Measurement: 4.25 ft
 4. Field Recovery Depth: 5.75 ft ft 175.3 cm
 5. Field Recovery Percentage: 88.5%
 6. Core Accepted: (Yes) / No
 7. Processing Recovery Depth: ft 169 cm
 8. Adjusted Recovery Percentage: 85.3%



Core Sections To Process:

- A: A-F
 B: See processing log
 C:
 D:

Drive Notes:
 Steady drive down to 6.5 ft.
 hit refusal at 6.5 ft, tried to turn down setting to continue drive, but no success in driving deeper.

Shoe Description: see processing log

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
 About 13 ft from target location (downstream).

Project: LDW AOC4-Phase II
Date: 8.2.2021
Weather: Sunny, 70s
Logged By: S. Replinger

Location ID: 1T703 (X)
Attempt No.: 1
Core Type: Intertidal Subtidal Shoaling
Field Staff: SP, ES, RT

Field Collection Coordinates:
Lat/Northing: 19017186

Long/Easting: 1278608.51

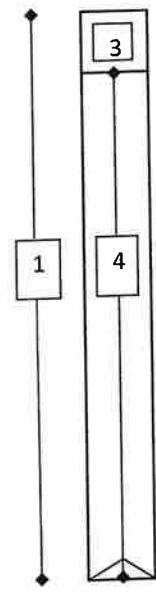
A. Water Depth
DTM Depth Sounder: 5.86 ft
DTM Lead Line: 6.0 ft

B. Water Level Measurements
Time: 1215
Height: 7.34 ft
Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
+1.5 ft MLLW
Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:
- Core Tube Length: 10 ft
 - Penetration Depth: 4 ft ft 121.9 cm
 - Headspace Measurement: 7.4 ft
 - Field Recovery Depth: 2.6 ft ft 79.2 cm
 - Field Recovery Percentage: 65%
 - Core Accepted (Yes / No)
 - Processing Recovery Depth: ft 77 cm
 - Adjusted Recovery Percentage: 63.2%

Drive Notes:
freely drove to refusal



- Core Sections To Process:
- A: A-D
 - B: See processing log.
 - C:
 - D:

Shoe Description: hard, compacted gravel + sand

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes: About 8 ft from target (revised).

Project: LDW A0CA - Phase II
 Date: 8.2.2021
 Weather: Sunny 90s
 Logged By: S. Replinger

Location ID: IT 703 (Y)
 Attempt No.: 3
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR

Field Collection Coordinates:
 Lat/Northing: 190159.82

Long/Easting: 1278591.40

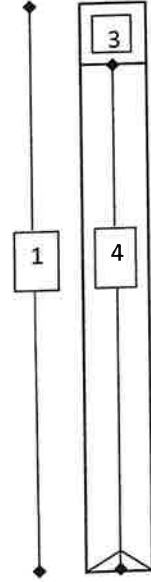
A. Water Depth
 DTM Depth Sounder: 3-9.9 ft
 DTM Lead Line: 10.3 ft

B. Water Level Measurements
 Time: 1600
 Height: 9.12 ft
 Source: LDW RTK tide station

C. Mudline Elevation (ft MLLW)
 -0.8 ft MLLW

Recovery Measurements (prior to cuts)

- Core Collection Recovery Details:**
- Core Tube Length: 10 ft
 - Penetration Depth: 8 ft ft 243.8 cm
 - Headspace Measurement: 6.2 ft
 - Field Recovery Depth: 8 ft + 1.25 ft = 9.25 ft 281.8 cm 129.5 cm
 - Field Recovery Percentage: $\frac{47.5}{90} = 53\%$
 - Core Accepted: Yes / No
 - Processing Recovery Depth: ft 120 cm
 - Adjusted Recovery Percentage: 49.2%



- Core Sections To Process:
- A: A-6
 B: See processing log.
 C:
 D:

Drive Notes:
 freely drive - slow steady drive to target penetration.

Shoe Description:

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Upper layer of core & overlying water has rusty color

Notes:
 About 29 ft from roused target.

Project: LDW AOC4-Phase II
 Date: 8.3.2021
 Weather: Sunny, 70s
 Logged By: S. Replinger

Location ID: IT703 (Z)
 Attempt No.: 5
 Core Type: Intertidal Subtidal Shoaling
 Field Staff: SR, ES, CF

Field Collection Coordinates:
 Lat/Northing: 190154.31

Long/Easting: 1278578.83

A. Water Depth

DTM Depth Sounder: 4.81 ft
 DTM Lead Line: 5.3 ft

B. Water Level Measurements C. Mudline Elevation (ft MLLW)

Time: 1137
 Height: 4.54 ft
 Source: LDW RTIC tide station

-0.7 ft MLLW

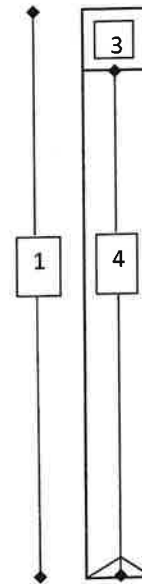
Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

1. Core Tube Length: 10 ft
2. Penetration Depth: 8 ft ft 243.8 cm
3. Headspace Measurement: 3.9 ft
4. Field Recovery Depth: 6.1 ft ft 185.9 cm
5. Field Recovery Percentage: 76.3%
6. Core Accepted: Yes / No
7. Processing Recovery Depth: ft 71 cm
8. Adjusted Recovery Percentage: 70.1%

Core Sections To Process:

- A: A-G
 B: See processing log
 C:
 D:



Drive Notes:

- freely drive to target about 5 ft
- encountered resistance at 5ft, then slowly drive to target pen. depth of 8 ft.

Shoe Description:

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:

About 42 ft from rensed target.

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 5.0 FT = 152.4 CM
 Recovery: 4.2 FT ON BOAT
 % Recovery: 84.0% ON BOAT
 Notes: PROCESSED: 124.5 CM = 81.7 i.

Station ID: 50500
 Date/Time: 7/20/21 0614 / PROCESSOR @ 0830
 Core Logged By: S. STRUHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-124.5	5	95		0-124.5 cm: SILT (ML) - SOFT, SATURATED TO 36 cm, THEN MED. STIFF, MOIST, BLACKISH GREY, FINE GRAINED SAND. @ 1, 18, 22, 67, 76, 85, 95: ORGANICS - ROOTS @ 9: 1/8" FINE TO MED. GRAINED SAND CLAST @ 73: 1/4" FINE TO MED. GRAINED SAND CLAST LENS @ 88-91: FINE TO MED. GRAINED SAND CLAST @ 99-124.5 cm: ORGANICS - 10% ROOTS/ROOT MAT MATERIAL WITH MODERATE H2S-LIKE ODOR END OF CORE @ 124.5 cm	0-124.5	49.0 cm	

H2S = MODERATE HYDROGEN SULFIDE LIKE

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.9 FT = 106.7 cm
 Recovery: 3.4 FT 6N 90KT
 % Recovery: 97.1 6N 100KT
 Notes: PROCESSED: 103 cm = 96.9 %

Station ID: 50501
 Date/Time: 7/20/21 0715 / processed @ 0900
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-103	5	95		<p>0-103 cm : SILT (ML) - SOFT, SATURATED TO 29 cm THEN MED. STIFF, MOIST, BLACKISH GREY, FINE GRAINED SAND.</p> <p>@ 1, 14 : BIOTA - WORMS</p> <p>@ 11, 27, 37, 50, 60, 77 : ORGANICS - ROOTS</p> <p>@ 43, 73, 80, 84 : 1/4" FINE TO MED. GRAINED SAND (sp) LENSES</p> <p>@ 52-54 : FINE TO MED GRAINED SAND (sp) LENS</p> <p>@ 73 : BRICK FRAGMENT</p> <p>@ 91 : 1/2" WOOD STICKS</p> <p>@ 92 : PEACOCK SHEEN FLAQUETTE</p> <p>END OF CORE @ 103 cm</p>	0-103		<p>57.9 cm</p>

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.0 FT = 121.9 cm
 Recovery: 3.5 FT ON BOAT
 % Recovery: 87.5% ON BOAT
 Notes: PROCESSOR: 111.5 cm = 91.5%

Station ID: SC502
 Date/Time: 7/20/2021 07:32 / processor@1005
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-86	5	95	95	0-86 cm : SILT (ML) - SOFT, SATURATED to 14cm THEN MED. STEFF, MOIST, BLACKISH GRAY, FINE GRAINED SAND @6, 24, 32, 42, 46, 51, 66, 74, 84, 86: ORGANIC- ROOTS / REEDS @13: BIODA - orange worms @19: 1.5" WOOD CHUNK @31: SHELL FRAGMENTS @42, 49: WOOD STRIPS / FRAGMENTS @64: WOOD CHUNK 2"	0-86	SC502	
86-111.5	95	5	5	86-111.5 cm : POORLY GRADED SAND (sp) - MED. DENSE, MOIST, DARK GRAY, F-MED GRAINED, TRACE SILT. END OF CORE @ 111.5 cm	86-111.5	54.9 cm	

54.9

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.5 FT = 107.7 cm
 Recovery: 100.6 cm on boat
 % Recovery: 94.3%, on boat
 Notes: process: 94.5 cm = 87.7'

Station ID: IT 503
 Date/Time: 7/19/2021 @ 12:45 / process @ 1620
 Core Logged By: S. STONE
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-94.5	90	10		<p>0-94.5 cm: SAND WITH SILT (SM) LOOSE, SATURATED, DARK GRAY, FINE-GRAINED SAND.</p> <p>@ 0-9 cm: SUB-RND FINE GRAVELS @ 18 cm: SUB-RND GRAVEL UP TO 1" @ 32, 50: BRICK-LIKE FRAGMENTS 1/8" @ 37, 42, 72, 80: WOOD DEBRIS - STEEL FRAGMENTS @ 38, 43, 76, 65: GREY SILT CLAST 1/4" @ 53: BLACK SILT LENS 1/2"</p> <p>@ 79: ANGLIO SHALE FRAGMENTS UP TO 2"</p> <p>END OF CORE @ 94.5 cm</p>	0-94.5	IT503 39.5 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.0 FT = 121.9 CM
 Recovery: 100.6 CM ON BOXT
 % Recovery: 82.5% ON BOXT
 Notes: processed: 102 CM = 83.7

Station ID: 17504
 Date/Time: 7/19/2021 13:00 / processed @ 1700
 Core Logged By: S. STEHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (CM)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (CM)	Sample	Summary Sketch
0-20		85	15	0-54 CM : SILTY SAND (SM) - LOOSE, SATURATED TO 16 CM, THEN MED. DENSE, MOIST, BROWNISH GREY, FINE GRAINED SAND. @ 6, 15, 25, 40: ORG ANCLS - ROOTS/REEDS/ALGAE @ 23, 27: 1/4" BLACK F-MED GRAINED SAND LENS	0-20	17504	
20-60		95	5	54-102 CM: POORLY GRADED SAND (SP) - LOOSE, MOIST, DARK GREY, FINE TO MEDIUM MULTICOLORED GRAINED SAND. @ 55, 62, 80: GREY (LAY REP UP CLASTS UP TO 1/4"	20-60	37.7 cm	
60-100					60-100		
100-120				END OF CORE @ 102 CM	100-120		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.5 FT = 106.7 cm
 Recovery: 3.0 FT ON BOAT
 % Recovery: 85.7% ON BOAT
 Notes: PROCESSION: 87 cm = 83.49%

Station ID: S0505
 Date/Time: 7/20/21 0636 / PROCESSION: 0920
 Core Logged By: S. SMITH
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-89	5	95		<p>0-89 cm : SILT (ML) - SOFT, SATURATED TO 14 cm THEN MED. STIFF, MUDST, BLACKISH GREY, FINE-GRAINED SAND.</p> <p>@ 2, 6, 60, 67, 71 : ORGANICS + ROOTS/REEDS</p> <p>@ 8 : WORMS</p> <p>@ 35 : 2" OLIVE GREY FINE GRAINED SAND CLUST</p> <p>@ 61, 74 : FINE TO MED. GRAINED SAND LENS (sp) TO 1/4"</p> <p>@ 87 : ORANGE OXIDIZED STAIN SPECK</p> <p>END OF CORE @ 89 cm</p>	0-89	SC505	

50.c

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.0 FT = 91.4 cm
 Recovery: 2.6 FT ON BOAT
 % Recovery: 86.9% ON BOAT
 Notes: processed: 75 cm = 82.1%

Station ID: SC506
 Date/Time: 7/20/2021 0654 / processed @ 0945
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-75		95	85	0-3 cm : POORLY GRAINED SAND (SP) - LOOSE, SATURATED, OLIVE GREY, FINE TO COARSE GRAINED SAND. 3-75 cm : SILT (ML) - SOFT, SATURATED TO 46 cm THEN MED. STIFF, MUSTY, BLUISH GREY, FINE GRAINED SAND. @ 9, 19, 22, 26, 31, 41, 50, 64: ORGANICS - ROOTS @ 15: SHELL FRAGMENT @ 16, 26, 42, 46: WOOD DEBRIS - STICKS AND SHREDS UP TO 2" @ 20: PEACOCK SHEEN FLOWNETTE END OF CORE @ 75 cm	0-75	U9.2cm	

U9.2

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT507

Job No. 180067-02.02

Date/Time: 7/6/21 1225 Process 1345

No. of Sections: 1

Core Logged By: N. Baehler

Drive Length: 106.7 cm

Attempt #: 1

Recovery: 103.6 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 97% on boat

Diameter of Core (inches) 4"

Notes: To process: 99.5 cm = 93.3%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-10		10	90	0-62 cm: SILT (ML) dark gray, wet, soft, non-plastic, sand is fm. 1.5" black vesicular aggregate @ 8 cm 2" subr. gravel @ 3 & 26 brown wood/branch pieces @ 13 fm. med gray sand lenses @ 11, 35, 44, 48-52	0-10	IT507	
10-41.98				62-99 cm: POORLY GRADED SAND (SP) gray, moist, mod. dense, trace multicolored grains, gray silty clay lenses @ 71-73 & 84-86	10-41.98		
41.98-99		95	5	94-99 not observed, shoe was empty.	41.98-99		

END OF CORE @ 99

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.9 FT = 106.7 CM
 Recovery: 3.2 FT ON BOAT
 % Recovery: 90.47% ON BOAT
 Notes: PROCESSED: 94.5 CM = 88.6%

Station ID: 50508
 Date/Time: 7/19/2021 0753 / PROCESSED @ 1020
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (CM)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (CM)	Sample	Summary Sketch
0-75		5	95	<p>0-75 cm : SILT (ML) - SOFT, SATURATED TO 13cm, THEN MED. STIFF, MOIST, BLACKISH GREY, FINE GRAINED SAND.</p> <p>@2, 15, 30, 41, 68: ORGANICS - ROOTS / REEDS</p> <p>@4: BEETA - ORANGE WORMS</p> <p>@16, 26, 38: SHELL FRAGMENTS</p> <p>@29: BROWN FINE GRAINED SAND CLAST 1/2"</p> <p>@47, 57: BLACK FINE TO MED. GRAINED SAND (sp) LENS 1/4"</p> <p>@74: 2" STEM</p>	0-75	53.1 cm	
75-94.5		5	75	<p>75-94.5 cm : POORLY GRAINED SAND (sp) - MED. DENSE, MOIST, DARK GREY, FINE TO MEDIUM GRAINED.</p> <p>@80: 1/2 WOOD FRAGMENT</p> <p>@87: PEACOCK SHEEN FLOWETTE</p> <p>END OF CORE @ 94.5 CM</p>	75-94.5		

53.1

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 3
 Drive Length: 12.5'
 Recovery: 9.9' on boat
 % Recovery: 79.2% on boat
 Notes: To process: 9.5' = 76%

Station ID: SC509
 Date/Time: 7/1/21 collect 1055 process 1300
 Core Logged By: W. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30		5	45	0-114 cm: SILT (ML) dark gray, non-pl. wet, soft to 39, then moist, sl. soft to 114.	30	SC509A	
30-60				olive gray silty sand lenses @ 23, 40, 57-52, 70, 80-82	60	45.6 cm SC509B	
60-90				black organz debris (twigs, leaves) @ 21, 28	90	68.4 cm SC509C	
90-120		10	90	@ 67: 3" branch 1/4"	120	91.2 cm SC509D	
120-150				99-114: increasing sand content to 10% and scattered decomp wood chunks to 3/4"	150	114.0 cm SC509E	
150-180		50	20	114-291 cm: SILTY SAND (SM) gray, moist, med. dense w/ trace pyrite flocs. sand is fine-med.	180	140 cm SC509F	
180-210				black organz debris (twigs, wood frags) @ 160, 249, 284, 212	210	166.159 cm SC509G	
210-240				gray clay lenses @ 137, 171, 214, 231-235, trace black mottling.	240	182.4 cm SC509H	
240-270				@ 189-196: black, silt lense non-plastic.	270	205.2 cm SC509I	
270-300		70	30	@ 239: 3/4" wood debris (bark)	300	228.8 cm SC509J	
				245-291: increasing silt content to 30%		250.8 cm SC509K	
				END OF CORE @ 291 cm		273.6 cm SC509L	
						291.0 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 Ft
 Recovery: 5.3 Ft on boat
 % Recovery: 75.7% on boat
 Notes: To process: 5.2 Ft = 73.6%

Station ID: SCS10
 Date/Time: 7/7/21 1108 process 1150
 Core Logged By: N. Bachler
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20	20	80	80	0-157cm: SILT w/ SAND (SM) blackish gray, wet/soft to 63 then moist/sl. stiff, non-plastic, sand is fin-med	0-20	SCS10A	
20-30	30	70	70	fine brown sand w/ shells @ 11-13 orange worms @ 20, 25	20-40	44.2cm	
30-40				gray clay clasts @ 30, 47, 71, 96, 104, 135	40-60	SCS10B 66.3cm	
40-50				1/2" wood chunks @ 50, 64	60-80	SCS10C 88.4cm	
50-60				1/2" white shell frags @ 76	80-100	SCS10D 110.5cm	
60-70				fin-med gray w/ trace multi-colored grains sand lenses @ 85-86, 101-102, 109-112, 120-128	100-120	SCS10E 132.6cm	
70-80				black oxidation striations @ 105, 132, 143	120-140	SCS10F 157cm	
80-90					140-160		
90-100					160-180		
100-110					180-200		
110-120					200		
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Sediment Core Processing Log

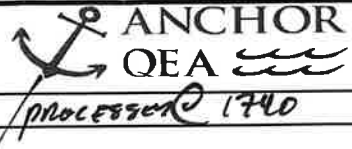


Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.0 Ft = 91.44 cm
 Recovery: 2.6 Ft on Boat
 % Recovery: 86.7% on Boat
 Notes: Processed: 81 cm = 88.6%

Station ID: S0511
 Date/Time: 7/20/2021 12:02 / Processed @ 1330
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		95	5	0-31 cm : SAND (sp) - LOOSE, MOIST, DARK GREY, FINE TO MEDIUM GRAINED SAND, SOME SILT, GRADES SILTY	0-20		
20-40		85	15	31-81 cm : SILTY SAND (SM) - MED. DENSE, MOIST, DARK GREY, FINE GRAINED SAND. @ 31-34: BLACK SILT LENS @ 48-56: BLACK SILT LENS @ 43-45: DARK GREY FINE TO MEDIUM-GRAINED SAND (sp) LENS	40-80	53.2 cm	
80-81				END OF CORE @ 81 cm	80-81		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.8 Ft = 115.8 cm
 Recovery: 88.4 cm ON POINT
 % Recovery: 76.3% ON POINT
 Notes: processed: 85.7 cm = 73.8 l

Station ID: ITS12
 Date/Time: 7/19/2021 13:20 / processed @ 1740
 Core Logged By: S. SMITH
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-70	10	90		<p>0-70 cm: SILT WITH SAND (ML) - BULKY SOFT, SATURATED, BLACKISH GREY TO 35cm, THEN MED. STIFF, DARK GREY, MOIST - FINE GRAINED SAND. @ 3, 7, 23: ORGANICS: ROOTS/REEDS @ 12: F-MED GRAINED SAND CLAST @ 26-32: GREY F-MED SAND (sp) LENS @ 59: 2.9" WOOD CHUNK @ 70: 1/2" WOOD FRAGMENT</p>	0-20 20-40 40-60 60-80 80-100	ITS12 33.21 cm	
70-85.5	99	5		<p>70-85.5 cm: poorly GRAINED SAND (sp) LOOSE, MOIST, DARK GREY, F-MED GRAINED SAND. END OF CORE @ 85.5 cm</p>	80-100		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 3
 Drive Length: 12.2'
 Recovery: 10.4'
 % Recovery: 85.2% on boat
 Notes: To process: 10.1' = 82.9%

Station ID: SC513
 Date/Time: 7/1/21 collect 1147 process 1400
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30		5	95	0-102 cm: SILT (ML) dark gray, non-pl. wet, soft to 47 then moist, silty soft to 102. @ 8: small reddish worm black organic debris (twigs, leaves) @ 18, 33, 51	0-30	SC513A	
30-60				@ 82: 2" sand pocket, med. fn, multi-colored grains, trace shells. gray	30-60	SC513B	
60-90		10	90	84-102: interbeds of olive gray silty sand and 1/4" turk	60-90	SC513C	
90-120				102-228 cm: POORLY GRADED SAND w/ SILT (SP-SM) gray, moist, med. dense, trace pyrite flecks	90-120	SC513D	
120-150				@ 135-137 & 190-193: 2" sand pocket, med. fn, multi-colored grains, gray	120-150	SC513E	
150-180				@ 130, 184: gray clay lense, med. plast, black mottling.	150-180	SC513F	
180-210				@ 218-221: brownish black org. debris (twigs, branch pieces, leaves)	180-210	SC513G	
210-240					210-240	SC513H	
240-270		15	85	228-308 cm: SILT w/ SAND (ML) gray, moist, med. stiff non-plast. black oxidation striations @ 230, 253, 260, 262, 299, 301	240-270	SC513I	
270-300				@ 293 thin wood fragment lens @ 274-298 increasing sand to 25%	270-300	SC513J	
				@ 298, 303 few decomposing wood fragments		SC513K	

300
308

300
Page 1 of 1
308

END OF CORE @ 308

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 3
 Drive Length: 12.0'
 Recovery: 10.9' on boat
 % Recovery: 90.8% on boat
 Notes: To process: 10.4' = 86.7%

Station ID: SC514
 Date/Time: 7/1/21 collect 1305 process 1545
 Core Logged By: N. Bacher
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch	
0-30		5	95	<p>0-157 cm: SILT (ML), dark gray, wet/soft to 78, then moist/sl. soft. ^{non-pl.} large shell on surface, worm @ 8. sl. H₂S odor to 65. olive silty sand lenses @ 22, 23, 88-90 trace shells @ 40-42 & 60 gray silty clay lens @ 67, 68, mod. pi. 3" pieces of wood @ 43 & 95 (branches)</p> <p>123-140: gray sand lenses, fin-med sand, pyrite like flecks, slight multicolored grains present. 6-7 lenses total.</p> <p>143-157: scattered wood fragments up to 1/2", trace shell frags.</p>	30	SC514A		
30-60					60	52 cm	SC514B	
60-90					90	78.0 cm	SC514C	
90-120					120	104 cm	SC514D	
120-150					150	130 cm	SC514E	
150-180					180	156 cm	SC514F	
180-210		90	10		210	180 cm	SC514G	
210-240					240	206 cm	SC514H	
240-270					270	232 cm	SC514I	
270-300		15	85		300	258 cm	SC514J	
		20	80		284 cm	SC514K		
				<p>157-241 cm: POORLY GRADED SAND w/SILT (SP-SM) gray, moist, mod. dense, trace pyrite flecks. multicolored gram lenses @ 158-162, 189-191, 208-210 black silt packets @ 182, 214</p> <p>241-317 cm: SILT w/ SAND (ML) gray, moist, mod. stiff, non-plastic. black oxidation striations @ 243, 247, 252, 254, 279, 282 1/4" lense of wood frags and shells @ 262 increasing sand content to 20% below</p>				

317

END OF CORE @ 317.

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.5 FT = 106.7 cm
 Recovery: 3.3 FT ON BOAT
 % Recovery: 94.3% ON BOAT
 Notes: PROCESSED: 101.5 cm = 95.1%

Station ID: SC515
 Date/Time: 7/20/2021 0808 / processed @ 1055
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-106.7	5	95	95	0-101.5 cm : SILT (ALL) - SOFT, SATURATED TO 13 cm THEN MED. STIFF, MOIST, BRACKISH GREY, FEW GRAINED SAND. @ 2 : BIODIA - WORMS @ 8, 14, 18, 47, 54, 61, 77 : ORGANICS - ROOTS / DEPOS @ 26, 42, 64 : SHELL FRAGMENTS @ 39, 52, 69 : WOOD FRAGMENTS UP TO 1" @ 55 : PEACOCK SHEEN FLORAFITE @ 78 - 84 : DARK GREY F-MED GRAINED SAND (S) (LAST) @ 90 : 1/4" DARK GREY F-MED GRAINED SAND (LAST)	0-106.7		
				END OF CORE @ 101.5 cm			

57.1

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.5 Ft = 106.7 cm
 Recovery: 3.0 Ft ON BOAT
 % Recovery: 85.7% ON BOAT
 Notes: Processing: 90 cm = 84.3%

Station ID: S0516
 Date/Time: 7/20/2021 0909 / PROCESSION: 1145
 Core Logged By: J. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		5	95	0-90 cm: SILT (ML) - SOFT, SATURATED, TO 19 cm THEN MED. STIFF, MOIST, BLACKISH GREY, FINE GRAINED SAND. @ 8, 30: BIOTA - ORANGE WORM @ 9, 22, 35, 62, 73: ORGANICS - ROOTS @ 46: WOOD FRAGMENTS @ 49, 57, 68: SHELL FRAGMENTS @ 53: OLIVE GREY FINE GRAINED SAND LENS 1/4" @ 75-82: 90% WOOD DEBRIS - FRAGMENTS / STECKS / CHUNKS UP TO 3" WITH INTERMIXED SHELL FRAGMENTS. SLIGHT H2S-ODOR @ 82-85: DARK GRAY FINE TO MEDIUM GRAINED SAND (sp) LENS END OF CORE @ 90 cm	0-20 40 60 80 100	50.6 cm	

H2S: HYDROGEN SULFIDE

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 11.5'
 Recovery: 9.6'
 % Recovery: 83.5%

Station ID: SC 517
 Date/Time: 7/1/21 collect 1356 process 1718
 Core Logged By: N. Becker
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Notes: To process: 9.4 keep 83.5%

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30	5	95		0-176 cm: SILT (ML), wet/soft to 75, then moist/sl. soft to 176. si. H2S to 48. black organic debris (twigs, leaves) @ 23, 35	0-30	SC517A	
30-60				gray silty clay @ 75-76, 88-89, 159-160	30-60	SC517B	
60-90				4" pilory splinter w/ barnacles attached @ 64.	60-90	SC517C	
90-120				4" piece of red bark & 2" piece of branch @ 116	90-120	SC517D	
120-150					120-150	SC517E	
150-180					150-180	SC517F	
180-210	90	10		176-259 cm: POORLY GRADED SAND WITH SILT (SP-SM) gray, moist, mod. dense, sand is fin-med.	180-210	SC517G	
210-240				thin black organic debris (leaves, twigs @ 180, 183, 186, 212, 216, 222, 226	210-240	SC517H	
240-270				two 1/2" branch pieces @ 202	240-270	SC517I	
270-300	20	80		259-286 cm: SILT WITH SAND (ML) olive gray, moist, mod. stiff non-plastic. sand is fine.	270-300	SC517K	
				@ 275-276 black organic debris pocket (twigs, leaf frags)			

END OF CORE @ 286 cm

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: **IT518**

Job No. 180067-02.02

Date/Time: **7/10/21 1205** 1220 process

No. of Sections: 1

Core Logged By: **N. Bacher**

Drive Length: **91.4 cm**

Attempt #: 1

Recovery: **89.9 cm on boat**

Type of Core Mudmole Vibracore Diver Core

% Recovery: **98% on boat**

Diameter of Core (inches) **4"**

Notes: **To process: 89.9 cm @ 9%**

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-66	10	90		<p>0-66 cm: SILT (ML) dark gray, wet, soft non-plastic. sand is fine-med. fine roots 0-5 cm</p> <p>fine-med. sand pockets, fine-med, trace multicolored grains @ 36, 48, 50, 56, 59, 63</p>	0-66	IT518	
66-89	45	5		<p>66-89 66-89: POORLY GRADED SAND (SP) brownish gray, moist, med. dense sand is fine-med. trace pyrite flecks, gray clayey silt lens @ 78-80</p>	66-89	44.1 cm	
89-91.4				END OF CORE @ 89	89-91.4		

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SC519

Job No. 180067-02.02

Date/Time: 7/18/12 10:17 process 1100

No. of Sections: 2

Core Logged By: N. Bacher

Drive Length: 7.0 ft

Attempt #: 1

Recovery: 5.5 ft on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 78.6% on boat

Diameter of Core (inches) 4"

Notes: To process: 5.3 ft = 75.5%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	5	95		0-161cm: SILT (ML) black, wet/soft to 23 then moist/sl. stiff, non-plastic, sand fin-v. fin. few reeds/roots @ 8 & 13	0-20	SC519A	SS 1
20-40				trace shell frags @ 24, 32	20-40	45.3cm	SS 2
40-60				faint gray clay clasts @ 36, 40, 50, 62	40-60	SC519B	SS 3
60-80				1/4" orange wood chunks @ 46, 102	60-80	160cm	SS 4
80-100				gray fin-med. sand pockets w/ trace multicolored grains @ 34, 48, 79	80-100	SC519C	SS 5
100-120				small 1/8" sheen florets (metallic) @ 88, 94, 99, 115, 120	100-120	90.7cm	SS 6
120-140					120-140	SC519D	SS 7
140-160				one 1.5" clam @ 146	140-160	113.4cm	SS 8
160-180					160-180	SC519E	SS 9
180-200					180-200	136.1cm	SS 10
200-220					200-220	SC519F	SS 11
220-240					220-240	161cm	SS 12
240-260				END OF CORE @ 161cm	240-260		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 10.0'
 Recovery: 8.4' on boat
 % Recovery: 84% on boat
 Notes: To process .8.2' use 84%

Station ID: SC 520
 Date/Time: 7/2/21 collect 0850 process 0945
 Core Logged By: N. Bacher
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30				0-132: SILT (ML) dark gray, wet/soft to 78, then moist/sl. soft to 132. non-plastic. orange worm @ 11	30	SC520A	
30-60				gray clayey silt lenses @ 58, 69	60	50.4cm	
60-90				olive gray sand lenses @ 62, 65. sand is fn.	90	SC520B	
90-120				2" wood chunk @ 66	120	75.6cm	
120-150				trace shells @ 100, 112	150	SC520C	
150-180				97-132 interbedded fn-med gray sand and black silt lenses ~ 1-2 cm thick	180	SC520D	
180-210				132-219: POORLY GRADED SAND w/ SILT (SP-SM) moist, med. dense gray sand is fn-med, trace pyrite flecks	210	SC520E	
210-240				brown wood frag layer @ 146-147	240	151.2cm	
240-270				splintered wood 1" 1.5" @ 163, 202, 204	270	SC520F	
270-300				trace turfs @ 208	300	170.4cm	
				2x 3" wood splinters @ 138		SC520G	
				2x 3" black silt clasts @ 182, 191		201.6cm	
				some multicolored grains below 174.		SC520H	
				219-249: SAND w/SILT (SM) olive gray dry to moist, med. dense sand is fine.		219cm	
				brown bank fragment layer @ 223-225		SC520I	
				2" branch piece @ 246		249cm	
				END OF CORE @ 249cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 3
 Drive Length: 12.0'
 Recovery: 11.6' on boat
 % Recovery: 96.7% on boat
 Notes: To process: 11.2' → 93.5%

Station ID: SC521
 Date/Time: 7/2/21 collect 0940 process 1050
 Core Logged By: N. Bacher 0940A
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30		5	95	0-141 cm: SILT (ML), dark gray, wet/soft to S2, then moist, st. soft, non-plastic gray clay lenses @ 18, 42 gray sand (fn.) lenses @ 42, 62-65, 76-77 2 x 3/4" shell frags @ 38 trace shell hash @ 62-64 dark brown wood debris (branches, bark) @ 82-84. 1/2" interbeds of gray fn. sand and black silt 110-133 2 x 3" black silt clasts @ 135 & 138	0-30	SC521A	
30-60					30-60	56.1 cm	
60-90					60-90	SC521B	
90-120					90-120	84.2 cm	
120-150					120-150	SC521C	
150-180					150-180	112.3 cm	
180-210					180-210	SC521D	
210-240					210-240	140.4 cm	
240-270					240-270	SC521E	
270-300		90 NB 85	15	141-309 cm: POORLY GRADED SAND w/ SILT (SP-SM) gray; moist, mod. dense w/ trace pyrite flecks black silt lenses @ 152-154, 166-168 brownish black wood debris layers (twigs, wood frags) @ 185, 187, 190, 192, 197, 204, 208, 210, 212, 214 2" branch piece @ 178 trace 1/2" wood chunks @ 220, 253, 257 brown organic material (bark, peels, migs) layers @ 226-237, 265-278 mod. H2S odor 2-3 3"x2" gray wood fragments @ 296-304	150-180	SC521E	
					180-210	168.5 cm	
					210-240	SC521F	
					240-270	196.6 cm	
					270-300	SC521G	
						224.7 cm	
						SC521H	
						252.8 cm	
						SC521I	
						280.9 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: *See*
 Drive Length: *first*
 Recovery: *page*
 % Recovery:
 Notes:

Station ID: *SC 521*
 Date/Time:
 Core Logged By:
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches)
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
300		75	25	<p>309-342 cm: SAND w/ SILT (SM) olive gray, moist, med. dense blackish gray silt pockets @ 314-316 small wood frags & twigs @ 331-341 1 x 1/4" peacock sheen floret @ 332 END OF CORE @ 342 cm</p>	300	SC521J 309.0cm	
320					320	SC521K 342.0cm	
360					360		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.5 Ft = 106.7 cm
 Recovery: 3.0 Ft ON GRAT
 % Recovery: 85.7% ON GRAT
 Notes: PROCESSOR : 92.5 cm = 86.7 ft.

