

AUG 31 1942

ACC. No. _____

6744

WIRE DRAG

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Hydrographic~~ } Sheet No. **H6744**
WIRE DRAG

ELEP

6744

WIRE DRAG

State New Mexico

LOCALITY

Elephant Butte Reservoir

194 1942

CHIEF OF PARTY

Max G. Ricketts

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

WIRE - DRAG

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. ~~TABE~~

REGISTER NO. **H6744** WIRE DRAG

State NEW MEXICO

General locality

Locality ELEPHANT BUTTE RESERVOIR

Scale 1:20,000 app. Date of survey July & Aug., 19 42

Vessel Reclamation Launch, 22 ft CHRIS-CRAFT, 16 ft Skiff

Chief of Party Max G. Ricketts

Surveyed by Max G. Ricketts and Harry D. Reed, Jr.

Protracted by

Soundings penciled by

Soundings in fathoms feet

Plane of reference

Subdivision of wire dragged areas by

Inked by

Verified by G. B. LITTLEPAGE

Instructions dated March ~~###~~ 20, 1942 & July 20, 1942

Remarks:

REG. NO. **H6744** WIRE DRAG

(1)

H6744 WIRE DRAG

DESCRIPTIVE REPORT

to accompany

ELEPHANT BUTTE RESERVOIR, NEW MEXICO

WIRE-DRAG SHEET

PROJECT CS - 282.

INSTRUCTIONS:

Director's instructions for Project CS-282, dated March 20, 1942 and his telegram dated July 20, 1942. ✓

CONTROL:

returned to Aeronautical Charts

The control system established by the Bureau of Reclamation in 1903-1908 surveys as this was supplemented by their control for the Silt Survey of 1935 was used as a basis for control. Their stations which were recovered have been indicated in red on the boatsheet and the reference number from Print 3943, Bureau of Reclamation has been shown. * filed with boat sheet. This control was supplemented where necessary by hydrographic signals located by sextant cuts and sights. In plotting from these control stations an apparent displacement in distance and azimuth showed on the boatsheet prepared by Washington Office. This apparent displacement occurs at the junction of the old topographic sheets 13949 and 13948-B. A new boatsheet was prepared for the Guide Launch and the shoreline adjusted to the signals on this sheet. The End Launch sheet shows the signals in position with relation to the shoreline originally furnished. It is recommended that the signal and shoreline relationship as shown on the Guide Launch sheet be used in adjusting the depth curves. Two copies of Bureau of Reclamation 1935 sheet 3943 are forwarded covering the control used. The sounding lines of their 1935 Silt Survey are also shown on these prints and may be of value in adjusting depth curves. ✓

SURVEY METHODS:

Standard wire-drag practice has been followed. The Bureau of Reclamation furnished the use of their launch, a 22 foot CHRIS-CRAFT and a 16 foot skiff were hired. A drag of 3600 feet was used except on the last half of "E" Day and on "F" Day when 2400 feet was used. Gound wire was 1/8", 35 pound weights were used on intermediate buoys and 70 pounds on end buoys. ✓

DANGERS:

A log and trash boom is maintained across the channel to the dam between signals SIGN and GUT. The point to the ENE of the dam, proposed location of fueling facilities, has the remains of an old power plant located underwater. These were concrete buildings and the point has bared beyond them in recent years. See soundings on positions Nos. 1-5e of Tender Record. A shoal of 262 feet, rock bottom located 0.58 miles SSE of signal IN was cleared at 220 feet effective. The reef to the NNE of signal MID extends 0.15 miles from the signal and is rocky. The point off signal ARE extends NW for 0.2 mile from the signal, a sounding of 5 feet was obtained on a visible rock just inshore of the Guide Launch. ✓

