

4224

C. & G. SURVEY
L. & A.
NOV 18 1922
Acc. No.

Diag. Ct. No. 5101-2

4224

Form 504
 DEPARTMENT OF COMMERCE
 U. S. COAST AND GEODETIC SURVEY

State: *California*

LI-5813

DESCRIPTIVE REPORT.

Hydro Sheet No. 4224

LOCALITY:

San Pedro -

San Pedro to

Santa Catalina I.

1922

CHIEF OF PARTY:

R. D. Lukens

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET NO.

Cable Survey Between Catalina Island and San Pedro.

STR. PIONEER, R. R. LUKENS, COMNDG.

NOV. 2 and 3, 1922

GENERAL REMARKS

This work was done in compliance with instructions dated October 10, 1922, for the purpose of obtaining necessary information for the laying of a submarine cable between Catalina Island and the mainland. Two sounding lines, as called for in the instructions, were run between Catalina Island and San Pedro, two days being consumed in the execution of this work.

Mr. H. W. Hitchcock of the Engineering Department of the Pacific Telephone and Telegraph Co. was present during the work and was furnished with a tracing of the accompanying sheet, together with several specimens of the bottom.

CHARACTER OF BOTTOM

Thruout, the bottom consisted of slate colored mud, hard in mid-channel and softening a little toward each shore. About five miles south of Point Fermin Lighthouse a comparatively shoal area was encountered on which specimens of sand mixed with mud were obtained.

SURVEY METHODS

Control was established without difficulty, three peaks on Catalina Island being available; and several prominent objects on the mainland. Fog was encountered on the first morning which delayed the work for a few hours.

Soundings were taken with the electric sounding machine installed on the bridge of this vessel. The snapper type of specimen cup was used to obtain samples of the bottom.

MISCELLANEOUS

The work on A Day was done in a stiff westerly wind, which increased toward the end of the day and caused the line to bend considerably at position 27A. The same wind was encountered on B Day but of less violence.

R. R. Lukens
R. R. Lukens
H. & C. Engineer
Commanding Str. PIONEER

S T A T I S T I C S

To Accompany Sheet No. _____

Catalina Island to San Pedro.

Date	Letter	Positions	Soundings	St. Miles
Nov. 2, 1922	A	32	32	17
Nov. 3, 1922	B	19	19	20
TOTALS		51	51	37

Report on Verification & Inking Hyd. Sheet 42.24

1. The protracting and plotting were very good.

2. No work had to be done over by the office draftsman.

Frank M. Albert,
Draftsman, Sec. of Field Records

Jan: 11, 1923

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

3
M. Hamner

Dec. 29, 1922.

Division of Hydrography and Topography: H

Division of Charts:

On account of the depth of soundings, which are usually greater than 100 fathoms, and the mean range of tide being less than one per cent of the depths, no reduction was considered necessary in one volume of sounding records for

HYDROGRAPHIC SHEET 4224

Catalina Island to San Pedro, Southern California.
R.R. Lukens in 1922.

Condition of records, satisfactory.

Hamner
Acty. Chief, Division of Tides
and Currents.

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U. S. COAST AND GEODETIC SURVEY

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U. S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4224.

Surveyed in 1922.

Instructions dated Oct. 10^{4/8}, 1922.

Chief of Party, R.R. Lukens.

Surveyed by party of Str. Pioneer.

Protracted and soundings plotted by H. E. MacEwen.

Verified and inked by F. M. Albert.

1. The records, as well as the plan and character of the development fulfill the requirements of the General Instructions.
2. The plan and extent of the development satisfy the specific instructions.
3. The work that is usually plotted in the field was done by office draftsmen.
4. Practically all of this survey covers an area that has never been surveyed, hence no comparison with adjacent sheets can be made.
5. No soundings of less than 103 fathoms were obtained, but the shoaling revealed in the center of San Pedro Channel should be investigated as this survey does not define either its extent nor minimum depth.
6. The character of the surveying is excellent and its scope complies with the specific instructions.
7. Reviewed by E. P. Ellis, January, 1923.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4224

State California

General locality . . San Pedro

Locality San Pedro to ^{Santa} Catalina Island

Chief of party . . . R. R. Lukens

Surveyed by R. R. Lukens

Date of survey . . . Nov. 2, 1922

Scale 1.:40,000

Soundings in Fathoms

Plane of reference No reductions made

Protracted by RRL, KTA . . Soundings in pencil by J.A.B. . .

Inked by Verified by

Records accompanying sheet (check those forwarded):

/ Des. report, _____ Tide books, _____ Marigrams, 1 Boat sheets,

1 Sounding books, _____ Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Remarks: This work done in compliance with orders dated October 10, 1922, to supply information required in the laying of a submarine cable between San Pedro and Catalina Island.