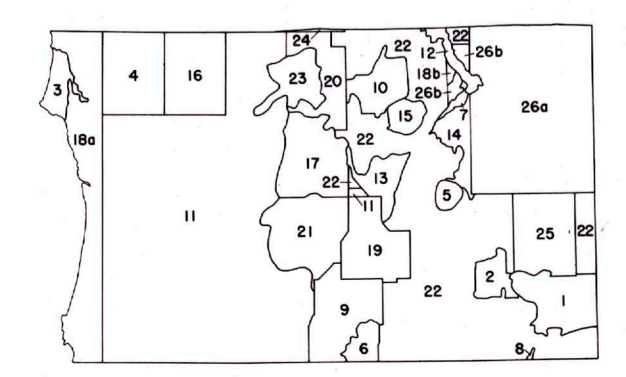
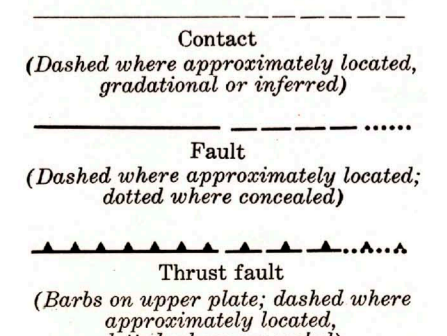
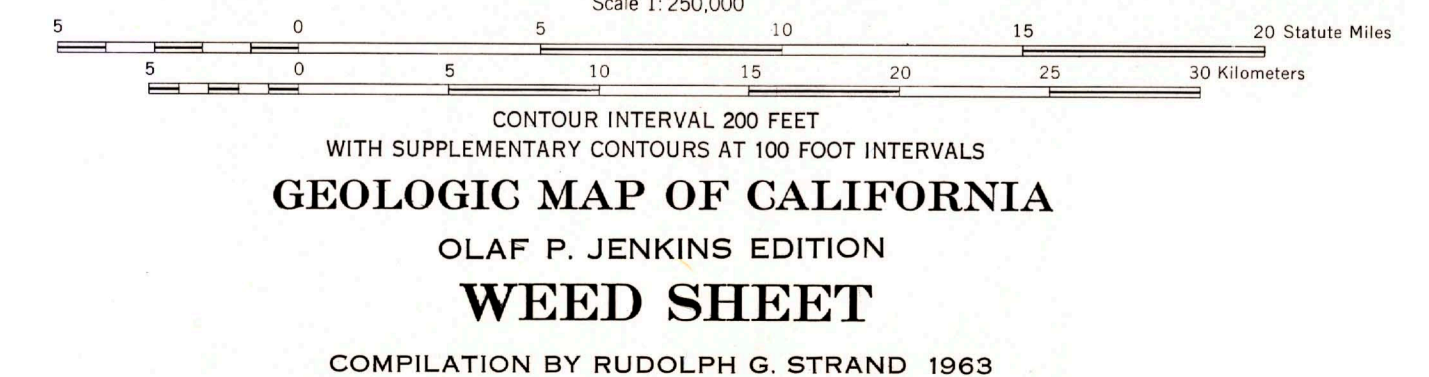
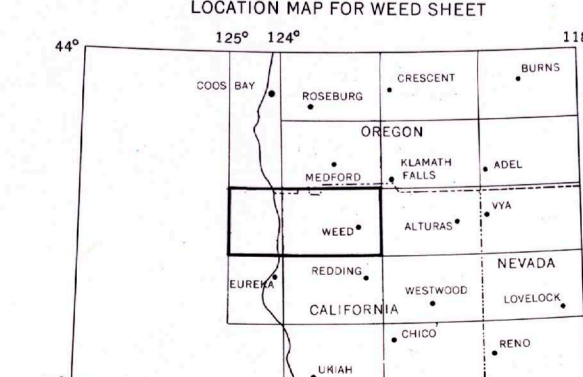
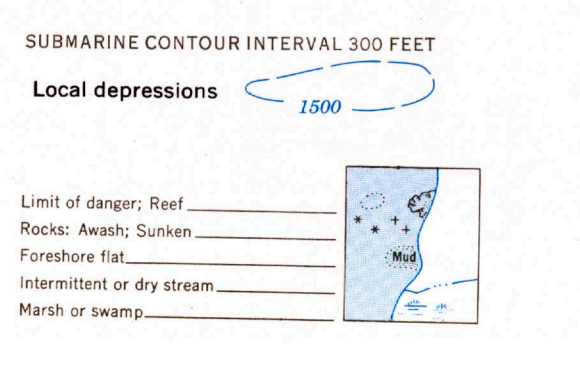


