CENTRAL ARIZONA PROJECT

GEOLOGY AND GROUNDWATER RESOURCES REPORT

Maricopa and Pinal Counties, Arizona

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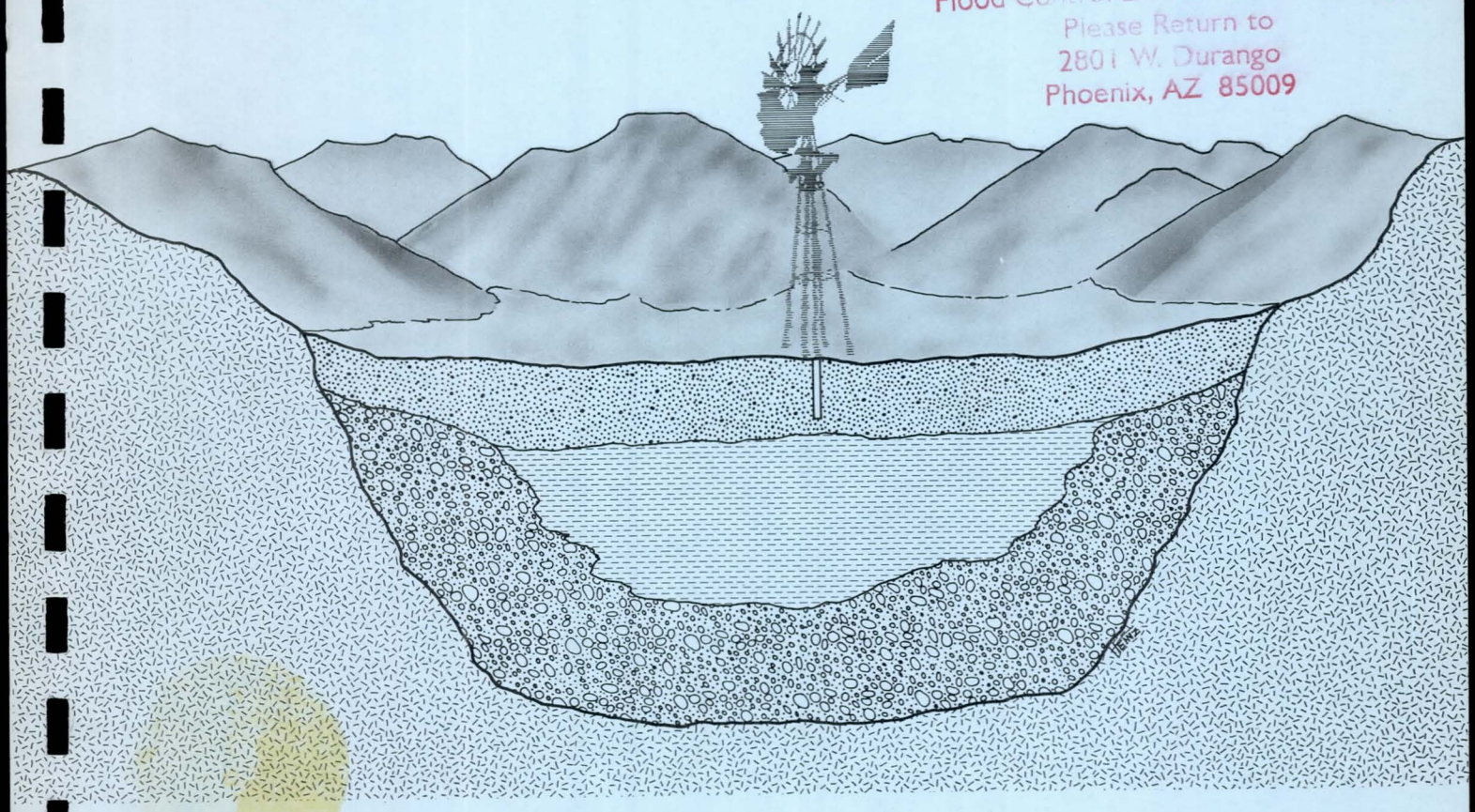

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
LOWER COLORADO REGION

December 1976

VOLUME 2

CENTRAL ARIZONA PROJECT

GEOLOGY and GROUND-WATER RESOURCES REPORT

Maricopa and Pinal Counties, Arizona

U.S. DEPARTMENT OF THE INTERIOR

BUREAU of RECLAMATION
LOWER COLORADO REGION

ARIZONA PROJECTS OFFICE
PHOENIX, ARIZONA

October 1977

VOLUME 2

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

GEOLOGY AND GROUND-WATER RESOURCES REPORT

CENTRAL ARIZONA PROJECT, ARIZONA

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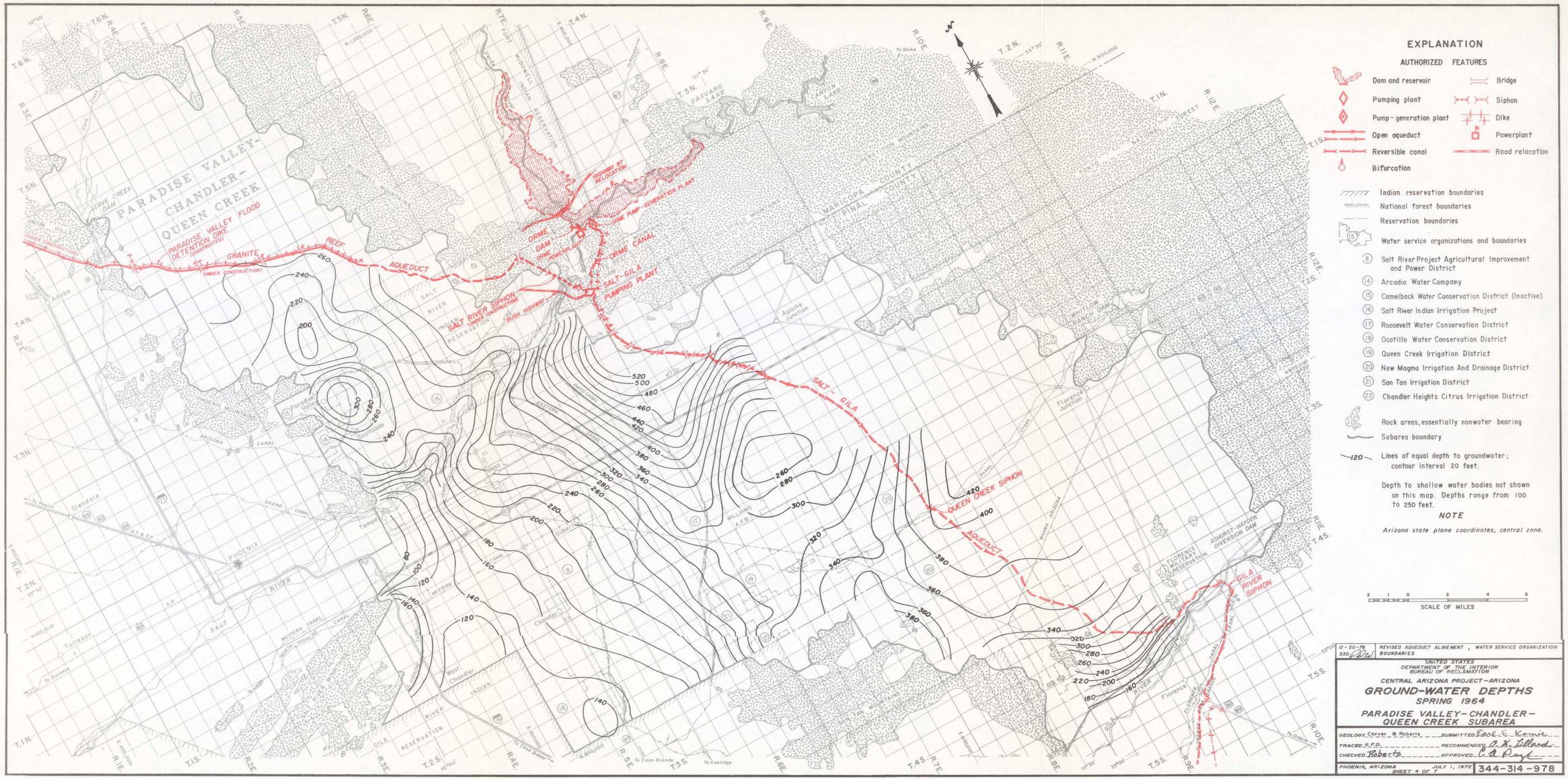
PARADISE VALLEY—CHANDLER—QUEEN CREEK SUBAREA

PARADISE VALLEY-CHANDLER-QUEEN CREEK
PARADISE VALLEY FLOOD DETENTION DIKE (CONSTRUCTED)
GRANITE REEF AQUEDUCT (UNDER CONSTRUCTION)
SALT RIVER SIPHON (UNDER CONSTRUCTION)
BUSH HIGHWAY
ORME DAM
ORME COMPLEX
ORME PUMP-GENERATION PLANT
ORME CANAL
SALT-GILA PUMPING PLANT
HIGHWAY 87 RELOCATION
SALT - GILA AQUEDUCT
QUEEN CREEK SIPHON
GILA RIVER SIPHON
SALT RIVER INDIAN RESERVATION
GILA RIVER INDIAN RESERVATION
FORT McDOWELL INDIAN RESERVATION
MARICOPA COUNTY
PINAL COUNTY
PHOENIX
Tempe
Scottsdale
Glendale
Tolleson
Chandler
Gilbert
Mesa
Apache Junction
Florence Junction
Florence
Adobe
Paradise Valley
West Chandler
SALT RIVER
GILA RIVER
ASHURST-HAYDEN DIVERSION DAM
WHITLOW RANCH DAM
CAVE CREEK DAM
SAGUARO LAKE
CANYON LAKE
MILITARY RESERVATION
EXPLANATION
AUTHORIZED FEATURES
Dam and reservoir
Pumping plant
Pump-generation plant
Open aqueduct
Reversible canal
Bifurcation
Bridge
Siphon
Dike
Powerplant
Road relocation
Indian reservation boundaries
National forest boundaries
Reservation boundaries
Water service organizations and boundaries
(8) Salt River Project Agricultural Improvement and Power District
(14) Arcadia Water Company
(15) Camelback Water Conservation District (Inactive)
(16) Salt River Indian Irrigation Project
(17) Roosevelt Water Conservation District
(18) Ocotillo Water Conservation District
(19) Queen Creek Irrigation District
(20) New Magma Irrigation And Drainage District
(21) San Tan Irrigation District
(22) Chandler Heights Citrus Irrigation District
Rock areas, essentially nonwater bearing
Subarea boundary
1100 Lines of equal ground-water elevation above sea level, dashed where inferred; contour interval 20 feet.
NOTES
Modified from U.S. Geological Survey open file report, "Ground Water in the Gila River Basin and Adjacent Areas, Arizona" 1952.
Arizona state plane coordinates, central zone.
SCALE OF MILES
12-20-76 REVISED AQUEDUCT ALINEMENT, WATER SERVICE ORGANIZATION BOUNDARIES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GROUND-WATER ELEVATIONS
SPRING 1952
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY
SUBMITTED
TRACED
RECOMMENDED
CHECKED
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 4 OF 7
344-314-971

Figure 73


EXPLANATION
AUTHORIZED FEATURES
Dam and reservoir
Pumping plant
Pump-generation plant
Open aqueduct
Reversible canal
Bifurcation
Bridge
Siphon
Dike
Powerplant
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8 Salt River Project Agricultural Improvement and Power District
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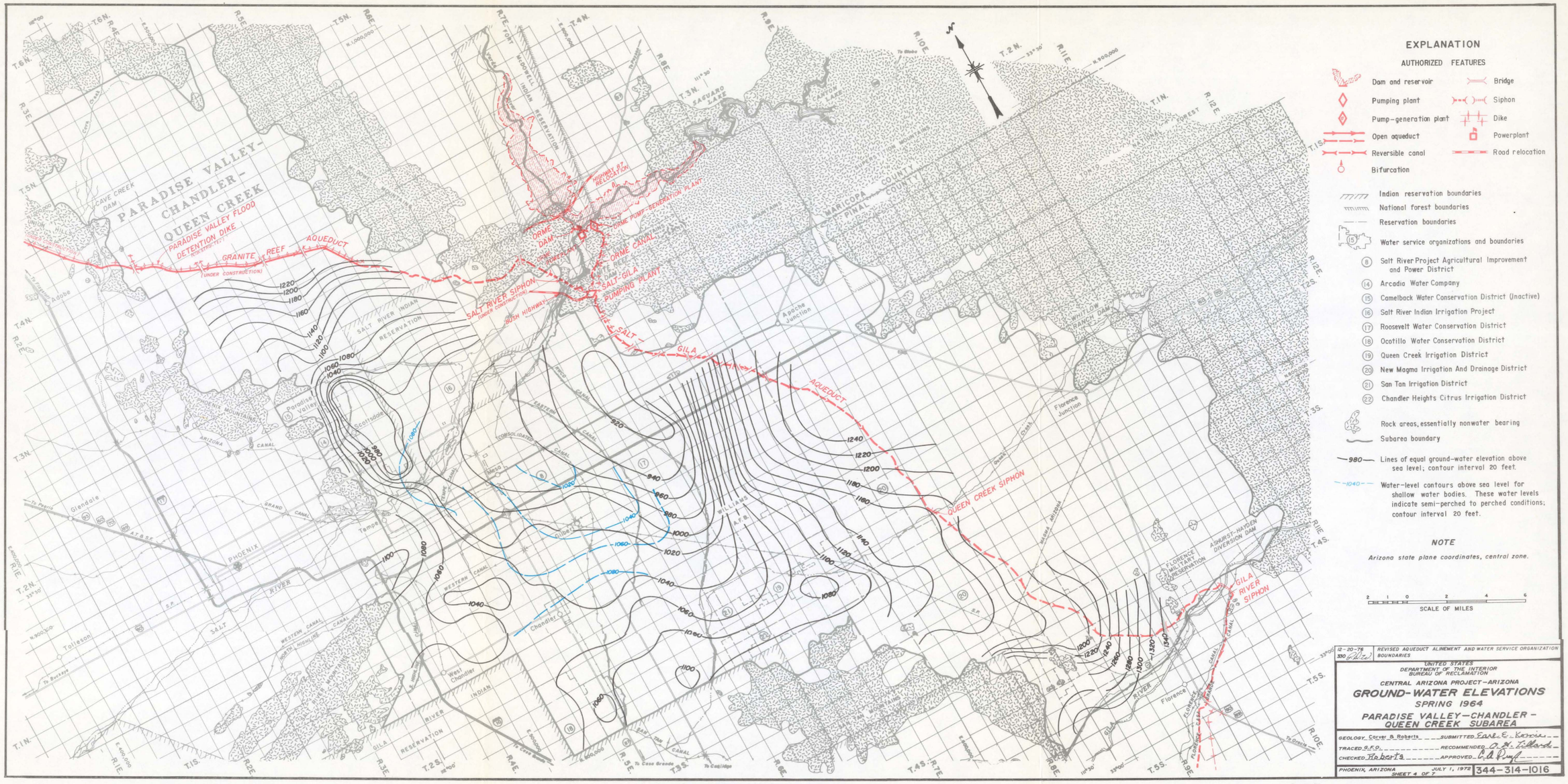
17 Roosevelt Water Conservation District
18 Ocotillo Water Conservation District
19 Queen Creek Irrigation District
20 New Magma Irrigation And Drainage District
21 San Tan Irrigation District
22 Chandler Heights Citrus Irrigation District
Rock areas, essentially nonwater bearing
Subarea boundary
120 Lines of equal depth to groundwater; contour interval 20 feet.
Depth to shallow water bodies not shown on this map. Depths range from 100 to 250 feet.
NOTE
Arizona state plane coordinates, central zone.
SCALE OF MILES
PARADISE VALLEY-CHANDLER-QUEEN CREEK
PARADISE VALLEY FLOOD DETENTION DIKE (CONSTRUCTED)
GRANITE REEF AQUEDUCT (UNDER CONSTRUCTION)
SALT RIVER SIPHON (UNDER CONSTRUCTION)
ORME DAM
ORME POWERPLANT
ORME CANAL
ORME PUMP-GENERATION PLANT
HIGHWAY 87 RELOCATION
SALT-GILA PUMPING PLANT
SALT-GILA AQUEDUCT
QUEEN CREEK SIPHON
GILA RIVER SIPHON
ASHURST-HAYDEN DIVERSION DAM
PHOENIX
Tempe
Mesa
Chandler
Gilbert
Glendale
Scottsdale
Paradise Valley
Tolleson
Apache Junction
Florence Junction
Florence
SALT RIVER
GILA RIVER
12-20-76 REVISED AQUEDUCT ALINEMENT, WATER SERVICE ORGANIZATION BOUNDARIES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GROUND-WATER DEPTHS
SPRING 1964
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY Corver & Roberts SUBMITTED
TRACED G.F.O. RECOMMENDED
CHECKED Roberts APPROVED
PHOENIX, ARIZONA JULY 1, 1972 SHEET 4 OF 7
344-314-978

Figure 74


EXPLANATION
AUTHORIZED FEATURES
Dam and reservoir
Pumping plant
Pump-generation plant
Open aqueduct
Reversible canal
Bifurcation
Bridge
Siphon
Dike
Powerplant
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Water service organizations and boundaries
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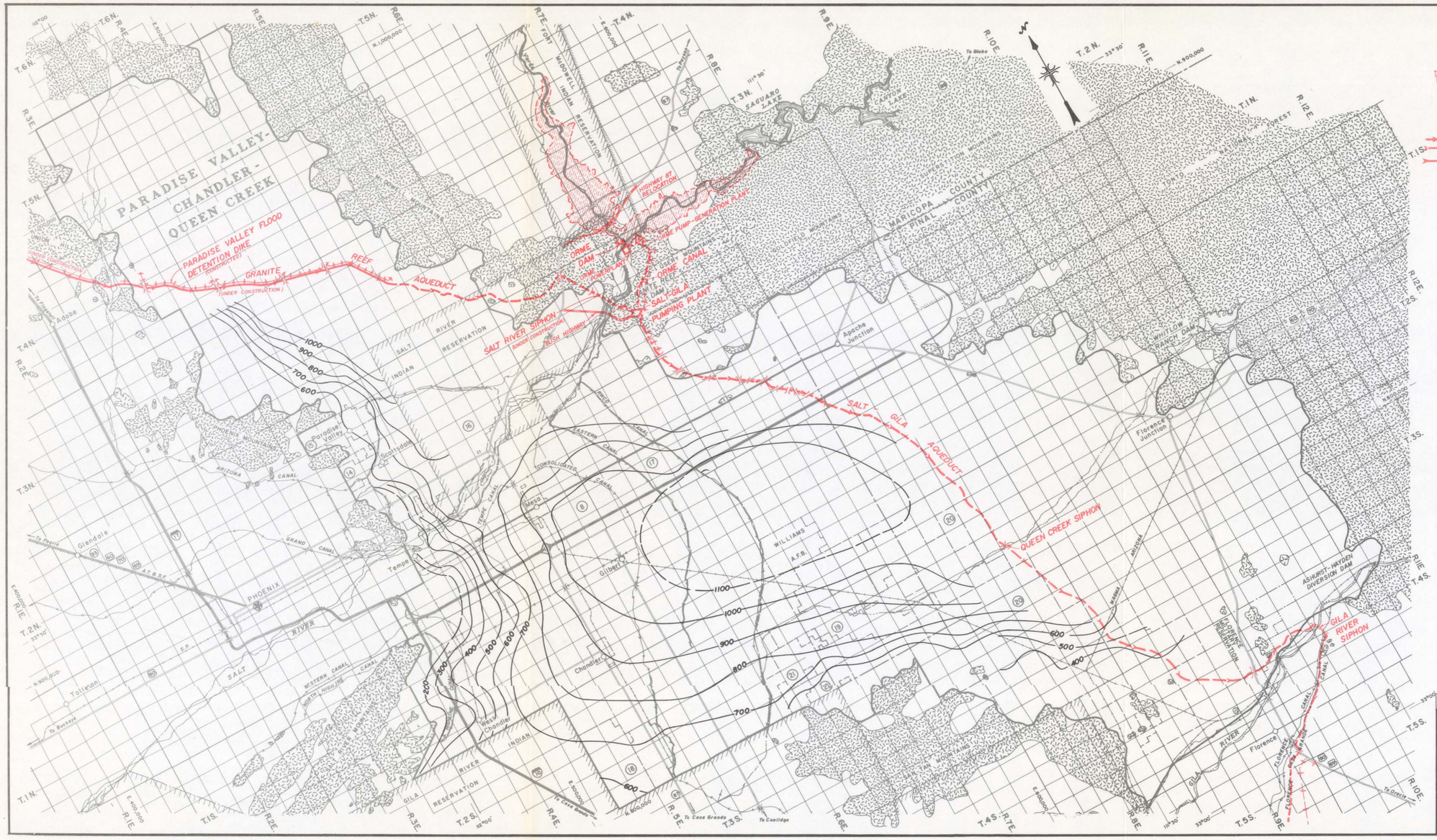
17 Roosevelt Water Conservation District
18 Ocotillo Water Conservation District
19 Queen Creek Irrigation District
20 New Magma Irrigation And Drainage District
21 San Tan Irrigation District
22 Chandler Heights Citrus Irrigation District
Rock areas, essentially nonwater bearing
Subarea boundary
980 Lines of equal ground-water elevation above sea level; contour interval 20 feet.
1040 Water-level contours above sea level for shallow water bodies. These water levels indicate semi-perched to perched conditions; contour interval 20 feet.
NOTE
Arizona state plane coordinates, central zone.
SCALE OF MILES
PARADISE VALLEY-CHANDLER-QUEEN CREEK
PARADISE VALLEY FLOOD DETENTION DIKE
GRANITE REEF AQUEDUCT
SALT RIVER SIPHON
ORME DAM
ORME PUMP-GENERATION PLANT
ORME CANAL
SALT GILA PUMPING PLANT
SALT GILA AQUEDUCT
QUEEN CREEK SIPHON
GILA RIVER SIPHON
PHOENIX
Tempe
Chandler
Scottsdale
Glendale
Tolleson
Apache Junction
Florence Junction
Florence
SALT RIVER INDIAN RESERVATION
GILA RIVER INDIAN RESERVATION
MARICOPA COUNTY
PINAL COUNTY
ASHURST-HAYDEN DIVERSION DAM
FLORENCE MILITARY RESERVATION
12-20-78 330 REVISED AQUEDUCT ALINEMENT AND WATER SERVICE ORGANIZATION BOUNDARIES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GROUND-WATER ELEVATIONS
SPRING 1964
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY Cover & Roberts
SUBMITTED
TRACED
RECOMMENDED
CHECKED
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 4 OF 7
344-314-1016

Figure 75

EXPLANATION
AUTHORIZED FEATURES
Dam and reservoir
Pumping plant
Pump-generation plant
Open aqueduct
Reversible canal
Bifurcation
Bridge
Siphon
Dike
Powerplant
Road relocation
Indian reservation boundaries
National forest boundaries
Reservation boundaries
Water service organizations and boundaries
(8) Salt River Project Agricultural Improvement and Power District
(14) Arcadia Water Company
(15) Camelback Water Conservation District (Inactive)
(16) Salt River Indian Irrigation Project
(17) Roosevelt Water Conservation District
(18) Ocotillo Water Conservation District
(19) Queen Creek Irrigation District
(20) New Magma Irrigation And Drainage District
(21) San Tan Irrigation District
(22) Chandler Heights Citrus Irrigation District
Rock areas, essentially nonwater bearing
Subarea boundary
—20— Lines of equal decline of ground-water levels; contour interval 20 feet.
NOTE
Arizona state plane coordinates, central zone.
SCALE OF MILES
PARADISE VALLEY
CHANDLER
QUEEN CREEK
PARADISE VALLEY FLOOD DETENTION DIKE (CONSTRUCTED)
GRANITE REEF AQUEDUCT
SALT RIVER SIPHON (UNDER CONSTRUCTION)
ORME DAM
ORME POWERPLANT
ORME PUMP-GENERATION PLANT
ORME CANAL
SALT-GILA PUMPING PLANT
SALT GILA AQUEDUCT
QUEEN CREEK SIPHON
GILA RIVER SIPHON
PHOENIX
Tempe
Glendale
Chandler
Gilbert
Mesa
Apache Junction
Florence Junction
Florence
Coolidge
To Case Grande
To Globe
To Prescott
To Buckeye
To Casa Grande
To Coolidge
To Oracle
SALT RIVER
GILA RIVER
ASHURST-HAYDEN DIVERSION DAM
WHITLOW RANCH DAM
MARICOPA COUNTY
PINAL COUNTY
SALT RIVER INDIAN RESERVATION
GILA RIVER INDIAN RESERVATION
PIMA INDIAN RESERVATION
MCDOWELL INDIAN RESERVATION
SAGUARO LAKE
CANYON LAKE
PHOENIX MOUNTAINS
SUPERSTITION MOUNTAINS
SACATON MOUNTAINS
ARIZONA CANAL
GRAND CANAL
WESTERN CANAL
EASTERN CANAL
CONSOLIDATED CANAL
MESA CANAL
SAN TAN CANAL
FLORENCE CANAL
12-20-76 330 REVISED AQUEDUCT ALINEMENT, WATER SERVICE ORGANIZATION BOUNDARIES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT—ARIZONA
DECLINE IN GROUND-WATER LEVELS
SPRING 1952 TO SPRING 1964
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY Carver B. Roberts
SUBMITTED
TRACED G.F.O.
RECOMMENDED
CHECKED Roberts
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 4 OF 7
344-314-1023

Figure 76



EXPLANATION

AUTHORIZED FEATURES

- Dam and reservoir
- Pumping plant
- Pump-generation plant
- Open aqueduct
- Reversible canal
- Bifurcation
- Bridge
- Siphon
- Dike
- Powerplant
- Road relocation

- Indian reservation boundaries
- National forest boundaries
- Reservation boundaries
- (15) Water service organizations and boundaries
  - (8) Salt River Project Agricultural Improvement and Power District
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  - (15) Camelback Water Conservation District (Inactive)
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  - (17) Roosevelt Water Conservation District
  - (18) Ocotillo Water Conservation District
  - (19) Queen Creek Irrigation District
  - (20) New Magma Irrigation And Drainage District
  - (21) San Tan Irrigation District
  - (22) Chandler Heights Citrus Irrigation District
- Rock areas, essentially nonwater bearing
- Subarea boundary
- 400 — Generalized contours showing thickness of the Upper Alluvial Unit, dashed where inferred; contour interval 100 feet.

NOTE

Arizona state plane coordinates, central zone.

2 1 0 2 4 6
SCALE OF MILES

12-20-76 330 6-21-61	REVISED AQUEDUCT ALINEMENT AND WATER SERVICE ORGANIZATIONS AND BOUNDARIES

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

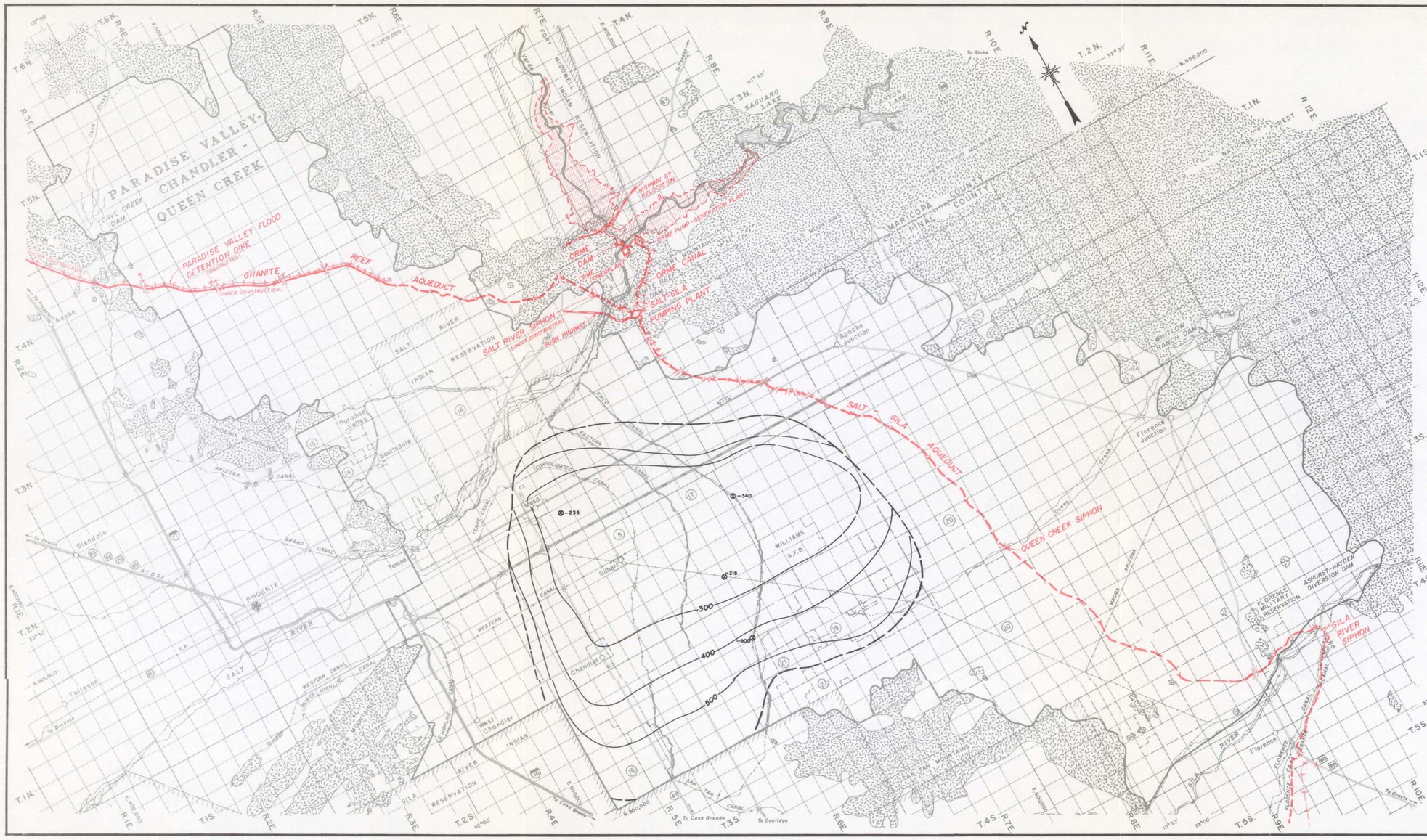
CENTRAL ARIZONA PROJECT—ARIZONA

ISOPACHS — UPPER ALLUVIAL UNIT
PARADISE VALLEY—CHANDLER—QUEEN CREEK SUBAREA

GEOLOGY, GRAVEL & FOUN. — SUBMITTED Earl E. Kennie
TRACED G.F.O. — RECOMMENDED A.A. Gilbert
CHECKED J.J. Landry — APPROVED L.A. Rey

PHOENIX, ARIZONA JULY 1, 1972 SHEET 4 OF 7 | 344-314-1240

Figure 77



EXPLANATION

AUTHORIZED FEATURES

- Dam and reservoir
- Pumping plant
- Pump-generation plant
- Open aqueduct
- Reversible canal
- Bifurcation
- Bridge
- Siphon
- Dike
- Powerplant
- Road relocation

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  - (17) Roosevelt Water Conservation District
  - (18) Ocotillo Water Conservation District
  - (19) Queen Creek Irrigation District
  - (20) New Magma Irrigation And Drainage District
  - (21) San Tan Irrigation District
  - (22) Chandler Heights Citrus Irrigation District
- Rock areas, essentially nonwater bearing
- Subarea boundary
- Approximate subsurface extent.
- 400 — Generalized elevation contours, top of the Middle Fine-Grained Unit; dashed where inferred; contour interval 100 feet; datum mean sea level.
- -235 — Approximate elevation of the top of reported significant evaporites.

NOTE

Arizona state plane coordinates, central zone.

2 1 0 2 4 6
SCALE OF MILES

12-20-76 330	REVISED AQUEDUCT ALINEMENT AND WATER SERVICE ORGANIZATION AND BOUNDARIES

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

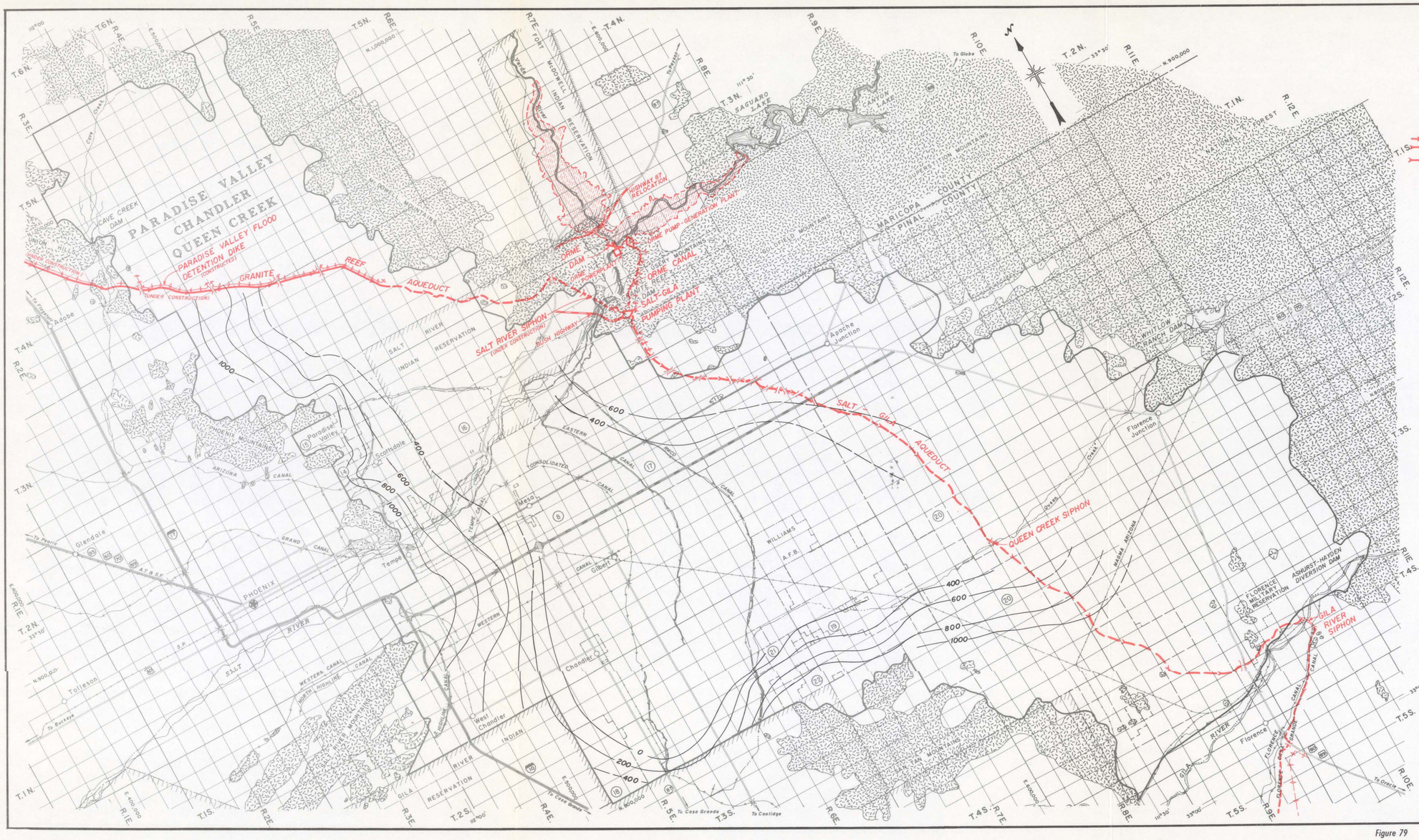
STRUCTURE CONTOURS
MIDDLE FINE-GRAINED UNIT

PARADISE VALLEY—CHANDLER—QUEEN CREEK SUBAREA

GEOLOGY Calvin B. Ford SUBMITTED Earl E. Konze
TRACED GPD RECOMMENDED G. H. Lillard
CHECKED J. Delaney APPROVED L. A. Page

PHOENIX, ARIZONA JULY 1, 1972 SHEET 4 OF 6 344-314-1247

Figure 78


PARADISE VALLEY
CHANDLER
QUEEN CREEK
PARADISE VALLEY FLOOD DETENTION DIKE (CONSTRUCTED)
(UNDER CONSTRUCTION)
GRANITE REEF AQUEDUCT
SALT RIVER SIPHON (UNDER CONSTRUCTION)
BUSH HIGHWAY
ORME DAM
ORME PUMP-GENERATION PLANT
HIGHWAY 87 RELOCATION
SALT-GILA PUMPING PLANT
SALT - GILA AQUEDUCT
QUEEN CREEK SIPHON
GILA RIVER SIPHON
CAVE CREEK DAM
PHOENIX MOUNTAINS
SALT RIVER INDIAN RESERVATION
GILA RIVER INDIAN RESERVATION
FORT McDOWELL INDIAN RESERVATION
SAGUARO LAKE
ROOSEVELT LAKE
APACHE LAKE
MARICOPA COUNTY
PINAL COUNTY
TONTO NATIONAL FOREST
WHITLOW RANCH DAM
ASHURST-HAYDEN DIVERSION DAM
FT. GRANT MILITARY RESERVATION
WILLIAMS A.F.B.
PHOENIX
Glendale
Tempe
Mesa
Gilbert
Chandler
West Chandler
Tolleson
Paradise Valley
Scottsdale
Adobe
Apache Junction
Florence Junction
Florence
Coolidge
To Casa Grande
To Globe
To Phoenix
To Buckeye
To Oracle
EXPLANATION
AUTHORIZED FEATURES
Dam and reservoir
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Pump-generation plant
Open aqueduct
Reversible canal
Bifurcation
Bridge
Siphon
Dike
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National forest boundaries
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(8) Salt River Project Agricultural Improvement and Power District
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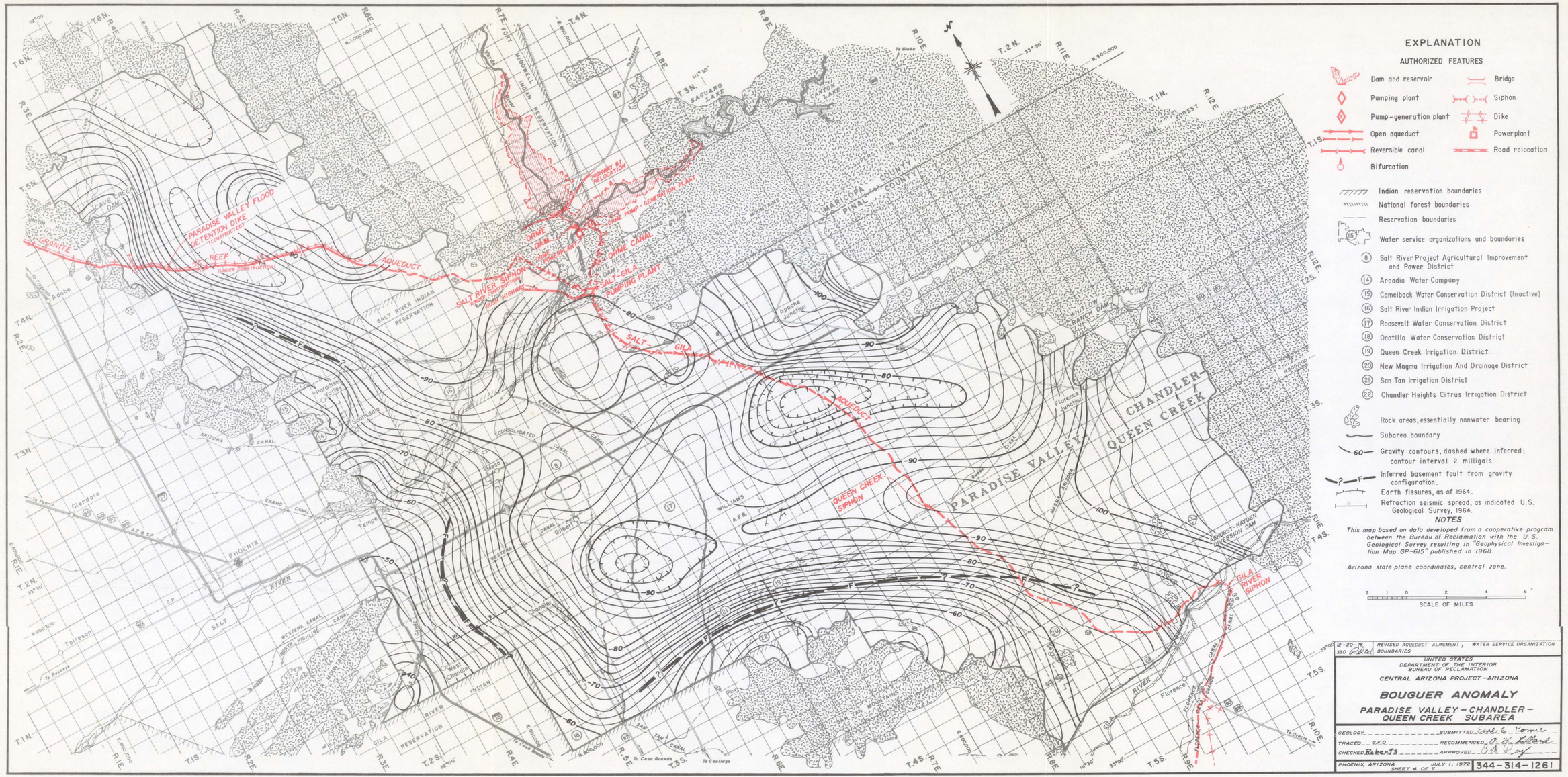
(17) Roosevelt Water Conservation District
(18) Ocotillo Water Conservation District
(19) Queen Creek Irrigation District
(20) New Magma Irrigation And Drainage District
(21) San Tan Irrigation District
(22) Chandler Heights Citrus Irrigation District
Rock areas, essentially nonwater bearing
Subarea boundary
Generalized structure contours, top of the Lower Conglomerate Unit; dashed where inferred; contour interval 200 feet; datum mean sea level.
NOTE
Arizona state plane coordinates, central zone.
SCALE OF MILES
12-20-76 330 REVISED AQUEDUCT ALINEMENT, WATER SERVICE ORGANIZATION BOUNDARIES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
STRUCTURE CONTOURS
LOWER CONGLOMERATE UNIT
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY Carver B. Ford
TRACED G.F.O.
CHECKED J.J. Landry
SUBMITTED Earl E. Morris
RECOMMENDED O.H. Tillard
APPROVED C.O. Rust
PHOENIX, ARIZONA JULY 1, 1972 SHEET 4 OF 7
344-314-1254

Figure 79


EXPLANATION
AUTHORIZED FEATURES
Dam and reservoir
Pumping plant
Pump-generation plant
Open aqueduct
Reversible canal
Bifurcation
Bridge
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(18) Ocotillo Water Conservation District
(19) Queen Creek Irrigation District
(20) New Magma Irrigation And Drainage District
(21) San Tan Irrigation District
(22) Chandler Heights Citrus Irrigation District
Rock areas, essentially nonwater bearing
Subarea boundary
60 Gravity contours, dashed where inferred; contour interval 2 milligals.
Inferred basement fault from gravity configuration.
Earth fissures, as of 1964.
Refraction seismic spread, as indicated U.S. Geological Survey, 1964.
NOTES
This map based on data developed from a cooperative program between the Bureau of Reclamation with the U.S. Geological Survey resulting in "Geophysical Investigation Map GP-615" published in 1968.
Arizona state plane coordinates, central zone.
SCALE OF MILES
PARADISE VALLEY FLOOD DETENTION DIKE (CONSTRUCTED)
REEF (UNDER CONSTRUCTION)
GRANITE
AQUEDUCT
SALT RIVER SIPHON
SALT RIVER PUMPING PLANT
SALT-GILA AQUEDUCT
HIGHWAY 87 RELOCATION
CANYON PUMP-GENERATION PLANT
ORME DAM
ORME CANAL
CAVE CREEK DAM
QUEEN CREEK SIPHON
GILA RIVER SIPHON
PARADISE VALLEY
CHANDLER-QUEEN CREEK
PHOENIX
Tempe
Glendale
Tolleson
Scottsdale
Paradise Valley
Apache Junction
Florence Junction
Florence
Coolidge
Casa Grande
SALT RIVER INDIAN RESERVATION
GILA RIVER INDIAN RESERVATION
MCDOWELL INDIAN RESERVATION
MARICOPA COUNTY
PINAL COUNTY
TONTO NATIONAL FOREST
SAGUARO LAKE
CANYON LAKE
WHITLOW RANCH DAM
ROOSEVELT HAYDEN DIVERSION DAM
WESTERN CANAL
NORTH HIGHLINE CANAL
ARIZONA CANAL
GRAND CANAL
CONSOLIDATED CANAL
EASTERN CANAL
SALT RIVER
GILA RIVER
To Globe
To Phoenix
To Buckeye
To Casa Grande
To Coolidge
To Florence
To Superior
To Apache Junction
To Mesa
To Chandler
To Gilbert
To Tempe
To Scottsdale
To Paradise Valley
To Glendale
To Tolleson
To Adobe
To Queen Creek
To Casa Grande
12-20-76 330 REVISED AQUEDUCT ALINEMENT, WATER SERVICE ORGANIZATION BOUNDARIES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
BOUGUER ANOMALY
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY
SUBMITTED
TRACED
RECOMMENDED
CHECKED
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 4 OF 7
344-314-1261

Figure 80

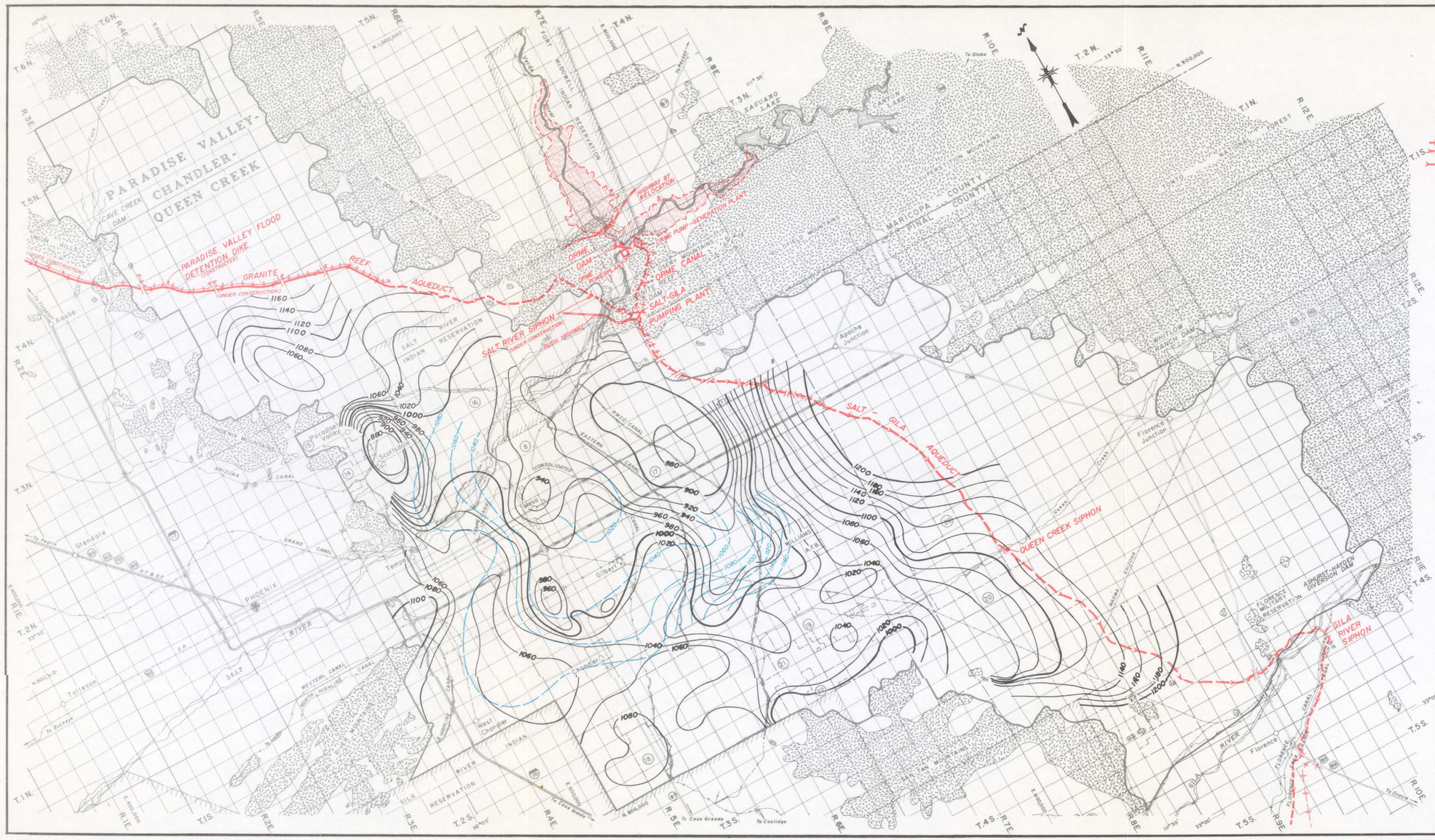

PARADISE VALLEY-CHANDLER-QUEEN CREEK
PARADISE VALLEY FLOOD DETENTION DIKE (CONSTRUCTED)
GRANITE REEF AQUEDUCT (UNDER CONSTRUCTION)
SALT RIVER SIPHON (UNDER CONSTRUCTION)
SALT-GILA AQUEDUCT
QUEEN CREEK SIPHON
GILA RIVER SIPHON
ORME DAM
ORME RESERVOIR
ORME PUMP-GENERATION PLANT
ORME CANAL
SALT-GILA PUMPING PLANT
HIGHWAY 87 RELOCATION
SAGUARO LAKE
CANYON LAKE
MARICOPA COUNTY
PINAL COUNTY
PHOENIX
Tempe
Mesa
Chandler
Gilbert
Glendale
Tolleson
Paradise Valley
Scottsdale
Apache Junction
Florence Junction
Florence
SALT RIVER INDIAN RESERVATION
GILA RIVER INDIAN RESERVATION
FLORENCE MILITARY RESERVATION
ASHURST-HAYDEN DIVERSION DAM
WHITLOW RANCH DAM
CAVE CREEK DAM
EXPLANATION
AUTHORIZED FEATURES
Dam and reservoir
Pumping plant
Pump-generation plant
Open aqueduct
Reversible canal
Bifurcation
Bridge
Siphon
Dike
Powerplant
Road relocation
Indian reservation boundaries
National forest boundaries
Reservation boundaries
Water service organizations and boundaries
(8) Salt River Project Agricultural Improvement and Power District
(14) Arcadia Water Company
(15) Camelback Water Conservation District (Inactive)
(16) Salt River Indian Irrigation Project
(17) Roosevelt Water Conservation District
(18) Ocotillo Water Conservation District
(19) Queen Creek Irrigation District
(20) New Magma Irrigation And Drainage District
(21) San Tan Irrigation District
(22) Chandler Heights Citrus Irrigation District
Rock areas, essentially nonwater bearing
Subarea boundary
900 Lines of equal ground-water elevation above sea level; contour interval 20 feet.
1100 Water-level contours above sea level for shallow water bodies. These water levels indicate semi-perched to perched conditions; contour interval 20 feet.
NOTE
Arizona state plane coordinates, central zone.
SCALE OF MILES
12-20-76 REVISED AQUEDUCT ALINEMENT AND WATER SERVICE ORGANIZATION AND BOUNDARIES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GROUND-WATER ELEVATIONS
SPRING 1972
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY Ford SUBMITTED Earl E. Konie
TRACED B.F.O. RECOMMENDED J. B. Tillard
CHECKED Roberts APPROVED C. A. Pugh
PHOENIX, ARIZONA JULY 1, 1972 SHEET 3 OF 8
344-314-1267

Figure 81

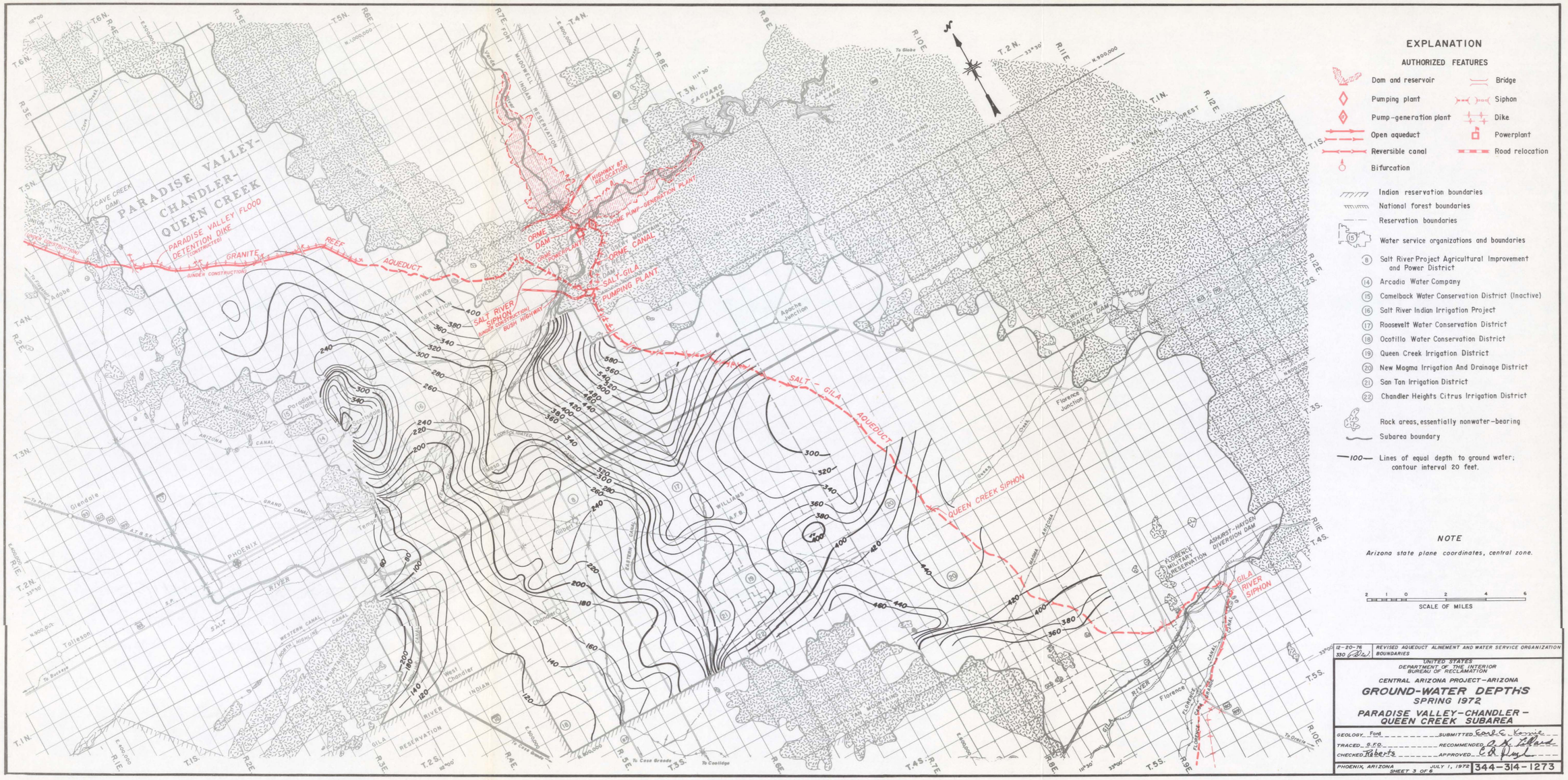

EXPLANATION
AUTHORIZED FEATURES
Dam and reservoir
Pumping plant
Pump-generation plant
Open aqueduct
Reversible canal
Bifurcation
Bridge
Siphon
Dike
Powerplant
Road relocation
Indian reservation boundaries
National forest boundaries
Reservation boundaries
Water service organizations and boundaries
8 Salt River Project Agricultural Improvement and Power District
14 Arcadia Water Company
15 Camelback Water Conservation District (Inactive)
16 Salt River Indian Irrigation Project
17 Roosevelt Water Conservation District
18 Ocotillo Water Conservation District
19 Queen Creek Irrigation District
20 New Magma Irrigation And Drainage District
21 San Tan Irrigation District
22 Chandler Heights Citrus Irrigation District
Rock areas, essentially nonwater-bearing
Subarea boundary
100 Lines of equal depth to ground water; contour interval 20 feet.
NOTE
Arizona state plane coordinates, central zone.
SCALE OF MILES
PARADISE VALLEY-CHANDLER-QUEEN CREEK
PARADISE VALLEY FLOOD DETENTION DIKE (CONSTRUCTED)
GRANITE REEF AQUEDUCT
SALT RIVER SIPHON
ORME DAM
ORME PUMPING PLANT
ORME PUMP-GENERATION PLANT
ORME CANAL
SALT-GILA PUMPING PLANT
SALT-GILA AQUEDUCT
QUEEN CREEK SIPHON
GILA RIVER SIPHON
ASHURST-HAYDEN DIVERSION DAM
FLORENCE MILITARY RESERVATION
PHOENIX
Glendale
Tolleson
Tempe
Mesa
Chandler
Gilbert
Apache Junction
Florence Junction
Florence
Paradise Valley
SALT RIVER
GILA RIVER
12-20-76 330 REVISED AQUEDUCT ALINEMENT AND WATER SERVICE ORGANIZATION BOUNDARIES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GROUND-WATER DEPTHS
SPRING 1972
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY Ford
TRACED S.F.O.
CHECKED Roberts
SUBMITTED Earl C. Konnie
RECOMMENDED
APPROVED
PHOENIX, ARIZONA
SHEET 3 OF 6
JULY 1, 1972
344-314-1273

