

15 - 0250

MASTER COPY  
COMMISSION MEETING MINUTES  
1955-1956

**LEGISLATIVE COMMISSION  
ON TAXATION OF IRON ORE**

238 State Capitol—St. Paul 1, Minnesota

S U M M A R Y  
Minutes of the First Meeting  
COMMISSION ON TAXATION OF IRON ORE  
June 21, 1955

- |   | <u>Page Nos.</u>       |
|---|------------------------|
| 1. Present Officers re-elected: Thomas P. Welch, Chairman, Fred Cina, Vice Chairman; B.G. Novak, 2nd Vice Chairman; Lloyd Duxbury, Jr., Secretary.<br><u>Motion adopted</u> - officers constitute Executive Committee.  | 1, 2<br>3              |
| 2. Discussion on staff:<br>A. What extent Commission will need services of Secretary?<br>B. No Director, L.R.C. can be used, Tax Department and other State Departments - cooperation and coordination between staff workers on Commission and other interim Commissions.<br><u>Motion adopted:</u> That Executive Committee be authorized to hire Miss Wylie on such terms as Executive Committee feels proper and determine whether she will service some other interim commissions in addition to this one or not. | 2,3,4,5,6              |
| 3. Discussion on asking administration or whoever prepared figures presented to last Legislature on iron ore taxation to appear before Commission.<br><u>Motion adopted:</u> That Executive Commission make arrangements to hear parties interested in presenting their views on iron ore taxation immediately following routine business at the next meeting of the Commission.  | 6,7,12,13,<br>14,15,16 |
| 4. Discussion of studies to be made by Commission, subcommittees to be set up, etc.<br>Chairman suggested that any member having specific topic he wished assigned to a subcommittee should submit it to the Executive Committee who will bring it up at the next meeting of the whole Commission.  | 7,8,9,10,<br>11,12,15  |
| 5. Send for copy of "Venezuela Up to Date" put out by Venezuelan Embassy.   | 17                     |
| Send for 1953 and 1955 copies of "Statistical Abstract of the United States.  | 17                     |
| 6. Discussion of inspection trips to be made by Commission.<br>A. Taconite tour early in September - Executive Committee to look into matter and see what arrangements can be made and report to next meeting.<br>B. Steep Rock<br>C. Labrador Fields<br>D. Blast furnaces on East Coast  | 18, 19                 |

MEETING ADJOURNED TO CALL OF THE CHAIR.

1955

INTERIM COMMISSION ON TAXATION OF IRON ORE  
Room 238, State Capitol, St. Paul, Minnesota

1955 - FIRST MEETING  
Tuesday, June 21, 1955.

The Interim Commission on Taxation of Iron Ore met at 9:30 A.M. on Tuesday, June 21, 1955, in Room 238, State Capitol, at its initial meeting since the close of the 1955 Legislative Session, and was called to order by Mr. Welch.

Roll Call showed the following members present:

SENATE

Archie H. Miller  
C. E. Johnson  
B. G. Novak  
Elmer Peterson  
Thomas D. Vukelich  
Thomas P. Welch  
Donald O. Wright  
J. R. Keller

HOUSE

Roy Dunn  
Lloyd Duxbury, Jr.  
H. P. Goodin  
A. I. Johnson  
Francis LaBrosse  
Leonard Lindquist

Mr. Welch. The meeting will come to order. I haven't heard anything more from Mr. Cina following last Saturday. He said he was tied up with some sales of school bonds and couldn't be here.

Mr. Wright. Did you get some idea from Mr. Cina as to what his ideas were about this meeting and so forth?

Mr. Welch. I did discuss some matters with him pertaining to policies. He assumed that we would go along as we were.

Mr. Wright. The Commission is officered at the present time by yourself, Cina and 2nd vice chairman Novak and secretary Duxbury. Is that right? Frankly, did you understand from Mr. Cina that that was satisfactory to him?

Mr. Welch. As far as he was concerned, he said so. I told him I would leave that up to the Commission. The law creating the Commission is drawn in a strange way - this is a continuing Commission, it is not really an interim commission although our letterhead says so.

Mr. Wright. For the record, if you are ready for it, I'll move that the officers as heretofore stated, of the Commission be re-elected.

Mr. Welch. As long as I am involved in the motion, I think someone else should put the motion.

A.I. Johnson. You have heard the motion, that we continue with the same officers. Second to the motion? It's been seconded, any discussion. If not, all in favor will say aye, opposed no. Motion is carried - unanimously adopted.

Mr. Welch. Thank you, gentlemen. I would like to say that I have felt for some time, I don't think that we need a full time director. It seems to me that the Legislature was quite generous in appointing interim committees and didn't assign very many topics out and out to the Legislative Research Committee. I, for one, would like to make more use of the staff of the Legislative Research Committee. It seems to me that the matters of tax research should be handled through their organization as far as possible.

Mr. Dunn. I am glad to hear you talking that way. I've had the feeling that we are past having any use for a full time director. I think we should have a secretary of the commission, so that we have someone we have had before. (a telephone call from Senator Vukelich interrupted at this point)

Mr. Wright. Mr. Chairman, may I suggest that Mr. Dunn had the floor before Senator Vukelich's telephone call.

Mr. Dunn. Well, what I was about to say is that our scope of activity is different now than from what it was at the time the Commission originally organized and set up. It seems to me that the thing that we can accomplish during the next two year period is watching the implications of iron ore and also the taconite development - those are the two main features that we would have before us. For that reason we don't need the staff that we have had in the past. The fundamentals are pretty well established here. I think the next thing that we should decide here is if we are going to have a



Mr. Dunn - continued.

secretary or a clerk, whatever it is called, and who shall have authority to select that person. I don't know how we did four years ago, whether we left it to the chairman or whether we did it here in our own group. I don't know which way we did it or what is customary. If the whole group is going to do it, why I'd naturally nominate Miss Wylie for that position inasmuch as she has been with us all this time and has done a very good job. It seems to me that's the next thing we should authorize as we go along here.

Mr. Wright. Mr. Chairman, I was just inquiring while you were on the phone - if we had constituted the officers of the Commission as the executive committee. That seemed to work pretty good and I think that we ought to retain Miss Wylie as clerk of the Commission. I would like to move that the officers of the Commission be constituted as the executive committee. My thought in that is that every one of the members of the Commission will have thoughts and ideas that we should use and I thought those matters could be channeled through the executive committee. When we get up to the point where it requires the whole commission action then -

A.I. Johnson. Do you want to put that motion? Is there a second to the motion? It has been seconded that the same officers would constitute the executive committee. All in favor will say aye. Opposed will say no. Motion is carried.

A.I. Johnson. Mr. Chairman. I think that naturally at this first meeting we are just feeling our way here. I think that we have again been given some responsibility that certainly we want to meet. I don't know to what extent we are going to go to work in this field that we are assigned to, but I believe there is some work to be done. At least I think it is the responsibility of this Commission to keep abreast with the whole industry up in the northern part of the state in relationship to the State of Minnesota. I think that in the last Session we ran into a lot of difficulty with figures that were conflicting with some of the figures that we had discovered over the period of years that we were studying this question of iron ore taxes.

A. I. Johnson - continued

Like for instance, I recall the Governor had some figures that he was using on television - he was using them on the air and it was the opinion, I think, of a lot of the members of the Commission that maybe those figures weren't accurate - maybe they weren't as authentic as they should be. I think that being they come from a responsible person like that, I think that they should have some investigation to see whether those figures were right or if they were wrong. I don't say that because Jack Lyons, or somebody like that uses figures that we have to go and determine whether they were right or wrong, because I think generally speaking, he doesn't have too much background for his figures. But when somebody like the Governor uses figures and uses them quite extensively, I think it is a responsibility of this Commission to determine whether those figures are authentic, reliable and factual. I think that we should take those figures that he used in the last session and determine how factual they are. If - and I think it's a responsibility of us to sort of run down this kind of information and determine whether it is something that we can rely on. That's part of the procedure. Now, regarding the staff, I don't think we need a director but I do believe there are times that we have to secure someone that can look into some of the tax problems that might come up before the Commission - somebody that can do some research and get the facts for us. Maybe it can be temporary employment, I certainly don't think it would have to be full employment. Maybe the tax department can help us sometimes - maybe somebody in some other department in the state here can help us - somebody that has some time and can take some time off to do some work for us. As to whether we should have a full time secretary or not, I don't know. I do believe that the way we are working it now with the L.R.C. that I think there can be even with our staff people here, there can be some coordination between our staff people here and the research department, maybe to help out with other interim committees. I think we should try to operate it as economically and as efficiently as we possibly know how to do and coordinate ourselves with other state work that might be available to some of our staff.

Mr. Wright. Mr. Johnson, you were speaking of a secretary, - do you feel that we need a clerk?

Mr. Johnson, A.I. A permanent clerk? That depends a lot on how often we are going to meet. If we don't meet for six months, Senator, then I don't think we need it. If we meet every month, I think - then I think that we need a clerk.

Mr. Welch. I think we would fail in our assignment if we met only every six months.

Mr. Wright. Mr. Chairman, I'd just like to say this. I like very much the policy that we have adapted while this Commission has been operating which was a policy, as I understand it, that the doors of the Commission here were open at all times for anyone to come before this Commission and offer us any information, statistical data, that they wanted to offer and I mean everyone, whether it is the administration backing up their figures or the industries or some of the labor and so forth. I like that policy very much and I think we should continue that. In order to do that it seems to me that there would have to be somebody here that those people could get in touch with and file their requests through and that's why I thought we needed a permanent clerk to the Commission. I think we should proceed to advise people as we did before that the Commission is operating and that it can hear them - anyone and everyone. Now, I think we need a permanent clerk.

Mr. Johnson, C.E. I think we need a permanent clerk or secretary but this clerk or secretary may service and take care of other interim commissions as well as this one. This wouldn't be a full time job because we are not going to write the report again like we have now. We have got the information there and all we have to expect to do now is to follow up and check on, like I say the importation of iron ore - I think that's a good idea and taconite we want to continue to watch the taconite operation. Aside from that, our job is pretty well completed. There is no reason why we shouldn't have a full time clerk and that other interim commissions could be taken care of and we could work together or with the L.R.C.

Mr. Wright. With that idea in mind, Mr. Chairman, I would move that the executive committee be authorized to employ Miss Wylie as clerk of the Commission on such terms as the executive committee feels proper - determining whether she will serve some other interim committee in addition to this one or not.

Mr. Welch. It has been moved and seconded that the executive committee employ Miss Wylie on such terms as they consider proper.

Mr. Johnson, A.I. I support that motion.

Mr. Welch. As many as are of the opinion that the motion should prevail, indicate by -

Mr. Miller. I wonder if anyone has asked Miss Wylie if she would be available.

Miss Wylie. Well, when the executive committee meets on this question, that question can be discussed also.

Mr. Novak. Mr. Chairman, as I understood it, during the Session, I think some of us discussed it, I don't know how generally it was discussed, it was discussed that the interim commission would avail themselves of the services of the L.R.C. as far as personnel was concerned. Now, we are in a little different position. We should have someone to do the necessary work for us and of course, possibly that won't be full time. Then I imagine Mr. Worweiler could arrange with some other Commission that Miss Wylie could work with and fill in her time. Her office should be here.

Mr. Wright. That's up to the executive committee. I think it will line up that she will be serving this commission full time.

Mr. Welch. As many as are of the opinion that the motion should prevail, say aye. Opposed, no. Motion prevails.

Mr. LaBrosse. I'd like to make this suggestion. I think at our next meeting - I don't think it should be too far away, that the administration be asked, whoever it was that got these figures together, relative to what they base the tax rate on, that they should be asked to appear before this Commission. I think we are entitled to that and I

Mr. LaBrosse - continued.

think we should know. I am not convinced in my own mind on several phases of it and I would like to know where they got the figures. I think the Commission has the right to know. I would also like to suggest this. I don't know how many of you people have been up to the northern part of the state. This taconite thing is really moving along fast. Maybe we can't tie it in to the next meeting, but at a subsequent meeting shortly we should have those people down here. They are going to get into production toward the end of the year. There are a lot of things we have to consider in regard to taconite. I would like to have those people invited down here - find out the progress that is being made. I would like to suggest that at the next meeting that we do have the administration - the people who drew up these figures, what they base them on.

Mr. Wright. Mr. Chairman, I'd like to say that I don't think it would be wise to have the issue before this Commission as to whether this administration or any other administration was right or was wrong. I don't like to see it pinpointed to that kind of a proposition. On the other hand, I feel that we should get into all these figures and to that extent I agree with you. But, I don't want to have to sit here and I don't think the rest of you do, and decide whether some particular person or some particular person is right. I don't think you meant that.

Mr. LaBrosse. No, I don't. I think this Commission should be informed as to what basis they arrived at their figures.

Mr. Wright. Alright. I also think that we should get up to that taconite development, or those taconite developments some time this summer - the whole Commission. Goodin.

Mr. ~~Goodin~~ Mr. Chairman. I have been thinking about this thing quite a bit since this session has been over and I set up five points I think that should be studied, probably by subcommittees of this Commission so that the Commission will have something to consider when they have a meeting and the subcommittees could bring in a report. Similar to what we did in the past. There is one thing that is quite tied in

Mr. Goodin - continued.

with this is the St. Lawrence Waterway. I think that St. Lawrence Waterway is quite pertinent to the ore industry in the State of Minnesota and I think that we should have a subcommittee on the St. Lawrence Waterway just like we did before. I think the taconite and low grade ore developments should be studied. I think there is another one - competitive ores, status and cost of competitive ores. I think that's one of the things we should have as a subcommittee study. Also this tax data that was submitted to the Legislature - the tax committees this last session - I think the data that was submitted to those committees should be turned over to a subcommittee and have that subcommittee make a study and then bring in a report to the whole Commission on the study that they have made of the data that was submitted to both tax committees in relation to iron ore taxes. Then I still got this in my head that the exploration permits and procedures should be developed a little bit. We can probably work out some development on new ores on a different basis than what we have. I went to Michigan last fall and went over some of the things that happened and their deal there that they had this suspension of taxes for a certain period of time and the tax commissioner said that this uncovered 100 million tons of ore in small pockets in small areas that they never would have discovered otherwise because they wouldn't have had any incentive to go in and find it if they had to start paying taxes immediately. I think that should be explored a little more. I think along with that we could probably study our labor credits. We have heard a lot about labor credits this year and we had a little suggestion last year from one of the men of the department that probably instead of labor credits we could go into high cost credits, because it isn't only labor that creates high costs in the production of at least low grade ore. I think if we had subcommittees to make studies and then when the subcommittees bring their reports in to this Commission, you are not putting anybody on the spot by having them appear before the Commission and expound their theories before the Commission. The subcommittees can make studies of it and then we will know what we are doing when we

Mr. Goodin - continued

get on to the particular subject that these subcommittees appear before us on. I think - that's five that I've been thinking about. There's probably others that could be done but at least some of the things that we've been doing a little bit on, I think they should be continued if we're going to be of any value as a commission.

Mr. Welch. If you will be good enough to leave your suggestions with the Executive Committee, they can set that up on the agenda for the next meeting.

Mr. Goodin. That's one of the reasons I made the suggestions so the Executive Committee can make studies. I know there are other subcommittees, if you want to combine these or, - it don't make any difference, it's just suggestions to the Executive Committee for the purpose of continuing these studies that have been made.

Mr. Miller. Mr. Chairman, Pat talked about the St. Lawrence Seaway. Well, now I don't remember just who was down there, I know I was there and you were there. We were down to the meeting in Chicago last year where they formed this pact. That pact is a different setup than what we would want. I think your suggestion of a subcommittee to make a study of that St. Lawrence Waterway proposition as it would affect us in this State, should be done. I think we should have such a committee because that's a little different study than this 8-state pact. Their big job is to do the things that the army engineers cannot do as pertaining to the St. Lawrence Seaway. Their committee will cover such things as diversion of waters or the inflowing of waters into the Great Lakes basin - those kind of things and the dockage, dredging. This seaway thing is directly under the army engineers and from listening to that army engineer down there - he was head man of the engineering corps, he certainly opened my eyes and I was talking to the other fellows there - he opened their eyes too on just what they do and what their limitations are and what their duties are. I think if we have a subcommittee that would study from that angle and maybe could get into this eight-state pact, where it affects us, I think we would get a lot of good information.

Mr. Goodin. Mr. Chairman, I agree but there are so many things coming up in this eight-state deal that wouldn't be too much in connection with the type of work we

Mr. Goodin - continued.

are doing, but we have also got another thing coming up and I think it is going to be developing in the next two years and that's the shipment of iron ore down the Mississippi River. There's prospect of putting in docks in St. Paul to ship ore down the Mississippi River to this plant down in Iowa and I think along with the St. Lawrence Waterway, we should probably include all waterways deliveries of ore so that we can make it just the one committee. Because I think that should be watched fairly close and there is no question in my mind but what the St. Lawrence Waterway is going to pose a lot of problems. It is going to develop things not only in connection with iron ore but in connection with the shipment and the type of ore vessels they will be using in the lower lakes and also in the St. Lawrence River to come up the rivers and that's one thing I think that we are going to have to watch fairly close. I think probably the St. Lawrence Waterway and the Mississippi River should be connected with waterway deliveries of iron ore - study the both of them at once.

Mr. Welch. I can give you a little information on that. The Legislature created The Great Lakes Commission, made up of 2 Senators and 2 Representatives - Shipka in the House, Senator Rogers and myself representing the Senate and Campton from the House. That Commission, of course, is to cooperate with the other states (not audible) The work of that Commission will be the assimilation of treaties, etc. (not audible) So that activity will be a little different than the committee on the St. Lawrence Waterway. We will be interested in the transportation facilities, of course. (not audible) It is a small committee and I will be very glad to do all I can to keep the Commission advised of the progress of the work being done.

Mr. Miller. Mr. Chairman, you remember that the engineer told us that there was a fleet of boats now for this shipping down the Great Lakes - boats will be 700 feet long - that's a bigger boat than they have ever used on the Lakes and the channel will be 27 feet and that will be ready for shipping, I think by 1959 - I'm sure that shipping will commence - that new fleet of boats - it might be before that.



Mr. Miller. That will mean a lot of changes in shipping on the Great Lakes.

Mr. Goodin. Mr. Chairman. I think we are going to have a lot of changes in shipping on the river. I was down in St. Louis at the Upper Waterways convention in February and I sat in with some of these engineers who have been studying this and they are going to - these locks they are putting in on the river are going to be able to take care of quite a bit larger vessels, or larger boats, than they have been. There isn't any question but what they are going to do something about this supplying iron ore to this Iowa mill and they can't get enough out of southern Minnesota, for what they say. So they are going to have to set up some way of getting it from the Range down to St. Paul and putting a dock on the river in St. Paul. They had quite a discussion about it and if they get the upper locks in the river, probably it will be Minneapolis. Wherever it is, it will be around the Twin City area. There are excellent facilities from Duluth down - think there's 4 or 5 railroads from Duluth to Minneapolis or St. Paul. There's enough lines there to carry whatever ore they want without additions because the transportation of other products from Duluth by rail has dropped considerably and the railroads are looking forward to hauling ore to the Twin Cities for shipment down the river. I think that is probably going to develop before the St. Lawrence Waterway deal.

Mr. Welch. I think the procedure here would be for the Executive Committee to get a list of all suggestions and submit suggested rules for operating of the Commission. If you have in mind any changes to be considered, write into the office and we will take them up and work them in. If it is agreeable with you, we will handle it that way. There are two new members, Mr. Lindquist and Senator Keller, and we will have to take into consideration changes in the membership of the various subcommittees.

Mr. Peterson, Elmer. Mr. Chairman, on page 4 of our last report, there were set up in 1951 and 1953 nine subcommittees. In going over the subject matter in the titles of these subcommittees, I find there is a lot of unfinished work in the majority of the committees listed and I think the Executive Committee will study that and see if by even changing the titles, I think that these nine can find out most anything that we

Mr. Peterson, Elmer - continued.

should know and we should carry on this unfinished business or bring at least some conclusions to many of the questions.

Mr. Johnson, A.I. I think the idea is fine. I believe that you should call another meeting after you have decided on a program for the subcommittees and also I think that you should outline to the full Commission what the procedure - what the agenda is going to be for the various subcommittees so that we will know what they are working at and what is expected of them. Now, I think there is going to be a lot of development - we have the Seaway coming up - the taconite development - the impact of foreign ores and we have taxes - all these things. I don't think that we should think just because we have worked on this for four years that we should take this study or the responsibility of this in the next two years lightly because you can see that you are still running into tremendous controversy on some questions regarding iron ore in these legislative sessions and I still think it's the responsibility of this Commission to sort of eliminate as much as possible these controversies and you can only do that by unbiased, factual information. That's the way we are going to have to proceed on it. So I do believe that we have a lot of work to do and I think that when you start on your procedure of your subcommittees and the announcements - and you want to announce those subcommittees, I think you should call a meeting of the whole Commission and talk about it again.

Mr. Welch. I would suggest this. So far as topics of study are concerned, I think it would be a good idea if any member of this Commission has some definite topic that he wishes to be assigned to a subcommittee for study and report, just submit it to the Executive Committee at any time. I think that will take care of it - it has worked out well for Legislative Research to handle it that way. Just submit any topic you have to the Executive Committee and we will bring it up at the next meeting and the Commission can then decide whether it should be gone into.

Mr. Johnson, A.I. Mr. Chairman, you will have a subcommittee again on taxes? Maybe different phases of taxes and I still want to pursue what Frenchy has talked about here - that, maybe it shouldn't be next time, but we should have some people coming here and appear before this Commission and tell us about how they arrived at some of these figures. If we don't do it next time I think we should do it some time in one of the early meetings so that we get some background of information there that they have probably got that we haven't got.

Mr. Welch. We will invite them, not with the idea of criticism but that they may have some information we don't have.

Mr. LaBrosse. Mr. Chairman, following that up, it was not my intent to put anybody on the spot - the Governor or anybody else. I thought maybe at the next meeting we could have before us, though our secretary, how these figures were arrived at. I think that we have got to get going on this early and see just how factual these figures are. Maybe we don't have to have anybody appear. Maybe our Secretary can get the information so that we can see it and we go over it. I think that we should get into that. I had no intention of putting anybody on the spot. I just think that's one of the phases that's very important - we have a lot of work to do on taxes, the seaway but a lot to do on taxes.

Mr. Novak. I agree with Mr. Johnson and Mr. LaBrosse. It seems to me that between now and the next meeting Miss Wylie could get sources of information that were available. Someone made a mistake somewhere.

Miss Wylie. I have it all here now.

Mr. Novak. You have those sources of information that were available to the administration?

Miss Wylie. Yes.

Mr. Novak. That wouldn't all have to be typed for the next meeting but that could be supplied to the subcommittee that's going to be appointed and then they could

Mr. Novak - continued.

into it in detail and bring in a report to the full commission. I think we ought to decide that today so that we know where the research should be made.

Mr. Johnson, A.I. Mr. Chairman. I would say this. I don't think Miss Wylie would be in a position to give us the necessary information on how they arrived at these figures. I think that we have to ask some of these experts that really worked on it and I know that they - there was a lot of work done and the work was done by reliable, responsible people and let's have them come in and show us how they arrived at these figures.

Mr. Novak. Well, my idea was that Miss Wylie could get the source of that information and make them available to the subcommittee that's to be appointed by this commission at the next meeting. Then that subcommittee can go into that thing and study it and see whether we are the ones that are mistaken or whether it was somebody else that made a mistake. (rest not audible) There were many things that appeared to be omitted there, I think. If we could get these sources then the subcommittee can contact these people and -

Mr. Welch. Why not invite these people to come up here and tell us what the source is. I think we can do that before the entire Commission.

Mr. Goodin. Mr. Chairman, in order to save the time of the Commission - sure, we can call all these people in and hear them and we will be no further than we are right now. If we have a subcommittee make a study of this before we call them in, then the subcommittee will go into some of the details that the Commission doesn't have time to do and won't do at a meeting. We don't have to have it at the next meeting or probably the following meeting but if the subcommittee will take it upon themselves to investigate these sources and to investigate some of the things that came in before the tax committees on iron ore taxes and then we will be in a whole lot better position, I think we will save considerable time on the Commission in hearing these people if the subcommittee makes the study first.

Mr. LaBrosse. Mr. Chairman, I can't go along with that. I think that these people should be invited and that the whole Commission should hear them. Then I say the subcommittee should go into it in detail. But I think the whole Commission should hear this thing. I would like to move at this time, Mr. Chairman that these people be invited to appear before the full Commission.

Mr. Goodin. Mr. Chairman, I have no objection to the Commission inviting any of these people to come before the Commission, but I know what will happen and it is going to be the same thing that happened at more of these meetings. We are going to have one group get up and take the whole time of the meeting without going into detail on what we want and if a subcommittee makes a study of this thing first and then bring those people in we will have a foundation to work on in my opinion. Maybe I am wrong, I don't know but I know when we bring in people here - a lot of people brought in testimony and any one of them could take the whole time of the Commission for one meeting, bringing in just their own testimony and I think if this thing was referred to a subcommittee first and then the subcommittee made arrangements to get these people in that they wanted to testify because they would be in a better position then to get the testimony before the Commission that we want. That's the only reason I suggested the subcommittee first.

(Not audible - several were talking)

Mr. Welch. Now to get back to the question of how you want to work this. I think we should invite them in and see what they have.

Mr. Johnson, A.E. Mr. Chairman, we might find this too, that after we hear a report from these people, that there would be parts of it that could be referred to more than one committee and by the whole Commission hearing it I think maybe we would all get the benefit of it. I would like to suggest now that we leave it to the Executive Committee to work out this procedure that we have been talking about - getting our subcommittees lined up and they will call the whole Commission for a report to line up

Mr. Johnson - A.I.- continued.

these subcommittees and give them their responsibilities and then at the same time, that same day, we could have these people come in and they could make a report of their findings and how they arrived at their figures and so on.

Mr. Welch. Give them an hour and an hour and a half and then the Commission can decide what to do from there on.

Mr. Johnson, A.I. I think that should be done maybe within the next three or four weeks.

Mr. LaBrosse. I would like to support that - is that a motion A.I.?

Mr. Welch. You made a motion a while ago.

Mr. Johnson, A.I. I'll make that motion. I move that we leave it to the Executive Committee to work this out and call us in as soon as they have it ready.

Mr. LaBrosse. Second the motion.

Mr. Welch. The motion has been made that the Executive Committee make arrangements to hear parties interested in presenting their views on iron ore taxation at the next meeting immediately following the routine business. As many as are in favor that the motion should prevail, say aye. Contrary, no. Motion prevails.

Mr. Lindquist. Mr. Chairman, ~~Excuse me~~ I'd like to ask a question. Could Miss Wylie make a copy of the report or information?

Miss Wylie. There is only one copy but more can be made. It consists of the presentation given to the Legislature. Harry Groschel was up here and gave me the material from his file.

Mr. Welch. Would the members of the Commission like to have a copy in advance so that they can read it?

(not audible - several were talking)

Mr. Welch. We will get all the material that is available and send to the members of the Commission for study. Is that what you want?

Mr. LaBrosse. Mr. Chairman, I'd like to make a suggestion. Last week I happened to run across a magazine that is put out monthly which I think the Commission should have. It's called "Venezuela up to Date". It's put out by the Venezuelan Embassy in Washington. I don't know whether you have seen it, but there's a wealth of information in there - it's really an informative book.

Mr. Welch. If you gentlemen are interested, I'll write for it.

Mr. Peterson, Elmer. In 1951 this Commission purchased "Statistical Abstract of the United States". A copy of that comes out every two years - that would be '53 and possible '55. I would like to have the secretary be authorized to send for four copies - that is two of each year so that any member who would want to take one home and study it and bring it back - I have found it to be very, very good information and I think we should have them.

Mr. Welch. Alright, we will do that. Anything else anyone wishes to suggest for the preparation of our study?

Mr. LaBrosse. Mr. Chairman, only this. I don't know what you have on the agenda for the next meeting but I do not this. I went up to the North Shore and this taconite is getting bigger. I just wonder if maybe it wouldn't be - if we don't have anything on the agenda for the next meeting that we invite these people down here as to their progress. We are going to have problems up there in regard to the schools and stuff like that and it's going to take a lot of study. If we haven't anything on the agenda, I just wonder if it wouldn't be -

Mr. Johnson, A.I. Oh, we will have all we can do next meeting, I think with what we have got already. Maybe at the following meeting.

Mr. Dunn. Mr. Chairman. Some of us haven't had an opportunity to view that situation. I haven't myself ever been in that area. I was busy up home during the summer when that trip was made. I would think that instead of inviting them down here

Mr. Dunn - continued.

we should have a meeting up there - there are some new members on the Commission and some of the old members haven't been up there. Even those who saw it a year ago would find quite a lot of changes, I'm sure. I think it would be good to do this sometime the early part of September.

Mr. Welch. Gentlemen, I think it would be a good idea but I think at some point you are going to have an invitation to the Legislature to go up there - I think that would be a very fine thing. I think the invitation will come - I don't know that it will, but I would think if these people are interested in laying their cards on the table to show what they have up there, it would lead to a very clear understanding. I know by looking at it I certainly had a very different idea of it than I had when I started. A good many of us on the Commission haven't seen many phases of iron ore mining. I know I haven't. I was unable to inspect the blast furnaces in the East. I was unable to go to Michipocoten and, while it was a long ways away, I am very sorry that everybody wasn't able to go to Venezuela - it was well worth while. Sometime when we can get to it and the accommodations are available, I think those Labrador fields ought to be examined at least by the members who haven't seen them. Those are just a few thoughts. We certainly want to see that the new members are familiarized with the whole thing.

Mr. Johnson, A.I. Mr. Chairman, I think Mr. Dunn's suggestion to kind of plan for the early part of September - I think that's a good time.

Mr. Goodin. Mr. Chairman, I think we should make one trip just on this taconite development - at Silver Bay and Partridge Lake and the plant at Aurora and Babbitt. It is going to take about three days if you are going to go all over it properly.

Mr. Welch. Three or four days, I don't want the rush put on like it was last time. Mr. Dunn, the Executive Committee will see what can be done about making such an arrangements. We will take care of that and report to you at the next meeting.



Mr. LaBrosse. Mr. Chairman, I'd like to mention this too. There were very few of us who went up to Steep Rock - it isn't far. There is a tremendous body of ore there. I think the Commission should - it isn't too far - it is the closest thing we have got in competition and I think the Commission should see that. I think they shipped around 5 million tons last year. I think that's one thing we should look into before winter sets in - there's a tremendous deposit up there, - right next door to us. Very few of us have been up there.

Mr. Novak. I think these trips don't have too much value unless the Commission goes - Mr. Speaker - you got away from every one of these trips. He should have the information that was available to us - should see by observation. I think all the members of the Commission should go. Last time it was impossible to get any substantial number of the Commission members to go on these trips and they were invaluable, in my estimation. We ought to set dates far in advance so that everybody could arrange to make these trips. It is no use making them and then some of us getting ideas that others think is just propaganda. It would be so much better if everybody could observe themselves.

Mr. Johnson, A.I. Mr. Chairman, I'd like to correct you just a little bit. I did go on that trip to the Northern part of the State and saw all of the developments - all the mines up there. I spent three days up there and I, Myself, thought that was the most important information. Surely, when we go a long distance, I think it's well to go, but I still think that maybe a committee of five or six, or something like that can go and bring back the information rather than the whole Commission. So, I will have to disagree with you.

(Not audible - several talking)

Mr. Welch. Gentlemen, the act creating this Commission says this: "This Commission" - it doesn't say subcommittees - "This Commission shall make a comprehensive detailed and complete investigation and study". You can't beat first hand, visual information.

(Not audible - several talking)

Mr. Welch. Is there any further business?

Upon motion duly made and seconded the meeting adjourned subject to the call of the Chair.

1955

LEGISLATIVE COMMISSION ON TAXATION OF IRON ORE  
Room 238, State Capitol, St. Paul, Minnesota

1955 - SECOND MEETING  
Thursday, July 14, 1955

The Legislative Commission on Taxation of Iron Ore met at 2:30 P.M. on Thursday, July 14, 1955, in Room 238 State Capitol and in the absence of the Chairman was called to order by the Vice Chairman, Mr. Cina.

Roll call showed the following members present:

Senate

Archie H. Miller  
C. E. Johnson  
B. G. Novak  
Donald O. Wright  
J. R. Keller

House

Alf L. Bergerud  
Fred A. Cina  
Lloyd Duxbury, Jr.  
H. P. Goodin  
Francis LaBrosse  
L. R. Lindquist

Mr. Cina stated that the Executive Committee had re-hired Miss Wylie at a salary of \$450.00 per month, with the understanding that she would be handling no work for other commissions or committees out of Legislative Research.

It was moved by Mr. Goodin, seconded by Mr. Wright, that the matter of hearing parties interested in presenting their views on iron ore taxation be continued until the next meeting of the Commission. Motion adopted.

After a discussion on ordering new letterheads and substituting the word "Legislative" for the word "Interim", the following motion was adopted:

It was moved by Mr. Wright, seconded by Mr. Miller that the Secretary be authorized to purchase 3,000 letterheads, substituting the word "Legislative" for the word "Interim", together with the new members and putting the Secretary's name thereon. Motion adopted.

There was a discussion of subcommittees and membership thereof. A tentative list of the subcommittees and memberships was presented, a copy of which is attached hereto. The following motions were adopted:

Mr. Novak moved, seconded by Mr. Johnson, C. Elmer, that the subcommittee on Taxes on Ore Carriers be suspended. Motion carried.

On motion of Mr. Goodin, seconded by Mr. Wright, the title of the subcommittee on Labor Credits was broadened to read "Labor Credits and High Cost Ores". Motion carried.

It was then suggested that the Secretary duplicate copies of the subcommittees and their membership so that each member could have a copy at the next meeting, at which time action could be taken by the Commission.

It was determined by the Commission that Mr. Groschel would be invited to be heard at some future meeting and that he may bring whomever he wishes with him who assisted in the preparation of the material submitted to the 1955 Legislature to present their or his views to the Commission. After this meeting, it was determined that the mining companies would be invited to present their views.

There was a discussion on the matter of an inspection trip to the Taconite area. The dates selected for the trip were September 14, 15, 16, 17, etc. The Secretary was directed to arrange transportation by bus, hotel reservations and then notify Commission members as soon as an agenda for the trip is available.

The Commission thereupon adjourned.

## S U M M A R Y

Minutes of the Third Meeting

September 1, 1955

### LEGISLATIVE COMMISSION ON TAXATION OF IRON ORE

#### Page Numbers

- |   |                         |
|---|-------------------------|
| 1. Membership of subcommittees approved and adopted   | 1, 2                    |
| 2. Employment of Mr. Frank Downing to make trip of operating mines and Taconite area, reporting to Commission in writing of findings. | 2, 3, 6, 7,<br>8, 9, 10 |
| 3. Discussion of Taconite Inspection trip to be made by Commission - Sept. 13 to 17th.  | 4, 5, 6                 |
| 4. Appearance of Harry Groschel before Commission   | 10 to 59                |
| 5. Discussion on request for copies of minutes to non-Commission members  | 59 - 61                 |

1955

INTERIM COMMISSION ON TAXATION OF IRON ORE  
Room 238, State Capitol, St. Paul, Minnesota

1955 - THIRD MEETING  
Thursday, September 1, 1955.

The Interim Commission on Taxation of Iron Ore met at 9:30 A.M. on Thursday September 1, 1955, in Room 238, State Capitol and was called to order by the Chairman.

Roll Call showed the following members present:

Senate

C.E. Johnson  
J.R. Keller  
Archie H. Miller  
B. G. Novak  
Elmer Peterson  
Thomas P. Welch  
Donald O. Wright

House

Alf L. Bergerud  
Fred A. Cina  
Roy Dunn  
H.P. Goodin  
Alfred I. Johnson  
Francis LaBrosse  
Leonard E. Lindquist

And the following members not present:

Thomas D. Vukelich

Lloyd Duxbury

Mr. Welch. The first matter is the membership of the subcommittees. You gentlemen each have a copy of the membership of each subcommittee as suggested at the last Commission meeting. We will review them briefly. They are as follows:

1. QUALITY AND EXTENT OF MINNESOTA IRON ORE RESERVES AND COMPETITIVE RESERVES ELSEWHERE: Representatives Cina, Lindquist and Goodin; Senators Novak, Wright and Welch.
2. COST OF MINING AND DEVELOPING MINNESOTA ORES AND COMPETITIVE ORES IN OTHER PARTS OF THE WORLD: Senators Keller, Miller and Peterson; Representatives Duxbury, LaBrosse and A.I. Johnson.
3. ADVISABILITY OF USING LAKE ERIE PRICE AS A TAX BASE; AND OTHER PERTINENT TAX DATA: Senators Miller, C.E. Johnson and Vukelich; Representatives A.I. Johnson, Bergerud and Lindquist.
4. IMPACT OF NATIONAL DEFENSE CONSIDERATIONS: Representatives Dunn, Goodin; Senators C.E. Johnson and Keller.
5. ST. LAWRENCE SEAWAY: Senators Peterson and Wright; Representatives Dunn and LaBrosse.

6. LABOR CREDITS; HIGH COST ORES: Senators Peterson and Wright; Representatives Duxbury and A.I. Johnson
7. DRILLING PERMITS AND TAXES ON NEWLY DISCOVERED ORE: Senators Vukelich, Keller; Representatives Bergerud and Goodin.
8. TACONITE TAX, ETC. Senators Wright, Novak and Welch; Representatives Cina, Dunn and LaBrosse.

That is the proposed membership of the subcommittees. You will note that the balance of equal membership from each the House and Senate has been maintained. If there are no objections, the Chair will entertain a motion that they be established.

Mr. Novak. I so move.

Mr. Cina. I second the motion.

Mr. Welch. It has been moved and seconded that the membership of the subcommittees be as stated on this sheet supplied to each member of the Commission and just read. As many as are in favor say aye. It is so ordered.

Mr. Welch. The next item on the agenda is a letter from Mr. Downing. I am sorry I don't have it with me. Anyway, Mr. Downing said that he would be available to assist the Commission and suggested that he was going to take a trip in August to go up to some of the points in the northern part of the state and would make an examination of the mining installations and prepare himself to give us any information if we desired. I wrote to him and suggested that the Commission was planning a trip on - the 13th to 17th of September to inspect the mining installations and that I would place the matter before the Commission and if they desired to have the services of Mr. Downing, we would advise him, having in mind that if we did it would be well to have him accompany the Commission on this inspection tour. That is what it amounts to, gentlemen. If you have any comments or proposals, I would be glad to hear them.

Mr. Novak. In what capacity would he go, Mr. Chairman?

Mr. Welch. Well, if he went with us, of course he would be employed by the Commission, I suppose. As you know, we don't have a full time director. We decided it

Mr. Welch - continued.

wasn't essential and I did feel perhaps that we might use the services of Mr. Downing at some intervals, at least. You all know his background as well as I do. He has the technical knowledge of iron ore taxation and engineering and he is already familiar with the problems.

Mr. LaBrosse. In view of the fact we had him along before and if he went, he could turn in a report, I would like to move at this time that we invite him to take this taconite trip.

Mr. Welch. As Mr. Novak stated, we would need to know in what capacity he would go, I think. Mr. Downing intended to be present, we can pass that until he gets here and see what he has in mind, or if you wish to discuss it to determine the advisability of having somebody with his background-

Mr. Johnson, A.I. Mr. Chairman, has Mr. Downing been employed up to now? He hasn't. If he goes with us now, we would perhaps continue his employment until his report is written anyway. We would hire him only as a consultant then?

Mr. LaBrosse. We could hire him with the understand - I mean he says he doesn't want to work full time and we would put him on for a period of time.

Mr. Johnson. I think that would be the way to arrange it with him. Whenever we need him.

Mr. Cina. Let's wait until he comes and we can find out what he has in mind.

Mr. Welch. We could hire him on a per diem basis, week or two or three months at a time, that's alright.

Mr. Dunn. I believe it would be alright to have him, his work before seems to have been alright, but I think we ought to have him on a per diem basis.

Mr. Welch. I haven't talked to him at all. I just had this letter and there is no agreement at all. I thought the letter should be laid before the Commission. When he gets here we can talk to him. We can pass that temporarily.



Mr. Welch. Now then, we have this taconite trip and we have chartered a Greyhound Bus. In order to know just what we need in the way of bus accommodations, we would really like to know who plans to go on the trip.

(discussion at this point not audible.)

Mr. Welch. We would like to know just about what time you would like to leave the cities. It takes about four hours to drive up to Virginia. What time would you like to arrive in Virginia? Would you like to stop and eat dinner on the way up or would you like to arrive there in time for dinner?

Mr. Wright. I think it would be nice if we could eat dinner in Virginia.

Miss. Wylie. Then you would like to plan on having the bus leave between 1 and 2. It will leave from Minneapolis about a half hour earlier than from St. Paul. I will send you each a memo on departure and a complete itinerary of the whole trip.

Mr. Welch. Now, there are two sizes of bus we can have. One is a 29 and one is a 37 passenger. Mr. Spaeth and Mr. Nolan took the trip with us in 1953. I think it would be a good idea to have them with us. Senator Rogers and Floyd Anderson - I understand Mr. LaBrosse has requested that they be invited.

Mr. LaBrosse. Well, they asked if they could go along.

Mr. Novak. Senator Schultz wants to go too.

(discussion not audible)

Mr. Johnson, A.I. Mr. Chairman, I think the important thing to the Commission is to have enough technicians along, that is from the Tax Department and also from the mining companies so that we can have the questions that come up in our mind answered. That's the important thing to the Commission and besides that, then I think we should accommodate as many people as we can. I do believe we need to have some of these experts with us that can answer the questions that might come up as far as the Commission is concerned.

Mr. Wright. Mr. Chairman, I shall move that the Commission invite on this taconite trip Mr. Spaeth of the Tax Department, Mr. Nolan, Division of Minerals, such

Mr. Wright - continued.

technicians as the mining companies desire to furnish who will be able to answer questions of the members of the Commission and that the members of the House and Senate from St. Louis, Cook, Aitkin and Itasca Counties be advised of the trip and advised that they would be welcome to join the party but would have to make their own accommodations both with respect to transportation and otherwise.

Mr. Novak. I think you are getting too involved - if you send an invitation -

Mr. Wright. If I might say, my motion didn't say to send an invitation, it said that they be advised and that they would be welcome to join the party provided that they would be responsible for their own transportation and accommodations. Well, kick it around - whatever you want to do with the motion.

Mr. Welch. Is there a second to that motion?

Mr. Johnson, C.E. Johnson. What is that motion? Who is going to be advised - everybody?

Miss Wylie. Mr. Wright moves that the Commission invite on this taconite trip Mr. Spaeth and Mr. Nolan and such technicians as the mining companies desire to furnish who will be able to answer questions of the members of the Commission and that members of the House and Senate from St. Louis, Cook, Aitkin and Itasca Counties be advised of the trip and advised that they would be welcome to join the party but would have to make their own accommodations, both with respect to transportation and otherwise.

Miss Wylie. I wonder if we shouldn't check to see how big a group can be taken through the various areas at one time? I would imagine about 25 or 30 would be about as many as could be handled.

Mr. Hastings. 25 or 30 would be the most we could make arrangements for reservations for accommodations.

Miss Wylie. How about going through the plants - a larger number would curtail our group and take much longer, wouldn't it?

Mr. Hastings. It would take longer,

Mr. Johnson, A.I. Mr. Chairman, I think we should revise this motion. I think the pertinent thing here is to get the people who are going to do the Commission some good. I would like to ask Mr. Wright to divide his motion and make a motion that we ask Mr. Spaeth and Mr. Nolan and other technicians that we think would be available and could contribute something to our study of this iron ore range. Then, after that, then we can kick around these other people that should go with us. I do believe the important thing is to get these technicians - that's the purpose of the trip. If Senator Wright would want to divide his motion, why I think we could get some place.

Mr. Wright. I think it's a good suggestion - I would be very happy to divide the motion. If you would read the motion and just take the first part of it.

Miss Wylie. Mr. Wright moves that the Commission invite on this taconite trip Mr. Spaeth and Mr. Nolan and such technicians as the mining companies desire to furnish who will be able to answer questions of the members of the Commission.

Mr. Wright. Very good.

Mr. Novak. I second that motion.

Mr. Welch. As many as are in favor of the motion as just read, say aye.  
Contrary, no. It is so ordered.

Mr. Johnson, A.I. Now, Mr. Chairman, I do believe that some consideration should be given to these people who have asked to go along.

Mr. Cina. Mr. Chairman, Mr. Downing is here now. Let's dispose of his matter first.

Mr. Welch. Mr. Downing, after I received your letter, I invited you to come down and see what arrangements could be worked out.

Mr. Downing. What I had in mind was a visit to the range and report it to the Commission.

Mr. Welch. What arrangements did you have in mind that should be between you and the Commission with respect to compensation, expenses and so on?

Mr. Downing. The Commissioner says that he is operating on a pretty close budget and that as far as the trip to the mines that Mr. Emerson is taking, I could go with him without any travel expense. As to the balance, they would expect the Commission to meet the travel expense for the remaining time.

Mr. Welch. Did you have in mind for yourself per diem while you were on the trip and making the report to this Commission. Let's get down to brass tacks, what did you have in mind?

Mr. Downing. I would expect to forego the usual \$100 a day fee and limit this trip to the mines to not less than \$300 nor more than \$500 for a trip and report.

Mr. Bergerud. On the basis of per diem, what do you feel you -

Mr. Downing. \$75 a day.

Mr. Welch. Did you expect to visit mines in addition to those that the Commission will be visiting or the same mines?

Mr. Downing. Operating mines.

Mr. Peterson, Elmer. Mr. Chairman, as I understand it, Mr. Downing would like to accompany Mr. Emerson on a complete review of all the mines that are working on the range. Mr. Emerson is the gentleman who took Mr. Downing's place in the Tax Department.

Mr. Bergerud. Why can't Mr. Emerson give us a report? Maybe it would be better, Mr. Chairman, if we had a report of our own, I don't know.

Mr. Cina. We are talking about two different subjects - one is the trip to the operating mines with Mr. Emerson and the other is the taconite trip with the Commission. I don't think he answered your question, Mr. Chairman. I think he is confused in his thinking and is talking about the trip with Mr. Emerson and not the taconite trip that you asked him about.

Mr. Welch. Mr. Downing, I don't believe you understood - as I understand it, you plan to go with Mr. Emerson and make an examination of all the mines up there, is that it? Oh, the principal operating mines, let's put it that way. And you say that for doing that and making an examination and report to the Commission, the fee would

Mr. Welch - continued.

run not less than \$300 nor more than \$500, is that right? Now with respect to the taconite trip, what is your idea on that?

Mr. Downing. \$300 in addition to the mining trip or about \$800 for the whole trip.

Mr. Welch. How much time would that take.

Mr. Downing. A week to ten days on the range and the write up nearly the same time.

Mr. Cina. He still doesn't understand. Mr. Downing, we are taking a trip for four days, 13th to the 17th, and what the Chairman is asking you is that if we take you along on this trip, what your charge would be. We couldn't stay up on the range for a week to ten days.

Mr. Downing. Yes. Say \$300 in addition to the mining trip - that would make it about \$800.

Mr. Cina. Oh, I see - I didn't understand that. You are talking about the whole thing.

Mr. Peterson, Elmer. Mr. Chairman, in the past we have left things like this to the steering committee and we -

Mr. Welch. Well, as long as you are here, you might as well be in on it.

Mr. Cina. I'll make a motion, Mr. Chairman, that Mr. Downing be employed by the Commission to make an inspection of the operating iron ore mines and that he also take the taconite trip with the Commission and that his fee be placed at \$800 for the trip and a report to the Commission.

Mr. Bergerud. Mr. Chairman, let's see, that would be 15 to 20 days - that would amount to about \$50.00 a day.

Mr. Wright. How about his expenses.

Mr. Cina. One trip he would be traveling with Mr. Emerson and the other trip he would be with us.

M Mr. Bergerud. He would still have to have his food and lodging.

Mr. Dunn. The 15 or 20 days - would that include all the time required to write the report? What would you do, come back in here and dictate his report?

Mr. Keller. Did I understand that the Tax Department would pay your expenses while you are traveling with Mr. Emerson?

Mr. Downing. No, just the travel during the week he is visiting the mines. The remainder of the mines, I would assume -

Mr. Cina. Mr. Downing, on these mine inspections, do you intend to take in others besides those Mr. Emerson is going to?

Mr. Downing. He might be able to go with me to others when he has completed those he has regularly scheduled for that week.

Mr. Cina. You might be up there a long time then?

Mr. Downing. I'll be up there a week or ten days.

Mr. Welch. Doesn't everybody understand it now?

(discussion not audible)

Novak.

Mr. ~~Wright~~ Would it be satisfactory, Mr. Downing, if we make that a flat figure of \$800 and you pay your own expenses?

Mr. Downing. Yes, it will.

Mr. Wright. I move that Mr. Downing be employed to do the work specified at compensation of \$800, he to pay his own expenses and that he be invited to join this taconite tour.

Mr. Welch. Mr. Downing, do you understand Senator Wright's proposition?

Mr. Wright. The proposition is, Mr. Downing, that you are to do this work, including the taconite trip. You are to be paid \$800 and you are to pay your own expenses, including expenses on the taconite trip, except that you will go along with us on the bus and you will have no transportation to pay. Is that satisfactory?

Mr. Downing. Yes.

Mr. Welch. You have all heard the motion. As many as are of the opinion the motion should prevail, say aye. Contrary, no. It is so ordered. Alright, that takes care of it. You are invited to go with us and you will be notified of our schedule.

Mr. Welch. The next thing on the agenda is, I believe, Mr. Groschel.

Mr. Groschel. Mr. Chairman, first of all I think I might as well explain that my interest in this was purely through being an employee of the state. Part of the budget division duties - I'm Harry Groschel, budget examiner is to prepare the final budget for the Governor and to do related work in that respect. The Governor recommended certain tax increases. As a result of his recommendations, the commissioner of administration assigned to me the task of getting information on these taxes and because of the commissioner of administration's other duties, Senator Frazer was appointed to direct the study on these taxes.

Mr. Welch. Who appointed Senator Frazer?

Mr. Groschel. I don't know who appointed Senator Frazer to do the work. All I know is that the commissioner was too busy to direct it so I was informed to report to Senator Frazer.

Mr. Welch. Who told you to report to Senator Frazer?

Mr. Groschel. Mr. Naftalin. So it was an employee performing the duties as a budget examiner so I made a study of the iron ore taxes in particular, although I did have other tasks also.

Mr. Wright. Mr. Chairman, I'd like to ask a question. When did you begin your study?

Mr. Groschel. I would say it was approximately the first of February.

Mr. Wright. First of February of 1955?

Mr. Groschel. That's right, of '55.

Mr. Bergerud. Mr. Chairman, would it be in order here, I would like to have his background of education and experience for the records here.

Mr. Groschel. I have a degree in business administration in 1948 from the University of Minnesota. Since then I have been attending extension courses continuously in public administration at the University.

Mr. Bergerud. The question I wanted to ask - are you an accountant or an -

Mr. Groschel. I have a degree in accounting.

Mr. Bergerud. Are you a certified accountant?

Mr. Groschel. No, I am not. My experience is 5 years - 6 as public examiner and about 3 years with the department of administration.

Mr. Bergerud. Have you ever done any public accounting?

Mr. Groschel. No public accounting except for the state. And, incidentally I come from the Range - Eveleth is my home town - I lived there for about 20 some years.

Mr. Waight. What is your age?

Mr. Groschel. 35. In undertaking this study I had all the avail - some of the available information such as interim commission reports. I have discussed certain phases with your secretary, Miss Wylie. I read certain reports, some of which were perhaps partisan - there was the CIO, AFL - I had Mr. Montague's report of November 1954 on the interim commission studies; I had the Material's Policy Commission Report of 1952 which was appointed by President Truman. I had a report of the Anti-trust case - or hearings on anti-trust case by district departments. And from this information and access to the records of the department of taxation - they authorized me to go to any records which any other public - any other person would have access to. They did not give me any of their work papers but they gave me all of their files that any other person would have access to and from that information I gathered the memorandum which you have in front of you for Senator Frazer. As a result of this memorandum, it was discussed with Professor Body of the University, with Mr. Spaeth, Mr. Nolan and I believe several legislators were also in on the preliminary - discussed this draft. Since then there were some additions made, some corrections, which Senator Frazer brought out during his presentation during the session.



Mr. Wright. When you said you discussed this with several members of the legislature - what members of the legislature?

Mr. Groschel. Senator Peterson was at one of them. I think so was Mr. Johnson, Representative Johnson and there was Mr. Widstrand, Mr. Rutter. I can't recall - there was some others but I can't recall off hand, Senator Wright.

Mr. LaBrosse. Mr. Chairman, I would like to ask at this point - did you study the report that was drawn up by the United Steel Workers of the CIO?

Mr. Groschel. Yes, I had a copy of it.

Mr. LaBrosse. Is that in here - any part of it?

Mr. Groschel. I don't believe that the CIO enters - that any part of the CIO report is in here. I did not take any of that information. It was - took the period of, I think, 1921 or even before that and I think it was - we did not - I can't say that I disagree with the information but I did not think it was brought in the best light, I mean in a partisan light -

Mr. LaBrosse. You mean that the last figures you got in a CIO report was 1921?

Mr. Groschel. No, it was a 1952 report -

Mr. LaBrosse. Did you go over it?

Mr. Groschel. I did go over it, yes but there is nothing here taken directly from the report. So, the first determination was -

Mr. Wright. You also consulted with other people about this report, didn't you?

Mr. Groschel. Mr. Spaeth and Mr. Nolan were the - my primary - Mr. McAdams was in on this; Mr. Robertson from the tax department also and as I said, Professor Body from the University of Minnesota; Mr. Ha\_\_\_\_\_ also from the University of Minnesota, he was ill in bed but he received copies of the report and therefore reviewed them. I believe that is -

Mr. Wright. Didn't you consult with people who were not connected with State government or the university -

Mr. Groschel. No, I did not. I did not consult with anyone outside the state departments and the University, that's right. So, the point that was - that I was supposed to bring out is that the iron mining companies could substantially have a tax increase - that it would not - to determine whether it would affect employment on the range and future expansion.

Mr. Wright. I would like to have that read back,

(at this point the above statement by  
Mr. Groschel was played back).

Mr. \_\_\_\_? Basically those were the instructions under which you worked?

Mr. Groschel. That is correct. In other words, to give the administration some information on iron ore taxes and its effect.

Mr. Wright. You received those instructions from whom?

Mr. Groschel. Mr. Naftalin and Senator Fraser.

Mr. Cina. Well, let me ask a question right here now. The way you worded that sentence it seems as though you had a conclusion drawn before you made the prime study. Is that what you were instructed to do or were you to make a determination?

Mr. Groschel. No, I was instructed to get out information on iron ore taxes. Perhaps maybe the first thing I - whether a substantial <sup>increase</sup> could be assessed to the mining companies, would be more accurate than that they could absorb it.

Mr. Wright. You just told us, and that's the reason I wanted this record played back; as I understand it, you have told us that you were instructed to substantiate the fact that a substantial increase could be borne by the iron ore industry. Is that right? That's what you have said in the record, isn't it?

