

Fish Hawk

Dredging stations 7900-7922

Between Galveston & Mobile
June 22-25-1913 incl.

Special investigations in
cooperation with
U.S. Geological Survey

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers 7900 to 7922

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7900*Date, *June 22 1913*Time of day, *4:55 am* ; of tide,Locality, *Gulf of Mexico.*Exact position, *72 1/4 miles from Galveston**S. E. x E from Sabine Bank Lt. ^{Distance} 25 miles*Depth, *9 1/4 fms*Nature of bottom, *hard*Dredging instrument used, *Gr. sampler*Direction of drift, *Westerly* ; distance, *1/2 mi (approx)*Temperature of air, *78* Fahr. therm. No., *130*" of surface water, *80* " *1026*

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading, *2993*State of sky, *clear*Direction of wind *S. E* ; force, *2*

Rain,

Direction of surface current, *Westerly*; force, *light*

" of bottom " ; force,

Name and position of observer,

11-1068

J. J. O'Brien Boon USN

NOTES RELATING TO STATION NO.

Two salinometers
used

7046 x

7449 @

Distinguishing marks

x

@

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7901*
 Date, *June 22 1913*
 Time of day, *12:40 pm*; of tide,
 Locality, *Gulf of Mexico*
 Exact position, *9 1/2 miles E & S from Trinity Shoal Buoy*
 Depth, *8 fms*
 Nature of bottom, *Hard mud*
 Dredging instrument used, *Gr. sampler & mud bag*
 Direction of drift, *Westerly*; distance, *1/8 m (approx)*
 Temperature of air, *82* Fahr. therm. No., *130*
 " of surface water, *80* " *1076*
 " at depth of fathoms, " "
 " at bottom, *79* " *1076*
 Density at surface, temp., Celsius.
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer,
 Barometer reading, *29.98*
 State of sky, *blue & cloudy*
 Direction of wind *S. E* ; force, *2*
 Rain,
 Direction of surface current, *Westerly*; force, *light*
 " of bottom " ; force,
 Name and position of observer,

J. J. Bruin Boon U.S.N.

NOTES RELATING TO STATION NO.

RENEWAL LIFE AND DENIAL
RECORD OF OBEYING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7902*
 Date, *June 22 1913*
 Time of day, *5:05 pm* ; of tide,
 Locality, *Gulf of Mexico*
 Exact position, *30 miles from Trinity*
Shoal Buoy, Course Ex S 4 S
 Depth, *10 1/2 fms*
 Nature of bottom, *Hard mud*
 Dredging instrument used, *5 ft. sampler, mud bags*
and tow nets
 Direction of drift, *North* ; distance, *1/2 m. approx*
 Temperature of air, *82* Fahr. therm. No., *130*
 " of surface water, *80* " *1026*
 " at depth of fathoms, " "
 " at bottom, *79 1/4* " *1026*
 Density at surface, *1019.7* temp., Celsius.
 " at depth of fathoms, " "
 " at bottom, *1020 1/2 @* " *26 45005*
 Number of salinometer, *7449 @*
 Barometer reading, *2993*
 State of sky, *partly clear*
 Direction of wind *SE* ; force, *2*
 Rain,
 Direction of surface current, *North* ; force, *strong*
 " of bottom " ; force,

Name and position of observer,

J. J. Burns Boia Men

NOTES RELATING TO STATION NO.

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DEPARTMENT OF THE ARMY
ENGINEERING DISTRICT

RECORD OF OBSERVATIONS

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7903*Date, *June 23 1913*Time of day, *5:28 am* ; of tide,Locality, *Gulf of Mexico*Exact position, *17 miles S E 1/4 E from
Jambalaya Island Lt. 5 1/4 miles E 1/8 N
from Ship Shoal*Depth, *17 fms*Nature of bottom, *soft mud*Dredging instrument used, *Gr sampler md. bag
& tow nets*Direction of drift, *North* ; distance, *1/2 mile (appx)*Temperature of air, *80* Fahr. therm. No., *130*" of surface water, *82* " *1026*

" at depth of fathoms, " "

" at bottom, *74* " *1026*Density at surface, *1015 ± 2* temp., Celsius.