Figure 82

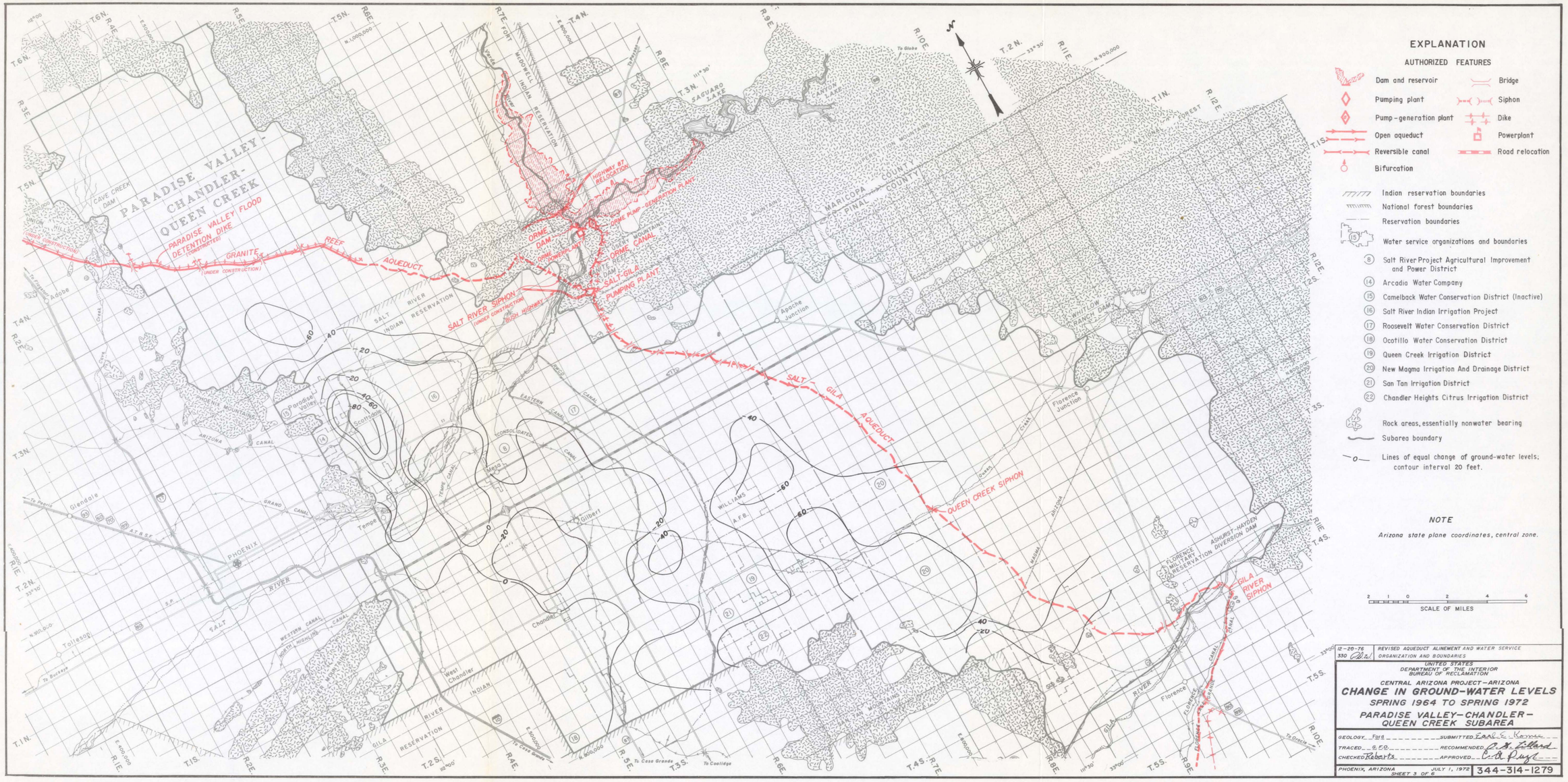
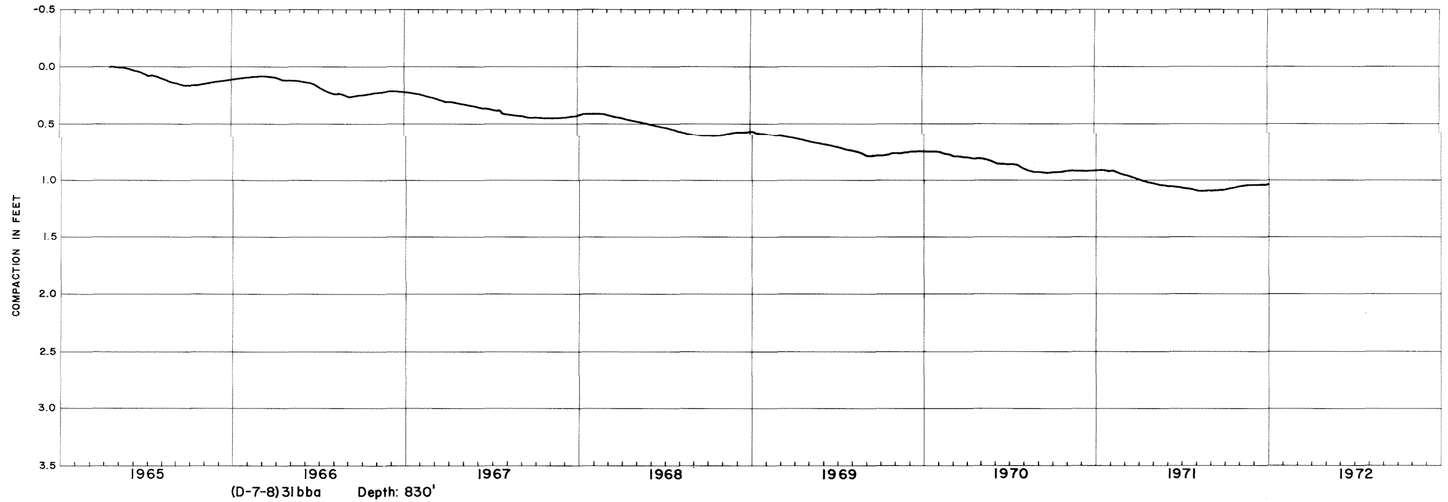
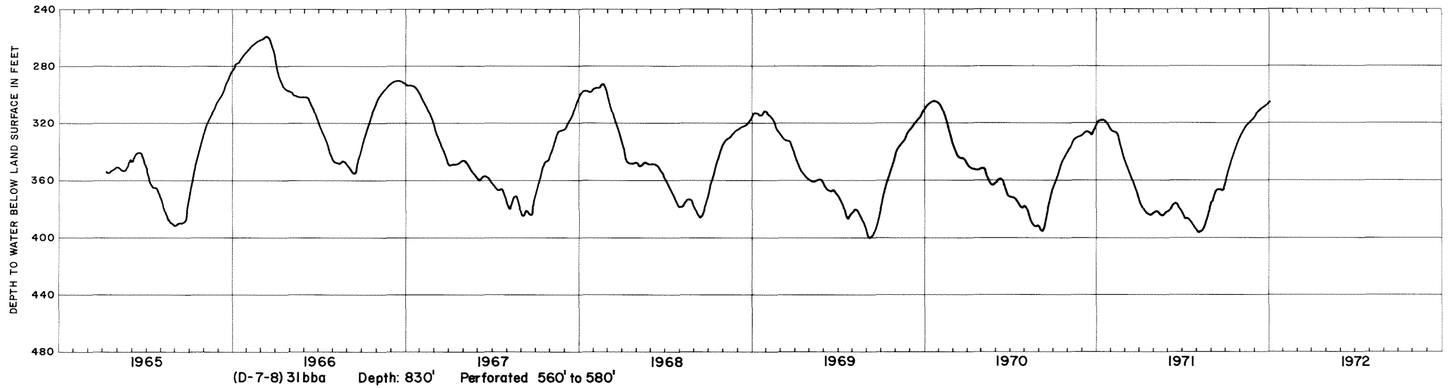

EXPLANATION
AUTHORIZED FEATURES
Dam and reservoir
Pumping plant
Pump-generation plant
Open aqueduct
Reversible canal
Bifurcation
Bridge
Siphon
Dike
Powerplant
Road relocation
Indian reservation boundaries
National forest boundaries
Reservation boundaries
Water service organizations and boundaries
(8) Salt River Project Agricultural Improvement and Power District
(14) Arcadia Water Company
(15) Camelback Water Conservation District (Inactive)
(16) Salt River Indian Irrigation Project
(17) Roosevelt Water Conservation District
(18) Ocotillo Water Conservation District
(19) Queen Creek Irrigation District
(20) New Magma Irrigation And Drainage District
(21) San Tan Irrigation District
(22) Chandler Heights Citrus Irrigation District
Rock areas, essentially nonwater bearing
Subarea boundary
Lines of equal change of ground-water levels; contour interval 20 feet.
NOTE
Arizona state plane coordinates, central zone.
SCALE OF MILES
PARADISE VALLEY-CHANDLER-QUEEN CREEK
PARADISE VALLEY FLOOD DETENTION DIKE (CONSTRUCTED)
GRANITE REEF AQUEDUCT (UNDER CONSTRUCTION)
SALT RIVER SIPHON (UNDER CONSTRUCTION)
ORME DAM
ORME PUMP-GENERATION PLANT
SALT-GILA PUMPING PLANT
ORME CANAL
HIGHWAY 87 RELOCATION
SALT GILA AQUEDUCT
QUEEN CREEK SIPHON
GILA RIVER SIPHON
CAVE CREEK DAM
PHOENIX
Tempe
Mesa
Gilbert
Chandler
Glendale
Tolleson
Scottsdale
Paradise Valley
Apache Junction
Florence Junction
Florence
Coolidge
To Casa Grande
To Globe
To Superior
To Buckeye
To Peoria
To Queen Creek
SALT RIVER INDIAN RESERVATION
GILA RIVER INDIAN RESERVATION
FORT MCDOWELL INDIAN RESERVATION
FLORENCE MILITARY RESERVATION
ASHURST-HAYDEN DIVERSION DAM
WILLIAMS A.F.B.
MARICOPA COUNTY
PINAL COUNTY
TONTO NATIONAL FOREST
SUPERSTITION MOUNTAINS
SAN TAN MOUNTAINS
PHOENIX MOUNTAINS
WHITLOW RANCH DAM
SAGUARO LAKE
ARIZONA CANAL
GRAND CANAL
EASTERN CANAL
CONSOLIDATED CANAL
WESTERN CANAL
NORTH HIGHLINE CANAL
SALT RIVER
GILA RIVER
ARIZONA
MAGMA
FLORENCE
PINAL
CANAL
T.6N.
T.5N.
T.4N.
T.3N.
T.2N.
T.1N.
T.1S.
T.2S.
T.3S.
T.4S.
T.5S.
R.3E.
R.4E.
R.5E.
R.6E.
R.7E.
R.8E.
R.9E.
R.10E.
R.11E.
R.12E.
R.1E.
R.2E.
N.1,000,000
N.900,000
N.300,000
E.500,000
E.600,000
E.800,000
E.900,000
E.400,000
E.300,000
33°00'
33°30'
33°10'
112°00'
111°30'
111°00'
110°30'
110°00'
12-20-76 330 REVISED AQUEDUCT ALINEMENT AND WATER SERVICE ORGANIZATION AND BOUNDARIES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT—ARIZONA
CHANGE IN GROUND-WATER LEVELS
SPRING 1964 TO SPRING 1972
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY Ford
SUBMITTED Earl E. Konze
TRACED G.F.G.
RECOMMENDED C. A. Pillard
CHECKED Roberts
APPROVED C. A. Ruzz
PHOENIX, ARIZONA JULY 1, 1972
SHEET 3 OF 2
344-314-1279

Figure 83

WATER-LEVEL HYDROGRAPHS





ELOY-COOLIDGE SUBAREA

NOTE

Unpublished data from
United States Geological Survey
Water Resources Division

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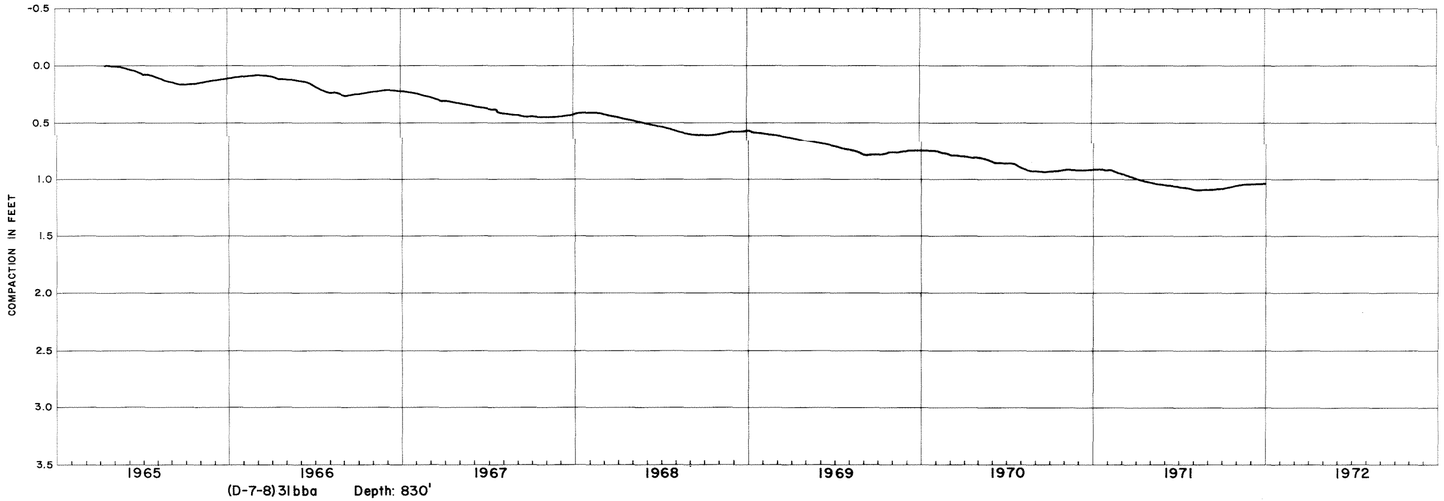
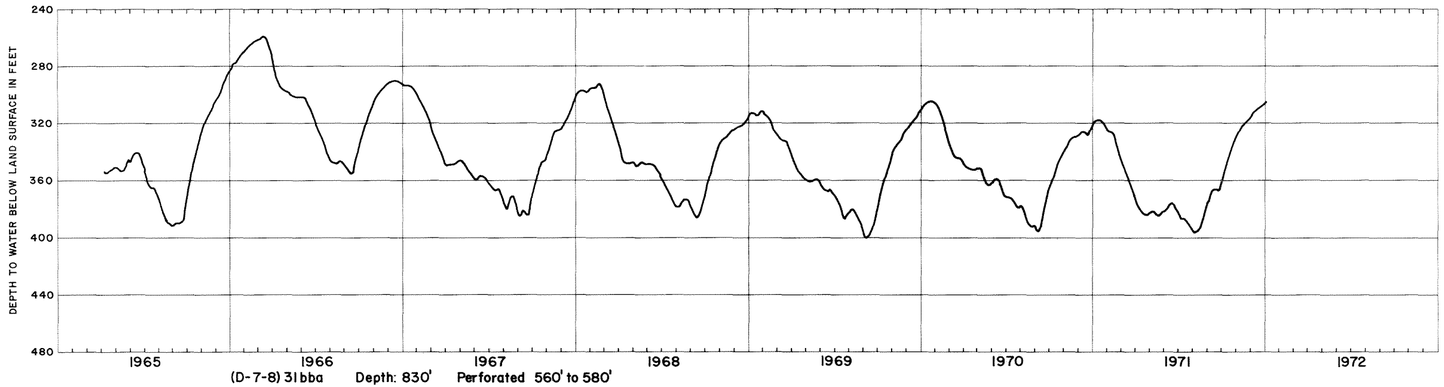
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

AQUIFER SYSTEM COMPACTION
AND
WATER LEVEL HYDROGRAPH
344-314-1284
JULY 1, 1972

Figure 84





ELOY-COOLIDGE SUBAREA

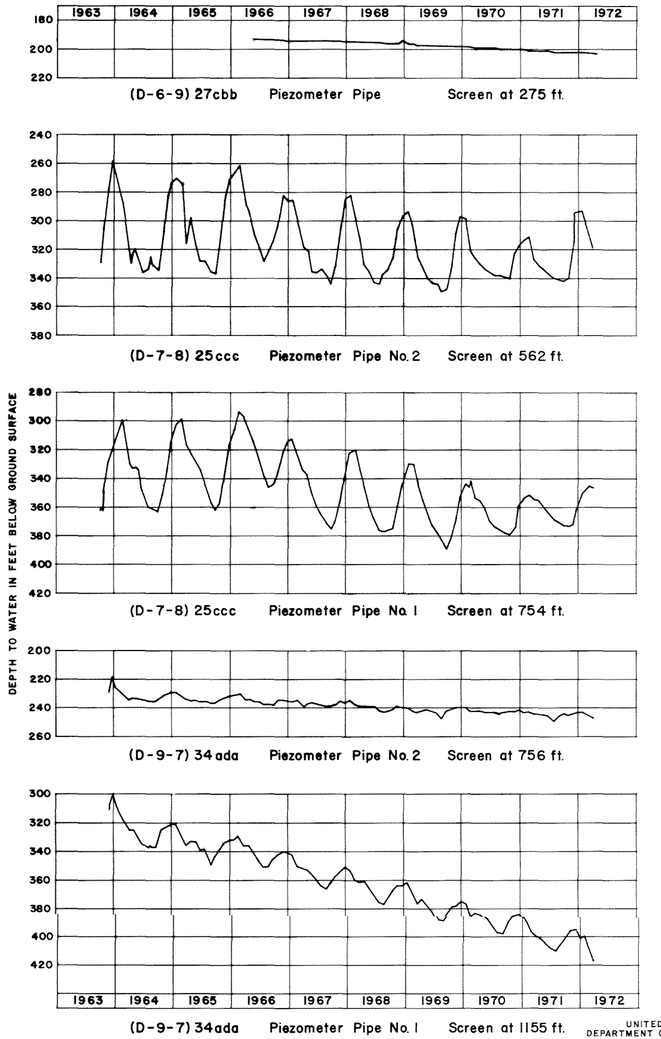
NOTE

Unpublished data from
United States Geological Survey
Water Resources Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

AQUIFER SYSTEM COMPACTION
AND
WATER LEVEL HYDROGRAPH
344-314-1284
JULY 1, 1972

Figure 84



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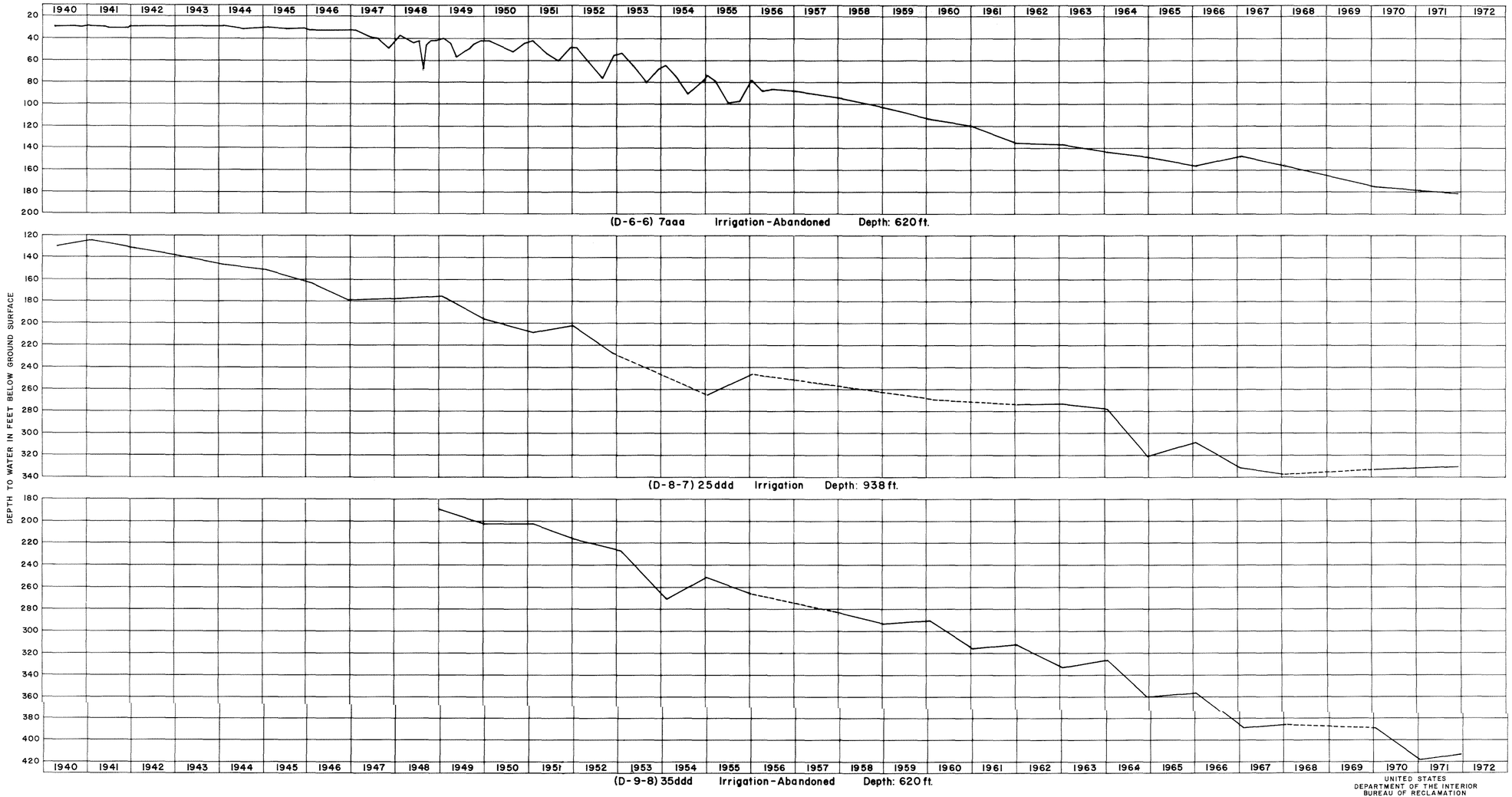
CENTRAL ARIZONA PROJECT-ARIZONA

ELOY-COOLIDGE SUBAREA
U. S. B. R. TEST HOLES

REPRESENTATIVE WATER LEVEL HYDROGRAPHS
344-314-1285
JULY 1, 1972

Figure 85



ELOY-COOLIDGE SUBAREA

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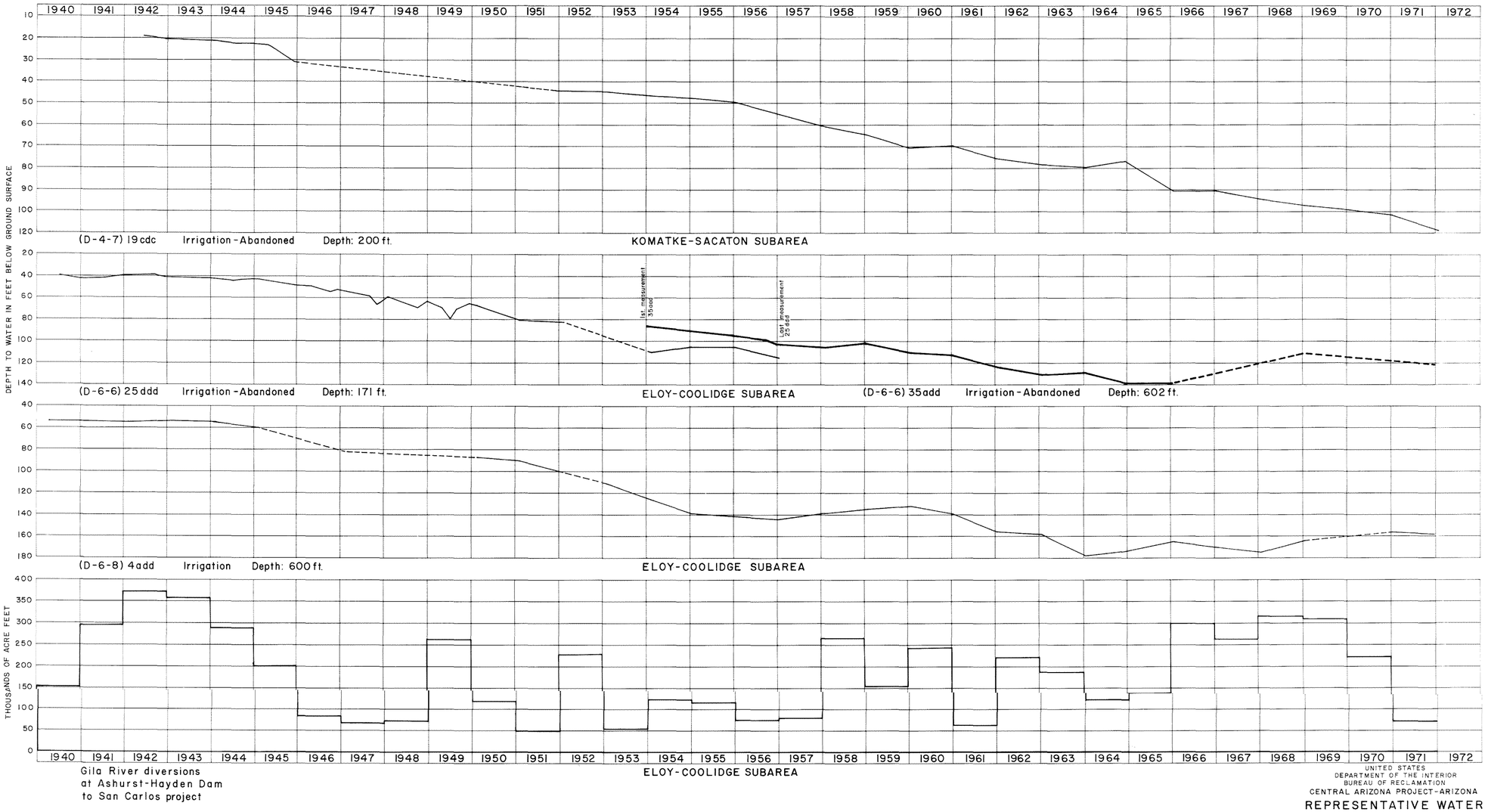
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1286

JULY 1, 1972

Figure 86



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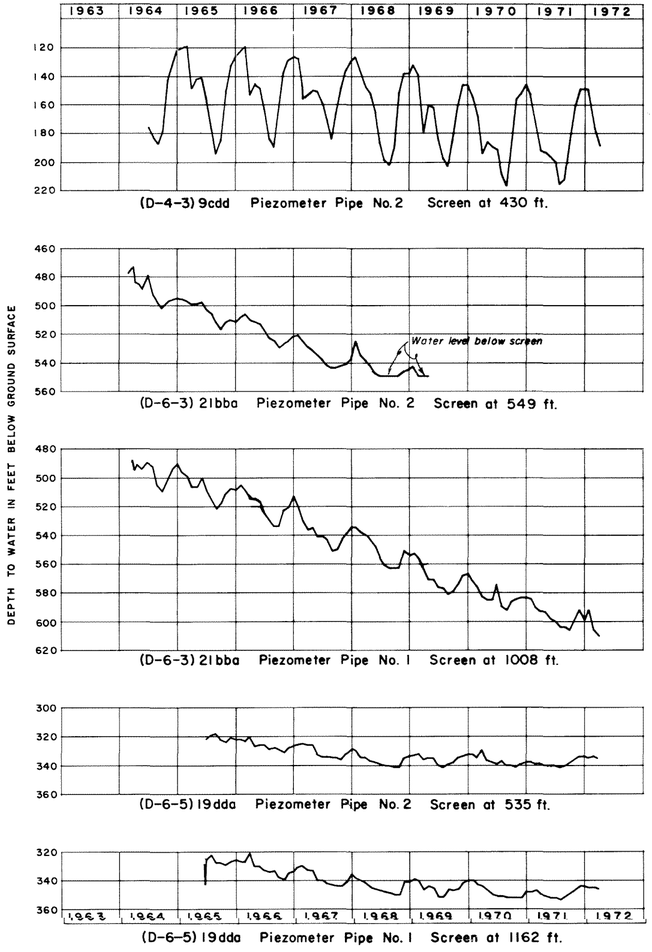
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1287

JULY 1, 1972

Figure 87



MARICOPA-STANFIELD SUBAREA
U.S.B.R. TEST HOLES

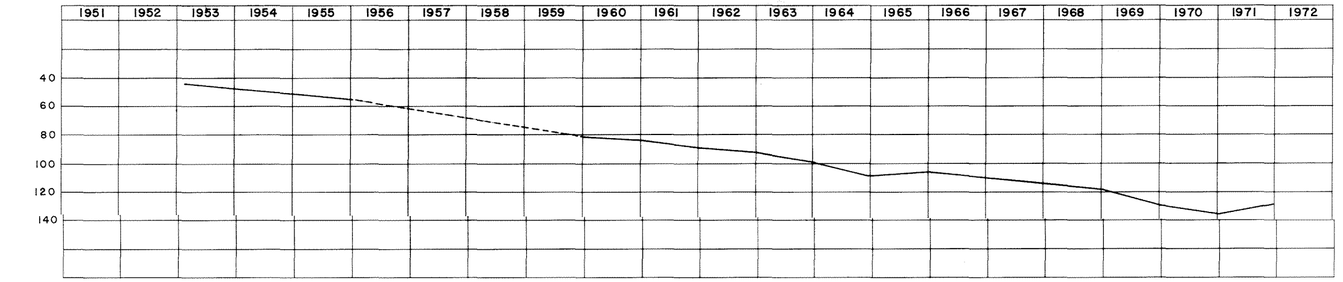
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

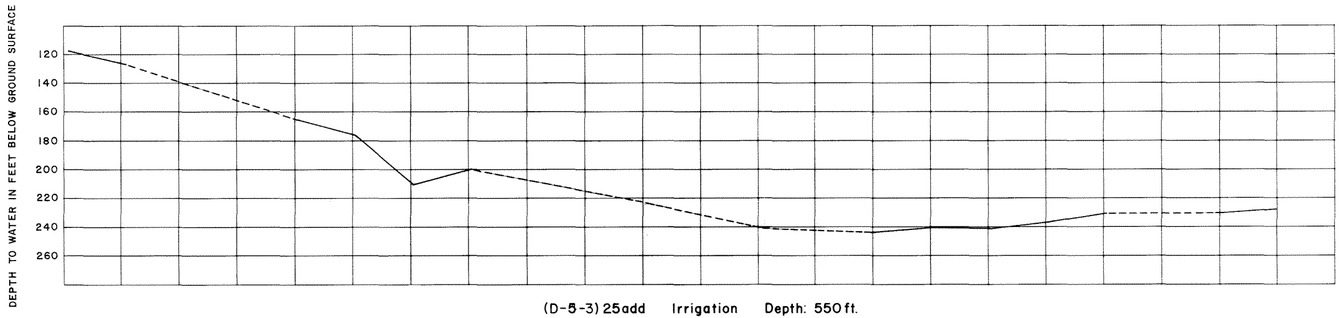
344-314-1288

JULY 1, 1972

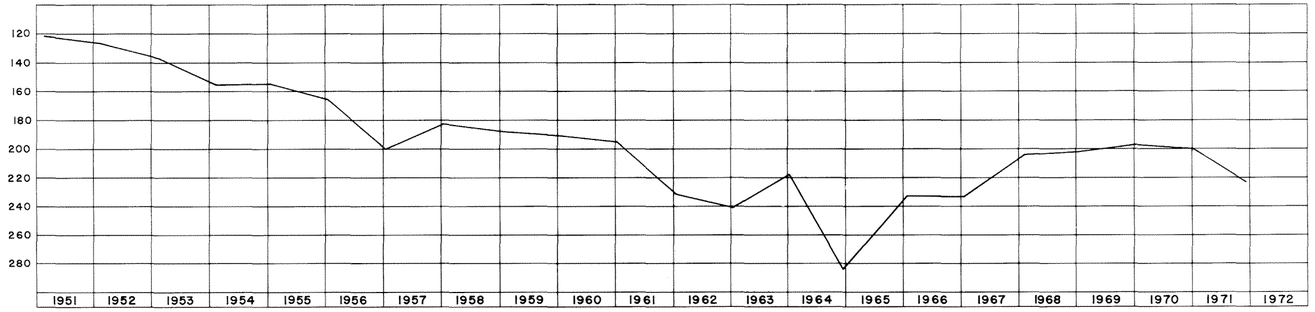
Figure 88



(D-4-3) 17daa Irrigation Depth:



(D-5-3) 25add Irrigation Depth: 550 ft.



(D-5-3) 33dbc Irrigation Depth: 325 ft.

MARICOPA-STANFIELD SUBAREA

UNITED STATES
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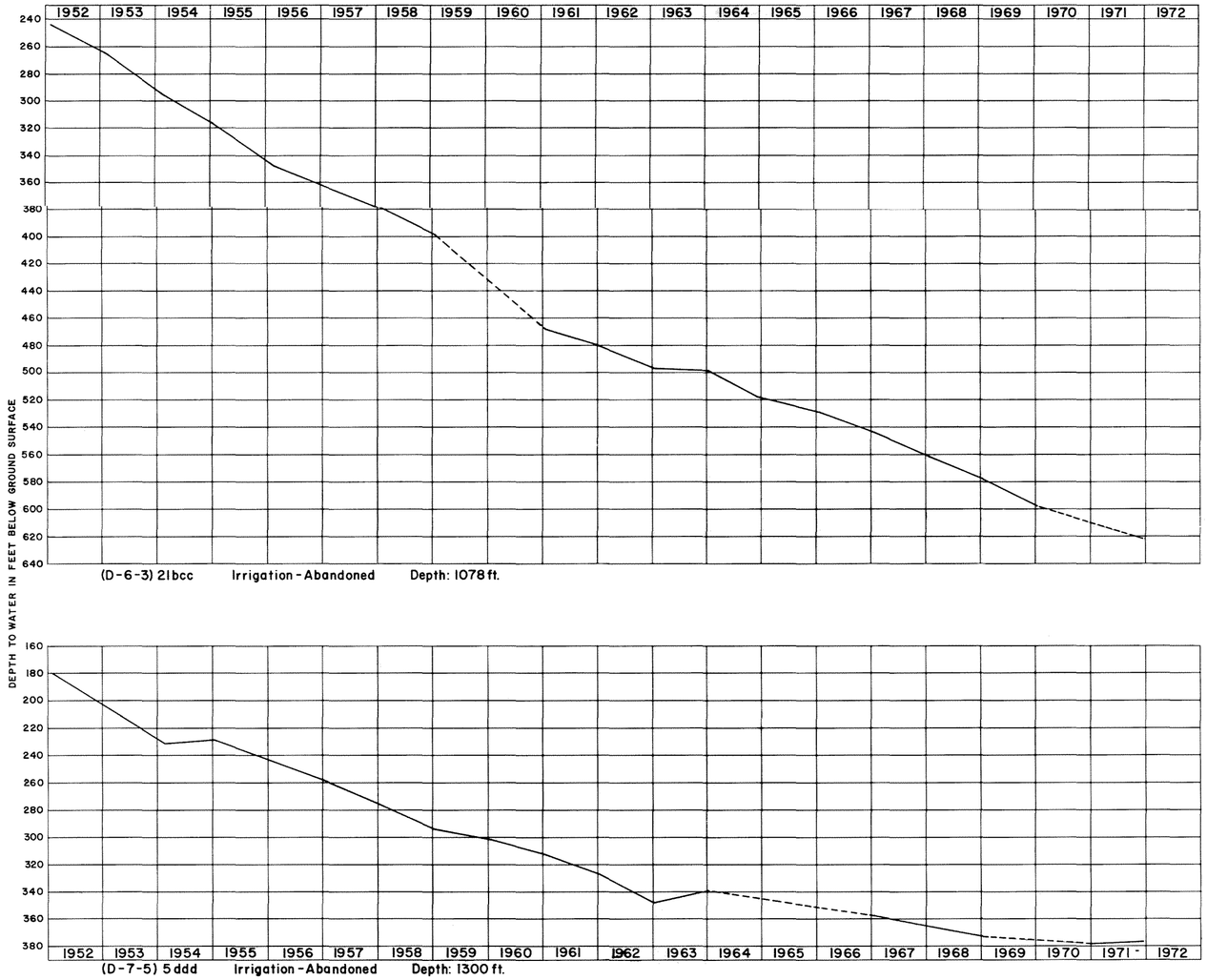
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1289

JULY 1, 1972

Figure 89



MARICOPA-STANFIELD SUBAREA

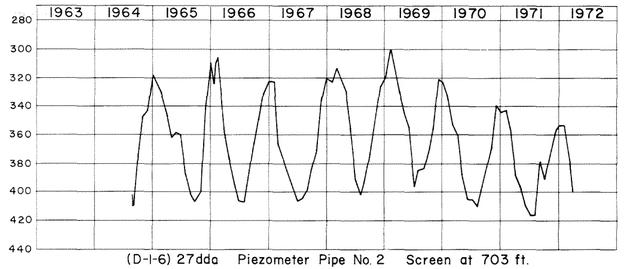
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

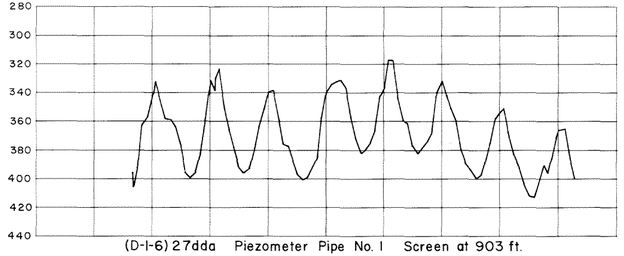
344-314-1290

JULY 1, 1972

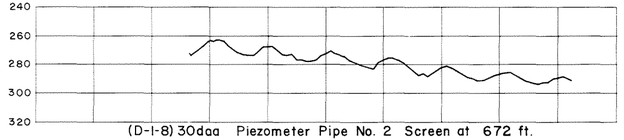
Figure 90



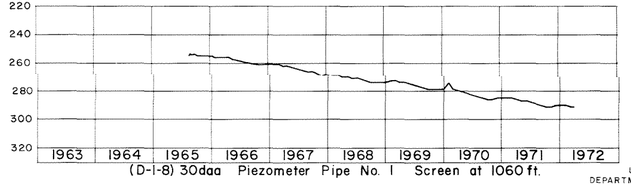
(D-1-6) 27dda Piezometer Pipe No. 2 Screen at 703 ft.



(D-1-6) 27dda Piezometer Pipe No. 1 Screen at 903 ft.



(D-1-8) 30daa Piezometer Pipe No. 2 Screen at 672 ft.



(D-1-8) 30daa Piezometer Pipe No. 1 Screen at 1060 ft.

PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
U. S. B. R. TEST HOLES

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DEPARTMENT OF THE INTERIOR
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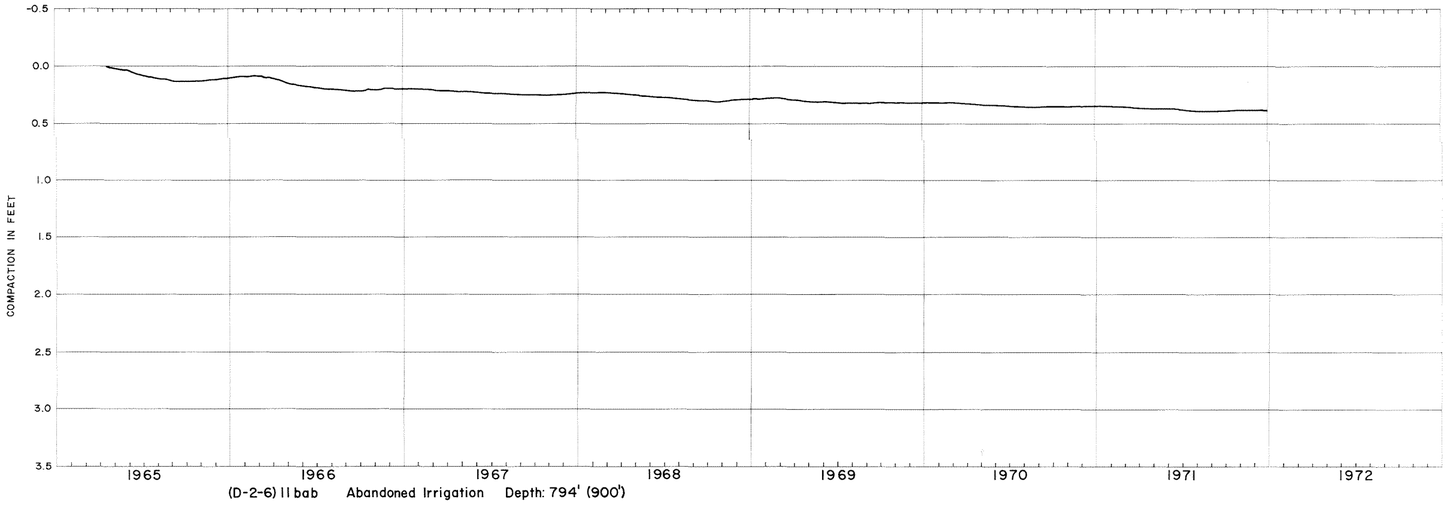
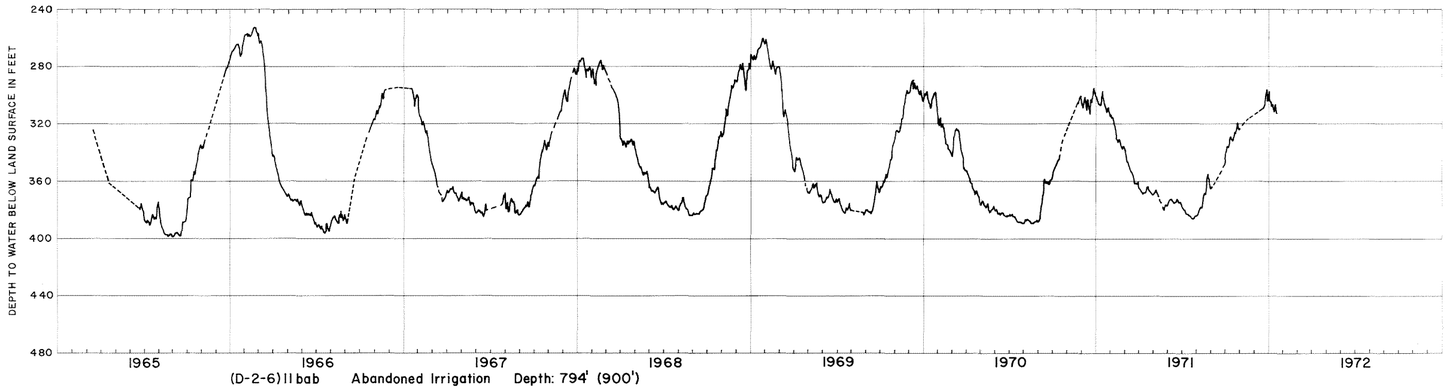
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1291
JULY 1, 1972

Figure 91





PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA

NOTE

Unpublished data from
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Water Resources Division

UNITED STATES
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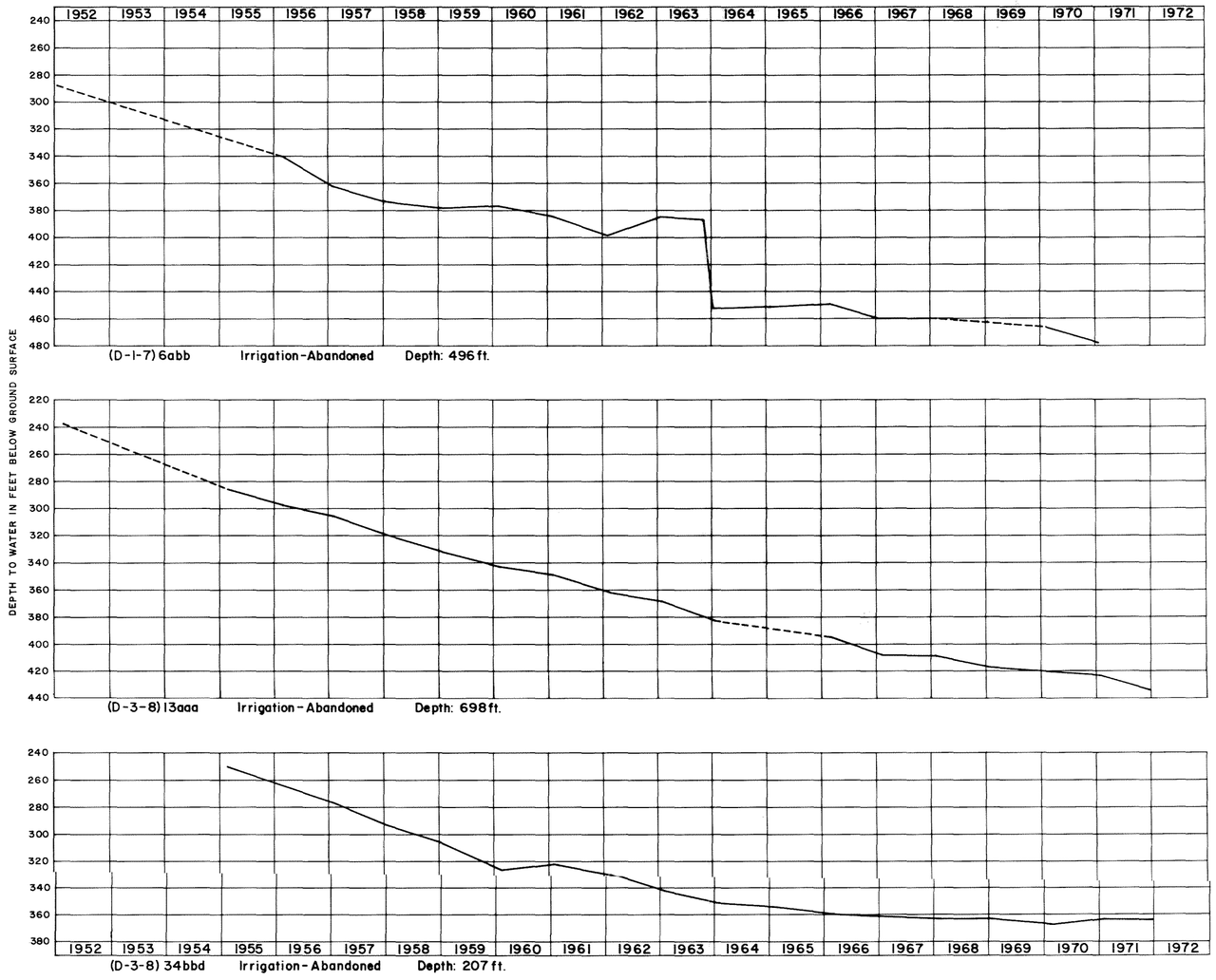
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

AQUIFER SYSTEM COMPACTION
AND
WATER LEVEL HYDROGRAPH
344-314-1292
JULY 1,1972

Figure 92



PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA

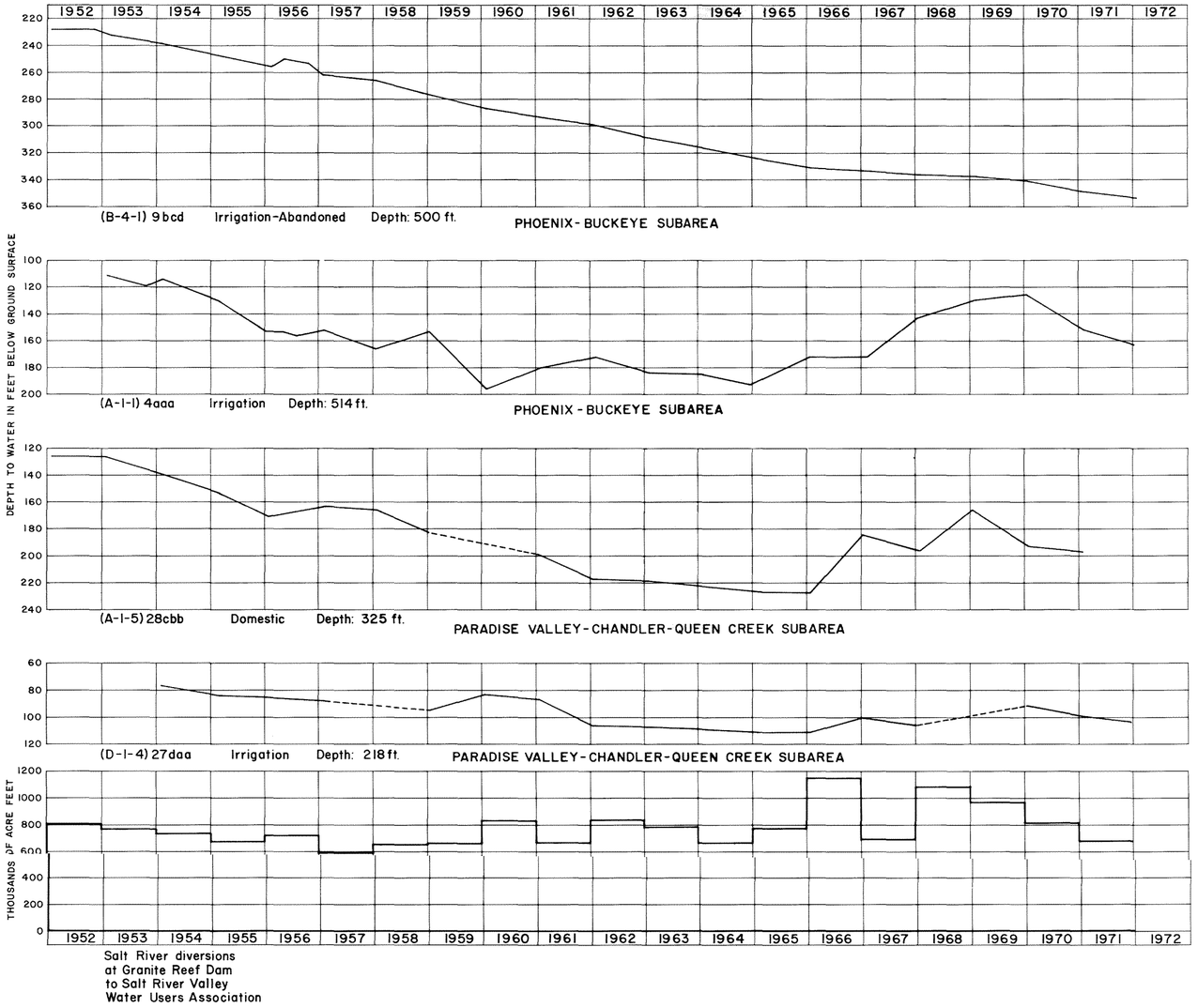
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1293

JULY 1, 1972

Figure 93



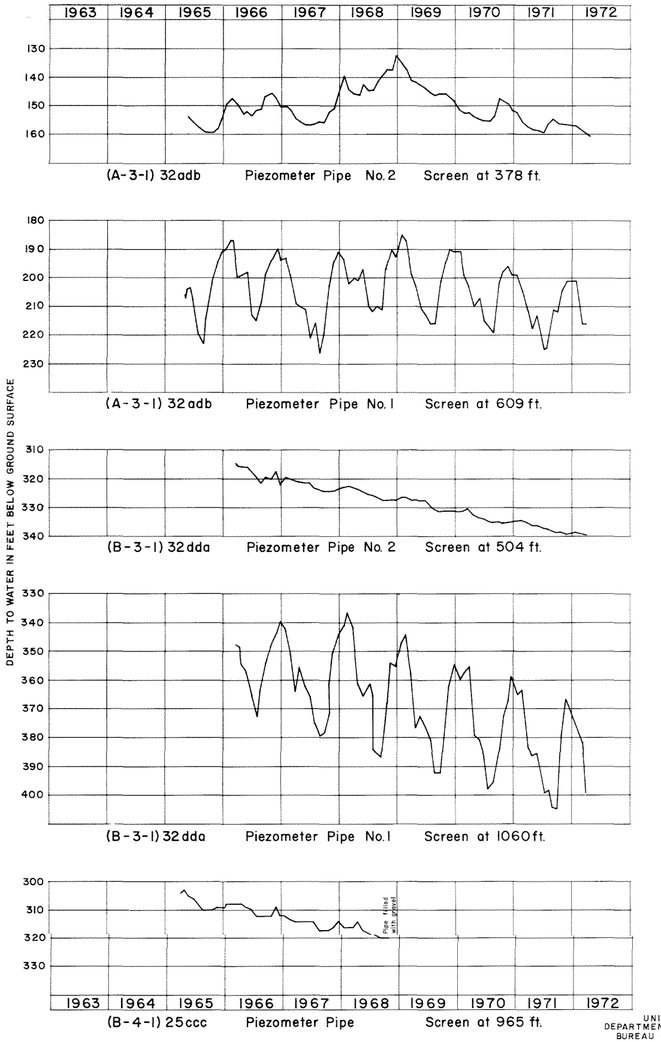
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1294

JULY 1, 1972

Figure 94



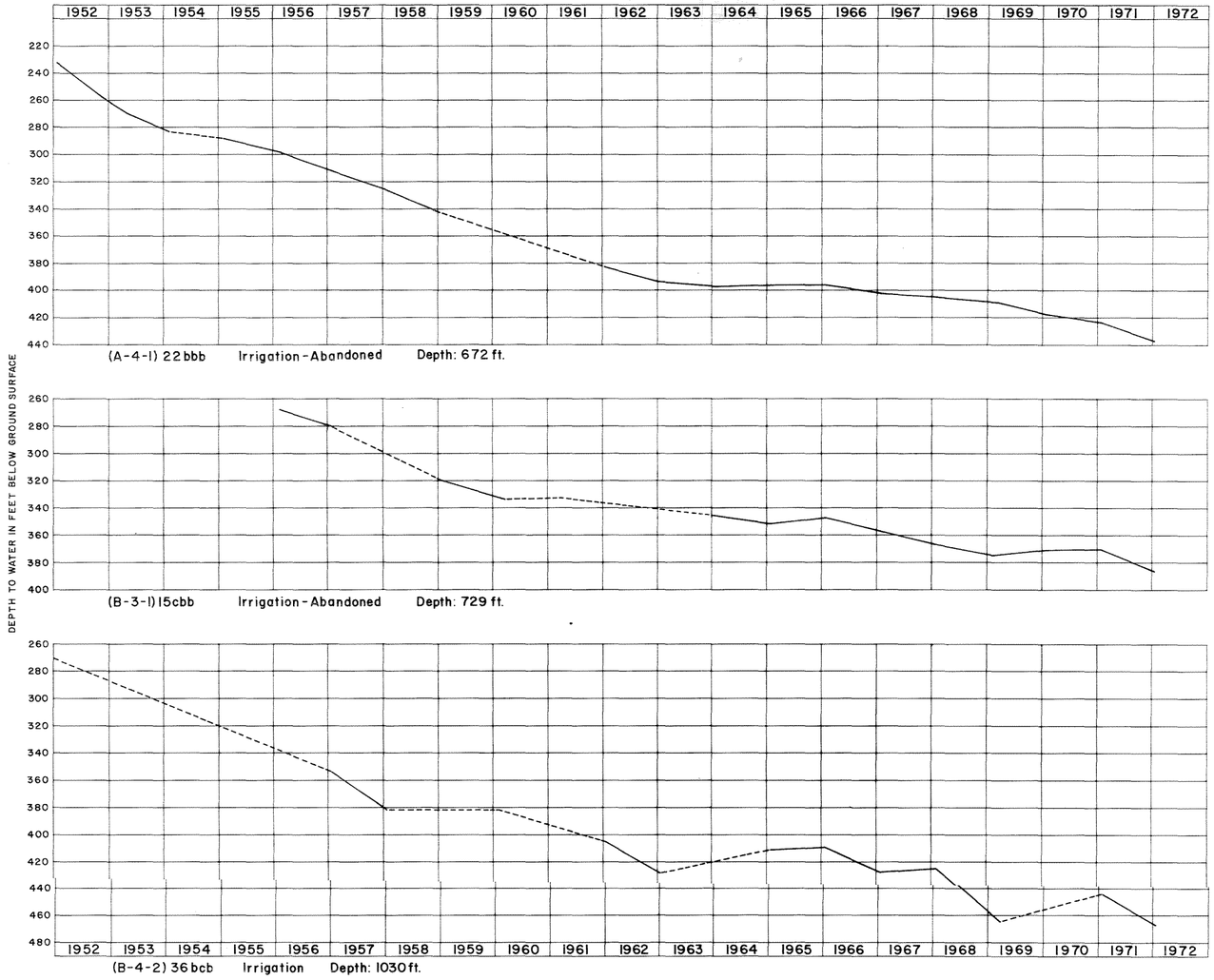
PHOENIX-BUCKEYE SUBAREA
U. S. B. R. TEST HOLES

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1295
JULY 1, 1972

Figure 95



PHOENIX-BUCKEYE SUBAREA

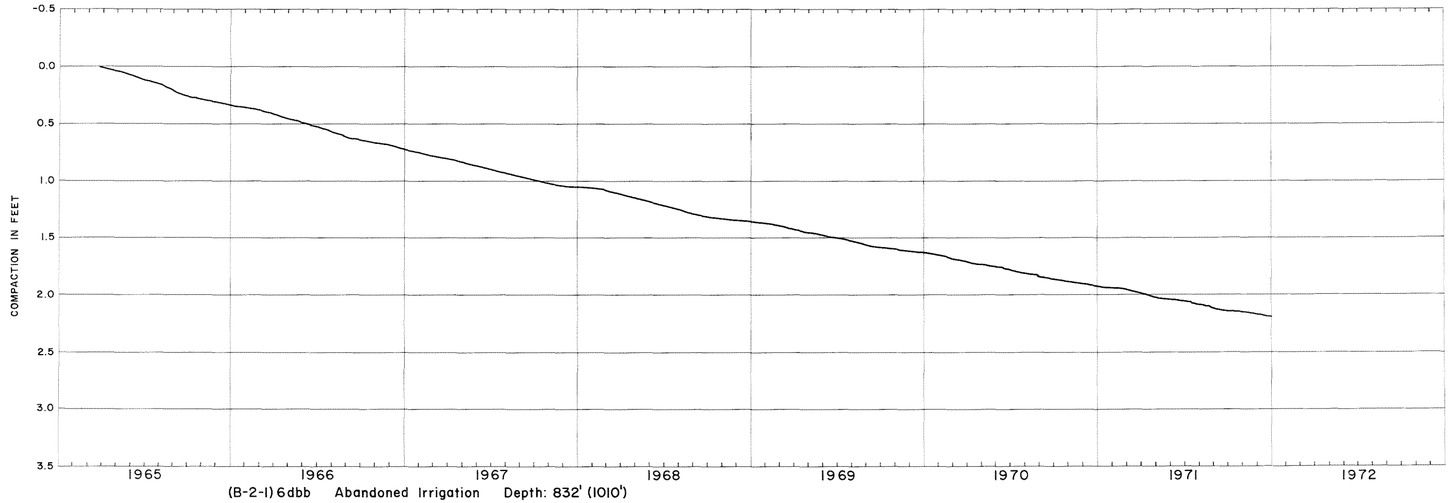
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

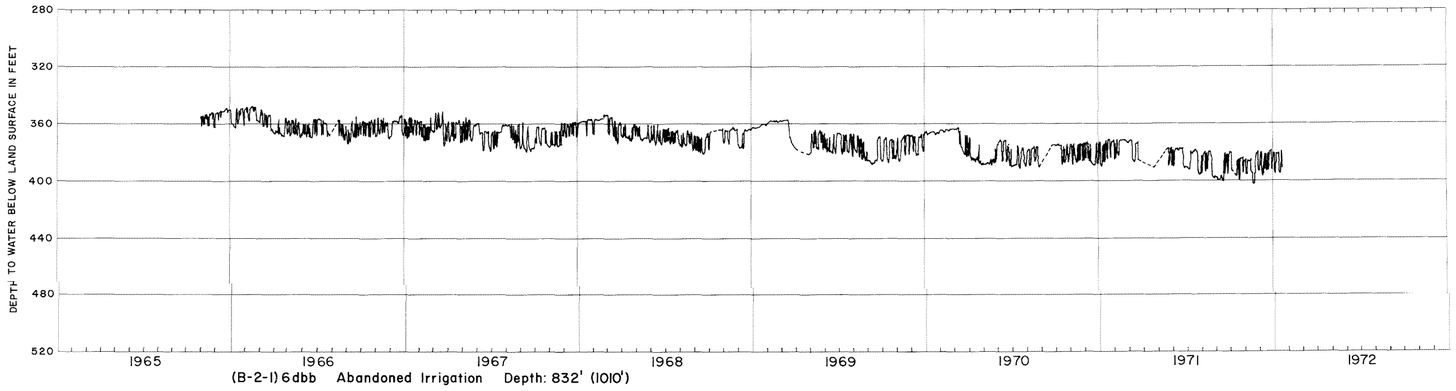
REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1296

JULY 1, 1972

Figure 96





PHOENIX - BUCKEYE SUBAREA

NOTE

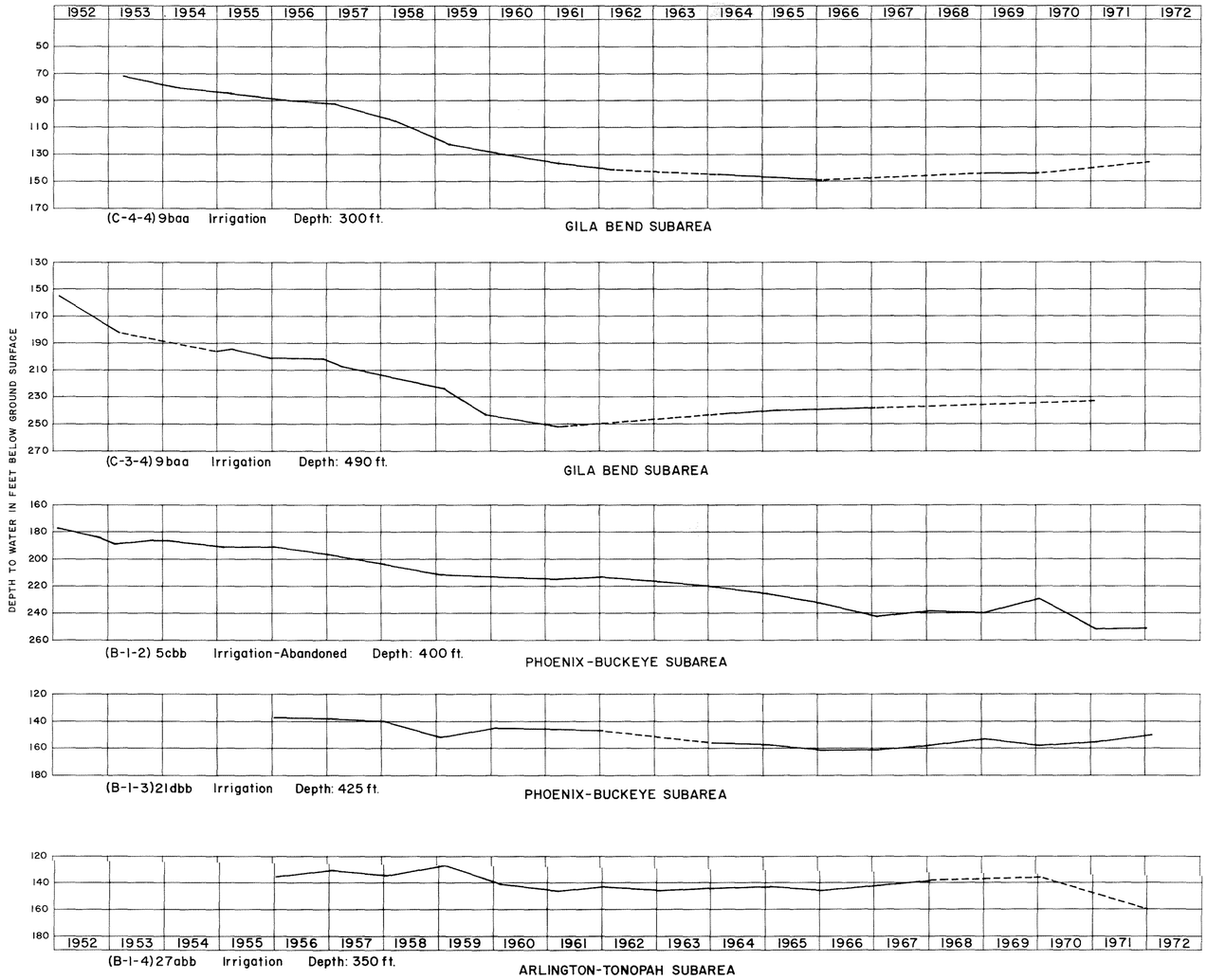
Unpublished data from
United States Geological Survey
Water Resources Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

AQUIFER SYSTEM COMPACTION
AND
WATER LEVEL HYDROGRAPH

344-314-1297
JULY 1,1972

Figure 97



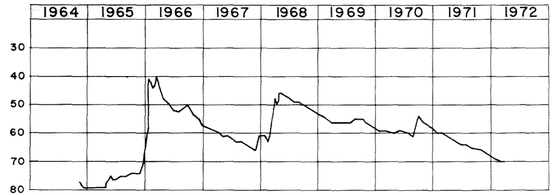
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1298

JULY 1,1972

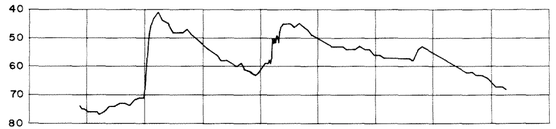
Figure 98



(A-1-3)13dbb Piezometer Pipe No. 2 Casing Depth 158 ft.