Mr. Groschel. I believe I said that in the record, yes.

Mr. Wright. Now, is that correct?

Mr. Groschel. Not entirely. Of course, I cannot say for sure whether that was the - I believe that that was the determination that they would desire but the real

Mr. Groschel - continued.

job was to find information on iron ore taxes.

Mr. Wright. Then, as I understand it, you worked on the proposition with the understanding that the people who were giving you instructions desired that your report show that a substantial increase could be borne by the iron mining industry.

Mr. Groschel. I would say yes.

Mr. Wright. You would say yes to that?

Mr. Groschel. That is correct, I would say yes to that.

Mr. Welch. Proceed.

Mr. Groschel. One method of determining whether the iron mining companies could stand a tax increase was to determine what percentage of their present profits are being paid in taxes, state and federal. I may say that in state taxes it was very easy to determine that the mining company is paying a larger portion, considerably larger portion than the regular business corporations. The next item was whether they were paying a combined tax greater or less than the other business corporations. We took your Commission's report in which, I believe it is about page 200, which they attempted to give a more or less of a profit picture. The Commission, in their report, give full effect to the 15% depletion allowance. We discussed - I discussed this factor with the individuals that were working on this tax study with me and we couldn't get any definite information what this 15% represented -

Mr. Wright. May I ask a question? Did you just make the statement that your investigation did prove that the mining companies were paying a substantial amount more than any other business corporation?

Mr. Groschel. It definitely was, yes. State taxes.

Mr. Wright. Just a minute, - the first sentence in this (Memorandum prepared by Harry Groschel for Senator Frazer) says the mining ~~company~~ industry is not bearing its disproportionate ~~full~~ share of the state tax.

Mr. Groschel. State and federal taxes.

Mr. Wright. Why did you include the state here - you just said they are paying more?

Mr. Groschel. State taxes, they are.

Mr. Wright. Why didn't you just say federal tax then?

Mr. Groschel. We could have done that, yes.

Mr. Wright. That would have been more honest, wouldn't it?

Mr. Groschel. I would say that this is honest also.

Mr. Welch. Go ahead.

Mr. Groschel. As I stated, the depletion allowance was the big factor in this computation. The Commission, in their report, noted that several items were omitted which was the ad valorem tax - ad valorem taxes were not allowed - only those on operating properties were allowed. We made adjustment for that fact and allowed all iron mining taxes.

Mr. Novak. All ad valorem?

Mr. Groschel. All ad valorem taxes as an operating expense. The initial report did not include the non-profit mines. We subsequently adjusted that statement to include non-profit mines.

Bergerud.

Mr. ~~Chairman~~ Mr. Chairman, is that in the latest -

Mr. Groschel. That is in the latest report, this one.

Mr. Bergerud. This former report is somewhat erroneous and you have corrected -

Mr. Groschel. (Interposing) The former report was a initial draft and therefore -

Mr. Bergerud. (Interposing) But you have now correct<sup>ed</sup> it?

Mr. Groschel. That is correct. We corrected it after -

Mr. Bergerud. After the legislative session.

Mr. Groschel. No, I shouldn't have said after, I meant during the ~~legislative~~ legislative session but at a tax committee hearing after the mining companies protested.

Mr. Bergerud. You say it was presented - this corrected version?

Mr. Groschel. Yes, this corrected version was presented.

Mr. Bergerud. I was not on the tax committee.

Mr. Welch. Go ahead.

Mr. Groschel. The other factor was the administrative expenditures including some contributions and some fiscal expenditures, also were not included - are not allowed in computing the occupation tax. This factor was - subsequently we got some information from the tax department which indicated that the administrative costs not allowed would come to approximately 3.8 per ton and that figure was included in the second computation - that 3.8 cents per ton.

Mr. Wright. Mr. Chairman, I would like to interrupt. We have been informed that the Governor has called a meeting of the Legislative Advisory Committee at 11:30 this morning - the meeting was called very suddenly and that takes me out of this Commission and I don't want to leave this Commission meeting but I presume that when the Governor calls the Legislative Advisory Committee that takes precedence. So, I move that this meeting recess until 2:00 o'clock.

Mr. Welch. Mr. Groschel, will you be able to return?

Mr. Groschel. Yes, I am available all day.

Mr. Welch. If there are no objections, we will recess until 2:00 o'clock, sharp. Let's make it 1:45. It has been moved and seconded that the Commission recess until 1:45. It is so ordered.

#### RECESS

Mr. Welch. The Committee will again come to order. Proceed.

Mr. Groschel. First, I wish to make a statement about the misunderstanding on who was in on this memorandum. I wish to state that I mentioned several legislators. They were in on it, other than Senator Frazer was in on it. All range legislators were invited to a meeting some time in the later part of February or March in which this memorandum was discussed and that is when Mr. Johnson, Senator Peterson, Mr. Rutter and discussing Widstrand were there. In ~~examining~~ this profit picture - combined state and federal - I have already discussed that we took into consideration all ad valorem taxes on both

Mr. Groschel - continued.

operating mines and non-operating mines \_\_\_\_\_ administrative costs not allowed in state occupation taxes and then the other items that depletion covers would be research and experimental work and actual costs of acquisition of the property.

Mr. Bergerud. Mr. Chairman, may I interrupt. I don't know that your statement you just made went into the record or not, did it?

Mr. Welch. Yes.

Mr. Bergerud. I wanted to ask a <sup>question</sup> ~~statement~~ in that connection if I might interrupt. You say that at that meeting the memorandum was discussed. Had it already been prepared?

Mr. Groschel. Just the preliminary draft was prepared as it is right now and we - I should say, I read it to the members, - those who were in attendance. All the range legislators did not come.

Mr. Welch. I would like to ask you a question about the method used in preparing this report. You say that depletion and other items were allowed in your computation whereas they are not allowed in the computation of the occupation tax? Is that correct?

Mr. Groschel. No, what I says - this 15% depletion allowance evidently must include - is authorized - because - for the experimental costs and research cost that go into it and the acquisition of land.

Mr. Welch. That's a federal act. What did you do with it?

Mr. Groschel. We did not give effect to that portion of it, in arriving at our combined -

Mr. Welch. (Interposing) What was the purpose?

Mr. Groschel. The purpose of it? We did not give effect to it - as I said I - or the costs could not be determined. Acquisition costs - we tried from Mr. Spaeth if his records revealed anything on that tax and we - I inquired from Mr. Nolan from the

Mr. Groschel - continued.

Lands and Minerals and neither of those offices could give us any information on acquisition costs.

Mr. Bergerud. In other words, if you had been able to get that figure, you would use a depletion, wouldn't you?

Mr. Groschel. We would have used the actual costs.

Mr. Bergerud. The reason you didn't use it was because you didn't have the information?

Mr. Groschel. That is right.

Mr. Bergerud. Logically and accounting-wise, you would have used it, would you not?

Mr. Groschel. Definitely.

Mr. Bergerud. So, that if this figure is incorrect, then your conclusions are incorrect.

Mr. Groschel. Only to the extent that the actual costs -

Mr. Bergerud. (Interposing) I say if this figures are incorrect than your conclusions are incorrect. If the depletion allowance as set up by the federal government ~~seems~~ are proper, then your conclusion here is incorrect, is it not?

Mr. Groschel. That would be correct. If the full cost of acquisition, research and everything else equals 15% of their sales price.

Mr. Bergerud. I just simply asked you if you assumed that it was correct, then your conclusion is incorrect and if you had used the figures that were correct, then you would have a different conclusion?

Mr. Groschel. Well, the only cost, as I said, - the true cost that we did not include here is research, which we did not have a record of, and acquisition of property. Neither Nolan or Spaeth had actual figures. As I recall, they mentioned a figure of 10¢ per ton as being the cost of acquiring some properties in the early 1900's. And if 10¢ a ton was the cost of acquiring it, then on the amount of iron ore that was

Mr. Groschel - continued.

mined at 10¢ - the 10¢ involved would not be too great. Even if it was, say, 40 million tons - it would still amount to only 4 million dollars - that would be estimated 50 million dollars that was provided for depletion allowance.

Mr. Bergerud. Mr. Chairman, may I ask another question? In other words, you were fearful that what the federal government utilized as depletion was incorrect?

Mr. Groschel. We felt that it did not represent a cost.

Mr. Bergerud. In spite of the fact that the federal government permits that deduction in computing the net income?

Mr. Groschel. That's right. They permit it but we did not feel it represented a true cost -

Mr. Bergerud. You assume here that the federal government here is allowing something that shouldn't have been allowed, is that right?

Mr. Groschel. No, it's a policy that's been determined by the federal legislators but in determining what percentage of their profit are paid in taxes, we were trying to determine whether it's actually costs and what was more or less a -

Mr. Bergerud. (Interposing) In other words, you would now admit here and now that there must have been some depletion and therefore not using any at all your figures are incorrect.

Mr. Groschel. As I stated, the figure 10¢ a ton was, shall we say, loosely attributed to a cost and 40 millions tons, which was more than what was mined, there would be only 4 million -

Mr. Bergerud. (Interposing) You use nothing here at all - you can't say that your figures are correct -

Mr. Groschel. (interposing) We felt - shall we say that I felt that by letting the people know that we didn't use depletion allowance - it was an incorrect figure or arbitrary figure -



Mr. Bergerud. (Interposing) Yes, but the statement has been made all over the state that these are true facts and you must admit that they are incorrect.

Mr. Groschel. At all times it was noted that -

Mr. Bergerud. (Interposing) You know the people of the state who are not accountants don't know what depletion allowance is, don't you?

Mr. Groschel. I imagine there is some who don't know.

Mr. Johnson, A.I. Mr. Chairman, could I ask this question? Isn't it a fact that regardless what this depletion cost is, it wouldn't have any bearing on your contention about that they would have the ability to pay more taxes?

Mr. Groschel. Well, if it represented the full 15% allowed, then, of course, their tax picture, - the total tax, state and federal, would be at least equal to or greater than the other business and corporations. But, to the point that this 15% allowance that the federal government gives is not what we feel is a true cost - to that point we feel that they are not paying their full - they are not paying their disproportionate share as other corporations.

Mr. Welch. Now, Mr. Groschel, I would like to ask a little question right there. You say that you felt that the 15% depletion allowance given by the federal government in the income tax return does not represent true cost? On what do you base that contention?

Mr. Groschel. We were trying to reconstruct their costs - somehow reconstruct their costs. In other words, we knew that the 15% in 1952 amounted to 50 million dollars depletion allowance. Now, we were trying to see how much of that 50 million dollars was true costs. Again, that 10¢ a ton means only 4 million dollars. The - I believe the mining company has said something about investing approximately 75 million dollars in the last 8 or 9 years in taconite research experimentation. Again, if you divide that by 8 or 9 years, you only get approximately 8 million dollars in research. Now, what would

Mr. Groschel - continued.

be the other costs be that would go into this depletion allowance would be perhaps -  
well, that would be the only <sup>two</sup> ~~xxx~~ items that I could say right now that we did not give effect to.

Mr. Welch. But you knew they existed anyway -

Mr. Groschel. (interposing) We did not know what the exact figure - we did know that there was some costs there, yes.

Mr. Welch. That answers my question, proceed.

Mr. Wright. Let me ask a question. You knew there were some costs?

Mr. Groschel. That is correct.

Mr. Wright. Which you call acquisition?

Mr. Groschel. That is right.

Mr. Wright. And you knew there were some costs - continuing costs to carry the property along until they got to the point where -

Mr. Groschel. (Interposing) Senator, we had allowed the full ad valorem taxes in our computation and therefore if we tried to capitalize taxes that would be giving them effect twice, so by giving a full allowance on taxes, we didn't feel that there would be other costs involved. Ad valorem taxes would be the largest item, we felt.

Mr. Wright. Did I understand it. You pooled those sub-costs, acquisition costs but you didn't allow anything at all in your computation at all and in addition to the acquisition costs, there must have been a continuing cost - continuing to carry the property, including ad valorem taxes and other costs in addition to ad valorem taxes, right?

Mr. Groschel. Costs other than ad valorem, I do not believe would be very great -

Mr. Wright. If there were a ~~piece~~ piece of property that someone had on a lease basis, there would be a minimum royalty, wouldn't there, of some kind?

Mr. Groschel. Yes, I -

Mr. Wright. (Interposing) Alright, the property had to be cared for then, doesn't it - owned and carried along, doesn't it?

Mr. Groschel. Some care, but very slight - - (not audible)

Mr. Wright. (interposing) If you had a million or so dollars invested in acquisition costs, wouldn't you think that you would have to compute interest on that investment? - Up to the time that you begin to get money out of it as a part of the acquisition cost? Wouldn't that be correct?

Mr. Groschel. It would be a part of that cost, yes.

Mr. Wright. None of these items have you made any allowance for at all?

Mr. Groschel. We did not make allowance for those costs that you mentioned other than ad valorem -

Mr. Welch. (Interposing) I think that clears that up. Will you proceed now.

Mr. Groschel. Giving effect to those costs which I have mentioned, it appeared that the federal and state taxes in 1952 amounted to approximately \$77 million and out of net income of \$178 million - pardon me, I'll have to use the revised figures - the taxes total \$75 million and the net income before taxes was \$174 million, which represents only 42% of the total income. Again, that figure, of course, must be adjusted - should be slightly adjusted because of these costs we did not consider. When we consider the state and the other business corporations, they pay a 6.3% state tax - that includes the bonus - and a 52% federal tax - that's the maximum providing they take no payroll credit deductions for the state. Figuring on a large basis - a large corporation, it would be almost 52% - the maximum liability. With reciprocal deductions, - deductability, it was determined that the other business corporations would pay a rate of 53.5% which makes a considerable difference between what the mining companies pay and the other corporations - on that basis there was some feeling that the mining companies could stand some additional taxation. The next thing was determine what -

Mr. Bergerud. (Interposing) Just a minute, are you going into the profits compared with the steel corporations?

Mr. Groschel. I will now go into the profit per ton, Exhibit 3.

Mr. Bergerud. Oh, I wanted to ask you some questions. Mr. Chairman, I'd like to ask this question. Assuming that you would utilize the depletion allowance, what would be the percentage then of the profit on this operation?

Mr. Groschel. Well, if depletion allowance was - the full effect of it, I believe that then the combined federal and state for the mining companies would have been greater if -

Mr. Bergerud (Interposing) What would it be?

Mr. Groschel. I did not compute it.

Mr. Bergerud. It would be 60% tax and 40% profit, is that right?

Mr. Groschel. I did not compute it. We were trying to determine what percent - what part of 15% is actual cost.

Mr. Bergerud. Let me ask this one further question. Do you claim - now you have a degree in accounting from the University of Minnesota -

Mr. Wright. (interposing) Business administration, wasn't it?

Mr. Groschel. I majored in accounting.

Mr. Wright. That's different than being an accountant.

Mr. Bergerud. I meant that he majored in accounting. Do you claim that a statement of this kind is a true reflection of the profits of this operation? If you were an accountant and an auditor and you had to certify to the shareholders and to the public the earnings of the iron mining industry, would you be willing to certify that this is a true and correct picture of -

Mr. Groschel. (Interposing) With the reservations that those costs which we did not know were not included. I would have to make the reservation.

Mr. Bergerud. In other words, this is not a true profit picture that would be utilized under good accounting practice?

Mr. Groschel. With the information available, that is what we had - we worked with.

Mr. Bergerud. And if you were going to make a certification to the shareholders of what the profit of this operation was, you could not use these figures, could you?

Mr. Groschel. They would be inconclusive to the point that we didn't use certain costs but if we informed the shareholders what costs we did not include -

Mr. Bergerud. (Interposing) And if you were going to make a tax return, you could not use these figures, could you?

Mr. Groschel. The federal government, I don't believe would -

Mr. Bergerud. (Interposing) No. In other words, these figures have some suppositions in them and if you used those you would come to an entirely different conclusion from what you have here.

Mr. Groschel. Not entirely different, no. We might have a different figure but again I wish to say that we didn't think that the magnitude of the figure would change very much.

Mr. Bergerud. Well, I am assuming that if you used the depreciation allowance that the federal government allows, you would get down to a 60% tax and a 40% profit, rather than a 57% profit and a 43% tax.

Mr. Groschel. That is if, as you said - I did not figure that figure.

Mr. Johnson, A.I. Didn't you try to get the break-down of items of cost within that 15%? Did you try to get them?

Mr. Groschel. To the extent that we - I inquired from the Mining Division and from the Department of Taxation as to actual acquisition costs, yes. As I said, they have incomplete records - I think their records beyond 1921 are almost non-existent and I think most property was perhaps transferred during that period, prior to 1921. We did attempt to get it - they just were not in existence. There were several cases in which the prices were revealed but the property had certain other considerations, therefore we couldn't even determine these -

Mr. Johnson, A.I. (Interposing) Did the property owners in sending in their income tax returns to the federal government - they would have to have an itemized cost breakdown on those items, wouldn't they?

Mr. Groschel. I don't believe that they have. No, they just take the 15% depletion allowance. They would not itemize their costs.

Mr. Johnson, A.I. In other words 15% is an arbitrary figure.

Mr. Groschel. It is a figure allowed by the federal government for many years.

Mr. Johnson, A.I. You haven't been able to get the breakdown of the costs comprising that figure?

Mr. Groschel. They are not available on the records that the state has, no, that I had access to.

Mr. Welch. Gentlemen, I propose you make notes of questions you wish to ask to save time here.

Mr. Wright. I have a question here I would like to ask. You told us that you didn't make any allowance for costs, and you have explained why you didn't; and of course it is apparent that throws your conclusions off to that degree. Now, did Senator Fraser and Mr. Naftalin approve of this release, knowing what you knew? Did you tell them there was no allowance for costs?

Mr. Groschel. Yes.

Mr. Wright. And did they approve this release knowing that there was no allowance in there for costs?

Mr. Groschel. Evidently they must have. The facts that were released noted on item 4 "These figures are based on a study of 1952 taxes on iron ore. The principal reason for the lower tax on iron ore is the 15% depletion allowance permitting 15% of gross sales reduction in profits.

Mr. Wright. They knew what was going on and they <sup>used</sup> ~~made~~ that conclusion notwithstanding? Is that right?

Mr. Groschel. I gave them the figures - I gave them the deficiencies and they published these figures.

Mr. Welch. Those were the figures presented by Senator Frazer during the legislative session before the tax committee?

Mr. Groschel. That is correct.

Mr. Welch. I see. Proceed.

Mr. Groschel. Well, that is the relative position between business corporations and iron ore mining industry. Then we decided that the actual profit per ton - we tried to compute it. And again, using the same suppositions, we used the 1953 operations to determine the profit per ton after taxes on iron ore and the figure originally became \$1.86 and after adjustments became \$1.77 per ton. The tonnage figures and the cost figures are on the total operating and non-operating mines and they include all ad valorem taxes, both on reserve and other property. They use an estimated administrative cost which were not allowed on their occupation tax. Again, 3.8 cents per ton. And in 1953, using this basis we estimate the net profit after taxes was about \$139 million on a tonnage of 79 million, or \$1.77 a ton. To somewhat substantiate those figures ~~then~~ to see that they were correct, the department of taxation gave us some copies of their publication of the net present worth, estimated future income of some mines. There is copies of the same information in the Iron Ore Tax Committee report of 1955, in which they determine the present - the estimated future income per ton of iron ore from mines. The one I have here is \$1.49 a ton and another one I have here is \$2.30 a ton. That's estimated future income and that appears to include as costs all mining, beneficiation, development, social security taxes, ad valorem taxes, occupation tax, federal income tax, so when releasing the figure of \$1.77 - well, first \$1.86 - we thought that it was fairly accurate because here are some figures that the department of taxation had worked up on estimated future income.

Mr. Wright. Does the Commission have those?

Mr. Groschel. I don't have any copies, Senator. I can leave them.

Mr. Wright. Did you get them from the tax department?

Mr. Groschel. Well, see that's their individual ~~mining~~<sup>mining</sup> operation. They figured the estimated future income on each mine in their determination of their ad valorem taxes.

Mr. Keller. What do these two figures represent?

Mr. Groschel. That's the estimated future income per ton of iron ore that will be mined from each of these two mines. One of them has the estimated future income of \$2.30 and another one had an estimated future income per ton of iron ore of \$1.49.

Mr. Keller. Just two mines?

Mr. Groschel. Just two mines. I believe that the Commission report shows one at \$1.84 and another at \$1.42 or maybe it's \$1.24. So, when the \$1.88 figure came up, we felt that it was fairly representative. Now whether it is, or not, again is subject to the same limitations as we did not include these two items that - the full depletion costs. So, at -

Mr. Wright. (Interposing) You did not allow the full depletion costs?

Mr. Groschel. That is correct.

Mr. Wright. You didn't allow any depletion costs.

Mr. Groschel. Well, - you wouldn't say any because I think that this ad valorem tax on reserve property is allowing something that would be compared to depletion costs, I believe.

Mr. Welch. How would that operate, now?

Mr. Groschel. Well, on reserve property it would increase their investment in their reserve property and it would be their - we thought that if you are paying - I believe it's Stephen's Reserve Mine mentioned in Mr. Montague's report that had about a reserve taxes of \$1 million on this reserve property that's non-operating.

Mr. Welch. What have they already paid in taxes?



Mr. Groschel. That, I think, would be considered part of the depletion allowance, is that right Mr. Montague? Or would you allow that as also an operating expense when you are making a federal return?

Mr. Montague. I think it depends on what kind of a study you are making. If you are making a study as to what were the actual profits from the production of ore, I think you would probably have to capitalize the taxes during the idle years -

Mr. Groschel. (Interposing) That's what I thought - in the year in which they are incurred we don't have to capitalize them. Otherwise you would have had to capitalize them and to that extent we did ~~include~~ allow what items would be included in the depletion factor.

Mr. Welch. Now as I understand it, these exhibits you passed up here, they relate to two mines -

Mr. Groschel. (Interposing) They relate to two mines, the names of them I do not know. The department of taxation made those copies for me. As I stated the profits per ton was estimated at \$1.77 per ton. To determine then to find out what the cost of a tax increase would be, - referring to page 3 of your long report, I made an analysis of 51 mining operations for the year 1953 which represented 18 firms and in excess of 32 million tons of ore mined. This analysis included both large and small operators, both open pit and underground operations, and both direct shipment ores and ores which required beneficiation before shipment. The procedure was to determine the tax per ton of ore mined for each of the mines at current tax rates. Thereafter, the 16% occupation tax was applied to the value of ore for tax purposes to arrive at the gross occupation tax for each mine provided the 16% rate were in effect. The labor credits were then determined and deducted from this gross occupation tax to arrive at the net occupation tax provided the 16% occupation tax rate were in effect. This analysis provided the following information:

On the average, the increase of the occupation tax from 12% to 16%, the rate that was recommended by the Governor, would result in an increase of the tax per ton of

Mr. Groschel - continued.

about 13 cents. In actual practice, this increase would not be uniform for all mine operations. The analysis showed that some high labor cost operators would actually have a decrease in net occupation tax and tax per ton of ore mined. This comes about due to the fact that under the present rate, labor credits are restricted to 7.3% of the occupation tax of 11%. Therefore, because of this restriction, the labor credits were pro-rated at approximately 83%. With the tax rate increased, the maximum labor credits allowed would be increased to a point where pro-rating would not be necessary. The tax per ton will be less on small operators, underground mines and open pits producing low grade ores. The correlation between grade of ore and tax increase per ton for direct shipment ores is very high.

The largest - the increase was greatest for one outfit, Oliver Iron Mining Company, where the tax per ton would amount to 22 cents at one of their open pit mines. Even with the Oliver Mining Company, however, the tax rate increase results in a net tax decrease at each of their 4 underground mines studied.

What was intended to be proved here was to show that the increased tax from 12% to 16%, in view of their profits per ton, would not be great; also that it would affect - it would not materially effect the smaller operators or the high-cost producers where the profit margin was small already; that the tax was greatest where the profit margin was greatest and to that extent we felt that this study made of 51 mines tended to prove that out.

Mr. Wright. It would seem then that you were attempting to prove the conclusion that this is a tax against the big operator and not against the small operator.

Mr. Groschel. We were just trying to find out what the tax impact would be, sir; where it would fall and what effect it would have on mining operations.

Mr. Wright. Now, in arriving at that conclusion what labor credit formula did you adopt?

Mr. Groschel. At that time we used the - in this study, we used the ~~legislate~~ labor credit formula that was in effect.

Mr. Wright. You used the labor credit formula that was in effect?

Mr. Groschel. That is correct.

Mr. Wright. Did you know that there was a different labor credits proposal before the legislature at that time?

Mr. Groschel. That is correct. We did know it but as I - we stated - I wanted to show the effect of the occupation tax change only. That is the - that we were trying to show, the effect of the occupation tax change in this report.

Mr. Wright. So you assumed that the labor credits law would stay the same as it was.

Mr. Groschel. Any change in the labor credits law would have changed these figures somewhat, yes.

Wright.

Mr. ~~Groschel~~. You knew at that time, didn't you, that Senator Frazer and Mr. Naftalin were advocating a quite substantial change in the labor credits law?

Mr. Groschel. I had - I knew that the bill was going - or I understand that the bill - or that changes were being contemplated, yes.

Mr. Wright. Then why did you use the -

Mr. Groschel. (interposing) As I say, the effect of the change in the occupation tax only was trying to be revealed.

Mr. Wright. Labor credits have something to do with occupation taxes.

Mr. Groschel. Yes it does -

Mr. Wright. Then why do you continue to say that you were only trying to show the effect of the change in the occupation tax?

Mr. Groschel. That would have been a report, I think, independent of the occupation tax. In other words -

(Not Audible)

Mr. Cina. You may proceed.

Mr. Groschel. The next point, I believe, will be on page 5 - the attempt - a question of great importance was the effect of competitive ores - or ~~that~~ is the ore in foreign countries at the present time competitive. The prices quoted in the interim commission were accepted and from those prices we attempted to determine whether Minnesota ores are in a competitive position or suffering from competition and on page 62 of your interim commission report, the costs of Labrador ore were computed. It was at that time determined that the cost did not include the item of profit or taxes and if that item which amount to \$3 - profit with taxes which we had computed down to \$3.15 per ton in 1952 production were included in your Labrador costs, then the Labrador ores would cost more than the state of - Minnesota ores by anywhere from \$1.39 to \$2.35 per ton.

Similarly, the price quoted for Venezuela ores by U.S. Steel Corporation has been indicated to be \$5.80 F.O.B. Puerto Ordaz, Venezuela. It is doubted that the selling price of Venezuela ores for \$5.80 is profitable to the U.S. Steel Corporation as selling Minnesota ores at Lake Erie ports for \$9.90. First of all, from the \$5.80 we must deduct the cost of transporting the ore from the mine to Puerto Ordaz and loading it into the boats. The haul is comparable in length to that from the Iron Range to Lake Superior Ports which in 1953 amounted to \$1.03 a ton and unloading and loading costs were listed as almost 15 cents. Therefore, from \$5.80 we must deduct \$1.18 which leaves only \$4.62 for taxes, profits and all mining costs. Again, the Oliver Iron Mining Company's operations in Minnesota in 1953 indicate that the state and federal taxes (ad valorem taxes not included) and profit from Minnesota mining operations total \$3.85 per ton. Therefore, if we allow the same profit and taxes on Venezuela as Minnesota ore, we deduct this \$3.85 from the \$4.62. That leaves us only 77 cents to cover all other costs and expenses in Venezuela. These costs are mining costs, such as labor, supplies, development, laboratory and engineering services. The Commission estimated these costs to total \$1.25 per ton on Labrador ores, and these costs amounted to approximately \$1.06 per ton for Oliver Iron Mining Company in their Minnesota operations without considering

Mr. Groschel - continued.

development costs. Then there was the item of interest and depreciation which again the Commission report estimates at \$1.00 per ton for Labrador ores, which is fairly well substantiated by Oliver Iron Mining Company's development costs and depreciation on Minnesota operations. Also, there was and will be considerable expenses in the development and maintenance of the towns and services which were established at the mine head and at the port. In Minnesota these expenses are shared by private citizens and other industrial firms. Therefore, while the fact that Venezuela ores may have been quoted at \$5.80 per ton F.O.B. Puerto Ordaz, Venezuela, it is very questionable whether the profit per ton was as great as the profit on Minnesota. It was our feeling that the price of Venezuela ore and Labrador ore was set to meet Minnesota prices rather than to meet any cost of operations. Again I may say that this is only during the development stage. Once Labrador, perhaps, reaches its 12 million ton figure as is quoted in your report, then their overhead costs would be sufficient to decrease per ton to be very competitive with Minnesota ores and similarly with Venezuela. Once they start shipping in large quantities, their overhead costs would be such to reduce per ton, but on the basis of the 1953 or '54 operations, it did not appear that the prices quoted were as profitable<sup>as</sup> Minnesota ore. So it was felt that the competition factor in the present and immediate future was not a determining factor - I mean we were not suffering from competition right today. Again we - in order to show that while Venezuelan ore was being shipped in greater amounts than Labrador ore and Minnesota ore went down in '54, it is also true that taconite shipments went up and we know that taconite wasn't profitable, in 1953 over 1954.

Mr. Wright. Mr. Groschel, this paragraph that you put in your report here beginning: "Great emphasis is being made of the fact that Minnesota ore production dropped in 1954 under 1953." What were you trying to show there?

Mr. Groschel. Well, that was the fact that Minnesota ores dropped - I believe from 79 million tons in 1953 to 40 - about 48 million tons in 1954. While we were

Mr. Groschel - continued.

dropping, Venezuela ore was picking up. In fact, I believe it went up quite a number of tons and therefore it was the emphasis that Minnesota was being - suffering from Venezuela competition.

Mr. Wright. Now Mr. Groschel. Let's say the session is over now, let's get right down to cases here. In this particular paragraph you are saying then that Minnesota ore production dropped in 1954 under 1953.

Mr. Groschel. It did, yes.

Mr. Wright. You say that there is now evidence that it was more profitable for the mining companies to import ore than to use Minnesota ore.

Mr. Groschel. From the previous paragraph that I read from the Labrador - comparison of Labrador and Venezuela, that is a conclusion a -

Mr. Wright. (interposing) Then you say it can be noted that while Minnesota ore shipments decreased, the taconite shipments increased by almost 50%.

Mr. Groschel. That is correct.

Mr. Wright. Natural ore shipments decreased from 79 million to 48 million -

Mr. Groschel. Approximate figures, yes.

Mr. Wright. And taconite increased by 50%. How large an increase in taconite was that 50%?

Mr. Groschel. Only 300,000, sir.

Mr. Wright. Only 300,000? So you are letting people believe from this report that there was a big drop in the shipment of natural ore but instead of saying that there was a small increase in the tonnage shipments of taconite, you say those shipments increased 50%. And yet, the 50% means, how much increase in tons?

Mr. Groschel. Approximately 300,000 tons. The tonnage figures on taconite are listed right below that, sir.

Mr. Wright. Yes, they are, but why do you make statements like that? If something has increased 50%, where as compared to the direct ore shipments, it doesn't amount to a drop in the bucket.

Mr. Groschel. The point was, sir, that the fact that Minnesota ores were losing was not because foreign ores were competing, to the point that they were more profitable. That is the point that was trying to be brought out there. In other words, we increased our taconite production even though it was not profitable to do so.

Mr. Wright. You knew perfectly well, didn't you, or didn't you know that the taconite production at that time and even now is purely an experimental matter?

Mr. Groschel. That is right.

Mr. Bergerud. I'd like to ask a question, Mr. Chairman. On page 5, the second paragraph, you say: "According to the Commission report, the Venezuela government places a tax of 50% net income on mining operations, and in addition, the law provides for a 10% profit distribution to employees." Then you say this: "Therefore, their tax evidently is considerably greater than that levied by Minnesota and the federal government." Now, on page 100 of the report of this Commission, under paragraph numbered 3, it states here "it" (referring to the Venezuelan tax) "is not nearly as heavy a tax as combined federal and state taxes in the United States, since the Federal income tax alone (without the excess profits tax) takes 52% of net profit." Now, which is correct - what the Commission says or what you say?

Mr. Groschel. The Commission states there that the tax on Venezuelan ore is - the maximum, at least, is 50% of net income in addition to the 10% profit distribution. As I had previously made a computation that the effect of the combined Minnesota state and federal tax is only  $\$$  43% or 43.5%, therefore the Venezuela tax is 50% of net income and is greater.

Mr. Bergerud. In other words, the Commission's statement here that the tax of Venezuela is greater than the state and federal is wrong?

Mr. Groschel. I wouldn't say that it is wrong. If you will consider the full 15% depletion allowance allowed by the federal government as a cost, then the Commission's statement is correct.

Mr. Novak. The 50% Venezuelan tax is the one tax on the ore and it does, as I understand it, include all taxes. There are no local taxes as I understand it. So,

Mr. Novak - continued.

the 50% on Venezuelan ore consists of all the taxes that are levied against that industry there. Here, we have the ad valorem taxes and the local taxes.

Mr. Groschel. As I said, we were combining the state and federal taxes in comparing with the Venezuelan tax, that is what we were comparing and if the Venezuelan tax includes all taxes to the point that the local - how much the local government - that is perhaps maybe the excess of our's. May I say that perhaps the mining company in Venezuela also provides many facilities or many items in the cities and municipalities which could perhaps be considered as a tax also. I am not acquainted well enough with that operation there to say -

Mr. Welch. (interposing) They are deductible, before taxes are paid.

Mr. Groschel. But they would be a considerable -

Mr. Wright. (interposing) There are allowances made there for that.

Mr. Groschel. As I have said, I had just taken your Commission report and it says 50% - I don't know what the operations are.

Mr. Wright. That 50% in Venezuela includes the cost of shipping and everything else, doesn't it?

Mr. Groschel. As I have said, I am not well enough acquainted with that to say.

Mr. Wright. Well, if you have made a report here based upon some comparison with Venezuela -

Mr. Groschel. (Interposing) The statement in your report says that the tax in Venezuela is 50% of net income. - - It says 50% of net income and I was trying to say that in Minnesota the combined federal and state tax is less than 50% of net income. That is the only comparison I tried to make.

Mr. Bergerud. Mr. Chairman. Of course the 50% in Venezuela is after certain earnings, so it isn't truly a 50% of net income.

Mr. Groschel. The statement in there said 50% of net income and I just took it.



Discussion at this point was not audible as several different persons were talking at once.

Mr. Groschel. As a result of a statement in the brief filed by the mining - I mentioned a mining company brief on a interim commission's report dated November, a statement in effect stated that the state and local taxes in Minnesota represented possibly about 40% of the taxes paid by the U.S. Steel Corporation. As a result of that statement, a study - or, we attempted to compute the profits of the U.S. Steel Corporation in Minnesota. The result of that study was Exhibit No. 2 in your smaller report in which we took all the mines, including non-profit mines and their taconite operations and combined 1952 operations. As a result of that, their occupation tax returns determined that their gross income valued at the mouth of the mine was \$243 million and computing - deducting their statutory - non-statutory - non-statutory deductions, then taking in effect their additional ad valorem taxes and giving effect to administrative and legal contributions not allowed, we computed that their net income before taxes was \$174 - pardon me, I was on the wrong page - The statements I have just made on the 1952 operations, they were incorrect.

The statements I wish to make - they are on the Oliver Iron Mining Company on page 3 of the smaller report and based on their total operations, the marketable tonnage was 43, million tons and the market value at \$4.09 million, we estimated that net income before taxes was \$167 million; their state and local and federal income tax amount to \$77 million, giving them a net income after taxes of \$90 million. The statement was that the total income in that brief, of U.S. Steel was \$222 million. In relationship to this \$90 million, then represents 40% of U.S. Steel profits. From that figure - that \$90 million, an attempt was made to determine what there - they made on a percentage of sales. So, if you had \$90 million in profits and figuring that their sales would be the value of the ore at the mouth of the mine, we determined that the percentage of sales was 34.5% that Oliver Iron Mining was making for - ~~about~~ we made similar

Mr. Groschel - continued

computations for all the mining companies and the figure became 24.75% of sales. If you take the value of the ore at the mouth of the mine as the sales figure. In that relation, we tried to see what the percentage of profits of sales was for other Minnesota business corporations and the profit figures ranged from 0 for Minneapolis Moline to ~~approximately~~ approximately 8.2% for Minneapolis Honeywell. So, again, it was from those figures that it appeared that the mining companies were in a position to pay a tax - an increased tax and those were the figures that Senator Fraser quoted. The only other major information is that Professor Body attempted to make some long range forecast of Minnesota iron ore shipments, using mostly as his base the present Materials Policy Commission Report on page 13 of your long report, we come to a summary of what he thinks will be the demand for Minnesota ore based on the assumption of ~~the~~ nation-wide demand and he gives effect to ores that would be supplied from Adirondack, Steep Rock, Brazil; he makes adjustments for Labrador and Venezuela shipments; he makes a correction for the fact that Venezuela might be higher grade ore so less ore is necessary and the remainder would come from the Lake Superior region. Minnesota historically has provided approximately 82% of the Lake Superior Region ores. As a result of his computation, it was estimated that the demand for Minnesota ore in 1955 would have been 67.9 and would drop to 19.6 in 1949; 43% in 1965; 40.9 in 1970 and 40% in 1975. While these ore shipments are going down, the estimates as to taconite shipments will increase and take up the slack and will increase from 3 million tons this year to a maximum of 40 million tons in 1975. I believe that the 40 million figure is also quoted in the interim commission's study report. So, overall, it appears that natural ores will go down, irrespective of what happens - the demand for natural ores will go down, irrespective of any tonnage figures, but to replace that, taconite will take its place.

Mr. Keller. In this statement here, you use the words "he" and "his" -

Mr. Bodychel. (interposing) Mr. Body did<sup>prepare</sup>/report - Mr. Body of the University of Minnesota, yes.

Mr. Bergerud. In computing this 40% which you say the Oliver Mining Company earns in relation to the total earnings of United States Steel Corporation, in the net income of United States Steel you have included as a deduction, depletion, do you not?

Mr. Groschel. The figure is taken from Mr. Montague's report brief of November. What it included is, - he stated that his \$222 million -

Mr. Bergerud. (Interposing) In making a consolidated tax return, including Oliver Iron Mining Company which is a subsidiary of United States Steel, they would deduct the depletion, wouldn't they, in computing the net income?

Mr. Groschel. No, -well, I would say for income tax purposes, yes. But in a report to the stockholders, I believe that you would use the actual costs.

Mr. Bergerud. Well, but I suppose that their tax return and their report to the shareholders is the same.

Mr. Groschel. I would say that very likely, perhaps, it is not.

Mr. Bergerud. Well, in any event, in here you should have a depletion allowance, should you not?

Mr. Groschel. As I said, I allowed the depletion allowance of only those items which we knew such as the -

Mr. Bergerud. (Interposing) But the report of U.S. Steel has deducted depletion in coming to that figure, have they not?

Mr. Groschel. As I said, they deducted depletion but whether they deducted the 15%, I have no way of knowing, or deduct<sup>ed</sup> the actual costs. If it were a report for the stockholders, I think that they would deduct the actual costs.

Mr. Bergerud. Do you think that an accounting firm certifying as to their earnings would not have the depletion deducted in computing their net income -

Mr. Groschel. (Interposing) The actual cost depletion would be deducted and not a percentage depletion, unless they were both the same.

Mr. Bergerud. So you are going to - your statement is here that depletion is not taken out of there.

Mr. Groschel. I did not say that. I said that they took the effect of depletion but whether they took the effect of 15% is problematical.

Mr. Bergerud. In any event, this figure is wrong too, then, - you haven't allowed any depletion in there.

Mr. Groschel. To the point that the actual depletion cost -

Mr. Bergerud. (interposing) So this figure is all - it's all governed by this depletion factor -

Mr. Groschel. (Interposing) I would say the depletion allowance and what you - what it considers - what you want to consider as depletion - what part of it is limited, would be a substantial item - I wouldn't say substantial item, but would change the figure by that portion.

Mr. Bergerud. Yes. Now, you said that United States Steel earnings is 34% of sales.

Mr. Groschel. That is, if you use sales as the value of the ore at the mouth of the mine.

Mr. Bergerud. What is the percentage of profit to investment?

Mr. Groschel. I haven't their investment figures.

Mr. Bergerud. Do you know that it runs what, - 4% or 5%? According to their report.

Mr. Groschel. I haven't seen it. I had their 1954 annual report - I haven't it with me now and I don't remember what it was.

Mr. Wright. You don't remember what it was?

Mr. Groschel. I don't, no. I can't recall the total investment figure, even. I don't remember whether I saw an investment figure in their annual report to stockholder. But I did see their annual report. But I can't recall what figure was quoted.

Mr. Wright. When did you see that statement?

Mr. Groschel. That was during the legislative session that was distributed, I imagine, maybe around March or April.

Mr. Wright. So that while the legislature was in session, while your report was being prepared for the legislature, you did run across the information as to the actual investment figures?

Mr. Groschel. No, I said that I did not recall that they were even in there. As I said, I saw the report but I don't recall if the investment figure was in there. I have my doubts that the total investment figure is in there.

Mr. Wright. Why do you have your doubts about it?

Mr. Groschel. It would be - it may be a depreciation - or it might have had an assessed value, I wouldn't know exactly what figure -

Mr. Wright (Interposing) But you don't recall exactly what figure?

Mr. Groschel. I don't know and I made no -

Mr. Wright. (Interposing) Do you recall if there was any figure in the report as to investments.

Mr. Groschel. As I said I did not make a close inspection of it. It came -

Mr. Wright. (Interposing) Now, Mr. Groschel, I ~~understand~~ understand you were assigned to a job of trying to make a computation with respect to these costs and resulting taxes and effective taxes and so forth; and you knew that the costs of investment and carrying the investment, advertising the investment and all that was a fact - should probably be a fact. What did you do to find out what that cost was beside going over here to the Tax Department and find out that they didn't have it.

Mr. Groschel. The only ~~that~~ thing that I can say about that is that on the day of the hearings, the Senate - the House Tax - I believe it was the House Tax hearing, Senator Frazer and myself were talking to one of the Oliver Iron Mining officials or employees and the question of the 15% depletion allowance came up. He was invited to come down to our office and discuss this point and present it. We did not seem him. I

Mr. Groschel - continued.

did see their annual reports to the stockholders during the legislative session.

Mr. Wright. And you don't know from that report whether there was any -

Mr. Groschel. (Interposing) I do not.

Mr. ~~Groschel~~ Wright. And at that very time you were engaged in the study?

Mr. Groschel. It was on the very last <sup>days</sup> ~~stages~~ of the session and I must say that the report that came to my attention then and I had other work besides in addition to this tax committee work.

Mr. Bergerud. I'd like to ask just one more question. On the basis of these figures, Mr. Groschel, do you think that the legislature, on the basis of your figures, which you admit to have some deductions or omitting, - do you think that on the basis of that kind of figures we can conclude that this tax situation should be increased from these figures that you give us?

Mr. Groschel. I would say that each individual must make his own decision. The magnitude of the figures omitted, we felt, was not material enough to effect the final -

Mr. Bergerud. (Interposing) You said you had no information on the subject -

Mr. Groschel. (Interposing) We don't have information on the subject but we do have an idea -

Mr. Bergerud. (Interposing) Do you think we should base our tax program on an idea that has no figures on it?

Mr. Groschel. To a point that we can't substantiate it - I don't know where else that we could get the figure.

Mr. Bergerud. In other words, you would rather be on the upside than the downside? Don't you think in a tax program that the taxpayers should have the benefit of the doubt? Hasn't that been the general judicial attitude always?

Mr. Groschel. That all depends upon is there a ~~least~~ doubt. I don't think - I think that the figures that were here, I think that the people who accepted them felt

Mr. Groschel - continued.

there was - the difference was too great to be a doubt.

Mr. Wright. Now, with reference to your study here, you must have come to some conclusion in your own mind even though perhaps you didn't get it down on paper here. As I understand it, you started out to make a presentation to show that the iron mining companies could afford to pay more taxes - that's what you started out to do -

Mr. Groschel. (Interposing) I started out in making a study of the iron ore ~~taxes~~ tax situation and its effects on employment and on the general -

Mr. Wright. (Interposing) Now, what would be your opinion as to the tax result if you would ~~substitute~~ substitute an income tax in the place of the occupation tax?

Mr. Groschel. The occupation tax is much heavier than the present corporation - state corporation tax.

Mr. Wright. It's much heavier than what?

Mr. Groschel. The present corporation tax on other businesses. It is greater.

Mr. Wright. It is much greater than that?

Mr. Groschel. It is greater, yes.

Mr. Wright. Is it four times as great?

Mr. Groschel. I would not go that high.

Mr. Wright. Would it be three and a half times as great?

Mr. Groschel. The occupation tax does not take into effect all the federal deductability and it is approximately twice as great as the corporation rate, so I imagine it might be around three or three and a half times as great, although I would not want to be - state that as a definite figure, I have no calculation on it right now.

Mr. Wright. But it would be, in your judgment, fair to say that the occupation tax on the business of iron ore - mining iron ore and the iron mining companies would pay under the state income tax the same rate as other corporations operating in the state, that it would be of very great benefit and otherwise to the mining companies and that the occupation tax is probably about three to three and a half times as onerous as the income tax?

Mr. Groschel. Whether it is up to three and a half times, I do not know but it is considerable, perhaps, shall we say it is more than twice, yes.

Mr. Wright. More than twice you would say?

Mr. Groschel. Yes, I would be willing to say more than twice. We did some research - tried to do some research on ad valorem taxes but I prefer to pass this up as far as the time element is concerned and the only other thing on the taxes we ~~tried~~ tried to make some evaluation with the other state taxes -

Mr. Wright (Interposing) Other state taxes?

Mr. Groschel. Taxes of other states and it was noted that Texas had a larger percentage, Louisiana and Oklahoma on oil. They provide a larger percentage of their state tax revenue from a severance tax than we do from our severance taxes of our occupation tax. But that is the only ~~statement that they do~~ statement that they do that. The effect of that is just pure a statement - a policy that we are not a state that is trying to tax a one particular industry - other states are also trying to take advantage of their one beneficial industry. That's the only effect of that percentage figure.

Mr. Wright. Now, you say that Texas, and you make a point in your report here, did you, that -

Mr. Groschel. (Interposing) We do. On page, the long report, first page, right on the bottom, we give you the three states having larger severance taxes than the State of Minnesota.

Mr. Wright. Is this it? "Three other states produce a larger percentage of their state tax revenues from severance taxes than the State of Minnesota." What does that prove in your mind?

Mr. Groschel. I said the only <sup>thing</sup> it proves is that there is a basis - or that we are not the only state that takes advantage of a natural resource in getting a large share of our state taxes. In other words -



Mr. Wright. (Interposing) Why did you put it in that form. If that's what you wanted to say, why didn't you say that other states - states other than Minnesota get a share of, or a portion of their state revenue as a severance tax?

Mr. Groschel. That's what my next statement says. "Therefore, there are other states which use the severance tax as a means of raising considerable portion of their state revenue." That is what I tried to convey, that the severance tax which is our occupation tax, is not an item that only the State of Minnesota uses. Other states also use that factor to raise a considerable portion of taxes, in fact, a larger portion than we do.

Mr. Wright. You say "Three other states produce a larger percentage" -

Mr. Groschel. That is right.

Mr. Wright. "of their state tax revenue from severance taxes". Why did you put that in your report? What does that prove to you?

Mr. Groschel. I just told you. It proved to me that there are other states that use a large percentage, in fact even larger than Minnesota, that's all it was intended to prove.

Mr. Wright. But supposing there are states that get all of their state expenses from severance taxes, what does that prove with reference to the question of whether or not Minnesota iron ore is being taxed adequately?

Mr. Groschel. As far as I was concerned in writing this out, I wanted to inform the people who were using this, of the fact, so-called information, that I could gather. If this could be of use to them, if they wished to use it, alright; if not, I just gave them that information. I took it from the Bureau of Census report. As far as I was concerned, they could use it if they wanted, if not, I gave them the information, yes.

Mr. Wright. What did you expect that particular statement could mean to anybody - ~~that~~ to state that other states produce a larger percentage of their state revenues from severance taxes than the State of Minnesota. What does it mean to you, sir?

Mr. Groschel. It means to me that we are not the only state using a severance tax to produce a large share, or a share of our tax revenue.

Mr. Welch. Mr. Groschel, you have in mind, I suppose, the percentage of revenue derived from iron ore taxes, occupation and royalty in Minnesota and the percentage of revenue that Oklahoma gets from their oil and Texas gets from the oil?

Mr. Groschel. Yes, that is correct.

Mr. Welch. If you take the value of oil produced in Texas for the year 1953 is 2 billion, 710 million plus and the ore in Minnesota is 465 million plus (that's the value of the ore at the mouth of the mine), the iron ore industry in Minnesota is somewhat of a ~~max~~ pygmy compared to the Texas value and as a matter of fact it doesn't prove anything, as to whether it was being taxed too high or too low in Texas or in Minnesota.

Mr. Groschel. No, I was not saying that it was taxed too high or too low, all I was trying to say is that severance taxes are being used, sir, that was all -

Mr. Welch. (Interposing) That severance tax was being used in other states? It doesn't prove anything relatively speaking as to whether or not the tax is too high or too low in any of the states, does it?

Mr. Groschel. That is true. It does not prove whether the tax is too high or too low.

Mr. Bergerud. Mr. Chairman. Are there states that you know of where the severance tax on a natural resource is less than Minnesota?

Mr. Groschel. I am sure there is.

Mr. Bergerud. Why didn't you say that here then?

Mr. Groschel. The fact that there are three greater, I am sure the other ~~44~~ must be less.

Mr. Wright. You say there are three greater. As I understand it, you mean there are three states that collect more dollars per year for severance tax?

Mr. Groschel. No, not more dollars, percentage-wise, not more dollars, percentage of their state tax revenue.

Mr. Wright. Percentage of their state tax revenue?

Mr. Groschel. That's right.

Mr. Wright. I want to talk to you for a moment about the percentage of the value of the property upon which the tax is levied. Understand me? The percentage of their tax - general tax revenue being subject to - what percentage of the value of Texas oil is the tax?

Mr. Groschel. The report, I am quite sure made its point of 4.6, if that is the figure that you are -

Mr. Wright, interposing) 4.6?

Mr. Groschel. That is correct, that is what the report -

Mr. Wright (Interposing) Whereas we are taxing, or at the time you made this report, iron mines at the rate of 12%, right?

Mr. Groschel. It was computed around, I believe, 7% -

Mr. Welch. (Interposing) 7.26.

Mr. Groschel. That is correct. That is the value at the mouth. Our department of taxation went ahead and tried to determine the value of the finished product and the reverse comes true, Senator Wright, that the tax - Minnesota tax on the finished product is less, percentage-wise, than the oil tax on finished product of oil.

Mr. Wright. That is because it costs less to process the oil than it does to process the iron ore -

Mr. Groschel. That is correct, but I was just trying to - you have taken one cut-off point and the department of taxation went ahead and made another cut-off point and got a different figure with a different relationship.

Mr. Wright. Do you know of any state that taxes the value of a natural resource higher than Minnesota taxes its natural resource of iron ore?

Mr. Groschel. I wouldn't know the answer to that question. I don't know of any. As I said the intercommission report states that the oil states is 4.6 and I don't know of any other. No, I haven't made a study of any other.

Mr. Wright. Then you don't know of any state that actually -

Mr. Groschel. No, I don't know of any nor have I made a study to try and determine if they have.

Mr. Wright. What's that?

Mr. Groschel. I say I haven't made an attempt to study to determine if they have either.

Mr. Wright. <sup>and yet</sup> ~~If~~ you were trying to make a report here upon which somebody could come to the conclusion that Minnesota was not taxing its natural resource enough.

Mr. Groschel. Well, I took the information that I had available from the sources that I knew where to get it and this is the result. The conclusions - from whoever wants to take them and may I state one thing further. That in reports of this study, the Lake Erie Price came up for some study and it was determined -

Mr. Wright. (Interposing) Is there anything in this report about it?

Mr. Groschel. Not in this one, no. Subsequent further study -

Mr. Wright. (Interposing). If the gentleman is going to testify about anything that is not in the report, I think that should -

Mr. Welch. I'd like to hear what he has to say about -

Mr. Groschel. (Interposing) I'd - it's just a short statement. The Lake Erie Price, we have come to the conclusions from study, that the Lake Erie Price is, if anything, favorable to the State of Minnesota and that it is fixed so that, we feel, that to some extent fixed so that it presents a better picture in Minnesota and that the greater portion of the income can be proportioned to - credited to Minnesota where it is taxed on the federal level at less than it is on the other.

Mr. Wright. In that respect, who do you mean when you use the word "we"?

Mr. Groschel. Let's say that after I made the study, Senator Fraser and I were discussing it.

Mr. Wright. Would you include Mr. Naftalin in that "we"?

Mr. Groschel. Mr. Naftalin was not in this portion of the discussion. I would say Mr. Body and I think that Mr. Nolan and Mr. Spaeth were in on the discussion. Whether they committed themselves, I cannot say.

Mr. Wright. But Mr. Body did commit himself?

Mr. Groschel. I think he has come to that conclusion -

Mr. Wright. (Interposing) How about Mr. Heller.

Mr. Groschel. I never talked to Mr. Heller. I do not know Mr. Heller.

Mr. Wright. Very well.

Mr. Groschel. Well, the reason I brought up this Lake Erie Price was that the - it somehow attempted to prove the profit picture that we had presented and and that it is more advantageous for U.S. Steel Corporation to bring their - to come into the State of Minnesota, or - where it would be taxed combined state and federal rate less if it were taxed for income in Pennsylvania or Ohio or one of the eastern states. That is why I brought the Lake Erie Price into consideration. In other words, it proves - we think it proves that the combined tax is less.

Mr. Welch. How would Pennsylvania have anything to do with the Minnesota tax picture?

Mr. Groschel. Income in Pennsylvania, I believe, would be taxed at 5% state tax, I believe they have, and 52% federal tax. Minnesota though, you would have your allowance, combined federal, with the depletion, and therefore the effective rate, should we say, is less, because of the depletion allowance that is granted in Minnesota, we feel that it is advantageous to attribute the cost to Minnesota.

Mr. Welch. The depletion is allowed in the federal income tax.

Mr. Groschel. That is correct. It is part of the finished product - I mean if the income was attributed to the manufacturing process and therefore attributed - if the Lake Erie Price was low, I believe that it would be taxed - they would not get the 15% depletion allowance.

Mr. Welch. Alright, now let's talk about another item along that line. Do you know of any tax formula that Minnesota could use that would consider the value of the finished product of iron? How can you do that? We are taxing a natural resource. How could we tax something in which this iron ore may find itself? You said couldn't work out any formula, could you?

Mr. Groschel. No, I -

Mr. Welch. (Interposing) Constitutionally? Have you given any consideration to fixing a different tax on iron ore?

Mr. Groschel. I haven't given that any consideration, Senator, and I don't -

Mr. Welch. You are always talking about the finished product. How does the value of the finished product enter into this thing?

Mr. Groschel. The profit on the part that is produced in Minnesota does mean whether they can pay here or whether ~~they~~ they go to a foreign country or some place else to get their ore - or it wouldn't be possible to even mine if ~~the tax was too great~~ the tax was too great. But we felt that these figures that we had presented - what I mean, Senator Enaser and I, I should say -

Mr. Welch. (Interposing) Then/<sup>part of</sup> your argument is based on this idea that you could reach the profits of labor or industry in other states -

Mr. Groschel. (Interposing) No, we did not -

Mr. Welch. (Interposing) Now, wait a minute. - in determining whether or not the mining industry could afford a tax increase in Minnesota occupation-wise.

