

5416

U. S. COAST & GEODETIC SURVEY
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Form 501
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT
Aero-
Topographic } Sheet No. 5416
~~Hydrographic~~

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
JUN 12 1935
Acc. No. _____

State CALIFORNIA

LOCALITY
GULF OF SANTA CATALINA
~~SOUTHERN CALIFORNIA~~

San Clemente
~~to~~
San Juan Creek

1934

CHIEF OF PARTY
Robert W. Knox H. & G. Engr.

U. S. GOVERNMENT PRINTING OFFICE: 1934

5416

Applied to Chart 5101 - May 11, 1936 - L.M.Z

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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

Field Letter

REGISTER NO. 5416

5416

State CALIFORNIAGeneral locality SOUTHERN CALIFORNIALocality San Clemente to San Juan Creek
photographs January 17, 1934Scale 1:10,000 Date of survey, 19Vessel Launch and Shore Party, California, Project No. 102Chief of Party Robert W. Knox, H. & G. EngineerSurveyed by see data sheet of descriptive reportInked by J.C. Mathisson

Heights in feet above to ground to tops of trees

Contour Approximate contour Form line interval feet

Instructions dated April 14, 1932 & August 6, 1934

Remarks: Compiled from aerial photographs at a scale of
1:10,500 for reproduction by the photo-lithographic
process at a scale of 1:10,000.

DATA SHEET

NO. T-5416

PORTION OF WORK	DONE BY	DATE COMPLETED
PROJECTION PLOTTED	<i>W.J.M.</i> W.J. Mignola	October 16, 1934
PROJECTION CHECKED	<i>D.L.A.</i> D.L. Ackland	October 16, 1934
CONTROL PLOTTED	<i>D.L.T.</i> D.L. Thompson	October 24, 1934
CONTROL CHECKED	<i>J.C.M.</i> J.C. Mathisson	October 24, 1934
RADIAL LINE PLOT	<i>J.C.M.</i> J.C. Mathisson	November 8, 1934
RADIAL PLOT CHECKED	<i>D.L.A.</i> D.L. Ackland	November 10, 1934
COMPILED AND INKED	<i>J.C.M.</i> J.C. Mathisson	November 23, 1934
TOPO. TRANSFERRED	<i>D.L.T.</i> D.L. Thompson	December 18, 1934
TOPO. CHECKED	<i>W.J.M.</i> W.J. Mignola	December 20, 1934

AREA OF SHEET: 16.76 square statute miles

LENGTH OF SHORELINE: 7.6 statute miles

LENGTH OF RIVERS AND SLOUGHS: none.

DESCRIPTIVE REPORT

To Accompany

PHOTO-TOPOGRAPHIC SHEET, REGISTER NO. 5416

SAN CLEMENTE TO SAN JUAN CREEK

CALIFORNIA

1934

ROBERT W. KNOX, CHIEF OF PARTY

Scale 1:10,500

PROJECT INFORMATION

For information which applies to the entire project see descriptive report accompanying Register No. 5410. *The general report filed under T 5410 is a very detailed report of the entire project, description of the area, control used, adjustments of the plot, changes since the previous surveys etc.*

DESCRIPTION OF THE AREA
This sheet covers that section of the coast from San Clemente, just north of the San Diego-Orange county line, to San Juan Creek.

Bluffs varying in height from 80 to 120 feet line the shore from the southern end of the sheet to the mouth of San Juan Creek.

Back of these bluffs the ground slopes upward, gently at first, then increasing gradually until the grade is very steep near the east edge of the sheet.

The drainage crosses this slope in narrow canyons with steep, deeply eroded sides. Only two of

these dry streams are of sufficient importance to have a recorded name: Prima Deshecha Canyon and Segunda Deshecha Canyon.

The mouths of both these canyons are normally completely closed by a sand bar.

The mouth of San Juan creek is quite wide; but normally the stream is nothing more than a dry bed. The sand bar across the mouth is variable; at times it is almost closed during the dry season; and during periods of much rainfall it has an opening of considerable width.