PHOENIX - BUCKEYE SUBAREA

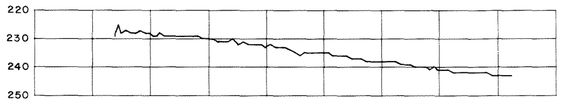
U. S. B. R. TEST HOLE



(A-1-3)13dbb Piezometer Pipe No. 1 Screen at 588 ft.

PHOENIX - BUCKEYE SUBAREA

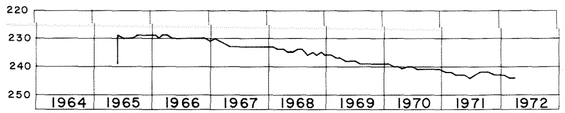
U. S. B. R. TEST HOLE



(C-5-4) 33ddc Piezometer Pipe No. 2 Screen at 462 ft.

GILA BEND SUBAREA

U. S. B. R. TEST HOLE



(C-5-4) 33ddc Piezometer Pipe No. 1 Screen at 1092 ft.

GILA BEND SUBAREA

U. S. B. R. TEST HOLE

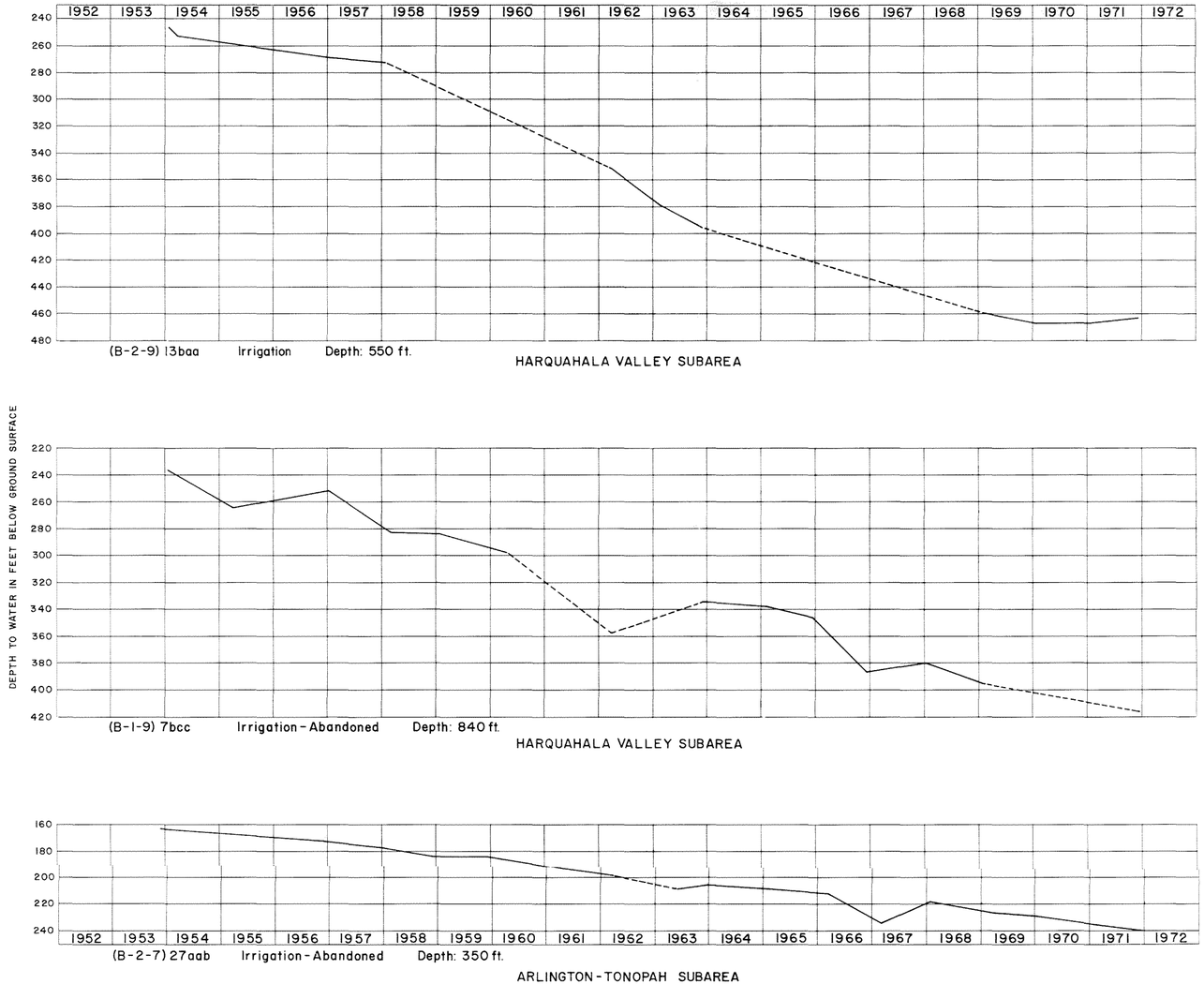
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1299

JULY 1, 1972

Figure 99



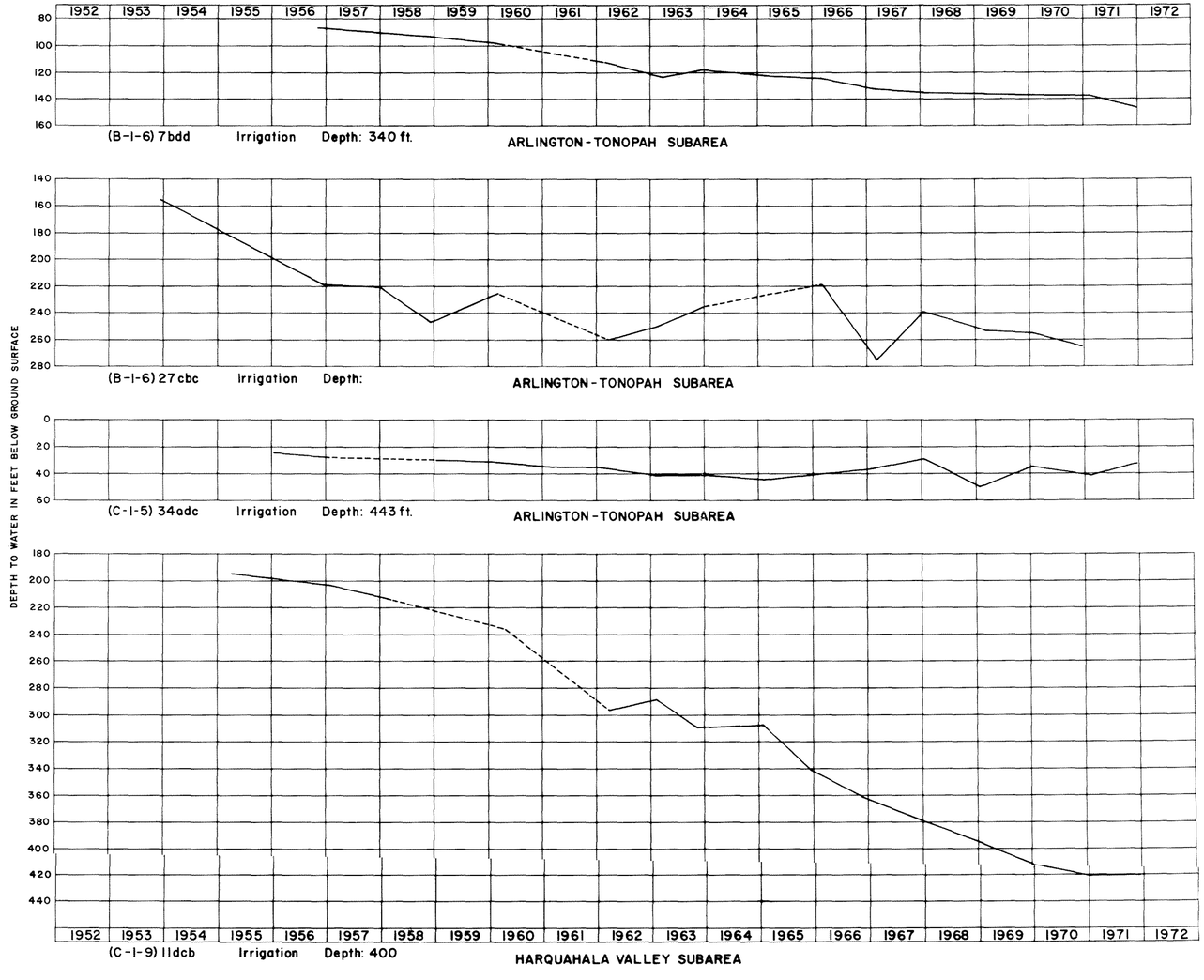
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1300

JUNE 1,1972

Figure 100



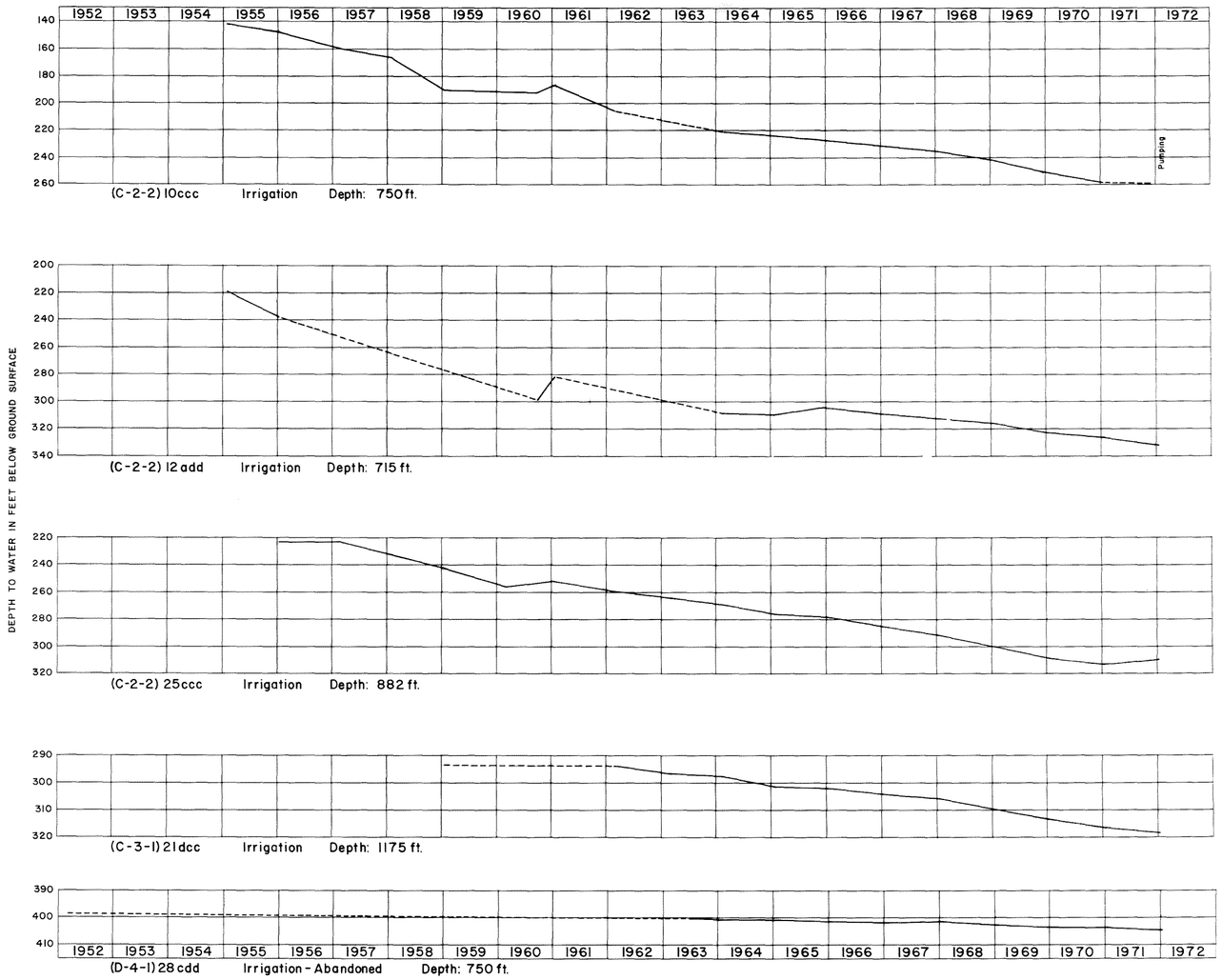
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1301

JULY 1,1972

Figure 101



WATERMAN WASH SUBAREA

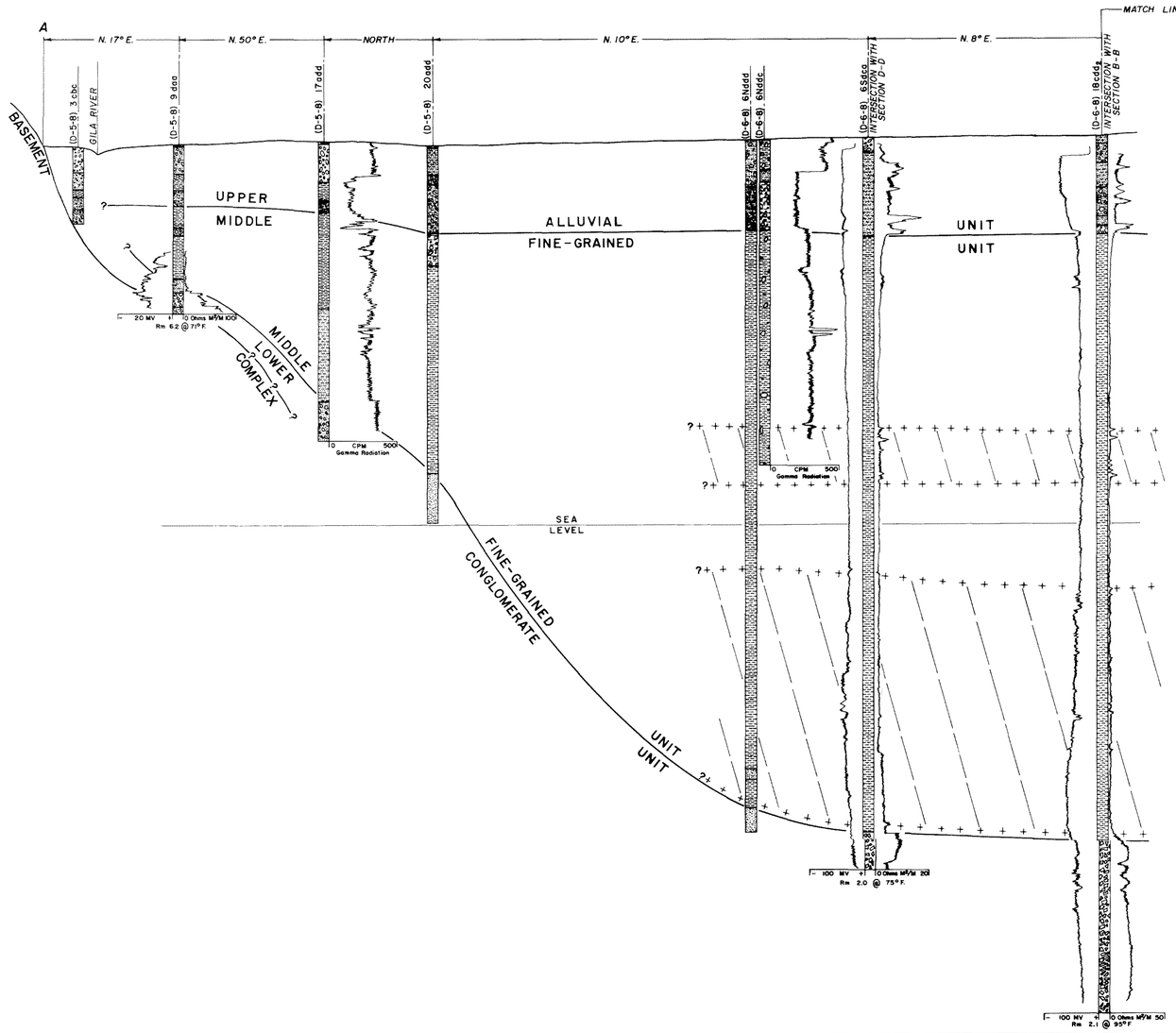
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

REPRESENTATIVE WATER LEVEL HYDROGRAPHS

344-314-1302
JULY 1, 1972

Figure 102

GEOLOGIC SECTIONS



EXPLANATION

(D-6-8)15Sdcc

Well or Test Hole number: Quadrant, Township, Range, Section, Location within section.

TYPE OF DATA AVAILABLE

DRILLED
CORED

Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

100 MV 10 Ohms M²/M 50
Rm 2.1 @ 95°F

Electric log of test hole or well.

0 CPM 400
Gamma Radiation

Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel

Sand

Silt

Clay

Conglomerate

Volcanic rocks

Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 15X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

GEOLOGIC SECTION A-A

ELOY-COOLIDGE SUBAREA

GEOLOGY L.D. Hampton SUBMITTED Earl E. Ingersoll
TRACED RGR RECOMMENDED R. A. Gillard
CHECKED J.J. Loody APPROVED C. A. Dyck

PHOENIX, ARIZONA JULY 1, 1972 SHEET 1 OF 3

344-314-1152

Figure 103

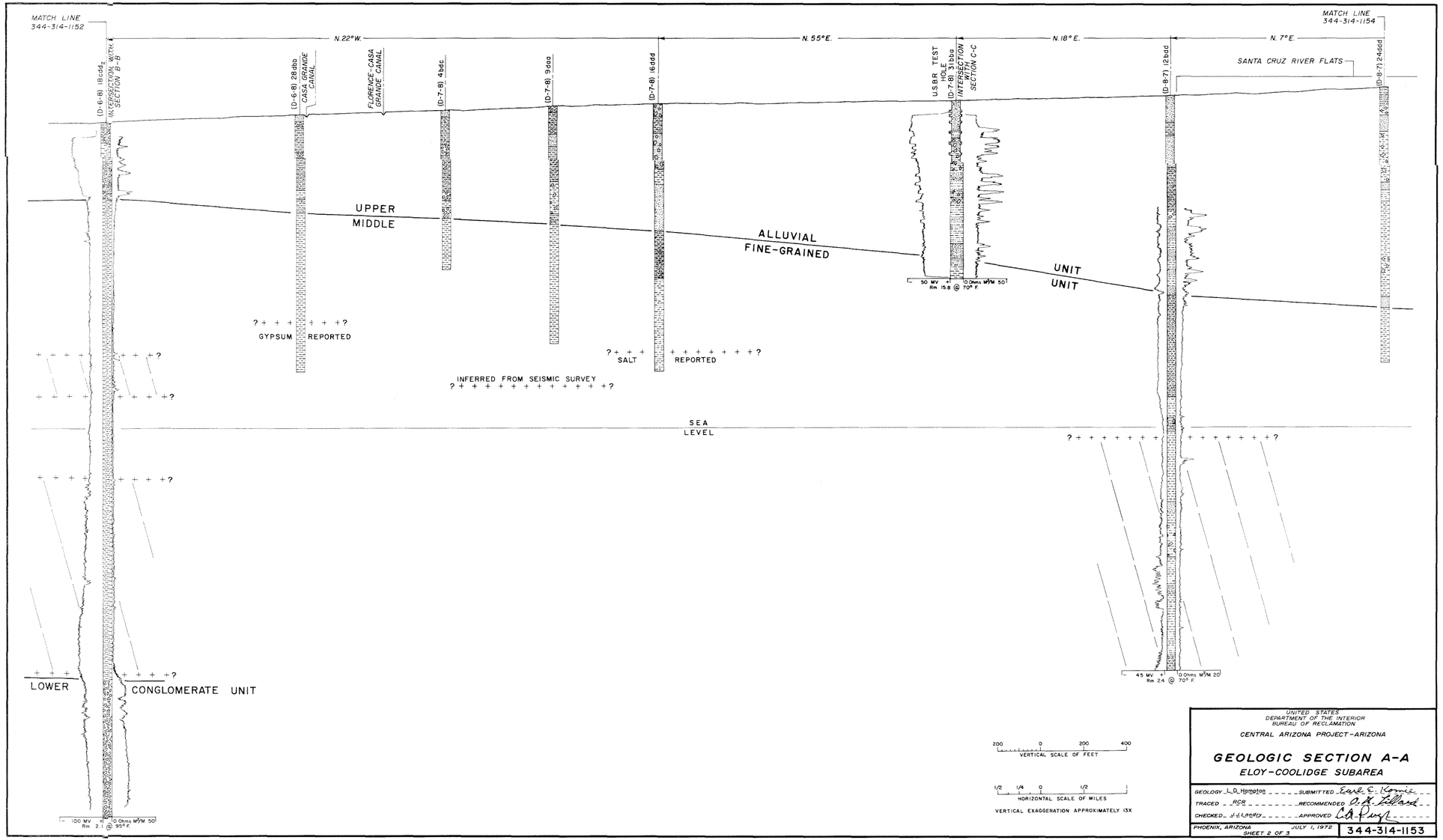
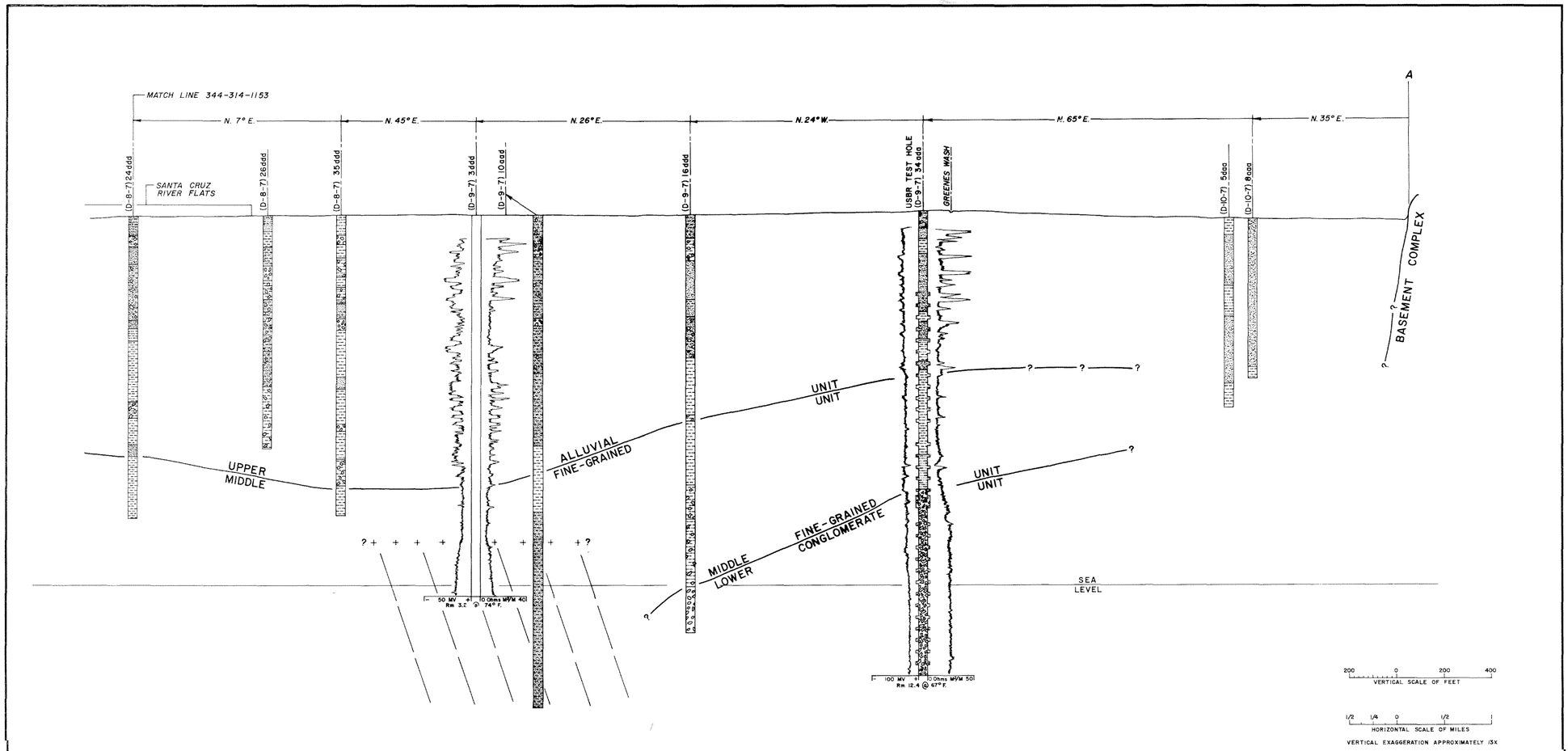

MATCH LINE 344-314-1152
MATCH LINE 344-314-1154
N. 22° W.
N. 55° E.
N. 18° E.
N. 7° E.
(D-6-8) 18cdd INTERSECTION WITH SECTION B-B
(D-6-8) 28dbb CASA GRANDE CANAL
FLORENCE-CASA GRANDE CANAL
(D-7-8) 4bdc
(D-7-8) 9daa
(D-7-8) 16ddd
U.S.B.R. TEST HOLE (D-7-8) 31bba INTERSECTION WITH SECTION C-C
(D-8-7) 12bdd
SANTA CRUZ RIVER FLATS
(D-8-7) 24ddd
UPPER
MIDDLE
ALLUVIAL
FINE-GRAINED
UNIT
UNIT
GYPSUM REPORTED
SALT REPORTED
INFERRED FROM SEISMIC SURVEY
SEA LEVEL
LOWER
CONGLOMERATE UNIT
100 MV Rm 2.1 @ 95° F
10 Ohms M²/M 50
50 MV Rm 15.8 @ 70° F
10 Ohms M²/M 50
45 MV Rm 2.4 @ 70° F
10 Ohms M²/M 20
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION A-A
ELOY-COOLIDGE SUBAREA
GEOLOGY L.D. Hampton SUBMITTED Earl E. Konie
TRACED RCR RECOMMENDED C. H. Pillard
CHECKED J.J. Lopez APPROVED C.A. Pugh
PHOENIX, ARIZONA SHEET 2 OF 3 JULY 1, 1972
344-314-1153

Figure 104



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION A-A

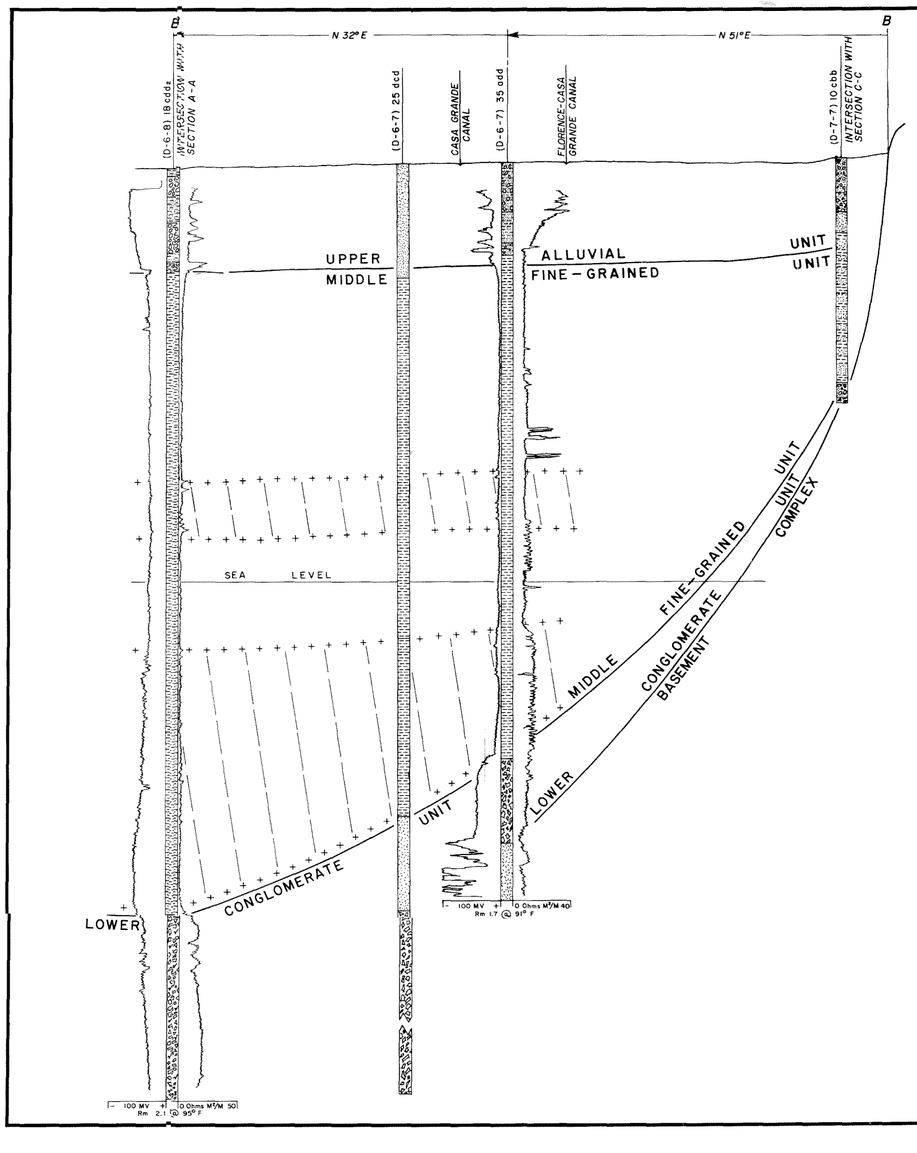
ELOY-COOLIDGE SUBAREA

GEOLOGY L. D. Hampton SUBMITTED
TRACED RCR RECOMMENDED
CHECKED J. L. Loader APPROVED

PHOENIX, ARIZONA JULY 1, 1972
SHEET 3 OF 3

344-314-1154

Figure 105



EXPLANATION

(D-6-8) 18cdd₂ — Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED / CORED — Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

100 MV + 0 Ohms M²/M 50; Rm 2.1 @ 95° F — Electric log of test hole or well.

0 CPM 400 Gamma Radiation — Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel

Sand

Silt

Clay

Conglomerate

Volcanic rocks

Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION B-B

ELOY-COOLIDGE SUBAREA

GEOLOGY G. Ford SUBMITTED Earl E. Holmes
TRACED D.P.P. RECOMMENDED C. A. Pillsbury
CHECKED C.E.E.E. APPROVED C. A. Pillsbury

PHOENIX, ARIZONA JULY 1, 1972 SHEET 1 OF 1

344-314-1155

Figure 106

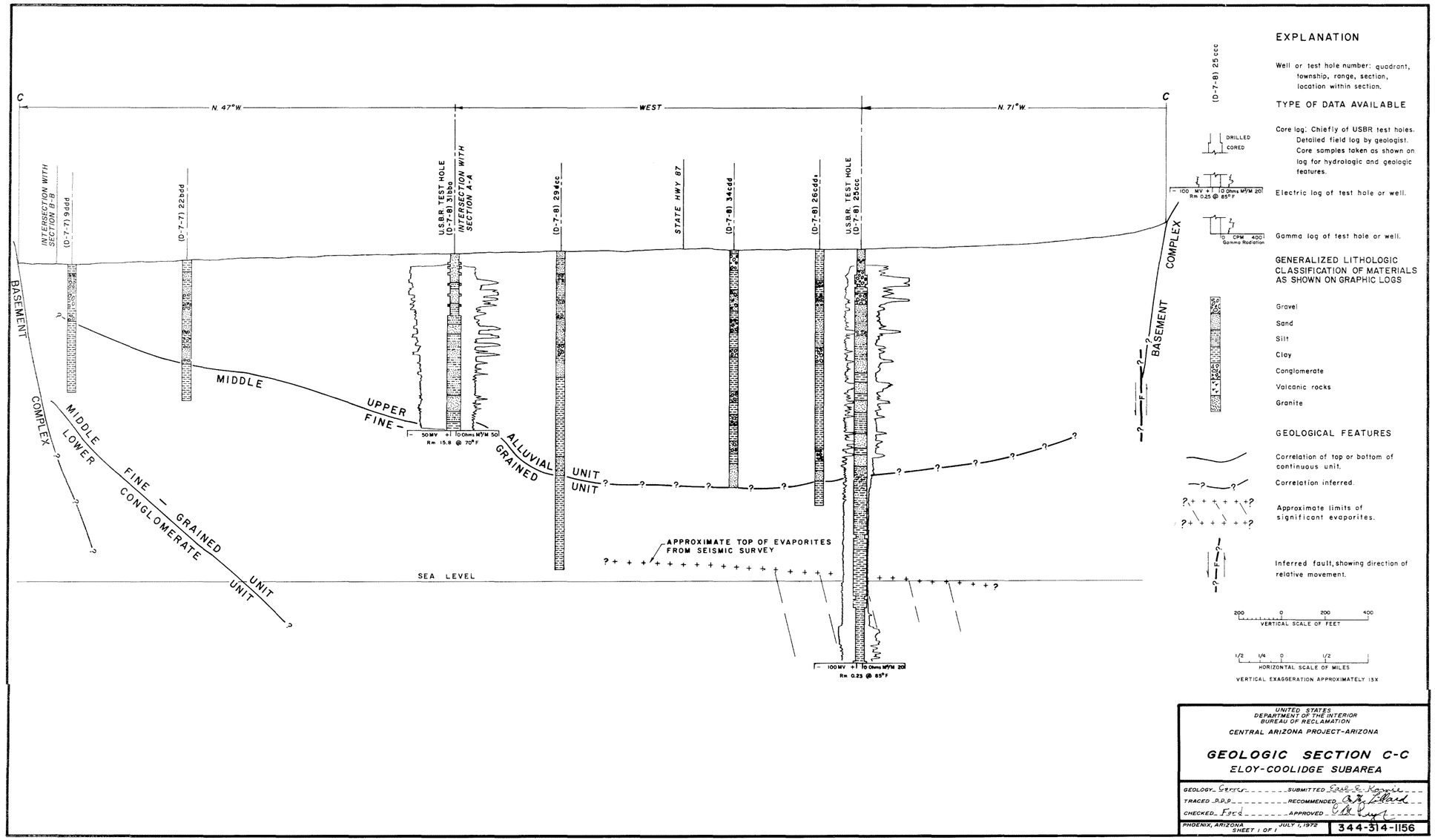
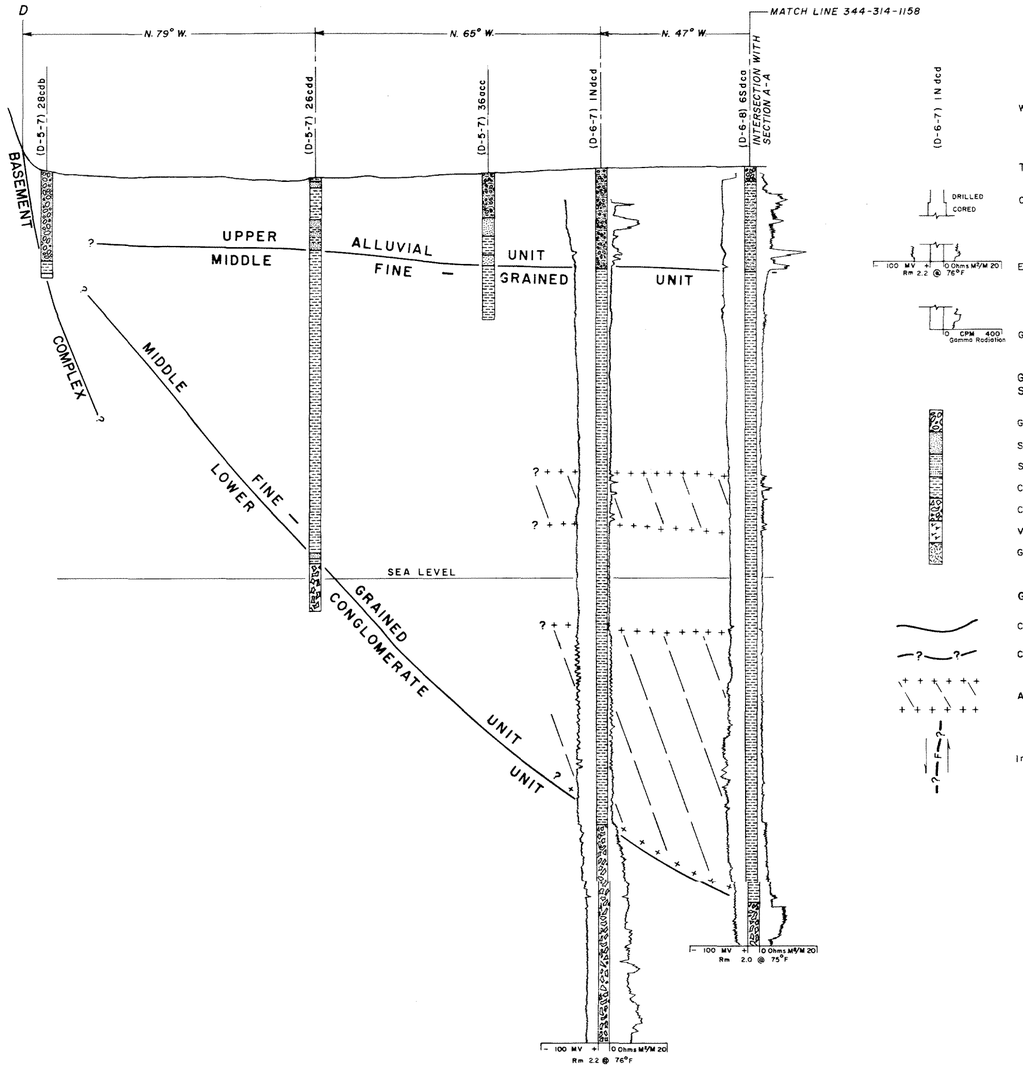

C
N. 47°W.
WEST
N. 71°W.
C
INTERSECTION WITH SECTION B-B
(D-7-7) 9dcd
(D-7-7) 22bdd
U.S.B.R. TEST HOLE (D-7-8) 31bbb
INTERSECTION WITH SECTION A-A
(D-7-8) 29dcc
STATE HWY. 87
(D-7-8) 34cdd
(D-7-8) 26cdd
U.S.B.R. TEST HOLE (D-7-8) 25ccc
(D-7-8) 25ccc
BASEMENT COMPLEX
MIDDLE
UPPER FINE-GRAINED
ALLUVIAL UNIT
UNIT
MIDDLE LOWER FINE-GRAINED CONGLOMERATE UNIT
UNIT
BASEMENT COMPLEX
APPROXIMATE TOP OF EVAPORITES FROM SEISMIC SURVEY
SEA LEVEL
- 50 MV + 10 Ohms M²/M 50
Rm 15.8 @ 70°F
- 100 MV + 10 Ohms M²/M 20
Rm 0.23 @ 85°F
EXPLANATION
Well or test hole number: quadrant, township, range, section, location within section.
TYPE OF DATA AVAILABLE
Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.
DRILLED
CORED
- 100 MV + 10 Ohms M²/M 20
Rm 0.25 @ 85°F
Electric log of test hole or well.
0 CPM 400
Gamma Radiation
Gamma log of test hole or well.
GENERALIZED LITHOLOGIC CLASSIFICATION OF MATERIALS AS SHOWN ON GRAPHIC LOGS
Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites.
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION C-C
ELOY-COOLIDGE SUBAREA
GEOLOGY Geyer SUBMITTED Earl E. Konzie
TRACED D.P.P. RECOMMENDED
CHECKED Ford APPROVED
PHOENIX, ARIZONA SHEET 1 OF 1 JULY 1, 1972
344-314-1156

Figure 107



EXPLANATION

(D-6-7) 1N dcd — Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED / CORED — Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geolgic factures.

100 MV, 0 Ohms M/M 20, Rm 2.2 @ 76°F — Electric log of test hole or well.

0 CPM 400 Gamma Radiation — Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel

Sand

Silt

Clay

Conglomerate

Volcanic rocks

Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 10X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION D-D
ELOY-COOLIDGE SUBAREA

GEOLOGY L.D. Hampton — SUBMITTED Earl E. Koppe
TRACED D.D.D. — RECOMMENDED A. A. Willard
CHECKED J.J. Landry — APPROVED C. A. Rugf

PHOENIX, ARIZONA — SHEET 1 OF 2 — JULY 1, 1972 — 344-314-1157

Figure 108

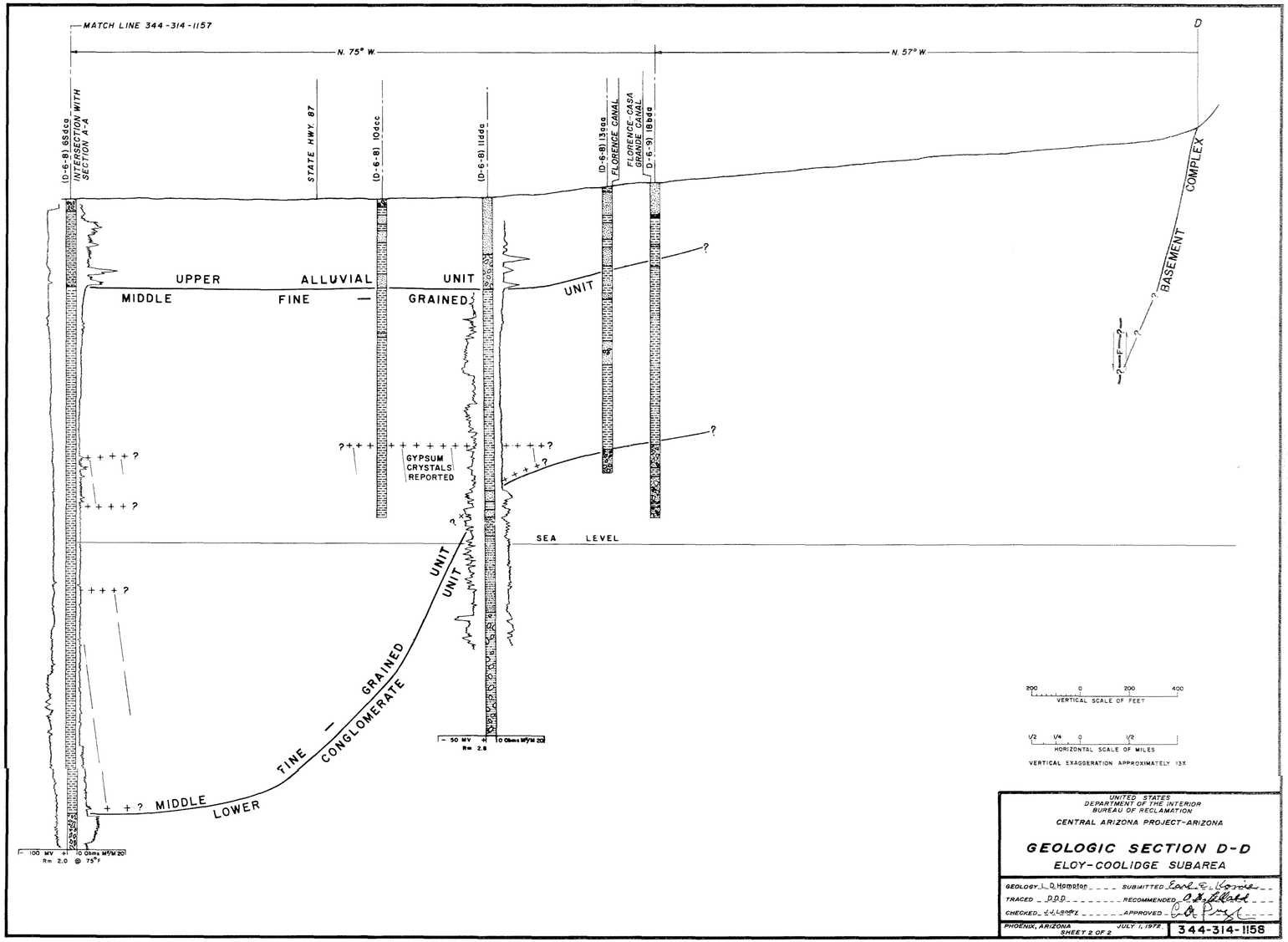
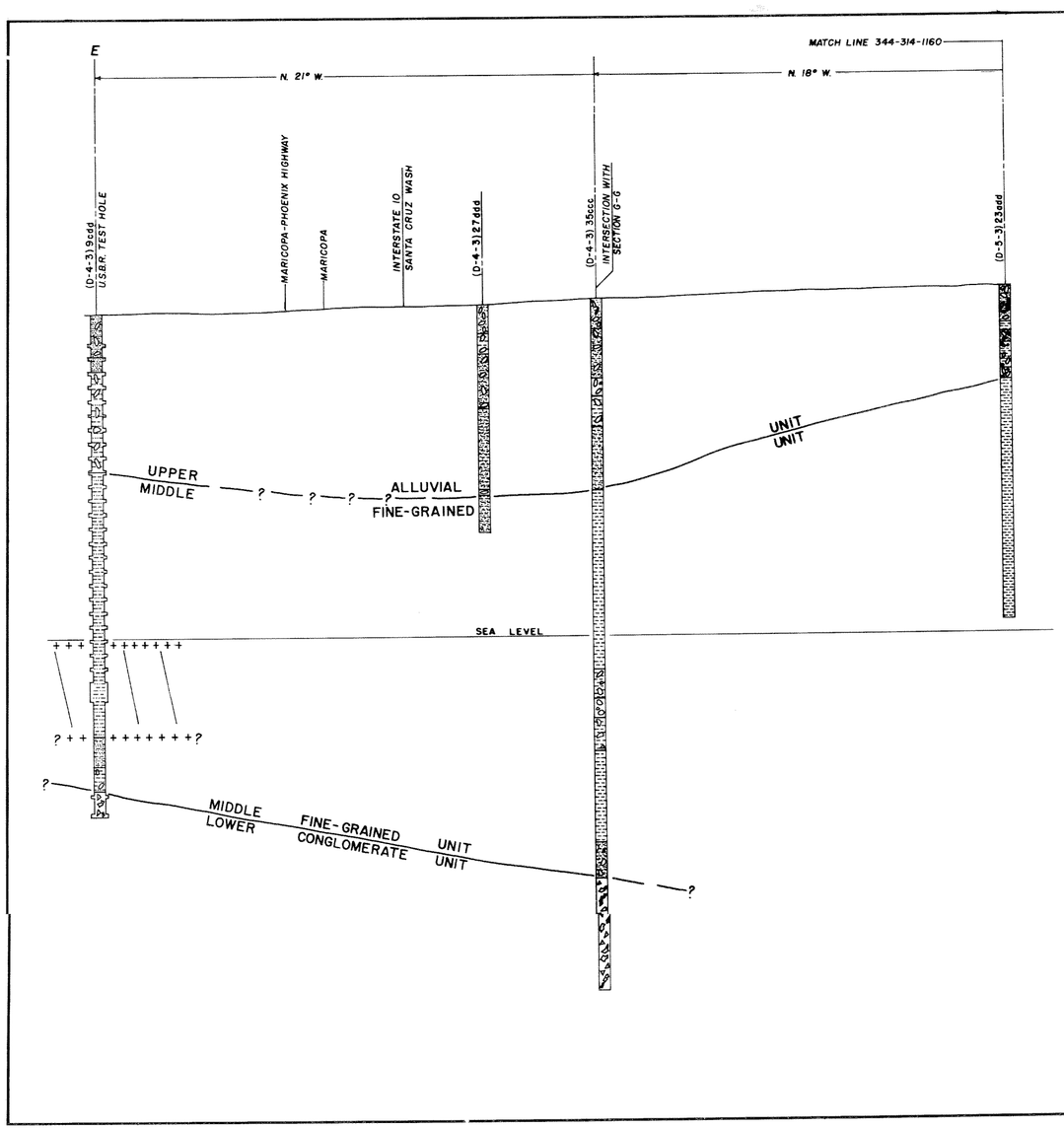

MATCH LINE 344-314-1157
N. 75° W.
N. 57° W.
D
(D-6-8) 6Sdcc
INTERSECTION WITH SECTION A-A
STATE HWY. 87
(D-6-8) 10dcc
(D-6-8) 11ddc
(D-6-8) 13aaa
FLORENCE CANAL
FLORENCE-CASA GRANDE CANAL
(D-6-9) 18bda
UPPER
MIDDLE
ALLUVIAL
FINE — GRAINED
UNIT
UNIT
GYPSUM CRYSTALS REPORTED
SEA LEVEL
UNIT
UNIT
FINE — GRAINED
CONGLOMERATE
MIDDLE
LOWER
BASEMENT COMPLEX
100 MV
10 Ohms M²/M 20
Rm 2.0 @ 75°F
50 MV
10 Ohms M²/M 20
Rm 2.8
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION D-D
ELOY-COOLIDGE SUBAREA
GEOLOGY L. D. Homstor
SUBMITTED Earl E. Koons
TRACED D.D.D.
RECOMMENDED C. A. Gillette
CHECKED J. J. Landry
APPROVED C. A. Pugh
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 2 OF 2
344-314-1158

Figure 109



EXPLANATION

(D-6-7) 1N dcd — Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED / CORED — Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

Rm @ F. — Electric log of test hole or well.

0 CPM Gamma Radiation — Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

- Gravel
- Sand
- Silt
- Clay
- Conglomerate
- Volcanic rocks
- Granite

GEOLOGICAL FEATURES

- Correlation of top or bottom of continuous unit.
- Correlation inferred.
- Approximate limits of significant evaporites
- Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

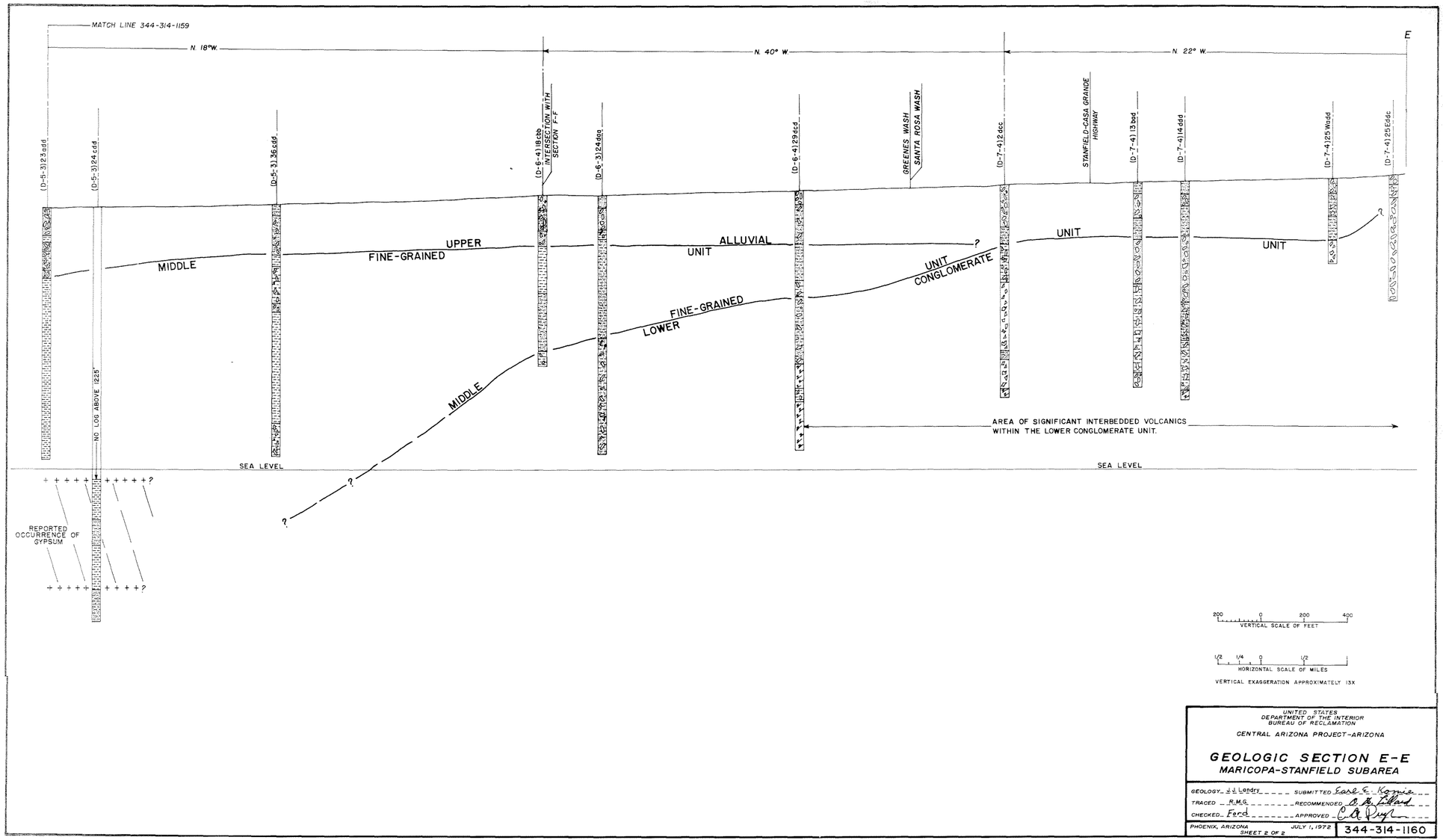
CENTRAL ARIZONA PROJECT—ARIZONA

GEOLOGIC SECTION E-E
MARICOPA-STANFIELD SUBAREA

GEOLOGY J.J. Landry — SUBMITTED Earl G. Lowe
TRACED R.M.G. — RECOMMENDED A. M. Talbot
CHECKED Ford — APPROVED L. A. Foss

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 2 — 344-314-1159

Figure 110



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

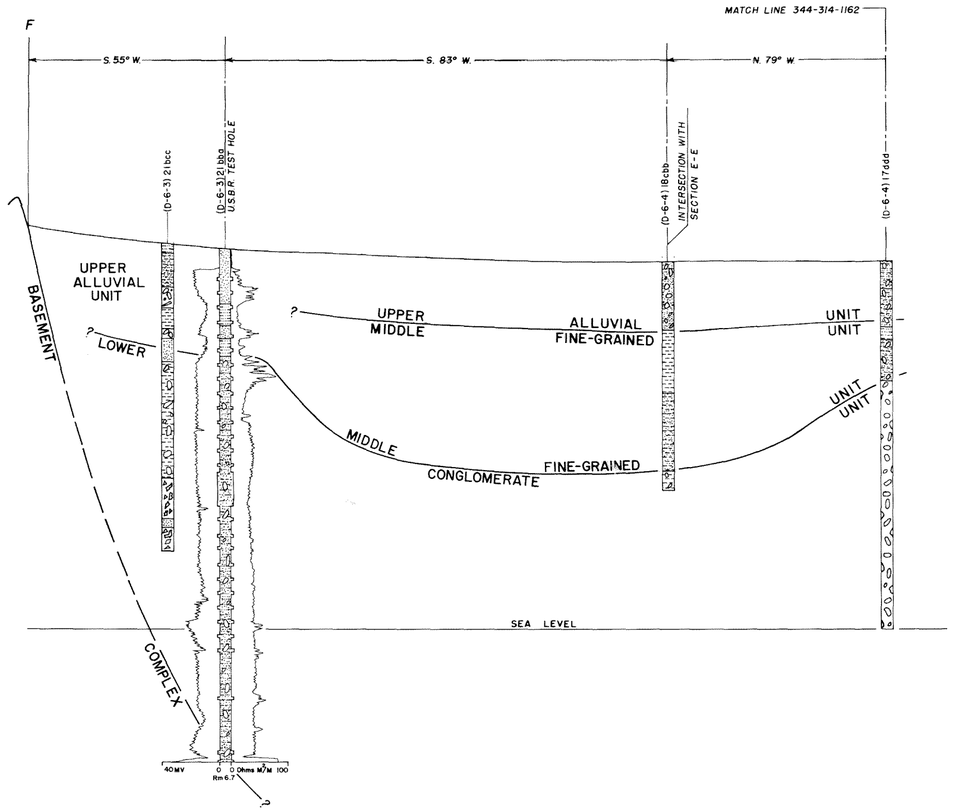
GEOLOGIC SECTION E-E
MARICOPA-STANFIELD SUBAREA

GEOLOGY J. J. Landry SUBMITTED Earl E. Konnie
TRACED R.M.G. RECOMMENDED C. A. Lillard
CHECKED Ford APPROVED C. A. Lillard

PHOENIX, ARIZONA JULY 1, 1972 SHEET 2 OF 2

344-314-1160

Figure 111



EXPLANATION

(D-6-7) 1N dcd — Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED / CORED — Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

Rm — 0 Ohms M²/M — Electric log of test hole or well.

