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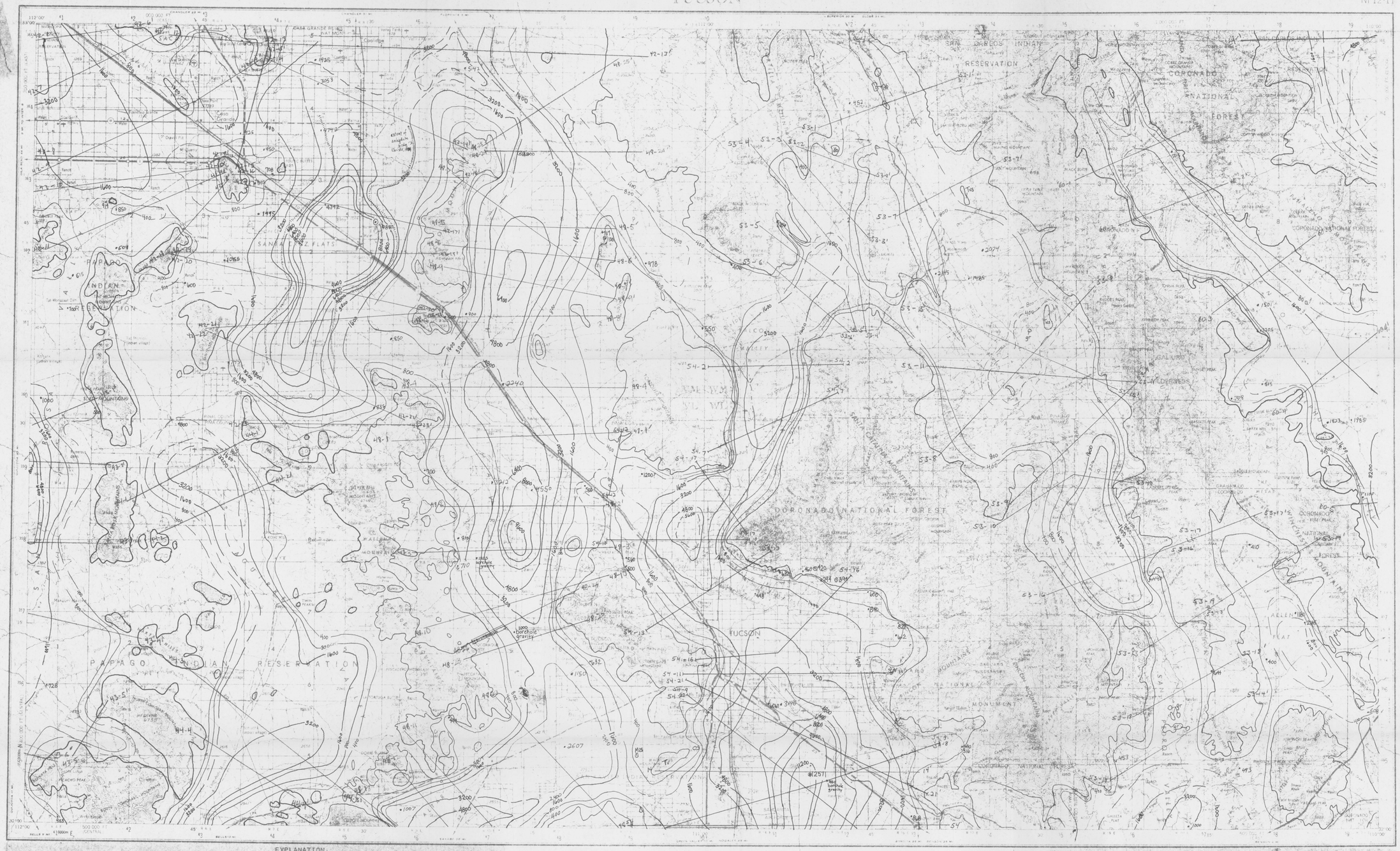
WESTERN UNITED STATES 1:250,000

DEPTH-TO-BEDROCK MAP

TUCSON

NI 12-11



EXPLANATION

400	DEPTH-TO-BEDROCK CONTOUR	DASHED WHERE INTERPRETATION IS LESS CERTAIN. CONTOURS ARE AT 400, 800, AND MULTIPLES OF 1600 FEET.
53-12 — 53-12'	GRAVITY PROFILE	
• 450	WELL	DEPTH, IN FEET, OF WELLS THAT DO NOT PENETRATE BEDROCK.
⊙12 571	WELL	DEPTH, IN FEET, OF WELLS THAT DO PENETRATE BEDROCK.
	QUATERNARY BASALT	WHERE RESIDUAL GRAVITY DATA INDICATES THAT AN ALLUVIAL BASIN UNDERLIES A SURFACE LAYER OF QUATERNARY BASALT, THE DEPTH-TO-BEDROCK CONTOURS ARE DRAWN THROUGH THE QUATERNARY BASALT.

BASE BY U. S. ARMY TOPOGRAPHIC COMMAND
TRANSVERSE MERCATOR PROJECTION

BY
J.M. OPPENHEIMER AND J.S. SUMNER
1980

EXPLANATION

BEDROCK IS DEFINED AS HAVING A DENSITY OF 2.67 G/CC.
IN GRAVITY MODELING, THE VOLCANICS WITHIN THE BASIN FILL ARE CONSIDERED ALLUVIUM. OTHERWISE THE VOLCANICS ARE CONSIDERED BEDROCK.
THE MAP SCALE USED FOR MODELING WAS 1:125 000 FOR THE TUCSON BASIN AND 1:250 000 FOR THE OTHER BASINS.
THE BEDROCK BOUNDARY, THE 0-FOOT DEPTH-TO-BEDROCK CONTOUR, IS TAKEN FROM COUNTY GEOLOGIC MAPS.
THIS MAP IS AVAILABLE FROM THE LAB OF GEOPHYSICS, U. OF ARIZONA, TUCSON, AZ 85715, ALONG WITH THE GRAVITY PROFILE DATA, THE MAPS AT SCALES OF 1:500 000 AND 1:1 000 000 (OPPENHEIMER AND SUMNER, 1980), AND THE RESIDUAL GRAVITY MAP OF ARIZONA (LYSONSKI AND SUMNER, 1980) SHOWING GRAVITY STATIONS.
THE U. S. GEOLOGICAL SURVEY PROVIDED FUNDING FOR THIS MAP PROJECT.