sdys
Corrected to plane of 4700 ft water level

reduced to
4400 ft water
level

WIRE-DRAG GROUNDINGS: A grounding on "A" Day to the NW of signal ROAD, 312 feet, was not cleared as it was close to brush extending out from shore. The grounding to the West of signal POLE on the same day was not cleared being close inshore. The same is true with the groundings on "D" Day in that same vicinity. Groundings in the building area ENE of the dam were not cleared, see DANGERS. The groundings on "E" Day in the vicinity of signal TEX were not cleared being close inshore. The grounding on "C" Day to the NNE of signal MID, 310 feet, was cleared at 30 feet same day; the drag was set at 30 feet covering this shoal and dropped to 42 feet at the south edge of the shoal area shown on the contour sheet. The 39 foot grounding west of signal MID was not cleared being on the inshore edge of the strip. On "F" Day while towing to the south, Tender Position 1-f, the drag hung-up with a sounding of 9 fathoms no bottom. This sounding and position were taken in the very sharp "V" which was formed. It was necessary to break the drag to clear it. Buoys 2-4 had been towing under at the time of the grounding and it is thought the ground wire fouled some brush. A drag set at 42 feet was towed to the north over this area the same day all buoys riding properly, no evidence of a grounding occurred.

COMPARISON WITH PREVIOUS SURVEYS:- No previous surveys.

GENERAL INFORMATION:- The runways desired by the Civil Aeronautics Administration as defined by Mr. F. J. Rhody have been covered in excess of 40 feet effective from the present water level, with the exception of the small area across the shoal ground to the west of signal MID which is covered to 30 feet effective. Runways for prevailing winds are clear and of good length, the shortest being the runway SW toward the dam which is limited to 1.4 miles.

A fluctuation of water level of about three dry years in ten is shown by records of this dam. In 1918 the level reached 4312 feet; in 1920 it had risen to 4440 feet. The lowest level reached since that time is 4328 feet in 1934. Planes using this area should obtain water level data from the dam before landing.

The Bureau of Reclamation, Mr. R. L. Fiock, Project Superintendent; aided a great deal in this project. A launch was furnished, office and storage facilities were provided, and two prints of their 1935 work were furnished.

CORRECTIONS TO PROJECT "TARE" DESCRIPTION SHEET:- original description filed in Aeronautical charts

Docks and Boats:- The concession had only one power boat available, a number of 14 foot outboard boats.
Water Obstructions:- See DANGERS.

Respectfully submitted,

Max G. Ricketts
Max G. Ricketts
Lieut., USC&GS

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H6744 WIRE DRAG

STATISTICS

ELEPHANT BUTTE RESERVOIR

Date	Letter	Volume	Drag Length	Positions	Statute Miles	Sdgs.
1942						
July 28	A	1	3600	70(3)	4.5	3
July 29	B	1	3600	54(1)	3.1	1
July 30	C	1	3600	86(6)	5.4	3
July 31	D	1	3600	25(5)	1.4	5
Aug. 1	E	1	3600 & 2400	41(7)	2.4	7
Aug. 3	F	1	2400	38(1)	2.3	0

Totals:- 314(23) 19.1 19

Area Covered:- 10.0 square statute miles

ELEPHANT BUTTE RESERVOIR

WATER LEVEL DATA

Date	Height Feet
1942	
July 27	4403.37
July 28	4403.16
July 29	4402.98
July 30	4402.78
July 31	4402.59
August 1	4402.39
August 2	4402.18
August 3	4401.99
August 4	4401.80

(41)

H-6744 W.D.

