

# Santa Barbara Geologic Labels

ptype	name	source_ptype	source_name	source_age
af	Artificial Fill	af	Artificial fill	Holocene
af	Artificial Fill	af	Artificial fill	latest Holocene
af	Artificial Fill	alf	Artificial levee/fill	latest Holocene
Qsu	Undifferentiated Surficial Deposits; includes colluvium, slope wash, talus deposits, and other surface deposits of all	Qc	Colluvium	Holocene and upper Pleistocene
Qls	Landslide Deposits; may include debris flows and older landslides	Qdf	Debris flow deposits	Holocene and upper Pleistocene?
Qls	Landslide Deposits; may include debris flows and older landslides	Qls	Landslide deposits	Holocene and Pleistocene
Qls	Landslide Deposits; may include debris flows and older landslides	Qls	Landslide deposits	Holocene and Pleistocene
Qls	Landslide Deposits; may include debris flows and older landslides	Qls?	Landslide deposits, uncertain	Holocene and Pleistocene
Qls	Landslide Deposits; may include debris flows and older landslides	Qls?	Landslide deposits, uncertain	Holocene and Pleistocene
Qls	Landslide Deposits; may include debris flows and older landslides	Qls-scarp	Landslide scarp	Holocene and Pleistocene
Qb	Beach Deposits	Qb	Beach deposits	Holocene
Qb	Beach Deposits	Qb	Marine beach deposits	Holocene
Qw	Alluvial Wash Deposits	Qhw1	Young wash deposits	Holocene
Qw	Alluvial Wash Deposits	Qhw2	Young wash deposits	Holocene
Qw	Alluvial Wash Deposits	Qhw3	Young wash deposits	Holocene
Qw	Alluvial Wash Deposits	Qw	Wash deposit	late Holocene
Qw	Alluvial Wash Deposits	Qw1	Wash deposit	late Holocene
Qf	Alluvial Fan Deposits	Qac	Alluvium and colluvium	Holocene and upper Pleistocene
Qf	Alluvial Fan Deposits	Qf	Young alluvial fan deposits	late Holocene and Holocene
Qf	Alluvial Fan Deposits	Qhf	Young alluvial fan deposits	late Holocene
Qf	Alluvial Fan Deposits	Qhfy	Alluvial fan deposits	latest Holocene
Qa	Alluvial Valley Deposits	Qa	Active channel alluvium	Holocene
Qa	Alluvial Valley Deposits	Qha	Young colluvial flood-plain deposits	late Holocene
Qt	Terrace Deposits; includes marine and stream terrace deposits	Qhps	Paralic deposits, sea cliff terrace	Holocene
Qt	Terrace Deposits; includes marine and stream terrace deposits	Qht	Holocene stream terrace	Holocene and latest Holocene

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Qt	Terrace Deposits; includes marine and stream terrace deposits	Qht1	Holocene stream terrace	Holocene
Qt	Terrace Deposits; includes marine and stream terrace deposits	Qht3	Holocene stream terrace	Holocene
Qt	Terrace Deposits; includes marine and stream terrace deposits	Qpmw	Mass wasting on terrace	Holocene
Qt	Terrace Deposits; includes marine and stream terrace deposits	Qppp	Paralic deposits on terrace	Holocene
Ql	Lacustrine, Playa and Estuarine (Paralic) Deposits	Qe	Estuarine deposits	Holocene
Ql	Lacustrine, Playa and Estuarine (Paralic) Deposits	Qes	Very young estuarine deposits	late Holocene
Ql	Lacustrine, Playa and Estuarine (Paralic) Deposits	Ql	Lacustrine deposits	late Holocene
Qe	Eolian and Dune Deposits	Qds	Dune sand	Holocene
Qe	Eolian and Dune Deposits	Qe	Young eolian deposits	late Holocene
Qyf	Young Alluvial Fan Deposits	Qhff	Alluvial fan deposits, fine	Holocene
Qya	Young Alluvial Valley Deposits	Qha1	Alluvial deposits	Holocene
Qya	Young Alluvial Valley Deposits	Qha2	Alluvial deposits	Holocene
Qya	Young Alluvial Valley Deposits	Qha3	Alluvial deposits	Holocene
Qof	Old Alluvial Fan Deposits	Qpf	Old alluvial fan deposits	late Pleistocene
Qof	Old Alluvial Fan Deposits	Qpf1	Old alluvial fan deposits	late to middle Pleistocene
Qof	Old Alluvial Fan Deposits	Qpf2	Old alluvial fan deposits	late to middle Pleistocene
Qoa	Old Alluvial Valley Deposits	Qia	Intermediate alluvial deposits	upper Pleistocene
Qoa	Old Alluvial Valley Deposits	Qia?	Intermediate alluvial deposits, uncertain	upper Pleistocene
Qoa	Old Alluvial Valley Deposits	Qoa	Older alluvial deposits	upper and middle Pleistocene
Qoa	Old Alluvial Valley Deposits	Qoa	Older alluvium	late to middle Pleistocene
Qoa	Old Alluvial Valley Deposits	Qoa?	Older alluvial deposits, uncertain	upper and middle Pleistocene
Qoa	Old Alluvial Valley Deposits	Qpa	Old alluvial plain deposits	Pleistocene
Qoa	Old Alluvial Valley Deposits	Qpa1	Old alluvial plain deposits	Pleistocene
Qoa	Old Alluvial Valley Deposits	Qpa2	Old alluvial plain deposits	Pleistocene
Qot	Old Terrace Deposits	Qmt	Marine-terrace deposits	upper Pleistocene
Qot	Old Terrace Deposits	Qmt?	Marine-terrace deposits, uncertain	upper Pleistocene