There is an extensive area of willow brush in the bed of San Juan creek near the mouth.

The city of San Clemente extends from the southern end of this sheet to the east boundary of Doheny Palisades.

San Clemente is a resort town made up of very attractive homes in the spanish style. There is no industry outside of the stores required to meet the needs of the residents.

A subdivision, Doheny palisades, is on the bench back of the high bluffs east of the mouth of San Juan creek. It is a layout of well-paved streets and boulevards; but there is little or no actual use being made of the tract. Not more than a dozen homes have

been erected, and most of the buildings now standing were built as tract offices and show places during the promotion of the subdivision.

Just west of this tract, and at the foot of the bluffs, is the small settlement designated on this compilation as Serra. This is a group of buildings clustered at the railway tracks and the state highway. There is a school and a postoffice, both of which have been shown on this sheet, as have those at San Clemente.

In both San Clemente and Doheny Palisades streets have been graded and paved far beyond the needs of the present population.

At the southern edge of this sheet the land reaches an elevation of about 800 feet at a distance of one and one-half miles back from the shore-line. This elevation falls gradually toward the north, until, at the northwest boundary of Doheny Palisades, the elevation of the top of the bench is about 500 feet at a distance of one mile inshore.

The valley of San Juan creek is about half a mile wide at the mouth.

The tracks of the Atchison, Topeka and Santa Fe Railway follow the high water line very closely from the southern end of the sheet to the mouth of San Juan creek, at which point the right of way turns up San Juan Valley.

There is a passing track, station, and spurs at San Clemente and also at Serra.

The state highway (U.S.Highway No. 101) between San Diego and Los Angeles divides at the mouth of San Juan Creek. U.S.Highway No. 101 turns up San Juan Valley to San Juan Capistrano and Santa Ana on its way to Los Angeles. The other branch, designated as State Highway No. 3, follows the coast through Laguna Beach to Los Angeles.

There is but little cultivation on this sheet south of San Juan Creek. In San Juan Valley there is some truck farming and there are a few citrus groves.

BRIDGES

The only bridges on this sheet are railway and highway bridges built across the beds of normally dry canyons; no allowance being made for navigation.

GENERAL INFORMATION

This sheet is covered by photographs Nos. 288 to 305 inclusive. These were secured January 17, 1934 between the hours of 10:54 and 11:02 A.M.

For further information in regard to aerial photographs see descriptive report accompanying Register No. 5410.

CONTROL

The control used on this sheet was plotted from unadjusted field computations of the triangulation survey of Charles Pierce in 1933.

This triangulation was executed in two parts, one run south from Newport Beach and the other run north from the vicinity of San Diego. There was a discrepancy of several meters where these two parts joined. This was compensated by a proportional adjustment made by the compilation party.

For further information regarding this adjustment see descriptive report accompanying Register No. 5410. *Pages 10 and 13.*

A table giving the positions used in plotting control, showing the DMS and DPs corrected for the scale of the compilation (1:10,500), is appended to this report.

But in station designated "Highest Black Stack, Serra" by Charles Pierce is actually the Highest Black Tank and has been so designated here. *This has been called to attention of Mr. Sutcliffe.*
B.G.J.

Note: The value of 10 meters given on the opposite page is too low for the mountain areas. In these areas nothing is shown but stream lines and these check exceptionally well with the earlier 1:10 000 scale contour maps. The compilation is well controlled and has been carefully compiled but in the mountain areas changes in scale on the photographs are so frequent and erratic that a better estimate of the accuracy of location for these stream lines is 5 to 10 meters for intersected points and 5 to 20 meters for the detail adjusted between these points.

B.G. Jones

Triangulation stations CROSS, San Clemente, and DERRICK, south of San Juan Capistrano, have been destroyed since the date of the photographs; their *See Review* positions have been used in this compilation for the radial plot, but they have not been shown on this sheet. They have been covered by a recovery note, Form 527, submitted at an earlier date.

