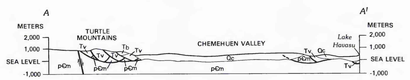
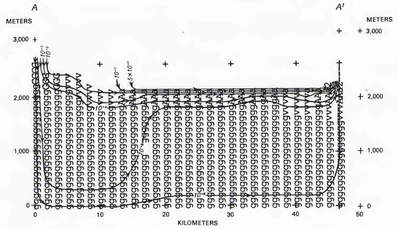
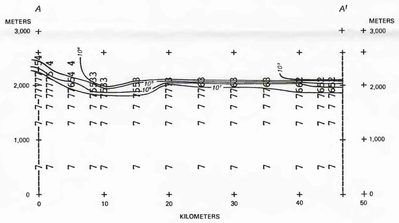
GEOLOGIC SECTION



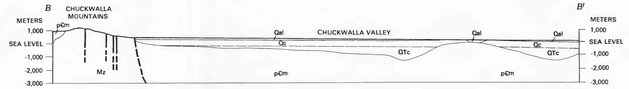
MODELED LITHOLOGY AND FLOW PATHS



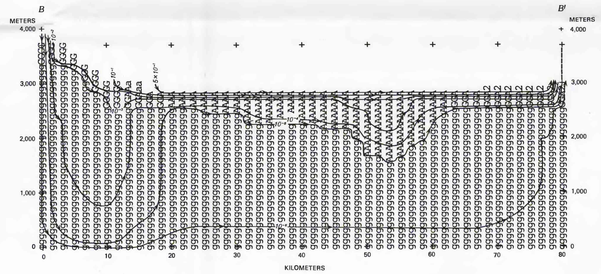
PLOT OF TRAVELTIME



GEOLOGIC SECTION



MODELED LITHOLOGY AND FLOW PATHS



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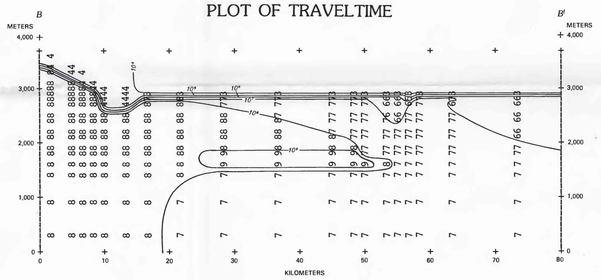
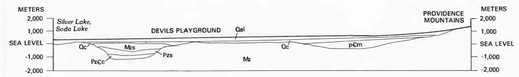
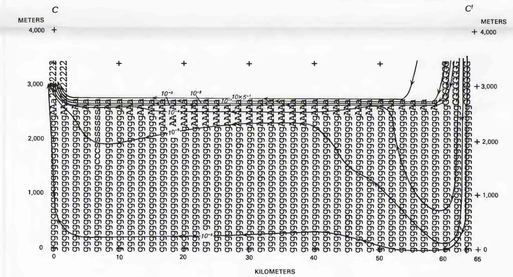


