

No 14.

D 5655

D 5672.

Last of P.I. cruise 1910.

507

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|----------|-------|------|-----------------|----------|-------|
| A. M. Down. | Up. | A. M. | | A. M. Down. | Up. | A. M. |
| 10 14 30 | 10 26 30 | | 0 | 10 30 20 | 11 03 40 | |
| 15 30 | 25 40 | | 100 | 34 10 | 10 00 | |
| 16 25 | 24 50 | | 200 | 38 05 | 46 20 | |
| 17 20 | 24 10 | | 300 | 41 00 | 43 00 | |
| 18 20 | 23 20 | | 400 | 43 45 | 39 30 | |
| 19 20 | 22 30 | | 500 | 46 25 | 36 00 | |
| 20 10 | 21 30 | | 600 | 50 00 | 32 20 | |
| 10 20 26 | 10 21 20 | 608 | 700 | 53 30 | 28 45 | |
| | | | 800 | 56 35 | 25 00 | |
| | | | 900 | 11 00 30 | 11 20 30 | |
| | | | 1000 | | | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | | | |
| | | | 1500 | | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
| | | | 2200 | | | |
| | | | 2300 | | | |
| | | | 2400 | | | |
| Bay (w. Tan) | N 71 E | | 2500 | | | |
| | | | 2600 | | | |
| | | | 2700 | | | |
| | | | 2800 | | | |
| | | | 2900 | | | |
| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
| | | | 3300 | | | |
| | | | 3400 | | | |
| | | | 3500 | | | |
| | | | 3600 | | | |
| | | | 3700 | | | |
| | | | 3800 | | | |
| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
| | | | 4500 | | | |
| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

72

Ty Tabako N 7 E
3 m

H-4936 ✓

Dredge } No. 565 Date, Dec 18, 1909
Hydrog. }

Sdg. Mch. Lucas Reel S Shot 60 lbs.
Lead

Turns 667 Cor'n - Depth 667 fms.

Sdg. Cup Lucas Amt. Bot'm Sample cupful

Character of Bottom gy. M.

Thermom. { Make K2 Cor'n { Instr. _____
 { No. 98944 { Stem. _____

Bottom Reading - Cor'd Temp. _____

Temp. Surf. { 86° Time 2:00 p. } Air { 86°
 { _____ Time _____ } _____

Density: Surf. _____ fms. _____

Wind: Direction SSE Force 3

Baromet. 29.81 Amt. of Clouds 3 State of Sea 5

Weather Fog

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Gulf of Bonin Celebes

To Tobako N 47 E - Labuan date

Position 3° 28' S - 120° 45' 40" E.

Chart used: No. 3616 Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul No haul

Apparatus and Rig used 12' Agassiz; 2 floats;
2 wing wts; 1 tablet and K 2
towing from port rail abt. 17 min.

Time towing _____ h. _____ m.

Remarks: Thermometer failed to re-
gister. - Sheave in boom out
of order. Had 353 fms. out, but
hove all in. no dredging.
Changed Dr. No. to Hy No.

Deck Officer Mr Johnson Recorder Frank

SOUNDING WIRE.

DREDGING CABLE.

FMS.

M. Down. Up. M.

M. Down. Up. M.

| | | | | | | | | | | | | |
|---|----|----|---|----|----|-----|-----|----|----|----|----|----|
| 1 | 33 | 15 | 1 | 47 | 20 | 0 | 1 | 51 | 50 | 2 | 17 | 40 |
| | 34 | 15 | | 46 | 20 | 100 | | 56 | 30 | | 14 | 35 |
| | 35 | 15 | | 45 | 35 | 200 | | 2 | 00 | 05 | 11 | 50 |
| | 36 | 20 | | 44 | 50 | 300 | | 03 | 15 | | 08 | 10 |
| | 37 | 25 | | 44 | 00 | 350 | 400 | 2 | 04 | 30 | 2 | 05 |
| | 38 | 35 | | 43 | 05 | 500 | | | | | | |
| | 39 | 30 | | 42 | 10 | 600 | | | | | | |
| 1 | 40 | 15 | 1 | 41 | 20 | 667 | 700 | | | | | |

~~773~~

Bay, (Wd), S S E.

Tg Takako

No 476

9 m

- 800
- 900
- 1000
- 1100
- 1200
- 1300
- 1400
- 1500
- 1600
- 1700
- 1800
- 1900
- 2000
- 2100
- 2200
- 2300
- 2400
- 2500
- 2600
- 2700
- 2800
- 2900
- 3000
- 3100
- 3200
- 3300
- 3400
- 3500
- 3600
- 3700
- 3800
- 3900
- 4000
- 4100
- 4200
- 4300
- 4400
- 4500
- 4600
- 4700
- 4800
- 4900

✓

Dredge } No. 57656 Date, Dec 19, 1909
Hydrog. }

Sdg. Mch. Lucas Reel Lucas Shot lead 60 lbs.

Turns 484 Cor'n _____ Depth 484 fms.

Sdg. Cup Lucas Amt. Bot'm Sample Plentiful

Character of Bottom gy M.

Thermom. { Make A.G. Cor'n { Instr. -18
 { No. 98244 { Stem.

Bottom Reading 42° Cor'd Temp. 41.2

Temp. Surf. { 83° Time 8:17 A } Air { 80°
 { 83° Time 8:43 A } { 80°

Density: Surf. _____ fms.

Wind: Direction Various Force 0-1

Baromet. 29.92 Amt. of Clouds 6 State of Sea 8

Weather hazy

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Gulf of Bon. Celebes

79° 00' N 67° W. Conspicuous Mt.

Position Lat 3° 17' 40" S. Long. 120° 36' 45"

Chart used: No. 3616 B Ed'n

Drift: Direction S. 47 W. Distance 1.8

Depth of Haul Bottom

Apparatus and Rig used 12' Agassiz NR, 2 glass floats, 2 whig weights, 1 tail weight.

Time towing _____ h. 5 m.

Remarks:

Deck Officer J. Johnson Recorder C. C. Long

Mr. Hazard W. W. E. Rider

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|---------|-------|---------|-------------------|---------|-------|
| A. M. Down. | Up. | A. M. | | A. M. Down. | Up. | A. M. |
| 7 31 50 | 7 41 50 | | 0 | 7 50 45 | 9 21 10 | |
| 32 50 | 40 50 | | 100 | 55 20 | 17 20 | |
| 33 50 | 40 00 | | 200 | 59 15 | 13 30 | |
| 34 50 | 39 15 | | 300 | 8 02 30 | 09 25 | |
| 35 45 | 38 25 | | 400 | 05 50 | 05 15 | |
| 7 36 35 | 7 37 25 | *** | 500 | 09 20 | 9 00 40 | |
| | | | 600 | 12 45 | 56 10 | |
| | | | 700 | 8 16 50 | 51 20 | |
| | | | 750 800 | 8 22 00 | 8 42 30 | |
| | | | 800 900 | * 8 37 30 | | |
| | | | 1000 | | | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | * Towed 13 min | | |
| | | | 1500 | with 750 fms out. | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
| | | | 2200 | | | |
| | | | 2300 | | | |
| | | | 2400 | | | |
| | | | 2500 | | | |
| | | | 2600 | | | |
| | | | 2700 | | | |
| | | | 2800 | | | |
| | | | 2900 | | | |
| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
| | | | 3300 | | | |
| | | | 3400 | | | |
| | | | 3500 | | | |
| | | | 3600 | 02.67 hr | | |
| | | | 3700 | 14.5 | | |
| | | | 3800 | | | |
| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
| | | | 4500 | | | |
| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

S. 59 W.

Tg along

02.67 hr
14.5

✓

Dredge } No. 5657 Date, Dec. 19th, 1909

Sdg. Mch. Lucas Reel S Shot 60 lbs.

Turns 492 Cor'n Depth 492 fms.

Sdg. Cup Lucas Amt. Bot'm Sample Plentiful.

Character of Bottom Gy M

Thermom. { Make N3. Cor'n { Instr. -1.8
 { No. 98244 { Stem.

Bottom Reading 42.1° Cor'd Temp. 41.3

Temp. Surf. { 84° Time 11:08 A } Air { 82°
 { 84° Time 11:28 A } { 82°

Density: Surf. _____ fms.

