



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

MEMORANDUM

DATE: July 20, 2017

SUBJECT: Morgan Lake Status

FROM: Gary Sheth

TO: Administrative Record for NPDES Permit NN0000019 and NPDES Permit NN0028193

**Background**

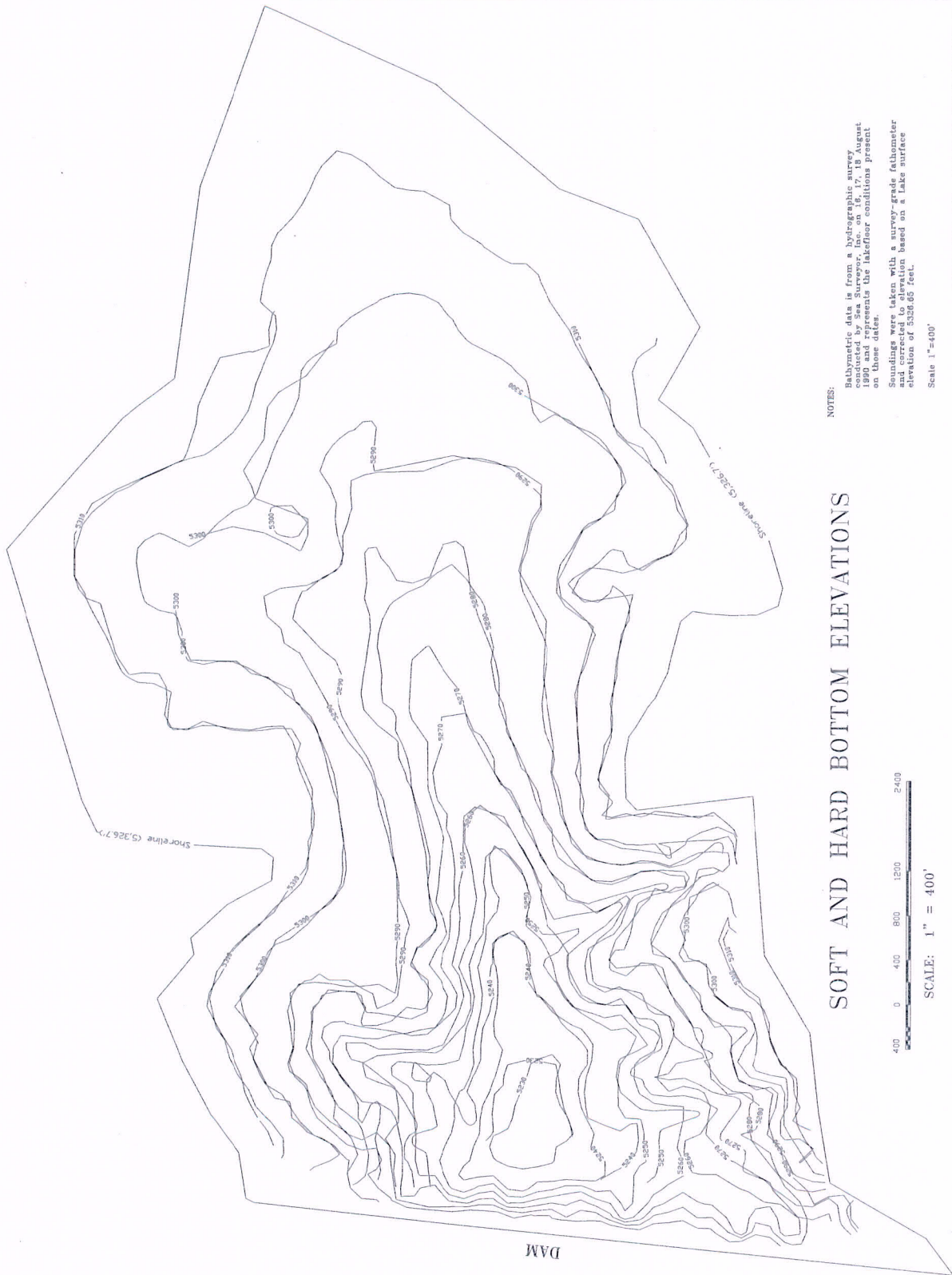
The current Arizona Public Service Company (APS) NPDES permit for the Four Corners Power Plant (NN0000019) permit and the current Navajo Transitional Energy Company (NTEC) NPDES permit for the Navajo Mine (NN0028193) expired in April 2006 and April 2013 respectively. With timely submittal of permit renewal applications both permits are currently administratively extended and draft permits were public noticed in December 2014 and August 2015 respectively. The final renewal permits are yet to be issued. Both facilities discharge into Morgan Lake, a cooling lake adjacent to the power plant and the mine. The current Power Plant permit imposes limits at the outfall from Morgan Lake, while the current Navajo Mine permit imposes limits an outfall into Morgan Lake. This has caused some confusion as to the status of Morgan Lake and whether it should be considered a Water of the United States.

