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DEPARTMENT OF TRADE AND COMMERCE
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IRON OXIDES (OCHRE) - 1941

Production (producers' sales) in Canada of iron oxides and ochres, crude and refined during 1941 totalled 10,045 short tons valued at $142,069 compared with 9,979 short tons worth $111,874 in 1940. Of the 1941 output, 9,770 short tons valued at $139,185 came from properties in the province of Quebec and the balance of 275 tons at $2,884 represented crude material shipped from deposits located in British Columbia.

During 1941 iron oxides were produced in the province of Quebec at Pointe du Lac, Almaville, Les Forges and Red Mill. One firm produced refined products while crude material was shipped by other operators; the mineral in the crude form was consumed largely in the purification of manufactured gas.

The balance of Canadian iron oxide production in 1941 originated in British Columbia where shipments of the mineral in the crude state were made from deposits located at Alta Lake; these shipments were consigned to gas plants located in Vancouver and Victoria, B.C.

Table 1 - PRINCIPAL STATISTICS OF THE NATURAL IRON OXIDES INDUSTRY IN CANADA, 1939 - 1941

		1939	1940	1941
Number of firms		7(b)	7(b)	4(a)
Capital employed	$	215,445	195,263	189,877
Number of employees - On salaries		6(c)	5(c)	6(c)
On wages		32	41	37
Total		38	46	43
Salaries and wages - Salaries	$	7,936	7,896	8,571
Wages	$	18,980	30,946	33,581
Total	$	26,916	38,842	42,152
Selling value of products (gross)	$	88,418	111,874	142,069
Cost of fuel and purchased electricity	$	8,094	17,598	15,697
Cost of process supplies	$	100	435	5,697
Selling value of products (net)	$	80,224	93,841	120,675

(a) Three producing in Quebec and one in British Columbia.
(b) Five producing in Quebec and two in British Columbia.
(c) One female.

Table 2 - WAGE-EARNERS EMPLOYED, BY MONTHS, 1941 and 1940

Months	Number 1941 Mine	1941 Mill	1940 Mine	1940 Mill	Months	Number 1941 Mine	1941 Mill	1940 Mine	1940 Mill
January..	...	25	12	24	July	31	18	44	16
February.	...	26	...	28	August ..	31	20	43	17
March ...	...	25	9	26	September	28	20	31	19
April ...	...	25	...	23	October..	15	22	25	17
May	8	28	11	22	November.	17	20	15	20
June	34	17	38	16	December.	8	22	6	21

Table 3 - WAGE-EARNERS WORKING THE NUMBER OF HOURS SPECIFIED DURING ONE WEEK IN MONTH OF NORMAL EMPLOYMENT, 1941

Number of hours worked	Number of employees
48 hours	33
49 - 50 hours	8
56-64 hours	13
Grand total number of employees in week specified	54
Total wages paid in week specified	$ 977

Table 4 - TOTAL FUEL AND ELECTRICITY USED, 1941 and 1940

Kind	Unit of measure	1941 Quantity	1941 Value	1940 Quantity	1940 Value
			$		$
Bituminous coal.....	short ton	...	...	123	946
Anthracite coal	short ton	11	138	8	106
Coke	short ton	4	55	7	103
Fuel oil	Imp.gal.	400	47	1,200	129
Gasoline	Imp.gal.	740	239	400	104
Kerosene	Imp.gal.	50	11	40	8
Wood	cords	3,000	12,000	3,330	13,320
Electricity purchased ...	K.W.H.	200,000	3,207	288,200	2,382
TOTAL COST	...	...	15,697	...	17,598

Table 5 - PRODUCTION (SALES) IN CANADA OF IRON OXIDES, 1941 and 1940

	1941 Quantity	1941 Value	1940 Quantity	1940 Value
		$		$
Quebec(x)	9,770	139,185	9,603	107,926
British Columbia	275	2,884	376	3,948
TOTAL	10,045	142,069	9,979	111,874

(x) Includes crude and refined grades.

Table 6 - PRODUCTION OF IRON OXIDES IN CANADA, 1927 - 1941

Year	Quantity	Value	Year	Quantity	Value
	Short tons	$		Short tons	$
1927	6,125	103,536	1935	5,516	77,075
1928	5,414	111,198	1936	5,354	69,630
1929	6,518	115,932	1937	6,197	83,640
1930	6,596	83,373	1938	5,821	71,769
1931	5,520	49,205	1939	6,015	88,418
1932	5,240	46,161	1940	9,979	111,874
1933	4,557	53,450	1941	10,045	142,069
1934	4,959	66,166			

The production of iron oxides in Canada since the first recording of statistics in 1886 to the end of 1941 totalled 307,409 short tons valued at $3,121,907.