Mr. Groschel. I didn't get your question, Senator.

Mr. Welch. Your object was to show that the industry could afford a tax increase. That was to be demonstrated, isn't that true?

Mr. Groschel. Well, the study was made to determine the affect of a tax increase.

Mr. Welch. And if it were possible, to demonstrate that it could be tolerated without injuring the industry or employment?

Mr. Groschel. Yes.

Mr. Welch. Alright. Therefore, in determining whether or not the industry could stand it, you considered as a factor, the profits and operations in other states.

Mr. Groschel. No, we took the Lake Erie Price as the basis for all our computations and in all cases we used the Lake Erie Price in determining it.

Mr. Welch. You didn't take into consideration any factor in operations?

Mr. Groschel. (Interposing) No, not at all. We always took the Lake Erie Price or the value of the ore as indicated on their occupation tax returns.

Mr. Johnson, A.I. Mr. Chairman. I believe Mr. Groschel made the statement that he thought that the mining companies felt it would be an advantage to them to attribute as much of the profits to the State of Minnesota as possible even though they might be making some of that profit in the eastern states -

Mr. Groschel. (Interposing) Well, by adjusting their Lake Erie Price, they can adjust their profits in Minnesota, we -

Mr. Johnson, A.I. That's why you make the statement that you think the Lake Erie Price is really an advantage to the State of Minnesota as a price base?

Mr. Groschel. I would say yes. May I state this - while the ~~present~~ federal tax rates are at the present rates, what the effect of these would have to be refigured as federal tax rates go down.

Mr. Bergerud. May I ask another question Mr. Chairman? You ascertained or learned, at least from our report, that the percentage of severance tax in other states on the basis of percentage of value was lower in Minnesota?

Mr. Groschel. That is right, on a state and also on a -

Mr. Bergerud. (Interposing) Assuming that to be correct, for example, taking Texas with a 4.6, or whatever it was, against our 7 point something, did that have any affect upon your conclusion that the mining industry here in Minnesota could still pay a higher tax?

Mr. Groschel. No, I cannot say that it made any conclusion to me. I just gave the facts and whatever conclusion anybody could come to then -

Mr. Bergerud. (Interposing) But, you drew those conclusions from your report, didn't you?

Mr. Groschel. Any conclusions in our report are there. With respect to that finished product I mentioned that the circumstances of the retail price and Minnesota represents - well, any conclusions are - any conclusions received by anybody who reads the report are -

Mr. Bergerud. That's alright about your conclusion, I'm not trying to badger you here but I wondered if the fact that we were charging a larger percentage of value than other states wouldn't be some indication that we have a very substantial tax here that is probably high enough, and when you compare it with other states. You didn't feel that way?

Mr. Groschel. I believe that the basis for any decision would have to be made on whether the ability to pay was there, the effect it would have on employment and on future investments. And I think that by showing that they were making a profit that the Venezuela and Labrador ore, at the present time anyway, although in the future I am sure they will be very competitive as they increase their production -

Mr. Bergerud. (Interposing) The reason I asked this question, I think all of us here - at least I am, and I think other legislators are always comparing other states from the standpoint of competition and so on and whenever we get a tax measure we usually look at another state. And here we find some states that tax considerably less than Minnesota when it comes to value and that has, usually has quite an impression on me, I don't know how it affects you.

Mr. Groschel. Well, I'm sure that we always do try to compare other states and that's why I mentioned these four states that had severance taxes greater.

Mr. Wright. How many states?

Mr. Groschel. Three states, pardon me, three states who use severance taxes that are greater - greater taxes for revenue - state revenue. I just wanted to show you I did give some consideration to that - so, off the record, or not off the record, but - not on this report or - there is a study and U.N. study group that studies all prices and they concluded that the price of oil is arbitrarily fixed and they have it



Mr. Groschel - continued.

here in the dispatch - St. Paul Dispatch of March 17th in which the question was raised since middle east production costs so little it does not bring about a decline in the price and drive out a large proportion of higher costs of American production. So the very fact that oil tax - any tax at all on oil production could be raised a question because it is foreign - foreign competition is so great - it could be so great due to the lower costs. So when you consider that Texas and Louisiana, Oklahoma, you could almost come to the conclusion that there should be no tax in order to reduce the cost of oil so it would be more competitive with the world picture.

Mr. Novak. Mr. Chairman. Isn't it true there is a large amount of oil being imported to this country? The price gives protection to local production -

Mr. Groschel. (Interposing) By protecting it through either legislation or corporate control, they can allow some American production but American production alone could not stand foreign competition purely on a competitive basis and what I was trying to drive at, Texas should not have any tax then in order to help the production along.

Mr. Keller. May I ask a question? This goes back to the question I asked before. Since the mining industry is not bearing a proportionate share of state and federal tax in Minnesota, how does that compare - how does the mining companies carrying their share against the oil industry in the state tax in the State of Texas or Oklahoma? Do you know that?

Mr. Groschel. Well, as I said, I would not know the proportion of their income that the oil companies pay. I would say that it is very likely -

Mr. Keller. (Interposing) I'm not talking about that. I'm talking about the percentage of tax that they pay compared to other business in their state.

Mr. Groschel. That is precisely what I was saying. I would say that they very likely pay a lot less because they are allowed, I think, a 27% depletion allowance and if you take the same interpretation that we had taken on ore, I am quite sure that the combined state and federal tax on oil is very small because of this huge depletion allowance.

Mr. Keller. So that Minnesota is doing even a lot better than the states that you mislead the people to believe are carrying such a load, is that right?

Mr. Groschel. It depends on what you consider a load.

Mr. Johnson, A.I. Mr. Chairman. Again, I think Mr. Groschel said a while ago that he has tried to point out the difference of the ability to pay a higher tax in this state. Now, I don't know whether they have the ability in Texas to pay a higher tax or not. But after all, it depends on the ability to pay, based upon the profits that they can make for the products they are severing. ~~Excluded from record~~

Mr. Keller. Then he should not have put this in unless you understood -

Mr. Johnson, A.I. (Interposing) I think we have to understand this part of it, that he is trying to prove something. That they have the ability to pay because of the fact of the profits they are making from the product that they are severing from the State of Minnesota.

Mr. Keller. How do you compare something with something you don't know anything about?

Mr. Welch. Right there, you are talking about the very thing I was questioning. You are talking about profits, Mr. Johnson, made from the product. We are concerned with taxing the raw material as we have it - we may tax it here in Minnesota regardless of how it exists in the finished product in some other state. You are talking about ability. Now, I just want to follow this up, let's see where we go. You have in this first paragraph: "The mining industry is not bearing a disproportionate share of the state and federal taxes when compared to other Minnesota business corporations." That's your argument, "Whereas other Minnesota business corporations pay a 6.3% corporation income and surtax and a 52% federal income tax, which when reciprocal deductibility is considered, becomes an effective combined tax rate of approximately 53.5% of net income. Based on the combined mining operations for the year 1952, and including as costs all ad-valorem taxes paid rather than just those attributable to 1952 production, the Minnesota occupation and royalty tax and the federal income tax result in an effective tax of 43.5% of net income on mining operations in the State of Minnesota. Therefore, the mining industry

Mr. Welch - continued.

"is in a better position, taxwise, to absorb any increased tax burden than are other industrial concerns." Now, you are talking about ability to pay because they have been successful in converting the product into automobiles, plows and machinery in other states. That doesn't have a thing to do with it. Let me call this to your attention. This Commission's report on page 171 shows the cost of - delivered cost of a unit of iron. On the Mesabi Range to the Pittsburgh area it would be \$.233. Venezuela Bethlehem, \$.227; Venezuela, U.S. Steel - that's the big one, that's the Oronoco Mine, \$.209; Labrador-Quebec, \$.231. Every single one of those ores coming from a great distance, shipped into the seaport, already at that time, are coming in at a lower cost per unit. How do you think that is going to effect employment and the future of the iron ore industry if this industry can get ore cheaper some where else? Don't you think it will do so if they can? It's an ordinary business practice.

Mr. Groschel. Senator Welch, I believe that we stated that the prices quoted as the - in this report, were fixed so as to meet Minnesota competition and not fixed on profit because -

Mr. Welch. (Interposing) Do you know that, or are you assuming?

Mr. Groschel. We are assuming. Because of the factors that I have read earlier in the report that when they are all considered, it appears to us that the profit - by selling the ore at this rate, they would not make as great a profit as they do on Minnesota ore.

Mr. Welch. Don't you think that those corporations are trying to make a - get a dividend for their people too?

Mr. Groschel. I believe that this is also, more or less, in the development stage, and at the present time -

Mr. Welch. (Interposing) Please answer my question. In order (someone stopped at the door of the Commission at this moment). (The rest of this was not audible). You are assuming and arguing that they must be trying to compete with Minnesota ores.

Mr. Groschel. That is right.

Mr. Welch. Alright. Don't you think that a corporation and a business manufacturing steel from a raw product will get the ore where they can get it at the lowest price? Isn't that right?

Mr. Groschel. Perhaps that is why the price has to be quoted at \$5.80 to know that it can be sold on the market.

Mr. Welch. ~~At~~ Let's forget about your assumptions. Ordinary business practices makes them buy their material where they can get it for the lowest price.

Mr. Groschel. They will buy it at the lowest price and that is why the ore in Venezuela has to be met with Minnesota competition, otherwise Minnesota ore would be bought and ore in Venezuela might remain there.

Mr. Wright. As I ~~xxxxxx~~ understand what you have said - your conclusion here - you assume that the price of ore in Venezuela was a rigged price so as to make it appear dangerous to Minnesota operations. Is that right?

Mr. Groschel. No, that is not the statement I was trying to make. In the early development state, at a time when they were in low operation, I would say that they - if you sold the ore at their costs in trying to realize a profit equal to what they realize in Minnesota, they would have to sell that ore at a higher rate and if they put a higher rate on it, they would not sell it. So therefore, they fix the price of Venezuela ore so it will equal the Minnesota ore. That is our - mine and Senator Frazer's conclusion.

Mr. Wright. But you did say it was your own personal conclusion that in the future - I don't think you said when in the future, but I believe you did said in the future, that the Minnesota ore industry would be in direct and very serious competition with both Labrador and Venezuela ore.

Mr. Groschel. I would say - I think the Commissioner mentioned this 12 million tons from Labrador as being the point - I would say - break-even point, or something. That is what the Commissioner's report and I would agree with that. The same thing with Venezuela - there is a point at which, if the tonnage shipment is large enough it will

Mr. Groschel - continued.

reduce their overhead costs to a point where it may compete, I am certain, at the eastern ports anyway.

Mr. Wright. I'd like to ask just one more question, then I will be through. In this report you mention the names of Senator Frazer, Mr. Naftalin and a few more you consulted with, but you didn't say consulted with anyone - you say you didn't consult with anyone outside of state government or university staff.

Mr. Groschel. That is - yes, that's right. That would be right. That's right.

Mr. Wright. There were some people around here representing labor unions, they weren't a part of your conference at all?

Mr. Groschel. I had a report from the CIO and the AF of L. I read it and that is the point.

Mr. Wright. Now, were any of these people that you reported to, or consulted with, to your knowledge, ~~statisticians~~ statisticians or public accountants? Or actuaries?

Mr. Groschel. One who I worked with very closely is Mr. McAdams of the mining division - he is one of the highly rated mining engineers. Bob Lee-

Mr. Wright. (Interposing) Let's go back to my question, will you listen now? Were any of these people that you consulted with, people who were statisticians? Let's take them one at a time.

Mr. Groschel. Well, Wallace ~~Max~~ Dahl, from the taxation department -

Mr. Wright. You haven't mentioned his name before, have you?

Mr. Groschel. I have the report here from him. I am sorry I didn't - I mentioned the top ones - he's a statistician -

Mr. Wright. Anyone else?

Mr. Groschel. I believe that Earl Robertson, Director of Research for the Department of Taxation also may have a degree in -

Mr. Wright - (Interposing) Did either one of those gentlemen have anything to do with making up this report?

Mr. Groschel. Well, shall we say that I discussed these points - various points with them, yes. I won't say that I discussed the whole thing with them, but the various points I did discuss with them.

Mr. Wright. Do I understand that both of these two gentlemen agree with the conclusions of this report?

Mr. Groschel. I never asked - no, I have not said that. I haven't asked them what their conclusions are and they have not given their conclusions.

Mr. Wright. Alright, now we have finished with the statisticians. Now, is there anyone that you consulted with a certified public accountant?

Mr. Groschel. Not that I know of.

Mr. Wright. Or an actuary?

Mr. Groschel. No, not that I know of.

Mr. Wright. You do know the difference, don't you?

Mr. Groschel. A certified public accountant and an actuary? Yes.

Mr. Bergerud. May I ask one question, Mr. Chairman. Your assumption was that the sale price of the Venezuelan ore was to meet the competitive situation in the United States?

Mr. Groschel. During this period, yes.

Mr. Bergerud. And therefore, your conclusion is that the sales price there is one that is made at a loss?

Mr. Groschel. In this development stage, yes.

Mr. Bergerud. Now if it should develop that the Oronoco Mining Company is paying an income tax in Venezuela, then you would have to change your position, wouldn't you?

Mr. Groschel. They could still be paying an income tax and yet not be making as large a profit on their ore there as Minnesota - Oliver Iron Mining Company is making on Minnesota ore. They could still be paying an income tax.

Mr. Bergerud. Didn't you say they were operating at a loss?

Mr. Groschel. I did not say loss. They are making a - their profit was less than on Minnesota ore.

Mr. Bergerud. Oh. In other words, they are willing to take a lesser profit there than they are here?

Mr. Groschel. That is during this development stage, yes.

Mr. Bergerud. Why would they do that?

Mr. Groschel. In order to remove that ore off the market. They would have no market if you - taconite costs considerably more than they sell it for at Lake Erie Price and if they sell it at Lake Erie Price at a loss in order to move it -

Mr. Bergerud. (Interposing) Oronoca Mining Company is U.S. Steel, isn't it? Why would they operate down there at a loss or at a smaller profit when they can operate up here at a huge one?

Mr. Groschel. My answer to that would be the anticipation of future operations and also to expand resources of supply. Both reasons, I think, would determine that they would need to expand.

Mr. Bergerud. Well, in any event, you didn't mean to say that they were operating at a loss -

Mr. Groschel. (Interposing) No, I believe that a statement - right in the report it states that the ~~profits~~ profits - it's questionable whether the profit per ton is as great as the profit of Minnesota ore. I did not say it was at a loss. If I said it, it was an error.

Mr. LaBrosse. I'd like to ask one question. Did you go into the breaking down of value of a ton of Venezuelan ore as compared to a ton of Minnesota ore? I mean per unit of iron? Did you go into that at all? Do you realize that -

Mr. Groschel. That's right - if you take your value - well, what it amounts to, I would believe, that if those figures are correct, and I'm sure they are, - take

Mr. Groschel - continued.

that into consideration and if you stop right at the selling point, then what it amounts to is that Venezuela and Labrador are selling a superior product than Minnesota is and getting a lower price for it, or an equal price - in fact, a lower price per unit of iron. If you take that conclusion, in other words, Minnesota per unit of iron is \$23¢ per ton, per unit, while Venezuela, I believe, is something around 22¢. If you consider the unit of iron factor, what it really amounts to is that we are selling an inferior product and getting a better price for it.

Mr. Johnson, A.I. Mr. Chairman. In arriving at the cost and profit, you have taken that into consideration, haven't you? The percentage of iron content, that's the basis of the Lake Erie Price. We always take that into consideration - it's based on the iron content.

Mr. Groschel. Yes.

Mr. Bergerud. Mr. Chairman, you said that the reason that the Oronoco Mining Company, or United States Steel, were selling at a lower profit was because they were trying to develop a greater source of material. Well, if they had that material there, is it necessary, in your opinion, that they develop it now? Couldn't they wait? They know it's there.

Mr. Groschel. I believe - according to the Policy - to the Materials Policy Commission's report, I believe that they will be able to absorb all their present expansion in Venezuela and Labrador and also Minnesota ores. In fact, if the estimates are anywhere correct, it will require the operation of all three fields or any other fields also, to meet the greater demand for iron.

Mr. Novak. Mr. Groschel. wouldn't Labrador and Venezuelan ores be more competitive because of the high content of iron units which makes it for economical operation in the blast furnaces? The labor costs, I imagine, I don't know, - they would be almost identical, and yet the production would be considerably greater -

Mr. Groschel. (Interposing) I would say it would be advantageous to have a high grade ore, yes -



Mr. Novak. (Interposing) The unit of labor costs would be lower on the higher content ores in the finished product.

Mr. Groschel. That is perhaps one reason why taconite will be able to compete with iron because of this higher content of iron.

Mr. Novak. You stated that there was a certain price fixed on the Venezuelan ore so that it would compare with the price of Minnesota ore -

Mr. Groschel. (Interposing) That is the units of iron ore - the percentage of iron content is, I'm sure, taken into consideration in fixing the price.

Mr. Novak. Well, even if the price of Venezuelan ore was slightly higher, it would still be more desirable - more economical to use.

Mr. Groschel. There is a point beyond which they would not go in price differential, I'm sure.

Mr. Welch. Is there anything further?

Mr. Groschel. I believe that is all, Senator Welch. May I make the request now, Senator. If I could have copies of prior hearings - the verbatim testimony of certain fields, such as ad valorem taxation, depletion and taconite from prior hearings, I would like to have that information?

Mr. Wright. Why?

Mr. Groschel. The only thing is that I would like to, for my own benefit, and any future study, I would like to know what the other testimony before the board has been.

Mr. Cina. Well, we haven't given these to anybody, have we?

MissWylie. No, in fact at the first meeting 4 years ago, it was determined that minutes were available to commission members only.

Mr. Cina. Could people come in and look at them?

Miss Wylie. Sometimes, upon request from people who have appeared before the Commission, we have given the portion of specific minutes covering their appearance, to them. We have never given them a complete copy of the minutes.

Mr. Johnson, A.I. Mr. Chairman. I think that we have to assume that any testimony given to this Commission is public information.

Mr. Bergerud. Mr. Chairman, if that is true, maybe there will be a great many demands for these minutes. We can't give it to one without giving to the other.

Mr. Welch. As I recall it, someone asked for some of the testimony given, it was confidential -

Mr. Wright. Mr. Chairman, he apparently doesn't know what he is asking for. I think I know what he wants. He wants copies of all the minutes of all the testimony and so forth -

Mr. Groschel. (Interposing) Either copies or access to what is here.

Mr. Wright. I don't know how many of these drawers are filled with transcripts of testimony and we couldn't furnish copies of them to you or anyone else. We just don't have that kind of staff.

Mr. Welch. For what purpose did you want this testimony?

Mr. Groschel. Well, it would be for personal and for administrative - administration use, if I am again assigned to this job of working on taxes.

Mr. Welch. On ad valorem?

Miss Wylie. There are two complete sets of the minutes for the past 4 years, containing both index and table of contents which are available now to the members of the Commission for their individual use.

Mr. Welch. Among the papers placed before you this morning are copies of the indexes and contents to these sets of minutes.

Mr. Wright. I think he could send in a request of writing -

Mr. Welch. (Interposing) I think send in a request in writing and tell us exactly what you want and then the Executive Committee, if it is alright with the Commission, will consider it.

Mr. Bergerud. Mr. Chairman, is this for the department of ~~the~~ administration?

Mr. Groschel. At the present time I am asking it for myself but it would be a big help to our department and to the administration if it was available to whoever -

Mr. Wright. In what way would it be a help?

Mr. Groschel. At the present time I am sure that the ad valorem taxes are under discussion and I would like to know of any testimony on ad valorem taxes.

Mr. Wright. Under discussion where?

Mr. Groschel. Specifically Iron Resources Request for a drill and - data - and authority to drill and make experiments in the Eveleth area.

Mr. Goodin. Mr. Groschel, wouldn't it be possible for you to come in here and get that information without having it furnished to you?

Mr. Groschel. Well I am willing to come here, yes sir. I'm in the same building, if they are available for me, I could just -

Mr. Wright. (Interposing) I move that the gentleman put the request in writing as to what he wants and then we can determine whether it is confidential or not.

Mr. Welch. That's right and instruct the secretary accordingly.

Miss Wylie. In the meantime, will they be available to him here in the office if he comes in?

Mr. Wright. I would say no. As I understand it, the matter is left that he is to make a request in writing and after that request is in the Commission can determine whether or not the material he wishes is confidential or not and whether he can have it.

Mr. Johnson. Well Mr. Chairman, I - (not audible.

(Discussion here not audible)

Mr. Welch. I just want it to be made <sup>plain</sup> ~~plan~~ that you understand what I mean. This is a legislative commission. We are going to operate the way we are directed by the legislature and that will be whether the administration likes it or not. Whether this information should be turned over is going to be determined by the Commission.

Mr. Novak. It seems to me this Iron Range Resources Commission - if it's going into the drilling business- I wonder by what authority they are going to do that?

Mr. Johnson, A.I. Mr. Chairman. If that Commission wants to explore that idea, I think they should have a right to do it.

(Discussion not audible)

Mr. Wright. Would a motion be in order at this time, Mr. Chairman? I move that the Commission do now adjourn.

GENERAL REVENUE INCOME FOR NEXT BIENNIUM AND PROPOSED INCREASES

<u>Tax</u>	<u>Present Law Estimated Income Biennium</u>	<u>Proposed Revenue Increases</u>	<u>Remarks</u>
State Property Tax	8,561,620	None	(The mill rate for state purposes was increased by approximately 50% in 1953 session of Legislature)
Gross Earn- ings Taxes			
Telephone	10,600,000	1,500,000	Extends gross earnings tax of 7% to telephone service in cities, villages and townships under 10,000 population but excludes 1,372 companies having gross earnings under \$1,000.
Railroad	24,950,000	None	(This tax cannot be increased under Constitution without state-wide vote)
All other	1,000,000	None	(Present tax is on telegraph, sleeping cars, express and freight)
Insurance Gross Premium	12,900,000	600,000	Extends 2% tax on gross premiums to annuities in line with 28 other states
Iron Ore	22,242,000	8,750,000	Increase from 12% to 16% in occupation and royalty taxes plus adjustment in labor credits. Follows Interim Commission conclusion that tax should be raised only as part of general increase on all taxes. Excludes taconite.
Inherit- ance and Gift Taxes	5,980,000	1,000,000	Brings Minnesota up from below national average - and in line approximately with Wisconsin <i>the average</i>
Liquor and Beer	19,680,750	2,100,000	Increase on beer - Minnesota now ranks 29th on beer tax compared to other states. Increased tax shifts Minnesota to 26th place. Tax is not on beer shipped out of state. Cost estimated at 1/5¢ per bottle.
Cigarette and Tobacco Tax	16,500,000	2,000,000	Extends tax to tobacco products (not now taxed). Ten other states tax such tobacco products. No increase in cigarette tax.
Depart- mental Earnings & Fees	12,832,834	2,579,536	Fee increases in omnibus bill being heard in Civil Administration Committees. Increases will make many services self-sustaining.
Reimburse- ment by Counties to U.ofM.	2,225,000	None	(Counties reimburse U.of M. at 50% of actual cost of medical care.)
Fund Transfers	3,682,840	898,646	Transfers from dedicated funds to cover costs of collection and administration. Increase is new charge against trust funds for administration of property.
All Other	2,994,570	679,994	New Licenses and increased fees such as Mortgage Registration, Corporation fees, Notarial fees, etc. (In Omnibus Fee Bill)
TOTALS	<u>144,149,614</u>	<u>20,108,176</u>	

Senator Don Fraser

2/18/55

Harry Groschel, Budget Examiner

# Statements of Duluth Chamber of Commerce in Opposition to the Proposed Iron Ore Tax Increase.

The following is a summary of some arguments which perhaps can be used to counter the Statements of the Duluth Chamber of Commerce.

## Competitive Position

The shipments of Minnesota ore dropped in 1954 from the 1953 level, however, the drop was not necessarily due to competition from foreign ores. The total of both imports of foreign ores and Minnesota ore shipments dropped by over 26 million tons in 1954 from the 1953 level, therefore, the foreign ores did not displace Minnesota ores.

Minnesota Ore Shipments 1953	81,500,000
" " " 1954	<u>51,500,000</u> (Rough Est.)
Drop in Minn. Ship.	30,000,000
Increase in foreign ore imports (Cham. of Com. figures)	<u>4,000,000</u>
Total drop.	26,000,000

To determine whether foreign ores are competitive to Minnesota ores, it would be necessary to determine the cost of production of various producers. The Legislative Commission on Taxation of Iron Ore "wrote to various mining companies operating in other State asking if they could furnish the desired cost figures, but the companies refused this information. The commission also attempted to get the costs of production in the Steep Rock, Michipicoten and Labrador - Quebec iron ore fields in Canada and those of Chile and Venezuela, South American, but found the same situation existing there. The information is not available." (Quoted from page 161 and 162 of Commission's Report).

Some increased shipments from foreign fields may be explained by the fact that in order to spread the depreciation of their foreign investments foreign ores may have been produced even at a greater cost than Minnesota ores could have been mined..

## Taconite

The Duluth Chamber of Commerce states that taconite pays the same occupation and royalty taxes as other Iron Ore operations.

The occupation and royalty tax on taconite can be compared with the state income tax. A person with no taxable income or with income less than his statutory deductions is unaffected by the income tax rate for he will pay no income tax regardless of the rate. Similarly, the taconite industry will not be affected by the tax rate for the Taconite Operations having no Value for Tax Purposes pay no occupation or royalty taxes.

The present taconite operations have not paid any occupation or royalty taxes at the present 12% rate, and increasing the rate to 16% still would not effect the taconite industry. The taconite industry will continue to be exempt from the occupation and royalty tax as long as the Market Value of the ore produced is less than the statutory and non statutory deductions authorized by law. These deductions are generous and favor industrial expansion in this field.

It is true that when the Market Value of the ore produced exceeds these liberal deductions that the occupational and royalty taxes on taconite will become operative. It is only equitable that this industry assume a share of the tax burden when its financial position and earnings reach a level at which other industries are presently taxed.

Note: Could we put across the low taconite tax (tax in lieu of property taxes) by distributing this tax on various producers to only the homes they have built for workers. Therefore a comparison could be made as to property taxes paid by individuals and by taconite mining companies for same type of property.

#### Texas Oil Tax

The Duluth Chamber of Commerce statement tries to refute the Governor's comments that Texas imposes a heavier tax on Oil than Minnesota does on Iron Ore.

The answer to the above seems to be that depending upon what stage of production you make your calculations, the tax burden can be shown to favor either Minnesota or Texas. However, when it comes to determining which state derives a larger share of its state tax revenues from severance taxes on natural resources, it can be proved that Minnesota places a lighter burden upon the mining industry than Texas places upon the oil industry. Harold Henderson in his analysis of the 48 state tax systems gives the following comparison for financing the states' fiscal operations from tax sources. With respect to Severance Taxes, Texas collects 32.8% of its tax revenue from this source, whereas, Minnesota collects only 10.3% from severance taxes.

Certainly, if oil industry in Texas is called upon to furnish almost one-third of the state's revenue, that Minnesota should be able to receive more than one-tenth of its income from an industry which is much less competitive and whose resources are confined to fewer areas.

Increased Occupation Tax Since 1941

Claim is that selling price of ore went up only 100% while the occupation and royalty tax yield per ton went up 150% during period 1941 to 1953.

The Market Price (Lake Erie) in 1941 was \$4.45 and in 1953 the price varied - - \$9.05 until Feb. 26, 1953; raised to \$9.70 on that date and raised again only July 1, 1953, to \$9.90. Thus the Selling Price went up considerably more than 100%.

While the Selling Price rose over 100% during the period from 1941 to 1953, the total of all transportation costs and costs of mining rose an average of 91%. (\$3.06 per ton in 1941 to an average of \$5.85 per ton in 1953). Thus while costs were increasing less than \$3.00 per ton the mining industry increased the Selling Price by \$5.45.

It was this discrepancy between the rise in Selling Price without a corresponding rise in costs that was mainly responsible for the occupation and royalty tax yield per ton to increase by approximately 150%. This increase was not so much the result of any state legislation or state tax policy as due to the Mining Industries pricing policy wherein the Selling Prices are increased out of proportion to increased costs.

(Note: The occupation and royalty tax in 1941 was 10.5%. This was increased to 11% in 1947. On January 1, 1949, the 1% additional tax for Soldier's Bonus became effective.)

	<u>1941</u>	<u>1953</u>
Lower Lake Market Price		
(Non-Bessemer, 51.50, Massabi)	4.45	9.90
Total tonnage mined	63,736,394	79,712,363
Tons mined subject to tax	62,776,728	77,650,059
Gross Value Taxable	278,435,863	725,573,869
Gross Value per ton	4.440	9.344
Transportation & Marketing	124,599,510	267,217,489
Transportation & Mktg. per ton	1.980	3.441
Value at Mouth of Mine	153,836,712	458,356,380
Value per ton at Mouth	2.450	5.903
Statutory Deductions	67,936,821	186,756,872
Ave. Stat. per ton	1.080	2.405
Net Taxable value	85,899,844	271,597,508
Total Taxes	9,019,484	32,591,701
Labor Credits	620,097	2,285,898
Total Tax Certified	8,399,387	30,305,803
Net Taxable value per ton	1.368	3.498
Average tax per ton	.134	.390
Royalty Tax	1,823,592	3,491,514
Royalty tax per ton	.029	
Total Occup. & Royalty tax	.163	



### Increased Property Tax since 1941

The mining industry states that their property tax went up 50% during the period 1941 to 1953, despite large shipments of ore during intervening years.

Actually, the mining industry ad valorem taxes went up slightly less than 50% (from \$11,564,253 to \$21,039,931) while the total of all property taxes levied in the State of Minnesota went up 137% (from \$113,306,921, to \$260,451,507) during the same period from 1941 to 1953. In fact, the increase in the average mill rate alone would tend to cause more than a 50% increase in property taxes for the average mill rate went up from 84.83 mills in 1941 to 113.52 mills in 1953, an increase of 69%.

The fact that enormous quantities of ore have been shipped since 1941 would indicate that a sizeable decrease in valuation would be the result. However, this was not the case only because large quantities of ore escaped taxation in 1941, and each year thereafter. Since 1941, 766,639,171 tons of ore have been mined whereas the estimated unmined reserve has dropped only 277,866,644 tons (from an estimated 1,176,031,225 tons in 1941 to 898,162,581 tons as of May 1, 1953). Therefore, the difference of 1,88,770,527 tons between the tonnage mined and the drop in estimated reserves is the amount of ore that was not included in the assessment valuation as of 1941. If past history is any criterion for future predictions, it can be said with quite a degree of certainty that the figure of 898,162,581 tons as of May 1, 1953, is also underestimated. When it comes to property taxes, the mining industry has been the benefactor of repeatedly gross underestimation of ore reserves, therefore assessed valuations.

One of the measures we have suggested for additional revenue for the State of Minnesota is an increase in the occupation tax on iron ore from 12% to 16%. This tax is essentially a tax on profits. It is applied against income from mining after the costs of mining, including development, labor, supplies, depreciation of plant and equipment, royalties, and miscellaneous expenses have been deducted; therefore, the more profitable operations bear a heavier tax per ton of ore than do the less profitable operations.

At the outset it should be made perfectly clear that we have not recommended that the occupation tax on taconite be increased. The State of Minnesota has given a tax preference to the taconite industry and, in my opinion, should continue to do so. The total tax paid by the taconite industry in 1953 was only \$35,713.00.

The increased revenue for the biennium from the occupation tax will be divided as follows: \$8,000,000 for the general operations of the state government and \$8,000,000 for the Permanent School and Permanent University Trust Funds. However, we have recommended a constitutional amendment to allow the iron ore tax money which now goes into the trust funds to be used for current school and University needs.

Because the occupation tax is a tax on profits, the tax increase on each ton will be different for each mine. The tax increase will generally be greatest on high-grade ores, making low-grade ores relatively more profitable to mine.

The average revenue increase per ton is 13% but, since occupation taxes are deductible in computing Federal income taxes, the average cost of the increase per ton will be about 6½% to the industry as a whole. To illustrate the impact of the occupation tax, the following schedule is set forth:

Effect of Occupation Tax Increase Based on 1953 Production

Operator	<del>Time</del> Taxable Tonnage	Occupation Tax at 12% Rate	Tax per Ton	Est. Occ. Tax at 16% Rate	Tax per Ton	Occupation Tax Incr.	Incry. after Fed. Income Tax
All Tax- able Mines	77,650,058	30,305,803	.390	40,420,076	.520	.130	.063
Oliver Iron Mining Co.	42,910,601	21,033,485	.490	28,046,897	.654	.164	.079
All Other Mines	34,739,450	9,272,318	.267	12,373,179	.356	.089	.043

The proposed tax increase will not materially affect profits, as is demonstrated below.

	Value of Ore at Mouth of Mine	Est. Profit Per Ton	% of Sales Before- After
All Mining Companies, except Oliver Mining (Cost of increased tax)	\$5.70	\$1.41 \$.045 \$1.365	24.75%
Oliver Mining Company (Cost of increased tax)	\$6.03	\$2.08 \$.08 \$2.00	34.5%
			23.95%
			33.17%

The mining industry in Minnesota is a profitable one: Its net income in 1953 after payment of state and federal taxes exceeded \$100,000,000.

Its profits, after taxes, increased from approximately \$.88 per ton in 1941 to \$1.86 per ton in 1953.

The schedule set forth below indicates the net profit as a percentage of sales as compared to other Minnesota industries:

<u>1953</u>	<u>Sales</u>	<u>Net Profit</u>	<u>% of Sales</u>
Minneapolis Honeywell	214,018,825	10,329,825	4.8%
General Mills	483,067,177	11,468,171	2.4%
Archer-Daniels-Midland	219,696,649	3,583,319	1.6%
Minneapolis Moline	105,671,026	2,103,113	2.0%
Minnesota Mining	219,916,383	17,977,771	8.2%
<u>All Iron Ore Companies,</u>			
<u>x Iron except Oliver Mining Co.</u>	203,763,225	50,416,854	24.75%
<u>Oliver Iron Mining Co.</u>	262,169,248	90,607,927	34.5%

A good deal of controversy has arisen as to how the occupation tax paid by the mining industry compares with income taxes paid by other Minnesota corporations. Other Minnesota business corporations pay an effective combined State and Federal Income Tax of 53.5%. The effective rate of the Minnesota occupation and royalty tax and Federal Income tax on mining industries amounts to only 43.5%. In arriving at this latter figure, the depletion allowance of 50 million dollars in 1952 and 68 million dollars in 1953 allowed by the Federal Government for the purpose of computing the Federal Income tax liability is not included as a cost because it bears little if any relationship to costs.

A recent announcement indicated that the Fraser and Godfrey mines might have been closed because of the proposed tax increase. The fact is that the occupation tax on each of these mines would have been less under the tax increase than they were at the time the announcement was made. This is true because the allowable labor credits would be increased.

		<u>1953 Production</u>			<u>Proposed Law</u>		
		<u>Present Law</u>					
<u>Mine</u>	<u>Tonnage</u>	<u>Gross Occupation Tax</u>	<u>Labor Credits</u>	<u>Net Tax</u>	<u>Gross Occupation Tax</u>	<u>Labor Credits</u>	<u>Net Tax</u>
Godfrey	647,246	\$47,310	\$27,026	\$20,284	\$63,080	\$44,353	\$18,727
Fraser	318,903	11,969	6,837	5,132	15,960	11,220	4,740

Competition from foreign ores has been highly publicized as an argument against the tax increase. We, of course, are extremely interested in maintaining the competitive position of Minnesota ores. In this connection a number of significant factors should be pointed out:

1. The mining companies have refused to make available to the Legislative Commission on Taxation of Iron Ore the cost of operations in foreign countries, nor were their profits divulged. Available cost figures indicate that Minnesota ore produces greater profits at Great Lakes ports than do foreign ores.

2. The combined tax rate of Minnesota occupation and Federal Income Tax of approximately 43.5% of net income compares favorably with taxes of competing countries. Venezuela places a tax of 50% of net income on mining operations and, in addition, the law provides for a 10% profit distribution to employees. Canada with an income tax of 47.6% has a depletion allowance based on net profit which reduces the rate somewhat. However, each province has an income tax also, so that the combined provincial and Canadian government taxes approximate the Minnesota and Federal taxes.

3. In our economy competition determines the price of a commodity. The argument that Minnesota ores are suffering from competition with foreign ores is contradicted by the announcement

that Oliver Iron Mining Company has increased the price of Lake Superior region ores by 20 cents a ton. This price increase was announced at a time when profits of the mining industry were enormously high -- in some instances exceeding \$2.00 a ton.

4. It was during the period 1941 through 1950 that the expansion to foreign sources resulted in large investments being made in Labrador and Venezuela. Minnesota's iron ore tax policies had no visible influence on this foreign expansion.

5. The report of the President's Materials' Policy Commission issued in June of 1952 projects estimates of iron ore demand to 1975. Based on these estimates, the probable demand for iron ore from Lake Superior ore resources was computed.

	1955	1960	1965	1970	1975
Total Demand (in million tons)	103	112	122	133	145
Less: Supply from Adirondack					
Steep Rock	6.5	6.5	6.5	6.5	6.5
Labrador	5	8	16	24	30
Venezuela	3	122	16	20	24
Correction for High-grade	2.7	7	9.3	11.0	12.5
Supply outside Lake Superior Reg.	17.2	33.5	47.8	61.5	73.0
Supplied by Lake Superior Region	85.8	78.5	74.2	71.5	72.0
<hr/>					
Taconite	3.0	18.	28.	35.	40.
Open Pit & Underground Ores	8228	60.5	46.2	36.5	32.

It can be noted from the above:

1. As the shipments of high-grade iron ore decrease the shipments of taconite will increase.

2. Expanding foreign supplies are unlikely to have much impact for at least the next few years.

3. Except for the vast potential of taconite, known ore reserves in the Western Hemisphere are limited. The major steel companies control almost all of these reserves. Once they make a large capital expenditure to develop the foreign ore sources, they must ship out ore to recover their capital costs, even when it may not be as profitable as Lake Superior ore. (See Page 170 of the Legislative Commission Report).

It must never be the policy of the State of Minnesota to penalize any industry; on the other hand, we must expect that everyone in the State of Minnesota pays their fair share of taxes. In good conscience, I could not recommend a substantial increase in real property taxes on farms and homes in the face of the declining farm increases, nor could I recommend a general sales tax which would bear most heavily on those of our state who are least able to pay. It was for this reason that I recommended a reasonable increase in the Occupation Taxes on Iron Ore.

Senator Don Fraser

2/25/55

Harry Groschel

## Governor's Tax Program - Iron Ore Taxation

A further analysis has been made of the combined 1941 Minnesota Ore operations and the 1953 Combined Minnesota Ore operations. The analysis reveals that the Lake Erie Gross Value per ton of ore increased from \$4.44 in 1941 to \$9.34 in 1953, or an increase of \$4.90 during that period. This \$4.90 increase in Lake Erie Gross Value was divided as follows:

Non Statutory Deductions (Transportation & Marketing)	\$1.46
Statutory Deductions (Cost of Mining)	1.32
Ad Valorem Taxes	.06
Occupation & Royalty Taxes	.27
Provision for Federal Income Taxes	.82
Profit (including depletion allowance)	<u>.97</u>
Total Increase	<u>\$4.90</u>

Therefore, it can readily be seen that the State of Minnesota derived the least from this increase in Gross Value.

In comparing the competitive position of Venezuela ore, it might be well to use Oliver Iron Mining Company (U.S. Steel subsidiary) operations only since Venezuela ores are mostly based on U.S. Steel operations. A summary was made of all Oliver Iron Mining Company operations in Minnesota for 1953 which included 33 mines paying occupation taxes, 3 mines which did not pay any occupation tax, and their one taconite operation. The summary is as follows:

	<u>33 Tax Paying Operations</u>	<u>All Operations</u>
Net Marketable Tonnage	\$ 42,910,601	\$ 43,486,256
Market Value	402,912,399	409,137,234
Market Value per ton	9.390	9.408
Non Statutory Deductions	113,638,489	116,967,986
Non Stat. Deductions per ton	3.347	3.380
Value at Mouth of Mine	259,273,910	262,169,248
Value at Mouth, per ton	6.042	6.029
Statutory Deductions	78,312,313	82,009,613
Statutory Deductions per ton	1.825	1.886
Value of Ore for Tax Purposes	180,961,597	180,159,634
Tax Value per ton	4.217	4.213
Occupation Tax Certified	21,033,485	21,033,485
Occupation Tax per ton	.490	.484



From the above, it can be noted that the Statutory deductions (Cost of mining, including development, labor, supplies, administration, depreciation, royalties, portion of ad valorem taxes, and miscellaneous) amount to less than \$1.90 per ton. With such a low cost of mining per ton of ore, it appears improbable for foreign ores to compete profitably at inland ports since the longer haul, therefore freight costs, would more than absorb any savings due to lower costs of mining or higher iron content.

While on the subject of Oliver Iron Mining Co., their announced increase in price of 20 cents per ton of iron ore to contract purchasers for 1955 does not appear justified on the basis of the analysis of their 1953 Minnesota operations. Oliver Iron Mining Company made a profit before State and Federal Taxes of approximately \$4.14 per ton on all their operations, including taconite. This profit figure is approximately 70% of the Value of the Ore at the Mouth of Mine and thus indicates that costs do not necessarily influence the Lake Erie Selling Price. It would require an increase of 10% in their Cost of Mining (Statutory Deductions) to justify the full 20 cent increase in the selling price.

Table 5, page 162 of the Commission's Report, was apparently included to confuse the readers of the report. On casual inspection, it appears that Labrador-Quebec ores can be delivered to United States Consuming Centers at costs ranging from \$.80 to \$1.07 per ton less than the Lake Erie Selling Price of Minnesota ores, and that this difference will become \$1.76 per ton when the St. Lawrence Seaway is completed. However, in estimating the costs to deliver Labrador-Quebec ores, the commission failed to include the element of profit and taxes which is included in the Lake Erie Selling Price of Minnesota Ores. Based on the 1952 combined production of Minnesota ores, the profit and taxes represented \$3.15 per ton of the Lake Erie Selling Price. If this same element of profit and taxes were included in the Labrador-Quebec ores, the Labrador ore would cost from \$1.39 to \$2.25 per ton more than Minnesota ores at the consuming centers listed. The lower figure of \$1.39 is based on costs after completion of the St. Lawrence Seaway. (Note: If the 1953 production figures were used, the profit and taxes represent \$3.50 per ton of the Lake Erie Selling price.)

	<u>Costs per ton</u> <u>1952 Combined</u> <u>Production</u>	<u>Costs per ton</u> <u>1953 Combined</u> <u>Production</u>
Ad Valorem Taxes	\$ .174	\$ .149
Occupation Taxes	.335	.390
Royalty Taxes	.037	.043
Provision for Federal Income Tax	.930	1.055
Profit (including depletion allowance)	<u>1.671</u>	<u>1.858</u>
Total of Profit & Taxes	<u>\$3.147</u>	<u>\$3.497</u>

1941

Several specific examples give rise to questions regarding Iron Ore reserve estimates and, therefore, assessment valuations.

- (1) It was noted that the Troy Mine closed in 1913. Sometime prior to 1927, the reserve was estimated at 205,600 tons but held to be unmarketable. The mine reopened in 1947 and the reserve listed as 205,600 tons, without any new ore estimates being made. In fact, no new ore estimate was made until 1953 even though over 100,000 tons of ore were shipped each year after 1947. When the ore estimate finally was made in July 1953, the May 1, 1953, reserve was estimated at 797,295 tons. By delaying a new ore estimate until 1953, an approximate 1,176,000 tons of ore escaped ad valorem taxes in 1947 and slightly lessor amounts each year thereafter. (Calculation as follows: Shipments between 1947 thru 1952 plus May 1, 1953, reserve less 1947 reserve. 585,152 plus 797,295 less 205,600 equals 1,176,847 tons).
- (2) The following is a record of the Wascotah Mine from the University of Minnesota Mining Directory:

	<u>Reserves</u>	<u>Shipments</u>
May 1, 1949	185,435 tons	1949 - 188,157 tons
1950	181,852	1950 - 127,967
1951	132,851	1951 - 170,852
1952	32,000	1952 - 32,317
1953	666,794	1953 - 33,800

It appears that the reserves were constantly being underestimated even in view of continuing ore shipments. Finally, the Univ. of Minnesota, School of Mines, ore estimate of October 2, 1953, had the following comment, "This is the first time that a report has been submitted on this description."

- (3) The School of Mines has made a new ore estimate each year since 1949 on the Pioneer Mine, yet the estimated reserves as of May 1st each year were increased slightly each year in spite of annual shipments approaching a million tons per year. It becomes a question of why ores which were added to the reserves in subsequent years were not included in prior estimates. The following is a summary of the Reserve and Shipments of the Pioneer mine since 1949.

	<u>Reserves</u>	<u>Shipments</u>
May 1, 1949	7,061,467 tons	1949 - 607,425 tons
1950	7,417,337	1950 - 690,521
1951	6,746,491	1951 - 859,997
1952	8,077,039	1952 - 804,626
1953	8,600,229	1953 - 895,588

- (4) The Canton Mine ore reserves jumped from 2,710,213 tons on May 1, 1948, to 6,811,000 tons on May 1, 1949. The mine was in operation on a small scale for some years prior to 1949. The School of Mines ore estimate of July 26, 1949, had following comment, "Last previous estimate March 1, 1918."

-4-

Somewhat similar situation occurred for the Carla #1 mine where the ore estimate as of May 1, 1951, is shown as unknown, May 1, 1952, as 800,000 tons, and May 1, 1953 as 1,236,593 tons. The School of Mines ore estimate was made on September 18, 1953, and the last previous estimate was November 25, 1913. The iron content of the ore was listed as ranging from 4.5% to 48.11%.

504dc

# Iron Ore Price . . .

. . . move, a 20¢-a-ton increase, came last week from an unexpected source—U. S. Steel Corp.

Iron ore users were startled last week by a move of U. S. Steel Corp. The big steelmaker's Oliver Iron Mining Div. told them that it was raising the price of its ore by 20¢ a ton.

This was surprising for two reasons:

- Nobody had expected Big Steel to take the lead in setting iron ore prices for 1955. For more than 15 years, the industry's price bellwether has been Cleveland-Cliffs Iron Co.

- The price increase itself was unusually small. Almost always in the past, iron ore price boosts have been 40¢ to 50¢ a ton. (Prices now hover around \$10 a ton.)

- **Bellwether**—Why did U.S. Steel jump in ahead of Cleveland-Cliffs? Industry observers will give you many guesses. The reason most often advanced deals with a question of attitude.

Cleveland-Cliffs' position as industry bellwether stems largely from the fact that it is the only major ore producer in the Lake Superior region not controlled by steel companies. It produces ore for sale to whatever customers it can get. Other big producers in the region are in business mainly to supply the steelmakers that control them. They sell ore to outside customers only as a secondary business.

U. S. Steel's ore producer, Oliver, subscribed to this attitude in the past. Now, observers say, U. S. Steel finds that its recent expansion of ore capacity—particularly in Venezuela—gives it more than it can soak up in its own steelmaking operations. So it is actively beating the bushes for customers. The theory is that it was not willing to wait for Cleveland-Cliffs this year to set a price level.

- **The Boost**—The 20¢ price rise, many observers feel, is a reflection of increased ore production costs. There are many theories as to why the boost is so small.

One reason might be that Big Steel is anxious not to scare potential customers away. A 20¢ per-ton increase on ore means but a negligible boost on finished steel. A second reason might be Minnesota taxes. The price boost automatically increases state taxes on Oliver's ore holdings—but it increases them by considerably less than a 50¢ price boost. Observers conjecture that Oliver might hope to use its bigger tax bill as an argument against a substantial tax increase being asked by Minnesota's governor.

Senator Don Fraser

3/23/55

Harry Groschel, Budget Examiner

I have reviewed the comments of Mr. Conover in his memorandum to D. M. Lilly concerning the 'facts' we have submitted in determining the ability of the iron ore industry to absorb an increase in taxes.

He disapproves our use of the depletion allowance as income. However, we can substantiate our method of treating depletion allowance on these grounds:

1. The depletion allowance granted by the Federal Government is not a cost, therefore, it is proper I believe not to deduct it from income. There may be a small item of cost in that the original purchase of the land may have been based on the ore it contained and therefore brought a premium price. This amount would be relatively small in relation to the amount of the depletion allowance granted.
2. The Federal Government itself does not recognize the depletion allowance as cost for on all cost items, there is no limitation as to amount that can be deducted from the gross income. In the case of depletion allowance, they limit the deduction to 50% of net profit.
3. The depletion allowance is merely a credit to be used in determination of a corporation's (or individual's) income tax liability. It is used merely to arrive at a base upon which the 52% federal income tax shall be applied. I believe that it would be proper to compare the federal depletion allowance with the credit (allowance) that the federal government grants to individuals on their Federal income tax. A person with a \$1,600 salary income and having 5 dependents would not report his income (take-home-pay) as \$1,600, which is the result of subtracting his dependency credits from his salary income. No, he would calculate his net income (take-home-pay) as \$1,600 less any state and federal income taxes. This is exactly how we arrived at the net profit (take-home-pay) of the mining industry and Oliver Iron Mining Company.
4. The State of Minnesota does not recognize depletion allowance as a cost. In computing the Present Worth of estimated future income from any operation, the state of Minnesota does not recognize depletion allowance as a cost. See page 49 thru page 54 for computations of the Estimated Future Income per ton of ore for two separate mines. Note that the estimated future income per ton is \$1.45 in one case and \$1.49 in another. (Several photostatic copies of actual

computations for 1953 will be made and available for committee hearings if approval of the Commissioner of Taxation can be secured.) The State of Minnesota's method of arriving at estimated future income was commented upon by the Legislative Commission on Taxation of Iron Ore on page 43 of its report. It states "what is important is a fair estimate of what is known as the "profit spread," or average profit per ton of any mine being valued. The foregoing method is believed to be the one best suited to that purpose."

Mr. Conover also commented upon our failure to take into account the excess profits tax. In reply to this criticism, I have the following reply:

1. We do not want to arouse the citizens' emotions in support of our program but want them to decide the question on facts and facts alone. Any mention of the mining companies paying an excess profits tax would immediately cause a number of citizens to conclude that because the mining industry is paying an excess profits tax, that they are making excessive profits and that they have the ability to pay an increased tax. We did not want to be accused of using these tactics. If the mining industry wishes to raise the point of excess profits, they are welcomed to do so and can reveal any figures they may desire. I think it will serve our purpose well.
2. In computing the effective tax rate for other corporations, I used only the stated State income tax rate of 6.3% and the Federal normal and surtax of 52%. Therefore, both of the tax percentage figures omit any reference to excess profits taxes. It would be an impossibility to give a representative combined tax figure for other corporations if excess profits taxes were to be included. No matter what firm or industry was chosen to arrive at the percentage figure, some criticism would come forth.
3. The excess profits tax has now been repealed and is no longer an item that need be considered.
4. There are two items in computing the net income and net profit for Oliver mining company that I have not taken into consideration. One of them would increase net income by as much as 2 million dollars. The Department of Taxation allows an arbitrary marketing expense of \$.0497 per ton or about 5 cents. Oliver Iron Mining Company mined over 43 million tons in 1953 and were allowed a marketing expense deduction from income of \$2,160,000. Since in 1953 they sold very little of the ore that they mined, I am sure that they cannot produce records which would indicate that they spent \$2,160,000 in marketing their ore as they own the mines, the railroad, the steamship lines, and the steel plants.

There is very little chance for any marketing expense to enter into the Oliver's operations as a cost. Therefore the possibility is very great that we are overestimating Oliver's costs in this respect. Also, reports indicate that Oliver has a 30 million dollar investment in taconite. It is very probable that they hold a certificate of necessity from the federal government which authorized them to write off this investment over a 5 year period. If this is true, then, the federal income tax is actually overstated by approximately 3 million dollars. These two items would if taken into consideration offset much of the excess profits tax that Mr. Conover assumes was paid by Oliver Iron Mining Company.

Mr. Conover question the figure 6/10 of 1 percent as used in our facts sheet. Mr. Conover is correct in this and the figure used should have been about 1.2 or 1.3%. This error was detected quite some time ago and has caused us no end of concern as whether to use the correct figure or not. Finally, in our last draft of the (Facts sheet) we completely eliminated the comparison.

HC:dc

**Comparison of Mining Industry  
Profit on Sales with Other Large Minnesota Industries**

	<u>Sales</u>	<u>Profit</u>	<u>% of Sales</u>
Honeywell - 1953	214,018,825	10,329,825	4.8%
1954	229,401,837	15,345,203	6.7
General Mills - 1953	483,067,177	11,468,171	2.4
1954	487,587,179	11,188,853	2.3
Archer-Daniels-Midland - 1953	219,696,649	3,583,319	1.6
1954	207,731,719	5,013,390	2.4
Mpls-Moline - 1953	105,671,026	2,103,113	2.0
1954	77,436,089	* 44,120	"
Minnesota Mining - 1953	219,916,383	17,977,771	8.2
1954	230,890,482	24,624,225	10.7
	<u>Value of Ore at Mouth of Mine</u>	<u>Est. Profit Per Ton</u>	
Oliver Iron Mining Co. - 1953	\$6.03	\$2.08	34.5 %
All other mining companies including those paying no occupation tax - 1953	5.70	1.41	24.75%
All mining companies paying occupation tax except Oliver - 1953	5.73	1.47	25.7 %

\* Indicates figures normally typed in red.

From: **Needy's Investors Service**



June 13, 1955

Representative Vladimir Shipka  
Grand Rapids, Minnesota

Dear Mr. Shipka,

At the close of the 1955 Legislative Session, you requested that further information on the effect that the iron ore tax increase would have on operators in your region be forwarded to you. The pressure of other work and duties and the lack of final definite figures has delayed our getting the information that you desired.

Upon certification by the Commissioner of Taxation of the occupation tax due on 1954 production of iron ore, Harry Groschel of this department, and Howard McAdams, chief engineer of the mining division, department of taxation, have made the attached computations as to the effect of the 15% surtax and the change in labor credits on six representative mines in your region. First, a compilation was made of the gross occupation tax, labor credits earned, labor credits allowed due necessity of pro-rating total labor credits earned, and the net occupation tax certified on the six mines under review. Thereafter, the surtax of 15% and the new labor credits formula as passed by the 1955 Legislature was applied to the same six mines, and thereby determined what the occupation tax would have been on 1954 production provided the new tax had been in effect.

For the six mines under review, the actual occupation tax certified was \$1148,163.27, whereas the tax would have been \$189,107.96 provided the new tax rates and labor credit formula had been already in effect. This is a difference of only \$10,944.69, or approximately 9.1%. Also, the six mines combined produced a total of 1,954,928 tons of iron ore and the actual tax amounted to approximately 23 cents per ton, whereas the tax under the new laws would have produced a tax of approximately 25 cents per ton. This represents a tax increase of only slightly more than 2 cents a ton, and if, the reduction of Federal Income Taxes due to an increase in Minnesota state taxes is taken into consideration, the net effect of the tax increase on these six mines averages out to only slightly more than one cent per ton.