Station ID: 50522
 Date/Time: 7/20/2021 0824 PROCESSOR @ 1100
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		5	95	0-92.5 cm: SILT (ALL) - SOFT, SATURATED, TO 24 cm THEN MED. STIFF, MOIST, OLIVE-GREY, FINE GRAINED SAND.	0-20		
20-30				@2, 5, 30, 47, 57: OPA ANTS - WELTS	20-30		
30-40				@5, 13, 29, 60: SHELL FRAGMENTS	30-40		
40-50				@10: INTACT BEVALVE SHELL	40-50		
50-60				@14-21: OLIVE GREY FINE GRAINED SAND LENS	50-60	52.0 cm	
60-70				@30: 1/4" BLACK FINE GRAINED SAND CLAST	60-70		
70-80				@60-64: OLIVE GREY FINE TO MED. GRAINED SAND (SP) LENS	70-80		
80-90				@63, 65, 73: 2" WOOD CHUNKS (FRAGMENTS)	80-90		
90-100				@74-78: DARK GREY FINE TO MEDIUM GRAINED SAND (SP) LENS	90-100		
100-106.7				@78: ROOT MAT MATERIAL (ORGANICS) @79: PEACOCK SCREEN FLOWLETTE END OF CORE @ 92.5 cm	100-106.7		

520

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 9.5 FT = 106.7 cm
 Recovery: 3.1 FT ON BOAT
 % Recovery: 88.6% ON BOAT
 Notes: Processes: 95 cm = 89.0%

Station ID: SC523
 Date/Time: 7/20/2020 0837 / processes @ 1140
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-95	5	95	95	<p>0-95 cm: SILT (ALL) - SOFT, SATURATED TO 16cm THEN MED. STIFF, MOIST, BLACKISH GRAY, FINE-GRAINED SAND.</p> <p>@ 8, 28, 37, 50, 60, 78: ORGANICS - ROOTS</p> <p>@ 13: BITA: YELLOW WORM</p> <p>@ 67: FRACTURED BIVALVE SHELL</p> <p>@ 87: OLIVE GRAY FINE GRAINED CLAST 1/4"</p> <p>END OF CORE @ 95 cm</p>	0-95	SC523 53.4 cm	

53.4

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.1 FT / 125.0 cm
 Recovery: 115.8 cm ON BOAT
 % Recovery: 92.7% ON BOAT
 Notes: PROCESSED: 112.5 cm = 90.0%

Station ID: SC524
 Date/Time: 7/15/21 1455 / PROCESSOR: 1715
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-112.5	5	95		0-112.5 cm : SILT (ML) - VERY SOFT, SATURATED TO 8cm THEN MED. STIFF, MUST, BLACKISH GREY, FINE SAND. @ 4 : FINE SUB-RND GRAVELS @ 21, 29 : ORGANICS - ROOTS END OF CORE @ 112.5 cm	0-59.0	SC524 59.0 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.2 Ft / 128 cm
 Recovery: 125 cm ON BOAT
 % Recovery: 97.6 ON BOAT
 Notes: PROCESSED: 124 cm = 96.9%

Station ID: SC525
 Date/Time: 7/15/21 1425 / Processing: 1640
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (A) (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (N) (cm)	Sample	Summary Sketch
0-124	5	95		0-124 cm: SILT (ML) : SOFT TO 4 cm THEN MED. STEFF, MOIST, BLACKISH GREY, FINE-GRAINED SAND. @ 18, 56, 71, 97: ORGANICS - ROOTS @ 19: SHELL FRAGMENT @ 20-31: DARK GREY F-MED GRAIN SAND LENS (sp)	0-124	SC525 58.1 cm	
				END OF CORE @ 124 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.5 FT = 106.7 cm
 Recovery: 83.8 cm ON BOAT
 % Recovery: 78.6% ON BOAT
 Notes: PROCESSED: 82 cm = 76.9%

Station ID: SC 526
 Date/Time: 7/22/2021 10:26 / PROCESSOR @ 1110
 Core Logged By: S. STUEHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-82		5	95	<p>0-82 cm: SELT (all) - SOFT, SILTY MUD TO 13 cm, THEN MED. STIFF, MOSTLY FINE GRAINED SAND.</p> <p>@ 3, 33, 51, 70: ORGANICS - ROOTS</p> <p>@ 31: SHELL FRAGMENTS w/ BARNACLES</p> <p>@ 47-50, 66-72: DARK GRAY FINE TO MED. GRAINED SAND LENS</p> <p>@ 49: 1.5" wood chip</p> <p>@ 56: 1" FINE TO COARSE GRAINED SAND CLAST</p> <p>END OF CORE @ 82 cm</p>	0-82		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 11.0'
 Recovery: 9.4' on boat
 % Recovery: 85.5% on boat

Station ID: SL 527
 Date/Time: 7/2/21 collect 1145 process 1230
 Core Logged By: N. Bacher
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Notes: To process ~~87~~ use 85.5%
 NO G. 2

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30		5	95	0-117cm: SILT (ML) dark gray, wet/soft to 82, then moist, sl. soft. non-plastic. few small wood splinters @ 27 gray clayey silt lenses @ 48, 72 brown wood chunks, twigs, splinters @ 82-83. olive gray silty sand lenses @ 90-94, 110	30	SC527A	
30-60					30	51.3 cm	
60-90					60	SC527B	
90-120		15	85	@ 90 increasing sand content to 15% to 117cm. sand is fn.	60	77.0 cm	
120-150					90	SC527C	
150-180		95	5	117-184cm: POORLY GRADED SAND w/SILT (SP) moist, mod. dense, gray w/trace pyrite flecks, sand is fn. small 3x2" gray wood chunks @ 122-125 w/ sl. H ₂ S odor few brown wood chunks @ 158, 170 1" gray silt clast @ 178	120	102.7 cm	
180-210					120	SC527D	
210-240					150	117 cm	
240-270					150	SC527E	
270-300		80	20	184-280cm: SAND w/SILT (SM) gray, moist, mod. dense, sand is fn. brownwood frags, twigs @ 193 black twigs, leaves @ 237 black oxidation striations @ 190, 201, 211, 215, 227, 246, 250, 262, 272-274	180	142.7 cm	
300-330					180	SC527F	
330-360					180	168.4 cm	
360-390					180	SC527G	
390-420					180	184.0 cm	
420-450					210	SC527H	
450-480					210	209.7 cm	
480-510					210	SC527I	
510-540					240	235.4 cm	
540-570					240	SC527J	
570-600					240	261.1 cm	
600-630					270	SC527K	
630-660					270	281 cm	
660-690				END OF CORE @ 281 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.0 FT = 121.9 cm
 Recovery: 112.8 cm ON BOAT
 % Recovery: 92.5% ON BOAT
 Notes: Processor: 107 cm = 87.8%

Station ID: SC528
 Date/Time: 7/15/21 1520 / processor 1740
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-107	5	95		0-107 cm: SILT (MLL) - SOFT, SATURATED TO 9 CM THEN MED. STIFF, MOIST, BLACKISH GREY, FINE GRAINED SAND. @ 13, 35, 42: ORGANICS - ROOTS @ 43: SHELL FRAGMENTS END OF CORE @ 107 cm	0-107	SC528 52.7cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 FT
 Recovery: 6.2 FT ON BOAT
 % Recovery: 88.6 ON BOAT
 Notes: PROCESSION: 6.1 FT = 87.11,

Station ID: SCS29
 Date/Time: 7/14/21 1529
 Core Logged By: S. Street
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-186	10	90		<p>0-186 cm : SILT WITH SAND (ML) : VERY SOFT, SATURATED TO 50 CM, THEN MED-STIFF, MOIST, BLACKISH GREY, Fg SAND. @ 28 : 1" SUB SAND GRAVEL @ 48 : WOOD CHUNK UP TO 1" @ 47, 59, 98, 123, 185 : ORGANICS - REEDS, STICKS, ROOTS UP TO 1" @ 77, 94, 166 : PEACOCK SHEEN FLAQUETS @ 122 : SHELL FRAGMENT @ 155-165 : BLACK F-MED GRAIN SAND LENS @ 185 : WOOD DEBRIS : STICKS / SHEEN END OF CORE @ 186 CM</p>	0-186	SC529A 52.3 cm SC529B 78.4 cm SC529C 104.5 cm SC529D 130.6 cm SC529E 156.7 cm SC529F 186.0 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4 FT = 121.9 cm
 Recovery: 94.5 cm ON ROAT
 % Recovery: 77.5%, ON ROAT
 Notes: PROCESSOR: 94 cm = 77.1%

Station ID: SC530
 Date/Time: 7/22/2021 @ 10:44 / processor @ 1130
 Core Logged By: S. Small
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-25		5	95	0-25 cm : SILT (ML) - SOFT, SATURATED, DARK GRAY, FINE-GRAINED SAND. @ 6, 18 : ORGANICS - REEFS @ 11 : 1.5" STEEL	0-25		
25-94		95	5	25-94 cm : POORLY GRAINED SAND (Sp) - MED. DENSE, MOIST, DARK GRAY, FINE TO MED. GRAINED SAND. @ 25-38 : FINE TO COARSE GRAINED SAND. @ 38 : 1" WOOD FRAGMENT @ 58-64, 70-75 : BLACK SILT LENS @ 45, 68 : 2.5" WOOD CHUNKS @ 78 : 1/4" BLACK SILT CLAST	25-94	46.3 cm	
				END OF CORE @ 94 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 16.0'
 Recovery: 8.8' on boat
 % Recovery: 85% on boat
 Notes: To process: 8.6' use 85%

Station ID: SC 531
 Date/Time: 7/2/21 collect 1337 process 1510
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30		10	90	<p>0-129 cm: SILT (ML) dark gray, wet/soft to 64, moist/sl. soft to 129. non-plastic sand is fn. sl. H25 to 54. Trace shells 0-5 & 95 yellow worm @ 8 black org. debris (leaves/twigs) @ 18, 24, 29 blackish gray clay lenses @ 38, 44. brown wood splinters/frags @ 54, 65 79, 128 olive gray sand lenses @ 61-62, 80-81</p>	0-30	SC531A	
30-60					30-60	52.8 cm	
60-90					60-90	SC531B 79.2 cm	
90-120					90-120	SC531C 102 cm	
120-150		15	85	<p>Increasing sand to 15% below 101.</p>	120-150	SC531D 128.4 cm	
150-180					150-180	SC531E 154.8 cm	
180-210		95	5	<p>129-185 cm: POORLY GRADED SAND (SP) moist, mod. dense, sand is fn. w/ trace pyrite flecks. black silt clasts @ 139, 141 brown wood frags w/ H25 @ 130, 176</p>	180-210	SC531F 185.5 cm	
210-240					210-240	SC531G 211.9 cm	
240-270		15	85	<p>185-261 cm: SILT w/ SAND (ML) gray to olive gray, moist, med. stiff, sand is fn. fn. sand w/ pyrite flecks pecked lens @ 226 black oxidation striations @ 199-204, 215-218, 228-230 240, 249</p>	240-270	SC531H 238.3 cm	
270-300					270-300	SC531I 261 cm	
				END OF CORE @ 261 cm			EDL

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 10.0'
 Recovery: 8.7' on boat
 % Recovery: 87% on boat
 Notes: To process: 8.7' = ~~8.7~~ 8.3, 9.1

Station ID: SL532
 Date/Time: 7/2/21 collect 1429 process 1620
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30	10	90		0-82 cm: SILT (ML) dark gray, wet/soft to soft, then moist, sl. soft, non-pl. sand is fin. sl. H ₂ S throughout yellow worm @ 10. 1/2" rounded gravel piece @ 28 gray fin. sand lenses @ 45, 50, 73, 79 small brown wood chunks @ 66 black silt clasts @ 80	0-30	SC532A 50.2 cm	
30-60					30-60	SC532B 82.5 cm	
60-90	95	5		82-140 cm: POORLY GRADED SAND (SP) gray, moist, med. dense, sand is fin-med. trace pyrite flecks brownish black twigs/bark frags @ 97, 107-110. large 2" wood piece @ 94. black silt clasts @ 94-96, 102	60-90	SC532C 107.6 cm	
90-120					90-120	SC532D 140.0 cm	
120-150	15	85		140-255: SILT w/ SAND (ML) gray, moist Med. stiff, non-plastic. gray fin-med sand lenses w/ pyrite flex @ 147, 150, 162, 184, 193, 196 gray silty clay lenses @ 155, 179 trace shells and brown wood frags 191, 250-255 black silt clasts 226-233 1 small 1/4" peacock sheen flint @ 208 increasing pyrite flex below 238	120-150	SC532E 165.1 cm	
150-180					150-180	SC532F 190.2 cm	
180-210					180-210	SC532G 215.3 cm	
210-240					210-240	SC532H 240.4 cm	
240-270					240-270	SC532I 255.0 cm	
				END OF CORE @ 255 cm			EOL

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 11.0'
 Recovery: 9.4' on boat
 % Recovery: 85.5% on boat
 Notes: To process: 9.0' = 82%

Station ID: SL 533
 Date/Time: 7/2/21 collect 1252 process 1345
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30		10	90	0-81 cm: SILT (ML) dark gray, wet/soft to 53, non-pl. then sl. soft, moist, fn. sand shell wash 0-9. black twigs, wood frags @ 19, 29, 55-56 gray silty sand lenses @ 24, 54, 68-69 2" wood clink @ 70 gray fn. sand patch @ 72-73 black silt clast @ 77-78	30	SC533A 69.2 cm	
60-90		95	5	81-139 cm: POORLY GRADED SAND (SP) gray, moist, med. dense, sand is fn. med, trace pyrite flecks gray sandy clay lens @ 87 brownish black twigs, leaves @ 115	90	SC533B 81.0 cm	
120-150		80	20	139-275 cm: SAND w/ SILT (SM) olive gray, moist, med. dense sand is fn. med. fn. med sand lenses w/ pyrite flecks and fine multicolored grains @ 147-148, 152-154, 174, 196, 218-220, 255-257 black oxidation mottling structures @ 141, 152-153 black small wood frags/twigs @ 166, 177	120	SC533C 105.6 cm	
150-180					150	SC533D 139.5 cm	
180-210					180	SC533E 164.1 cm	
210-240					210	SC533F 188.7 cm	
240-270					240	SC533G 213.3 cm	
					270	SC533H 237.9 cm	
					270	SC533I 275.0 cm	
				END OF CORE @ 275 cm			EOC

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 10.0'
 Recovery: 8.5' on boat
 % Recovery: 85% on boat
 Notes: To process: 8.0' = 80%
 7.79.10

Station ID: SC534
 Date/Time: 7/2/21 collect 1609 process 1745
 Core Logged By: N. Bacher
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-79	10	90		0-79 cm: SILT (ML) dark gray, wet/soft sand is to 55, then moist/si soft, non-pl. fn. trace roots 0-3, red worm @ 5. trace shell frags @ 8, 27, 44 black org debris (turfs, wood frags) 29, 52, 60, 73 gray clayey silt lens @ 50 gray silty sand lenses @ 23, 70	0-79	SC534A	[Sketch]
					47.8	SC534B	[Sketch]
					78.5	SC534C	[Sketch]
79-154	95	5		79-154 cm. POORLY GRADED SAND (SP) gray, moist, mod. dense, trace pyrite flecs, few multicolored grains brownish black org debris (turfs, reeds, wood chunks) @ 110, 125, 136 gray clay clast @ 111 trace shells 148-150	79-154	SC534D	[Sketch]
					126.3	SC534E	[Sketch]
					154.0	SC534F	[Sketch]
154-243	15	85		154-243 cm: SILT w/ SAND (ML) gray, moist, mod stiff gray clay pockets @ 163, 168, 173 fn. sand pocket w/ pyrite flecs @ 176-177 black oxidation striations @ 186, 193 sand decreases to 5% below 202 trace brown wood chunks @ 236	154-243	SC534G	[Sketch]
					201.8	SC534H	[Sketch]
					225.1	SC534I	[Sketch]
					243.0	SC534I	EOC
				End of core @ 243	270		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 5.9 ft on boat
 % Recovery: 84.3% on boat
 Notes: To process: 5.6 ft = 80%

Station ID: SC535
 Date/Time: 7/18/21 1343 process 1425
 Core Logged By: N. Bacher
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	10	90		0-90cm: SILT (ML) black, wet/soft to 19 then moist/sl. soft, non-plastic sand is finned. few twigs @ 5 1/4" orange wood chunks @ 15, 80, 85 finned gray sand pockets w/ multi-colored grains @ 20, 45, 48 faint gray clay clasts @ 38, 61 black oxidation striations @ 72, 82, 87 few shells @ 21, 63 2" branch @ 18 increasing sand content to 20% below 77.	0-20	SC535A	
20-40					20-40	48cm	
40-60					40-60	SC535B	
60-80					60-80	72cm	
80-100					80-100	SC535C	
100-120	95	5		90-172cm: POORLY GRADED SAND (SP) sand is gray, moist, med. dense w/ finned multicolored grains. black silt clasts @ 94 & 171 faint black wood frag layers @ 104, 112	100-120	SC535D	
120-140					120-140	114cm	
140-160					140-160	SC535E	
160-180					160-180	138cm	
180-200					180-200	SC535F	
						172cm	
				END OF CORE @ 172cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.5 Ft = 106.7 cm
 Recovery: 2.7 Ft ~~60~~ ~~BOAT~~
 % Recovery: 77.1% ~~60~~ ~~BOAT~~
 Notes: ~~PODLESSEN~~: 89.5 cm = 87.9%

Station ID: SC536
 Date/Time: 7/20/2021 @ 23 / processed @ 1240
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-89.5	5	95		0-89.5 cm: SILT (ML) - SOFT, SATURATED TO 16 cm THEN MED. STIFF, MOIST, BLACKISH GRAY, FG SAND. @ 4, 13, 31, 45, 54, 72, 80: ORGANICS - ROOTS @ 15, 33: SHEEN FRAGMENTS END OF CORE @ 89.5 cm	0-89.5	SC536 50.3 cm	

50.3

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 FT
 Recovery: 5.4 FT ON BOAT
 % Recovery: 77.1% ON BOAT
 Notes: PROCESSER: 5.0 FT = 71.4%

Station ID: SC537
 Date/Time: 7/15/21 1408 / PROCESSER: 1520
 Core Logged By: S. STREHL
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch	
0-10		10	90	0-43 CM : SILT WITH SAND (SM) : SOFT, SATURATED, BLACKISH GREY, FINE GRAINED. @ 8, 15 : ORANGE WORMS (BIOTA) @ 14 : SHELL FRAGMENTS @ 16, 18, 23, 34 : ORGANICS - ROOTS @ 35-43 : WOOD DEBRIS - STICKS / SHREDS UP TO 2.5"	0-20	SC537A		
10-151		95	5	43-151 CM : POORLY GRAINED SAND (SP) : MED. DENSE, MOIST, DARK GREY, FINE TO MED. GRAINED SAND. @ 50, 54, 60, 66, 75, 120, 133 : BLACK SILT CLAST UP TO 1/2" @ 77 : 1.5" STICK @ 88-90 : BLACK SILT LENS	20-42.8	42.8 cm		
					42.8-64.2	SC537B		
					64.2-85.6	64.2 cm	SC537C	
					85.6-107.0	85.6 cm	SC537D	
					107.0-128.4	107.0 cm	SC537E	
					128.4-151.0	128.4 cm	SC537F	
				END OF CORE @ 151 cm	151.0	151.0 cm		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 FT
 Recovery: 7.5 FT ON ROAT
 % Recovery: 107.1% ON ROAT
 Notes: PROCESSOR: 6.0 FT = 85.77,

Station ID: SC 538
 Date/Time: 7/15/21 4:50 PM / 162 / PROCESSOR 1745
 Core Logged By: S. STREHL
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (m)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (m)	Sample	Summary Sketch
0-20		95	5	0-182 cm: POORLY GRADED SAND (SP) MED. DENSE, MOIST, DARK GREY, FINE TO MED. GRADED SAND. @ 2 cm: 2.5" WOOD CHUNK @ 13-15, 87-91, 113-116, 107, 117-125, 133-136: BLACK SILT LENS @ 16, 62, 139, 73: WOOD FRAGMENT UP TO 1" @ 5, 15, 48, 146, 174: ORGANICS - ROOTS @ 84, 106, 128, 131, 165: GREY CLAY REP UP CLASTS UP TO 1/2"	0-20	SC538A	
20-40					40	51.9 cm	
40-60					60	SC538B	
60-80					80	77.1 cm	
80-100					100	SC538C	
100-120					120	102.8 cm	
120-140					140	SC538D	
140-160					160	128.5 cm	
160-180					180	SC538E	
180-200					200	154.2 cm	
200-220					220	SC538F	
220-240					240	182.0 cm	
				END OF CORE @ 182 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 Ft
 Recovery: 5.3 FT ON BEAT
 % Recovery: 75.7% ON BEAT
 Notes: PROCESSOR: 5.0 FT = 70.2%

Station ID: 50539
 Date/Time: 7/16/2021 15:45 / PROCESSOR 1640
 Core Logged By: S. STREHL
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-23	10	90	90	0-23 CM : SILT WITH SAND (ML) - SOFT, SATURATED, BLACKISH GREY, FINE GRAINED SAND, SHEEN - ROOTS THROUGHOUT @ 3, 6, 11, 12, 23 : WOOD DEBRIS - SHREDS, STICKS, UP TO 1.5"	0-23	SC539A	
23-150	95	5	5	23-150 CM : POORLY GRAINED SAND (SP) - MED. DENSE, MOIST, DARK GREY, FINE TO MED. GRAINED SAND. @ 27-41, 52-54, 63-83 : WOOD DEBRIS LENS - SHREDS, STICKS, FRAGMENTS (CHIPS UP TO 2.5" APPROX: 50% SPLIT HT H2S GOOD) @ 29 : SHELL FRAGMENTS @ 42, 87 : 1/4" ^{DARK} GREY SILT LENS @ 126, 131, 138, 147 : BLACK SILT CLASTS 1/2" @ 128 : LARGE WOOD FRAGMENT 6" @ 141-143, 148-150 : GREY CLAY RESP UP CLASTS @ 149 : COARSE-GRAINED SAND	23-150	42.1 cm	WOOD DEBRIS 50%
					60	SC539B	WOOD DEBRIS 50%
					63.2 cm		
					80	SC539C	WOOD DEBRIS 50%
					84.3 cm		
					100	SC539D	
					105.4 cm		
					120	SC539E	
					126.5 cm		
					140	SC539F	
					150 cm		
				END OF CORE @ 150 CM	160		
					180		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4 FT = 121.9 cm
 Recovery: 97.5 cm ON BOAT
 % Recovery: 80% ON BOAT
 Notes: PROCESSOR: 94.5 cm = 77.5%

Station ID: 50540
 Date/Time: 7/22/2021 @ 10:58 / processor @ 1140
 Core Logged By: S. Strutz
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		95	5	0-27 cm: Poorly Graded Sand (SP) - loose, saturated, dark grey, fine to med. graded sand. @ 20: shell fragments @ 21-27: 60% wood debris: shreds, sticks, fragments	0-20		
20-70		85	15	27-47 cm: Silty fine Sand (SM) - med. dense, moist, dark grey, fine-graded sand. @ 30, 39: organics - roots @ 45: shell fragment	40	46.5 cm	46.5
70-90		95	5	47-94.5 cm: Poorly Graded Sand (SP) - loose, moist, dark grey, fine to medium-graded sand. @ 65: wood fragments @ 74: 1/2" grey silt clast	80		
90-100				END OF CORE @ 94.5 cm	100		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 91.4 cm
 Recovery: 74.7 cm on boat
 % Recovery: 82% on boat
 Notes: To process: 69 cm = 75.4%

Station ID: IT542
 Date/Time: 7/16/21 1145 process 1300
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-39	20	80		<p>0-39cm: SILT w/ SAND (ML) dark gray wet, soft, non-plastic, sand is fin-med brown shredded wood mat 2-4 orange brown med-cr sand pocket @ 8-10. trace shells 24-28 3x1.5" of flat asphalt looking material 15-21</p>	0-39	IT542	
39-69	95	5		<p>39-69cm: POORLY GRADED SAND (SP) dark gray, moist, mod. dense, trace pyrite flecks gray silt clasts @ 41, 44</p>	39-69		
69-69				<p>END OF CORE @ 69 cm shoe empty (63-69 cm)</p>	69-69		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 5.3 ft on boat
 % Recovery: 75.7% on boat
 Notes: To process: 125cm = 58.6%

Station ID: IT 543
 Date/Time: 7/16/21 1224 process 1845
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-44							
0-26	80	20		SILTY SAND (SM) gray, wet, mod. dense, sand is fn-med. orange oxidation mottling 11-18 one worm @ 19cm decomposing wood chunks @ 26 black organic debris (twigs/leaves) @ 29-30	20	IT543A 26.4cm	
26-44					40	IT543B 44.0cm	
44-61	25	75		SILT (ML) black, soft, moist, non-plastic, trace shell frags large (1-2") wood chunks 53-61	60	61.6cm IT543C	
61-125	95	5		POORLY GRADED SAND (SP) gray, moist, mod. dense sand is fn-med. orange gray clay clasts @ 73, 80	80	IT543D 79.6cm	
					100	IT543E 96.8cm	
					120	IT543F 125cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 Ft
 Recovery: 5.4 Ft ON BOAT
 % Recovery: 77.1% ON BOAT
 Notes: PROCESSING = 4.5 Ft = 64.3"

Station ID: IT 545
 Date/Time: 7/15/21 1228 / PROCESSED: 1400
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		85	15	0-13 CM : SILTY SAND (SM) : MED. DENSE, MOIST, BROWN, FINE GRAINED SAND, SOME COARSE SAND GRAINS, ORANGE OXIDIZED STAINING, ORGANICS : ROOTS	0-20	IT545 A	
20-40		95	5	13-137 CM : POORLY GRADED SAND (SP) : DENSE, MOIST, BROWNISH GREY, F-MED GRAINED.	20-40	IT545 B	
40-60				@ 13-24 : ORANGE OXIDIZED STAINING	40-60	48.2 cm	
60-80				@ 21-50 : MORE F-COURSE GRAINED SAND	60-80	IT545 C	
80-100				@ 46 : 1.5" ANGULAR SUBANG GRAVEL	80-100	67.5 cm	
100-120				@ 49-54 : BROWN SILT (mc) CLAST	100-120	IT545 D	
120-140				@ 87 : 1/2" ROUNDED GRAVEL	120-140	86.5 cm	
140-160				@ 100 : GRADES TO LOOSE	140-160	IT545 E	
160-180				@ 100-125 : VOID (CLOSED + LOGGED)	160-180	106.1 cm	
180-200				END OF CORE @ 137 CM	180-200	IT545 F	
200					200	137 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.0 Ft = 121.9 cm
 Recovery: 3.4 Ft ON BOAT
 % Recovery: 85.0% ON BOAT
 Notes: Processed: 100 cm = 82%.

Station ID: SC548
 Date/Time: 7/20/21 10:09 / Processed @ 1245
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
15	75	10		0-15 cm : GRAVELLY SAND WITH SILT (SW) - LOOSE, WET, BLACKISH GREY, FINE GRAINED SAND, SUBANGULAR/SUBROUNDED GRAVEL UP TO 1.5"	20	SC548	
	100		15-23 cm: POORLY GRAINED SAND (SP) - LOOSE, SATURATED, BROWNISH GREY. FINE TO COARSE SAND, WELL SORTED, INTERMEDIATE SHELL FRAGMENTS.	40			
5	95		23-100cm: SILT (ML) - MED. STIFF, MOIST, BLACKISH GREY, FINE GRAINED SAND, SHELL FRAGMENTS TO 75cm, ORGANICS - ROOTS THROUGHOUT CORE.	60			
				@ 73-82 : DARK GREY FINE GRAINED SAND LENS	80		
				@ 82 : 1/2" WOOD FRAGMENT	100		
				END OF CORE @ 100 cm			
				* No shoaling material collected at this location (see core collection log). Per Susie, sample processed as non-shoaling 0-60cm core with no Z layer (0-30cm) sample processed.			

49.2

49.2 cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 3
 Drive Length: 13.5'
 Recovery: 12.2' on boat
 % Recovery: 90.4% on boat
 Notes: To process: 11.8' = 87.7%

Station ID: SC 549
 Date/Time: 7/1/21 collect 0931 process 1100
 Core Logged By: N. Bacher
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length	Sample	Summary Sketch	
0-30		5	95	<p>0-230 cm: SILT (ML) dark gray, non-plastic wet, soft to 78, then moist, sl. soft to 230.</p> <p>sl. H₂S odor to 50</p> <p>olive gray silty sand lenses @ 25, 27, 61, 76-78, 80-84, 104, 106, 108, 150, 180-183</p> <p>black organiz debris (twigs, leaves, roots/needs) @ 33-34, 74, 82-85, 112, 155-156, 167, 169, 200-212, 214-216</p> <p>@ 120-137 gray clayey silt w/ black mottling, med plast</p> <p>2" branch piece @ 90 sl. decomposing</p> <p>@ 190-206 25% decomposing wood debris (branches lip to 1" and 1.5" long, twigs, wood chunks, sl. H₂S odor.</p>	30	SC549A		
30-60					52.6 cm	60	SC549B	
60-90					78.9 cm	90	SC549C	
90-120					105.2 cm	120	SC549D	
120-150					131.5 cm	150	SC549E	
150-180					157.8 cm	180	SC549F	
180-210					184.1 cm	210	SC549G	
210-240					210.4 cm	240	SC549H	
240-270					227.5 cm	270	SC549I	
270-304					253.8 cm		SC549J	
				below 250 scattered gray to black ripup clasts up to 1.5"		SC549K		
				@ 268-289 gray clay lense w/ trace black oxidation mottling smattings.				

@ 273 thin root lamination

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: *see*
 Drive Length: *first*
 Recovery: *page*
 % Recovery:
 Notes:

Station ID: *SC549*
 Date/Time: *TH*
 Core Logged By:
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches)
 Core Quality Good Fair Poor Disturbed

Recovered Length ^{cm}	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length ^{cm}	Sample	Summary Sketch
300		90	10	<p>304-361 cm: POORLY GRADED SAND WITH SILT (SP-SM). dry, mod. dense, gray w/ multicolored grains, sand primarily fn. but some med.</p> <p>@310-312 decomposing twig/branch pieces black organic debris (reeds, twigs) @ 332-335, 339-341</p> <p>olive gray clay laminations @ 320, 342</p> <p>END OF CORE @ 361 cm</p>	300	<p><i>SC549K</i> 306.4 cm</p> <p><i>SC549L</i> 332.7 cm</p> <p><i>SC549M</i> 360 cm</p>	

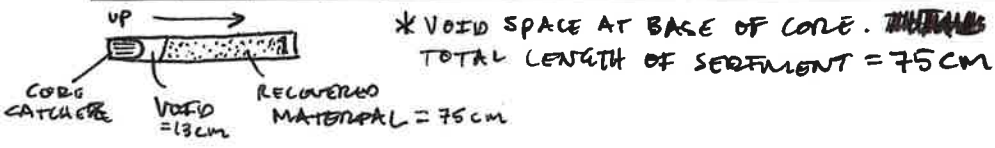
Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4ft = 121.9 cm
 Recovery: 88.39 cm ON BOAT
 % Recovery: 72.5% ON BOAT
 Notes: PROCESSED: 88cm = 72.2%

Station ID: SC550
 Date/Time: 7/22/2021 @ 16:57 / PROCESSED: 1730
 Core Logged By: S. STREHL
 Attempt #: 8
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

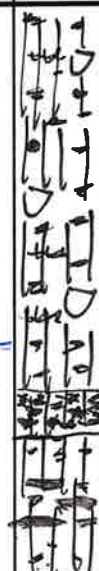

Recovered Length (m)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (m)	Sample	Summary Sketch
0-75		95	5	<p>0-75cm: POORLY GRAINED SAND (SP) - LOOSE, SATURATED TO 15cm, THEN MED. DENSE, MOIST, OLIVE GREY, FINE TO MEDIUM GRAINED SAND.</p> <p>@ 0-7: 90% WOOD DEBRIS - STICKS, CHIPS, FRAGMENTS UP TO 2.5"</p> <p>@ 5: SHELL FRAGMENT</p> <p>@ 12: 1" WOOD CHUNK AND STICK</p> <p>@ 13: 1.5" BLACK SILT CLAST</p> <p>@ 16: 1" STICK</p> <p>@ 16-30: MINOR HIGHER FINE-GRAINED SAND CONTENT</p> <p>@ 30: GRADES COARSER (MORE FINE TO MEDIUM), COLOR CHANGE TO DARK GREY</p> <p>END OF RECOVERED @ 75 CM</p> <p>RECOVERED MATERIAL</p> <p>@ 75-88: VOID SPACE</p> <p>END OF CORE @ 88 CM</p>	0-75	SC550 SC550FD	<p>WOOD DEBRIS</p> <p>43.3cm</p> <p>SC550AA</p> <p>65.0cm</p> <p>13cm VOID</p>



Sediment Core Processing Log

Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: ~~4~~ 1
 Drive Length: 4 FT = 121.9 cm
 Recovery: 3.65 FT ~~ON SWAT~~
 % Recovery: 91.37. ON SWAT
 Notes: Processor: 112 cm = 91.97.

Station ID: SC551
 Date/Time: 7/22/2021 15:32 / PROCESSED @ 1600
 Core Logged By: S. STRELL
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-84		5	95	<p>0-84 cm: SILT (ML) - SOFT, SATURATED TO 15 cm THEN MED. STIFF, MOIST, BLACKISH GREY, FINE GRAINED SAND, SHELL HASH/SHELL FRAGMENTS THROUGHOUT</p> <p>@ 2: BIRTH WORMS</p> <p>@ 10, 32, 46: INTACT BEVALVE SHELLS</p> <p>@ 10, 37, 49: ORGANICS - ROOTS</p> <p>@ 57-64: 70% SHELL HASH LENS</p> <p>@ 71, 74, 80: SUBSTRATE WOOD DEBRIS - STICKS/CHARMS/FRAGMENTS UP TO 2", H₂S-LIKE ODOR (SCENT)</p>	0-84		
84-112		90	10	<p>84-112 cm: POORLY GRADED SAND W/ SILT (SP) LOOSE, MOIST, BLACKISH GREY, FINE TO MEDIUM GRAINED SAND.</p> <p>@ 86: INTACT BEVALVE</p> <p>@ 91, 97, 102, 106: WOOD DEBRIS: STICKS/CHARMS/FRAGMENTS UP TO 2"</p> <p>@ 94: 2" ANGULAR GRAVEL W/ BARNACLES</p> <p>END OF CORE @ 112 cm</p>	84-112	55.1 cm	

H₂S-LIKE = HYDROGEN SULFIDE LIQUE
 SHELL HASH / FRAG

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.6 ft
 Recovery: 5.9 ft on boat
 % Recovery: 84.3% on boat
 Notes: To process: 5.8 ft = 82.9%

Station ID: SC553
 Date/Time: 7/19/21 1029 process 1130
 Core Logged By: N. Bacher
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-15	95	5	5	0-15cm: WELL GRADED SAND(SW) brownish gray, wet, loose, sand is fu-cr. orange worm @ 9cm	0-20	SC553A	
15-39	5	95	95	15-39cm: SILT (ML) black, wet, soft, non-plastic, sand is fu-med. faint clay clast, gray @ 33 trace small shells @ 36	20-40		
39-84	95	5	5	39-84cm: POORLY GRADED SAND(SP), gray, moist, med. dense, sand is fu-med. trace multi-colored grains black silt clasts @ 59, 63(x2), 70(x2) 3"x1" wood splinter @ 76 2" wood chunk @ 80	40-80	49.7cm SC553B	
84-100			100	84-100cm: SILTY CLAY (CL), gray, moist, si-shft, med. plasticity. gray sand pocket @ 91	80-100	83.5cm SC553C	
100-177	10	90	90	100-177cm: SILT w/ SAND (ML) gray is black, moist, si-shft, non-plastic 1/2" wood chunk @ 111, 147 black oxidation mottling striations @ 108, 116, 118, 122 black organz debris lenses (twigs/leaves) @ 128, 134, 137, 154, 165, 171, 176 gray clay lens @ 124-126 si-H2S odor 158-160 cored through 2cm thick piece of bark	100-177	124.9cm 149.8cm SC553D SC553E SC553F	
				END OF CORE @ 177cm	177	177cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.2 ft on boat
 % Recovery: 88.6% on boat
 Notes: To process: 5.8 ft = 83%

Station ID: SC554
 Date/Time: 7/19/2021 11:17 process 1255
 Core Logged By: N. Bacher
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-7				WELL GRADED SAND w/ SILT (SW-ML) brownish gray, wet, loose, sand is fu-cr.			
7-93	90	10		SILT (ML) black, moist, soft, non-plastic, sand is fu-med. gray organic debris lenses (twigs/leaves/branches) @ 19-21, 49-52, 77-80 trace shells @ 36, 65, 70 fu-med gray sand pockets w/ multi-colored grains @ 27, 38, 59 gray clay lense @ 86-90 mod. plast.	20 40 60 80	SC554A 49.8cm	
	10	90				SC554B 74.7cm	
						SC554C 93cm	
						SC554D 117.9cm	
						SC554E 142.8cm	
	75	25		SAND w/ SILT (SM) blackish gray, moist, mod. dense sand is fu-med gray fu-med sand pockets @ 109, 139 black oxidation mottling striations @ 157, 163, 172, 126, 137, 142, 147 trace shells @ 157, 163, 172 5" thin branch @ 135 interbedded gray fu-med sand and blackish gray silt lenses 155-177, 5 each ~1-1.5cm thick.	100 120 140 160 180	SC554F 177cm	
				END OF CORE @ 177cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.5 ft on boat
 % Recovery: 92.6% on boat
 Notes: To process: 6.1 ft = 87.1%

Station ID: **SC557**
 Date/Time: **7/12/21 1426** process 1800
 Core Logged By: **N. Bacher**
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) **4"**
 Core Quality Good Fair Poor Disturbed

Recovered Length (#)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (#)	Sample	Summary Sketch
0-20		5	95	0-187cm; SILT (ML) blackish gray w/ B wet/soft to 23 then moist/sl. soft, non-plastic few reeds/twigs w/ 10% sand @ 0-4	0-20	SC557A	55:1
20-53.3				black organic debris (twigs/leaves) @ 53, 165, 179	20-53.3	53.3cm	
53.3-70				sl. H ₂ S odor to 70	53.3-70	SC557B	
70-106.6				fn. gray sand pockets @ 72, 99, 122, 159, 164, 178	70-106.6	106.6	
106.6-158.9				faint black oxidation mottling to 180.	106.6-158.9	SC557C	
158.9-185.0				trace shells @ 182	158.9-185.0	SC557D	
185.0-187.0				END OF CORE @ 187cm	185.0-187.0	185.0cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 4
 Drive Length: 18.25 ft
 Recovery: 16.8 ft on boat
 % Recovery: 92.1% on boat
 Notes: To process: 16.7 ft = 97.1%

Station ID: SC 558
 Date/Time: 6/29/21 1122 collect 1416 process
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30				0-501 cm SILT (ML) grayish black, wet/soft to 48 then moist/sl. stiff. non-plastic, sand is fn-v. fn. black organic debris (turfs/leaves) + wood shreds @ 12, 19, 25, 31, 79-80, 137, 176	30	SC 558 A	
30-60	5		95		76.5 cm		
60-90					96	SC 558 B	
90-120					120		
120-150					150	153 cm	
150-180					180	SC 558 C	
180-210				@ 190-219 five ~ 1cm thick organic debris lenses, orange brown (turfs, bark, wood shreds)	180	208.2 cm	
210-240				210	SC 558 D		
240-270				2.5" gray clayey silt pockets @ 240, 248, 256	240	235.8 cm	
270-300				few bark fragments 3/4" @ 283 olive gray silt clasts @ 275, 320, 374	270	SC 558 E	
					270	263.8 cm	
					270	SC 558 F	
					270	291 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: See
 Drive Length: First
 Recovery: pane
 % Recovery: J
 Notes:

Station ID: SL558
 Date/Time:
 Core Logged By:
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches)
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
330				<p>few black wood fibers @ 345</p> <p>dark gray fn-med sand pockets w/ pyrite flecks @ 372, 413, 424 & 473</p> <p>few small bark fragments @ 449</p>	330	SL558 G 318.8 cm	
360			360		SL558 H 376.2 cm		
390			390		SL558 I 373.8 cm		
420			420		SL558 J 401.4 cm		
450			450		SL558 K 429 cm		
480			480		SL558 L 456.6 cm		
510	75	5	510		SL558 M 484.2 cm		
540			540		SL558 N 501 cm		
570			570		SL558 O 509 cm		
					<p>501-509 cm: POORLY GRADED SAND (SP) sand is dark gray, dry, mod dense fn-med w/ multi-colored grains gray clayey silt clasts w/ orange roots @ 505-508 END OF CORE @ 509 cm</p>		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 11.1 ft
 Recovery: 9.1 ft on boat
 % Recovery: 82% on boat
 Notes: to process: 8.75' = 82%

Station ID: SC 560
 Date/Time: 6/28/21 collect 0939 process 1200
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20			95	0-161 cm: SILT (ML) grayish black, wet, soft, non-plastic trace shells ^{1/3} to 42 cm.	0-20	SC560A	
20-40				faint gray silty clay lens @ 47-49 & 110-112 cm	40	49.2 cm	
40-60				few wood fibers/splinters @ 70	60	SC560B	
60-80					80	73.8 cm	
80-100					100	SC560C	
100-120					120	98.4 cm	
120-140					140	SC560D	
140-160				below 141 becomes mod. stiff	160	123 cm	
160-180					180	SC560E	
180-200			95	161-201 cm: POORLY GRADED SAND (SP) brownish gray, moist, mod dense sand is fin. trace shell frags and trace multi-colored grains gray silty clay clust @ 184-188 2-3 3/4" rounded gravels @ 181 trace black oxidation mottling 187-201	200	161 cm	
						SC560F	
						201 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4 FT = 121.9 cm
 Recovery: 100.6 cm ON GRAT
 % Recovery: 82.5% ON GRAT
 Notes: ~~PARTESSER~~: 99 cm = 81.2%

Station ID: SC561
 Date/Time: 7/22/2021 @ 10:09 / PARTESSE @ 1100
 Core Logged By: S. SMITH
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-10		95	5	0-10 cm: POORLY GRAINED SAND (SP): LOOSE, SATURATED, BROWNISH GREY, FINE TO COARSE GRAINED SAND, TRACE SHELLS	0-10		
10-99		5	95	10-99 cm: SILT (ML) - MED. STIFF, MOIST, BROWNISH GREY, FINE GRAINED SAND. @ 11, 16, 40, 47: SHELLS / SHELL FRAGMENTS @ 13, 23, 31, 44, 55, 86: ORGANICS - ROOTS @ 22, 52, 64, 82: WOOD FRAGMENTS @ 42: GREY FINE GRAINED SAND LENS 1/4" @ 61: FINE ROUNDED GRAVEL @ 74: 1/8" DARK GREY FINE TO MEDIUM GRAINED SAND LENS	10-99	48.7 cm	
99-100				END OF CORE @ 99 cm	99-100		

Sediment Core Processing Log

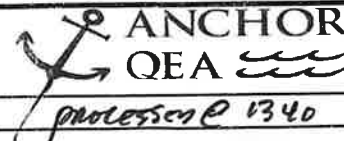


Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 7.0
 Recovery: 6.2 ON BOAT
 % Recovery: 88.6 ON BOAT
 Notes: PROCESSED: 5.8 FT = 82.9"

Station ID: SC562
 Date/Time: 7/13/21 1359
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core: Mudmole Vibracore Diver Core
 Diameter of Core (inches): 4"
 Core Quality: Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-16	X	70	10	0-16 cm: POORLY GRADED SAND (SP) LOOSE, WET, DARK GREY, FG SAND ORGANICS/MISGS @ 9, 15	0-20	SC562A	
16-176	70	5	95	16-176 cm: SILT (ML) - SOFT TO 67 THEN MED. STIFF, MOIST, BLACKISH GREY, FG SAND DARK GREY * F-MED MULTICOLORED GRAINED SAND (SP) @ 25-29, 43-47, 61-64, 148-151 "BLACK ORGANIC DEBRIS LENSES 1/4-1/2" @ 34, 60, 65, 84, 94, 144, 164 @ 81: 3" STECK	20-40	45.3 cm	
					40-80	90.6 cm	
					80-140	140.3 cm	
					140-160	165.2 cm	
					160-176		
				END OF CORE @ 176 cm	176		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.5 Ft = 106.7 cm
 Recovery: 3.2 Ft on BOAT
 % Recovery: 91.4% on BOAT
 Notes: processer: 94 cm = 88.1%

Station ID: SC563
 Date/Time: 7/20/2021 10:48
 Core Logged By: S. STRETT
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-26		15	5	0-26 cm : POORLY GRADED SAND (SP) - LOOSE, WET TO 7 cm THEN MED. DENSE, MOIST, DARK GREY, FINE GRAINED SAND - MED. GRAINED SAND @ 15, 19: 1/2" BLACK SILT CLAST @ 20, 26: ORGANICS - ROOTS	0-26		
26-94		5	15	26-94 cm : SILT (ML) - MED. STIFF, MOIST, BLACKISH GREY, FINE - GRAINED SAND. @ 30, 36, 55: 1/4" FINE TO MED. - GRAINED SAND (SP) LENS @ 57-60: 80% WOOD DEBRIS - FRAGMENTS, STEMS, STRIPS UP TO 2" @ 60-65: FINE TO MED. GRAINED SAND (SP) LENS @ 78-80: 60% WOOD DEBRIS - FRAGS, STEMS	26-94	SC563A 64.4 cm SC563B 90.8 cm	
				END OF CORE @ 94 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 4
 Drive Length: 18.5 ft
 Recovery: 15.3 ft on boat
 % Recovery: 82.7% on boat
 Notes: To process: 14.8 ft = 80%

Station ID: SC 564
 Date/Time: 6/29/21 collect 1324 process 1629
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (#)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
30		5	95	0-45 cm. SILT (ML) dark gray, wet/soft to 53 then moist/si. stiff, NS soft, non-plastic. Sand is v. fn-fn.	30	SC564 A	
60				olive gray fn. sand w/ pyrite flecks lenses @ 20-22, 73-75, 123, 125, 148-150, 178-187, 213-218, 242-245, 295-299	60	69.5 cm	
90				black organic debris (twigs/leaves/wood frags) @ 32-33, 55-58, 82-83, 101-102, 128-134, 254-257, 297-300	90	SC564 B	
120					120	139 cm	
150					150	SC564 C	
180					180	187 cm	
210				1/4" orange decomposing wood chunks @ 205 & 211	210	SC564 D 211 cm	
240				Silt dry, si. stiff below 220	240	SC564 E 235 cm	
270				1.5" branch pieces @ 246 & 300	270	SC564 F 259 cm	
300					300	SC564 G 283 cm	
						SC564 H	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: *see*
 Drive Length: *first*
 Recovery: *page*
 % Recovery:
 Notes:

Station ID: *SC564*
 Date/Time:
 Core Logged By:
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches)
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
320				<p>few orange bark fragments @ 340-353</p> <p>interbedded 1" olive gray fn. sand and 1" black silt lenses from 383-406.</p> <p>END OF CORE @ 451</p>	307	SC564 I 331 cm	
340			360		SC564 J 355 cm	A A A	
360			390		SC564 K 379 cm		
380			420		SC564 L 403 cm		
400			450		SC564 M 427 cm		
420					SC564 N 451 cm		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 4
 Drive Length: 18.1 ft
 Recovery: 16.1 ft
 % Recovery: on boat 89%

Station ID: SC 565
 Date/Time: 6/30/21 0912 collected 1050 processed
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Notes: 480cm to process = 87% rec.