Wind: Direction N.W. Force 1-

Baromet. 29.93 Amt. of Clouds .4 State of Sea S

Weather haz.

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Gulf of Boni, Celebes

Position Lat. 3° 19' 40" S Long. 120° 36' 30" E

Chart used: No. 3616 Ed'n _____

Drift: Direction S. 19 W. Distance 2.0

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing h. 20 m.

Remarks:

Deck Officer Mr. Hazard Recorder H. W. C. Rider

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|----------|-------|------|-----------------|----------|-------|
| A. M. Down. | Up. | A. M. | | A. M. Down. | Up. | A. M. |
| 10 24 20 | 10 34 40 | | 0 | 10 38 20 | 11 56 25 | |
| 25 20 | 33 50 | | 100 | 42 30 | 53 25 | |
| 26 15 | 33 00 | | 200 | 46 05 | 49 00 | |
| 27 10 | 32 10 | | 300 | 49 45 | 45 10 | |
| 28 10 | 31 15 | | 400 | 53 15 | 41 20 | |
| 10 29 05 | 10 30 05 | 492 | 500 | 57 00 | 37 40 | |
| | | | 600 | 11 00 45 | 34 00 | |
| | | | 700 | 05 05 | 30 15 | |
| | | 748 | 800 | 11 08 00 | 11 28 00 | |
| | | | 900 | | | |
| | | | 1000 | | | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | | | |
| | | | 1500 | | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
| | | | 2200 | | | |
| | | | 2300 | | | |
| | | | 2400 | | | |
| | | | 2500 | | | |
| | | | 2600 | | | |
| | | | 2700 | | | |
| | | | 2800 | | | |
| | | | 2900 | | | |
| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
| | | | 3300 | | | |
| | | | 3400 | | | |
| | | | 3500 | | | |
| | | | 3600 | | | |
| | | | 3700 | | | |
| | | | 3800 | | | |
| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
| | | | 4500 | | | |
| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

S. 64 W.

Tg Along

R 61 Br
15.5

✓

Dredge } No. 5658 Date, Dec. 19, 1909
Hydrog. }
Sdg. Mch. Lucas Reel S Shot Lead 60 lbs.
Turns 510 Cor'n - Depth 510 fms.
Sdg. Cup Lucas Amt. Bot'm Sample Cupful.
Character of Bottom gy. M
Thermom. { Make H. J. Cor'n { Instr. - 8
 { No. 98244 { Stem.
Bottom Reading 42° Cor'd Temp. 41.2
Temp. Surf. { 85° Time 7:25p. } Air { 83°
 { 85° Time 7:45p. } { 83.3°
Density: Surf. _____ fms.
Wind: Direction East Force 2-3
Baromet. 29.83 Amt. of Clouds 4 State of Sea S
Weather fog
Direction and Force of Current { Surface _____
 { Bottom _____
Tide _____

General Locality Gulf of Bonin, Cebu
To Loko Loko SW - Ladelberg T.T.
Position 3°32'40" S - 120°31'20" E.
Chart used: No. 3616 B.A. Ed'n -
Drift: Direction S 35° E Distance 1.2 m.
Depth of Haul Bottom.
Apparatus and Rig used 12' Agassiz; 2 floats;
2 wing nets; 1 trawl.

Time towing - h. 20 m.
Remarks: Thermometer recorded as
H. J. No 98344 on previous
occasions is thermometer
H. J. No 98244 - the one used
on this station - ^{records} and corrected record
is in this book. C.C. notified -
Photos of net coming up - were taken
from log by Mr. Andrews.

Deck Officer Mr. Peck Recorder A. H. H. H.
11-1023

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|---------|-------|--------|-----------------|---------|-------|
| M. Down. | Up. | P. M. | | P. M. Down. | Up. | P. M. |
| 1 37 30 | 1 43 25 | | 0 | 1 48 50 | 3 14 25 | |
| 33 25 | 42 40 | | 100 | 59 15 | 10 20 | |
| 34 20 | 42 00 | | 200 | 2 02 40 | 07 15 | |
| 36 25 | 41 15 | | 300 | 05 50 | 03 40 | |
| 37 25 | 40 30 | | 400 | 09 10 | 3 00 05 | |
| 38 25 | 39 40 | | 500 | 12 55 | 56 15 | |
| 1 38 30 | 1 39 30 | | 510 00 | 16 10 | 57 10 | |
| | | | 700 | 19 40 | 48 05 | |
| | | | 750 | 2 20 55 | 44 20 | |
| | | | 900 | | | |
| | | | 1000 | | | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | | | |
| | | | 1500 | | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
| | | | 2200 | | | |
| | | | 2300 | | | |
| | | | 2400 | | | |
| | | | 2500 | | | |
| | | | 2600 | | | |
| | | | 2700 | | | |
| | | | 2800 | | | |
| | | | 2900 | | | |
| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
| | | | 3300 | | | |
| | | | 3400 | | | |
| | | | 3500 | | | |
| | | | 3600 | | | |
| | | | 3700 | | | |
| | | | 3800 | | | |
| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
| | | | 4500 | | | |
| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

75
76

N 36 W.

7g Tokoloko

S 21 W
1 2, m

Dredge } No. 5-659 Date, Dec 20, 1929
Hydrog. }

Sdg. Mch. Lucas Reel Lucas Shot/Lead 60 lbs.

Turns 702 Cor'n — Depth 702 fms.

Sdg. Cup Lucas Amt. Bot'm Sample

Character of Bottom S; M.

Thermom. { Make T.G. Cor'n { Instr. - 8
 { No. 98244 { Stem.

Bottom Reading 39.6 Cor'd Temp. 39.

Temp. Surf. { 82° Time 6:25- } Air { 83°
 { 82° Time 7:25- } { 83°

Density: Surf. _____ fms. _____

Wind: Direction various Force 2-1

Baromet. 29.90 Amt. of Clouds 2 State of Sea S

Weather bc

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Gulf of Boni

~~Pamataran~~ S 51° W 19.2 nms S 78° W

Position 5° 33' 20" S 170° 47' 10" E

Chart used: No. BA 3616 Ed'n _____

Drift: Direction S 62 E Distance 1.

Depth of Haul _____

Apparatus and Rig used 12' Agassiz N.R.,
2 glass floats, 1 tail weight, 2
wing weights.

Time towing h. 21 m.

Remarks:

Deck Officer W. Hazard Recorder C. E. Paulson

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|---------|-------|------|-----------------|---------|-------|
| A. M. Down. | Up. | A. M. | | A. M. Down. | Up. | A. M. |
| 6 03 55 | 6 17 45 | | 0 | 6 20 00 | 7 55 35 | |
| 07 40 | 16 55 | | 100 | 24 25 | 67 50 | |
| 05 40 | 16 05 | | 200 | 28 00 | 48 25 | |
| 06 40 | 15 20 | | 300 | 31 30 | 45 00 | |
| 07 25 | 14 35 | | 400 | 34 55 | 41 40 | |
| 08 30 | 13 45 | | 500 | 38 05 | 38 00 | |
| 09 35 | 12 55 | | 600 | 41 55 | 34 05 | |
| 10 40 | 11 50 | | 700 | 45 10 | 30 20 | |
| 6 10 45 | 6 11 45 | 702 | 800 | 49 10 | 26 30 | |
| | | | 900 | 52 50 | 22 40 | |
| | | | 1000 | 6 57 20 | 7 18 10 | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | | | |
| | | | 1500 | | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
| | | | 2200 | | | |
| | | | 2300 | | | |
| | | | 2400 | | | |
| | | | 2500 | | | |
| | | | 2600 | | | |
| | | | 2700 | | | |
| | | | 2800 | | | |
| | | | 2900 | | | |
| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
| | | | 3300 | | | |
| | | | 3400 | | | |
| | | | 3500 | | | |
| | | | 3600 | | | |
| | | | 3700 | | | |
| | | | 3800 | | | |
| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
| | | | 4500 | | | |
| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

384 fath Salayard (m) 2510

Pg Lassa 5780

19 m

H 4937

Dredge } No. 5420 Date, Dec. 20th, 1909
Hydrog. }

Sdg. Mch. Lucas Reel Lucas Shot 60 lbs.

Turns 885 Cor'n _____ Depth 885 fms.

