REPORT ON

BOULDER CREEK RESERVOIR SITE NO.5.

By

WILLIAM S. POST.

Feb. 17,1913.

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San Diego, Cal.

February 21, 1913.

James A. Murray and Ed. Fletcher,

San Diego, Cal.

Gentlemen:-

I enclose herewith, map of Boulder Creek Reservoir Site, No. 5, (See Report on Reservoirs, Map 004)

The grade of the stream here is rapid and canyon sides are narrow, hence the capacity is not large in proportion to height of dam. The dam site is in hard granitic rock; of a quality sufficient to support a concrete dam.

A few acres near the upper end, back into the lands of Wm. E. Woolliscroft.

The title to the remaining lands, according to the records, is all in the United States, but within the Cleveland National Forest. To acquire control of the land requires an application to U. S. Agricultural Department, who will issue a revocable permit. A nominal charge I believe, is made for rental of lands and in case power is developed, regular power charges are made. For purely irrigation and domestic use it may be possible to secure a permanent non-revocable easement, but as the situation obviously may later be used for power purposes, I doubt if such an application would pass the Department.

There is a possibility of mining claims interfering with the site, but as far as known, there are no valid claims.

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CAPACITY TABLE.

Height Dam	Capacity
0	0
10	5 Acre-feet.
20	21 "
30	51 "
40	98 "
50	166 "
60	268 "
70	387 "
80	558 "
90	772 "
100	1030 "
110	1342 "

The dam site selected is one-quarter of a mile above the junction of Boulder and Johnson Creeks. It is 450 feet long and 120 feet high. It is proposed to build of concrete, on the "multiple arch" type, being a series of arches with intervening buttresses.

The estimate is as follows:

Improving road to the old Kelley ranch ---------	$ 10,000.00
Stripping foundation and bye passing Boulder Creek water ----------	5,000.00
Concrete, 9,800 cu. yds at $8.00 ----------	78,400.00
Gates and outlet ----------	1,000.00
Spillway ----------	500.00
	$ 94,900.00
Engineering and contingencies - 15% ----------	14,300.00
Total ----------	$109,200.00

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Usefulness of Reservoir. As a storage reservoir it will hold only 1,340 acre feet; or one-seventh of Cuyamaca Lake. It will however act as a regulator on flood rushes, and it can be emptied and filled 3 or 4 times during the year, by discharging into the flume during the period between storms. From this stand-point, I believe it is equivalent to 3,000 acre feet more worked into the flume over and above the present diversion of about 4,000 acre feet. It will supply the 25% which the system is short at times to its listed consumers, say 200 Miner's Inches.

It should be rated as costing about $600 to $800 per Miner's Inches added to the system.

Boulder Creek - Conejos Diversion. This reservoir is below the point where a diversion into Conejos and the South Fork could be made; being at an elevation of about 2,000 feet, while the point of diversion should be 2,900 feet; in order to reach the Conejos Pass. This is well illustrated in the attached photograph, which was taken from the Boulder Creek site.

Even with this diversion it would gather considerable water, by including the watershed of Johnson Creek. The height of dam however, should be somewhat reduced.

William S. Post.

San Diego, Cal.
February 24, 1913.

4 | 3
9 | 10

PORT

ARTHUR

IRON SPRING

U.S.

U.S.

2699.2
S0°01'E

1/4 Cor

S48°33'W

Boulder Creek

S0°01'E 1801.5

3
10

1 Cor

U.S.

U.S.

RON SPRING

OMAHA

U.S.

U.S.