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-107 cm		5	95	SILT (ML), wet, soft, dark gray, non-plastic	0-30	SC565A	
				olive gray, wet, mod. dense silty sand (SM) lenses 80/20 fn. sand @ 13-15, 26-27, 32-33, 53-55, 60-83 98-101	30-60	65.5 cm	
				black, organic debris (leaves, twigs, leaf mats), sl. H ₂ S odor @ 35-36, 39-42, 66-72, 87-90,	60-90	SC565B	
				olive gray, wet, clayey silt lenses @ 95-97, mod. plast.	90-120		
107-247 cm		5	95	SILT (ML), moist, slightly soft, dark gray, non-plastic	120-150	SC565C	
				olive gray, moist, mod. dense silty sand (SM) lenses 80/20 fn. sand @ 129-131, 183-185	150-180	183.2 cm	
				black, organic debris (leaves, twigs, leaf mats), sl. H ₂ S odor @ 108-115, 134-135, 157-158, 172-176, 220-222	180-210	SC565D	
				olive gray, moist, clayey silt lenses (mod. plast) @ 163-168 cm	210-240	SC565E	
				Trace shells @ 190 ± 240 2x 3/4" decomposing wood chunks @ 226 fibrous, woolly like material @ 147	240-270	SC565F	
247-480 cm		5	95	SILT (ML), dry, mod. stiff, dark gray, non-plastic	270-300	SC565G	
				olive gray, dry, mod. dense silty sand lenses, 80/20 fn. sand @ 281-283, 326-328		SC565H (16F2)	
				trace shells @ 249			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: *See*
 Drive Length: *first*
 Recovery: *page*
 % Recovery:
 Notes:

Station ID: *SC 565*
 Date/Time:
 Core Logged By:
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches)
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
300				<i>olive gray, mostly clayey silt lenses @ 271-273. med. plast.</i>	300	SC565H 313.7cm	
330				<i>1/2" decomposing wood chunk @ 277 & 323</i>	330	SC565I 339.8cm	
360				<i>organic debris, black, (leaves, twigs, leaf mats) sl. H₂S odor @ 362-364</i>	360	SC565J 365.9cm	
390				<i>increasing clay content, low plast, @ 394-440</i>	390	SC565K 392.0cm	
420				<i>interbedded 0.5cm olive gray, med. dense fn. sand lenses @ 457-469</i>	420	SC565L 418.1cm	
450					450	SC565M 444.2cm	
480				<i>End of core @ 480 cm</i>	480	SC565N 480cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.5 FT = 137.2 cm
 Recovery: 121.1 cm ON BOAT
 % Recovery: 88.2%, ON BOAT
 Notes: Procession: 125 cm = 98.4%

Station ID: SC566
 Date/Time: 7/22/21 0948 / processor @ 1020
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-135		5	95	0-135 cm : SILT (ALL) - SOFT, SATURATED TO 15 cm, THEN MED. STIFF, MOIST, DARK GREY, FINE GRAYISH SAND. @16: SHELL FRAGMENT @43, 54, 74, 87: ORGANICS - ROOTS @51: 1/8" DARK GREY FINE-MED. GRAYISH SAND LENS @54, 62: 1.5" WOOD FRAGMENT, SLIGHT H2S-LENE ODOR @67, 90, 96, 106, 122: 1/4" DARK GREY FINE TO MEDIUM GRAYISH SAND LENS END OF CORE @ 135 cm	0-135	59.0 cm	

H2S = HYDROGEN SULFIDE - LIKE

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4 FT = 121.9 cm
 Recovery: 96 cm out of 121.9 cm
 % Recovery: 78.8% out of 121.9 cm
 Notes: PROCESSED: 93 cm = 76.3%

Station ID: SC567
 Date/Time: 7/22/21 0934 / processed @ 1015
 Core Logged By: S. STEHL
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		95	5	0-26 cm: POORLY GRAINED SAND (SP) - LOOSE, SATURATED, DARK GRAY, FINE TO MED. GRAINED SAND. @ 0-12 cm: 30% WOOD DEBRIS/ORGANICS - ROOTS/REEDS, STEMS/FRAGMENTS UP TO 1" @ 12: 2.5" STICK @ 12-15: BLACK SILT LENS @ 22-25: SHELL HASU LENS W/ SHELL FRAGS, AM FURTHER BEYOND SHELLS	0-20		
20-40					40	45.8 cm	
40-60		5	95	26-93 cm: SILT (ML) - MED. STIFF, MOIST, DARK GRAY, FINE GRAINED SAND. @ 42, 58, 76: ORGANICS - ROOTS	60		
60-80					80		
80-100					100		
				END OF CORE @ 93 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 FT
 Recovery: 6.6 FT ON BOAT
 % Recovery: 94.3 ON BOAT
 Notes: Processed: 6.4 FT = 91.4%

Station ID: SC568
 Date/Time: 7/14/12 1448
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		5	95	0-195 cm: SILT (ML): ^{VERY SOFT} SOFT MUD , SAT TO 40, THEN MED STIFF, MOIST, BLACKISH GREY. FG SAND (TRACE). @ 0-6 cm: ORGANIC DEBRIS: ROOTS/REEDS @ 6 cm: BIOTA - WORMS	0-20	SC568 A	Vertical lines sketch
20-40					20-40	54.8 cm	Vertical lines sketch
40-60				@ 64-66 cm: GREY CLAY (CL) CLAST	40-60	SC568 B	Vertical lines sketch with oval clast
60-80					60-80	82.2 cm	Vertical lines sketch
80-100				@ 95, 99, 105: 1/4" wood debris, stick	80-100	SC568 C	Vertical lines sketch with asterisks
100-120				@ 103, 114, 120, 130, 140: PEACOCK SHEEN FLOUNNETTES	100-120	109.6 cm	Vertical lines sketch with asterisks
120-140		10	90	@ 130 GRADES SANDIER (FG SAND)	120-140	SC568 D	Vertical lines sketch with asterisks
140-160					140-160	137.0 cm	Vertical lines sketch with asterisks
160-180				@ 167-169: GREY FG SAND LENS, DENSE	160-180	SC568 E	Vertical lines sketch
180-200				@ 171-189: INTERBEDDED 1/4" ML/SM LENSES	180-200	164.4 cm	Vertical lines sketch
				END OF CORE @ 195 CM		SC568 F	Vertical lines sketch with horizontal bands
						195.0 cm	Vertical lines sketch

Sediment Core Processing Log

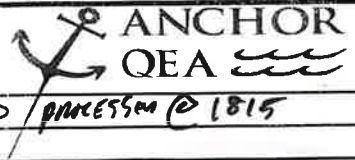


Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4 FT = 121.9 cm
 Recovery: 119.9 cm ON BOAT
 % Recovery: 97.5%, ON BOAT
 Notes: Processed: 119.5 cm = 98.0%

Station ID: 50569
 Date/Time: 7/22/2021 @ 09:10 / PROCESSED @ 0950
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-119.5	5	95		0-119.5 cm: SILT (ML) - SOFT, SATURATED, TO 29 cm THEN MED. STIFF, MOIST, WITH BLACKISH GREY, FINE GRAINED SAND @ 57, 58: ORGANICS - ROOTS END OF CORE @ 119.5 cm	0-119.5	58.8 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.8 Ft = 115.8 cm
 Recovery: 100.6 cm ON BOAT
 % Recovery: 86.8% ON BOAT
 Notes: PROCESSED: 99 cm = 85.5%

Station ID: SC570
 Date/Time: 7/19/2021 13:50
 Core Logged By: S. Smith
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-15		95	5	0-16 cm: POORLY GRAINED SAND (SP) LOOSE, SATURATED, BLACKISH GREY, FINE TO MED FINE GRAINED SAND.	0-20		
15-25		5	25	16-99 cm: SILT (ML) - MED. STIFF, MOIST, BLACKISH GREY, FINE GRAINED SANDS. @ 50-60: GRAY FINE-GRAINED SAND LENS @ 56: 3" STICK	20-40	SC570	
25-83				@ 83: BLACK ROOT MAT 1/8"	40-80	51.3cm	
83-99				END OF CORE @ 99 cm	80-100		

Sediment Core Processing Log

Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 6.7 FT
 Recovery: 5.9 FT ON ROAT
 % Recovery: 88.17, ON ROAT
 Notes: PROCESSED: 5.8 FT = 56.6 l

Station ID: SC571
 Date/Time: 7/14/21 1342 14:00
 Core Logged By: S. STREHL
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed



Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		80	20	0-12 cm: SILTY SAND (SM): VERY LOOSE, SATURATED, BLACKISH GREY, FINE-GRAINED SAND.	0-20		
20-40		95	5	12-36 cm: POORLY GRAINED SAND (SP): LOOSE, MOIST, BROWN, F-COURSE GRAINED SAND "BEACH SAND" REMOVED	20-40	SC571 A	
40-60		85	15	36-144 cm: SILTY SAND (SM): LOOSE, SATURATED, BLACKISH BROWN, FG SAND, WOOD DEBRIS: STICKS, SHREDS THROUGHOUT - WOOD CHUNK/STICKS up to 3" @ 39, 43, 80, 130	40-60	52.0 cm	
60-80					60-80	SC571 B	
80-100					80-100	78.0 cm	
100-120					100-120	SC571 C	
120-140					120-140	109 cm	
140-160					140-160	SC571 D	
160-180					160-180	144.0 cm	
180-200		90	10	144-177 cm: SAND (SP): MED-STIFF, MOIST, BLACKISH BROWN, FINE-GRAINED SAND. @150: SUB-RAN GRAVEL up to 1/2" @175: 1/2" WOOD CHUNK	180-200	SC571 E	
200-220					200-220	177.0 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 3
 Drive Length: 14.0' on boat
 Recovery: 11.8' on boat
 % Recovery: 84.3% on boat
 Notes: To process: 11.3' = 80.7%

Station ID: SC572
 Date/Time: 6/30/21 collect 1345 process 1510
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30		15	85	0-40: SILT w/SAND (ML), wet, soft, dark gray, non-plastic, si. H ₂ S-like odor trace shells @ 13 black organic debris (twigs, leaves) @ 15 and 36	0-30	SC572A 39.4cm	
30-60		75	25	40-257: SILTY SAND (SM), moist, mod. loose, dark gray, trace pyrite-like flecks black organic debris (twigs, leaves) @ 74-75, 115 gray clayey silt lens @ 120 decomposing wood chunks (1/2-3/4") @ 148, 158, 165, 188, 255-256 decomposed 2" branch @ 230 trace shells @ 137-139	30-60	SC572B 87.8cm	
60-90					60-90	SC572C 112cm	
90-120					90-120	SC572D 136.2cm	
120-150					120-150	SC572E 160.4cm	
150-180					150-180	SC572F 184.6cm	
180-210					180-210	SC572G 208.8cm	
210-240					210-240	SC572H 233cm	
240-270					240-270	SC572I 257.2cm	
270-300		20	80	257-343: SILT w/SAND (ML), dry, mod. stiff, dark gray, non-plastic	270-300	SC572J 281.6cm SC572K 281.6cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: See
 Drive Length: First
 Recovery: page
 % Recovery:
 Notes:

Station ID: SC572
 Date/Time:
 Core Logged By:
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches)
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
300				gray: silt ^{fs} sand, w/ pyrite-flocs lenses @ 270-272, sand is fn, @ 295-300, 310-314 End of core @ 343 cm	300	SC572K 305.6cm	
330					330	SC572L	
360						360	343cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.0 ft = 121.9 cm
 Recovery: 112.8 cm ON BOAT
 % Recovery: 92.5% ON BOAT
 Notes: Processed: 111.5 cm = 91.5%

Station ID: SC573
 Date/Time: 7/19/2021 14:05 / Processed @ 1900
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-111.5	5	95		0-111.5 cm: SILT (ml) - Soft, saturated to 20 cm then med. stiff, moist, blackish grey, fine grained sand. @ 6, 13, 20: ORGANICS - ROOTS @ 14-16: BLACK F-MED GRAINED (sp) SAND LENS @ 32-36: GREY FINE GRAINED SAND LENS @ 64: 1/8" BLACK ROOT MAT (ORGANICS) @ 65-67: GREY FINE GRAINED SAND LENS @ 76-78: BLACK WOOD DEBRIS - ROOTS/SHOOTS/FRAGMENTS @ 99-111.5: GREY FINE GRAINED SAND LENS @ 102: 1" STEEL END OF CORE @ 111.5 CM	111.5	SC573 57.84 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.5 ft = 137.2 cm
 Recovery: 117.3 cm ON BOAT
 % Recovery: 84.4% ON BOAT
 Notes: PROCESSED: 115 cm = 83.8%

Station ID: 50574
 Date/Time: 7/22/21 @ 11:20 / PROCESSING: 1240
 Core Logged By: S. STREET
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-115	5	95	95	0-115 cm : SILT (ML) : SOFT, SATURATED TO 22cm, THEN MED. STIFF, MOIST, BLACKISH GREY, FINE GRAINED SAND. @ 2cm : ORANGE WORM. @ 18, 31 : ORNAMENT - ROOTS @ 90-92 : GREY CLAYEY SILT LENS @ 105 : SHELL FRAGMENT END OF CORE @ 115 cm	0-115	50.3cm	

50.3

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 3
 Drive Length: 14.0'
 Recovery: 12.3' on boat
 % Recovery: 87.9% on boat
 Notes: To process: 11.8' = 84.6%

Station ID: SC 576
 Date/Time: 6/30/21 collect 1500 process 1630
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-38	5	95	95	0-203 cm: SILT (ML) wet to moist, dark gray, sl. soft, non-plastic trace sheen florets @ 8 olive gray fn. sand lens (80/20) @ 20-27, trace pyrite flecks black organic debris (twigs, leaves) @ 16-18, 42, 56 trace shells @ 104 1/2" decomposed wood chunk @ 153	0-38	SC576A	
38-60					38-60	56.8 cm SC576B	
60-90					60-90	76.2 cm SC576C	
90-120					90-120	101.6 cm SC576D	
120-150					120-150	127 cm SC576E	
150-180					150-180	152.4 cm SC576F	
180-210	10	90	90	increasing sand content to 10% from 178-203.	180-210	177.8 cm SC576G	
210-240					210-240	203.2 cm SC576H	
240-270	5	95	95	203-360 cm: SILT (ML) moist to dry, mod. stiff, gray, non-plastic trace thin roots 203-246 olive gray fn. sand (80/20) w/ pyrite flecks @ 270-272, 287-296 gray clayey silt lenses @ 308-309, 325-327 low plast. black organic debris (twigs) @ 213	240-270	228.6 cm SC576I	
270-300					270-300	254 cm SC576J	
300-360					300-360	274.4 cm SC576K	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: *See*
 Drive Length: *first*
 Recovery: *page*
 % Recovery:
 Notes:

Station ID: *SC576*
 Date/Time:
 Core Logged By:
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches)
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
300				brownish black, organic debris (twigs, leaf mats) @ 300-305, 313-315, 320-322 3" decomposing branch @ 305-308 1/2" wood chunk @ 333, 345 sl. H ₂ S odor 345-360 END OF CORE @ 360 cm	300	SC576L 304.8cm	
330					330	SC576M 360cm	
360					360		

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SC577

Job No. 180067-02.02

Date/Time: 7/9/21 1708 PROCESS 1745

No. of Sections: 2

Core Logged By: N. Bacher

Drive Length: 7.0 ft

Attempt #: 1

Recovery: 6.5 ft on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 92.9% on boat

Diameter of Core (inches) 4"

Notes: To process: 6.3 ft = 90%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	5	95		<p>13 MB</p> <p>0-192cm 0-192cm: SILT (ML) black, wet, soft, non-plastic sand is fn. 10% coarse sand 0-5cm/few clams</p> <p>faint gray sand w/ silt lenses @ 21, 25, 104, 130</p> <p>moist soft @ 36 black organic matter (leaves/trigs) eb</p> <p>trace shell frags @ 60</p> <p>2-3 clamshells @ 65</p> <p>few reeds/trigs @ 20</p> <p>1" black aggregate piece @ 67</p> <p>faint gray clay clast @ 103</p> <p>dry silty @ 112 few wood chunks 3/4" @ 140 @ 157</p> <p>fn. gray sand pockets @ 140, 162, 179</p>	0-20	SC577A	Sketch of sediment layers with labels
20-54					54.0cm	SC577B	
54-81					81.0cm	SC577C	
81-108					108cm	SC577D	
108-135					135cm	SC577E	
135-162					162cm	SC577F	
162-192					192cm		
				END OF CORE @ 193cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 91.5 cm
 Recovery: 79 cm on boat
 % Recovery: 87% on boat
 Notes: to process: 77.5 cm = 85%
 84.4%

Station ID: IT578
 Date/Time: 7/6/21 collect 1100 process 1140
 Core Logged By: D. Bacher
 Attempt #: 1
 Type of Core: Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality: Good Fair Poor Disturbed

Recovered Length	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length	Sample	Summary Sketch
0-54 cm	15	85	85	<p>0-54 cm: SILT (ML) dark gray, wet, soft, non-plastic, sand is fn-med.</p> <p>scattered peagravel 8-26 cm</p> <p>black organic debris (twigs, ^{leaves} reeds) @ 26 & 51</p> <p>gray silty clay clasts @ 31, 46</p>	0-54 cm	IT578	
54-77 cm	5	95	95	<p>54-77 cm: POORLY GRADED SAND (SP)</p> <p>gray, moist, med. dense, sand is fn-med, trace pyrite grains, few multicolored grains</p> <p>gray silty clay clasts @ 70, 72</p>	54-77 cm	38.1 cm	
				END OF CORE @ 77 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 7
 Drive Length: 6.8 FT
 Recovery: 5.4 FT ON BOAT
 % Recovery: 79.4% ON BOAT
 Notes: Processed: 5.0 FT = 72.8%.

Station ID: 1T579
 Date/Time: 7/16/2021 11:23 / Processed 1235
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		85	15	0-67 cm: SILTY SAND (SM) - VERY LOOSE, SATURATED, BROWN TO 13cm THEN MED DENSE, MOIST, BLACKISH GREY/DARK GREY, FG SAND. @ 0-11: ORGANICS - ROOTS/ALGAE/REEDS @ 20, 28, 33, 49, 59 - WOOD HERBALS - SHREDS, STICKS UP TO 1" @ 25-27, 33-35, 61-67: BLACK SILT LENS (M) @ 28, 72, 40, 50, 60: PEACOCK SHEEN FLORICTES @ 36-38: F-COARSE SAND LENS, DARK GREY	0-20	1T579A	
20-40					20-40	32.6 cm	
40-60					40-60	1T579B	
60-67					60-67	67.0 cm	
67-80		95	5	67-151 cm: POORLY GRADED SAND (SP) - MED DENSE, MOIST, DARK GREY, FINE TO MEDIUM MULTICOLORED GRAFFINS. @ 96-102: VOID (LOGGED + CLOSED) @ 128, 136: GREY SILT CLAST UP TO 1/4"	67-80	1T579C	
80-100					80-100	88.8 cm	
100-120					100-120	1T579D	
120-140					120-140	110.6	
140-151				140-151	1T579E	132.4	
					140-151	1T579F	151 cm
				END OF CORE @ 151 cm	160		

Interval processed to 96 cm incidentally

Sediment Core Processing Log



Job: AOC4 Duwamish	Station ID: SC580
Job No. 180067-02.02	Date/Time: 7/6/2021 10:40
No. of Sections: 1	Core Logged By: [Signature]
Drive Length: 10.7cm	Attempt #: 1
Recovery: 85cm @ 90cm interval	Type of Core <input type="checkbox"/> Mudmole <input checked="" type="checkbox"/> Vibracore <input type="checkbox"/> Diver Core
% Recovery: 79.0% @ 84.0%	Diameter of Core (inches) 4"
Notes: 47.4cm to process	Core Quality <input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-10		5	95	0-85cm: SILT (ML): dark gray, wet, soft, non-plastic trace fn. sand.	0-10	SC580	[Sketch of core with depth markers]
10-20				few frags 0-5cm.	10-20		
20-30				fn. med sand pockets, SP, trace pyrite and multicolored grains,	20-30		
30-40				gray @ 45, 53, 64, 71 cm	30-40		
40-50				black silt clast @ 73cm	40-50		
50-60					50-60		
60-70					60-70		
70-80					70-80		
80-85				END OF CORE @ 85cm	80-85		
85-90					85-90		
						47.4cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.2 ft on boat
 % Recovery: 88.6% on boat
 Notes: To process: 179cm = 83.7%

Station ID: SC581
 Date/Time: 7/10/21 11:21 process 1200
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30	10	90		0-30cm: SILT (ML) dark gray, wet, soft, non-pl. sand is fn. @14cm black twigs/branches @ 6 2cm white black wood splinters @ 29 Paint chip olive gray silty clay pockets @ 17, 20, 23, 26, 28	0-20	SC581A	
30-178	95	5		30-178cm: black to gray POORLY GRADED SAND (SP), most med. dense sand is fn - med. @39 2" black vesiculated aggregate piece. @75, 128, 137 gray silty clay pockets. @88-122 large (3-4") wood pieces (piling material, wood splinters) branches. scattered 1/2" subrounded gravels. below 126 grades to med-cr. sand.	20-90	50.2cm SC581B	
					60-70	75.3cm	
					80-90	SC581C	
					100-110	100.4cm	
					110-120	SC581D	
					120-130	125.5cm	
					140-150	SC581E	
					150-160	150.6cm	
					160-170	SC581F	
					170-179	178.5cm	
				END OF CORE @ 179cm * RAL interval (A) processed in full. Archive taken A1=0-30, A2=30-178	179		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 6.9 FT
 Recovery: 5.5 FT ON BOAT
 % Recovery: 79.7% ON BOAT
 Notes: Processed: 5.2 FT = 79.4%

Station ID: IT582
 Date/Time: 7/16/21 0816 / processed: 0920
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
15	80	5		0-19 cm: GRAVELLY SAND (SW): LOOSE, SATURATED, OLIVE GREY, F-COARSE GRAINED SAND, SOME SILT, SUB-AVE GRAVEL UP TO 1.9", ORGANICS-ROOTS/REEDS. @13 SHELL FRAGMENT	20	IT582A	
85	15			19-37 cm: SILTY SAND (SM): MED. DENSE, MOIST, BRACKISH GREY, FINE-GRAINED SAND @19: 1/2" STICK @24: 1" WOOD CHIP	40	IT582B	
95	5			37-157 cm: POORLY GRAINED SAND (SP): MED-DENSE, MOIST, DARK GREY, F-MED GRAINED SAND, TRACE SILT @47, 51, 80, 94, 106: YELLOW STAINED, WOOD FRAGMENT/CHIP UP TO 2.5" @51, 80: WOOD DEBRIS - SHREDS/STICKS/REEDS @51-53, 56-58, 109-114, 116-120: GREY SILT LENS @91-120: WOOD DEBRIS - SHREDS/STICKS/YELLOW STAINED WOOD FRAGMENTS @118: GRADES TO NO SILT, NO ORGANICS, F-M MULTICOLORED GRAINED SAND	60	IT582C	
					80	IT582D	
					100	IT582E	
					120	IT582F	
					140	IT582G	
					160	IT582H	
					180	IT582I	
					200	IT582J	
				END OF CORE @ 157 CM			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 121.9 cm
 Recovery: 111.3 cm on boat
 % Recovery: 91% on boat
 Notes: To process: 111 cm = 91%

Station ID: SC583
 Date/Time: 7/7/21 1005 process 1045
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0				<p>0-111cm: SILT (ML) black, wet/soft to 50 cm, then moist/slightly non-plastic one orange worm @ 13 gray clay clasts @ 24, 40, 44 black organic debris (leaves/twigs) @ 48 gray fin. sand pockets @ 60, 68 few reeds @ 90 trace small shells @ 100 core catcher empty</p>	0	SC583	

SC583

54.6 cm

100

100

111cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7 ft
 Recovery: 6.2 ft on boat
 % Recovery: 88.6 on boat
 Notes: To process 4.8 ft = 68.4%

Station ID: SC584
 Date/Time: 7/7/21 1204 process 1320
 Core Logged By: U. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-71	15	85		<p>0-71cm: SILT w/ SAND (ML) black, moist, sl. stiff, non-plastic orange gray clay clasts @ 0-5, 68 black organic debris (turfs/leaves) @ 3-5, 63-65 olive gray v. fin. thin sand laminae @ 24, 57-61 (4 of them) brown bark fragments up to 2" w/ sl. H₂S odor @ 30-35</p>	0-71	SC584A 41.1cm	
71-146	>95	25		<p>71-146cm: POORLY GRADED SAND (SP) gray w/ multi-colored gravels, moist, med. dense, sand is fin-med gray 1/2" clay clast @ 94 sand is med-cr @ 123-130</p>	71-146	SC584B 71.0cm SC584C 91.5cm SC584D 112.0cm SC584E 146.0cm	
				<p>END OF CORE @ 146cm 25cm void in core between 85-110 cm: core slipped in barrel during extraction, void is closed in the log above.</p>			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0
 Recovery: 5.9 ON BOAT
 % Recovery: 84.3 ON BOAT
 Notes: PROLESSEY: 5.5 FT = 78.67.

Station ID: IT 585
 Date/Time: 7/14/21 1118
 Core Logged By: S. STREHL
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	20	75	5	0-6 cm : GRAVELLY SAND (SW) : LOOSE, SATURATED, BROWN GREY, F-COARSE SAND, ANG-SUBANG GRAVEL UP TO 1/2" @2cm : BLACK AGGREGATE W/ALGAE 1/2"	0-20	IT 585 A	
20-40	5	95		6-59 cm : SILT (ML) : MED-STIFF, MOIST, BLACKISH GREY, FG SAND. @56 cm : GLASS FRAG 1/2" - PEACOCK SHEEN FLORETTES @ 33, 39, 51	20-40	35.4 cm IT 585 B	
40-90	90	10		59-167 cm : POORLY GRADED SAND (SP) : MED-DENSE, MOIST, BROWNISH GREY, FINE-MED MULTICOLOR GRAINS, GRADES TO MORE MEDIUM W/DEPTH! - BLACK SILT CLASTS @ 60-63, 70-75 - WOOD DEBRIS : STICKS, SHREWS, CHUNKS UP TO 2.5" @ 63-69 REMOVED SECTION - 1/2" WOOD CHIP @ 80, 90 - BLACK FG SAND LENS @ 123-126 - BRICK FRAGMENT 1/8" @ 159 - 2" REED @ 164 - ROUNDED VESICULAR AGGREGATE UP TO 1/2" @ 165 - POTENTIALLY YELLOW PAINTED WOOD CHIP UP TO 1" @ 165 - 1/4" ROUNDED PUMICE-LIKE GRAVEL @ 165	40-90	59.0 cm IT 585 C	
90-140	95	5			90-140	82.6 cm IT 585 D	
140-160					140-160	106.2 cm IT 585 E	
160-180					160-180	129.8 cm IT 585 F	
180-200					180-200	147 cm	
				END OF CORE @ 167 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SC 586

Job No. 180067-02.02

Date/Time: 7/7/21 10:30 process 1100

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 121.9 cm

Attempt #: 1

Recovery: 100.6 cm

Type of Core Mudmole Vibracore Diver Core

% Recovery: 83% on boat 82.9%

Diameter of Core (inches) 4"

Notes: To process: 101cm = 83%
AN

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-10		<5	>95	0-101cm: SILT (ML) black, wet/soft to 32, then moist/sl. stiff, non-plastic few twigs 0-5cm trace shells @ 15cm gray clay clast @ 23	0-10		
10-20					10-20		
20-30					20-30		
30-40					30-40		
40-50					40-50		
50-60					50-60		
60-70				black organic debris (leaves/twigs) @ 68	60-70		
70-80				few twigs @ 73	70-80		
80-90					80-90		
90-100				END OF CORE @ 101cm Core catcher full and logged	90-100		

SC586

49.7cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.9 ft on boat
 % Recovery: 98.6% on boat
 Notes: To process: 6.7 ft = 95.7%

Station ID: SC587
 Date/Time: 7/12/01 1224 process 1615
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	5	95		0-203cm: silt (ML) blackish gray, wet/soft to 38, then moist/sl. soft, non-plastic, sand is fin. one orange worm @ 6	0-20	SC587A	Sketch of core section 0-20 cm with worm at 6 cm.
40				black organic debris layer (twigs, leaves, branches) @ 47, 147	40		
60				faint gray clay clasts/lenses @ 25, 33, 189	60	57.4cm	
80				1" wood chunks @ 69, 133	80	SC587B	
100					100	86.1cm	
120					120	SC587C	
140					140	114.8cm	
160					160	SC587D	
180					180	143.5cm	
200				interbeds of olive gray sand w/ silt and black silt lenses (1cm) (~1cm thick) from 164-188	200	SC587E	
				silt is black below 188 cm		172.2cm	
						SC587F	
						203cm	

END OF CORE @ 203 cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 6.7
 Recovery: 5.5 ON BOAT
 % Recovery: 82.1 ON BOAT
 Notes: PROCESSED: 4.9 FT = 73.1 %

Station ID: IT588
 Date/Time: 7/14/21 1003
 Core Logged By: S. STREHL
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		95	5	0-19 CM : POORLY GRADED SAND (SP): MED-DENSE, MOIST, BROWNISH DARK GRAY, F-MED MULTICOLOR GRAINSD. @4,8 : SUBANG/SUBANO GRAVEL UP TO 1/3" @6 : GLASS FRAG/CERAMIC FRAG UP TO 1/2" @12-16 : BLACK SILT CLAST	0-20	IT588A 32.9 cm	
20-60		5	95	19-122 CM : SILT (ML): MED-STIFF, MOIST, BLACKISH GRAY, FG SAND. - PEACOCK SHEEN FLOULETTES @ 23, 28, 34, 45, 48, 55, 74, 87, 98, 108, 112 (NO OOR) - ORGANICS: WOOD CHUNKS/SHREDS UP TO 1/2" @ 50, 66, 104 @81-92 : WOOD DEBRIS: CHUNKS/SHREDS/BEEES, STICKS UP TO 2" @92-99 VOID: CLOSED + LOGGED	20-60	IT588B 54.8 cm	
60-100					60-80	IT588C 76.7 cm	
100-120					80-100	IT588D 98.6 cm	
120-140					100-120	IT588E 122 cm	
140-160		95	5	122-150 CM : POORLY GRADED SAND (SP): LOOSE, SATURATED TO 134 CM, THEN MED DENSE AND MOIST, BLACKISH GRAY, F-MED MULTICOLORED GRAINSD, GRADES MORE MEDIUM GRAINED @137 : WOOD SHREDS UP TO 1/2"	120-140	IT588F 150 cm	
160-180				END OF CORE @ 150 CM	140-160		
180-200					160-180		
200-220					180-200		

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SC 589

Job No. 180067-02.02

Date/Time: 7/7/21 1135 process 1200

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 106.7cm

Attempt #: 1

Recovery: 105.2cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 99% on boat

Diameter of Core (inches) 4"

Notes: To process: 103.5cm = 97%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-103.5				<p>0-103.5cm: SILT (ML) black, wet/soft to 18, then moist/sl stiff, non plastic, sl. H₂S-odor throughout</p> <p>fine gray sand pocket @ 11</p> <p>one clam shell @ 24</p> <p>trace small shells @ 70-74</p> <p>black small wood splinters 88-93</p>	0-103.5	SC 589	

END OF CORE @ 103.5 cm
Core catcher full and logged

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SC590

Job No. 180067-02.02

Date/Time: 7/7/21 1105 process 1240

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 121.9 cm

Attempt #: 1

Recovery: 118.9 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 98% on boat

Diameter of Core (inches) 4"

Notes: To process 118.5 cm = 97.2%

Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20	<5	>95		0-118.5 cm: SILT (ML) black, wet/soft to 28, then moist/sl. stiff non-plastic.	0-20	SC590	
20-40				2" angular gravel piece w/ barnacles @ 7	20-40		
40-60				few shells @ 8	40-60		
60-80				one red worm @ 12	60-80	58.3 cm	
80-100				gray clay clasts @ 38, 48, 78	80-100		
100-120				black organic debris (twigs/leaves) @ 84	100-120		
120-140				few 1/2" wood chunks @ 100-102	120-140		
140-150				END OF CORE @ 118.5 cm Core catcher full and logged.	140-150		

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SCS91

Job No. 180067-02.02

Date/Time: 7/19/21 1253 Process 1400

No. of Sections: 2

Core Logged By: N. Bacher

Drive Length: 6.9 ft.

Attempt #: 2

Recovery: 6.7 ft on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 97.1% on boat

Diameter of Core (inches) 4"

Notes: To process: 6.3' = 91.3%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	5	95		0-14 cm: SILT (ML) olive gray, wet, v. soft to 13, then gray, soft, moist. non-plastic. sand is fn-med few 1/2" angular gravel 0-5 1/4" orange wood chunks @ 9 few shells @ 22 27-38 brownish gray organic debris up to 1.5" (wood shreds, twigs, leaves, branches)	0-20	SCS91A	
20-60	80	20		44-112 cm: SAND w/ SILT (SM) gray, moist, med. dense, sand is fn. w/ pyrite floccs fn-med gray sand pockets @ 45, 54, 58 v. thin black org debris lens @ 46, 49 66-78 brownish gray organic debris up to 1.5" (wood shreds, twigs, leaves, branches) black silty clay clast 106-107 3" wood splinter @ 110	60-112	54.8 cm SCS91B 82.2 cm SCS91C 112 cm	
60-120	95	5		112 cm - 192 cm: POORLY GRADED SAND (SP), gray, moist, med. dense, sand is fn-med w/ trace multi-colored grains trace small shells & wood shreds @ 119 2-3" black silt clasts @ 135, 162, 168, 177, 182, 188,	112-192	SCS91D 139.4 cm SCS91E 166.8 SC192F 192	
120-200				END OF CORE @ 192 cm	192-200		

11cm void 72-83cm, this void is closed in the core above.