Sdg. Cup Lucas Amt. Bot'm Sample Plentiful

Character of Bottom Cy M

Thermom. { Make N. 3 Cor'n { Instr. - 8
 { No. 98244 { Stem. _____

Bottom Reading 39° Cor'd Temp. 38.2

Temp. Surf. { 83° Time 9 am } Air { 86
 { _____ Time _____ } _____

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 1

Baromet. 29.91 Amt. of Clouds 3 State of Sea S

Weather hazy

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Off of Boni, near Salyar Id.

Panato Is. ~~8° 35' S~~ 179° 45' W

Position Lat. 5° 32' 50" S. Long. 120° 49' 10" W

Chart used: No. 3616 B. A. Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: Extra shot lost: defect of hook on stray line.

Deck Officer Mr. Rohange Recorder H. W. Ender

| SOUNDING WIRE. | | | | | FMS. | DREDGING CABLE. | | |
|----------------|----|-----|------|----|------|-----------------|-----|----|
| a M. DOWN. | | UP. | a M. | | | M. DOWN. | UP. | M. |
| 8 | 03 | 40 | 8 | 21 | 00 | | | |
| | 04 | 40 | | 20 | 05 | | | |
| | 05 | 30 | | 19 | 20 | | | |
| | 06 | 20 | | 18 | 40 | | | |
| | 07 | 15 | | 17 | 55 | | | |
| | 08 | 10 | | 17 | 15 | | | |
| | 09 | 10 | | 16 | 30 | | | |
| | 10 | 10 | | 15 | 45 | | | |
| | 11 | 20 | | 15 | 00 | | | |
| 8 | 12 | 05 | 8 | 13 | 05 | 885 | | |
| | | | | | | 900 | | |
| | | | | | | 1000 | | |
| | | | | | | 1100 | | |
| | | | | | | 1200 | | |
| | | | | | | 1300 | | |
| | | | | | | 1400 | | |
| | | | | | | 1500 | | |
| | | | | | | 1600 | | |
| | | | | | | 1700 | | |
| | | | | | | 1800 | | |
| | | | | | | 1900 | | |
| | | | | | | 2000 | | |
| | | | | | | 2100 | | |
| | | | | | | 2200 | | |
| | | | | | | 2300 | | |
| | | | | | | 2400 | | |
| | | | | | | 2500 | | |
| | | | | | | 2600 | | |
| | | | | | | 2700 | | |
| | | | | | | 2800 | | |
| | | | | | | 2900 | | |
| | | | | | | 3000 | | |
| | | | | | | 3100 | | |
| | | | | | | 3200 | | |
| | | | | | | 3300 | | |
| | | | | | | 3400 | | |
| | | | | | | 3500 | | |
| | | | | | | 3600 | | |
| | | | | | | 3700 | | |
| | | | | | | 3800 | | |
| | | | | | | 3900 | | |
| | | | | | | 4000 | | |
| | | | | | | 4100 | | |
| | | | | | | 4200 | | |
| | | | | | | 4300 | | |
| | | | | | | 4400 | | |
| | | | | | | 4500 | | |
| | | | | | | 4600 | | |
| | | | | | | 4700 | | |
| | | | | | | 4800 | | |
| | | | | | | 4900 | | |

384' hill Salazar I @ 2530

Tg Lassa

S 78 W
70.5

Dredge } No. 5660 Date, Dec. 20th, 1909

Sdg. Mch. Lucas Reel L Shot Lead 60 lbs.

Turns 692 Cor'n Depth 692 fms.

Sdg. Cup Lucas Amt. Bot'm Sample Plentiful

Character of Bottom Gy. M. S.

Thermom. { Make No. 98244 Cor'n { Instr. 78 Stem.

Bottom Reading 40° Cor'd Temp. 39.2

Temp. Surf. { 83° Time 10:06 A } Air { 83°
83° Time 10:26 A } 83°

Density: Surf. fms.

Wind: Direction Variable Force 1-2

Baromet. 29.91 Amt. of Clouds 3 State of Sea S.

Weather hcz.

Direction and Force of Current { Surface Bottom

Tide

General Locality Gulf of Boni

384' hill Salamard I (S) S 56 W Tg

Position 5° 36' S 120° 50' 30

Chart used: No. 3616 BA Ed'n

Drift: Direction S 58 E Distance 1.0

Depth of Haul Bottom.

Apparatus and Rig used 12' Agassiz. 2 wing weights, 1 tail weight, 2 glass floats.

Time towing h. 50 m.

Remarks:

Deck Officer Mr. R. Orange Recorder H. W. Ovi day.

SOUNDING WIRE.

| A. M. Down. | | Up. | A. M. | |
|-------------|-------|-----|-------|----|
| 9 | 07 45 | 9 | 20 | 45 |
| | 08 40 | | 19 | 55 |
| | 09 40 | | 19 | 10 |
| | 10 35 | | 18 | 25 |
| | 11 30 | | 17 | 40 |
| | 12 25 | | 16 | 55 |
| | 13 20 | | 16 | 05 |
| 9 | 14 15 | 9 | 15 | 15 |

FMS.

DREDGING CABLE.

| A. M. Down. | | Up. | A. M. | |
|-------------|-------|-----|-------|----|
| 9 | 25 00 | 11 | 06 | 00 |
| | 30 10 | 11 | 01 | 50 |
| | 34 00 | | 58 | 05 |
| | 37 45 | | 54 | 20 |
| | 41 15 | | 50 | 30 |
| | 44 35 | | 46 | 40 |
| | 48 15 | | 43 | 00 |
| | 51 50 | | 39 | 25 |
| | 55 30 | | 35 | 30 |
| | 58 55 | | 31 | 50 |
| 10 | 03 10 | | 28 | 00 |
| 10 | 05 20 | 10 | 25 | 20 |

105 1100

1200

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1400

1500

1600

1700

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1900

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2100

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2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Lassa 588 M

Lassa 588 M
21.6

79

Dredge } No. 5661 Date, Dec 20, 1909
Hydrog. }
Sdg. Mch. Lucas Reel S Shot/Lead 60 lbs.
Turns 180 Cor'n - Depth 180 fms.
Sdg. Cup Lucas Amt. Bot'm Sample (none in Sdg. Cup)

Character of Bottom Ind.
Thermom. { Make T.G. Cor'n { Instr. 17
 { No. 98244 { Stem.
Bottom Reading 51.2° Cor'd Temp. 50.5
Temp. Surf. { 83° Time 4:25 P. } Air { 86°
 { } { }

Density: Surf. _____ fms.
Wind: Direction WSW Force 5
Baromet. 29.80 Amt. of Clouds 2 State of Sea S
Weather fog

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Flores Sea, Cebu

Salayan I (NW) N54E - Tarkenton I (NW)

Position 5°49'40" S - 120°24' - 30.6

Chart used: No. 3616 B.A. Ed'n -

Drift: Direction N50E Distance 1.1

Depth of Haul Bottom

Apparatus and Rig used 12' Agassiz NR trawl.
2 glass floats; 2 wing irks; 1 tail irk.

Time towing - h. 2 1/2 m.

Remarks: Net torn below headline.
Nothing in net to indicate character of bottom.

Deck Officer Mr. Hazard Recorder J. T. T. T. T.

SOUNDING WIRE.

DREDGING CABLE.

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|---------|-------|------|-----------------|---------|-------|
| P. M. Down. | Up. | P. M. | | P. M. Down. | Up. | P. M. |
| 4 03 30 | 4 07 50 | | 0 | 4 11 15 | 4 39 05 | |
| 04 20 | 06 45 | | 100 | 15 55 | 34 45 | |
| 4 05 00 | 4 06 00 | 180 | 200 | 19 20 | 30 45 | |
| | | | 300 | 4 24 10 | 4 26 45 | |
| | | | 400 | | | |
| | | | 500 | | | |
| | | | 600 | | | |
| | | | 700 | | | |
| | | | 800 | | | |
| | | | 900 | | | |
| | | | 1000 | | | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | | | |
| | | | 1500 | | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
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| | | | 2100 | | | |
| | | | 2200 | | | |
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| | | | 2400 | | | |
| | | | 2500 | | | |
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| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
| | | | 3300 | | | |
| | | | 3400 | | | |
| | | | 3500 | | | |
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| | | | 3700 | | | |
| | | | 3800 | | | |
| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
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| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

80

SEE Tg Lassa R 21 E

Tg Lassa R 21 E
12.5

Dredge } No. 5612 Date, Dec 21, 1909
Hydrog }

Sdg. Mch. Lucas Reel Lucas Shot } 60 lbs.
Lead }

Turns 211 Cor'n _____ Depth 211 fms.

