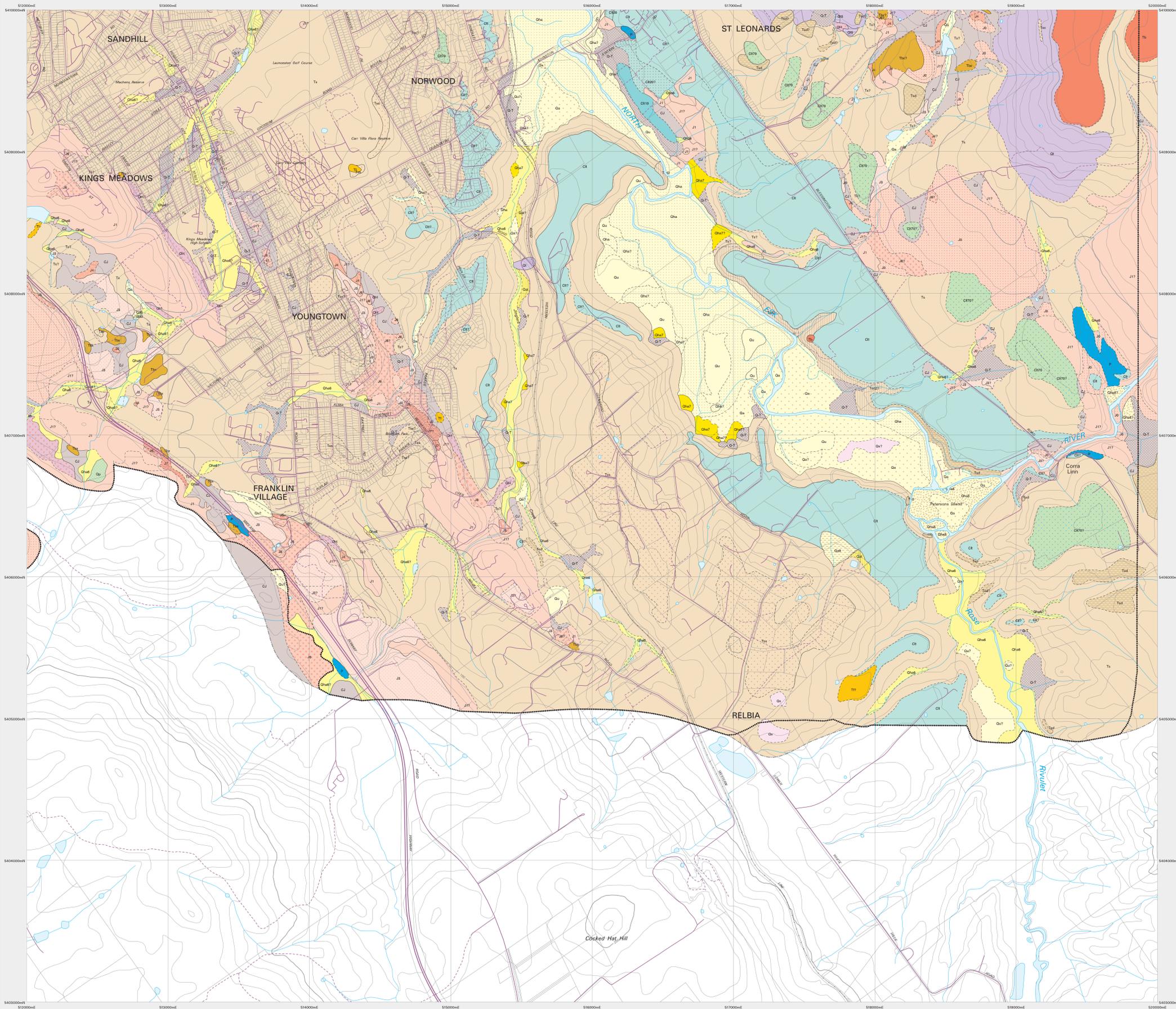
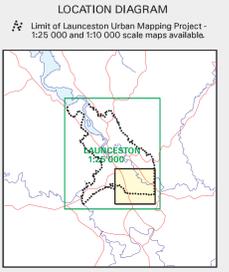