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT592

Job No. 180067-02.02

Date/Time: 7/6/21 1531 process 1640

No. of Sections: 2

Core Logged By: N. Bacher

Drive Length: 7.6 ft 7.0 ft (by)

Attempt #: 3

Recovery: 6.5 ft on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 92.9% on boat

Diameter of Core (inches) 4"

Notes: To process: 162 cm = 75.9%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	5	95	95	0-16cm: SILT (ML) black, moist, med. stiff, non-plastic, sand is v. fn.	0-20	IT592A	
20-40				@29-33 & 37-38 sand lenses, gray, v. trace multi-colored grains.	20-40	IT592B	
40-60				trace wood chunks @ 21	40-60	IT592C	
60-80	95	5	5	46-162cm: POORLY GRADED SAND (SP) dark gray, moist, med. dense sand is fn-med, trace multi-colored grains & pyrite flecks	60-80	IT592D	
80-100				@72-73 black silt clast w/ trace brown wood chunks (small)	80-100	IT592E	
100-120				@140 3/4" brown wood chunk	100-120	IT592F	
120-140					120-140	IT592G	
140-160					140-160	IT592H	
160-180				END OF CORE @ 162	160-180		
180-200				18cm slip in SP between 114-132cm. Core is assumed to have slipped down during extracting and void is closed on this log.	180-200		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2 + core catcher
 Drive Length: 6.8 ft
 Recovery: 6.2 ft on boat
 % Recovery: 91.2% on boat
 Notes: To process; 173cm = 83.5%

Station ID: **IT593**
 Date/Time: **7/9/21 1548** process: 1640
 Core Logged By: **N. Bacher**
 Attempt #: **2**
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) **4"**
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-70	>95	<5		0-164 cm: POORLY GRADED SAND (SP) gray, moist, med. dense, sand 15 fn. 15% silt, mussel shells, wood shreds to 8.	0-20	IT593A	[Sketch of sediment sample]
70-40					20-40	37.6 cm IT593B	
40-60					40-60	62.7 cm	[Sketch of sediment sample]
60-80				black 1" silt clast @ 73	60-80	IT593C	
80-100				1/4" orange wood chunk @ 81	80-100	87.8 cm IT593D	
100-120					100-120	112.9 cm	[Sketch of sediment sample]
120-140				1/4" orange wood chunk @ 158 trace shells @ 152	120-140	IT593E	
140-160				black 3" silt clast @ 157	140-160	138.0 cm IT593F	
160-180	15	80	<5	164-173 cm: POORLY GRADED SAND moist w/ GRAVEL (SP-GP) gray, med. dense gravel to 1" and rounded 5% 3/4" wood chunks 3"x2" black aggregate @ 172 w/ one flat side	160-180	173.0 cm	[Sketch of sediment sample]

END OF CORE @ 173cm

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SC594

Job No. 180067-02.02

Date/Time: 7/19/21 0940 process 1040

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 121.9 cm

Attempt #: 1

Recovery: 112.8 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 93% on boat

Diameter of Core (inches) 4"

Notes: To process: 113cm = 93%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-113	<5	>95		<p>0-113cm: SILT (ML) black, soft/wet to 11 then moist/sl-soft non-plastic. sand v. fine. 2" orange brown decomposing wood chunks @ 5</p> <p>light gray clay clasts @ 22, 49, 96</p> <p>few twigs @ 78</p> <p>fin-med sand pockets w/ multi-colored grains @ 81, 85</p> <p>End of core @ 113cm Core catcher full & logged</p>	0-113	SC594 55.8 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SC595

Job No. 180067-02.02

Date/Time: 7/9/21 0955 process 1115

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 128.0 cm

Attempt #: 1

Recovery: 121.9 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 95% on boat

Diameter of Core (inches) 4"

Notes: To process: 120.5 cm = 94.1%

Core Quality Good Fair Poor Disturbed

Recovered Length	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length	Sample	Summary Sketch
0-20	<5	>95		0-120.5 cm: SILT (ML) black, wet/soft to 22 then moist/si-soft few twigs/roots 0-4 non-plastic gray clay clasts @ 17, 43, 62, 105	0-20	SC595	
20-40				few shell frags @ 66	20-40		
40-60					40-60	56.5 cm	
60-80					60-80		
80-100				3" thin branch piece @ 98	80-100		
100-120					100-120		
120-140				END OF CORE @ 120.5 cm Core catcher full and logged	120-140		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0
 Recovery: 6.8 ON BOAT
 % Recovery: 97.1 ON BOAT
 Notes: Processed: 6.3 FT = 907

Station ID: SC596
 Date/Time: 7/21/13 1307
 Core Logged By: S. STREET
 Attempt #: 1
 Type of Core: Mudmole Vibracore Diver Core
 Diameter of Core (inches): 4"
 Core Quality: Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-37	5	95	0-37 cm: SILT (ML) - VERY SOFT, WET, BLACKISH GREY, FG SAND, TRACE STECKS/REEDS @ 0-6: LARGE WOOD CHUNK up to 3" WITH SPLINTERED FRAGMENTS @ 5: ALGAE FRAGMENT 1" @ 36: 1.5" STECK	20 40	SC596A		
37-107	5	95	37-107 cm: POORLY GRAINED SAND (SP) - M. DENSE, MOIST, DARK GREY, FG SAND. @ 37: grey silt clust 1/2" BLACK WOOD DEBRIS / FRAGMENTS up to 1" @ 40, 48, 50 @ 65: wood chunk 2" @ 72-107: grades f-med multicolored grained sand @ 97: 1/8" SHELL FRAGMENTS	60 80 100	SC596B SC596C		
107-193	5	95	107-193 cm: SILT (ML) - MED. STIFF, MOIST, BLACKISH GREY, FG SAND. @ 140: STECK 1.5" @ 170: PERCOL SHEEN FLOUETTE 1/2"	120 140 160 180	SC596D SC596E SC596F		
END OF CORE @ 193				193			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 7
 Drive Length: 7.0 Ft
 Recovery: 5.5 Ft on Boat
 % Recovery: 78.6%, on Boat
 Notes: Processed: 5.7 Ft = 75.7'

Station ID: 1597
 Date/Time: 7/16/2021 14:07 / Processed: 1500
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		10	90	0-62 cm: SILT (ML) - Soft, wet, olive blackish grey w/ F-coarse graded sand to 7cm, then med. stiff, moist, blackish grey, trace fg. sand. @ 2, 7, 28, 51: ORGANICS - STICKS/ROOTS @ 13, 18: 1/4" DARK GREY SAND LENS (SP) FINE-MED GRAINED @ 20, 24, 32, 38, 48, 57: PLACCU SHEEN FLOWNETTES	0-20	1597A	
20-34.1		5	95		20-34.1	34.1 cm	
34.1-62					34.1-62	1597B	
62-62		70	10	62-162 cm: POORLY GRAINED SAND (SP) - MED. WENSE, MOIST, DARK GREY, FINE TO MED GRAINED SAND WITH SILT (SOFT TRANS CONTACT) TO 70. # @ 70: GRADES LESS SILTY, COLOR CHANGE TO DARK GREY @ 107: CHANGE COLOR CHANGE TO BLACKISH DARK GREY	62-80	62 cm	
80-84.7		95	5		80-84.7	1597C	
84.7-107.4					84.7-107.4	84.7 cm	
107.4-107.4					107.4-107.4	1597D	
107.4-107.4					107.4-107.4	107.4 cm	
107.4-130.1					107.4-130.1	1597E	
130.1-130.1					130.1-130.1	130.1 cm	
130.1-142					130.1-142	1597F	
142-142					142-142	142 cm	
142-150				@ 142-147: WOOD DEBRIS - SHARDS, FRAGMENTS UP TO 1" @ 150-154: BLACK SILT CLASTS @ 155: GREY CLAY RIPUP CLAST 1/4"	142-162		
162-162				END OF CORE @ 162 cm	162-162	162 cm	

FG: FINE GRAINED SAND

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.3 ft on boat
 % Recovery: 90% on boat
 Notes: To process: 6.0 ft = 85.8%

Station ID: 1T598
 Date/Time: 7/8/2021 1806 process 1950
 Core Logged By: N. Bacher
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	10	90		0-54cm: SILT (ML) black, moist, soft, non-plastic, sand is fn. orange oxidation mottling to 8 3" bark frag @ 25 few twigs/reeds @ 33 43-52 few 3" rounded gravels	0-20	1T598A	
20-40					20-40	38.6cm	
40-60					40-60	IT598B	
60-80					60-80	53.5cm	
80-100					80-100	IT598C	
100-120					100-120	79.2cm	
120-140					120-140	IT598D	
140-160					140-160	104.9cm	
160-180					160-180	IT598E	
180-200					180-200	120.5cm	
200-220					200-220	IT598F	
220-240					220-240	146.2cm	*
240-260					240-260	IT598G	*
260-280					260-280	177.0	*
280-300					280-300	IT598H	*
300-320					300-320	183.0cm	

54-121cm: POORLY GRADED SAND (SP) gray, moist, mod. dense sand is fn.
3" bark frags @ 86, 99
trace shells @ 93

121-177cm: SILTY CLAY (CL) moist, soft, gray, low-mod. plast. black oxidation mottling
Striations @ 148, 155, 170, 167, 139, 150, 163, 168
trace 1/8" sheen flints (metallic) @ 148, 155, 167, 170
gray silt clasts @ 175

177-183cm: POORLY GRADED SAND (SP) dark gray, moist, mod. dense sand is fn. mod w/ trace multicolored grains

END OF CORE @ 183cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 121.9 cm
 Recovery: 111.3 cm on boat
 % Recovery: 91% on boat

Station ID: 50599
 Date/Time: 7/7/2021 13:00 process 1400
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Notes: To process 102cm = 83.7%

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-52	15	85		<p>0-52cm: SILT w/ SAND (ML) black, wet/soft to 32 then moist/sl. stiff non-plastic, sand is M-med. 1/2" angular gravel @ 8</p> <p>few shells @ 35</p>	0-52	50.2 cm	
52-102	80	20		<p>52-102cm: SAND w/ SILT (SM) black, moist, sl. loose, sand is fine</p> <p>trace shells @ 60-64</p> <p>few black wood splinters (small) @ 79-80, 89</p>	52-102		

END OF CORE @ 102cm
 Core catcher full and logged

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.1 Ft = 125 cm
 Recovery: 118.9 cm ON BOAT
 % Recovery: 95.1% ON BOAT
 Notes: Processed: 119 cm = 95.2%

Station ID: IT600
 Date/Time: 7/19/2021 @ 10:55 / processed @ 1545
 Core Logged By: S. STREHL
 Attempt #: 4
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-85		85	15	<p>0-42 cm: SILTY SAND (SM) - LOOSE, SATURATED TO 15 cm, THEN MOD. STIFF, MOIST, DARK GRAY, FINE GRAINED SAND.</p> <p>@ 11: ORANGE WORM (BIOTA)</p> <p>@ 32-37: 60% WOOD DEBRIS LAYER - STICKS/ROOTS/FRAGMENTS</p> <p>@ 39: 2" STICK</p>	0-42	IT600	
85-119		5	95	<p>42-119 cm: SILT (ML) - STIFF, MOIST, BLACKISH GRAY, FA SAND.</p> <p>@ 45: WOOD DEBRIS 1/2" LAYER - STICKS/ROOTS/FRAGMENTS/ROOTS</p> <p>@ 79: REED 1"</p> <p>@ 92-94: DARK GRAY FINE-GRAINED SAND LENS</p>	42-119	42.9 cm 45 cm (Ba)	
				END OF CORE @ 119 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT601

Job No. 180067-02.02

Date/Time: 7/10/21 1410 process # 445

No. of Sections: 1

Core Logged By: N. Batcher

Drive Length: 107 cm

Attempt #: 1

Recovery: 88.4 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 83% on boat

Diameter of Core (inches) 4"

Notes: To process: 88 cm = 82.2%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-43	20	80	80	<p><u>0-43 cm: SILT w/ SAND (ML) dark gray, wet, soft, non-plastic. sand is fn.</u></p> <p>small brown decomposing wood chunks 2-5.</p> <p>black oxidation mottling layers 13-22 cm.</p> <p>fn-med gray sand pockets 22 & 24</p> <p>gray clay clast @ 25</p> <p>black organic debris (leaves/twigs) @ 34-36.</p>	0-43	IT601	
43-88	80	20	20	<p><u>43-88 cm: SILTY SAND (SM) blackish gray, wet, med. loose, sand is fn-med.</u></p> <p>black silt clasts @ 57, 57.71 and 86-88</p> <p>brownish black wood splinters 69-71</p>	43-88		
				<p>END OF CORE = 88 cm core catcher logged.</p>	88		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 137.2cm
 Recovery: 126.5 cm on boat
 % Recovery: 92% on boat
 Notes: To process: 121.5cm = 88.6%

Station ID: IT602
 Date/Time: 7/6/21 1715 process 1830
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	95	5		0-121cm. POORLY GRADED SAND (SP) brown to grey, then gray, wet, mod. dense, sand is fin-med. trace 1/2" rounded gravel throughout few wood splinters @ 43, 55, 99 few twigs @ 78 1"x2" black vesicular aggregate @ 70-72 2"x2" black vesicular aggregate @ 90-92	0-20	IT602	
20-40					40	39.9cm	
40-60					60		
60-80					80		
80-100					100		
100-120					120		
120-140				END OF CORE @ 121cm core catcher empty	140		

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT603

Job No. 180067-02.02

Date/Time: 7/6/21 1725 process 1910

No. of Sections: 1

Core Logged By: W. Bacher

Drive Length: 137.2cm

Attempt #: 1

Recovery: 123.4cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 90% on boat

Diameter of Core (inches) 4"

Notes: To process: 123cm = 89.7%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	80	20		0-58cm: SILTY SAND (SM) gray, wet, mod. loose, sand is fine-med. black oxidation mottling 0-12. black organic debris (turfs/leaves) @ 35-36, 45-47, 50 (branch)	0-20	IT603	
20-40					20-40	40.4 cm	
40-60					40-60		
60-80	<5	>95		58-123cm: SILT (ML) black, moist, mod. stiff, non-plastic thin roots @ 79, 87	60-80		
80-100				"massive"	80-100		
100-120					100-120		
120-137.2				END OF CORE @ 123 core catcher full & logged.	120-137.2		

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: **IT604**

Job No. 180067-02.02

Date/Time: **7/10/21 16:30** process 1800

No. of Sections: **2**

Core Logged By: **N. Bacher**

Drive Length: **7.0 ft**

Attempt #: **1**

Recovery: **7.0 ft on boat**

Type of Core Mudmole Vibracore Diver Core

% Recovery: **100% on boat**

Diameter of Core (inches) **4"**

Notes: **To process: 6.5' = 92.9%**

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-41	85	15		POORLY GRADED SAND w/ SILT (SP-SM) gray, wet, mod. dense, sand is fu-med orange oxi. mottling 2-4cm trace rounded 1/2" gravel @ 20 trace shell frags @ 22 black silt clasts 39-41 trace brown wood chunks @ 15	0-41	IT604A	
41-198	30	70		SILT w/ SAND (ML) dark gray, moist, mod. stiff, non-plastic sand is fu-med. gray sand lenses, trace pyrite/multicolored @ 28, 37, 43, 44, 86-87, 101-103, 172 small brown wood chunks @ 48, 68, 74, 101, 177 few turfs @ 58 trace H2S-like odor 70-98 ± 126-152 black oxidation striations @ 126, 155, 164 black organic debris (turfs/leaves) @ 145 piece of glass @ 46	41-198	IT604B IT604C IT604D IT604E IT604F IT604G	

END OF CORE @ 198cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 91.4 cm
 Recovery: 76.2 cm on boat
 % Recovery: 83.3% on boat
 Notes: To process: 74.5 cm = 81.5%

Station ID: IT605
 Date/Time: 7/7/2021 17:20 process 1820
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-47	30	70		<p>0-47cm: POORLY GRADED SAND w/ GRAVEL (SP-GP) brownish gray, wet, loose sand is fn-med, gravel to 1" and angular few. reeds @ 14</p>	0-47	IT605	
47-74.5	15	85		<p>47-74.5cm: SILT w/ SAND (ML) gray, moist, sl. stiff, non-plastic sand is fn. gray sand patches @ 56, 64 2x2" angular gravel @ 52 1" wood chunk & trace shells @ 72</p>	47-74.5		
74.5				<p>END OF CORE @ 74.5 cm Core catcher full & logged</p>	74.5		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 121.9 cm
 Recovery: 115.8 cm on boat
 % Recovery: 95% on boat
 Notes: To process: 113.5 cm = 93.1%

Station ID: IT606
 Date/Time: 7/7/2021 17:00 process 1840
 Core Logged By: N. Bacher
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-11	90	10		POORLY GRADED SAND w/ SILT (SP-SM) gray, wet, loose, w/ orange oxi mottling. 2" angular gravel @ 7 & 9. Sand is fu-med.	0-11		
11-113.5			100	SILTY CLAY (LL) gray, moist, mod. stiff, moderate plasticity orange brown turp/leaves @ 38, 52, 59-60, 72-73 black oxidation mottling spots w/ fu sand @ 33, 56, 74	11-113.5	IT606 41.9 cm	

END OF CORE @ 113.5 cm
 Core catcher full and logged

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.5 ft on boat
 % Recovery: 92.9% on boat
 Notes: To process: 6.3 ft = 90%

Station ID: SC607
 Date/Time: 7/9/21 1409 process 1600
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
30	<5	>95		0-192cm: SILT (ML) olive gray to 8 then black, wet, soft non-plastic	30	SC607A	
60				56.5cm			
70				few 1/4" gravels @ 0-5 grades moist, soft @ 32	60	SC607B	
120				faint gray silty sand lenses @ 48, 66	90	110.5cm	
150				few thin 1.5" wood splinters @ 115	120	SC607C	
180				grades dry, stiff @ 135	150	137.5cm	
210				"massive"	180		
				END OF CORE @ 192cm	210		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.6 ft on boat
 % Recovery: 94.3% on boat
 Notes: To process 6.2 ft = 88.6%

Station ID: IT608
 Date/Time: 7/13/21 0659 process 0815
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	95	5		0-43cm: WELL GRADED SAND (SW) brownish gray, moist, mod. loose sand fn-cr, 3" wood splinters @ 7, 16 orange oxidation stained angular gravels up to 2" ^{gray silt w/ silt clast} from 23-43 @ 8-18	20	IT608A	
20-60	5	95		43-173cm: SILT (ML) olive gray, moist, sl. stiff, non-plastic black organic debris (leaves/twigs/reefs) @ 60, 99, 102 gray fn. sand clasts @ 49-50, 115, 119 orange oxidation stained fn-med sand clasts @ 129-132, 137, 149-151, 165	60	IT608B	
60-80					80	IT608C	
80-100					100	IT608D	
100-120					120	IT608E	
120-140					140	IT608F	
140-173					173	IT608G	
173-190				173-190cm: POORLY GRADED SAND (SP) moist, mod. dense, gray w/ multi-colored grains sand is fn-med.	190	IT608G	

PAL increased 2.5cm to accommodate bitting

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT609

Job No. 180067-02.02

Date/Time: 7/7/21 1351

process 1500

No. of Sections: 2

Core Logged By: N. Bacher

Drive Length: 7.0 ft

Attempt #: 3

Recovery: 5.9 ft on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 84% on boat

Diameter of Core (inches) 4"

Notes: To process. 4.9 ft = 69.8%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	10	90		<p><u>0-83cm</u>: SILT w/ SAND (ML) gray, wet/soft to 11 then moist, sand is silty, non-plastic, fine-med. orange oxidation mottling to 11 3/4" subgr. gravel @ 6 gray fine-med sand pockets @ 25, 37 few black wood splinters @ 29 black organic debris (leaves/turfs) @ 33, 71-72, 76 1/4" orange wood chunks @ 78</p>	0-20	IT609A	
20-40					20-40	IT609B	
40-60						IT609C	
60-80						IT609D	
80-100						IT609E	
100-120						IT609F	
120-140				<p><u>83-149cm</u>: POORLY GRADED SAND (SP) brown, moist, med. loose, sand is fine-med. black silt clast @ 108 sand is med-cr 119-131</p>	100-120		
140-160					120-140		
160-180				<p><u>END OF CORE @ 149</u> 25 cm void in core barrel @ 129-154 cm. Material slipped during core retrieval Log above is corrected for the void.</p>	140-160		

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SC610

Job No. 180067-02.02

Date/Time: 7/8/21 1030 process 1215

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 106.7 cm

Attempt #: 1

Recovery: 88.4 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 83% on boat

Diameter of Core (inches) 4"

Notes: To process: 88.5 cm = 83%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-88.5	45	295		<p>0-88.5 cm: SILT (ML) black, wet/soft to 44 then moist/sl. soft non-plastic. sand is fn - v. fn.</p> <p>faint gray clay clasts @ 27, 40, 80</p> <p>END OF CORE @ 88.5 cm Core catcher empty</p>	0-49.8	SC610	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 61.0 cm
 Recovery: 56.4 cm on boat
 % Recovery: 93% on boat
 Notes: ~~to process~~: 52cm = 85%

Station ID: IT611
 Date/Time: 7/7/2021 16:10 process 1700
 Core Logged By: N. Bacher
 Attempt #: TNS 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-40	30	70	71%	0-40cm: POORLY GRADED SAND w/ GRAVEL (SP-GP) gray, loose, wet, sand is fn-med, gravel up to 25" and rounded.	0-40	IT611	
40-52	70	30		40-52cm: POORLY GRADED GRAVEL w/ SAND (GP-SP) brown, loose, wet, sand is fn-med, gravel up to 1.5" and rounded.	40-52		
				END OF CORE @ 52cm Core catcher full and logged.	52	38.4 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: SC612

Job No. 180067-02.02

Date/Time: 7/8/21 10:15 process 11:50

No. of Sections:

Core Logged By: N. Bacher

Drive Length: 121.9 cm

Attempt #:

Recovery: 112.8 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 93% on boat

Diameter of Core (inches) 4"

Notes: to process: 113 cm = 92.7%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-113 cm				<p>SC612</p> <p>SILT (ML) black, wet/soft to 20 then moist, sl. soft, non-plastic. few roots/reeds and fn. sand 0-4.</p> <p>fine gray clay clasts @ 11, 26, 59, 71</p> <p>fn-med. gray sand pockets w/ pyrite flecks @ 65, 74</p> <p>one 1/8" sheen flonet (peacock) @ 86</p> <p>END OF CORE @ 113 cm Core catcher empty.</p>	55.6 cm	SC612	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 115.8 cm
 Recovery: 97.5 cm on boat
 % Recovery: 84% on boat
 Notes: to process: 115.8 cm = 84%
 97.5

Station ID: SC614
 Date/Time: 7/8/2021 11:35 process 1310
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-97.5	45	79.5		<p>0-97.5 cm: SILT (ML) black, wet/soft to 18, then moist/sl. soft non-plastic. sand is fm.</p> <p>fine gray clay clast @ 32</p> <p>few wood splinters @ 36, 87</p> <p>lense of med-cr sand gray w/ multicolored granules @ 68</p> <p>END OF CORE @ 97.5 cm Core catcher full and logged</p>	0-97.5	SC614 50.5 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT615

Job No. 180067-02.02

Date/Time: 7/7/2021 14:51 process 1545

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 4.4 ft

Attempt #: 1

Recovery: 3.6 ft on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 81.8% on boat

Diameter of Core (inches) 4"

Notes: To process: 3.4 ft = 77.5%

Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20	20	80	45	0-20cm: WELL GRADED SAND w/ GRAVEL (sw-GW) brown, moist, mod. dense. 25mm of olive grey silt on surface gravel to 1" and rounded. sand is fn-cr.	0-10	IT615A	
20-104	5	95		20-104cm: SILT (M2) blackish gray, moist, mod. stiff, non-plastic sand is v. fn. small orange brown wood chunks @ 32, 50, 86 black oxidation mottling 20-22	30-34.9	IT615B	
				gray fn. sand lenses @ 58, 69, 70, 71	40-54.9	IT615C	
				few 4"x1" wood splinters @ 90-97	90-97		

100

ENR

END OF CORE @ 104 cm

Page 1 of 1

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections:
 Drive Length: 4.5 ft
 Recovery: 3.6 ft on boat
 % Recovery: 80% on boat
 Notes: To process: 3.5 ft = 78%

Station ID: IT617
 Date/Time: 7/7/21 1540 process 1625
 Core Logged By: N. Bacher
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-27	20	80		0-27cm: WELL GRADED SAND w/ GRAVEL (sw-GW) brown, moist, med. loose, sand is fn-cr. Gravel up to 1.5" and rounded	0-27	IT617A	
27-86	25	>75		27-86cm: SILT (ML) blackish gray, moist, med. stiff, non-plastic black oxidation mottling 27-30 trace shell frags @ 39 gray clay clasts @ 47, 59 2.5"x1" & 3/4" flat shale pieces @ 68	27-86	IT617B 35.1cm	
86-107	95	<5		86-107cm: POORLY GRADED SAND (SP) blackish gray, moist, med. dense, sand is fn-med gray sand pockets @ 75, 87	86-107	IT617C 62.1cm	

END OF CORE @ 107cm

ENR

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT618

Job No. 180067-02.02

Date/Time: 7/7/2021 16:20 process 1720

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 4.6 ft

Attempt #: 1

Recovery: 3.8 ft on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 82.6% on boat

Diameter of Core (inches) 4"

Notes: To process: 3.7 ft = 79.9%

Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-23	30	70		0-23cm: WELL GRADED SAND w/ GRAVEL (SW-GW) brown, wet, loose sand 3 fr-cr. gravel to 1.5" and rounded. 0-5cm has interstitial olive gray silt in matrix, trace roots.	0-23	IT618A 23cm	
23-50	<5	>95		23-50cm: SILT (ML) black, moist, mod. stiff, non-plastic	23-35.9	IT618B 35.9cm	
				1" wood splinters @ 45-48	35.9-58.9	IT618C	
50-112	95	5		50-112cm: POORLY GRADED SAND (SP) gray, moist, mod. dense sand is fr-med 2" wood chunk @ 56 black silt lenses @ 69-70, 73-74, 95-96, 98-99	50-112	58.9cm	

END OF CORE @ 112cm

ENR

Sediment Core Processing Log

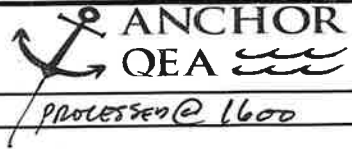


Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.0 FT / 121.9 CM
 Recovery: 118.9 CM ON BOAT
 % Recovery: 97.5%, ON BOAT
 Notes: PROCESSED: 115 CM = 94.3%

Station ID: SC620
 Date/Time: 7/15/21 1015 / PROCESSED 1220
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-115	10	90		<p>0-115 CM : SILT WITH SAND (ML) : SOFT, MOIST, BLACKISH GREY, FG SAND.</p> <p>@ 28, 39, 70 : SHELL FRAGMENTS @ 30 : 2.5" WOOD CHUNK @ 32, 50, 62, 96 : ORGANICS : ROOTS/TWIGS @ 33 : FRAGMENT BIVALVE SHELL</p> <p>@ 77-89 : GREY F-MED GRAINED SAND LENS (SP) @ 89 : GRADES TO MED. - STIFF</p> <p>END OF CORE @ 115 CM</p>	0-115	SC620	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 7 FT \leftarrow 213.4 (9)
 Recovery: 208.8 cm ON BOAT
 % Recovery: 97.9% ON BOAT
 Notes: PROCESSOR: 170cm = 79.7%

Station ID: 1T621
 Date/Time: 8/2/2021 15:13
 Core Logged By: S. STREET
 Attempt #: 10
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		5	95	0-28cm: SILT (ml) - VERY SOFT, WET TO 10cm, THEN SOFT, SATURATED, BLACKISH GRAY, FINE GRAINED SAND, ORGANICS - ROOTS	0-20	1T621A	
20-40		95	5	28-170: POORLY GRADED SAND (SP) - LOOSE, MOIST, DARK GRAY, FINE TO MEDIUM MULTICOLOR GRAINS.	20-40	35.9cm	
40-60				CSY GRADES COARSE, TRACE COARSE SAND, NO SILT	40-60	1T621B	
60-80		100	X		60-80	59.8cm	
80-100					80-100	1T621C	
100-120					100-120	83.7cm	
120-140					120-140	1T621D	
140-160				IT621GS1 - includes A interval IT621GS2 - includes B-G intervals through	140-160	107.6cm	
160-180				@160-170: FINE TO COARSE GRAINED SAND, MOSTLY M-COARSE.	160-180	1T621E	
				@170cm END OF CORE	160-180	131.5cm	
					160-180	1T621F	
					160-180	155.4cm	
					160-180	1T621G	
					160-180	170cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0
 Recovery: 5.7 ON ROBT
 % Recovery: 81.4 ON ROBT
 Notes: PROCESSED: 4.8 FT = 68.6 ?

Station ID: IT 622
 Date/Time: 7/14/12 0729
 Core Logged By: S. STREHL
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-36	x 5	95		0-36 cm: SILT (ML) - VERY SOFT, MOIST, BROWN GREY TO BLACKISH GREY, FG SAND, TRACE ORGANICS: ROOTS @ 28: FINE SUB-ROUND GRAVEL! @ 6 cm: BFOA - WORM @ 16, 29: PEACOCK SHEEN FLAMETTE, NO OODLES @ 20, 25, 31: WOOD SHREDS UP TO 3" @ 29: FIBERGLASS FRAGMENT UP TO 3" @ 29: WOOD STICK UP TO 4"	0-36	IT622A	
36-146	x 95	5		36-146 cm: POORLY GRADED SAND (SP): MED-DENSE, MOIST, BROWNISH DARK GREY, FINE TO MED MULTICOLOR GRAYS, GRADES MORE MED GRAINS WITH DEPTH @ 111-116: VOID, CLOSED + LOGGED @ 116: GRADES TO LOOSE @ 145: WOOD CHIP UP TO 2" END OF CORE AT 146 CM	36-146	IT622B 56.6 cm IT622C 77.2 cm IT622D 97.8 cm IT622E 118.4 cm IT622F 146 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections:
 Drive Length: 115.8 cm
 Recovery: 88.4 cm on boat
 % Recovery: 76% on boat

Station ID: SC623
 Date/Time: 7/18/2021 10:55 process 1220
 Core Logged By: N. Bacher
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Notes: To process: 88.5 cm = 76%
 70.4%

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		25	>95	0-88.5 cm. SILT (ML) black, wet/v. soft to 18 then moist/soft gray med-cr sand pockets @ 11 & 19	0-20	SC623	
20-40			gray fin sand pockets @ 46.58	40-45.8 cm			
40-60			few shell frags 51, 69	60-88.5 cm			
60-80							
80-100				END OF CORE @ 88.5 cm core catcher empty	100-120		
100-120							

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.6 ft
 Recovery: 3.8 ft on boat
 % Recovery: 82.6% on boat
 Notes: To process 3.5 ft = 75.6%

Station ID: IT624
 Date/Time: 7/7/2021 17:02 process 1800
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-26	30	70		0-26 cm: WELL GRADED SAND w/ GRAVEL (SW-GW) brown, wet, loose sand is fu-cr, gravel is up to 1.5" rounded.	0-26	IT624A	
26-95	<25	>95		26-95 cm: SILT (ML) black, moist, sl. stiff, non-plastic, sl. H2S odor, lots of angular glass shards up to 3" @ 27-28, 46-48, 52-60 wood splinters @ 38, 41, 47, 58-60, 79 2" bark frags @ 67-68	26-95	IT624B IT624C	
95-106	>95	<25		95-106 cm: POORLY GRADED SAND (SP) gray moist, mod. dense, sand is fu-med	95-106		

END OF CORE @ 106 cm

ENR

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT626 1932

Job No. 180067-02.02

Date/Time: 7/7/21 1144 process 1900

No. of Sections: 1

Core Logged By: N. Bacher AV

Drive Length: 4.9 ft

Attempt #: 25

Recovery: 3.8 ft on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 77.6% on boat

Diameter of Core (inches) 4"

Notes: To process: 3.5 ft = 71.6%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-23	30	70		0-23cm: WELL GRADED SAND w/ GRAVEL (SW-GW) brown, wet, loose, sand is fin-cr, gravel to 1.5" and rounded.	0-23	IT626A 23cm	
23-102			<5 >95	23-102cm: SILT (ML) black, moist, mod-stiff, non-plastic large (2") wood chunks @ 33, 35, 49, 66, 72 gray clay clasts @ 27, 29 trace shells 72-73	23-102	IT626B 32.2cm IT626C 55.2cm	

ENR
107

102-107cm: POORLY GRADED SAND (SP) gray, moist, mod dense, sand is fin-med.
END OF CORE @ 107cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 121.9 cm
 Recovery: 115.8 cm on boat
 % Recovery: 95% on boat
 Notes: to process: 111.5 cm = 91.5%

Station ID: IT627
 Date/Time: 7/8/2021 15:05 process 1640
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		20	80	0-46 cm: SILT w/ SAND (ML), black to 22 then brown, wet/soft to 11 then moist, sl. soft, sand is fn-med. black oxidation starting @ 12 orange oxidation mottling 11-22 15% up to 3/4" rounded gravel 22-28	0-20	IT627 41.2 cm	
20-40				46-111.5 cm: POORLY GRADED SAND (SP) brown, moist, mod. dense sand is fn-med	20-40		
40-60					40-60		
60-80					60-80		
80-100					80-100		
100-120				END OF CORE @ 111.5 cm Core catcher empty	100-120		
120-140					120-140		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.9 FT = 137.2 cm
 Recovery: 4.3 FT ON BOAT
 % Recovery: 95.6% ON BOAT
 Notes: PROCESSOR: 135 cm = 98.4%

Station ID: SC628
 Date/Time: 7/26/2021 11:18 / PROCESSOR 1405
 Core Logged By: S. STEPHAN
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-135	5	95	95	0-135 cm: SILT (ML) - SOFT, SATURATED TO 40 cm, THEN MED. BROWN STIFF, MOIST, BLACKISH GRAY, FINE GRAINED SAND. @ 11-14, 41-45, 79-81, 121-123: GRAY FINE TO MEDIUM GRAINED SAND (SP) LENSES @ 21, 37, 59, 74, 100: ORGANICS - ROOTS @ 61: 1/4" F-MED. GRAINED SAND (SP) CLAST @ 81, 100: 1.5" WOOD FRAGMENT END OF CORE @ 135 cm	0-135	SC628A 87.3 cm SC628B 116.8 cm	

07.3
116.8

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 3
 Drive Length: 14.0'
 Recovery: 13.0' on boat
 % Recovery: 92.9% on boat
 Notes: To process: 12.6' = 89.8%

Station ID: SC 629
 Date/Time: 6/30/21 collect 1100 process 1310
 Core Logged By: N. Bucher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-30			5 95	0-94 cm: SILT (ML), wet soft, dark gray, non-plastic olive gray, mod. dense, silty sand lenses. 80/20 sand is fr. @ 19-20, 23-24, 92-93 3x1" decomposing bark fragment @ 56	0-30	SC629A	
30-60					30-60	SC629B	
60-90			5 95	94-170 cm: SILT (ML), moist, sl. soft, dark gray, non-plastic 1" mussel @ 168	60-90	94.4 cm	
90-120					90-120	SC629C	
120-150					120-150	SC629D	
150-180			5 95	170-310: SILT (ML), dry, mod. stiff, dark gray, non-plastic olive gray, mod. dense, silty sand lenses. 80/20 sand is fr. @ 190-194, 270-272, 284-290 black organic debris, (twigs, leaf mats) @ 197-199, 235-237 2" piece of bark @ 199 3" piece of decomposing branches @ 279 1" gray silt clast @ 301	150-180	148.2 cm	
180-210					180-210	SC629E	
210-240					210-240	SC629F	
240-270					240-270	SC629G	
270-300					270-300	SC629H	
300-320					300-320	SC629I	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: See
 Drive Length: first page
 Recovery: page
 % Recovery:
 Notes:

Station ID: SC 629
 Date/Time: See page 1
 Core Logged By: NB
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4" ¹¹
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
300					300	SC629J 310cm	
330	95		5	310-369: POORLY GRADED SAND (SP), dry, mod. dense, brownish gray w/ multi colored grains, cr-med sand is fine , trace shells Gray silt clasts @ 319-325 w/ decomposing wood frags. Gray silt clasts @ 344-353	330	SC629K 339.6cm	
360					360	SC629L 383cm	
390	95		5	369-383: POORLY GRADED SAND (SP), dry, mod. dense, brownish gray w/ multi colored grains sand is med-fn. Olive gray silt lens @ 375 END OF CORE @ 383cm	390		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0
 Recovery: 7.7 ON BOAT
 % Recovery: 110 ON BOAT
 Notes: PROCESSED: 6.2 FT = 88.6 ft

Station ID: SC6.30
 Date/Time: 7/13/21 1216
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core: Mudmole Vibracore Diver Core
 Diameter of Core (inches):
 Core Quality: Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch	
0-5		5	95	0-189cm: SILT (ML): VERY SOFT, WET TO 49cm THEN MED STIFF, MOIST, BLACKISH-GREY, FG SAND. @ 7-24: TRACE ROOTS/ORGANICS/TWIGS @ 29: INTER ALTRIVE SHELL @ 49: 1/2" SHELL FRAGMENTS @ 102-110: UNID UNIT DARK GREY @ 123, 131: F-MED MULTICOLOR GRAFFNES Sp: POORLY SORTED SAND CLASTS UP TO 1/2" @ 170-186: VOID CLOSED	0-5			
5-20					20	SC630A		
20-40					40	53.2cm		
40-60					60	SC630B		
60-80					80	79.8cm		
80-100					100	SC630C		
100-120					120	106.4cm		
120-140					140	SC630D		
140-160					160	133.0cm		
160-180					180	SC630E		
180-189					189	159.6cm		
						SC630F		
						189.0cm		
				END OF CORE @ 189				

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.2 ft on boat
 % Recovery: 88.6% on boat
 Notes: To process: 5.7 ft = 81.4%

Station ID: IT632
 Date/Time: 7/12/21 0928 process 1435
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (m)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-95	5	95		<p>0-95cm: SILT (ML) gray, wet/soft to 18, then moist, sl. soft, sand is fin, non-plastic</p> <p>10% fin. sand to 8. sl. H₂S odor to 65</p> <p>fin-med gray w/ multi-colored grains lenses @ 14, 20-22, 82-86</p> <p>sand w/ silt, gray, clasts @ 89-94</p> <p>black organz debris (needs, turps) @ 29, 39, 42, 57, 70, 83</p> <p>2" wood chunk @ 46</p> <p>3" wood splinters @ 78</p>	20 40 60 80 100	IT632A 36.6cm IT632B 61.0cm IT632C 95.0cm	
95-174				<p>95-174cm: POORLY GRADED SAND (SP) brownish gray, moist, mod. loose, sand is fin-med, multicolored grains</p> <p>few thin wood shreds @ 153</p>	100 120 140 160 180	IT632D 119.4cm IT632E 143.8cm IT632F 174cm	
				END OF CORE @ 174cm	180		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.8 ft on boat
 % Recovery: 97.1% on boat
 Notes: To process: 6.6 ft = 94.3%

Station ID: SC634
 Date/Time: 7/12/13 1311 PROCESS 1710
 Core Logged By: N. Bacher
 Attempt #:
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	5	95		0-20cm. SILT (ML) blackish gray, wet/soft to 19, then moist/sl. soft, non-plastic one orange worm @ 5	20	SC634A	
20-40				faint oxidation mottled brownish gray clay clasts @ 19, 34, 77, 93	40	56.6cm	
40-60				fin-med gray w/ multi-colored grains sand lenses @ 82-83, 92-94, 99-124, 130-131, 152-153	60	SC634B	
60-80				interbedded fin. gray sand and black silt lenses (~2cm thick) between 133-178	80	84.9cm	
80-100				black 3" silt clast @ 128	100	SC634C	
100-120					120	113.2cm	
120-140					140	SC634D	
140-160					140	141.5cm	
160-180					160	SC634E	
180-200					180	169.8cm	
200-220					200	SC634F	
					200	201cm	

END OF CORE @ 201 cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 FT
 Recovery: 5.4 FT ON BOAT
 % Recovery: 77.1% ON BOAT
 Notes: Processed: 5.2 FT = 74.5 l.

