## On the Norian or "Upper Laurentian" Formation. 181

west of the anorthosite (for he investigated only this region) Logan found that two of the limestone bands, one on the southwest and one farther north on the west side of the area, were cut off by the Morin anorthosite, and he therefore considered the latter as a newer formation which overlay them, observing that in case it should be proved (by an extension of the observations farther to the north than it was possible for him to carry them) that two other limestone bands which he had followed up nearly to the limit of the anorthosite were likewise cut off by it, this fact might be considered as conclusive evidence of the existence of an Upper Laurentian series reposing uncomformably on the Grenville series. A careful investigation of this northwest corner of the area which was undertaken last summer, in company with Dr. Ells of the Geological Survey, showed, however, that one of the supposed interruptions really does not exist and that the drift is so heavy in this region that even if the other limestone stone bands do come against the anorthosite the contact could not be observed. A careful examination of the contact on the southwest corner of the area in the neighborhood of the village of St. Sauveur, however, leaves little doubt that the limestone is really cut off by the anorthosite at this point. The limestone underlies a plain and protruding here and there in large exposures through the drift, whilst the anorthosite rises from this plain as a steep wall or cliff. The limestone is exposed 200 yards from the foot of the anorthosite wall, but the drift covering then becomes so thick that the character of the contact itself cannot be determined. Both to the east and to the west. the associated gneiss is cut off in a similar manner.

On the northeast side of the anorthosite area there was found, moreover, another limestone band which runs through Lake Ouareau aud forms in it a series of small islands. It is also well exposed on the south shore of this sheet of water. This bed disappears at the edge of the anorthosite a short distance from the south end of the lake, and no further traces of it are seen until it appears again