" at depth of fathoms, " "

" at bottom, *1024 1/4 @* " *25 #5005*Number of salinometer, *7449 @*Barometer reading, *2996*State of sky, *blue and partly clear*Direction of wind *S.E.* ; force, *3*

Rain,

Direction of surface current, *North* ; force, *light*

" of bottom " ; force,

Name and position of observer,

11-1068

J J O'Brien Boon U.S.N.

NOTES RELATING TO STATION NO.

RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7904*
 Date, *June 23 1913*
 Time of day, *10:20 am* ; of tide,
 Locality, *Mth. Miss. Riv. (S. W. Pass)*
 Exact position, *7 1/2 E - S. W. Jetty Lt.*
7 1/2 E 1/2 E - S. W. Jetty Lt. House
 Depth, *12 fms*
 Nature of bottom, *soft mud*
 Dredging instrument used, *lv. sampler; md. bag.*
4 tow nets
 Direction of drift, *East* ; distance, *1/4 mi (approx)*
 Temperature of air, *85* Fahr. therm. No., *130*
 " of surface water, *80 1/2* " *1076*
 " at depth of fathoms, " "
 " at bottom, *77* " *1076*
 Density at surface, *1009 1/2*^x temp., Celsius.
 " at depth of fathoms, " "
 " at bottom, *✓* " *✓*
 Number of salinometer, *7046*^x
 Barometer reading, *30.00*
 State of sky, *partly clear*
 Direction of wind *S.E.* ; force, *3*
 Rain,
 Direction of surface current, *East* ; force, *light*
 " of bottom " ; force,
 Name and position of observer,
 J. J. Owen Bosn USNA

NOTES RELATING TO STATION NO.

RECORDED AND INDEXED
RECORDS OF DEEDS

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7905*
 Date, *June 23 1913*
 Time of day, *11:15 am* ; of tide,
 Locality, *Mth. Miss. River (S. W. Pass)* ,
 Exact position, *S. W. Pass Lt. House bearing*
N. 41 E; S. W. Pass Lt. Ship bearing N. W.
 Depth, *38 fms*
 Nature of bottom, *soft mud*
 Dredging instrument used, *br sample, md. bag*
tow nets.
 Direction of drift, *East* ; distance, *1/2 m. (appr)*
 Temperature of air, *87* Fahr. therm. No., *130*
 " of surface water, *81* " *1026*
 " at depth of fathoms, " "
 " at bottom, *7 1/2* " *1026*
 Density at surface, *998^x* temp. *29 1/2* Celsius. *5005*
 " at depth of fathoms, " "
 " at bottom, *1021@* " *25 1/2* **5005*
 Number of salinometer, *7046^x* *7449@*
 Barometer reading, *3000*
 State of sky, *partly clear*
 Direction of wind *S. E.* ; force, *3*
 Rain,
 Direction of surface current, *East*; force, *strong*
 " of bottom " ; force,

Name and position of observer,

11-1068

J. O.'Brien Boon U.S.N.

NOTES RELATING TO STATION NO. _____

LEGISLATIVE AND SENATE
RECORD OF DEEDS

RECORD OF DREDGING

TEMPERATURE AND DENSITY

 Probably NW $\frac{5}{8}$ N
 E W Shaw
Station No. 7906 (3^d)

Date, June 22 1913

Time of day, 12:25 pm ; of tide,

Locality, Mth. Miss. Riv. (S. W. Pass)

Exact position, S. W. Pass Lt. House bearing

N x N; S. W. Pass Lt. Ship bearing N $\frac{5}{8}$ W.Depth, 59 $\frac{1}{2}$ fms

Nature of bottom, soft mud

Dredging instrument used, Bm. trawl, tow nets & br sample, md. bag

Direction of drift, East ; distance, 1 $\frac{1}{2}$ mi (approx)

Temperature of air, 86 Fahr. therm. No., 130.