Sdg. Cup Lucas Amt. Bot'm Sample None in cup

Character of Bottom No Specimen cup or net

Thermom. { Make N.G. Cor'n { Instr. - 7
 { No. 98244 { Stem. _____

Bottom Reading 49.5° Cor'd Temp. 48.8

Temp. Surf. { 83° Time 5:50 } Air { 82°
 { 83° Time 6:30 } { 84°

Density: Surf. _____ fms. _____

Wind: Direction 24 NW Force 1

Baromet. 29.69 Amt. of Clouds 4 State of Sea 2

Weather bc

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality To Laibang 170° E; Tenu

Peke Id (P) 117° 00' W; Flores Sea, Cebu

Position 5° 43' 00" S 119° 18' 00" E.

Chart used: No. BA 2637 Ed'n June 85 - Oct 04

Drift: Direction West Distance 1.8 mi.

Depth of Haul Bottom

Apparatus and Rig used 12' Agassiz N.R.,
2 glass floats, 2 ring weights
& tail weight.

Time towing h. 20 1/2 m.

Remarks: _____

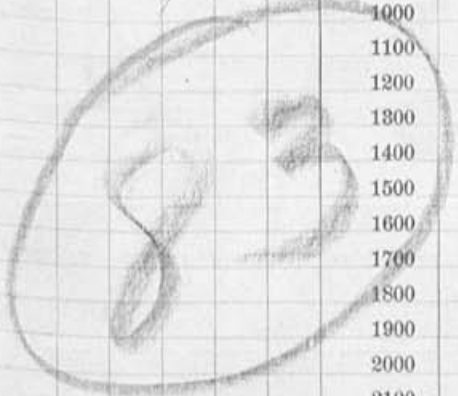
Deck Officer Mrs. Robinson Recorder C. E. ...

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | | | | | |
|----------------|----|----------|----|------|-----------------|----------------|----------|----|----|----|----|----|
| A.M. Down. | | Up. A.M. | | | A.M. Down. | | Up. A.M. | | | | | |
| 5 | 38 | 00 | 42 | 45 | 0 | 5 | 49 | 30 | 6 | 40 | 45 | |
| | 38 | 55 | 42 | 00 | 100 | | 53 | 45 | | 37 | 00 | |
| | 39 | 50 | 41 | 05 | 200 | | 57 | 50 | | 33 | 15 | |
| 6 | 40 | 00 | 5 | 41 | 00 | 211 | 6 | 02 | 50 | 29 | 30 | |
| | | | | | 400 | ³⁴⁵ | 6 | 05 | 50 | | | |
| | | | | | 500 | ³⁷⁵ | 6 | 12 | 55 | 6 | 26 | 15 |
| | | | | | 600 | | | | | | | |
| | | | | | 700 | | | | | | | |
| | | | | | 800 | | | | | | | |
| | | | | | 900 | | | | | | | |
| | | | | | 1000 | | | | | | | |
| | | | | | 1100 | | | | | | | |
| | | | | | 1200 | | | | | | | |
| | | | | | 1300 | | | | | | | |
| | | | | | 1400 | | | | | | | |
| | | | | | 1500 | | | | | | | |
| | | | | | 1600 | | | | | | | |
| | | | | | 1700 | | | | | | | |
| | | | | | 1800 | | | | | | | |
| | | | | | 1900 | | | | | | | |
| | | | | | 2000 | | | | | | | |
| | | | | | 2100 | | | | | | | |
| | | | | | 2200 | | | | | | | |
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| | | | | | 2900 | | | | | | | |
| | | | | | 3000 | | | | | | | |
| | | | | | 3100 | | | | | | | |
| | | | | | 3200 | | | | | | | |
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| | | | | | 3400 | | | | | | | |
| | | | | | 3500 | | | | | | | |
| | | | | | 3600 | | | | | | | |
| | | | | | 3700 | | | | | | | |
| | | | | | 3800 | | | | | | | |
| | | | | | 3900 | | | | | | | |
| | | | | | 4000 | | | | | | | |
| | | | | | 4100 | | | | | | | |
| | | | | | 4200 | | | | | | | |
| | | | | | 4300 | | | | | | | |
| | | | | | 4400 | | | | | | | |
| | | | | | 4500 | | | | | | | |
| | | | | | 4600 | | | | | | | |
| | | | | | 4700 | | | | | | | |
| | | | | | 4800 | | | | | | | |
| | | | | | 4900 | | | | | | | |

Tana Keke (A) R. 17 M.
12. 3 m.

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | |
|----------------|-----|----|------|-----------------|-----------|
| M. Down. | Up. | M. | | H. M. Down. | Up. A. M. |
| | | | 0 | Dec. 27 | Dec. 28 |
| | | | 100 | 7 20 00 | 6 00 00 |
| | | | 200 | | |
| | | | 300 | | |
| | | | 400 | | |
| | | | 500 | | |
| | | | 600 | | |
| | | | 700 | | |
| | | | 800 | | |
| | | | 900 | | |
| | | | 1000 | | |
| | | | 1100 | | |
| | | | 1200 | | |
| | | | 1300 | | |
| | | | 1400 | | |
| | | | 1500 | | |
| | | | 1600 | | |
| | | | 1700 | | |
| | | | 1800 | | |
| | | | 1900 | | |
| | | | 2000 | | |
| | | | 2100 | | |
| | | | 2200 | | |
| | | | 2300 | | |
| | | | 2400 | | |
| | | | 2500 | | |
| | | | 2600 | | |
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| | | | 2800 | | |
| | | | 2900 | | |
| | | | 3000 | | |
| | | | 3100 | | |
| | | | 3200 | | |
| | | | 3300 | | |
| | | | 3400 | | |
| | | | 3500 | | |
| | | | 3600 | | 1.7 m |
| | | | 3700 | | |
| | | | 3800 | | |
| | | | 3900 | | |
| | | | 4000 | | |
| | | | 4100 | | |
| | | | 4200 | | |
| | | | 4300 | | |
| | | | 4400 | | |
| | | | 4500 | | |
| | | | 4600 | | |
| | | | 4700 | | |
| | | | 4800 | | |
| | | | 4900 | | |

Lat. 10° 15' N



Kapoposang Id (C) n 11 E.

Kapoposang Id (C) n 11 E

1.7 m

Dredge } No. 2664 Date, Dec. 28, 1909
Hydrog. }
Sdg. Mch. Lucas Reel I Shot/Lead 60 lbs.
Turns 400 Cor'n - Depth 400 fms.
Sdg. Cup Lucas Amt. Bot'm Sample none in Sdg. Cup
Character of Bottom Mud.

Thermom. { Make N.S. Cor'n { Instr. -17
 { No. 98244 { Stem.
Bottom Reading 44° Cor'd Temp. 43.3

Temp. Surf. { 84° Time 9:45 a } Air { 81°
 { 84° Time 10:07 a } { 82°

Density: Surf. _____ fms.

Wind: Direction Variable Force 1-2

Baromet. 29.98 Amt. of Clouds 9 State of Sea S

Weather bcs.

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality West of Makassar.

Papantayang Is (S) S 89 E - Kapoposang
Position 4° 43' 22" S - 118° 53' 18" E.

Chart used: No. 123 Dutch Ed'n -

Drift: Direction S 67 W Distance 2.5 m.

Depth of Haul Bottom.

Apparatus and Rig used 12' Agassiz; 2 floats;
2 wing-nets; 1 tail-net.

Time towing - h. 21 m.

Remarks: Lost an extra shot (60lb) when
making ready to sound: ring in sdg cup
lanyard carried away. - No "character
of bottom" in net. - Big water spout
sighted to the westward.

Deck Officer Mr. Johnson Recorder J. A. Smith

SOUNDING WIRE.

FMS.