ACCURACY OF A DEPTH-TO-BEDROCK POINT IS WITHIN ±30%.

REFERENCE FOR THE MAP IS: OPPENHEIMER, J., 1980, GRAVITY MODELING OF THE ALLUVIAL BASINS, SOUTHERN ARIZONA, UNPUBLISHED MASTER'S THESIS, UNIVERSITY OF ARIZONA, TUCSON.

DEPTH-TO-BEDROCK MAP

WESTERN UNITED STATES 1:250,000

SILVER CITY

EDITION 3

NI 12-12

STOCK NO. V502XNI12-03

EXPLANATION

400	DEPTH-TO-BEDROCK CONTOUR — DASHED WHERE INTERPRETATION IS LESS CERTAIN. CONTOURS ARE AT 400, 800, AND MULTIPLES OF 1600 FEET.
53-12 — 53-12'	GRAVITY PROFILE
•450	WELL — DEPTH, IN FEET, OF WELLS THAT DO NOT PENETRATE BEDROCK.
⊙12 571	WELL — DEPTH, IN FEET, OF WELLS THAT DO PENETRATE BEDROCK.
	QUATERNARY BASALT — WHERE RESIDUAL GRAVITY DATA INDICATES THAT AN ALLUVIAL BASIN UNDERLIES A SURFACE LAYER OF QUATERNARY BASALT, THE DEPTH-TO-BEDROCK CONTOURS ARE DRAWN THROUGH THE QUATERNARY BASALT.

BASE BY U. S. ARMY TOPOGRAPHIC COMMAND
TRANSVERSE MERCATOR PROJECTION

BY
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WILLIAMS

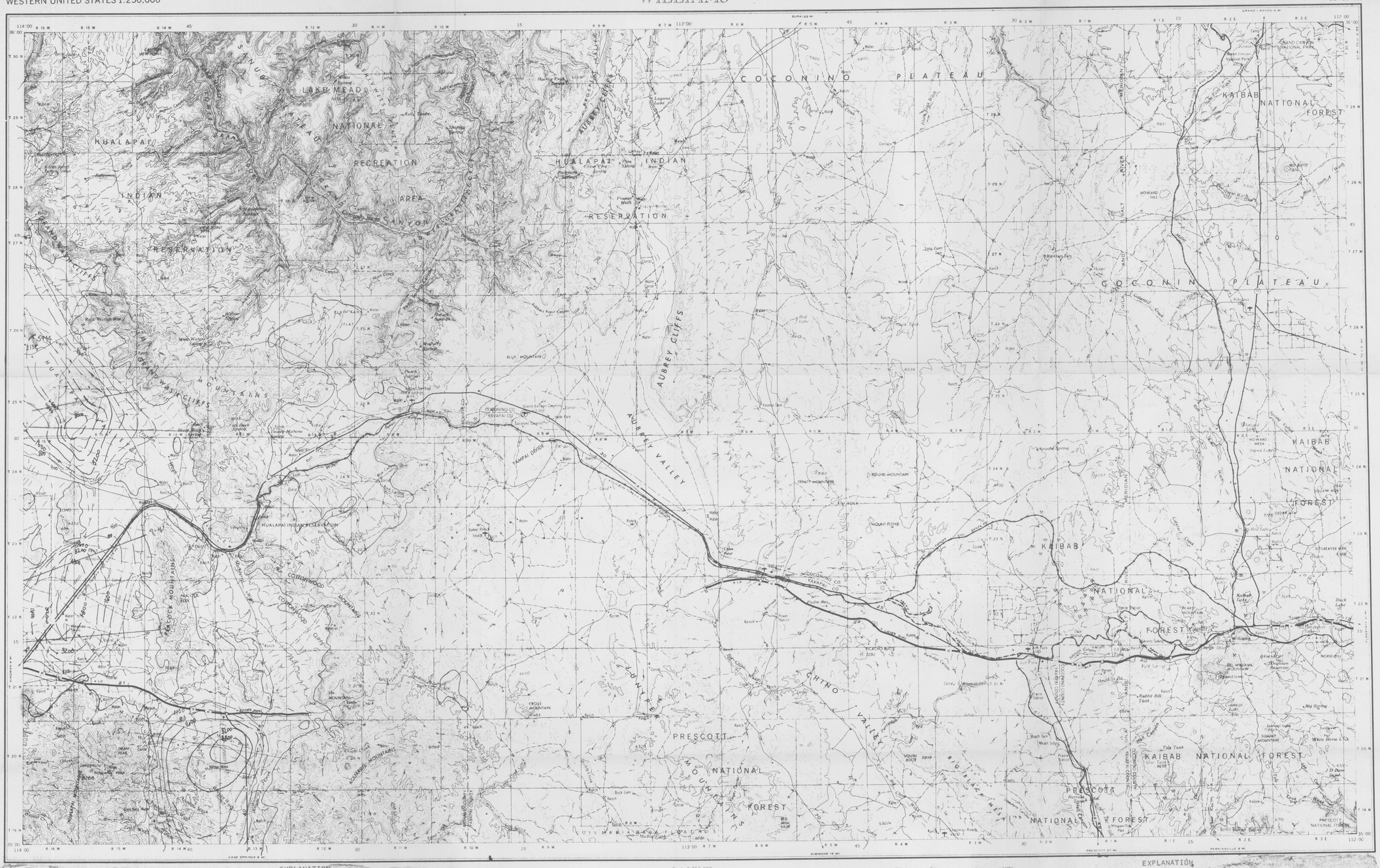
WESTERN UNITED STATES 1:250,000

DEPTH-TO-BEDROCK MAP

WILLIAMS

EDITION 4

NI 12-1
SERIES V502



STOCK NO. V502NI121***04

EXPLANATION

400	DEPTH-TO-BEDROCK CONTOUR
53-12 — 53-12'	GRAVITY PROFILE
·450	WELL
⊕12 571	WELL
	QUATERNARY BASALT

DASHED WHERE INTERPRETATION IS LESS CERTAIN
CONTOURS ARE AT 400, 800, AND MULTIPLES OF 1600 FEET.

DEPTH, IN FEET, OF WELLS THAT DO NOT PENETRATE BEDROCK.

DEPTH, IN FEET, OF WELLS THAT DO PENETRATE BEDROCK.