Station ID: 1T635
 Date/Time: 7/16/2021 12:56 / Processed 1415
 Core Logged By: S. STREHL
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		10	90	0-118 cm: SILT WITH SAND (ML) - VERY SOFT, WET, DARK GREY TO 13 cm, THEN MED. STIFF, MOIST, BLACKISH GREY, FG SAND. @ 8, 32, 35, 67: WOOD CHUNKS UP TO 1.5" @ 36, 48, 67, 83, 111: ORGANICS - ROOTS/REEDS @ 41, 57, 61: PEACOCK SHEEN FLOULETTES @ 45-48, 61-63: DARK GREY SAND LENS (SP)	0-20	1T635A	
20-40					20-40	33.5 cm	
40-60					40-60	1T635B	
60-80					60-80	55.9 cm	
80-100		5	95		80-100	1T635C	
100-120					100-120	70.3 cm	
120-140				@ 75: GRADES SELTTER, STIFF @ 86: SHELL FRAGMENTS 118-159 cm: POORLY GRADED SAND (SP) - MED. DENSE, MOIST, DARK GREY, FINE TO MED. MULTICOLORED GRAINED.	120-140	1T635D	
140-160					140-160	100.7 cm	
160-180					160-180	1T635E	
180-200					180-200	118 cm	
200-220					200-220	1T635F	
220-240					220-240	140.4 cm	
240-260					240-260	1T635G	
260-280					260-280	159 cm	

FG: FINE-GRAINED SAND

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: **IT 037**

Job No. 180067-02.02

Date/Time: **7/6/21 1710**

No. of Sections: **3**

Core Logged By: **N. Bacher**

Drive Length: **6.4 ft**

Attempt #: **1**

Recovery: **6.4 ft on boat**

Type of Core Mudmole Vibracore Diver Core

% Recovery: **100% on boat**

Diameter of Core (inches) **4"**

Notes: **To process: 6.3 ft = 98.4%**

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-66	95		5	<p>0-66cm: POORLY GRADED SAND (SP) brownish gray, moist mod. dense sand 1/3 fin-med few 1" subgr. gravels @ 24-34 few orange brzk frags @ 33-35 olive gray w/ black oxidation mottling silt clasts @ 28-43</p>	0-66	IT637A 44.3cm	
66-192	15	80	<5	<p>66-192cm: POORLY GRADED SAND w/ GRAVEL (SP-GR) gray, moist, med dense, scattered subgr-subang. 1/2" gravel. trace orange oxidation mottling to 118. gray decomposing wood chunks w/ H2S-like odor 95-98 few needs @ 131 brown bark frags/branches @ 148-155 2" angular gravel pieces @ 127, 135, 147 1" piece of glass @ 174. Two 3"x2" gray piling chunks w/ small splinters as well 177-192</p>	66-192	IT637B 66.5cm IT637C 96.0cm IT637D 125.5cm IT637E 155.0cm IT637F 192cm	

END OF CORE = 192cm

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT638

Job No. 180067-02.02

Date/Time: 7/16/21 1640 process 1740

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 121.9 cm

Attempt #: 1

Recovery: 103.6 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 85% on boat

Diameter of Core (inches) 4"

Notes: To process: 102 cm = 83.7%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-102		25-95		<p>0-102 cm: SILT (ML) black, wet/soft to 28, then moist, mod. stiff, non-plastic</p> <p>"massive"</p> <p>trace black organic debris (turfs/leaves) @ 13</p>	0-102	IT638 37.7 cm	
				<p>END OF CORE @ 102 cm</p> <p>core catcher full & logged</p>			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 106.7 cm
 Recovery: 91.4 cm on boat
 % Recovery: 86% on boat
 Notes: To process: 91 cm = 85.3%

Station ID: JT639
 Date/Time: 7/6/21 1650 process 1810
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20				<p>0-91 cm: SILT (ML) black, wet to moist, mod. soft, non-plastic few mussel shells 0-3 cm brown wood splinters @ 14 gray clay clasts @ 16, 20 "massive"</p>	0-20	<p>IT639 38.4 cm</p>	
20-40					40-60		
60-80					60-80		
80-100					80-100		
100-106.7				<p>END OF CORE = 91 cm Core catcher full & logged.</p>	100-106.7		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 5.5 ft on beat
 % Recovery: 78.6% on beat
 Notes: To process: 5.1 ft = 72.6%

Station ID: SC640
 Date/Time: 7/9/2021 12:00 process 1300
 Core Logged By: N. Bacher
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	10	90		0-141cm: SILT (ML) black, wet/soft to 19 then moist/soft, non-plastic, sand is fin. mussels @ 6 & 13 few wood splinters @ 14 faint gray clay clasts @ 18, 26 gray clay lenses @ 87, 91, 102-103 2" wood chunks @ 104, 113 gray fin. sand lenses @ 124, 132	0-20	SC640A	
20-40			43.6cm				
40-60			SC640B		65.4cm		
60-80			SC640C		87.2cm		
80-102			SC640D		109cm		
102-120			SC640E		130.8cm		
120-140				SC640F	155cm		
140-155	95	5		141-155cm: POORLY GRADED SAND (SP), blackish gray, moist, med. dense, sand is fin-med, trace multi-colored grains 24 piece of wood @ base	140-155		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 131.0 cm
 Recovery: 131.0 cm on boat
 % Recovery: 100%

Station ID: 17641
 Date/Time: 7/8/2021 15:20 process 1735
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core: Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality: Good Fair Poor Disturbed

Notes: To process: 131cm = 100%

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-131	5	95		<p>0-131 cm. SILT (MC) black, wet/soft to 14 then moist/sl. stiff, non-plastic</p> <p>fin gray sand pockets @ 26, 34, 42</p> <p>3/4" wood chunks & small branches @ 42</p> <p>fin gray sand lenses (fin sand) @ 49-52, 55-58, 118-120</p> <p>thin wood splinters @ 61, 128-131</p> <p>END OF CORE @ 131 cm Core catcher full & logged.</p>	0-131	IT641 45.0 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 6.9 ft
 Recovery: 5.2 ft on boat
 % Recovery: 75.3% on boat
 Notes: To process: 5.1 ft = 73.9%

Station ID: IT644
 Date/Time: 7/12/12 1111 process 1530
 Core Logged By: N. Bacher
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20				0-104 cm: SILT (MC) blackish gray, wet/soft to 19, then moist/sl soft Non-plastic few gravel, 15% fine-med sand, worms, scattered green seaweed to 8 orange oxidation mottled sand lens @ 20 black organic debris (twigs, leaves) 17, 30 2" wood splinters @ 41 1/2" orange wood chunks @ 44, 67 2" wood chunk @ 84 black fine-med sand pocket @ 88 faint gray clay clasts @ 28, 55, 78, 89	0-20	IT644A	0-20
20-40					20-40	IT644B	20-40
40-60					40-60	IT644C	40-60
60-80					60-80	IT644D	60-80
80-100					80-100	IT644E	80-100
100-120					100-120	IT644F	100-120
120-140					120-140	IT644G	120-140
140-160					140-160	IT644H	140-160
160-180					160-180	IT644I	160-180
180-200					180-200	IT644J	180-200
	5	95	95	104-155 cm: POORLY GRADED SAND (SP) brownish gray, moist, med. loose, trace multi-colored grains			
				END OF CORE @ 155 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT647

Job No. 180067-02.02

Date/Time: 7/7/2021 13:45 process 1445

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 121.9 cm

Attempt #: 1

Recovery: 115.8 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 95% on boat

Diameter of Core (inches) 4"

Notes: To process: 116 cm = 95%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-116	<5	>95		<p>0-116 cm: SILT (ML) black, wet/soft to 21 then moist/sl. stiff non-plastic, sand is fin. gray clay clasts @ 6, 15, 19, 40, 42</p> <p>few wood splinters @ 67</p> <p>END OF CORE @ 116 cm Core catcher full & logged</p>	0-42.8	IT647 42.8 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0
 Recovery: 0.2 ON BOAT
 % Recovery: 88.6 ON BOAT
 Notes: PROCESSING: 5.7 ft = 81.4%

Station ID: IT648
 Date/Time: 7/13/21 11:32
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core: Mudmole Vibracore Diver Core
 Diameter of Core (inches): 4"
 Core Quality: Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch	
0-20		5	95	<p>0-114 cm: SILT (ML) with SOFT, WET, BROWN TO 9CM THEN MED STIFF, MOIST, BLACKISH GREY, FG SAND.</p> <ul style="list-style-type: none"> - SMALL ROOTS / ORGANICS @ 19, 34, 52, 66 - BLACK MOTTLING @ 30-50 @ 77: DECOMPOSING WOOD UP TO 1" - F-MED MULTI-COLORED GRATED SP CLUSTERS @ 54, 60, 74, 83 UP TO 14" @ 64: REEDS UP TO 1/2" @ 102: SHELL FRAGMENTS UP TO 1/2" 	20	IT648A		
20-40					36.6 cm			
40-60					61.0 cm			
60-80					85.4 cm			
80-100					114.0 cm			
100-120		5	95		<p>114-174 cm: POORLY GRADED SAND (SP) - LOOSE, MOIST, BROWNISH GREY, F-MED MULTI-COLORED GRATEDS.</p> <ul style="list-style-type: none"> @ 125-130: Voids in core (CLOSED VOIDS) @ 141: FINE SUB-RND GRAVEL <p>END OF CORE @ 174</p>	120	IT648B	
120-140						138.4 cm		
140-160						174 cm		
160-180								
180-200								
200-220								

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.5 ft on boat
 % Recovery: 92.9% on boat
 Notes: To process: 5.8 ft = 83.4%

Station ID: 1T649
 Date/Time: 7/18/2021 16:26 process 1830
 Core Logged By: N. Bucher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	10	90		0-47cm: SILTY CLAY w/ SAND (CL) gray, moist, soft, low-plast, sand is fn. few weeds/twigs 0-3 fn. gray sand pockets @ 19, 29 black oxidation staining striations @ 20, 32, 35, 38	20	1T649A 37.5cm	
20-47					40	1T649B 47cm	
47-60	80	20		47-94cm: SAND w/ SILT (SM) gray, moist, mod. dense, sand is fn. gray clay clasts @ 63, 83, 92	60	1T649C 72cm	
60-80					80	1T649D 94cm	
80-100					100	1T649E 119cm	
100-120	>95	<5		94-178cm: POORLY GRADED SAND (SP) dark gray, moist, mod. dense, sand is fn-med, trace multi-colored grains 2" wood chunk @ 163	120	1T649F 144cm	
120-140					140	1T649G 178cm	
140-160				@ 164-170 gray fn. sand lense w/silt, 2" rounded wood chunk, twigs, 1/4" orange decomposing wood shreds.	160		
160-178				END OF CORE @ 178 Void between 122-131cm, Void is closed in the log above.	180		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 = 213.4 cm
 Recovery: 5.6 FT ON BOAT
 % Recovery: 80.0% ON BOAT
 Notes: PROCESSED: 159 cm = 74.5%

Station ID: IT650
 Date/Time: 7/20/2021 1439 / PROCESSED @ 1615
 Core Logged By: S. Smith
 Attempt #: 4
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		95	5	0-159 cm : POORLY GRADED SAND (SP) MED. DENSE, MOIST, BROWNISH GRAY, FINE TO MEDIUM GRAINED SAND. @19: ORGANICS - ROOTS GRASSES / TRACE COARSE GRAINED SANDS @19-28: LIGHT BROWN SILT LENS @28: GRADES TO DENSE @43-49: LIGHT BROWN SILT LENS @43: SUB-ROUNDED GRAVELS up to 1/2" @50: 1.5" METALLIC METAL FRAGMENT @51,63: SUB-ROUNDED GRAVELS up to 1.5" @60: ORANGE OXIDIZED STAINING SPOT	0-20	IT650A	
20-40					20-40	33.5 cm	
40-60					40-60	IT650B	
60-80					60-80	55.9 cm	
80-100					80-100	IT650C	
100-120					100-120	78.3 cm	
120-140					120-140	IT650D	
140-160					140-160	113.0 cm	
160-180		95	5	113-159 cm : POORLY GRADED SAND (SP) - DENSE, MOIST, DARK GRAY, FINE TO MEDIUM MULTICOLORED GRAINS @113: WOOD DEBRIS: FRAGMENTS @117: GREY CLAY RIP UP CLASTS 1/8" @120,147: FINE ROUNDED GRAVELS	120-140	IT650E	
180-200					140-160	135.4 cm	
					160-180	IT650F	
					180-200	159.0 cm	
				END OF CORE @ 159 cm			

* SAME LISTING BUT HARD CONTACT CHANGE AND AT 113 TO DARK GRAY MULTICOLORED GRAINS

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 109.7 cm
 Recovery: 99.5 cm on boat
 % Recovery: 86% on boat
 Notes: To process: 90.5 cm = 82.5%

Station ID: IT651
 Date/Time: 7/8/2021 12:05 process 1320
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-2		5	95	SILT (ML) olive brown, wet, v. soft non-plastic sand is fin. green sea weed clusters on surface	0-2		
2-90.5		5	95	SILT (ML) black, wet/soft to 23, then moist/soft, non-plastic, sand is fin-v. fin faint gray clay clasts @ 9, 14, 22, 48, 53	2-90.5	IT651	
				gray fin-med sand w/ trace multi-colored grain lenses @ 44		37.1 cm	
				END OF CORE @ 90.5 cm Core catcher is full and logged			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.6 ft
 Recovery: 5.7 ft on boat
 % Recovery: 84.3% on boat
 Notes: To process: 4.8 ft = 68.6%

Station ID: IT652
 Date/Time: 7/12/21 0844
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core: Mudmole Vibracore Diver Core
 Diameter of Core (inches): 4"
 Core Quality: Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-119	5	95	95	<p>0-119cm: SILT (ML) grayish black, wet, soft to 19, non-plastic - low-plasticity, fine-med sand to 7. moist/stiff below 19 one orange worm @ 6 fine-med gray sand w/ multicolored grains sand lenses @ 30, 32, 43, 54 1/4"-1/2" orange bark frags @ 53, 88, 62 faint gray clay clasts/lenses @ 31, 41, 61, 65 moist/stiff below 60 stiff below 89 interbedded olive gray sand w/ silt lenses and black oxidized silt lenses ~ 1cm thick</p>	0-20 20-40 40-60 60-80 80-100 100-120 120-140 140-160 160-180 180-200	IT652 A 30.9cm IT652 B 51.5cm IT652 C 72.1cm IT652 D 92.7cm IT652 E 119cm IT652 F 147cm	
119-147	>95	<5	<5	<p>119-147cm: POORLY GRADED SAND (SP) gray, moist, mod. loose, multi-colored grains, sand is fine-med. black 2" silt clast @ 122</p>	119-140 140-160 160-180 180-200		
				<p>END OF CORE @ 147cm Void between 123-143cm, closed in the log above.</p>	160-180 180-200		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 7.2 ft on boat
 % Recovery: 102.9% on boat
 Notes: To process: 6.5 ft = 92.9%

Station ID: IT653
 Date/Time: 7/21/21 0809 process 1055
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-199	5	95		<p>0-199cm: SILT (ML) blackish gray, wet, sl soft to 22, non-to low plast, sand is fn. 10% fn-med sand to 5. black branch pieces @ 27, 80, 152 sl. H₂S odor to 40 moist, sl. stiff @ 22 black sand w/silt lenses and wood splinters @ 39-41, 80-82, 86-88, 180-192 trace shells 70-73, 148-150 gray clay clasts/fragments lenses @ 44, 53, 62, 92, 94, 108 moist, stiff @ 89 1/4" orange wood chunks @ 133, 145 gray fn-med sand lenses w/ trace multi-colored grains @ 70-72, 158-162 68-70</p>	0-199	IT653A 41.8 cm IT653B 69.7 cm IT653C 97.6 cm IT653D 125.5 cm IT653E 153.4 cm IT653F 181.3 cm IT653G 199 cm	

200

END OF CORE @ 199cm
 Void @ 172cm-180cm, closed in log above.

Sediment Core Processing Log

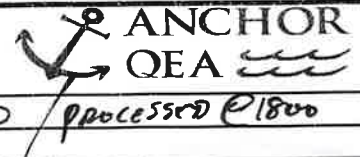


Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.5' on boat
 % Recovery: 92.9% on boat
 Notes: To process: 5.8' = 82.9'

Station ID: 17654
 Date/Time: 7/8/2021 15:47 process 1715
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20	<5	>95		0-52cm: SILTY CLAY (CL) gray, moist, soft, moderate plasticity one worm @ 2 few roots @ 17 black oxidation staining 25, 27, 37	0-20	17654A 37.3cm	Diagonal hatching
20-60	80	20		52-144cm: SAND w/ SILT (SM) gray, moist, mod. dense, sand is fn. gray clay clast 110, 132 orange oxidation mottled clay clast @ 138	20-60	17654B 52cm 17654C 76.9cm	Vertical lines
60-144					60-144	17654D 101.8cm 17654E 126.7cm 17654F 144cm	Vertical lines with circles
144-178	>95	<5		144-178cm: POORLY GRADED SAND (SP) gray, moist, mod. dense, with multi-colored grains sand is fn-med. gray clay clast @ 175	144-178	17654G 178cm	Vertical lines with dots
178-200				END OF CORE = 178cm 5cm void @ 122cm. Core adjusted to account for void.	178-200		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 Ft = 213.4 cm
 Recovery: 5.9 FT on PROAT
 % Recovery: 84.3% on PROAT
 Notes: PROCESSING: 166 cm = 77.8%

Station ID: 1T655
 Date/Time: 7/19/2021 @ 1540 / processed @ 1800
 Core Logged By: S. STREET
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-166	95	5		<p>0-166 cm: POORLY GRADED SAND (SP) DENSE, MOIST, BROWNISH GREY, FINE TO MEDIUM GRAINED SAND. @3-9: ORGANICS - GRASS/ROOTS @59,75: ORANGE OXIDIZED STAINING @71,83,90: 1/8" TAN SILT LENS @97-100: TAN SILT LENS @100: WOOD DEBRIS - 1.5" FRAGMENT @100: GRADES COARSEN, COLOR CHANGE TO DARK GREY @117,127: 2" BLACK WOOD CHUNK, FRAGMENTS @122: 3" WOOD CHUNK, FRAGMENTS @127,132,138: 1/4" GREY CLAY REP UP CLUSTS @130,133,140: WOOD DEBRIS; FRAGMENTS, WOOD CHUNKS UP TO 3" @160: TRACE COARSE SAND GRAINS</p>	0-166	1T655A 35cm 1T655B SB.3cm 1T655C Bi. 6cm 1T655D 104.9cm 1T655E 128.2cm 1T655F 166cm	
				END OF CORE @ 166			

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT056

Job No. 180067-02.02

Date/Time: 7/8/2021 12:25 process 1430

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 115.8 cm

Attempt #: 1

Recovery: 112.8 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 97% on boat

Diameter of Core (inches) 4"

Notes: To process: 107cm = 92.4%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-3		>95		SILT (ML) olive brown, wet, very soft, non-plastic w/ seaweed bunches on top - green	0-3	IT056 41.6 cm	
3-107		95		SILT (ML) black, soft, moist non-plastic, sand is fin. faint gray clay clasts @ 13, 40, 76 2" branch piece @ 23	3-107		
				END OF CORE @ 107cm Core catcher full and logged	107		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0
 Recovery: 5.9 on Boat
 % Recovery: 84.3 on Boat
 Notes: Processing: 5.5 ft = 78.6%

Station ID: IT657
 Date/Time: 7/13/21 1020
 Core Logged By: S. Smith
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches)
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		60	90	0-108 cm : SILT (ML) SOFT, WET AND BROWN TO 8cm THEN MED. STIFF, MOIST, AND BLACKISH-GREY, FINE G SAND. @ 8-14: orange oxidized worm cast @ 36: 2" wood splinter @ 40: 1" weed @ 44: GREEN PAINT CHIP 1/8"	0-20	IT657A	
20-40		5	95	@ 64-71: F-MED G SAND, DARK GRAY MULTI-COLORED GRAINED LENS @ 72: GRAY SILTY CLAY	20-40	35.4cm IT657B	
40-60				@ 100-108: Black wood chips up to 2.5"	40-60	59.0cm IT657C	
60-80					60-80	82.6cm IT657D	
80-100					80-100	108cm	
100-120		95	5	108-168 cm : Poorly Grained SAND(sp)-Loose, moist, brownish grey, F-MED-GRAINED SAND, MULTI-COLORED GRAINED. @ 126-131: VOID IN INTERVAL, VOID CLOSED	100-120	131.6cm IT657E	
120-140				@ 167: 2" wood chunk, wood splinters	120-140	168cm IT657F	
140-160				END OF CORE @ 168	140-160		
160-180					160-180		
180-200					180-200		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0
 Recovery: 6.8 ON BOAT
 % Recovery: 97.1 ON BOAT
 Notes: PROCESSED: 6.4 FT = 91.47

Station ID: IT658
 Date/Time: 7/13/21 0901
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-195	X	5	95	<p>0-195 cm: SILT (ML) - SOFT, WET TO 16 cm THEN MED STIFF, MOIST - BROWN TO BURGUNDY GREY, FG SAND</p> <ul style="list-style-type: none"> 0-16 cm: HZS ORG, BFOOD: WORMS, WOOD CHUNKS UP TO 2", REEDS, TWIGS 2" WOOD CHUNK @ 27 GREY FG SAND LENS / FAINT LENS @ 30, 38, 40, 71 PYRITE FLECKS, SHELL HAZH @ 71 <p>- FINE TO MED GRAINED DARK GRAY MULTICOLORED GRAINES @ 87-89, 100-102, 110-113, 124-129</p> <p>- GRAINES MED STIFF @ 100-120</p> <p>- GRAINES STIFF @ 100-120</p> <ul style="list-style-type: none"> WOOD SPLINTERS UP TO 2.5" @ 104 <p>- GRAINES MED STIFF @ 120</p> <p>BLACK</p> <ul style="list-style-type: none"> DECOMPOSING WOOD CHUNKS UP TO 1.5" @ 140, 149, 150 TRACE SHELL HAZH, REEDS UP TO 1.5", WOOD DEBRIS, TWIGS @ 155-159 <p>1/4" BLACK OXIDIZED LENS @ 190</p> <p>END OF CORE @ 195</p>	0-20	IT658A	
20-40					20-40	41.1cm	
40-60					40-60	IT658B	
60-80					60-80	68.5cm	
80-100					80-100	IT658C	
100-120					100-120	95.9cm	
120-140					120-140	IT658D	
140-160					140-160	123.3cm	
160-180					160-180	IT658E	
180-200					180-200	150.7cm	
						IT658F	
						178.1cm	
						IT658G	
						195cm	
						IT658H	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0
 Recovery: 5.9 on boat
 % Recovery: 82.3 boat
 Notes: Processed: 5.16 ft = 80%

Station ID: IT659
 Date/Time: 7/13/21 0817
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20	x	5	95	0-108 cm: SILT (ML): med stiff, moist, BLACKISH-GREY, FG SAND DARK GRAY @48-50cm FG-med GRAINED MULTICOLOR SAND LENS @48-90: BLACK ORGANIC ORGANIC STRIATIONS	0-20	IT659A 36.0cm	
20-80				@79: SMALL WOOD CHUNKS UP TO 3cm, BLACK ORGANIC DEBRIS	20-40	IT659B 60.0cm	
80-100	x	15	85	@85-89: GRAY FG SAND LENS, APPROX 1" -INCREASING SAND TO 15% AFTER 90cm	40-60	IT659C 84.0cm	
100-120	x	95	5	108-160 cm: FINE GRAINED SAND (SP) - MEDIUM DENSE, MOIST, BROWNISH GRAY, TRACE SILT, NO ORGANICS, 1/4" GRAY REF UP CLAY CLASTS SCATTERED THROUGHOUT	60-80	IT659D 108cm	
120-140				@153-160: DARK BROWN MULTICOLOR GRAINED FG SAND CLAST	80-100	IT659E 132cm	
140-160					100-120	IT659F 160cm	
160-180	5	90	5	160-172 cm: SANDY (SP): loose, moist, BLACK, F-M GRAINED MULTICOLOR GRAINED SUBRND/RND FINE GRAVEL (POORLY GRAINED SAND)	120-140	IT659G 172cm	
180-200				END OF CORE @ 172 cm	140-160		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 6.6 FT
 Recovery: 5.2 ON BOAT
 % Recovery: 78.8 ON BOAT
 Notes: PROCESSED: 4.8 FT = 74.2 l.

Station ID: IT660
 Date/Time: 7/14/21 0839
 Core Logged By: S. STRACH
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20	x	95	5	0-42 cm: POORLY GRADED SAND (SP): M-DENSE, MOIST, BROWNISH GREY, F-MED MULTICOLORED GRAINS. @ 17-26: MED STIFF, MOIST, OLIVE GREY SILT (ML) CLAST @ 17-26, 31-36: ORANGE OXIDIZED STAINING	0-20	IT660A 42.0 cm	
20-60		80	20	42-68 cm: SILTY SAND (SM): M-DENSE, MOIST, DARK GREY, FG SAND. @ 43: ORANGE OXIDIZED STAINING	20-60	IT660B 68.0 cm	
60-100		95	5	68-150 cm: POORLY GRADED SAND (SP): M-DENSE, MOIST, BROWN BLACKISH GREY, FINE-MEDIUM MULTICOLORED GRAINS, GRAINS MORE MEDIUM GRAINED. @ 92: 1.5" SUB-ROUNDED GRAVEL @ 93: BROWN 1/2" SILT CLAST @ 99-104: ORANGE OXIDIZED STAINING @ 107: 1/2" ROUNDED PUMPLE-LIKE GRAVEL	60-100	IT660C 90.3 cm	
100-120					100-120	IT660D 112.4 cm	
120-140					120-140	IT660E 134.9 cm	
140-160					140-160	IT660P 150.0 cm	
160-180				END OF CORE @ 150 CM	160-180		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0
 Recovery: 6.5 ON BOAT
 % Recovery: ~~92.9~~ 92.9 ON BOAT
 Notes: TO PROCESS: 6.2' = 88.6

Station ID: IT602
 Date/Time: 7/13/21 0742
 Core Logged By: W. BACIKOV
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-5	X 10	90		0-5 CM: SILT w/ SAND (ML) VERY SOFT, WET, BROWN, FG SAND, TRAIL ROOTS	0-5	IT602A	
5-188	X 5	95		5-188 CM: SILT (ML) SLIGHTLY STIFF, MOIST, BLACK-ISH, FG SAND - GREY SM LENSES @ 51, 58, 93 - SP GRAY MULTICOLOR GRAINS @ 89-90, 107 - BLACK ORGANIC DEBRIS @ 111 (LEAVES, TWIGS) - INTER BEDDED SP GRAY MULTICOLORED GRAINS + BLACK SILT @ 127-153 - 1/4" WOOD CHUNKS BLACK @ 135, 128 - 1/4" GRAY CRUST (CLAY) @ 170, 178 - 2" BLACK WOOD SPLINTERS @ 183	5-188	IT602B IT602C IT602D IT602E IT602F	
188-200	X 20	80		BELOW 183 FINE SAND FG SAND to 20% END 188 CM	188-200	IT602G	

END OF CORE @ 188 CM

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 Ft = 213.4 cm
 Recovery: 6.1 Ft on boat
 % Recovery: 87.1% on boat
 Notes: Processed: 181 cm = 84.8%

Station ID: 1T663
 Date/Time: 7/19/2021 1444 / processed 1945
 Core Logged By: S. STREHL
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-89		90	10	0-89 cm : SAND WITH SILT (SM) - MED. DENSE, MOIST, DARK GREY, FINE GRAINED SAND. @17 : PLASTIC SHEET @25 : FINE SUB-ROUND GRAVEL @37-41 : GREY SILT LENS @52 : WOOD FRAGMENT @55-58 : GREY SILT LENS @61-63 : DARK GREY F-MED GRAINED SAND LENS (SP) @72 : FINE SUB ANGLULAR GRAVEL	0-89	1T663A 38.2 cm	
89-181		95	5	89-181 cm : POORLY GRAINED SAND (SP) DENSE, MOIST, DARK GREY, FINE TO MEDIUM GRAINED SAND. SOFT CONTACT, GRADES COARSEN. @125-132, 154-160 : GREY FINE- GRAINED SAND LENS @144, 165, 170 : GREY SILT CLAST 1/4" @154, 162, 170, 179 : WOOD DEBRIS - STICKS / FRAGMENTS UP TO 2" @160 GRADES COARSEN (TRACE COARSE- GRAINED SAND)	89-181	1T663B 63.6 cm 1T663C 89.0 cm 1T663D 114.4 1T663E 139.8 cm 1T663F 165.2 cm 1T663G 181 cm	
				END OF CORE @ 181			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 6.9 FT = 210.3 cm
 Recovery: 6.9 FT ON BOAT
 % Recovery: 100% ON BOAT
 Notes: Processed: 198 cm = 94.2%

Station ID: IT664
 Date/Time: 7/20/2021 1241 / PROCESSOR: 1445
 Core Logged By: S. STRATH
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0		5	95	0-198 cm: SILT (ML) - MED. STIFF TO 8cm THEN STIFF, MOIST, BLACKISH GRAY, FINE GRAINED SAND.	0		
20					20	IT664 A	
40				@ 41-47: COLOR CHANGE TO OLIVE GRAY @ 51, 124, 141, 145, 150: 1/4" DARK GRAY FINE TO MED. GRAINED (SP) SAND LENS	40	42.4 cm	
60				@ 54, 95: ORGANICS - ROOTS @ 55, 81, 84, 90, 96, 128, 191: PEACOCK SHEEN FLOWETTES	60	IT664 B	
80				@ 55, 116, 131, 160, 174, 177: WOOD FRAGMENTS @ 64, 133: 1" DARK GRAY FINE TO MED. GRAINED SAND (SP) CLAST	80	70.7 cm	
100				@ 103: FINE BLACK ANGULAR METALLIC GRAIN	100	IT664 C	
120					120	99.0 cm	
140					140	IT664 D	
160					160	127.3 cm	
180					180	IT664 E	
200					200	155.6 cm	
						IT664 F	
						198.0 cm	

END OF CORE @ 198 cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 FT = 213.4 cm
 Recovery: 6.7 FT ON BOAT
 % Recovery: 95.7% ON BOAT
 Notes: processed: 195 cm = 91.4%

Station ID: IT665
 Date/Time: 7/19/2021 @ 11:21 / processed 6530
 Core Logged By: S. Strahl
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-195				<p>0-195 cm: SILT WITH SAND (ML) SOFT TO 12 cm THEN STIFF, MOIST, DARK GREY, FINE-GRAINED SAND. @ 35: BLACK FG SAND LENS 1/4"</p> <p>@ 66, 80, 119: WOOD DEBRIS - STICKS UP TO 1"</p> <p>@ 74-78: DARK GREY FG SAND LENS</p> <p>@ 126: WOOD DEBRIS - FRAGMENTS / CHIPS UP TO 3"</p> <p>@ 133: PEACOCK SHEEN FLORINETTES</p> <p>@ 142: START OF TATED BEDDED BLACKISH GREY SILT / FINE GRAINED SAND LENSES UP TO 1/2" SAND LENS @ 142, 144, 152, 156, 161, 165, 173, 178</p> <p>@ 183-195: DARK GREY FINE GRAINED SAND LENS W/ TRACE MED. GRAINS</p> <p>END OF CORE @ 195 cm</p>	0-200	<p>IT665A 41.1 cm</p> <p>IT665B 68.5 cm</p> <p>IT665C 95.9 cm</p> <p>IT665D 143.3 cm</p> <p>IT665E 170.7 cm</p> <p>IT665F 178.1 cm</p> <p>IT665G 195.0 cm</p>	

FG: FINE-GRAINED SAND

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 FT = 213.4 cm
 Recovery: 6.7 FT ON BOAT
 % Recovery: 95.7% ON BOAT
 Notes: processer: 169 cm = 79.2 ft.