However, so that there may be no misstatements made as to the effect of the 1955 tax increase on iron ore, it must be pointed out that while the six mines herein reported upon are representative of the mines in your region, they are not representative of the whole mining industry. It is my understanding that ores in your region in most cases are beneficiated by processes more

June 13, 1955

costly than washing whereas the ores produced by the Oliver Iron Mining Division, which produces more than 50% of all ores, are mostly either direct shipment ores or washed ores. In these cases, not only will the tax be increased by the 15% surtax but the loss of labor credits will also result in a tax increase. Therefore, in the case of mines producing direct shipment ores or washed ores, the effect of the law changes will be an increase in the tax of at least 15% or more.

An encouraging message for Minnesota came out of the annual meeting of the American Iron & Steel Institute at New York the latter part of May, 1955. As reported by the Associated Press, the belief of leaders at the meeting is that "foreign ores will be an adjunct, not a dominant factor," in supplying United States blast furnaces for many years to come.

If this department can be of further service to you, please feel free to call at this office or write at any time.

Respectfully yours,

ARTHUR NAFTALIN  
COMMISSIONER OF ADMINISTRATION

cc: Gerald Heaney  
Thomas Hughes

AN:HG:dc

**Actual Occupation Tax - 1954 Production - Present Law**

<u>Mine</u>	<u>Tonnage</u>	<u>Gross Occup. Tax</u>	<u>Labor Credits Earned</u>	<u>Labor Credits Allowed</u>	<u>Net Occupation Tax</u>
Hill - Trumbell	393,822	62,411.62	31,326.39	19,687.02	42,724.60
Canisteo	528,658	212,607.17	54,134.58	31,047.50	181,559.67
Hawkins	295,160	77,640.88	36,717.90	21,058.61	56,582.27
Sargent	74,998	1,241.72	682.94	391.68	850.04
Holman Cliffs	558,045	190,503.21	42,411.42	24,323.98	166,179.23
Agnew UD	<u>104,245</u>	<u>441.56</u>	<u>303.57</u>	<u>174.10</u>	<u>267.46</u>
	1,954,928	544,846.16	168,576.80	96,682.89	448,163.27

**Occupation Tax if 1955 Session Laws in Effect on 1954 Production**

<u>Mine</u>	<u>Tonnage</u>	<u>Gross Occup. Tax</u>	<u>15% Surtax</u>	<u>Total Gross Occu- pation Tax</u>	<u>Labor Credits</u>	<u>Net Occupation Tax</u>
Hill - Trumbell	393,822	62,411.62	8,581.59	70,993.21	31,326.39	36,666.82
Canisteo	528,658	212,607.17	29,233.48	241,840.65	40,059.71	201,780.94
Hawkins	295,160	77,640.88	10,675.62	88,316.50	26,053.72	62,262.78
Sargent	74,998	1,241.72	170.74	1,412.46	-	1,412.46
Holman Cliffs	558,045	190,503.21	26,194.19	216,697.40	29,911.14	186,786.26
Agnew UD	<u>104,245</u>	<u>441.56</u>	<u>60.71</u>	<u>502.27</u>	<u>303.57</u>	<u>198.70</u>
	1,954,928	544,846.16	74,916.33	619,762.49	130,654.53	489,107.96

# COMPARISON OF MINNESOTA AND FOREIGN COMPETITORS

	Mesabi Range Oliver's 1953 Ore Operations	Venezuela- U.S. Steel	Labrador- Quebec
Delivered Cost per ton at Pittsburgh	\$11.52 *	\$12.11 **	\$12.50 **
Less: Beneficiation, Marketing, and Miscellaneous Expenses	<u>.26</u>	<u>          </u>	<u>          </u>
Balance	11.26	12.11	12.50
Less: Transportation Costs			
1. Railroad freight from port to Pittsburgh	2.12	2.81	2.12
2. Ocean or Great Lakes freight	1.91	3.50	3.30
3. Railroad freight from mine to port and loading	<u>1.18</u>	<u>1.18 ***</u>	<u>3.35</u>
Total Transportation Costs	<u>5.21</u>	<u>7.49</u>	<u>8.77</u>
Value at Mouth of Mine	6.05	4.62	3.73
Cost of Mining:			
Statutory Deductions	1.88	2.25 ****	2.25 ****
Add: Ad Valorem Taxes not Deductable	<u>.29</u>	<u>          </u>	<u>          </u>
Actual or Estimated Cost of Mining	<u>2.17</u>	<u>2.25</u>	<u>2.25</u>
Income per ton before Taxes	<u>\$ 3.88</u>	<u>\$ 2.37</u>	<u>\$ 1.48</u>

\*Lake Erie Market Value per ton of Oliver Mining Company's 1953 iron ore production plus railroad freight from Lake Erie port to Pittsburgh.

\*\*Delivered Cost per Gross ton at Pittsburgh per Legislative Commission Report - page 171.

\*\*\*Actual cost unknown, however, distance is approximately same as from range towns to Lake Superior ports.

\*\*\*\*Legislative Commission's estimate of mining, depreciation, and interest cost per ton of Labrador ore. No estimate of Venezuela ore was available, therefore, same estimate was used.

## ESTIMATED PROFIT COMPARISON

Income per ton before Taxes	\$ 3.88	\$ 2.37	\$ 1.48
Less: Taxes and Profit Disbribution - 10%		.12	
State Occupational and Royalty Tax	.50		
Federal Government Income Tax (Est.)	<u>1.30</u>	<u>1.18</u>	<u>.47</u>
Total Taxes	<u>1.80</u>	<u>1.30</u>	<u>.47</u>
Estimated Net Profit Per Ton	<u>\$ 2.08</u>	<u>\$ 1.07</u>	<u>\$ 1.01</u>

Prepared by Harry Groschel, Budget Division, Dept.  
of Administration, -for Senator Frasier.

Regarding the Iron Mining Industry's statements on the iron ore facts, the following three exhibits were recalculated to take into consideration some previously omitted items.

Exhibit 1.

The original statement was that the mining industry pays only a combined State and Federal Income Tax of 43.5%. The original calculation already included all the ad valorem taxes paid on both operating and reserve properties, so the revised calculation took into consideration the losses on non-profit mines and administrative, legal, charitable expenses not allowed. The revised calculation resulted in the actual percentage figure changing from 43.5% to 43.0%. Most of the reduction was due to a decrease in provision for Federal Income Taxes due to additional depletion allowance on non-profit mines.

Exhibit 2.

Statement that Oliver Iron Mining Company provides 40% of U. S. Steel Corporation profits. No changes were made in this computation as we originally had taken into consideration all of Oliver's operations including their non-profit mines and their taconite operation as well. Also taken into consideration was all ad valorem taxes paid by Oliver. The Occupation Tax returns have a section 10B which requires the mine operator to list all administrative expenses outside Minnesota, legal expenses, contributions, etc. Oliver failed to list these costs on their returns as required by the Department of Taxation. Therefore, no provision is made for these administrative expenses. However, on the basis of the Department of Taxation's 1951 audit of Oliver's operations, they estimate that these administrative expenses would amount to approximately \$1,500,000. Since Federal Income Taxes would considerably reduce the effect of this additional expense, no new calculation was made. The net profit from Minnesota operations would still be about 90 million dollars, or 40% of U. S. Steel's profit for 1953.

Exhibit 3.

That the net profit amount to about \$1.86 per ton of ore mined in 1953. The revised calculation took into consideration the following factors: Ad valorem taxes on reserve non-operating properties, loss of \$762,883 on non-profit mines, and administrative, legal, and other expenses estimated to amount to 3.8 cents per ton. The revised calculation results in the net profit per ton of \$1.77.

# 1952 Profit on Iron Ore Operations

Gross Income (Value at Mouth of Mine)	343,206,475	
(Includes both tax and non-tax mines)		
Less: Statutory Deductions - Cost of Mining	149,107,199	
Value of Ore for Tax Purposes	194,099,276	
Less: Ad Valorem Tax on All Mining Industry	(18,721,241 )	
	( 1,866,044 )	
Amount included as Cost of Mining	(16,855,197 )	
	( 2,408,217 )	
Administrative, Legal and Contributions not allowed as Cost of Mining (63,374,126 @ \$.038 per ton)	19,263,414	
Net Income before Taxes	174,835,862	
Less: Occupation & Royalty Taxes	23,098,832	
Balance before depletion Allowance	151,737,030	
Depletion Allowance (15% of \$343,206,475)	51,480,970	
Balance for Federal Tax base	100,256,060	
Provision for Federal Income Taxes	52,133,150	
Net Income before Taxes	174,835,862	100.0%
Less: State & Federal Taxes		
Occupation Tax	20,788,836	
Royalty Tax	2,309,996	
Federal Income Tax	52,133,150	43.0%
Net Profit After Taxes	99,603,880	57.0%

OLIVER IRON MINING COMPANY  
MINING OPERATIONS IN MINNESOTA  
1953

	<u>AMOUNT</u>	<u>COST PER T.</u>
Net Marketable Tonnage	43,486,256 Tons	
Market Value	409,137,234	9.408
Non Statutory Deductions	146,967,986	3.380
Value at Mouth of Mine	262,169,248	6.029
Statutory Deductions	82,009,613	1.886
Value of Ore for Tax Purposes	180,159,634	4.143
Total Ad Valorem Taxes	14,327,596	
Amt. inc. in mining	<u>1,799,376</u>	.329
Ad Valorem Taxes non Ded.	12,528,220	.288
Occupation Taxes Cert.	21,033,485	.484
Royalty Taxes paid	433,919	.010
Total Local and State Taxes	35,795,000	.823
Provision for Fed. Income Tax	55,556,084	1.278
Net Income before State & Fed. Taxes	167,631,415	3.855
State Occ. & Roy. Tax & Fed. Inc. Tax	77,023,488	1.771
Net Income after Taxes	90,607,927	2.084
Value of Ore for Tax Purposes	\$180,159,635	
Less: Ad Valorem Taxes not previously Deducted		
Total Ad. Val. Taxes	14,327,596	
Less: Ded. as Cost of		
Mining	1,799,376	12,528,220
Net Income before Occ. & Roy. Tax & Fed. Inc. Tax	<u>167,631,415</u>	
Less: Occupation Tax	21,033,485	
Royalty Tax	<u>433,919</u>	21,467,404
Less: Depletion Allowance (15% of 262,169,248)		<u>146,164,011</u>
Less: Provision for Federal Income Tax (52%)		39,325,387
		<u>106,838,624</u>
		55,556,084
		<u>51,282,540</u>
Net Income before State & Fed. Taxes		167,631,415
Less: State & Federal Taxes		
Occupation Tax Certified	21,033,485	
Royalty Tax	433,919	
Provision for Fed. Inc. Tax	<u>55,556,084</u>	77,023,488
Net Income after Taxes		<u>\$ 90,607,927</u>
Net Income from Minn. Operations	90,607,927	
Net Income of U.S. Steel Corp.	222,087,840	40.80%

# 1953 Iron Ore Operations

			Per Ton
Net Marketable Tonnage		79,083,401	
Net Taxable Tonnage		77,650,059	
Net Marketable Value (Taxable Tonnage)		725,573,869	9.34
Non Statutory Deductions			
Cost of Stockpiling, Ldg.	390,827		
Cost of Beneficiation	22,215,314		
Transportation	239,862,460		
Marketing Expense	3,915,771		
Miscellaneous	833,117		
Total		267,217,489	3.44
Value at Mouth of Mine		458,356,380	5.90
Statutory Deductions			
Cost of Development	51,079,483		
Cost of Mining-Labor & Suppl.	64,318,892		
Administration	10,226,139		
Depreciation	11,280,734		
Miscellaneous	16,586,902		
Royalties	30,590,976		
Ad Valorem Tax (Deductible Portion)	2,675,746		
Total		186,758,871	2.40
Value of Ore for Tax Purposes		271,597,508	3.50
State occupation Tax		30,305,803	.39
State Royalty Tax		3,491,514	.045
Provision for Federal Income Tax		87,904,300	1.13
Net Profit before adjustments		149,895,881	1.93
Adjustments:			
Less: Total Ad Valorem Taxes	21,039,931		
Less: Tax included in			
Cost of Mining	2,675,746		
Additional Cost Deduction		18,364,185	(.23)
Loss on Non Profit Mines		762,883	(.01)
Administrative, Legal & other expenses not allowed		3,005,169	(.038)
Add: Decrease in Fed. Income Tax due to addtl. depletion allowance	87,904,300		
and addtl. exp. allowed	75,801,300	12,103,000	.153
Net Profit after taxes		139,866,644	1.77



MEMORANDUM

(Prepared by Harry Groschel, Budget Division)  
Dept. of Administration for Senator Frasier)

The following evidence indicates that the iron ore industry in Minnesota can absorb a substantial increase in taxation.

The mining industry is not bearing a disproportionate share of the State and Federal Taxes when compared to other Minnesota business corporations. Whereas other Minnesota business corporations pay a 6.3% corporation income and surtax and a 52% Federal Income Tax, which when reciprocal deductibility is considered, becomes an effective combined tax rate of approximately 53.5% of net income. Based on the combined mining operations for the year 1952, and including as costs all ad-valorem taxes paid rather than just those attributable to 1952 production, the Minnesota Occupation and Royalty Tax and the Federal Income Tax result in an effective tax of 43.5% of net income on mining operations in the State of Minnesota. Therefore, the mining industry is in a better position, taxwise, to absorb any increased tax burden than are other industrial concerns. The computation of the combined mining industry tax is as follows:

Combined Gross Income	\$336,296,147	
Less: Cost of Mining	<u>141,019,435</u>	
Value for Tax Purposes	195,276,712	
Less: Balance of Ad Valorem Taxes		
Total Ad Valorem Tax	18,721,241	
Am't Incl. in Cost of M.	<u>1,866,044</u>	
Balance of Ad Valorem Taxes	16,855,197	
Net Income before State & Fed. Taxes	<u>178,421,515</u>	
Less: Occupation Tax	20,788,836	
Royalty Tax	<u>2,309,996</u>	
State Taxes	23,098,832	
Profit before Fed. Taxes	<u>155,322,683</u>	
Less: Depletion Allowance		
(15% of \$336,296,147)	<u>50,444,422</u>	
Balance	<u>104,878,261</u>	
Provision for Fed. Income Tax (52%)	<u>54,536,696</u>	
Net Income before State & Federal Tax	\$178,421,515	100.00%
Less: State Occ. and Roy. Tax	23,098,832	
Fed. Inc. Tax	<u>54,536,696</u>	
Total State & Fed. Taxes	<u>77,635,528</u>	43.51%
Net Income after State & Federal Taxes	<u>\$100,785,987</u>	56.49%

Three other states produce a larger percentage of their State Tax revenues from Severance taxes than the State of Minnesota. They are Texas with 32.8%; Louisiana with 22.9%; and Oklahoma with 14.0%, whereas Minnesota gets only 10.3% of its tax revenue from the occupation tax on iron ore. Therefore, there are other states which use the severance tax as a means of raising considerable portion of their state tax revenues. An examination of the Bureau of Census reports indicates that the above percentages have fluctuated only slightly and that Minnesota has been below the other three states in each of the last five years. The above percentages were calculated from information in the Compendium of State Government Finances for 1953, Bureau of Census.

Louisiana	Severance Tax Revenue	65,859,000	
	Total Tax Revenue	287,188,000	22.9%
Minnesota	Severance Tax Revenue	23,362,000	
	Total Tax Revenue	227,589,000	10.3%
Oklahoma	Severance Tax Revenue	27,378,000	
	Total Tax Revenue	196,181,000	14.0%
Texas	Severance Tax Revenue	146,949,000	
	Total Tax Revenue	447,434,000	32.8%

Even with ad valorem taxes added, all iron ore taxes in Minnesota represent only 6/10 of 1 per cent of the price of steel. Texas has a severance tax which represents 2.3% of the composite retail price of all products from the barrel of crude oil. The total tonnage of iron ore produced in Minnesota in 1952 was 63,374,126 tons, whereas the total iron ore taxes (ad valorem, occupation, and royalty) amounted to only \$41,820,073, or a tax of only 66 cents per ton. The price of finished steel in 1952 was \$108.34 per ton.

With regard to Ad Valorem taxes, the assessment practices have always been such as to favor the mining industry. A history of reserve estimates and shipments indicated that millions of tons of ore have escaped taxation each year. May 1, 1930, ore reserves in Minnesota were reported to be 1,235 million gross tons; as of May 1, 1949, the estimated reserve was 960 million gross tons, a decrease of only 275 million tons, however, during this period approximately 828 million tons of ore were shipped.

By extending the time interval and increasing the area to include the Lake Superior region, the discrepancy is even greater. In 1920, the reserve estimate 1,540,767,000 gross tons; in 1949, the estimated reserve was 1,119,792,000 gross tons, or a decrease of only 420,975,000 tons. During this period shipments exceeded 1½ billion tons (1,541,142,000 tons) -- the total estimated reserve of 1920. These figures are taken from the 'Report of the Federal Trade Commission on the Control of Iron Ore---' dated December 23, 1952.

The present procedure in arriving at iron ore estimates of various property is approximately as follows: The department of Taxation requests the mining company to furnish to the School of Mines all drill data and cross sections drawings of the property to be estimated. The department of taxation request may be a result of their own desire to have the property estimated, or the mining company may have requested that a new estimate be made due to additional drillings or the result of actual mining experience, or some interested citizens may have requested that the estimates be made, or the School of Mines may have discussed certain properties and estimates with Mr. McAdams and as a result Mr. McAdams has occasionally asked for drill data and cross section drawings for a new estimate. The role of the School of Mines is to verify the accuracy of the mining companies computations, to determine the validity of the mining companies' assumptions as to contour and formation of ore bodies and to recompute the ore estimates based on their assumptions of the contour of the ore bodies. They make no independent drillings or sample analysis of the ore bodies. The personnel consists of the faculty of the School of Mines with one member devoting full time to the estimates and about 4 or 5 others working several months during the summer. One clerk is also assigned to assist in the mathematical computations. This staff makes an annual trip to the

mines which is of about 10 days to 2 weeks duration. During this trip they inspect various mines and open pits and get visual confirmation of any questions that may have come up during the review of the cross section maps.

While this system has been in effect since about 1908, there appears to be a need for additional personnel and also authority to make additional independent drillings. There are attached as an exhibit several specific examples which indicate this need for personnel and drillings.

In addition to underestimation of reserves, the use of the Hoskold formula with its 30 year Range Life appears to have the effect of undervaluing operating mines. This is apparent in this deduction of ad valorem taxes on operating mines. As the amount allowed is based on the proportion of ore mined during the year to total ore available at beginning of the year, it was noted that approximately 15% of the tax was deductible, thereby indicating that the ore will be completely removed from the operating mines in about 7 years, whereas the Hoskold formula used 30 years as the Range Life. In 1952, the ad valorem taxes paid by the mining companies on all operating mines amounted to \$12,687,657, and the deduction allowed that year was \$1,866,044, or 14.7%. An extreme example of undervaluation is where it is known that the ore will be depleted during the year. The use of the Hoskold 30 year range formula undervaluates the assessed valuation by as much as 129% in this case. This is due to the Present Worth factor being .41142 in computing 30 year Range Life, whereas it would be approximately .9436 if only a 1 year Range Life were used.

Present methods of mining are such that many open pits are mined out in much less than 30 years. Also, if we take the present estimated reserve of less than 900 million tons and divide it by the estimated annual ore production in the immediate future of in excess of 60 million tons, will give us an average life of about 15 years.

While the occupation tax states that it is a tax on "The valuation of all ores mined or produced," it is similar to an income tax in that it does recognize 'ability to pay' as its basis. It is based on income from mining after costs of mining, including development, labor, supplies, depreciation, royalties, and miscellaneous expenses, have been deducted; therefore the more profitable operations bear a heavier tax per ton of ore than do the less profitable operations. Example: The Oliver Iron Mining Company produced slightly more than 50% (43,486,256 of 79,712,363 tons) of all Minnesota ores in 1953, whereas, their occupation tax amounted to 69% (\$21,033,485 of \$30,305,803) of the total tax certified.

An analysis was made of 51 mining operations for the year 1953, owned or operated by 18 firms and representing in excess of 32 million tons of ore mined. This analysis included both large and small operators, both open pit and underground operations, and both direct shipment ores and ores which required beneficiation before shipment. The procedure was to determine the tax per ton of ore mined for each of the mines at current tax rates. Thereafter, the 16% occupation tax was applied to the Value of Ore for Tax Purposes to arrive at the Gross Occupation Tax for each mine provided the 16% rate were in effect. The labor credits were then determined and deducted from this Gross Occupation Tax to arrive at the net occupation tax provided the 16% occupation tax rate were in effect. This analysis provided the following information:

1. On the average, the increase of the occupation tax from 12% to 16% would result in an increase of the tax per ton of ore of about 13 cents. In actual practice, this increase would not be uniform for all mine

- .. operations. The analysis showed that some high labor cost operators would actually have a decrease in net occupation tax and tax per ton of ore mined. This comes about due to the fact that under the present rate, labor credits are restricted to 7.3% of the occupation tax of 11%. Therefore, because of this restriction, the labor credits were pro-rated at approximately 83%. With the tax rate increased, the maximum labor credits allowed would be increased to a point where pro-rating would not be necessary. NOTE: The Governor's recommendation on changes in Labor Credits would have this same effect of decreasing the occupation tax for some high labor cost operators.
2. In underground mines, the analysis showed that the tax increase would have little or not effect. Of the 8 studied, five had slight decreases of less than 1 cent per ton, and the maximum increase on one of the other three studied was 8 cents per ton.
  3. The tax increase per ton will be less on small operators, underground mines, and open pits producing low grade ores. The correlation between grade of ore and tax increase per ton for open pit direct shipment ores is very high.
  4. The increase was greatest for one large operator - Oliver Iron Mining Company - where the increase tax per ton would amount to 22 cents at one of their open pit mines. Even with the Oliver Mining Company, however, the tax rate increase results in a net tax decrease at each of their 4 underground mines studied.
  5. Except for direct shipment ores, in almost all cases the operations producing less than 500,000 tons of ore annually will have tax increases of less than 7 cents per ton. Operations in excess of 1,000,000 tons of ore annually will have tax increases in excess of 10 cents per ton of ore.
  6. Since the Report of the Legislative Commission on Taxation of Iron Ore states that the Cleveland-Cliffs Iron Company has established the Lake Erie market price on occasions, it was decided to study the effect of the tax increase on the tax per ton for ores mined by Cleveland-Cliffs. In 1953, this company mined 1,543,637 tons of ore subject to the occupation tax. The net tax amounted to \$380,080 for an average tax per ton of ore of \$.246. When the 16% occupation tax is applied to the Value of Ore for Tax Purposes and adjustments made for labor credits, the net occupation tax would be \$499,809, or an average tax per ton of \$.324.

From the analysis, it can be concluded that any increase in the occupation tax will not cause small operators to suspend operations nor will the increase cause a more rapid depletion of high grade ores. In fact, just the opposite may be the effect, for if there is a small increase in price, the small operator will stand to benefit for in all probability the price increase will be greater than the tax per ton increase, also the lower grade ores will become more profitable while the present high grade ores which at present rates generally produce the larger profit will bear the largest share of the tax increase.

As reported at beginning of this memo, the effective tax rate of Minnesota occupation and royalty taxes and Federal Income Tax is approximately 43.5%, which compares favorably with taxes of other countries.

According to the Commission report, the Venezuela government places a tax of 50% net income on mining operations, and in addition, the law provides for a 10% profit distribution to employees. Therefore, their tax evidently is considerably greater than that levied by Minnesota and the Federal Government.

In Canada, the government has an income tax of 47.6% of net income but has a depletion allowance based on net profit which reduces the rate somewhat. In addition each of the provinces has an income tax of their own, therefore, the combined provincial and Canadian government taxes would approximate the combined Minnesota and Federal taxes, except that the Newfoundland (Labrador) taxes would be greater if their 20% tax on mining company net income becomes operative.

The effect of a tax increase on competition is not determinable. We have no cost figures on foreign ores and from the Commission Report, it appears that such figures are just not available. Without cost figures, it is impossible to say where and at what point foreign ores become competitive due to taxes levied by the state.

Some approximate figures on costs are those furnished by the Commission Report on page 162. However, these figures for Labrador ores do not include the element of taxes and profit which is included in the Lake Erie Selling Price. If this element of taxes and profit, which averages \$3.15 per ton based on 1952 combined production, were eliminated from the Lake Erie Selling Value, so as to put Labrador and Lake Erie ores on a comparable basis, it will be noted that the Lake Erie figures (costs) would be from \$1.39 to \$2.35 less per ton than Labrador ore costs.

Similarly, the price quoted for Venezuela ores by the U.S. Steel Corporation has been indicated to be \$5.80 F.O.B. Puerto Ordaz, Venezuela. It is doubted that the selling of Venezuela ores for \$5.80 is as profitable to the U.S. Steel Corporation as selling Minnesota ores at Lake Erie ports for \$9.90. First of all, from the \$5.80 we must deduct the cost of transporting the ore from the mine to Puerto Ordaz and loading it into the boats. The haul is comparable in length to that from the Iron Range to Lake Superior Ports which in 1953 amounted to \$1.03 per ton and the unloading and loading costs were listed as almost \$.15, therefore, from the \$5.80 we must deduct \$1.18, which leaves only \$4.62 cents for taxes, profits, and all mining costs. Again, the Oliver Iron Mining Companies operations in Minnesota in 1953 indicated that the State and Federal Taxes (Ad valorem taxes not included) and profit from Minnesota mining operations total \$3.85 per ton. Therefore, if we allow the same profit and taxes on Venezuela ore as Minnesota ore, we deduct this \$3.85 from the \$4.62 that leaves us only \$.77 to cover all other costs and expenses in Venezuela. These costs are mining costs, such as labor, supplies, development, laboratory and engineering services, etc. The Commission estimated these costs to total \$1.25 per ton on Labrador ores, and these costs amounted to approximately \$1.06 per ton for Oliver Iron Mining Company in their Minnesota operations without considering development costs. Then there is the item of interest and depreciation which again the Commission report estimates at \$1.00 per ton for Labrador ores, which is fairly well substantiated by Oliver Iron Mining Company's development costs and depreciation on Minnesota operations. Also, there was and will be considerable expenses in the development and maintenance of the towns and services that were established at the mine head and at the port. In Minnesota, these expenses are shared by private citizens and other industrial firms.

Therefore, while the fact that Venezuela ores may have been quoted at \$5.80 per ton F.O.B. Puerto Ordaz, Venezuela, it is very questionable whether the profit per ton was as great as the profit on Minnesota ores.

Great emphasis is being made of the fact that Minnesota ore production dropped in 1954 under 1953. However, there is no evidence that it was more profitable for the mining companies to import ore than to use Minnesota ore. It can be noted that while Minnesota ore shipments decreased, the taconite shipments increased by almost 50%. It is a known fact that the taconite operations were not profitable and it can be similarly assumed that perhaps the foreign ores were imported not because of their profitability but that other factors influenced the operations. This assumption becomes very valid in view of the above available cost comparisons.

Minnesota Statutes, Section 298.24, imposes a tax of 5 cents for each gross ton of merchantable iron ore concentrate produced from taconite. This tax is in addition to the occupation and royalty tax, but in lieu of all other taxes. This tax is apportioned 3/4th to local subdivisions, and 1/4th to the state general revenue fund.

The tonnages and tax receipts from taconite are as follows:

<u>Operating Year</u>	<u>Tonnages</u>	<u>Tax</u>
1949	15,707 tons	\$ 886
1950	62,149	3,650
1951	99,977	5,912
1952	114,396	6,636
1953	619,438	35,713

The 1954 taconite operating statements from the mining companies have just recently been received. Unless some adjustments are made the tonnage will be 910,356 tons. The tax on this has not yet been certified.

To date there has been no occupation tax paid on taconite operations. From a review of their operating statements and operations, it is unlikely that any occupation tax on taconite will be paid in the immediate future.

#### Oliver Iron Mining Company - U. S. Steel Corporation - Profits

While exact profit figures for any corporation are not available nor can they be reconstructed, an attempt was made to reconstruct the profit picture of all Oliver Iron Mining Company operations in Minnesota for 1953. See Exhibit "B". All major items of cost were included and therefore any additional costs not included would not substantially change the profit figures. The Oliver Iron Mining Company mined 43,486,256 tons of ore in 1953 which had a market value of \$409,137,234, or an average market value of \$9.41 per ton. The net income to the company after all local, state and federal taxes is believed to have amounted to approximately \$90,607,927, or a net income after taxes of \$2.08 per ton.

The purposes for their announced increase of 20 cents per ton for 1955 ores becomes a question mark in view of the probable profits of this company per ton of ore in 1953.

The Brief of the Iron Mining Industry on page 5 states "Its total state and local taxes paid - - - 40% was paid to the State of Minnesota and its local governmental subdivisions - - -. The State of Minnesota does not supply 40% of the governmental services which these tax payments support. - - -" This statement is unsupported by any facts or figures as to governmental services. A reconstruction of probable profit figures for Oliver Iron Mining Company for 1953 indicates that they made a profit after taxes from Minnesota Mining operations of approximately \$90,607,927. This is 40.8% of the total net income, after taxes, of the U.S. Steel Corporation. Therefore, we are not taxing the mining industry out of proportion to profits earned in Minnesota. In addition it should be pointed out that in their Minnesota operations they are depleting a natural resource from the state, whereas this is not so in their other operations.

#### Increased Occupation Tax Since 1941

A Duluth Chamber of Commerce statement claimed that the Selling Price of ore went up only 100% while the occupation and royalty tax yield per ton went up 150% during period 1941 to 1953.

The market price (Lake Erie) in 1941 was \$4.45 and in 1953 the price varied - - \$9.05 until Feb. 26, 1953; raised to \$9.70 on that date and raised again on July 1, 1953, to \$9.90. Thus the Selling Price went up considerably more than 100%.

While the Selling Price rose over 100% during the period from 1941 to 1953, the total of all transportation costs and costs of mining rose an average of 91%. (\$3.06 per ton in 1941 to an average of \$5.85 per ton in 1953). Thus while costs were increasing less than \$3.00 per ton the mining industry increased the Selling Price by \$5.45.

It was this discrepancy between the rise in Selling Price without a corresponding rise in costs that was mainly responsible for the occupation and royalty tax yield per ton to increase by approximately 150%. This increase was not so much the result of any state legislation or state tax policy as due to the Mining Industries pricing policy wherein the Selling Prices are increased out of proportion to increased costs.

(NOTE: The occupation and royalty tax in 1941 was 10.5%. This was increased to 11% in 1947. On January 1, 1949, the 1% additional tax for Soldier's Bonus became effective.)

	1941	1953
Lower Lake Market Price (Non-Bessemer, 51.50, Messabi)	4.45	9.90
Total tonnage mined	63,736,394	79,712,363
Tons mined subject to tax	62,776,728	77,650,059
Gross Value Taxable	\$278,435,863	\$725,573,869
Gross Value per ton	4.440	9.344
Transportation & Marketing	124,599,510	267,217,489
Transp. & Mktg. per ton	1.980	3.441
Value at Mouth of Mine	153,836,712	458,356,380
Value per ton at Mouth	2.450	5.903
Statutory Deductions	67,936,821	136,756,872
Avg. Stat. per ton	1.080	2.405
Net Taxable value	85,899,844	271,597,508
Total Taxes	9,019,484	32,591,701
Labor Credits	620,097	2,285,898
Total Tax Certified	8,399,387	30,305,803
Net Taxable Value per ton	1.368	3.498
Average tax per ton	.134	.390
Royalty Tax	1,823,592	3,491,514
Royalty Tax per ton	.029	
Total Occup. & Royalty Tax	.163	

#### Comparison of 1941 Mining Operations with 1953 Mining Operations.

A comparison has been made of the combined Minnesota Mining operations for 1941 and the combined operations for 1953. This comparison revealed that the Lake Erie Gross Value per ton of ore increased from \$4.44 in 1941 to \$9.34 in 1953, or an increase of \$4.90 during this period. This \$4.90 increase in Gross Value was divided as follows:

Non Statutory Deductions (Beneficiation, Transportation & Mktg.)	\$ 1.46
Statutory Deductions (Cost of Mining)	1.32
Ad Valorem Taxes (Portion not included in cost of mining)	.06
Occupation and Royalty Tax	.27
Provision for Federal Income Taxes	.82
Profit	.97
Increase in Gross Value per ton	<u>\$ 4.90</u>



Several specific examples give rise to questions regarding Iron Ore reserve estimates and, therefore, assessment valuations.

- (1) It was noted that the Troy Mine closed in 1913. Sometime prior to 1927, the reserve was estimated at 205,600 tons but held to be unmarketable. The mine reopened in 1947 and the reserve listed as 205,600 tons, without any new ore estimates being made. In fact, no new ore estimate was made until 1953 even though over 100,000 tons of ore were shipped each year after 1947. When the ore estimates finally was made in July 1953, the May 1, 1953 reserve was estimated at 797,295 tons. By delaying a new ore estimate until 1953, an approximate 1,176,000 tons of ore escaped ad valorem taxes in 1947 and slightly lessor amounts each year thereafter. (Calculation as follows: Shipments between 1947 thru 1952 plus May 1, 1953, reserve less 1947 reserve. 585,162 plus 797,295 less 205,600 equals 1,176,857 tons).
- (2) The following is a record of the Wacootah Mine from the University of Minnesota Mining Directory:

	<u>Reserves</u>		<u>Shipments</u>
May 1, 1949	185,435 tons	1949 -	188,157 tons
1950	183,852	1950 -	127,967
1951	132,851	1951 -	170,852
1952	32,000	1952 -	32,347
1953	666,794	1953 -	33,800

It appears that the reserves were constantly being under-estimated even in view of continuing ore shipments. Finally the Univ. of Minnesota, School of Mines, ore estimate of October 2, 1953 had the following comment, "This is the first time that a report has been submitted on this description."

- (3) The School of Mines has made a new ore estimate each year since 1949 on the Pioneer Mine, yet the estimated reserves as of May 1st each year were increased slightly each year in spite of annual shipments approaching a million tons per year. It becomes a question of why ores which were added to the reserves in subsequent years were not included in prior estimates. The following is a summary of the Reserve and Shipments of the Pioneer mine since 1949.

	<u>Reserves</u>		<u>Shipments</u>
May 1, 1949	7,061,467 tons	1949 -	607,425 tons
1950	7,417,337	1950 -	690,521
1951	6,746,491	1951 -	859,997
1952	8,077,039	1952 -	804,626
1953	8,600,229	1953 -	895,588

- (4) The Canton Mine ore reserves jumped from 2,710,213 tons on May 1, 1948, to 6,811,000 tons on May 1, 1949. The mine was in operation on a small scale for some years prior to 1949. The School of Mines ore estimate of July 26, 1949, had following comment, "Last previous estimate March 1, 1918."

Somewhat similar situation occurred for the Carlz #1 mine where the ore estimate as of May 1, 1951, is shown as unknown, May 1, 1952 as 800,000 tons, and May 1, 1953 as 4,236,593 tons. The School of Mines ore estimate was made on September 18, 1953, and the last previous estimate was November 25, 1913. The iron content of the ore was listed as ranging from 45% to 48.14%.

OLIVER IRON MINING COMPANY  
MINING OPERATIONS IN MINNESOTA  
1953

	<u>Amount</u>	<u>Cost per Ton</u>
Net Marketable Tonnage	43,486,256 tons	
Market Value	409,137,234	9.408
Non Statutory Deductions	146,967,986	3.380
Value at Mouth of Mine	262,169,248	6.029
Statutory Deductions	82,009,613	1.886
Value of Ore for Tax Purposes	180,159,634	4.143
Occupation Tax certified	21,033,485	.484
Royalty Tax (paid in 1953)	433,919	.010
Total Ad Valorem Taxes	14,327,596	.329
Am't inc. in Mining	<u>1,799,376</u>	
Ad Valorem Taxes not Ded.	12,528,220	.288
Occupation Taxes Cert.	21,033,485	.484
Royalty Taxes paid	433,919	.010
Total Local and State Taxes	35,795,000	.823
Provision for Fed. Income Tax	55,556,084	1.278
Net Income before State & Fed. Taxes	167,631,415	3.855
State Occ. & Roy. Tax. & Fed. Inc. Tax	77,023,488	1.771
Net Income after taxes	90,607,927	2.084
Value of Ore for Tax Purposes	\$180,159,635	
Less: Ad Valorem Taxes not previously deducted		
Total Ad. Val. Taxes	14,327,596	
Less: Ded.as Cost of Mining	<u>1,799,376</u>	12,528,220
Net Income before Occ. & Roy. Tax & Fed. Inc. Tax	<u>167,631,415</u>	
Less: Occupation Tax	21,033,485	
Royalty Tax	<u>433,919</u>	21,467,404
Less: Depletion Allowance (15% of 262,169,248)		39,325,387
Less: Provision for Federal Income Tax (52%)		106,838,624
		55,556,084
		<u>51,282,540</u>
Net Income before State & Fed. Taxes		167,631,415
Less: State & Federal Taxes		
Occupation Tax Certified	21,033,485	
Royalty Tax	433,919	
Provision for Fed. Inc. Tax	<u>55,556,084</u>	77,023,488
Net Income After Taxes		<u>\$ 90,607,927</u>
Net Income from Minn. operations,	\$ 90,607,927	
Net Income of U.S. Steel Corp.,	222,087,840	= 40.80%

The attached table is an attempt to make some horseback estimates of the possible future course of demand for iron ore on the part of the steel mills that depend at present mainly upon Lake Superior ore resources. The bases of the computations are as follows: First, the estimate of the President's Materials Policy Commission for iron ore demand in 1975 was translated into a rate of growth of 9 per cent each five-year period from 1950. This 1975 estimate, I understand, William Paley (the Chairman of the Commission) now believes to be very conservative. Applying this rate of increase to the demand for ore on the part of producers depending mainly upon Lake Superior ore gives the figures "total demand" in the first line of the table. From this is then subtracted the likely maximum possible supply for these producers that might come from Adirondack, Steep Rock and Brazil sources. Next is subtracted current estimates of the likely maximum supplies available from Labrador and Venezuela under present and planned programs. In the case of Labrador the present fourteen-foot channel severely limits the shipments (says the Materials Policy Commission Report, "But no more than 6-8 million tons of ore can now be moved in any year over the fourteen-foot channel that by-passes the International Rapids, and this ore must be transferred from 25,000 ships to 2,500 ton canal boats at Montreal and reloaded on-to lake freighters above the locks") and, therefore, two estimates involved from here on, (1) the lower estimate taking account of this limitation while (2) the higher estimate involves the possibility that the Labrador shipments may run to present program maximums without running into such shipping limitations.

Because of the fact that the import ores and the taconite for a substantially high iron content per ton, the increasing use of such ore supplies will, in effect, reduce the demand for the natural domestic ores. A correction has been deducted at this point to adjust for this fact. Item five in the table shows the demand for Lake Superior region ores derived in this fashion. Next is subtracted the possible amounts of taconite that may be developed under present and extended programs leaving the remaining figure, the estimated demand for natural iron ores from the Lake Superior region. Since, in the recent past, Minnesota has supplied approximately 82 per cent of the natural ores of the region, this percentage is applied to the preceding figure and the result is an estimate of demand for the Minnesota natural ores over the next twenty-year period.

It is clear that at every stage of the development of these figures some other broad assumptions had to be made, assumptions that may well turn out to be wide of the mark as the economy develops.

Two things are to be noted from the results shown. First, that the developing foreign supplies (and the current taconite program) are unlikely to have much impact for at least the next few years and, therefore, it is impossible that the increase in the occupation tax on iron ore could significantly effect the use of these alternative supplies for the next few years.

It is equally clear, on the other hand, that over a long time period the development of present programs, both for the development of foreign sources and for the development of taconite, is bound to lead to a relatively rapid decline in the demand for the natural ores of this region. It should be pointed out, however, that these programs were entered into on a large scale years before the current proposals to increase the occupation tax on iron ore.

It should also be noted, of course, that in terms of supporting employment in the mining areas of Minnesota, the construction employment and the operating employment of the taconite plants should more than mop up the unemployment that should arise from the gradual decline of the natural ore industry for years to come.

Some Hypothetical Estimates of Future  
Demands of Producers Depending on Lake  
Superior Iron Ore. (millions of tons)

		<u>1951</u> <u>96</u>	<u>1955</u> <u>103</u>	<u>1960</u> <u>112</u>	<u>1965</u> <u>233</u>	<u>1970</u> <u>133</u>	<u>1975</u> <u>145</u>
1. Total demand							
Less likely maximum supply from:							
Adirondack		2.5	2.5	2.5	2.5	2.5	2.5
Steep Rock			3	3	3	3	3
Brazil			1	1	1	1	1
		<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
2. Leaves		93.5	96.5	105.5	115.5	126.5	138.5
Less likely maximum supply from:							
Labrador	a)				16	24	30
	b)		5	8	8	8	8
Venezuela			3	12	16	20	24
		<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
3. Leaves	a)				83.5	82.5	84.5
	b)	93.5	88.5	85.5	91.5	98.5	106.5
4. Less correction <sup>1</sup>	a)				9.3	11.0	12.5
	b)		2.7	7.0	10.6	13.6	17.6
5. Leaves	a)				74.2	71.5	72.0
	b)	93.5	85.8	78.5	80.9	84.9	88.9

To be supplied from Lake Superior region by:

6. Taconite			3	18	28	35	40
7. Open Pit and Underground Ores	a)				46.2	36.5	32.0
	b)	93.5	82.8	60.5	52.9	49.9	48.9
8. Minnesota 82% share of Open Pit and Underground	a)				37.9	29.9	26.2
	b)	76.7	67.9	49.6	43.4	40.9	40.1

- a) If St. Lawrence Seaway is completed, Labrador tonnage may rise to these figures, and hence reduce need for Lake Superior taconite and ores correspondingly.
- b) Limit of likely supply with present 14 foot channel because of limited shipments of Labrador ore.

- <sup>1</sup> Correction for fact that import ores and taconite have higher iron content than Lake Superior ores.

LEGISLATIVE COMMISSION ON TAXATION OF IRON ORE

COMMISSION MEETING-OCTOBER 28, 1955

A G E N D A

1. Letter of transmittal from Frank Downing, Engineer with his written report on "Principal Mesabi Mines and Taconite Operations". (Copy for each Commission Member).
2. Publication "Venezuela Up to Date" - (copy for each Commission Member).
3. Representatives of Mining Industry to appear before the Commission today.

Letter from Snyder Mining Company

W. K. Montague

L. J. Severson

REPORT ON TACONITE OPERATIONS  
AS SEEN IN SEPTEMBER, 1955

-By-

Frank E. Downing, Engineer

The taconite plant of Oliver at Mountain Iron and their Extaca Plant at Virginia, also the Babbitt plant of Reserve Mining Company and the early stages of construction at Silver Bay, were seen by the Commission in 1953. This report deals mainly with what has been done at those plants since 1953, and with the new construction under way by Erie near Aurora and at Taconite Harbor.

PILOTAC PLANT AT MOUNTAIN IRON. This plant is now producing at rated capacity of 500,000 tons per year but is expected to increase to 700,000 tons or more, as stated by Mr. L. J. Severson, Vice-President of Oliver Iron Mining Division. that will furnish the crude taconite as extending nearly five miles He described the area west and three miles east of the plant, in an area where drilling had shown very little commercial ore.

It was also explained that the Mountain Iron Mine will be exhausted in 1956 and will then be allowed to fill with water, forming a reservoir holding about 16,000 acre-feet, or enough water to run a 10-million ton taconite plant for about six months. Water now used at the Pilotac Plant, 350 gallons per ton of crude taconite, is thought to be a higher consumption rate than would be required for a large commercial plant. This plant is operated steadily, 24 hours daily, all year. Fine ore recovered here is sent by rail to the Extaca plant at Virginia.

Production of taconite fines was stated to be:

1953	- - - - -	153,000 tons
1954	- - - - -	406,000 tons
1955	- - - - -	Production is estimated at 500,000 tons

EXTACA PLANT. Sintering is done with Dwight-Lloyd sintering machines, using taconite fines and Rouchleau ore fines, since the Pilotac plant is not yet producing enough fines to run both the sintering and the nodulizing plant at Extaca. Minor changes are being made in the effort to increase production rate.

Extaca Plant -- continued.

Success in the nodulizing operation has shown a decided gain in the past two years. It was stated at the plant that the nodules can be used in the open hearth furnaces. This gives them an advantage over regular ore, or even high grade natural ore other than lump ore. The nodules run from 3/8-inch to 1-inch in diameter, but effort is being made to obtain a fairly uniform size of about 3/8-inch.

- - - - -

ERIE COMMERCIAL PLANT. Here we saw the west pit where taconite is being uncovered, ready for quarrying. It was stated that there are two pit areas about five miles apart. The surface of the bare taconite appears very uneven and hilly. Entering the west pit, we saw a rotary drill putting down 9-inch blast holes, using a Hughes roller bit faced with tungsten carbide, one of the hardest known alloys. Other holes were being put down by use of the oxygen-kerosene jet, making holes about 10-inches in diameter. The extreme heat of the oxygen blast causes the taconite to chip off the walls of the hole in thin pieces, which are blown out by the force of the jet. The estimated average drilling speed by use of the jet was stated as 15 feet per hour. The jet is said to work best in the hardest taconite, while the rotary drill is better in softer or seamy taconite. The following costs were given on quarrying machines:

Joy Rotary drill - - - - - \$100,000 to \$105,000 each

Jet Piercing drill - - - - - 130,000

Power shovels, up to nearly- - - - - 250,000 each

Large trucks, 35-tons capacity - - - - - 48,000 each

In the two pits are a total of 44 trucks, 6 power shovels and 6 large drills. In the south side of the pit is an area of slate overlying the taconite. This has to be sent to waste piles, since it has but little iron. In August a total of 400,000 cubic yards of earth and rock was handled. Stripped material is used in large quantities for building track grades and for making fills for roads and stockpile grounds. When the plant is completed and in operation, it is planned to stockpile about 3 million tons of pellets, requiring a large level area.



In leveling off the huge plant site, over 1-million cubic yards of granite had to be excavated. The mammoth concentrating plant, 1100 feet long and the fine crushing plant are now being erected. The large shop building is now completed and in use.

are  
In the main concentrator building ~~is~~ one 60-inch primary crusher and four secondary crushers. Water pipe lines run up to 42 inches in diameter. Pipe lines and electric wiring are all carried in a large concrete tunnel. For the waste rock or tailings, there are four thickener tanks, each 250 feet in diameter and 8 feet deep. Excess water is drawn off for re-use in the plant. Tailings are pumped to waste dump at 50% water and 50% solids.

The fine ore that will be recovered will run from 62% to 64% iron. Cost of the initial installation is estimated at \$300,000,000.

Completion of the plant, ready for full-scale operation, is set for 1957. 4,900 workers are now employed at the Erie project. There are said to be from 50 to 55 contractors on the job.

TRAILER COURT. An interesting part of the project is the Evergreen Trailer Court. There are about 750 company trailers for workers' families. These trailers are rented at \$61.25 per month, including all utilities. There are also about 150 privately-owned trailers. For single men are barracks to accommodate 300 men. The trailer court includes a school, a hospital, a community church, cafeteria, laundry, etc.

Local labor is employed as far as possible and it was found that the number of local men employed is greater than had been anticipated. At the new townsite at Hoyt Lakes, 200 houses have been built and most of these have been sold. More houses are to be built as needed.

ERIE DOCKS AND POWER PLANT AT TACONITE HARBOR. Here we were shown the two islands and the connecting breakwater. It was explained that a 400-ft. section of the 1300 ft. causeway from shore to the westerly of the two islands will be excavated for a ship entry. The east breakwater is said to contain over 1-million cubic yards of rock. The breakwater is "armored" with huge boulders, some of them weighing 25 tons, brought

Erie Docks and Power Plant at Taconite Harbor - continued.

in over a special roadway on 16-wheel trucks. These boulders cover the sides of the breakwater from top to bottom, their purposes being to resist the action of ~~the~~ waves up to 20 feet high.

In order to provide the full required 30-ft. depth of water at all points within the harbor, it was necessary to excavate a large amount of bottom rock in an area several hundred feet wide along the shore. Cells of steel piling, each cell 55 feet in diameter, were closely set on rock bottom, parallel to shore, and the area was enclosed at the ends, then pumped out and rock was removed to full 30-ft. depth. The harbor has plenty of room for three vessels, two of which can load ore pellets at the same time.

Trains of 96 cars will bring finished pellets from the Erie plant near Aurora, a distance of 72 miles. At Taconite Harbor, loaded trains will be handled in three, 32-car sections, each section in turn being run out on a bridge above the ore dock and emptied into a long trough-shaped ore bin holding 150,000 tons. For ship-loading of pellets, there are to be 25 conveyors, spaced 48 feet apart, designed to load two vessels at the same time, by use of from four to seven of the 25 conveyors for each boat.

Along the face of the ore dock, the shore rock has been cut vertically and looks like a rough wall. The seams in the rock dip toward the lake. To prevent any danger of rock slipping, the rock face is being close drilled with holes going down at a steep angle across the dip of the rock seams, to a depth of 35 feet. Heavy rods are then set in cement in the holes to full depth, tying the rock wall into a more solid and durable mass. The whole rock wall is then faced with two to three feet of concrete, reinforced by the projecting ends of the rods. The finished ore dock will be 1824 feet long. Of this total, 1220 feet are now completed. Three bridges have been built over State Highway 61 to carry ore trains arriving with pellets.

The power plant, now under construction, will generate 150,000 KW of electricity, to be sent by high tension lines to the giant Erie Plant near Aurora. One half of the

Erie - continued.

finished steel structure for the coal dock has now been erected. A 7 1/4-mile ~~new~~ railroad is to connect Taconite Harbor with the Erie Plant. An 1800 feet tunnel has been completed and laying of steel is planned for 1956.

- - - - -

BABBITT PLANT OF RESERVE MINING CO. The major change since the Commission's visit to this plant in 1953 is in the method of hardening the pellets to withstand handling. In the pelletizing plant, the raw pellets, containing about 10% moisture, are coated with 2% to 3% of fine anthracite coal, in a steel bin with sloping sides, then discharged in a thin scattered stream onto the bed of a standard Dwight-Lloyd sintering machine. The drop is but a few inches, lessening the danger of breakage. The small amount of fine anthracite is ignited, under induced draft, heating the pellets to white heat and hardening them in a single run of the machine. They are then spray cooled and discharged into standard railroad cars. This method of hardening is a big step forward in taconite reduction.

- - - - -

The broken taconite is hauled to the plant in 45-ton trucks, where large chunks remain in the broken taconite after drilling and blasting, a 7-ton "skull-cracker" attached to a shovel or derrick boom, is dropped 15 to 20 feet, breaking most of them. A few need drilling and light blasting.

Other developments since 1953 include the following: Completion of the 4 1/2-mile railroad from Babbitt to Silver Bay. Installation of the 600-ton primary crusher, set in a rock excavation 167 feet deep and 80 feet in diameter. This crusher has a five-foot opening, is driven by two 500-HP motors and has a capacity of 3,500 tons per hour, crushing to an average 8-inch size. Four secondary crushers reduce the chunks to a 4-inch diameter, ready for shipment. Rated capacity of 300,000 tons per year has now been achieved at the Babbitt pilot plant.

RESERVE MINING CO. - continued.

The coarse crushing plant and the Company railroad are counted as part of the E.W. Davis Plant. Near the plant is a modern town of good homes, housing mine and plant employees. There is a service station, super-market, hardware and furniture store, post office, restaurant, city building, emergency hospital and a staff house with cafeteria.

SILVER BAY - E.W. DAVIS WORKS. The group was met at Silver Bay by Mr. <sup>W.M.</sup> ~~W.M.~~ Kelley, President of Reserve Mining Company, formerly an official of Republic Steel Corporation of Cleveland; and Mr. Robert Linney, formerly Manager of Republic's Mine and Plant operations near Fort Henry, New York, now Manager of Operations, Reserve Mining Company.

We saw the large rotary car dumper where each car of a loaded train equipped with flexible couplings can be gripped in heavy clamps/<sup>and</sup> without being uncoupled from the other ~~cars~~ cars, is turned completely over, dumping the 4-inch taconite into a bin, from which the taconite goes by conveyor into four large concrete storage bins, each bin holding 5,000 tons. From these storage bins the crude taconite goes by conveyor to the next bank of crushers and is crushed to 3/4-inch size. It then goes to the rod mills. We were shown the large dust-collecting system where taconite dust is collected and returned to the pelletizing plant. It was stated that there are 166 conveyors in the pelletizing building alone.

The fine ore, after recovery from 12 rod mills and 24 ball mills, passes under vacuum drums each having six filter cloth covered discs, like large wheels. As the lower part of the revolving discs pass through the fine iron in suspension in water, the iron particles are first held to the discs by air suction then discharged by reversal of current, dropping the fine material, with about 10% moisture, on to a conveyor which takes it to the pelletizing section. There the pellets are formed as at the Babbitt pilot plant. The final length of the pelletizing building was said to be 1600 feet.

RESERVE MINING CO. - continued.

At the loading dock are five large concrete tanks, each holding 6,000 tons, for storage of pellets at the loading dock. Two boat loaders can load an ore boat in 4 to 6 hours.

For water use in the plant, there are two steam turbine pumps at the dock, each having capacity of 37,000 gallons per minute.

At the power plant is a 40,000 KW steam turbine. The first unit of the E.W. Davis plant is now in operation.

Town of Silver Bay. The town now has 570 modern homes, a shopping center, an elementary school with 18 class rooms, one church and another being built, paved streets, sidewalks and sodded lawns.

Some houses are rented but most are being sold to employees with no down payment, on payments of \$68.00 per month, including interest and insurance, as an encouragement to families to own their homes.

- - - - -

COMMENT. The scale of operations at both the E.W. Davis plant and the Erie plant is so huge and bewildering that any attempt to write a clear and comprehensive description of either operation seems weak and inadequate. Even the old saying that "seeing is believing" almost fails to hold true here. The nearest comparison is that of a modern steel plant. Many steel plants will need and welcome the high-grade manufactured iron ore that will be supplied by the plants herein described and by other similar plants in the Lake Superior District.

The cost of the present layout at the E.W. Davis Plant (Reserve Mining Co.) is given as \$190,000,000, for a plant with annual capacity of 3,750,000 tons when the present construction program is completed.

The cost of the Erie plant is estimated at \$300,000,000, for a plant with annual capacity of 7,500,000 tons.

A substantial part of the cost of both <sup>plants</sup> ~~plants~~ is said to be met with borrowed money. If there is any question as to how many people in America have a financial interest in Minnesota taconite, the answer must be: all but those who carry no life insurance have a financial interest, for the big life insurance companies are its heavy backers.

The problems of taconite reduction have taken the better part of 40 years for their present measure of success. Great credit belongs to Mr. E. W. Davis for his untiring efforts over many years in arousing the interest of mining and steel men in the vital importance of taconite in the economy of both the steel industry and the State of Minnesota.

Much credit is also due to Messrs. John J. Craig and Henry H. Wade for many years of work on these problems at the Mines Experiment Station; and to the companies active in research work in Duluth and on the Range.

