

pay section was found in Beaver River area, immediately south of the Yukon boundary, 16 miles west of the Liard River; preliminary reports suggest that this discovery is one of the most prolific gas wells yet drilled in Western Canada. Several widely spaced middle Devonian gas discoveries were made in a region some 50 miles northeast of Fort Nelson and north of the 1960 Kotecho Lake discovery. To a group of earlier gas wells near Fort Nelson was added the Clarke Lake discovery, 17 miles east-southeast of the town. On the whole, exploration and development drilling in British Columbia in 1961 was quite successful; only about 27 p.c. of the wells drilled were dry holes.

The highlight of British Columbia's petroleum industry in 1961 was the provision for access to the Pacific Coast market through construction of the new line of Western Pacific Products & Crude Oil Pipelines Ltd. Although the pipeline did not go into full-scale operation until January 1962, testing and filling of the line late in 1961 caused a sharp increase in crude oil and natural gas liquids production from the 5,000 bbl. a day output which satisfies local demand. The total yearly production of 2,200,000 bbl. exceeded 1960 output by 24 p.c. and the value to producers was \$2,800,000. The value of natural gas production in British Columbia, in contrast to the other western provinces, is considerably greater than that of liquid hydrocarbons; in 1961, field value of natural gas was \$8,700,000, and production amounted to 94,462,454 Mcf.

Alberta.—In 1961, the total exploratory footage drilled in Alberta for new petroleum and natural gas reserves and the development of known fields amounted to just under 10,000,000 feet, slightly less than in 1960; 1,600 wells were completed compared with 1,766 in the previous year. There was a greater concentration on the development of natural gas fields, leading to the completion of 342 gas wells compared with 276 in 1960 and to a considerable number of new gas discoveries both in the northwestern and in the better-developed southern portions of the province. The 777 new oil wells completed represented a substantial reduction from the 1960 total, the decrease resulting from the lack of major new oil fields requiring development and the excess productive capacity of existing fields. The advanced state of development of the province's largest oil field—the Pembina—caused a notable slow-down of drilling there; the group of fields in the Swan Hills region and the comparatively small Crossfield field, north of Calgary, continued to be the areas of greatest oil-field activity. In south-central Alberta, a new oil field—the Twining field—was designated following its discovery early in the year and subsequent successful drilling. An important oil find was made in the prolific Beaverhill Lake formation four miles east of the Kaybob field, and several significant natural gas discoveries were made near the Kaybob field, mainly to the southwest.

Alberta production of crude oil increased by 20.7 p.c. to 157,650,000 bbl. in 1961 and the gross value of crude oil sales was \$354,712,500. The volume of natural gas produced was 497,925,000 Mcf. and the gross value of sales was \$44,315,325.

Saskatchewan.—The decline of drilling in Saskatchewan which had been in evidence since 1957 halted in 1961, when there was a small increase in both the number of wells completed and the footage drilled. The reversal of trend was caused by a heavy schedule of development drilling, although exploratory drilling continued to decline. No major new fields were located but several interesting oil discoveries were made in the southeast corner of the province near Carievale adjacent to the North Dakota boundary, and also between the Parkman field and the Manitoba boundary. The large development drilling programs, brought about by a strong demand for Saskatchewan crude, were carried out in comparatively few fields, mainly Doddsland, Parkman, Hastings, Weyburn, Midale and Steelman. Well yields in Saskatchewan average less than those of Alberta oil wells, but their location nearer to eastern markets and the lower cost of drilling Saskatchewan's shallower wells help offset this factor. Saskatchewan production of crude oil in 1961 reached a record high of 56,000,000 bbl., representing an 8-p.c. increase over the 1960 output. Natural gas net output decreased slightly to 35,000,000 Mcf.