0 CPM Gamma Radiation — Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

- Gravel
- Sand
- Silt
- Clay
- Conglomerate
- Volcanic rocks
- Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13x

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

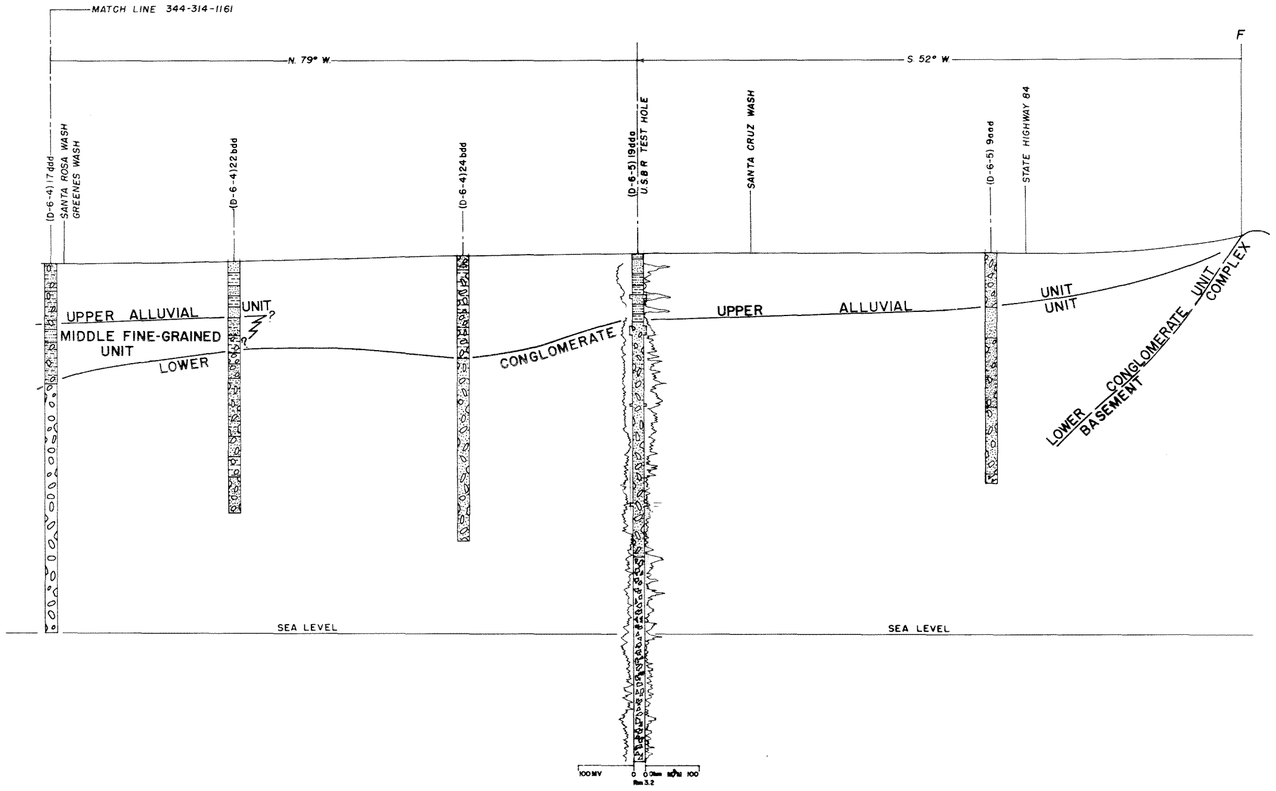
GEOLOGIC SECTION F-F

MARICOPA-STANFIELD SUBAREA

GEOLOGY	J.J. Landry	SUBMITTED	Earl E. Konze
TRACED	R.M.G.	RECOMMENDED	O. A. Ellard
CHECKED	Ford	APPROVED	C. A. Rugh

PHOENIX, ARIZONA — SHEET 1 OF 2 — JULY 1, 1972 — 344-314-1161

Figure 112



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

GEOLOGIC SECTION F-F
MARICOPA-STANFIELD SUBAREA

GEOLOGY V.J. Landry SUBMITTED Earl E. Higgins
TRACED P.M.G. RECOMMENDED G.A. Pollard
CHECKED Ford APPROVED C.A. Pugh

PHOENIX, ARIZONA SHEET 2 OF 2 JULY 1, 1972 344-314-1162

Figure 113

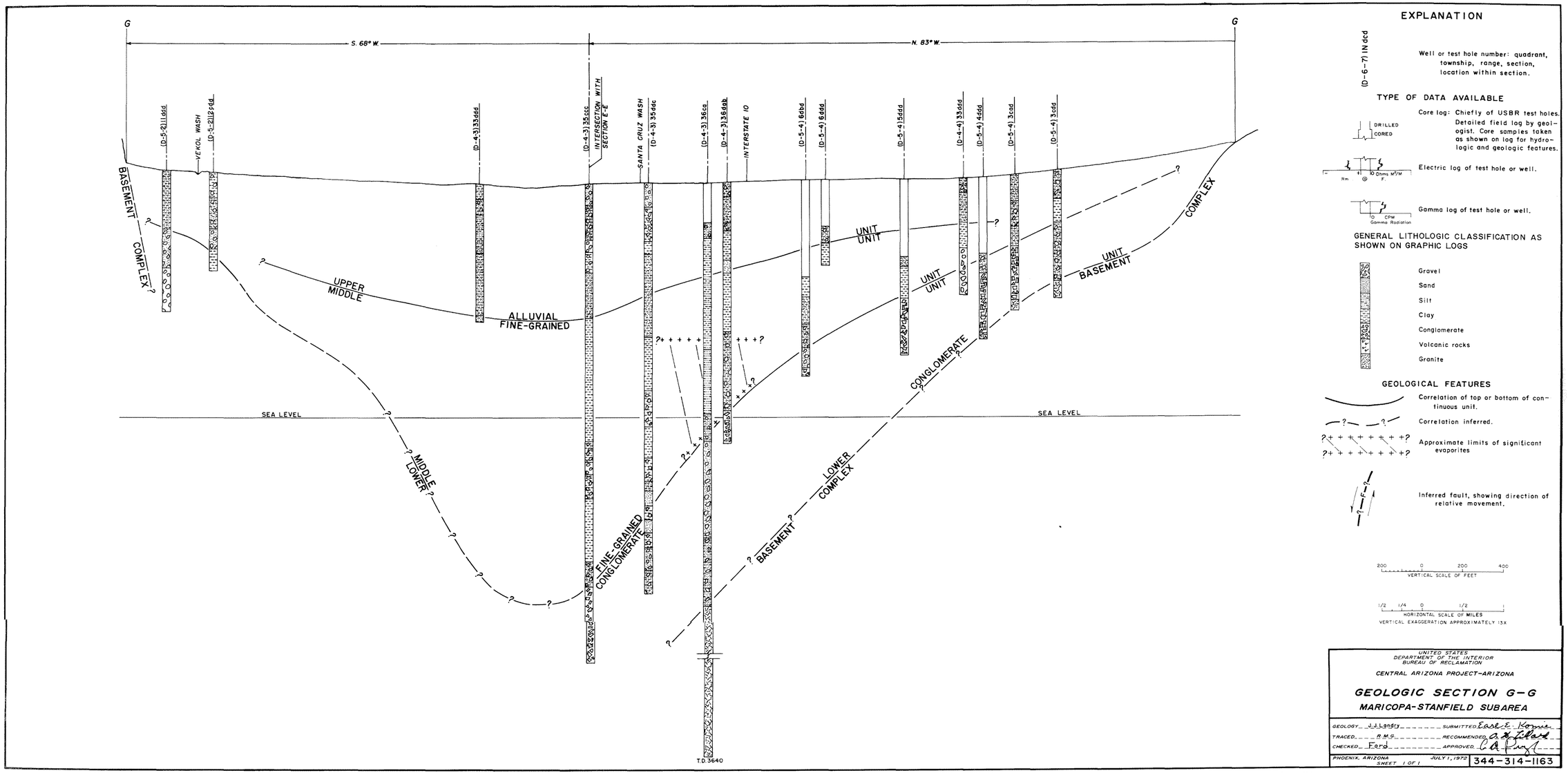
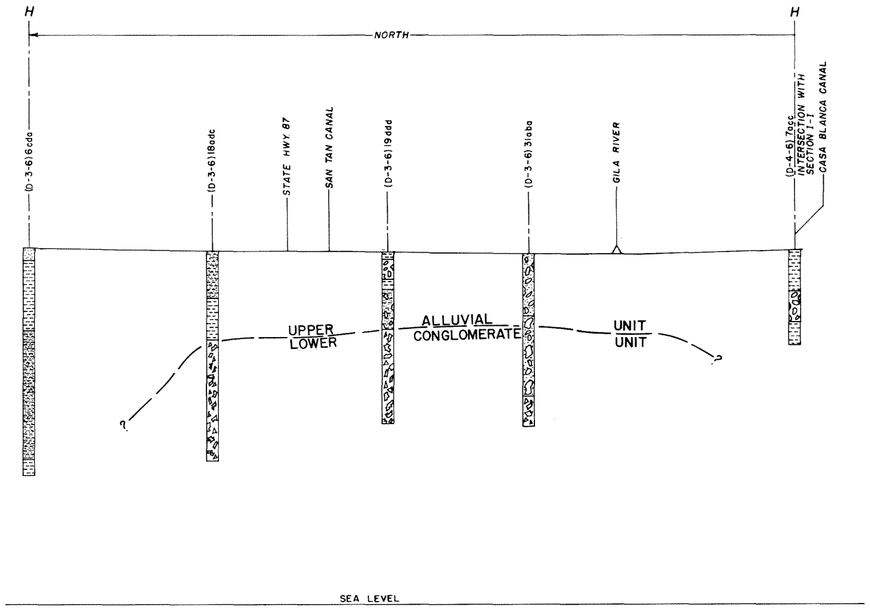

G
S. 68° W.
N. 83° W.
G
(D-5-2)11ddd
VEKOL WASH
(D-5-2)12ddd
(D-4-3)33ddd
(D-4-3)35ccc
INTERSECTION WITH SECTION E-E
SANTA CRUZ WASH
(D-4-3)35dac
(D-4-3)36ca
(D-4-3)36dab
INTERSTATE 10
(D-5-4)6dbd
(D-5-4)6ddd
(D-5-4)5ddd
(D-4-4)33ddd
(D-5-4)4ddd
(D-5-4)3cdd
(D-5-4)3cdd
BASEMENT
COMPLEX
UPPER
MIDDLE
ALLUVIAL
FINE-GRAINED
UNIT
UNIT
UNIT
UNIT
UNIT
BASEMENT
COMPLEX
CONGLOMERATE
SEA LEVEL
SEA LEVEL
MIDDLE
LOWER
FINE-GRAINED
CONGLOMERATE
BASEMENT
LOWER
COMPLEX
T.D. 3640
EXPLANATION
(D-6-7)1N dcd
Well or test hole number: quadrant, township, range, section, location within section.
TYPE OF DATA AVAILABLE
DRILLED
CORED
Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.
Rm
10 Ohms M²/M
F.
Electric log of test hole or well.
0 CPM
Gamma Radiation
Gamma log of test hole or well.
GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS
Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION G-G
MARICOPA-STANFIELD SUBAREA
GEOLOGY J.J. Landry
SUBMITTED Earl E. Koenig
TRACED R.M.G.
RECOMMENDED
CHECKED Ford
APPROVED
PHOENIX, ARIZONA
SHEET 1 OF 1
JULY 1, 1972
344-314-1163

Figure 114



EXPLANATION

(D-6-7) 1N dcd

Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED
CORED

Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

Rm @ F 100mm W/M

Electric log of test hole or well.

0 CPM Gamma Radiation

Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel

Sand

Silt

Clay

Conglomerate

Volcanic rocks

Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 15X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

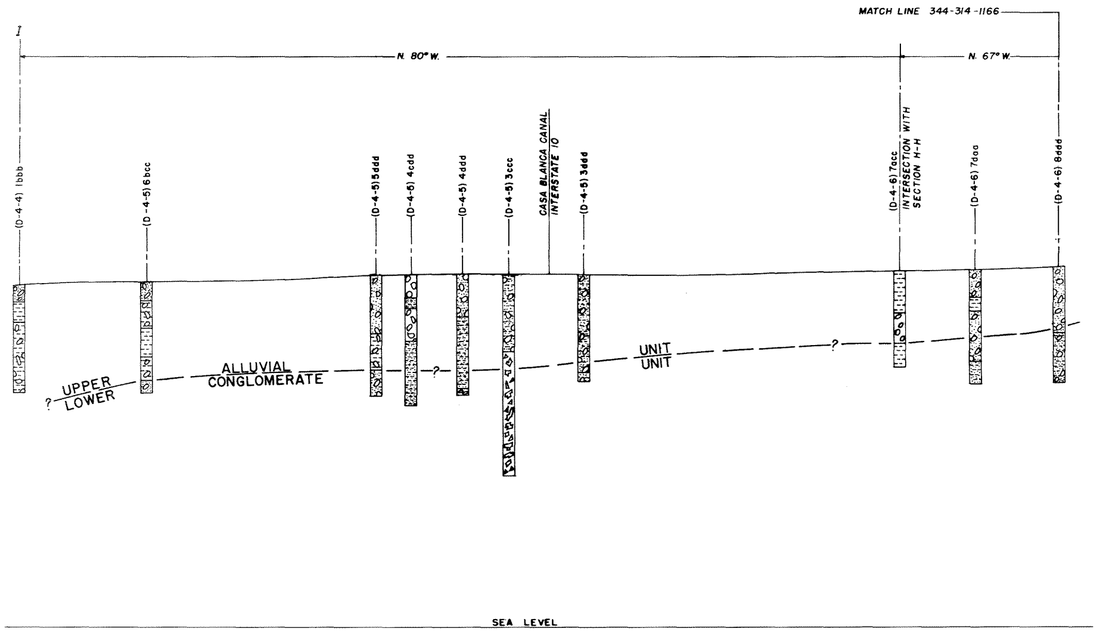
CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION H-H
KOMATKE-SACATON SUBAREA

GEOLOGY	J.J. Landry	SUBMITTED	Earl E. Kornie
TRACED	R.M.G.	RECOMMENDED	C.A. Pillard
CHECKED	Ford	APPROVED	C.A. Pugh

PHOENIX, ARIZONA SHEET 1 OF 1 JULY 1, 1972 344-314-1164

Figure 115



EXPLANATION

(D-6-7) 1N dcd — Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED / CORED — Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

Rm, Ohms M²/M — Electric log of test hole or well.

CPM Gamma Radiation — Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

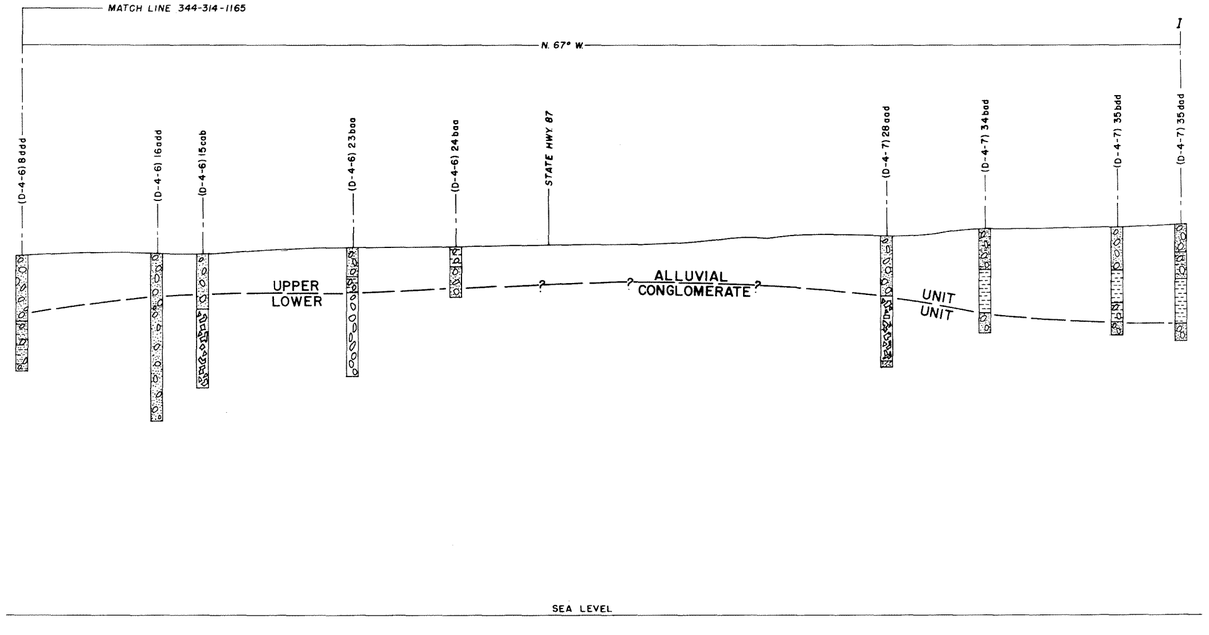
CENTRAL ARIZONA PROJECT—ARIZONA

GEOLOGIC SECTION I–I
KOMATKE-SACATON SUBAREA

GEOLOGY J. J. Landry — SUBMITTED Earl E. Koune
TRACED R.M.S. — RECOMMENDED O. R. Pollard
CHECKED Ford — APPROVED C. A. Dunn

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 2 — 344-314-1165

Figure 116



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION I-I

KOMATKE-SACATON SUBAREA

GEOLOGY J.J. Landry SUBMITTED Earl E. Kerrise
TRACED R.M.G. RECOMMENDED C. A. Pollard
CHECKED F.a.c. APPROVED C. A. Pogle

PHOENIX, ARIZONA SHEET 2 OF 2 JULY 1, 1972 344-314-1166

Figure 117

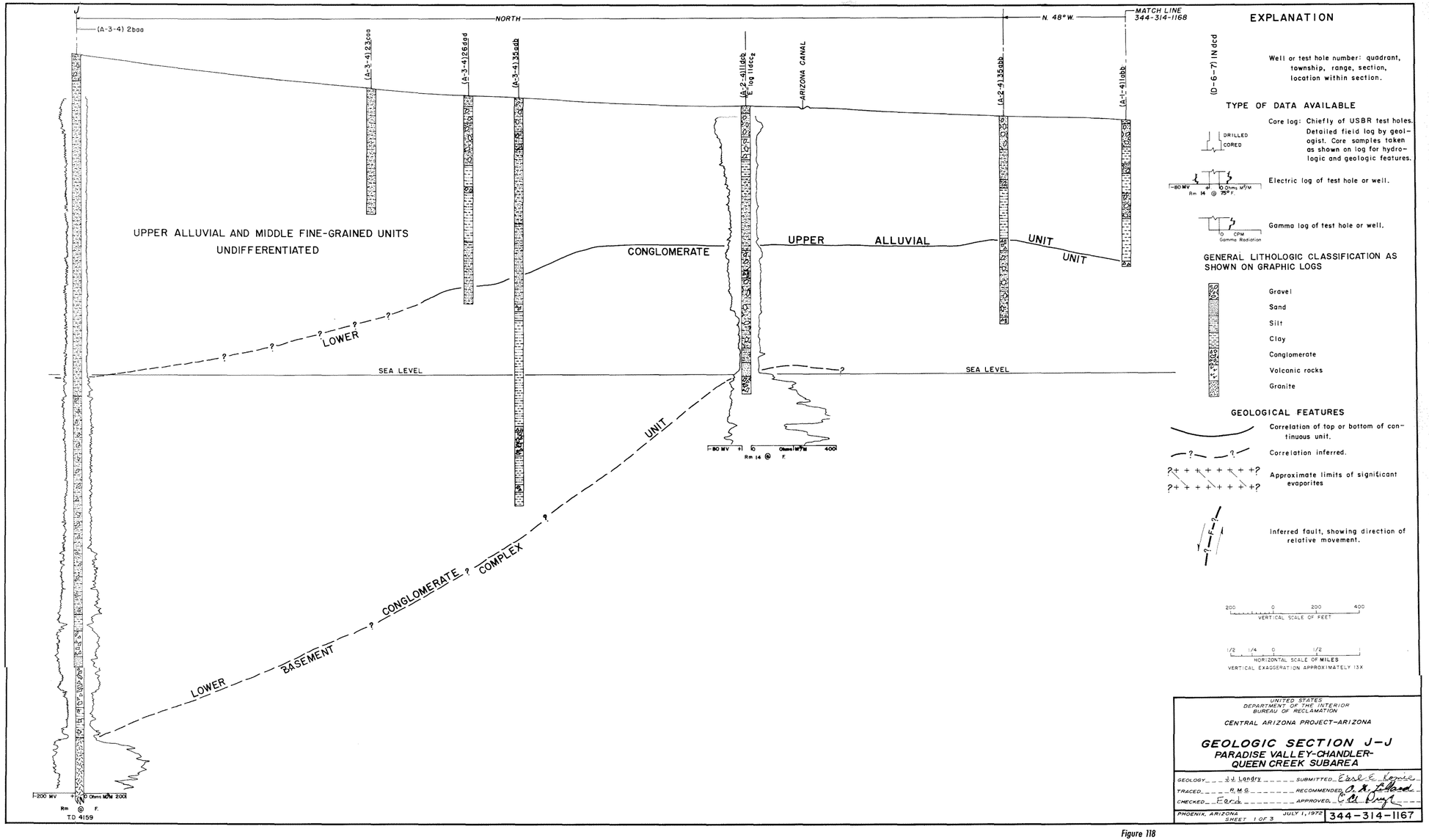
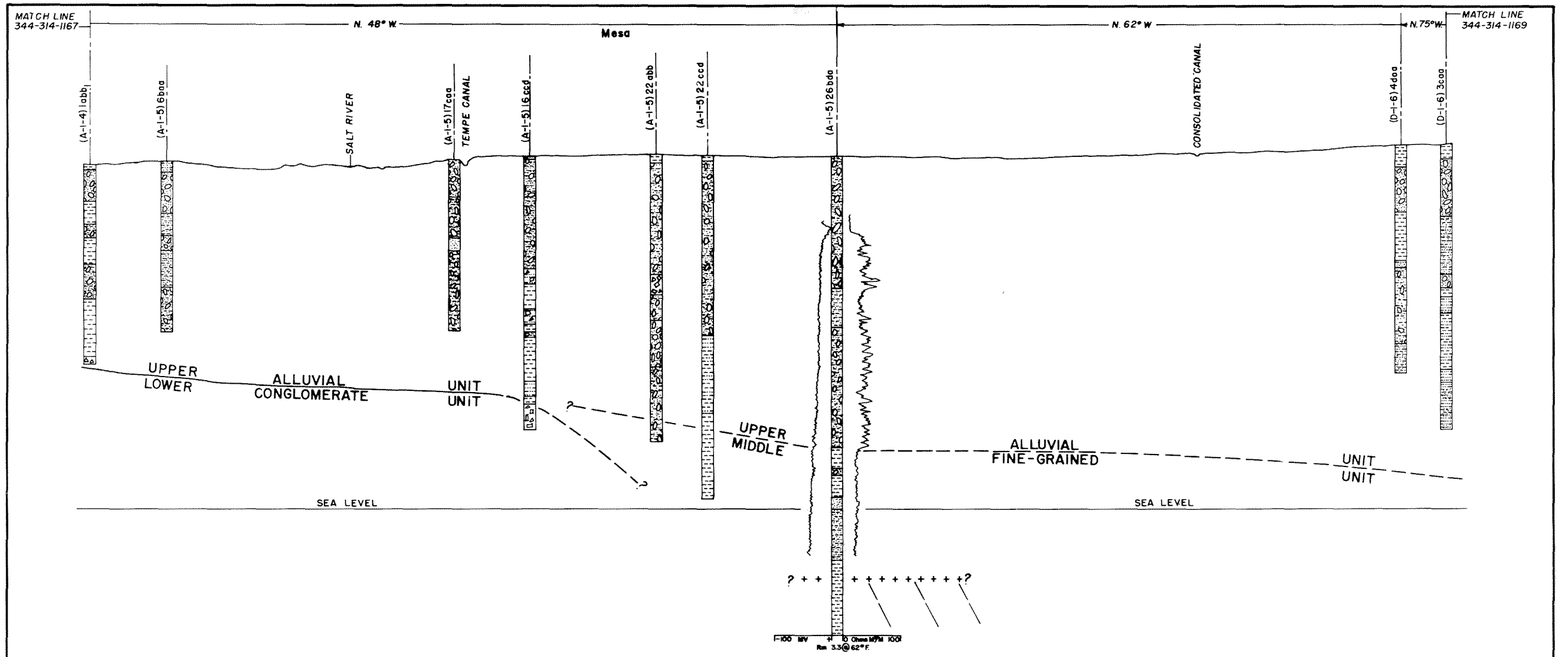

J
NORTH
N. 48° W.
MATCH LINE 344-314-1168
(A-3-4) 2baa
(A-3-4)23aaa
(A-3-4)26dad
(A-3-4)35adb
(A-2-4)11dcb
E-log 11dcc2
ARIZONA CANAL
(A-2-4)35abb
(A-1-4)10abb
UPPER ALLUVIAL AND MIDDLE FINE-GRAINED UNITS
UNDIFFERENTIATED
CONGLOMERATE
UPPER ALLUVIAL UNIT
UNIT
LOWER
SEA LEVEL
SEA LEVEL
UNIT
LOWER BASEMENT CONGLOMERATE COMPLEX
-80 MV
0 Ohms M²/M
400
Rm 14 @ F.
-200 MV
0 Ohms M²/M 200
Rm @ F.
TD 4159
EXPLANATION
(D-6-7) 1N dcd
Well or test hole number: quadrant, township, range, section, location within section.
TYPE OF DATA AVAILABLE
DRILLED
CORED
Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.
-80 MV
0 Ohms M²/M
Rm 14 @ 75° F.
Electric log of test hole or well.
0 CPM
Gamma Radiation
Gamma log of test hole or well.
GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS
Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION J-J
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA
GEOLOGY J.J. Landry
SUBMITTED Earl E. Lomic
TRACED R.M.G.
RECOMMENDED
CHECKED Ford
APPROVED
PHOENIX, ARIZONA
SHEET 1 OF 3
JULY 1, 1972
344-314-1167

Figure 118



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION J-J
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA

GEOLOGY	J.J. Landry	SUBMITTED	Earl E. Vogt
TRACE	B.M.S.	RECOMMENDED	C. A. Pillard
CHECKED	Ford	APPROVED	C. A. Pugh

PHOENIX, ARIZONA JULY 1, 1972 SHEET 2 OF 3 344-314-1168

Figure 119

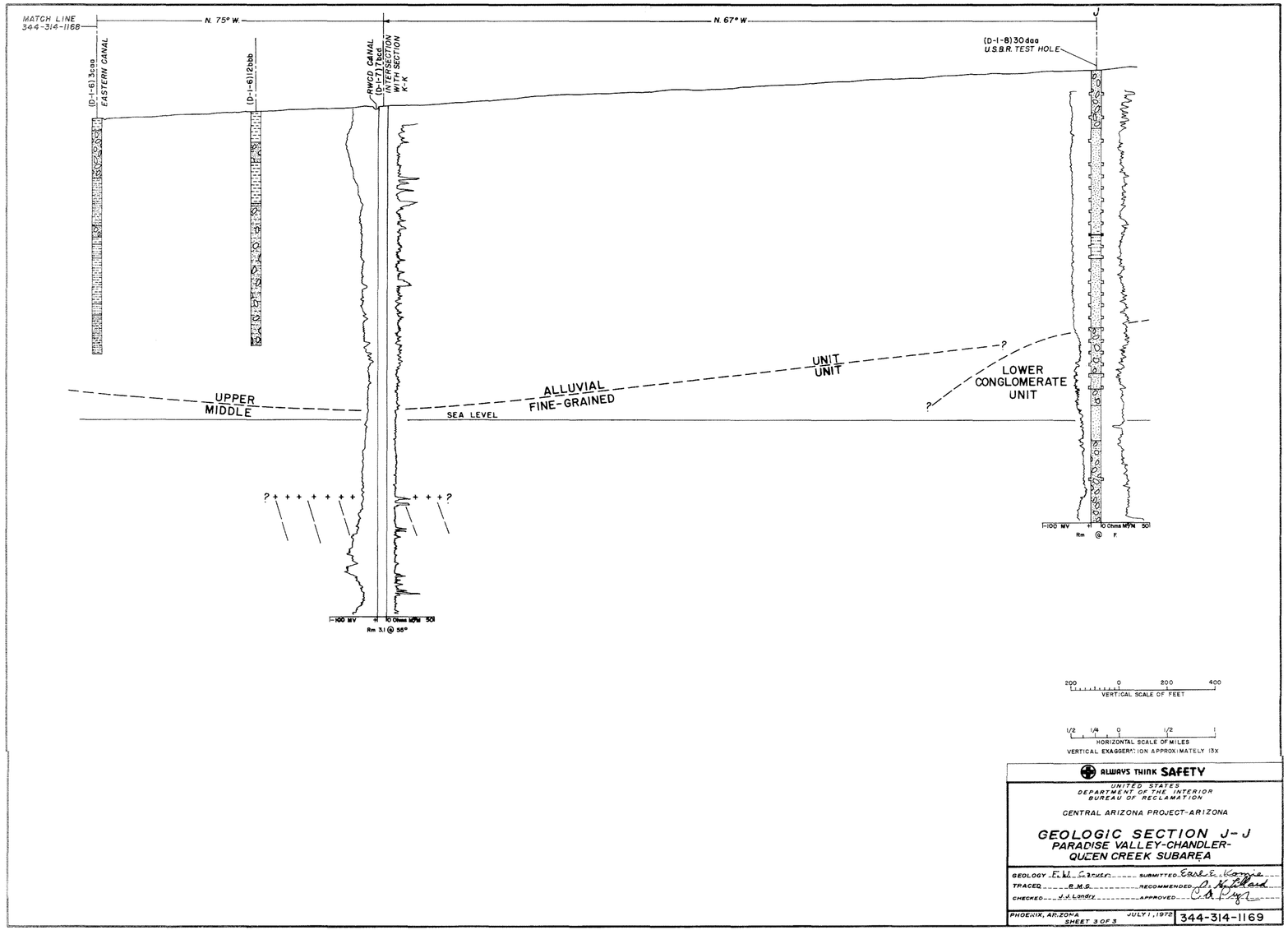
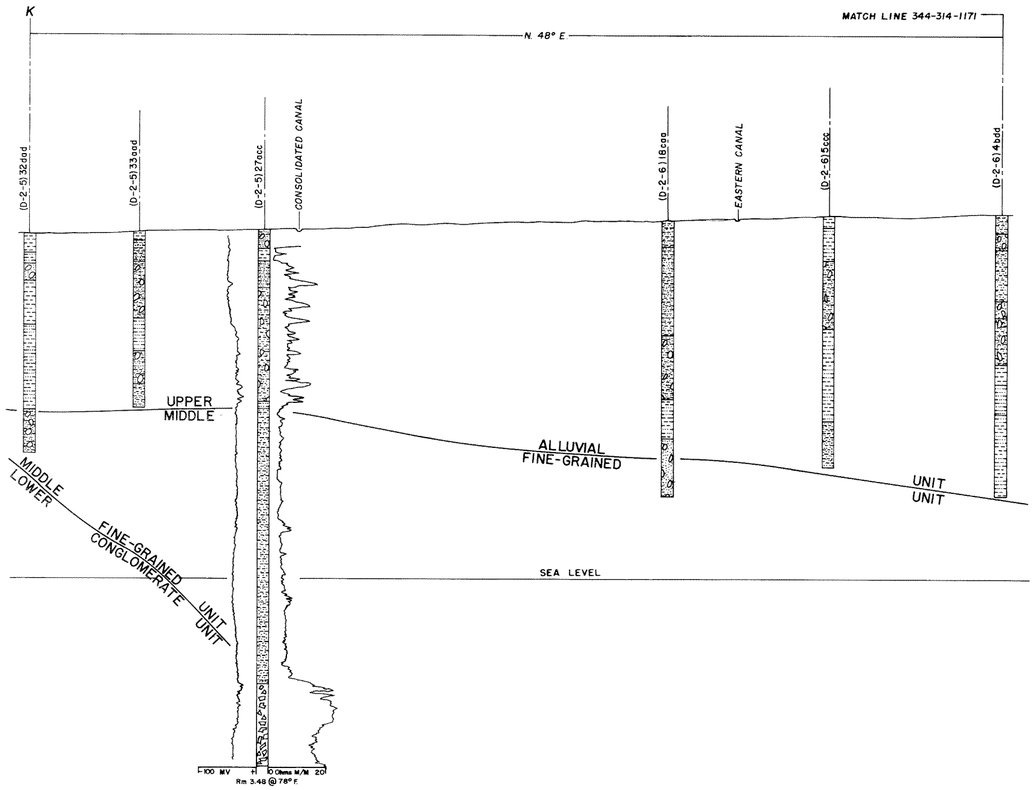

MATCH LINE
344-314-1168
N. 75° W.
N. 67° W.
J
(D-1-6)3caa
EASTERN CANAL
(D-1-6)12bbb
RWCD CANAL
(D-1-7)7bcd
INTERSECTION WITH SECTION K-K
(D-1-8)30daa
U.S.B.R. TEST HOLE
UPPER
MIDDLE
ALLUVIAL
FINE-GRAINED
UNIT
UNIT
LOWER
CONGLOMERATE
UNIT
SEA LEVEL
-100 MV
10 Ohms M²/M
Rm 3.1 @ 55°
-100 MV
10 Ohms M²/M
Rm @ F
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
ALWAYS THINK SAFETY
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION J-J
PARADISE VALLEY-CHANDLER-
QUEEN CREEK SUBAREA
GEOLOGY F. W. Greuer
SUBMITTED Earl E. Kemple
TRACED R.M.G.
RECOMMENDED
CHECKED J.J. Landry
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 3 OF 3
344-314-1169

Figure 120



EXPLANATION

(D-6-7) 1N dcd — Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED / CORED — Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

-100 MV 0 10 Ohms M²/M 20, Rm 3.48 @ 78°F — Electric log of test hole or well.

0 CPM, Gamma Radiation — Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

- Gravel
- Sand
- Silt
- Clay
- Conglomerate
- Volcanic rocks
- Granite

GEOLOGICAL FEATURES

- Correlation of top or bottom of continuous unit.
- Correlation inferred.
- Approximate limits of significant evaporites
- Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 15X

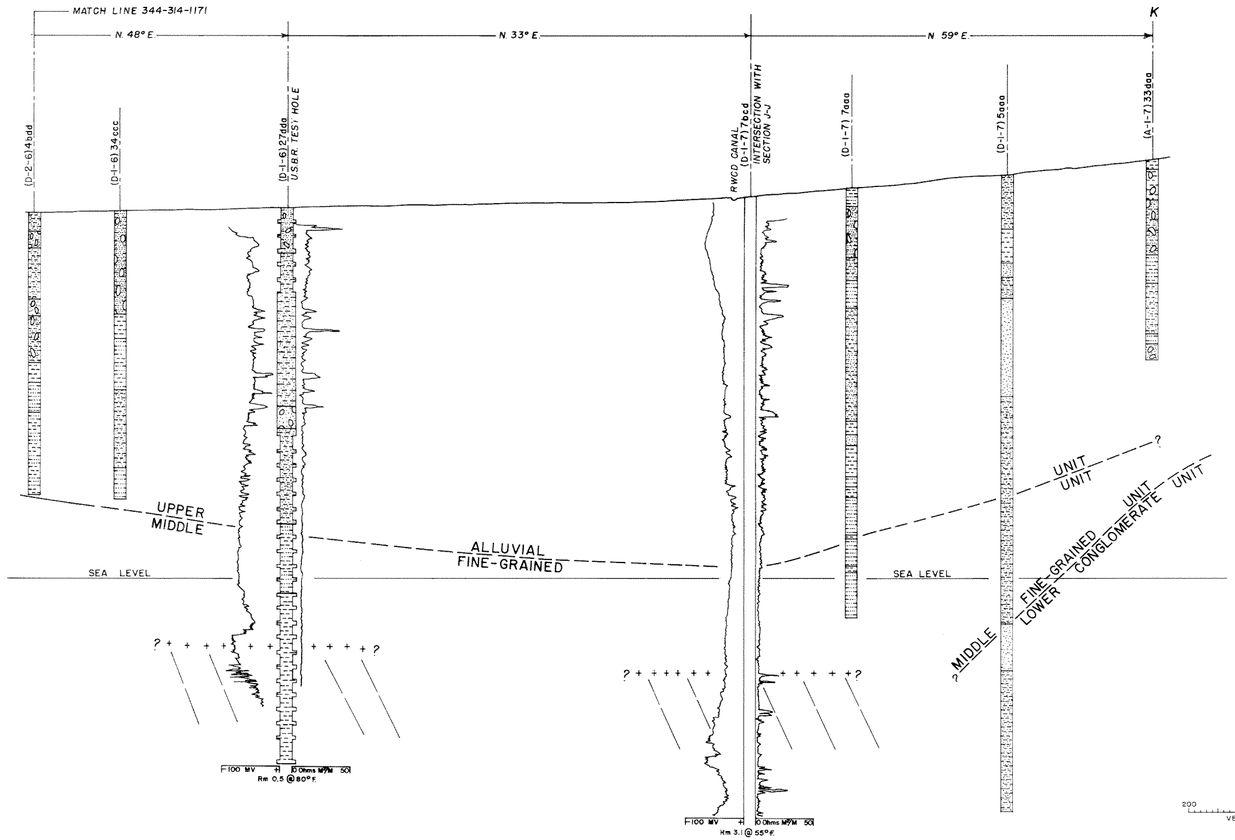
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

GEOLOGIC SECTION K—K
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA

GEOLOGY J. J. Landry		SUBMITTED Earl E. Kosie	
TRACED R. M. G.		RECOMMENDED A. F. Pillard	
CHECKED F.W. Carver		APPROVED Ed Ray	
PHOENIX, ARIZONA SHEET 1 OF 2	JULY 1, 1972	344-314-1170	

Figure 121



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION K-K
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA

GEOLOGY	J.J. Landry	SUBMITTED	Earl E. Kemp
TRACED	R.M.C.	RECOMMENDED	C. A. Pollard
CHECKED	F.W. Geyer	APPROVED	C. A. Boyd

PHOENIX, ARIZONA SHEET 2 OF 2 JULY 1, 1972 344-314-1171

Figure 122

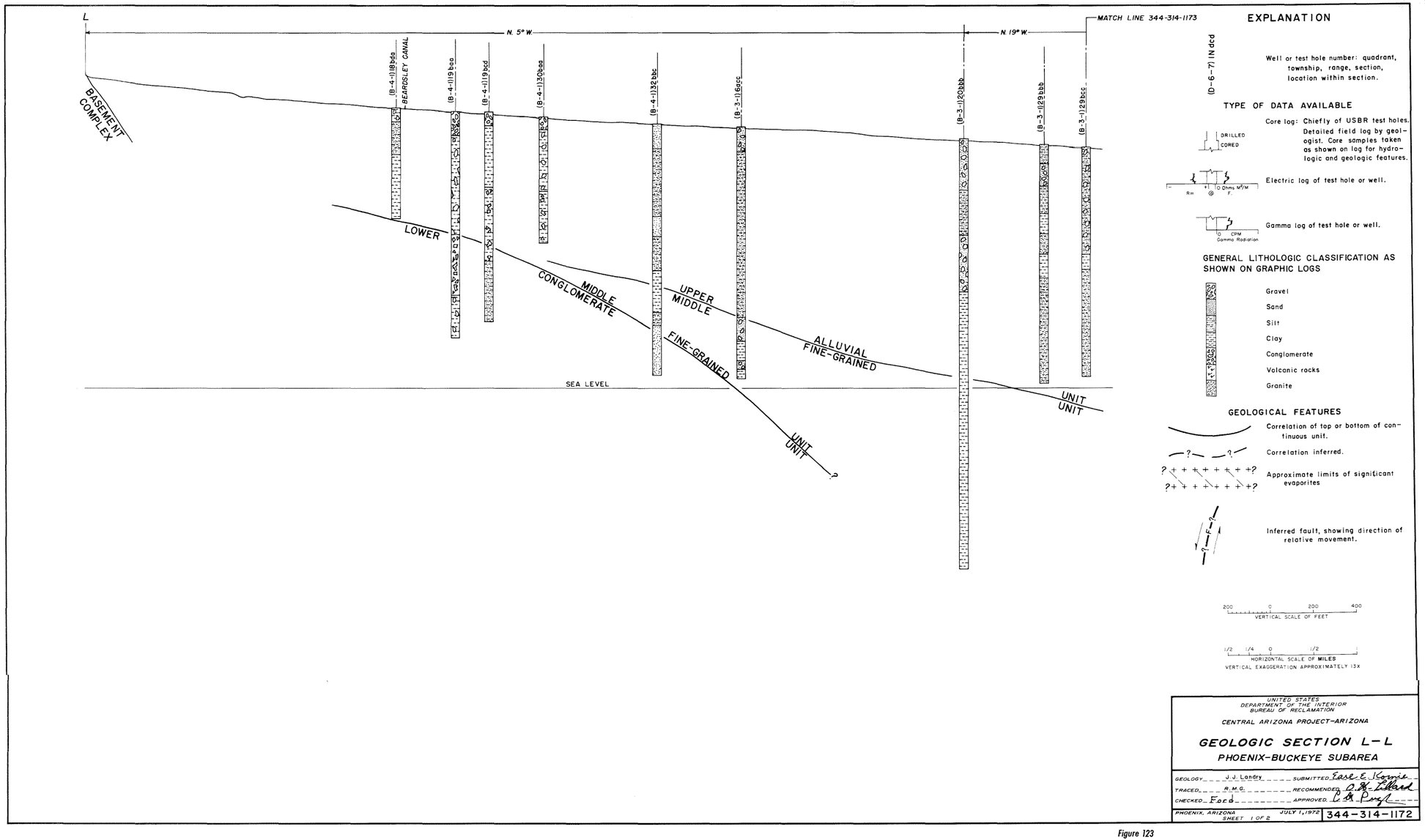
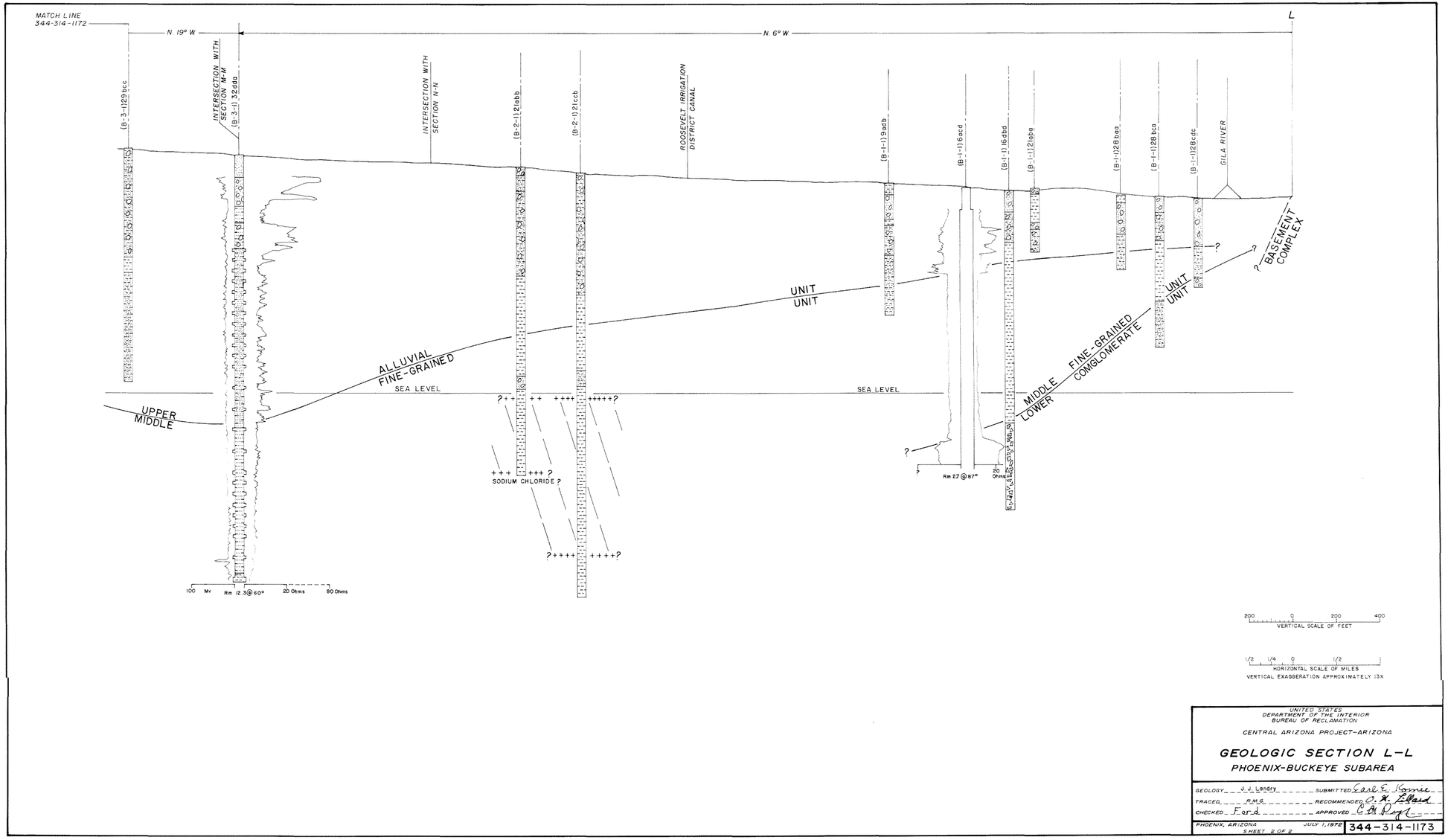

L
N. 5° W.
N. 19° W.
MATCH LINE 344-314-1173
BASEMENT COMPLEX
(B-4-1)18bda
BEARDSLEY CANAL
(B-4-1)19baa
(B-4-1)19bad
(B-4-1)30baa
(B-4-1)32cbbc
(B-3-1)6acc
(B-3-1)20bbb
(B-3-1)29bbb
(B-3-1)29bcc
LOWER
MIDDLE CONGLOMERATE
UPPER MIDDLE
FINE-GRAINED
ALLUVIAL FINE-GRAINED
UNIT
UNIT
UNIT
UNIT
SEA LEVEL
EXPLANATION
(D-6-7) 1N dcd
Well or test hole number: quadrant, township, range, section, location within section.
TYPE OF DATA AVAILABLE
DRILLED
CORED
Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.
Ohms M²/M
Rm
Electric log of test hole or well.
CPM
Gamma Radiation
Gamma log of test hole or well.
GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS
Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION L-L
PHOENIX-BUCKEYE SUBAREA
GEOLOGY J. J. Landry
TRACED R.M.G.
CHECKED Eocb
SUBMITTED Earl E. Kopie
RECOMMENDED
APPROVED
PHOENIX, ARIZONA
SHEET 1 OF 2
JULY 1, 1972
344-314-1172

Figure 123



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION L-L

PHOENIX-BUCKEYE SUBAREA

GEOLOGY	J. J. Landry	SUBMITTED	Earl E. Monroe
TRACED	R.M.G.	RECOMMENDED	O. K. Ellard
CHECKED	Ford	APPROVED	C. H. Pugh

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 2 OF 2 — 344-314-1173

Figure 124

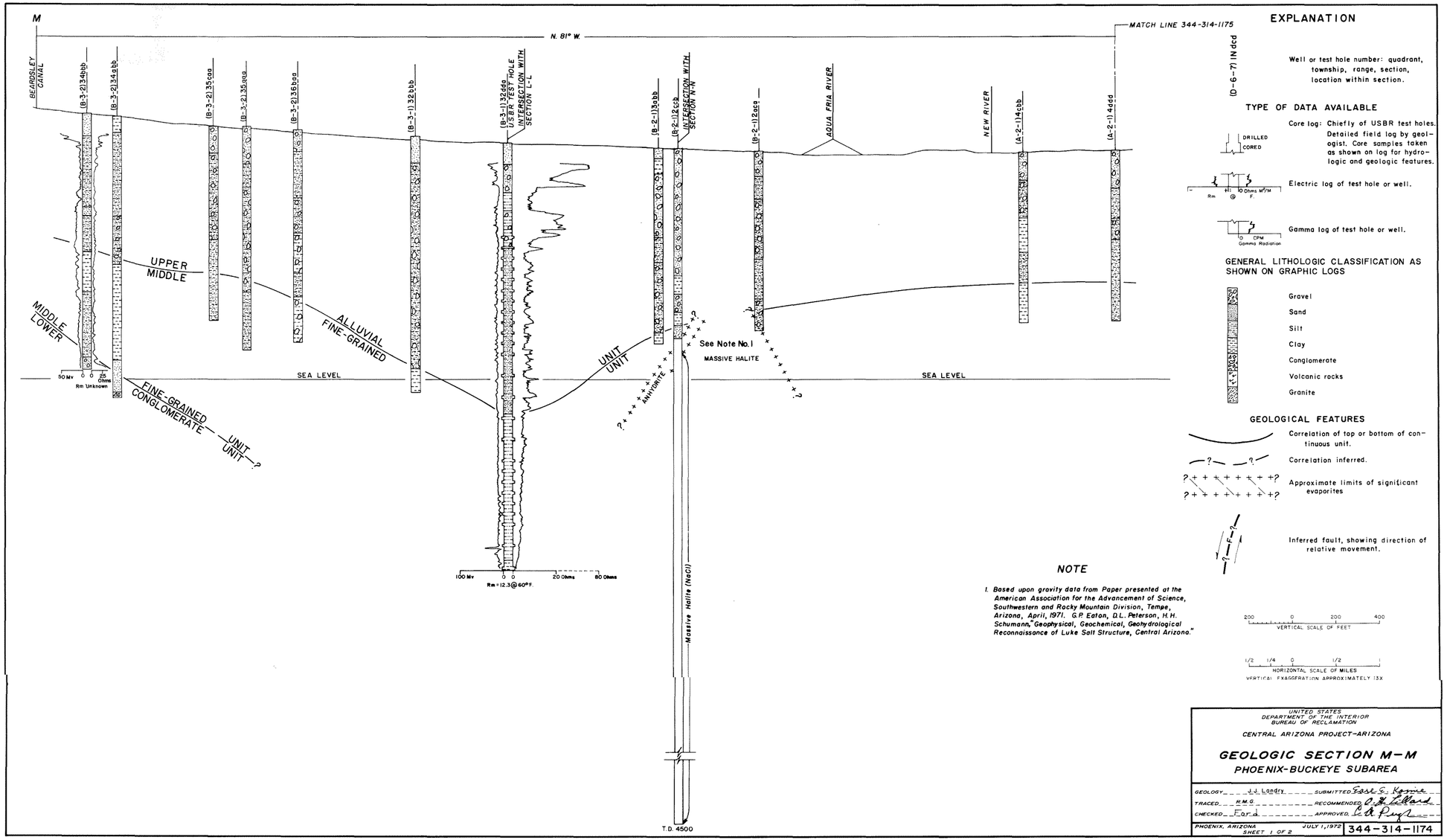
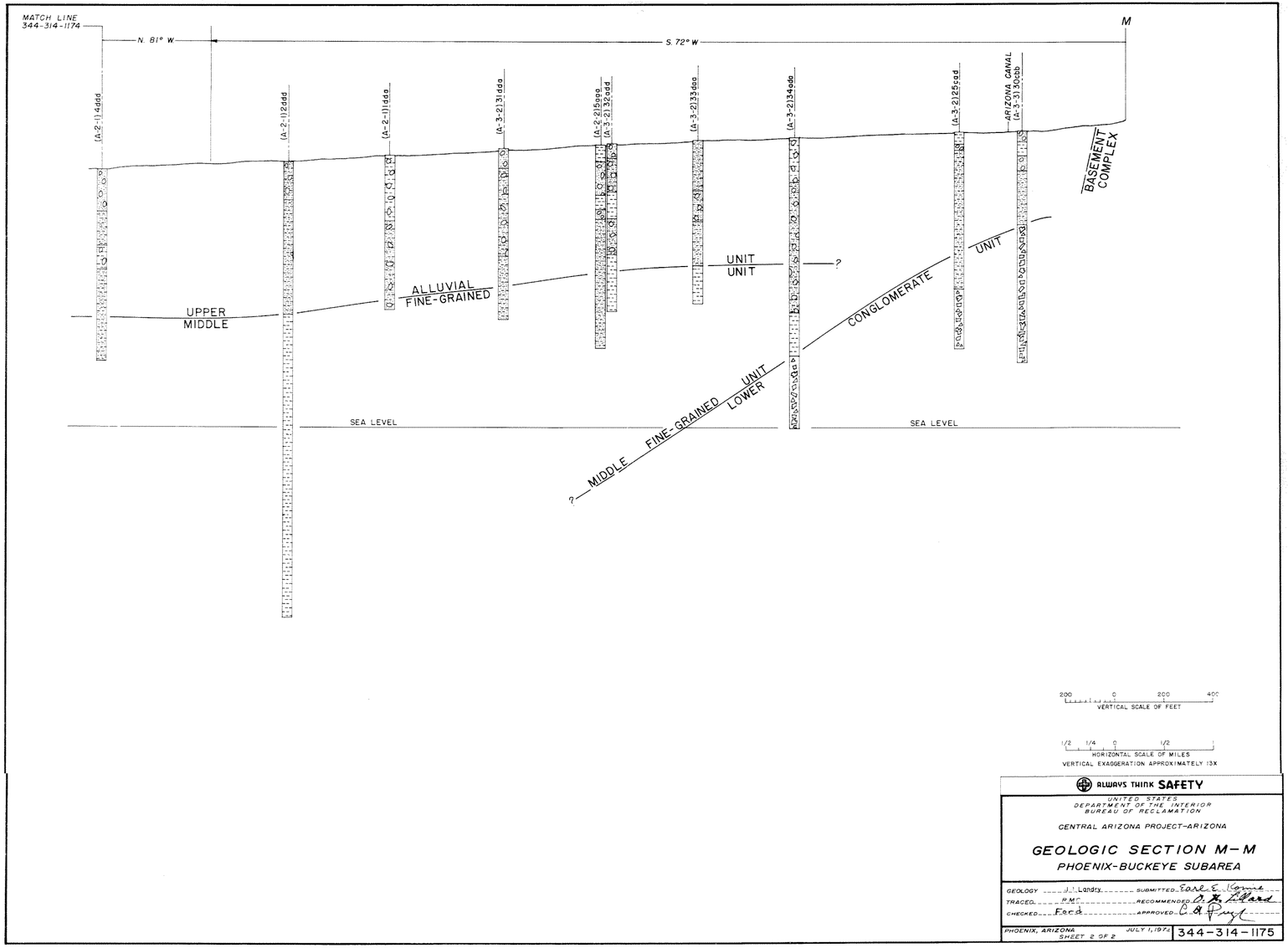

M
N. 81° W.
MATCH LINE 344-314-1175
BEARDSLEY CANAL
(B-3-2)34dbb
(B-3-2)34cbb
(B-3-2)35caa
(B-3-2)35aaa
(B-3-2)36baa
(B-3-1)32bbb
(B-3-1)32ddd
USBR TEST HOLE
INTERSECTION WITH SECTION L-L
(B-2-1)3bbb
(B-2-1)2cccb
INTERSECTION WITH SECTION N-N
(B-2-1)2aca
AGUA FRIA RIVER
NEW RIVER
(A-2-1)14cbb
(A-2-1)4ddd
UPPER MIDDLE
MIDDLE LOWER
ALLUVIAL FINE-GRAINED
FINE-GRAINED CONGLOMERATE
UNIT
UNIT
?
SEA LEVEL
SEA LEVEL
50 Mv
0 0 25 Ohms
Rm Unknown
100 Mv
0 0 20 Ohms 80 Ohms
Rm = 12.3 @ 60° F.
UNIT
UNIT
ANHYDRITE
See Note No. 1
MASSIVE HALITE
Massive Halite (NaCl)
T.D. 4500
EXPLANATION
(D-6-7) 1N dcd
Well or test hole number: quadrant, township, range, section, location within section.
TYPE OF DATA AVAILABLE
DRILLED
CORED
Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.
Rm
10 Ohms M²/M
F
Electric log of test hole or well.
0 CPM
Gamma Radiation
Gamma log of test hole or well.
GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS
Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites
Inferred fault, showing direction of relative movement.
NOTE
1. Based upon gravity data from Paper presented at the American Association for the Advancement of Science, Southwestern and Rocky Mountain Division, Tempe, Arizona, April, 1971. G.R. Eaton, D.L. Peterson, H.H. Schumann, "Geophysical, Geochemical, Geohydrological Reconnaissance of Luke Salt Structure, Central Arizona."
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION M-M
PHOENIX-BUCKEYE SUBAREA
GEOLOGY J.J. Landry
SUBMITTED Earl E. Kenne
TRACED R.M.G.
RECOMMENDED O. J. Lillard
CHECKED Ford
APPROVED C. A. Pugh
PHOENIX, ARIZONA
SHEET 1 OF 2
JULY 1, 1972
344-314-1174

Figure 125



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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

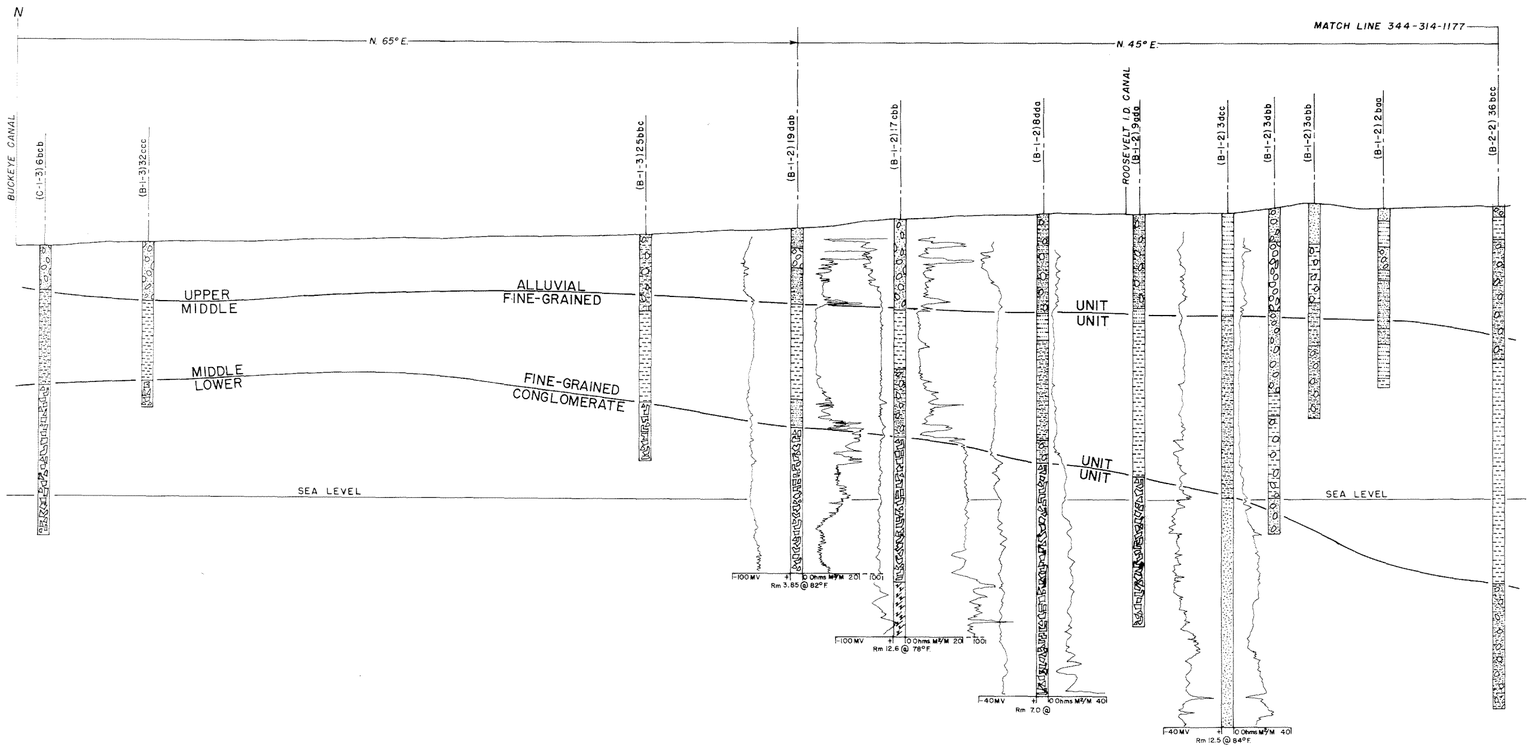
GEOLOGIC SECTION M-M

PHOENIX-BUCKEYE SUBAREA

GEOLOGY J.L. Landry SUBMITTED Earl E. Lyons
TRACED R.M.C. RECOMMENDED C. H. Pillard
CHECKED Fred APPROVED C. H. Pugh

PHOENIX, ARIZONA SHEET 2 OF 2 JULY 1, 1974 344-314-1175

Figure 126



EXPLANATION

(D-6-7) 1N dcd

Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

DRILLED
CORED

-40 MV 10 Ohms M²/M 40
Rm 3.85 @ 82°F

Electric log of test hole or well.

