

**Geologic Units in the South Half of the Tacoma 1:100,000 Quadrangle (See explanatory note at bottom of spreadsheet)**

Old Symbol	New Symbol	Age	Lithology	Named Unit
---	wtr	---	water	---
N.A.(N. Half)	Ec	Eocene	continental sedimentary deposits or rocks	---
N.A.(N. Half)	Ec(2pg)	Eocene	continental sedimentary deposits or rocks	Puget Group
N.A.(N. Half)	Ec(2r)	Eocene	continental sedimentary deposits or rocks	Renton Formation, Puget Group
N.A.(N. Half)	Ec(2t)	Eocene	continental sedimentary deposits or rocks	Tiger Mountain Formation, Puget Group
N.A.(N. Half)	Eian	Eocene	intrusive andesite	---
N.A.(N. Half)	Em(2)	Eocene, middle to upper	marine sedimentary rocks	---
N.A.(N. Half)	Evc(t)	Eocene	volcaniclastic deposits or rocks	Tukwila Formation, Puget Group
N.A.(N. Half)	Mc	Miocene	continental sedimentary deposits or rocks	---
N.A.(N. Half)	OEm	Oligocene-Eocene	marine sedimentary rocks	---
N.A.(N. Half)	OEva	Oligocene-Eocene	andesite flows	---
N.A.(N. Half)	Oian	Oligocene	intrusive andesite	---
N.A.(N. Half)	Qapo	Pleistocene	alpine glacial outwash, pre-Fraser	---
N.A.(N. Half)	Qb	Holocene	beach deposits	---
N.A.(N. Half)	Qc	Pleistocene	continental sedimentary deposits or rocks	---
N.A.(N. Half)	Qgac	Pleistocene	advance continental glacial outwash, silt and clay, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
N.A.(N. Half)	Qgas	Pleistocene	advance continental glacial outwash, sand, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
N.A.(N. Half)	Qgl	Pleistocene	glaciolacustrine deposits, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
N.A.(N. Half)	Qgpc	Pleistocene	continental glacial drift, pre-Fraser, and nonglacial deposits	---
N.A.(N. Half)	Qoa	Pleistocene	alluvium, older	---
<b>Qad</b>	Qc(a)	Pleistocene	continental sedimentary deposits or rocks	Alderton Formation
<b>Qal</b>	Qa	Holocene	alluvium	---
<b>Qal</b>	Qf	Holocene	artificial fill, including modified land	Occurs in south half of quadrangle; labeled Qal on OFR87-03
<b>Qde</b>	Qad(e)	Pleistocene	alpine glacial drift, Fraser-age	Evans Creek Drift
<b>Qdh</b>	Qap(h)	Pleistocene	alpine glacial drift, pre-Fraser	Hayden Creek Drift
<b>Qdo</b>	Qgp(o)	Pleistocene	continental glacial drift, pre-Fraser	Orting Drift
<b>Qdp</b>	Qgp	Pleistocene	continental glacial drift, pre-Fraser	---
<b>Qds</b>	Qgp(s)	Pleistocene	continental glacial drift, pre-Fraser	Salmon Springs Drift
<b>Qdst</b>	Qgp(st)	Pleistocene	continental glacial drift, pre-Fraser	Stuck Drift
<b>Qdv</b>	Qgd	Pleistocene	continental glacial drift, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
<b>Qdva</b>	Qga	Pleistocene	advance continental glacial outwash, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
<b>Qdvm</b>	Qgm	Pleistocene	continental glacial moraines, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
<b>Qdvs</b>	Qgos	Pleistocene	continental glacial outwash, sand, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
<b>Qdvt</b>	Qgt	Pleistocene	continental glacial till, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
<b>Qdvt</b>				In unit descriptions; not on map
<b>Qdw</b>	Qap(wh)	Pleistocene	alpine glacial drift, pre-Fraser	Wingate Hill Drift
<b>Qk</b>	Qc(k)	Pleistocene	continental sedimentary deposits or rocks	Kitsap Formation
<b>Qlc</b>	Qvl(lc)	Pleistocene	lahars	Lily Creek Formation, mudflows of
<b>Qls</b>	Qls	Holocene	mass-wasting deposits, mostly landslides	---
<b>Qme</b>	Qvl(e)	Holocene	lahars	Electron Mudflow
<b>Qmo</b>	Qvl(o)	Holocene	lahars	Osceola Mudflow
<b>Qp</b>	Qp	Holocene	peat deposits	---
<b>Qpu</b>	Qc(p)	Pleistocene	continental sedimentary deposits or rocks	Puyallup Formation
<b>Qsk</b>	Qoa(sk)	Pleistocene	alluvium, older	Skokomish Gravel
<b>Qu</b>	Qgo	Pleistocene	continental glacial outwash, Fraser-age	mostly Vashon Stade in western WA; unnamed in eastern WA
<b>Tca</b>	Ec(2c)	Eocene, middle to upper	continental sedimentary deposits or rocks	Carbonado Formation
<b>Tcr</b>	Ev(c)	Eocene, lower to middle	basalt flows and flow breccias, Crescent Formation	Crescent Formation
<b>Tia</b>	MOian	Miocene-Oligocene	intrusive andesite	---
<b>Til</b>	Mii	Miocene, middle to upper	intermediate intrusive rocks	---
<b>Tno</b>	Evc(n)	Eocene, middle to upper	volcaniclastic deposits or rocks	Northcraft Formation
<b>Toh</b>	Ovc(oh)	Oligocene	volcaniclastic deposits or rocks	Ohanapecosh Formation
<b>Tsi</b>	Ec(2s)	Eocene, upper	continental sedimentary deposits or rocks	Spiketon Formation
<b>Tvs</b>	Mvc	Miocene	volcaniclastic deposits or rocks	---

Washington Division of Geology and Earth Resources Open File Report 87-03, Geologic map of the south half of the Tacoma quadrangle, Washington and Oregon, compiled by Timothy J. Walsh, 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 south half of the Tacoma 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.