DREDGING CABLE.

| M. Down. | | Up. | M. | |
|----------|-------|-----|----|----|
| 9 | 06 00 | 9 | 74 | 20 |
| | 07 00 | | 13 | 25 |
| | 08 00 | | 12 | 40 |
| | 08 55 | | 12 | 00 |
| 9 | 09 55 | 9 | 10 | 59 |

| M. Down. | | Up. | M. | |
|----------|----------|-----|----|----|
| 9 | 17 00 | 10 | 30 | 40 |
| | 21 30 | | 27 | 10 |
| | 25 30 | | 23 | 20 |
| | 29 15 | | 19 | 40 |
| | 33 00 | | 16 | 00 |
| | 36 40 | | 12 | 40 |
| | 40 25 | | 09 | 00 |
| 9 | 43 45 10 | 05 | 05 | 35 |

675

84

If, N 66 E.

Kuprosang Lt N 66 E

3.8 m

4900

✓

Dredge } No. 5465 Date, Dec 28, 1909
Hydrog. }
Sdg. Mch. Lucas Reel Lucas Shot } 60 lbs.
Lead }
Turns 1008 Cor'n --- Depth 1008 fms.
Sdg. Cup Lucas Amt. Bot'm Sample trace
Character of Bottom M.

Thermom. { Make M. Cor'n { Instr.
 { No. 98244 { Stem.

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 82° Time 2:10 } Air { 80°
 { 82° Time 3:20 } { 80 1/2°

Density: Surf. 39° _____ fms. _____

Wind: Direction Various Force 3-2

Baromet. 29.70 Amt. of Clouds 9 State of Sea 2

Weather bap

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality No bearings; S'ts of
Makassar

Position 4° 27' 00" S. 118° 44' 00" E.

Chart used: No. BA 2637 Ed'n _____

Drift: Direction S.W. (?) Distance 2 mi. (?)

Depth of Haul bottom.

Apparatus and Rig used 12' Agassiz, 2 glass floats, 2 wing weights, 1 tail weight.

Time towing h. 05 m.

Remarks: Net carried away on bottom
Every thing lost except bridle
& Tail weight.

No bearings

Deck Officer Mr. Hazard Recorder C. E. ...

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|---------|-------|------|-----------------|---------|-------|
| P. M. Down. | Up. | P. M. | | P. M. Down. | Up. | P. M. |
| 1 41 00 | 2 01 00 | | 0 | 2 03 45 | 3 57 40 | |
| 41 50 | 59 55 | | 100 | 07 10 | 53 55 | |
| 42 50 | 59 05 | | 200 | 10 10 | 50 15 | |
| 43 40 | 58 20 | | 300 | 15 10 | 47 10 | |
| 44 35 | 57 30 | | 400 | 19 10 | 44 00 | |
| 45 35 | 56 40 | | 500 | 22 55 | 41 00 | |
| 46 40 | 55 50 | | 600 | 26 55 | 37 50 | |
| 47 50 | 54 55 | | 700 | 30 20 | 34 55 | |
| 49 00 | 54 20 | | 800 | 34 55 | 31 30 | |
| 50 05 | 53 30 | | 900 | 37 15 | 28 25 | |
| 51 20 | 52 40 | | 1000 | 40 55 | 25 00 | |
| 1 51 30 | 1 52 30 | 1006 | 1100 | 44 10 | 21 40 | |
| | | | 1200 | 47 35 | 19 00 | |
| | | | 1300 | 50 50 | 15 50 | |
| | | | 1400 | 54 05 | 13 10 | |
| | | | 1500 | 58 00 | 09 45 | |
| | | | 1600 | 2 59 45 | 3 04 45 | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
| | | | 2200 | | | |
| | | | 2300 | | | |
| | | | 2400 | | | |
| | | | 2500 | | | |
| | | | 2600 | | | |
| | | | 2700 | | | |
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| | | | 2900 | | | |
| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
| | | | 3300 | | | |
| | | | 3400 | | | |
| | | | 3500 | | | |
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| | | | 3700 | | | |
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| | | | 3900 | | | |
| | | | 4000 | | | |
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| | | | 4200 | | | |
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| | | | 4400 | | | |
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| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

85

Dredge } No. 5666 Date, Dec. 29th, 1909
Hydrog. }

Sdg. Mch. Lucas Reel S Shot 60 lbs.

Turns 272 Cor'n _____ Depth 272 fms.

Sdg. Cup Lucas Amt. Bot'm Sample Plentiful

Character of Bottom Gy. M

Thermom. { Make N. 3. Cor'n { Instr. - .7
 { No. 98244 { Stem. _____

Bottom Reading 48.2° Cor'd Temp. 47.5

Temp. Surf. { 82° Time 9:03 A } Air { 79½°
 { 82° Time 9:33 A } { 80°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 1-0

Baromet. 29.97 Amt. of Clouds 8 State of Sea S.

Weather bcz.

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Sibani Bay, west coast Cebu

Onkona Pt. 81 W. Malunda Pt.

Position Lat. 2° 54' 30" S Long. 118° 47' 00" W

Chart used: No. B. 9. 2607 Ed'n _____

Drift: Direction S 34 E. Distance 1.5 m

Depth of Haul Bottom.

Apparatus and Rig used 12' Agassiz; 2 glass floats, 2 wing weights, 1 tail weight.

Time towing _____ h. 12 m.

Remarks: _____

Deck Officer Mr. Hazard Recorder H. W. Cramer

SOUNDING WIRE.

FMS.

DREDGING CABLE.

| SOUNDING WIRE. | | | DREDGING CABLE. | | | |
|----------------|-------|---------|-----------------|-------------------|-------|---------|
| M. DOWN. | UP. | A. M. | FMS. | M. DOWN. | UP. | A. M. |
| 8 | 36 40 | 8 42 20 | 0 | 8 | 45 35 | 9 48 35 |
| | 37 30 | 41 30 | 100 | | 49 45 | 45 30 |
| | 38 20 | 40 40 | 200 | | 54 00 | 42 20 |
| 8 | 39 00 | 8 40 00 | 272 300 | | 57 35 | 39 20 |
| | | | 400 | 9 | 01 40 | 36 05 |
| | | | 500 | * 9 | 18 45 | 9 32 20 |
| | | | 600 | | | |
| | | | 700 | | | |
| | | | 800 | | | |
| | | | 900 | | | |
| | | | 1000 | * Towed 3 min | | |
| | | | 1100 | with 425 fms out. | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | * Towed 8 min | | |
| | | | 1500 | with 420 fms out. | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
| | | | 2200 | | | |
| | | | 2300 | | | |
| | | | 2400 | | | |
| | | | 2500 | | | |
| | | | 2600 | | | |
| | | | 2700 | | | |
| | | | 2800 | | | |
| | | | 2900 | | | |
| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
| | | | 3300 | | | |
| | | | 3400 | S 1 M | | |
| | | | 3500 | 11 M | | |
| | | | 3600 | | | |
| | | | 3700 | | | |
| | | | 3800 | | | |
| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
| | | | 4500 | | | |
| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

87

S 3 3 E.

Onkora Pt

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|---------|-------|--------------------|-----------------|----------|-------|
| A. M. Down. | Up. | A. M. | | A. M. Down. | Up. | A. M. |
| 9 52 00 | 9 59 00 | | 0 | 10 02 45 | 11 06 30 | |
| 52 45 | 58 15 | | 100 | 07 20 | 11 01 25 | |
| 53 30 | 57 30 | | 200 | 11 20 | 58 15 | |
| 54 30 | 56 45 | | 300 | 14 50 | 55 15 | |
| 9 55 00 | 9 56 00 | 367 | 400 | 18 25 | 52 05 | |
| | | | 500 | 21 45 | 48 35 | |
| | | | 575 600 | 10 25 30 | 10 45 15 | |
| | | | 700 | | | |
| | | | 800 | | | |
| | | | 900 | | | |
| | | | 1000 | | | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | | | |
| | | | 1500 | | | |
| | | | 1600 | | | |
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| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
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| | | | 2900 | | | |
| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
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| | | | 3800 | | | |
| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
| | | | 4500 | | | |
| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

Onkora Pt S 500

11 m

Dredge } No. 5268 Date, Dec 29, 1909
Hydrog. }

Sdg. Mch. Lucas Reel L Shot/Lead 60 lbs.

Turns 901 Cor'n - Depth 901 fms.