0 CPM
Gamma Radiation

Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION N-N

PHOENIX-BUCKEYE SUBAREA

GEOLOGY Ford SUBMITTED Earl E. Lamie
TRACED R.M.G. RECOMMENDED C. H. Pillard
CHECKED J.J. Landry APPROVED C. A. Pugh

PHOENIX, ARIZONA SHEET 1 OF 3 JULY 1, 1972 344-314-1176

Figure 127

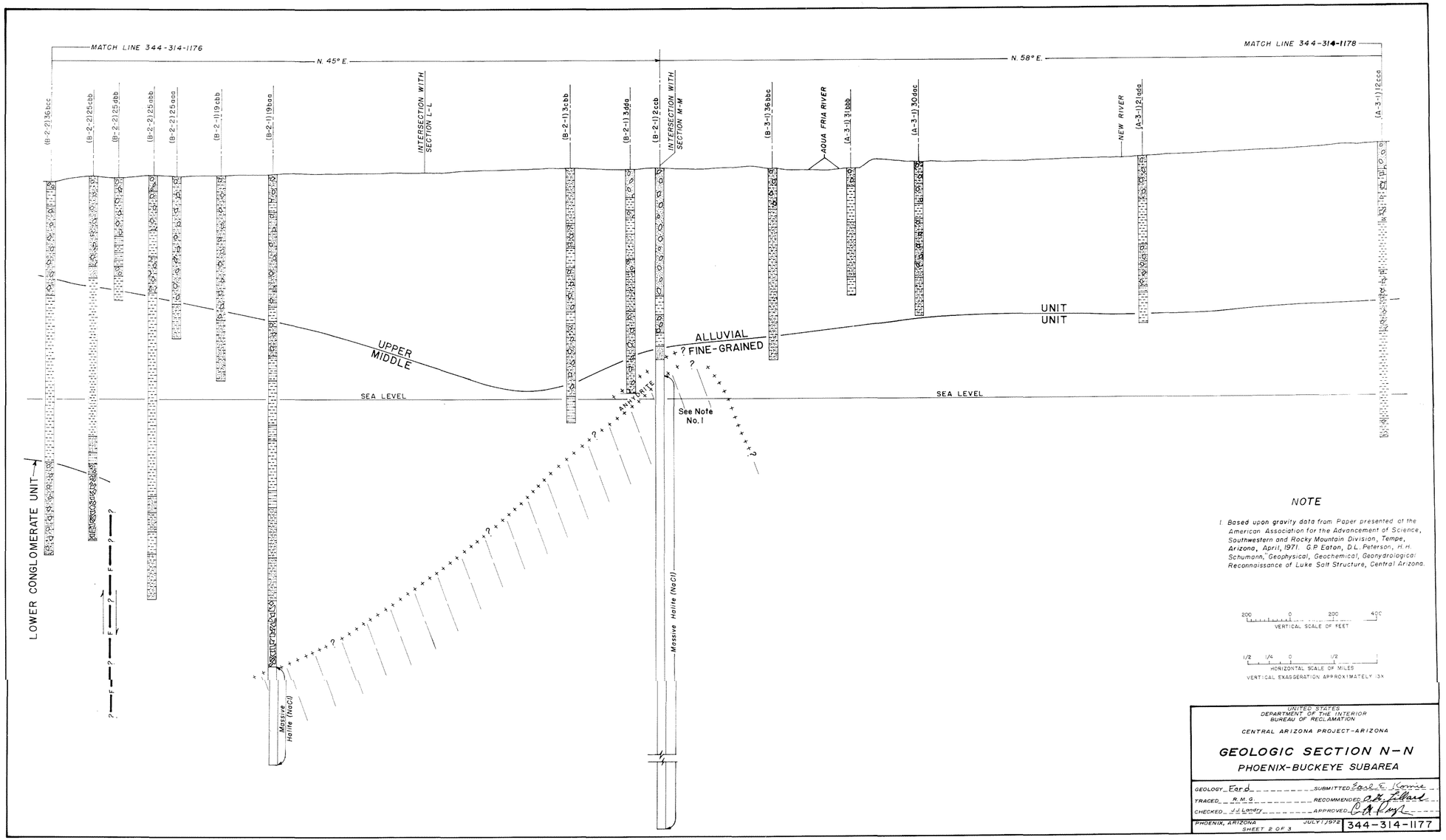
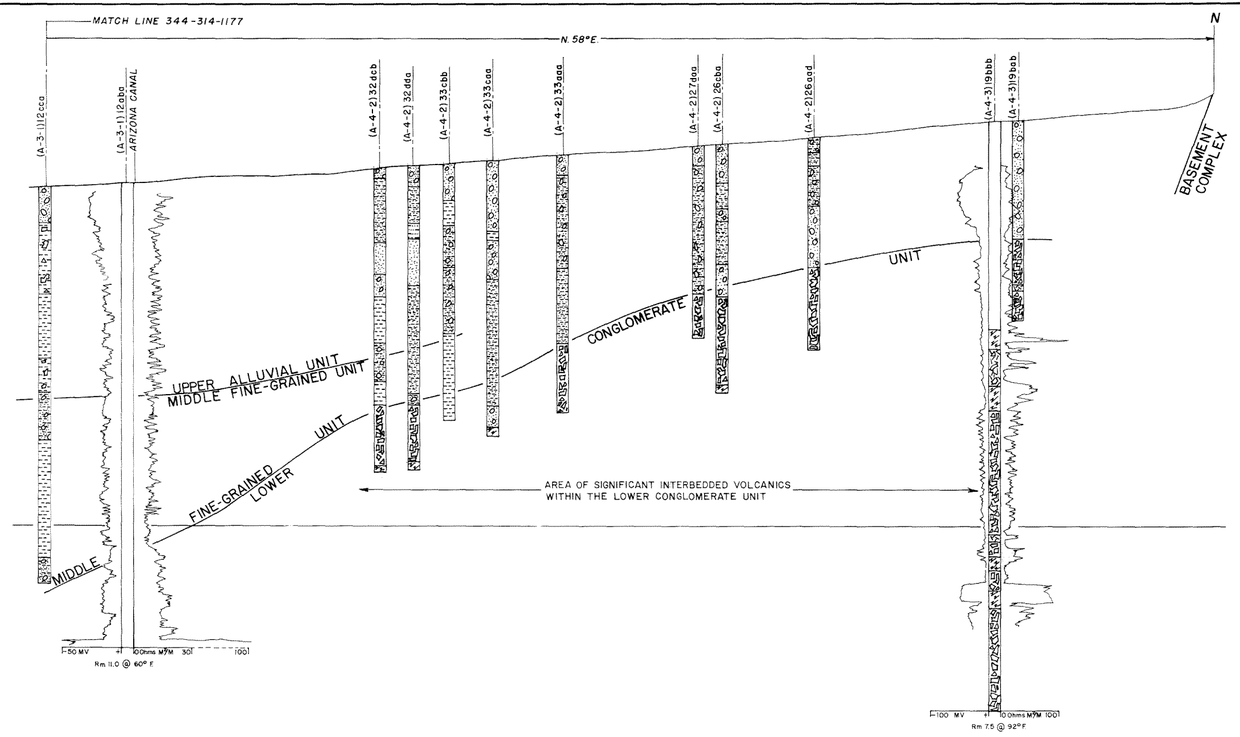

MATCH LINE 344-314-1176
N. 45° E.
N. 58° E.
MATCH LINE 344-314-1178
(B-2-2)36bcc
(B-2-2)25cbb
(B-2-2)25dbb
(B-2-2)25abb
(B-2-2)25aaa
(B-2-1)19cbb
(B-2-1)19baa
INTERSECTION WITH SECTION L-L
(B-2-1)3cbb
(B-2-1)3dda
(B-2-1)2ccb
INTERSECTION WITH SECTION M-M
(B-3-1)36bbc
AQUA FRIA RIVER
(A-3-1)31bbb
(A-3-1)30dac
NEW RIVER
(A-3-1)21dda
(A-3-1)12ccc
UPPER MIDDLE
UNIT
UNIT
ALLUVIAL
? FINE-GRAINED
SEA LEVEL
SEA LEVEL
ANHYDRITE
See Note No. 1
LOWER CONGLOMERATE UNIT
Massive Halite (NaCl)
Massive Halite (NaCl)
NOTE
1. Based upon gravity data from Paper presented at the American Association for the Advancement of Science, Southwestern and Rocky Mountain Division, Tempe, Arizona, April, 1971. G.P. Eaton, D.L. Peterson, H.H. Schumann, "Geophysical, Geochemical, Geohydrological Reconnaissance of Luke Salt Structure, Central Arizona.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION N-N
PHOENIX-BUCKEYE SUBAREA
GEOLOGY Ford
SUBMITTED
TRACED R.M.G.
RECOMMENDED
CHECKED J.J. Landry
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 2 OF 3
344-314-1177

Figure 128



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

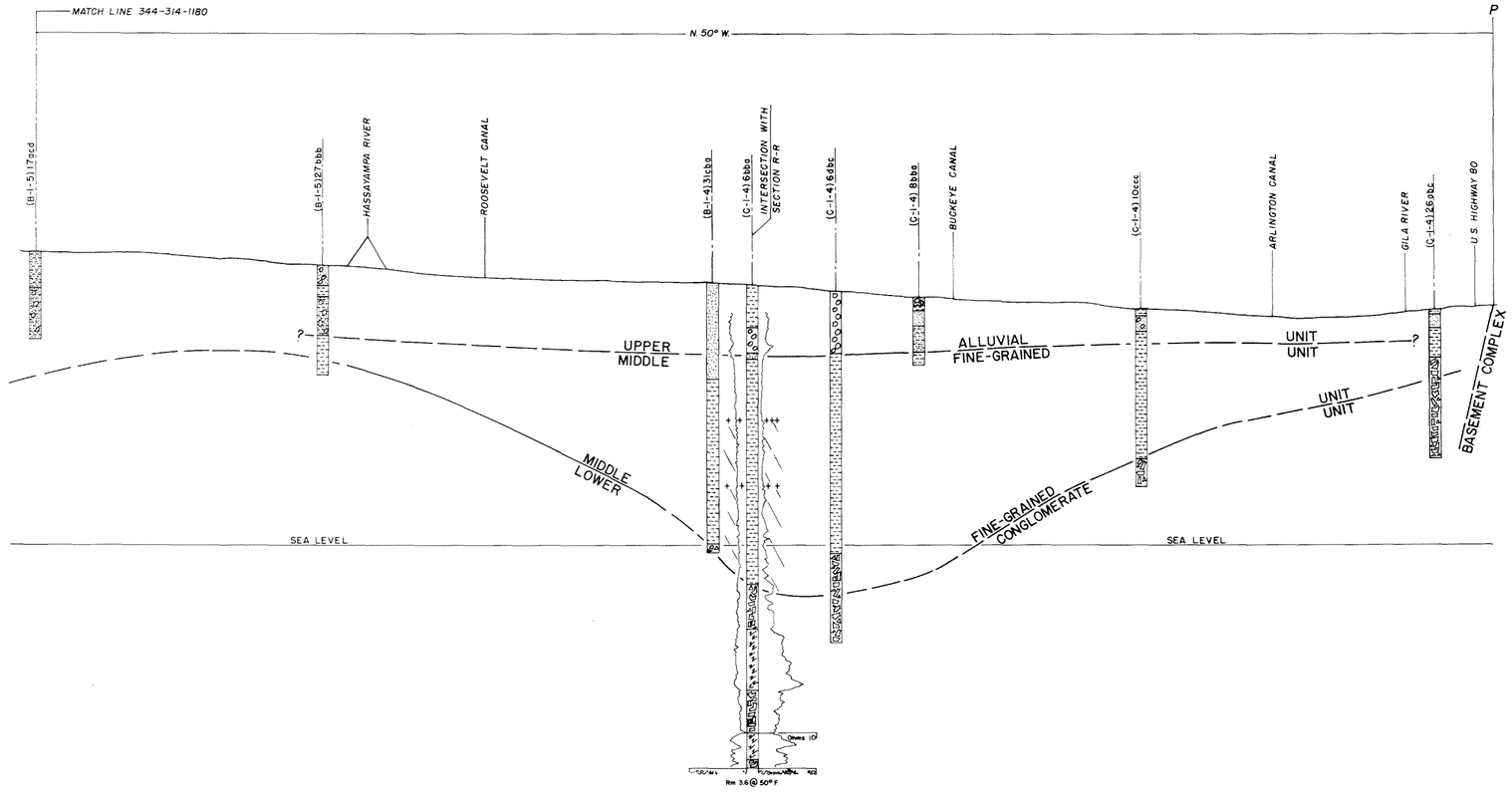
CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION N-N

PHOENIX-BUCKEYE SUBAREA

GEOLOGY Eecb		SUBMITTED Earl E. Koonce	
TRACED R.M.G.		RECOMMENDED C. H. Pollard	
CHECKED J.J. Lopez		APPROVED C. A. Fogg	
PHOENIX, ARIZONA SHEET 3 OF 3	JULY 1, 1972	344-314-1178	

Figure 129



EXPLANATION

(D-6-7) 1N dcd

Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED
CORED

Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

10 Ohms M²/M
Rm 3.6 @ 50°F.

Electric log of test hole or well.

0 CPM
Gamma Radiation

Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel

Sand

Silt

Clay

Conglomerate

Volcanic rocks

Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

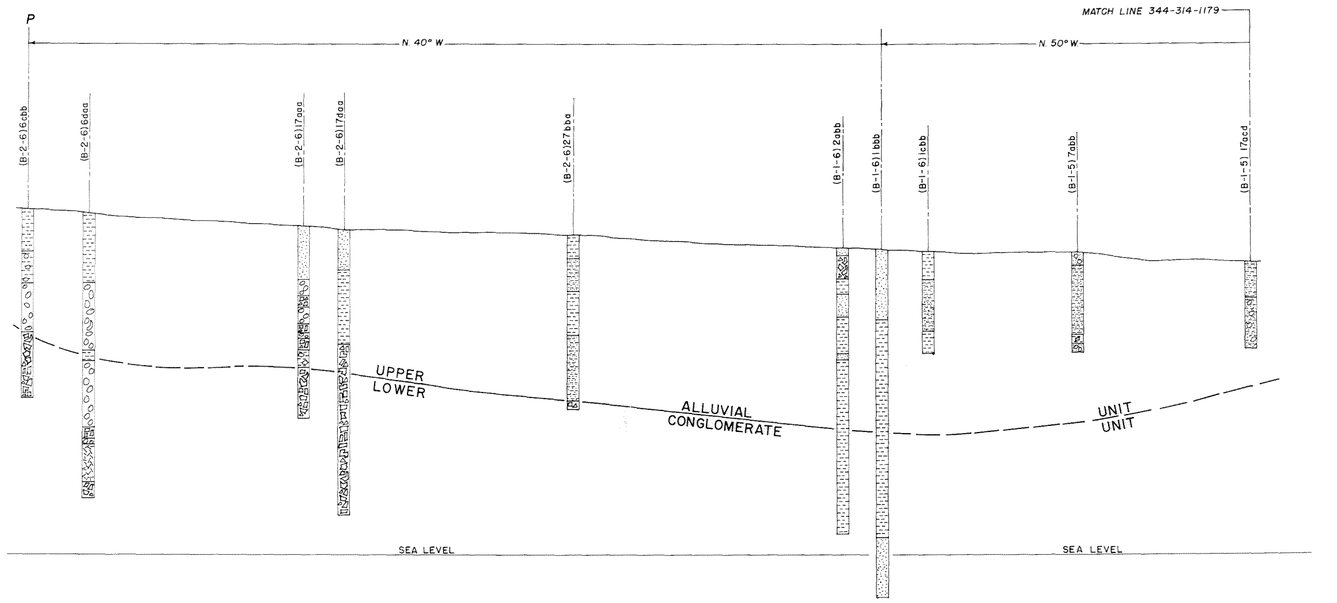
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION P-P
TONOPAH-ARLINGTON SUBAREA

GEOLOGY Ford SUBMITTED Earl E. Konie
TRACED R.M.G. RECOMMENDED C. A. Gilbert
CHECKED J.J. Longsy APPROVED C. A. Gilbert
PHOENIX, ARIZONA JULY 1, 1972 344-314-1179
SHEET 1 OF 2

Figure 130



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

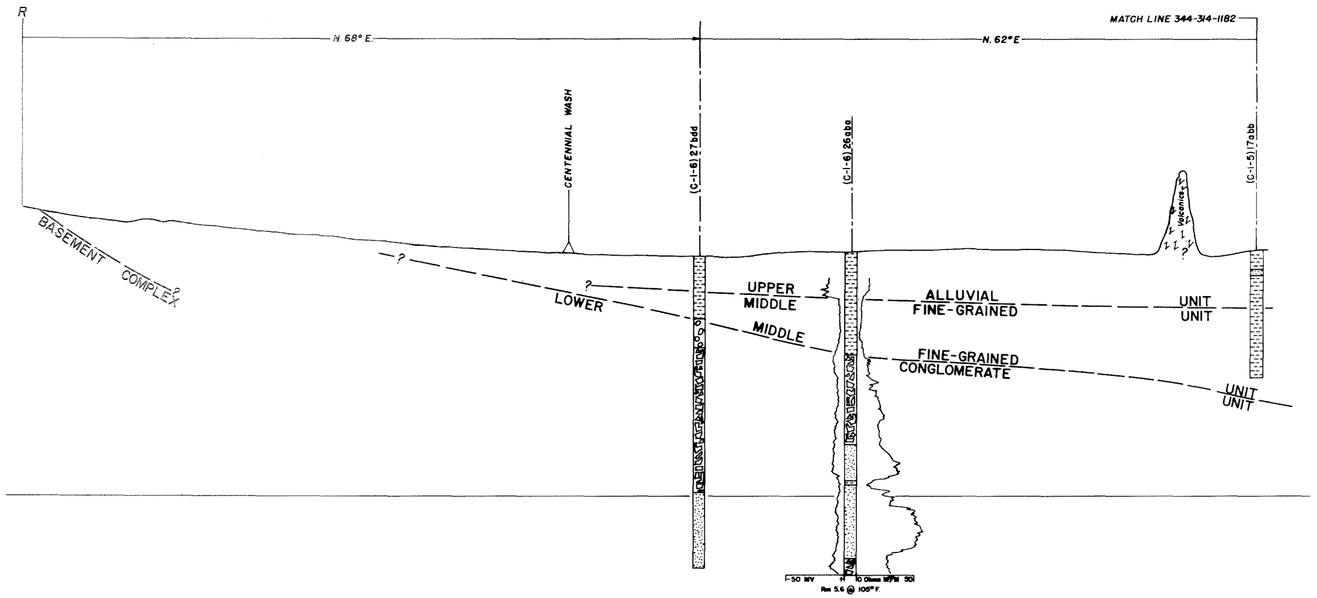
CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION P-P
TONOPAH-ARLINGTON SUBAREA

GEOLOGY	Facd	SUBMITTED	Earl E. Komie
TRACED	R.M.G.	RECOMMENDED	D. H. Fellows
CHECKED	J.J. Landis	APPROVED	C. A. Pugh

PHOENIX, ARIZONA JULY 1, 1972 SHEET 2 OF 2 344-314-1180

Figure 131



EXPLANATION

(D-6-7) IN dcd

Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED
CORED

Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

-50 MV +1 10 Ohms m²/M
Rm 3.6 @ 80° F.

Electric log of test hole or well.

0 CPM
Gamma Radiation

Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

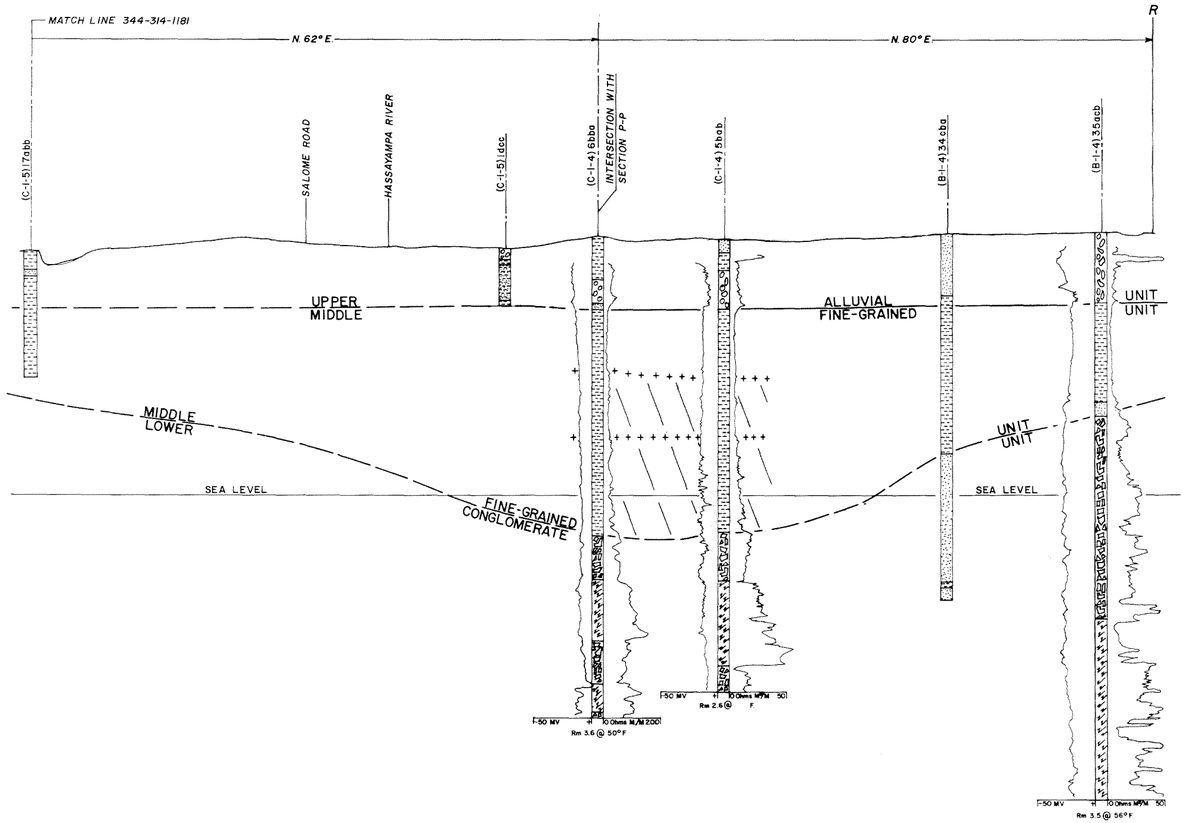
CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION R-R
TONOPAH-ARLINGTON SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Konie
TRACED R.M.S. — RECOMMENDED C. A. Gillard
CHECKED Loddy — APPROVED C. A. Gillard

PHOENIX, ARIZONA — JULY 1, 1972 — 344-314-1181
SHEET 1 OF 2

Figure 132



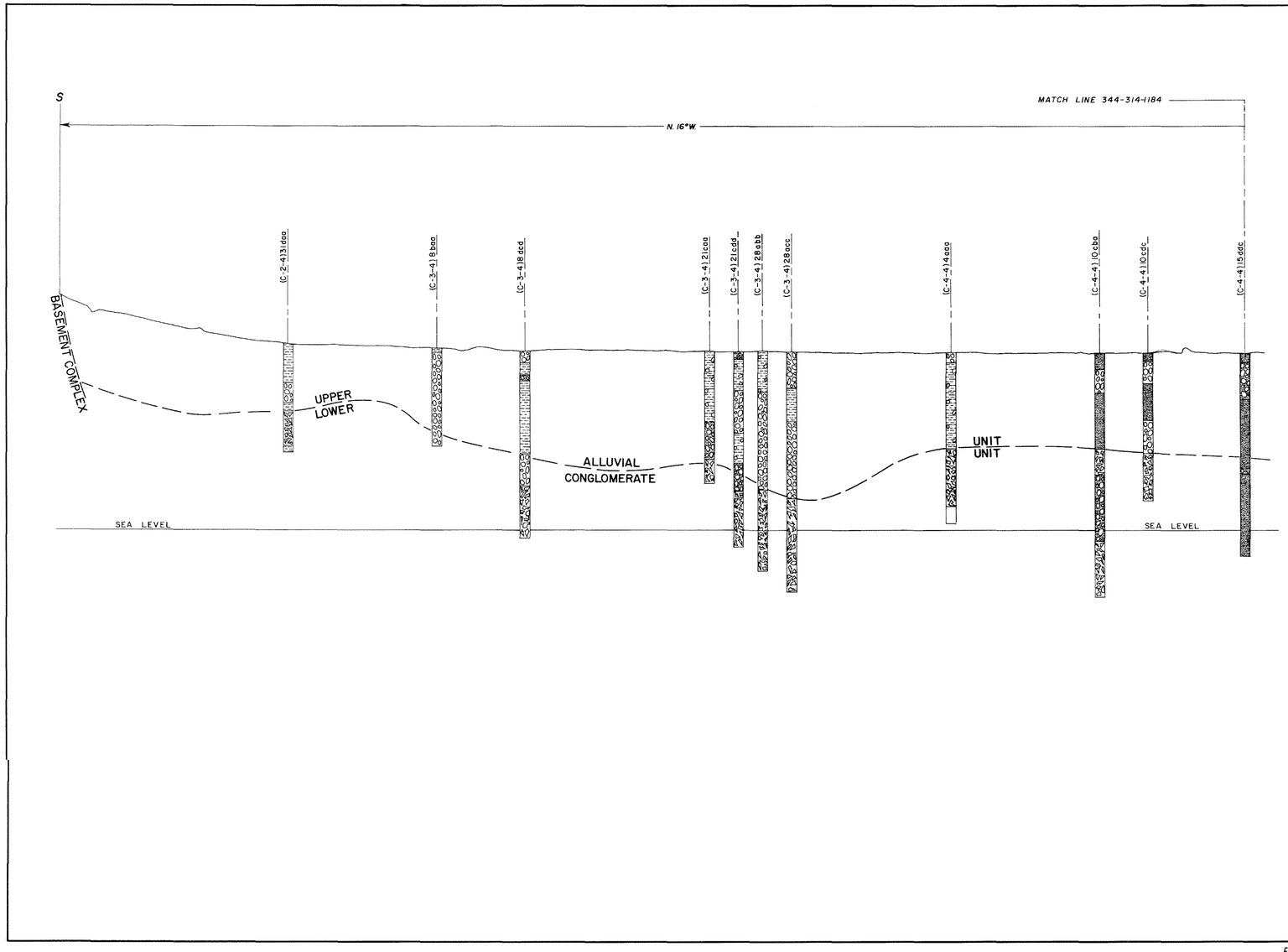
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION R-R
TONOPAH-ARLINGTON SUBAREA

GEOLOGY Ford		SUBMITTED Earl E. Konis	
TRACED R.M.G.		RECOMMENDED D. H. Ellard	
CHECKED LONDY		APPROVED C. A. Pugh	
PHOENIX, ARIZONA SHEET 2 OF 2	JULY 1, 1972	344-314-1182	

Figure 133



EXPLANATION

(D-6-7) 1N dcd

Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED
CORED

Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

-30 Rm 5.0 @ 10 Ohms m²/m 100 F.

Electric log of test hole or well.

0 CPM Gamma Radiation

Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel

Sand

Silt

Clay

Conglomerate

Volcanic rocks

Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

GEOLOGIC SECTION S–S
GILA BEND SUBAREA

GEOLOGY Ford		SUBMITTED Earl E. Konie	
TRACED M.F.W.		RECOMMENDED O. H. Pillard	
CHECKED J.J.L.-andry		APPROVED C. A. Pugh	
PHOENIX, ARIZONA SHEET 1 OF 2	JULY 1, 1972	344-314-1183	

Figure 134

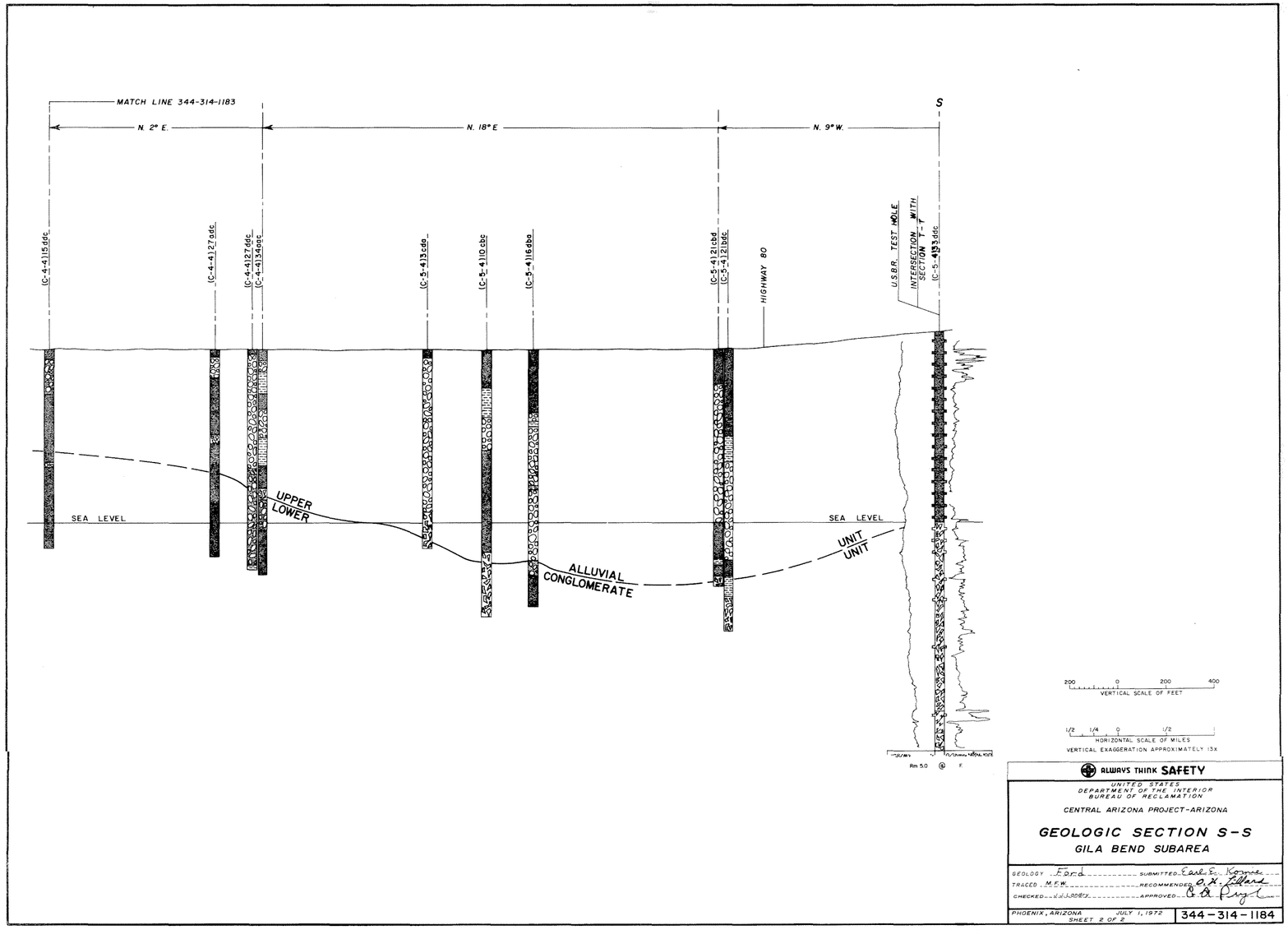
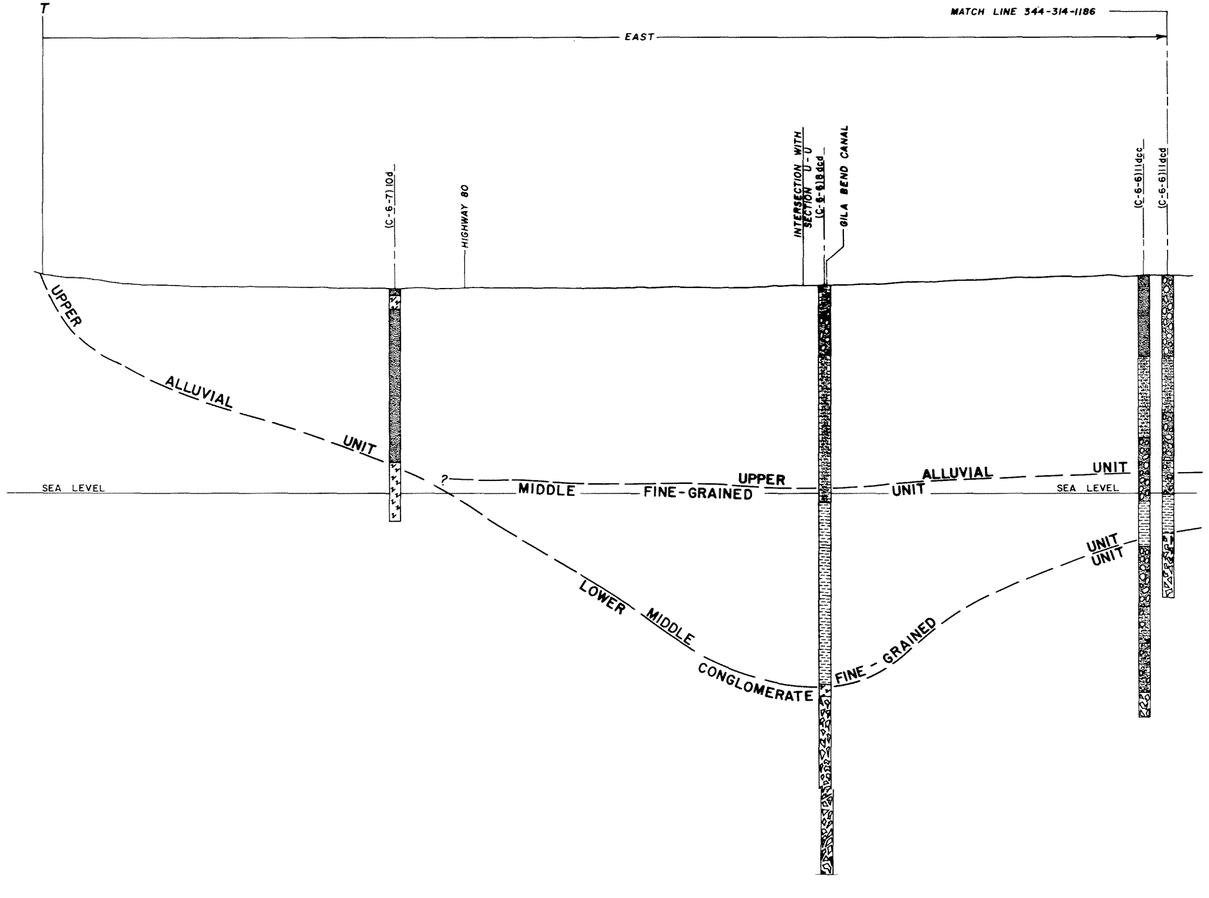

MATCH LINE 344-314-1183
S
N. 2° E.
N. 18° E
N. 9° W.
(C-4-4)15dac
(C-4-4)27adc
(C-4-4)27ddc
(C-4-4)34aac
(C-5-4)13cdb
(C-5-4)10cbc
(C-5-4)16dba
(C-5-4)21cbd
(C-5-4)21bdc
HIGHWAY 80
U.S.B.R. TEST HOLE
INTERSECTION WITH SECTION T-T'
(C-5-4)13ddc
SEA LEVEL
SEA LEVEL
UPPER UNIT
LOWER UNIT
ALLUVIAL CONGLOMERATE
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 15X
Rm 5.0 @ F
ALWAYS THINK SAFETY
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION S-S
GILA BEND SUBAREA
GEOLOGY Ford
SUBMITTED Earl E. Konze
TRACED M.F.W.
RECOMMENDED O. H. Ellard
CHECKED
APPROVED
PHOENIX, ARIZONA JULY 1, 1972
SHEET 2 OF 2
344-314-1184

Figure 135



EXPLANATION

(D-6-7) 1N dcd

Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED
CORED

Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

30 Rm 50 @ 10 Ohms M²/M 100 F.

Electric log of test hole or well.

0 CPM Gamma Radiation

Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

F

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

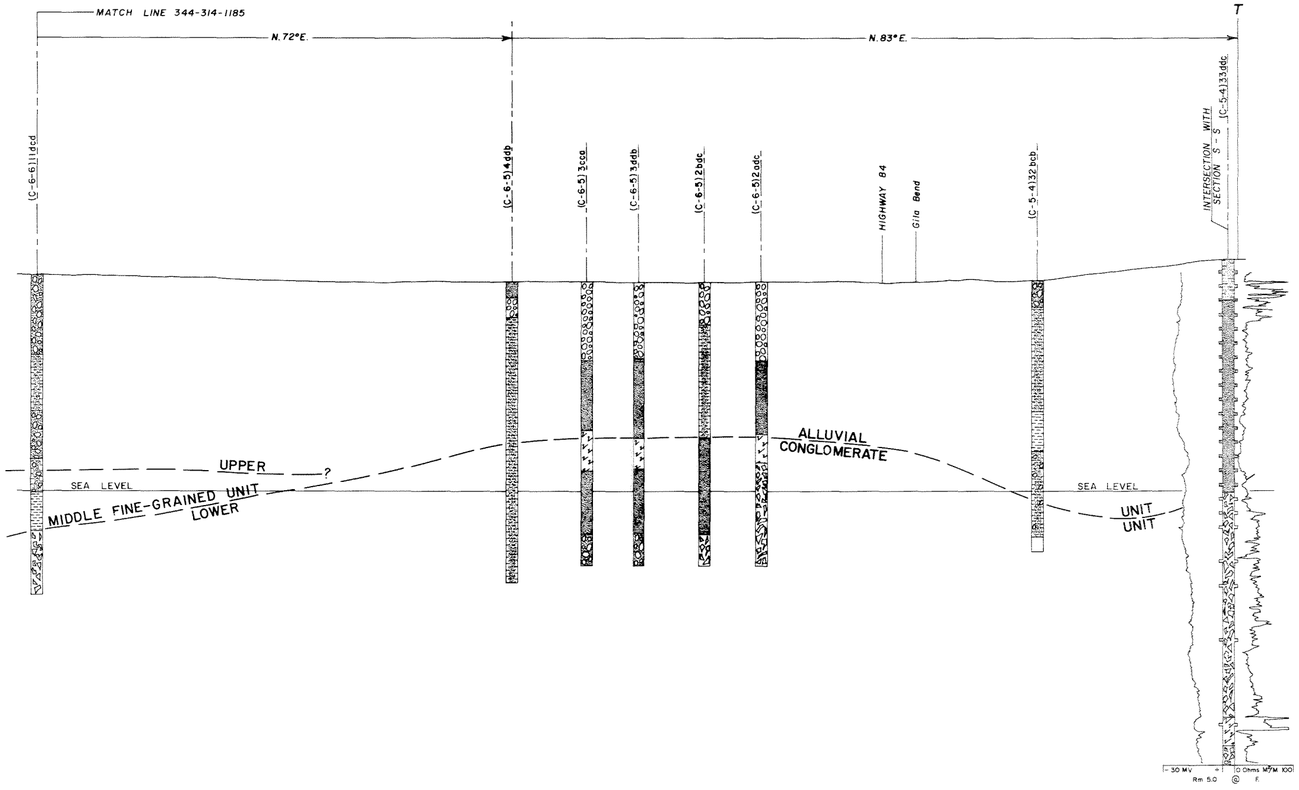
CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION T-T
GILA BEND SUBAREA

GEOLOGY Ford SUBMITTED Earl E. Keene
TRACED M.F.W. RECOMMENDED O. A. Pillard
CHECKED J.J. Landry APPROVED C. A. Pugh

PHOENIX, ARIZONA JULY 1, 1972 SHEET 1 OF 2 344-314-1185

Figure 136



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 15 X

ALWAYS THINK SAFETY

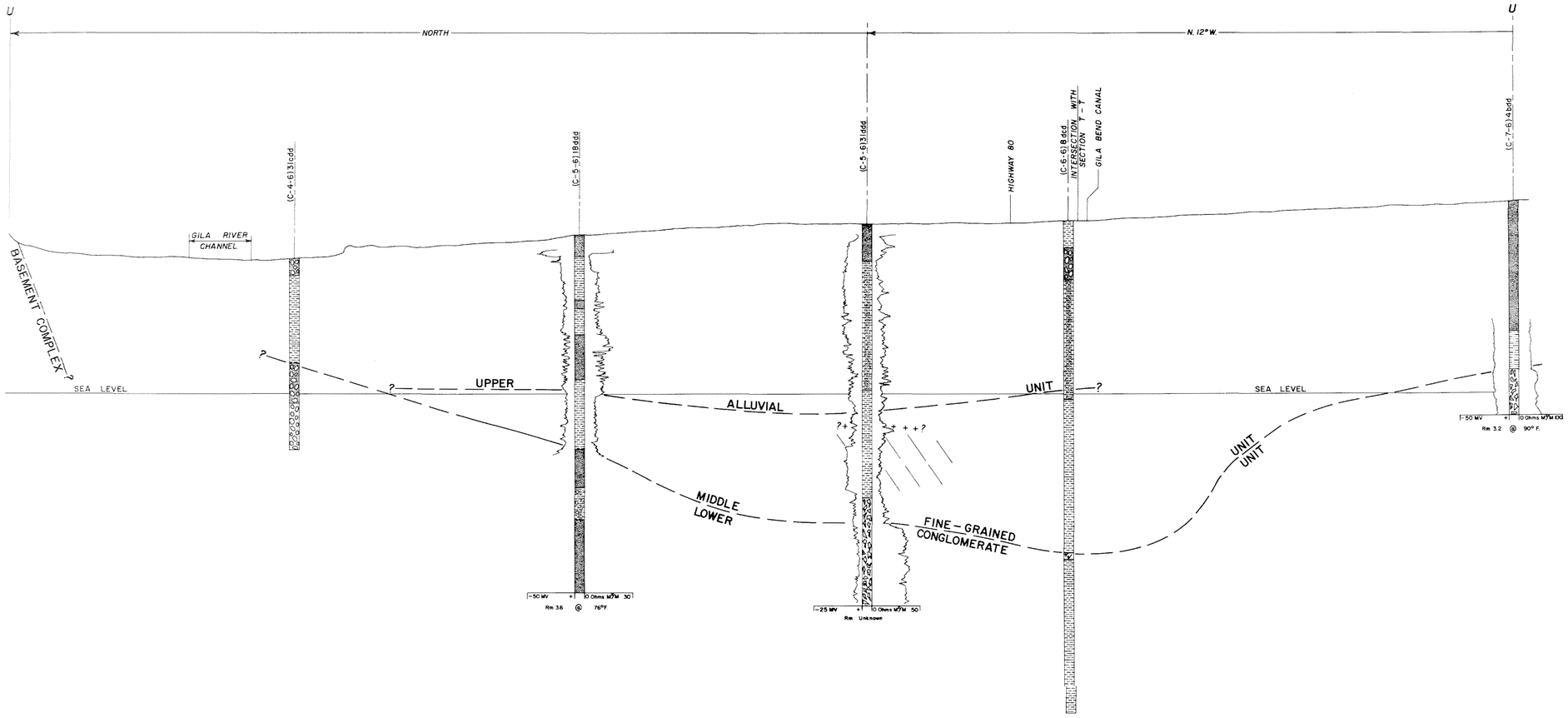
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION T-T
GILA BEND SUBAREA

GEOLOGY F.E.C. SUBMITTED Earle E. Kennie
TRACED M.F.W. RECOMMENDED C. H. Lillard
CHECKED J.J.L. APPROVED C. H. Pugh

PHOENIX, ARIZONA JULY 1, 1972 344-314-1186
SHEET 2 OF 2

Figure 137



EXPLANATION

(D-6-7) 1N dcd — Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED / CORED — Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

-50 MV, 10 Ohms M²/M 100, Rm 3.2 @ 90°F — Electric log of test hole or well.

0 CPM, Gamma Radiation — Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

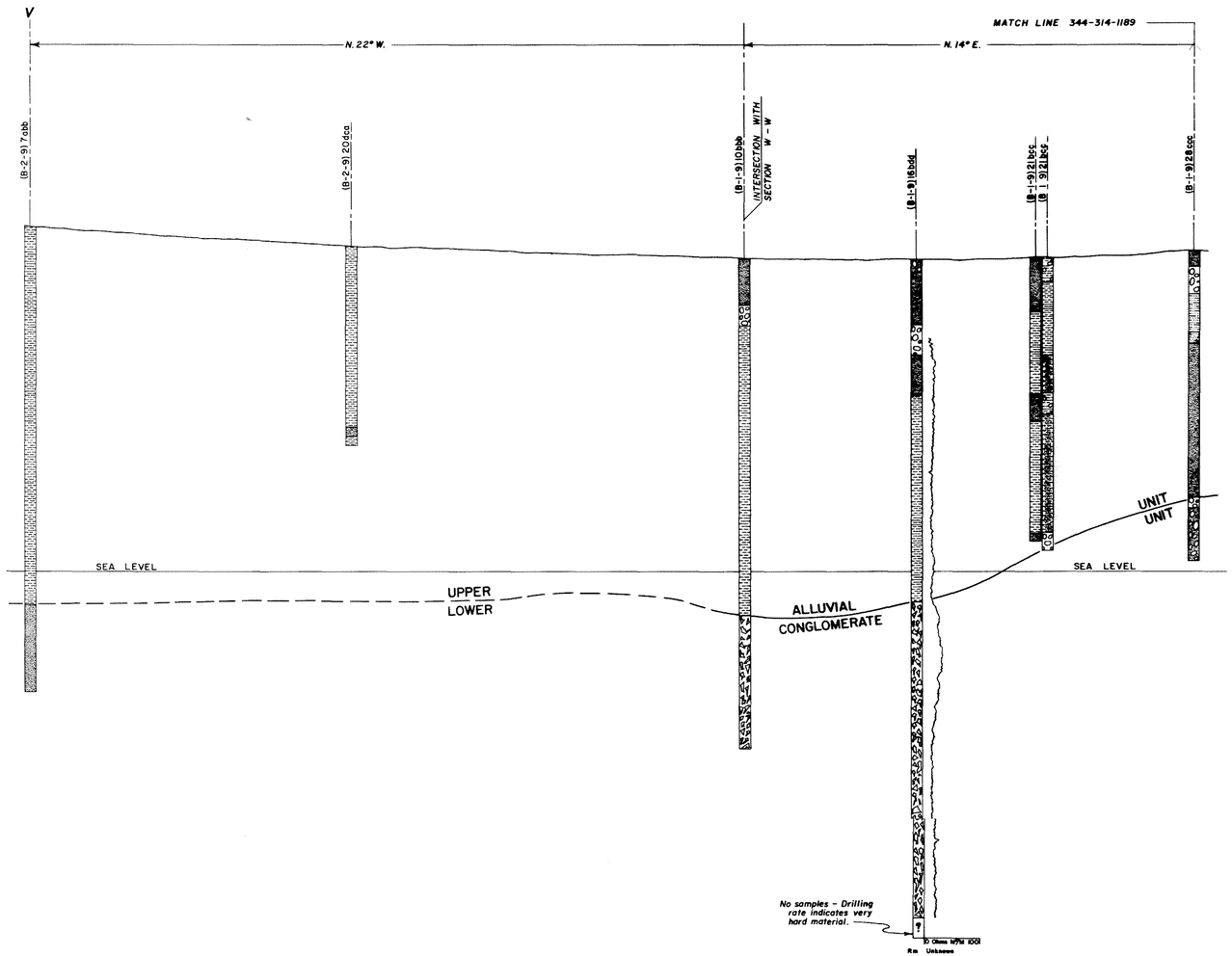
CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION U-U
GILA BEND SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Kemmerer
TRACED M.F.W. — RECOMMENDED C. H. Fellows
CHECKED J.J. Landry — APPROVED C. H. Fleyl

PHOENIX, ARIZONA — SHEET 1 OF 1 — JULY 1, 1972 — 344-314-1187

Figure 138



EXPLANATION

(D-6-7)1N dcd

Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED
CORED

Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.

0 Ohms W/M 100
Rm Unknown

Electric log of test hole or well.