**Review and Conclusion**

On or about March 17, 2017 in response to a request by EPA, APS provided several topographical maps of the area containing Morgan Lake and the downgradient zone extending to the Chaco Wash. APS also provided four photographs of the area that now contains Morgan Lake, which were taken during construction of the dam and the lake. Based on the topographic maps, as well as the photographs submitted it appears that Morgan Lake is a man-made water body constructed wholly in upland areas, and which did not impound any existing Water of the United States. Therefore, Morgan Lake should not be considered a Water of the United States.

WLD 1014 LAS-2  
Nr. 12420 153.01





SOFT AND HARD BOTTOM ELEVATIONS

NOTES:  
 Bathymetric data is from a hydrographic survey conducted by Sea Surveyor, Inc. on 16, 17, 18 August 1962. The data was corrected for tidal conditions present on those dates.  
 Soundings were taken with a survey-grade fathometer and corrected to elevation based on a Lake surface elevation of 5326.65 feet.  
 Scale 1"=400'

APS DWG. NO.: FC-C-17-PSC-100003-62  
 Sea Surveyor, Inc.  
 Precision Marine Surveying  
 for the Engineering Community  
 4576 East Second Street, Ste. C  
 Benicia, CA 94510 (707) 746-1853

LAKE MORGAN, NEW MEXICO  
 Four Corners Steam Electric Station

KEY:  
 --- Soft Bottom Contour Lines  
 --- Hard Bottom Contour Lines

Arizona Public Service Co.  
 Fruitland, New Mexico

**PWT**  
 PACIFIC WESTERN TECHNOLOGIES, LTD.  
 2000 N. CENTRAL AVENUE, SUITE 200  
 DENVER, COLORADO 80202  
 PHONE: (303) 733-1100  
 FAX: (303) 733-1101  
 WWW.PWT.COM

GENERAL NOTES:  
 THIS MAP WAS DERIVED FROM A 1:50,000 METRIC PHOTOGRAPHIC AERIAL RECONNAISSANCE 13.1396  
 THIS MAP COMPARES WITH MATERIAL  
 INTERVAL, MEASUREMENTS WITH RELATED TO THE  
 ORIGINAL CONTROL DATA UPON WHICH THE  
 CONTROL POINTS WERE ESTABLISHED BY ARIZONA PUBLIC  
 SERVICE COMPANY.

SCALE: 1"=500'  
 CONTAINING INTERVAL: 2 FEET

GENERAL NOTES:  
 THIS MAP WAS DERIVED FROM A 1:50,000 METRIC PHOTOGRAPHIC AERIAL RECONNAISSANCE 13.1396  
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ARIZONA PUBLIC SERVICE COMPANY  
 PORTLAND, NEW MEXICO