ptype	name	source_ptype	source_name	source_age
Qss	Coarse-grained formations of Pleistocene age and younger	Qbx	Shale-clast sedimentary breccia	middle Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qca	Casitas Formation, poorly consolidated sandstone, siltstone	upper and middle Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qca	Casitas Formation, poorly consolidated sandstone, siltstone	late to middle Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qca?	Casitas Formation, uncertain	upper and middle Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qcg	Conglomeratic unit	middle and lower Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qlp	Las Posas Formation, weakly consolidated sandstone	Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qs	Saugus Formation, weakly consolidated alluvial deposits	Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qsbc	Santa Barbara Conglomerate	Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qss	Sandstone unit	lower Pleistocene?
Qsh	Fine-grained formations of Pleistocene age and younger	Qas	Asphalt deposits	Holocene
Qsh	Fine-grained formations of Pleistocene age and younger	Qsb	Santa Barbara Formation, fine- to medium-grained sandstone	middle and lower Pleistocene
Qsh	Fine-grained formations of Pleistocene age and younger	Qsb	Santa Barbara Claystone	Pleistocene
Qsh	Fine-grained formations of Pleistocene age and younger	Qsb?	Santa Barbara Formation, uncertain	middle and lower Pleistocene
Qsh	Fine-grained formations of Pleistocene age and younger	QTst	Siltstone unit	lower Pleistocene and upper Pliocene?
Qsh	Fine-grained formations of Pleistocene age and younger	QTst?	Siltstone unit, uncertain	lower Pleistocene and upper Pliocene?
Tss	Coarse-grained Tertiary age formations	Tcw	Coldwater Sandstone	upper? and middle Eocene
Tss	Coarse-grained Tertiary age formations	Tcw	Coldwater Formation, sandstone facies	late Eocene
Tss	Coarse-grained Tertiary age formations	Tjs	Juncal Formation, sandstone facies	middle to early Eocene
Tss	Coarse-grained Tertiary age formations	Tma	Matilija Formation, sandstone facies	late to middle Eocene
Tss	Coarse-grained Tertiary age formations	Tp?	Pliocene, undifferentiated	Pliocene
Tss	Coarse-grained Tertiary age formations	Tps	Pico Formation, sandstone facies	Pliocene