WHERE RESIDUAL GRAVITY DATA INDICATES THAT AN ALLUVIAL BASIN UNDERLIES A SURFACE LAYER OF QUATERNARY BASALT, THE DEPTH-TO-BEDROCK CONTOURS ARE DRAWN THROUGH THE QUATERNARY BASALT.

Scale 1:250,000

20 Statute Miles
10 Kilometers
15 Nautical Miles

BASE BY U. S. ARMY TOPOGRAPHIC COMMAND
TRANSVERSE MERCATOR PROJECTION

BY
J.M. OPPENHEIMER AND J.S. SUMNER
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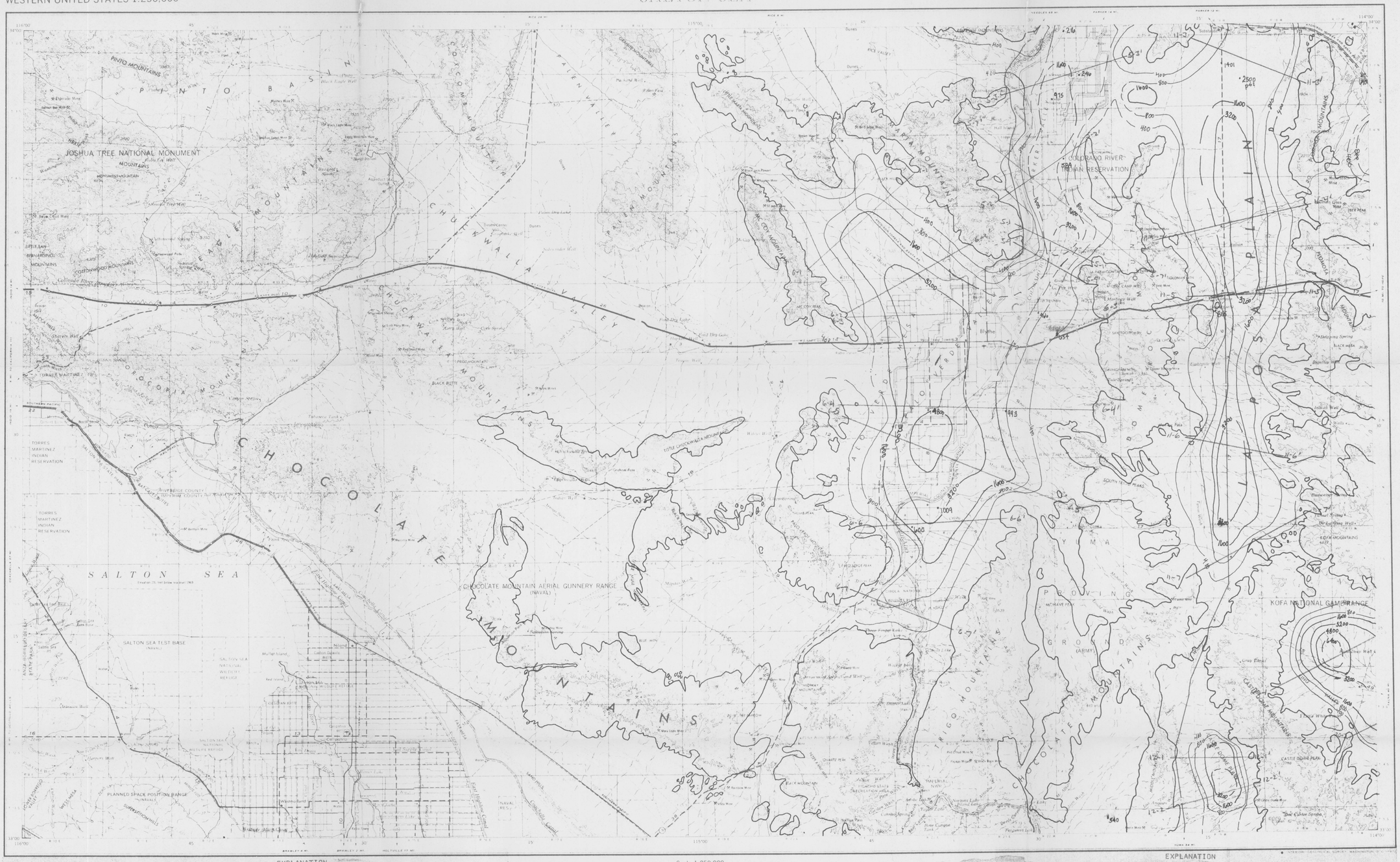
DEPTH-TO-BEDROCK MAP