Station ID: 1T666
 Date/Time: 7/19/2021 12:30 / processer @ 1630
 Core Logged By: S. Smeth
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch	
0-20		95	5	0-169 cm: Poorly Graded Sand (sp) Medium dense, moist, brownish grey, fine to medium grained sand, mostly fine grained. @ ORANGE OXIDIZED STAINING SPOTS @ 3, 5, 10, 16, 29, 42, 54, 61 @ 49: wood debris - fragments/shavings up to 2" @ 53, 71, 74: shell fragments @ 65 grades to dark grey, saturated to 91 cm @ 67: peacock sheen flourette @ 68: shingle fragment @ 93-104; 123-135: dense, grey, silty sand (fg) lens, oxidized staining spots @ 109: grey silt clast 1/4" @ 129: 2" wood fragment @ 145, 153: 1/4" grey silt clast @ 168: 1.5" stick END OF CORE @ 169 cm	20	1T666A	35.6 cm	
20-40					40	1T666B		
40-60					60	59.4 cm		
60-80					80	1T666C		
80-100					100	83.2 cm		
100-120					120	1T666D		
120-140					140	107 cm		
140-160					160	1T666E		
160-180					180	130.8 cm		
180-200					200	1T666F		
200-213.4					213.4	169 cm		

FG: FINE - GRAINED

Sediment Core Processing Log



Job: AOC4 Duwamish

Station ID: IT668

Job No. 180067-02.02

Date/Time: 7/9/21 1435 process 1600

No. of Sections: 1

Core Logged By: N. Bacher

Drive Length: 128.0 cm

Attempt #: 1

Recovery: 118.9 cm on boat

Type of Core Mudmole Vibracore Diver Core

% Recovery: 93% on boat

Diameter of Core (inches) 4"

Notes: To process: 115 cm = 89.8%

Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-115	<5	>95		<p>0-115 cm: SILT (ML) black, wet/soft to 18 then moist, stiff.</p> <p>1" rounded gravel @ 8</p> <p>2" wood splinters @ 12</p> <p>gray clay pockets @ 17, 51</p> <p>gray clay lenses (mod. plast) @ 23-25, 62-68</p> <p>black organic debris layer (twigs/leaves) @ 59</p> <p>1/4" orange wood chunk @ 66-69</p>	0-115	IT668 40.4 cm	
				<p>END OF CORE @ 115 cm</p> <p>Core catcher full & logged.</p>			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 ft
 Recovery: 6.5 ft
 % Recovery: 92.9% on boat
 Notes: To process: 6.2 ft = 88.6%

Station ID: 1T669
 Date/Time: 7/8/2021 17:02 process 1905
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20				0-189 cm: SILT (ML) black, moist, st. soft, non-plastic, sand is fin.	0-20	1T669A	
20-40	10	90		fin. gray sand pocket @ 13 small wood chunks @ 34	20-40	39.9 cm	
40-60				faint gray clay pockets @ 55, 68, 74, 85	40-60	1T669B 66.5 cm	
60-80				black oxidatory striations @ 59, 71, 87, 102, 104, 114	60-80	1T669C 93.1 cm	
80-100				fin-med gray sand pockets/lenses w/ trace multi-color grains @ 120, 124, 130, 136, 150, 164, 171, 177, 187	80-100	1T669D 119.7 cm	
100-120				light weight ^{MS} coal like aggregate pieces @ 140 (up to 2", 4-5 pieces)	100-120	1T669E 146.3 cm	
120-140				3" wood splinter @ 142	120-140	1T669F 172.9 cm	
140-160				trace shells @ 88 & 165-170	140-160	1T669G 189 cm	
160-180				3/4" angular aggregate w/ large qtz-x ¹ one flat side @ 163	160-180		
180-200				1/4" wood chunks and trace shells @ 183 188	180-200		
200-210				END OF CORE @ 189 ^{MS} cm	200-210		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 FT = 213.4 cm
 Recovery: 5.4 FT ON BOAT
 % Recovery: 77.1% ON BOAT
 Notes: PROCESSOR: 153 cm = 71.7%

Station ID: IT670
 Date/Time: 7/20/2021 1342 / PROCESSOR: 1600
 Core Logged By: S. STUEHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		95	5	0-153 cm: POORLY GRADED SAND (SP) MED. DENSE, BROWNISH GRAY, MOIST, FINE TO MED. GRAINED SAND.	0-20	IT670A	
20-40				@ 2, 6: 1/2" STEELS	20-32.3	32.3 cm	
40-60				@ 24-27: LIGHT BROWN SILT LENS WITH ORANGE OXIDIZED STAINED LAYERS	32.3-40	IT670B	
60-80				@ 30: GRADES TO DENSE	40-53.8	53.8 cm	
80-100				@ 39-47: LIGHT BROWN SILT LENS WITH ORANGE OXIDIZED STAINED LAYERS	53.8-65	IT670C	
100-120				@ 47-65: SATURATED LIGHT BROWN FINE GRAINED SAND LENS WITH SILT	65-75.3	75.3 cm	
120-140				@ 65-96: ORANGE OXIDIZED STAINED LAYERS	75.3-80	IT670D	
140-160				@ 96-110: 1/8" INTERBEDDED LIGHT BROWN SILT LENSES	80-96.8	96.8 cm	
				@ 122, 134, 137, 149: 1/8" ORANGE OXIDIZED STAINED LENS	96.8-118.3	118.3 cm	
				@ 126-127, 132-133, 144-148: LIGHT BROWN SILT LENSES	118.3-153.0	153.0 cm	
				END OF CORE @ 153 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.1 Ft / 125.0 CM
 Recovery: 121.9 CM ON BOAT
 % Recovery: 97.6%, ON BOAT
 Notes: Processed: 120cm = 96%

Station ID: SC671
 Date/Time: 7/15/21 1315 / PROCESSOR: 1545
 Core Logged By: S. STRATH
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (M)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (CM)	Sample	Summary Sketch
0-120		5	95	0-120 CM : SILT (MLG) : SOFT, SATURATED TO 25 CM THEN MED. STIFF, MOIST, BLACKISH GREY, FINE SAND. @10 : 1" REED @20, 51 : ORGANICS - ROOTS @80, 93 : 1/2" BIVALVE SHELLS END OF CORE @ 120 CM	0-120	SC671 57.6cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.3 FT / 131.1 cm
 Recovery: 125 cm ON BOAT
 % Recovery: 95.3%, ON BOAT
 Notes: PROCESSOR: 122 cm = 93.1%

Station ID: SC672
 Date/Time: 7/15 1150 / PROCESSOR 1330
 Core Logged By: S. STREET
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-122	10	90		<p>0-122 CM: SILT WITH SAND (ML): SOFT, SATURATED TO 43 CM THEN MOIST, BLACKISH GREY, FINE GRAINED SAND.</p> <p>@21, 24, 28: PEACOCK SHEEN FLOWETTES @41, 53: FATACRY BEVALVE SHELLS @62: GRADES TO MED. STIFF @26, 32, 47, 58, 71, 95, 104, 108: ORGANICS: ROOTS/DEEPS @37: ANGULAR GRAVEL UP TO 1.5"</p> <p>@91, 93: SHELL FRAGMENTS</p> <hr/> <p>END OF CORE AT 122 CM</p>	0-122	SC672 55.9 cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 10.2 ft = 310.9 cm
 Recovery: 307.8 cm on boat
 % Recovery: 99% on boat
 Notes: ~~Recovery~~ Processing: 309 cm = 100%

Station ID: SC673
 Date/Time: 7/19/2021 @ 0950 / processes 1240
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
35			5 95	0-309 cm: SILT (ML) - VERY SOFT, SATURATED TO 33 cm, THEN SOFT, MOIST, BLACKISH GREY, FINEGRAINED SAND. @ 1 cm: LIVE BENT NOSE CLAM @ 5, 8: SUB AXIAL GRAVEL UP TO 1/2" @ 5, 11, 31, 43, 50, 68, 84, 97, 114, 125, 146, 159: BEVALVE SHELL / SHELL FRAGMENTS @ 35: 1.5" REEF @ 115: GRADES TO MED. STIFF DENSITY	35	SC673A 60.0 cm	
70					70	SC673B 90.0 cm	
105					105	SC673C 120.0 cm	
140					140	SC673D 150.0 cm	
175					175	SC673E 180.0 cm	
210					210	SC673F 210.0 cm	
245					245	SC673G 240.0 cm	
280				@ 268-290: BLACK SAND BLAST-GRIT LIKE MATERIAL, F-MED GRAINS, SHEEN, RED PAINT CHIP LIKE MATERIAL	280	SC673H 270.0 cm	
315				@ 290: GRADES TO STIFF DENSITY	315	SC673I 309.0 cm	
				END OF CORE @ 309 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 10
 Recovery: 8.0
 % Recovery: 80%
 Notes:

Station ID: 673
 Date/Time: 7/20/2021 16:15
 Core Logged By: CTV
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core *Shim. 2*
 Diameter of Core (inches) 4
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-10	1	1	100	0-10 to See GT35 Log 10-14.7: Soft, moist, black SILT (ML). Low plasticity, Trace organics (fibers)	0-24		AB
10-11					24-48		BB
11-12					48-72		CB
12-13					72-96		DB
13-14				@13.75: lamination of metallic-like flakes, occasional amount.	96-120		EB
14-15	1	75	25	14.7-16.8: loose, moist, dk gray, silty SAND (SM). Fine, multi-colored sand. Trace organics (wood debris)	120-144		FB
15-16					144-168		GB
16-17	1	95	95	16.8-19.8: m. stiff, moist, olive gray SILT (ML) w/ some fine SAND.	168-192		HB
17-18		10	90		192-216		IB
18-19					216-240		JB
19-20					240-275		KB

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 10.8 FT / 329.2 cm
 Recovery: 329.2 cm ON ANCHOR BOAT
 % Recovery: 100% ON BOAT
 Notes: processing = 342 cm = 100%

Station ID: SC674
 Date/Time: 7/19/2021 @ 09:20 / processing: 1125
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
35		5	95	0-342 cm: SILT (ML) - VERY SOFT, SATURATED to 15 cm THEN MED STIFF, MOIST, BLACKISH GRAY, TRACE FINE-GRAINED SAND. @ 28: ORGANICS - REED UP TO 1"	35	60.0 cm SC674A	
70					70	SC674B 90.0 cm	
105					105	SC674C 120.0 cm	
140					140	SC674D 150.0 cm	
175					175	SC674E 180.0 cm	
210					210	SC674F 210.0 cm	
245					245	SC674G 240.0 cm	
280					280	SC674H 270.0 cm	
315				@ 318-323: SAND-BLAST GRIT LIKE MATERIAL. BLACK F-MED GRAINED, SHINY, WITH TRACE WHITE PLANT CHIP-LIKE MATERIAL.	315	SC674I 300.0 cm	
350					350	SC674J 342.0 cm	

END OF CORE @ 342 cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections:
 Drive Length: 10 Feet
 Recovery: 7'8"
 % Recovery: 76.7%
 Notes:

Station ID: 674
 Date/Time: 7/20/2021 13:20
 Core Logged By: CTT
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core Sonic
 Diameter of Core (inches) 4
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-11	-	-	100	0-11 Not Logged 11-14.4: soft, moist, black SILT (ML). Trace organics (fibers). No O ₂ .	0-23.1	0-23.1	ML AB
11-14.4					23.1-46.2	23.1-46.2	BB
14.4-17.8				@ 14.4: lamination of silty SAND w/ gold-like flakes (metal shavings)	46.2-69.3	46.2-69.3	CB
17.8-21				14.4-17.8: loose, moist, dk gray, silty SAND (SM). Multi-grained, fine sand particles. colored	69.3-92.4	69.3-92.4	DB
21-23.1				17.8-21 m. stiff, moist, dk olive gray, SANDY SILT (ML). Non-plastic, High dilatancy.	92.4-115.5	92.4-115.5	EB
23.1-27.9					115.5-138.6	115.5-138.6	FB
27.9-32.7					138.6-161.7	138.6-161.7	GB
32.7-37.5					161.7-184.8	161.7-184.8	HB
37.5-42.3					184.8-207.9	184.8-207.9	IB
42.3-47.1					207.9-231	207.9-231	JB

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.2 FT / 128 cm
 Recovery: 125 cm ON BOAT
 % Recovery: 97.6% ON BOAT
 Notes: processed: 125 cm = 97.7%

Station ID: SC675
 Date/Time: 7/15/21 1245 / PROCESS 1440
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-125			100	<p>0-125 cm : SILT (ML)</p> <p>VERY SOFT, SATURATED TO 42 cm, THEN MED. STIFF, MOIST. BLACKISH GREY.</p> <p>@ 36, 109, 25 : ORGANICS : ROOTS</p> <p>END OF CORE @ 125 cm</p>	0-125	<p>SC675</p> <p>58.6 cm</p>	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.0 FT / 121.9 CM
 Recovery: 115.8 CM ON BOAT
 % Recovery: 95.0% ON BOAT
 Notes: PROCESSED: 111 CM = 91.0%

Station ID: SC676
 Date/Time: 1235 7/15/21 / PROCESSED 1410
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		10	90	0-111 CM : SILT WITH SAND (ML) : VERY SOFT, SATURATED TO 36 CM, THEN MED. STIFF, MOIST, BLACKISH GREY, FG SAND. @ 7, 23, 57, 76, 97 : ORGANICS : ROOTS	0-20	SC676 54.6 cm	[Sketches of sediment layers]
20-111				END OF CORE @ 111 CM	20-111		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.2 Ft / 128.0 cm
 Recovery: 128 cm ON BOAT
 % Recovery: 100%, ON BOAT
 Notes: PROCESSED: 119.5 cm = 93.4%

Station ID: SC677
 Date/Time: 7/19/21 1300 / PROCESSED 1510
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-5		5	95	0-119 cm: SILT (ML) VERY SOFT, SATURATED TO 30 cm THEN MED. TRACE STIFF, MOIST, BLACKISH GREY, FG SAND. @ 24, 31: ORGANICS - ROOTS	0-56.0	SC677 56.0cm	
				END OF CORE @ 119 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 128.0 cm
 Recovery: 128.0 cm on boat
 % Recovery: 100% on boat
 Notes: To process: 127 cm = 99.2%

Station ID: IT679
 Date/Time: 7/8/2021 16:10 process 1800
 Core Logged By: N. Bacher
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-127	10	90		<p>0-127cm: SILT (ML) black, moist, soft non-plastic, sand is fn. few reeds and green seaweed bunches on surface.</p> <p>few reeds/twigs @ 20</p> <p>few roots & shell frags @ 10</p> <p>gray sand w/ silt (SM 80/20) lenses @ 67-70, 84-91 sand is fn.</p> <p>END OF CORE @ 127cm Core catcher is full & logged.</p>	0-127	IT679 44.6cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 4.0 FT (121.9 CM)
 Recovery: 3.5 FT (106.7 CM) ^{on boat}
 % Recovery: 87.5% ^{on boat}
 Notes: PROCESSED: 101 CM = 82.9 %

Station ID: SC680
 Date/Time: 7/14/21 1130
 Core Logged By: S. STREET
 Attempt #: 5
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (CM)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (CM)	Sample	Summary Sketch
0-101	100	0	0	<p>0-101 CM: POORLY GRADED SAND (SP): LOOSE, MOIST, BROWN, F-C GRAINED, PREDOMINATELY F-MED GRAINED.</p> <p>@ 2 cm: 3" ROOT @ 3 cm: 2" BLACK SUBSAND GRAVEL @ 16 cm: 1/2" BLACK SUBSAND GRAVEL</p>	0-101	SC680	
				END OF CORE @ 101 CM			

* 5 ATTEMPTS / 4 COLLECTED (ATTEMPT # 3 REJECT)
 # 4 NOT PROCESSED/LOGGED = EXCESS MATERIAL
 ATTEMPT # 5 PROCESSED BECAUSE LONGEST CORE (ALL CONSISTENT LITHO)

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.9 FT (106.7 cm)
 Recovery: 3.3 FT ON BOAT
 % Recovery: 94.3% ON BOAT
 Notes: Processed: 87 cm = 81.5%

Station ID: IT681
 Date/Time: 7/14/21 1025
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-87	95	5		<p>0-87 cm: Poorly Graded Sand (SP) - med. dense, moist, brownish grey, F-med multi-colored graded sand.</p> <ul style="list-style-type: none"> - SATURATED @ 27-54 - SUB ANGULAR GRAVEL up to 1/2" @ 22, 44, 48 - 1/4" GREY CLAY CLASTS @ 18, 26 - 2" STICK @ 40 - GREY CLAY CLAST w/ 1/8" BLACK ORGANICS @ 55-62 - ORANGE OXIDIZED STRAWING @ 74-77 <p>END OF CORE AT 87 CM</p>	0-87	IT681 36.7cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.2 FT (97.5 cm)
 Recovery: 3.2 ON BOAT
 % Recovery: 100 ON BOAT
 Notes: PROCESSED: 97.5 cm = 100%

Station ID: IT682
 Date/Time: 7/14/21 0740
 Core Logged By: S. STREET
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		80	20	0-97.5 cm: SILTY SAND (SM): MED-DENSE, MOIST, GREY/DARK GREY, FG SAND, GRADES SANDS @6: METAL FRAG 1/2" @35,49: 1/4" GREY CLAY CLAST @76: 1" STEEL @84: SUB ROUNDED GRAVEL 1/2"	0-20	IT682	
100				END OF CORE @ 97.5 cm	100	45.0cm	

* 6 ATTEMPTS / 5 COLLECTED (ATTEMPT #2 REJECT)

- 4 ATTEMPTS SIMILAR LITHOLOGY: LOGGED LONGEST OF SIMILAR LITHOS (3,4,5,6)

- NOTES RETAINED FOR ALL CORES

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 217.4 CM
 Recovery: 179.6 CM ON BOAT
 % Recovery: 84% ON BOAT
 Notes: Processed; 166 CM = 77.8%

Station ID: 1T683
 Date/Time: 7/20/2021 1427 / processed 1830
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core CPT
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (CM)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (CM)	Sample	Summary Sketch
0-20		95	5	0-166 CM : POORLY GRAINED SAND (SP) - LOOSE, SATURATED, DARK GREY TO 24 CM, THEN MED. DENSE, MOIST, BROWNISH GREY, FINE TO MED. GRAINED SAND. @ 0-24: TRACE SUB-ANGULAR GRAVELS UP TO 1/2"	0-20	1T683A	
20-35				@ 44: COLOR CHANGE TO DARK GREY @ 44-49: DARK GREY SILTY SAND LENS (SM) FINE- GRAINED SAND	35.0 CM	1T683B	
35-58					58.3 CM	1T683C	
58-81					81.6 CM	1T683D	
81-104				@ 95, 98, 103, 116, 119, 135, 143, 149, 157, 159, 163 1/4" GREY CLAYEY SILT CLASTS	104.9 CM	1T683E	
104-122				@ 99: BLACK SILT LENS 1/4" @ 122-129: GREY CLAYEY SILT CLAST	128.2 CM	1T683F	
122-166				END OF CORE @ 166 CM	166 CM		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 9.0 Ft = 274.3 cm
 Recovery: 226.6 cm ON BOARD
 % Recovery: 83.3% ON BOARD
 Notes: PROCESSOR: 226 cm = 82.4%

Station ID: 1T684
 Date/Time: 7/19/2021 14:35 / processor @ 1915
 Core Logged By: S. STREHL
 Attempt #: 4
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch	
0		90	10	0-148 cm: SAND WITH SILT (SM) - LOOSE, SATURATED TO 36 cm, THEN MED. DENSE, MOIST, DARK GREY, FINE GRAINED SAND. @ 2 cm: ORANGE OXIDIZED STAINING @ 3, 11, 20, 25, 30, 102: ORGANIC ROOTS @ 35, 105: WOOD DEBRIS - FRAGMENTS UP TO 1/2" @ 55, 64, 68, 70, 76, 79, 83, 98: SUB-ROUNDED GRAVELS UP TO 3" @ 53, 60: GREY SILT CLASTS 1/4" @ 71-78, 87-90, 96-98, 106-110, 123-127, 131-133, 137-142: STIFF GREY SILT LENSES	0	1T684A	25	
25					25	37.1 cm		
50					50	1T684B		
75					75	61.8 cm		
100					100	1T684C		
125					125	86.5 cm		
150					150	1T684D		
175					175	111.2 cm		
200					200	1T684E		
225					225	148.0 cm		
250		95	5	148-226 cm: POORLY GRAINED SAND (SP) - LOOSE, DARK GREY, MOIST, FINE TO MED. GRAINED. @ 153: 1/2" BLACK SILT CLAST @ 214: 2.5" WOOD FRAGMENT	250	1T684F		
					275	172.7 cm		
					300	1T684G		
					325	197.4 cm		
					350	1T684H		
					375	226.0 cm		
				END OF CORE @ 226 cm	400			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.5 Ft (106.7 cm)
 Recovery: 3.4 on boat
 % Recovery: 97.1 on boat
 Notes: Processed: 90.5 = 84.8%
 cm

Station ID: JT685
 Date/Time: 7/14/21 09:20
 Core Logged By: S. STREHL
 Attempt #: 4
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

3.4

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		80	20	0-90.5 cm : SILTY SAND (SM) : LOOSE, SATURATED TO 72 cm THEN MORE DENSE, MOIST, BROWNISH DARK GREY, FINE TO MED MULTI-COLOR GRAINED SAND. GRADES TO MORE MEDIUM-GRAINED WITH DEPTH. @ 16, 20, 28, 30 : SUBANG / SUB RND GRAVEL UP TO 2.5" @ 46-56 : GREY SILT CLAST (MED STIFF) @ 76 : WOOD CHIP 1"	0-20	JT685 38.2 cm	
20-40		85	15		20-40		
40-60					40-60		
60-80					60-80		
80-100					80-100		
100				END OF CORE AT 90.5 cm	100		

*5 Attempts / 5 COLLECTED

- Attempt #4 SELECTED AS LONGEST + MOST CONSISTENT TO OTHER SHORTER ATTEMPTS (ALL OTHER NOTES RETAINED)

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 3.3 FT / 100.6 CM
 Recovery: 97.5 CM ON BOAT
 % Recovery: 97.0% ON BOAT
 Notes: Processed: 97 CM = 96.4%

Station ID: IT686
 Date/Time: 0945 / 7-15-21 / PROCESSED: 1145
 Core Logged By: S. STREHL
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-97		90	10	<p>0-97 CM: SAND WITH SILT (SOL) = LOOSE, MOIST, BLACKISH GREY, F. GRAINED SAND.</p> <p>@ 29-31, 63-65, 73-76: BROWN (SP) F-MED GRAINED SAND LENS</p> <p>@ 57: ORGANICS: REEDS</p> <p>@ 66: GRADES TO MED. DENSE</p> <p>@ 69, 77: ORGANIC DEBRIS: WOOD SHREDS/STICKS</p> <p>END OF CORE @ 97 CM</p>	0-97	IT686 43.4 CM	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2
 Drive Length: 7.0 FT = 213.4 cm
 Recovery: 5.7 FT ON BOAT
 % Recovery: 81.4% ON BOAT
 Notes: Processed: 153 cm = 71.7%

Station ID: IT694
 Date/Time: 7/20/2021 1639 / PROCESSING @ 1810
 Core Logged By: S. STREHL
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-153	90-95	10	5	<p>0-153 cm: POORLY GRAINED SAND (SP) - MED. DENSE, MOIST, BROWNISH GREY, FINE TO MED. GRAINED.</p> <p>@ 0-6 cm: WOOD SILT, ROOTS</p> <p>@ 28, 37, 45, 53: 1/8" SOFT FRACTURED BLACK SHINY COARSE FRAGMENTS - ANGULAR GRAIN LENSES. CHARCOAL-LIKE MATERIAL</p> <p>@ 46: 1/2" WOOD FRAGMENT</p> <p>@ 56-60: 50% WOOD DEBRIS LENS - SHREDS, STEMS, FRAGMENTS</p> <p>@ 60-62, 70-75: GREY SILT LENS</p> <p>@ 75-77: RED BRICK-LIKE MATERIAL + FINE GRAINS, CONSOLIDATED CHUNKS, LENS</p>	0-153	IT694 A 32.3 cm IT694 B 53.8 cm IT694 C 75.3 cm IT694 D 96.8 cm IT694 E 118.3 cm IT694 F 153.0 cm	
				END OF CORE @ 153 cm			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 2.4 Ft / 73.2 cm
 Recovery: 2.4 Ft ON BOAT
 % Recovery: 100% ON BOAT
 Notes: PROCESSED: 72 cm = 98.4%

Station ID: ITC97
 Date/Time: 7/15/21 0825 / processed @ 1015
 Core Logged By: S. STRICH
 Attempt #: 5
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-26		10	90	0-26 cm : SILT W/ SAND (ML) : VERY SOFT, SATURATED, BLACKISH GREY, FG SAND - PEACOCK SHEEN FLOUETTE @ 5, 12 - 2" WOOD FRAGMENT @ 9 - WOOD DEBRIS : ROOTS/STICKS @ 18, 14, 20, 25	0-26	ITC97 44.28 cm	
26-78		95	5	26-78 cm : POORLY GRADED SAND (SP) : MED-DENSE, MOIST, BLACKISH GREY, FINE TO MEDIUM GRAINED SAND, TRACE COARSE SAND - WOOD DEBRIS : SHREDS/STICKS @ 33, 37, 43 - 1/4" BLACK DEBRIS @ 38 - 2" BLACK SHALE FRAGMENT @ 39 - 1/2" BLACK SILT CLAST @ 41 END OF CORE @ 78 cm	26-78		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 274.3 cm
 Recovery: 204.2 cm ON BOAT
 % Recovery: 74.4% ON BOAT
 Notes: PROBLESSON: 202 cm = 73.6'

Station ID: IT698 (X)
 Date/Time: 8/3/21 12:04 1453 / PROBLESSON @ 1545
 Core Logged By: S. STREIN
 Attempt #: 8
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		20	80	0-16 cm: SANDY SILT (ML) - SOFT, SATURATED, DARK GREY, FINE-GRAINED SAND, TRACE ORGANICS - ROOTS. @ 1 cm: 7 cm WOOD CHUNK - POSSIBLE TREE ROOT FRAGMENT	0-20	IT698AX	
20-40	5	90	5	16-202 cm: POORLY GRADED SAND (SP) LOOSE, MOIST, DARK GREY, FINE TO COARSE GRAINED, TRACE SUB-ROUNDED GRAVEL. @ 24: GRAY SILT CLAST 1/2"	20-40	34.0 cm IT698BX	
40-60		95	5	@ 34-202: GRAINES TO FINE TO MEDIUM MULTICOLORED GRAINED SANDS.	40-60	56.1 cm IT698CX	
60-80				@ 134: 2" SUB-ROUNDED GRAVEL	60-80	78.2 cm IT698DX	
80-100				@ 142: FINE SUB-ROUNDED GRAVEL	80-100	100.3 cm IT698EX	
100-120					100-120	122.4 cm IT698FX	
120-140					120-140	144.5 cm IT698GX	
140-160					140-160	166.6 cm IT698HX	
160-180					160-180	202.0 cm	
180-200					180-200		
200-202					200-202		

END OF CORE @ 202 cm

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 228.6
 Recovery: 175.3 cm ON BOAT
 % Recovery: 76.7% ON BOAT
 Notes: PROCESSOR: 175 cm = 76.6%

Station ID: 1T69B (Y)
 Date/Time: 8/3/2021 1420 / PROCESSOR @ 1635
 Core Logged By: S. STREHL
 Attempt #: 7
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (m)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (m)	Sample	Summary Sketch
0-3		20	80	0-3 cm: SANDY SILT (ML) - SOFT, SATURATED, BROWN, FINE-GRAINED SAND, ORGANICS - GRASSES			
3-175	5	90	5	3-175 cm: POORLY GRAINED SAND (SP) - LOOSE, MOIST, BROWNISH GRAY, FINE TO MEDIUM GRAINED, SOME COARSE SAND, TRACE SUB-ROUNDED GRAVEL (FINE). @15: 2" SUB-ROUNDED GRAVEL (GRANITIC-LIKE) @19: 1" SUB-ROUNDED GRAVEL (GRANITIC-LIKE) @35: GRADES TO FINE TO MEDIUM MULTICOLORED GRAINED SAND, COLOR CHANGE TO DARK GRAY. @114: GRAY SILT DEP UP LAST @132: FINE SUB-ROUNDED GRAVEL @168: SANDY SILT (ML) SS 8-7-21 1/4" WOOD CHIP (BARK-LIKE, FRAGILE / SOFT)	20	1T69BAY 35cm	
		95	5		40	1T69BBY 58cm	
					60	1T69BCY 81cm	
					80	1T69BDY 104cm	
					100	1T69BEY 127cm	
					120	1T69BFY 156cm	
					140	1T69BGY 175cm	
					160		
				END OF CORE @ 175 cm	180		
				1T69BGS1 - includes intervals B thru G			

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 45.7 cm
 Recovery: 45.7 cm ON BOAT
 % Recovery: 100% ON BOAT
 Notes: processed: 45.0 cm = 98.5 L

Station ID: 1T699 X
 Date/Time: 8/2/2021 10:24 / processed: 1230
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-45		95	5	0-45 cm: poorly GRADED SAND (SP) - LOOSE, WET TO 9 cm THEN SATURATED, BROWNISH GREY, FINE TO MED FINE SAND. top 2 cm: wood fragments + ORGANICS. END OF CORE @ 45 cm	0-45	1T699AX 45 cm	

* 5 cm wood chunks fell out of CORE CATCHER/ CORE BOTTOM

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 76.2 cm
 Recovery: 68.6 cm ON BOAT
 % Recovery: 90% ON BOAT
 Notes: processing: 70 cm = 91.9%

Station ID: 1T699 (y)
 Date/Time: 8/2/2021 10:44 / processing @ 1300
 Core Logged By: S. STREHL
 Attempt #: 2
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
15		85		0-4 cm: SANDY SILT (ML) - VERY SOFT, SATURATED, BROWN, FINE GRAINED SAND, ORGANICS - ROOTS			
20		95	5	4-70 cm: POORLY GRADED SAND (SP) - LOOSE, MOIST, BROWNISH GRAY, FINE TO COARSE SAND.	20	1T699AY	
40			@42: FINE SUB-ANGULAR GRAVEL	40	41.4 cm		
60			@48: 5cm SUB-ROUND GRAVEL	60	1T699BY		
70			END OF CORE @ 70 cm	70	70 cm		

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 274.3 cm
 Recovery: 228.6 cm ON BOARD
 % Recovery: 83.3% ON BOARD
 * Notes: Processing: 228.6 cm = 83.3%

Station ID: IT699Z
 Date/Time: 8/2/2021 12:45 11:53 / processor: 1345
 Core Logged By: S. Smith
 Attempt #: 5
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20	80	20		0-5 cm: SILTY SAND (SM) - LOOSE, WET, BLACKISH GREY, FINE GRAINED SAND.	0-20	IT699AZ	
20-40	95	5		5-194 cm: POORLY GRADED SAND (SP) - LOOSE, MOIST, DARK GREY, FINE TO MED. GRAINED SAND. @ 5-68: TRACI SILT @ 26: 1" DARK GREY SILT CLAST @ 30-39: DARK GREY SILT LENS @ 51: 1/2" ROUND GRAVEL	20-40	37.5 cm	SILT LENS
40-60					40-60	IT699BZ	
60-80	100	X		@ 68-194: GRADES COARSEN, NO SILT, MULTICOLOR GRADATIONS PRESENT, PRIMARILY F-M SAND, TRACI COARSE.	60-80	68.0 cm	SOFT CONTACT / TRANSITION TO NATURAL MATERIAL @ 68
80-100					80-100	IT699CZ	
100-120					100-120	93.0 cm	
120-140					120-140	IT699DZ	
140-160					140-160	118.0 cm	
160-180					160-180	IT699EZ	
180-200					180-200	143.0 cm	
200-220					200-220	IT699FZ	
220-240					220-240	168.0 cm	
240-260					240-260	IT699GZ	
260-274.3					260-274.3	194.0 cm	
				END OF PROCESSED CORE @ 194 cm			

VOID/TWISTED PLASTIC LENGTH

* WINDWARD NOTED MATERIAL FELL OUT BOTTOM AFTER 228.6 MEASUREMENT CAUSING VOID. VOID CLOSED + LOGGED. TOTAL PROCESSING LENGTH IS 194 CM

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2 (701-1, 701-2)
 Drive Length: 3.5 FT
 Recovery: 2.9 FT ON BEAT
 % Recovery: 82.8 ON BEAT
 Notes: PROCESSED: 89cm = 83.4 %

Station ID: 1T701-1
 Date/Time: 7/26/21 18:10 / PROCESSED @ 1015
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core CPT
 Diameter of Core (inches) 2.75"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		95	5	0-89cm : poorly GRADED SAND (SP) - MED. DENSE, MOIST, BROWNISH GRAY, FINE TO MED. GRAINED SANDS.	0-20	1T701A	
20-40				@ 4, 8, 14, 24, 32, 36, 80 : 1/4" LIGHT BROWN SILT CLAST	37.5cm		
40-60				@ 57-63 : OXIDIZED LIGHT BROWN SILT LENS	62.5cm	1T701B	
60-80				@ 83-87 : BROWNISH GRAY SILT LENS	87.5cm	1T701C	
80-100				END OF SECTION #1 @ 89cm	89.0cm	1T701D (Partial) @ 9.0cm	

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 2 (107-1, 107-2)
 Drive Length: ~~2.75 FT~~ 2.75 FT
 Recovery: 2 FT ON BOAT
 % Recovery: 73% ON BOAT
 Notes: processor: 66cm = 78.8%

Station ID: IT701-2
 Date/Time: 7/26/21 18:12 / processor @ 1020
 Core Logged By: S. STRETT
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core CPT
 Diameter of Core (inches) 2.75
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
80		95	5	START OF SECTION 2 @ 89 cm	80		
100				89-155 cm: POORLY GRAINED SAND (SP) MED. DENSE, MOIST, DARK GREY, FINE TO MED. GRAINED SAND.	100	IT701D (cont) IT701D section 22.2cm 111.8cm	
120			@ 89-110: ORANGE OXFORD SAND	120	IT701E 134.8cm		
140					140	IT701F 155cm	
160				END OF CORE @ 155 cm	160		

TOTAL LENGTH OF IT701-2 = 66cm

-CONTINUED DEPTH FROM IT701-1 @ 89 cm (START OF SECTION 2)

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 131.1 cm
 Recovery: 117.3 cm ON BOAT
 % Recovery: 89.5%, ON BOAT
 Notes: processed: 115 cm = 87.7 l.

Station ID: IT702 (X)
 Date/Time: 8/3/2021 15:26 / processed @ 1730
 Core Logged By: S. STEPHEN
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		20	80	0-115 cm: SANDY SILT (ML) - VERY SOFT, WET, BROWN TO 10 cm THEN MED. STIFF, BROWN/BLACK, DARK GREY, FINE-GRAINED SANDS, ORGANICS - ROOTS	0-20	IT702AX	* * *
20-40				@ 0-10: PEACOCK SHEEN FLUORETTES, NO OROLS	20-40	39.5 cm	
40-60				@ 7: ORANGE-RUST STAINED VESICULAR 1.5" METAL-LIKE FRAGMENT	40-60	IT702BX	CLAYEY SECT
60-80				@ 10-19: FINE TO COARSE-GRAINED SAND CLAST	60-80	65.8 cm	
80-100				@ 34: 4" WOOD DEBRIS LAYER	80-100	IT702CX	
100-120				@ 36-50: ORANGE STIFF, GREY, CLAYEY SILT LENS WITH ORGANICS-ROOTS	100-120	92.1 cm	
120-140				@ 51: BLACK ORGANICS LENS (1/8")	120-140	IT702DX	
140-160				@ 68, 75, 89: GREY CLAYEY SILT REP UP CLAST UP TO 1/2"	140-160	115 cm	
160-180				@ 91-102: ORANGE-ORANGE/RED STAINED FINE-GRAINED SAND LENS	160-180		
180-200				@ 102-115: BROWNISH GREY FINE TO COARSE GRAINED SAND LENS	180-200		
200-220				@ 108: FABRIC-LIKE / REP-RAP-LIKE MATERIAL	200-220		REP RAP FABRIC
220-240				END OF CORE @ 115 cm	220-240		

* PEACOCK SHEEN (RAINBOW) ON OVERLYING WATER AND 0-10 cm SEDIMENT SURFACE, NO OROLS

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 198.1 cm
 Recovery: 175.3 cm ON BOAT
 % Recovery: 88.5% ON BOAT
 Notes: PROCESSED: 169 cm = 85.3%

Station ID: 1T702 (Y)
 Date/Time: 8/3/2021 1650 / PROCESSING @ 1825
 Core Logged By: S. STREHL
 Attempt #: 4
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		20	80	0-141 cm: SANDY SILT (ML) - VERY SOFT, WET, BROWN, FINE GRAINED SAND, ABUNDANT GRASSES TO 9 CM	0-20	1T702AY	
20-40				@ 9-16: SANDY LOOSE, SATURATED, BROWN, F-COARSE SAND LENS	20-40	38.4	
40-60				@ 16-42: VERY VERY SOFT, SATURATED, BLACK, FINE GRAINED SAND, ABUNDANT ANTHROPOGENIC DEBRIS - GLASS, METAL, ASPHALT, CERAMIC FRAGMENTS, SHEEN, SLIGHT HYDROCARBON LIKE ODOUR	40-60	1T702BY	
60-80				@ 21: FABRIC MATERIAL	60-80	64 cm	
80-100				@ 26, 33, 38, 47, 61, 70: PERCUL SHEEN FLARETTES	80-100	1T702CY	
100-120				@ 42: ORANGE OXIDIZED STRAINED SAND CLAST	100-120	89.6 cm	
120-140				@ 42-144: MED STIFF, MOIST, DARK GREY, FINE GRAINED SAND, TRACE ORGANICS - ROCKS	120-140	1T702DY	
140-160				@ 54, 70, 88, 102, 117, 136: 1/2" GRAY FG SAND LENS	140-160	115.2 cm	
160-180				@ 58-61, 109-114: BLACK ORGANICS LENS WITH WOOD DEBRIS / FRAGS	160-180	1T702EY	
				@ 71-76 71-76: WOOD DEBRIS - FRAGS UP TO 2"		140.8 cm	
				@ 87, 96, 130, 139: ORGANICS - DEPOS			
				@ 90: 2" STEEL			
90-100	90	10		141-169 cm: SAND SAND WITH SILT (SM) DENSE, MOIST, DARK GREY, FINE GRAINED SAND.	160-180	1T702FY	
				@ 144, 147: 1/8" GRAY SILT CLASTS		169 cm	
				@ 153-156: ORANGE OXIDIZED STRAINED			
				END OF CORE @ 169 CM			
				1T702GS1 - includes intervals A-F			

ANTHRO DEBRIS AREA w/ SHEEN

FG: FINE GRAINED
 FRAGS: FRAGMENTS

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 121.9 cm
 Recovery: 79.2 cm ON BOAT
 % Recovery: 65% ON BOAT
 Notes: PROCESS 77cm = 63.2%

Station ID: 1T703X
 Date/Time: 8/2/2021 12:15 / PROLESSON 1445
 Core Logged By: S. STREHL
 Attempt #: 1
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample	Summary Sketch
0-20		5	75	0-59 cm: SILT (ML) - VERY SOFT, SATURATED TO 4cm, THEN SOFT, MOIST, BLACKISH GREY, FINE-GRAINED SAND. @4-7: GREY FINE GRAINED SAND LENS @3,11,19,43: ORGANICS - ROOTS	0-20	1T703AX 28.4cm	
20-40					20-40	1T703BX 47.4cm	
40-60					40-60	1T703CX 59cm	
60-80		75	5	59-77 cm: POORLY GRAINED SAND (SP) - LOOSE, MOIST, BROWNISH GREY, FINE TO MED. GRAINED SAND. @69-75: ORANGE OXIDIZED CLASTS, BRICK-LIKE DEBRIS, MED. TO COARSE SUB-ANGULAR / SUB-ROUND GRAVELS	60-80	1T703DX 77cm	
80-100				ENDS OF CORE @ 77cm	80-100		

Sediment Core Processing Log



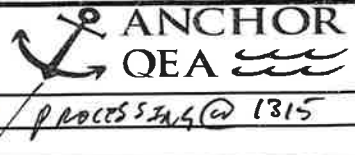
Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 243.8 cm
 Recovery: 129.5 cm ON BOARD
 % Recovery: 53% ON BOARD
 Notes: PROCESSOR: 120 cm = 49.2 L

Station ID: 1T703 (Y)
 Date/Time: 8/2/2021 16:00 / PROCESSOR @ 1715
 Core Logged By: S. Strick
 Attempt #: 3
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (M) CM	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (M) CM	Sample	Summary Sketch
0-20		95	5	<p>0-120 cm: POORLY GRADED SAND (SP) LOOSE, SATURATED, BROWNISH GREY TO 24 cm THEN LOOSE, MIST, DARK GRAY, FINE TO MEDIUM GRAINED SAND, TRACE ORGANICS - ROOTS.</p> <p>@ 0-24 cm: ORANGE OXIDIZED STAINING @ 24-38, 39-46: DARK GRAY SANDY SILT WITH ORGANICS @ 42: SMALL WOOD FRAGMENTS @ 54: 3.5" STICK / CHUNK @ 55: 1" STICK @ 60: GRADES COURSE, TRACE COARSE SAND. @ 85: ROOTS - ORGANICS @ 86-106: SATURATED</p> <p>END OF CORE @ 120 cm</p>	0-20	1T703AY	
20-40			22.1 cm		20	1T703BY	
40-60			36.9 cm		40	1T703CY	
60-80			51.7 cm		60	1T703DY	
80-100			66.5 cm		80	1T703EY	
100-120			81.3 cm		100	1T703FY	
			96.1 cm		120	1T703GY	
			120 cm				

* OVERLYING WATER STAINED ORANGE (OXIDATION)

Sediment Core Processing Log



Job: AOC4 Duwamish
 Job No. 180067-02.02
 No. of Sections: 1
 Drive Length: 243.8 cm
 Recovery: 185.9 cm ON BOAT
 % Recovery: 76.3% ON BOAT
 Notes: PROCESSED: 171 cm = 70.1%.