SEDIMENTARY AND METASEDIMENTARY ROCKS		IGNEOUS AND META-IGNEOUS ROCKS	
Qa	Dune sand	Qv	Recent volcanic: Qv ¹ -rhyolite; Qv ² -andesite; Qv ³ -basalt; Qv ⁴ -pyroclastic rocks
Qal	Alluvium		
Qc	Stream channel deposits		
Qf	Fan deposits		
Qb	Basin deposits		
Qd	Salt deposits		
Ql	Quaternary lake deposits		
Qg	Glacial deposits		
Qn	Quaternary nonmarine terrace deposits		
Qm	Pliocene marine and marine terrace deposits		
Qp	Pliocene nonmarine		
Qo	Plio-Pliocene nonmarine		
Qr	Undivided Pliocene nonmarine		
Qs	Upper Pliocene marine		
Qm	Upper Pliocene marine		
Qn	Middle and/or lower Pliocene nonmarine		
Qo	Middle and/or lower Pliocene marine		
Qp	Undivided Miocene nonmarine		
Qm	Upper Miocene nonmarine		
Qn	Middle Miocene nonmarine		
Qo	Lower Miocene marine		
Qp	Lower Miocene marine		
Qq	Oligocene nonmarine		
Qr	Oligocene marine		
Qs	Eocene nonmarine		
Qt	Eocene marine		
Qu	Paleocene marine		
Qv	Paleocene marine		
Qw	Cenozoic nonmarine		
Qx	Tertiary nonmarine		
Qy	Tertiary lake deposits		
Qz	Tertiary marine		
Qaa	Undivided Cretaceous marine		
Qab	Upper Cretaceous marine		
Qac	Lower Cretaceous marine		
Qad	Knoxville Formation		
Qae	Upper Jurassic marine		
Qaf	Middle and/or Lower Jurassic marine		
Qag	Triassic marine		
Qah	Pre-Cretaceous metamorphic rocks (s = limestone or dolomite)		
Qai	Pre-Cretaceous meta-sedimentary rocks		
Qaj	Paleozoic marine (s = limestone or dolomite)		
Qak	Permian marine		
Qal	Undivided Carboniferous marine		
Qam	Pennsylvanian marine		
Qan	Mississippian marine		
Qao	Devonian marine		
Qap	Silurian marine		
Qaq	Pre-Silurian meta-sedimentary rocks		
Qar	Ordovician marine		
Qas	Cambrian marine		
Qat	Cambrian - Precambrian marine		
Qau	Undivided Precambrian metamorphic rocks		
Qav	Later Precambrian sedimentary and metamorphic rocks		
Qaw	Earlier Precambrian metamorphic rocks		
Qax	Franciscan volcanic and metamorphic rocks		
Qay	Mesozoic granitic rocks: g ¹ -granite and subvolcanic g ¹ -granodiorite; g ² -tonalite and diorite		
Qaz	Mesozoic basic intrusive rocks		
Qba	Mesozoic ultrabasic intrusive rocks		
Qbb	Jura-Trias meta-volcanic rocks		
Qbc	Pre-Cretaceous meta-volcanic rocks		
Qbd	Pre-Cretaceous granitic and metamorphic rocks		
Qbe	Paleozoic meta-volcanic rocks		
Qbf	Permian meta-volcanic rocks		
Qbg	Carboniferous meta-volcanic rocks		
Qbh	Devonian meta-volcanic rocks		
Qbi	Devonian and pre-Devonian? meta-volcanic rocks		
Qbj	Pre-Silurian meta-volcanic rocks		
Qbk	Pre-Silurian meta-volcanic rocks		
Qbl	Pre-Silurian meta-volcanic rocks		
Qbm	Pre-Silurian meta-volcanic rocks		
Qbn	Pre-Silurian meta-volcanic rocks		
Qbo	Pre-Silurian meta-volcanic rocks		
Qbp	Pre-Silurian meta-volcanic rocks		
Qbq	Pre-Silurian meta-volcanic rocks		
Qbr	Pre-Silurian meta-volcanic rocks		
Qbs	Pre-Silurian meta-volcanic rocks		
Qbt	Pre-Silurian meta-volcanic rocks		
Qbu	Pre-Silurian meta-volcanic rocks		
Qbv	Pre-Silurian meta-volcanic rocks		
Qbw	Pre-Silurian meta-volcanic rocks		
Qbx	Pre-Silurian meta-volcanic rocks		
Qby	Pre-Silurian meta-volcanic rocks		
Qbz	Pre-Silurian meta-volcanic rocks		

TOPOGRAPHIC BASE MAP
Prepared by the Army Map Service (KCBM), Corps of Engineers, U. S. Army, Washington, D.C. Control is 1957 from United States Quadrangles, 1:48,000, 1:50,000, 1:62,500, U. S. Geological Survey and AMS, 1:63,564 (isographic mass photogrammetric, reliability good). Control by USGS, USGS 2025 and USGS, Map field checked, 1958.
Land not prepared by U.S. Geological Survey
Submarine contours adopted from Sheppard and Emery Special Paper No. 31, Geol. Soc. America
Minor corrections and additions to contour by California Division of Mines and Geology, 1963



HEAVY BORDER ON BOXES INDICATES UNITS THAT APPEAR ON THIS SHEET