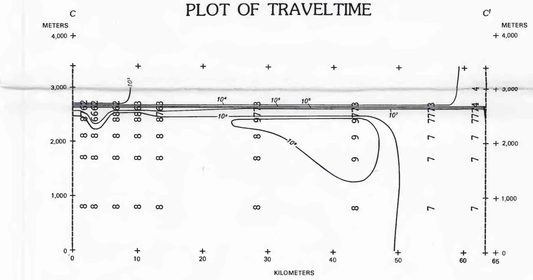
GEOLOGIC SECTION



MODELED LITHOLOGY AND FLOW PATHS

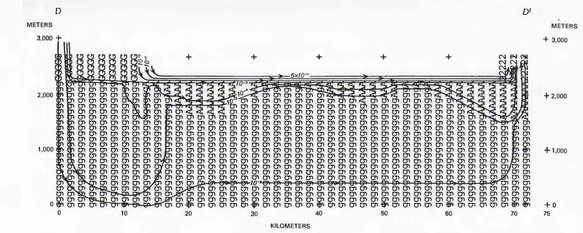


PLOT OF TRAVELTIME

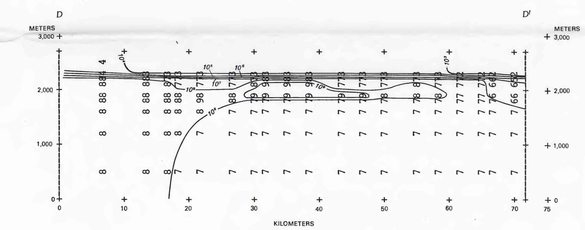


GEOLOGIC SECTION

MODELED LITHOLOGY AND FLOW PATHS



PLOT OF TRAVELTIME



LOCATION OF MODELED HYDROGEOLOGIC SECTIONS

EXPLANATION

GEOLOGIC SECTIONS

- Qal — BASIN FILL (QUATERNARY)-Poorly sorted sand, silt, and clay, evaporites, and dune sand
- Qc — BASIN FILL (QUATERNARY)-Well-sorted sand, interbedded with gravel, silt, and clay
- QTc — BASIN FILL (QUATERNARY AND TERTIARY)-Silt, sand, gravel, and conglomerate; commonly of volcanic composition
- Tb — BASALT (TERTIARY)-Olivine basalt and tuffaceous sediments
- * Tv — UNDIFFERENTIATED VOLCANIC ROCKS (TERTIARY)-Volcanic rocks, including flows and pyroclastics and thin continental beds
- Mzs — SEDIMENTARY AND METAVOLCANIC ROCKS (LOWER MESOZOIC)-Predominantly massive quartzite and cross-bedded sandstone, metamorphosed quartz latite, dacite, and latite flows
- Pzs — SEDIMENTARY ROCKS (UPPER PALEOZOIC)-Predominantly clastic rocks
- PzCc — MIDDLE PALEOZOIC TO MIDDLE CAMBRIAN ROCKS-Predominantly carbonate rocks
- pCm — METAMORPHIC ROCKS (PRECAMBRIAN)-Gneiss, schist, metasedimentary, and metaplutonic rocks

INTRUSIVE ROCKS

- Mz — MESOZOIC PLUTONIC ROCKS-Biotite-quartz monzonite and hornblende gabbro, quartz diorite, granodiorite, quartz monzodiorite, and syenogranite

GEOLOGIC CONTACT-Dashed where approximately located

FAULT-Arrows show relative direction of movement. Dashed where inferred

EXPLANATION

HYDROGEOLOGIC SECTIONS		CORRESPONDING UNITS ON GEOLOGIC SECTIONS
a	UPPER COARSE-GRAINED BASIN FILL	Qal,Qc
A	LOWER COARSE-GRAINED BASIN FILL	Qc,QTc
v	UNDIFFERENTIATED VOLCANIC ROCKS	Tv
s	COARSE-GRAINED CLASTIC ROCKS	Mzs
c	CARBONATE ROCKS	Pzs,PzCc
g	CRYSTALLINE ROCKS-Lower part of section	Mz, pCm
G	CRYSTALLINE ROCKS-Upper part of section	Mz, pCm
2	DISCHARGE AREA	

10^{-4} — DIRECTION OF GROUND-WATER FLOW-Number indicates relative volume of flow in section below flow line

EXPLANATION

PLOT OF TRAVELTIME

7 — EXPONENT OF TIME-A display of "7" indicates that the time is greater or equal to 1,000,000 years and less than 10,000,000 years. Time is from the point to discharge area. Traveltime is computed for each active node, but depending on scale and block dimensions, may not be displayed everytime

10^{4} — RELATIVE TRAVELTIME FROM POINTS ON LINE TO DISCHARGE AREA-Areas of longest traveltimes originate in the recharge area. No isolated areas of long traveltime are surrounded by areas of shorter traveltime. However, some areas of longest traveltime are too small to portray at the scale shown

HYDROGEOLOGIC SECTIONS A-A', B-B', C-C', AND D-D' SHOWING GROUND—WATER FLOW PATHS AND RELATIVE TRAVELTIME, SONORAN REGION, CALIFORNIA