Station ID: 1T703 (Z)
 Date/Time: 8/3/2021 11:37 PROCESSING @ 1315
 Core Logged By: S. STREHL
 Attempt #: 5
 Type of Core Mudmole Vibracore Diver Core
 Diameter of Core (inches) 4"
 Core Quality Good Fair Poor Disturbed

Recovered Length (cm)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (cm)	Sample	Summary Sketch
0-20		20	80	0-40 cm: SANDY SILT (ML) - UNDER VERY SOFT, WET TO 7 cm, THEN SOFT, SATURATED, BLACKISH GREY, FINE GRAINED SAND, TRACE UNGRAINED - ROOTS @ 5, 7: BIOTA - ORANGE WORMS @ 18-21: GREY FINE GRAINED SAND LENS @ 30: REEF	0-20	1T703AZ	
20-40		75	5	40-171 cm: POORLY GRADED SAND (SP) - LOOSE, MOIST, DARK GREY, FINE TO MED. GRAINED SAND. @ 76: 3" STICK @ 76, 78, 80, 84: WOOD DEBRIS - FRAGMENTS @ 88-100: DARK GRAY SILT LENS WITH TRACE WOOD DEBRIS @ 99: GLASS FRAGMENT @ 100: GRADES TO FINE TO MED. MULTICOLORED GRAINED SAND WITH TRACE COARSE SAND. @ 120: SUB-ROUNDED GRAVEL (FINE) QUARTZ-LIKE @ 126: GRADES TO FINE TO MEDIUM MULTICOLORED GRAINED SAND. NO COARSE SAND, NO GRAVEL	40-171	40.0 cm 1T703BZ 61.0 cm 1T703CZ 82.0 cm 1T703DZ 100.0 cm 1T703EZ 121.0 cm 1T703FZ 142.0 cm 1T703GZ	
171-180				END OF CORE @ 171 1T703G51Z - includes intervals E thru G,	171-180	171.6 cm	

RAL increased to accommodate lithology.

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA-Phase II Project no.:
 Date: 7.16.2021 Weather: Overcast, 60s
 Sampling Method: power grab Crew: SP, CD, ES, RM

GRAB DATA		Location ID: <u>SS500</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>197748.04</u>			Longitude/Easting(X): <u>1273164.94</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1203</u>	<u>19.01 ft</u>	<u>19cm</u>	<u>Y</u>	<u>tide = 7.19 (LDW RTK tide station)</u>	
				<u>mudline = -11.8 ft MLLW</u>	
				<u>about 1 ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS500</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>a few worms present in sample</u> <u>organic debris (sticks, leaf litter)</u>	
gravel	drab olive	slight	petroleum		
<u>fine</u> sand (F)(M)(C)	<u>brown</u>	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4- Phassel Project no.: —
 Date: 7.16.2021 Weather: overcast, 60s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS501</u>		Depth of overlying sediment, if known (cm): <u>—</u>
		On armored slope (Y/N)? <u>N</u>		
Latitude/Northing(Y): <u>197792.02</u>			Longitude/Easting(X): <u>1273197.88</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1212</u>	<u>24.2 ft</u>	<u>16 cm</u>	<u>Y</u>	<u>tide = 6.90 ft (RTK tide station)</u>
				<u>mudline = -17.3 ft MLLW</u>
				<u>about 3.4 ft from target</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS501</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace wood debris and organic debris</u> <u>trace shell fragments</u> <u>one worm in sample</u>
gravel	drab olive	slight	petroleum	
<u>trace</u> sand (F M C)	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA - Phase II Project no.: —
 Date: 7.16.2021 Weather: overcast, 60S
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS502</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>1978AA.3A</u>			Longitude/Easting(X): <u>1273246.31</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1223</u>	<u>24.00 ft</u>	<u>17 cm</u>	<u>Y</u>	<u>tide = 6.90 ft (RTK tide station)</u>	
				<u>midline = -17.1 ft MLLW</u>	
				<u>about 1.6 ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS502</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>worms in sample</u>	
gravel	drab olive	slight	petroleum		
<u>trace</u> sand (F M C)	brown	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA- Phase II Project no.: —
 Date: 7.16.2021 Weather: overcast, 60s
 Sampling Method: hand collect Crew: SR, RM, ES

GRAB DATA		Location ID: <u>SS503</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>197623</u> ^{SR} <u>197624</u>		Longitude/Easting(X): <u>1273129</u>			
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1620</u>	<u>—</u>	<u>10 cm</u>	<u>Y</u>		
SAMPLE DATA		Sample ID: <u>LDW21-SS503</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S		
<u>gravel</u>	drab olive	slight	petroleum		
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:		
<u>silt trace</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4-Phase II Project no.:
 Date: 7.16.2021 Weather: overcast, 50s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS504</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>197681.99</u>			Longitude/Easting(X): <u>1273169.38</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1112</u>	<u>10.91ft</u>	<u>11cm</u>	<u>Y</u>	<u>tide = 7.97 ft (RTK tide station)</u>	
				<u>mudline = - 2.9 ft mllw</u>	
				<u>Above 2.5 ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS504</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>shell fragments</u> <u>aquatic veg. at surface</u>	
gravel	drab olive	slight	petroleum		
<u>sand (F/M) C</u>	<u>brown</u>	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW AOC4 Phase II Project no.: _____
 Date: 7/21/21 Weather: 70s, sunny
 Sampling Method: power grab Crew: KM, CD, RM, ES

GRAB DATA		Location ID: <u>SS505</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>n4</u>	
Latitude/Northing(Y): <u>1977 20.85</u>		Longitude/Easting(X): <u>1273209.56</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1440</u>	<u>21.8 ft</u>	<u>17</u>	<u>Y</u>	<u>9.05 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LOW21-SS505</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace organic material</u>
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u> <u>trike</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCY Phase II Project no.:
 Date: 7/21/21 Weather: 70s, sunny
 Sampling Method: power grab Crew: KM, CD, RM, ES

GRAB DATA	Location ID: <u>SS506</u>			
	On armored slope (Y/N)? <u>N</u>		Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>197815.79</u>			Longitude/Easting(X): <u>1273288.23</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1455</u>	<u>24.8 ft</u>	<u>15</u>	<u>Y</u>	<u>9.46 ft (RTK tide station)</u>
SAMPLE DATA	Sample ID: <u>LDWZ1-SS506</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments: <u>trace shell fragments and organic material</u>
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
<u>sand (F/M/C)</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA - Phase II Project no.:
 Date: 7.16.2021 Weather: overcast, 50s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS507</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>197635.87</u>			Longitude/Easting(X): <u>1273204.76</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1125</u>	<u>10.16 ft</u>	<u>9cm</u>	<u>N</u>		
<u>1127</u>	<u>10.42 ft</u>	<u>15cm</u>	<u>Y</u>	<u>tide = 7.97 ft (RTK tide station)</u>	
				<u>mudline = -2.5 ft MLLW</u>	
				<u>About 1ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS507</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>algae vegetation at surface</u>	
gravel	drab olive	slight	petroleum		
<u>trace</u> sand (F M C)	<u>brown</u>	moderate	other:		
<u>silt</u>	<u>gray trace</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: AOC4 Phase 11 Project no.:
 Date: 7/9/21 Weather: 60s, sunny
 Sampling Method: power grab Crew: KM, SR, CO, ES, KS, KK

GRAB DATA		Location ID: <u>55508</u>	
		On armored slope (Y/N)? <u>✓</u>	Depth of overlying sediment, if known (cm): <u>na</u>
Latitude/Northing(Y): <u>1977 20.92</u>		Longitude/Easting(X): <u>1273294.83</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1030</u>	<u>16.5 ft</u>	<u>17</u>	<u>Y</u>
SAMPLE DATA	Sample ID: <u>LDW21-55508</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S
gravel	drab olive	slight	petroleum
<u>sand (F)(M)(C)</u>	brown	moderate	other:
<u>silt</u>	<u>gray</u>	strong	
clay	black		
			Comments: <u>trace organics</u>

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDWAOCY-Phase II Project no.: _____
 Date: 7/9/21 Weather: 60s, sun
 Sampling Method: power grab Crew: KM, SR, CD, ES, KS, KK

GRAB DATA		Location ID: <u>SS511</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>09</u>	
Latitude/Northing(Y): <u>197619.59</u>		Longitude/Easting(X): <u>1273303.11</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1045</u>	<u>8.68 ft</u>	<u>21</u>	<u>Y</u>	<u>-1.36 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS511</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
<u>trace</u> sand (FOM C)	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW ADC4 Phase II Project no.:
 Date: 7/9/21 Weather: 60s, Sun
 Sampling Method: power grab Crew: KM, SR, CD, ES, KS, KIK

GRAB DATA		Location ID: <u>SS513</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>119</u>
Latitude/Northing(Y): <u>197622.64</u>		Longitude/Easting(X): <u>1273380.70</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1100</u>	<u>15.4 ft</u>	<u>20</u>	<u>Y</u>
Comments			
<u>-1.49 ft (RTK tide station)</u>			
SAMPLE DATA		Sample ID: <u>LDW21-SS513</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	Comments:
cobble	<u>brown surface</u>	<u>none</u> H ₂ S	<u>trace organic material, worms</u>
gravel	drab olive	slight petroleum	
<u>trace</u> sand (F M C)	brown	moderate other:	
<u>silt</u>	<u>gray</u>	strong	
clay	black		

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.: _____
 Date: 7/9/21 Weather: 60s, Sun
 Sampling Method: power grab Crew: KM, SR, CD, ES, KS, KK

GRAB DATA		Location ID: <u>55514</u>		On armored slope (Y/N)? <u>N</u>		Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>197672.60</u>				Longitude/Easting(X): <u>1273427.41</u>			
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments			
<u>1110</u>	<u>15.8 ft</u>	<u>17</u>	<u>Y</u>	<u>-1.49 ft (RTR tide station)</u>			
SAMPLE DATA		Sample ID: <u>LDW21-55514</u>					
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:							
Sediment type	Sediment color	Sediment odor		Comments:			
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>WORMS, WARM CASINGS, plastic on surface</u>			
gravel	drab olive	slight	petroleum				
<u>sand (F M C)</u> <u>trace</u>	brown	moderate	other:				
<u>silt</u>	<u>gray</u>	strong					
clay	black						

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phase II Project no.:
 Date: 7.16.2021 Weather: overcast, 50s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA	Location ID: <u>SS516</u>			Depth of overlying sediment, if known (cm): <u>—</u>
	On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>197529.16</u>			Longitude/Easting(X): <u>1273479.79</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1150</u>	<u>24.13 ft</u>	<u>18cm</u>	<u>Y</u>	<u>tide = 7.48 ft (RTK tide station)</u>
				<u>mudline = -16.7 ft MLLW</u>
				<u>about 3.5 ft from target (core) ^{SR}</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS516</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>lots of worms</u> <u>trace shell fragments</u>
gravel	drab olive	slight	petroleum	
sand (F M C) ^{trace}	<u>brown</u>	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC-A-Phase II Project no.:
 Date: 7.16.2021 Weather: 0.4rcast, GS
 Sampling Method: power grab Crew: SR, CD, GS, RM

GRAB DATA		Location ID: <u>SS518</u>		Depth of overlying sediment, if known (cm): <u> </u>
		On armored slope (Y/N)? <u>N</u>		
Latitude/Northing(Y): <u>197401.88</u>			Longitude/Easting(X): <u>1273410.79</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1138</u>	<u>8.61 ft</u>	<u>>23cm</u>	<u>N</u>	<u>over-penetrated</u>
<u>1140</u>	<u>8.09 ft</u>	<u>17cm</u>	<u>Y</u>	<u>tide = 7.75 ft</u>
				<u>mudline = -0.3 ft MLLW</u>
				<u>About 3.1 ft from target.</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS518</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>aquatic vegetation at surface</u> <u>trace organic debris</u>
gravel	drab olive	slight	petroleum	
<u>trace</u> sand (F M C)	<u>brown</u>	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW ARCH Phase II Project no.:
 Date: 7/21/21 Weather: 60s, cloudy
 Sampling Method: power grab Crew: KM, CD, ES, RM

GRAB DATA		Location ID: <u>SS536</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>NA</u>	
Latitude/Northing(Y): <u>196774.35</u>		Longitude/Easting(X): <u>1274293.10</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1035</u>	<u>16.0 ft</u>	<u>22</u>	<u>Y</u>	<u>-0.9 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS536</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace organic material, shell fragments</u>
gravel	drab olive	slight	petroleum	
<u>sand</u> (F M C)	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW AOC4 Phase II Project no.: _____
 Date: 7/21/21 Weather: 60s, cloudy
 Sampling Method: power grab Crew: KM, CD, ES, RM

GRAB DATA		Location ID: <u>SS541</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>NA</u>	
Latitude/Northing(Y): <u>196660.29</u>		Longitude/Easting(X): <u>1274531.31</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1050</u>	<u>22.5 ft</u>	<u>10</u>	<u>N</u>	<u>-0.44 ft (RTK tide station), underpenetrated</u>
<u>1055</u>	<u>22.7 ft</u>	<u>18</u>	<u>Y</u>	<u>-0.44 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS541</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>clam shells, organic material</u>
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u> <u>trace</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW ADCY Phase II Project no.:
 Date: 7/9/21 Weather: 60s, sun
 Sampling Method: pinner grab Crew: KM, SR, CD, ES, KS, KK

GRAB DATA		Location ID: <u>55542</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>196586.43</u>		Longitude/Easting(X): <u>1274386.25</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1130</u>	8.4 ft	<u>9</u>	<u>N</u>	<u>under penetrated, need deeper water</u>
<u>1435</u>	10.3 ft	<u>< 9 cm</u>	<u>N</u>	<u>under penetrated + winnowed</u>
<u>1440</u>	10.3 ft	<u>< 9 cm</u>	<u>N</u>	<u>under penetrated + winnowed</u>
<u>1445</u>	<u>7.0 ft</u>	<u>12 cm</u>	<u>Y</u>	<u>4.66 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LDW21-55542</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments: <u>organic material, algae</u>
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
<u>sand</u> (F) (M) (C)	<u>brown</u>	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW A04 Phase II Project no.:
 Date: 7/13/21 Weather: 60s, sun
 Sampling Method: power grab Crew: KM, CD, ES, RM

GRAB DATA		Location ID: <u>SS544</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>
Latitude/Northing(Y): <u>196520.59</u>		Longitude/Easting(X): <u>1274445.95</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1205</u>	<u>—</u>	<u>—</u>	<u>N</u>
<u>1210</u>	<u>2.4 ft</u>	<u>21</u>	<u>Y</u>
SAMPLE DATA		Sample ID: <u>LOW21-SS544</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	Comments:
cobble	<u>brown surface</u>	<u>none</u> H ₂ S	<u>shell fragments, brick fragments</u>
gravel	drab olive	slight petroleum	
<u>sand (FMC)</u> <u>trace</u>	brown	moderate other:	
<u>silt</u>	<u>gray</u>	strong	
clay	black		

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW AOC4 Phase II Project no.:
 Date: 7/9/21 Weather: 76s, Sun
 Sampling Method: power grab Crew: KM, CD, ES, KS

GRAB DATA		Location ID: <u>SS544^{KM} SS546</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>
Latitude/Northing(Y): <u>196471.65</u>		Longitude/Easting(X): <u>1274506.67</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1510</u>	<u>—</u>	<u>—</u>	<u>N</u>
<u>1515</u>	<u>14.5 ft</u>	<u>16 cm</u>	<u>Y</u>
SAMPLE DATA	Sample ID: <u>LOW21-SS544^{KM} SS546</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S
gravel	drab olive	slight	petroleum
<u>sand (F)(M)(C)</u>	<u>brown</u>	moderate	other:
<u>silt</u>	<u>gray</u>	strong	
clay	black		
Comments: <u>trace organic material, shell fragments</u>			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDN AOC4-Phase II Project no.:
 Date: 7.16.2021 Weather: overcast, 60s
 Sampling Method: hand collect Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS547</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>196406^{SP} 196407</u>			Longitude/Easting(X): <u>1274469^{SP} 1274470</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1320</u>	<u> </u>	<u>10 cm</u>	<u>Y</u>	<u>hand-collected under bridge; GPS location bounced around due to interference.</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS547</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
<u>cobble</u> - surface	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>Significant amount of gravel in sample; attempts to remove as much as possible for sample.</u>	
<u>gravel</u>	<u>drab olive</u>	slight	petroleum		
<u>sand (F)(M)(C)</u>	<u>brown</u>	moderate	other:		
silt	gray	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: AOC4 Phase II Project no.:
 Date: 7/9/21 Weather: 60s, sunny
 Sampling Method: power grab Crew: KM, SR, CD, ES, KS, KIL

GRAB DATA		Location ID: <u>SS552</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>196541.36</u>		Longitude/Easting(X): <u>1274653.63</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0945</u>	<u>19.5 ft</u>	<u>5</u>	<u>N</u>	<u>under-penetrated</u>
<u>0955</u>	<u>18.9 ft</u>	<u>5</u>	<u>N</u>	<u>under-penetrated</u>
<u>1000</u>	<u>19.1 ft</u>	<u>9.5</u>	<u>N</u>	<u>under-penetrated</u>
<u>1010</u>	<u>19.0 ft</u>	<u>15</u>	<u>Y</u>	<u>- 0.31 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>L0W21-SS552</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	<u>trace organics</u>
gravel	drab olive	slight	petroleum	
<u>sand</u> (F M C)	<u>brown</u>	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW AXXY Phase II Project no.:
 Date: 7/21/21 Weather: 60s, cloudy
 Sampling Method: power grab Crew: KM, CD, ES, RM

GRAB DATA	Location ID: <u>SS555</u>			
	On armored slope (Y/N)? <u>N</u>		Depth of overlying sediment, if known (cm): <u>NA</u>	
Latitude/Northing(Y): <u>196381.72</u>			Longitude/Easting(X): <u>1274821.20</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1015</u>	<u>16.1 ft</u>	<u>14 cm</u>	<u>Y</u>	<u>-1.27 ft (RTK tide station) Collected field duplicate</u>
SAMPLE DATA Sample ID: <u>LOW21-SS555, LOW21-SS555FD</u>				
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>Worms, barnacles + shells on surface; organic materials</u>
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u> <u>trace</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LPW AOC4 Phase II Project no.:
 Date: 7/21/21 Weather: 60s, cloudy
 Sampling Method: power grab Crew: ICM, CO, CS, RM

GRAB DATA	Location ID: <u>SS556</u>			Depth of overlying sediment, if known (cm): <u>na</u>
	On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>196308.01</u>			Longitude/Easting(X): <u>1274806.95</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1005</u>	<u>4.0 ft</u>	<u>16</u>	<u>Y</u>	<u>-1.59 ft (CRTR tide station)</u>
SAMPLE DATA Sample ID: <u>LPWZ1-SS556</u>				
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments: <u>small area of sheen on surface of grab (<2cm diameter)</u> <u>organic material</u>
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u> <u>trace</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: AOC4 Phase II Project no.:
 Date: 6-30-2021 Weather: Sunny, 70s
 Sampling Method: hand collected Crew: SR, DW

GRAB DATA		Location ID: <u>SS559</u>		Depth of overlying sediment, if known (cm): <u>NA</u>	
		On armored slope (Y/N)? <u>Y</u>			
Latitude/Northing(Y): <u>195835</u>			Longitude/Easting(X): <u>127507B</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1420</u>	<u>NA</u>	<u>10cm</u>	<u>Y</u>	<ul style="list-style-type: none"> - Sample collected on riprap slope. - Shifted location (<10ft) to sample in patch of accessible sediment. - Very rocky material, lots of angular gravel and cobble. - Collected extra volume for lab (SR) - attempted to remove gravel to the extent possible. 	
SAMPLE DATA		Sample ID: <u>LDW21-SS559</u>			
Pre-homogenization analyses (circle): VOC Sulphides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	brown surface	<u>none</u>	H ₂ S	Significant gravel throughout sample.	
<u>gravel</u>	drab olive	slight	petroleum		
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:		
silt	gray	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW ADY Phase II Project no.:
 Date: 7/21/21 Weather: 60s, cloudy
 Sampling Method: power grab Crew: KM, CD, ES, RM

GRAB DATA		Location ID: <u>SS570</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>NA</u>
Latitude/Northing(Y): <u>195485.76</u>		Longitude/Easting(X): <u>1275622.04</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>0945</u>	<u>8.6 ft</u> <u>2.4 ft</u>	<u>0</u>	<u>N</u>
<u>0950</u>	<u>8.6 ft</u>	<u>18</u>	<u>Y</u>
SAMPLE DATA		Sample ID: <u>LOW21-SS570</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S
gravel	drab olive	slight	petroleum
<u>sand (F M C)</u> <u>Trace</u>	<u>brown</u>	moderate	other:
<u>silt</u>	<u>gray</u>	strong	
clay	black		
		Comments:	
		<u>Worms</u>	

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW ADCY Phase II Project no.:
 Date: 7/21/21 Weather: 60s, cloudy
 Sampling Method: hand collection pencil grab Crew: KM, CD, RM, ES

GRAB DATA	Location ID: ^{km} 55687 <u>55575</u>
	On armored slope (Y/N)? <u>N</u> Depth of overlying sediment, if known (cm): <u>21</u>
Latitude/Northing(Y): <u>195301.26</u> Longitude/Easting(X): <u>1275822.81</u>	

Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1415</u>	<u>23.0 ft</u>	<u>—</u>	<u>N</u>	<u>7.93 ft (RTK tide station) ^{not} penetrated</u>
<u>1417</u>	<u>23.0 ft</u>	<u>22</u>	<u>Y</u>	<u>8.49 ft (RTK tide station)</u>

SAMPLE DATA Sample ID: LOW21-55575

Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:

Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace organic material</u>
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW ADCY Phase II Project no.:
 Date: 7/9/21 Weather: 78, Sun
 Sampling Method: power grab Crew: KM, SR, CO, ES, KS, KR

GRAB DATA		Location ID: SS580 ^{KM} 55578		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>195114.65</u>		Longitude/Easting(X): <u>1275995.46</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1300</u>	10.3 ft ^{KM}	<u>na</u>	<u>N</u>	<u>winnowed</u>
<u>1310</u>	10.3 ft ^{KM}	<u>16</u>	<u>Y</u>	<u>0.35 ft (RTK tide station), no depth - sonar not working</u>
SAMPLE DATA		Sample ID: LOW21-SS580 ^{KM} 55578		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
<u>sand</u> (F M C) <i>face</i>	<u>brown</u>	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW ADCY Phase II Project no.: _____
 Date: 7/9/21 Weather: 70s, sun
 Sampling Method: power grab Crew: KM, CO, ES, KS

GRAB DATA		Location ID: <u>SS580</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>NA</u>	
Latitude/Northing(Y): <u>195035.48</u>		Longitude/Easting(X): <u>1275977.50</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1330</u>	<u>10.3 ^{km} ft</u>	<u>19</u>	<u>Y</u>	<u>1.33 ft (RTK tide station), no depth - sonar not working</u>
SAMPLE DATA		Sample ID: <u>LDWZ1-SS580</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.:
 Date: 7/21/21 Weather: 60s, cloudy
 Sampling Method: power grab Crew: KM, CD, EM, ES

GRAB DATA		Location ID: 55683 ^{km} 55583		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>194931.28</u>		Longitude/Easting(X): <u>1275974.60</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0920</u>	<u>11.5 ft</u>	<u>22</u>	<u>Y</u>	<u>-1.92 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LDWZ1-SS 583</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments: <u>clam shell fragments and other organic material</u>
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
<u>sand (EM) C</u> <u>face</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.:
 Date: 7/21/21 Weather: 6ds, cloudy
 Sampling Method: power grab Crew: KM, CD, ES, RM

GRAB DATA		Location ID: <u>SS586</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>
Latitude/Northing(Y): <u>194842.12</u>		Longitude/Easting(X): <u>1275986.48</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>0930</u>	<u>12.3 ft</u>	<u>20</u>	<u>Y</u>
			<u>-1.93 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS586</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S
gravel	drab olive	slight	petroleum
<u>sand</u> (F M C)	brown	moderate	other:
<u>silt</u>	<u>gray</u>	strong	
clay	black		
Comments: <u>worms, trace organic material</u>			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.:
 Date: 7/9/21 Weather: 70s, sun
 Sampling Method: power grab Crew: KM, CD, ES, KS

GRAB DATA	Location ID: <u>SS590</u>
	On armored slope (Y/N)? <u>N</u> Depth of overlying sediment, if known (cm): <u>N/A</u>

Latitude/Northing(Y): 194717.82 Longitude/Easting(X): 1276023.57

Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1345</u>	10.3 <u>km</u>	<u>10.5</u>	<u>N</u>	<u>Under penetrated</u>
<u>1355</u>	10.3 <u>km</u>	<u>19</u>	<u>Y</u>	<u>1.9 ft (RTK tide station), no depth - sensor not working</u>

SAMPLE DATA Sample ID: LDW21-SS590

Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:

Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>clam shell, trace organic material</u>
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA-Phase II Project no.:
 Date: 7.12.2021 Weather: Sunny, 70s
 Sampling Method: power grab Crew: SR, CD, ES, RM

GRAB DATA		Location ID: <u>SS599</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>194563.96</u>			Longitude/Easting(X): <u>1276105.52</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1202</u>	<u>6.35 ft</u>	<u>16 cm</u>	<u>Y</u>	<u>tide = -0.71 ft ^{SR} MLLW (RTK tide station)</u>	
				<u>mudline = -7.1 ft MLLW</u>	
				<u>About 1.4 ft from target (core)</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS599 and LDW21-SS599-FD</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace organic material</u>	
gravel	drab olive	slight	petroleum		
<u>trace</u> sand (F M C)	brown	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA Phase II Project no.:
 Date: 7.12.2021 Weather: Sunny, 60s
 Sampling Method: power grab Crew: SR, CD, ES, RM

GRAB DATA	Location ID: <u>SS600</u>			Depth of overlying sediment, if known (cm): <u> </u>
	On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>19457481</u>			Longitude/Easting(X): <u>1276151.37</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0823</u>	<u>8.68 ft</u>	<u>17cm</u>	<u>Y</u>	<u>tide = 8.25 ft (RTK tide station)</u>
				<u>mudline = -0.4 ft MLLW</u>
				<u>About 22 ft from target. (core)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS600</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace organic material</u>
gravel	drab olive	slight	petroleum	
<u>none</u> sand (F)(M)(C)	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW ADCY Phase II Project no.:
 Date: 7/9/21 Weather: 70, sun
 Sampling Method: hand collected Crew: KM, SR, CD, ES, KS, XK

GRAB DATA		Location ID: <u>SS602</u>		Depth of overlying sediment, if known (cm): <u>na</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>194553</u>			Longitude/Easting(X): <u>127628³¹² 1276219</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1150</u>	<u>—</u>	<u>10cm</u>	<u>Y</u>		
SAMPLE DATA		Sample ID: <u>LDW21-SS602</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>brown mottling throughout</u>	
gravel	drab olive	slight	petroleum		
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW A04 Phase II Project no.:
 Date: 7/9/21 Weather: 70s, Sun
 Sampling Method: hand collection Crew: KM, SR, CD, ES, KS, KK

GRAB DATA		Location ID: <u>SS603</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>194529</u>			Longitude/Easting(X): <u>1276195</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1200</u>	<u> </u>	<u>10 cm</u>	<u>Y</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS603</u>		
Pre-homogenization analyses (circle): VOC Sulphides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>brown patches in sediment wood debris</u>
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCY Phase II Project no.:
 Date: 7/13/21 Weather: 60s, mostly cloudy
 Sampling Method: power grab Crew: KM, CD, RM, ES

GRAB DATA		Location ID: <u>SS613</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>see below</u>		Longitude/Easting(X): <u>see below</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1035</u>	<u>2.5 ft</u>	<u>—</u>	<u>N</u>	<u>no recovery</u>
<u>1040</u>	<u>2.5 ft</u>	<u>11</u>	<u>Y</u>	<u>4.79 ft (RTK tide station)</u>
<u>1045</u>	<u>2.2 ft</u>	<u>—</u>	<u>N</u>	<u>no recovery</u>
<u>1047</u>	<u>2.2 ft</u>	<u>—</u>	<u>N</u>	<u>rock in jaws</u>
<u>1050</u>	<u>2.7 ft</u>	<u>11</u>	<u>Y</u>	<u>4.14 ft (RTK tide station)</u>
<u>1055</u>	<u>3.1 ft</u>	<u>9</u>	<u>N</u>	<u>under penetrated</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS613</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	none	H ₂ S	
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

194504.45 }
1275804.05 }

194501.73 }
1275811.33 }

(extra volume for tox sample)

see next page

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW AOC4 Phase II Project no.: _____
 Date: 7/13/21 Weather: 60s, Sun
 Sampling Method: power grab Crew: KM, CD, RM, ES

GRAB DATA		Location ID: <u>55613</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>see below</u>			Longitude/Easting(X): <u>see below</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1100</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>no recovery</u>
<u>1102</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>rock in jaws</u>
<u>1105</u>	<u>—</u>	<u>2</u>	<u>N</u>	<u>underpenetrated</u>
<u>1110</u>	<u>2.5 ft</u>	<u>11</u>	<u>Y</u>	<u>3.5 ft (RTK tide station)</u>
<u>1115</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>rock in jaws</u>
<u>1117</u>	<u>2.5 ft</u>	<u>11</u>	<u>Y</u>	<u>2.83 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LOW21-55613</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	none	H ₂ S	
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

194507.20 }
1275808.96 }

194505.82 }
1275813.69 }

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SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.: _____
 Date: 7/13/21 Weather: 60s, sun
 Sampling Method: power grab Crew: KM, CO, RM, ES

GRAB DATA	Location ID: <u>SS613</u>	
	On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>
Latitude/Northing(Y): <u>see below</u>		Longitude/Easting(X): <u>see below</u>

Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1122</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>rock in jaws</u>
<u>1130</u>	<u>0 ft</u>	<u>NA</u>	<u>Y</u>	<u>collected remaining sediment needed by hand (RTK side station)</u>

194507.27
127580362

SAMPLE DATA Sample ID: LDW21-SS613

Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:

Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	<u>organic material</u>
<u>gravel</u>	drab olive	slight	petroleum	
<u>sand (FMC)</u>	brown	moderate	other:	
silt	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM (CORE)

Project Name: LDWAOC4-Phase II Project no.:
 Date: 7.12.2021 Weather: sunny, 70s
 Sampling Method: hand auger Crew: SR, CD

GRAB DATA		Location ID: <u>IT616</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>194446</u>			Longitude/Easting(X): <u>122.507275</u> ^{SP} <u>1276260</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1240</u>	<u>—</u>	<u>75cm</u>	<u>Y</u>	<u>Surface - aquatic vegetation.</u>	
				<u>0-75cm - no change in material;</u>	
				<u>all FIM sand.</u>	
				<u>Sample collected behind the wall.</u>	
SAMPLE DATA		Sample ID: <u>LDW21-IT616A (0-45cm) + LDW21-IT616B (45-75cm)</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	brown surface	<u>none</u>	H ₂ S	<u>- aquatic vegetation (grass) at surface</u>	
gravel	drab olive	slight	petroleum		
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:		
silt	gray	strong			
clay	black				

* IT616A and IT616B are same material.

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4-Phase II Project no.: —
 Date: 7-12-2021 Weather: Sunny, 70s
 Sampling Method: hand collected. Crew: SR, CD

GRAB DATA		Location ID: <u>SS616</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>194446</u>			Longitude/Easting(X): <u>1276260</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1320</u>	<u>—</u>	<u>10 cm</u>	<u>Y</u>		
SAMPLE DATA		Sample ID: <u>LDW21-SS616</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	brown surface	<u>none</u>	H ₂ S	<u>brown layer at surface, then thin black layer before transition to sand.</u>	
gravel	drab olive	slight	petroleum		
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:		
silt	gray	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM (CORE)

Project Name: LOW AOC4 - Phase II Project no.:
 Date: 7.12.2021 Weather: Sunny, 70s
 Sampling Method: hand auger Crew: SR, CD

GRAB DATA		Location ID: <u>IT619</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>—</u>
Latitude/Northing(Y): <u>194358</u>		Longitude/Easting(X): <u>1276281</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1345</u>	<u>—</u>	<u>59 cm</u>	<u>Y</u>
Comments: <u>Surface - area has vegetation roots in top ~10 cm</u>			
<u>0 to 59 cm - fine sand w/ silt + clay throughout. trace gravel / brick debris.</u>			
<u>unidentified metal fragment in 0-15 cm sample.</u>			
<u>59 cm - refusal (hit brick/rock)</u>			
SAMPLE DATA	Sample ID: <u>LOW21-IT619A and LOW21-619B (45 to 59 cm)</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			

Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	Seems more like soil than sediment roots / plant material near surface removed a few pieces of gravel.
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:	
<u>silt trace</u>	gray	strong		
<u>clay</u>	black			

* IT619A and IT619B are same material

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phase 11 Project no.:
 Date: 7.12.2021 Weather: Sunny, 70s
 Sampling Method: hand-collected Crew: SR, CD

GRAB DATA		Location ID: <u>SS619</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u> N </u>			
Latitude/Northing(Y): <u>194358</u>			Longitude/Easting(X): <u>1276281</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1415</u>	<u> </u>	<u>10 cm</u>	<u> Y </u>		
SAMPLE DATA		Sample ID: <u>LDW21-SS619</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	brown surface	<u>none</u>	H ₂ S	<u>Some organic debris, roots removed one brick fragment.</u>	
gravel	drab olive	slight	petroleum		
<u>sand</u> (F M C)	<u>brown</u>	moderate	other:		
<u>silt</u> <u>trace</u>	gray	strong			
<u>clay</u>	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phxzll Project no.:
 Date: 7-12-2021 Weather: sunny, 70s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS620</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u> </u>
Latitude/Northing(Y): <u>194246.59</u>		Longitude/Easting(X): <u>1276157.44</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1150</u>	<u>10.09 ft</u>	<u>20 cm</u>	<u>Y</u>
Comments			
<u>tide = -0.29 ft (RTK tide station)</u>			
<u>mudline = -10.4 ft MLLW</u>			
<u>About 2.2 ft from target</u>			
SAMPLE DATA		Sample ID: <u>LDW21-SS620</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S
gravel	drab olive	slight	petroleum
<u>tray</u> sand (F M C)	brown	moderate	other:
<u>silt</u>	<u>gray dk</u>	strong	
clay	black		
Comments:			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4-Phase II Project no.:
 Date: 7-12-2021 Weather: Sunny, 70s
 Sampling Method: Power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS623</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>194141.62</u>			Longitude/Easting(X): <u>1276184.06</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1135</u>	<u>9.8 ft</u>	<u>17cm</u>	<u>Y</u>	<u>tide = 0.26 ft # (RTH tide station)</u>	
				<u>mud line = -9.5 ft MLLW</u>	
				<u>About 1.8 ft from target. (core)</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS623</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace organics</u>	
gravel	drab olive	slight	petroleum		
<u>sand (F M C)</u>	brown	moderate	other:		
<u>silt</u>	<u>gray dk</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC 4 - Phase II Project no.:
 Date: 7.22.2021 Weather: partly cloudy, 60s
 Sampling Method: hand collected Crew: SR, JD, PM, ES

GRAB DATA		Location ID: <u>SS625</u>		
		On armored slope (Y/N)? <u>Y</u>	Depth of overlying sediment, if known (cm): <u>unknown</u>	
Latitude/Northing(Y): <u>194036 ^{SF} 194090</u>		Longitude/Easting(X): <u>1276329 ^{SF} 1276333</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0750</u>	<u>-</u>	<u>10cm</u>	<u>Y</u>	<u>Collected sample in gap between bricks/concrete blocks.</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS625</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	
<u>gravel trace</u>	drab olive	slight	petroleum	
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:	
<u>silt</u>	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM (CORE)

Project Name: LDW ACC4 - Phase II Project no.:
 Date: 7.22.2021 Weather: partly cloudy, 60s
 Sampling Method: hand-collected Crew: SP, TD, ES, RM

GRAB DATA	Location ID: <u>IT625</u>			
	On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u> </u>		
Latitude/Northing(Y): 194036 ^{SR} <u>194090</u>		Longitude/Easting(X): 1276379 ^{SR} <u>1276333</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0750</u>	<u> </u>	<u>45cm</u>	<u>Y</u>	<u>0-15cm - M+C sand, brown, no odor</u>
				<u>15-30cm - M+C sand, brown, more silt, piece of glass, large bricks, no odor</u>
				<u>30-45cm - M+C sand, silt, gray/brown, more whole bricks.</u>

SAMPLE DATA Sample ID: LDW21-IT625

Pre-homogenization analyses (circle): VOC Sulphides Ammonia AVS/SEM TPH-P Other:

Sediment type	Sediment color	Sediment odor		Comments:
<u>cobble</u>	<u>brown surface</u>	<u>none</u>	H ₂ S	
<u>gravel</u>	drab olive	slight	petroleum	
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:	
<u>silt</u>	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA - Phase II Project no.:
 Date: 7-22-2021 Weather: Sunny, 60s
 Sampling Method: hand collected Crew: SR, TD, RM, ES

GRAB DATA		Location ID: <u>SS627</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>—</u>
Latitude/Northing(Y): <u>194005</u>		Longitude/Easting(X): <u>1276356</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>0810</u>	<u>—</u>	<u>10cm</u>	<u>Y</u>
			<u>Collected sample next to hole from short core (17627).</u>
SAMPLE DATA	Sample ID: <u>LDW21-SS627</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S
gravel	drab olive	slight	petroleum
<u>sand</u> (F M C)	brown	moderate	other:
<u>silt</u>	<u>gray dark</u>	strong	
clay	black		
Comments: <u>trace plant / organic debris</u>			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.:
 Date: 7/9/21 Weather: 70s, Sun
 Sampling Method: power grab Crew: KM, CD, ES, KS

GRAB DATA		Location ID: <u>SS631</u>		
		On armored slope (Y/N)? <u>No</u>	Depth of overlying sediment, if known (cm): <u>119</u>	
Latitude/Northing(Y): <u>193931.50</u>		Longitude/Easting(X): <u>1276289.72</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1600</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>debris in jaws</u>
<u>1605</u>	<u>10.55 ft</u>	<u>17 cm</u>	<u>Y</u>	<u>8.03 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS631</u>		
Pre-homogenization analyses (circle): VOC Sulphides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	none	<u>H₂S</u> slight	<u>algae on top, organic material</u>
gravel	drab olive	slight	petroleum	
<u>trace</u> sand (F M C)	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	<u>black</u>			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phosell Project no.: —
 Date: 7.12.2021 Weather: Sunny, 60s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS633</u>		On armored slope (Y/N)? <u>N</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
Latitude/Northing(Y): <u>19 3919.39</u>				Longitude/Easting(X): <u>1276370.05</u>			
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments			
<u>0808</u>	<u>5.3 ft</u> <u>2.77 ft</u>	<u>14 cm</u>	<u>Y</u>	<u>tide = 8.69 ft (RTK tide station)</u>			
				<u>Mudline = + 3.4 ft MLLW</u>			
				<u>About 15 ft from target.</u>			
SAMPLE DATA		Sample ID: <u>LDW2i-SS633</u>					
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:							
Sediment type	Sediment color	Sediment odor		Comments:			
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>Small trace organic debris (twigs / branches)</u>			
<u>grave</u> <u>trace</u>	drab olive	slight	petroleum				
<u>sand</u> <u>(F/M/C)</u> <u>trace</u>	brown	moderate	other:				
<u>silt</u>	<u>gray</u> <u>dark</u>	strong					
clay	black						