More recently, Mr. Robert J. Linney has given several years of research and hard, grueling work to the many difficult problems of taconite reduction, notably that of cutting the time and cost of pelletizing. His experience in the treatment of the siliceous magnetite ore of the Adirondacks was of great value in solving some of the even more difficult problems of the taconite industry.

Public interest has shown a marked shift from iron ore mining in Minnesota to the mining and processing of taconite. This interest is due not so much to the direct tax revenue to be derived from the taconite concentrate as to the hope of a great new industry that could continue for many generations, giving employment to more workers than have been employed in the mining of iron ore.

It has been stated that the estimated total investment of the three major companies now interested in taconite beneficiation (Reserve Mining Company, Erie Mining Company and Oliver Mining Division of U.S. Steel), is an amount in excess of the total present assessed value of all mining and other property in Minnesota.

REPORT ON PRINCIPAL MESABI MINES  
AS SEEN IN SEPTEMBER, 1955  
-By-  
Frank E. Downing, Engineer

The following alphabetical list of the mines, showing the page number on which each is described, is set out because descriptions of the mines are given in order of location from East to West.

<u>MINE</u>	<u>PAGE NO.</u>	<u>MINE</u>	<u>PAGE NO.</u>
Albany	10	MacKillican	17
Argonne	17	Mahoning Nos. 1 & 2	11
Arcturus	19	Mahoning No. 3	14
Auburn-Great Western	5	Mahoning No. 4	15
		Mahoning No. 6	15
Bennett & Bennett Annex	15	Mary Ellen	3
Buckeye	21	Mesabi Chief Group	16
		Monroe-Tener-Dunwoody	10
Canisteo	20	Mountain Iron	7
Canton-Higgins	2	Morrison	20
Carmi-Carson Lake	14	Morton	13, 14
Carlz No. 2	15, 16		
		Patrick Group	18
Danube-Orwell-Fletcher	20	Penobscot (Impro "A" and	
Delaware No. 2	19	South Rust	12
Douglas-Duncan	9	Perry-Wyman-Aromac	16, 17
		Pettit-Schley	4
Embarrass	1, 2	Pillsbury	10
Enterprise	7	Plummer	19
		Prindle	8
Forster	8		
Fraser-Humphrey-Alworth	8	Rouchleau Group	5, 6
Galbraith	17	St. James - 0-39 worked	
Gilbert	4	with St. James	1
Great Northern Parcel 3	21	Sauntry	6
Greenway	22	Scranton	12
Gross-Marble	19	Sherman (0-21 and 0-55, West	
		of Sherman)	9
Harrison	18	South Agnew and Agnew No. 2	13
Hawkins	17	Susquehanna	11
Hull-Nelson	5		
Hull-Rust	12	Tioga No. 2	22, 23
Jessie	21	Walker	20
		Walker-Hill No. 4	19
King	21	Weggum-South Longyear	10
		Wentworth-Graham	1
Lind	22	West Hill	21

SUMMARY OF SHIPMENTS AND RESERVES OF MINES LISTED IN THIS REPORT - - - - - 24, 25

COMMENTS - - - - - 26, 27, 28

REPORT ON PRINCIPAL MESABI MINES  
AS SEEN IN SEPTEMBER, 1955

-By-

Frank E. Downing, Engineer

At the eastern end of the Mesabi Range, near the new Erie Taconite Plant area, is the WENTWORTH MINE, of Jones & Laughlin Steel Corp., in Mesaba Township, Section 21-59-14. Shipments began in 1952. One forty of the Graham Mine, the NE-SW Sec. 21, operated years ago by Oliver Iron Mining Co., and now operated in connection with the Wentworth, has shipped 1,540,000 tons to 1955; and the Wentworth about 850 tons. Methods of ore beneficiating treatment include crushing, screening and heavy media. It is expected that the remaining ore will be mined out this year.

The ST. JAMES MINE, at Aurora, was opened in 1916, worked as an underground mine until 1924, then shut down. It was developed as an open pit mine by the St. James Mining Co. in 1951. Stripping in the south part of the pit is quite deep. The operation includes an adjoining 40 of the Oliver, shipments being made for Oliver's account. Approximate shipments in years 1952-54 were as follows:

St. James - - - - about 970,000 tons.

Adjoining lands, operated for Oliver Account - - 1,800,000 tons.

Remaining Reserve: St. James - - - 2,900,000 Tons

Adjacent Oliver land, worked for Oliver 3,600,000 Tons

EMBARRASS MINE. White Township. Pickands-Mather & Co., Agents. This mine was opened in 1944. The proposed pit area included Syracuse Lake, lying between Wine Lake and Embarrass Lake, the flowage going from Wine Lake into Syracuse Lake, and thence into Embarrass Lake. A large diversion ditch was dug by dragline from the west side of lower Wine Lake, leading southwest into Embarrass Lake, at a cost of \$1,250,000. A dam was then built across the lower end of Wine Lake. Next came the dewatering of Syracuse Lake and removal of lake-bottom mud.

Deep wells were drilled in the pit area in an effort to drain the ore body by large-scale pumping. First stripping was done in the area of shallowest overburden, the northwest part, where depth to top of ore was only 130 feet. Eastward and southward, as the pit was extended, the depth of stripping increased. In the south part of the pit



EMBARRASS MINE - con<sup>t</sup>.

area, black slate occurs above the ore, and the combined thickness of earth and slate is over 300 feet.

The volume of water pumped, at first about 11,000 gallons per minute, gradually decreased to around 6,000 gallons per minute, and has held near that volume for several years past. This means that for an annual production of 1,000,000 tons of ore, about 12 tons of water has to be pumped for each ton of ore mined. Pumping cost here runs about \$200,000 per year.

The pit area is now being extended toward the west property line. The depth of the pit is now about 550 feet, making this the deepest pit on the Mesabi Range. It has about 100 feet of ore remaining below present bottom.

This mine has had difficult operating conditions from the start. Among these are:

- Preliminary stream diversion and lake drainage.
- Large volume of water continually since the mine was opened.
- Deep stripping over the entire pit area. In south part, removal of a huge wedge of earth and caprock beyond the ore area, to make room for safe working slopes and benches for removal of deep ore.
- Frequent slides in the northeast bank of the pit, due to the presence of an underlying seam of paint rock, steeply pitching toward the pit. One such slide was seen on Sept. 20. Over 200 feet wide, a large section of the high bank broke loose and started to slide, cutting off two haul roads.
- Lower than average grade of ore. (Ore is trucked to bin at foot of conveyor belt, which takes ore to surface loading pocket.)

Altogether, mining operations have been difficult and costly.

The 1955 schedule for the Embarrass Mine calls for 1,100,000 tons. The total shipments up to 1955 are over 13,000,000 tons. The total remaining reserve, part of which is underground ore and part open pit ore, is over 13,000,000 tons.

CANTON-HIGGINS MINE. Biwabik City. (Oliver). The Canton itself began shipping in 1949, has shipped over 7,500,000 tons and is already worked out. The Higgins mine, adjoining the Canton on the south, shipped its first ore in 1951. Total shipments to 1955 were 3,390,000 tons. The ore is of <sup>fair</sup> ~~good~~ grade. Present reserve is about 3,500,000 tons. Mining conditions are favorable.

MARY ELLEN MINE. Biwabik City. (Pioneer Mining Co.) This mine was first operated by the Stanley Mining Co. in years 1924 to 1928. It was reopened in 1948 by Stanley Mining Co. The name was changed to Pioneer Mining Co. in 1952. The present mining area is about 3/4 mile long and about 1/4 mile wide.

Both the rock capping and the ore formation are extremely hard and abrasive. Conveyor belts, usually good for two or three seasons, last only one season here. Power shovel buckets have to be rebuilt every six weeks throughout the operating season. Mangar-ese steel plates of jaw crushers wear to destruction in one month.

The rock capping includes from 5 feet to 15 feet of rock known as algal, one of the hardest rocks known. Blast-hole drilling for breaking up the hard rock capping is done by horizontal holes drilled in the upper ore seam just below the cap rock, to avoid costly drilling of vertical blast-holes through the hard capping. Heavy blasting results in good breakage of the cap rock.

In the ore material making up the mill feed is some very hard rich taconite, having specific gravity higher than that of the heavy media, thus interfering with good separation at times.

The average recovery factor for the whole pit, after sorting out about 20% of broken formation as waste, is 40%. Lowest recovery, in south side of pit, is about 20%; and in the west end of pit, about 33%, after rock sorting in the pit.

The concentrate is a hard, heavy, high grade ore of excellent structure, being free from dust or very fine material.

Total shipments to 1955 - 3,190,000 tons.

Present known reserve - about 1,450,000 tons.

The success that has been made at this mine is due first to the vision and judgment of the late Emmett Butler who backed the enterprise; and second to the driving force and operating skill of his manager, F.S. Bergstrom. While the total tonnage is not large as compared to many other mines, the job of making a going concern of a hard, rocky deposit like the Mary Ellen Mine calls for a high degree of skill and years of hard work.

SCHLEY MINE. Gilbert City. (Jones & Laughlin Steel Corp.) This was first operated as an underground mine from 1910 to 1920, with shipments of 833,000 tons. It was reopened as an open pit mine by North Range Mining Co. in 1941, and shipped 1,887,000 tons before closing down in 1945.

The pit was again reopened by Jones & Laughlin in 1951, and in the years 1951, '52 and '53, made shipments of 872,000 tons, but made no shipment in 1954.

The pit has been considerably deepened in years 1951-53, and so reduced in bottom area that evidently no substantial further tonnage can be won by open pit methods without doing an excessive amount of extended stripping. Ore is hoisted up an incline on a slope of 38 degrees in 15-ton skips served by 15-ton trucks in the pit bottom.

The recorded reserve is nearly 3,700,000 tons.

PETTIT MINE. Gilbert City. (Jones & Laughlin Steel Corp.) This mine also was first opened as an underground mine, operated in the years 1902-1923 by Republic Iron & Steel Co. Counting the shipments made from stockpile in 1926 and 1929, the total shipments were roughly 2,463,000 tons.

The mine was later leased by Jones & Laughlin Steel Corp. and stripping was started in 1950. Present plans call for a total shipment from Schley and Pettit of 450,000 tons in 1955.

The available reserve in the Pettit mine at the beginning of 1955 was 3,775,000 tons, mainly open pit ore.

Conditions of both Schley and Pettit, as to difficulty of development and mining, grade of ore, pumping cost, etc. are not very favorable.

GILBERT MINE. Gilbert City. (Oliver). First operated as an underground mine by Oliver in years 1907-1914. Total shipments in those years, plus shipment from stockpile in 1916, were 1,643,000 tons. Ore mined by Schley mine along the Schley-Gilbert line in years 1941-45 was 871,000 tons. Shipments by Oliver in years 1949 to 1954 were 9,609,500 tons. Total to 1955 - 12,124,000 tons.

Ore and mining conditions good. Reserve - 3,700,000 tons.

HULL-NELSON GROUP. Eveleth City. (Oliver. The Hull-Nelson property, the last two forties of the original Adams-Spruce Group, was first operated by Oliver in the years 1901-1937. Total shipments up to and including 1937 were 2,394,000 tons.

The mine was stripped and prepared for open pit mining by 1942. Trucks haul ore from shovels to a pit pocket that feeds ore onto a long conveyor, which discharges into a loading pocket on surface. The pit pocket has been lowered ~~four~~<sup>three</sup> times since 1942, and is now near the bottom of ore.

Total ore shipped up to 1955 - 16,026,000 tons.

Remaining reserve (1954 reserve less 1954 shipments - 2,350,000 tons.

Ore is high grade. Mining conditions good. It is expected that the remaining ore will be exhausted in 1958.

AUBURN - GREAT WESTERN MINE. Virginia City. (Oliver) The Auburn was one of the first mines on the Mesabi, having been opened as an underground mine in 1894. Shipments in years 1894-1902 were 2,143,000 tons. The mine then remained inactive until 1951, when Oliver began open pit production. Included in the new pit was the Great Western, an adjoining reserve property.

Combined Auburn-Great Western total shipments to 1955 were 7,569,580 tons. The combined reserve, (1954 reserve less '54 shipment) 7,530,870 tons. The ore is high grade, and is used as a "sweetner" in grading with lower grade ores from other mines. Operating conditions are excellent.

ROUCHLEAU GROUP (Other than Auburn-Great Western) Virginia City, Franklin Village. (Oliver) The Rouchleau (and Rouchlean Annex) are in Virginia City; and the Moose, Shaw, Lone Jack and Ohio mines are in Franklin Village.

The following table shows the date of first shipment (regular), the shipments to 1955, and the 1955 reserve, as obtained by deducting the 1954 shipment from the known

ROUCHLEAU GROUP - continued.

1954 reserve, for each of the five mines forming the Rouchleau Group.

Mine	Date of 1st Shipment	Shipments to 1955	Reserve at 1955
Lone Jack	1895	5,029,000 tons	2,678,000 tons
Ohio	1895	6,456,000 tons	1,580,000 tons
Moose	1944	12,787,000 tons	6,307,000 tons
Shaw	1948	6,759,000 tons	1,981,000 tons
Rouchleau	1943	<u>32,663,000 tons</u>	<u>8,304,000 tons</u>
TOTALS - - - - -		63,694,000 tons	20,850,000 tons

The foregoing table is of interest in that it shows the rapid rate of depletion of these five mines, which have been the heavy producers in the Virginia District during the last ten years.

The largest of the group is the Rouchleau, which has shipped a total of 32,663,000 tons, most of it since 1943. With just over 8,000,000 tons remaining, or about one-fifth of the original total Rouchleau reserve tonnage, it is fast approaching what is known as the "truck clean-up" stage. The ore in this group is high grade ore that has been Oliver's main reserve in the Virginia District, of the type needed for grading up the poorer ores.

For the Rouchleau Group as a whole, the remaining reserve tonnage equals about one-fourth of the original tonnage. Mining conditions in this group of mines are very good.

SAUNTRY MINE. Virginia City and Franklin Village. (Oliver). This mine and the Stephens, in White Township, are the two remaining large Oliver reserve properties. The Sauntry is said to be in line for early opening, to take the place of the Rouchleau.

Trespass shipments have been made by adjoining mines in recent years, the ore being mined for Oliver's account. Present reserve, about 27 million tons.

ENTERPRISE MINE. Virginia City. (Hanna Ore Mining Co.) This open pit began shipping ore in 1952, and up to 1955 had shipped a total of 2,106,000 tons. The estimated reserve at May, 1954 was 3,410,000 tons. <sup>1954 shipments were 800,000 tons.</sup> The heavy schedule of 1955 calls for a shipment this year of 1,600,000 tons, leaving a balance of 1,000,000 tons after 1955.

This mine has been working steadily on three 8-hour shifts, 7 days per week, throughout the present season. The ore is crushed and screened at a plant located deep in the old Alpena mine underground area, adjacent to the Enterprise and now included in the active pit. A substantial amount of high silica material is being stockpiled, and this will later be shipped by rail to the Company's Douglas heavy media plant near Chisholm.

The first stripping dump had to be used as a stockpile area for several different grades of lean material, due to the difficulty of finding available ground elsewhere for stockpile room. Recently ground was acquired and a second stripping dump was started two miles north of the mine. In a period of heavy rains this past summer, the south part of the original dump started slipping, and began moving out over the edge of the Country Club grounds, covering an area about 150 ft. by 500 ft. This was later levelled off and re-seeded by the mining company. These are some of the difficulties that occur unexpectedly, and are doubly bad in a very busy season.

MOUNTAIN IRON MINE. Mountain Iron Village. (Oliver). Here the main or original Mountain Iron Mine is now exhausted. Present operations are in an area of mixed rock and ore on Lot 3, section 3, between the old pit and the Snively. The latter is also mined out, and has about 100 feet of water in the east end of the narrow pit.

The 1955 ore schedule calls for 1,100,000 tons from this mine. It is expected that the mine will be completely exhausted in 1956. It was stated at the mine that fully one-half of the last three years' production has been concentrate. Present mining conditions, difficult.

THE PRINDLE MINE. In Nichols Township, about four miles northwest of Virginia, operated by Oliver in the years 1914-1916 and 1942-1946; and by W.S. Moore Co. from 1949 to date, is reported as now being exhausted. Total shipments to 1955 were 3,746,000 tons, mainly concentrate.

For three miles west from the Mountain Iron Mine, exploratory drilling found no commercial ore deposits. This area forms a major part of Oliver's source of taconite to supply the Pilotac and later on, a large commercial plant.

FORSTER MINE. Balkan Township. (Oliver) Shipments of open pit ore began in 1949. Total shipments to 1955, 7,726,000 tons. / The 1954 shipment was 1,500,000 tons. Expected 1955 shipments is 900,000 tons, both of / which, deducted from the 1954 reserve of 10,422,000 tons, will leave about 8,000,000 tons in reserve. Mining Conditions, good. Ore, Bessemer and medium non-Bessemer grade, direct, being treated only by crushing and screening.

FRASER-HUMPHREY-ALWORTH GROUP. Chisholm and Fraser. (Oliver) Originally three separate mines, these three have been operated for several years as a single open pit mine. The largest of these, the Fraser, covers three forties in the main ore trough, which trough extends from Oliver's <sup>Myers</sup> ~~Myers~~ mine through Snyder Co.'s Shenango, and the three Fraser forties, into the Forster. (Above mentioned.)

The record of shipments and present reserves is as follows:

<u>Mine</u>	<u>Shipments to 1955</u>	<u>Approx. 1955 Reserve</u>	<u>Date of first regular shipment</u>
Fraser	20,858,000	13,870,000	1937
Alworth	9,570,000	610,000	1950
Humphrey	<u>6,761,000</u>	<u>3,250,000</u>	1950
TOTALS	37,189,000	17,730,000	

The above group also includes a fourth and smaller mine, the St. Clair.

St. Clair	<u>1,966,000</u>	<u>2,470,000</u>	1949
TOTALS	39,155,000	20,200,000	

SHERMAN MINE. Balkan Township, Fraser City. (Oliver). This mine, lying in an east-west deep trough parallel to and a short distance south of the Fraser deposit, contains one of the three large ore bodies remaining in the Chisholm district. It is separated from the Fraser deposit by a long, narrow taconite area; and is connected with the Fraser only by a thin layer of deep-lying underground ore. Developed in 1948, the Sherman has shipped 6,800,000 tons and has a reserve of about <sup>19,000,000 tons.</sup> ~~12,800,000 tons.~~

The pit is now over a mile in length and over 1/4 mile wide. A westward extension of the ore deposit will later add 1/2 mile and 24,000,000 tons to the Sherman pit. This additional tonnage is all on the tax rolls.

Present operating conditions are excellent. They will become more difficult later on as the deposit goes quite deep and the pit walls will be very high. The ore is not as high grade as the Fraser ore but is mainly direct shipping ore. The Fraser drainage shaft drains both Fraser and Sherman mining areas. This shaft will probably also serve for removal of deepest open pit ore as well as for the layer of underground ore. For the "clean-up" ore in the mines of the Sherman-Fraser Group, a heavy media plant is being planned for early use, for up-grading the ore in competition with imports.

DOUGLAS-DUNCAN MINE. Balkan Township. (Hanna) These two mines, originally separate, have recently been connected and are worked together.

The Douglas mine was operated by Evergreen Mines Co. in years 1942-44; by the Evergreen Mines Co., M.A. Hanna, Agent., 1945-46; and by Douglas Mining Co., M.A. Hanna, Agent, 1947 to date.

The Duncan was first <sup>worked</sup> ~~opened~~ by Oliver as an underground mine in 1914-1916; and as an open pit by Douglas Mining Co. from 1949 to date.

Combined total shipments to 1955 - - - - - 6,222,000 tons

Approximate total reserve, 1955- - - - - 4,970,000 tons.

Slightly less than half the production is low grade direct ore, and the rest is fair grade concentrate. Operating conditions, fair.



MONROE-TENER-DUNWOODY MINE. Chisholm City. (Oliver) This mine, including three Monroe forty-acre tracts and one Tener forty-acre tract, was opened by Oliver in 1905 as an underground mine. The Dunwoody mine/<sup>was</sup> first operated by Orwell Iron Co., 1917-24; by Orwell Iron Co., Pickands-Mather and Co., Agent., 1940-44; by Douglas Mine, (trespass shipments), 1945-51; and by Oliver, 1952 to date.

The Monroe-Tener shipped about 21,477,000 tons up to 1955, and had a 1955 reserve, (1954 recorded reserve less 1954 shipments) of 23,178,000 tons. Ore is mostly direct. Grade, fair to good. The 1955 schedule of 3,000,000 tons is understood to include shipments from the Monroe-Tener and the Dunwoody. Operating conditions, very good.

THE PILLSBURY MINE. - a smaller mine with high grade ore, in the same area, is now nearly exhausted.

ALBANY MINE. Hibbing Village. (Pickands-Mather and Co.) This mine was operated first as an underground mine and later as an open pit, using truck haulage, after railroad haul had to be abandoned.

It was learned that the last of the open pit ore was shipped in August, 1955. The remaining ore lies under a heavy cover of earth and taconite and remains to be mined by underground methods. Underground reserve is about 3,000,000 tons.

WEGGUM-SOUTH LONGYEAR MINE. Hibbing Village. (Hanna) The Weggum mine, originally the Philbin, was worked by Oliver as an underground mine in years 1915-1925, then lay idle until 1943. It was then opened as an open pit mine under the name "Weggum", by Butler Bros., 1943 to 1949; and by Philbin Mining Co. (M.A. Hanna, Agent) from 1949 to date. For better pit operation, the adjoining South Longyear was obtained under an operating agreement from Jones & Laughlin in 1943. The two properties have been operated together from 1943 to date. Treatment of ore includes crushing, screening and washing.

The combined total shipments from both mines to 1955 are 7,334,500 tons. The total combined reserve is about 2,500,000 tons. Ore has been medium grade. Operating conditions were fair until recently, but are becoming difficult for lack of stockpile room. There is now a large stockpile of lean ore material in the middle of the pit bottom.

SUSQUEHANNA MINE. Hibbing Village. (Republic Steel Corp.) This mine is unique in having been operated at different times by four different companies:

Buffalo and Susquehanna Ore Co. 1906-1909  
Rogers-Brown Iron Co., 1910-1925  
Susquehanna Ore Co., (Hanna) 1926-1932  
Susquehanna Ore Co., (Republic) 1933 to date.

Like many other Mesabi mines, this was first worked as an underground mine. When the changeover was made to open pit mining, the use of the hoisting shaft was retained to bring the ore to the loading ~~shaft~~ <sup>pocket</sup> on surface, and the same method is still in use. Electric shovels load ore into trucks that empty into a pocket over the crusher. The crushed ore goes by conveyor to the shaft pocket, <sup>and is hoisted to surface.</sup> The ore is mainly standard Bessemer and non-Bessemer, of good grade. In recent years, part of the ore has been washed. Operating conditions have been fairly good. The pit is now about 475 feet deep and is approaching the "clean-up" stage.

Over 28,000,000 tons have been shipped and about 4,900,000 tons remain in reserve.

MAHONING NO. 1 AND NO. 2. Hibbing Village, <sup>Stuntz</sup> ~~Stuntz~~ Township. (P.M.Co. Agent)

This has been one of the great mines of the Hibbing District. It is two miles long, contains about 400 acres and has shipped about 100 million tons of high grade ore from 1895 to date. Practically all the ore so far has been direct shipping ore. However, like most if not all the Mesabi mines, it has ore that will need treatment by washing or heavy media, occurring in an irregular layer in the pit bottom. "Clean-up" work is in progress in some parts of the pit. Large "islands" of pit bottom taconite are quite prominent. The pit bottom is very rough and hilly.

Ore in reserve is now down to about 9,590,000 tons, from a total of shipments and present reserves of 110,000,000 tons. Some of the remaining ore lies under the area now occupied by the Mahoning office and location houses.

HULL-RUST MINE. (The "Big Pit".) Hibbing Village, Stuntz Township. (Oliver)

Even this great open pit area had a shaft operation at the start, from 1896 to 1901. Then came 50 years of large-scale open pit mining, to remove most of this immense ore deposit. Though the record shows a remaining reserve of about 8,000,000 tons scattered over the area of about 400 acres, it is hard to see, either from the bank or from down in the pit, where that much ore could be recovered. Much of what remains is wash ore, and there may be some that will require treatment by heavy media. Cleanup of ore on bottom taconite has been in progress over the past ten years or more and today's view of the pit is that of a great expanse of taconite walls and pit bottom. This part of the "Big Pit" shipped a total of nearly 194,000,000 tons to 1955.

A district crushing and screening plant, located west of Hibbing, has been in operation for many years and a washing plant has been operating on cleanup ore since 1952. A heavy media plant is to be built in the near future.

THE PENOBSCOT, IMPRO "A" and SOUTH RUST, lying south of the Hull-Rust, will supply the greater part of the 2,000,000 tons scheduled for 1955 shipment. Penobscot began open pit shipments in 1941; the South Rust in 1944; and the Impro "A" in 1945.

Total shipments from these three properties to 1955 - - - 34,866,000 tons.

Approximate reserves in the three mines at 1955 - - - - - 6,940,000 tons.

SCRANTON MINE. Hibbing Village. (Pickands-Mather & Co., Agents.) This mine, located just south of the South Rust mine, is now quite deep and quite limited as to bottom area. Trucks haul ore to conveyor pocket where it is taken to the loading pocket on surface.

Total shipments to 1955 - - - - - 21,763,000 tons

Approximate reserve, 1955 - - - - - 4,105,000 tons

SOUTH AGNEW MINE. Stuntz Township. (Hanna) First operations at this mine were by underground mining, in years 1920-1931, by the Interstate Iron Co. (Jones & Laughlin), with a total shipments of 2,406,790 tons. In years 1937-1940, M.A. Hanna Co. made shipments from stockpile, of about 275,000.

Butler Bros. began preparations for stripping the South Agnew in 1947. They were first to use the method of belt conveyors for hauling the overburden from mine to waste pile. Using a large dragline, taking cuts of 40 feet or more below operating level the earth was emptied from the dragline bucket into a large hopper. Boulders were screened out and hauled to waste pile by trucks. A short conveyor discharged the finer material onto a large conveyor, one of a series that was about one mile in length. The last conveyor discharged the material onto the belt of a large movable stacker, so placed as to reach out over the crest of the pile and discharge the stripping over the crest in a wide arc. The method proved successful and when the South Agnew stripping was completed, the dragline was moved to the Morton Mine.

The South Agnew pit was enlarged by inclusion of the Agnew <sup>No. 2, 40-acres,</sup> ~~Morton~~ adjoining the South Agnew. Since 1948, the mine has been operated by the Hanna Co. The pit is now 1/2 mile long and about 1600 feet wide. Trucks haul ore from shovel to hopper at foot of incline on the pit bank. Ore is hoisted up the incline to a loading pocket on surface. Grade of ore - medium. Part of ore is washed. Operating conditions - very good. Total shipments, South Agnew and Agnew No. 2, to 1955 - 8,016,000 Tons. Balance in reserve, 1955 (1954 reserve less 1954 shipments) - 7,485,000 Tons.

MORTON MINE. Stuntz Township. (State Lease 2035) (Hanna) This mine started as an underground mine and produced about 200,000 tons in years 1912-1917. The mine was then shut down and remained idle until 1951, when stripping was started by Morton Ore Co. (M.A. Hanna Co., Agent). The entire pit area was found to be very wet when the first shovel cuts were made and this condition continued with depth. Much of the overburden was fine sandy ground and when wet, gave repeated trouble from heavy slides. In spite of heavy pumping (6,000 gallons per minute) the ground did not drain very well.

MORTON MINE - continued.

At the end of 1954, over 24 million cubic yards of surface stripping and over 1 million cubic yards of rock had been removed at a cost of more than \$10,000,000. It was then found that it would be necessary to remove about 5 million cubic yards more of surface material and 4 million cubic yards more of rock to permit mining 7,736,000 tons of ore. Since the cost of taking out a cubic yard of rock is twice that of a cubic yard of earth, this would give an equivalent ratio of 5 cubic yards of earth per ton of ore.

The first shipment of about 600,000 tons was made in 1954. Analysis of the 1954 shipment: - 45.34% natural iron, 11.19% silica. The pit has now been widened out and banks have been fairly well stabilized by riprapping with coarse taconite.

CARMI-CARSON LAKE MINE. Stuntz Township. (Pickands-Mather) The Carmi and the Carson Lake properties join and are operated as one mine. The Carson Lake pit is partly stripped but is not active. In the Carmi pit, ore has been removed to the taconite wall on the south side; to the property line on the west side and to the taconite wall on the north. A narrow ore channel in the northwest corner of the pit extends into the Mahoning Group 4 property, along the line of the old Warren Pit, and a small amount of Warren ore is available for mining with the Carmi.

The Carmi began shipping in 1952 and to 1955 had shipped 1,646,000 tons. Remaining reserve - about 3,880,000 tons. The Carson Lake property has an estimated reserve of about 3,500,000 tons. Grade of ore - medium. Operating conditions - good.

MAHONING NO. 3. Stuntz Township. (Pickands-Mather) This mine first shipped ore in 1952. Shipments to 1955 - 973,000 tons. Reserve (1954 reserve less 1954 shipments) - 5,884,000 tons. Operating conditions - good. Shallow depth of surface. Grade of ore - fairly good. The old Leetonia pit, adjoining Mahoning No. 3, is now nearly filled with stockpiles of taconite.

MAHONING GROUP 4. Stuntz Township. (Pickands-Mather). Shipments began in 1949. Total shipments to 1955 - 8,522,000 tons. Direct ore, Bessemer and non-Bessemer grade. Reserve at 1955 (1954 reserve less 1954 shipments) - 6,126,000 tons. Operating conditions - good.

MAHONING GROUP 6. Stuntz Township. (Pickands-Mather) This is a small mine lying next to the west line of St. Louis County, north of and operated with the Bennett Annex. Shipments to 1955 were less than 100,000 tons and the 1955 reserve is about 100,000 tons.

BENNETT MINE - BENNETT ANNEX. Keewatin Village, Itasca County; Stuntz Township (Pickands-Mather). Bennett Annex adjoins the Bennett Mine which has a deep ore channel that extends into the Bennett Annex, rising and narrowing toward the east. The remaining Bennett ore is being taken out with that in the Annex. Here is a mine situated in two counties - Itasca and St. Louis; two local units - Keewatin Village and Stuntz Township; and also two different school districts. Beneficiating plant has both washing and heavy media units designed by Western-Knapp Co. The plant has three pockets - one for wash concentrate and one for heavy media concentrate and one for spiral concentrate.

Operating conditions - this has been a most difficult mine to develop due to the unstable nature of the overburden, causing repeated slides of material from the slopes down into the pit. The banks were finally stabilized by use of coarse taconite riprap.

Total shipments from Bennett Mine to 1955 - 18,440,000 Tons  
Remaining reserve (1954 reserve less 1954 shipment) - 640,000 Tons

Total shipments from Bennett Annex to 1955 - about 643,000 tons  
Remaining reserve - about 1,800,000 tons.

CARLZ MINE NO. 2. Keewatin Village, Itasca County. (Hanna). (Named for the late Carl Zappfe, former manager of Northern Pacific ore properties) This mine, opened in 1951, has had much the same experience with unstable pit banks as that met in the Bennett Annex above described.

CARLZ NINE NO. 2 - continued.

In 1953, stripping was considered as completed and a shipment was made of 740,000 tons. Repeated slides of earth into the pit made it necessary to remove 1,820,000 cubic yards more in 1954 and at an additional cost of \$821,000. It is expected that the Carlz No. 2 pit ore will be exhausted this year. Due to the experience at No. 2, there is some question as to advisability of opening Carlz No. 1, ~~xx~~ 1/2 mile east, in St. Louis County, with ore estimated at about 4,000,000 tons.

MESABI CHIEF GROUP MINES-INCLUDING STEIN, BRAY AND GORDON. All in Nashwauk Township. (Hanna). The Mesabi Chief, oldest of this group, has shipped every year since 1929, the total to 1955 being 10,161,400 tons. Its remaining reserve is only about 468,000 tons (at May, 1955).

The Bray, first worked by Republic Iron and Steel Co. - 1909-1924, and by Hanna from 1950 to date, has shipped 4,080,000 tons to 1955 and had remaining ore of 1,573,000 tons at May, 1955. Mainly direct shipping ore.

The Stein - opened by Hanna in 1940 - has shipped 2,212,000 tons to 1955; and had but 70,000 tons remaining at May, 1955. Mainly heavy media.

The Gordon opened in 1952, had shipped 622,700 tons up to 1955; and had 2,720,000 tons remaining ore. Now producing wash concentrate.

PERRY-WYMAN-AROMAC GROUP. Nashwauk Township. (Hanna) The Aromac, oldest of this small group, was operated by Argonne Ore Co. (Jas. A. MacKillican), 1942-1944; by Butler Bros. - 1945-46; and by Butler Bros. for M.A. Hanna Co. - 1953 to date. It lies just west of the old Mesabi Chief Mine. Shipments to 1955 - 1,058,000 tons and remaining reserve at May, 1955 - 215,000 tons.

The Wyman, opened in 1949 and worked with the Perry Mine, had shipped 954,000 tons to 1955, and had 385,000 tons remaining ore.

The Perry, also opened in 1949, shipped 2,070,000 tons to 1955, and had 630,000 tons remaining ore.

Combined group figures: Shipments to 1955 - 4,082,000 tons; remaining ore - 1,230,000 tons.

PERRY-WYMAN-AROMAC GROUP - continued.

In the south side of the Perry pit is a high taconite wall, or pit bank, looking much the same as any other taconite wall. Only here the taconite, instead of standing unchanged from year to year, has a bad habit of shedding part of its outer surface in the form of rock falls, ranging from small to quite large masses. In that side of the pit is a depression filled with water and on its west side is an electric pump mounted on a light raft. A rock mass of some 10,000 cubic yards let go one day this past season and the surge of water and mud that followed picked up pump, raft and pumpman and floated them out on a 10-foot wave that tore loose pipelines and wires in its path and left everything, including the pumpman, high and dry about 600 feet out on higher ground in the pit bottom. This is one instance of things that unexpectedly happen now and then in open pit operation. (The foregoing account can be verified ~~by~~ by Mr. H. A. Larson, Assistant Chief Mining Engineer, the M.A. Hanna Co., Cooley, Minnesota.

ARGONNE MINE. Nashwauk Township. (Hanna). This mine made its final shipment of about 20,000 tons in 1954. Total shipments, 1941-1954 - 4,273,300 tons.

GALBRAITH MINE. Naushwauk Township and Nashwauk Village. (Hanna) The Galbraith produced over 4,700,000 tons in the years 1941-1954, and is now mined out and the plant moved away. Most of the ore was wash concentrate.

HAWKINS MINE. Nashwauk Village. (Cleveland-Cliffs) First operated by underground methods, this mine was later operated for many years as an open pit by International using rail haulage. Harvester Co.,/It was leased to Cleveland-Cliffs in 1947. It is <sup>now</sup> operated by electric shovels, trucks and conveyors.

Total shipments to May, 1955 - 20,347,000 Tons.  
Remaining Reserve to May, 1955 - 5,489,000 Tons.

MAC KILLICAN MINE. Nashwauk Village. (Hanna) This is a small open pit just south of the Hawkins Mine. The first ore shipped from this mine was in 1953. Total shipped to 1955 - 574,000 tons. Remaining ore - 321,000 Tons.



HARRISON MINE. Cooley Village. (Hanna) The Harrison, opened by Butler Bros. in 1914, and operated by them until 1948, was then taken over by the Hanna Co. The mine is operated by electric shovel, truck and conveyor haulage. Method of ore treatment - heavy media separation. Total shipments to 1955 - 5,860,000 Tons.  
Remaining Ore - 830,000 tons.

PATRICK GROUP MINES. Cooley Village. (Hanna) This group of mines, operated as one unit, includes: Patrick-Ann, Patrick Annex, Kevin, Olson and Snyder.

Patrick-Ann Mine. Opened by Butler Bros. in 1917, and operated by them until 1948. This mine then passed to the control of the M.A. Hanna Co. and has been operated under their direction to date. Ore is crushed and treated mainly by heavy media in recent years. Truck haul to conveyor.

Patrick Annex Mine. Opened by Butler Bros. in 1935. Operated by them from 1935 to 1948 and by Hanna Co. 1949 to date. Electric shovels load into trucks that deliver ore to conveyor which takes ore to beneficiation plant for heavy media treatment.

Kevin Mine. Opened by Butler Bros. and operated by them until 1948 and by Hanna Co. from 1949 to date. Same method of operation and ore treatment as at the Patrick-Ann and Patrick Annex.

Olson Mine. Operated by Butler Bros. from 1945 to 1948, and by Hanna from 1949 to date. Ore mining operation and treatment same as above.

Snyder Mine. This mine is shown as having made its last shipment in 1951, and with a recorded reserve of 890,000 tons. Ore is low grade and rather difficult to treat with good results.

Group Record: (Approximate figures:)

<u>Mine</u>	<u>Shipments to 1955</u>	<u>Reserve (1954 reserve less 1954 shipments)</u>
Patrick-Ann	8,342,000 Tons	3,123,000 Tons
Patrick Annex	853,600 "	1,275,000 "
Kevin	8,544,700 "	946,000 T
Olson	3,597,400 "	1,079,000 "
Snyder	543,800 "	890,000 "
TOTALS - - - - -	21,881,500 Tons	7,313,000 Tons

DELAWARE NO. 2 MINE. Marble Village. (Oliver) This mine has been operated by Oliver in conjunction with the Gross-Marble Mine from 1942 to date. Electric shovels load into trucks that deliver crude ore to conveyor delivering crude to concentrator. Ore is Bessemer and non Bessemer wash concentrate. Grade of ore - good. Operating conditions - very good.

Shipments to 1955 - - - 5,496,000 Tons  
Remaining reserve - - - 2,083,000 Tons

GROSS-MARBLE MINE. Marble Village. (Oliver To Date) Opened by Oliver in 1942, this mine has shipped 5,789,000 tons to 1955. Remaining reserve, 1955 - 792,000 Tons.

On recent expiration of the lease, this property was leased by the Cleveland-Cliffs Iron Co.

ARCTURUS MINE. Taconite Village. (Oliver) This mine is now inactive, there having been no shipment since 1953. The recorded reserve is 1,828,000 tons. Total shipments to 1955 - 13,481,000 Tons in years from 1917 to 1953.

Mine operated by electric shovels, diesel trucks, screening-crushing plant and conveyor, discharging into railroad cars going to Trout Lake Concentrator. Ore is Bessemer and non-Bessemer wash concentrate.

WALKER-HILL NO. 4 MINE. Marble Village. (Oliver). This property lies just east of the Arcturus and has been operated with it. Neither mine shipped ore in 1954. First shipments were made in 1941 and 1942; then from 1950 to 1953. Total shipments to 1955 - 934,800 Tons. Reserve at 1955 - 6,078,000 Tons. The south bank of the mine remains to be stripped to uncover a layer of wash ore.

PLUMMER MINE. Coleraine Village. (Oliver). 1954 was the first year of shipments for this mine. Reserve at 1955 - 5,120,000 Tons. Shipped in 1954 - 308,000 Tons.

The mine contains good wash ore, but is rather badly cut up by taconite intrusions. A long conveyor takes the crude ore from pit to washing plant. The 1955 schedule is for 1,500,000 tons, of which 1,200,000 tons will be wash concentrate. Mining conditions are good, except for the occurrence of the taconite intrusions in the ore body.

DANUBE-FLETCHER MINE. Bovey Village and Coleraine Village. (Pickands-Mather)

This mine consists of three units: Danube, Orwell and Fletcher.

The Danube is at the cleanup stage, with little ore remaining.

The Orwell is about one-half mined out and has a substantial reserve.

The Fletcher first shipped ore in 1950 and still has a moderate reserve.

Combined Totals:

<u>Mine</u>	<u>Total shipments to 1955</u>	<u>Remaining ore at 1955</u>
Danube	8,175,500 Tons	659,000 Tons
Orwell	5,951,000 Tons	6,193,000 Tons
Fletcher	428,000 Tons	1,311,000 Tons
TOTALS - -	14,554,500 Tons	8,163,000 Tons

The upper layer of wash ore has always been hard to treat successfully at the Danube-Orwell Mine. The deeper wash ore layer concentrates quite well. Operation is by electric shovels and truck haulage.

MORRISON MINE. Coleraine Village. (Oliver). This mine has been operated by Oliver in conjunction with the Walker Mine, sending crude ore to the Trout Lake concentrator. Little ore remains in the pit. Total shipments to 1955 - 12,538,000 Tons  
Remaining Ore - - - - - 727,000 Tons

WALKER MINE. Bovey Village, Coleraine Village. (Oliver). The Walker Mine was operated by Oliver from 1909 to 1917 and from 1941 to date. Ore goes to Trout Lake Concentrator. Mining conditions - fair. Ore - mainly wash concentrate.

Total shipments to 1955 - 14,511,000 Tons. Remaining Ore - 2,550,000 Tons.

CANISTEO MINE. Coleraine Village, Bovey Village. (Cleveland-Cliffs). This mine was opened in 1907 and operated by Oliver until 1925. It was then idle until leased by Cleveland-Cliffs Iron Co. about 1929. The pit was dewatered and extensive stripping done, followed by shipments from 1933 to date. Total shipments to 1955 - 33,413,000. Ore remaining - 5,143,000 Tons - mostly wash and heavy media ore.

GREAT NORTHERN PARCEL 3. Coleraine Village. (Hanna) This reserve property lies just south of the Canisteco pit and is being prepared for early stripping by the Hanna Co. Stripping has to be hauled three miles west over a truck haul road now under construction. Wash ore and heavy media ore will be treated at the Buckeye Mine Plant. Operations at the Buckeye, with about 2,800,000 tons of ore in reserve, will be deferred until Parcel 3 ore is mined out.

Parcel 3 mine has a reserve of about 4,800,000 tons, mainly wash ore. Opening of Parcel 3 will cause re-routing of the D.M. and I.R. Railroad near Bovey.

KING MINE. Coleraine Village. (Oliver). This mine adjoins Parcel 3 and is just northwest of Coleraine. First ore shipment was made in 1952. Crude ore is shipped by rail to the Trout Lake Concentrator. Operating conditions - good.

Total shipments to 1955 - 1,016,000 Tons. 1955 shipment is set for 344,000 tons of wash concentrate. Remaining ore - 5,400,000 tons, mainly concentrate.

BUCKEYE MINE. Arbo Township. (Hanna) The Buckeye was operated by Evergreen Mines Co. in 1943-44 and by the Hanna Co. from 1945 to date. It is now idle as noted above. It contains wash ore and heavy media ore. The mine is just west of Coleraine.

WEST HILL MINE. Arbo Township. (Pickens-Mather) Crude ore from the pit is taken by conveyor to the concentrating plant on surface. The plant has both wash and heavy media units. The mine made its first shipment in 1953. The total shipment to 1955 was 1,070,000 tons. The 1955 reserve (1954 reserve less 1954 shipments) - 2,178,000 Tons. Operating conditions - fair.

JESSIE MINE. Grand Rapids Township. (Jessie H. Mining Co.) The pit is located about four miles southwest of Coleraine near the east bank of the Prairie River. Loading into trucks is done by dragline excavator and ore goes to crusher near the loading pocket.

The ore is of low grade, is hard to beneficiate, having inclusions of sticky clay. It has been hard to sell except in limited quantities. It contains many large chunks of cretaceous ore, similar to that in the Elberta Mine east of Chisholm. The 1955 reserve is about 1,800,000 Tons.

LIND MINE. Grand Rapids Township. (Jones & Laughlin). This property lies just east of Prairie River, southwest of Coleraine. It is partly stripped but has not made any shipments. Its development includes diversion of Prairie River - a small watercourse - to permit mining of ore close to the river. The mine is to be operated together with the Greenway Mine. The estimated reserve is 2,780,000 tons. Tests made over past years indicate a low grade, rather difficult ore to beneficiate.

GREENWAY MINE. Grand Rapids Township. (Jones & Laughlin). This mine was named for the late Col. John C. Greenway who was for several years District Superintendent for Oliver at Coleraine, many years ago. The mine was operated from 1940 to 1944 by Evergreen Mines Co., who shipped about 868,000 tons during those years. There was a small amount of direct ore, some of which contained small quantities of sulphur in the form of pyrite. Most of the ore was wash ore and that last mined was really heavy media ore, but was treated by twice passing through an ordinary washing plant.

Of the 2,500,000 tons in reserve, practically all is either wash ore or heavy media ore, probably mainly the latter type. Operating conditions will probably be difficult.

TIOGA NO. 2. Bass Brook Township. (Pickands-Mather). Here is a mine in uncharted ground as far as iron ore mining is concerned. It is located near the west <sup>shore</sup> ~~shores~~ of Pokegama Lake, eight miles by airline from the nearest operating mine (West Hill, P.21) and lies across the northwest arm of Pokegama Lake from Grand Rapids.

After nearly <sup>three</sup> ~~12~~ years of difficult development work, including the construction of a broad and deep clay barrier between Pokegama Lake and the pit area, removal of from 75 to 120 feet of stripping in unstable ground, many months of difficult conveyor tunnel construction - only recently holed through and now being steel lined - and pumping at the rate of 5,000 gallons\* of water per minute, ore has finally been uncovered and a start at mining is being made. The exposed surface of ore appears very uneven and "hilly". The average depth of stripping is about 100 feet. There have been repeated slides of ground in stripping banks, which will not stand at slopes common over most of the Range.

\* Water comes in through the ore.

TIOGA NO. 2 - continued.

Especially difficult was the construction of the conveyor tunnel, 1056 feet long, on a slope of 11 degrees, through ground that would not stand at a slope steeper than 18 degrees to the horizontal. Success was attained by use of chemical soil treatment, slow and costly, but finally effective. The tunnel is being lined with steel. While work on the tunnel was in progress, crude ore has been truck-hauled to surface, hoisted by crane to top of plant pocket, then treated by washing or heavy media.

No ore has been shipped to 1955 but ore is now being loaded. Not enough work has yet been done on the crude ore to establish a dependable recovery factor. This product appears to be different from most Mesabi concentrate, in being more porous and not as heavy. The recorded reserve at 1954 - 5,150,000 Tons.

As in the case of any mine in a new area, developments here are watched with interest by all concerned, including the fee owner, who in this case, is the State of Minnesota.

SCHEDULE A

SUMMARY OF SHIPMENTS AND RESERVES OF MINES LISTED IN REPORT

NAME OF MINE	TOTAL SHPMT'S. TO '55 (1000's)	DATE OF 1st SHPMT.	RESERVE TON. '54 RESERVE LESS '54 SHPMT. (1000's)	TYPE OF ORE
Wentworth-Graham	2,390	1913	268	Heavy M.
St. James	3,652	1916	2,862	Non-Bess. Med. grade
O-39 (worked with St. James)	1,800	1952	3,600	" "
Embarrass	13,300	1944	13,000	Medium Grade
Canton-Higgins	10,900	1949	3,500	Good. Bess. & Non-Bess
Mary Ellen	3,190	1924	1,450	Hi-grade, Heavy Med.
Pettit-Schley	6,055	1910	7,473	OP and UG - Med.
Gilbert	12,124	1949	3,700	Bess. & Non-Bess.
Hull-Nelson	16,026	1942	2,350	(Bess. & Non-Bess. Good
Auburn-Great Western	7,569	1951	7,531	( " " "
Rouchleau Group	63,694	1943	20,850	(Crushing & Screening Bess. & Non-Bess
Sauntry (To be opened as open pit)	5,376	1899	27,160	Crushing & Screening Bess. & Non-Bess.
Enterprise	2,106	1952	2,610	Crush. & Scr. Heavy Med.
Mountain Iron	47,038	1913	1,035	Crush. & Scr. W.C.
Prindle	3,746	1942	77	Heavy Med. (Scr.
Forster	7,726	1949	8,894	Bess. & Non-Bess. (Cr.
Fraser-Humphrey-Alworth	37,189	1937	17,730	Cr. & Scr. Part W.C.
Sherman	6,800	1948	19,000	Non-Bess. Crush. & Scr.
O-21 & O-55 (W. of Sherman)	- - -	- - -	24,000	Non-Bessemer
Douglas-Duncan	6,222	1942	4,970	Cr. & Scr. & W.C.
Monroe-Tenner-Dunwoody	35,052	1947	29,730	Bess. Non-Bess. & Mn.
Albany	14,381	1903	3,626	Bess. " " Part Scr. W
Weggum-South Longyear	7,335	1943	2,500	Non-Bess. W.C.
Susquehanna	28,029	1906	4,942	Bess. & " "; Part W.C.
Mahoning No. 1 & 2	100,987	1895	9,590	Bess. & Non-Bess.
Hull-Rust	193,800	1896	7,800	Bess. & Non-Bess. Part W.C.
Penobscot, Impro "A" and South Rust	34,866	1941	6,940	Bess. & Non-Bess. Cr.
Scranton	21,763	1923	4,105	& Scr. part W.C.
Morton	806	1954	4,386	Non-Bess. Cr. & Scr.
S. Agnew & Agnew #2	8,016	1948	7,485	Bess. & Non-Bess. part W.C.
Carmi-Carson Lake	1,646	1952	7,409	" " Cr. & W. C.
Mahoning Nos. 3 & 4	9,495	1949	12,008	Non-Bessemer
Mahoning No. 6	100	1951	100	Bess. & Non-Bess.
Bennett & Bennett Annex	19,083	1913	2,240	Non-Bessemer
Carlz No. 2	1,182	1952	154	W.C. H.M. & Sp.
Mesabi Chief Group	17,076	1929	4,831	Concentrate
Perry-Wyman-Aromac	4,082	1942	1,230	W.C. & H.M. Con.
Argonne	4,273	1941	None	W.C. & H.M. Con.
Galbraith	4,700	1941	None	W. C. & H.M. Con.
Hawkins	20,437	1902	5,489	W. C. & H.M. Con.
Mackilligan	574	1953	321	W. C.
Harrison	5,860	1914	830	W. C. & H.M. Con.

SCHEDULE "A" - continued.

NAME OF MINE	TOTAL SHPMT'S TO '55 (1000's)	DATE OF 1st SHPMT.	RESERVE TON. '54 RESERVE LESS '54 SHPMT (1000's)	TYPE OF ORE
Patrick Group	21,881	1917	7,313	W. C. & H.M. Con.
Delaware No. 2	5,496	1942	2,083	W. C.
Gross-Marble	5,789	1942	792	W. C.
Arcturus	13,481	1917	1,828	W. C.
Walker-Hill No. 4	935	1941	6,078	W. C.
Plummer	308	1954	5,120	W. C.
Danube-Orwell-Fletcher	14,555	1919	8,163	W. & H.M. Con.
Morrison	12,538	1926	727	W. C.
Walker	14,511	1909	2,550	W. C.
Canisteo	33,413	1907	5,143	W. & H.M. Con.
G.N. Parcel 3	To start 1956		4,800	W. C.
King	1,016	1952	5,400	W. C.
Buckeye	5,812	1943	2,821	W. & H.M. Con.
West Hill	1,070	1953	2,178	W. & H.M. Con.
Jessie	442	1951	1,830	Crushing
Lind	None (part dev.)		2,780	H.M. Con. ?
Greenway	868	1940	2,500	H.M. Con.
Tioga No. 2	- - -	1955	5,150	W.C. & H.M. Con.
		"		
TOTALS	922,561		355,232	

The foregoing list includes most of the large open pit mines and some smaller mines now active on the Mesabi Range. Note the number of larger mines that have made heavy shipments since 1940, comparing total shipments with total remaining reserves.

The list includes two mines which have been worked out in 1954 or 1955; also three mines where developments have been started but where no shipments have been made up to 1955.

Adding to the above figure of 355 million tons an allowance for discovery ore of 25 million tons for the mines included in the above list, makes a total of 380 million tons; and this, taken from the total of 595 million tons of Mesabi Open Pit Ore, leaves 215 million tons, which includes both the ore in the remaining active Mesabi mines not included in this report, and the remaining reserve of Mesabi undeveloped open pit ore. Cuyuna Range mines are not included in this report.



## COMMENTS

Having seen the Mesabi Mines frequently over many years, then seeing them recently, after an interval of two years, I was very strongly impressed by several marked changes.

The terrific rate of depletion of many mines, even in the past two years, was more striking than on any previous visit. This is evident at the large Rouchleau Mine and the relatively small Rouchleau Annex at Virginia, which began regular open pit shipments in 1943, made shipments of over 32 million tons up to 1955, and are now rapidly approaching the "truck-cleanup" stage; the Hull-Nelson at Eveleth, which has made a total shipment of 16 million tons to 1955, with remaining reserves of about 2.3 million tons; and at most of the major mines near Hibbing.

Only part of the ore production from these and other mines nearing exhaustion can be replaced by that from new mines having as high a grade of ore as that of the mines now being worked out.

There are now two remaining undeveloped major ore deposits on the Mesabi Range:- the Sauntry, at Virginia, with nearly 28 million tons of good ore; and the Stephens, in White Township, with about 48 million tons of fair ore. The Sauntry is due for early development to take the place of declining good ore in the Rouchleau.

Many other mines that will need to be opened, to replace other mines now being worked out, will have a greater amount of wash ore and heavy density ore than that of the mines to be replaced.

It should be noted that the Minnesota ore reserve figures as of May 1, 1955 will not be available until after the completion of the 1955 mineral equalization. Therefore, for the purposes of this report, the figure taken as the 1955 reserve in each case is found by deducting from the May 1, 1954 tonnage the number of tons shipped in 1954.

Discovery Ore. Going back to 1953, the Mesabi reserve tonnage of ore in ground was 839.9 million tons. The Mesabi 1953 shipment was 75.9 million tons which, taken from 839.9 million, left a balance of 764 million. However, the record shows the Mesabi reserve at May 1, 1954 to be 825.4 million tons, indicating new ore of 61.4 million tons. Of this amount, it happens that 20 million tons had been found by the recent drilling in a deep ore channel discovered in a westerly extension of the Sherman mine near Chisholm. There does not appear to be any likelihood of another such discovery as this on the Mesabi Range. Reducing the above "new ore" figure of 61.4 million by 20 million, leaves 41.4 million, - a more reasonable figure, but probably a high figure to use as a Mesabi Range average for future annual discovery ore.

Another change is the marked increase in the number of cubic yards of overburden being removed to uncover a ton of ore. At one mine near Hibbing, where the depth of overburden is close to 200 feet, the total equivalent earth yardage remaining to be removed, made a total of 39 million cubic yards. Figured against the ore reserve of 7,736,000 tons, the average stripping factor is 5 cubic yards per ton of ore. At a smaller mine further west, a total of over 8,600,000 cubic yards of earth had to be removed to recover an estimated 1,336,000 tons of ore averaging 48.1% natural iron. Stripping ratio, about 6.5 ~~cubic~~ cubic yards per ton. At these two mines, the development cost alone runs over \$2.00 per ton. These are extreme cases, not average ones.

COMMENTS - continued.

The growing scarcity of available land for disposal of waste material is such that it is difficult to open up new mines. It is not uncommon to find stripping jobs where the haul is from two to three miles.