SALTON SEA



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400	DEPTH-TO-BEDROCK CONTOUR
53-12 — 53-12'	GRAVITY PROFILE
• 450	WELL
⊙12 571	WELL
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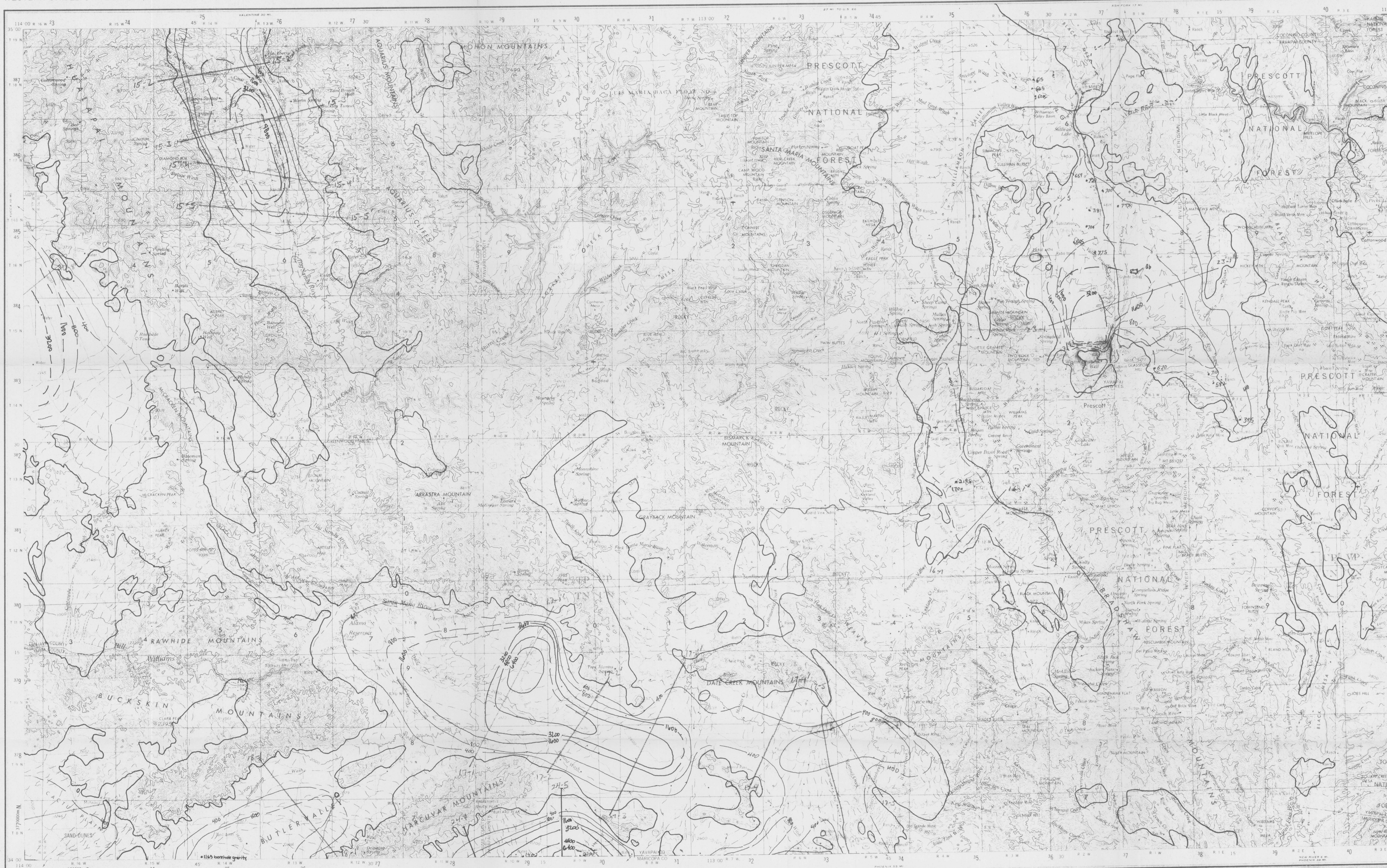
DEPTH-TO-BEDROCK MAP

PRESCOTT

WESTERN UNITED STATES 1:250,000

NI 12-4

SERIES V502



EXPLANATION

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53-12 —— 53-12'	GRAVITY PROFILE	
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Scale 1:250,000

BASE BY U. S. ARMY TOPOGRAPHIC COMMAND
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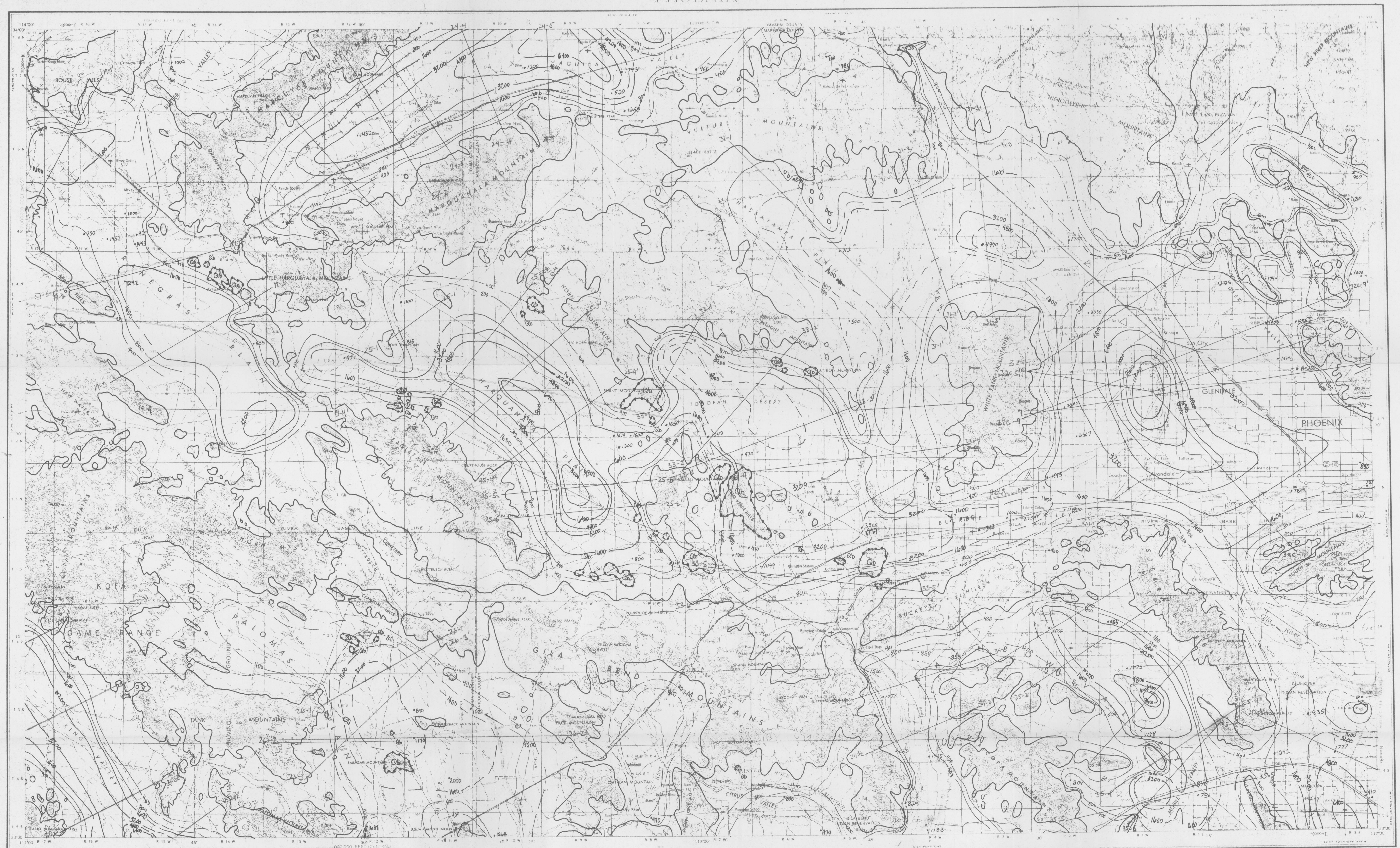
DEPTH-TO-BEDROCK MAP

