



STRUCTURAL MATERIAL INVESTIGATION

GRAVEL INVENTORY IN THE LOWER MAINLAND

By Z. D. Hora

Assessment of the gravel deposits in the lower mainland was carried out during June, July, and August 1978. The study was concentrated on producing areas and the purpose of the work is to gather all necessary data to ensure the long-term availability of construction aggregate for greater Vancouver and adjacent areas.

COQUITLAM VALLEY

This major producing area consists of sediments deposited during several major glacial advances and retreats and non-glacial intervals in a glacier-carved bedrock valley. The gravels, up to 100 to 150 metres thick, are equivalents of Quadra, Highbury, and pre-Highbury deposits and are overlain by Vashon till (*see table*).

LANGLEY AND FORT LANGLEY AREAS

Gravel deposits here are of glaciomarine and ice-contact origin and are part of a large proglacial fan delta. The gravels are approximately up to 40 to 45 metres thick and belong to the Fort Langley Formation. Part of the deposits in these areas are below groundwater level.

ABBOTSFORD – MISSION AREA

Gravel accumulations of this area are glaciofluvial and ice-contact deposits of Sumas drift. North of Mission the gravel deposits form irregular bouldery mantle along slopes of deeply cut valleys. Near Abbotsford both the advance and recessional outwash of a rather gently rolling topography exist and the gravel deposits extend over a considerably larger area and are underlain by flat marine sediments. The thickness of gravel deposits has been found locally up to approximately 50 metres and part of the gravel is below groundwater level.

CHILLIWACK AREA

Several small gravel pits have been opened in alluvial fan of Chilliwack River around Vedder Crossing. The deposited gravel is approximately 5 to 10 metres thick and corresponds to Salish sediments (*see table*).

STRATIGRAPHIC TABLE

YEARS BP	TIME UNITS	GEOLOGIC CLIMATE UNITS	LITHOSTRATIGRAPHIC UNITS	
	HOLOCENE	POST GLACIAL	SALISH SEDIMENTS	
10 000	LATE WISCONSIN	FRASER GLACIATION	CAPILANO SEDIMENTS	SUMAS DRIFT
				FORT LANGLEY FORMATION
			VASHON DRIFT	
			QUADRA SAND ← COQUITLAM DRIFT	
26 000	MIDDLE WISCONSIN	OLYMPIA NON-GLACIAL INTERVAL	COWICHAN HEAD FORMATION	
62 000	EARLY WISCONSIN AND PRE-WISCONSIN	SEMAHMOO GLACIATION	SEMAHMOO DRIFT	
		HIGHBURY NON-GLACIAL INTERVAL	HIGHBURY SEDIMENTS	
		WESTLYN GLACIATION	WESTLYN DRIFT	
PROBABLY SEVERAL HUNDRED THOUSAND				

REFERENCES

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