

P. Burns' Coal Basin.

Just inside the first limestone range, at the head of the south branch of Sheep river, is a Cretaceous trough containing a considerable amount of coal. This was not followed far south of Sheep river, although it appears to run some distance in this direction toward Highwood river. The Kootanie rocks which carry the coal here are very similar to those outside the mountains, but are very much thicker. The P. Burns' coal property includes the southern part of that portion of this basin shown on this map. Here the Cretaceous exists in the form of a very rugged line of hills, almost as much so, in places, as the Palaeozoic mountains on both sides.

Lying immediately on the limestones are 200 to 300 feet of fine-grained quartzites varying in colour from almost pure white to a light gray. Next above these are some very dark, almost black, shales. Above these again are the Kootanie rocks, which extend from near the river level to the summits of the mountains. These hills extend along the valley in a northwesterly direction for about four miles from the main workings, when they rapidly begin to disappear, and from there to the northern end of the trough only the lower rocks still exist, the upper coal-bearing strata having been eroded away.

A section was made up one of the gulches where work has been done on the coal, but as it was hurriedly made there may be more seams than those noticed, as parts of the section were covered by drift. But all the seams that were exposed, or have been opened up at all, are included in the following, except three narrow ones from one foot to three feet in thickness, which were seen a few hundred feet above the section measured and some considerable distance apart. This section, as all others in this report, is given from the top down:—

	Feet.	Inches.
Sandstone.....	0	10
Coal.....	39	1
Sandstones.....	1	2
Sandstones and shales.....	322	..
Coal.....	1	..
Brown sandstones and shales.....	106	..
Coal.....	2	..
Dark coarse sandstones and dark shales.....	45	..
Coal, very clean.....	1	8
Brown sandstones with very little shale.....	193	..
Coal, dirty seam.....	2	10
Dark coarse sandstone, with few feet of shale.....	310	..
Coal, good.....	2	..
Sandstones and shales.....	80	..
Coal, very good clean regular seam.....	16	4
Brown sandstones and shales.....	427	..
Coal, with two feet of shale, two feet from hanging wall.....	9	6
Brown sandstones and shales.....	76	6
Coal, good clean seam.....	8	8
Brown sandstones.....	..	..
Total of coal.....	38	4