Another change noted on the mine trip is that of increasing difficulty in disposing of ores having silica about 12% or 13%. For several years past, ores with 16% to 17% silica were accepted rather freely, with the usual penalty. But not this year. Orders are: - "Keep that silica down." While mine operators are laying the blame on imports, there does not seem to be much that can be done about it, other than making still further improvements in ore treatment processes, even though all companies have been trying every known method for years past.

One result of this restriction may be that some of the poorer ore material may have to be left unmined, or put in stockpile for an indefinite period. Careful studies are being made at some mines in an effort to work out some solution of this difficult problem.

One thing noted on the Range was an apparent slowing up in completion of a few mine development programs started in recent years. This is to be expected in some years, but is rather surprising in a year that has experienced a 10% increase in ore requirements above the initial schedule, and is something not seen on the Mesabi in recent years. It could be due to the operators being able to get better ore at lower cost elsewhere. Or it could be for quite a different reason. If, in view of the Commission's recommendation, they were to feel disappointed and confused at recent trends in ore taxation and apprehensive as to possible future developments, they might just be sitting tight and waiting to see what is going to happen next. If so, who could blame them? And what would any other taxpayer do in their place?

These companies are in business here, with a heavy investment in plant and equipment. Naturally they want to stay here as long as they can. Some of them seem to be faced with a decision. If or when any company should decide to leave, having reserves elsewhere, the State would be the main loser, for payrolls mean more to the State and to its people than do the taxes on the remaining ore.

In Itasca County, on the Western Mesabi Range is a large area now opened up, where for the first time seen by this writer, there is an open view along the iron formation, unbroken for miles, - an area where wash ore is being mined. Here is an area with great potential for future recovery of ore by heavy density methods that could be followed later by possible treatment of very large quantities of non-magnetic taconite, - mostly stripped and ready to go.

It could be that the completion of mining the heavy media ore might be timed with the starting of plants for the taconite. In view of what is known today, can the latter stage become a reality? The question facing the operators will be: Will it get back a new dollar for an old one? It is a matter of total production cost, taxes included. The future importance of this area to Minnesota is second only to that of the present development of the eastern Mesabi area of magnetic taconite.

Remaining Ore for Future Mining. As before noted, Minnesota's good ore mines are being rapidly exhausted. Table 3 of the Minnesota Mining Directory shows 1954 Mesabi ore reserves of 825 million tons, - but what about the grade of this remaining ore and ore materials, comprising 595 million tons of open pit ore and 230 million tons of underground ore? While some of the mines now nearing exhaustion can be replaced by other deposits of good ore, the average grade of the ore in the remaining deposits is steadily declining.

COMMENTS - continued.

On the other hand, the physical difficulties of open pit mining of the remaining deposits are increasing. It may be that a part of the remaining open pit ore and much of the underground ore will remain unmined for quite a long time.

Imports of high grade ore are steadily increasing and undoubtedly will continue to gain in future years. Iron ore imports into the United States in recent years have been as follows:

1952 - - - - -	9,760,000 tons
1953 - - - - -	11,000,000 tons
1954 - - - - -	16,000,000 tons
1955 (estimated)	22,000,000 tons

The increasing demand for steel, along with the unexpectedly rapid rate of United States population growth, has already caused the industry to consider raising total United States steel capacity to 150,000,000 tons by 1960.\* Such an increase, coming so soon, would require not only greatly increased imports, but also all the Lake District ore that can be produced in years like 1953 or 1955. It is in years like 1954 that Minnesota can expect to feel the impact of imported high grade ores, making conditions increasingly difficult for producers of ores having low iron and high silica. Great as the effort has been on the part of all operators to improve the grade of ore from the leaner deposits, the present trend is toward even greater and more extensive research in that direction.

It is well to remember that every step of steel manufacture is highly competitive, from iron ore mining to finished steel, - and must so continue if this is to remain a land of free enterprise.

---

\* To provide for peak demand. Variations in demand are inevitable and can not be foreseen. They cause wide changes in ore production as well as in steel production over a period of a few years. The trend seems to be in the direction of at least a partial stabilization of demand.

# S U M M A R Y

## Minutes of the Fourth Meeting October 28, 1955

### LEGISLATIVE COMMISSION ON TAXATION OF IRON ORE

#### Page Numbers

This meeting was for the purpose of hearing testimony of Representatives of the Mining Industry who had requested an opportunity to be heard in response to testimony of previous witnesses before this Commission.

- - - - -
1. Copy of written report of Frank Downing, Engineer on his trip to the Mesabi Range and Taconite Area, given to each Commission Member - - - - - 1
  2. Mr. W. K. Montague, introducing Mr. Severson - - - - - 1
  3. Mr. Lloyd J. Severson, Vice President in charge of Mineral Development for Oliver Iron Mining Division of the United States Steel Corporation - answering memorandum of Mr. Harry Groschel - - - - - 2 - 23
  4. Mr. Robert Fryberger - Troy Mine - - - - - 24 - 27
  5. Mr. W. K. Montague - Carls No. 2 Mine - - - - - 27 - 28
  6. Mr. Scallon, Consultant for M.A. Hanna Consulting Engineer Company - - - - - 28 - 29
  7. Mr. Montague - Wacootah Mine - - - - - 29 - 30
  8. Mr. Montague - valuation of iron ore; Hoskold Formula, Range Life, Depletion - - - - - 30 - 41  
Combined State and Federal Taxes compared with Canadian and Venezuelan Taxes.
  9. Tom Binger, Secretary of Pacific Isle Mining Company - 42 - 45

INTERIM COMMISSION ON TAXATION OF IRON ORE  
Room 238, State Capitol, St. Paul, Minnesota

1955 - FOURTH MEETING  
Friday - October 28.

The Interim Commission on Taxation of Iron Ore met at 9:30 A.M. on Friday, October 28, 1955, in Room 238, State Capitol and was called to order by the Chairman.

Roll Call showed the following members present:

Senate

J. R. Keller  
Archie H. Miller  
B. G. Novak  
Elmer Peterson  
Thomas P. Welch

House

Alf L. Bergerud  
Lloyd Duxbury, Jr  
H. P. Goodin  
Alfred I. Johnson  
Francis LaBrosse  
Leonard E. Lindquist

And the following members not present:

C. E. Johnson  
Thomas D. Vukelich  
Donald O. Wright

Fred A. Cina  
Roy Dunn

Mr. Welch. The first thing on the Agenda, - a letter of transmittal from Frank Downing, Engineer, with his written report - you each have a copy of his report before you; also before you is a copy of the publication "Venezuela Up to Date". The meeting was called today and the representatives of the mining industry requested an opportunity to be heard, apparently in response to something - put before us by previous witnesses. I have a letter from Snyder Mining Company - Is Mr. Spensierie here? The letter from Snyder Mining Company states: "Please be informed that Mr. A.J. Spensieri, Head of our Tax Department, will be present at the Commission Meeting scheduled for October 28, 1955, 238 State Capitol, St. Paul. Should we find it necessary, Mr. A.C. Borgeson, Chief Engineer, will accompany Mr. Spensieri." Is Mr. Borgeson here? Mr. Montague, do you desire to be heard?

Mr. Montague. I would like to make just a short introduction - statement and then introduce Mr. Severson who will be the first witness we would like to have appear. We were present at the meeting at which Mr. Groschel of the Budget Division

Mr. Montague - continued.

of the Department of Administration, testified and submitted his memorandum on iron ore taxation. We requested an opportunity to be heard in answer to that memorandum. I point that out because we are not looking at this hearing today as any general presentation of iron ore problems. Our presentation is going to be confined to certain specific things which were covered in the Groschel memorandum. There are other phases which at a later date we would like to ask leave to appear before the Commission. But today we are just concerned with the Groschel matter. For instance, on the effect of this labor credits law, at a later date we certainly want a chance to appear before the Commission but probably not until after the results of the amendment are apparent on this year's returns. Now, we just ask leave to go ahead and present our side of the story so far as the specific facts referred to by Mr. Groschel are concerned. I would like to first ~~next~~ introduce Mr. Lloyd Severson whom I believe most of you know, the Vice President in charge of mineral developments of the Oliver.

Mr. Severson. Gentlemen, it is nice to have the opportunity to appear before this Commission again. I have appeared here before, as you know, - may I sit down here, please. (The following testimony was given by Lloyd Severson and is copied from the transcript Mr. Severson left with the Commission).

"My name is Lloyd J. Severson. I have appeared before the Commission before; but for the record perhaps I should state that I am the Vice President in charge of Mineral Development for the Oliver Iron Mining Division of the United States Steel Corporation. I work and live in Duluth.

"I have been in the mining business for about 20 years counting my war-time service in South America and Europe on the staff of the United States Board of Economic Warfare - afterward the Foreign Economic Administration. In that connection, I was engaged in the study of strategic mineral problems.

"I have worked for the Oliver Iron Mining Division for about twelve years; and my testimony today is given as a member of the iron mining industry of Minnesota.

Mr. Severson - continued.

"The Commission has indicated that the Industry would be permitted to answer the memorandum which Mr. Harry Groschel of the Budget Division of the State Department of Administration prepared for Senator Donald Fraser and filed with this Commission at its last hearing on September 1st. It was explained and elaborated at that hearing.

"Mr. Groschel testified before your Commission that he was the author of the memorandum on iron ore taxation presented to the legislative committees and circulated to the legislature during the 1955 session, together with several revisions of that memorandum. This memorandum was the authority for the claim which has been publicly made on numerous subsequent occasions that the mining companies were in better condition to absorb tax increases than other Minnesota corporations, because - so it was claimed - their combined Federal income and State occupation taxes are only 43.5% of net income as against the combined Federal and State income taxes of 53.5% in the case of ordinary business corporations. This also is the source of a statement that net income of the Oliver Iron Mining Division of the United States Steel Corporation is equal to 40% of the total net income of the United States Steel Corporation, as well as of several similar income comparisons.

"The form in which these claims were stated in the memorandum is somewhat backhanded. It states, 'The mining industry is not bearing a disproportionate share of the State and Federal taxes when compared to other Minnesota business corporations' but, the inference intended to be drawn from the memorandum, and from Mr. Groschel's testimony before this Commission, is unmistakably that it would be not only fair but would be wise as a means of attracting industry, thus increasing business and employment in Minnesota to raise the taxes on iron ore.

"We think it very important, therefore, that this Commission make a careful analysis of how this conclusion was arrived at. In doing so, you are fortunate in having a very candid explanation from Mr. Groschel, brought out by questions of the members of your Commission at the last hearing, as to what he took into account, and,

Mr. Severson - continued.

more significantly, what he omitted from his calculations in arriving at the conclusion I have quoted.

"In explaining the memorandum before your Commission, Mr. Groschel frankly admitted that when State taxes alone were considered, the Mining Industry was paying a considerably larger proportion of its net income in State taxes than other business in the State. When asked how much larger, he stated it was certainly twice as large a proportion of net income, and might be three to three and a half times larger.

"As a matter of fact, it is easy to make the calculation. If you divide the total of occupation and royalty taxes shown by Mr. Groschel's statement, by the amount which he claims is the income of the Mining Industry, you would get his calculation of that ratio, but it would be one which would exclude any allowance for depletion.

\$23,098,832	(1952 Occupation and Royalty Taxes)
\$100,785,987 + \$23,098,832	(Income before State Taxes)

Equals 18.6% tax

"The tax thus computed of 18.6% as the industry's tax load compares to a 6.3% corporate income tax on other industries or about three times as large. This is without any allowance whatever for return of capital of the mining companies invested in ore in the ground.

#### "Lake Erie Price

Mr. Groschel also states that, as a result of his study, he and his associates were convinced that the use of the much discussed Lake Erie price base for taxation purposes favored Minnesota in that it attributed a high rather than a low value to the iron ore produced.

#### "False 53.5 -43.5 Comparison

Though Mr. Groschel testified before your Commission to those significant conclusions, the memorandum which he prepared for the legislature made no reference



Mr. Severson - continued.

whatever to them. Instead, it stressed his claim that the combined Federal income taxes and State occupation and royalty taxes of mining companies aggregated only 43.5% of net income. He reached this conclusion - startling because of his previous admission as to the level of State taxes - by recomputing the Federal income tax of the mining companies and throwing out any allowances for depletion or return of capital invested in the iron ore in the ground. To support this conclusion he makes the startling assumption that the Mining Industry has no money invested in its ore reserves in the ground; that none of the money received from the sale of ore represents return of that invested capital. He admits, that, to the extent that this assumption is erroneous, his 53%-43.5% comparison is false.

#### "Depletion

What I would like to do today is to discuss the facts which were left out of account in the memorandum referred to in making a determination of net income. The calculation was built largely on conjecture from some very broad assumptions, but I think the most important and substantial item which was deliberately omitted is depletion. At the beginning it is well to get before us a clear understanding of what is depletion. ~~At the beginning it is well to get before us a clear understanding of what is depletion.~~ Let us, first, consider the treatment of depletion, in the law of Federal income taxes.

"The allowance which the Federal Government makes for depletion is not a tax exemption or a tax loophole. It is a cost just as much as wages or depreciation. It is simply a recognition of a very well established principle that return of capital should not be taxed as income. The law recognizes the fact that in carrying on the business of mining, a portion of the owner's capital is consumed with each ton of ore mined, and that the amount of that capital consumed should be charged to cost and not taxed as profit. This fact has been recognized by the courts ever since the adoption of the Income Tax Amendment of the Constitution. Therefore, profits are not as high as Mr. Groschel has estimated for the industry.

Mr. Severson - continued.

"Mining is basically different from other industries in this characteristic of consuming capital, and an understanding of its characteristics is essential to an understanding of a depletion allowance. The search for, and discovery of, mineral deposits involves a long process of exploration, requiring the expenditure of large sums of risk capital and the plowing back of a substantial part of the returns from successful enterprises in the search for new deposits and new processes in order to continue in the mining business. It is true in Minnesota, as elsewhere, in the mining business, that of a total number of properties in which prospecting and exploration are conducted, only a small proportion disclose mineral deposits of commercial value. A mine finally ready to be opened represents all the money that has gone into all the efforts to find it or purchase it, together with all carrying charges up to the time it is opened.

"As the owner mines and disposes of his product he is, in reality, engaged in recovering his money in order to realize his over-all investment. When the mine is finally exhausted he is out of business in so far as that particular enterprise is concerned. Therefore, one of his major concerns - ~~he~~ if he hopes to remain in the business of mining - is the necessity to undertake the expensive and hazardous task of discovering and developing any deposits or any ways of handling deposits considered worthless to replace those he has depleted.

"A specific example of this is the large sums that have been and are being spent in exploring for and developing taconite and other low grade ores. Taconite research and experimentation costs alone to the Mining Industry to date have been conservatively estimated at more than \$75,000,000, and the job is not done by any means.

"By contrast, the ordinary business of manufacturing and merchandising are able to replace raw materials or goods by continuous purchases in the open market. Manufacturers or merchandisers have to recover the price of new inventory in the price which is charged for the product sold. The last in first out inventory may be costed

Mr. Severson - continued.

to permit recovery of the inventory at the current price of acquisition. Therefore ordinary businesses of manufacturing and merchandising in addition to depreciation have adopted procedures to keep the inventory cost on a current basis.

"Our revenue laws have recognized this analogous situation as one reason for special depletion provisions applicable to the business of mining.

"A fair depletion allowance should return to the producer over the life of the mining enterprises a capital investment which the mineral deposit represents. Indeed it should permit him to remain in business by replacing the deposit he has exhausted.

"The search for new mines is no longer the simple task of the lone prospector; the easily discovered deposits of years ago have been found - at least in this area. Applied science and engineering of high order are required in modern prospecting, exploration and complicated metallurgical testing. The cost of finding and bringing new mines into production has increased enormously in the last few years. The search for and development of new mines depends mainly upon the established mining companies with the necessary trained personnel and ample finance resources and equipment. In the national interest, if for no other reason, adequate depletion allowances are absolutely essential if funds are to be available for the continued discovery and development of iron ore supplies and processing methods to replace the reserves now being depleted.

"After years of difficult experience with other methods of computing depletion allowances for mines, Congress, in 1932, adopted the so-called percentage method for iron mining. The depletion question had been studied by a joint committee on internal revenue taxation, and by the Treasury Department. The study by the joint committee staff had shown that the average depletion allowed on all metal mines had been 17.1% of gross income. As a result of this study, the staff recommended a depletion allowance of 15% of the gross income in the case of iron ore mining, subject to an over-riding limitation of 50% of net income, and the recommendation was adopted by Congress.

Mr. Severson - continued.

"Turning now to the application of these factors and principles to the question before the Commission; may I remind you first how depletion is treated in the memorandum I am here to answer. I will show you the elements of depletion on Minnesota iron mines which must be taken into account if the industry is to stay in business here and continue to provide jobs for Minnesota people and revenue for the State; in short, - to replace reserves now being depleted and for the development of other low grade ores and taconite, which are the promise of iron mining in the economic future of Minnesota.

"You will note that as far as Mr. Groschel's memorandum is concerned - - and this goes both to his 53.5% - 43.5% ration, and to his calculation of profits of the Oliver -- he has simply eliminated entirely from his calculation any allowance for depletion.

"Any businessman engaged in iron mining is compelled to take depletion into account if he expects to stay in business by replacing exhausting mines with new discoveries or developments. Mr. Groschel has deliberately ignored this business fact in making his computations. If a mining company has not taken depletion into account in analyzing its receipts and expenditures, it is going to be out of business when its first mine is exhausted. Any business is entitled to have its capital returned, and in the case of mining, the ore in the ground is that capital. In fact, it is a minimum essential if the enterprise is to be in a position to stay in business as its mineral deposits become exhausted.

#### Oliver Mines Example

"The primary elements of invested capital of course are acquisition costs and carrying charges. Take, for instance, five of the largest mines which were operating in 1952 and 1953, the years covered by Mr. Groschel's study, which just within the previous ten years had been put into operation. Each of the five produced more than 1,500,000 tons of ore in the year 1953; together they produced 14,300,000 tons,

Mr. Severson - continued.

or more than a third of the total production of the Oliver in that year. These properties are the Mountain Iron, Rouchleau, Auburn, Gilbert and Monroe. All of these properties had been held as idle reserves for long periods of time, the shortest period being thirty years in the case of one property, the longest being fifty years in the case of another. The properties were acquired by purchase for large sums of money. Mr. Groschel admits that, under any proper theory of accounting, the company would be entitled to recover that money, and interest upon it, from the time it was held as an idle reserve. In addition during that idle period the company paid ad valorem taxes each year on these properties. The majority of these dollars were paid out in the hard money era.

"Disregarding any other carrying charges, disregarding research and exploration costs which should be charged against the properties, there is over \$200,000,000 that would have to be recovered from these five properties before anyone could talk of net income. If the reduced value of the dollar caused by inflation were considered, the amount to be recovered would be three to four times as much. The total tonnage of ore in the properties at the time of acquisition - based upon total shipments from the properties, plus the present estimated reserves - was 170,000,000 tons. The Oliver would, therefore, be entitled to a depletion allowance - merely to recover that portion of investment in these properties above referred to - of \$1.20 a ton, disregarding any effect of inflation, or the higher cost of providing ore bodies to replace these ore bodies when they are exhausted. This figure should be at least three to four times larger to keep our ore production on a continuing basis if inflation is taken into account.

"We submit that when this Commission in its report, shown on page 200 of its report to the legislature, allowed percentage depletion amounting to an average of \$.81 a ton, in estimating profit, it was following a reasonable principle. We repeat, the Federal depletion allowance of 15% of gross value, not exceeding 50% of net income, is not a gift; it represents an item that must be taken into account before one talks of profits.

Mr. Severson - continued.

"If depletion had been taken into account, as it should have been, in the memorandum presented to the Commission, then the effective taxes on the mining industry would be 60.7%. This compares with Mr. Groschel's assertion of 43.5% for the mining industry and 53.5% for other businesses corporations as selected by him. Therefore, if the computation had been properly done, including a depletion allowance, the effective combined Federal and State tax on the iron mining industry in Minnesota would be nearly 50% more than the tax computed by him. Therefore I would like to repeat that the effective combined rate of the Federal income tax and State occupation and royalty taxes on the iron mining industry in Minnesota is not 43.5% but is actually in excess of 60%.

#### Oliver Profits

"An attempt was made in the memorandum under consideration to reconstruct the profits of the Oliver Iron Mining Division for 1953 with an indicated profit of approximately \$90,000,000 for the Oliver Division and it was claimed that it represented 40% for the total net income after taxes of the United States Steel Corporation. Mr. Groschel has stated before this Committee that his computations have for their basis the occupation tax returns along with some broad estimates based on his own assumptions.

"It should be obvious, we believe, that the occupation tax on mining is not a tax on income but is a tax on value calculated according to a statutory formula and these returns cannot be used as a reliable indicator of the net income for the iron ore industry or a specific iron mining operator.

"This is a very significant difference because, you see, the occupation tax is a percentage of the gross value of the ore at the mouth of the mine. This is very different from an income tax which is based upon the net income from operations.

Mr. Severson - continued.

"The Minnesota income tax at 6.3% applied to all the income of the United States Steel Corporation everywhere from all of its operations including coal mines, limestone quarries, iron mines, steel mills, fabricating plants, bridge and building construction, railroads and steamship lines, cement plants and other related activities for the year 1953, would produce \$15,300,000 in taxes. This is \$6,000,000 less than the State received in 1953 from occupation and royalty taxes from the Oliver Iron Mining Division alone. If the Minnesota income tax, by some stretch of the legal imagination, could be applied to the net income of the entire United States Steel Corporation, it would have to be raised from 6.3% to 9% to yield as much in taxes as the Oliver Iron Mining Division alone paid in occupation and royalty taxes in 1953.

"It is alleged that our Oliver Iron Mining Division contributed 40% of the profits of the United States Steel Corporation in 1953. This is not true. The fact is, however, that of all State and local taxes paid by the United States Steel Corporation in 1953, 40% were paid by the Oliver Iron Mining Division to the State of Minnesota alone. Specifically, in 1953 the United States Steel Corporation paid \$89,000,000 in State and local taxes ~~principally on the basis of~~ on all of its property and all of its operations everywhere in the United States which included all of the property and operations I have described. Of this total amount of \$89,000,000, \$35,795,000 was paid to the State of Minnesota and its local governmental subdivisions in occupation, royalty and ad valorem taxes by the Oliver Iron Mining Division.

"This disproportionate payment to the State of Minnesota is the result of an occupation tax on iron mining which your Commission found (Table 13F, page 199) to be three and one-half times greater than the income tax rate on other Minnesota business. Furthermore, the standard of valuing iron ore for ad valorem property taxes is from 200 to 1500% higher than the standard of valuing other property in our own taxing districts.

Mr. Severson - continued.

"It has been claimed that our operations in Minnesota are removing iron ore; however, we are at the same time replacing these resources. One has only to visit the Minnesota ranges to discover the vast values which the industry has at the same time created through conservative mining practices, research, and the investment in plants and tools which has added many millions of tons of iron ore, including taconite and other low grade material, to the resources of this State. The value of natural resources to Minnesota is in the healthy communities and widespread chain of employment they support.

"While we are depleting some resources, we are at the same time replacing these resources by development of low grade materials in an effort to continue a large and strong industry in Minnesota indefinitely. Our motive is not altogether altruistic because we are just as anxious to stay in Minnesota for generations to come as the State is desirous of having us do.

#### "Ore Reserves

"Criticism is also made in the memorandum submitted to this Commission in support of higher iron ore taxes, that there has been a deliberate underestimation of iron ore reserves. I have had the privilege to testify in considerable detail on this subject before this Commission in 1951 and your findings are set forth on pages 111 to 114 in your Report of 1955. Without reviewing in detail the method of estimation employed by the Tax Department, you will remember that the Industry submits its estimates to the University School of Mines which checks these estimates.

"During the past thirty years, because of new techniques in mining and improved beneficiation processes and development in the course of mining, substantial tonnages have been added to the reserves that were not known or commercially minable at the beginning or during that period. Even today there are materials that have no market value and consequently ought not to be on the tax rolls but, as our machinery



Mr. Severson - continued.

and mining methods and beneficiation techniques improve, the time may come when they can be processed economically, at which time they will serve to expand our reserves and increase our taxable valuation. The fact that the price has increased from \$4.45 per ton in 1944 to \$10.10 per ton for Standard Mesabi Range Non-Bessemer ore containing 51.50% natural iron at the present time has also contributed to shifting certain materials from the submarginal or marginal category to ore reserves. Concurrently, of course, as materials move from the marginal category to the commercial category, they are put on the tax rolls. Hopefully, additional ores will be found and new developments will tend to increase our reserves as time goes on.

"Speaking for the Oliver, I can say categorically that we have no hidden ore reserves. I don't believe that there is any mining district anywhere in the world that has been so thoroughly explored by drilling as the Mesabi Range in Minnesota. All drilling results are made available to the taxing authorities.

Neither, on the other hand, do I mean to suggest that no additional ore will be added to the reserves. Technological advances will undoubtedly add millions of tons to the reserves in the future as they have in the past. Take, for example, the introduction of the heavy duty truck on the iron ranges which made it possible to mine many tons of iron ore that would not be considered reserves even today if the truck hadn't been adapted to these operations. The development of a truck rugged enough to stand the service in iron mining was one of long evolution. Other developments that have contributed very substantially to the enlargement of our minable reserves are the conveyor belt, the bulldozer and in beneficiation or processing, the invention of and the application to iron ore concentration of the heavy media process and more lately the invention of the cyclone process, have also added substantially to the minable reserves. Other processes are under study in the laboratory, and the flotation process, if it can be adapted by our ingenuity to the iron mining industry, may have a further substantial effect at some future time. There are no doubt other

Mr. Severson - continued.

processes and machines not yet invented which, when they can be successfully applied to our mining business, will also add to our future reserves. In this connection I would also like to say that it wasn't many years ago that fifty feet of stripping on an open pit mine was considered an insurmountable obstacle to its successful development. Whereas today, by virtue of the advance in our equipment and methods, it is not uncommon to see mines where stripping of 200 feet and even more has been removed in the operation of a mine. Hopefully for our business and for the State, these technological advances will continue.

"A question has been raised concerning the reserves at the Pioneer Mine at Ely and the Canton Mine near Biwabik. I should to deal with those two mines specifically at this time.

(Mr. Severson pointed out the following information to the Commission by using maps, displays, etc.)

#### PIONEER MINE

"The Pioneer Mine is one of a group of five mines situated in the so-called Ely Trough, which is a belt of iron formation enclosed in walls of greenstone with maximum dimensions of 1-3/4 miles in length, 1/4 mile wide, and something in excess of 1500 feet in depth. From west to east, these mines are the Chandler, Pioneer, Zenith, Sibley and Savoy. All except the Pioneer and Zenith has been exhausted. The orebodies represent enriched portions of the iron formation and lie, for the most part, in the lower portion of the trough but occasionally the ore extends up the sidewalls along the greenstone-iron formation contact.

"The Pioneer Mine is confined to 80 acres. It was opened in 1889 but very little ore was produced until 1898 when the Oliver Iron Mining Company acquired control of it. Exploration of this mine was confined to the West Forth until about 1912 at which time it had been mined down to the 11th and 12th levels. In the period from 1912 to 1916 a drift was driven in the south orebody on the 12th level all the way to the east boundary of the property. This orebody was ultimately followed to about

Mr. Severson - continued.

200' from the surface. About 1920 the large North orebody was discovered at the 12th level elevation also, but the bulk of the ore in this orebody was below the 12th level. By 1930 the lateral limits of all of the orebodies had been well defined as far down as the 12th level and most of the ore had been mined down close to that point.

"The vertical interval in which mine openings will have been made at any one time is not likely to exceed 200 feet. For example, at the present time the main haulage level is the 16th, below which no openings or drill holes in ore exist, while all of the ore more than 180' above this elevation has been mined out. There is, of course, little room for argument in estimating the amount of developed ore or ore that is known by virtue of mine openings because the limits are fairly accurately known. Estimation of the ore below the lowest level, or 16th in the case of the Pioneer Mine, must necessarily be based on geological inference and engineering assumptions. As a practical matter, the area of the ore known on the lowest level is assumed to go down 100 feet and the tonnage of ore computed in that volume is calculated for taxation purposes. While this ore falls into the probable classification from an engineering point of view, it is nevertheless taxed as though it were proved ore.

"The question has been asked as to why development work is apparently deferred. In other words, why don't we go to the very bottom and explore the ultimate limits of the orebody as fast as possible? The answer to that question is very simple. Drilling and development of ore is very expensive. At the present time the developed reserves are sufficient for an operating life of at least ten years. This is sufficient for planning normal operations. Openings such as drifts or crosscuts in this orebody are subject to heavy maintenance costs because of timber decay and because of the weight of the overlying ground. Consequently it would be very expensive and a waste of money to develop a level prematurely. Furthermore, the economic uncertainties of the future, which include the demand for the ore and the future cost of mining, tend to limit the amount of ore that should be developed for normal operations.

Mr. Severson - continued.

If, on the other hand, it were necessary to undertake a very large capital investment such as a new shaft or other expensive facility, it might then be necessary to know for certain that there was enough ore in the orebody to justify this capital expenditure.

"If the Pioneer Mine were valued on the basis of accepted procedures and standards, instead of an arbitrary class rate basis, the assessed valuation would be approximately one-half of its present valuation. The ad valorem taxes on this property amounted to \$1.10 per ton of ore shipped in 1954."

Mr. Severson. Now, the Canton Mine is the other one, but first, if there are any questions about the Pioneer, I'll be glad to answer them at this point. The ore reserves at the present time are about as high as they have ever been -

Mr. Bergerud. Mr. Severson, these are underground mines, aren't they?

Mr. Severson. This is an underground mine, that is correct. The shipments from this mine have been 32 million tons.

Mr. LaBrosse. What are the estimated reserves?

Mr. Severson. The estimated reserves? 7,646,000 tons. That is Oliver's estimate. I should say also that this is sometimes - frequently - enlarged by the University School of Mines, based on an extended geological assumption, if you will, as to what the amount of ore is that lies below the <sup>lowest</sup> level where there is no information and of course there is a place - room for a little argument.

#### CANTON MINE

"I have with me heretoday a model of the Canton Mine which shows the drilling that has been done on the property, the orebodies as we estimated them from the drilling records which were submitted to the Minnesota Department of Taxation. The question has been raised, 'Why did the ore reserves increase from 2,700,000 tons on May 1, 1948 to 6,811,000 tons on May 1, 1949?'"

"The Canton Mine was operated by the Minnesota Iron Company as an underground mine from 1893 to 1899. The ~~property~~ property was inactive from 1899 to 1947,

Mr. Severson - continued.

during which period many economic factors changed. Stripping operations were started by Oliver in 1947. From 1942 to 1947 approximately 360,000 tons of ore were removed by the Biwabik Mining Company from along the east line of the Canton to make available ore in their Biwabik Mine.

The ore reserve estimate of March 1, 1918 was prepared by the Tax Commission and based upon ore indicated by early underground operations in both the Canton and the Biwabik Mine immediately east of the Canton. In 1947 we put down a series of churn drill holes (16069 - 16084) to confirm the ore carried in the 1918 estimate and to acquire information for formulating mining plans.

As we proceeded with our stripping operations in 1947 and the first part of 1948, it became obvious there might be a possible connection to the Higgins ore-body located south and west of the Canton. Up until these stripping operations revealed this possibility, hole No. 16084 showed only ten feet of ore, so it was considered a cut-off on the basis of the economic conditions at that time. With this additional information available, we went back and deepened hole 16084 from 120 to 200 feet and ore was found below 130 feet. Naturally with that additional knowledge, plus the information made available by mining in the area, we started then a comprehensive drilling program in 1948 in an endeavor to outline the full extent of the orebody. If this drilling had been conducted earlier, it would not have added any material tonnage to the tax rolls since, because of the high stripping cost and other economic conditions prevailing at the time, the ore was not commercially minable. Due to the 1948 drilling, together with the new economic conditions mainly represented by the increase in the price of iron ore and improved mining techniques, a new estimate was prepared with the result that 6,811,000 tons were estimated on May 1, 1949.

"From May 1, 1949 to exhaustion of the reserve in 1954, 6,148,962 tons were shipped from the property, indicating that the May 1, 1949 assessment was excessive by 662,038 tons. Mining operations revealed rock "horses" in areas assumed to be ore from the 1948 drilling. At the exhaustion of the reserve in 1954 we had paid taxes, during the period 1949-1954, on nonexistent reserves amounting to nearly \$50,000.

Mr. Severson - continued.

#### EXPLORATION BY STATE

"Mr. Groschel suggests in his memorandum that there is need for authority to make additional independent drillings, presumably by and at the expense of the State. This proposal is apparently made for the specific purpose of increasing iron ore reserves for taxation purposes. Such a program, in my opinion, would be ineffective and would largely be a waste of public funds. Aside from the imprudence of such a program, there is the obstacle of illegal entry and drilling on the lands of private owners with the object in mind to disclose ore for taxation purposes.

"Contrast this proposal with the State of Michigan where any ore disclosed by exploration is exempted from taxation for periods of up to ten years.

#### HOSKOLD FORMULA

"Mr. Groschel, in his memorandum, raises the question as to the propriety of the Hoskold Formula and the Range Life theory of valuation. This question, of course, has been settled in the courts and is in general use in evaluating properties for taxation purposes as well as for the purpose of sale or commercial exchange throughout the world.

#### COMPETITION

"I would like to conclude my statement before this Commission with a brief resume on competition.

"Certain broad assumptions have been made in the memorandum that was submitted to you. I feel that Mr. Groschel's cost comparison between Venezuela and Minnesota ore is not significant. I am sure that those of you who visited Venezuela are cognizant of the fact that the ore lies on top of a mountain and the ease with which it can be mined I am sure is self-evident to you. Furthermore, a price comparison alone would not be conclusive in showing whether or not we have competition from foreign sources. In addition, iron ores are coming from many other sources than Venezuela.

Mr. Severson - continued.

"The best measure that we have of the strength of competition from foreign iron ores is the large tonnage of foreign ores being delivered to the steel mills in the United States. We have prepared a chart which shows the total imports of iron ore into the United States from 1900 through 1954 and on the basis of information from the United States Bureau of Mines, we have estimated the imports for 1955. I think the best evidence of competition is the rapidly ascending curve from about one million tons in 1945 to an estimated twenty-one and one-half million tons in 1955. At this moment it appears certain that 1955 will be the best year in history so far as steel production is concerned in the United States, yet as of October 17th, the shipments from the Lake Superior District are 11,286 tons less than they were at the same date in 1953, a peak production year. I think it is important to point out that the quality of these foreign ores is superior to the ores now being shipped from Minnesota. Therefore one of the most important problems that faces the Industry in Minnesota, in order to remain competitive, is that it is now necessary to beneficiate more natural ores so they can compete qualitywise. The term 'high-grade ore', applied to many of our direct shipping ores, is really a misnomer. To effect this beneficiation, we will require huge investments in additional beneficiation facilities at the mines or at the furnaces. While we have ores coming into the United States from foreign sources in direct competition with us, Minnesota is also competing for the capital investment to be made in Minnesota so that its product can be as attractive to the steel makers as are the ores from Labrador and Venezuela and elsewhere."

Mr. Bergerud. I'd like to know what the percentage of these imports to the total used is - that is used in this country.

Mr. Severson. I am sorry I just don't have the figure on the tip of my tongue but I can get it for you very promptly after the meeting, if that's alright.

Mr. Severson - continued.

CONCLUSION

"A favorable tax climate is necessary to attract the capital investment to provide the facilities. Ten to twenty years ago it might have been said there was a limited supply of iron ore and Minnesota was in a dominating position. In the past ten years there has been a change. New sources of ore have been developed to the extent that it can be said there is now an ample supply of iron ore and the steel makers can be selective; consequently the ore that can be produced at the cheapest cost and supply the necessary iron units will be in greatest demand.

"What is the position of Minnesota ores in the competitive iron ore market?

1. The quality of Minnesota's ores has materially declined. In early years of the industry, Lake Superior ores from the Old Ranges carried in excess of 60% natural iron. The average iron content has dropped gradually from 55% in 1892 to 51.5% in 1911. It reached 50.4% in 1949 and is now about 50% natural even after about 1/3 of the shipments have been concentrated. This decline in quality has occurred in spite of consistent efforts and large capital investments by the ore and steel industry to improve the ore quality by 'beneficiation'. The cost to mine and transport to market is the same for the low quality ores as it is for the higher quality ore, a fact which is often overlooked. When comparisons are made as to the tax costs per ton, it seems that the quality of the product should also be considered.
2. In mining, as in all other industry, the mining labor and equipment costs have greatly increased. Coupled with the mining of a lower grade product, the resulting unfavorable effect is evident.



Mr. Severson - continued.

3.

Mining conditions causing increased ore costs have also developed. The mining of thinner ore veins requiring the removal of greater quantities of rock and dirt stripping to uncover the orebodies has added materially to these ore costs.

4.

The overhead charges on the ores shipped, of which taxes are a predominant one, have also increased the costs of these ores, thereby making it more difficult to meet the competition of ores from other more favorable areas.

"According to this Commission's own findings, no other State taxes any natural resource as heavily as Minnesota taxes iron ore.

"A more favorable tax climate is absolutely essential to attract investment of capital to provide the necessary facilities to produce iron ores which can compete. If you arrest or divert this investment, no new jobs are created and the existing jobs are imperiled as existing properties are exhausted and present facilities are worn out and not replaced."

Mr. Welch. Are there any questions that members wish to ask Mr. Severson in respect to his testimony?

Mr. Johnson, A.I. Mr. Severson, <sup>you mentioned that Mr. Groschel had not</sup> ~~has been~~ taken into consideration the high costs of prospecting and drilling and search for new products, and so forth. Isn't it true that those costs are all deductible on the cost of your occupation tax? When you finally come to paying the occupation tax, the costs are deductible, aren't they?

Mr. Severson. I don't believe they are, are they?

Mr. Montague. They are on a particular property. Money that we spend on other properties that don't work out are not deductible.

Mr. Johnson, A.I. I realize that. Then you did mention the fact that there is quite a difference between the occupation tax and the net income tax. Don't you think - you mentioned the fact that occupation tax is based on value of ore - after

Mr. Johnson, A.I. - continued.

all, that is the logical way to tax mineral or resources coming out of the ground here - don't you think?

Mr. Severson. That's the way it's done. I don't say that it's logical.

Mr. Johnson, A.I. You did mention this fact also that for the state to determine reserves would be a legal question on private property?

Mr. Severson. Yes sir.

Mr. Johnson, A.I. Still, this is a natural resource which is owned by the State of Minnesota originally and for tax purposes don't you think the State of Minnesota should have a right to know just what the valuations of those are?

Mr. Severson. I think the State does know what the valuations of those properties are at any given time. I think that many of the - as I tried to point out in my testimony - much of the ore that has been added to the tax rolls has been added by virtue of improvements in the economic situation on the one hand, and the improvements in technology on the other hand. I am certain - I know that there are ores being mined today that ten years ago, no matter how much drilling was done on those properties, it would have been considered rock. In fact, we were hauling it out and putting it on the stripping dump - some of it - ten years ago the material that we can, with cyclone plants today treat and make shipable products out of.

Mr. Johnson, A.I. Oh, I think we have gained considerably but -

Mr. Severson. (Interposing) I think if the State of Minnesota has a mineral property - has a mine, and it wants to explore that mine, why I think that's fine.

Mr. Johnson, A.I. But supposing the State - the tax department of the State of Minnesota felt that the estimates they got from the owners of a mine was too low and they had suspicions that there was more ore in that mine, don't you think that the State of Minnesota should have the right to go in there and determine whether their suspicion is correct or not?

Mr. Severson. I believe that they have to base it on the information that is available.

Mr. Johnson, A.I. I think that they generally do that.

Mr. Severson. That is right.

Mr. Johnson, A.I. I still think that if the State of Minnesota felt that there was something hidden there or some valuations that hadn't been revealed, they should have a right to go in there and determine whether their suspicion is right or not.

Mr. Severson. Well, that is, I believe, really a Constitutional question that I don't know that I am prepared to answer it. I tried to point out that the amount of drilling that has been done on the Mesabi Range, I think, is without parallel in any mining district anywhere in the world of any kind.

Mr. Johnson, A.I. That's right. Maybe that's why the State - the tax department has accepted it as being accurate.

Mr. Severson. I think that the amount of drilling that could be done by the State of Minnesota would be ineffective, would be imprudent and as far as I am concerned, would be a complete waste of public funds.

Mr. Johnson, A.I. Did Mr. Groschel suggest drilling by the State?

Mr. Severson. In his memorandum he suggested that.

Mr. Bergerud. Have you had any complaints from the State of Minnesota that they aren't getting all the information on the ore reserves? The reason I asked, I recall a professor from the School of Mines appeared here sometime in the past four years, who stated that he felt they were getting all the information necessary on reserves up there.

Mr. Severson. We have had no complaints from the State to my knowledge. We have had a suggestion by the City of Eveleth that they would - should do some drilling to presumably expand the ore reserves and to enlarge their taxable valuation. We would suggest, however, that the question of the valuation of other non-mineral property might - specifically speaking of Eveleth, might well bear some scrutiny.

Mr. Welch. Any other questions? Thank you, Mr. Severson.

Mr. Montague. Mr. Chairman. I wonder if I may ask just what your plans might be - I wish to make a statement and there will probably be two very short statements with respect to the particular mines mentioned by Mr. Groschel. I think probably if we ran through to 12:30 or so, we could finish our presentation, if that is satisfactory to you. Otherwise I would put these other men on first -

Mr. Welch. (interposing) If it is agreeable with the Commission, I think while we are all here we ought to give you an opportunity to complete your presentation.

Mr. Montague. Alright. We will upset our order just a little bit and go into one of the mines which Mr. Groschel used as an illustration of hidden tonnage. This mine was the Troy Mine. I might state something that is early history. It was an underground mine, opened up in the early 1900's, operated by Pickands-Mather until 1913, I believe, was the last year that they operated it. They then thought they had exhausted the mine. They thought there was no ore left that was commercially minable. They surrendered their lease, scrapped their equipment and abandoned this mine. It was their judgment, as operators, that the mine was all through and was worthless. It laid idle, no mining company having any connection with it, until 1947, when Rhude and Fryberger, who were then just scam operators and who are now getting to be quite respectable operators on the Range, took a flier on it, opened it up as an open pit to see what they could scam out and has developed some additional ore. That is one of the mines that Mr. Groschel uses as a good illustration of hidden tonnages. I would like to ask Mr. Robert Fryberger of the firm of Rhude and Fryberger to make a little statement.

Mr. Fryberger. Well the picture of the Troy Mine is simply this. when we took over the lease in 1947, there were some 200,000 tons of ore estimated available and prior to that time, as Mr. Montague said, Pickands-Mather had mined it underground and taken out some 750,000 tons, I believe. It stood idle for 34 years and no

Mr. Fryberger - continued.

one wanted it until we came along and the fee owners were very happy to make a lease with us. In fact, they gave us a very favorable lease - I won't tell you what the royalty was, but the year before they wanted to give us a lease of 25¢ a ton which is almost unheard of in this day and age. But anyway, we went ahead and we pumped the mine out and we stripped the caved area where P.M. had mined underground and for the years, from '47 to '51, about, we got our ore out of this caves principally. I think we took out some 5 or 6 hundred thousand tons. But that is the reason that there was no estimate - no new estimate made from 1947 until '53. We mined in an area which was considered exhausted, so we were developing no new ore and that 200,000 ton estimate stood. However, from 1952 - in 1952 and '53, we did considerable drilling both in the bottom of the pit and on the east side and on the south side principally, and we developed some 3 or 4 hundred thousand tons of ore which accounts for the new estimate in 1953. The estimate ran through '47 to '53 about 200,000 tons and in '53 they jumped us up to 730, I think it was. You can check that in the mining book. But anyway, at any time I can honestly say I don't feel that we had, up to '53, any more than a couple thousand tons of ore in sight and I think the estimate Mr. Lambert made was very fair. It has just been a scam proposition. We have gone in there and worked from year to year and felt our way and we have felt we have done a good job for ourselves and also a good job for the State tax-wise and have also employed a lot of men and I think it has been a good deal for everybody all the way around. That is all I have to say.

Mr. Goodin. That operated as an open pit, didn't it?

Mr. Fryberger. That's right. We are going to operate next year. We have an estimate of 150 thousand tons in there, I believe. I don't know whether we will get that. I couldn't say. I think we will get 60,000 tons. There is one thing I might add about the - I forgot to mention - during the first three years, we put up a loading pocket and a grizzly to load our ore but we didn't put in a crusher. All the oversize, the plus-8 inch was crushed by manpower with sledge hammers. We didn't think enough of the property to put the expenditure into a crusher - that's what we thought of the property. Don't mistake me, we have made money on the property, but

Mr. Fryberger - continued.

it has required a lot of supervision, a lot of know-how and a lot of personal effort.

Mr. Welch. When you took over this mine under lease, you of course pumped out the water first and then drilled?

Mr. Fryberger. We pumped out the water. We did no drilling. The property was fairly well drilled - had been drilled by P.M., I suppose and we did no further drilling because it looked like it was fairly well outlined. As it ~~xxx~~ turned out, it wasn't too well outlined. On the east side we thought we were up against a rock well. We thought it was the end of the iron formation but it turned out that one of our engineers got the bright idea to move over 100 feet. We went over there and drilled and we found a couple hundred thousand tons of ore. There was just a rock horse in there - that happens quite often, in these pits especially - the pits on the edge of the formations. The Troy Mine is on the extreme south end of the formation, right south of Eveleth.

Mr. Welch. The point I had in mind was this. It has been suggested that the State is going to do a little drilling. I'd like to get from you, if I may, a few figures on the amount of money you hazzard.

Mr. Fryberger. Well, in the first place we had to lay ourselves on the line with the fee owners to pay them for 150,000 tons whether we got it out or not - that ran into considerable amount of money - \$75,000. I told you the amount of royalty now, which I didn't intend to do. I suppose outside of that, before we got that opened up, we had to put that railroad in there, then we did some sifting and pumping. I suppose we had, before we got the ore we had to strip maybe 100,000 yards, possibly. Oh, we would have had \$75,000 in there - of actual money spent before we got any ore out, I would say.

Mr. Welch. I just wanted to get an idea of the funds it would require to get into that activity.

Mr. Fryberger. Outside of the \$75,000 for the lease, we have laid ourselves on the line for another \$75,000 - that's quite a figure for a small outfit. It isn't any cut and dried proposition - it's been tough.

Mr. Peterson. Did it take no drilling on this property to reveal 400,000 tons?

Mr. Fryberger. I haven't got those figures exactly but we went down in the bottom of the pit - we got a good deal of wash ore which has been mined out this year and we got 150,000 tons of direct shipping ore. It isn't very <sup>-it's hard</sup> ~~hard~~ to sell it, but it's low silica and about a 44 natural iron. It's hard to sell. But I would say additional drilling, yes, uncovered - I can't say exactly, but I'd say 400,000 tons of ore on the sides and the bottom.

Mr. Welch. Does that have to be beneficiated?

Mr. Fryberger. Well, from now on. We put up a plant this year and we are beneficiating everything from now on. We expect to put a heavy media plant in next year along with the washing - we just have a washing plant now. The thing has developed from year to year and we have felt our way along and made a good thing out of it. No one wanted it in the first place but us.

Mr. Welch. Thank you, Mr. Fryberger.

Mr. Montague. As long as we are on that question, I might go ahead and clean up that part of our presentation, by taking another mine which was used by Mr. Groschel as an illustration of hidden tonnages which is the Carls No. 1 Mine of ~~Rickaby~~ M. A. Hanna. I have a written statement here from Mr. ~~Whitney~~, Dick Whitney, the head of Hanna's Mining operation in this area which I will leave with the Commission. I would like to just abstract certain information from it and then ask Mr. Scallon to say a few words about that particular property. Mr. Whitney calls attention to the fact that Carls No. 1 Mine was, prior to 1949, - was not held, either owned or under lease, by any Mining company since the early 1900's, when some company, he doesn't state, who, had gone on there and did do some drilling. The drilling just showed

Mr. Montague - continued.

nothing that they would look at, - just a small amount of poor ore. He says it showed 180' of surface over the ore - only five of these original holes showed any ore that appeared minable. But because the ore was erratic in appearance and \_\_\_\_\_ in structure and required beneficiation, it had doubtful future market value and no open pit mining potentials because of the prohibitive stripping. The property lay absolutely idle. There was no mining company interested in it from about that time until Hanna took it over in 1949. They went ahead and started drilling. On May 1, 1952, on the basis of the drilling up to that point, they estimated 800,000 tons of ore on the property. However, it was based on incomplete drilling and laboratory test data. On May 1, 1953, as of the drilling up to that time, a reserve ore estimation was submitted to the School of Mines for review and the School of Mines estimated as follows:

Direct shipping ore: 1 million tons open pit and a million tons underground, - total, 2 million tons. Wash ore concentrates - 860,000 tons open pit and 628,000 tons underground, or a total of 1,488,000. Lean wash ore concentrates - 677,000 thousand. In all a total of 4,237,000 tons. The analysis indicated 45.25 natural iron on the direct shipping, open pit ore and 48.14 natural iron on the wash concentrates. There is a nearby mine, the Carls No. 2 Mine opened in 1951, which will be exhausted this year. Mr. Whitney says "our experience has not been good. We encountered unstable material in the stripping banks which averaged about 160 feet in depth. Our engineers laid out the slopes at stripping at 1.25 to 1. Our experience is that they are 2½ to 1. In other words, we have added 3,500,000 yards of stripping because of the unstable conditions. All testing in the Carls No. 1 shows that the same material prevails there. We are not sure at this time whether this property can ever be worked by open pit methods and the natural iron on the direct ore would make it uneconomical for underground methods and no one has yet been able to mine underground wash ore at a profit." Now, Mr. Scallon, I wonder if you would supplement Mr. Whitney's statement? Mr. Scallon is consultant for M.A. Hanna Consulting Engineer Company.



Mr. Scallon. Mr. Chairman and gentlemen. I didn't know until Mr. Montague told me a few moments ago that the Carls No. 1 Mine had been brought into question at all, so anything at all I had planned to say is extemporaneous. Anything that I could add to that last paragraph of Mr. Whitney's letter that you just read would be exactly when I would say. We have opened up the Carls No. 1 Mine which adjoins - that is No. 2 Mine, which is a state property. Our experience with banks there are as Mr. Whitney has indicated in that last paragraph. The Carls No. 2 Mine, the state mine which is now opened, is not adjacent to a lake. The stripping material that has swept back to the extent that was indicated by Mr. Whitney as  $2\frac{1}{2}$  to 1 ratio, is not permanently saturated by seepage from a lake. The Carls No. 1 Mine which was brought into question here today, is riparian to Welcome Lake which has been drained of water by the Pickands-Mather Company because it has an operation on the other side that they felt the water was endangering. Now the Carls No. 1 Mine is riparian and at the bottom of that lake is 30 feet of silt and mud. So that is the grave question in our mind whether to open up the Carls No. 1 Mine or not and I am of - there is great difference of opinion among us men. I obtained a permit from the State of Minnesota last fall to remove the muck from the bottom of that mine. Taking all things into consideration, I feel that that No. 1 Mine has no taxable value and I, myself have recommended that we do not face the hazard of opening it up because of our experience at the adjacent Mine, this Number 2 which is a series of turrets and benches all the way up and still isn't stable. It is the worse ground that I know of anywhere in the State of Minnesota. So I question that it has commercial value. We haven't yet taken advantage of our permit to go ahead and - with it. The permit was granted last fall. I think Mr. Whitney said everything that I have said but that was just because I didn't know what he said and I volunteered the information to Mr. Montague. Does anybody want to ask any questions?

Mr. Montague. There is one other mine specifically mentioned by Mr. Groschel. That is the Wacootah Mine which was formerly operated by Wheeling Steel

Mr. Montague - continued.

at Mountain Iron. The lease was given by Wheeling Steel, without charge as far as the least was concerned, to the Pacific Isle Company. Pacific Isle went in there on a scam operation and by a story somewhat similar to the story of the Troy, got out quite a bit of ore - that is they developed more ore than was believed to be there. Now Mr. Binger of Pacific Isle expected to be here to make a statement on it. I have a memmographed copy of the statement which he made to the House Committee. I won't read it because it is rather long but I will leave it with your Secretary for information on that property. That is all the properties which Mr. Groschel used as the illustration of hidden tonnages. Tonnages that were escaping taxation in the State.

Mr. Montague. I would like to go ahead now and discuss some of the points in his memorandum. I might introduce myself. My name is W.K. Montague. I am appearing as Representative of Lake Superior Industrial Bureau which is an association of all the mining companies, large and small, in the State. I am also Directory Attorney for several of the independent operators, - Pickands-Mather, Erie, Reserve, Republic, and one or two others, Snyder, and one or two other operators. I think it might be more logical for me to go ahead on this question of the valuation of iron ore. The question is raised by Mr. Groschel with respect to that particular subject. Let me state that it strikes me as being strange to the point almost of being ridiculous, - The importance that is being attached to undervaluation of iron ore for ad valorem tax purposes. I say that because unless you are thinking in terms that values ought to be four times as high as they are at the present time, all you are proving is over-valuation rather than under-valuation. The Commission appointed by the Legislature four years ago has now completed its study of assessed valuations in Minnesota. I have their report, which of course all you members of the Legislature received. They show that the average property - average non-mining property in Itasca County, which is one of the mining counties of the State - the full and true value determined for tax purposes is 17.38% of the actual full and true value as shown by sales. In Crow Wing County, another of the three counties - mining counties, that ratio is 25.15%. In St. Louis County, the third county, and the largest by far, that ratio is 25.76%. So,

Mr. Montague - continued.

on the basis of this Commission's findings, other property - non-mining property in the mining counties of the State, is assessed, full and true values for tax purposes, - is one-fourth or less of what they found to be the full and true value of the property. So again I say, unless you are talking in terms of that mining property valuation should be increased by at least four times, you are not talking under-valuation, you are talking over-valuation as compared to other properties. Before drilling for taxes, you might much more chiefly take a look at other property at its valuation for tax purposes. Mr. Groschel made some statements with respect to the Hoskold method of valuing iron ore. He pointed out that it was a method of determining the present worth of future income estimated to be obtainable from the property over a period of time and that in valuing the property, the taxing authorities used what we know as the range life of 30 years at the present time, to determine the present value of the earnings which will be received over that time. Now, he jumped at the conclusion that because they apply that basis to these properties, - that is determining the present worth of those future profits on a range life basis, that there is under-valuation of a property which would be mined out before 30 years. He uses as the extreme illustration the case of a property which would be mined out in one year - is being mined out in one year. He says that property should be assessed 128% more than it is because it is going to be mined out in one year instead of its value being determined on the basis of return of profits over the period of 30 years. Well, what he does, is miss entirely the whole point of the method of valuation which was being followed. You cannot possibly mine out and ship all the ore in Minnesota - all the billions or more tons of ore in Minnesota in one year. It is going to be shipped over a period of years. Also, you have two mines, - I can illustrate here by just taking these books - suppose you have three mines; exactly the same kind of ore; exactly the same mining conditions just to simplify the illustration; suppose one mine you are operating now and you are going to be exhausting it in the next year or five or ten years; suppose that then the next mine won't go into operation until ten years from now and then will operate during the remaining ten to

Mr. Montague - continued.

twenty years; suppose that the third mine is going to be held as a reserve for twenty years and then put in operation and operate the last ten years of the thirty year life. Now what Mr. Groschel would say is that you put a very high value on the first mine because the ore is going to be taken out right away and practically no value on the third property because it is going to lie there for twenty years before you start on it. You would have two mines exactly the same, exactly the same kind of ore, exactly the same value on the market as far as anybody buying it, with widely different valuations put on it because of your assumption that the owner is going to mine the first one this year. What the method of valuation followed by the tax commissioner is, and it has been sustained by the district court and the Supreme Court of Minnesota, and is universal in valuing property of this kind - they value the middle ton of ore. They assume that on the market nobody is going to pay more for this ton over here because it can be mined out this year where exactly the same ton over here you pay less for because the owner is going to hold that for thirty years. They value the middle ton of ore. Assume that market value would work down to a point where the value of that middle ton of ore is the value to be used for all of it. Otherwise you would have the chaotic condition of mines like the Stephens having had no value whatever practically placed on them for tax purposes because the Oliver didn't intend to operate them for a long time. You would have mines with the same grade of ore with the same mining costs having extremely high value because the owner was going to mine them this year. You can't value on that basis.