ASH POND/REPARATION POND AREAS  
 FOUR CORNERS STEAM ELECTRIC STATION

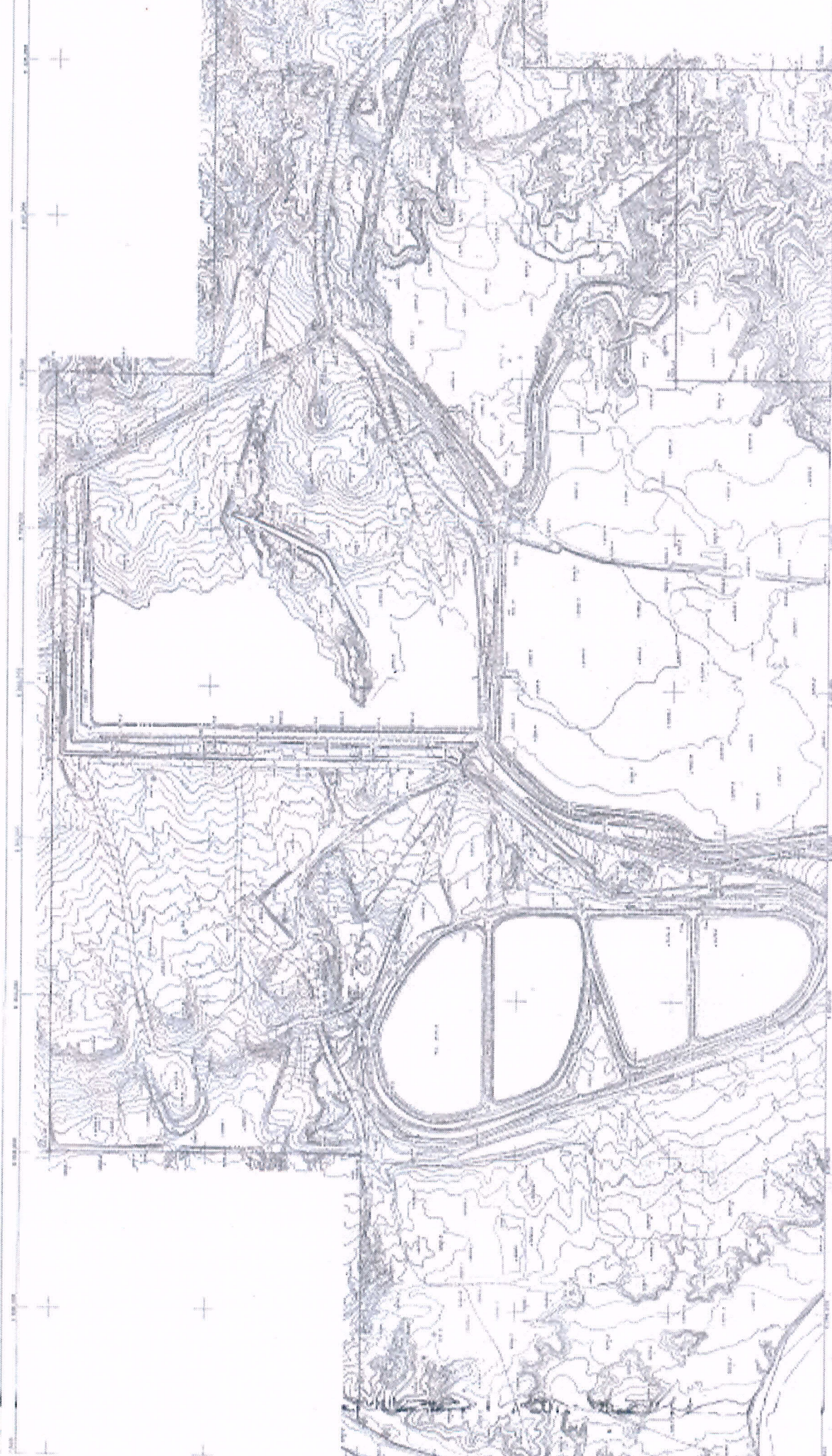
TOPOGRAPHIC MAP

SHEET INDEX

1	2	3	4
5	6	7	8

DATE	REVISION