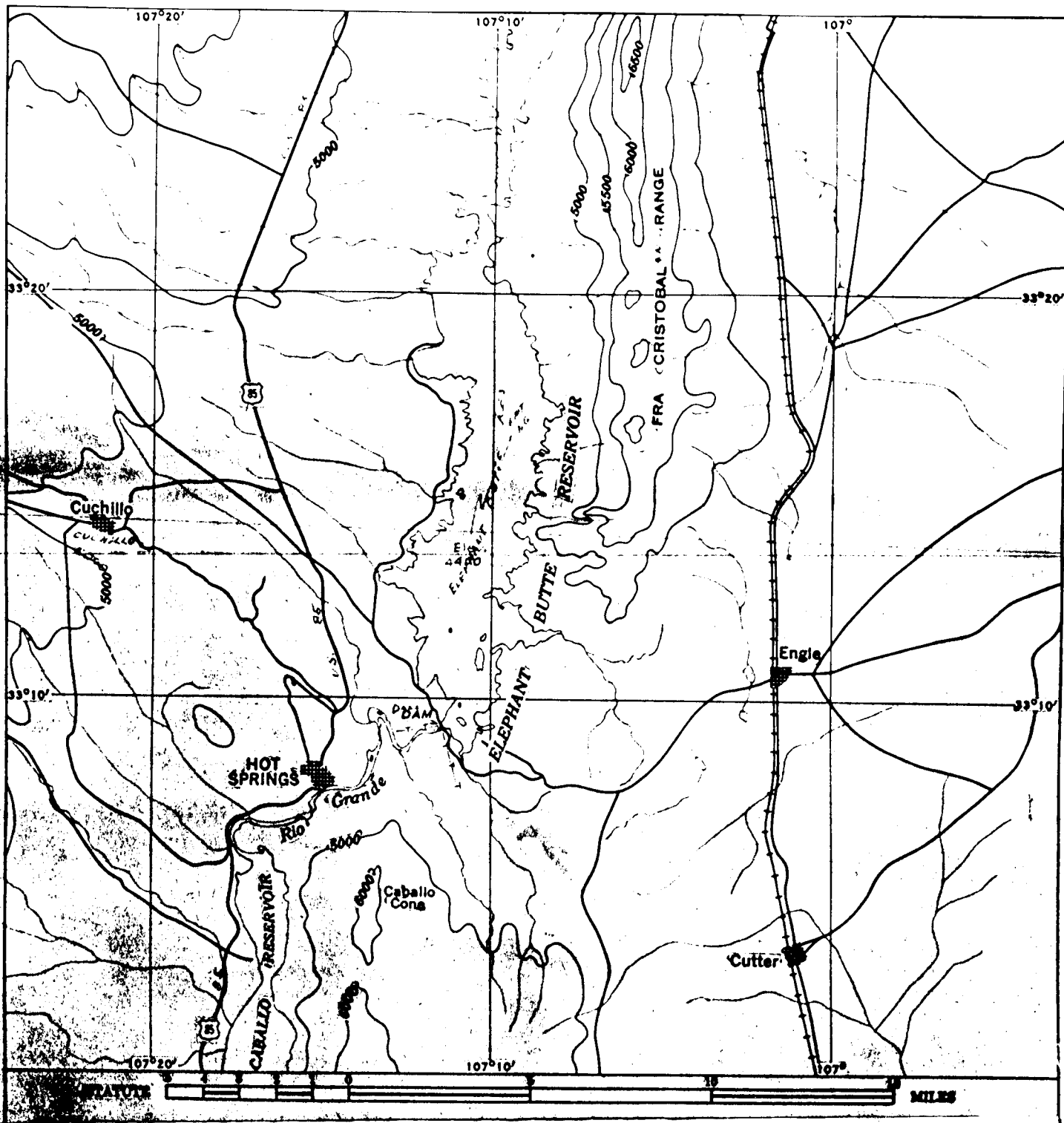
The original instructions stated that the area should be dragged to a depth of about 10 feet below the lowest water level. This was modified, at the request of Lieut. M. G. Ricketts, by the Director's telegram of July 18, 1942, which approved an effective depth of 40 feet at the time of the survey.

All effective depths, soundings and groundings have been reduced to a water level of 4,400 feet, the level at which the shoreline is shown.

The records have been carefully examined and all pertinent information has been clearly indicated on the boat sheet. A smooth sheet and formal review are not considered necessary.