COMPILATION

The intermittent drainage shown on this sheet represents the bottoms of the main system of dry canyons with the most important tributaries. Most of the smaller feeders have been left off of the sheet. The accuracy of this representation is within ten meters of the true locations on the wing prints in areas of relief; and within the plottable error in the area of the 'B' prints. *See opposite page*

It was found impossible to delineate that portion of the drainage lying north of triangulation station CLEMENTE. The bottoms lie in an east and west direction and the area is so steep that the ridges are thrown over the bottoms obliterating them.

No other difficulties were encountered on this sheet.

INTERPRETATION OF PHOTOGRAPHS

The photographs were, with the exceptions noted

above, clear enough in detail to enable the compiler to delineate the information required.

GEOGRAPHIC NAMES

San Juan creek is designated as San Juan River on Register No. 1645, dated 1885. It is called San Juan canyon on Charts Nos. 5101 and 5102. *See Review*

The maps of the state highway department, as well as the U.S. Geological Survey quadrangle, designate this feature as San Juan Creek. This is the name which has been retained on this compilation, since there is no large body of water back of the shore line, as is the case at the mouths of the Santa Margarita, San Luis Rey, and San Dieguito rivers farther to the south; and since the name San Juan creek seems to be that in most common use.

It is believed that the term San Juan canyon as used on Charts Nos. 5101 and 5102, is applicable only to the upper reaches of this drainage; but should not be applied to a dry stream bed where the width between banks is at least one half a mile.

There is considerable divergence of opinion with regard to the name of the settlement at the mouth of San Juan creek.

The oldest authority is Register No. 1645, dated 1885. On this sheet the town is named San Juan

By-The-Sea; but Register 1645 A, dated 1914, carries the note: "The entire town of San Juan By-The-Sea should be omitted as it has been abandoned."

U.S. Geological Survey quadrangle, dated 1899 and reprinted in 1921, designated this locality as San Juan.

The railway maps of the Atchison, Topeka, and Santa Fe Railway, supplied by the Chief Engineer of that company, term the station at this point Serra; and designate the school district as the Serra School District.

There is a postoffice at this point; it is listed in the official list of postoffices as Doheny Park (note spelling).

The triangulation party of Charles Pierce in 1933 designated a station here as "HIGHEST BLACK STACK, SERRA". The name of this station has been corrected to read: "HIGHEST BLACK TANK, Serra" (see p.5 this report.)

The descriptions of benchmarks compiled by the releveing party of G.R. Fish in 1932-33 refer in several instances to Serra. Especially to be noted is the location of bench marks X 1906 and V 130 1933: 0.7 miles along the Atchison, Topeka and Santa Fe Ry, north from Serra, and at Serra respectively.

However, in the releveing descriptions of benchmarks to the north and west mileages are referred

back to Doheny Park.

Doheny Palisades is the name given to the subdivision at the top of the bluffs. (See note above p.2 of this report).

Triangulation station DOHENY (note spelling) is located at this point;

Since Doheny Park seems to have been an attempt to put a speculative subdivision 'on the map' and since there is no other real authority for this name it has been ignored. The town has, therefore, been designated as Serra on this compilation. *The Postal Guide lists the Post Office as Doheny Park*

BENCHMARKS

Benchmarks relocated by the releveing party of G.R.Fish in 1932-33, as well as the older benchmarks where known, have been located on this sheet.

These were located in the field by the compilation party; identified on photographs; and intersected on this sheet.

They are believed to have been located with a probable error of less than two meters where they lie on or near the line of flight of the photographs.

On this sheet the only exception to this is Benchmark X 1906 which is found in San Juan creek bed some distance from the azimuth of the photographs. It

* The elevations of rocks on the compilation ^{were} ~~are~~ all higher than shown on T-4894 from which they were transferred. See review at back.

was difficult to identify this point on enough wing prints to assure accuracy in location on this sheet. It is believed, however, to have been located with a probable error of less than 4 meters in position.

For further information regarding the location of benchmarks see descriptive report accompanying sheet Register No. 5410.

A list of benchmarks appearing on this sheet is appended to this report. This list is in two parts. One gives the description revised in the light of further information obtained by the compilation party and the other gives the geographic positions as scaled from the sheet. *Descriptions of these bench marks have been written in this office from the information in this report and filed on form 524*
LANDMARKS under T 5416.