PHOENIX



EXPLANATION

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53-12 — 53-12'	GRAVITY PROFILE	
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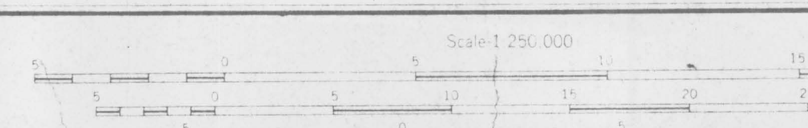

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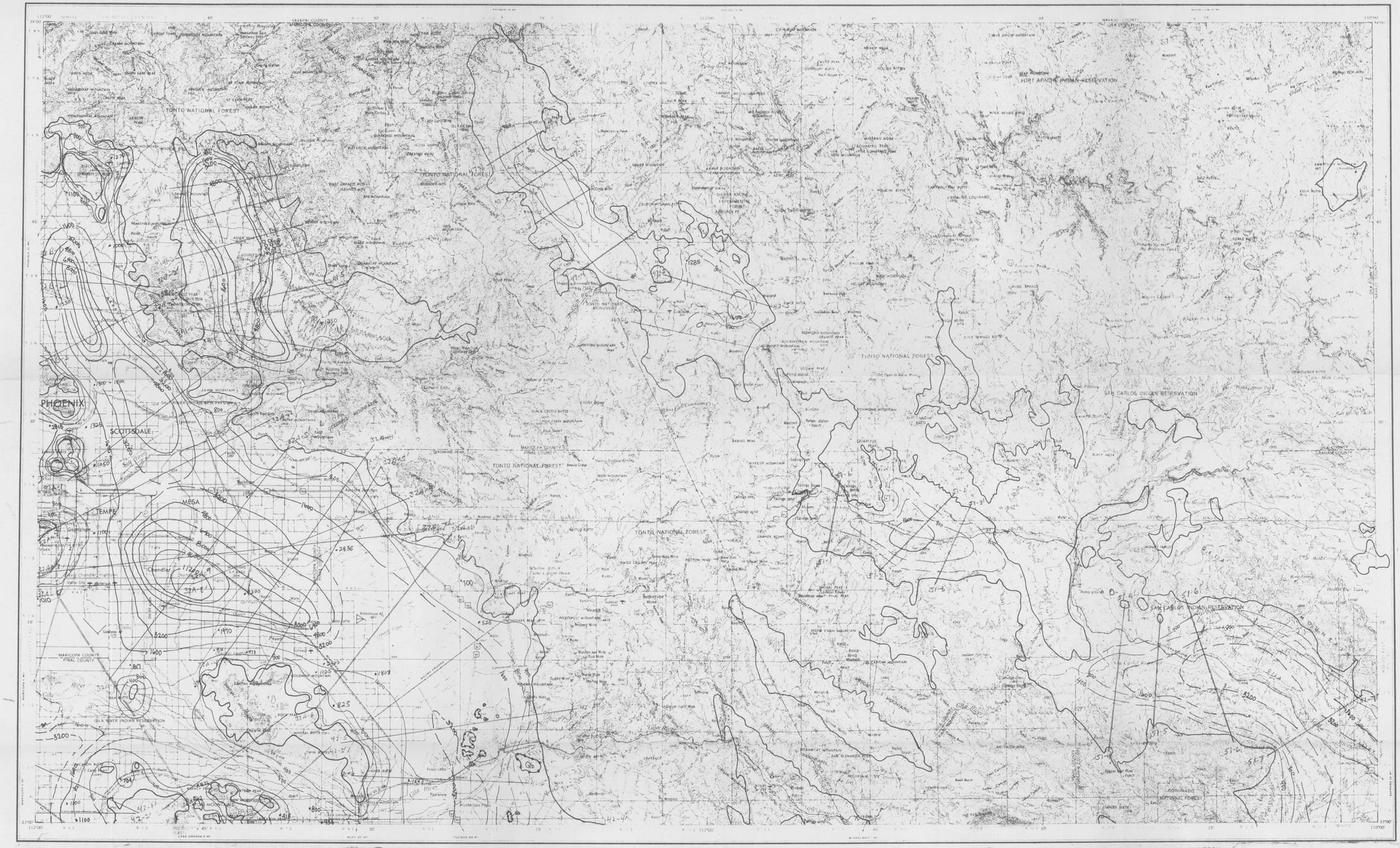
DEPTH-TO-BEDROCK MAP

WESTERN UNITED STATES 1:250,000

MESA

NI 12-8



EXPLANATION

—— 400 ——	—— DEPTH-TO-BEDROCK CONTOUR	DASHED WHERE INTERPRETATION IS LESS CERTAIN. CONTOURS ARE AT 400, 800, AND MULTIPLES OF 1600 FEET.
53-12 —— 53-12'	GRAVITY PROFILE	
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Scale 1:250 000

