

**Geologic Units in the Centralia 1:100,000 Quadrangle (see explanatory note at bottom of spreadsheet)**

Old Symbol	New Symbol	Age	Lithology	Named Unit
---	wtr	---	water	---
Qal	Qa	Holocene	alluvium	---
Qde	Qad(e)	Pleistocene	alpine glacial drift, Fraser-age	Evans Creek Drift
Qdem	Qad(e)	Pleistocene	alpine glacial drift, Fraser-age	Evans Creek Drift
Qdet	Qat(e)	Pleistocene	alpine glacial till, Fraser-age	Evans Creek Drift, till deposits
Qdh	Qap(h)	Pleistocene	alpine glacial drift, pre-Fraser	Hayden Creek Drift
Qdht	Qapt(h)	Pleistocene	alpine glacial till, pre-Fraser	Hayden Creek Drift, till deposits of
Qdp	Qgp	Pleistocene	continental glacial drift, pre-Fraser	---
Qdv	Qgd	Pleistocene	continental glacial drift, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
Qdva	Qga	Pleistocene	advance continental glacial outwash, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
Qdvg	Qgog	Pleistocene	continental glacial outwash, gravel, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
Qdvm	Qgm	Pleistocene	continental glacial moraines, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
Qdvo	Qgo	Pleistocene	continental glacial outwash, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
Qdvs	Qgos	Pleistocene	continental glacial outwash, sand, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
Qdvt	Qgt	Pleistocene	continental glacial till, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
Qdw	Qap(wh)	Pleistocene	alpine glacial drift, pre-Fraser	Wingate Hill Drift
Qdwt	Qapt(wh)	Pleistocene	alpine glacial till, pre-Fraser	Wingate Hill Drift, till deposits of
Qlc	Qvl(lc)	Pleistocene	lahars	Lily Creek Formation, mudflows of
Qlh	Qapo(lh)	Pleistocene	alpine glacial outwash, pre-Fraser	Logan Hill Formation
Qls	Qls	Holocene	mass-wasting deposits, mostly landslides	---
Qme	Qvl(e)	Holocene	lahars	Electron Mudflow
Qoe	Qao(e)	Pleistocene	alpine glacial outwash, Fraser-age	Evans Creek Drift, outwash deposits of
Qoh	Qapo(h)	Pleistocene	alpine glacial outwash, pre-Fraser	Hayden Creek Drift, outwash deposits of
Qohe	Qapo(he)	Pleistocene	alpine glacial outwash, pre-Fraser	pre-Evans Creek, post-Hayden Creek deposits
Qow	Qapo(wh)	Pleistocene	alpine glacial outwash, pre-Fraser	Wingate Hill Drift, outwash deposits of
Qp	Qp	Holocene	peat deposits	---
Qvmr	Qva(mr)	Pleistocene	andesite flows	Mount Rainier, andesite of
Tcr	Ev(c)	Eocene, lower to middle	basalt flows and flow breccias, Crescent Formation	Crescent Formation
Tcrs	Em(1c)	Eocene, lower to middle	marine sedimentary rocks	Crescent Formation, sedimentary rocks of
Tgo(1)	OEvc(g)	Oligocene-Eocene	volcaniclastic deposits or rocks	Goble Volcanics
Tgo(2)	OEvba(g)	Oligocene-Eocene	basaltic andesite flows	Goble Volcanics
Tgr	Mv(g)	Miocene, middle	basalt flows (Grande Ronde Basalt, undivided [CRB])	Grande Ronde Basalt, Columbia River Basalt Group
Tia	MOian	Miocene-Oligocene	intrusive andesite	---
Tib	MOib	Miocene-Oligocene	basic intrusive rocks	---
Tid	MOiad	Miocene-Oligocene	intrusive andesite and dacite	---
Tidi	MOid	Miocene-Oligocene	diorite	---
Tigb	MOigb	Miocene-Oligocene	gabbro	---
Tir	Mir	Miocene	intrusive rhyolite	---
Tlc	OEm(lc)	Oligocene-Eocene	marine sedimentary rocks	Lincoln Creek Formation
Tmc	Em(2m)	Eocene, middle to upper	marine sedimentary rocks	McIntosh Formation
Tmh	Mc(m)	Miocene, middle to upper	continental sedimentary deposits or rocks	Mashel Formation
Tno	Eva(n)	Eocene	andesite flows	Northcraft Formation
Tno(g)	Ev(n)	Eocene, middle to upper	volcaniclastic deposits or rocks	Northcraft Formation
Toh	Ovc(oh)	Oligocene	volcaniclastic deposits or rocks	Ohanapecosh Formation

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Tpg	Ec(2pg)	Eocene	continental sedimentary deposits or rocks	Puget Group
Tsk	En(sk)	Eocene, middle to upper	nearshore sedimentary rocks	Skookumchuck Formation
Tva	OEvba	Oligocene-Eocene	basaltic andesite flows	---
Tva(0)	Eva	Eocene	andesite flows	---
Tva(2)	Ova	Oligocene	andesite flows	---
Tva(3)	Mvba(1)	Miocene, lower	basaltic andesite flows	---
Tvb(3)	Mvb(1)	Miocene, lower	basalt flows	---
Tvc	OEvc	Oligocene-Eocene	volcaniclastic deposits or rocks	---
Tvc(0)	Evc	Eocene	volcaniclastic deposits or rocks	---
Tvc(3)	Mvc(1)	Miocene, lower	volcaniclastic deposits or rocks	---
Tvt	OEvt	Oligocene-Eocene	tuffs and tuff breccias	---
Tvta	OEvba	Oligocene-Eocene	basaltic andesite flows	---
Twk	Mc(w)	Miocene, middle to upper	continental sedimentary deposits or rocks	Wilkes Formation

Washington Division of Geology and Earth Resources Open File Report 87-11, Geologic map of the Centralia quadrangle, Washington, compiled by Henry W. Schasse, was released before the Division adopted a standard symbology for geologic units to be portrayed in 1:100,000, 1:250,000, and 1:500,000 geologic maps of Washington State. Therefore the geologic unit symbology on this map and in the accompanying text does not match that found on many later geologic maps that include the Centralia 1:100,000 quadrangle. This makes it more difficult for the user to, for example, compare geologic unit descriptions between this map and others that have different symbols for the same unit or to compile a description for a geologic unit that occurs in more than one 1:100,000 quadrangle. This table is included to make it easier to relate the units on this map with units on later maps that use the standard symbology. The column headed "Old Symbol" lists the units on this map alphabetically. The column headed "New Symbol" lists the same units expressed in the standard symbology.

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