

Stadacona Cape Breton
November 28 1889

Sir William Dawson

Dear Sir

I am engaged in opening up and operating a number of Gypsum quarries in the Island of Cape Breton principally near the shores of the Bras d'Or Lakes and the harbor of Shelburne

I am much interested in the formation and would like very much to understand it better. I would like to understand the cause and manner of the formation and why some are hydrate and some anhydrite. I find both matters in juxtaposition and sometimes mixed. I find a great diversity in both colour and grain or fineness in the hydrate

I sometimes find a very narrow valley separating the hydrate from the anhydrite. I have one locally where two or three hills of gypsum run for half a mile or more with scarcely a break and separated with a narrow valley between each and nearly all anhydrite while a valley at the northern extremity of these parallel hills separates them from a range running at right angles and which is hydrate. I find also that the bottom of this valley is also gypsum. Although this valley is nearly a mile long and hills on every side down which small streams run I find no brook issue from the valley. The water appears to run underground for half a mile at least until it reaches the Broadwater Lake.

I find also that some hills of gypsum may be hard or anhydrite at the bottom and soft or hydrate at the top. Say fifty feet of each in some places in other places I find hydrate at the top then a layer of anhydrite

I remember find a very narrow
 valley separating the high land from the
 arid highland. There are several
 where two or three hills of Appennines
 run for half a mile or more with
 a deep or broad canal separating
 out a narrow valley between each
 and each all very high but with
 a valley at the bottom separating
 them from the hills separating them
 from a large country of high land
 and other highlands. Just above
 that the bottom of this valley is
 also Appennines. Although the
 valley is narrow but very deep
 hills on every side down which
 streams run from the high land
 from the valley the water appears
 from water poured for half a mile
 at least and it breaks the
 mountain side.

*The Early
 History*

I find also that some hills of
 Appennines may be found in arid highland
 at the bottom and left a highland at
 the top of the highland of each a few
 places in the plain of highland
 at the top than a large of arid highland

and below that again hydrate or soft gypsum. I cannot understand why the hard & soft are so mixed up in some cases.

I have observed too in Cape Breton that the deposits for the most part run in a North East and South West direction and continue in almost that course through Antigonish County and Hants County in Nova Scotia to Albert County in New Brunswick.

Could you kindly direct me where I could get a good work on the subject of gypsum if there is any such or in what work is it treated upon fully in connection with other subjects. If there is no book treating upon the particular subject of gypsum and its formation would you do me the great kindness to give me your ideas upon the subject. I trust you will not think that I have presumed upon ^{your} known kindness in such matters.

I am Sir your respectful
W. F. McCurdy