A list of landmarks is being submitted on Form 567. For further information regarding landmarks see descriptive report accompanying sheet Register, No. 5410.

INFORMATION FROM OTHER SOURCES

The height of the bluffs obscured the shore line in many places. The high and low water lines and all offshore obstructions were, therefore, transferred

from Topographic Sheet, Field Letter W, 1934. T-4894

For a comparison of the coast line and all offshore detail with previous surveys see descriptive report accompanying Topographic Sheet, Field Letter W, 1934. T-4894 *and the review of the back of this report.*

Alignment of the tracks and location of all stations, passing tracks, and spurs was determined by combined use of Topographic Sheet "W" and the railway right of way maps furnished by the Chief Engineer, Atchison, Topeka and Santa Fe Ry. Due to the fact that the tracks follow the toe of the bluffs for the entire distance between the south edge of this sheet and the northwest limits of San Clemente it was impossible to see the tracks on some photographs.

Names of streets were secured from a map of San Clemente, verified by field inspection. Names of streets in other settlements were secured partly by field inspection and partly from railway and highway maps.

RECOMMENDATION FOR FURTHER SURVEYS

This compilation is believed to have an error of less than two meters in positions of well defined detail of importance for charting purposes and an error of less

than 4 meters for all other data.

The drainage to the extreme east edge of the sheet may show an error slightly greater due to difficulties caused by rapid changes in scale. (See above p. 6 this report.) *See statement opposite page 6 regarding accuracy of location of drainage. A better estimate of the accuracy of location of the remainder of the detail is 2 to 5 meters for intersected points and 2 to 8 meters for other*
ERRORS TO BE NOTED *detail. B.G. Jones*

Minor differences are to be noted in the delineation of the state highway through San Clemente ✓
on this sheet and on Topographic Sheet Field Letter W.

These differences are in the curves as the tangents are checked by photo-compilation. The highway ✓
as shown on this sheet is taken from the photographs.

The curves of highway and railway just north of latitude 33 - 27; and at the junction of the Capistrano Road at Serra showed a discrepancy between the delineation from photographs and the delineation on the Topographic sheet. The compilation of this sheet follows the photographs at this point. ✓

LETTERING

All lettering required for the completion of this sheet is shown in ink on the cover sheet.

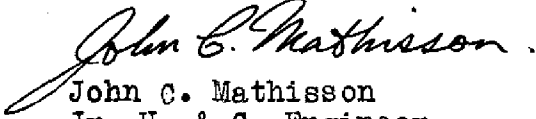
Some short streets in San Clemente are not named on the cover sheet. Information as to these

names was not available to the compilation party.

The position of San Clemente Beach State Park has been indicated on the cover sheet; but no information of a definite enough nature was available to warrant delineation of boundaries for this park.

The position and spelling of all geographic names have been checked and are believed to be correct.

Respectfully submitted;


John C. Mathisson
Jr. H. & G. Engineer
Compiler

REVIEW OF AIR PHOTO COMPILATION NO. T-5416

Chief of Party: R.W.Knox, H. & G. Engr. Compiled by: J.C.Mathisson

Project: 102

Instructions dated: Aug. 6, 1934

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64)
2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)
3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)
4. ~~These prints are not to be used for any other purpose than for the compilation of charts and for the purpose of showing the position of the coast line and the position of the lights and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)~~
5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c,h,i)
7. ~~High water line on marshy and low lying coast line, and the position of the lights and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

8. The representation of low water lines, reefs, ~~under rocks~~ and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)
9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
Also bench marks have been located. See descriptive Report for list of Geographic Positions.
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 18, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)
11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)
No bridges on this sheet over navigable streams.
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
13. The geographic datum of the compilation is N.A. 1927 and the reference station is correctly noted. (Field comp. field adj.)
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
15. The drafting is satisfactory and particular attention has been given the following:
 1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.
 2. The degrees and minutes of Latitude and Longitude are correctly marked.

