

2025

This time-rock chart illustrates the absolute ages, relative stratigraphic relations, and correlations of significant bedrock geologic map units found at the surface and in the subsurface in the Southeast region of the state of Oregon. As defined here, the Southeast region includes the area bounded by U.S. Highway 20 on the north, the Idaho state border on the east, the Nevada state border on the southeast, the California state border on the southwest, and U.S. Highway 97 on the west.

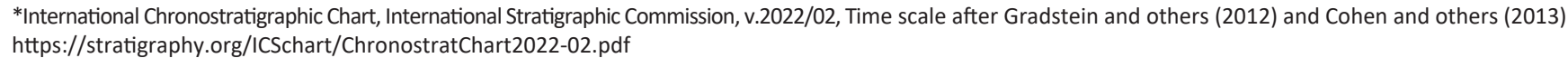
Geologic map units are derived from the statewide Oregon Geologic Data Compilation (OGDC-8) and include formally recognized geologic groups, formations, and members, as well as some informal rock units. Each unit in OGDC-8 is assigned a unique "Compilation Unit Name" and abbreviated "Compilation Unit Label" that combines its higher-order "Terrane/Group" classification (in uppercase letters) with its lower-order-unit formation classification (in lowercase letters). The terms used here for Compilation Unit Name and Terrane/Group are a mixture of formal stratigraphic names, informal stratigraphic names, and—especially for many young volcanic units—geographic

names of eruptive centers. Some informal names used here have wide currency and a form (geographic name combined with rank or descriptive term) reserved for formal names; their informal status is denoted by a lowercase rank or descriptive term followed by an asterisk, e.g., Trout Creek formation*.

In the legend, map units are arranged alphabetically by their Compilation Unit Label for ease of reference with the chart. Colors correspond with each unit's Terrain/Group. On the chart, map units are arranged vertically by their age of deposition or emplacement, and horizontally from west to east within the Southeast region; because many units extend laterally over significant portions of the region, their horizontal relationships are not always apparent. Although lateral and vertical relationships and stratigraphic relations among units are not easily represented in this format, the main purpose of this chart is to illustrate the absolute age spans and temporal relations among various map units in the Southeast region.

A map of the Iberian Peninsula with the study area highlighted in green in the southeast (SE). The rest of the peninsula is divided into four regions: Northwest (NW), Northeast (NE), Southwest (SW), and Central (C). A scale bar at the top indicates distances of 0, 50, and 100 km.

Note that Quaternary surficial deposits shown in white are not included on the time-rock chart below



Compilation Unit Label	Compilation Unit Name	Terrane/Group	Bedrock Areal Coverage in Region (%)
CRtrr	Hunter Creek Basalt	Columbia River Basalt Group	11.9
CRmg	basalt of Malheur Gorge		
CRfb	Steens Basalt		
CRvr	basalt of Venator Ranch		
HBVdv	Devine Canyon Ashflow Tuff	Harney Basin volcanic field	8.4
HBVhar	Harney Formation		
HBVpc	Prater Creek Ashflow Tuff		
HBVrt	Rattlesnake Ashflow Tuff		
HBVsnc	Silvies River caldera		
HBVwts	tuff of Wheeler Springs		
HLPBss	basalt of High Lava Plains volcanic province	High Lava Plains volcanic province	10.4
HLPrdb	Duck Creek Butte eruptive center		
HLPdww	Drinkwater Basalt		
HLPrbv	Frederick Butte volcanic center		
HLPrbv	olive basalt of Gum Boot Canyon		
HLPrdb	soda rhyolite of Golden Ranch		
HLPrdh	basalt of Harney Lake		
HLPrim	rhyolite of Iron Mountain		
HLPrj	volcanic rocks of Juniper Ridge		
HLPrpb	rhyolite of Palomino Butte		
HLPrpb	rhynchite of Burns Butte		
HLPrpy	rhyolite of High Lava Plains volcanic province		
HLPrun	High Lava Plains volcanic province, undifferentiated		
IGbrn	Bruneau Formation	Idaho Group	0.9
IGgf	Glenns Ferry Formation		
JDCLevol	volcanic rocks of Clarno Formation	John Day / Clarno package	0.7
JDCJld	John Day Formation		
JDCJldvol	volcanic rocks of John Day Formation		
JDCJlun	John Day-Clarno package, undivided		
LHCben	tuffs of Bend	late High Cascade Volcanics	1.6
LHCcpl	lavas of Cascade platform		
LHCmzv	Mazama volcano		
LHCwl	lavas of late High Cascade Volcanics		
NSRdwy	Drewsey Formation	Neogene sedimentary rocks	8.2
NSRpiv	pluvial lake valley deposits		
NSRtc	Trout Creek formation*		
NSRun	Neogene sedimentary rocks, undifferentiated		
NRdskp	rhyolite of Drake Peak		
NRgbc	volcanic complex of Glass Buttes		
NRKs	Keeney Sequence	Neogene volcanic rocks	16.0
NRpdt	Push Tuff		
NRsrmv	Steens Mountain Volcanics		
NRtp	Tins Peak Basalt		
NRtp	Neogene volcanic rocks, undifferentiated		
NRRun			
OGbyc	Bully Creek Formation	Oregon-Idaho graben	2.3
OGKb	tuff of Kern Basin		
OGSrtf	lower sedimentary rocks of Oregon-Idaho graben		
OGSrtu	upper sedimentary rocks of Oregon-Idaho graben		
PRgbsb	Bliss Creek Formation	Paleogene volcanic rocks	0.8
PRgpcp	volcanic rocks of Warner Peak		
PRgssd	Alford Creek Formation		