Sdg. Cup Lucas Amt. Bot'm Sample Sdg cup full

Character of Bottom gy M

Thermom. { Make N.B. Cor'n { Instr. - .8
 { No. 98244. { Stem.

Bottom Reading 39° Cor'd Temp. 38.2

Temp. Surf. { 83° Time 4:10 } Air { 81°
 { 83° Time 5:05 } { 81°

Density: Surf. _____ fms.

Wind: Direction various Force 1-2

Baromet. 29.84 Amt. of Clouds 9 State of Sea S

Weather hazy

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Mamuju Id (E) S 21 E; vg buhai
S 90 W; Mamuju Bay, West coast Celebes

Position 2° 25' 15" S; 118° 49' 00" E

Chart used: No. B.D. 2607 Ed'n -

Drift: Direction S 47° E Distance 2.1 mi.

Depth of Haul Bottom

Apparatus and Rig used 12' Agassiz trawl. 2
glass floats; 2 wing-uts; 1 tail ut.

Time towing _____ h. 19 m.

Remarks: Shot did not detach

Deck Officer Mr. Rohrer Recorder A. H. H. -

Mr. Johnson C. H. Long

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|-----|-------|-----------|-----------------|-----|-------|
| P. M. Down. | Up. | P. M. | | P. M. Down. | Up. | P. M. |
| 32 35 | 3 | 51 45 | 0 | 3 52 10 | 5 | 47 15 |
| 33 25 | | 50 15 | 100 | 4 00 15 | | 44 05 |
| 34 30 | | 49 35 | 200 | 04 10 | | 41 10 |
| 35 30 | | 48 45 | 300 | 08 00 | | 38 10 |
| 36 25 | | 47 55 | 400 | 11 35 | | 35 20 |
| 37 25 | | 47 00 | 500 | 15 25 | | 32 35 |
| 38 25 | | 46 00 | 600 | 19 00 | | 29 40 |
| 39 25 | | 45 00 | 700 | 23 00 | | 26 30 |
| 40 25 | | 44 00 | 800 | 26 15 | | 23 35 |
| 41 30 | | 43 00 | 900 | 29 35 | | 20 15 |
| 3 41 31 | 3 | 42 55 | 901 1000 | 32 00 | | 16 55 |
| | | | 1100 | 36 15 | | 13 55 |
| | | | 1200 | 39 55 | | 10 20 |
| | | | 1300 | 44 00 | | 07 10 |
| | | | 1350 1400 | 4 45 50 | 5 | 05 00 |
| | | | 1500 | | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
| | | | 2200 | | | |
| | | | 2300 | | | |
| | | | 2400 | | | |
| | | | 2500 | | | |
| | | | 2600 | | | |
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| | | | 4900 | | | |

89

Mannin B I (E) S 31 E
10.6 m

Dredge } No. 5669 Date, Dec 29, 1909
Hydrog }

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 84° Time 7:30 } Air { 83
 { _____ Time _____ } _____

Density: Surf. _____ fms. _____

Wind: Direction various Force 0-1

Baromet. 29.89 Amt. of Clouds 9 State of Sea 2

Weather bcl

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality No bearings; Near Managua
West coast of Cuba

Position 2° 19' 30" S; 118° 50' 00" E

Chart used: No. BB 2637 Ed'n _____

Drift: Direction North Distance 1.0 mi.

Depth of Haul surface

Apparatus and Rig used 10' Intermediate
at surface (double cone)

Time towing h. 24 m.

Remarks:

Deck Officer Mr. Hazard Recorder C.E. DeLong

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|------|-----------------|------|-------|------|
| M. Down. | Up. | M. | | P. M. Down. | Up. | P. M. | |
| | | | 0 | 7 | 2500 | 7 | 4900 |
| | | | 100 | | | | |
| | | | 200 | | | | |
| | | | 300 | | | | |
| | | | 400 | | | | |
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90

Mammijud (G) S106

18.5 m

Dredge } No. 5670 Date, Dec 30th, 1909

Sdg. Mch. Lucas Reel S Shot Load 60 lbs.

Turns 1121 Cor'n Depth 1181 fms.

Sdg. Cup Lucas Amt. Bot'm Sample Sdg cup full

Character of Bottom gy M.

Thermom. { Make N. 3. Cor'n { Instr. - 1.8
No. 98244 Stem.

Bottom Reading 39° Cor'd Temp. 38.2

Temp. Surf. { 82° Time 8:20 a. } Air { 82°
82° Time 8:40 a. } 84°

Density: Surf. fms.

Wind: Direction Variable Force 1-3

Baromet. 29.89 Amt. of Clouds 7 State of Sea S

Weather haze

Direction and Force of Current { Surface
Bottom

Tide

General Locality Takassar Strait

Chauki Pt S 60 E - Pasong Raya Pt

Position 1°21'S - 118°42'E.

Chart used: No. 9413 BA Ed'n Nov 67 / Aug 02

Drift: Direction South Distance 2.0 m

Depth of Haul Bottom.

Apparatus and Rig used 12' Agassiz trawl, NR,
2 glass floats; 2 wing nets; 1 tail net.

Time towing h. 20 m.

Remarks: Shot did not detach. -
One bridle stop parted.

Deck Officer Mr. Hazard Recorder H. W. Crider

Mr. Rohanji. Artist

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|-----|-------|---------|-----------------|-----|-------|
| A. M. Down. | Up. | A. M. | | A. M. Down. | Up. | A. M. |
| 6 50 35 | 7 | 15 30 | 0 | 7 19 30 | 9 | 44 45 |
| 51 35 | | 14 55 | 100 | 23 50 | | 40 00 |
| 52 20 | | 14 10 | 200 | 28 10 | | 36 50 |
| 53 15 | | 13 20 | 300 | 32 45 | | 33 40 |
| 54 10 | | 12 35 | 400 | 35 00 | | 30 30 |
| 55 10 | | 11 45 | 500 | 38 15 | | 27 20 |
| 56 10 | | 10 55 | 600 | 41 35 | | 24 00 |
| 57 10 | | 10 00 | 700 | 44 40 | | 21 00 |
| 58 20 | | 09 10 | 800 | 47 40 | | 18 00 |
| 59 30 | | 08 15 | 900 | 51 05 | | 15 00 |
| 7 00 40 | | 07 20 | 1000 | 54 30 | | 12 00 |
| 01 50 | | 06 20 | 1100 | 58 05 | | 09 00 |
| 7 03 00 | 7 | 05 30 | 1181200 | 8 01 20 | | 06 00 |
| | | | 1300 | 04 35 | 9 | 01 20 |
| | | | 1400 | 07 50 | | 56 40 |
| | | | 1500 | 11 05 | | 57 00 |
| | | | 1600 | 14 30 | | 44 30 |
| | | | 1700 | 8 18 10 | 8 | 38 55 |
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91

N 74 E

Chenoki Pt 560 E
40 m

| SOUNDING WIRE. | | | | | FMS. | DREDGING CABLE. | | | | | | |
|----------------|----|-----|-------|----|------|-----------------|------|-----|-------|---|----|----|
| P. M. Down. | | Up. | P. M. | | | P. M. Down. | | Up. | P. M. | | | |
| 12 | 32 | 15 | 12 | 51 | 15 | 0 | 12 | 55 | 00 | 2 | 56 | 30 |
| | 33 | 10 | | 50 | 15 | 100 | | 59 | 20 | | 52 | 20 |
| | 34 | 05 | | 49 | 30 | 200 | 1 | 02 | 50 | | 49 | 10 |
| | 35 | 05 | | 48 | 40 | 300 | | 07 | 10 | | 46 | 00 |
| | 36 | 10 | | 48 | 00 | 400 | | 10 | 25 | | 42 | 45 |
| | 36 | 15 | | 47 | 15 | 500 | | 14 | 00 | | 39 | 30 |
| | 37 | 20 | | 46 | 30 | 600 | | 18 | 30 | | 36 | 20 |
| | 38 | 25 | | 45 | 40 | 700 | | 21 | 45 | | 33 | 10 |
| | 39 | 35 | | 44 | 50 | 800 | | 24 | 35 | | 29 | 45 |
| | 40 | 45 | | 43 | 05 | 900 | | 27 | 50 | | 26 | 20 |
| 12 | 41 | 30 | 12 | 42 | 30 | 960 | 1000 | 31 | 00 | | 22 | 00 |
| | | | | | | | 1100 | 34 | 00 | | 19 | 45 |
| | | | | | | | 1200 | 38 | 30 | | 16 | 25 |
| | | | | | | | 1300 | 41 | 25 | | 13 | 00 |
| | | | | | | | 1400 | 1 | 45 | 2 | 08 | 30 |
| | | | | | | | 1500 | | | | | |
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92
 S. Kanoki Pt. 5316
 42.5

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|-----|----|--------|-----------------|---------|----|
| M. Down. | Up. | M. | | M. Down. | Up. | M. |
| | | | 0 | 7 26 00 | 7 47 40 | |
| | | | 10-100 | 7 26 30 | 7 46 30 | |
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no
Sed.