3. All station points are exactly marked by fine black dots.
4. Closely spaced lines are drawn sharp and clear for printing.
5. Topographic symbols for similar features are of uniform weight.
6. All drawing has been retouched where partially rubbed off.
7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examined and approved;

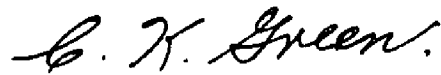
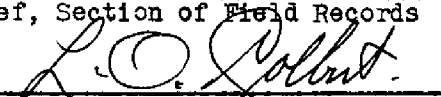

Robert W. Knox, H. & G.E.
Chief of Party

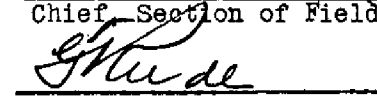
19. Remarks after review in office:

See also review of the book.

Reviewed in office by: *Joseph L. Green* *V.B.G. Jones*

Examined and approved:


E. H. Green.
Chief, Section of Field Records

L. O. Lobnitz.
Chief, Division of Charts


F. S. Borden
Chief, Section of Field Work

G. H. de
Chief, Division of Hydrography
and Topography.

TRIANGULATION STATION	POSITION	SECONDS	IN METERS	PLOTTING DISTANCE (Scale 1:10,500)	
		+	-	+	-
GREEN RIDGE, 1884	33° 25'	1133.9	(714.6)	1079.9	(680.6)
	117° 36'	238.9	(1311.1)	227.5	(1248.7)
CLEMENTE, 1933	33° 25'	1616.6	(231.9)	1539.6	(220.9)
	117° 35'	1248.7	(301.2)	1189.2	(286.8)
SEGUNDA, 1933	33° 25'	1451.8	(396.7)	1382.7	(377.8)
	117° 37'	1135.9	(414.3)	1081.8	(394.6)
PRIMA, 1933	33° 26'	1194.7	(653.8)	1137.8	(622.7)
	117° 38'	1324.0	(225.7)	1261.0	(215.0)
FORSTER, 1884	33° 27'	1838.9	(9.6)	1751.3	(9.1)
	117° 38'	1404.5	(144.8)	1337.6	(137.9)
DOHENY, 1933	33° 27'	1101.3	(747.2)	1048.9	(711.6)
	117° 40'	540.1	(1009.3)	514.4	(961.2)
WIDOW'S HILL, 1884	33° 28'	621.8	(1226.7)	592.2	(1168.3)
	117° 39'	1478.1	(71.1)	1407.7	(67.7)
SAN MATEO RK., (center) 1933	33° 24'	531.7	(1316.8)	506.4	(1254.1)
	117° 36'	1527.1	(23.4)	1454.4	(22.3)
LIGHT POLE, NORTH ONE					
ON END OF SAN CLEMENTE PIER, 1933	33° 25'	147.1	(1701.4)	140.1	(1620.4)
	117° 37'	523.6	(1026.6)	498.7	(977.7)
TOWER ATOP SAN CLEMENTE HOTEL, 1933	33° 25'	1166.4	(682.1)	1110.9	(649.6)
	117° 36'	1189.0	(361.0)	1132.4	(343.8)
CHIMNEY, LONE WHITE HOUSE, BACK OF SAN CLEMENTE, 1933	33° 26'	65.2	(1783.3)	62.1	(1698.4)
	117° 36'	959.0	(590.9)	913.3	(562.8)
CENTER LIGHT POLE ON END OF DOHENY PIER, 1933	33° 27'	361.0	(1487.5)	343.8	(1416.7)
	117° 40'	389.9	(1159.6)	371.3	(1104.4)
WINDVANE ATOP PLUNGE BLDG. NEAR DOHENY PIER, 1933	33° 27'	500.8	(1347.7)	477.0	(1283.5)
	117° 39'	1528.3	(21.2)	1455.5	(20.2)
RESERVOIR FINIAL, JUST BELOW STA. FORSTER, DOHENY PALISADES, 1933	33° 27'	1511.5	(337.0)	1439.5	(321.0)
	117° 39'	390.7	(1158.4)	372.1	(1103.2)