0 CPM
Gamma Radiation

Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel

Sand

Silt

Clay

Conglomerate

Volcanic rocks

Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 15X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

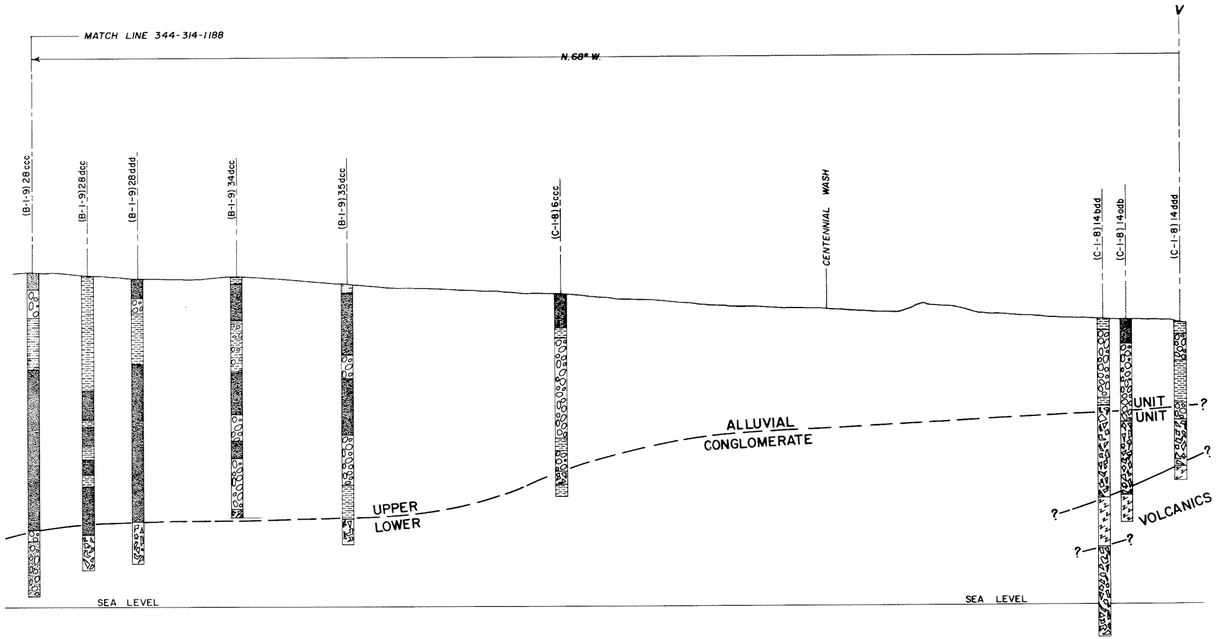
CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION V-V
HARQUAHALA VALLEY SUBAREA

GEOLOGY Ford SUBMITTED Earl E. Kornie
TRACED M.F.M. RECOMMENDED O. H. Ellard
CHECKED J.L.L.P.S.J. APPROVED C. A. Boyd

PHOENIX, ARIZONA SHEET 1 OF 2 JULY 1, 1972 344-314-1188

Figure 139



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

GEOLOGIC SECTION V-V
HARQUAHALA VALLEY SUBAREA

GEOLOGY Ford SUBMITTED Earl E. Kenise
TRACED M.F.W. RECOMMENDED A. H. Lillard
CHECKED J.J.L. andry APPROVED C. A. Fingl

PHOENIX, ARIZONA SHEET 2 OF 2 JULY 1, 1972 344-314-1189

Figure 140

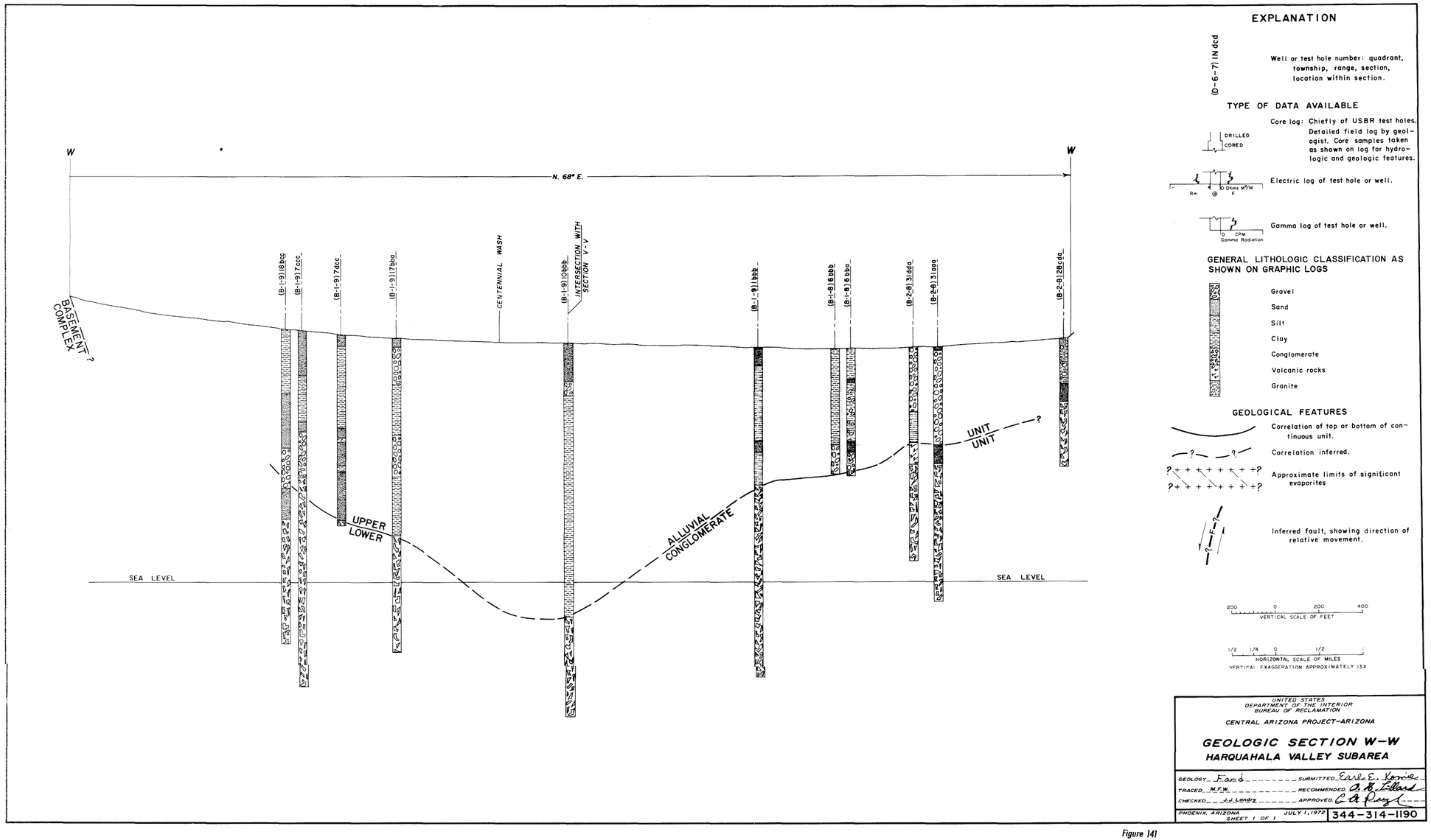
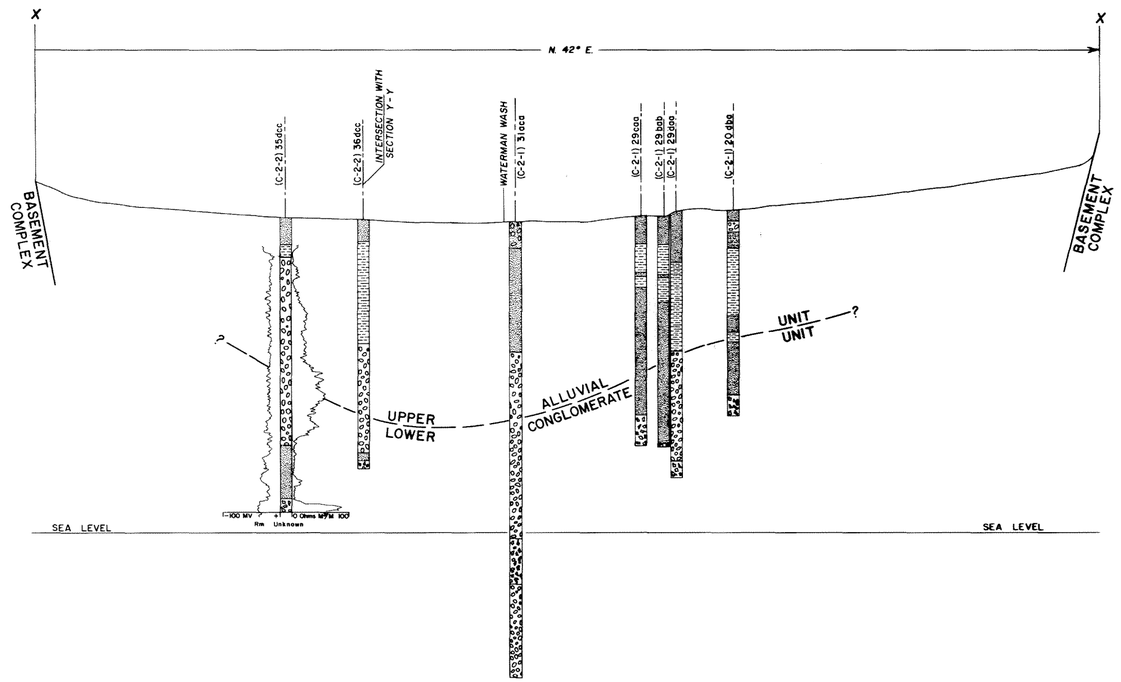

W
N. 68° E.
W
BASEMENT COMPLEX ?
(B-1-9)18bcc
(B-1-9)17ccc
(B-1-9)17dcc
(B-1-9)17bbb
CENTENNIAL WASH
(B-1-9)10bbb
INTERSECTION WITH SECTION V-V
(B-1-9)1bbb
(B-1-8)16bbb
(B-1-8)6bbb
(B-2-8)31ddd
(B-2-8)31ccc
(B-2-8)28ccc
UPPER
LOWER
ALLUVIAL CONGLOMERATE
UNIT
UNIT
?
SEA LEVEL
SEA LEVEL
EXPLANATION
(D-6-7)1N dcd
Well or test hole number: quadrant, township, range, section, location within section.
TYPE OF DATA AVAILABLE
DRILLED
CORED
Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.
Rm
0 Ohms M²/M
F.
Electric log of test hole or well.
0 CPM
Gamma Radiation
Gamma log of test hole or well.
GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS
Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION W-W
HARQUAHALA VALLEY SUBAREA
GEOLOGY Ford
SUBMITTED Earl E. Lowe
TRACED M.F.W.
RECOMMENDED A. B. Lillard
CHECKED J.J. Lopez
APPROVED C. A. Pugh
PHOENIX, ARIZONA
SHEET 1 OF 1
JULY 1, 1972
344-314-1190

Figure 141



EXPLANATION

(D-6-7) 1N dcd

Well or test hole number: quadrant, township, range, section, location within section.

TYPE OF DATA AVAILABLE

DRILLED
CORED

Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic [illegible].

-100 MV
Rm
Unknown
0 Ohms m²/m 100

Electric log of test hole or well.

0 CPM
Gamma Radiation

Gamma log of test hole or well.

GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS

Gravel

Sand

Silt

Clay

Conglomerate

Volcanic rocks

Granite

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

GEOLOGIC SECTION X-X
WATERMAN WASH SUBAREA

GEOLOGY Ford SUBMITTED Earl E. Lemie
TRACED M.F.W. RECOMMENDED O. A. Fillard
CHECKED J.J. Landry APPROVED C. A. Pugh

PHOENIX, ARIZONA SHEET 1 OF 1 JULY 1, 1972 344-314-1191

Figure 142

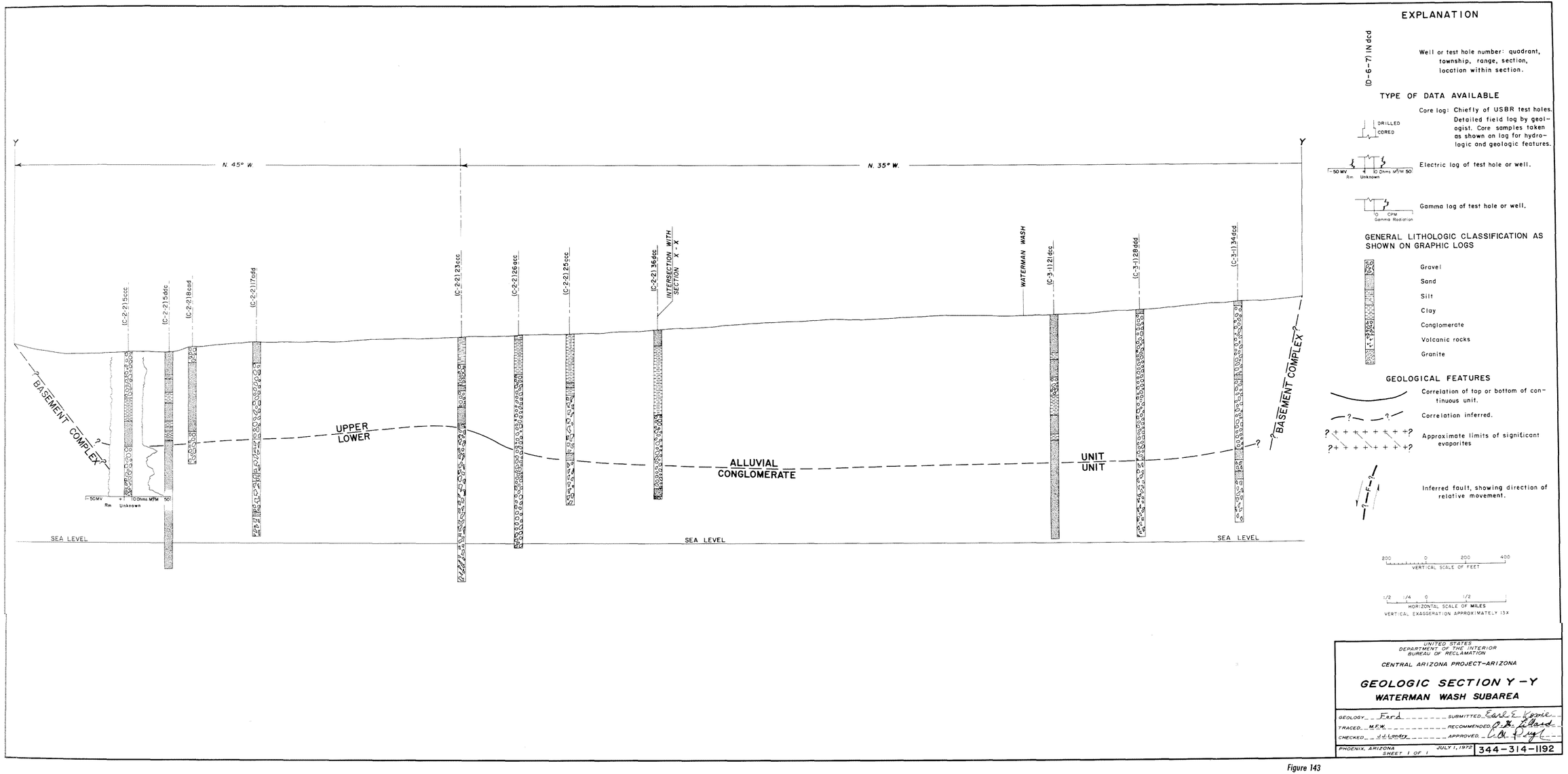
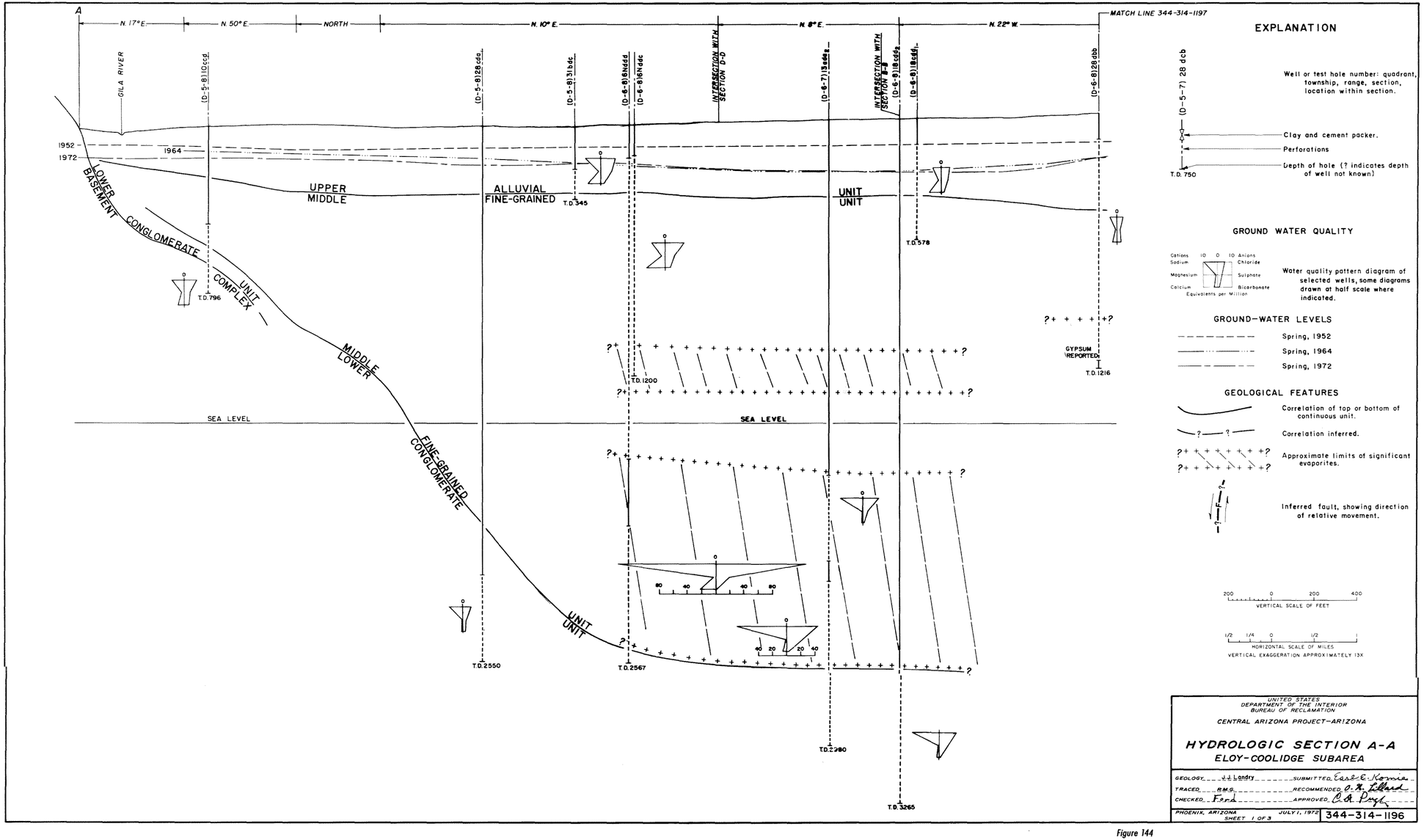

Y
Y
N. 45° W.
N. 35° W.
(C-2-2)15ccc
(C-2-2)15dcc
(C-2-2)18cad
(C-2-2)17cdd
(C-2-2)23ccc
(C-2-2)26ccc
(C-2-2)25ccc
(C-2-2)36dcc
INTERSECTION WITH SECTION X-X'
WATERMAN WASH
(C-3-1)21dcc
(C-3-1)28ddd
(C-3-1)34dcd
BASEMENT COMPLEX
BASEMENT COMPLEX
UPPER
LOWER
ALLUVIAL CONGLOMERATE
UNIT
UNIT
50 MV
10 Ohms M²/M 50
Rm
Unknown
SEA LEVEL
SEA LEVEL
SEA LEVEL
EXPLANATION
(D-6-7) 1N dcd
Well or test hole number: quadrant, township, range, section, location within section.
TYPE OF DATA AVAILABLE
DRILLED
CORED
Core log: Chiefly of USBR test holes. Detailed field log by geologist. Core samples taken as shown on log for hydrologic and geologic features.
50 MV
10 Ohms M²/M 50
Rm
Unknown
Electric log of test hole or well.
10 CPM
Gamma Radiation
Gamma log of test hole or well.
GENERAL LITHOLOGIC CLASSIFICATION AS SHOWN ON GRAPHIC LOGS
Gravel
Sand
Silt
Clay
Conglomerate
Volcanic rocks
Granite
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
GEOLOGIC SECTION Y-Y
WATERMAN WASH SUBAREA
GEOLOGY Ford
SUBMITTED Earl E. Kemie
TRACED M.F.W.
RECOMMENDED
CHECKED
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 1 OF 1
344-314-1192

Figure 143

HYDROLOGIC SECTIONS



EXPLANATION

(D-5-7) 28 dcb

Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750

Depth of hole (? indicates depth of well not known)

GROUND WATER QUALITY

Cations: Sodium, Magnesium, Calcium — Anions: Chloride, Sulphate, Bicarbonate

10 0 10 Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION A-A
ELOY-COOLIDGE SUBAREA

GEOLOGY J.J. Landry SUBMITTED Earl E. Konnie
TRACED R.M.G. RECOMMENDED O.A. Lillard
CHECKED Ford APPROVED C.A. Pugh

PHOENIX, ARIZONA JULY 1, 1972 SHEET 1 OF 3 344-314-1196

Figure 144

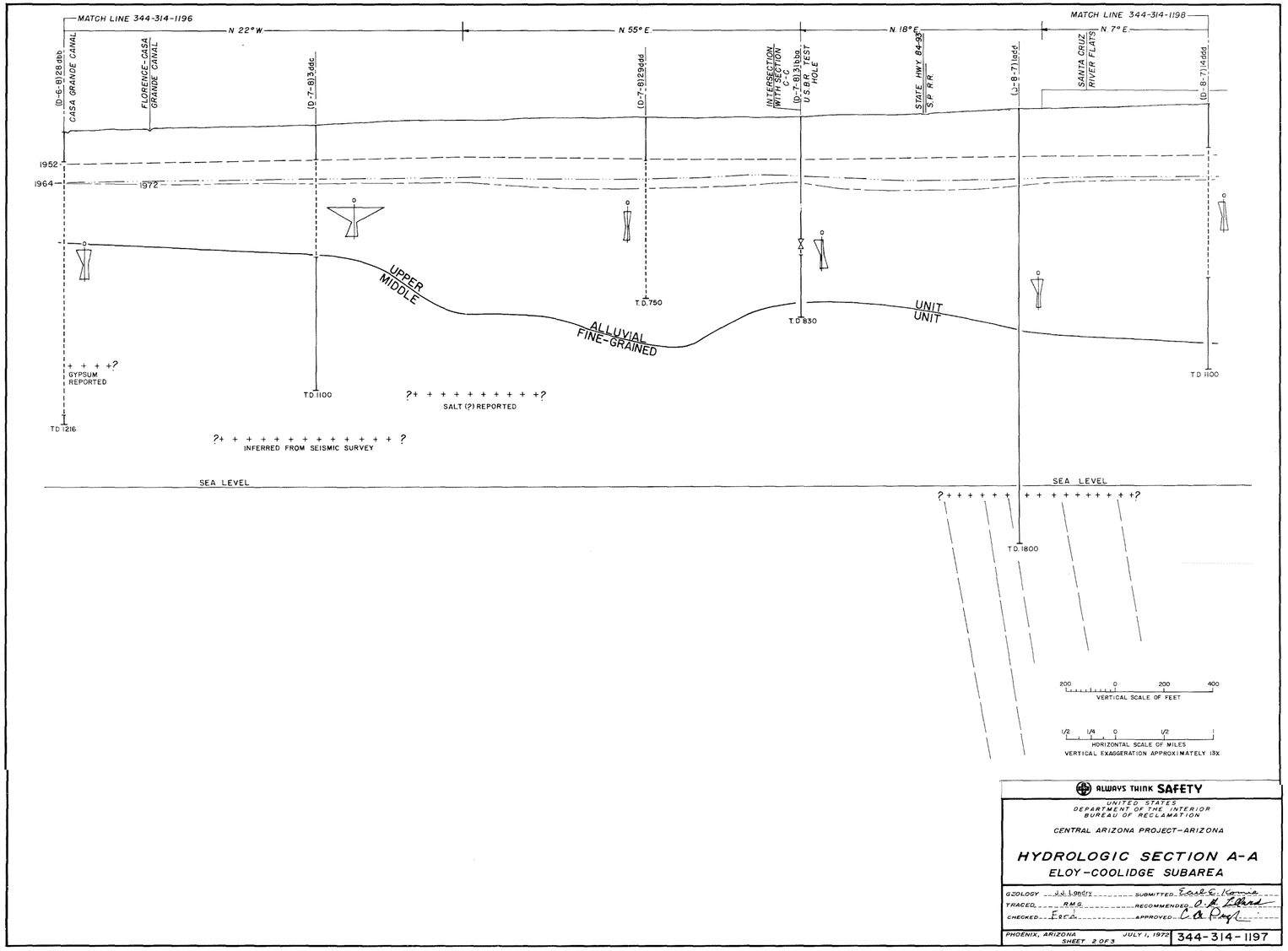
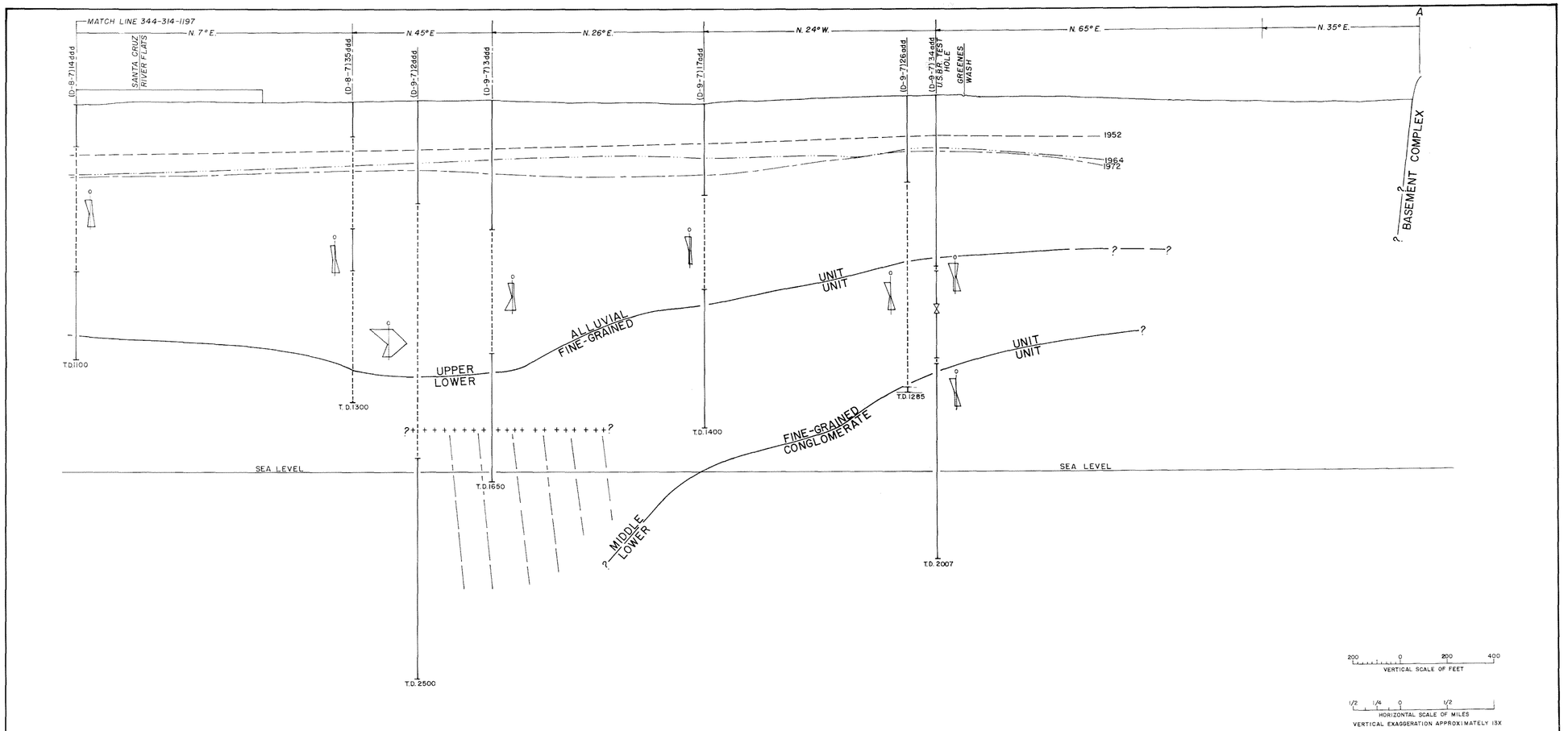

MATCH LINE 344-314-1196
MATCH LINE 344-314-1198
N 22° W
N 55° E
N 18° E
N 7° E
(D-6-8)28 abb
CASA GRANDE CANAL
FLORENCE-CASA GRANDE CANAL
(D-7-8)3 dcc
(D-7-8)29 ddd
INTERSECTION WITH SECTION C-C
(D-7-8)3 bbb
U.S. BUREAU TEST HOLE
STATE HWY 84-85
S.P. R.R.
(D-8-7)1 add
SANTA CRUZ RIVER FLATS
(D-8-7)14 ddd
1952
1964
1972
UPPER MIDDLE
ALLUVIAL FINE-GRAINED
UNIT
UNIT
T.D. 750
T.D. 830
GYPSUM REPORTED
T.D. 1216
T.D. 1100
SALT (?) REPORTED
INFERRED FROM SEISMIC SURVEY
T.D. 1100
SEA LEVEL
SEA LEVEL
T.D. 1800
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13x
ALWAYS THINK SAFETY
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
HYDROLOGIC SECTION A-A
ELOY-COOLIDGE SUBAREA
GEOLOGY J.J. Landry
TRACED R.M.G.
CHECKED E.C.J.
SUBMITTED
RECOMMENDED
APPROVED
PHOENIX, ARIZONA
SHEET 2 OF 3
JULY 1, 1972
344-314-1197

Figure 145



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

HYDROLOGIC SECTION A-A
ELOY-COOLIDGE SUBAREA

GEOLOGY Gcruc SUBMITTED Earl E. Konis
TRACED B.M.G. RECOMMENDED C. A. Pickard
CHECKED Ford APPROVED C. A. Pugh

PHOENIX, ARIZONA SHEET 3 OF 3 JULY 1, 1972 344-314-1198

Figure 146

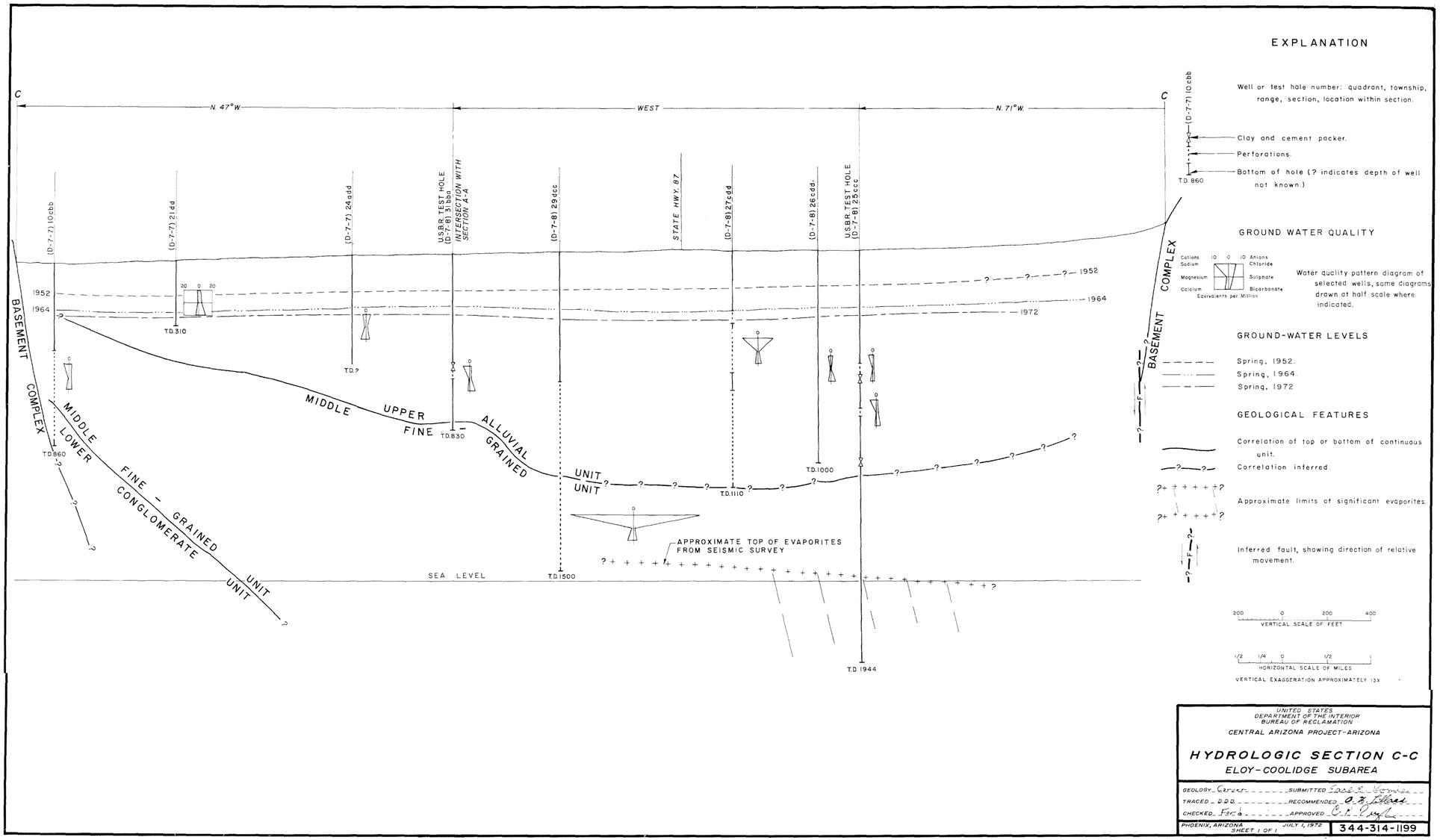
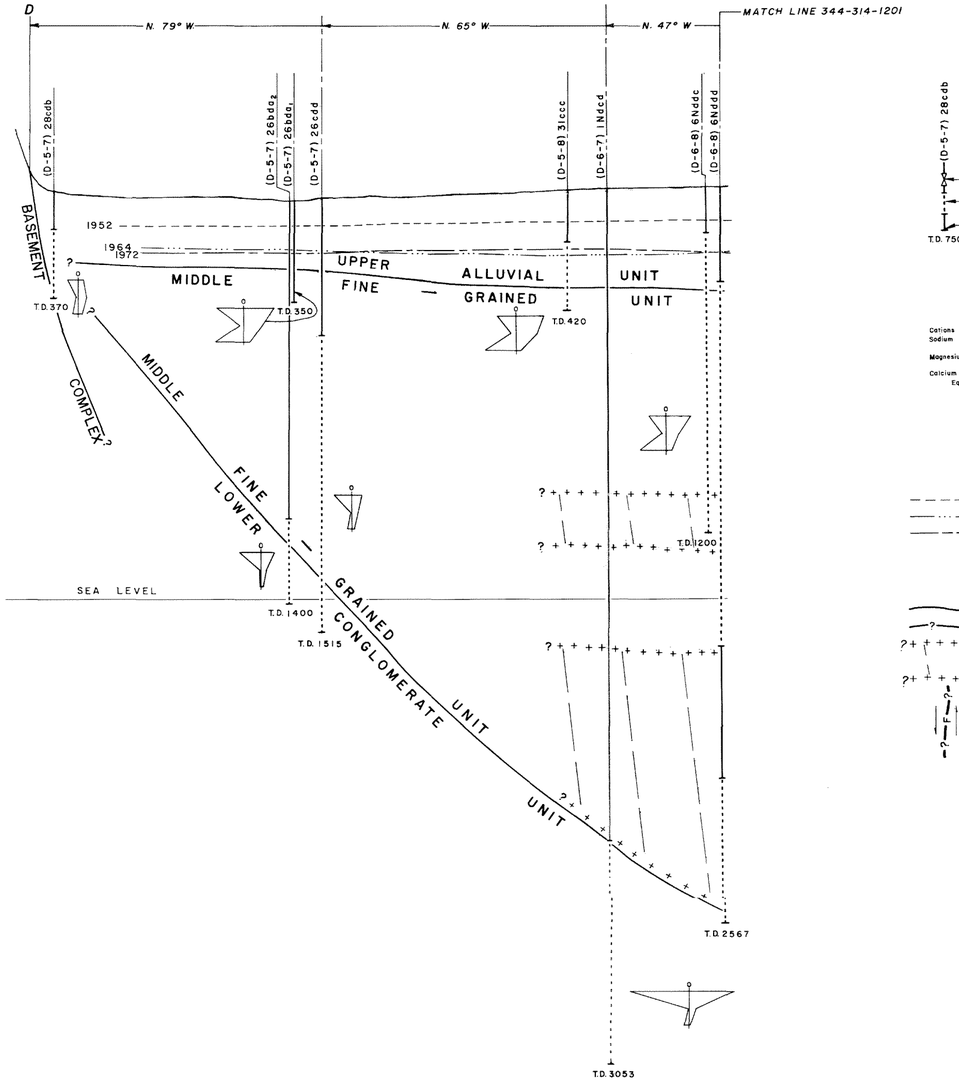

C
N. 47° W.
WEST
N. 71° W.
C
(D-7-7) 10cbb
(D-7-7) 21dd
(D-7-7) 24ddd
U.S.B.R. TEST HOLE (D-7-8) 31bbb
INTERSECTION WITH SECTION A-A
(D-7-8) 29dcc
STATE HWY. 87
(D-7-8) 27cdd
(D-7-8) 26cdd
U.S.B.R. TEST HOLE (D-7-8) 25ccc
(D-7-7) 10cbb
T.D. 860
1952
1964
1972
20 0 20
T.D. 310
T.D. ?
T.D. 830
T.D. 1000
T.D. 1110
T.D. 1500
T.D. 1944
T.D. 860
BASEMENT COMPLEX
MIDDLE UPPER FINE GRAINED ALLUVIAL UNIT
MIDDLE LOWER FINE - GRAINED CONGLOMERATE UNIT
UNIT
APPROXIMATE TOP OF EVAPORITES FROM SEISMIC SURVEY
SEA LEVEL
BASEMENT COMPLEX
EXPLANATION
Well or test hole number: quadrant, township, range, section, location within section.
Clay and cement packer.
Perforations.
Bottom of hole (? indicates depth of well not known.)
GROUND WATER QUALITY
Cations Sodium Magnesium Calcium
Anions Chloride Sulphate Bicarbonate
10 0 10
Equivalents per Million
Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.
GROUND-WATER LEVELS
Spring, 1952.
Spring, 1964
Spring, 1972
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites.
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
HYDROLOGIC SECTION C-C
ELOY-COOLIDGE SUBAREA
GEOLOGY Carver
SUBMITTED
TRACED D.D.D.
RECOMMENDED
CHECKED Fara
APPROVED
PHOENIX, ARIZONA
SHEET 1 OF 1
JULY 1, 1972
344-314-1199

Figure 147



EXPLANATION

(D-5-7) 28cdb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Bottom of hole (? indicates depth of well not known.)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium. Anions: Chloride, Sulphate, Bicarbonate. 10 0 10 Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 100X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

HYDROLOGIC SECTION D-D

ELOY-COOLIDGE SUBAREA

GEOLOGY Carver SUBMITTED Earl E. Boyer
TRACED D.D.D. RECOMMENDED O. H. Pilkey
CHECKED Ford APPROVED C. A. Rusk

PHOENIX, ARIZONA SHEET 1 OF 2 JULY 7, 1972 344-314-1200

Figure 148

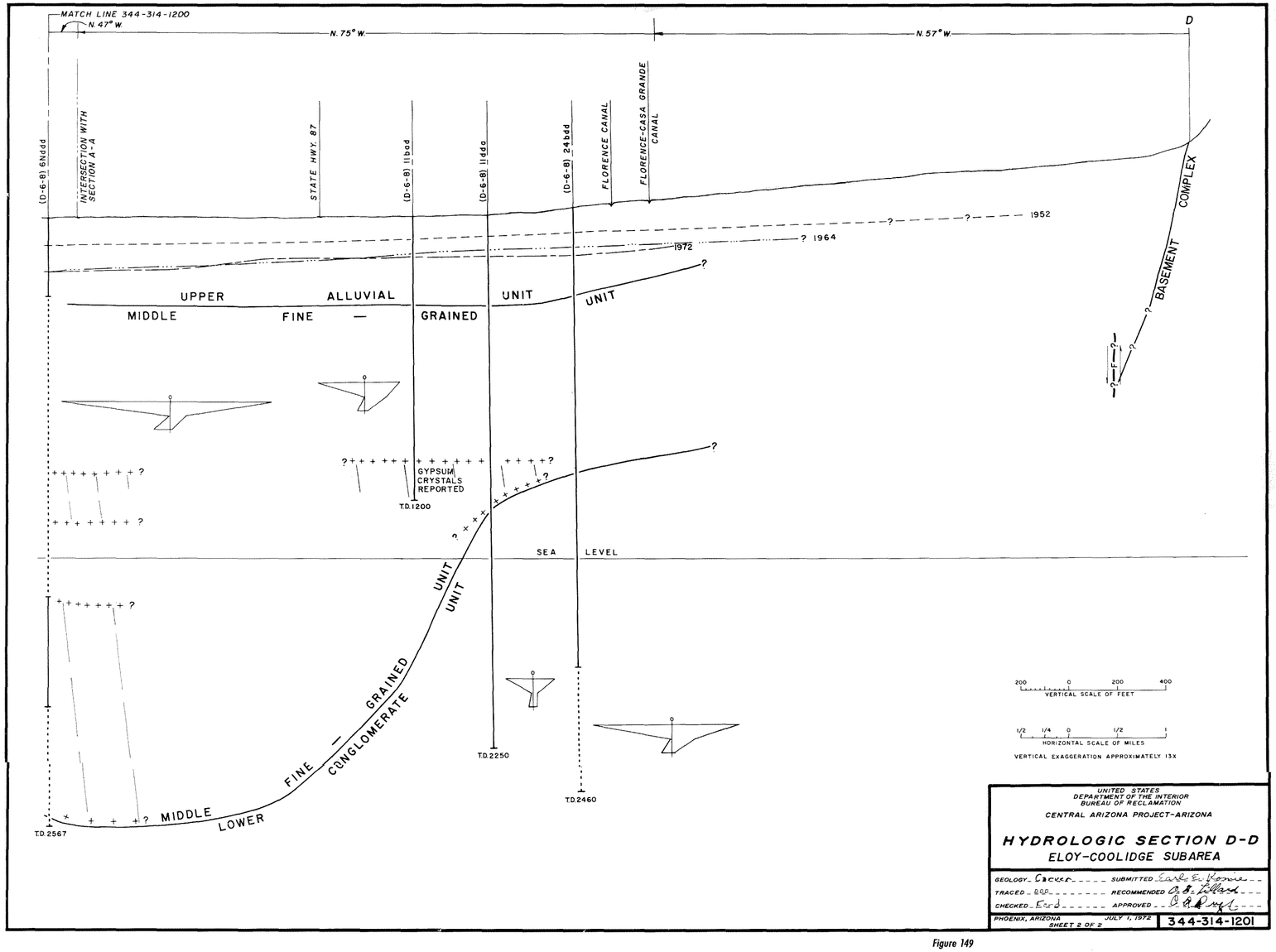

MATCH LINE 344-314-1200
N. 47° W.
N. 75° W.
N. 57° W.
D
(D-6-8) 6Kddd
INTERSECTION WITH SECTION A-A
STATE HWY. 87
(D-6-8) 11bad
(D-6-8) 11dda
(D-6-8) 24bdd
FLORENCE CANAL
FLORENCE-CASA GRANDE CANAL
1952
1964
1972
UPPER ALLUVIAL UNIT
MIDDLE FINE — GRAINED UNIT
BASEMENT COMPLEX
GYPSUM CRYSTALS REPORTED
T.D. 1200
SEA LEVEL
MIDDLE LOWER FINE — GRAINED CONGLOMERATE UNIT
T.D. 2250
T.D. 2460
T.D. 2567
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
HYDROLOGIC SECTION D-D
ELOY-COOLIDGE SUBAREA
GEOLOGY Cacker
SUBMITTED Carl E. Konise
TRACED BRP
RECOMMENDED O. E. Pollard
CHECKED Ers
APPROVED O. A. Dwyer
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 2 OF 2
344-314-1201

Figure 149

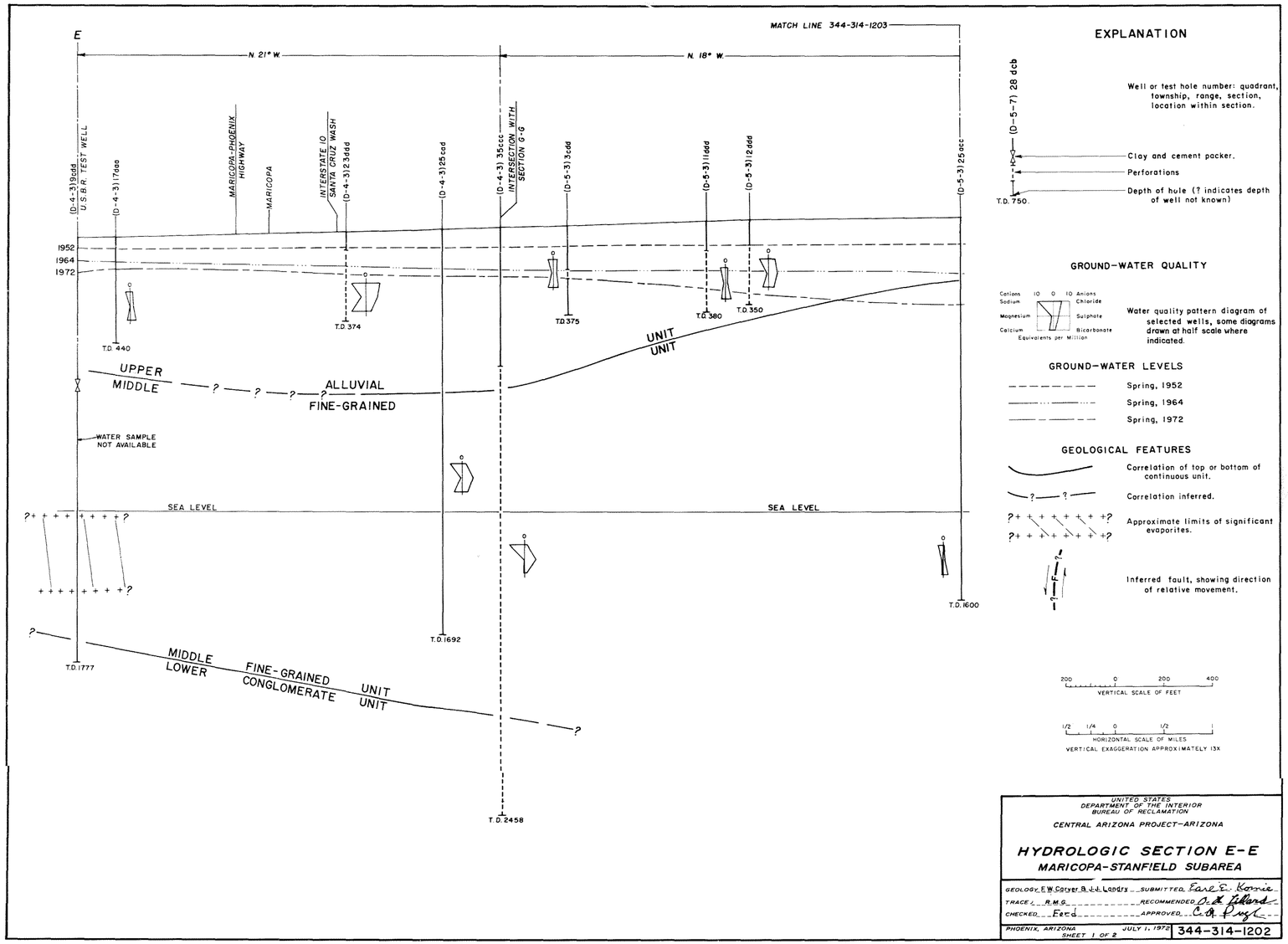
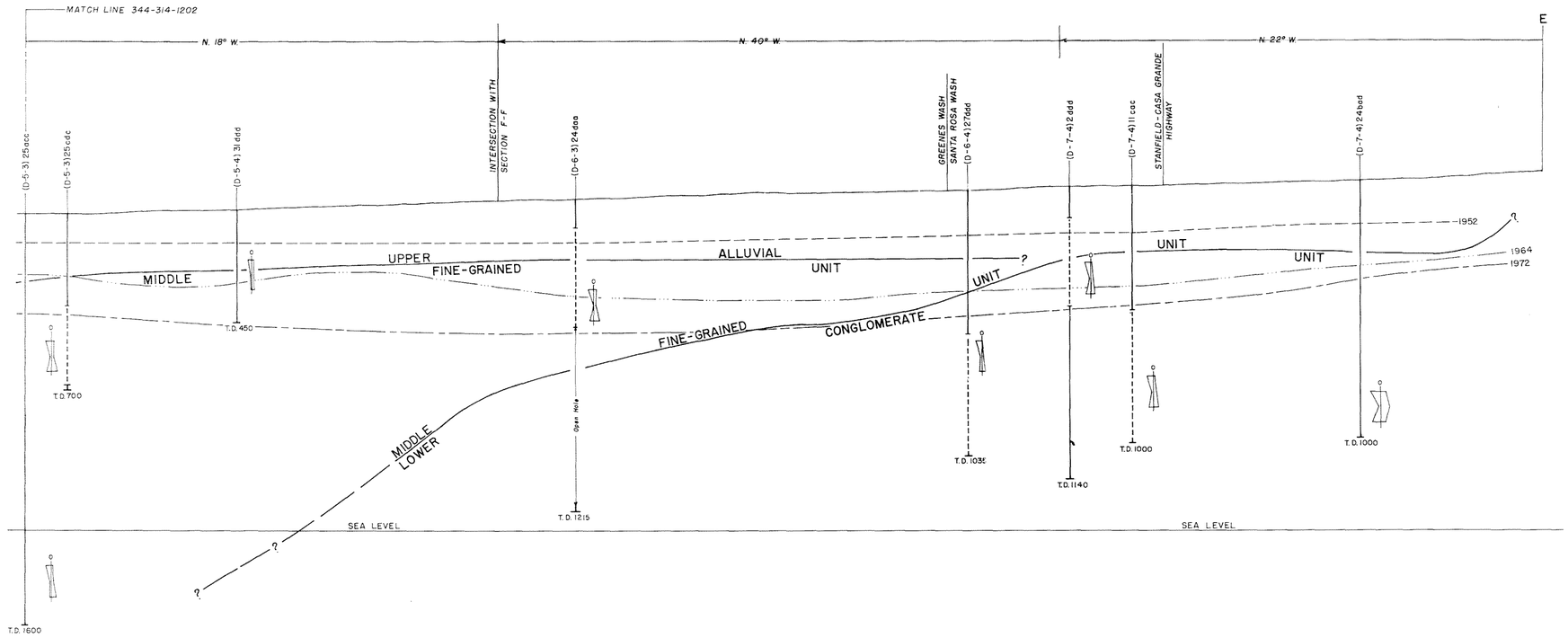

E
MATCH LINE 344-314-1203
N. 21° W.
N. 18° W.
(D-4-3)19cdd U.S.B.R. TEST WELL
(D-4-3)17ddd
MARICOPA-PHOENIX HIGHWAY
MARICOPA
INTERSTATE 10 SANTA CRUZ WASH
(D-4-3)23ddd
(D-4-3)25cad
(D-4-3)35ccc INTERSECTION WITH SECTION G-G
(D-5-3)3cdd
(D-5-3)11ddd
(D-5-3)12ddd
(D-5-3)25acc
1952
1964
1972
T.D. 440
T.D. 374
T.D. 375
T.D. 380
T.D. 350
T.D. 1600
T.D. 1692
T.D. 1777
T.D. 2458
UNIT
UNIT
UPPER
MIDDLE
ALLUVIAL
FINE-GRAINED
WATER SAMPLE NOT AVAILABLE
SEA LEVEL
SEA LEVEL
MIDDLE
LOWER
FINE-GRAINED
CONGLOMERATE
UNIT
UNIT
EXPLANATION
(D-5-7) 28 dcb
T.D. 750.
Well or test hole number: quadrant, township, range, section, location within section.
Clay and cement packer.
Perforations
Depth of hole (? indicates depth of well not known)
GROUND-WATER QUALITY
Cations
Sodium
Magnesium
Calcium
10 0 10
Anions
Chloride
Sulphate
Bicarbonate
Equivalents per Million
Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.
GROUND-WATER LEVELS
Spring, 1952
Spring, 1964
Spring, 1972
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites.
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT—ARIZONA
HYDROLOGIC SECTION E-E
MARICOPA-STANFIELD SUBAREA
GEOLOGY E.W. Carver & J.L. Landis
SUBMITTED
TRACE L. R.M.G.
RECOMMENDED
CHECKED Ferd
APPROVED
PHOENIX, ARIZONA
SHEET 1 OF 2
JULY 1, 1972
344-314-1202

Figure 150



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

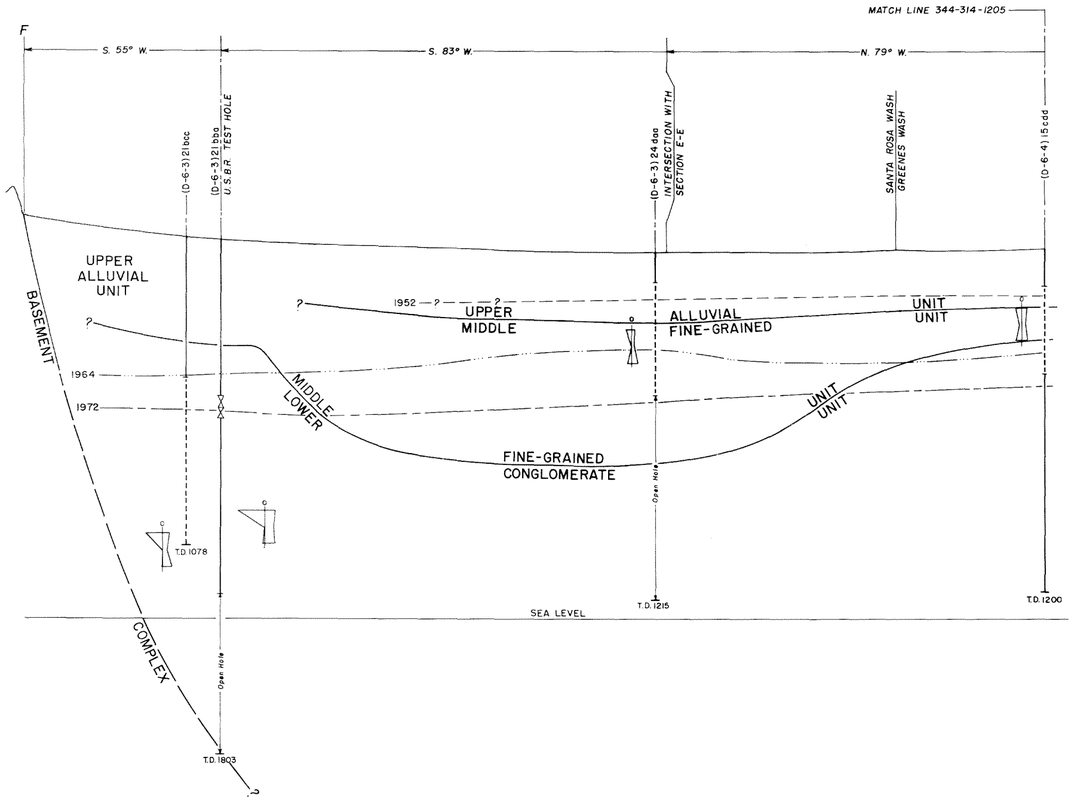
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION E-E
MARICOPA-STANFIELD SUBAREA

GEOLOGY F.W. Carver & J.J. Landry SUBMITTED Earl E. Koonce
TRACED R.M.G. RECOMMENDED O.K. Elliott
CHECKED Ford APPROVED C.A. Pugh

PHOENIX, ARIZONA SHEET 2 OF 2 JULY 1, 1972 344-314-1203

Figure 151



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium — Anions: Chloride, Sulphate, Bicarbonate — Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

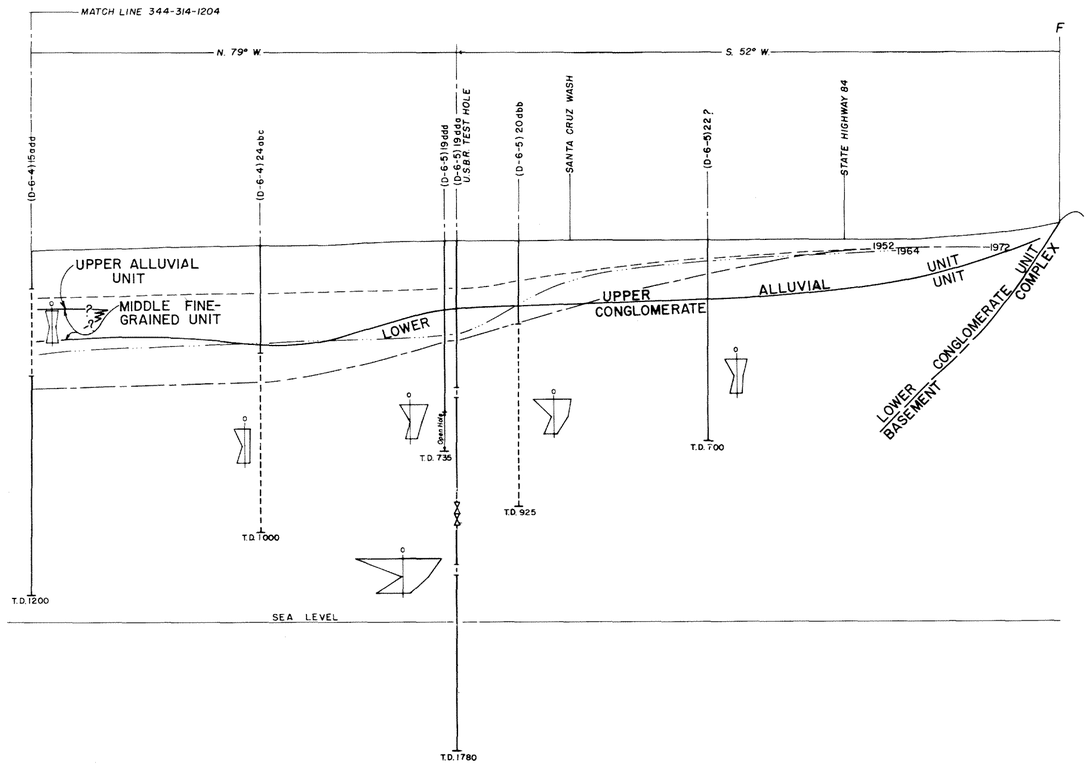
HYDROLOGIC SECTION F-F
MARICOPA-STANFIELD SUBAREA

GEOLOGY J.J. Landry — SUBMITTED Earl E. Kennie
TRACED R.M.G. — RECOMMENDED C. A. Gillard
CHECKED Ford — APPROVED C. A. Gillard

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 2

344-314-1204

Figure 152



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

HYDPOLOGIC SECTION F-F
MARICOPA-STANFIELD SUBAREA

GEOLOGY J. J. Landy SUBMITTED Earl E. Lemin
TRACED M.M.S. RECOMMENDED [illegible]
CHECKED E.G.C.J. APPROVED [illegible]

PHOENIX, ARIZONA SHEET 2 OF 2 JULY 1, 1972 344-314-1205

Figure 153

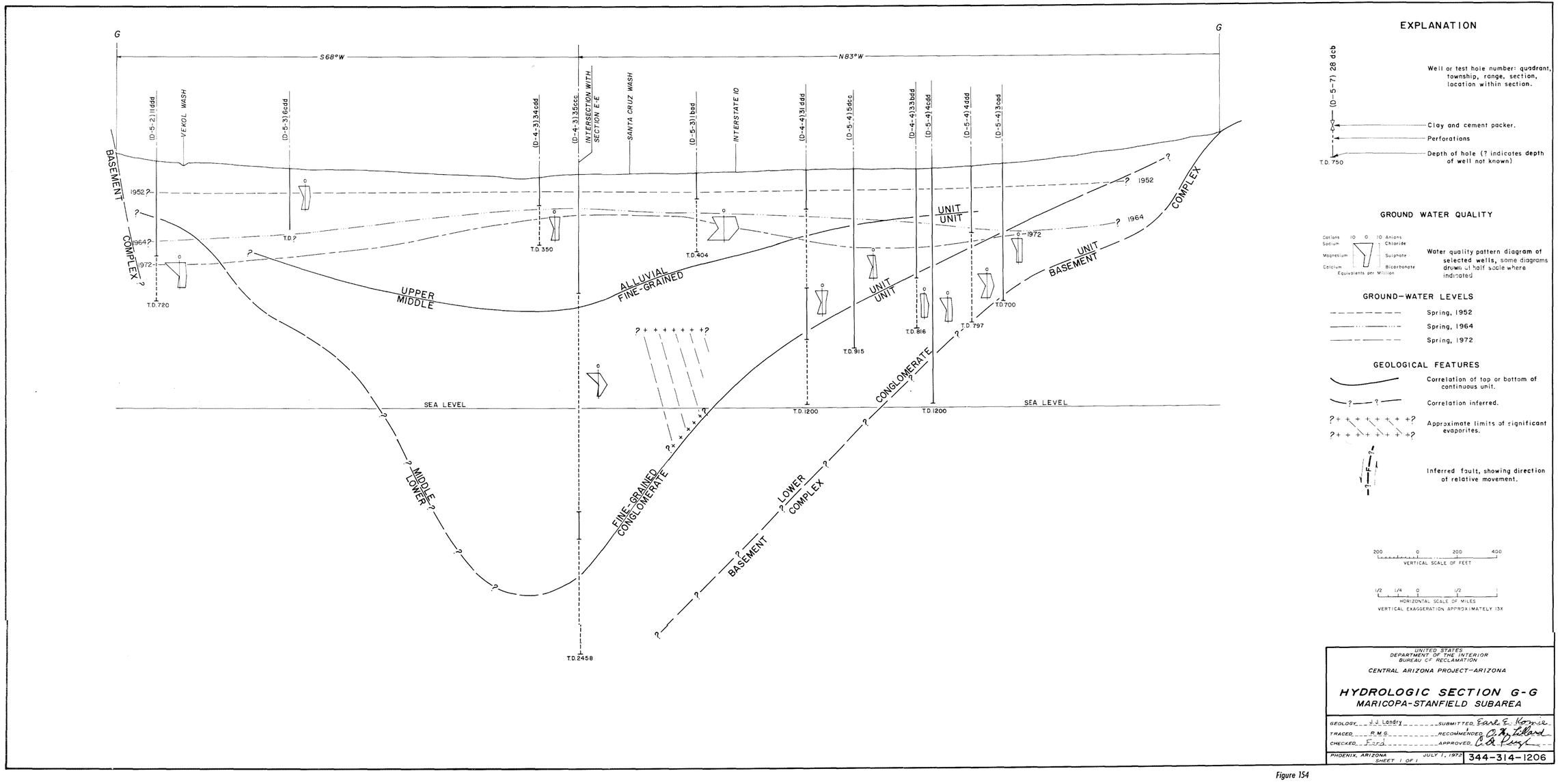
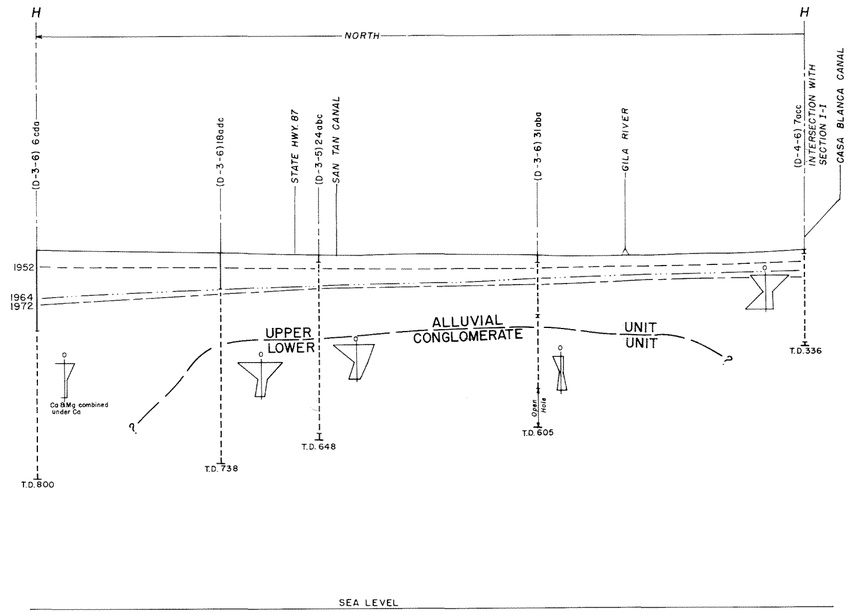