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Tss	Coarse-grained Tertiary age formations	Tpsc	Pico and Sycamore Canyon Formations, sandstone, conglomerate	Pliocene
Tss	Coarse-grained Tertiary age formations	Ts	Sespe Formation, sandstone and mud	Oligocene
Tss	Coarse-grained Tertiary age formations	Tspl	Sespe Formation, lower conglomerate and sandstone unit	lower Oligocene? and upper Eocene
Tss	Coarse-grained Tertiary age formations	Tspm	Sespe Formation, middle conglomerate and sandstone unit	Oligocene
Tss	Coarse-grained Tertiary age formations	Tspu	Sespe Formation, upper sandstone and mudstone unit	upper Oligocene
Tss	Coarse-grained Tertiary age formations	Tts	Topanga Formation, sandstone facies	middle to early Miocene
Tss	Coarse-grained Tertiary age formations	Tv	Vaqueros Formation, sandstone	upper Oligocene
Tss	Coarse-grained Tertiary age formations	Tv	Vaqueros Formation, sandstone	early Miocene
Tss	Coarse-grained Tertiary age formations	Tvs	Vaqueros and Sespe Formations, sandstone	Miocene and Oligocene
Tsh	Fine-grained Tertiary age formations	Tcd	Cozy Dell Shale	late Eocene
Tsh	Fine-grained Tertiary age formations	Tcwsh	Coldwater Formation, shale facies	late Eocene
Tsh	Fine-grained Tertiary age formations	Tj	Juncal Formation, shale facies	middle to early Eocene
Tsh	Fine-grained Tertiary age formations	Tm	Monterey and Modelo Formations, diatomaceous shale and shale	Miocene
Tsh	Fine-grained Tertiary age formations	Tmash	Matilija Formation, shale facies	late to middle Eocene
Tsh	Fine-grained Tertiary age formations	Tmb	Modelo Formation, shale facies	Miocene
Tsh	Fine-grained Tertiary age formations	Tml	Monterey Formation, lower calcareous unit	middle and lower Miocene
Tsh	Fine-grained Tertiary age formations	Tml?	Monterey Formation, lower calcareous unit, uncertain	middle and lower Miocene
Tsh	Fine-grained Tertiary age formations	Tmlb	Monterey Formation, breccia facies	middle? and lower Miocene
Tsh	Fine-grained Tertiary age formations	Tmm	Monterey Formation, middle shale unit	upper and middle Miocene
Tsh	Fine-grained Tertiary age formations	Tmu	Monterey Formation, upper siliceous unit	upper Miocene
Tsh	Fine-grained Tertiary age formations	Tmu?	Monterey Formation, upper siliceous unit, uncertain	upper Miocene
Tsh	Fine-grained Tertiary age formations	Tmy	Monterey Formation, shale, mudstone, dolomite	late Miocene
Tsh	Fine-grained Tertiary age formations	Tmy?	Monterey Formation, uncertain	early Miocene
Tsh	Fine-grained Tertiary age formations	Tmyl	Monterey Formation, lower section, thin bedded shale	early Miocene

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Tsh	Fine-grained Tertiary age formations	Tmyu	Monterey Formation, upper section, siliceous thin bedded shale	middle and late Miocene
Tsh	Fine-grained Tertiary age formations	Tp	Pico Formation, clay facies, claystone, siltstone and sandstone	Pliocene
Tsh	Fine-grained Tertiary age formations	Tr	Rincon Shale	lower Miocene
Tsh	Fine-grained Tertiary age formations	Tr	Rincon Shale	Miocene
Tsh	Fine-grained Tertiary age formations	Trs	Rincon Shale, siliceous shale interval	lower Miocene
Tsh	Fine-grained Tertiary age formations	Tsq	Sisquoc Formation, mudstone and shale facies	lower Pliocene and upper Miocene
Tsh	Fine-grained Tertiary age formations	Tsq	Sisquoc Formation, mud and shale facies	Pliocene and Miocene
Tsh	Fine-grained Tertiary age formations	Tt	Topanga Group, undivided, siltstone, shale and sandstone	Pliocene and Miocene
Tsh	Fine-grained Tertiary age formations	Tu	Unnamed mudstone	upper Miocene
Tv	Tertiary age formations of volcanic origin	Ta	Andesite sill	Miocene
Tv	Tertiary age formations of volcanic origin	Tcvab	Conejo Volcanics, andesitic flow breccia	middle Miocene
Tv	Tertiary age formations of volcanic origin	Tcvadb	Conejo Volcanics, andesitic and basaltic flow breccias	middle Miocene
Tv	Tertiary age formations of volcanic origin	Tcvai	Conejo Volcanics, andesite	middle Miocene
Tv	Tertiary age formations of volcanic origin	Tcvb	Conejo Volcanics, basaltic flows	middle Miocene
Tv	Tertiary age formations of volcanic origin	Tcvbb	Conejo Volcanics, basaltic flow breccia	middle Miocene
Tv	Tertiary age formations of volcanic origin	Tcvbs	Conejo Volcanics, basalt interbedded with sandstone, siltstone	middle Miocene
Tv	Tertiary age formations of volcanic origin	Tcvdb	Conejo Volcanics, dacitic flow breccia	middle Miocene
Tv	Tertiary age formations of volcanic origin	Tcvdi	Conejo Volcanics, intrusive dacitic rock	middle Miocene
Kss	Coarse-grained Cretaceous age formations of sedimentary origin	Ku	Unnamed conglomerate	Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Tdb	Diabase, undivided	Miocene