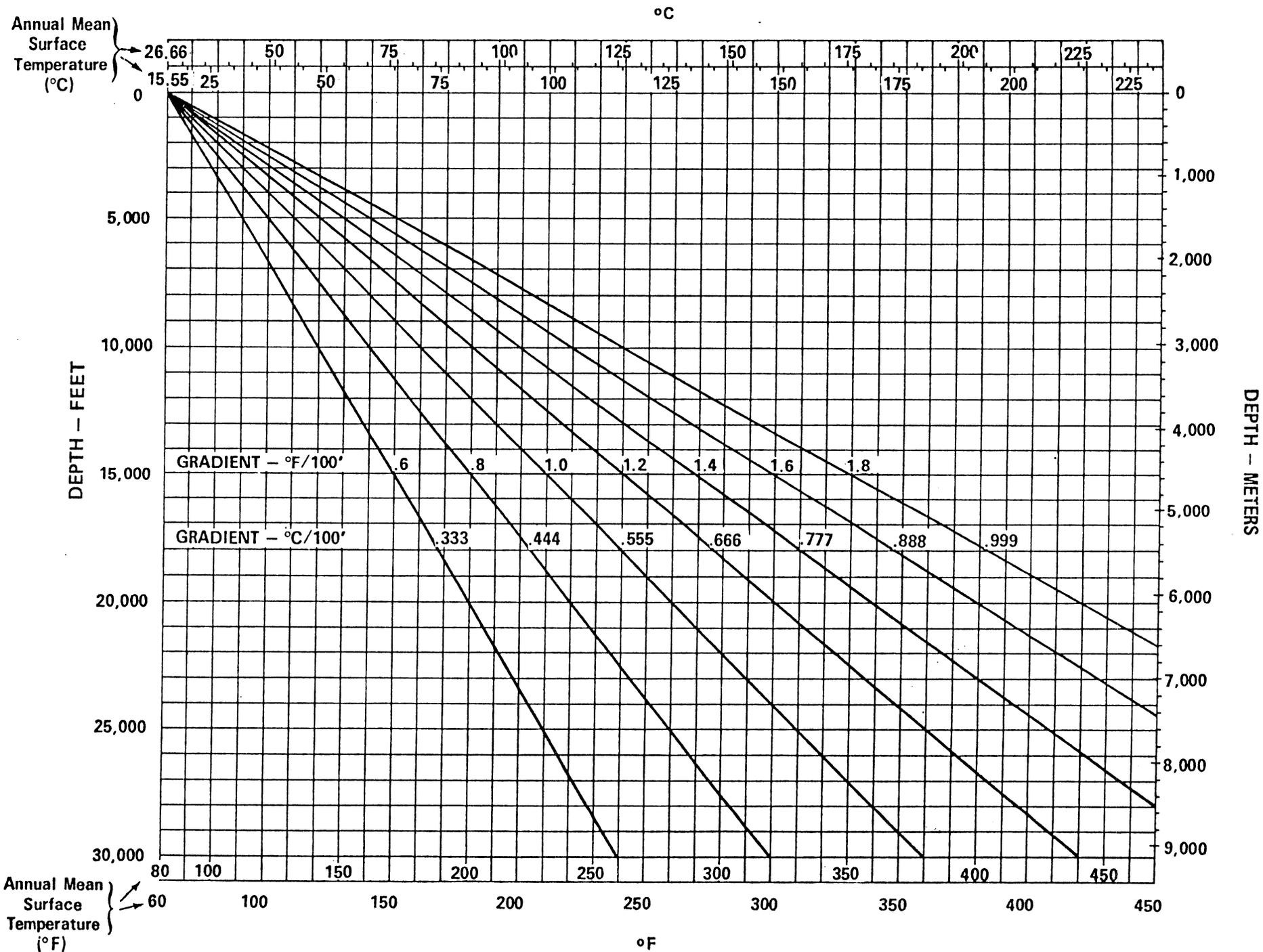


**GEOLOGIC TIME SCALE**

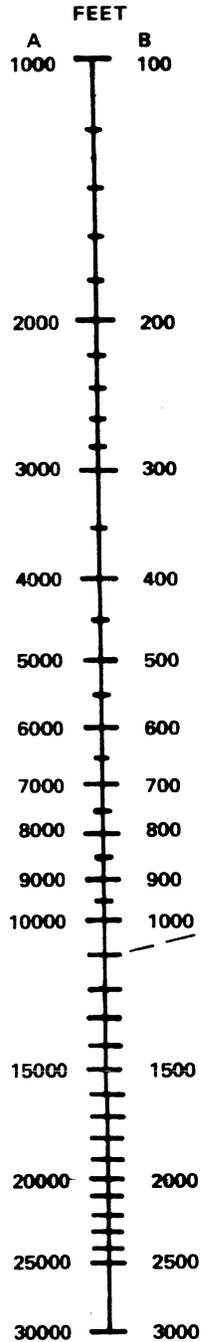
<b>ERA</b>	<b>PERIOD</b>	<b>EPOCH</b>	<b>YEARS BEFORE THE PRESENT</b>
<b>Cenozoic</b>	<b>Quaternary</b>	<b>Holocene (Recent)</b>	11,000
		<b>Pleistocene (Glacial)</b>	500,000 to 2,000,000
	<b>Tertiary</b>	<b>Pliocene</b>	13,000,000
		<b>Miocene</b>	25,000,000
		<b>Oligocene</b>	36,000,000
		<b>Eocene</b>	58,000,000
		<b>Paleocene</b>	63,000,000
		<b>Cretaceous</b>	135,000,000
<b>Mesozoic</b>	<b>Jurassic</b>	180,000,000	
	<b>Triassic</b>	230,000,000	
	<b>Permian</b>	280,000,000	
<b>Paleozoic</b>	<b>Carboniferous</b>	<b>Pennsylvanian (Upper Carboniferous)</b>	310,000,000
		<b>Mississippian (Lower Carboniferous)</b>	345,000,000
	<b>Devonian</b>	405,000,000	
	<b>Silurian</b>	425,000,000	
	<b>Ordovician</b>	500,000,000	
	<b>Cambrian</b>	600,000,000	
	<b>Precambrian</b>		