G
S68°W
N83°W
G
(D-5-2)11ddd
VEKOL WASH
(D-5-3)16cdd
(D-4-3)34cdd
(D-4-3)35ccc
INTERSECTION WITH SECTION E-E'
SANTA CRUZ WASH
(D-5-3)1bad
INTERSTATE 10
(D-4-4)31ddd
(D-5-4)5dcc
(D-4-4)33bdd
(D-5-4)4cdd
(D-5-4)4ddd
(D-5-4)3cad
BASEMENT COMPLEX
1952
1964
1972
T.D.720
T.D.?
T.D.350
T.D.404
T.D.1200
T.D.915
T.D.816
T.D.1200
T.D.797
T.D.700
T.D.2458
UPPER MIDDLE
ALLUVIAL FINE-GRAINED
UNIT
UNIT
UNIT
UNIT
BASEMENT COMPLEX
CONGLOMERATE
SEA LEVEL
SEA LEVEL
MIDDLE LOWER
FINE-GRAINED CONGLOMERATE
LOWER COMPLEX
BASEMENT
EXPLANATION
(D-5-7) 28 dcb
T.D. 750
Well or test hole number: quadrant, township, range, section, location within section.
Clay and cement packer.
Perforations
Depth of hole (? indicates depth of well not known)
GROUND WATER QUALITY
Cations
Sodium
Magnesium
Calcium
10 0 10
Anions
Chloride
Sulphate
Bicarbonate
Equivalents per Million
Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated
GROUND-WATER LEVELS
Spring, 1952
Spring, 1964
Spring, 1972
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites.
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT—ARIZONA
HYDROLOGIC SECTION G-G
MARICOPA-STANFIELD SUBAREA
GEOLOGY J. J. Landry
SUBMITTED Earl E. Konze
TRACED R.M.G.
RECOMMENDED
CHECKED Ford
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 1 OF 1
344-314-1206

Figure 154



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium — Anions: Chloride, Sulphate, Bicarbonate — 10 0 10 — Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

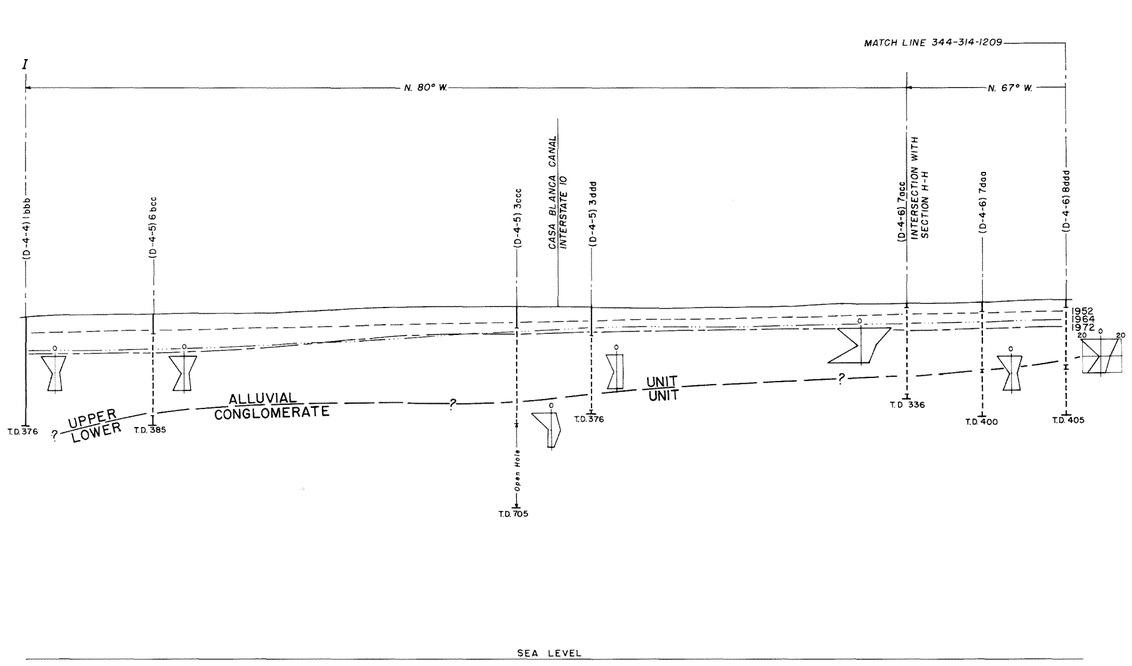
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION H-H
KOMATKE-SACATON SUBAREA

GEOLOGY J.J. Landry — SUBMITTED Earl E. Konie
TRACED R.M.G. — RECOMMENDED O. K. Lillard
CHECKED Ford — APPROVED C. A. Pugh

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 1 — 344-314-1207

Figure 155



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium. Anions: Chloride, Sulphate, Bicarbonate. Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

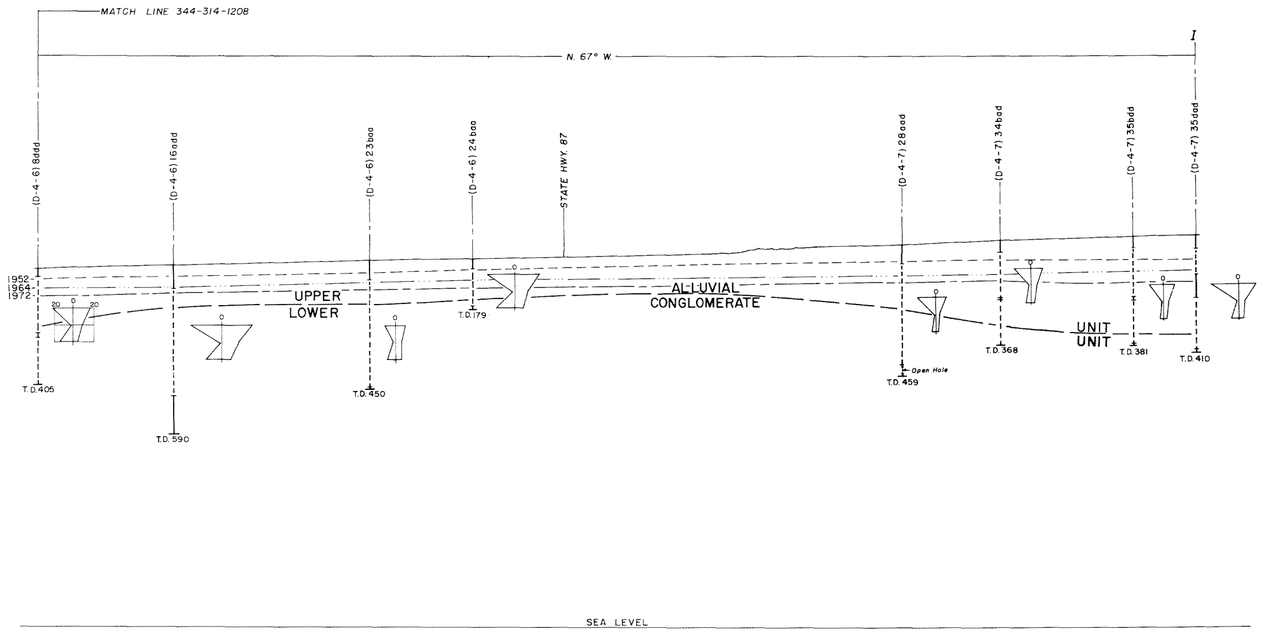
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION I-I
KOMATKE-SACATON SUBAREA

GEOLOGY Landon SUBMITTED Earl E. Konnie
TRACED R.M.G. RECOMMENDED O. H. Ellard
CHECKED Ford APPROVED C. A. Pugh

PHOENIX, ARIZONA JULY 1, 1972 SHEET 1 OF 2 | 344-314-1208

Figure 156



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

HYDROLOGIC SECTION I-I
KOMATKE-SACATON SUBAREA

GEOLOGY J.J. Landey SUBMITTED Earl E. Komies
TRACED R.M.G. RECOMMENDED C. H. Tillard
CHECKED Fac d APPROVED C. A. Zuck

PHOENIX, ARIZONA JULY 1, 1972 SHEET 2 OF 2

344-314-1209

Figure 157

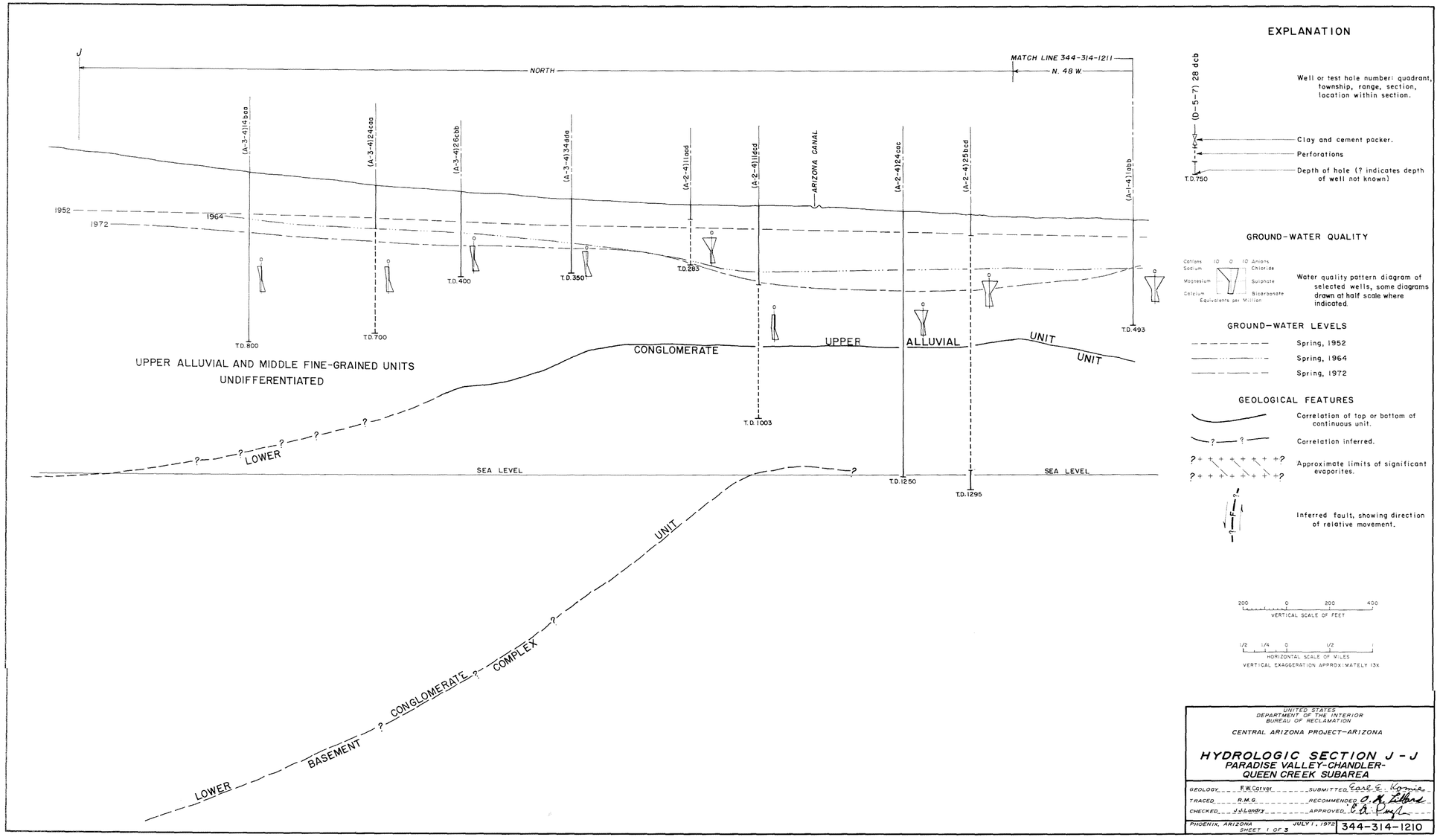

J
NORTH
MATCH LINE 344-314-1211
N. 48 W.
(A-3-4)14baa
(A-3-4)24caa
(A-3-4)25cbb
(A-3-4)34dda
(A-2-4)11aad
(A-2-4)11bcd
ARIZONA CANAL
(A-2-4)24cac
(A-2-4)25bcd
(A-1-4)19bb
1952
1964
1972
T.D. 800
T.D. 700
T.D. 400
T.D. 350
T.D. 283
T.D. 1003
T.D. 1250
T.D. 1295
T.D. 493
UPPER ALLUVIAL AND MIDDLE FINE-GRAINED UNITS
UNDIFFERENTIATED
CONGLOMERATE
UPPER
ALLUVIAL
UNIT
UNIT
LOWER
SEA LEVEL
SEA LEVEL
UNIT
LOWER
BASEMENT
CONGLOMERATE
COMPLEX
EXPLANATION
(D-5-7) 28 dcb
T.D. 750
Well or test hole number: quadrant, township, range, section, location within section.
Clay and cement packer.
Perforations
Depth of hole (? indicates depth of well not known)
GROUND-WATER QUALITY
Cations
Sodium
Magnesium
Calcium
10 0 10
Anions
Chloride
Sulphate
Bicarbonate
Equivalents per Million
Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.
GROUND-WATER LEVELS
Spring, 1952
Spring, 1964
Spring, 1972
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites.
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT—ARIZONA
HYDROLOGIC SECTION J - J
PARADISE VALLEY-CHANDLER-
QUEEN CREEK SUBAREA
GEOLOGY F.W. Corvet
TRACED R.M.G.
CHECKED J.J. Landry
SUBMITTED Earl E. Komie
RECOMMENDED O. K. Gilbert
APPROVED C. A. Engle
PHOENIX, ARIZONA
SHEET 1 OF 3
JULY 1, 1972
344-314-1210

Figure 158

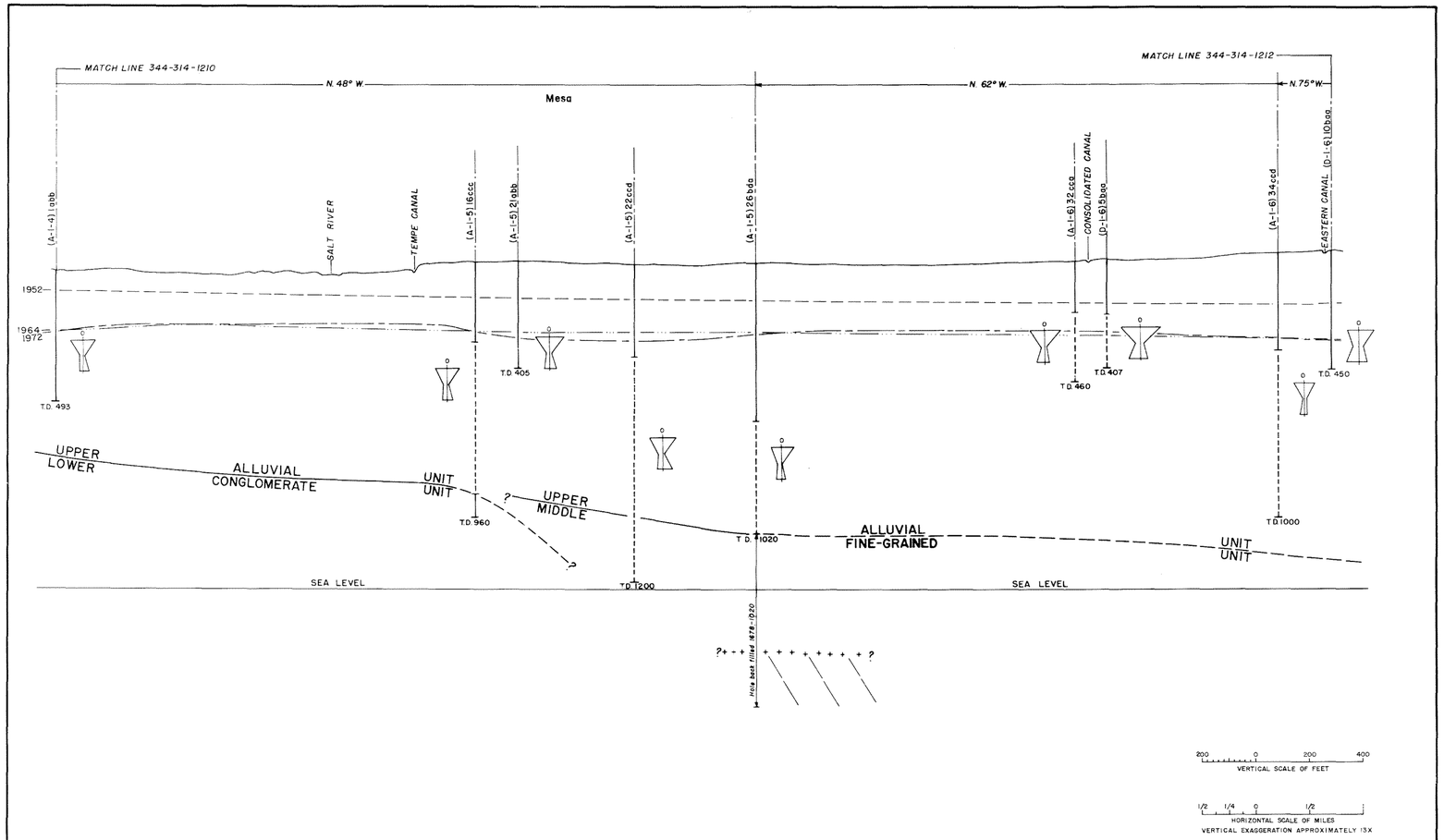
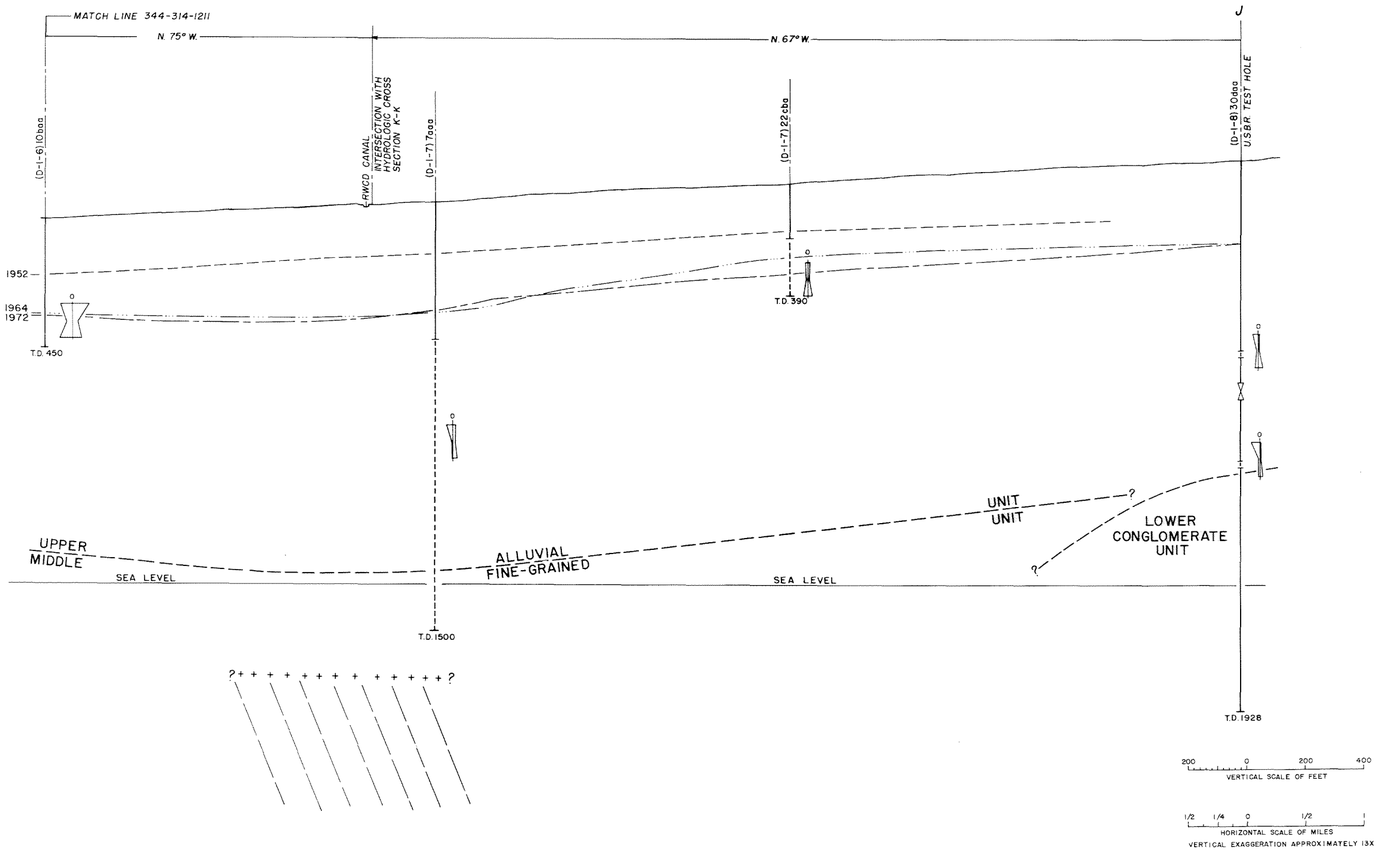

MATCH LINE 344-314-1210
MATCH LINE 344-314-1212
N. 48° W.
N. 62° W.
N. 75° W.
Mesa
(A-1-4)1abb
SALT RIVER
TEMPE CANAL
(A-1-5)16ccc
(A-1-5)21abb
(A-1-5)22ccd
(A-1-5)26bda
(A-1-6)32ccd
CONSOLIDATED CANAL
(D-1-6)5baa
(A-1-6)34ccd
EASTERN CANAL
(D-1-6)10baa
1952
1964
1972
T.D. 493
T.D. 405
T.D. 460
T.D. 407
T.D. 450
UPPER
LOWER
ALLUVIAL
CONGLOMERATE
UNIT
UNIT
UPPER
MIDDLE
T.D. 960
T.D. 1020
ALLUVIAL
FINE-GRAINED
UNIT
UNIT
T.D. 1000
SEA LEVEL
T.D. 1200
SEA LEVEL
Hole back filled 1878-1920
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
ALWAYS THINK SAFETY
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT—ARIZONA
HYDROLOGIC SECTION J-J
PARADISE VALLEY-CHANDLER-
QUEEN CREEK SUBAREA
GEOLOGY F.W. Carver SUBMITTED Earl E. Koome
TRACED R.M.G. RECOMMENDED G. B. Ellard
CHECKED J.J. Landy APPROVED E. A. Fuegl
PHOENIX, ARIZONA JULY 1, 1972
SHEET 2 OF 3
344-314-1211

Figure 159



ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

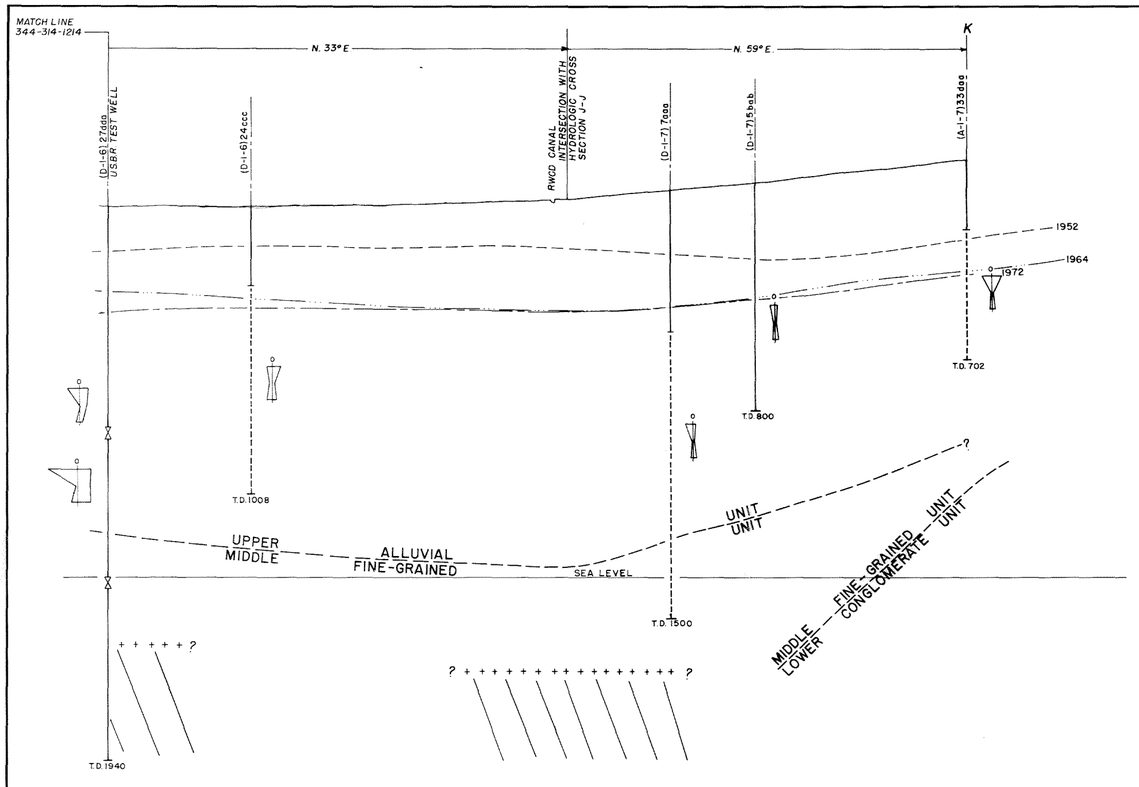
CENTRAL ARIZONA PROJECT-ARIZONA

HYDROLOGIC SECTION J-J
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA

GEOLOGY F.W. Carver SUBMITTED Earl E. Logan
TRACED R.M.G. RECOMMENDED A. H. Lillard
CHECKED J.J. Lonsdy, F.W. Carver APPROVED C.A. Pugh

PHOENIX, ARIZONA JULY 1, 1972 344-314-1212
SHEET 3 OF 3

Figure 160



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND WATER QUALITY

Cations: Sodium, Magnesium, Calcium. Anions: Chloride, Sulphate, Bicarbonate. 10 0 10. Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION K-K
PARADISE VALLEY-CHANDLER-QUEEN CREEK SUBAREA

GEOLOGY	J. J. Londry	SUBMITTED	Earl E. Konie
TRACED	R.M.G.	RECOMMENDED	C. A. Pillard
CHECKED	F.W. Carter	APPROVED	C. A. Engel
PHOENIX, ARIZONA SHEET 1 OF 2	JULY 1, 1972		344-314-1213

Figure 161

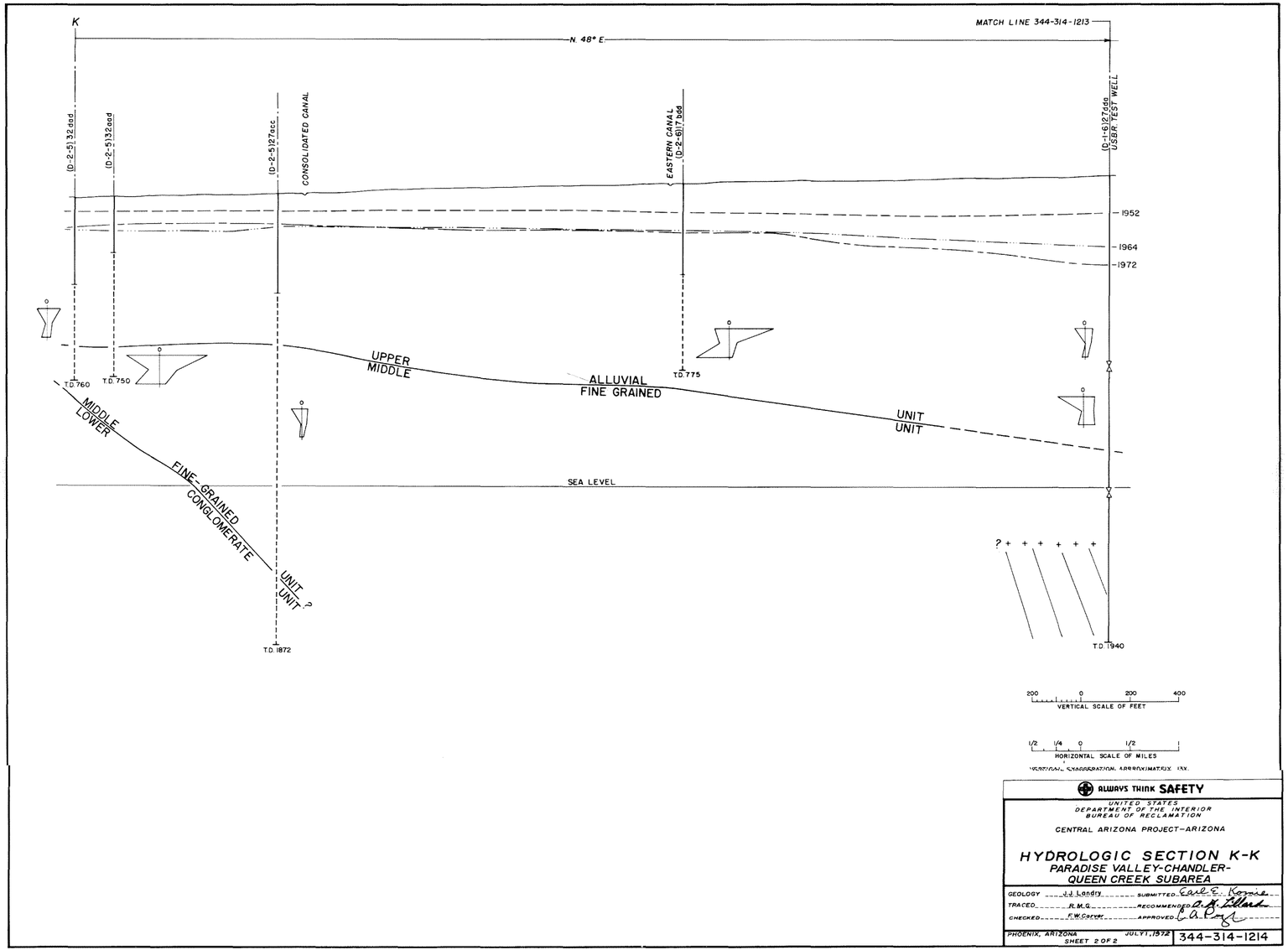
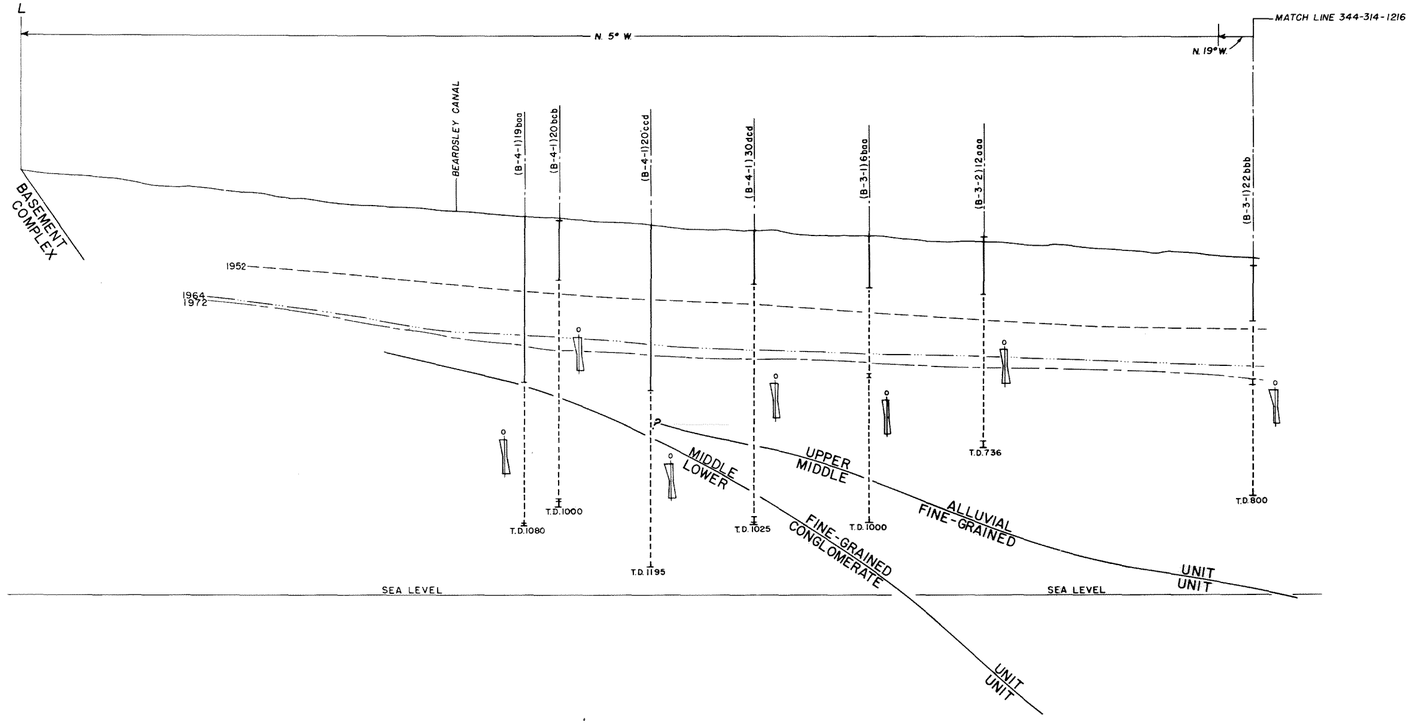

K
MATCH LINE 344-314-1213
N. 48° E.
(D-2-5) 32 aad
(D-2-5) 32 aad
(D-2-5) 27 acc
CONSOLIDATED CANAL
EASTERN CANAL
(D-2-5) 17 bdd
(D-1-6) 27 dda
USBR TEST WELL
1952
1964
1972
T.D. 760
T.D. 750
T.D. 775
T.D. 1872
T.D. 1940
UPPER
MIDDLE
ALLUVIAL
FINE GRAINED
UNIT
UNIT
MIDDLE
LOWER
FINE-GRAINED
CONGLOMERATE
UNIT
UNIT ?
SEA LEVEL
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 12X.
ALWAYS THINK SAFETY
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
HYDROLOGIC SECTION K-K
PARADISE VALLEY-CHANDLER-
QUEEN CREEK SUBAREA
GEOLOGY J.J. Landry
SUBMITTED Earl E. Konze
TRACED R.M.G.
RECOMMENDED
CHECKED F.W. Carver
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 2 OF 2
344-314-1214

Figure 162



EXPLANATION

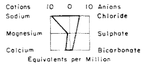
(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY



Water quality pattern diagram of selected wells, some diagrams drawn at one-fourth or one-half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

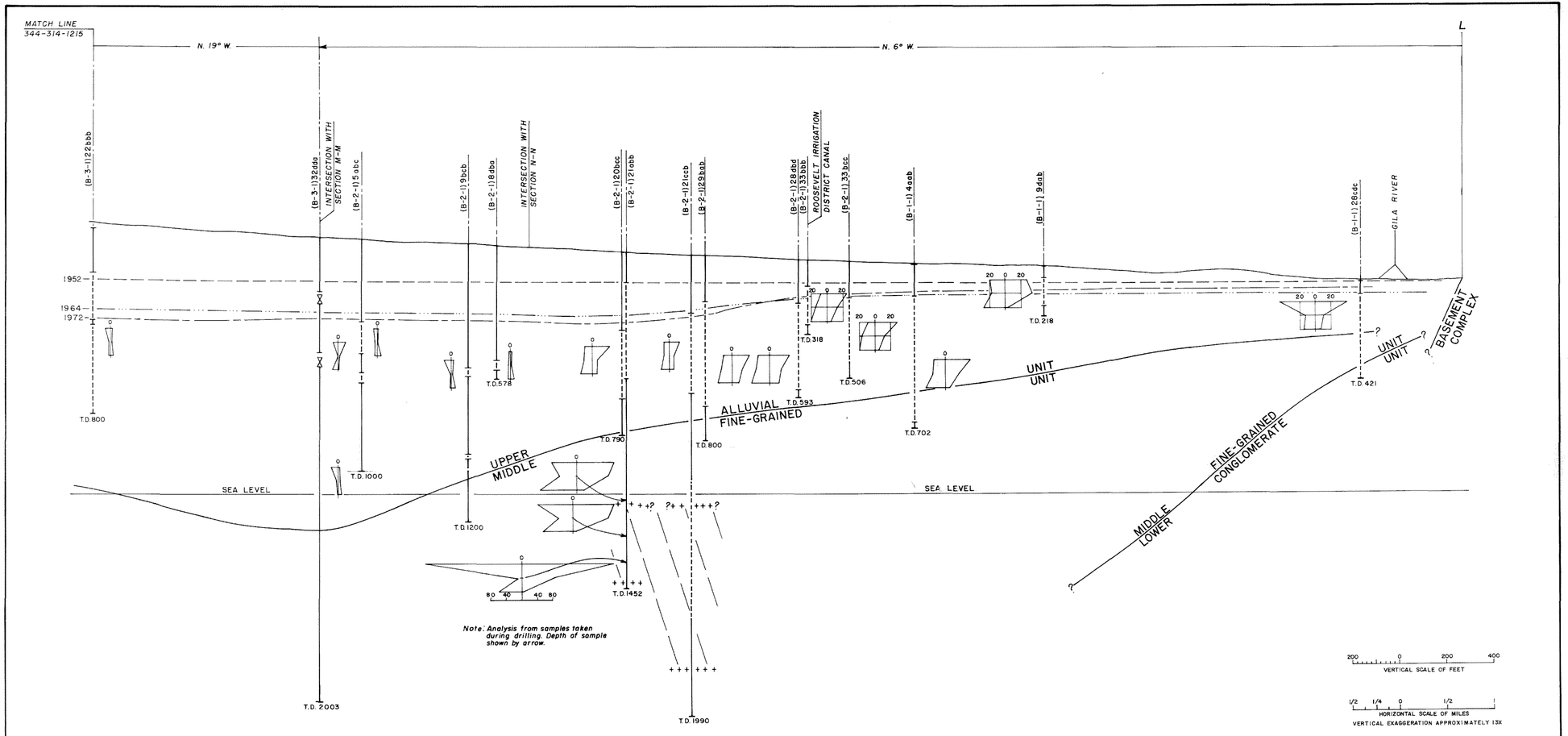
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION L-L
PHOENIX-BUCKEYE SUBAREA

GEOLOGY	J.J. Landry	SUBMITTED	Earl E. Konie
TRACED	R.M.G.	RECOMMENDED	C. A. Pillard
CHECKED	Ford	APPROVED	C. A. Pugh

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 2 — 344-314-1215

Figure 163



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

HYDROLOGIC SECTION L-L

PHOENIX-BUCKEYE SUBAREA

GEOLOGY	J.J. Landry	SUBMITTED	Earl E. Gonzie
TRACED	R.M.G.	RECOMMENDED	O.H. Ellard
CHECKED	Ferd	APPROVED	E.A. Pugh

PHOENIX, ARIZONA — SHEET 2 OF 2 — JULY 1, 1972 — 344-314-1216

Figure 164

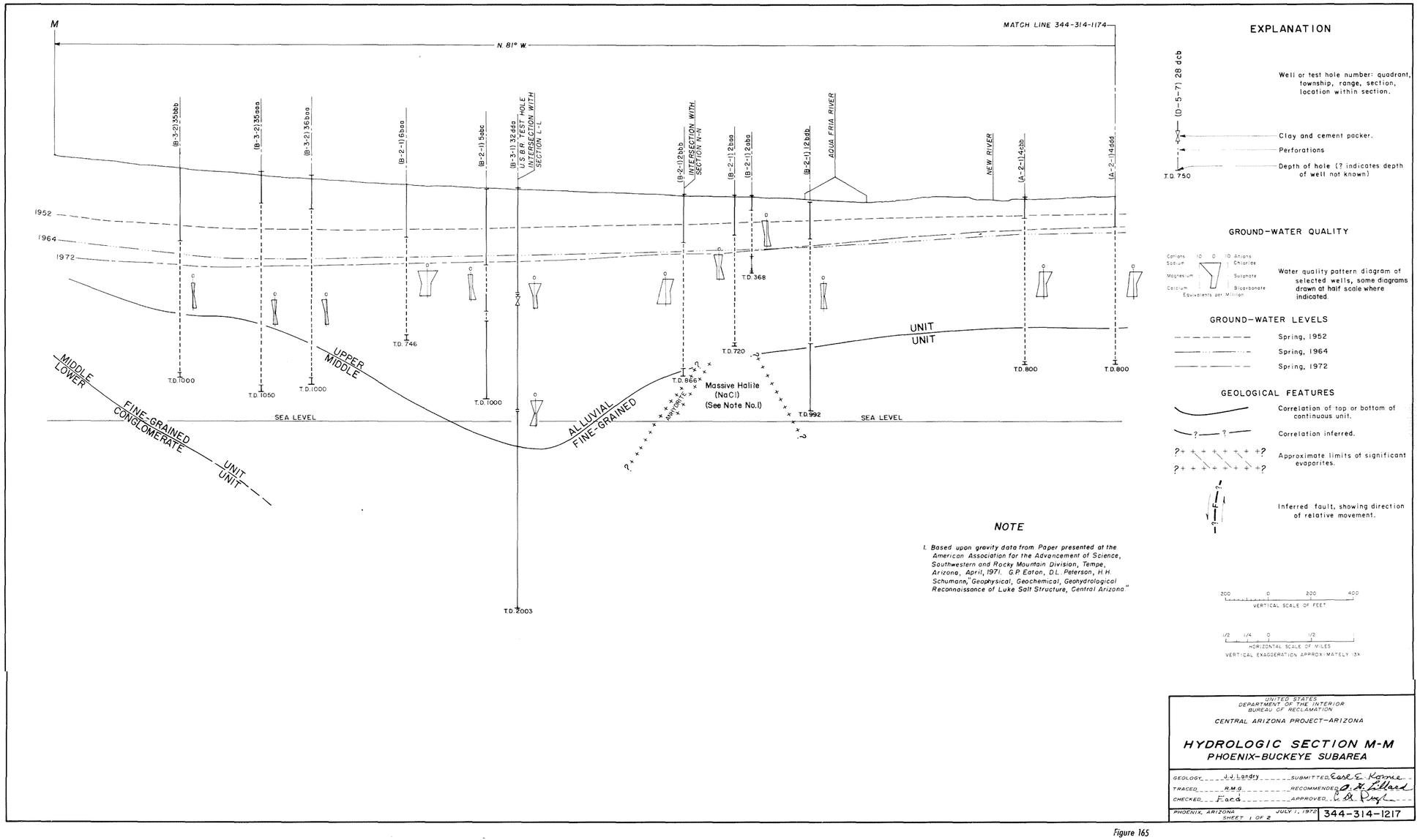
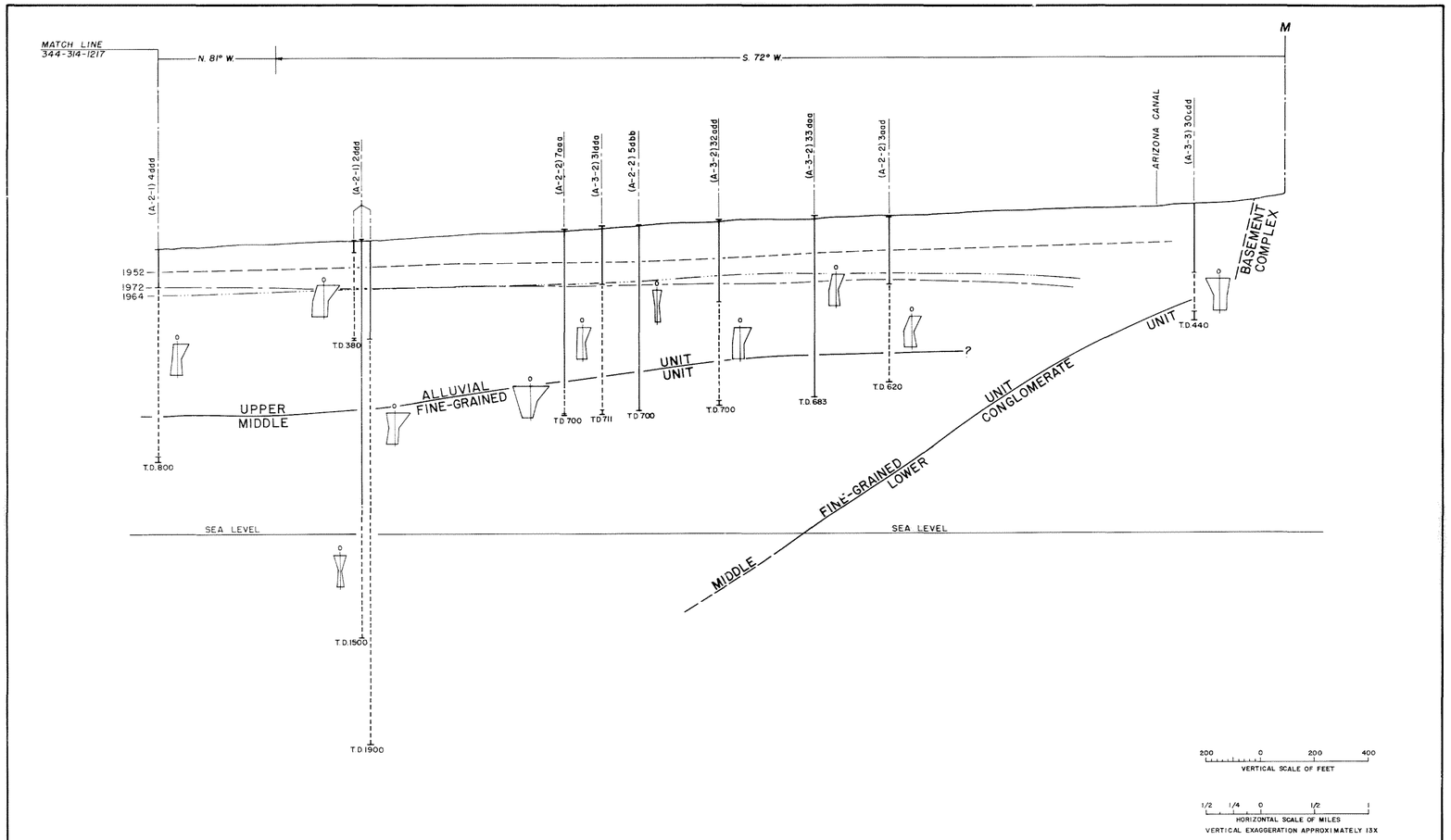

M
MATCH LINE 344-314-1174
N. 81° W.
(B-3-2) 35bbb
(B-3-2) 35baa
(B-3-2) 36baa
(B-2-1) 6baa
(B-2-1) 5abc
(B-3-1) 32dda
U.S.B.R. TEST HOLE INTERSECTION WITH SECTION L-L'
(B-2-1) 2bbb
INTERSECTION WITH SECTION N-N'
(B-2-1) 2baa
(B-2-1) 2abc
(B-2-1) 12bdb
AQUA FRIA RIVER
NEW RIVER
(A-2-1) 4cbb
(A-2-1) 14ddd
1952
1964
1972
T.D. 1000
T.D. 1050
T.D. 1000
T.D. 746
T.D. 1000
T.D. 2003
T.D. 866
T.D. 720
T.D. 368
T.D. 992
T.D. 800
T.D. 800
SEA LEVEL
SEA LEVEL
MIDDLE
LOWER
FINE-GRAINED
CONGLOMERATE
UNIT
UNIT
UPPER
MIDDLE
ALLUVIAL
FINE-GRAINED
UNIT
UNIT
ANHYDRITE
Massive Halite
(NaCl)
(See Note No.1)
EXPLANATION
(D-5-7) 28 dcb
Well or test hole number: quadrant, township, range, section, location within section.
Clay and cement packer.
Perforations
Depth of hole (? indicates depth of well not known)
T.D. 750
GROUND-WATER QUALITY
Cations
Sodium
Magnesium
Calcium
10 0 10
Anions
Chloride
Sulphate
Bicarbonate
Equivalents per Million
Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.
GROUND-WATER LEVELS
Spring, 1952
Spring, 1964
Spring, 1972
GEOLOGICAL FEATURES
Correlation of top or bottom of continuous unit.
Correlation inferred.
Approximate limits of significant evaporites.
Inferred fault, showing direction of relative movement.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
NOTE
1. Based upon gravity data from Paper presented at the American Association for the Advancement of Science, Southwestern and Rocky Mountain Division, Tempe, Arizona, April, 1971. G.P. Eaton, D.L. Peterson, H.H. Schumann, "Geophysical, Geochemical, Geohydrological Reconnaissance of Luke Salt Structure, Central Arizona."
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT—ARIZONA
HYDROLOGIC SECTION M-M
PHOENIX-BUCKEYE SUBAREA
GEOLOGY J.J. Landry SUBMITTED
TRACED R.M.G. RECOMMENDED
CHECKED Ford APPROVED
PHOENIX, ARIZONA JULY 1, 1972
SHEET 1 OF 2
344-314-1217

Figure 165



ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

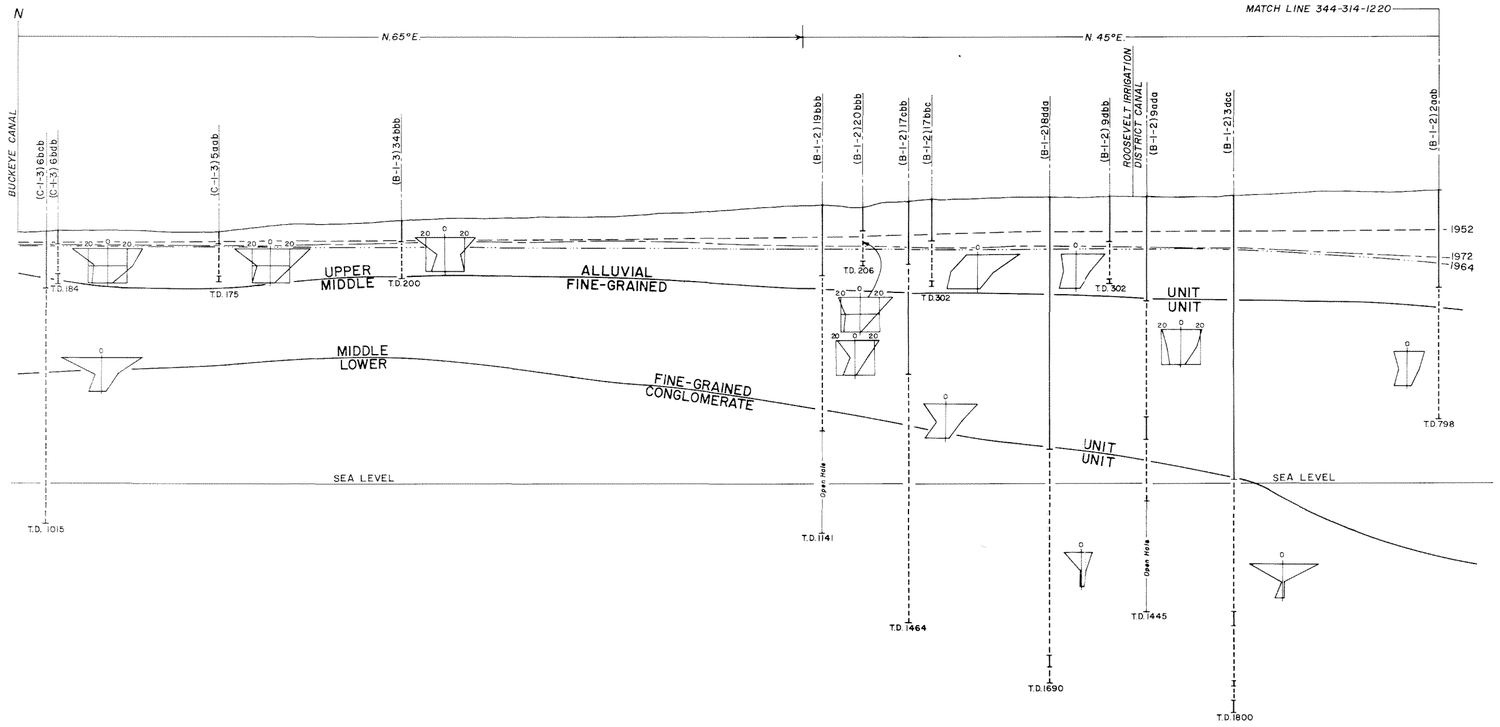
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION M-M
PHOENIX-BUCKEYE SUBAREA

GEOLOGY	J.J. Landry	SUBMITTED	Earl E. Konnie
TRACED	R.M.G.	RECOMMENDED	J. E. Lillard
CHECKED	F.A.C.	APPROVED	C. A. Pugh

PHOENIX, ARIZONA JULY 1, 1972 SHEET 2 OF 2 344-314-1218

Figure 166



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium; Anions: Chloride, Sulphate, Bicarbonate; 10 0 10; Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

HYDROLOGIC SECTION N-N
PHOENIX-BUCKEYE SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Koome
TRACED R.M.G. — RECOMMENDED O. H. Pillard
CHECKED J.V. Landry — APPROVED E. A. Pugh

PHOENIX, ARIZONA — SHEET 1 OF 3 — JULY 1, 1972 — 344-314-1219

Figure 167

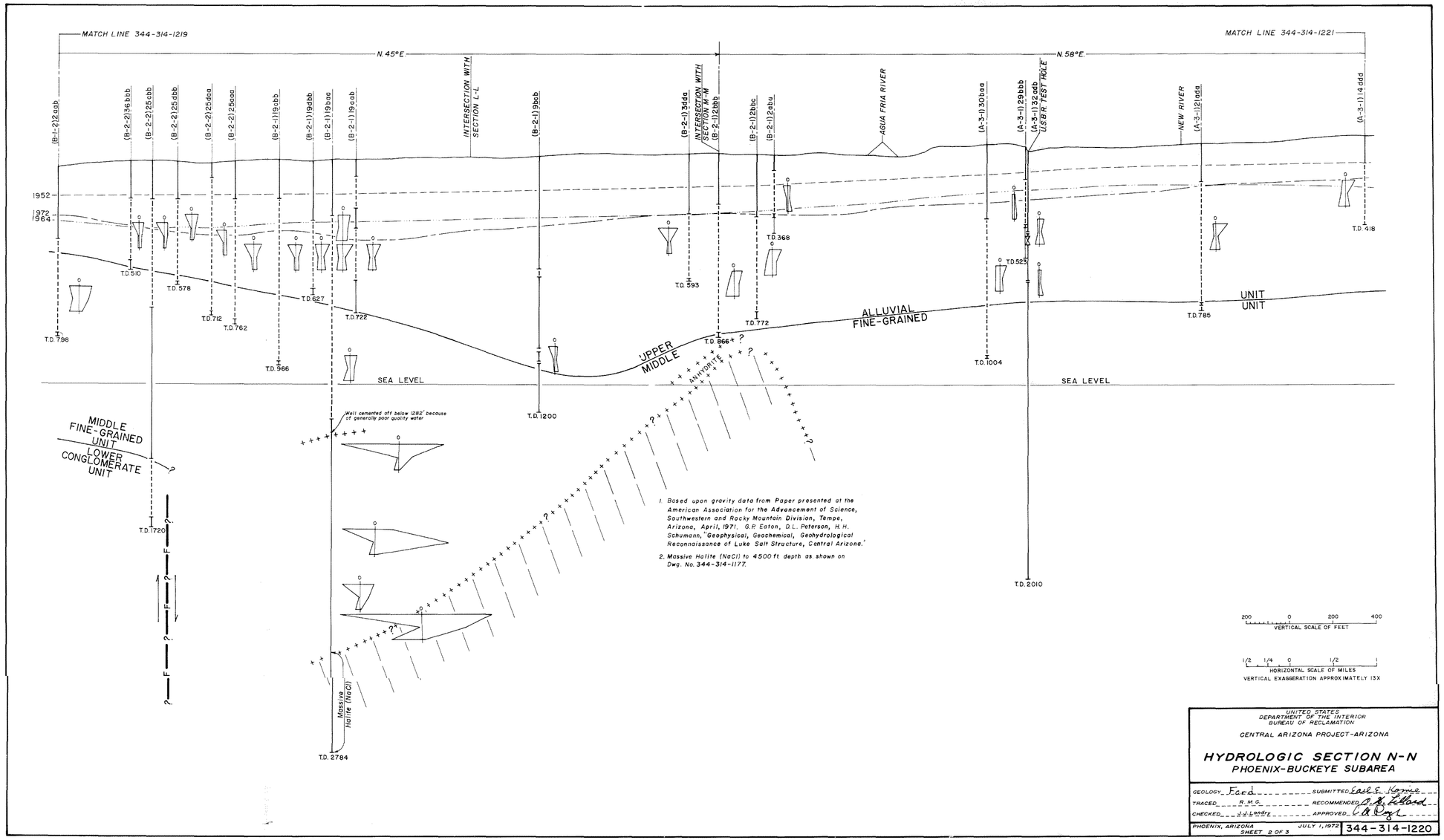

MATCH LINE 344-314-1219
MATCH LINE 344-314-1221
N. 45°E.
N. 58°E.
(B-1-2)12aab
(B-2-2)36bbb
(B-2-2)25cbb
(B-2-2)25dbb
(B-2-2)25daa
(B-2-2)25aaa
(B-2-1)19cbb
(B-2-1)19dbb
(B-2-1)19bac
(B-2-1)19cab
INTERSECTION WITH SECTION L-L
(B-2-1)9bcb
(B-2-1)3ddd
INTERSECTION WITH SECTION M-M
(B-2-1)2bbb
(B-2-1)2bbc
(B-2-1)2cbu
AGUA FRIA RIVER
(A-3-1)30baa
(A-3-1)29bbb
(A-3-1)32adb
U.S.B.R. TEST HOLE
NEW RIVER
(A-3-1)21dda
(A-3-1)14ddd
1952
1972
1964
T.D. 798
T.D. 510
T.D. 578
T.D. 712
T.D. 762
T.D. 627
T.D. 722
T.D. 966
T.D. 1200
T.D. 593
T.D. 368
T.D. 772
T.D. 866
T.D. 1004
T.D. 525
T.D. 785
T.D. 418
T.D. 2010
T.D. 1720
T.D. 2784
SEA LEVEL
SEA LEVEL
ALLUVIAL
FINE-GRAINED
UNIT
UNIT
UPPER
MIDDLE
ANHYDRITE
MIDDLE
FINE-GRAINED
UNIT
LOWER
CONGLOMERATE
UNIT
Well cemented off below 1282' because of generally poor quality water
Massive Halite (NaCl)
1. Based upon gravity data from Paper presented at the American Association for the Advancement of Science, Southwestern and Rocky Mountain Division, Tempe, Arizona, April, 1971. G.P. Eaton, D.L. Peterson, H.H. Schumann, "Geophysical, Geochemical, Geohydrological Reconnaissance of Luke Salt Structure, Central Arizona."
2. Massive Halite (NaCl) to 4500 ft. depth as shown on Dwg. No. 344-314-1177.
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
HYDROLOGIC SECTION N-N
PHOENIX-BUCKEYE SUBAREA
GEOLOGY Ford
SUBMITTED Earl E. Kemp
TRACED R.M.G.
RECOMMENDED
CHECKED
APPROVED
PHOENIX, ARIZONA
SHEET 2 OF 3
JULY 1, 1972
344-314-1220