Mr. Welch. Where would you land constitutionally if you tried it?

Mr. Montague. You would land where they landed in '32 and '34, in the courts, and I am quite sure you would get the same decision they got at that time. But that's the theory of this method of valuation and it doesn't mean that because a mine is going to be mined out this year or next year that it has been undervalued, anymore than it means that another mine isn't going to be touched for twenty years that it is being overvalued. The average of the conditions - value the middle ton of ore upon the

Mr. Montague - continued.

assumption that no single ton of ore can be given a higher value upon the basis that it has some greater right to get to the market quicker than the other ton.

Mr. Bergerud. Mr. Chairman, may I ask a question. In other words, the reason or the claim that was made that this mining out in one year, you get your money quicker, is that it, so that you don't have the length of time to wait to get your return so therefore it is higher?

Mr. Montague. That was the reason, but by mining this property first you automatically defer this property. That is, you gain on one and lose on the other - you or somebody else. Sure, some operator who isn't carrying reserves, he can go in and do a quick job and benefit by this method. But over the whole industry, the valuing the middle ton of ore is the only sound, the only fair and the only legal way that you can go about it.

Mr. Bergerud. May I ask one further question, Mr. Chairman. When you speak of the middle ton, you mean the one in between the ten and the twenty years?

Mr. Montague. I mean that you are using a thirty year life - the ton of ore that is going to be shipped out 15 years from now is the one that has the average value. It fixes the average value for all -

Mr. Bergerud. (interposing) So when you use thirty years, you do take that average don't you?

Mr. Montague. Yes, you take the middle point for the average ton. Now, he attacks the use of the thirty year life as being too long and makes a mathematical division of tonnages by shipment and says that they shouldn't be using thirty year life, they should be using some shorter life. That thirty year life is not just a question of mathematics. You can't just divide and say that well, it works out 15 years, 17 years and 20 years and that's what you should use. It is a matter of judgment combined with mathematics. It is a question of just when will these ores be exhausted. Mr. Spaeth has testified that for quite a period of time, for every three tons of ore shipped out of the State, two tons have been added to reserves by develop-

Mr. Montague - continued.

ment of new processes, - anyway they have taken their place, in determining how many years this taxable ore is going to be - how long it is going to be before it is exhausted. The commissioner of taxation had to exercise his judgment as to what is going to be the influence, of the competition from Venezuela, from Labrador, on the tonnages which will be shipped from Minnesota; what's going to be the influence of new tonnages being developed, low grade ores being added to the reserves. He has to, on the basis of that judgment, determine what is the proper period of time to use. Again I repeat, this whole system of valuation went through the courts in 1932-34. I happened to participate in those trials and I can say that there nobody, even the experts on the part of the State, who ever disputed the proposition that it was the middle ton of ore that you valued in a situation of this kind.

Mr. Montague. Now I would like to just touch a little bit on this question of depletion which I do not intend to repeat the presentation Mr. Severson has made. I want to look at it from a little different angle. Let me put it this way, look at it from the angle of the independents, or the companies that aren't holding long reserves, who are, however, trying to stay in the mining business. The suggestion had been made at some earlier hearings that while the fee property should be entitled to depletion allowance, that the lease properties should not. Let me first point out that it isn't the fee owner that invests the money in locating iron ore or working out the problem of exploration, the research to see whether it can be handled. It is the mining company that does it. It takes an option on large acreages of land - large areas of land. It goes in and drills and explores them; it does the research work, and out of the large number of properties explored, it winds up possibly, if it is lucky, with one that is a commercial proposition that they take a lease on and can mine. It is the mining company that has made what investment that has been made. Now admittedly it is probably not as heavy an investment as when someone has purchased a mine which has already been proven up. But, nevertheless, the lessee has

Mr. Montague - continued.

that investment in the property when you come to consider who should get depletion. Incidentally, he does not get depletion on the fee owner's interest in it. Under the Federal statutes, the 15% depletion on the royalty share of the profit is allowed to the fee owner. It is only the excess over the royalty upon which the depletion is allowed to the operators and to that extent Mr. Groschel's calculation of the amount of depletion is off because he has made no deduction for the portion of depletion which would go to the fee owner and not the operator. However, that recovery of the money invested in that way is only one element of depletion. Mr. Severson touched to some extent on the capital gains feature of it. Mining is a unique operation - not entirely unique, timber industry has some resemblance to it, but you are consuming your capital all the time. What you are going, is digging up your capital and shipping it away. When you are through with your operation of a mine your capital investment in that mine is dropped. The ore was the value. You mined it, shipped it away and it's gone. Suppose that you had a mine, either under lease, or owned, either one, that you had held for sometime. Suppose the time came when you wanted to do something with it. Should you mine it or should you sell it. If you sold it under the U.S. income tax law and under the state income tax law, you would not be taxed on the profit on that sale as ordinary income. It would be under the capital gains provision of both the Federal and State income tax laws. It has no relation to mining whatever. That is what you would get if you sold your lease or sold the mine. You would get the profit from it, subject to the capital gains provisions of the income tax laws, which would mean that you would first deduct your acquisition costs, the money that you had in it, and the remaining profit - only 50% of it would be subject to the Federal tax. It would mean that on that kind of a proposition, you would pay on your gain, a federal tax of 25% or 26%. Now, in view of that, should you go ahead and mine it - take the risk of mining it, use up the capital in that way, by shipping out each year part of your capital and exhausting it and have it treated just as normal income with no allowance whatever similar to the capital gains provision. I said that in this respect we resemble somewhat the timber industry. If you own some pine land, cutting the timber off,

Mr. Montague - continued.

you are up against that same proposition. You are selling your capital. The Federal government very soon ran up against that problem in the timber industry. If a man went ahead and cut his timber and sold it by the piece, he was subjected to a normal tax on his profit. Well, it didn't take them very long to find out that wasn't the way to handle your timber. Instead of cutting it, paying the normal tax on it, they would sell the timber land and take their profit in capital gains. And that got just common enough that the people who didn't do it were being discriminated against so that Congress, I believe in 1942, allowed capital gains - allowed the sale of timber to be treated as capital gains, whether the tract of land was sold or whether just the timber was sold. In other words, they adopted with respect to the timber industry - where the same theory is involved, they adopted the theory of capital gains allowance was the proper thing to do. Instead of the percentage depletion which you get in the case of iron ore - 15% of the gross not exceeding 50% of the net, being as favorable as you could get under a capital gains provision, or as favorable as the timber people get under their provision, it is less favorable. Because we can never, under our percentage depletion, get as much allowance as the capital gains provision would give if you sold the property. Besides the return of the actual money invested in it, that is another aspect of the depletion problem that Congress had to take into consideration. The question of replacing your capital. What does it profit you if you had 100,000 tons of ore in a mine in the ground, maybe it only cost you 50¢ or maybe it only cost you 10¢. You mine it out this year and get \$1.00 for it, - have \$1.00 profit on it. If you have to go around and pay \$1.00 a ton to get another 100,000 tons of ore so that you could be in business, at the end of the year, after getting the other, you still have just a 100,000 tons of ore. You have that much capital and that's all you have. You replaced something that cost you maybe not very much with something that cost you a lot because of the change in conditions, the difficulty of acquiring it. Unless you are going to treat mining operators as just being one shot propositions, going ahead on one mine, exhausting that and being through, you have got to take into



Mr. Montague - continued.

consideration in your taxation policy, as the Federal government has, the proposition that they have to replace the ore that they ship out. Replace their capital with other ore which probably costs them considerable more than the former ore has. Now, all those considerations - all those three considerations: - the return of money that you actually spend in acquiring, the capital gains feature, the necessity of replacing your ore with other ore if you are going to continue in business, all enter/<sup>ed</sup>into the policy of Congress in allowing percentage depletion. Now, what is proposed - I don't like to say what is proposed by Mr. Groschel, but what is proposed by those who say you should throw out this depletion allowance, laying aside for the moment the question of how much of it represents actual cost depletion, assume that there wasn't a dollar of it represented actual cost depletion, what they are proposing is that the State should nullify the policy of Congress that where Congress, after considering it for years, after hearing, after hearing, concluded, on the basis of fairness, upon the basis of National policy in making sure that people continued to invest and to acquire additional reserves and keep the new processes, new ways of supplementing the present reserves, Congress adopted a policy and what is proposed is that the State should just move in, nullify Congress's determination of the policy that should be followed, by hyking its taxes to take advantage of that allowance. I don't think it is a sound tax policy for the State to do it, anymore than it would be sound tax policy for the state to move into the capital gains field and instead of taxing capital gains at the 6.3% as if it were normal income, to hit it for 15% or 20% upon the theory that they can take up the slack that the Federal government hasn't taken. I don't believe that kind of policy we could follow.

Mr. Montague. Now, I have just one more subject that I wish to consider and that is Mr. Groschel's comparison of the combined State and Federal taxes ~~that~~ of the mining companies in Minnesota with the Canadian and Venezuelan taxes. He makes in his - on page 5 of his memorandum, he says this: "In Canada the government has an income tax of 47.6% of net income but has a depletion allowance based on net profit

Mr. Montague - continued.

which reduces the rate somewhat. In addition, each of the Provinces has an income tax of their own. Therefore, the combined Provincial and Canadian government taxes would approximate the combined Minnesota and Federal taxes, except that the Newfoundland-Labrador taxes would be greater if their 20% tax on mining company net income becomes operative." Let me say that statement is just taken out of thin air. He says that Canada has "some allowance for depletion", or an allowance for depletion which "reduces the rate somewhat". Canada allows a flat 33 1/3% of net income as a depletion allowance in the case of mining. The Newfoundland 20% law which he talks about is a law applicable to ordinary mining operations. The Iron Ore Company of Canada has a better break - it has made a different deal with the Newfoundland government before they went in there. But he says if that law became operative why their taxes would aggregate more combined Dominion and Provincial than the combined Minnesota and Federal taxes. Well, that 20% law, so-called, in Labrador, is intended to take care of previous minerals as well as others. It has this provision right in it. "shall be taxed on the following rates on net income" and I am quoting from the law: "at the rate of 20% in the case of mines from which iron ore is recovered but not in any event to exceed the amount that would be paid if the tax was levied at the rate of 10¢ a ton on the first 1,500,000 tons of iron ore recovered and 8¢ a ton on each additional ton of iron ore recovered." That's the 20% law applicable to iron ore in Newfoundland. Now, how does it work out? In about 10 minutes, you can take Mr. Groschel's statement and assume that all of this is being operated in Labrador and figure out exactly what the comparison would be. I say exactly, - within one exception which I will mention where it shows a much more favorable position than is justified. You can take his profit, before taxes, that is profit before income taxes, \$178,000,000 shown here. You deduct - there are 63 million tons of ore shipped from Minnesota in that year involved in this calculation. At 10¢ on the first million and a half tons of ore and 8¢ a ton on the remainder, their tax would be \$5,070,000. That would be the Labrador tax on 63 million

Mr. Montague - continued.

tons of ore under that 20% law that he refers to. You deduct \$5,070,000 from the \$178 million and you would have \$173 million subject to Federal tax. The depletion is 33-1/3%. Thirty-three and a third percent of that \$173 million is \$57,780,000, or \$7 million dollars more than the depletion allowance that he shows for the - under the United States income tax law. The remainder subject to tax at the rate of 46 2/3% would be \$115,570,000. The 46 2/3% would make the tax on that \$55 million, almost exactly, to which you would add back the \$5,070,000 Provincial tax and you would have a total of \$60,350,000 combined Dominion and Provincial tax on that operation if all this ore were up there and was operating under the Canadian law and then the so-called Labrador 20% law. The total State and Federal taxes here on our operations with this being done in Minnesota are \$77 million dollars, - \$17 million dollars more combined Federal and State taxes paid on the operation in Minnesota than you would pay on that same kind of an operation up in Labrador. Actually the difference is substantially larger because this calculation assumes that you would have local, ad valorem taxes up there also equal to the \$18 million ad valorem taxes which we paid in Minnesota, and they haven't anything like that. In fact the Newfoundland percentage law is in lieu of the tax - ad valorem tax on the ore in the ground. On the same basis that he calculated 43.5% as being the combined tax in Minnesota, using that same basis which, as pointed out, we do not admit because it does not allow depletion, the Labrador tax would be 33.3% of net income, combined Dominion and Provincial taxes. He also states that the Venezuelan tax would be higher than the combined Federal and State taxes in Minnesota as a percentage of net profits. In making that statement, first he says he includes the fact that under the Venezuelan law, there has to be a distribution of profits with your employees - there's a 10% distribution of profits. There is, - it isn't a tax, it's a labor law. Hormel, for instance, enters into a profit sharing arrangement with his employees, it isn't a tax. That enters into the labor policy. If you are going to compare the cost of labor in Venezuela with the cost of labor up here, then you would have to take that into consideration, but when you are talking taxes it

Mr. Montague - continued.

doesn't enter in to the calculation. The 50% Venezuelan tax as pointed out in your Report, after being studied on the ground down there by the members of your Commission who went down to Venezuela, is not only - has to be compared not with just the Federal income tax and the occupation and royalty taxes and so forth, it has to be compared with the Federal tax, all local ad valorem taxes of every kind, all other taxes of every kind down there and the royalty on the ore which is all in that deduction. To say that it is as heavy a tax as the combined Federal income and occupation tax in Minnesota is just stretching the imagination and stretching the facts. Incidentally, on the Canadian subject, I was interested in a copy of a letter I will leave with the Commission in connection with the discussion of the Ontario tax. The Commission in its report said that a mine operated in Ontario had to pay the Canadian Dominion tax and the income tax levied by Ontario on Mining operation and also local ad valorem taxes. The Province didn't levy ad valorem taxes but the local municipalities did. A copy of that Report went to the Department of Mines in Ontario and I have here a letter written to the Deputy Minister of Mines of Ontario to the man who sent him a copy of the report in which he says this:

"I wish to thank you for the copy of the Report of the Legislative Commission on Taxation of Iron Ore. It is the most enlightening source of information on that matter that I have ever read.

"I note that they have made one misleading statement under the heading of Taxes in Other States; on page 98 they state with respect to Ontario that the Province of Ontario does not levy an ad valorem tax but the local taxing districts do. As you probably know, the local taxing districts can assess only the surface rights of the land value, excluding the minerals or plant buildings used in treatment of the ore. Their revenue is derived from the portion collected by the Province from 6, 8 and 9% of the annual profits under the income tax law."

Mr. Montague. Now, that concludes our presentation on the Groschel statements. We just want to stress the fact that there are a lot of different companies operating in Minnesota - some large and some small in the mining business. There is a section in this report that refers to the fact that the proposed increase which he is supporting would be heavier on the Oliver and only so much a ton on some of the smaller people. Well, aside from that philosophy, I want to point out that while it

Mr. Montague - continued.

might not be as much in cents per ton on some of these smaller operators, that it is harder for a small operator to stand the 15% increase in the tax than for a larger one. The smaller your margin of profit, the more expensive an operation you have - the harder any increase in your tax hits you and the small operators were hit, both by the increase made during the Session - not as much as they would have been by the increase that was proposed, but also by the change in the labor credits which hit some of them very hard. We feel that the Industry as a whole, large and small, has the right to expect a fair analysis of the whole situation and a tax policy which does not treat them as if they were an outlaw industry subject to taxes which they would not think of imposing upon other industries in the State. Thank you. I'll be glad to answer any questions.

Mr. Welch. Are there any questions?

Mr. Bergerud. I'd like to ask one question Mr. Chairman. I would like to put to you an example of depletion. If you had a brick building and you could remove one brick at a time, you would eventually have no building and that is analogous to taking out a ton of ore and each ton until it is gone, isn't that right?

Mr. Montague. Or, you might use another comparison - somewhat similar comparison. Supposing you owned this 160 acres of land and you platted it into lots. Sold the lots. You would take capital gains on each lot as you sold it. You would get a capital gains allowance under the income tax law.

Mr. Goodin. And you wouldn't be taxed on what you sold.

Mr. Montague. No, you would be taxed on the - the lot which you sold, you would deduct the cost of it and the balance would be taxed only 50% of the profit on the balance would be taxed under the capital gains provision. That is the same thing as depletion on an iron ore mine.

Mr. Welch. Anybody else who would like to be heard?

Mr. Montague. Unless there is some other representative of the Industry who would like to be heard, why this concludes our formal - oh, Mr. Binger has finally

Mr. Montague - continued.

shown up here. Mr. Binger is with the Pacific Isle Company. It is the Company that took over the Wacootah Mine which was the last mine referred to by Mr. Groschel.

Mr. Welch. Just a minute - I'd like to ask you a question, Mr. Montague. There has been some comment about the source of funds or financing for the taconite industry - some comment, as I recall it, by Mr. Groschel - I'm not sure about this, by the way, to the effect that the government was subsidizing it.

Mr. Montague. I don't remember his making the statement, but if he did make the statement, he probably was referring to the question of rapid amortization of plants which the government - that law does permit them to amortize - on some of these taconite plants - some portion of the investment on taconite plants is subject to rapid amortization. They have their certificates and it is subject to it. That means, of course, that they can charge off in the early years of the operation the depreciation on the plant. It means that when they charge it off, from then on they are not going to have any depreciation allowance whatever. The question of whether they gain or lose on it is going to depend on whether income tax rates are going to be higher or lower in the future. In the end, there is now more money lost to the government, or allowed, it's a question of when it is allowed. Now, if you call that a subsidy, why it's a subsidy.

Mr. Welch. Thank you, Mr. Montague. Mr. Binger?

Mr. Binger. My name is Tom Binger and I am Secretary of Pacific Isle Mining Company, one of the small mine operators on the Mesabi Range which Mr. Montague spoke of a few minutes ago. We produce about 500,000 tons of ore a year and have been doing so - not to that extent, but we have been in business since 1946. Most of us that started the company were in service during the last war and when we got back we decided we would all start our own mining company. We are the present holder of the mineral lease on the Wacootah Mine. As I understand, that particular mine has been cited by Mr. Groschel as an example mine which has escaped its proper share of ad valorem tax burden, and he sites that it carried a substantial under-estimation of

Mr. Binger - continued.

ore reserves over some period of time. Now, it is true that the estimated reserves on this property increased by some 630,000 tons in 1953. Our Company is pretty proud of the fact that it did increase because we feel it reflects our ability as a mine operator and we also feel that the State of Minnesota, along with our Company, has benefited by our ability as a mine operator in regard to this particular property. To go back a little bit, Pacific Isle acquired this mine lease from the Wheeling Steel Corporation in 1951. Wheeling Steel Corporation had operated the property for a long period of time. I don't know what kind of a profit they did make, if any. I know that the grade of ore was not good enough to be charged directly into a blast furnace without mixing it with some other ore. It is my feeling that they found the mine no longer desirable for their operation and so we had a chance to take over. We operated the property first in '52 and the production from the mine during that year analyzed something less than 44 $\frac{1}{2}$ % natural iron and in excess of 12 $\frac{1}{2}$ % natural silt. It is obvious to you people who are familiar with the market practices of the iron ore industry that an ore analyzing less than 44 $\frac{1}{2}$ % natural iron can't find a ready market in the steel industry. It is my belief that no one can sell that type of ore standing by itself, even during the war scarce years of - during World War II. In '52, if you would examine our occupation tax returns, you would also find that we lost \$4,500.00 in the operation of that mine. Our operations during that year didn't discourage us. We still felt the mine had a potential value but we hadn't found the proper combination that was going to make us a profit. In '53, we tried again. We were able to increase the natural iron content of the ore to approximately 47% and that was our only achievement that year because our occupation tax return that year indicated a loss of \$16,000. Now it doesn't seem unreasonable to me that a property that cannot demonstrate its ability to produce ore at a profit, shouldn't in some measure escape ad valorem taxation. It is certainly true that the assessed values of mineral property are an attempt to arrive at a proper market value for the real estate in question or the

Mr. Binger - continued.

mineral value in question and it is my belief that a mineral property which can't demonstrate an ability to produce an ore of marketable quality and at a profit, could carry much of a market value. Even so, during the years '52 and '53, when Pacific Isle operated at a loss, they did pay ad valorem taxes on the ore that they did produce from the property, even though it was mined at a loss. In '54, Pacific Isle, by the application of what we feel to be some fairly novel techniques and the scam operation of depleted properties, succeeded in producing approximately 161,000 tons of ore which was formerly considered valueless by the tax department and which we had felt previously to be no more than a potential value. It was during this year, '54, that our operation of this property first showed a profit. Because of our successful operations during the year '54, the tax department anticipated a little bit, because they came in with their re-estimation in '53, but they, for the first time, placed an estimate of ore material, which prior to that time nobody felt really constituted an ore reserve, because it wasn't - it hadn't ever been shown that it could be made a marketable product by beneficiation technique and certainly our experience showed that it couldn't be done at a profit. By novel techniques, I mean we have a joint ownership in a fairly complex metallurgical plant called the Coons-Pacific Plant, south of Eveleth. We ship from this property and numerous other properties ore material - crude ore material to this particular plant by rail, dump the cars as they come into this plant, beneficiate by means of - we have three stage crushing, we have heavy media, we have gig, we have humphrey spirals, - almost all of the facilities that are now known to iron ore beneficiation are present in that plant and we can knock anyone of them in or we can knock any one of them out, depending upon what type of ore we are treating. We found the right combination in '54 as to this particular property. Now as a result of our efforts, and I feel only because of our efforts, there was then placed on the tax rolls, this 160,000 tons of iron ore material which Mr. Groschel speaks about. We are very much disturbed with the inference that we have been tax-evaders when we feel that we have



Mr. Binger - continued.

materially contributed to the welfare of the State of Minnesota by our knowledge of scam mining techniques. The State of Minnesota is benefited not only by this increase in this reserve and the consequent increase in ad valorem taxes, but it is benefited by the payroll dollars that we have expended on this mine even during our experimental stage and certainly the payroll dollars we are continuing to expend to mine this ore that we have now developed. Also, since Minnesota is the fee owner of this property, they should be doubly overjoyed, we feel, because we are paying substantial royalty dollars. This same thing has come up before. We have answered it about the same way. We are proud of our record and we sure hate to be called cheaters on our taxes. We certainly don't feel that we are.

Mr. Welch. Any questions? Gentlemen, if there are no questions, is there anything further?

Mr. Montague. There is nothing further to present here. We have a moving picture that the Mining Industry has prepared which has not yet been shown anywhere except to the group who was passing upon it. It shows all types of mining operations, from early open pit operations to different kinds and typew of beneficiation mining up to taconite. We have arranged - we couldn't arrange to show it here, but we have arranged to show it down at the Minnesota Club. As soon as we get through here, we would like to invite the members of the Commission and any other members of the Legislature who are here to see that show at the Minnesota Club. If you can come down there now, we would like very much to show the picture to you.

Mr. Welch. Is there any other business to be taken up here first, gentlemen?

Meeting adjourned subject to the call of the Chair.

Statement by L. J. Severson  
before the  
Legislative Commission on The Taxation of Iron Ore  
October 28, 1955

---

My name is Lloyd J. Severson. I have appeared before the Commission before; but for the record perhaps I should state that I am the Vice President in charge of Mineral Development for the Oliver Iron Mining Division of the United States Steel Corporation. I work and live in Duluth.

I have been in the mining business for about 20 years counting my war-time service in South America and Europe on the staff of the United States Board of Economic Warfare - afterward the Foreign Economic Administration. In that connection, I was engaged in the study of strategic mineral problems.

I have worked for the Oliver Iron Mining Division for about twelve years; and my testimony today is given as a member of the iron mining industry of Minnesota.

The Commission has indicated that the Industry would be permitted to answer the memorandum which Mr. Harry Groschel of the Budget Division of the State Department of Administration prepared for Senator Donald Fraser and filed with this Commission at its last hearing on September 1st. It was explained and elaborated at that hearing.

Mr. Groschel testified before your Commission that he was the author of the memorandum on iron ore taxation presented to the legislative committees and circulated to the legislature during the 1955 session, together with several revisions of that memorandum. This memorandum was the authority for the claim which has been publicly made on numerous subsequent occasions that the mining companies were in better condition to absorb tax increases than other Minnesota corporations, because - so it was claimed - their combined Federal income and State occupation

taxes are only 43.5% of net income as against the combined Federal and State income taxes of 53.5% in the case of ordinary business corporations. This also is the source of a statement that net income of the Oliver Iron Mining Division of the United States Steel Corporation is equal to 40% of the total net income of the United States Steel Corporation, as well as of several similar income comparisons.

The form in which these claims were stated in the memorandum is somewhat backhanded. It states, "The mining industry is not bearing a disproportionate share of the State and Federal taxes when compared to other Minnesota business corporations"; but, the inference intended to be drawn from the memorandum, and from Mr. Groschel's testimony before this Commission, is unmistakably that it would be not only fair but would be wise as a means of attracting industry, thus increasing business and employment in Minnesota to raise the taxes on iron ore.

We think it very important, therefore, that this Commission make a careful analysis of how this conclusion was arrived at. In doing so, you are fortunate in having a very candid explanation from Mr. Groschel, brought out by questions of the members of your Commission at the last hearing, as to what he took into account, and, more significantly, what he omitted from his calculations in arriving at the conclusion I have quoted.

In explaining the memorandum before your Commission, Mr. Groschel frankly admitted that when State taxes alone were considered, the Mining Industry was paying a considerably larger proportion of its net income in State taxes than other business in the State. When asked how much larger, he stated it was certainly twice as large a proportion of net income, and might be three to three and a half times larger.

As a matter of fact, it is easy to make the calculation. If you divide

the total of occupation and royalty taxes shown by Mr. Groschel's statement, by the amount which he claims is the income of the Mining Industry, you would get his calculation of that ratio, but it would be one which would exclude any allowance for depletion.

$$\begin{array}{r} \$23,098,832 \quad (1952 \text{ Occupation and Royalty Taxes}) \\ \hline \$100,785,987 \div \$23,098,832 \quad (\text{Income before State taxes}) \\ \hline \text{Equals } 18.6\% \text{ tax} \end{array}$$

The tax thus computed of 18.6% as the industry's tax load compares to a 6.3% corporate income tax on other industries or about three times as large. This is without any allowance whatever for return of capital of the mining companies invested in ore in the ground.

#### Lake Erie Price

Mr. Groschel also states that, as a result of his study, he and his associates were convinced that the use of the much discussed Lake Erie price base for taxation purposes favored Minnesota in that it attributed a high rather than a low value to the iron ore produced.

#### False 53.5 - 43.5 Comparison

Though Mr. Groschel testified before your Commission to those significant conclusions, the memorandum which he prepared for the legislature made no reference whatever to them. Instead, it stressed his claim that the combined Federal income taxes and State occupation and royalty taxes of mining companies aggregated only 43.5% of net income. He reached this conclusion - startling because of his previous admission as to the level of State taxes - by recomputing the Federal income tax of the mining companies and throwing out any allowances for depletion or return of

capital invested in the iron ore in the ground. To support this conclusion he makes the startling assumption that the Mining Industry has no money invested in its ore reserves in the ground; that none of the money received from the sale of ore represents return of that invested capital. He admits, that, to the extent that this assumption is erroneous, his 53%-43.5% comparison is false.

### Depletion

What I would like to do today is to discuss the facts which were left out of account in the memorandum referred to in making a determination of net income. The calculation was built largely on conjecture from some very broad assumptions, but I think the most important and substantial item which was deliberately omitted is depletion. At the beginning it is well to get before us a clear understanding of what depletion is. Let us, first, consider the treatment of depletion, in the law of Federal income taxes.

The allowance which the Federal Government makes for depletion is not a tax exemption or a tax loophole. It is a cost just as much as wages or depreciation. It is simply a recognition of a very well established principle that return of capital should not be taxed as income. The law recognizes the fact that in carrying on the business of mining, a portion of the owner's capital is consumed with each ton of ore mined, and that the amount of that capital consumed should be charged to cost and not taxed as profit. This fact has been recognized by the courts ever since the adoption of the Income Tax Amendment of the Constitution. Therefore, profits are not as high as Mr. Groschel has estimated for the industry.

Mining is basically different from other industries in this characteristic of consuming capital, and an understanding of its characteristics is essential to an understanding of a depletion allowance. The search for, and discovery of, mineral deposits involves a long process of exploration, requiring the

expenditure of large sums of risk capital and the plowing back of a substantial part of the returns from successful enterprises in the search for new deposits and new processes in order to continue in the mining business. It is true in Minnesota, as elsewhere, in the mining business, that of a total number of properties in which prospecting and exploration are conducted, only a small proportion disclose mineral deposits of commercial value. A mine finally ready to be opened represents all the money that has gone into all the efforts to find it or purchase it, together with all carrying charges up to the time it is opened.

As the owner mines and disposes of his product he is, in reality, engaged in recovering his money in order to realize his over-all investment. When the mine is finally exhausted he is out of business in so far as that particular enterprise is concerned. Therefore, one of his major concerns - if he hopes to remain in the business of mining - is the necessity to undertake the expensive and hazardous task of discovering and developing any deposits or any ways of handling deposits considered worthless to replace those he has depleted.

A specific example of this is the large sums that have been and are being spent in exploring for and developing taconite and other low grade ores. Taconite research and experimentation costs alone to the Mining Industry to date have been conservatively estimated at more than \$75,000,000, and the job is not done by any means.

By contrast, the ordinary businesses of manufacturing and merchandising are able to replace raw materials or goods by continuous purchases in the open market. Manufacturers or merchandisers have to recover the price of new inventory in the price which is charged for the product sold. The last in first out inventory may be costed to permit recovery of the inventory at the current price of acquisition. Therefore ordinary businesses of manufacturing and merchandising in

addition to depreciation have adopted procedures to keep the inventory cost on a current basis.

Our revenue laws have recognized this analogous situation as one reason for special depletion provisions applicable to the business of mining.

A fair depletion allowance should return to the producer over the life of the mining enterprises a capital investment which the mineral deposit represents. Indeed it should permit him to remain in business by replacing the deposit he has exhausted.

The search for new mines is no longer the simple task of the lone prospector; the easily discovered deposits of years ago have been found - at least in this area. Applied science and engineering of high order are required in modern prospecting, exploration and complicated metallurgical testing. The cost of finding and bringing new mines into production has increased enormously in the last few years. The search for and development of new mines depends mainly upon the established mining companies with the necessary trained personnel and ample finance resources and equipment. In the national interest, if for no other reason, adequate depletion allowances are absolutely essential if funds are to be available for the continued discovery and development of iron ore supplies and processing methods to replace the reserves now being depleted.

After years of difficult experience with other methods of computing depletion allowances for mines, Congress, in 1932, adopted the so-called percentage method for iron mining. The depletion question had been studied by a joint committee on internal revenue taxation, and by the Treasury Department. The study by the joint committee staff had shown that the average depletion allowed on all metal mines had been 17.1% of gross income. As a result of this study, the staff recommended a depletion allowance of 15% of the gross income in the case of iron ore.

mining, subject to an over-riding limitation of 50% of net income, and the recommendation was adopted by Congress.

Turning now to the application of these factors and principles to the question before the Commission; may I remind you first how depletion is treated in the memorandum I am here to answer. I will show you the elements of depletion on Minnesota iron mines which must be taken into account if the industry is to stay in business here and continue to provide jobs for Minnesota people and revenue for the State; in short, - to replace reserves now being depleted and for the development of other low grade ores and taconite, which are the promise of iron mining in the economic future of Minnesota.

You will note that as far as Mr. Groschel's memorandum is concerned -- and this goes both to his 53.5% - 43.5% ratio, and to his calculation of profits of the Oliver -- he has simply eliminated entirely from his calculation any allowance for depletion.

Any businessman engaged in iron mining is compelled to take depletion into account if he expects to stay in business by replacing exhausting mines with new discoveries or developments. Mr. Groschel has deliberately ignored this business fact in making his computations. If a mining company has not taken depletion into account in analyzing its receipts and expenditures, it is going to be out of business when its first mine is exhausted. Any business is entitled to have its capital returned, and in the case of mining, the ore in the ground is that capital. In fact, it is a minimum essential if the enterprise is to be in a position to stay in business as its mineral deposits become exhausted.

#### Oliver Mines Example

The primary elements of invested capital of course are acquisition costs and carrying charges. Take, for instance, five of the largest mines which were



operating in 1952 and 1953, the years covered by Mr. Groschel's study, which just within the previous ten years had been put into operation. Each of the five produced more than 1,500,000 tons of ore in the year 1953; together they produced 14,300,000 tons, or more than a third of the total production of the Oliver in that year. These properties are the Mountain Iron, Rouchleau, Auburn, Gilbert and Monroe. All of these properties had been held as idle reserves for long periods of time, the shortest period being thirty years in the case of one property, the longest being fifty years in the case of another. The properties were acquired by purchase for large sums of money. Mr. Groschel admits that, under any proper theory of accounting, the company would be entitled to recover that money, and interest upon it, from the time it was held as an idle reserve. In addition during that idle period the company paid ad valorem taxes each year on these properties. The majority of these dollars were paid out in the hard money era.

Disregarding any other carrying charges, disregarding research and exploration costs which should be charged against the properties, there is over \$200,000,000 that would have to be recovered from these five properties before anyone could talk of net income. If the reduced value of the dollar caused by inflation were considered, the amount to be recovered would be three to four times as much. The total tonnage of ore in the properties at the time of acquisition - based upon total shipments from the properties, plus the present estimated reserves - was 170,000,000 tons. The Oliver would, therefore, be entitled to a depletion allowance - merely to recover that portion of investment in these properties above referred to - of \$1.20 a ton, disregarding any effect of inflation, or the higher cost of providing ore bodies to replace these ore bodies when they are exhausted. This figure should be at least three to four times larger to keep our ore production on a continuing basis if inflation is taken into account.

We submit that when this Commission in its report, shown on page 200 of its report to the legislature, allowed percentage depletion amounting to an average of \$.81 a ton, in estimating profit, it was following a reasonable principle. We repeat, the Federal depletion allowance of 15% of gross value, not exceeding 50% of net income, is not a gift; it represents an item that must be taken into account before one talks of profits.

If depletion had been taken into account, as it should have been, in the memorandum presented to the Commission, then the effective taxes on the mining industry would be 60.7%. This compares with Mr. Groschel's assertion of 43.5% for the mining industry and 53.5% for other business corporations as selected by him. Therefore, if the computation had been properly done, including a depletion allowance, the effective combined Federal and State tax on the iron mining industry in Minnesota would be nearly 50% more than the tax computed by him. Therefore I would like to repeat that the effective combined rate of the Federal income tax and State occupation and royalty taxes on the iron mining industry in Minnesota is not 43.5% but is actually in excess of 60%.

#### Oliver Profits

An attempt was made in the memorandum under consideration to reconstruct the profits of the Oliver Iron Mining Division for 1953 with an indicated profit of approximately \$90,000,000 for the Oliver Division and it was claimed that it represented 40% for the total net income after taxes of the United States Steel Corporation. Mr. Groschel has stated before this Committee that his computations have for their basis the occupation tax returns along with some broad estimates based on his own assumptions.

It should be obvious, we believe, that the occupation tax on mining is not a tax on income but is a tax on value calculated according to a statutory

formula and these returns cannot be used as a reliable indicator of the net income for the iron ore industry or a specific iron mining operator.

This is<sup>a</sup>/very significant difference because, you see, the occupation tax is a percentage of the gross value of the ore at the mouth of the mine. This is very different from an income tax which is based upon the net income from operations.

The Minnesota income tax at 6.3% applied to all the income of the United States Steel Corporation everywhere from all of its operations including coal mines, limestone quarries, iron mines, steel mills, fabricating plants, bridge and building construction, railroads and steamship lines, cement plants and other related activities for the year 1953, would produce \$15,300,000 in taxes. This is \$6,000,000 less than the State received in 1953 from occupation and royalty taxes from the Oliver Iron Mining Division alone. If the Minnesota income tax, by some stretch of the legal imagination, could be applied to the net income of the entire United States Steel Corporation, it would have to be raised from 6.3% to 9% to yield as much in taxes as the Oliver Iron Mining Division alone paid in occupation and royalty taxes in 1953.

It is alleged that our Oliver Iron Mining Division contributed 40% of the profits of the United States Steel Corporation in 1953. This is not true. The fact is, however, that of all State and local taxes paid by the United States Steel Corporation in 1953, 40% were paid by the Oliver Iron Mining Division to the State of Minnesota alone. Specifically, in 1953 the United States Steel Corporation paid \$89,000,000 in State and local taxes on all of its property and all of its operations everywhere in the United States, which included all of the property and operations I have described. Of this total amount of \$89,000,000, \$35,795,000 was paid to the State of Minnesota and its local governmental subdivisions in

occupation, royalty and ad valorem taxes by the Oliver Iron Mining Division.

This disproportionate payment to the State of Minnesota is the result of an occupation tax on iron mining which your Commission found (Table 13F, page 199) to be three and one-half times greater than the income tax rate on other Minnesota business: Furthermore, the standard of valuing iron ore for ad valorem property taxes is from 200 to 1500% higher than the standard of valuing other property in our own taxing districts.

It has been claimed that our operations in Minnesota are removing iron ore; however, we are at the same time replacing these resources. One has only to visit the Minnesota ranges to discover the vast values which the industry has at the same time created through conservative mining practices, research, and the investment in plants and tools which has added many millions of tons of iron ore, including taconite and other low grade material, to the resources of this State. The value of natural resources to Minnesota is in the healthy communities and widespread chain of employment they support.

While we are depleting some resources, we are at the same time replacing these resources by development of low grade materials in an effort to continue a large and strong industry in Minnesota indefinitely. Our motive is not altogether altruistic because we are just as anxious to stay in Minnesota for generations to come as the State is desirous of having us do.

#### Ore Reserves

Criticism is also made in the memorandum submitted to this Commission in support of higher iron ore taxes, that there has been a deliberate underestimation of iron ore reserves. I have had the privilege to testify in considerable detail on this subject before this Commission in 1951, and your findings are set forth on pages 111 to 114 in your Report of 1955. Without reviewing in detail

the method of estimation employed by the Tax Department, you will remember that the Industry submits its estimates to the University School of Mines which checks these estimates.

During the past thirty years, because of new techniques in mining and improved beneficiation processes and development in the course of mining, substantial tonnages have been added to the reserves that were not known or commercially minable at the beginning or during that period. Even today there are materials that have no market value and consequently ought not to be on the tax rolls but, as our machinery and mining methods and beneficiation techniques improve, the time may come when they can be processed economically, at which time they will serve to expand our reserves and increase our taxable valuation. The fact that the price has increased from \$4.45 per ton in 1944 to \$10.10 per ton for Standard Mesabi Range Non-Bessemer ore containing 51.50% natural iron at the present time has also contributed to shifting certain materials from the submarginal or marginal category to ore reserves. Concurrently, of course, as materials move from the marginal category to the commercial category, they are put on the tax rolls. Hopefully, additional ores will be found and new developments will tend to increase our reserves as time goes on.

Speaking for the Oliver, I can say categorically that we have no hidden ore reserves. I don't believe that there is any mining district anywhere in the world that has been so thoroughly explored by drilling as the Mesabi Range in Minnesota. All drilling results are made available to the taxing authorities.

Neither, on the other hand, do I mean to suggest that no additional ore will be added to the reserves. Technological advances will undoubtedly add millions of tons to the reserves in the future as they have in the past. Take, for example, the introduction of the heavy duty truck on the iron ranges

which made it possible to mine many tons of iron ore that would not be considered reserves even today if the truck hadn't been adapted to these operations. The development of a truck rugged enough to stand the service in iron mining was one of long evolution. Other developments that have contributed very substantially to the enlargement of our minable reserves are the conveyor belt, the bulldozer and in beneficiation or processing, the invention of and the application to iron ore concentration of the heavy media process and more lately the invention of the cyclone process, have also added substantially to the minable reserves. Other processes are under study in the laboratory, and the flotation process, if it can be adapted by our ingenuity to the iron mining industry, may have a further substantial effect at some future time. There are no doubt other processes and machines not yet invented which, when they can be successfully applied to our mining business, will also add to our future reserves. In this connection I would also like to say that it wasn't many years ago that fifty feet of stripping on an open pit mine was considered an insurmountable obstacle to its successful development. Whereas today, by virtue of the advance in our equipment and methods, it is not uncommon to see mines where stripping of 200 feet and even more has been removed in the operation of a mine. Hopefully for our business and for the State, these technological advances will continue.

A question has been raised concerning the reserves at the Pioneer Mine at Ely and the Canton Mine near Biwabik. I should like to deal with those two mines specifically at this time.

### Pioneer Mine

The Pioneer Mine is one of a group of five mines situated in the so-called Ely Trough, which is a belt of iron formation enclosed in walls of greenstone with maximum dimensions of 1-3/4 miles in length, 1/4 mile wide, and something in excess of 1500 feet in depth. From west to east, these mines are the Chandler, Pioneer, Zenith, Sibley and Savoy. All except the Pioneer and Zenith have been exhausted. The orebodies represent enriched portions of the iron formation and lie, for the most part, in the lower portion of the trough but occasionally the ore extends up the sidewalls along the greenstone-iron formation contact.

The Pioneer Mine is confined to 80 acres. It was opened in 1889 but very little ore was produced until 1898 when the Oliver Iron Mining Company acquired control of it. Exploration of this mine was confined to the West Forty until about 1912 at which time it had been mined down to the 11th and 12th levels. In the period from 1912 to 1916 a drift was driven in the south orebody on the 12th level all the way to the east boundary of the property. This orebody was ultimately followed to about 200' from the surface. About 1920 the large North orebody was discovered at the 12th level elevation also, but the bulk of the ore in this orebody was below the 12th level. By 1930 the lateral limits of all of the orebodies had been well defined as far down as the 12th level and most of the ore had been mined down close to that point.

The vertical interval in which mine openings will have been made at any one time is not likely to exceed 200 feet. For example, at the present time the main haulage level is the 16th, below which no openings or drill holes in ore exist, while all of the ore more than 180' above this elevation has been mined out. There is, of course, little room for argument in estimating the amount of

developed ore or ore that is known by virtue of mine openings because the limits are fairly accurately known. Estimation of the ore below the lowest level, or 16th in the case of the Pioneer Mine, must necessarily be based on geological inference and engineering assumptions. As a practical matter, the area of the ore known on the lowest level is assumed to go down 100 feet and the tonnage of ore computed in that volume is calculated for taxation purposes. While this ore falls into the probable classification from an engineering point of view, it is nevertheless taxed as though it were proved ore.

The question has been asked as to why development work is apparently deferred. In other words, why don't we go to the very bottom and explore the ultimate limits of the orebody as fast as possible? The answer to that question is very simple. Drilling and development of ore is very expensive. At the present time the developed reserves are sufficient for an operating life of at least ten years. This is sufficient for planning normal operations. Openings such as drifts or crosscuts in this orebody are subject to heavy maintenance costs because of timber decay and because of the weight of the overlying ground. Consequently it would be very expensive and a waste of money to develop a level prematurely. Furthermore, the economic uncertainties of the future, which include the demand for the ore and the future cost of mining, tend to limit the amount of ore that should be developed for normal operations. If, on the other hand, it were necessary to undertake a very large capital investment such as a new shaft or other expensive facility, it might then be necessary to know for certain that there was enough ore in the orebody to justify this capital expenditure.

If the Pioneer Mine were valued on the basis of accepted procedures and standards, instead of an arbitrary class rate basis, the assessed valuation would be approximately one-half of its present valuation. The ad valorem taxes on this property amounted to \$1.10 per ton of ore shipped in 1954.



### Canton Mine

I have with me here today a model of the Canton Mine which shows the drilling that has been done on the property, the orebodies as we estimated them from the drilling records which were submitted to the Minnesota Department of Taxation. The question has been raised, "Why did the ore reserves increase from 2,700,000 tons on May 1, 1948 to 6,811,000 tons on May 1, 1949?"

The Canton Mine was operated by the Minnesota Iron Company as an underground mine from 1893 to 1899. The property was inactive from 1899 to 1947, during which period many economic factors changed. Stripping operations were started by Oliver in 1947. From 1942 to 1947 approximately 360,000 tons of ore were removed by the Biwabik Mining Company from along the east line of the Canton to make available ore in their Biwabik Mine.

The ore reserve estimate of March 1, 1918 was prepared by the Tax Commission and based upon ore indicated by early underground operations in both the Canton and the Biwabik Mine immediately east of the Canton. In 1947 we put down a series of churn drill holes (16069 - 16084) to confirm the ore carried in the 1918 estimate and to acquire information for formulating mining plans.

As we proceeded with our stripping operations in 1947 and the first part of 1948, it became obvious there might be a possible connection to the Higgins orebody located south and west of the Canton. Up until these stripping operations revealed this possibility, hole No. 16084 showed only ten feet of ore, so it was considered a cut-off on the basis of the economic conditions at that time. With this additional information available, we went back and deepened hole 16084 from 120 to 200 feet and ore was found below 130 feet. Naturally with that additional knowledge, plus the information made available by mining in the area, we started then a comprehensive drilling program in 1948 in an endeavor to outline the full extent of the orebody. If this drilling had been conducted

earlier, it would not have added any material tonnage to the tax rolls since, because of the high stripping cost and other economic conditions prevailing at the time, the ore was not commercially minable. Due to the 1948 drilling, together with the new economic conditions mainly represented by the increase in the price of iron ore and improved mining techniques, a new estimate was prepared with the result that 6,811,000 tons were estimated on May 1, 1949.

From May 1, 1949 to exhaustion of the reserve in 1954, 6,148,962 tons were shipped from the property, indicating that the May 1, 1949 assessment was excessive by 662,038 tons. Mining operations revealed rock "horses" in areas assumed to be ore from the 1948 drilling. At the exhaustion of the reserve in 1954 we had paid taxes, during the period 1949-1954, on nonexistent reserves amounting to nearly \$50,000.

#### Exploration by State

Mr. Groschel suggests in his memorandum that there is need for authority to make additional independent drillings, presumably by and at the expense of the State. This proposal is apparently made for the specific purpose of increasing iron ore reserves for taxation purposes. Such a program, in my opinion, would be ineffective and would largely be a waste of public funds. Aside from the imprudence of such a program, there is the obstacle of illegal entry and drilling on the lands of private owners with the object in mind to disclose ore for taxation purposes.

Contrast this proposal with the State of Michigan where any ore disclosed by exploration is exempted from taxation for periods of up to ten years.

#### Hoskold Formula

Mr. Groschel, in his memorandum, raises the question as to the propriety of the Hoskold Formula and the Range Life theory of valuation. This

question, of course, has been settled in the courts and is in general use in evaluating properties for taxation purposes as well as for the purpose of sale or commercial exchange throughout the world.

### Competition

I would like to conclude my statement before this Commission with a brief resume on competition.

Certain broad assumptions have been made in the memorandum that was submitted to you. I feel that Mr. Groschel's cost comparison between Venezuela and Minnesota ore is not significant. I am sure that those of you who visited Venezuela are cognizant of the fact that the ore lies on top of a mountain and the ease with which it can be mined I am sure is self-evident to you. Furthermore, a price comparison alone would not be conclusive in showing whether or not we have competition from foreign sources. In addition, iron ores are coming from many other sources than Venezuela.

The best measure that we have of the strength of competition from foreign iron ores is the large tonnage of foreign ores being delivered to the steel mills in the United States. We have prepared a chart which shows the total imports of iron ore into the United States from 1900 through 1954 and on the basis of information from the United States Bureau of Mines, we have estimated the imports for 1955. I think the best evidence of competition is the rapidly ascending curve from about one million tons in 1945 to an estimated twenty-one and one-half million tons in 1955. At this moment it appears certain that 1955 will be the best year in history so far as steel production is concerned in the United States, yet as of October 17th, the shipments from the Lake Superior District are 11,286,000 tons less than they were at the same date in 1953, a peak production year. I think it is important to point out that the

quality of these foreign ores is superior to the ores now being shipped from Minnesota. Therefore one of the most important problems that faces the Industry in Minnesota, in order to remain competitive, is that it is now necessary to beneficiate more natural ores so they can compete qualitywise. The term "high grade ore", applied to many of our direct shipping ores, is really a misnomer. To effect this beneficiation, we will require huge investments in additional beneficiation facilities at the mines or at the furnaces. While we have ores coming into the United States from foreign sources in direct competition with us, Minnesota is also competing for the capital investment to be made in Minnesota so that its product can be as attractive to the steel makers as are the ores from Labrador and Venezuela and elsewhere.

#### Conclusion

A favorable tax climate is necessary to attract the capital investment to provide the facilities. Ten to twenty years ago it might have been said there was a limited supply of iron ore and Minnesota was in a dominating position. In the past ten years there has been a change. New sources of ore have been developed to the extent that it can be said there is now an ample supply of iron ore and the steel makers can be selective; consequently the ore that can be produced at the cheapest cost and supply the necessary iron units will be in greatest demand.

What is the position of Minnesota ores in the competitive iron ore market?

1. The quality of Minnesota's ores has materially declined. In early years of the Industry, Lake Superior ores from the Old Ranges carried in excess of 60% natural iron. The average iron content has dropped gradually from 55% in 1892 to 51.5% in 1911.

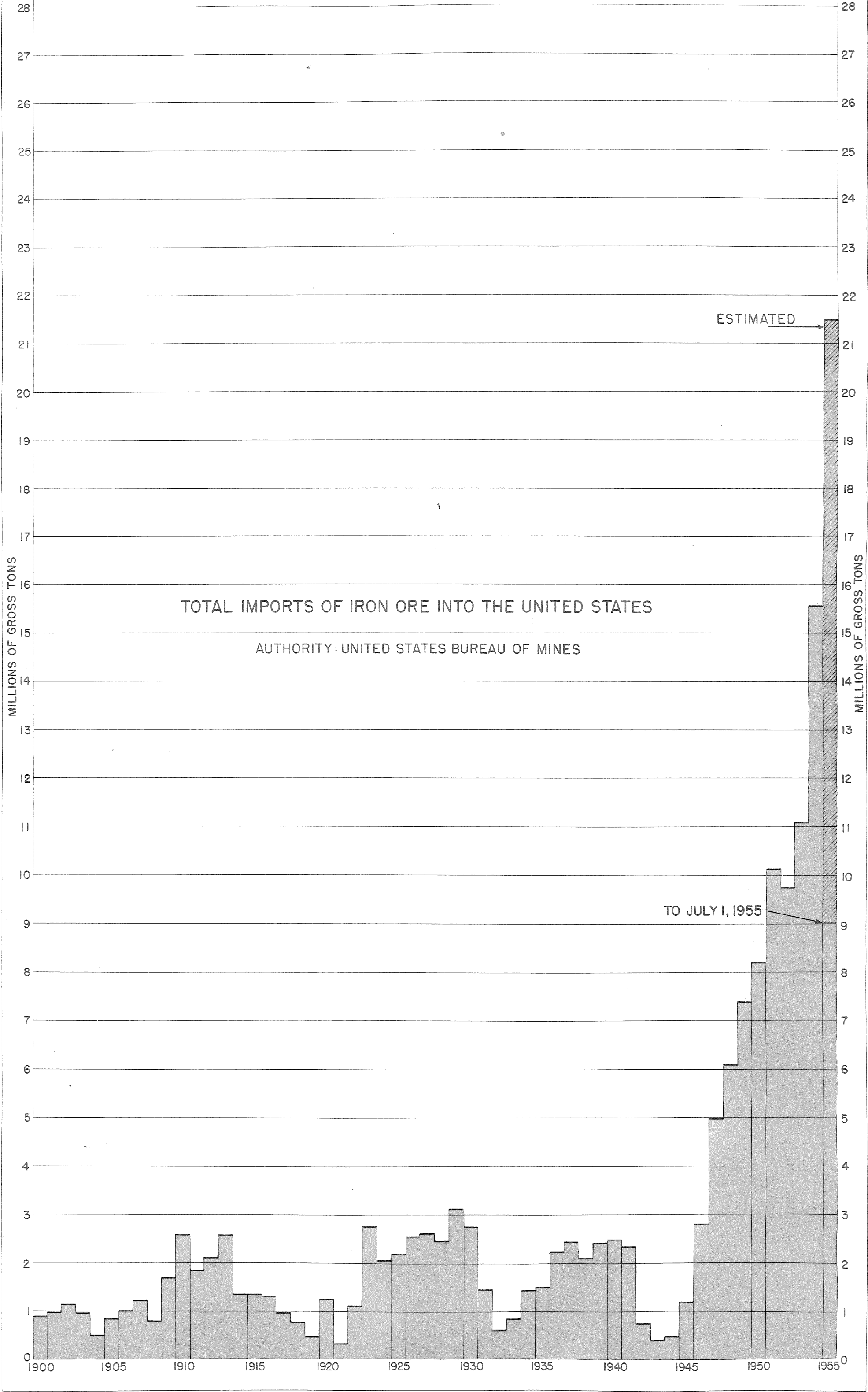
It reached 50.4% in 1949 and is now about 50% natural even after about 1/3 of the shipments have been concentrated. This decline in quality has occurred in spite of consistent efforts and large capital investments by the ore and steel industry to improve the ore quality by "beneficiation". The cost to mine and transport to market is the same for the low quality ores as it is for the higher quality ore, a fact which is often overlooked. When comparisons are made as to the tax costs per ton, it seems that the quality of the product should also be considered.

2. In mining, as in all other industry, the mining labor and equipment costs have greatly increased. Coupled with the mining of a lower grade product, the resulting unfavorable effect is evident.
3. Mining conditions causing increased ore costs have also developed. The mining of thinner ore veins requiring the removal of greater quantities of rock and dirt stripping to uncover the orebodies has added materially to these ore costs.
4. The overhead charges on the ores shipped, of which taxes are a predominant one, have also increased the costs of these ores, thereby making it more difficult to meet the competition of ores from other more favorable areas.

According to this Commission's own findings, no other State taxes any natural resource as heavily as Minnesota taxes iron ore.

A more favorable tax climate is absolutely essential to attract investment of capital to provide the necessary facilities to produce iron ores which

can compete. If you arrest or divert this investment, no new jobs are created and the existing jobs are imperiled as existing properties are exhausted and present facilities are worn out and not replaced.