# MINERAL RESOURCES TASMANIA LAUNCESTON - GEOLOGY YOUNGTOWN

LAUNCESTON URBAN MAPPING PROJECT  
TASMANIAN GEOLOGICAL SURVEY  
MINERAL RESOURCES TASMANIA



HOLOCENE		PLEISTOCENE-LATE TERTIARY		KINEOSIS ROCKS	
Qa	Un differentiated alluvial, estuarine and associated deposits of silt, sand, gravel and mud.	Q15	Talus with predominantly basalt clasts.	Ts	Basalt, slightly to extremely weathered.
Qb	Alluvial, estuarine, deltaic and swamp deposits of silt, sand, mud or gravel situated on the flood plains of modern and former channels.	Q16	Talus and scree with predominantly clasts derived from Jurassic dikes.	J1	Jurassic.
Qc	Submerged to emergent estuarine deposits of silt, mud, sand or gravel.	Q17	Poorly cemented ferritites.	J2	Dolerite, fresh to extremely weathered.
Qd	Formerly estuarine deposits of silt, mud, sand or gravel.	Q18	Terrace deposits - 10m above sea level, of clay, silt, sand, pebbles and cobbles, some to locally consolidated.	J3	Dolerite, surface expression - extensive in situ rock.
Qe	Estuarine and other deposits, of silt, mud, sand or gravel with bed surface generally above high water mark.	Q19	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.	J4	Dolerite, surface expression - some in situ boulders.
Qf	Estuarine deposits of silt, mud, sand or gravel, emerged as land between 1915 and 1917.	Q20	Terrace deposits - 25-50m and 50m above sea level or local base level and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.	J5	Dolerite, sub-surface zone of in situ dolerite derived clay showing residual texture and rocking dolerite boulders.
Qg	Alluvial and associated deposits of silt, mud, sand and gravel.	Q21	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.	J6	Dolerite, sub-surface zone of extremely weathered dolerite or in situ derived material, may include dolerite boulders grading down to rock.
Qh	Alluvial deposits predominantly of cobbles, boulders pebbles and sand.	Q22	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.	J7	Dolerite, few or no in situ boulders or rock, sand surface-parallel, thick and/or extremely weathered rock.
Qj	Alluvial fan deposits predominantly of silt, mud, sand with pebbles in places.	Q23	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.	J8	Dolerite, surface indication of remnant fossil soil.
Qk	Alluvial deposits including common boulders or cobbles of dolerite and located on terraces slightly higher (1-5m) than the modern flood plain of minor streams.	Q24	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Ql	Alluvial deposits consisting of dolerite and some siliceous clasts, located on terraces distinctly higher (5-10m) than the modern flood plain of minor streams.	Q25	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qm	Alluvial deposits with specific development of dolerite cobbles, pebbles, and ferruginous siltstone, on terraces distinctly higher than the modern flood plain.	Q26	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qn	Low (< 1-5m) terrace deposit of Tamar Estuary with gravel deposits above present sea level.	Q27	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qo	Low (< 1-5m) terrace deposit of Tamar Estuary with siliceous gravel below present sea level, siliceous siltstone sand, silt and mud, and of probable Pleistocene age.	Q28	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qp	Alluvial fan deposit predominantly of dolerite clasts.	Q29	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qq	Aeolian sand and some slope deposits of sand.	Q30	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qr	Talus of locally derived material (D).	Q31	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qs	Slope deposits derived from Cainozoic strata and exhibiting locally incised morphology.	Q32	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qt	Talus with dolerite cobbles derived from tertiary strata.	Q33	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qu	Talus with siliceous clasts.	Q34	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		
Qv	Talus and scree with predominantly ferritite and/or basaltic clasts.	Q35	Terrace deposits - 20m above sea level, and of gravel, silt, sand, pebbles and cobbles, some to locally consolidated or cemented, clasts include dolerite, siliceous rocks and ferruginous pebbles.		



**THIS MAP IS TO BE USED FOR GENERAL GUIDANCE ONLY AND DOES NOT REMOVE THE NEED FOR SITE SPECIFIC INVESTIGATIONS**

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Field work for the study was carried out by Project Geologist S. M. Forsyth, Mineral Resources Tasmania between 1991 and 1993.

Reference this map as: Forsyth, S.M., 1996, Geology Map, Launceston Area, Urban Engineering Geology Series, Tasmania Geological Survey.

Digital base information from Information and Land Services, Department of Primary Industries, Water and Environment.

Cadastral information (depicted in grey), as at April 2003 and supplied by Information and Land Services, Department of Primary Industries, Water and Environment.

Map produced September 2003 by Data Management Branch, Mineral Resources Tasmania using G.I.S. software.

AG266 - AMS Zone 85, Contour Interval: 20 metres.

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