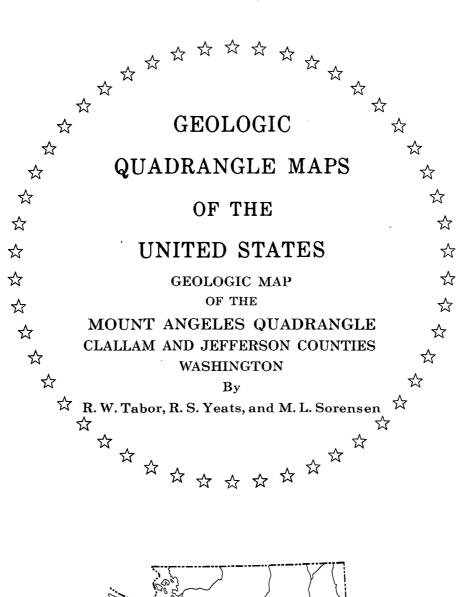
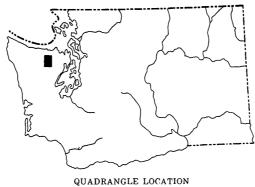
## DEPARTMENT OF THE INTERIOR UNITED STATES GEOLOGICAL SURVEY





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## GEOLOGIC MAP SYMBOLS COMMONLY USED ON MAPS OF THE UNITED STATES GEOLOGICAL SURVEY

	المدودة فقال القياسة فينتين وبيراد ويوداد	Contact — dashed where approximately located; short dashed where inferred; dotted where concealed		45	Strike and dip of beds	
				ळी	Strike and dip of overturned beds	
4	5	Contact, showing dip		-	Strike of vertical beds	
		Contact, well exposed at triangle		<b>⊕</b>	Horizontal beds	
					Strike and dip of foliation	
		Fault — dashed where approximately located; short dashed where inferred; dotted where concealed			Strike of vertical foliation	
				+	Horizontal foliation	
<u>^</u>	75 U D	Fault, showing dip — U, upthrown side; D, downthrown side		<u>_/5</u> ,	Strike and dip of cleavage	
	•	Fault – ball and bar on downthrown side			Strike of vertical cleavage	
				4	Horizontal cleavage	
<del></del>	<del>-,-,-,-</del>	Normal fault — hachured on downthrown side	V Let	<i>15</i> ←	Bearing and plunge of lineation	
	<del>=</del>	Fault – showing relative horizontal movement	• • •	•	Vertical lineation	
				<b>←→</b>	Horizontal lineation	
-		Thrust fault - sawteeth on upper plate		40	Strike and dip of joints	
	·				Strike of vertical joints	
· ——		Anticline — showing direction of plunge; dashed where approximately located; dotted where concealed	-+	+	Horizontal joints	
					nar symbols (strike and dip of beds,	
<del></del>	<del></del>	Asymmetric anticline — short arrow indicates steeper limb		combined observed	tion or schistosity, and cleavage) may be bined with linear symbols to record data reved at same locality by superimposed bols at point of observation. Coexisting at symbols are shown intersecting at point observation.	
	<del>-                                    </del>	Overturned anticline – showing direction of dip of limbs		planar sy		
					Vertical shaft	
		Syncline — showing direction of plunge; dashed where approximately located; dotted where concealed  Asymmetric syncline — short arrow indicates steeper limb			Inclined shaft	
				<b>&gt;</b>	Portal of adit, tunnel, or slope	
				<b>&gt;</b> —	Inaccessible adit, tunnel, or slope	
				x	Prospect pit	
	<del>-u</del>	Overturned syncline – showing direction of dip of limbs		0	Drilling well	
		Monocline - showing direction of plunge of axis		<b>-</b> \$-	Dry hole or abandoned well	
				*	Gas well	
-				•	Oil well	
				+	Well, show of oil	
	<del>-&gt;→</del> 20	Minor anticline - showing plunge of axis		*	Well, show of gas	
	<del>-€</del> •60	Minor syncline — showing plunge of axis		þ	Shut-in-well	