Table 7 - CONSUMPTION OF IRON OXIDES IN SPECIFIED CANADIAN INDUSTRIES, 1932 - 1940

Years	Coke and Gas		Paints, pigments and varnishes		Paints, pigments and varnishes	
	Quantity	Value	Quantity	Value	Quantity	Value
	Tons (a)	$	Tons (b)	$	Tons (c)	$
1932	3,736	35,284	701	52,323	512	48,047
1933	2,734	29,076	504	43,826	491	43,671
1934	3,757	47,010	580	53,539	544	53,236
1935	3,701	46,204	990	77,758	564	56,219
1936	(d)	41,291	733	67,850	634	65,819
1937	(d)	40,414	890	81,709	566	49,082
1938	(d)	41,013	822	70,736	487	41,062
1939	(d)	35,417	882	80,274	523	46,134
1940	5,417	42,491	1,146	112,826	575	62,636

(a) Oxide and purifying materials.
(b) Iron oxide pigments.
(c) Ochres, siennas and umbers.
(d) Data not available
NOTE: Complete data for 1941 not yet available.

The following information relating to iron oxides has been abstracted from a report prepared by the Bureau of Mines, Ottawa:

"Ochreous iron oxide, which is sold uncalcined and used chiefly in the purification of illuminating gas, comprises the bulk of the minerals produced under this category. The calcined form of ochreous iron oxide is used in the manufacture of paints. A smaller quantity of natural iron oxides associated with clay-like materials in the form of umbers and siennas is produced in the raw and the calcined state for use as pigments in paints.

"The Canadian iron oxide industry is small and the quantity produced shows little change from year to year. Present producing localities have met the requirements of the domestic pigment trade for the cheaper grades for many years. The production for some time past has come mostly from deposits near Trois Rivieres, Quebec. In 1941, Sherwin-Williams Company of Canada operated deposits at Red Mill and near Champlain in Champlain county. It was the only producer of calcined iron oxides, the others having marketed only air-dried products.

"A small production of iron oxide from Alta Lake, New Westminster district, and from oxide beds in the Windermere district, British Columbia, has been reported since 1923. The oxide is used chiefly for gas purification. Commercial shipments in 1941 were reported only from the Alta Lake deposits.

"Other deposits could be worked in Quebec and Ontario, if the demand warranted their development. In Nova Scotia, beds of ochre and umber were operated to a small extent in the past. In Alberta and Saskatchewan, several deposits of ochre are known, some having commercial possibilities, but as they are difficult of access and as the market is limited, they have had little development. Large deposits near Grand Rapids and Cedar Lake in northern Manitoba remain undeveloped for similar reasons.

"The demand within the country for these products is fair. Most of the higher grade oxides, ochres, and umbers used in the paint trade were formerly imported from Europe, and prior to the war, some of the cheaper grades of European oxides even competed with the domestic products, as they do not require calcining to produce the desired colour.

"The price in New York of iron oxide, standard No. 1 quality, Spanish red, remained normally at 3 to 5 cents per pound throughout 1941. The average Canadian selling price of crude ochre was $3.38 a ton, and that of calcined oxides about $45.00 a ton, f.o.b. plant."

LIST OF FIRMS IN THE CANADIAN IRON OXIDES MINING INDUSTRY, 1941

Name of Firm	Head Office Address	Location of Plant
QUEBEC -		
Argall, Thos. H. (a)	Pointe du Lac	Pointe du Lac
Girardin, Chas. D. (a)	Yamachiche	Almaville and Les Forges
Mauricy Oxide Co. (a)(c)	Grand Mere	St. Adelphe
Chapman, J. E. (c)	Box 439, Hawkesbury, Ont.	Cheneville
Sherwin-Williams Co. of Canada Ltd. (b)	2875 Centre St., Montreal	Red Mill
BRITISH COLUMBIA -		
Davidson, J. G. (a)	346 Surfton Place, La Jolla California	Alta Lake
McDonald, R. W. (c)	128 Grizzly St., Banff, Alta.	Windermere Dist.

(a) Shipped crude material.
(b) Shipped refined (calcined).
(c) Did not ship in 1941.

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