G. B. Littlepage, Sept. 18, 1942

Approved:
Robert W. Wood



ELEPHANT BUTTE RESERVOIR
(Approach)

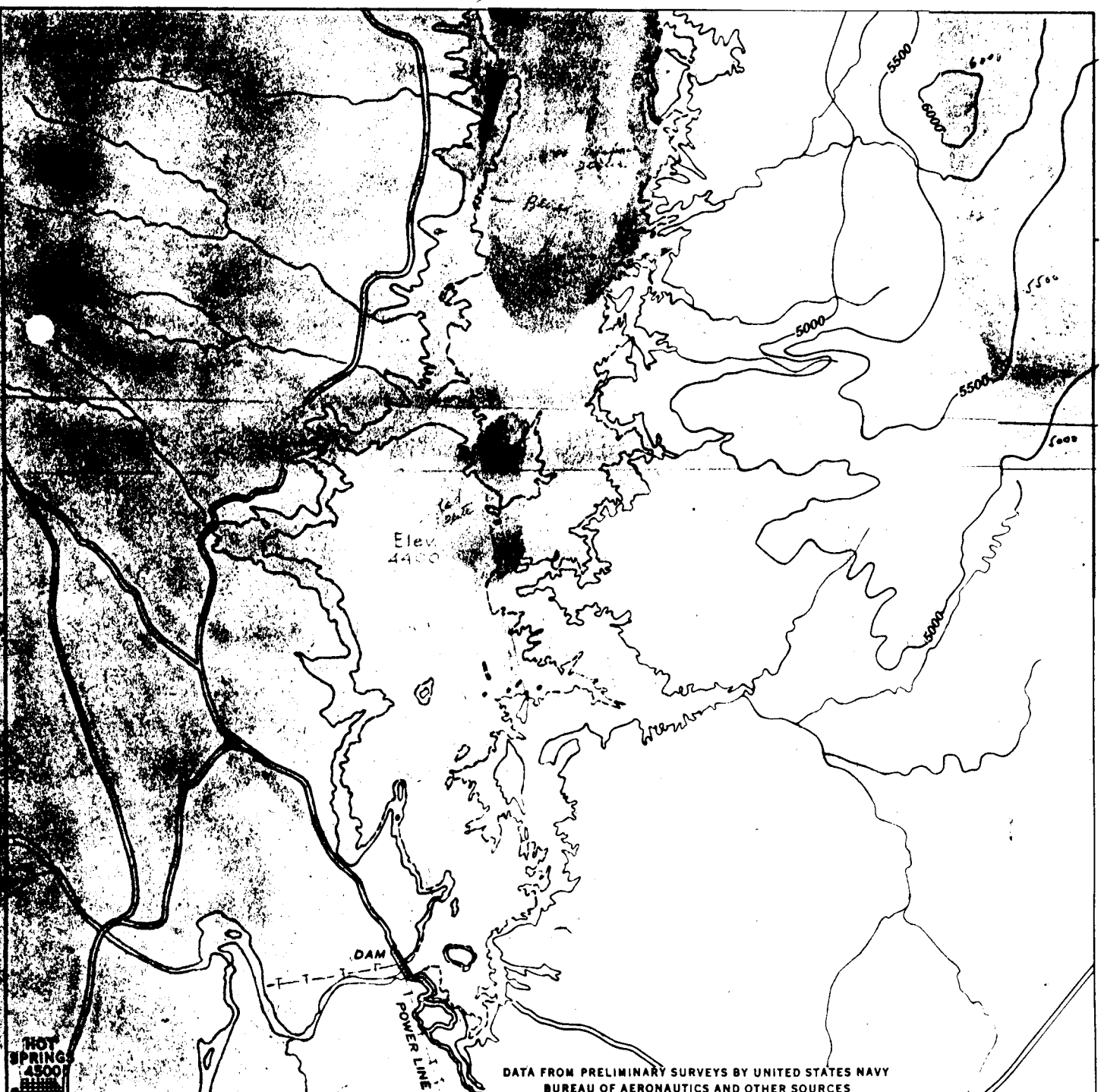
ENGLE RADIO
 FREQUENCY 344 KC
 IDENT. SIGNAL EX - :: -
 CLASS SRAZ-DT (E.B.)