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW A004 - Phase II Project no.: _____
 Date: 7.12.2021 Weather: sunny, 70s
 Sampling Method: power grab Crew: SR, CD,

GRAB DATA		Location ID: <u>SS634</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>193855.83</u>			Longitude/Easting(X): <u>1276268.26</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1115</u>	<u>—</u>	<u>723cm</u>	<u>N</u>	<u>over-penetrated</u>	
<u>1118</u>	<u>—</u>	<u>5cm</u>	<u>N</u>		
<u>1122</u>	<u>7.83ft</u>	<u>15cm</u>	<u>Y</u>	<u>tide = 0.85 ft (PTK tide station)</u>	
				<u>mudline = -7 ft MLLW</u>	
				<u>About 2.9 ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS634</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S		
gravel	drab olive	slight	petroleum		
<u>trace</u> sand (F M C)	brown	moderate	other:		
<u>silt</u>	<u>gray dk</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.:
 Date: 7-12-2021 Weather: Sunny, 60s
 Sampling Method: Power grab Crew: SP, CD, RM, ES

GRAB DATA		Location ID: <u>SS636</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>193815.62</u>			Longitude/Easting(X): <u>1276367.56</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>0755</u>	<u>7.60 ft</u>	<u>13cm</u>	<u>Y</u>	<u>tide = 9.07 ft (RTK tide station)</u>	
				<u>mudline = +1.5 ft MLW</u>	
				<u>About 3.2 ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS636</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u> <i>thin</i>	<u>none</u>	H ₂ S		
gravel	drab olive	slight	petroleum		
<u>sand</u> (F M C)	<u>brown</u>	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Project no.: —
 Date: 7.12.2021 Weather: Sunny, 70s
 Sampling Method: power grab Crew: SR, CD, ES, RM

GRAB DATA		Location ID: <u>SS641</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>—</u>
Latitude/Northing(Y): <u>19 3754.51</u>		Longitude/Easting(X): <u>1276364.82</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1053</u>	<u>3.20 ft</u>	<u>13 cm</u>	<u>Y</u>
			<u>tidal = 2.14 ft (RTK tide station)</u>
			<u>mudline = -1.1 ft mllw</u>
			<u>About 1.6 ft from target (core)</u>
SAMPLE DATA	Sample ID: <u>LDW21-SS641</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S
gravel	drab olive	slight	petroleum
^{trace} sand (F)(M)(C)	brown	moderate	other:
<u>silt</u>	<u>gray</u>	strong	
clay	black		
Comments:			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA - Phase II Project no.:
 Date: 7.12.2021 Weather: Sunny, 70s
 Sampling Method: power grab Crew: SR, CO, RM, ES

GRAB DATA		Location ID: <u>SS642</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>193693.78</u>			Longitude/Easting(X): <u>1276293.78</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1105</u>	<u>9.60 ft</u>	<u>>23 cm</u>	<u>N</u>	<u>over penetrated</u>	
<u>1108</u>	<u>9.60 ft</u>	<u>16 cm</u>	<u>Y</u>	<u>tide = 1.48 ft (RTK tide station)</u>	
				<u>mudline = -8 ft. MLLW</u>	
				<u>About 3.4 ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS642</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>clam shell</u>	
gravel	drab olive	slight	petroleum		
<u>sand</u> (F M C)	brown	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC3 - Phase II Project no.:
 Date: 7.12.2021 Weather: Sunny, 60s
 Sampling Method: power grab Crew: SR, CD, ES, RM

GRAB DATA		Location ID: <u>SS643</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u> </u>
Latitude/Northing(Y): <u>14 3692.85</u>		Longitude/Easting(X): <u>1 276330.34</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>0838</u>	<u>12.03 ft</u>	<u>13cm</u>	<u>Y</u>
			<u>tide = 7.81 ft (RTK tide station)</u>
			<u>mudline = -4.2 ft MLLW</u>
			<u>About 2.8 ft from target.</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS643 + LDW21-SS643-FD</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	Comments:
cobble	<u>brown surface</u>	<u>none</u> H ₂ S	<u>algae vegetation on surface</u> <u>woody debris (isolated)</u>
gravel	drab olive	slight petroleum	
<u>trace</u> sand (F M C)	<u>brown</u>	moderate other:	
<u>silt</u>	<u>gray</u>	strong	
clay	black		

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.: —
 Date: 7.12.2021 Weather: Sunny, 60s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS645</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>193686.95</u>			Longitude/Easting(X): <u>1276373.40</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>0855</u>	<u>8.19 ft</u>	<u>17cm</u>	<u>Y</u>	<u>tide = 7.29 ft (RTK tide station)</u>	
				<u>mudline = -0.9 ft mllw</u>	
				<u>About 1.1 ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS645</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>organic debris (sticks/leaves)</u>	
gravel	drab olive	slight	petroleum	<u>aquatic veg. on surface</u>	
<u>sand (F M C)</u>	brown	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phase II Project no.: —
 Date: 7.22.2021 Weather: sunny, 60s
 Sampling Method: hand collect Crew: SR, ES, RM

GRAB DATA		Location ID: <u>SS646</u>		Depth of overlying sediment, if known (cm): <u>variable (0-10cm)</u>	
		On armored slope (Y/N)? <u>Y</u>			
Latitude/Northing(Y): <u>193739</u>			Longitude/Easting(X): <u>1276430^{SR} 1276432</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1150</u>	<u>—</u>	<u>10cm</u>	<u>Y</u>		
SAMPLE DATA		Sample ID: <u>LDW21-SS646</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S		
<u>gravel</u>	drab olive	slight	petroleum		
<u>sand (F, M, C)</u>	<u>brown</u>	moderate	other:		
<u>silt</u>	gray	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phase II Project no.:
 Date: 7-12-2021 Weather: Sunny, 70s
 Sampling Method: power grab Crew: SR, CD, ES, RM

GRAB DATA		Location ID: <u>SS647</u>		Depth of overlying sediment, if known (cm): <u> </u>
		On armored slope (Y/N)? <u>N</u>		
Latitude/Northing(Y): <u>193494.13</u>			Longitude/Easting(X): <u>1276409.38</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1035</u>	<u>4.81 ft</u>	<u>15cm</u>	<u>Y</u>	<u>tide = 2.82 ft</u>
				<u>mudline = -2 ft MLLW</u>
				<u>About 1.9 ft from target (core)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS647</u>		
Pre-homogenization analyses (circle): VOC Sulphides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace organic material</u>
gravel	drab olive	slight	petroleum	
<u>trace</u> sand (E M C)	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW ACCA - Phase II Project no.:
 Date: 7.12.2021 Weather: Sunny, 60s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS651</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u> </u>
Latitude/Northing(Y): <u>193403.85</u>		Longitude/Easting(X): <u>1276449.71</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>0735</u>	<u>10.71 ft</u>	<u>19cm</u>	<u>Y</u>
			<u>tide = 9.41 ft (RTK tide station)</u>
			<u>mudline = -1.3 ft mllw</u>
			<u>About 1.5 ft from target (core)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS651</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	Comments:
cobble	<u>brown surface</u> ^{thin}	<u>none</u> H ₂ S	<u>aquatic vegetation at surface</u>
gravel	drab olive	slight petroleum	
<u>sand (F M C)</u>	<u>brown</u>	moderate other:	
<u>silt</u>	<u>gray</u>	strong	
clay	black		

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phase II Project no.: —
 Date: 7.12.2021 Weather: Sunny, 70s
 Sampling Method: pauer grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS656</u>		On armored slope (Y/N)? <u>N</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
Latitude/Northing(Y): <u>193272.95</u>				Longitude/Easting(X): <u>1276472.27</u>			
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments			
<u>1025</u>	<u>5.24 2.5+ ft (Sp)</u>	<u>18cm</u>	<u>Y</u>	<u>tide = 3.51 ft</u>			
				<u>Mudline = -1.7 ft MLLW</u>			
				<u>About 1.4 ft from target (core)</u>			
SAMPLE DATA		Sample ID: <u>LDW21-SS656</u>					
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:							
Sediment type	Sediment color	Sediment odor		Comments:			
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace organics</u>			
gravel	drab olive	slight	petroleum				
<u>trace</u> sand (F M C)	brown	moderate	other:				
<u>silt</u>	<u>gray</u>	strong					
clay	black						

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.: —
 Date: 7/9/21 Weather: 70s, SW
 Sampling Method: power grab Crew: KM, CO, ES, KS

GRAB DATA		Location ID: <u>55661</u>		Depth of overlying sediment, if known (cm): <u>na</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>193251.16</u>			Longitude/Easting(X): <u>1276561.23</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>15:35</u>	<u>2.343^{km}</u>	<u>17 cm</u>	<u>Y</u>	<u>6.78 ft (RTK tide station)</u>	
SAMPLE DATA		Sample ID: <u>LDW21-55661</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S		
gravel	drab olive	slight	petroleum		
<u>sand</u> (F M C)	brown	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phase II Project no.: —
 Date: 7.12.2021 Weather: Sunny, 60s
 Sampling Method: power grab Crew: SR, CD, ES, RM

GRAB DATA		Location ID: <u>SS667</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>—</u>
Latitude/Northing(Y): <u>193032.91</u>		Longitude/Easting(X): <u>1276589.33</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>0722</u>	<u>9.73 ft</u>	<u>15cm</u>	<u>Y</u>
			<u>Comments</u>
			<u>tide = 9.68 ft (RTK tide station)</u>
			<u>mudline = 0 ft MLLW</u>
			<u>About 1.0 ft from target.</u>
SAMPLE DATA	Sample ID: <u>LDW21-SS667</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S
gravel	drab olive	slight	petroleum
<u>sand</u> (F M C)	brown	moderate	other:
<u>silt</u>	<u>gray</u>	strong	
clay	black		
			Comments:
			<u>Some organic material (aquatic vegetation at surface)</u>

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDWAOCA Phase II Project no.: —
 Date: 7-12-2021 Weather: Sunny, 60s
 Sampling Method: power grab Crew: SP, CD, RM, ES

GRAB DATA		Location ID: <u>SS668</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>—</u>
Latitude/Northing(Y): <u>193045.91</u>		Longitude/Easting(X): <u>127.6651.53</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>0710</u>	<u>6.9 ft</u>	<u>12cm</u>	<u>Y</u>
Comments: <u>tide = 9.86 ft (RTK tide station)</u> <u>mudline = +3 ft MLLW</u> <u>About 0.4 ft from target. (core)</u>			
SAMPLE DATA		Sample ID: <u>LDW21-SS668</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	Comments:
cobble	<u>brown surface</u>	<u>none</u> H ₂ S	<u>Some organic debris</u>
gravel	drab olive	slight petroleum	
<u>sand (F M C)</u>	<u>brown</u>	moderate other:	
<u>silt</u>	<u>gray</u>	strong	
clay	black		

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.:
 Date: 7.16.2021 Weather: overcast, 50s
 Sampling Method: pour grab Crew: SR, CD, ES, RM

GRAB DATA		Location ID: <u>SS675</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>192872.16</u>			Longitude/Easting(X): <u>1277410.31</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>0943</u>	<u>16.55 ft</u>	<u>> 23 cm</u>	<u>N</u>	<u>over-penetrated</u>	
<u>0945</u>	<u>16.5 ft</u>	<u>0</u>	<u>N</u>		
<u>0947</u>	<u>16.46 ft</u>	<u>16cm</u>	<u>Y</u>	<u>tide = 8.38 ft (RTK tide station)</u>	
				<u>MVDline = -8.1 ft MLLW</u>	
				<u>About 1.8 ft from target (core)</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS675</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>worms</u>	
gravel	drab olive	slight	petroleum		
sand (F M C)	brown	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phase II Project no.:
 Date: 7.16.2021 Weather: overcast, 50s
 Sampling Method: power grab Crew: SP, CD, RM, ES

GRAB DATA		Location ID: <u>SS676</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>192893.71</u>			Longitude/Easting(X): <u>1277470.22</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1003</u>	<u>15.96ft</u>	<u>723cm</u>	<u>N</u>	<u>over-penetrated.</u>	
<u>1007</u>	<u>15.77ft</u>	<u>15cm</u>	<u>Y</u>	<u>tide = 8.42 ft (RTK tide station)</u>	
				<u>mudline = -7.4 ft. MLLW</u>	
				<u>About 2.3 ft from target (core)</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS676</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>trace organic debris</u>	
gravel	drab olive	slight	petroleum		
sand (F M C)	brown	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phase II Project no.:
 Date: 7.16.2021 Weather: overcast, 50s
 Sampling Method: power grab Crew: SR, CD, ES, RM

GRAB DATA		Location ID: <u>SS678</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>192971.95</u>			Longitude/Easting(X): <u>1277489.24</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1022</u>	<u>16.58 ft</u>	<u>>23cm</u>	<u>N</u>	<u>over-penetrated</u>	
<u>1024</u>	<u>16.75 ft</u>	<u>19 cm</u>	<u>Y</u>	<u>tide = 8.42 ft mllw</u>	
				<u>mudline = -8.3 ft mllw</u>	
				<u>About 2 ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS678</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>worms</u> <u>organic debris (leaves)</u>	
gravel	drab olive	slight	petroleum		
<u>trace</u> sand (F M C)	brown	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.: _____
 Date: 7/13/21 Weather: 70s, Sun
 Sampling Method: power grab Crew: KM, CO, ES, RM

GRAB DATA		Location ID: <u>55680</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>
Latitude/Northing(Y): <u>190568.88</u>		Longitude/Easting(X): <u>1277240.36</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1315</u>	<u>37ft</u>	<u>19</u>	<u>y</u>
			<u>-0.98 ft (RTK tide station)</u>
SAMPLE DATA	Sample ID: <u>LDW21-55680</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	brown surface	<u>none</u>	H ₂ S
<u>gravel</u> <u>trace</u>	drab olive	slight	petroleum
<u>sand (F/M/C)</u> <u>trace</u>	<u>brown</u>	moderate	other:
silt	gray	strong	
clay	black		
Comments: <u>organic material (trace)</u>			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC Phase II Project no.:
 Date: 7.12.2021 Weather: Sunny, 60s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS681</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u> </u>
Latitude/Northing(Y): <u>190647.87</u>		Longitude/Easting(X): <u>1277298.23</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>0925</u>	<u>1 ft</u>	<u>1 cm</u>	<u>N</u>
<u>0928</u>	<u>4.5 ft</u>	<u>6 cm</u>	<u>N</u>
<u>0930</u>	<u>5.07 ft</u>	<u>11 cm</u>	<u>Y</u>
			<u>tide = 5.56 ft (RTK tide station)</u>
			<u>mudline = +0.5 ft MLLW</u>
			<u>About 7.5 ft from target.</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS681</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	Comments:
cobble	brown surface	<u>none</u> H ₂ S	<u>- brown mottling throughout (top 8 cm)</u> <u>- trace organic debris</u>
<u>gravel</u> <u>trace</u>	drab olive	slight petroleum	
<u>sand</u> <u>trace</u> (F M C)	<u>brown</u>	moderate other:	
<u>silt</u>	<u>gray</u>	strong	
clay	black		

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCY Phase II Project no.:
 Date: 7/13/21 Weather: 60s, cloudy
 Sampling Method: pinner grab Crew: KM, CD, ES, RM

GRAB DATA		Location ID: <u>SS682</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>see below</u>		Longitude/Easting(X): <u>see below</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0725</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>rock in jaws, no sample</u>
<u>0730</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>rock in jaws, no sample</u>
<u>0735</u>	<u>—</u>	<u>up to 10cm</u>	<u>N</u>	<u>washed out, underpenetrated</u>
<u>0740</u>	<u>12.3 ft</u>	<u>13 cm</u>	<u>Y</u>	<u>9.79 ft (RTK tide station)</u>
<u>0745</u>	<u>11.6 ft</u>	<u>13 cm</u>	<u>Y</u>	<u>9.65 ft (RTK tide station)</u>
<u>0800</u>	<u>11.6 ft</u>	<u>12 cm</u>	<u>Y</u>	<u>9.45 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS682</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	none	H ₂ S	
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

190618.76
 1277335.96
 190608.27
 1277339.92
 190610.51
 1277339.57

(extra volume for tox sample)

see next page

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCY Phase II Project no.:
 Date: 7/13/21 Weather: 60s, cloudy
 Sampling Method: power grab Crew: KM, CO, ES, RM

GRAB DATA	Location ID: <u>SS682 (cont.)</u>			Depth of overlying sediment, if known (cm): <u>na</u>
	On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>190614.17</u>			Longitude/Easting(X): <u>1277338.48</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0810</u>	<u>10.9ft</u>	<u>14cm</u>	<u>Y</u>	<u>9.45 ft (RTK tide station)</u>
SAMPLE DATA				
Sample ID: <u>LDW21-SS682</u>				
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	<u>trace organic material</u>
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u> <u>trace</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.:
 Date: 7/13/21 Weather: 60s, Cloudy
 Sampling Method: power grab Crew: KM, CO, ES, RM

GRAB DATA		Location ID: <u>SS685</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>see below</u>		Longitude/Easting(X): <u>see below</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0855</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>rock in jaws, no recovery</u>
<u>0900</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>rock in jaws, no recovery</u>
<u>190584.76 1277393.70</u> } <u>0905</u>	<u>8.0 ft</u>	<u>13 cm</u>	<u>Y</u>	<u>8.09 ft (RTK tide station)</u>
<u>190586.17 1277396.78</u> } <u>0910</u>	<u>9.2 ft</u>	<u>12 cm</u>	<u>Y</u>	<u>8.09 ft (RTK tide station)</u>
<u>190579.87 1277393.95</u> } <u>0915</u>	<u>9.4 ft</u>	<u>16 cm</u>	<u>Y</u>	<u>8.09 ft (RTK tide station)</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS685</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>brick fragments</u>
gravel	drab olive	slight	petroleum	
<u>sand (F)(M)(C)</u> <u>face</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

(extra volume for toxicity sample)

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW ACC4-Phase II Project no.: —
 Date: 7-12-2021 Weather: Sunny, 60s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS686</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>—</u>	
Latitude/Northing(Y): <u>190558.30</u>		Longitude/Easting(X): <u>1277435.69</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0945</u>	<u>7.53 ft</u>	<u>19cm</u>	<u>Y</u>	<u>tide = 4.86 ft MLLW</u>
				<u>mudline = - 2.7 ft</u>
				<u>About 1.9 ft from target</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS686</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	- organic debris - evidence of worm holes
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u>	brown	moderate	other:	
<u>silt</u>	<u>gray dark</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA - Phase II Project no.: _____
 Date: 7-22-2021 Weather: partly cloudy, 60s
 Sampling Method: hand collected Crew: GR, TD, RM, ES

GRAB DATA		Location ID: <u>SS687</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>189924</u>			Longitude/Easting(X): <u>1277108</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>0645</u>	<u>—</u>	<u>10 cm</u>	<u>Y</u>	<u>extra volume collected for toxicity samples.</u>	
SAMPLE DATA		Sample ID: <u>LOW21-SS687</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u> <i>thin layers</i>	<u>none</u>	H ₂ S	<u>aquatic vegetation at surface</u>	
<u>gravel</u>	drab olive	slight	petroleum	<u>brick fragments</u>	
sand (F M C)	brown	moderate	other:	<u>woody debris</u>	
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4-Phase II Project no.:
 Date: 7.16.2021 Weather: overcast, 60s
 Sampling Method: hand collect Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS688</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>189899</u>			Longitude/Easting(X): <u>1277150 1277151</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1510</u>	<u> </u>	<u>10 cm</u>	<u>Y</u>	<u>extra volume collected for toxicity testing samples</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS688</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>gray/black patches in sediment brck fragments</u>	
<u>gravel</u> <u>trace</u>	drab olive	slight	petroleum		
<u>sand</u> (F) (M) (C)	<u>brown</u> <u>trace</u>	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA-Phase II Project no.:
 Date: 7-16-2021 Weather: overcast, 60s
 Sampling Method: hand collect Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS689</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>189922</u>			Longitude/Easting(X): <u>1277215</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1A10</u>	<u>—</u>	<u>10 cm</u>	<u>Y</u>	<u>extra volume collected for toxicity testing. sample</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS689</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>brick fragments small cobble + gravel glass pieces</u>	
gravel	drab olive	slight	petroleum		
sand (F M C)	<u>brown</u>	moderate	other:		
silt	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.:
 Date: 7/21/21 Weather: 60s, cloudy
 Sampling Method: hand collection Crew: KM, CD, ES, RM

GRAB DATA		Location ID: 17690 ^{KM} 17 55690	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>
Latitude/Northing(Y): <u>189862</u>		Longitude/Easting(X): <u>1277198</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1230</u>	<u>na</u>	<u>10</u>	<u>Y</u>
Comments			
<u>collected by hand as close to</u>			
<u>target as possible (~32 ft</u>			
<u>away). Access limited by a</u>			
<u>fence and thick marsh</u>			
<u>vegetation Extra volume</u>			
<u>collected for toxicity</u>			
SAMPLE DATA		Sample ID: <u>LDW21-55690</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	Comments:
cobble	<u>brown surface</u>	<u>none</u> H ₂ S	<u>vegetation on surface,</u>
gravel	drab olive	slight petroleum	<u>Some organic material</u>
<u>sand (F)(M)(C)</u> <u>trace</u>	<u>brown</u>	moderate other:	<u>fragments KM</u>
<u>silt</u>	<u>gray</u>	strong	
clay	black		

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: ADCA Phase 2 Project no.:
 Date: 6/28/2021 Weather: 90s, sunny
 Sampling Method: hand-collected Crew: SR, TD, JV, BQ

GRAB DATA		Location ID: <u>SS691</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>N/A</u>	
Latitude/Northing(Y): <u>19065</u>		Longitude/Easting(X): <u>1277405</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>11:10</u>	<u>NA</u>	<u>10</u>	<u>Y</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS691</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	<u>Aquatic vegetation</u>
gravel	drab olive	slight	petroleum	
sand (F/M/C)	<u>brown-light</u>	moderate	other:	
<u>silt</u>	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM (CORE)

Project Name: AOCT Phase II Project no.: —
 Date: 6-28-2021 Weather: sunny, 90s
 Sampling Method: hand collected Crew: SR, TD, AV, Ba

GRAB DATA		Location ID: <u>IT691</u>		Depth of overlying sediment, if known (cm): <u>NA</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>190065</u>			Longitude/Easting(X): <u>1277405</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1115</u>	<u>NA</u>	<u>45cm</u>	<u>Y</u>	<u>0-10cm - silt + fine sand, brown w/ gray</u>	
				<u>Surface = aquatic vegetation/roots</u>	
				<u>10-45cm - fine/M sand, gray,</u>	
				<u>Sand becomes more M as you get deeper.</u>	
SAMPLE DATA		Sample ID: <u>LDW21-IT691</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	brown surface	<u>none</u>	H ₂ S		
gravel	drab olive	slight	petroleum		
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:		
silt	gray	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: ADCH Phase 2 Project no.:
 Date: 6/28/2021 Weather: 90s, sunny
 Sampling Method: hand-collected Crew: SR, TD, AV, BR

GRAB DATA		Location ID: <u>SS692</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>N/A</u>	
Latitude/Northing(Y): <u>190100⁵⁸ 190101</u>		Longitude/Easting(X): <u>1277440⁵⁴ 1277442</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>11:34</u>	<u>N/A</u>	<u>10</u>	<u>Y</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS692</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	<u>Aquatic plant matter</u>
gravel	drab olive	slight	petroleum	
sand (F M C)	<u>brown</u>	moderate	other:	
<u>silt</u>	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM (LOVE)

Project Name: AOCA Phase II Project no.: -
 Date: 6.28.2021 Weather: Sunny, 90s
 Sampling Method: hand collected Crew: SR, TD, AV, BA

GRAB DATA		Location ID: <u>1T692</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>NA</u>	
Latitude/Northing(Y): 190100 ⁽⁵²⁾ <u>190101</u>		Longitude/Easting(X): 127744 ⁽⁵²⁾ <u>1277442</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1135</u>	<u>NA</u>	<u>45cm</u>	<u>Y</u>	<u>0-15cm - silt + F/M sand, brown w/ gray. Surface veg. w/ roots, pockets of black in top 10cm</u>
				<u>15-20cm - Clay/silt layer, gray w/ trace gravel.</u>
				<u>20-45cm - F/M sand, gray, mostly M sand at bottom (45cm)</u>
SAMPLE DATA		Sample ID: <u>LDW21-1T692</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	<u>trace plant material</u>
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:	
<u>silt</u>	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: ADCU Phase 2 Project no.: _____
 Date: 6/28/2021 Weather: 90s, sunny
 Sampling Method: hand - collected Crew: SR, TD, AV, BQ

GRAB DATA	Location ID: <u>SS693</u>
	On armored slope (Y/N)? <u>Y</u> Depth of overlying sediment, if known (cm): <u>N/A</u>
Latitude/Northing(Y): <u>190099</u>	Longitude/Easting(X): <u>1277500 1277501</u>

Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>10:45</u>	<u>NA</u>	<u>10</u>	<u>Y</u>	

SAMPLE DATA Sample ID: LDW21-SS693

Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:

Sediment type	Sediment color	Sediment odor		Comments: <u>aquatic plant matter</u>
cobble	brown surface	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
sand (F M C)	<u>brown</u>	moderate	other:	
<u>silt</u>	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM (100E)

Project Name: AOC4 Phase II Project no.: —
 Date: 6-28-2021 Weather: Sunny, 90s
 Sampling Method: hand collected Crew: SP, JD, AV, BQ

GRAB DATA		Location ID: <u>IT693</u>	
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>NA</u>
Latitude/Northing(Y): <u>190099</u>		Longitude/Easting(X): <u>127750⁵²81</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>1050</u>	<u>NA</u>	<u>45cm</u>	<u>Y</u>
			<u>Surface - aquatic vegetation</u>
			<u>0-15cm - silt w/ trace fines, gray/brown</u>
			<u>15-45cm - M/F sand, gray</u>
SAMPLE DATA	Sample ID: <u>LDW21-IT693</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	
cobble	brown surface	<u>none</u>	H ₂ S
gravel	drab olive	slight	petroleum
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:
silt	gray	strong	
clay	black		
Comments:			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOCA - Phase II Project no.: —
 Date: 7.12.2021 Weather: Sunny, 60s
 Sampling Method: hand collected Crew: SK, CD, RM, ES

GRAB DATA		Location ID: <u>SS694</u>		On armored slope (Y/N)? <u>N</u>		Depth of overlying sediment, if known (cm): <u>—</u>	
Latitude/Northing(Y): <u>190044</u>				Longitude/Easting(X): <u>1277456</u>			
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments			
<u>1005</u>	<u>—</u>	<u>10 cm</u>	<u>Y</u>				
SAMPLE DATA		Sample ID: <u>LDW21 - SS694</u>					
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:							
Sediment type	Sediment color	Sediment odor		Comments:			
cobble	brown surface	<u>none</u>	H ₂ S	- trace organic material			
gravel	drab olive	slight	petroleum	- removed goose poop from surface			
<u>sand (F)(M)(C)</u>	<u>brown</u>	moderate	other:				
<u>silt trace</u>	gray	strong					
clay	black						

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: ADCA Phase 2 Project no.: _____
 Date: 6/28/2021 Weather: 90s, sunny
 Sampling Method: hand-collected Crew: SR, TD, AV, BQ

GRAB DATA	Location ID: <u>SS695</u>			Depth of overlying sediment, if known (cm): <u>P/A</u>
	On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): 189998 ^{SR} <u>190005</u>			Longitude/Easting(X): 1277428 ^{SR} <u>1277430</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>10:15</u>	<u>N/A</u>	<u>10</u>	<u>Y</u>	
SAMPLE DATA	Sample ID: <u>LDW21-SS695</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments: <u>minor roots and plant matter</u>
cobble	brown surface	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
sand (F/M/C)	<u>brown</u>	moderate	other:	
<u>silt</u>	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM (CORE)

Project Name: AOC4 Phase II Project no.: —
 Date: 6.28.2021 Weather: Sunny, 90s
 Sampling Method: hand collected Crew: SP, TD, AV, BQ

GRAB DATA		Location ID: <u>IT695</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>NA</u>	
Latitude/Northing(Y): <u>18999^{SR} 190005</u>		Longitude/Easting(X): <u>1277430</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1030</u>	<u>NA</u>	<u>45 cm</u>	<u>Y</u>	<u>0-10 cm - root fibers, brown, silt & sand</u>
				<u>10-45 cm - gray, med/fine sand, trace silt, trace wood fibers.</u>
				<u>Location shifted slightly to E out of cattails to allow collection of sample.</u>
SAMPLE DATA		Sample ID: <u>LDW21-IT695</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	<u>trace plant material</u>
gravel	drab olive	slight	petroleum	
<u>sand (F) (M) (C)</u>	<u>brown</u>	moderate	other:	
silt	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: AOC 4 Phase 2 Project no.: _____
 Date: 06.28.21 Weather: 90s
 Sampling Method: hand-collected Crew: SR, TD, AV, BR

GRAB DATA		Location ID: <u>SS696</u>		Depth of overlying sediment, if known (cm): <u>N/A</u>	
		On armored slope (Y/N)? <u>Y</u>			
Latitude/Northing(Y): <u>190012</u>			Longitude/Easting(X): <u>1277483</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>0955</u>	<u>N/A</u>	<u>10</u>	<u>Y</u>		
SAMPLE DATA		Sample ID: <u>LDW.21-SS696</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	brown surface	<u>none</u>	H ₂ S	<u>Root fibers throughout.</u>	
gravel	drab olive	slight	petroleum		
sand (F M C)	<u>brown</u>	moderate	other:		
<u>silt</u>	gray	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM (CORE)

Project Name: AOC4 Phase 11 Project no.: —
 Date: 6.28.2021 Weather: sunny, 90s
 Sampling Method: hand collected Crew: SR, TD, AV, BA

GRAB DATA		Location ID: <u>IT696</u>		
		On armored slope (Y/N)? <u>Y</u>	Depth of overlying sediment, if known (cm): <u>NA</u>	
Latitude/Northing(Y): <u>190012</u>		Longitude/Easting(X): <u>1277482</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1000</u>	<u>NA</u>	<u>45cm</u>	<u>Y</u>	<u>0-15cm - root fibers, organic material, brown, silt w trace fine sand</u>
				<u>15-45cm - gray, trace gravel, silt w fine sand, angular cobble armoring.</u>
SAMPLE DATA		Sample ID: <u>LOW21-IT696</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	<u>roots & plant debris couple small gravel pieces</u>
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:	
<u>silt</u>	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LOW AOC4 Phase II Project no.: _____
 Date: 7/13/21 Weather: 70s, Sun
 Sampling Method: power grab Crew: KM, CD, RM, ES

GRAB DATA		Location ID: <u>55700</u>		On armored slope (Y/N)? <u>N</u>		Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>190322.99</u>				Longitude/Easting(X): <u>1278374.07</u>			
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments			
<u>1350</u>	<u>57 ft</u>	<u>11</u>	<u>Y</u>	<u>-1.21 ft (RTK tide station)</u>			
SAMPLE DATA		Sample ID: <u>LDW21-SS700</u>					
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:							
Sediment type	Sediment color	Sediment odor		Comments:			
cobble	brown surface	<u>none</u>	H ₂ S	<u>organic material (bark)</u>			
<u>gravel</u> trace	drab olive	slight	petroleum				
<u>sand</u> (F) (M) (C)	<u>brown</u>	moderate	other:				
<u>silt</u>	gray	strong					
clay	black						

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase 11 Project no.:
 Date: 7.16.2021 Weather: overcast, 50s
 Sampling Method: hand collected Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS701</u>	
		On armored slope (Y/N)? <u>Y</u>	Depth of overlying sediment, if known (cm): <u>variable</u>
Latitude/Northing(Y): <u>190322 190321</u>		Longitude/Easting(X): <u>1278461</u>	
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)
<u>0855</u>	<u>-</u>	<u>10 cm</u>	<u>Y</u>
Comments			
<u>tide = 7.96 ft (RTK hce station)</u>			
<u>Sample collected just above water line.</u>			
SAMPLE DATA		Sample ID: <u>LDW21-SS701</u>	
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:			
Sediment type	Sediment color	Sediment odor	Comments:
cobble	<u>brown surface</u>	<u>none</u> H ₂ S	<u>- aquatic veg. at surface</u> <u>- brick fragment at ~ 5cm.</u>
gravel	drab olive	slight petroleum	
<u>sand (F) (M) (C)</u>	<u>brown</u>	moderate other:	
<u>silt</u> <u>trace</u>	gray	strong	
clay	black		

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 - Phasell Project no.:
 Date: 7.16.2021 Weather: overcast, 50s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS703</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u> </u>	
Latitude/Northing(Y): <u>190174.86</u>		Longitude/Easting(X): <u>1278617.86</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0750</u>		<u>0</u>	<u>N</u>	<u>concrete; no penetration.</u>
<u>0825</u>	<u>3.76 ft</u>	<u>0</u>	<u>N</u>	<u>rock in jaw</u>
<u>0827</u>		<u>0</u>	<u>N</u>	<u>concrete apron; no penetration.</u>
<u>0829</u>		<u>13 cm</u>	<u>N</u>	<u>sample washed out; gravel in jaws</u>
<u>0831</u>	<u>8.61 ft</u>	<u>15 cm</u>	<u>Y</u>	<u>tide = 7.47 ft (RTK tide station)</u>
				<u>mudline = -1.1 ft MLW</u>
				<u>About 10.7 ft from target</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS703</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>Worm holes observed</u> <u>trace vegetation debris</u> <u>Small angular gravel</u>
<u>gravel</u> <u>small angular</u>	drab olive	slight	petroleum	
<u>sand (F/M/C)</u> <u>trace</u>	<u>brown</u>	moderate	other:	
<u>silt</u>	gray	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW ADCY Phase II Project no.:
 Date: 7/13/21 Weather: 70s, sun
 Sampling Method: power grab Crew: KM, CD, RM, ES

GRAB DATA		Location ID: <u>SS704</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>na</u>	
Latitude/Northing(Y): <u>190284.71</u>		Longitude/Easting(X): <u>1278451.61</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>1445</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>no recovery (rocky)</u>
<u>1447</u>	<u>—</u>	<u>—</u>	<u>N</u>	<u>no recovery</u>
<u>1455</u>	<u>0 ft</u>	<u>17</u>	<u>Y</u>	<u>-0.39 ft (RTK tide station), collected with power grab @ waterline</u>

SAMPLE DATA Sample ID: LDW21-SS704

Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:

Sediment type	Sediment color	Sediment odor		Comments:
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
<u>sand (M) C</u>	brown	moderate	other:	
<u>silt</u>	<u>gray</u>	strong		
clay	black			

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW AOC4 Phase II Project no.: _____
 Date: 7/13/21 Weather: 70s, sun
 Sampling Method: power grab Crew: KM, CD, RM, ES

GRAB DATA		Location ID: <u>SS705</u>		Depth of overlying sediment, if known (cm): <u>na</u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>190224.61</u>			Longitude/Easting(X): <u>1278479.53</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>1415</u>	<u>3.3ft</u>	<u>21</u>	<u>Y</u>	<u>-0.93ft (RTK tide station)</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS705</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S	<u>vegetation</u>	
gravel	drab olive	slight	petroleum		
<u>sand (F M C)</u>	brown	moderate	other:		
<u>silt</u>	<u>gray</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDWAOCA Phase II Project no.:
 Date: 7-16-2021 Weather: overcast, 50s
 Sampling Method: POWER grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS706</u>		Depth of overlying sediment, if known (cm): <u> </u>	
		On armored slope (Y/N)? <u>N</u>			
Latitude/Northing(Y): <u>190206.32</u>			Longitude/Easting(X): <u>1278515.69</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments	
<u>0800</u>	<u>-</u>	<u>723 cm</u>	<u>N</u>	<u>over-penetration</u>	
<u>0805</u>	<u>3.40ft</u>	<u>21 cm</u>	<u>Y</u>	<u>tide = 6.84 ft</u>	
				<u>Mudline = +34 ft MLLW</u>	
				<u>About 2.4 ft from target</u>	
SAMPLE DATA		Sample ID: <u>LDW21-SS706 and LDW21-SS706-FD</u>			
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:					
Sediment type	Sediment color	Sediment odor		Comments:	
cobble	<u>brown surface</u>	<u>none</u>	H ₂ S		
gravel	drab olive	slight	petroleum		
<u>trace</u> sand (F M C)	<u>brown</u>	moderate	other:		
<u>silt</u>	<u>gray trace</u>	strong			
clay	black				

SURFACE SEDIMENT COLLECTION FORM



SURFACE SEDIMENT COLLECTION FORM

Project Name: LDW A004 - Phase II Project no.:
 Date: 7.16.2021 Weather: overcast, 50s
 Sampling Method: power grab Crew: SR, CD, RM, ES

GRAB DATA		Location ID: <u>SS707</u>		
		On armored slope (Y/N)? <u>N</u>	Depth of overlying sediment, if known (cm): <u>—</u>	
Latitude/Northing(Y): <u>189998.96</u>		Longitude/Easting(X): <u>1278762.16</u>		
Grab time	Bottom depth (m or ft)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments
<u>0735</u>	<u>6.5 ft</u>	<u>9cm</u>	<u>N</u>	
<u>0738</u>	<u>6.71 ft</u>	<u>14cm</u>	<u>Y</u>	<u>tide = 6.23 ft (RTK tide station)</u>
				<u>mudline = -0.5 ft MLLW</u>
				<u>About 1.2 ft from target</u>
SAMPLE DATA		Sample ID: <u>LDW21-SS707</u>		
Pre-homogenization analyses (circle): VOC Sulfides Ammonia AVS/SEM TPH-P Other:				
Sediment type	Sediment color	Sediment odor		Comments:
cobble	brown surface	<u>none</u>	H ₂ S	
gravel	drab olive	slight	petroleum	
<u>sand (F M C)</u>	<u>brown</u>	moderate	other:	
<u>silt trace</u>	gray	strong		
clay	black			