93

Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks _____

The amt. of wire left on dredging reel 4685 fms. after subtraction of amts. lost from the original 6000.

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|-----|--------|------|-----------------|-----|--------|
| --- M. Down. | Up. | --- M. | | --- M. Down. | Up. | --- M. |
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| | | | 4800 | | | |
| | | | 4900 | | | |

Dredge } No. _____ Date, _____, 19
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } _____ lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm
Sample _____

Character of
Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of
Clouds _____ State of
Sea _____

Weather _____

Direction and Force { Surface _____
of Current. { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|---------|---------------|------|-----------------|---------|--|--|
| M. Down. | Up. | M. | M. Down. | | Up. | M. | | |
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Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm
Sample _____

Character of
Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of
 Clouds _____ State of
 Sea _____

Weather _____

Direction and Force { Surface _____
of Current. { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|---------|---------------|------|-----------------|---------|--|--|
| M. Down. | Up. | M. | M. Down. | | Up. | M. | | |
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| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|--|------|-----------------|-----|----|--|
| M. Down. | Up. | M. | | | M. Down. | Up. | M. | |
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| | | | | 4900 | | | | |

Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm
Sample _____

Character of
Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of
Clouds _____ State of
Sea _____

Weather _____

Direction and Force { Surface _____
of Current. { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|-----|----|------|-----------------|-----|----|
| M. Down. | Up. | M. | | M. Down. | Up. | M. |
| | | | 0 | | | |
| | | | 100 | | | |
| | | | 200 | | | |
| | | | 300 | | | |
| | | | 400 | | | |
| | | | 500 | | | |
| | | | 600 | | | |
| | | | 700 | | | |
| | | | 800 | | | |
| | | | 900 | | | |
| | | | 1000 | | | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | | | |
| | | | 1500 | | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
| | | | 1800 | | | |
| | | | 1900 | | | |
| | | | 2000 | | | |
| | | | 2100 | | | |
| | | | 2200 | | | |
| | | | 2300 | | | |
| | | | 2400 | | | |
| | | | 2500 | | | |
| | | | 2600 | | | |
| | | | 2700 | | | |
| | | | 2800 | | | |
| | | | 2900 | | | |
| | | | 3000 | | | |
| | | | 3100 | | | |
| | | | 3200 | | | |
| | | | 3300 | | | |
| | | | 3400 | | | |
| | | | 3500 | | | |
| | | | 3600 | | | |
| | | | 3700 | | | |
| | | | 3800 | | | |
| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
| | | | 4500 | | | |
| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

Dredge } No. _____ Date, _____, 19
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm
Sample _____

Character of
Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of
Clouds _____ State of
Sea _____

Weather _____

Direction and Force { Surface _____
of Current. { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|--|------|-----------------|-----|----|--|
| M. DOWN. | UP. | M. | | | M. DOWN. | UP. | M. | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
| | | | | 400 | | | | |
| | | | | 500 | | | | |
| | | | | 600 | | | | |
| | | | | 700 | | | | |
| | | | | 800 | | | | |
| | | | | 900 | | | | |
| | | | | 1000 | | | | |
| | | | | 1100 | | | | |
| | | | | 1200 | | | | |
| | | | | 1300 | | | | |
| | | | | 1400 | | | | |
| | | | | 1500 | | | | |
| | | | | 1600 | | | | |
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| | | | | 1800 | | | | |
| | | | | 1900 | | | | |
| | | | | 2000 | | | | |
| | | | | 2100 | | | | |
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| | | | | 2900 | | | | |
| | | | | 3000 | | | | |
| | | | | 3100 | | | | |
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| | | | | 4600 | | | | |
| | | | | 4700 | | | | |
| | | | | 4800 | | | | |
| | | | | 4900 | | | | |

Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|-----|----|------|-----------------|-----|----|
| M. Down. | Up. | M. | | M. Down. | Up. | M. |
| | | | 0 | | | |
| | | | 100 | | | |
| | | | 200 | | | |
| | | | 300 | | | |
| | | | 400 | | | |
| | | | 500 | | | |
| | | | 600 | | | |
| | | | 700 | | | |
| | | | 800 | | | |
| | | | 900 | | | |
| | | | 1000 | | | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | | | |
| | | | 1500 | | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
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| | | | 2000 | | | |
| | | | 2100 | | | |
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| | | | 3000 | | | |
| | | | 3100 | | | |
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| | | | 4000 | | | |
| | | | 4100 | | | |
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| SOUNDING WIRE. | | | | | FMS. | DREDGING CABLE. | | | | |
|----------------|-------|-----|--------|-----|------|-----------------|-------|-----|-----|----|
| --- M. | Down. | Up. | --- M. | --- | | M. | Down. | Up. | --- | M. |
| | | | | | 0 | | | | | |
| | | | | | 100 | | | | | |
| | | | | | 200 | | | | | |
| | | | | | 300 | | | | | |
| | | | | | 400 | | | | | |
| | | | | | 500 | | | | | |
| | | | | | 600 | | | | | |
| | | | | | 700 | | | | | |
| | | | | | 800 | | | | | |
| | | | | | 900 | | | | | |
| | | | | | 1000 | | | | | |
| | | | | | 1100 | | | | | |
| | | | | | 1200 | | | | | |
| | | | | | 1300 | | | | | |
| | | | | | 1400 | | | | | |
| | | | | | 1500 | | | | | |
| | | | | | 1600 | | | | | |
| | | | | | 1700 | | | | | |
| | | | | | 1800 | | | | | |
| | | | | | 1900 | | | | | |
| | | | | | 2000 | | | | | |
| | | | | | 2100 | | | | | |
| | | | | | 2200 | | | | | |
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| | | | | | 2400 | | | | | |
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| | | | | | 3100 | | | | | |
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| | | | | | 4900 | | | | | |

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|--|------|-----------------|-----|----|--|
| M. Down. | Up. | M. | | | M. Down. | Up. | M. | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
| | | | | 400 | | | | |
| | | | | 500 | | | | |
| | | | | 600 | | | | |
| | | | | 700 | | | | |
| | | | | 800 | | | | |
| | | | | 900 | | | | |
| | | | | 1000 | | | | |
| | | | | 1100 | | | | |
| | | | | 1200 | | | | |
| | | | | 1300 | | | | |
| | | | | 1400 | | | | |
| | | | | 1500 | | | | |
| | | | | 1600 | | | | |
| | | | | 1700 | | | | |
| | | | | 1800 | | | | |
| | | | | 1900 | | | | |
| | | | | 2000 | | | | |
| | | | | 2100 | | | | |
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| | | | | 4700 | | | | |
| | | | | 4800 | | | | |
| | | | | 4900 | | | | |

Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|-----|----|------|-----------------|-----|----|
| M. Down. | Up. | M. | | M. Down. | Up. | M. |
| | | | 0 | | | |
| | | | 100 | | | |
| | | | 200 | | | |
| | | | 300 | | | |
| | | | 400 | | | |
| | | | 500 | | | |
| | | | 600 | | | |
| | | | 700 | | | |
| | | | 800 | | | |
| | | | 900 | | | |
| | | | 1000 | | | |
| | | | 1100 | | | |
| | | | 1200 | | | |
| | | | 1300 | | | |
| | | | 1400 | | | |
| | | | 1500 | | | |
| | | | 1600 | | | |
| | | | 1700 | | | |
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| | | | 1900 | | | |
| | | | 2000 | | | |
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| | | | 2900 | | | |
| | | | 3000 | | | |
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| | | | 3900 | | | |
| | | | 4000 | | | |
| | | | 4100 | | | |
| | | | 4200 | | | |
| | | | 4300 | | | |
| | | | 4400 | | | |
| | | | 4500 | | | |
| | | | 4600 | | | |
| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