Boulder Creek

1970
1960
1980
1990

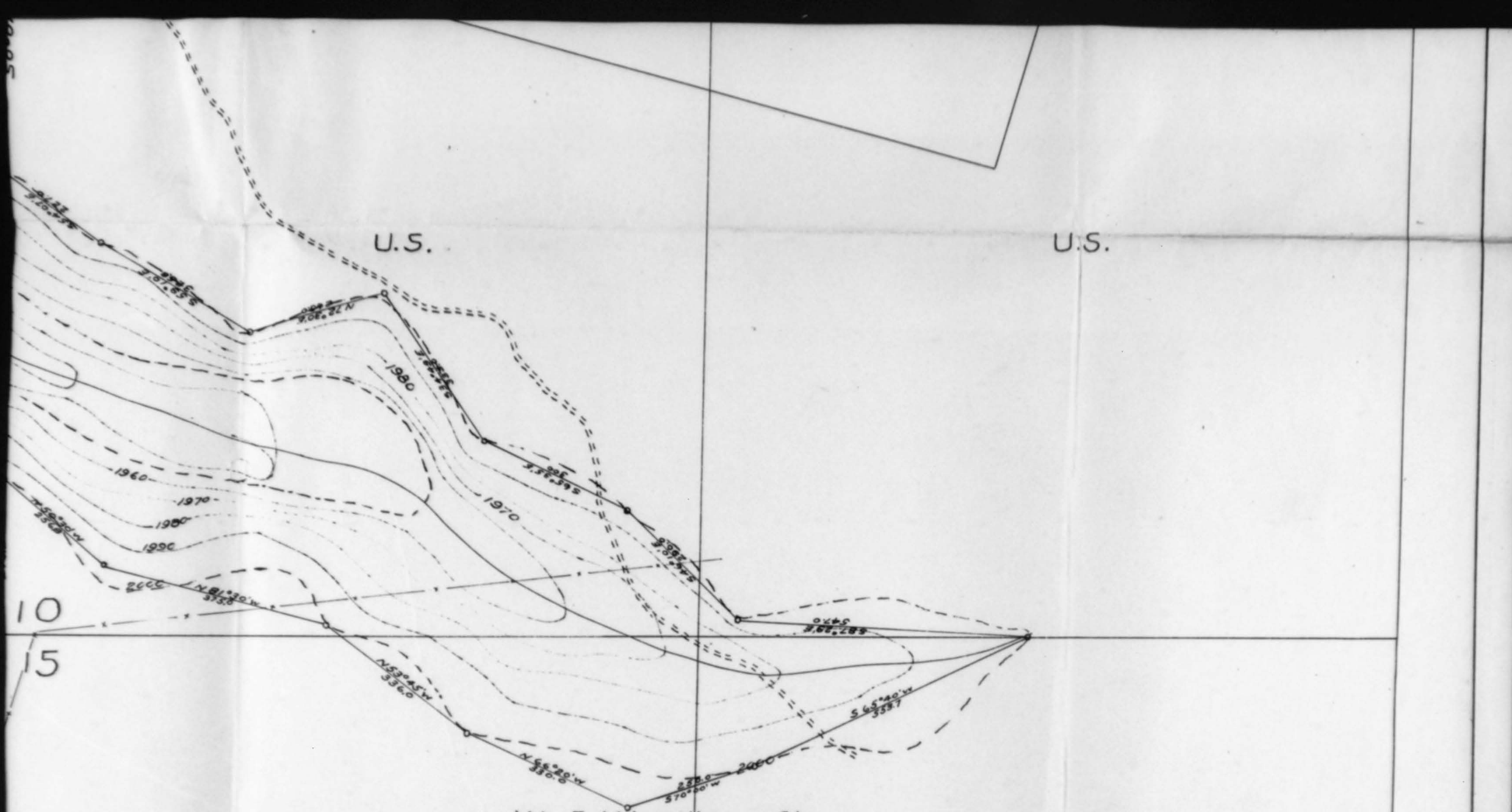
T.14S. R.3E.

9 10

16 15

U.S.

U.S.



Wm. E. Woolliscroft.

Elevation	Depth	A. flooded	Acre feet.
1880	0		
1890	10	5	5
1900	20	16	21
1910	30	30	51
1920	40	48	98
1930	50	67	166
1940	60	93	268
1950	70	129	387
1960	80	171	558
1970	90	213	772
1980	100	258	1030
1990	110	313	1342

C.W. Co.

Reservoir Site No 5

Boulder Creek.