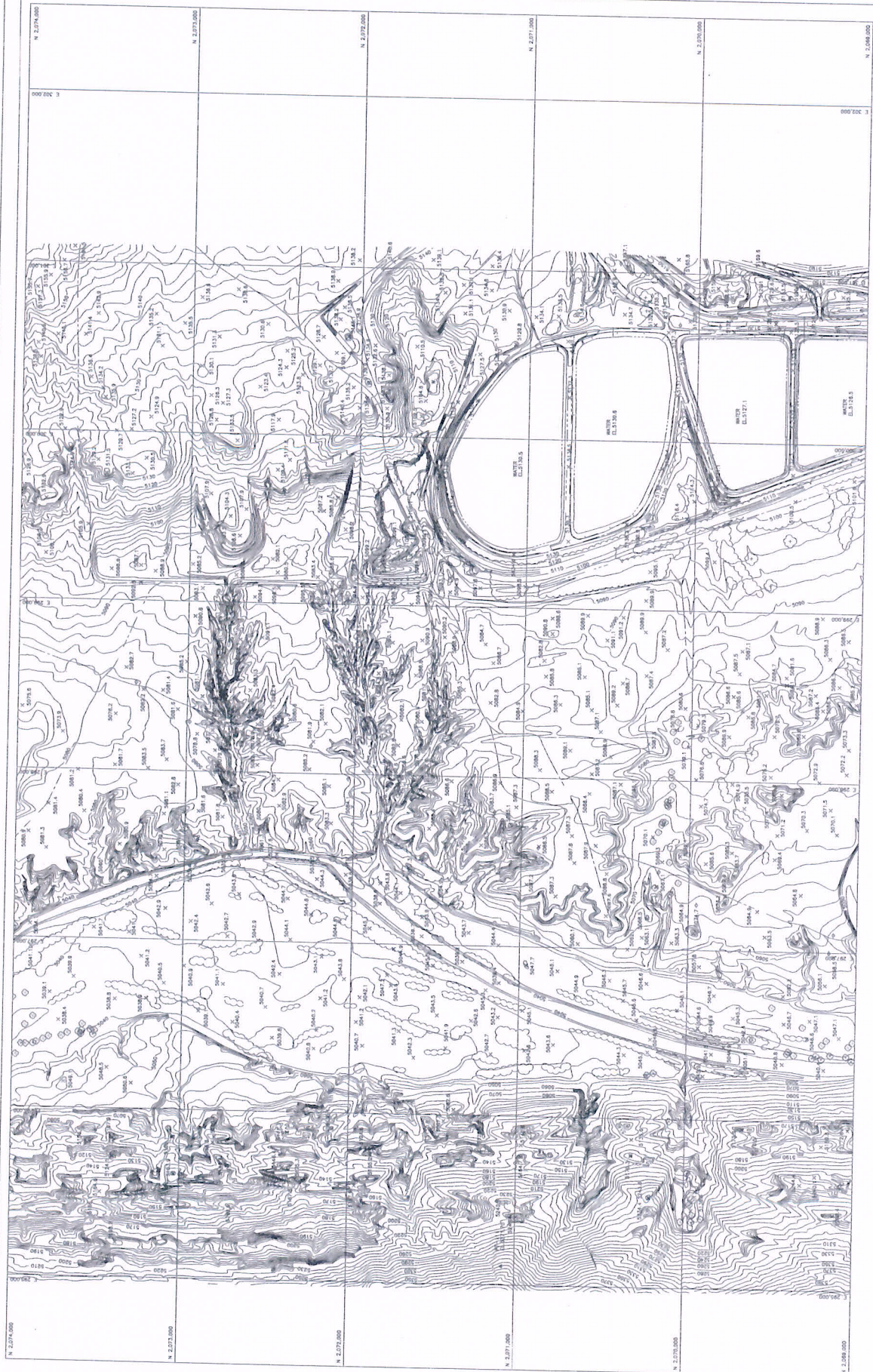


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TOPOGRAPHIC MAP  
 #2014 - CORNERS AS  
 PREPARED BY  
 MICHAEL HUBBARD, S.E.