" of surface water, 82 $\frac{1}{2}$ " 1026

" at depth of fathoms, "

" at bottom, 77 " 1026

Density at surface, 1013 \pm 2¹ temp., 27 Celsius, 5005

" at depth of fathoms, "

" at bottom, 1023 $\frac{1}{2}$ @ " 25 5005Number of salinometer, 7046^x 7449 @

Barometer reading, 2999

State of sky, partly clear

Direction of wind, S.E. ; force, 3

Rain,

Direction of surface current, East ; force, strong

" of bottom " ; force,

Name and position of observer,

11-1068

J. O. Brian Bos'n USN

NOTES RELATING TO STATION NO.

RECORD OF DREDGING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7907*Date, *June 23-1913*Time of day, *2:15 pm* ; of tide,Locality, *Gulf of Mexico*Exact position, *Log reading 32. - 6³/₄ miles**S.S. E. of Sta # 7906*Depth, *97¹/₂ fms*Nature of bottom, *soft mud*Dredging instrument used, *In sampler, md. bag & tow nets*Direction of drift, *East* ; distance, *1 mi (approx)*Temperature of air, *83* Fahr. therm. No., *130*" of surface water, *82* " *1026*

" at depth of fathoms, "

" at bottom, *79¹/₂* " *1026*Density at surface, *1014^F 2* temp. *28* Celsius, *5005*

" at depth of fathoms, "

" at bottom, *1022* " *25 5005*Number of salinometer, *7046* @ *7449*Barometer reading, *2999*State of sky, *partly clear*Direction of wind *S. E.* ; force, *3*

Rain,

Direction of surface current, *East* ; force, *strong*

" of bottom " ; force,

Name and position of observer,

J. J. Bruin Boon USA

NOTES RELATING TO STATION NO.

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7908*
 Date, *June 23, 1913*
 Time of day, *6:30 pm*; of tide,
 Locality, *Mth. Miss Riv. (So. Pass)*
 Exact position, *S. P. Lt. 7 7/8 1/2 N. outer*
Jetty Lt. 7.7.7.
 Depth, *17 fms.*
 Nature of bottom, *soft mud*
 Dredging instrument used, *Gr. sampler, mud bag*
Bm. trawl, Tow nets
 Direction of drift, *East*; distance, *1 mi (approx)*
 Temperature of air, *80* Fahr. therm. No., *130*
 " of surface water, *82 1/2* " *1026*
 " at depth of fathoms, " "
 " at bottom, *73 1/2* " *1026*
 Density at surface, ^x *1.005 1/2* temp., Celsius.
 " at depth of fathoms, " "
 " at bottom, " "
 Number of salinometer, ^x *7046*
 Barometer reading, *29.94*
 State of sky, *partly cloudy*
 Direction of wind *S.E.*; force, *3*
 Rain,
 Direction of surface current, *East*; force, *strong*
 " of bottom " ; force,

Name and position of observer,

11-1068

J. O'Brien Bowditch

NOTES RELATING TO STATION NO. _____

LIBRARY OF THE
BUREAU OF GEODESY

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7909*

Date, *June 24, 1913*

Time of day, *6:40 am* ; of tide,

Locality, *Mth. Miss. Riv. (S. Pass)*

Exact position, *S. P. Lt. N x E* *Probably NW of Shaw*
S. H. Lt. N. E.

Depth, *76 fms*

Nature of bottom, *soft mud*

Dredging instrument used, *Gr. sampler md. bag*
& tow net

Direction of drift, *East* ; distance, *1 1/4 mi approx*

Temperature of air, *80* Fahr. therm. No., *130*

“ of surface water, *81* “ *1026*

“ at depth of fathoms, “

“ at bottom, *71* “ *1026*

Density at surface, *101472* temp. *27* Celsius. *50.05*

“ at depth of fathoms, “

“ at bottom, *1023 1/2* @ “ *24 1/2* *50.05*

Number of salinometer, *7046* *7449 @*

Barometer reading, *29.95*

State of sky, *partly clear*

Direction of wind *S. E* ; force, *3*

Rain,

Direction of surface current, *East* ; force, *strong*

“ of bottom “ ; force,

Name and position of observer,

J. J. Breen *Posn USN*

NOTES RELATING TO STATION NO.

