

Smith-Kennmare Mine, Township 167, Range 88, Section 7.- The Smith-Kenmare mine is located two and one-half miles north of Kenmare on the east shore of Lake Des Lacs. The mine is approached by a road running along the lake front, and by a spur from the Soo railroad. The output from this mine is largely shipped to points beyond the county, but local trade consumes a considerable amount. The output for the period May 1, 1901, to June 1, 1902, was as follows : Local, 2,000 tons ; shipped, 4,500 tons. Work is carried on continuously during the year, though during the summer repairs in and about the mine consume most of the time of the employes. Thirty men are worked from September 1st to March 1st, or about seven months out of the year.

The seam of this mine averages six feet, is quite uniform in texture from top to bottom, presenting faces of solid lignite at all points. There is some variation in chemical composition as shown by the following analyses :

Sample from next to clay above the lignite :	PER CENT
Volatile matter	36.78
Fixed carbon	55.55
Ash	7.67
Total	100.00
Moisture	33.20
Sample from point next to roof :	PER CENT
Volatile matter	39.90
Fixed carbon	52.30
Ash	7.00
Total	100.00
Moisture	
Sample from one foot below roof.	PER CENT
Volatile matter	33.50
Fixed carbon	55.25
Ash	11.25
Total	100.00
Moisture	32.60
Sample of thin section in seam, selected because of its peculiar hardness :	PER CENT
Volatile matter	33.41
Fixed carbon	61.24
Ash	5.35
Total	100.00
Moisture	33.60

The mine is worked by the room and pillar system, with ventilation obtained by an air shaft. The per cent of coal won from this mine is large, due to the firmness of the walls. The material above the seam is a very compact clay. It contains no grit and is said to be a good potters' clay. This company has other openings, not yet worked, between its present mine and Kenmare.