

Mr. J.P. Manley, Attorney, 80 Richmond Street West, TORONTO, Ontario.

Dear Sir:-

Re: Geological Survey on Mineral Claims
No. T-37132 to T-37149 inclusive,
Townships of Canfield and Carroll.

The writer was in charge of a geological survey crew during the first part of October 1955. Some 4 miles of linecutting was done on the islands and shorelines along the Moose River immediately below the Moose River Crossing bridge at mile 142 of the Ontario Northland Railway.

I am attaching hereto the employment record of the men employed on this project showing a total of 252 days that would represent the monies expended for this survey on these water claims which may be recorded as assessment work.

The main outcrops of gypsum occur along both banks of the Moose River immediately below the Moose River Crossing bridge. These outcrops are very extensive and from the horizontal position of the beds of gypsum on both river banks there is every evidence that the gypsum will completely underlay the gravels in the river on your water claims.

On the islands in the river, it was found that the only outcrops of brecciated gypsum were located on the extremely westerly end of W Island on claims No. T-37136 and T-37145. The balance of the area of the claims shows at least between 5 to 10 feet of a heavy glacial mantle covering the bedrock and it was impossible to locate any gypsum occurrences thereon, with the exception of the outcrops on the shorelines of both banks of the river.

In my report on these properties, it has been estimated that an overburden condition of between 8 and 10 feet and in places as high as 25 feet will be encountered on these claims. This overburden consists mostly of a silt and boulder clay on the surface immediately overlaying possibly 5 to 10 feet of breccia gypsum in which large crystals of selenite and a conglomeration of angular pieces of limestone and shale appear. Immediately underlying this type of overburden, the upper beds of the gypsum are mostly of a brown-greyish colour, in places the beds being anywhere from 1 to 5 feet in thickness. This gypsum is coarsely crystalline with star-shaped spots of selenite 1 to 5 inches in diameter throughout.

Immediately underlying this type of gypsum, a pure white granular or finely crystalline snow white gypsum is encountered in beds from 4 to 10 feet in thickness.

These beds are only noticeable at low water periods in the river and samples taken from these beds gave the following returns:-

## ANALYSIS OF GYPSUM FROM CURRAN PROPERTY

*****	••••	****	0.25
HOHE	01.908	0.5	••••
***	+	0.5	
trace	trace	trace	0.06
•70	none	none	0.21
21.35	21.01	21.60	19.41
44.98	45.98	45.51	46.90
32.80	32.90	32.00	33.00
	44.98 21.35 .70 trace	44.98 45.98 21.35 21.01 .70 none	44.98 45.98 45.51 21.35 21.01 21.60 .70 none none trace trace trace

indicating the quality and purity of the gypsum that may be expected to be found underlying your claims.

The main gypsum outcrops on the river sides have been examined and shown to be 20 feet in thickness above the low water table in the river and from the results of old drill holes in this area, it is reported that the drills have penetrated to a depth of 47 feet and ending in pure white gypsum. It is impossible to estimate the true thickness of these beds without the aid of further diamond drilling.

In further testing of deeper drill holes in the area, it has been reported that the gypsum beds extend to the 350 foot horizon.

A table of formations relative to the area was previously made by a prominent geologist and I am quoting his table as follows:

## TABLE OF FORMATIONS RELATIVE TO AREA

System	Formation	Correlation	Thickness	Lithology
Pleistocen	8		10-150*	Marine Clays, Boulder Clays, Interglacial Clay & Muskeg
Middle Devonian	Abitibi River	Onandaga	651	Grey fossiliferous Limestone
Lower Devonian	Moose River	Salina	3501	Limestone & Gypsum
Precambrian			Granite	

In my previous reports, I have recommended that a series of diamond drill holes be placed and the locations placed on maps, these holes

to be put down to test the true depth and sizes of the gypsum beds in this area and, in all probabilities, these holes will have to be 300 feet in depth. This drilling could be undertaken during any season of the year as there is ample water at hand at all times and due to the handy accessibility from the railroad, which passes along the westerly quarter of the claims, and also due to the abundance of small timber available on the claims. Winter drilling operations can be successfully carried out at very little extra cost.

I enclose the required maps for filing with the Ontario Government Department of Mines and any further information that may be required, I will be pleased to submit.

Yours very truly,

R.E. Parkes, Mining Engineer.



421145E0001 63A.315 CARROLL

Atlas Gypsum Corporation Limited, Suite 26, 377 St. James Street West, MONTREAL, Quebec.

# Attention: The President and Board of Directors

Dear Sirs:-

Re: Geological Survey on Mineral Claims No. S-90176 to S-90189 inclusive, Townships of Canfield and Carroll.

The writer was in charge of a geological survey crew during the latter part of September and first part of October 1955. Some 8 miles of linecutter was done on these claims and I am attaching the employment record and occupation of the men employed on this project, showing a total of 204 days, that would represent the expenditure of the survey on these claims which may be recorded as assessment work.

The main outcrops of gypsum occur along both sides of the Moose River immediately below the Moose River Crossing bridge at mile 142 of the Ontario Northland Railway. These outcrops are very extensive and, from the dip and strike of the beds, there is every evidence that the gypsum will completely underlay the glacial mantle on the company claims, therefore due to a heavy glacial mantle covering the bedrock throughout the areas of the claims, it was impossible to locate any gypsum occurrences within the claim area.

In my report on these properties, it has been estimated that an overburden condition of between 8 and 10 feet and in places as high as 25 feet will be encountered on these claims. This overburden consists mostly of a silt and boulder clay on the surface immediately overlaying possibly 5 to 10 feet of breccia gypsum in which large crystals of selenite and a conglomeration of angular pieces of limestone and shale appear. Immediately underlying this type of overburden, the upper beds of the gypsum are mostly of a brown-greyish colour, in places the beds being anywhere from 1 to 5 feet in thickness. This gypsum is coarsely crystalline with star-shaped spots of selenite 1 to 5 inches in diameter throughout.

Immediately underlying this type of gypsum, a pure white granular or finely crystalline snow white gypsum is encountered in beds from 4 to 10 feet in thickness.

These beds are only noticeable at low water periods in the river and samples taken from these beds gave the following returns:-

## ANALYSIS OF GYPSUM FROM CURRAN PROPERTY

	99.83	99.89	99.16	99.83
Insoluble	••••	••••	••••	0.25
Si02	none	trace	0.5	••••
Fe203	trace	trace	trace	0.06
MgO	•70	none	none	0.21
H20	21.35	21.01	21.60	19.41
<b>S</b> 03	44.98	45.98	45.51	46.90
CaO	32.80	32.90	32.00	33.00

indicating the quality and purity of the gypsum that may be expected to be found underlying your claims.

The main gypsum outcrops on the river sides have been examined and shown to be 20 feet in thickness above the low water table in the river and from the results of old drill holes in this area, it is reported that the drills have penetrated to a depth of 47 feet and ending in pure white gypsum. It is impossible to estimate the true thickness of these beds without the aid of further diamond drilling.

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and also due to the abundance of small timber available on the claims. Winter drilling operations can be successfully carried out at very little extra cost.

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