RECORD OF OBSERVATIONS
MADE AT THE STATION

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7910*
 Date, *June 24 1913*
 Time of day, *7:35 am*; of tide,
 Locality, *S. Pass Miss. River*
 Exact position, *S. P. Lt. North*
S. W. Pass Lt. N. W. N. 1/2 N.
 Depth, *51 fms*
 Nature of bottom, *soft mud*
 Dredging instrument used, *br. sampler, Md. bag*
Y tow nets,
 Direction of drift, *East* ; distance, *1/2 mi (approx)*
 Temperature of air, *80* Fahr. therm. No., *130*
 " of surface water, *79* " *1026*
 " at depth of fathoms, " "
 " at bottom, *69* " *1026*
 Density at surface, *1008 1/4* temp. *26* Celsius. *5005*
 " at depth of fathoms, " "
 " at bottom, *1021@* " *23* *5005*
 Number of salinometer, *7046* *7449@*
 Barometer reading, *2995*
 State of sky, *partly clear*
 Direction of wind *S. E* ; force, *3*
 Rain,
 Direction of surface current, *East* ; force, *strong*
 " of bottom " ; force,

Name and position of observer,

J. J. Quinn Boss. Men.

NOTES RELATING TO STATION NO.

RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7911*

Date, *June 24 1913*

Time of day, *9:05 am* ; of tide,

Locality, *Mth. Miss. Riv. (Gulf of Mex)*

Exact position, *S. P. Lt. 7 1/2 N. 1/2 W.*
S. P. Buoy 7 1/2 N. x 7 1/2 W.

Depth, *42 fms*

Nature of bottom, *soft mud*

Dredging instrument used, *Gr. sampler, md. bag*
Tow net

Direction of drift, *East* ; distance, *1/3 mi (approx)*

Temperature of air, *80* Fahr. therm. No., *130*

“ of surface water, *80* “ *1026*

“ at depth of fathoms, “

“ at bottom, *6 1/2* “ *1026*

Density at surface, *1010** temp. *26* Celsius. *5005*

“ at depth of fathoms, “

“ at bottom, *1023 1/2 @* “ *20* *5005*

Number of salinometer, *7046** *7149@*

Barometer reading, *2995*

State of sky, *partly clear*

Direction of wind *S.E.* ; force, *3*

Rain,

Direction of surface current, *East* ; force, *strong*

“ of bottom “ ; force,

Name and position of observer,

J. J. O'Brien *Lowell*

NOTES RELATING TO STATION NO.

LENGTHWISE AND BEARING
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7912*
 Date, *June 24-1913*
 Time of day, *9:30 am*; of tide,
 Locality, *Mth. Miss. Riv. (Gulf of Mex)*
 Exact position, *S. Pass Lt. 7/8 N. 7/8 N.*
S. Pass Buoy 7/8 N. 3/8 N.
 Depth, *56 fms*
 Nature of bottom, *soft mud*
 Dredging instrument used, *2m trawl & tow nets*
 Direction of drift, *West*; distance, *1/4 mi (approx)*
 Temperature of air, *82* Fahr. therm. No., *130*
 " of surface water, *81* " *1025*
 " at depth of fathoms, " "
 " at bottom, *66 1/2* " *1026*
 Density at surface, *1013 1/4* temp., *22 Celsius*, *5008*
 " at depth of fathoms, " "
 " at bottom, *1032 (muddy)* *23* *5005*
 Number of salinometer, *7046^x* *7449[@]*
 Barometer reading, *2996*
 State of sky, *partly clear*
 Direction of wind *N.E.*; force, *3*
 Rain,
 Direction of surface current, *West*; force, *strong*
 " of bottom " ; force,
 Name and position of observer,

J. J. O'Brien Boon U.S.N.

NOTES RELATING TO STATION NO.

RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7913*
 Date, *June 2^d 1913*
 Time of day, *10:20 am* ; of tide, *,*
 Locality, *Gulf of Mexico*
 Exact position, *S. Lt. 7 1/2 x 7 1/2*
2 1/2 mi. S. E. x E of Sta. # 7912
 Depth, *122 fms*
 Nature of bottom, *soft mud*
 Dredging instrument used, *Gr. sampler, & tow nets*
 Direction of drift, *East* ; distance, *1/2 mi (approx)*
 Temperature of air, *82* Fahr. therm. No., *130*
 " of surface water, *81* " *1076*
 " at depth of fathoms, " "
 " at bottom, *6 7/8* " *1076*
 Density at surface, *1013 #2* temp. *28* Celsius, *50.5*
 " at depth of fathoms, " "
 " at bottom, *1024 @* " *24* *50.5*
 Number of salinometer, *7046^x* *7449 @*
 Barometer reading, *29.96*
 State of sky, *partly clear*
 Direction of wind *N. E.* ; force, *3*
 Rain,
 Direction of surface current, *East* ; force, *strong*
 " of bottom " ; force,

Name and position of observer,

J. J. Breen Boon U.S.N.

NOTES RELATING TO STATION NO.

LEWIS & CLARK
RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7914*
 Date, *June 24 1913*
 Time of day, *10:55 am* ; of tide, .
 Locality, *Mth. Miss. River*
 Exact position, *S Pass Lt. N 1/2 N*
Jetty Lt. N 3/8 S
 Depth, *48 fms*
 Nature of bottom, *soft mud*
 Dredging instrument used, *Gr. sampler, Med bag, Bm. trawl & tow net*
 Direction of drift, *East* ; distance, *1/3 mi (app)*
 Temperature of air, *82* Fahr. therm. No., *130*
 " of surface water, *82* " *1026*
 " at depth of fathoms, " "
 " at bottom, *76 1/2 #* " *1026*
 Density at surface, *1011 1/2 ** temp. *23* Celsius *5005*
 " at depth of fathoms, " "
 " at bottom, *1022 1/2 @* " *23 1/2* *5005*
 Number of salinometer, *7046** *7449@*
 Barometer reading, *29.96*
 State of sky, *partly clear*
 Direction of wind *N.E.* ; force, *3*
 Rain,
 Direction of surface current, *East* ; force, *strong*
 " of bottom " ; force,

Name and position of observer,

J. J. Brien *Coast USN*

NOTES RELATING TO STATION NO.

ALBERTA DEPARTMENT OF AGRICULTURE
RECORD OF DREDGING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7915*
 Date, *June 24 1913*
 Time of day, *11:40 am*, of tide,
 Locality, *Gulf of Mexico (nth. Mex. Riv.)*
 Exact position, *N.E. P. Tower 3 7/8 x 3/4 N.*
S. P. Lt. N. x S. 1/2 S.
 Depth, *34 fms*
 Nature of bottom, *soft mud*
 Dredging instrument used, *5 ft sampler, md. bag*
3m. trawl + tow net
 Direction of drift, *East* ; distance, *1 1/4 mi (approx)*
 Temperature of air, *82* Fahr. therm. No., *130*
 " of surface water, *83* " *1026*
 " at depth of fathoms, " "
 " at bottom, *65 1/2* " *1026*
 Density at surface, *1006^x* temp., *28* Celsius, *5005*
 " at depth of fathoms, " "
 " at bottom, *1023 @* " *22 1/2* *5005*
 Number of salinometer, *7046^x* *7449 @*
 Barometer reading, *2996*
 State of sky, *partly clear*
 Direction of wind *N.E.*; force, *3*
 Rain,
 Direction of surface current, *East*; force, *strong*
 " of bottom " ; force,

Name and position of observer,

J. O.'Brien Port New

NOTES RELATING TO STATION NO.

RECORD OF BREEDING

NOTES RELATING TO STATION NO.

RECORDS OF THE
BUREAU OF LAND MANAGEMENT

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7917*

Date, *June 24 1913*

Time of day, *12:50 pm*; of tide,

Locality, *Gulf of Mexico (Nth Miss Riv.)*

Exact position, *N. E. Pass Tower 7 5/8 M.*
Lautre Pass Lt. 7 7/8 M.