# FORMATION TEMPERATURE - DEPTH RELATIONSHIPS



# HYDROSTATIC PRESSURE FOR DRILLING FLUIDS

DEPTH OF COLUMN



## EXAMPLE:

Depth: 11,000

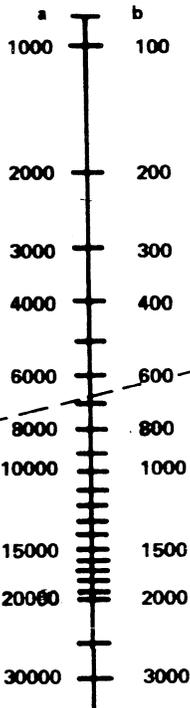
Density: 12 ppg - 90 lb./cu.ft.

Lay straight-edge from 11,000' on scale "A" to 12 - 90 on density scale

Read intersection on scale "a" - 6860 psi

BOTTOM HOLE PRESSURE

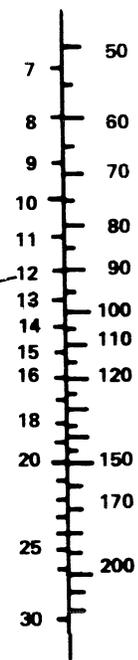
Pound Per Square Inch



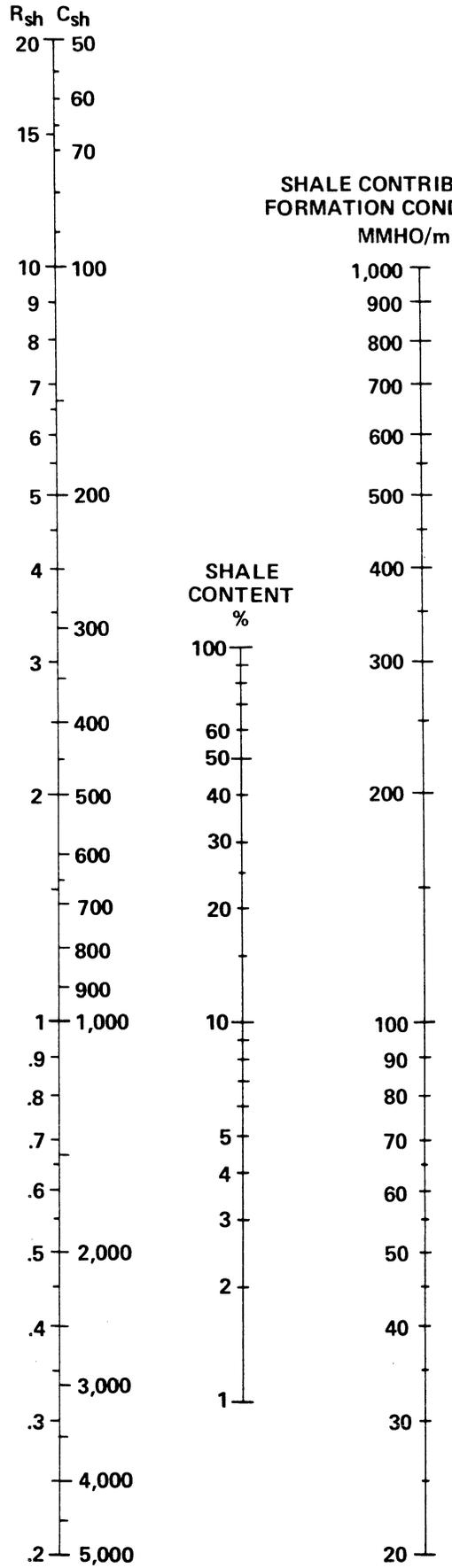
FLUID DENSITY

Pounds Per Gallon

Pounds Per Cubic Foot



# SHALY SAND NOMOGRAPH



Subtract the calculated shale contribution to formation conductivity as obtained from nomograph bar three from the log conductivity value after correcting for borehole and bed thickness effects.

# FORMATION PRESSURE FROM SHALE COMPACTION GRADIENT

DEPTH IN FEET X 1000