Figure 168

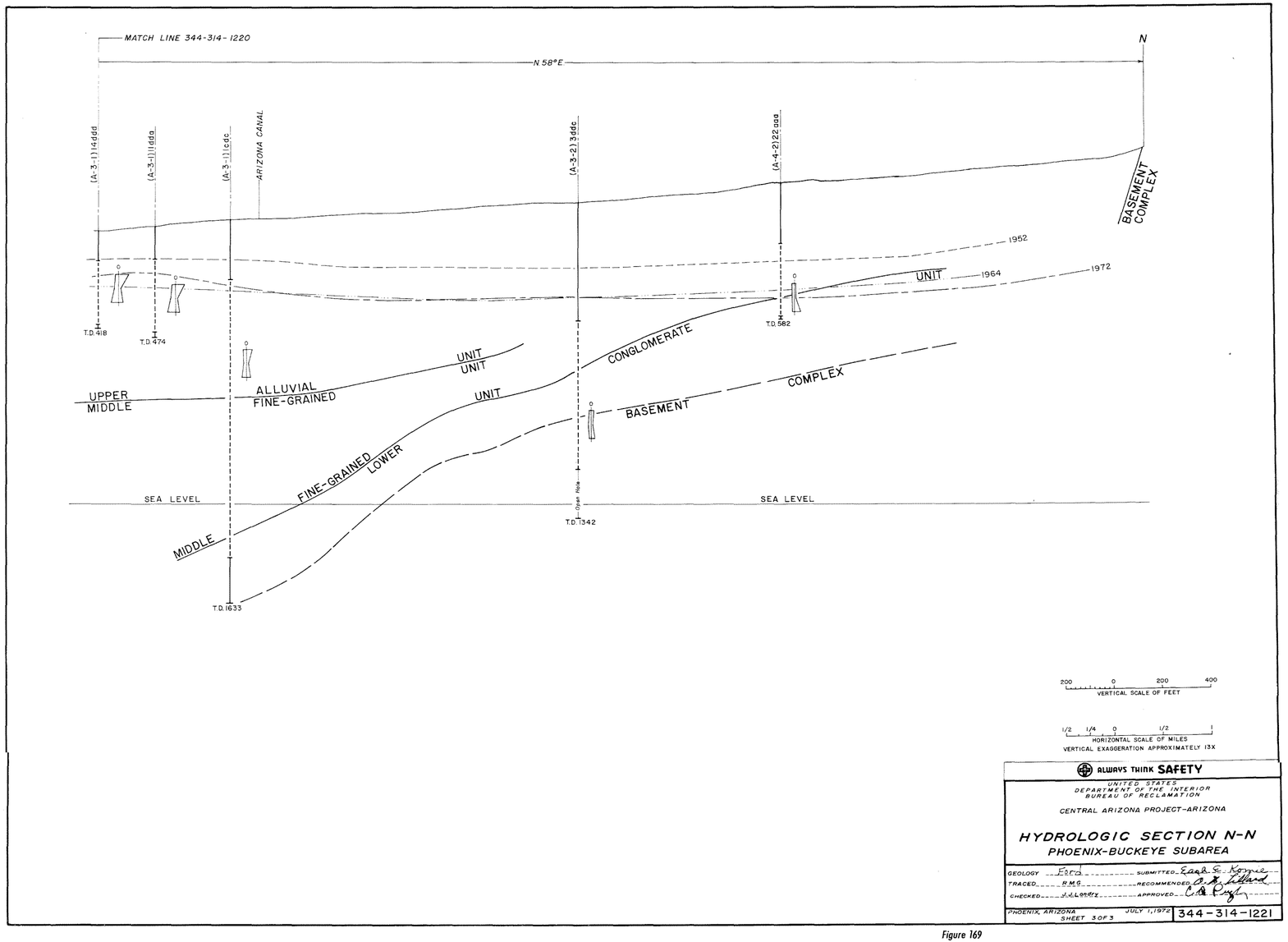
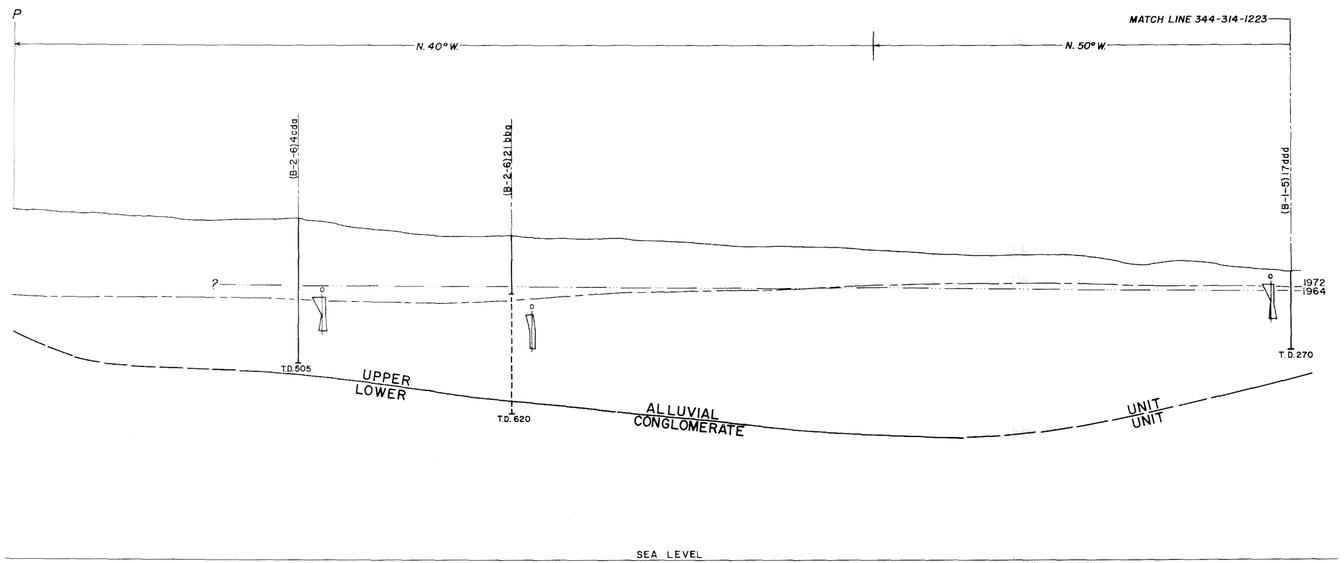

MATCH LINE 344-314-1220
N
N 58°E
(A-3-1)14ddd
(A-3-1)11ddd
(A-3-1)1cdc
ARIZONA CANAL
(A-3-2)3ddc
(A-4-2)22aaa
BASEMENT COMPLEX
1952
1964
1972
UNIT
T.D. 418
T.D. 474
T.D. 582
T.D. 1342
T.D. 1633
Open Hole
UPPER
MIDDLE
ALLUVIAL
FINE-GRAINED
UNIT
UNIT
UNIT
CONGLOMERATE
BASEMENT
COMPLEX
FINE-GRAINED
LOWER
MIDDLE
SEA LEVEL
SEA LEVEL
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
ALWAYS THINK SAFETY
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
HYDROLOGIC SECTION N-N
PHOENIX-BUCKEYE SUBAREA
GEOLOGY E.R.G.
SUBMITTED
TRACED R.M.G.
RECOMMENDED
CHECKED J.H.LOMBARD
APPROVED
PHOENIX, ARIZONA
SHEET 3 OF 3
JULY 1, 1972
344-314-1221

Figure 169



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

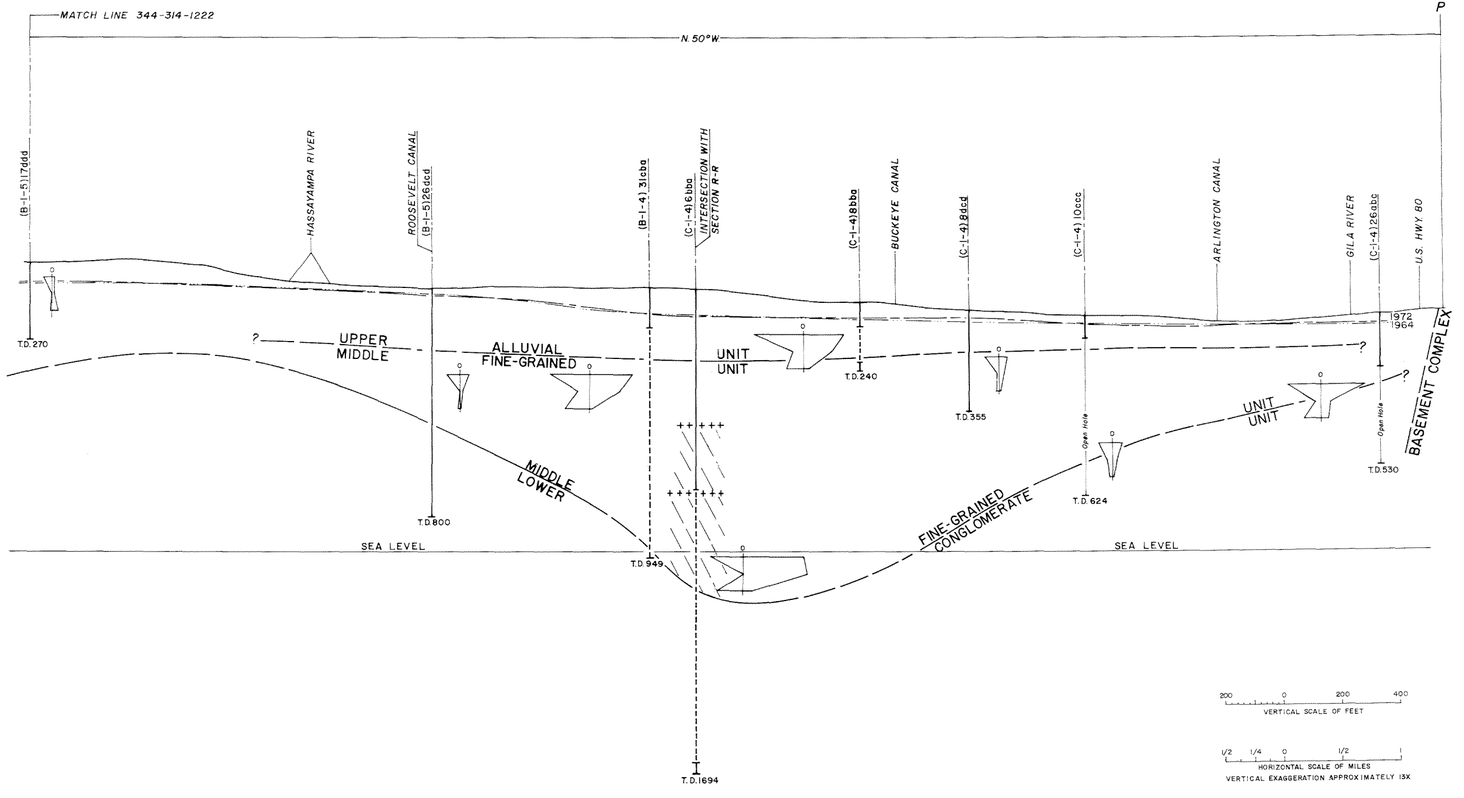
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION P-P
TONOPAH-ARLINGTON SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Konie
TRACED R.M.G. — RECOMMENDED C. A. Pillard
CHECKED [illegible] — APPROVED C. A. Pillard

PHOENIX, ARIZONA — SHEET 2 OF 2 — JULY 1, 1972 — 344-314-1222

Figure 170



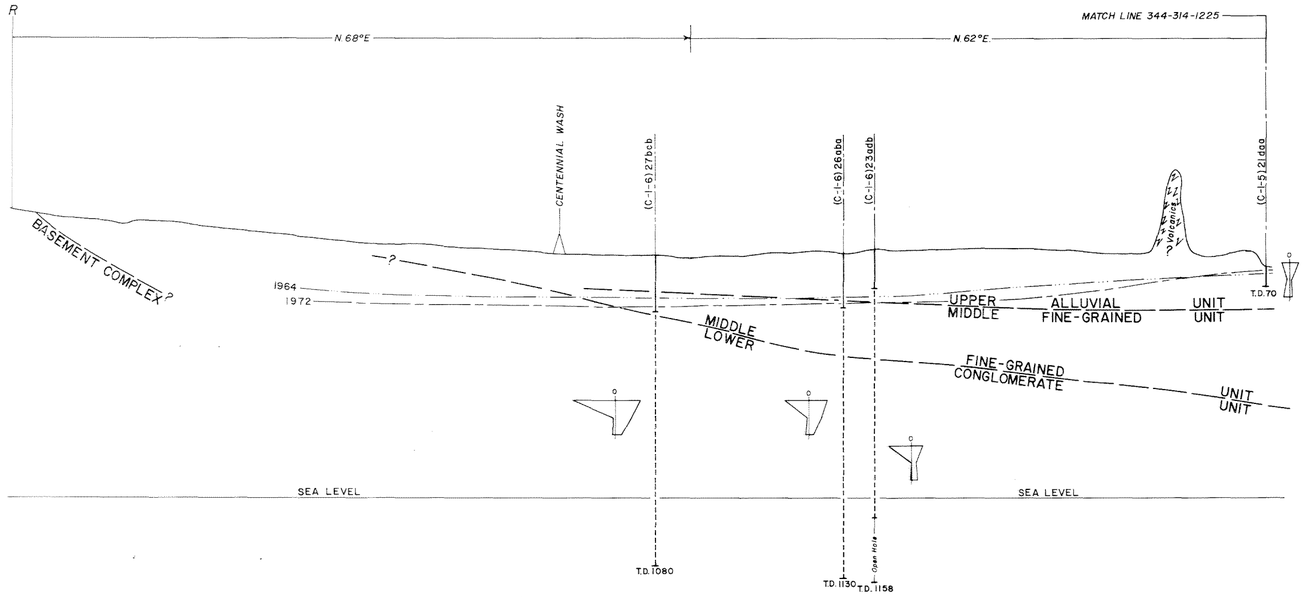
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

HYDROLOGIC SECTION P-P
TONOPAH-ARLINGTON SUBAREA

GEOLOGY Ford	SUBMITTED Earl E. Krause
TRACED R.M.G.	RECOMMENDED C.A. Ellard
CHECKED J.J. Londry	APPROVED C.A. Ellard
PHOENIX, ARIZONA JULY 1, 1972 SHEET 1 OF 2	344-314-1223

Figure 171



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

Depth of hole (? indicates depth of well not known)

T.D. 750

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium — Anions: Chloride, Sulphate, Bicarbonate

10 0 10 — Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
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CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION R-R
TONOPAH-ARLINGTON SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Kaspis
TRACED R.M.G. — RECOMMENDED D. A. Tillard
CHECKED J.J. Landy — APPROVED C. A. Pugh

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 2 — 344-314-1224

Figure 172

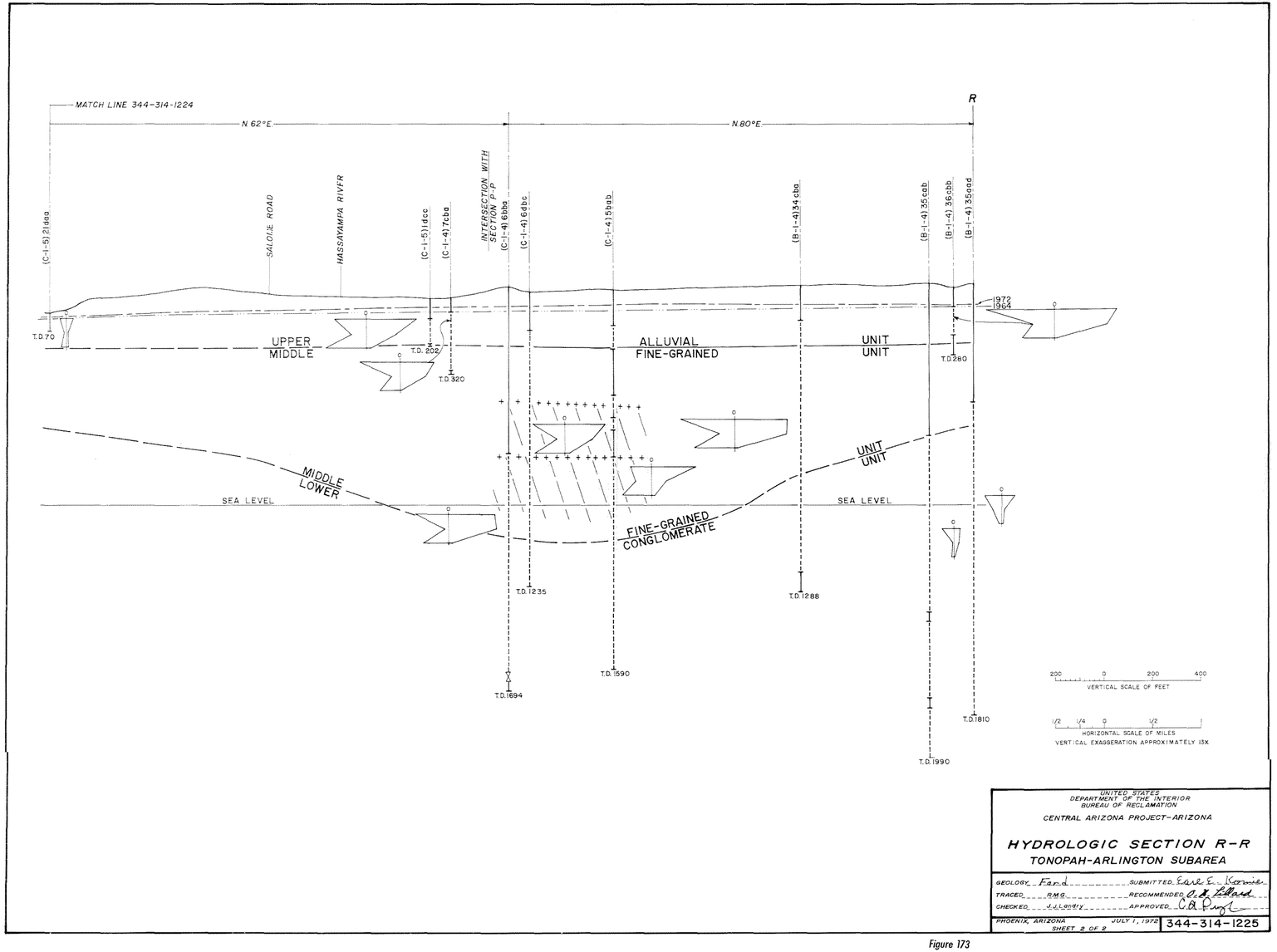
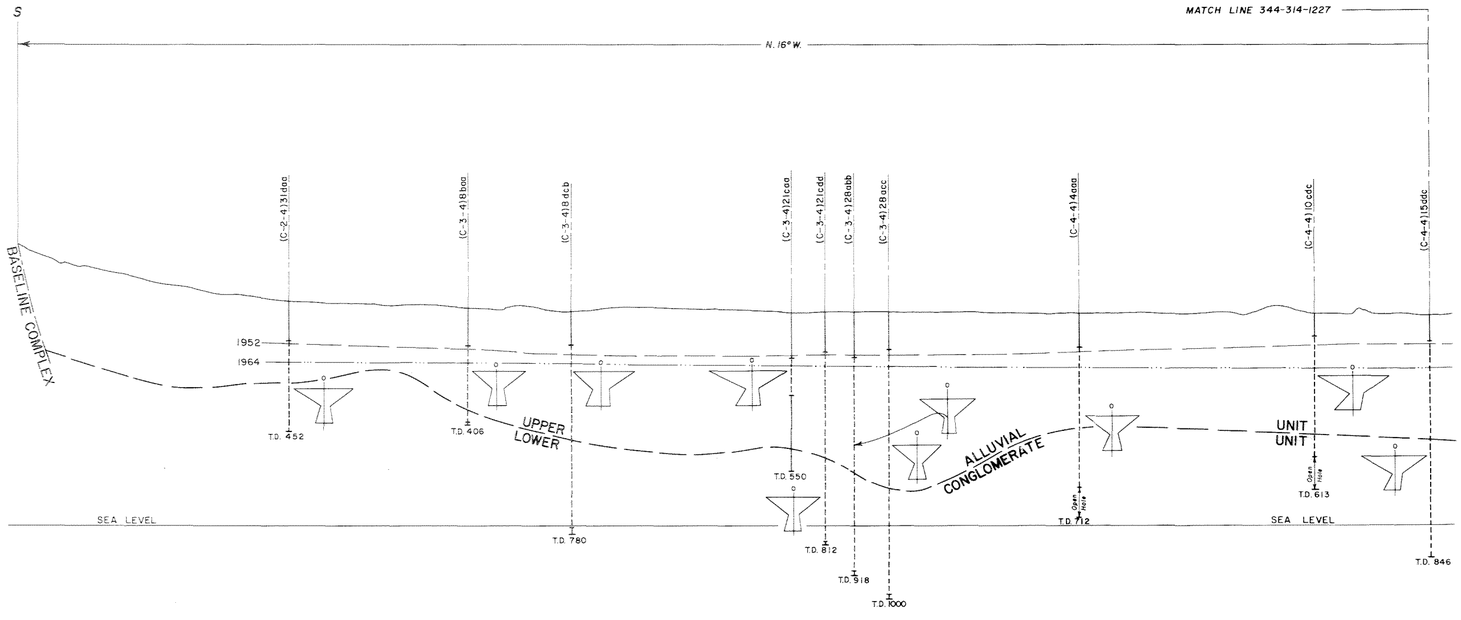

MATCH LINE 344-314-1224
N 62°E.
N.80°E.
R
(C-1-5)21daa
SALOME ROAD
HASSAYAMPA RIVER
(C-1-5)1dcc
(C-1-4)7cba
INTERSECTION WITH SECTION P-P
(C-1-4)6bba
(C-1-4)6abc
(C-1-4)5bab
(B-1-4)34cba
(B-1-4)35cab
(B-1-4)36cbb
(B-1-4)35aad
1972
1964
T.D.70
UPPER
MIDDLE
T.D.202
T.D.320
ALLUVIAL
FINE-GRAINED
UNIT
UNIT
T.D.280
MIDDLE
LOWER
SEA LEVEL
UNIT
UNIT
SEA LEVEL
FINE-GRAINED
CONGLOMERATE
T.D.1235
T.D.1288
T.D.1590
T.D.1694
T.D.1810
T.D.1990
200 0 200 400
VERTICAL SCALE OF FEET
1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT-ARIZONA
HYDROLOGIC SECTION R-R
TONOPAH-ARLINGTON SUBAREA
GEOLOGY Fand
SUBMITTED Earl E. Kornie
TRACED RMG
RECOMMENDED
CHECKED
APPROVED
PHOENIX, ARIZONA
JULY 1, 1972
SHEET 2 OF 2
344-314-1225

Figure 173



EXPLANATION

(D-5-7) 28 dcb

Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750

Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium — Anions: Chloride, Sulphate, Bicarbonate — 10 0 10 — Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

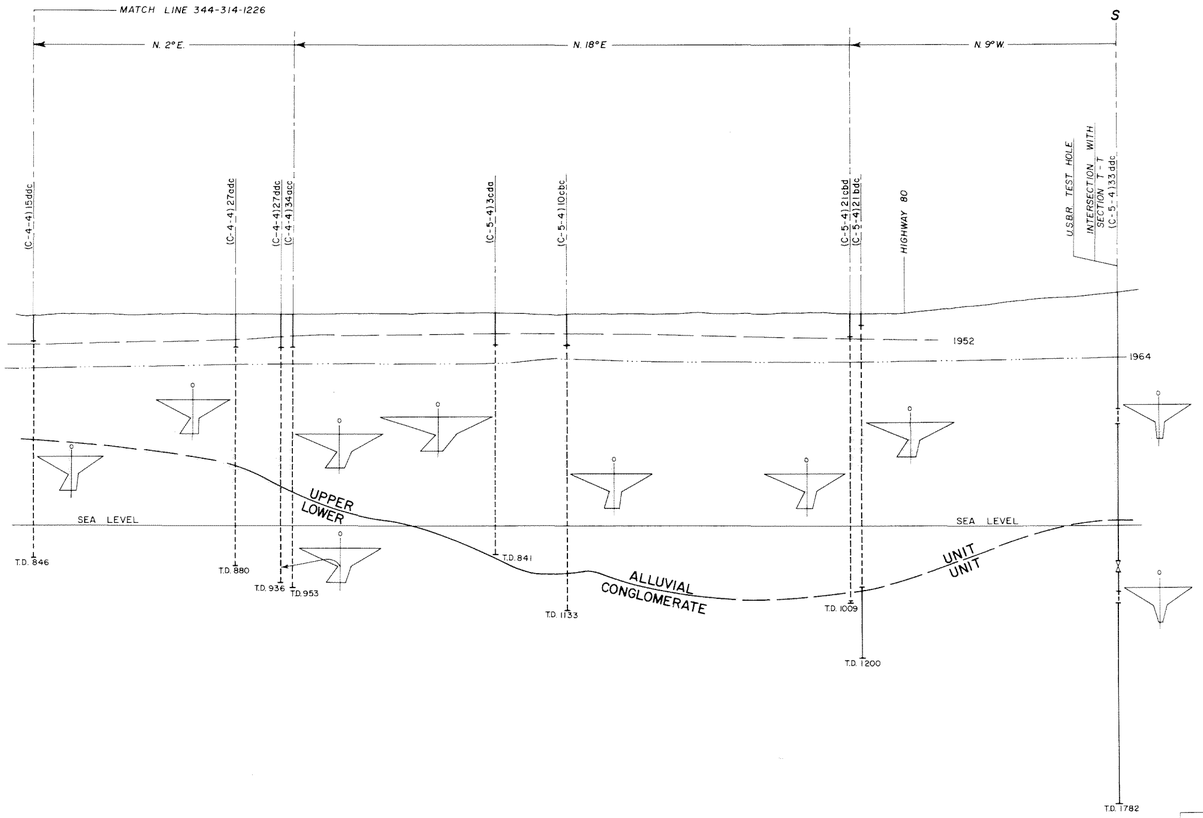
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION S-S
GILA BEND SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Koome
TRACED M.E.W. — RECOMMENDED O.A. Pollard
CHECKED J.J.S. — APPROVED C.A. Pugh

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 2 — 344-314-1226

Figure 174



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

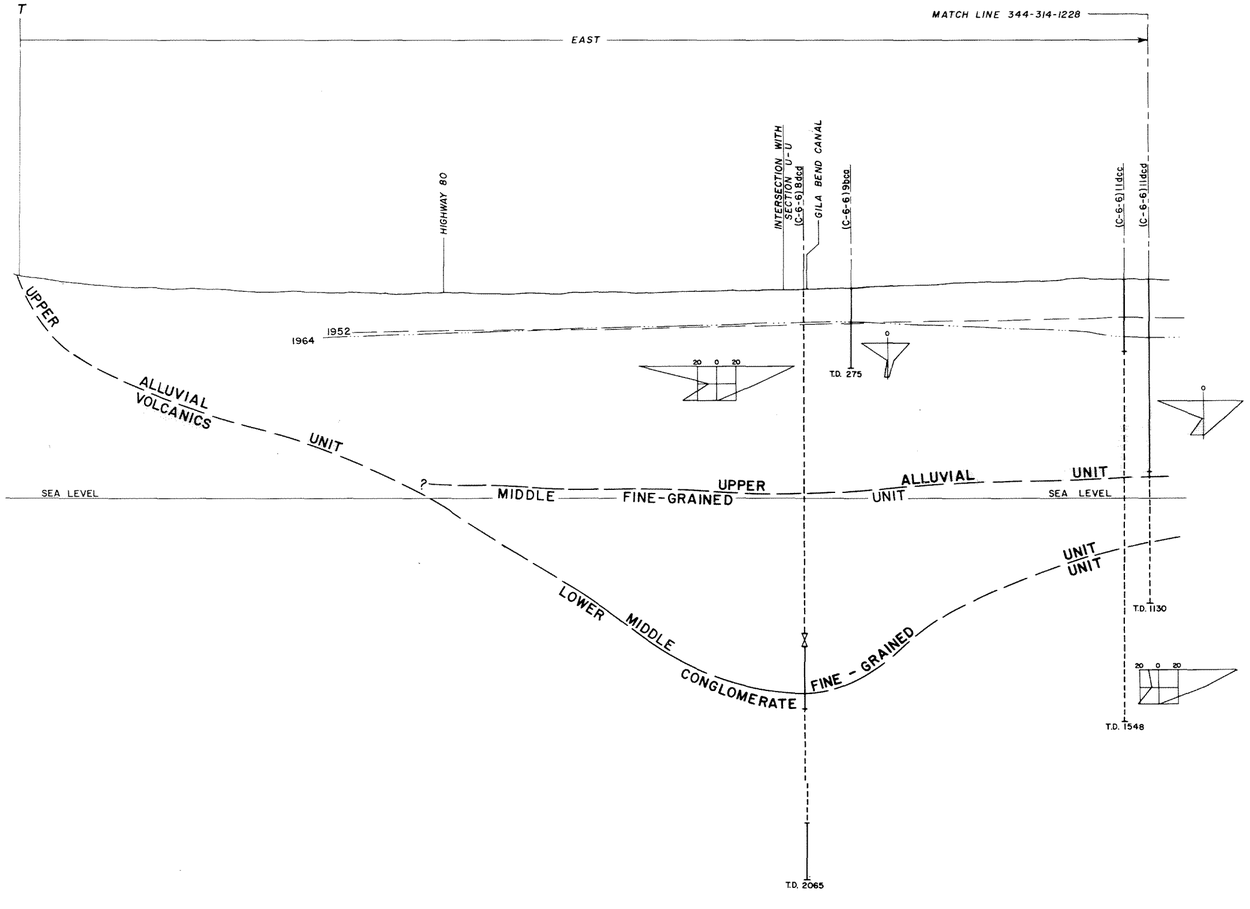
CENTRAL ARIZONA PROJECT-ARIZONA

HYDROLOGIC SECTION S-S
GILA BEND SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Ignacio
TRACED M.F.W. — RECOMMENDED A. A. Ellard
CHECKED J.J. Landry — APPROVED C. A. Pugh

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 2 OF 2 — 344-314-1227

Figure 175



EXPLANATION

(D-5-7) 29 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium — Anions: Chloride, Sulphate, Bicarbonate — 10 0 10, Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

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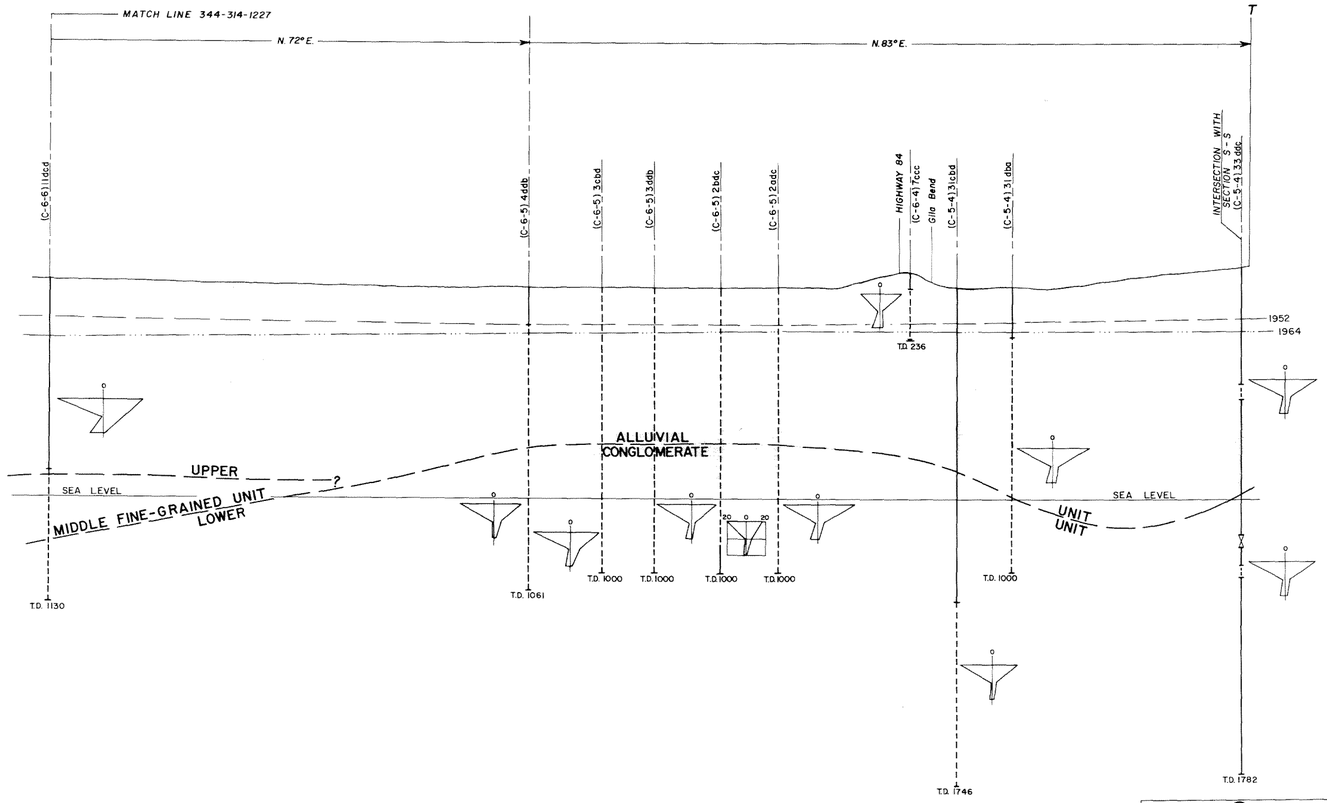
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION T-T'
GILA BEND SUBAREA

GEOLOGY Ford — SUBMITTED East E. Kramer
TRACED M.F.H. — RECOMMENDED O. A. Lillard
CHECKED [illegible] — APPROVED C. A. Pugh

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 2 — 344-314-1228

Figure 176



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13x

HIGHWAYS THINK SAFETY

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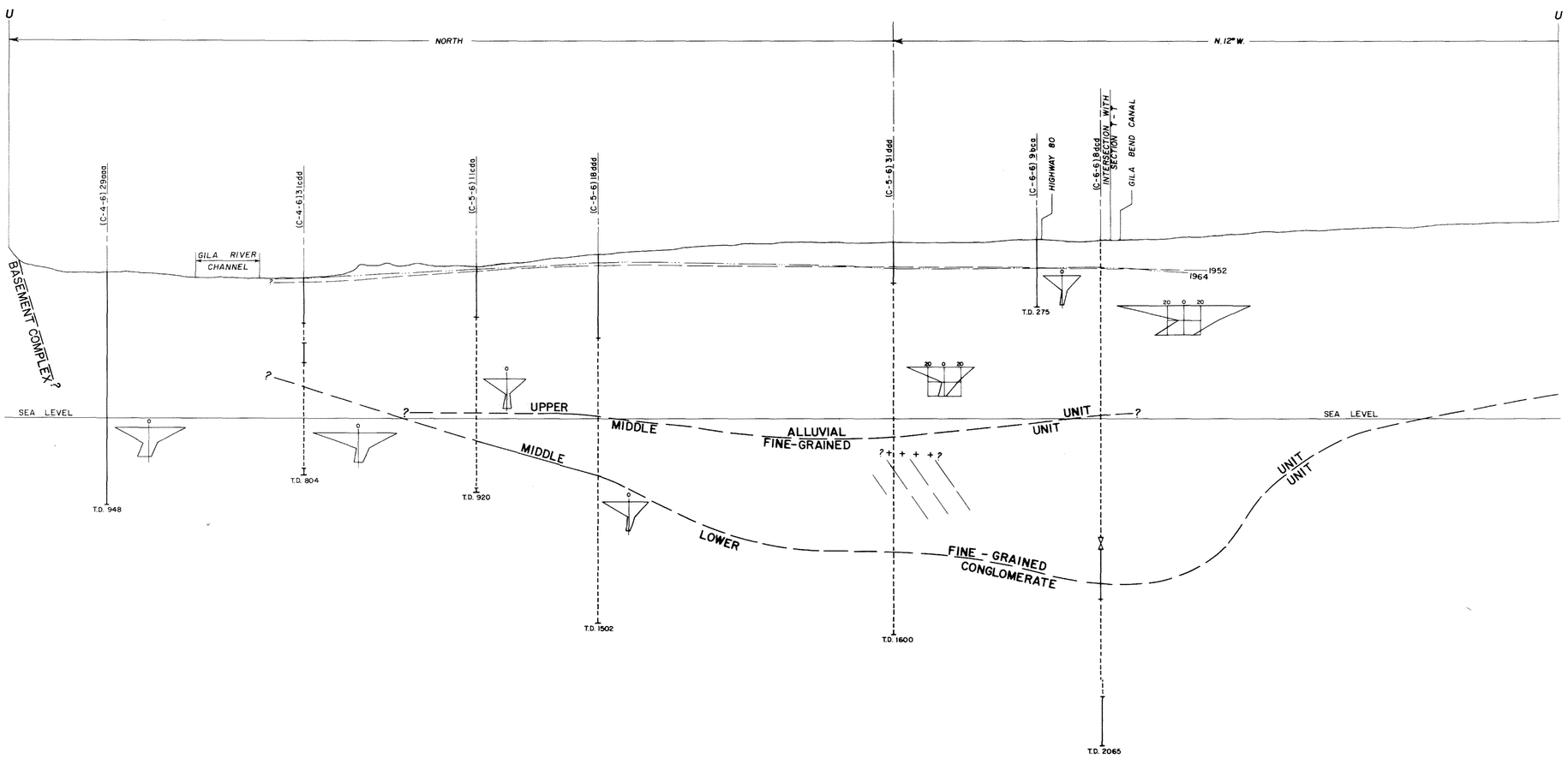
HYDROLOGIC SECTION T-T
GILA BEND SUBAREA

GEOLOGY Ford SUBMITTED Carl E. Kome
TRACED M.F.W. RECOMMENDED D. J. Pillard
CHECKED J.J. Londry APPROVED C. A. Engel

PHOENIX, ARIZONA JULY 1, 1972 SHEET 2 OF 2

344-314-1229

Figure 177



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium. Anions: Chloride, Sulphate, Bicarbonate. Equivalents per Million.

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
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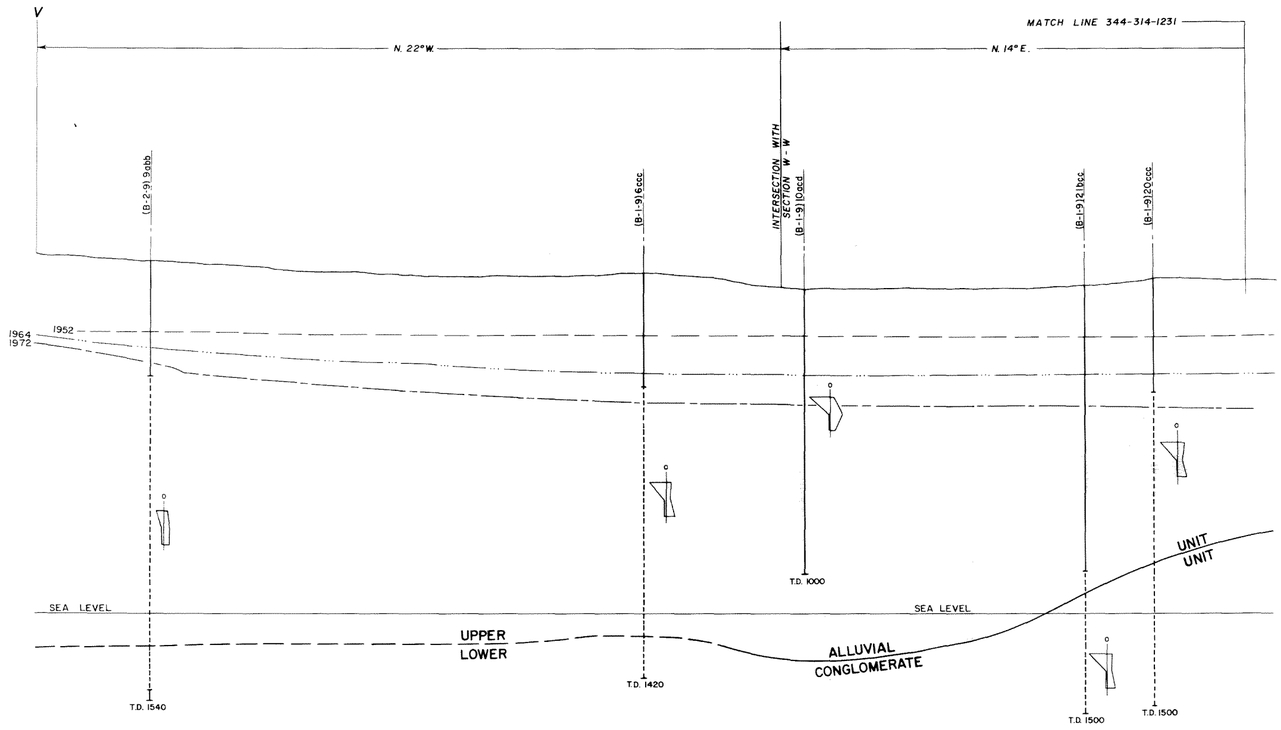
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION U-U
GILA BEND SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Konze
TRACED M.F.W. — RECOMMENDED O. A. Gillard
CHECKED J.J. Landry — APPROVED C. A. Fleck

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 1 — 344-314-1230

Figure 178



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium — 10 0 10 — Anions: Chloride, Sulphate, Bicarbonate

Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
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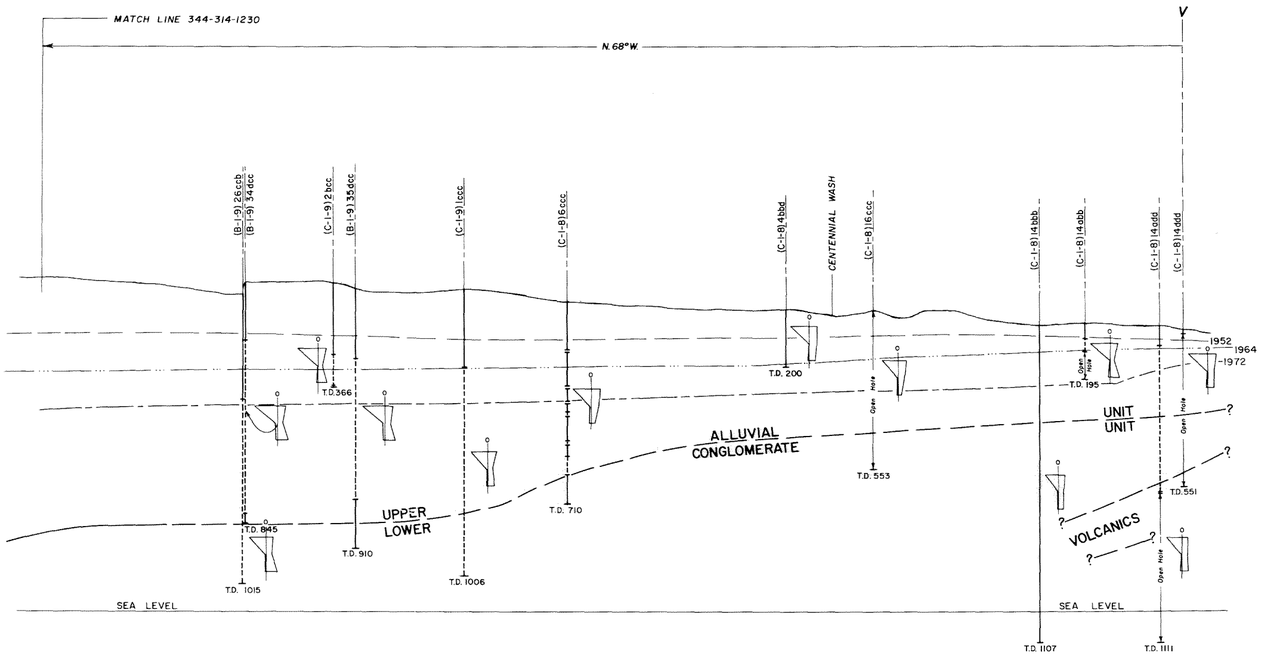
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION V-V
HARQUAHALA VALLEY SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Konik
TRACED M.F.W. — RECOMMENDED C. R. Pillard
CHECKED J.J. Landis — APPROVED C. A. Fuqua

PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 2 — 344-314-1231

Figure 179



200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

ALWAYS THINK SAFETY

UNITED STATES
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BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT-ARIZONA

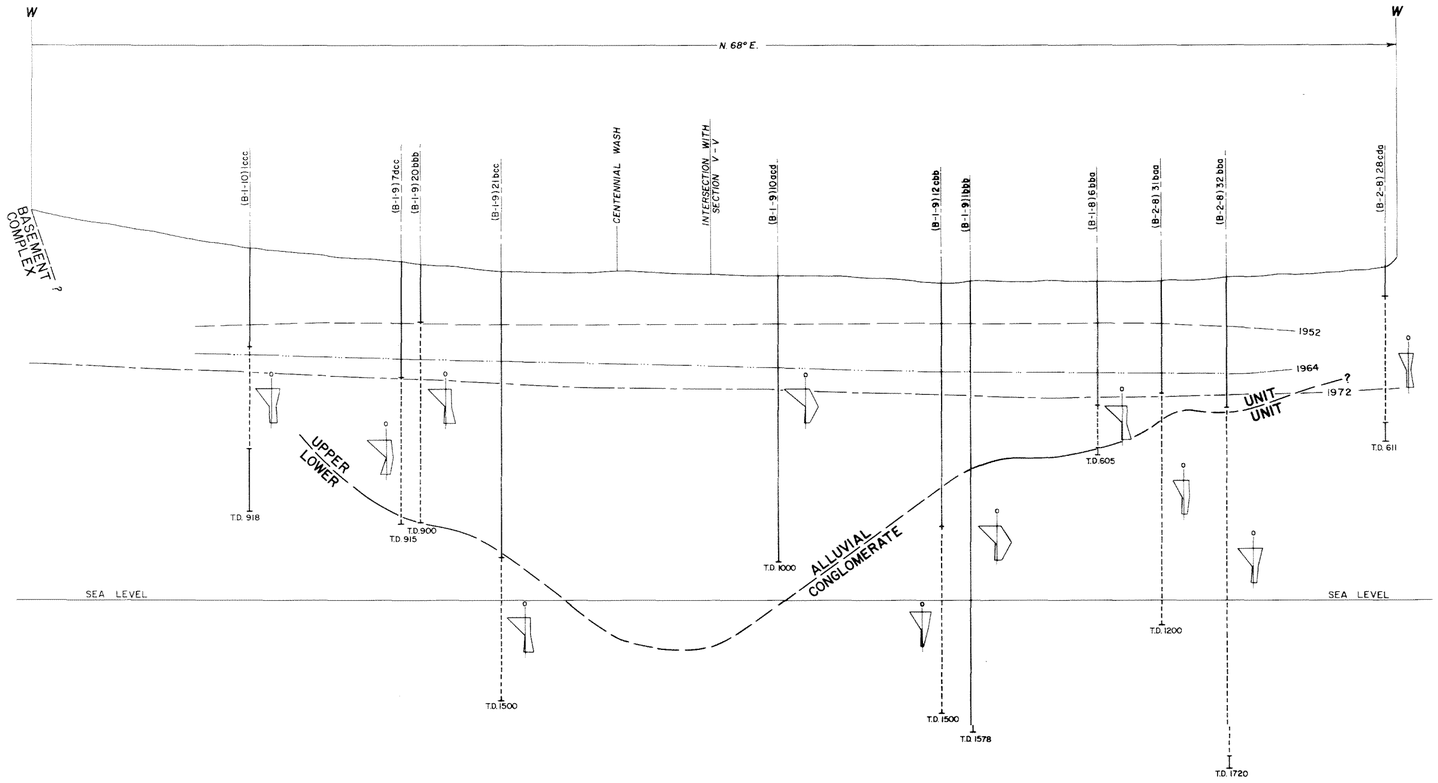
HYDROLOGIC SECTION V-V

HARQUAHALA VALLEY SUBAREA

GEOLOGY Ford SUBMITTED Earl E. Kennis
TRACED M.F.W. RECOMMENDED C. R. Willard
CHECKED J.J. Landy APPROVED C. R. Engel

PHOENIX, ARIZONA JULY 1, 1972 SHEET 2 OF 2 344-314-1232

Figure 180



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium. Anions: Chloride, Sulphate, Bicarbonate. 10 0 10. Equivalents per Million.

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

Spring, 1972

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

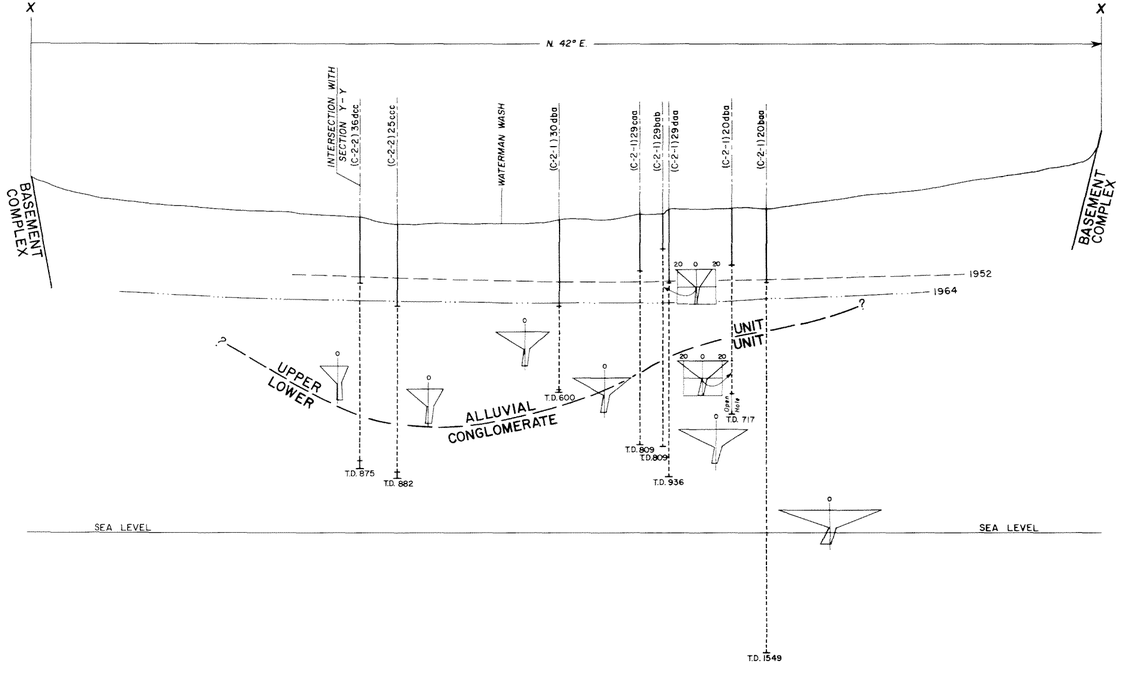
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION W-W
HARQUAHALA VALLEY SUBAREA

GEOLOGY Ford — SUBMITTED Earl E. Lewis
TRACED M.F.W. — RECOMMENDED [illegible]
CHECKED J.J. Landry — APPROVED [illegible]
PHOENIX, ARIZONA — JULY 1, 1972 — SHEET 1 OF 1 — 344-314-1233

Figure 181



EXPLANATION

(D-5-7) 28 dcb

T.D. 750

Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium. Anions: Chloride, Sulphate, Bicarbonate. Equivalents per Million.

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2
HORIZONTAL SCALE OF MILES
VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

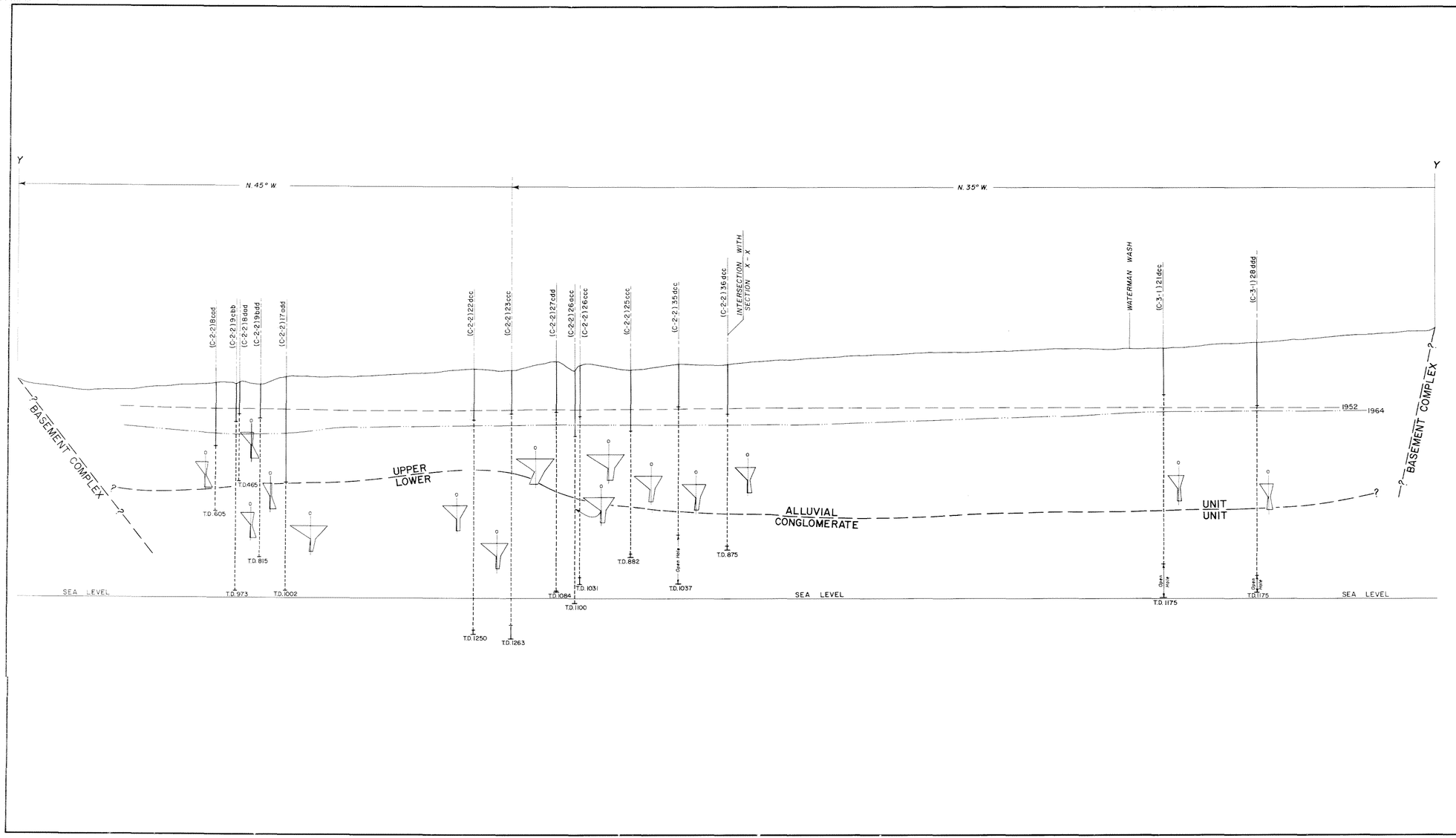
CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION X-X
WATERMAN WASH SUBAREA

GEOLOGY Ford SUBMITTED Earl E. Konie
TRACED M.F.W. RECOMMENDED D. L. Lillard
CHECKED Langly APPROVED L. A. Fryer

PHOENIX, ARIZONA JULY 1, 1972 SHEET 1 OF 1 344-314-1234

Figure 182



EXPLANATION

(D-5-7) 28 dcb — Well or test hole number: quadrant, township, range, section, location within section.

Clay and cement packer.

Perforations

T.D. 750 — Depth of hole (? indicates depth of well not known)

GROUND-WATER QUALITY

Cations: Sodium, Magnesium, Calcium — Anions: Chloride, Sulphate, Bicarbonate — 10 0 10 — Equivalents per Million

Water quality pattern diagram of selected wells, some diagrams drawn at half scale where indicated.

GROUND-WATER LEVELS

Spring, 1952

Spring, 1964

GEOLOGICAL FEATURES

Correlation of top or bottom of continuous unit.

Correlation inferred.

Approximate limits of significant evaporites.

Inferred fault, showing direction of relative movement.

200 0 200 400
VERTICAL SCALE OF FEET

1/2 1/4 0 1/2 1
HORIZONTAL SCALE OF MILES

VERTICAL EXAGGERATION APPROXIMATELY 13X

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL ARIZONA PROJECT—ARIZONA

HYDROLOGIC SECTION Y-Y
WATERMAN WASH SUBAREA

GEOLOGY F.a.d. SUBMITTED Earl E. Lowe
TRACED M.F.W. RECOMMENDED C. H. Pillard
CHECKED J.J. Longo APPROVED C. A. Rugh

PHOENIX, ARIZONA JULY 1, 1972 SHEET 1 OF 1 | 344-314-1235

Figure 183