Depth, *2 3/4 fms*

Nature of bottom, *soft mud*

Dredging instrument used, *Gr. sampler, Md. bag & tow nets.*

Direction of drift, *East*; distance, *1 mi (appr)*

Temperature of air, *84* Fahr. therm. No., *130*

“ of surface water, *85* “ *1076*

“ at depth of fathoms, “

“ at bottom, *78* “ *1026*

Density at surface, *998 1/2*^x temp., *29 1/2* Celsius, *5000*

“ at depth of fathoms, “

“ at bottom, *1012 1/2*^x “ *26 1/2* *5000*

Number of salinometer, *7046*^x

Barometer reading, *2996*

State of sky, *Partly clear*

Direction of wind *SE*; force, *3*

Rain,

Direction of surface current, *East*; force, *strong*

“ of bottom “; force,

Name and position of observer,

J. J. Brown *Boat U.S. Navy*

NOTES RELATING TO STATION NO.

TEMPERATURE AND DENSITY
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

 Prob NW 5/8 W
 E. W. Shaw

Station No. *7918*
 Date, *June 24 1913*
 Time of day, *1:15 pm* ; of tide,
 Locality, *Gulf of Mex (Nth. Miss Riv.)*
 Exact position, *Pass a Lautre Lt. 7 7/8 S*
N.E. Tower 7 5/8 N.
 Depth, *21 fms*
 Nature of bottom, *soft mud*
 Dredging instrument used, *Dr. sampler, Md. bag*
+ tow nets
 Direction of drift, *East* ; distance, *1 1/2 mi (approx)*
 Temperature of air, *84* Fahr. therm. No., *130*
 " of surface water, *86* " *1026*
 " at depth of fathoms, " "
 " at bottom, *65* " *1026*
 Density at surface, *1000^x* temp., *30 Celsius*, *50^w*
 " at depth of fathoms, " "
 " at bottom, *1001^x* " *25 1/2* *50^w*
 Number of salinometer, *7046^x*
 Barometer reading, *2996*
 State of sky, *partly clear*
 Direction of wind *S.E.* ; force, *3*
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name and position of observer,

J. G. Brown Bowen Henry

NOTES RELATING TO STATION NO.

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. 7919

Date, June 24 1913

Time of day 2:05 pm ; of tide,

Locality, Gulf of Mexico (Mth Miss. Riv.)

Exact position, Pass a Loutre Lt. 7 7/8 x 7/8

N.E. Pass Tower 7 7/8 5/8 7/8

Depth, 55 fms

Nature of bottom, soft mud

Dredging instrument used, G.V. sampler, mud bag, tow nets + B.M. trawl

Direction of drift, East ; distance, 1/4 mi (approx)

Temperature of air, 82 Fahr. therm. No., 130

" of surface water, 83 " 1026

" at depth of fathoms, "

" at bottom, 64 " 1026

Density at surface, 1009 1/4 temp. 23 1/2 Celsius 5005

" at depth of fathoms, "

" at bottom, 1024 1/4 @ " 23 1/2 5005

Number of salinometer, 7046^x 7449 @

Barometer reading, 29.95

State of sky, partly clear

Direction of wind S.E. ; force, 3

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

11-1068

J. G. Brien Boson McHenry

NOTES RELATING TO STATION NO. _____

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7920*
 Date, *June 24 1912*
 Time of day *3:10 pm* ; of tide,
 Locality, *Gulf of Mexico*
 Exact position, *Bearing 5 miles*
S. E x E 1/2 E of Sta # 7919
 Depth, *81 fms*
 Nature of bottom, *soft mud*
 Dredging instrument used, *Gr. sampler, Md. bag*
tow net and Bm. trawl
 Direction of drift, *East* ; distance, *1/3 mi (appx)*
 Temperature of air, *82* Fahr. therm. No., *130*
 " of surface water, *82 1/2* " *1026*
 " at depth of fathoms, " "
 " at bottom, *74 - #8531 [75* " *1026*
 Density at surface, *1013 F* temp. *25 1/2* Celsius *50.5*
 " at depth of fathoms, " "
 " at bottom, *1021 @* " *24* *50.05*
 Number of salinometer, *7046** *7449@*
 Barometer reading, *29.94*
 State of sky, *partly clear*
 Direction of wind *S.E.* ; force, *3*
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name and position of observer,

J. J. O'Brien Boatsman US Navy

NOTES RELATING TO STATION NO.