Scale 1" = 200ft

Surveyed Feb 1913

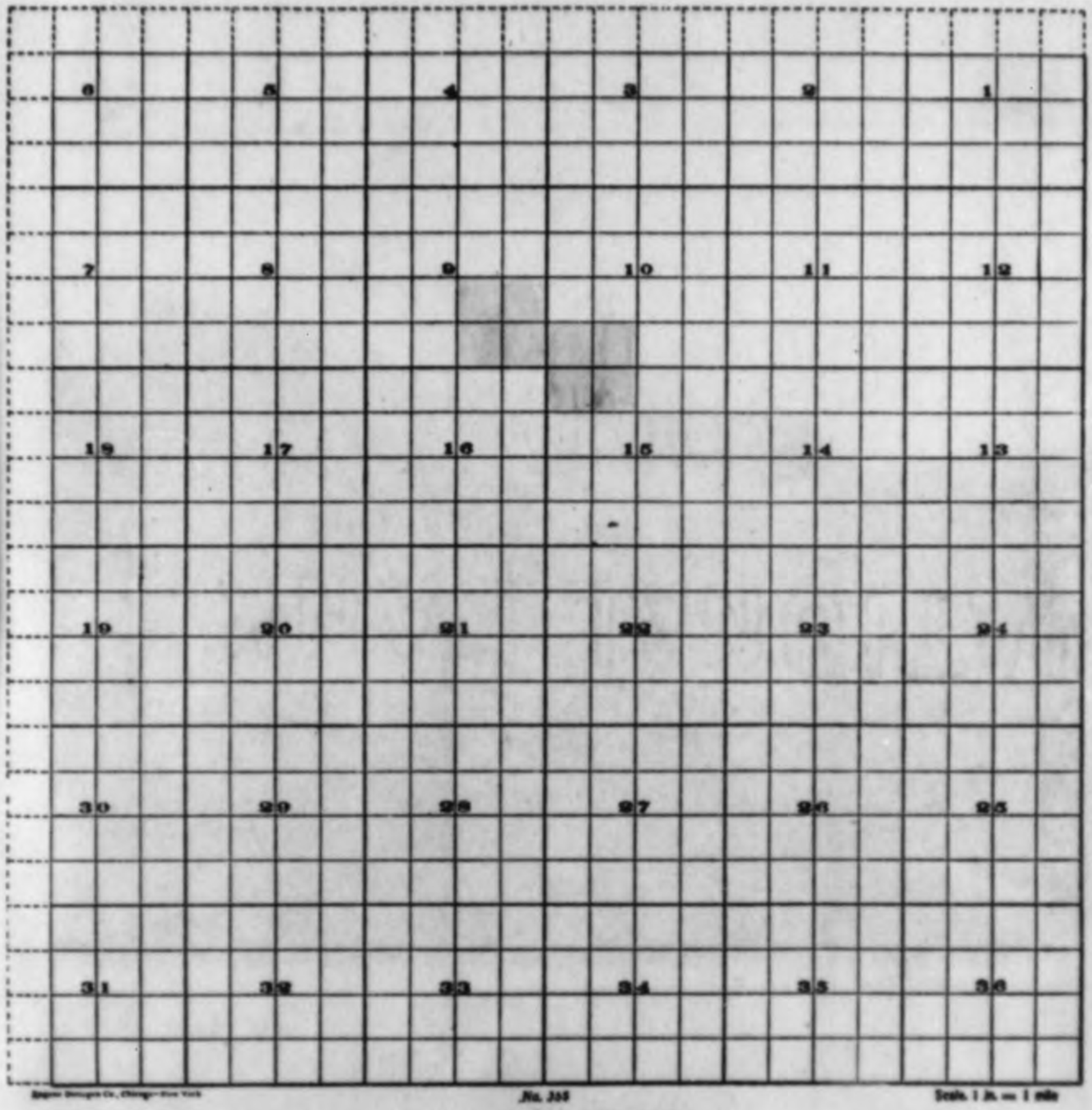
By W.S. POST.

Base Elevation Assumed.

K-2-21

San Diego County Calif

Sec's 9-10-15 Township No. 14 S. Range 3 E of S.B.M. Principal Meridian.



S.E. 1/4 Sec 9 — 160 Acres

S 1/2 of SW 1/4 Sec 10 — 80 Acres

N 1/2 of NW 1/4 Sec 15 — 80 Acres

320 Acres Total

All in T. 14 S. R 3 E

VIEW OF BOULDER CREEK RESERVOIR SITE, LOOKING FROM THE UPPER END TOWARD THE DAM SITE.

DISTANT VIEW OF THE PROPOSED

BOULDER CREEK-CONEJOS DIVERSION.

Ed Fletcher Papers

1870-1955

MSS.81

Box: 40 Folder: 14

Business Records - Reports - Post, W.S - "Report on Boulder Creek Reservoir Site No. 5"