SCALE  
 1" = 100'





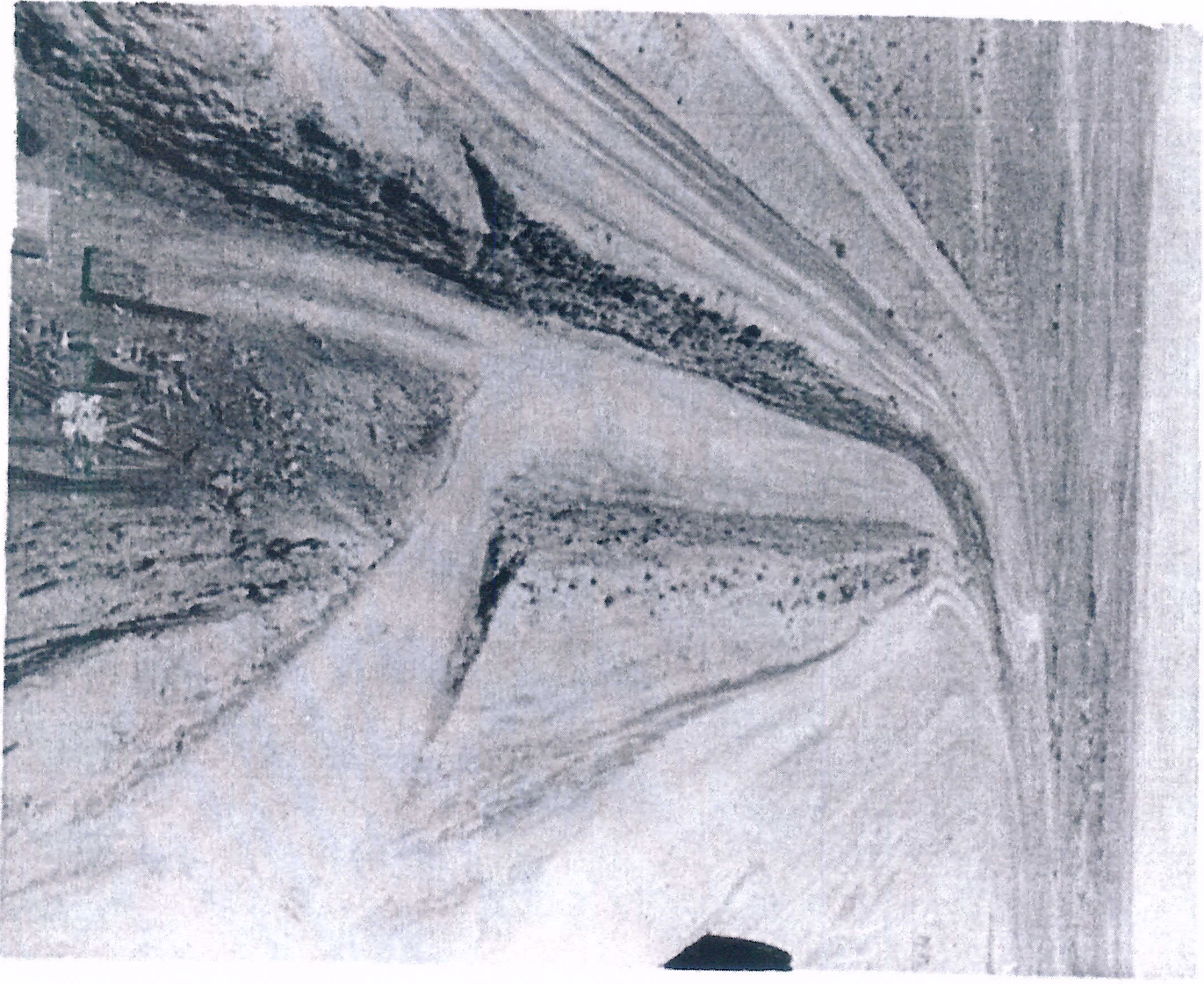
TOPOGRAPHIC MAP  
 OF  
 FOUR CORNERS STEAM ELECTRIC STATION  
 PREPARED FOR  
 ARIZONA PUBLIC SERVICE