BASE BY U. S. ARMY TOPOGRAPHIC COMMAND
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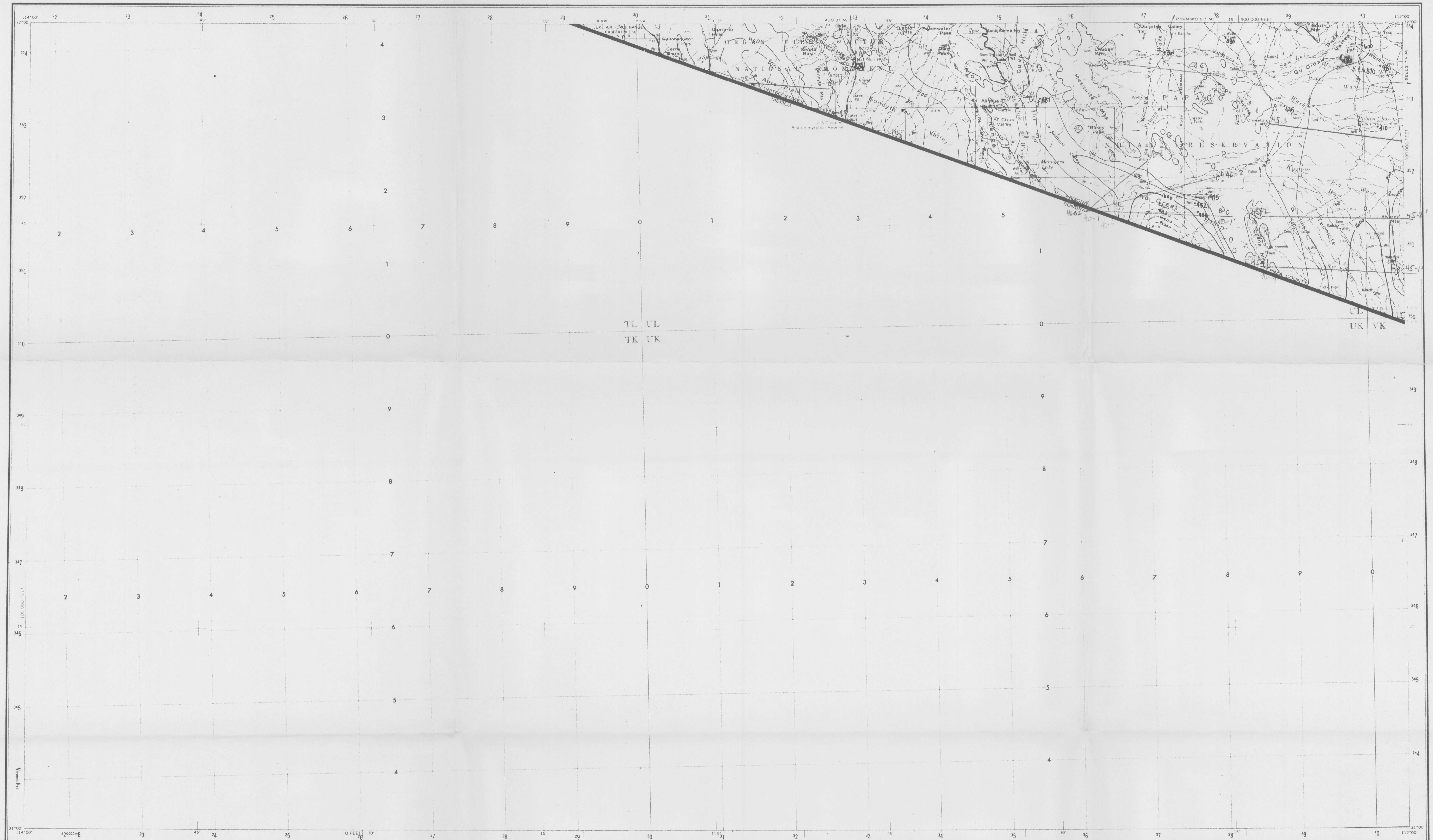
DEPTH-TO-BEDROCK MAP
LUKEVILLE



EXPLANATION

Symbol		
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Scale 1:250,000

5 0 5 10 15 20 Statute Miles

5 0 5 10 15 20 25 30 Kilometers

5 0 5 10 15 Nautical Miles

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TRANSVERSE MERCATOR PROJECTION

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LUKEVILLE 123456

DEPTH-TO-BEDROCK MAP

WESTERN UNITED STATES 1:250,000

EL CENTRO

NI 11-12

EXPLANATION

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5 0 5 10 15 20 Statute Miles

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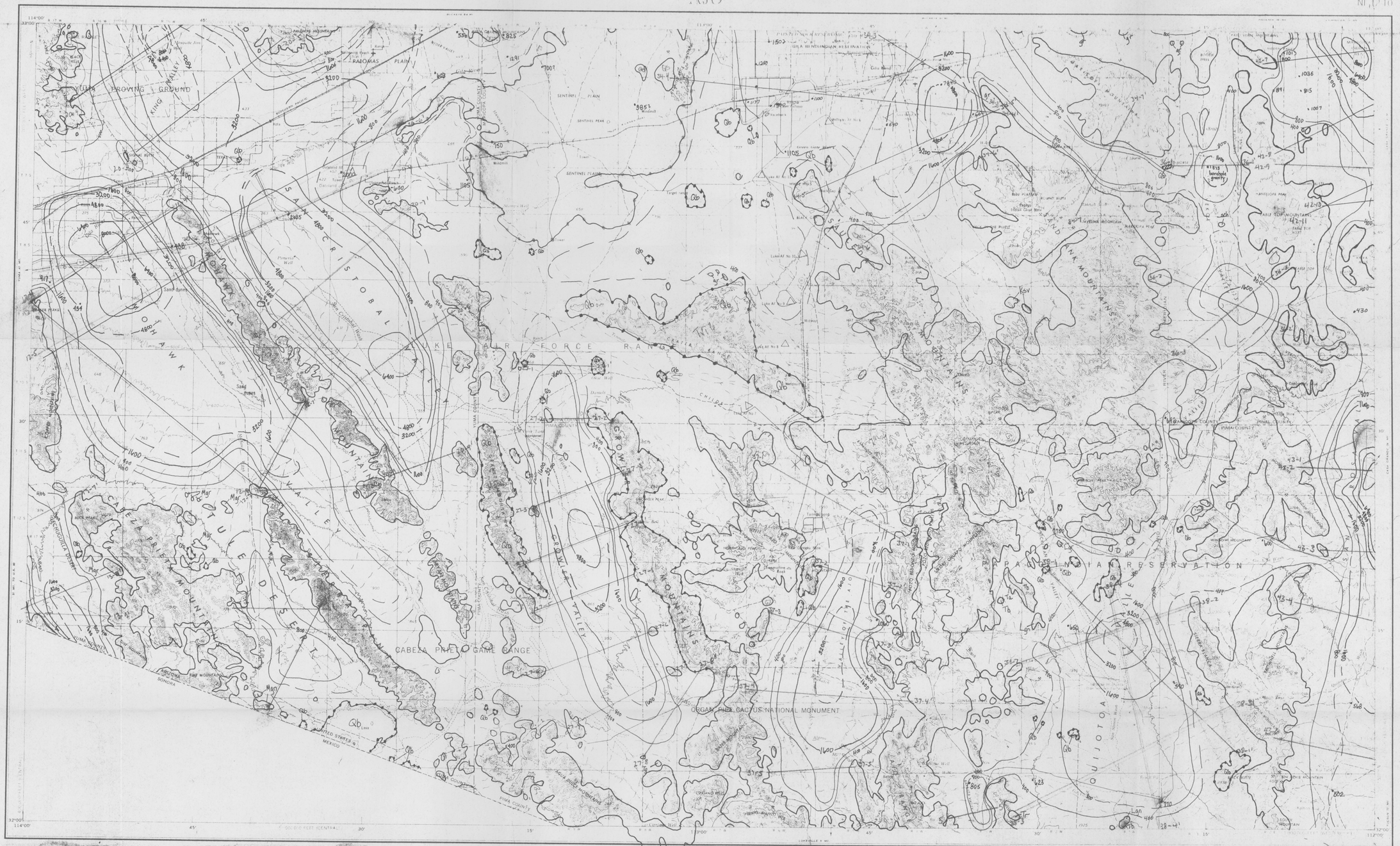
DEPTH-TO-BEDROCK MAP