Dredge } No. _____ Date, _____, 19
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|---------|---------------|------|-----------------|---------|--|--|
| M. DOWN. | UP. | M. | M. DOWN. | | UP. | M. | | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
| | | | | 400 | | | | |
| | | | | 500 | | | | |
| | | | | 600 | | | | |
| | | | | 700 | | | | |
| | | | | 800 | | | | |
| | | | | 900 | | | | |
| | | | | 1000 | | | | |
| | | | | 1100 | | | | |
| | | | | 1200 | | | | |
| | | | | 1800 | | | | |
| | | | | 1400 | | | | |
| | | | | 1500 | | | | |
| | | | | 1600 | | | | |
| | | | | 1700 | | | | |
| | | | | 1800 | | | | |
| | | | | 1900 | | | | |
| | | | | 2000 | | | | |
| | | | | 2100 | | | | |
| | | | | 2200 | | | | |
| | | | | 2300 | | | | |
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| | | | | 3200 | | | | |
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| | | | | 4700 | | | | |
| | | | | 4800 | | | | |
| | | | | 4900 | | | | |

Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } _____ lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|--------|--------------|------|-----------------|--------|--|--|
| --- M. Down. | Up. | --- M. | --- M. Down. | | Up. | --- M. | | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
| | | | | 400 | | | | |
| | | | | 500 | | | | |
| | | | | 600 | | | | |
| | | | | 700 | | | | |
| | | | | 800 | | | | |
| | | | | 900 | | | | |
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| | | | | 1300 | | | | |
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| | | | | 4700 | | | | |
| | | | | 4800 | | | | |
| | | | | 4900 | | | | |

Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|----------|------|-----------------|----|--|--|
| M. Down. | Up. | M. | M. Down. | | Up. | M. | | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
| | | | | 400 | | | | |
| | | | | 500 | | | | |
| | | | | 600 | | | | |
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| | | | | 1200 | | | | |
| | | | | 1300 | | | | |
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| | | | | 1500 | | | | |
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| | | | | 2000 | | | | |
| | | | | 2100 | | | | |
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| | | | | 3000 | | | | |
| | | | | 3100 | | | | |
| | | | | 3200 | | | | |
| | | | | 3300 | | | | |
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| | | | | 4000 | | | | |
| | | | | 4100 | | | | |
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| | | | | 4400 | | | | |
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| | | | | 4600 | | | | |
| | | | | 4700 | | | | |
| | | | | 4800 | | | | |
| | | | | 4900 | | | | |

Dredge } No. _____ Date, _____, 19
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current. { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|--------|--------------|------|-----------------|--------|--|--|
| --- M. Down. | Up. | --- M. | --- M. Down. | | Up. | --- M. | | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
| | | | | 400 | | | | |
| | | | | 500 | | | | |
| | | | | 600 | | | | |
| | | | | 700 | | | | |
| | | | | 800 | | | | |
| | | | | 900 | | | | |
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| | | | | 1400 | | | | |
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| | | | | 2000 | | | | |
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| | | | | 2300 | | | | |
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| | | | | 2800 | | | | |
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| | | | | 4900 | | | | |

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|--|------|-----------------|-----|----|--|
| M. Down. | Up. | M. | | | M. Down. | Up. | M. | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
| | | | | 400 | | | | |
| | | | | 500 | | | | |
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| | | | | 4900 | | | | |

Dredge } No. _____ Date, _____, 19
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm
Sample _____

Character of
Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of
Clouds _____ State of
Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|-----|----|------|-----------------|-----|----|
| M. Down. | Up. | M. | | M. Down. | Up. | M. |
| | | | 0 | | | |
| | | | 100 | | | |
| | | | 200 | | | |
| | | | 300 | | | |
| | | | 400 | | | |
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| | | | 4800 | | | |
| | | | 4900 | | | |

Dredge } No. _____ Date, _____, 19

Hydrog. } _____
Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead } _____

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current. { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
|----------------|-----|----|------|-----------------|-----|----|
| M. Down. | Up. | M. | | M. Down. | Up. | M. |
| | | | 0 | | | |
| | | | 100 | | | |
| | | | 200 | | | |
| | | | 300 | | | |
| | | | 400 | | | |
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| | | | 4700 | | | |
| | | | 4800 | | | |
| | | | 4900 | | | |

Dredge } No. _____ Date, _____, 19
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|--|------|-----------------|-----|----|--|
| M. Down. | Up. | M. | | | M. Down. | Up. | M. | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
| | | | | 400 | | | | |
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| | | | | 4900 | | | | |

Dredge } No. _____ Date, _____, 19
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|--|------|-----------------|-----|----|--|
| M. Down. | Up. | M. | | | M. Down. | Up. | M. | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
| | | | | 400 | | | | |
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Dredge } No. _____ Date, _____, 19
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air {
 { _____ Time _____ } _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|--|------|-----------------|-----|----|--|
| M. Down. | Up. | M. | | | M. Down. | Up. | M. | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
| | | | | 300 | | | | |
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| | | | | 500 | | | | |
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| | | | | 4900 | | | | |

Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ }

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

SOUNDING WIRE.

FMS.

DREDGING CABLE.

M. Down. Up. M.

M. Down. Up. M.

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

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2900

3000

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3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } _____ lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm
Sample _____

Character of
Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of
Clouds _____ State of
Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
|----------------|-----|----|--|------|-----------------|-----|----|--|
| M. Down. | Up. | M. | | | M. Down. | Up. | M. | |
| | | | | 0 | | | | |
| | | | | 100 | | | | |
| | | | | 200 | | | | |
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Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm
Sample _____

Character of
Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of
Clouds _____ State of
Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
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| M. Down. | Up. | M. | | | M. Down. | Up. | M. | |
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| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
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Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current. { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
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| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
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| SOUNDING WIRE. | | | FMS. | DREDGING CABLE. | | |
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Dredge } No. _____ Date, _____, 19____
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { _____ Time _____ } Air { _____
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction _____ Force _____

Baromet. _____ Amt. of Clouds _____ State of Sea _____

Weather _____

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Position _____

Chart used: No. _____ Ed'n _____

Drift: Direction _____ Distance _____

Depth of Haul _____

Apparatus and Rig used _____

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer _____ Recorder _____

| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
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| M. Down. | Up. | M. | | | M. Down. | Up. | M. | |
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| SOUNDING WIRE. | | | | FMS. | DREDGING CABLE. | | | |
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Abbreviations for use

Recording Book.

- bk.....black
- bl.....blue
- br.....brown
- br-gn.....brownish green
- brk.....broken
- C.....Clay
- Co.....Coral
- crs.....coarse
- dk.....dark
- fne.....fine
- For.....Foraminifera
- G.....Gravel
- Glob.....Globigerina ?
- gn.....green
- gn-br.....greenish-brown
- gn-gy.....greenish-gray
- gy.....gray
- hrd.....hard
- lav.....lava
- M.....Mud
- Oz.....Ooze
- P.....Pebbles
- R.....Rock
- rky.....rocky
- S.....Sand
- Sh.....Shells
- sml.....small
- Sp.....Specks
- St.....Stones
- vol.....volcanic

| Fms in | Fms — |
|-----------|----------|
| 176 | 140 |
| 170 | 136 |
| 165 | 132 |
| 160 | 129 |
| 155 | 125 |
| 150 | 121 |
| 145 | 118 |
| 140 | 114 |
| 135 | 110 |
| 130 | 106 |
| 125 | 103 |
| 120 | 99 |
| 115 | 95 |
| 110 | 91 |
| 105 | 87 |
| 100 | 83 |
| 95 | 79 |
| 90 | 75 |
| 85 | 71 |
| 80 | 67 |
| 75 | 63 |
| 70 | 59 |
| 65 | 55 |
| 60 | 51 |
| 55 | 47 |
| 50 | 43 |
| 45 | 39 |
| 40 | 35 |
| 35 | 31 |
| 30 | 27 |
| 25 | 23 |
| 20 | 18 |
| 15 | 14 |
| 10 | 9 |
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pt.

pteropod

In case of an intermediate
give no. of fms. of cable out,
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