TRIANGULATION STATION POSITION SECONDS IN METERS PLOTTING DISTANCE (Scale 1:10,500)

● FLAG POLE, JUST NORTH ● OF STA. DOHENY,	33° 27'	1254.2	(594.3)	1194.5	(566.0)
DOHENY PALISADES, 1933	117° 40'	607.7	(941.7)	578.8	(896.9)
TOWER, DANA VILLA AUTO	33° 27'	1642.1	(206.4)	1563.9	(196.6)
CAMP, DANA POINT, 1933	117° 41'	304.9	(124.4)	290.4	(1185.1)
RICHFIELD TOWER, DANA	33° 27'	1607.6	(240.9)	1531.0	(229.4)
PT., 1933	117° 41'	66.2	(1483.1)	63.0	(1412.4)
HIGHEST BLACK STACK (TANK)	33° 28'	54.1	(1794.4)	51.5	(1709.0)
EAST DANA PT. 1933	117° 40'	1163.3	(386.0)	1107.9	(367.6)
WATER TANK, HILL SOUTH OF	33° 29'	574.6	(1273.9)	547.2	(1213.2)
SAN JUAN CAPISTRANO, 1933	117° 39'	758.7	(790.2)	722.6	(752.6)
CUPOLA, RED ROOFER HOUSE,	33° 24'	717.3	(1131.2)	683.1	(1077.3)
EAST MATEO PT., 1933	117° 36'	540.5	(1009.9)	514.9	(961.8)

TRIANGULATION STATIONS DESTROYED
(positions used but not shown on sheet)
(see note p. 6 this report)

OIL DERRICK & CENTERBOARD, NORTHWEST STA. WIDOW'S HILL, 1933

WHITE CROSS, BACK OF SAN CLEMENTE, 1933

BENCH MARKS

No. T-5416

- X 1906 About 0.7 miles north along the Atchison, Topeka and Santa Fe R.R. from Serra, opposite the second pole southwest of milepost 199, at the foot of a hill, and at a fence corner. A standard cap stamped X 1906 and fastened in the top of a 3½" iron pipe. (12.560 meters or 41.207 feet).
- V 130 1933 At Serra, about 0.3 miles south of the Atchison, Topeka and Santa Fe R.R. station, at mileage 200.2, at the south one of two highway underpasses of bridge 201 Ba, and in the top of the southwest corner of the concrete abutment. A standard disk stamped V130 1933. (7.376 meters or 24.199 feet). ✓
- W 130 1933 About 2.2 miles southeast along the Atchison, Topeka and Santa Fe R.R. from the station at Serra, about 700 feet southeast of milepost 202, at culvert 203 C, between U.S. Highway 101 and the track, and in the center of the top of the north concrete headwall. A standard disk stamped W 130 1933. (5.050 meters or 16.568 feet).
- X 130 1933 At San Clemente, about 105 feet southeast of the Atchison, Topeka and Santa Fe station, and 48 feet north of the center line of the main track, about 3.75 meters south of telephone pole #020530T. A standard disk set in the top of a concrete post and stamped X 130 1933. (5.980 meters or 19.619 feet). ✓
- Y 130 1933 About 1.4 miles southeast along the Atchison, Topeka and Santa Fe R.R. from San Clemente, about 550 feet southeast of milepost 205, at culvert 206B, in the center of the top of the north abutment. A standard disk stamped Y 130 1933. (5.476 meters or 17.966 feet). ✓

BENCH MARKS

NO. T-5416

BENCHMARK	GEOGRAPHIC POSITION	SECONDS IN METERS			
Y 130 1933	33° 24' 117° 36'	+ 1756.8	-	(91.6)	✓
		+ 1469.3	-	(81.2)	
X 130 1933	33° 25' 117° 37'	+ 1568.4	-	(280.0)	✓
		+ 1271.7	-	(278.5)	
W 130 1932	33° 26' 117° 39'	+ 1474.7	-	(373.7)	✓
		+ 138.4	-	(1411.5)	
V 130 1932	33° 27' 117° 40'	+ 1431.5	-	(416.9)	✓
		+ 1158.8	-	(390.8)	
X 1906	33° 28' 117° 40'	+ 1249.2	-	(599.2)	
		+ 720.6	-	(828.7)	

Scaled from sheet by: J.C. Mathisson

Checked by: W.J. Mignola

*These Bench Marks are described
on Form 524.*

Chart No. 5/01-5/02

Date. 4-29-35

GEOGRAPHIC NAMES

Diagram No. _____

*, Approved by the Division of Geographic Names, Department of Interior.