WESTERN UNITED STATES 1:250,000

AJO

NI 12-10



EXPLANATION

400	DEPTH-TO-BEDROCK CONTOUR
53-12 — 53-12'	GRAVITY PROFILE
• 450	WELL
⊙ 12 571	WELL
	QUATERNARY BASALT

DASHED WHERE INTERPRETATION IS LESS CERTAIN
CONTOURS ARE AT 400, 800, AND MULTIPLES OF 1600 FEET.

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1980

EXPLANATION

BEDROCK IS DEFINED AS HAVING A DENSITY OF 2.67 G/CC.
IN GRAVITY MODELING, THE VOLCANICS WITHIN THE BASIN FILL ARE CONSIDERED ALLUVIUM. OTHERWISE THE VOLCANICS ARE CONSIDERED BEDROCK.
THE MAP SCALE USED FOR MODELING WAS 1:125 000 FOR THE TUCSON BASIN AND 1:250 000 FOR THE OTHER BASINS.
THE BEDROCK BOUNDARY, THE 0-FOOT DEPTH-TO-BEDROCK CONTOUR, IS TAKEN FROM COUNTY GEOLOGIC MAPS.
THIS MAP IS AVAILABLE FROM THE LAB OF GEOPHYSICS, U. OF ARIZONA, TUCSON, AZ 85716, ALONG WITH THE GRAVITY PROFILE DATA, THE MAPS AT SCALES OF 1:500 000 AND 1:1 000 000 (OPPENHEIMER AND SUMNER, 1980), AND THE RESIDUAL GRAVITY MAP OF ARIZONA (LYSONSKI AND SUMNER, 1980) SHOWING GRAVITY STATIONS.

THE U. S. GEOLOGICAL SURVEY PROVIDED FUNDING FOR THIS MAP PROJECT.

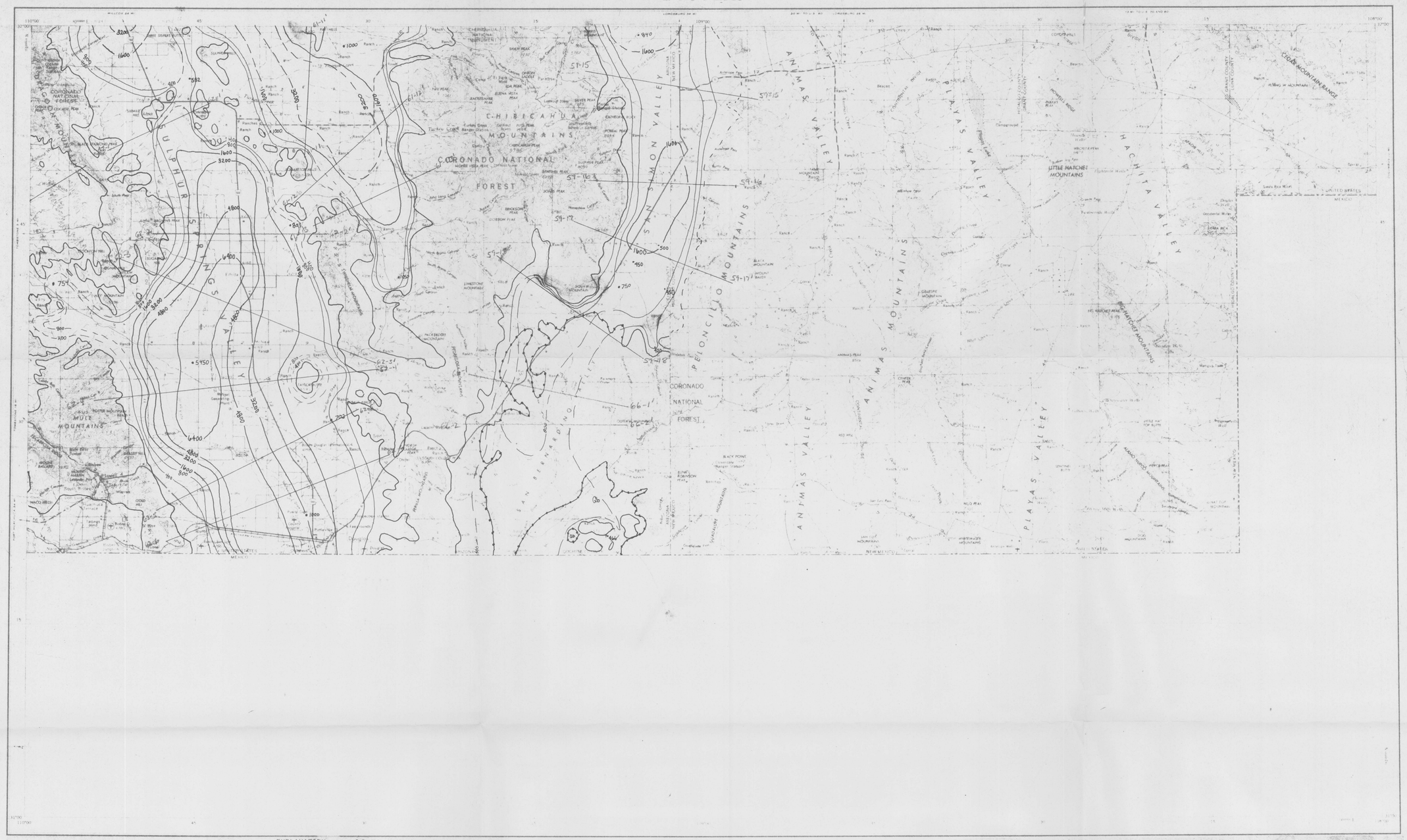
ACCURACY OF A DEPTH-TO-BEDROCK POINT IS WITHIN ±30%.
REFERENCE FOR THE MAP IS: OPPENHEIMER, J., 1980, GRAVITY MODELING OF THE ALLUVIAL [illegible] TUCSON.

