

Vanadium, by Dr. Chilesotti, Turin, Italy.

Gmelin-Kraut—Handbuch der anorganischen Chemie, Bd. III., 2.

Complete resume with numerous references to entire known facts about vanadium and its compounds.

Ephraim—"Das Vanadin und seine Verbindungen." Sammlung Chemischer und chemisch-technischer Vortraege. F. B. Ahrens pub., by F. Enke (1904).

Nicolardot—"Le Vanadium." Gauthier, Villars & Mason, Paris (1904).

Moissan—Chemie Mineral.

Prandtl—"Die Literatur des Vanadins, 1804-1905," the most complete list of treatises on this subject, listing practically all articles, books and theses dealing with vanadium between the dates mentioned.

Bleeker, W.—Notes on the Chemistry and Metallurgy of Vanadium. Met. & Chem. Engineering, VIII., 666 (1911); IX., 209, 499 (1912).

Fester—Die chemische Technologie des Vanadins. Stuttgart. Enk (1914).

Roscoe and Schorlemmer—Chemistry. Vol. II.

TEMISKAMING.

President F. L. Culver sent out the following letter on July 19 to the shareholders of the Temiskaming Mining Co., Ltd.:

The following is a record of the development for six months ending June 30, 1915: Drifting, 1,740 ft.; cross-cutting, 657 ft.; raising, 323 ft.; winzes, 85 ft.; total 2,805 ft.; stoping, 3,562 cu. yd.

In the old vein system, on the 350 ft. level, No. 3 vein, we have developed a large block of mill rock. Between the 400 and 500 ft. levels, vein No. 15 is from 1½ to 3 in. wide carrying high grade ore in places, and vein No. 2, south stope, is 3½ to 6 in. wide of good mill rock, with splashes of ruby silver and some smaltite. In the winze which was started from the 750 ft. level, sinking has been continued to a depth of 85 ft., 50 ft. of which carried ore. Drifting back under the shaft and raising, making a connection, will give the shaft a total depth of 835 ft. from the surface.

In the new vein system, on the 400 ft. level in drift No. 21, we have a vein 5 in. wide of 3,500 oz. ore. We have drifted on this toward the Beaver property 135 ft. and are now within 20 ft. of the Beaver line. Timbering is being done preparatory to stoping this ore when necessary. Ninety feet west of drift No. 21, we have encountered a calcite vein about 5 in. wide, but as yet no development work has been done on same. On the 500 ft. level, drift 21 is practically up to the Beaver line. The north breast stope shows five veins of rich ore each from 1½ to 2 in. in width and the country rock between these veins carries good milling values. The breast of the cutting out stope, No. 23 drift, is now 190 ft. south of the Beaver line and the vein carries high grade for this distance.

In order to carry out our policy of deep mining, it was found necessary to install a new hoist. This is being built by the Nordberg Manufacturing Company of Milwaukee and we expect to have it installed and running within sixty days. This hoist will enable us to reach the lower contact between the diabase and the Keewatin formations (a depth of between 1,600 and 1,700 ft.), and it is believed that as rich values will be encountered at the lower contact as have been developed at the contact above. This work will be pushed forward as rapidly as conditions will permit.

The contract which existed with the Northern Ontario Light and Power Company expired some little time ago and a new contract was submitted, the terms

and conditions of which were not satisfactory, consequently we refused to sign the same. Quite a little discussion arose between the two companies; in the meantime, in conjunction with the Beaver Consolidated Mines we obtained figures as to what it would cost to install a plant to generate sufficient power to take care of both properties, should it be necessary to do so. However, arrangements have been made so that operations will be continued temporarily under practically the old conditions.

We have deemed it advisable not to sell our bullion at the present prices (the lowest for years) and are storing the same in London and New York, against which we can borrow money at any time to pay current expenses.

June 30, 1915—	ozs.
Bullion in storage	442,701.22
Due from smelters	187,568.90
Ore bagged at mine	100,000.00
Total	730,270.12
(Loan obtained on bullion security, May 8th, \$30,000.)	
June 30th, 1915—	
Cash on hand	\$223.69

GRANBY CONSOLIDATED.

Granby Consolidated Mining, Smelting & Power Company has entered upon what promises to be a record-breaking year. Its fiscal period ended June 30 last with improved operations and earnings, while since the first of July deliveries of copper at or near the highest prices have started.

The entire battery of eight furnaces at Grand Forks has been blown in and the Hidden Creek smelter has been tuned up to capacity, giving the Granby Company a monthly production approximating 4,000,000 lb. of copper.

In May the new Hidden Creek smelter commenced to show its speed. In that month it turned out for the first time more than 2,000,000 lb. of copper, besides an increasing amount of gold and silver. The old plant at Grand Forks also gave a good account of itself.

Granby's operations during the past few months have run as follows (lb. of copper):

	Grand Forks		Hidden Creek	
	1915	1914	1915	1914
January.	775,786	1,793,840	1,349,353	
February.	1,029,885	1,661,212	763,488	
March.	1,196,670	1,775,852	1,597,022	
April.	1,392,510	1,692,102	1,678,827	440,767
May.	1,662,398	1,669,334	2,021,717	773,960

The entire smelter at Grand Forks was not in operation during the month of May, but with increased capacity blown in June's final figures should record a gain over the preceding month.

The fourth furnace, of which was started about six weeks ago, should be ready for operation by the end of July, making available for steady runs three sections of the Hidden Creek plant. This will add materially to the production from that source.

The agglomerator, installed at the Hidden Creek smelter to recover copper from flue dust, should be a factor very shortly both in increasing the amount of copper production and in lowering costs.

The Midas mine in Alaska, upon which nothing but preliminary work has been done to date, may be ordered on a productive basis, which task would take about a month.—Boston News Bureau.