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7921*Date, *June 24 1913*Time of day, *10:45 pm* ; of tide,Locality, *Gulf of Mexico*Exact position, *40 miles N.E. x N. of position plotted off Pass a Lautre Lt.*Depth, *17 fms*Nature of bottom, *soft mud*Dredging instrument used, *3m trawl & tow nets* ^{*on sampler md. bag*}Direction of drift, *West* ; distance, *1/3 mi (approx)*Temperature of air, *79* Fahr. therm. No., *120*" of surface water, *82 1/2* " *1026*

" at depth of fathoms, "

" at bottom, *73* " *1026*Density at surface, *1014 #2* temp., *28* Celsius. *5005*

" at depth of fathoms, "

" at bottom, *1020 1/4 @* " *25* *5005*Number of salinometer, *7046 x* *7449 @*Barometer reading, *2993*State of sky, *partly clear*Direction of wind *S.E.* ; force, *4*

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

J. B. Boon U.S. Navy

NOTES RELATING TO STATION NO.

UNIVERSITY OF CALIFORNIA
RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No. *7922*

Date, *June 25 1913*

Time of day, *5:15 am* ; of tide,

Locality, *Entrance to Mobile Bay*

Exact position, *Between whistle & toll tower
with light bearing N X W $\frac{1}{2}$ W.*

Depth, *9 fms*

Nature of bottom,

Dredging instrument used, *Gr. sampler, mud bag
Bm. trawl & tow net*

Direction of drift, ; distance,

Temperature of air, *80* Fahr. therm. No., *130*

“ of surface water, *80 $\frac{1}{2}$* - - - - *1026*

“ at depth of fathoms, “

“ at bottom, *74* “ *1026*

Density at surface, *1019^x* temp. *27 $\frac{1}{2}$* Celsius *5005*

“ at depth of fathoms, “

“ at bottom, *1019^x* “ *26* *5005*

Number of salinometer, *7046^x*

Barometer reading, *2993*

State of sky, *partly clear*

Direction of wind *East* ; force, *3*

Rain,

Direction of surface current, ; force,

“ of bottom “ ; force,

Name and position of observer,

COPIES BELONGING TO DIVISION NO.

J. D. Bruin Boson Navy

NOTES RELATING TO STATION NO.

RECORD OF DRILLING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

RECORDED AND INDEXED
SECOND OF DECEMBER

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND HUMIDITY
RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO. _____

REVERSE SIDE AND FRONT
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND HUMIDITY
RECORD OF BREDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO. _____

TEMPERATURE AND DEPTH
RECORD OF BREDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

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TEMPERATURE AND HUMIDITY
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

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TEMPERATURE AND GENERAL RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO. _____

TEMPERATURE AND CORRECTION
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

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" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND HUMIDITY
RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND DENSITY
RECORD OF DRIDGING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND DENSITY
RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

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" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

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RECORD OF DREDGING

TEMPERATURE AND DENSITY

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Date,

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Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

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Temperature of air, Fahr. therm. No.,

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Density at surface, temp., Celsius.

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" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

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REVERSE SIDE AND REVERSED
RECORD OF BREEDING

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RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND HUMIDITY
RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

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" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND GENERAL
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

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" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND HUMIDITY
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

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TEMPERATURE AND GENERAL RECORD OF BEDDING

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RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

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TEMPERATURE AND GENERAL RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND DEPTH
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

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REVERSE SIDE AND DEMO
RECORD OF BREEDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

TEMPERATURE AND DENSITY

RECORD OF BREDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

LEWIS & CLARK
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

ALIGNED AND DEMONSTRATED
RECORD OF BEDDING

RECORD OF DREDGING

TEMPERATURE AND DENSITY

Station No.

Date,

Time of day, ; of tide,

Locality,

Exact position,

Depth,

Nature of bottom,

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, Fahr. therm. No.,

" of surface water, "

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Density at surface, temp., Celsius.

" at depth of fathoms, "

" at bottom, "

Number of salinometer,

Barometer reading,

State of sky,

Direction of wind ; force,

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name and position of observer,

NOTES RELATING TO STATION NO.

RECORD OF BEDDING