⚠, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

[illegible]

Review of Photo Compilation T-5416 (1934)

Comparison with other surveys:

Chart 5102 is a very small scale and only general comparison can be made. There is one name confliction. San Juan Canyon appears as San Juan Creek on the compilation, this is discussed on page 6a of the descriptive report.

T-4894 (1934) 1:10,000, Whatman Graphic Control Sheet. See discussion bottom of page 9 of descriptive report regarding the transfer of detail. A comparison showed that the fence between San Juan Creek and Prima Deskecha Canada had not been transferred so it was added in the office. All detail is shown on the compilation except, ^{at west end of sheet} houses, temporary plane table positions and magnetic declination.

A group of four (4) rocks at Latitude 33°25.3'; Longitude 117°37.9' disagreed, the reason is explained at bottom of page 12 of the descriptive report T-4894. The positions of these rocks were replotted on the compilation in their correct location.

The following stations were described on Form 524 and were added to the compilation:

Jay	Lat. 33°25'	164 m.	Long. 117°37'	50 m.	
Sad	"	33°27'	805 m.	117°40'	122 m.
Use		33°27'	55 m.	117°39'	780 m.

(Plotted by Jos. Andrews, 3rd; Checked by B.G. Jones)

There were two triangulation stations not shown on the compilation, White Cross 1933, and Derrick 1933. Discussion top page 6 of report reveals these to have been destroyed so they were not carried forward. Recovery notes were submitted. It is noted that the elevations of rocks on the compilation are slightly higher than on the topographic or latest hydrographic surveys. No authority was found for this difference. As they all are in even feet it is supposed this was done to avoid fractional heights given on the plane table surveys. For the sake of uniformity and to avoid confusion the elevations on the compilation have been changed to agree exactly with the plane table survey T-1738 (1886) 1:10,000. The comparison is discussed on page 5 of the descriptive report of T-4894. In addition thereto it is noted that the rock described in report T-4894 as 130 meters west of the end of Doheny Pier is non-existent on T-1738. There is however a rock shown 190 meters east of Doheny Pier and this may have been confused or the pier may have been rebuilt in a new position. This discrepancy should be verified in the hydrographic review H-5603-4 (1934). This rock is shown on T 1738 as a sunken rock (+) and should be carried on the chart unless disproved by the 1934 Hydrographic Survey. With this exception the compilation is adequate to supersede this survey. T/1738.

*Considered
B.R. Nov. 1935*

T-1645 (1885) 1:10,000 shows several offlying rocks about the point at Lat. $33^{\circ}27.7'$; Long. $117^{\circ}41.7'$ not shown on the compilation but covered in development of H-5604, all other rocks fall in shoal areas or agree with positions shown on the compilation. In connection with this and T-1738 it is interesting to note the excellent agreement of the contours with the ridge, valley and drainage detail of the compilation which attests the accuracy of topography executed fifty years ago. *34*

H-1783 (1887) 1:10,000 and H-5603-4 (1934) 1:10,000 are in agreement. They do however show additional rocks not shown on the compilation. H-1783 shows the rock referred to above adjacent to Doheny Pier which will be investigated when H-5604 is reviewed.

Reference is made in connection with the control used for this compilation to the discussion on page 11, of the Descriptive Report of T-5410 and the conclusion stated therein on Page 13.

The compilation reflects neat and painstaking care by the Field Party, and justifies the accuracy stated.

Joseph Andrews ³⁴

B.G. Jones

*The compilation is adequate to infer
T 1645 except for contours.*