SCALE MAP INTERVAL  
 DATE OF PHOTOGRAPHY  
 1" = 200'  
 6/1/52



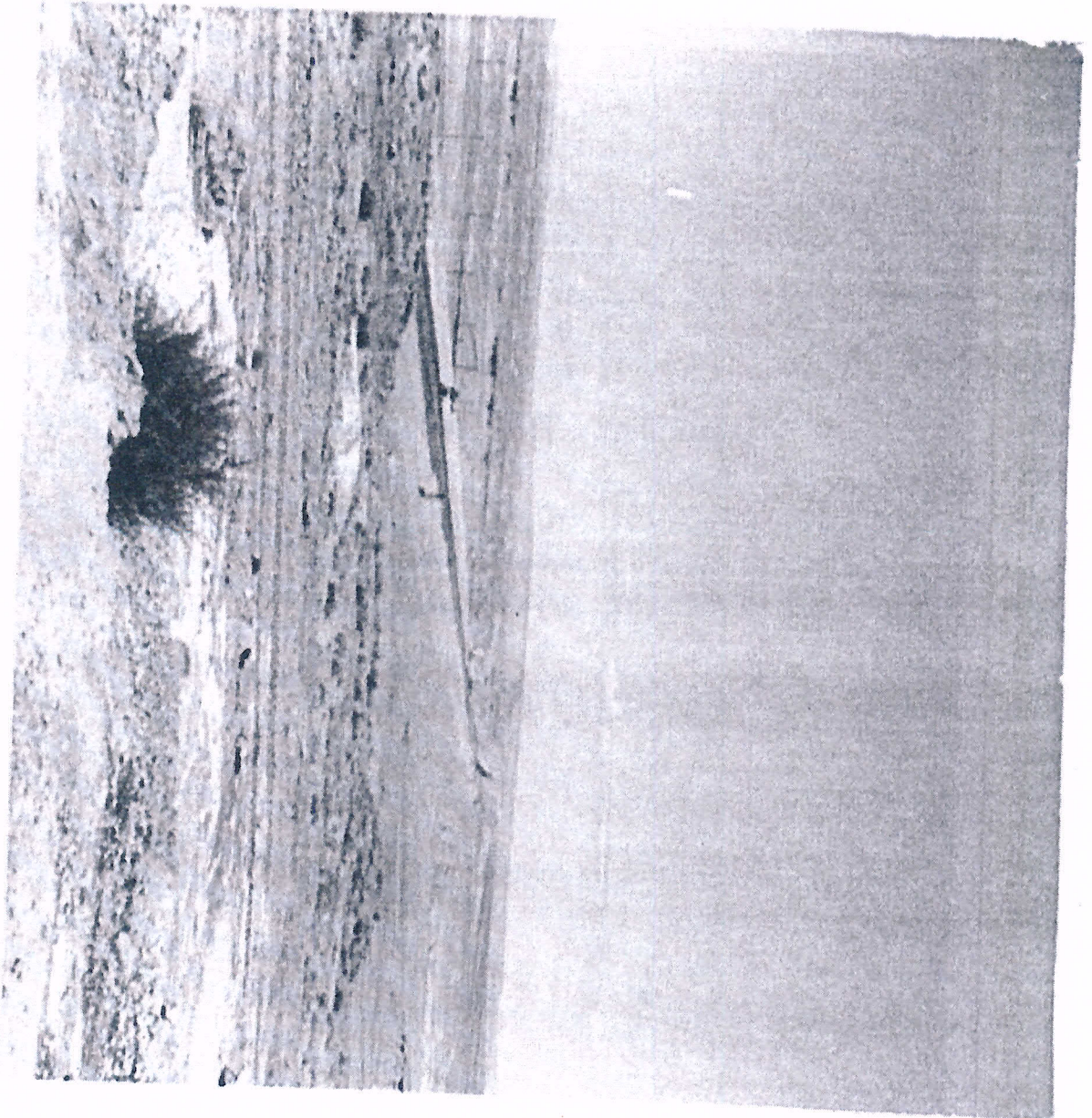


Excavation for Morgan Lake Dam. To the right of the cut (East) will become Morgan Lake. 5/17/61



Construction of cooling water discharge canal. To the left (North) will become Morgan Lake. 8/10/61





Morgan Lake Dam 73 % complete  
viewed from high point. To the  
right (East) will become Morgan  
Lake. 8/30/61



Morgan Lake Dam 80 % complete. Left part of photo (East) will become Morgan Lake. Small pond at lower left center is likely a stock tank constructed to catch rain water for stock watering. 9/14/61