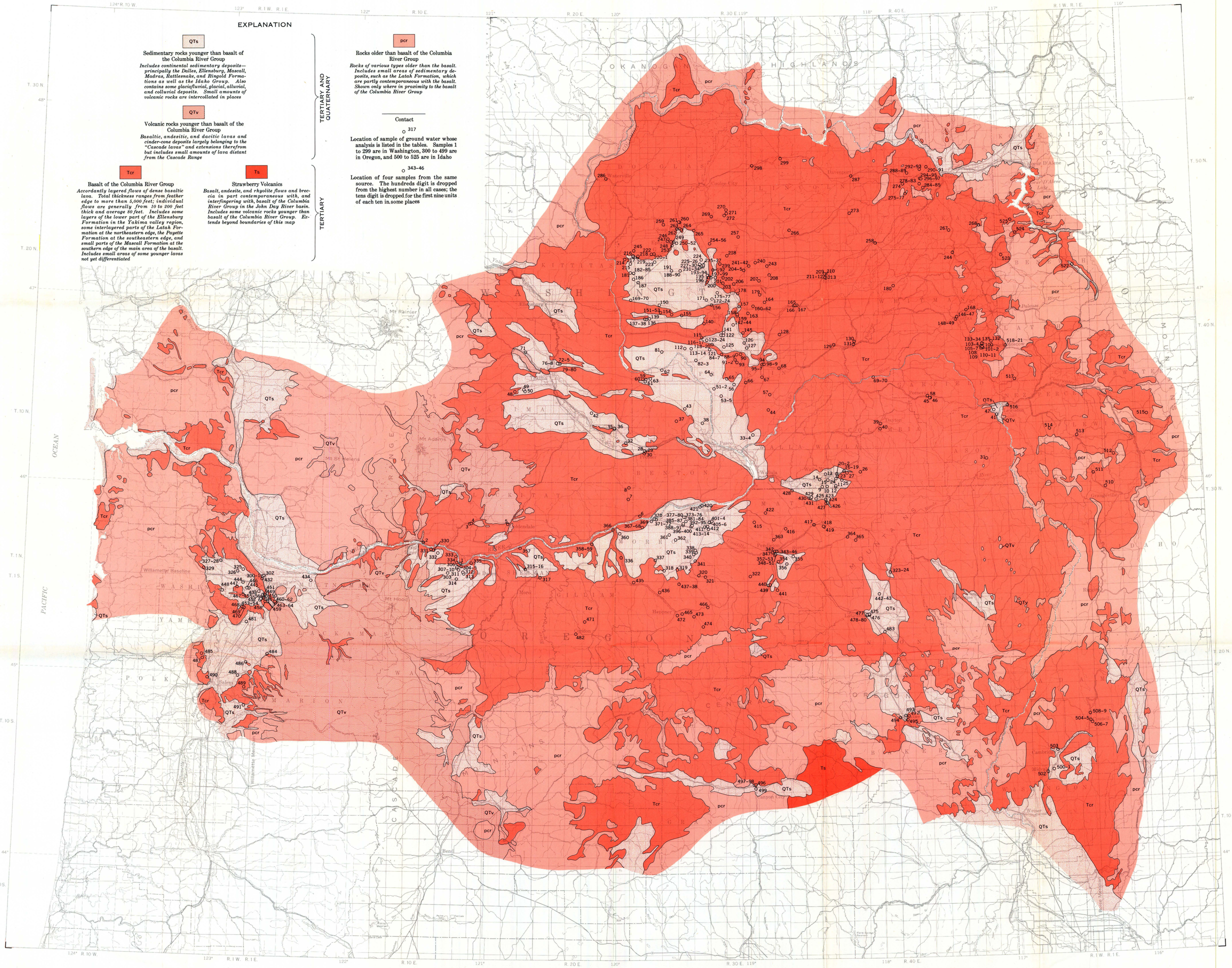
EXPLANATION
QTs
Sedimentary rocks younger than basalt of the Columbia River Group
Includes continental sedimentary deposits—principally the Dalles, Ellensburg, Mascall, Madras, Rattlesnake, and Ringold Formations as well as the Idaho Group. Also contains some glaciofluvial, glacial, alluvial, and colluvial deposits. Small amounts of volcanic rocks are intercollated in places
QTv
Volcanic rocks younger than basalt of the Columbia River Group
Basaltic, andesitic, and dacitic lavas and cinder-cone deposits largely belonging to the "Cascade lavas" and extensions therefrom but includes small amounts of lava distant from the Cascade Range
TERTIARY AND QUATERNARY
Tcr
Basalt of the Columbia River Group
Accordantly layered flows of dense basaltic lava. Total thickness ranges from feather edge to more than 5,000 feet; individual flows are generally from 10 to 200 feet thick and average 80 feet. Includes some layers of the lower part of the Ellensburg Formation in the Yakima valley region, some interlayered parts of the Latah Formation at the northeastern edge, the Payette Formation at the southeastern edge, and small parts of the Mascall Formation at the southern edge of the main area of the basalt. Includes small areas of some younger lavas not yet differentiated
Ts
Strawberry Volcanics
Basalt, andesite, and rhyolite flows and breccia in part contemporaneous with, and interfingering with, basalt of the Columbia River Group in the John Day River basin. Includes some volcanic rocks younger than basalt of the Columbia River Group. Extends beyond boundaries of this map
TERTIARY
pcr
Rocks older than basalt of the Columbia River Group
Rocks of various types older than the basalt. Includes small areas of sedimentary deposits, such as the Latah Formation, which are partly contemporaneous with the basalt. Shown only where in proximity to the basalt of the Columbia River Group
Contact
317
Location of sample of ground water whose analysis is listed in the tables. Samples 1 to 299 are in Washington, 300 to 499 are in Oregon, and 500 to 525 are in Idaho
343-46
Location of four samples from the same source. The hundreds digit is dropped from the highest number in all cases; the tens digit is dropped for the first nine units of each ten in some places
OKANOGAN HIGHLANDS
WASHINGTON
OREGON
IDAHO
PACIFIC OCEAN
Mt Rainier
Mt St Helens
Mt Adams
Spokane
Yakima
Pasco
Walla Walla
Lewiston
Moscow
Pullman
Ellensburg
Wenatchee
Moses Lake
Ephrata
Coulee City
Davenport
Waterville
Coeur D'Alene
Kellogg
Wallace
Grangeville
Cambridge
Weiser
Baker
Ontario
Pendleton
Hermiston
Boardman
Heppner
Condon
Moro
Madras
Bend
Prineville
Redmond
Sisters
Sandy
Portland
Salem
Willamette Baseline
Willamette Meridian
Boise Meridian
Columbia River
Snake River
Yakima River
Palouse River
Clearwater River
Willamette River
Deschutes River
John Day River
Grande Ronde River
Owyhee River
Malheur River
Boise River
Payette River
Salmon River
Clearwater River
Coeur D'Alene Lake
Pend Oreille Lake
Lake Chelan
Lake Roosevelt
Lake Pend Oreille
Lake Cascade
Lake Owyhee
Lake Harney
Malheur Lake
Silver Lake
Crater Lake
Upper Klamath Lake
Lake Abert
Warner Lakes
Harney Basin
Malheur Basin
Silver Lake Basin
Crater Lake Basin
Upper Klamath Lake Basin
Lake Abert Basin
Warner Lakes Basin