WESTERN UNITED STATES 1:250,000

DEPTH-TO-BEDROCK MAP

DOUGLAS

NH 12-3



EXPLANATION

400 — DEPTH-TO-BEDROCK CONTOUR	DASHED WHERE INTERPRETATION IS LESS CERTAIN. CONTOURS ARE AT 400, 800, AND MULTIPLES OF 1600 FEET.
53-12 — 53-12' GRAVITY PROFILE	
• 450 WELL	DEPTH, IN FEET, OF WELLS THAT DO NOT PENETRATE BEDROCK.
⊙ 12 571 WELL	DEPTH, IN FEET, OF WELLS THAT DO PENETRATE BEDROCK.
QUATERNARY BASALT	WHERE RESIDUAL GRAVITY DATA INDICATES THAT AN ALLUVIAL BASIN UNDERLIES A SURFACE LAYER OF QUATERNARY BASALT, THE DEPTH-TO-BEDROCK CONTOURS ARE DRAWN THROUGH THE QUATERNARY BASALT.

Scale 1:250 000

BASE BY U. S. ARMY TOPOGRAPHIC COMMAND
TRANSVERSE MERCATOR PROJECTION

BY
J.M. OPPENHEIMER AND J.S. SUMNER
1980

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THE U. S. GEOLOGICAL SURVEY PROVIDED FUNDING FOR THIS MAP PROJECT.

ACCURACY OF A DEPTH-TO-BEDROCK POINT IS WITHIN ±30%.

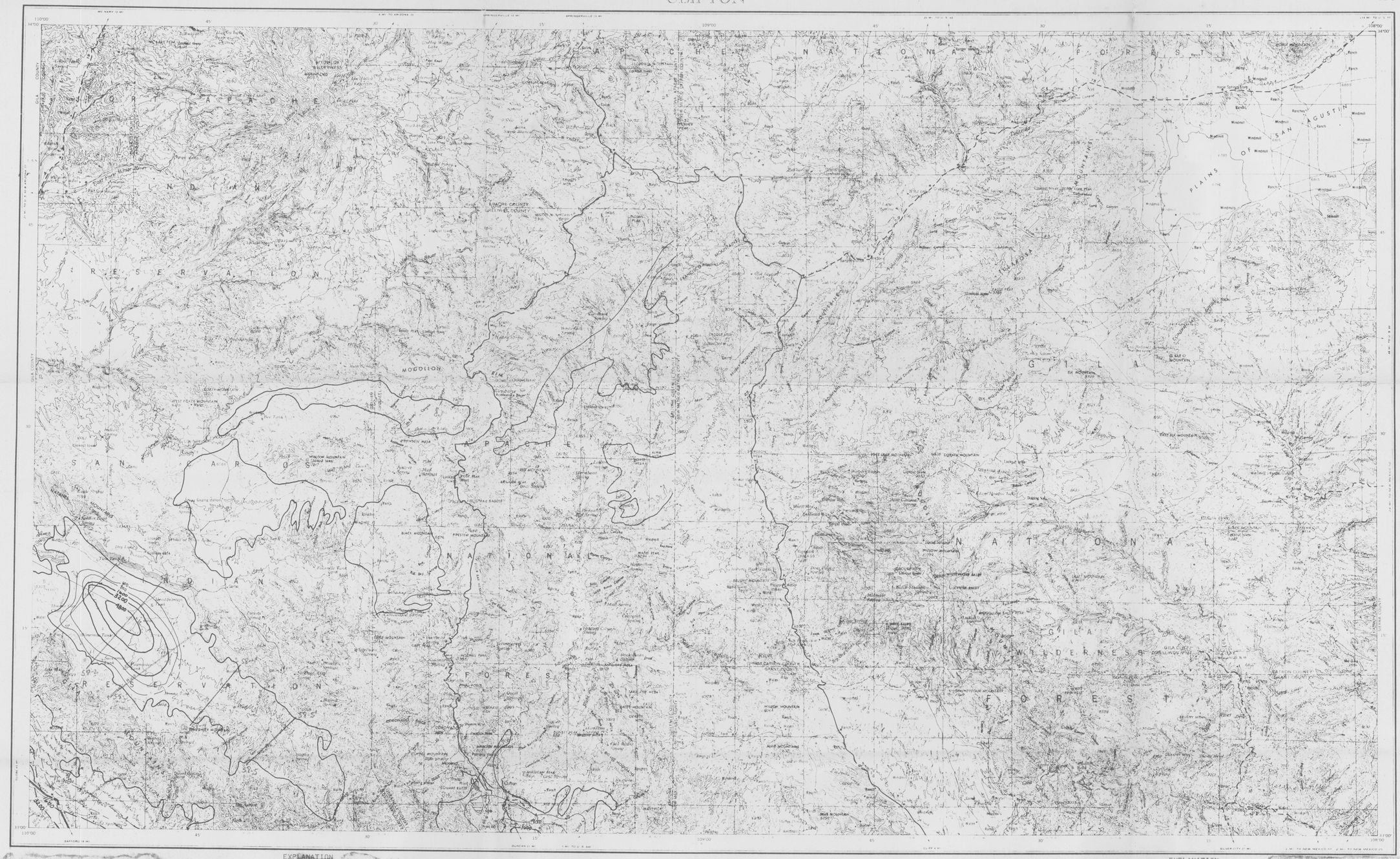
REFERENCE FOR THE MAP IS: OPPENHEIMER, J., 1980, GRAVITY MODELING OF THE ALLUVIAL BASINS, SOUTHERN ARIZONA, UNPUBLISHED MASTER'S THESIS, UNIVERSITY OF ARIZONA, TUCSON.

WESTERN UNITED STATES 1:250,000

DEPTH-TO-BEDROCK MAP

CLIFTON

NI 12-9



EXPLANATION

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Scale 1:250,000

20 Statute Miles

20 Kilometers

BASE BY U. S. ARMY TOPOGRAPHIC COMMAND
TRANSVERSE MERCATOR PROJECTION

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