Oregon Geologic Data Compilation, Release 8 (OGDC-8)

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Compilation Unit Label	Compilation Unit Name	Terrane/Group	Bedrock Areal Coverage in Region (%)
PMC	Pueblo Mountain metamorphic complex*	Pueblo Mountain metamorphic complex*	< 0.1
QVddc	volcanic rocks of Diamond Craters	Quaternary volcanics	9.6
QVjrd	volcanic rocks of Jordan Craters		
QVnby	Newberry Volcano		
QVMg	basalt of Voltage		
STRbl	Strawberry Volcanics, undifferentiated	Strawberry Volcanics	0.6
WVFabv	volcanic rocks of Applegate Butte	Winema volcanic field	21.4
WVFbld	Bald Mountain volcanic center		
WVFbly	Bly Mountain volcano		
WVFbry	Bryant Mountain Volcanics		
WVFbug	Bug Butte Volcanics		
WVFcal	Calinus Butte volcano		
WVFcav	Cave Mountain volcano		
WVFcks	volcanic rocks of Cooks Mountain		
WVFCor	Corbell Butte volcano		
WVFdrv	Deadhorse Rim volcano		
WVFedg	Edgewood Mountain volcano		
WVFfeg	Fuego Mountain volcano		
WVFfos	Foster Butte volcano		
WVFght	Gearhart Mountain volcano		
WVFgso	Goodlow Mountain volcano		
WVFhop	Hopper Hill volcano		
WVFktv	volcanic rocks of Knot Tableland		
WVFmed	Medicine Mountain volcano		
WVFmoyn	Moyina Hill volcano		
WVFnay	Naylox Mountain volcano		
WVFritv	Riverbed Butte volcano		
WVFrnd	Round Mountain volcano		
WVFslv	Soloman Butte volcano		
WVFstd	Saddle Mountain volcano		
WVFspd	Spodie Mountain volcano		
WVFstr	sedimentary rocks of Winema volcanic field		
WVFvcl	lower volcanic rocks of Winema volcanic field		
WVFvclv	upper volcanic rocks of Winema volcanic field		
WVFyam	Yamsey Mountain volcano		
WVFynx	Yainax Butte volcano		
YELbch	tuff of Birch Creek	silicic rocks of Yellowstone hotspot	7.6
YELbuc	Buchanan ashflow tuff*		
YELdc	Dinner Creek Ashflow Tuff		
YELhmn	lavas of Horsehead Mountain		
YELic	Idaho Canyon Tuff		
YELjnp	Jump Creek Rhyolite		
YELieg	Leslie Gulch Ashflow Tuff		
YELiff	Littlefield Rhyolite		
YELmdv	McDermitt volcanic field		
YELoc	tuff of Oregon Canyon		
YELrdc	rhyolite of Dry Creek		
YELrhy	rhyolite of Yellowstone hotspot		
YELtcm	tuff of Trout Creek Mountains		
YELsw	Swisher Mountain Tuff		
YELtir	tuff of Long Ridge		
YELwcc	Wildcat Creek Welded Tuff		
YELwhc	tuff of Whitehorse Creek		
YELsw	Swisher Mountain Tuff		



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