

CANADIAN PRODUCTION OF PETROLEUM AND NATURAL GAS, 1913.

THE Division of Mineral Resources and Statistics of the Department of Mines, Canada, reports that the production of crude petroleum in Canada was confined during 1913 to the old established fields in Ontario with a few barrels pumped from gas wells in New Brunswick.

The annual output has been steadily declining during the past six years and shows a further falling off in quantity produced in 1913 although owing to the higher price obtained for oil a larger total value is shown than for 1912.

A bounty of one and a half cents per Imperial gallon is paid upon the production of crude petroleum, the Bounty Act being administered and payments made by the Department of Trade and Commerce. According to the records of this Department the total output of petroleum in 1913 was 228,080 barrels or 7,982,798 gallons on which a bounty of \$119,741.97 was paid. The total value of the production at the average price for the year \$1.782 per barrel was \$406,439.

The production in 1912 was 243,336 barrels or 8,516,762 gallons valued at \$345,050 or an average value of \$1.418 per barrel.

The average price per barrel at Petrolia during 1913 increased from a minimum on January 1 of \$1.65 to \$1.75 on April 16, \$1.84 on November 6, and \$1.89 on December 22.

The production in Ontario by districts as furnished by the Supervisor of petroleum bounties was in 1913 as follows, in barrels: Lambton, 155,747; Tilbury, 26,824; Bothwell, 34,349; Dutton, 4,610; Onondaga, 4,172, and Belle River, 464, or a total of 226,166 barrels. In 1912 the production by districts was: Lambton, 150,272; Tilbury, 44,727; Bothwell, 34,486; Dutton, 4,335, and Onondaga, 7,115, or a total of 240,935 barrels.

The production in New Brunswick in 1913 was 2,111 barrels as against 2,679 barrels in 1912 and 2,461 barrels in 1911.

Exports entered as crude mineral oil in 1913 were 3,650 gallons valued at \$379 and refined oil 24,273 gallons valued at \$3,188. There was also an export of naphtha and gasoline of 17,875 gallons valued at \$4,284.

The total value of the imports of petroleum and petroleum products in 1913 was \$13,339,326 as against a value of \$11,978,053 in 1912. The imports have been increasing rapidly during the past few years.

Crude oil is being extensively used as a fuel on the Pacific Coast in both steamships and locomotives and the wide use of the gasoline motor has created a big demand for gasoline. The total imports of petroleum oils, crude and refined in 1913 were 222,779,293 gallons valued at \$13,230,429 in addition to 1,628,837 pounds of wax and candles valued at \$108,897. The oil imports included crude oil 162,062,201 gallons, valued at \$5,250,835; refined and illuminating oils 19,393,627 gallons, valued at \$1,386,440; gasoline 29,525,170 gallons, valued at \$4,822,941; lubricating oils 6,789,451 gallons, valued at \$1,172,986, and other petroleum products 5,008,844 gallons, valued at \$597,227.

The total imports in 1912 were 186,787,484 gallons of petroleum oils, crude and refined, valued at \$11,858,533, in addition to 2,144,006 pounds of paraffin wax and candles valued at \$119,520. The oil imports included: Crude oil, 120,082,405 gallons, valued at \$3,996,842; refined and illuminating oils, 14,748,218

gallons, valued at \$1,012,735; gasoline, 40,904,598 gallons, valued at \$5,347,767; lubricating oils, 6,763,800 gallons, valued at \$1,077,712, and other petroleum products, 4,288,463 gallons, valued at \$423,477.

There was an increased importation in 1913 of all classes of oil with the exception of gasoline, the increases being most pronounced in crude oil and refined illuminating oil.

Natural Gas.—There was comparatively little change in the production of natural gas in Ontario but a large increase in the production in New Brunswick and in Alberta. The total production in 1913 was approximately 20,345 million feet valued at \$3,338,314, of which 828 million feet valued at \$174,006 was from New Brunswick; 12,487 million feet valued at \$2,092,400 from Ontario, and 7,030 million feet valued at \$1,071,908 from Alberta.

The production in 1912 was reported as 15,287 million feet, valued at \$2,362,700, and included 174 million feet from New Brunswick, valued at \$36,549; 12,529 million feet from Ontario, valued at \$2,036,245, and 2,584 million feet from Alberta, valued at \$289,906.

These values represent as closely as can be ascertained the value received by the owners or operators of the wells for gas produced and sold or used. The values do not represent what consumers have to pay since in cases where transmission is by separately operated pipe line companies such cost is not included.

It has been finally decided by the State of New York to request the foreign relations committee of the House of Representatives to recommend that New York State be vested with power to permit the diversion of water from Niagara River for power purposes or to establish a State power plant at Niagara Falls.

The Wheeler Condenser and Engineering Company, of Carteret, N.J., have opened an office at 122 Board of Trade Building, Montreal, under the management of Jos. McKay, Jr., formerly New York manager of the company. The company make surface and jet steam condensers water-cooling towers, feed-water heaters, evaporating apparatus, etc.

One of the most interesting railway structures in the world is the bridge over the Faux Namti gorge in Indo-China, where, owing to the peculiar difficulties in the way of building a bridge of any type, it was necessary to adopt a special design suited to the only method of erection that seemed possible. The sides of the gorge are practically vertical; and there is no approach to the bridge from either side except through tunnels. The track grade is 335 feet above the river, so that no system of falsework could be used in building the bridge, while cantilevers were out of the question owing to the lack of "elbow-room." The design finally adopted consisted of two steel trusses, each hinged at the cliff side, which were erected in a vertical position and then lowered so that the ends met, forming a structure of inverted V-shape. The ends of the two trusses were firmly connected; steel towers were erected on the humps of the trusses; and, on this support, the steel deck truss, carrying the track, was placed. At the beginning of the work it was necessary to let the workmen down by ropes from the tunnel mouth to prepare the foundations of the supporting trusses. The track trusses were built in the tunnels and were then moved into position on rollers. From end to end this bridge measures 220 feet 4 inches, while the distance between the heels of the supporting trusses is 180½ feet.