DEPTH OF WATER
 Minimum at dam 125 Ft.

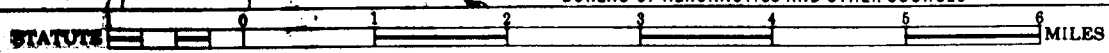
PUBLISHED AT WASHINGTON, D. C. FOR THE UNITED STATES NAVY
 BY THE U. S. COAST AND GEODETIC SURVEY UNDER AUTHORITY OF
 THE SECRETARY OF COMMERCE

H6744
WIRE DRAG

ELEPHANT BUTTE RESERVOIR



DATA FROM PRELIMINARY SURVEYS BY UNITED STATES NAVY BUREAU OF AERONAUTICS AND OTHER SOURCES

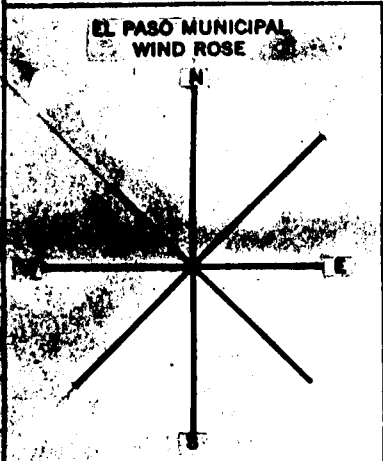


ELEPHANT BUTTE RESERVOIR (Landing)

WIRE NO. 6746
H6744

PUBLISHED AT WASHINGTON, D. C. FOR THE UNITED STATES NAVY BY THE U. S. COAST AND GEODETIC SURVEY UNDER AUTHORITY OF THE SECRETARY OF COMMERCE

EL PASO MUNICIPAL WIND ROSE



DESCRIPTION

Located on Rio Grande. Nearest town is Hot Springs, New Mexico, four miles SW of dam.

AIRCRAFT SERVICE FACILITIES

None at dam. Fuel may be obtained from El Paso, Texas, 100 miles south by road.

ACCESSIBILITY

A paved road from Hot Springs to within three miles of west side of dam, and a gravel road the remainder of the distance.

DOCKS AND BOATS

Reclamation project has a power launch. Power boats for lease.

BEACHES

There is a sand beach on the west side

OBSTRUCTIONS

There is a high tension line SE from the dam which is difficult to see but not very high.

SURROUNDING TERRAIN

A gradual slope for about ten miles to the west. The south and east shores rise abruptly to 500 or 800 feet. Good approach from south and southwest.

COMMUNICATION

Telephone at dam and hotel.

ACCOMMODATIONS

Nine room hotel.

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6744** WIRE DRAG

Records accompanying survey:

Boat sheets ^{two} ; sounding vols. (1) ; wire drag vols. (2) ;
bomb vols. ; graphic recorder rolls ;
special reports, etc.
.

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	337
Number of positions checked	34
Number of positions revised	0
Number of soundings recorded	19
Number of soundings revised (refers to depth only)	0
Number of soundings erroneously spaced	1
Number of signals erroneously plotted or transferred	1
Topographic details	Time 1
Junctions	Time 1
Verification of soundings from graphic record	Time 1

Verification by *S. Stull page* Total time 13 hrs Date 9/8/42

Review by *S. Stull page* Time 4 hrs Date 9/18/42

Remarks

Decisions

	Remarks	Decisions
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GEOGRAPHIC NAMES

Survey No. **H6744**

WIRE DRAG

Name on Survey

Name on Survey	A, On Chart No.	B, On previous survey No.	C, On U. S. quadrangle Maps	D, From local information	E, On local Maps	F, P. O. Guide or Map	G, Rand McNally Atlas	H, U. S. Light List	K
Elephant Butte Reservoir									1
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MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOGRAPHIC~~

No. H **H6744**
~~XXXX~~ WIRE DRAG

{ received **August 31, 1942**
 registered **September 2, 1942**
 verified
 reviewed
 approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
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RETURN TO

82	R. W. Knox
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✓ RWK