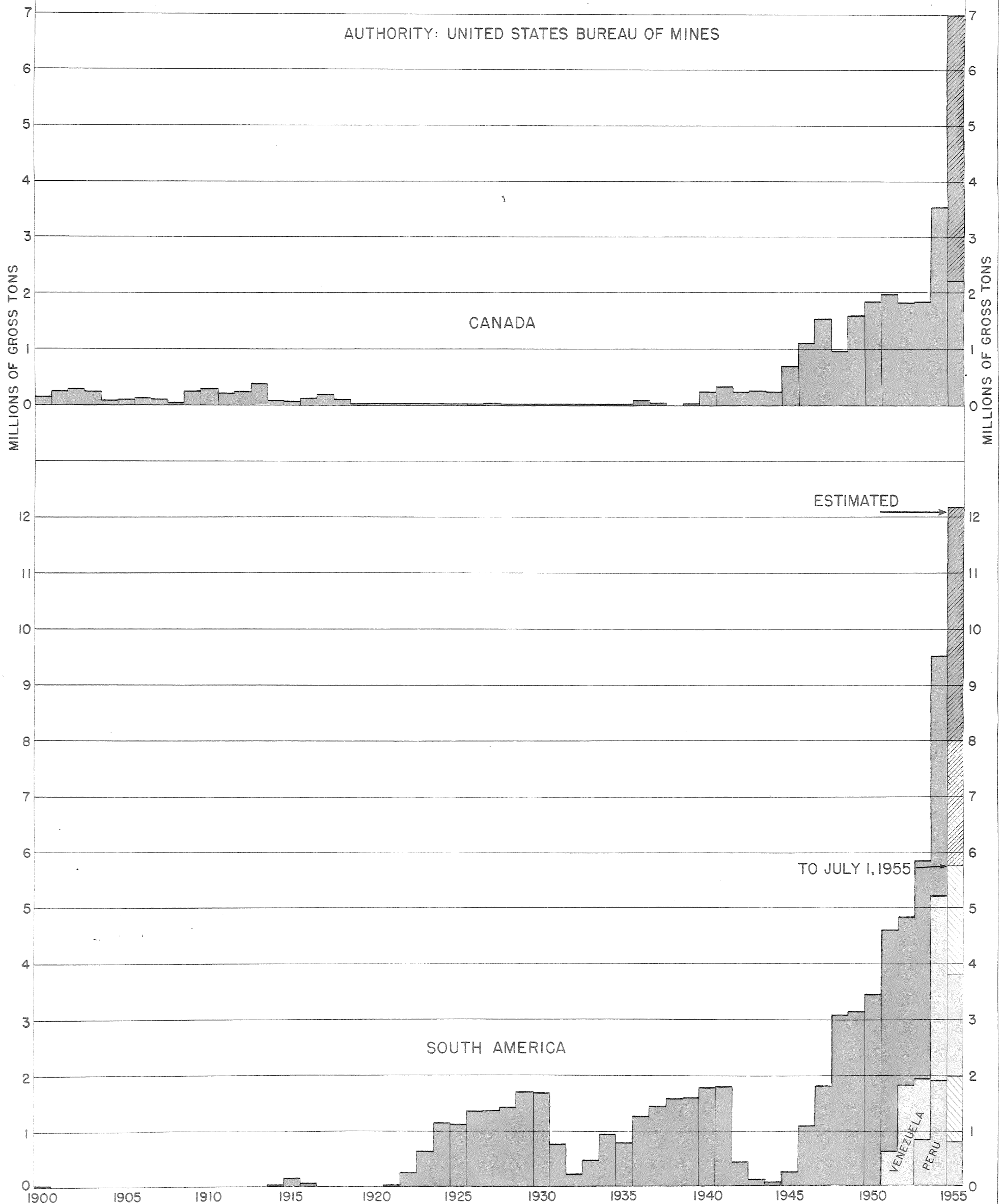






# IMPORTS OF IRON ORE INTO THE UNITED STATES

AUTHORITY: UNITED STATES BUREAU OF MINES



LEGISLATIVE COMMISSION ON TAXATION OF IRON ORE

COMMISSION MEETING - MAY 24, 1956

A G E N D A

1. Report by H.P. Goodin for Subcommittee on Impact of National Defense  
(Copies available)
2. Letter from O.A. Blanchard - (2 weeks vacation pay) ~~\_\_\_\_\_~~
3. Article appearing in St. Paul Paper May 15, 1956 - copies available.
4. Proposed Inspection tours:
  - (1) Jasper operations in Michigan - letter.
  - (2) Steep Rock - letter *July 22 -*
  - (3) Labrador - letter *July*
  - (4) Other suggestions. *\_\_\_\_\_*
5. Discussion of schedule for Commission during remainder of Interim and reporting to the 1957 Legislature.
6. Subcommittee Meetings - list of subcommittees and membership attached.

# SYNOPSIS

1. QUALITY AND REVENUE OF MINNESOTA IRON ORE RESERVES AND COMPETITIVE RESERVES ELSEWHERE:

Cipa	Novak
Lindquist	Wright
Goodin	Welch

2. COST OF MINING AND DEVELOPING MINNESOTA ORES AND COMPETITIVE ORES IN OTHER PARTS OF THE WORLD:

Keller	Dunbury
Miller	LaBrosse
Peterson	Johnson, A.I.

3. ADVISABILITY OF USING LAKE ERIE PRICE AS A TAX BASE; AND OTHER PERTINENT TAX DATA:

Miller	Johnson, A.I.
Johnson, C.E.	Bergerud
Vakelich	Lindquist

4. IMPACT OF NATIONAL DEFENSE CONSIDERATIONS:

Dunn	Johnson, C.E.
Goodin	Keller

5. ST. LAWRENCE SEAWAY:

Peterson	Dunn
Wright	LaBrosse

6. LABOR CREDITS; HIGH COST ORES:

Peterson	Dunbury
Wright	Johnson, A.I.

7. DRILLING PERMITS AND TAXES ON NEWLY DISCOVERED ORE:

Vakelich	Bergerud
Keller	Goodin

8. TACONITE TAX, ETC.

Wright	Cipa
Novak	Dunn
Welch	LaBrosse

INTERIM COMMISSION ON TAXATION OF IRON ORE  
Room 238, State Capitol, St. Paul, Minn.

MINUTES - FIFTH MEETING  
Thursday - May 24, 1956

The Interim Commission on Taxation of Iron Ore met at 9:30 A.M. on Thursday, May 24, 1956, in Room 238, State Capitol and was called to order by the Chairman.

Roll call showed the following members present:

C.E. Johnson  
J.R. Keller  
Archie H. Miller  
B.G. Novak  
Elmer Peterson  
Thomas P. Welch  
Donald O. Wright

Alf L. Bergerud  
Roy Dunn  
H. P. Goodin  
Alfred I. Johnson  
Francis LaBrosse

Members not present:

Thomas D. Vukelich  
Lloyd Duxbury

Fred Cina  
Leonard Lindquist

Senator Welch referred the members to the Agenda, a copy of which is hereto attached. He suggested that No. 1 on the Agenda be passed until Mr. Goodin returned to the room.

The next business on the agenda, No. 2, a letter from Mr. O.A. Blanchard, former director of this Commission, was read by the Chairman. The letter read as follows:

"In 1954, the Iron Ore Commission granted me a two weeks vacation with pay, which, because of Committee meetings, etc., I was unable to take advantage of.

"I do not want to make an issue of the matter, but if the Commission sees fit to pay me for the vacation, I will be glad to accept it.

"I have discovered that you can't absent yourself from a law office for about four years without serious impairment to your business.

"It is with a great deal of reluctance that this letter is written, but one of the Commission Members suggested that I do so.

With kindest personal regards to you and all members of the Commission, I am, Sincerely yours, O.A. Blanchard."

After a discussion on the matter, the following motion was adopted:

Mr. Keller moved:

That the matter of the claim of O.A. Blanchard be submitted to the claims commission by O.A. Blanchard because this Commission feels that the Legislature in making its last reappropriation of funds for this Commission did not at that time have in mind the existence of any obligations of this sort, and that if the matter were passed on by the claims commission then doubt with respect to the validity of the claim and authority of this Commission to pay it now would be removed; and further that Mr. Blanchard be advised of the action of this Commission."

The motion was seconded and passed unanimously.

The Chairman stated that Mr. Goodin had come in and he was asked to make the report for the Subcommittee on Impact of National Defense based on a meeting he and Mr. Keller attended in Washington, D.C. A copy of the report is hereto attached. It was moved that the report be received and file; motion seconded and unanimously adopted.

No. 3 on the Agenda was taken up next. A copy of the article appearing in the St. Paul Dispatch May 15, 1956 is attached hereto. This article represents the first report from the Commissioner of Taxation showing the effect of what was done by the last Legislature with respect to the taxation of iron ore. After a discussion of the article, Mr. Wright made the following motion:

That the Commission formally request the Commissioner of Taxation to present this Commission with detailed information, mine by mine, showing the effect of the Legislative enactments of the 1955 Session changing labor credits; also the surtax law and any elements of price or other circumstances contributing to the increase of occupation tax yield.

The motion was seconded and unanimously adopted.

No. 4 on the Agenda - proposed inspection tours was taken up next. After a discussion on the inspection trip of the Jasper operations in Michigan, it was determined that arrangements be made for such a trip on June 25, 26 & 27 and that the Secretary make proper arrangements for transportation by chartered bus, etc. This was put in the form of a motion by Mr. Novak and it was seconded and unanimously adopted.

Steep Rock and Labrador were both discussed and it was determined that the Secretary see about making arrangements for these inspection tours as follows:

Steep Rock - try to arranged trip during the week of July 22.

Labrador - try to arranged trip after the middle of August -about the 20th

Mr. LaBrosse mentioned he thought a trip to Sparrows Point should be made in conjunction with the trip to Labrador. He said that several of the Commission members had expressed a desire to see the operation there and that it was important because all the foreign ores from South America and other places were received there.

Mr. Wright suggested that we obtain some up-to-date information to put in our report as to the disposition of South American ores, the quantity of shipments; where they are going in the United States, etc. There was a discussion with reference to this matter and it was determined that letters should be written to the different companies asking for such information so that our 1955 report could be brought up to date.

Mr. Hastings asked the Chairman if he might say a few words. He stated that the mining companies would like an opportunity to make a presentation at a future meeting after the Commissioner of Taxation had presented the Commission with a mine by mine report.

Mr. Wright made the following motion:

Any members of the Commission who wish to attend the Council of State Governments meeting when it meets in Duluth, be authorized to do so and that their proper expenses be paid by the Commission. The motion was seconded by Mr. Keller and unanimously adopted.

There was a lengthy discussion on both number 5 and 6 on the Agenda but no specific action was taken.

On motion made, seconded and passed, the Commission meeting adjourned to the call of the chair.

SUB-COMMITTEE ON IMPACT OF NATIONAL DEFENSE CONSIDERATIONS

We arrived in Washington Sunday evening, April 22nd, contacted Mr. Blatnik and confirmed appointment with Bureau of Mines with directions as to where to go and whom to see.

Monday morning we met with Mr. Robert Geehan of the Bureau of Mines in the Headquarter Building of the Interior Department. Mr. Geehan seems to be sort of a coordinator and we went over with him the Department's objectives and also their efforts in setting up some arrangements whereby strategic materials may be made available more easily during a period of emergency, - iron ore being on the "must" materials list.

Not too much has been done in the way of setting up programs on the use of these materials pending a survey being made by the Office of Defense Mobilization which will be mentioned a little later in this report. Mr. Geehan suggested that Mr. McGann, one of their economists, be asked to take part in our discussions. Mr. McGann had been quite active in making reports<sup>on</sup> available metals and what their effect may be on the National economy in case of emergency where manpower may be scarce.

Mr. McGann stated that the Federal Government hesitated to interfere with state activities during a period of peace and that they were trying to develop some better relations with the people in the business of producing and utilizing natural resources as well as with the states from which such resources are produced, in an effort to have the states reappraise their positions and their laws regarding such materials as would encourage the companies in this business to use more manpower during the time that such manpower is available and use materials that require beneficiation and agglomeration, - thus making full use of the manpower available and keep in reserve such materials as would require a minimum of manpower for emergencies.

To do this would require a revamping and reappraisal of at least the property taxes on iron ore reserves and the occupation tax based on the value of the ores produced in relation to the cost of producing such ores. It appears that the Federal Government would lend every effort to make it possible for the states to develop such a program and we believe the Interior Department would welcome direct requests from this Commission for help and information in connection with this project. The information they have and to be developed presently will be made available to us by a request from the Commission and we suggest that such a request be made of the Interior Department and the Office of Defense Mobilization.

Mr. H. P. Iverson, Branch Chief of the Division of Ferris Metals, was also present and his reaction was similar to Mr. Geehan and Mr. McGann. He too suggested that a communication be sent directly to the Bureau of Mines requesting information as to what is being done toward the conservation of strategic non-recurring materials such as iron ore and what their recommendation is relative to retaining a supply of high grade iron ore reserve that would be available to use should it be indicated that such reserve is necessary. Mr. Iverson had to leave and it seemed to be the opinion of all three of the gentlemen that a continual study be made of the type of resources that may be in demand during an emergency and that this Commission request the Bureau of Mines to send materials that may be available to us from time to time on this subject.

The Michigan law calling for the suspension of taxes on ores newly discovered was discussed at length and suggestions were made that this would be a matter best left to the individual states. It was also suggested that the whole taxing policies regarding iron ore reserves, including occupation or severance taxes, be gone over and possibly recommendations could be made for support from the Federal Government if it is indicated such support could be beneficial. It was indicated that the Bureau would welcome an opportunity to be of such help as they could.

We spent some time at the House Office Building with Mr. Blatnik, Mr. Wier, Mr. Marshal, Mr. Andresen and Mr. Judd. We also visited with Senators Thye and Humphrey, attending a meeting on strategy at the Senate Office Building where the procedure of presentation of evidence to the Board of Army Engineers was discussed. There were about fifty people at this meeting and they were all quite enthusiastic.

The meeting with the Army Engineers was held Tuesday morning and there was a fairly large delegation present. Senator Thye had the arrangements changed so the opposition was heard first and then the proponents. The opposition took a good three hours to present their evidence and there were only about three persons who participated although there were several more who did not speak. There was a recess during which time the Minneapolis delegation had lunch at the Washington Hotel to discuss procedures and were all prepared at 2:00 P.M. when the meeting reconvened.

Governor Freeman led off the discussion and then Mayor Hoyer brought in his bit after which the meeting was turned over to Doug Timmerman and Hugo Erickson who very ably presented the case for the proponents. Their presentation lasted through until 5:00 P.M. after which about one hour was consumed in the joint rebuttal of both groups. The Army Engineers were very patient and stayed through to the end.

Senators Thye and Humphrey both presented very definite arguments in favor of the Upper Harbor, stressing the importance to Minneapolis of this service and the dockage space in the City that would be available, in addition to the available sites that would be open to industries who would benefit in the cheaper transportation provided by the upper harbor.

Mr. Blatnik, Mr. Wier, Jr. Judd and representatives from Mr. Marshal's office, as well as others who are interested in this project, indicated that there was more support than we reasonably had a right to expect and they all stated that this would be of much value to the State of Minnesota.

We visited Mr. Huff of the Office of Defense Mobilization at the new Gen. Accountance Building. Mr. Huff is an engineer and he is making a study of strategic materials from the angle of National Defense. Some time was spent going over the history of the iron industry and the development of the Minnesota resources. It would seem that Mr. Huff would be one ~~man~~ from whom we could get information as to what the Office of Defense Mobilization is doing to make materials available in emergencies. Mr. Curtis of the O.D.M. is in charge of the office but Mr. Huff as the engineer is the person with whom we discussed our problems. He would be in a better position to advise us of procedures in securing whatever we may want from the Federal Government.

Mr. Huff suggested that a re-survey be made of all the factors that enter into the production of iron ore with emphasis on the tax situation, - not with the idea of lowering the income on the ore but to readjust it so that certain changes may take place which would encourage the production of an increasingly larger percentage of beneficiated ores and taconite concentrates, with some encouragement to keep the direct shipping ores as a reserve of strategic materials.



Mr. Huff was inclined to believe that the Office of Defense Mobilization would appreciate an opportunity to work with the Commission to achieve this goal. He suggested it would be advisable to keep in touch with the O.D.M. to see what is developing in the retention of easily accessible reserves that may be of importance in the event of a National emergency.

Mr. Ivers of the Office of Defense Mobilization is presently making an extended survey of ~~mineral~~ material necessary to National Defense. This would include iron ore and it was suggested that a request be made of O.D.M. for a copy of this report or that part of the report that applies to iron ore for use by this Commission in considering its report on the iron ore possibilities in the future.

It appears that much is being done that we hear very little about in the development of methods of preserving materials necessary to National defense or emergencies and that more will continue to be done as reports come in from the various sources.

There is a possibility of a steel mill being erected on the Mississippi River near Clinton, Iowa. Not too much development work has been done on this but the possibility of this location has more attraction for producers than has been evaluated. Coal and lime are readily available. Minneapolis as the ore shipping port is closer to the Western ore pockets than Duluth, - the haul down the river is fairly short and the market possibilities are great as it would be the center of the Nation.

In emergencies this transportation system could carry ore into the Chicago-Gary area at costs comparable to the Duluth Lake Superior-Michigan haul and with modern methods of handling ores, Minneapolis could be an outlet for some million or so tons of ore annually. So, the delivering of ores could be made by water over other than the Superior waterways.

All in all the information received and contained in this report should alert the Commission on all the possibilities of the various angles that we have tried to cover. The relations to the ore shipments based on the manpower available. The facilities to make merchantable ores that would be in demand. The encouragement to retain some of the existing reserves of high grade ores for National emergencies. The availability of alternate routes for ore shipments and the many other factors that make up the impact of the Minnesota ores on National Defense.

Respectfully submitted,

H.P. Goodin  
J.R. Keller

SUBCOMMITTEE ON IMPACT OF  
NATIONAL DEFENSE CONSIDERATIONS

May, 1956.

INTERIM COMMISSION ON TAXATION OF IRON ORE  
Room 238, State Capitol, St. Paul, Minn.

MINUTES - SIXTH MEETING  
Thursday- August 30, 1956

The Interim Commission on Taxation of Iron Ore met at 10:00 A.M. on Thursday, August 30, 1956, in Room 238, State Capitol and was called to order by the Chairman.

Roll Call showed the following members present:

C. E. Johnson  
J. R. Keller  
Archie H. Miller  
B. G. Novak  
Elmer Peterson  
Thomas P. Welch  
Donald O. Wright

Fred A. Cina  
Roy Dunn  
Lloyd Duxbury  
H. P. Goodin  
Alfred I. Johnson  
Francis LaBrosse

Members not present:

Thomas D. Vukelich

Alf L. Bergerud  
Leonard E. Lindquist

Senator Welch referred the members to the Agenda, a copy of which is attached to the original of these Minutes. Correspondence received was read, as follows:

1. A letter from Leonard C. Yancey, Vice President & Manager of Iron Mines Company of Venezuela, in reply to one written by this Commission. Mr. Yancey suggested that this Commission request the Bureau of Mines put it on their mailing list for Mineral Industry Survey, Iron Ore. The Chairman asked the Secretary to write to the Bureau of Mines and make this request. It was suggested that the names and addresses of each Commission be stated in the letter so that each would receive a copy of the material direct.

2. Next was a letter from O. C. Laird of Orinoco Mining Company in answer to one written by the Commission in which he stated that the data requested data was not available to him and he had forwarded the letter to the Raw Materials Office of U.S. Steel in Pittsburgh for answering.

3. Next was a letter from Mr. N. Edmonstone, Vice-President & Secretary-Treasurer of Steep Rock Iron Mines Limited enclosing a brief memorandum of taxation, a copy of which was given to each Commission member, the original of which is attached to the original copy of these Minutes.

There was a discussion of the inspection trip to Labrador set for September 17, and the members were asked to let Miss Wylie ~~know~~ know whether each could go and check on reservations and so forth.

There was a discussion on the possibility of Mr. Frank Downing assisting the Commission in writing its report. Mr. Wright moved that the Executive Committee be authorized to make arrangements with Mr. Downing for his employment to assist in writing the report to the 1957 Legislature. Mr. Miller seconded the motion and the motion prevailed.

At this time, Commissioner Spaeth and his staff were heard and the following is the recorded testimony given. (The material supplied and referred to in this testimony is ~~2222xxx~~ attached to the original copy of these Minutes: 1. Detailed statement showing, by Companies and Mines, the effect of changes in the Labor Credit Law enacted by the 1955 Session of the Minnesota Legislature. 2. Comparative data, 1954 and 1955 Occupation Tax.

Commissioner Spaeth: Mr. Chairman and members of the Commission, the request as made by your Commission of the Commissioner of Taxation to compile certain statistics and information for you bearing on the Labor Credits as was changed by an act of the 1955 Legislature has been made. That work was done in the Department by Mr. Howard McAdams, Chief Mining Engineer, Mr. Ferguson, his assistant engineer and by Mr. Robert Lee, Administrative Assistant. I understand that the original copy was photostatted and the additional copies for the use of your Commission were provided by your Commission, and if agreeable to you, I would like to have Mr. McAdams proceed with the explanation of that compilation that was made for your Commission. Is that agreeable?

Mr. Welch. Yes, thank you Mr. Spaeth.

Mr. McAdams: Mr. Chairman, Members of the Commission. You have asked the Department of Taxation to explain the Labor Credits as it was applied in 1955 and in relation to the 1953 law - what the difference would be. So we prepared this exhibit showing <sup>conditional</sup> ~~additional~~ labor credits for the year 1953 - law provides, the 1955 tonnages and costs and then on the right hand side of the sheet we have shown the Labor Credits as applied to the 1955 tonnages and analysis and to the 1955 law as it was certified. It's not an easy thing to try to explain the workings of this Labor Credits but you are all more or less familiar with Labor Credits, so maybe it will work somewhat easier.

The first column here simply shows the tons produced and the labor costs per ton. That applies to both sections of the report. The labor costs per ton was the labor cost for the entire mine - for the entire tonnage in the mine and it was identical in both years. Now, I divided this thing into what I call "Rule 1" and "Rule 2".

Rule 1, as explained in the note on sheet 4, is the labor credit computed at 10% of the labor cost per ton in excess of 60¢ but not exceeding 78¢ and plus 15% of the labor cost per ton in excess of 78¢ and this rule applies, of course, to underground mines and taconite plants. We didn't put the taconite mines in because it was a no-tax mines but that would apply to underground mines and taconite mines. And, of course, the total credit is initially limited by the 75% of the 11% occupation tax for taconite and underground mines and 60% for other mines, which would be other open pit mines other than taconite. Then these other mines which by processes more elaborate than simply washing, beneficiate more than 40% of the crude ore produced during the year, the total credit is limited to 60%. Also, on these other mines where this Rule 1 does not apply in the entirety, the first hundred thousand tons of production is given that same rule - 10% between 60 and 78 and 50% between - above 78¢.

Mr. Welch. Now, Just a minute, Mr. McAdams, that's providing -

Mr. McAdams (interposing) This is the '53 law. Now, Rule 2, rather, does apply to that hundred thousand tons. Where you do not get the - there are two definite parts of the 1953 law: one gave 10% between the 60 and 78¢ per ton cost of labor and 15% above the 78¢ cost of labor. Then on certain mines such as I have described, where

Mr. McAdams - continued.

that would not apply, then all mines, - all those other mines would get one hundred thousand tons on that particular type of - on that good rule, as I call it, where you get the high \_\_\_\_ credit, plus 10% for any excess in these other mines above 96¢ cost of labor per ton. It's rather involved, but that's the only way you can explain it and I think by reading the notes at the bottom it will explain it quite definitely for anyone to read over.

Mr. McAdams. Now, then, in the year 1955, I still call the Rule 1, only Rule 1 was in effect. The Rule 2, the one hundred thousand tons is out. And on Rule 1 for 1955, Labor Credit is computed at 10% of the labor cost per ton in excess of 70¢ and not exceeding 90¢, plus 15% of the labor cost per ton in excess of 90¢ per ton. This rule applies, of course, to all underground and taconite mines and, of course, the total credit is limited by the 75% for underground and taconite mines and 60% for other mines - all mines individually. Then that gives the method in which the labor credits is figured initially on each mine and the initial limitations. Then there is an overall limitation. There was in the 1953 law a  $7 \frac{3}{10}$ ths per cent of the total gross tax of all mines at, of course, the 11% rate before the Soldier's Bonus applied. In the 1955 law, the limitation was changed to  $6 \frac{2}{10}$ th per cent, eliminating from this limitation all underground mines and taconite mines and eliminating also the tax of the underground mines and taconite mines which composed the gross tax of the 11%. In other words, those two are eliminated completely in effect as to labor credits - were eliminated from the limitation. Working the thing out for you just takes the total results of this whole thing to give you an idea of what really happened and then by going into a little detail, if you wish, on how some of these details are arrived at.

Mr. McAdams. The total labor credit under the - the computation under the 1953 law, you will notice next to the last column of the computation is a total of \$1,954,926.

Mr. Welch. We are not getting that. What are you referring to?

Mr. McAdams. Page 4. \$1,954,926. That was the total labor credit, - no elective credit in it. That is the total labor credit of all the mines applying the

Mr. McAdams - continued.

1953 law. Now, then, that was limited by  $7 \frac{3}{10}\%$  of the total gross tax of 11%. You will notice the note on the right hand side of that table going up and down. The computation of  $7 \frac{3}{10}\%$  limitation set by the 1953 law - pardon me, - The 1955 occupation tax at 11% equals \$26,574,282. So, taking  $7 \frac{3}{10}\%$  of \$26,475,282, we arrive at \$1,932,695.59, just slightly, of course, less than the \$1,954,926. Then to get the ratio, we divided the \$1,932,695 by \$1,954,926 to get a percentage. .9886285%, so that all the labor credits in this column would be multiplied by that percentage to arrive at the proper labor credits. Now, the next column is the total of that  $99 \frac{8}{10}\%$  of the preceding column, plus the elective credits, making \$2,268,762.

Mr. McAdams. On page 3, the elective credits, you will notice there is that under the Oliver - total of the Oliver of \$326,066.

Mr. Welch. We haven't been able to locate that -

Mr. McAdams. Alright. Now, on page 3, on the part devoted to the 1953 calculations, that column - that would be about two-thirds of the way across the whole sheet and about one-third down the sheet is a total of \$787,165 as the total credits allowed the Oliver Iron Mining Division. That is divided up into two parts, the pure labor credits of \$461,089 and the elective credits of \$326,066.

Mr. Cina. The elective credit is the one hundred thousand tons?

Mr. McAdams. The elective credit is the credit allowed where the ore is made into steel and so forth

Mr. Cina. In Minnesota?

Mr. McAdams. In Minnesota, yes.

Mr. Cina. You said the elective credit is the credit allowable on ore processed in Minnesota.

Mr. McAdams. That's right. Then, finally, on sheet 4, on that same column, about two-thirds across the sheet, you will notice a total of \$2,258,762, which is the total credits, both labor credit and elective credit, that would have been allowed had the '53 law been in effect. In the next to the last column of the sheet, there is a

Mr. McAdams - continued.

total at the bottom of \$1,363,282 which is the total labor credits plus elective credits that was allowed under the '55 law. The difference between what would have been allowed under the '53 law and what was allowed under the '55 law was \$906,480 which is the total on the last column and that I believe, was the figure that you wanted to get initially.

Mr. Welch. There is a decrease then under the '55 law?

Mr. McAdams. Yes, a decrease of total credits of \$906,480.

Mr. Welch. Mr. McAdams, I wonder if you would take a column under the caption of some particular company and go across the sheet and explain what the several in the different columns mean.

Mr. McAdams. Well, let's take the very first line on the first page. There are several types of mines and I'll try to pick out the different types and explain what happens. The Bradford Mine, you will notice ~~\$66,629~~ 66,629 tons. The tons produced were 66,629 and the labor costs per ton, .9981. Now then, that total tonnage apparently all came under Rule 1. It had over 40% of it was concentrated by those certain processes enumerated in the law.

Mr. Welch. You are talking about the 1953 law?

Mr. McAdams. This is the '53 law, yes. So, the 10% of the difference between 60 and 78, or zero one eight cents per ton, plus 15% of the amount in excess of 78¢. That would be roughly 22¢. The total of those two figures together came to approximately 5¢ a ton as the labor credit. It would be applied to each ton of ore. Then taking that 5¢ credit per ton, multiplying it by 66,629, equals the credit of \$3,378. Rule 2 does not apply. The total earned credit, way over, was \$3,378. The credit was not limited by either the 60%, in this case was not limited by the individual limitation of 60%, but it would have been limited, of course by the .9886285 that I mentioned before so that the column \$3,378 is multiplied by .9886285 to arrive at \$3,340 as the final credit that would have been allowed the Bradford Mine had the '53 law been in effect.

Mr. McAdams. Now we come to the '55-law. The same tons. Apparently all of that was heavy media. I had to explain this to you - I couldn't put it all on the sheets. That is all by heavy media or processes beyond washing and crushing. So that the whole tonnage of 66,629 was calculated on the basis of 10% of the labor costs above 70¢ a ton and not in excess of 90¢. In other words, that part of it would be 2¢ per ton, credit, plus 15% for the labor cost in excess of 90¢ a ton which then brings it up to .0347. Then multiplying that by the .0347 gives you \$422. It was apparently not limited by the 60% limitation, - that is, - I'll call that the ~~limit~~ individual limitation and it would not, on the next column "Credit limited by 6.2%", it was not, - there was no reduction due to the 6.2% law because the total labor credit was so much under the limitation amount and at the end there is the decrease or increase. The plus is the ~~increase~~ decrease and the parenthesis would be increase, so that would be a decrease of \$2,918 in the labor credits. That's one type of mine.

Mr. McAdams. Now, let's take the Genoa-Sparta Mine about half way down the page. The tonnage is 169,615. The labor costs per ton is \$1.77 approximately. This apparently comes under the classification of other than those tonnages applied to Rule 1. But 100,000 tons will come under Rule 1, so we apply the Rule 1 to the 100,000 tons. That is done in this way. \$1.77 per ton, that would be from 60¢ to 78¢ is again .018¢ per ton plus 15% of the labor costs in excess of 78¢ per ton. That would be pretty close to \$1.00 and then 15% of that. Those two calculations together comes to a total labor credit per ton of .1666. That multiplied by the 100,000 tons gives you a labor credit of \$16,660. Now, then, you will notice there is a calculation under Rule 2. That is figured this way. The remainder of the tonnage - you see, we had 100,000 before and we had a total of 169,615, so the remaining 69,615 tons gets what was explained in the foot notes as Rule 2. That is 10% of the cost of labor above 80¢ correction: 15% of the cost of labor above 80¢ labor cost. That would be in this case ~~subtracting~~ would be approximately 97¢ - \$80¢ from \$1.77, would be 97¢. Oh, I was getting the '51 law. Let me explain this. In the '51 law, we had 50¢, 65¢ and 78¢ - all those



Mr. McAdams - continued.

figures were increased by 1.2% - increased 20%. The 20% of that brought it up to 60¢; the 65 increased to 78 and the 90¢ that I was using here increased to 96. Thanks for calling that to my attention. So that 10% of the cost of labor of \$1.77 in excess of 96¢ which would be approximately 81¢ - there it is, right there, 81¢ times 10% gives you the .0811. Well, that credit per ton multiplied by 69,615 gives us the \$5,646. That was limited, as you will notice, by the 60%. You will have to take my word that that calculation is okay. It would be limited by - oh no, the total credit earned in the next column is the total of the 16,660 plus 5,646 or 22,306 dollars as the earned credit. The limitation of 60% brought it down to \$17,277 and the overall limitation brought it down to \$17,081 - that is, multiplying \$17,277 by .988 plus. So that would be the amount that would have been allowed on that mine under the 1953 law.

Mr. McAdams. Under the 1955 law as certified, only 31,540 tons of the 169,615 tons was concentrated by means of concentration processes beyond washing and crushing so that the 31,540 was applicable only to the 1955 law. So we go through the same process again on that, the 70 and the 90¢ costs, 10% of 20¢, that's 2¢ for the first figure and anything in excess of 90¢, 15% of it. The two together total to 15¢ approximately and that multiplied by the 31,540 gives you \$4,750 as the total labor credit earned. Now, then credit limited by - this one was not limited by the 60%, so it remains the same as the \$4,750 and of course, next to the last column is also \$4,750 because there is no reduction due to the 6.2% limitation, or in this case a decrease overall of labor credit as compared to the '53 labor that would have resulted of \$12,331.

Mr. LaBrosse. That figure of 31,540, what type of process is that?

Mr. McAdams. What we call beyond washing or crushing. That would be heavy media, ~~mix~~ cyclone and it's all listed in the law - there's about six or seven different items that are listed, but anything that would require - drying is in there and sintering and all those various classifications - that is the fundamental thing of the '55 law.

Mr. McAdams. Now, would you want me to take an underground mine? Or does that explain fully - well, that would be the last one. It would be very similar to the column 1 that I had on the Bradford Mine.

Mr. Welch. What one is it Mr. McAdams?

Mr. McAdams. The Pioneer Mine of the Oliver Iron Mining Division on page 3. On Sheet No. 3 of the Oliver Iron Mining Division at the top, the last mine listed is the Pioneer Mine, an underground mine with 855,093 tons of ore produced with a labor cost of \$3.34 approximately. All of that comes under Rule 1 as defined by the law so .4022 in the 2nd column of Rule 1 is the 10% again -

Mr. Welch. Just a moment - we are trying to follow you - Sheet 3, you said?

Mr. McAdams. Yes sir. Pioneer Mine

Mr. Welch. Pioneer Mining Co. at the bottom of the page?

Mr. McAdams. Oh no, pardon me - that's a mining company, this is a mine of the Oliver Iron Mining Division. Pardon me, I didn't notice that Pioneer Mining Co. Well, alright. There's 855,093 tons with a labor cost of approximately \$3.34. Applying Rule 1, that is the .6078, we get a labor credit there of .40¢ per ton - that's taking 10% between 60 and 78 and 15% above 78, and with the \$3.34 labor cost, it raises the labor credit up quite high. Then multiplying the 855,093 tons by 40¢ approximately, gives our \$343,918 as the amount of earned labor credit. We carry that across then to the total - to the column "Total Earned Credit" \$343,918. That is limited by the 75% in individual limitation, or to the figure of \$149,336.

Mr. Cina. Is that 75% of that total -

Mr. McAdams. 75% of the gross tax of the 11%. I haven't shown that on the computation.

Mr. Cina. Oh, I see.

Mr. McAdams. Or, 149,336. And that would have been and that would have been further reduced by that small percentage reduction of .988 that I mentioned before, to \$147,638. That is the amount that would have been allowed under the '53 law. Now we come to the '55 law. 855,093 tons - all of it, of course is underground, so it is all

Mr. McAdams - continued.

under the same - Rule 1, as before. By applying this 855,093 tons to the 70 and 90¢ labor cost limit, we arrive at .38, 38¢ approximately, per ton labor credit. That multiplied by the tonnage gives 330,237 dollars of earned labor credits. That is limited, of course, by the 75%, to the same amount as we did in the 1953 law, 149,336, and that in this case is carried right through because the 6.2% limitation does not apply under the '55 law. So it comes out with a slight increase in labor credit of \$1,698.

Mr. McAdams. Are there any questions as to the process at all? Or, if there is any other mine that you want explained, I'll be perfectly willing to do it.

Mr. Cina. I wish you would explain that 100,000 ton exclusion again, please.

Mr. McAdams. The 1953 law allowed what we call - I will call "Rule 1" - 10% of the difference between 60¢ and 78¢ labor cost which would be in that case 1.8¢, plus 15% of the excess of labor cost above 78¢, constitutes the labor credits per ton. Now that is applied to all underground mines, to all taconite mines and to the first 100,000 tons of all other mines.

Mr. Cina. Of any mine?

Mr. McAdams. Yes. And it also is applied to all mines where 40% of the total product was beneficiated by processes beyond crushing and washing, such as heavy media and sintering and cyclone - all those things. Now, that's the way it's built up. If you keep that in mind -

Mr. Cina. Yes, on the first 100,000 tons.

Mr. McAdams. Yes, on the first 100,000 tons and then 10% also, on those other mines, 10% of the labor cost in excess of 96¢ cost per ton.

Mr. Cina. Another question I wanted to ask you is this. It appears from your exhibit here that the elimination of that 100,000 tons from the '55 law was the main factor in increasing - or decreasing the labor credits allowed to a lot of high cost mines.

Mr. McAdams. Well, it may have been. Of course if a lot of mines were under

Mr. McAdams - continued.

100,000 tons, they lost the benefit of that -

Mr. Cina. Well, by just looking at the figures that you have along the side here and going over to your Rule 1, it appears that those mines that lost 100,000 ton credit are the ones that lost labor credits. They were all the high cost mines. Most of them, not all of them, but most of them. If you go down the line here, you find this Young and Healy, Douglas Mining Company, Hanna on the first page. You can pick out any of those that have the 100,000 ton under that Rule 1 and you will find that they were the ones that -

Mr. Wright. Mr. Chairman. If we were to take the first illustration that Mr. McAdams used on page 1, Bradford Mining Company. I think I understand this - they mined less than 100,000. They mined 66,629 tons.

Mr. McAdams. Oh yes, that's right. Your are right - that is the reason it got Rule 1.

Mr. Wright. Yes, and they lost labor credits in the amount of \$2,918, under the '55 law. It seems to me that's -

Mr. McAdams. Yes, I'm glad you brought that point up. I explained that as being due to 40% crude ore - being more than 40% of crude ore. That was due to the 100,000 tons, just as you stated.

Mr. Wright. Yes. Now, if that follows through with respect to most of the smaller operations where they mined less than 100,000 tons -

Mr. McAdams. They practically eliminated the labor credits unless they had heavy media concentration.

Mr. Wright. That's what I was trying to get at.

Mr. McAdams. Take the Elbern Mine.

Mr. Wright. Where is that?

Mr. McAdams. That's Haley-Young, one that Mr. Cina just mentioned.

Mr. Wright. The Elbern Mine under the Haley-Young Mining Company.

Mr. McAdams. Yes. You had 106,685 tons. It lost - it had no heavy media process so it lost all of its credits, \$4,024. That's true. The 100,000 ton mines or less, would lose all their credits unless they had processes beyond washing and crushing.

Mr. Wright. That is why then, as I understand it, - it would apply then, as I understand it, that most of the operations which we in the Commission here call "scram" operations would not -

Mr. McAdams. (interposing) That could very well be, yes. They usually have smaller tonnages.

Mr. Wright. And they usually do not have any heavy media processes?

Mr. McAdams. That's quite true too, I believe that they are mostly all direct shipping ores. Not in all cases, but I would say probably the greater majority.

Mr. Wright. Now, having in mind the total of the operation that you described on sheet No. 3, Oliver Iron Mining Company. You gave us in detail the record of the Pioneer Mine which particular mine was benefited with an increase credit by use of the '55 law. That is the Pioneer Mine, the one you gave us in detail.

Mr. McAdams. Oh yes, the Pioneer Mine.

Mr. Wright. That is benefited by an increase?

Mr. McAdams. It happened to be, yes, because of the 6.2% limitation didn't apply where the limitation did apply in '53.

Mr. Wright. Now why did that 6.2% limitation not apply?

Mr. McAdams. Because the law definitely states that under the '55 law, underground mines are not, they do not come under the limitations.

Mr. Wright. Now the full impact with respect to the Oliver Mining Company, it's total operation, you show that here too, as I understand it, in your report. What is the total impact?

Mr. McAdams. The total impact of both labor credit and elective credit?

Mr. Wright. The total impact of the change in the law - the total operations of Oliver Iron Mining Company.

Mr. McAdams. The total credit allowed - would have been allowed the Oliver Iron Mining Division under the '53 law, including both labor credit and elective credit was \$787,155. Under this law, the '55 law, they were allowed \$582,816.

Mr. McAdams. Well, I have explained it now. Unless there is some other mine that you wish me to go through.

Mr. Welch. I don't think you answered Mr. Wright's question. He wants to know in dollars what was the net results of the application of the '55 law compared with the '53 law.

Mr. McAdams. In the case of the Oliver Iron Mining Division?

Mr. Welch. Yes.

Mr. McAdams. Those are the figures that I just gave. The total that would have been allowed to the Oliver Iron Mining Division had the '53 law been in effect, was \$787,155. The total amount that was actually allowed and certified to the State Auditor this year was \$582,816.

Mr. Wright. So actually they suffered a loss of \$204 thousand?

Mr. McAdams. That's right.

Mr. Wright. In effect the state gained?

Mr. McAdams. That's right, they gained.

Mr. Wright. But in all of those operations of the Oliver Iron Mining Company where a particular mine involves a small tonnage, the labor credit on a mine having a small tonnage was completely wiped out?

Mr. McAdams. Yes, that's right. Where they even help up with as much credit in '55 was due to the fact that they had this elective credit. That became a very important part. Certain mines that might have come under the labor credit ordinarily if it had been under the '53 law, they switched to the elective credit. In other words, if they shipped ore to Duluth where they made it into steel or into pig iron, then they they elected the elective credit so they had a very heavy elective credit this year. Of the \$787,155, you see the labor credit was only \$461,089, while the elective credit was \$326,066. It would have been, under the '53 year and the same figures are there

Mr. McAdams -- continued.

for '55, \$582,816 total; an elective total of \$384,518 and labor credit 198,298.

Mr. Wright. The credit they would have gotten under the 1953 law for the use of labor in beneficiation was completely wiped out?

Mr. McAdams. Yes, that's right. If they had nothing like that, it was completely wiped out in an open pit property.

Mr. Spaeth. Mr. Chairman, may I suggest that Mr. McAdams run through the operation on page 2 of the Holman Cliffs Mine, the Mesaba-Cliffs Mining Co. I think it would be of interest to the Commission to run through the computation of the effect of the Holman Cliffs Mine under the operation of the Mesaba-Cliffs Mining Co. on page 2. It begins with a tonnage of 923,209 tons, cost of mining of 80¢ plus. Mr. McAdams?

Mr. McAdams. We start out with a tonnage of 923,209 tons produced, with a labor cost of a little over 80¢. The tons that were able to get Rule 1, that is, the 10% and the 15% of those two amounts was the entire property, -- over 40% by heavy media or higher concentration processes. The tonnage of 648,110 with a credit of .10-

Mr. Cina. (interposing) You jumped a mine, Howard.

Mr. McAdams. Oh yes, I see. The tonnage of 923,209 with a credit of .0211. 10% from 60¢ to 78¢ and 15% above 78 which arrives at a labor credit per ton of 2.1¢ per ton. That multiplied by 923,209 tons gave an earned credit of \$19,480. Rule 2 did not apply because we used all the tonnage on Rule 1. There was no individual limitation, so the 19,480 is carried forward and it would have been limited by the overall limitation of 7.3% to \$19,258. That would have been the labor credit if it had been allowed under the 1953 law for the Holman Cliffs Mine. Now, in 1955, of the 923,209 tons, only 815,695 tons were concentrated by processes beyond washing or crushing. So, there we applied to that tonnage a labor credit composed as follows: 10% from 70 to 90, or 2¢ a ton, plus 15% for the labor cost in excess of 78¢. That would be only 2¢. So that made just about, a little over a cent a ton as the labor credit to be applied against the 815,695 tons, producing an earned credit of \$8,239. That was not limited by the

Mr. McAdams - continued.

60% rule, so it became the labor credit that was actually allowed in 1955, or a decrease of \$11,019 in labor credits.

Mr. Welch. Gentlemen, it is getting to be about noon, and we are pretty well through the hearing. Are there any other people here today who wish to be heard this afternoon? Anyone else? That about completes the hearing.

Mr. Montague. Representatives of the mining companies did not expect to be heard this afternoon or today but we are, however, very anxious to make a presentation with respect to this labor credits effect - the effect of the 1955 amendment to the labor credits law. We had not had the figures available until now with which to prepare it. We would like it if at your next meeting we could have an opportunity to discuss the labor credit changes from the standpoint of the companies that were effected by them. We have no presentation this afternoon.

Mr. Johnson, A.I. Well, Mr. Chairman, if Mr. McAdams isn't going to be here this afternoon, then I would like to ask a couple of questions on the illustrations that you showed us here to begin with on small mines where you showed that they had lost labor credits. Was that due to the '55 law or was it due to the fact that their cost of operation was -

Mr. McAdams. No, it was due to the fact of the first 100,000 tons - that part of the law. The 100,000 tons was eliminated in the '55 law.

Mr. Johnson, A.I. The hundred thousand tons elimination was made - that was part of the '55 law, was it?

Mr. McAdams. The 100,000 limitation?

Mr. Johnson, A.I. Yes.

Mr. McAdams. No, the 100,000 tons was not even mentioned in the '55 law.

Mr. Johnson, A.I. That was part of the '53 law?

Mr. McAdams. Yes.



Mr. Johnson, A.I. I see. Was there anything in the '55 law that would discriminate against the small operators if he has got high costs?

Mr. McAdams. Well, he would get - the only discrimination possibly is that he might get there - the limits were raised from 60¢ to 70¢ for the lower limit and the higher limit of 78¢ was raised to 98¢. There were some reduction in labor credits due to that change. And then, of course, in open pit mines where the labor cost exceeded 96¢, they lost that 10% of the labor cost in excess of 96¢.

Mr. Johnson, A.I. My question would be, do you feel that there is anything in the '55 law that puts the disadvantage - that places a disadvantage on small operators.

Mr. McAdams. Well, in checking over this thing, it has been to the disadvantage of different companies. We made a calculation - Lee made a calculation of percentage decrease by companies, I believe, that might be interesting and it might answer your question in regard to how it effected various companies. The Oliver, I remember was about 29% decrease and others vary from there down to 100% decrease. It is very hard to speak in general terms just how it does effect, but in studying this thing over, the total for each company is there and you can make a very good analysis of it from these sheets. Did you have any other questions?

Mr. Johnson, A.I. No. The only thing, of course, is like Oliver, they have small operations and large operations and if it effects small operations, of course their small operations would be effected too as well as anybody elses small operations.

Mr. McAdams. Exactly, yes. There is one exhibit I seemed to have missed. I should mention it. That small sheet that was attached. It is simply a comparative data as between 1954 and the 1955 occupation tax. I am sure that it is quite self-explanatory and it also gives the average costs, or whatever it is, Lake Erie Price, per ton and the increase or decrease '55 over 1954 which is more or less an extension of one of the tables in the last biennial report on occupation taxes. So that is just an extension of that table and it gives you - Take for instance, 1954 law, 1954 tax

Mr. McAdams - continued.

rather, down at the bottom of the page "Total tax certified" 36.2¢, while in 1955 it was 48.6¢ due, of course, to the greater tonnage of ore processed. But we thought that might help in your interpretation of the two years as asked in the question in the Chairman's letter. That is all I have to say about ~~them~~ that, unless there are any questions.

Mr. Welch. Any further questions? Mr. Spaeth, is there anything further you have to present?

Mr. Spaeth. I don't think so, Mr. Chairman.

Mr. Welch. Thank you very much. Now, is there any other business to be taken up by the Commission? Those of you who intend to go on the Labrador trip, be sure that sometime during this afternoon you come to the office here and give your requests to Miss Wylie so that she can make the reservations.

Mr. Goodin. I move that we adjourn subject to the call of the Chair. Motion was seconded and adopted.

# IRON MINES COMPANY OF VENEZUELA

SAN FELIX - CIUDAD BOLIVAR - VENEZUELA

---

L. C. YANCEY  
VICE-PRESIDENT & MANAGER

El Pao,  
August 7, 1956

Mr. Thomas P. Welch, Chairman  
Legislative Commission on Taxation of Iron Ore  
238 State Capitol  
St. Paul 1, Minnesota  
U.S.A.

Dear Mr. Welch:

It was nice to hear from you again and to learn that members of your committee still remember pleasantly their visit of several years ago. To us it was a real pleasure having you with us.

El Pao has now settled down to routine operation with our neighbors Orinoco Mining Company taking the dominant part in ore shipments from Venezuela. Iron Mines produced 3,000,000 net tons of ore last year and shipped 2,400,000. Natural iron was 61.6%. This year production will be the same with shipments matching production. As in the past all of our ore goes to Bethlehem's plant at Sparrows Point (Baltimore), Maryland. This plant as you know has since its inception been dependent on foreign ores.

May I suggest, if you do not already receive it, that you request the Bureau of Mines to put you on their mailing list for Mineral Industry Survey, Iron Ore. Mr. T. H. Miller is director. You will find much of interest in this publication.

With all best wishes to you and the members of your committee,  
I am,

Sincerely yours,

*Leonard C. Yancey*  
Leonard C. Yancey

LCY:alb

cc: Files

June 7, 1956

Mr. Leonard C. Yancey  
Vice-President & Manager  
Iron Mines Company of Venezuela  
El Pao Estado Bolivar  
Venezuela, South America

Dear Mr. Yancey:

The Legislative Commission on Taxation of Iron Ore is now working on its report to the 1957 session of the Minnesota Legislature. At a meeting held last week it was suggested that we obtain up-to-date information to put in the report with respect to South American ores.

We would appreciate information with respect to quantity and quality of shipments, disposition of shipments to the United States and other parts of the world, and any other pertinent information you can properly give us. We are sure great changes have taken place since we had the pleasure of visiting the Bethlehem properties in 1954.

The members of the Commission remember well the many courtesies and kindnesses you and many other members of the company staff extended to them during the visit. I send you their warm personal greetings.

We shall appreciate any information you may send us on this subject.

Sincerely and Cordially yours,

\_\_\_\_\_  
Chairman

TPW/c

# ORINOCO MINING COMPANY

UNITED STATES STEEL  CORPORATION SUBSIDIARY

COMPAÑIA ANONIMA - CAPITAL: \$ 30,000,000

APARTADO 2736

CARACAS - VENEZUELA

O. C. LAIRD  
DIRECTOR DE RELACIONES PUBLICAS

TELEFONO  
94116

July 18, 1956.

Honorable Thomas P. Welch,  
Chairman,  
Legislative Commission on  
Taxation of Iron Ore,  
Saint Paul, Minnesota, USA.

Dear Senator :

On return from leave in the United States I found your letter awaiting me. Inasmuch as you requested data not available to me, I forwarded it to Raw Materials Office of U. S. Steel in Pittsburgh for answering.

"Venezuela Up-to-date" has the pernicious habit of quoting local newspapers here, and the reporters for Caracas papers are not strict adherents of exactness, and straight quotes.

We all remember your visit and that of the Commission with warm remembrance. It was a pleasure to have had you all with us, and I can only hope that you will repeat the trip some fine day. The roads are better, so is the housing, the food has improved, and there is always some refreshment.

My very best to you, and warm greetings.

Sincerely,



O. C. Laird.

OCL/lr

June 7, 1956

Admiral O. C. Laird, USN Ret.  
Apartado 2736  
Caracas, Venezuela

My dear Admiral:

The Legislative Commission on Taxation of Iron Ore is now working on its report to the 1957 session of the Minnesota Legislature. At a meeting held last week it was suggested that we obtain up-to-date information to put in the report with respect to South American ores.

We would appreciate information with respect to quantity and quality of shipments, disposition of shipments to the United States and other parts of the world, and any other pertinent information you can properly give us. We are sure great changes have taken place since we had the pleasure of visiting the Orinoco properties in 1954.

I notice an interesting report by you in the magazine "Venezuela Up-to-date", in which you give a brief statement on the operations of Orinoco Mining Company.

The members of the Commission remember well the many courtesies and kindnesses you and many other members of the company staff extended to them during the visit. I send you their warm personal greetings.

We shall appreciate any information you may send us on this subject.

Sincerely and Cordially yours,

EPW/c.

\_\_\_\_\_  
Chairman

# STEEP ROCK IRON MINES LIMITED

STEEP ROCK LAKE, ONTARIO

M.S. FOTHERINGHAM  
PRESIDENT & GENERAL MANAGER  
N. EDMONSTONE  
VICE-PRESIDENT & SECRETARY-TREASURER

August 8, 1956

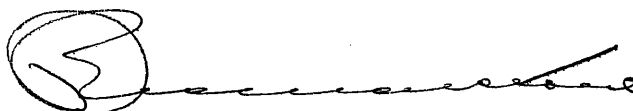
Mr. Thomas P. Welch, Chairman  
State of Minnesota Legislative  
Commission on Taxation of Iron Ore  
238 State Capitol  
ST. PAUL 1, Minnesota

Dear Mr. Welch:

We were pleased to hear that you enjoyed your visit with us. We can assure you that it was a real pleasure to have your group here.

As requested, I am sending you a very brief memorandum of taxation which I hope will be useful to you. If you would like to have a more detailed analysis I could arrange to provide you with the official acts accompanied by notes which would guide you to the pertinent sections.

Yours sincerely,



Vice-President & Secy-Treasurer

NE:mr  
Encl.

August 27, 1956

Mr. N. Edmonstone  
Vice-President & Secy. Treasurer  
Steep Rock Iron Mines Limited  
Steep Rock Lake, Ontario

Dear Mr. Edmonstone:

We were very pleased to receive the copies of the Memorandum on Taxation which is very well written and will be of much value to this Commission in its work. Thank you.

With reference to your nice offer to prepare a more detailed analysis including official acts, etc., we are having a Commission meeting this week and if the members of the Commission feel that they need further material in addition to the very good memorandum you have already prepared, I shall let you know. In the meantime, thank you for offering to prepare such a detailed analysis.

Thanking you for your courtesy and consideration, and with best wishes, I am

Sincerely yours,

Thomas P. Welch  
Chairman

TPW:mw



S U M M A R Y  
Minutes of the Seventh Meeting of  
LEGISLATIVE COMMISSION ON TAXATION OF IRON ORE  
November 30, 1956

Page Nos.

I - Representatives of the Mining Industry appearing

Mr. Montague - introduction on first part of presentation -	
General Iron Ore Picture - - - - -	1
1. Mr. Walter Sterling - recent developments- - - - -	2 - 10
2. Mr. Lloyd Severson - supplemental ores - - - - -	10 - 21
3. Everette Joppa - recent developments - - - - -	21 - 22
4. Mr. Montague - summary - - - - -	22 - 26
Mr. Montague - introduction on second part of presentation -	
Labor Credits - - - - -	26 - 28
1. Mr. E. P. Scallon - - - - -	28 - 32
2. Mr. A. J. Spensieri - - - - -	32 - 34
3. Mr. Tom Binger - - - - -	34 - 40
4. Mr. Montague - summary- - - - -	40

II MOTIONS ADOPTED:

Drafting Committee appointed: Wright, Novak, Johnson, A.I.; Cina, Welch. TO MEET ON DECEMBER 13, 1956 at 9:30 A.M.	41
REPORT - to be a supplement to the 1955 Report - - - - -	41
EMPLOYMENT - Mr. Downing - - - - -	41
Commission members authorized to attend C.G.S. in Chicago Dec. 6-8 -	41
NEXT COMMISSION MEETING TO BE HELD DECEMBER 18, 1956 - - - - -	42

INTERIM COMMISSION ON TAXATION OF IRON ORE  
Room 238, State Capitol, St. Paul, Minn.

MINUTES - SEVENTH MEETING  
Friday, November 30, 1956

The Interim Commission on Taxation of Iron Ore met at 9:30 A.M. on Friday, November 30, 1956, in Room 238, State Capitol and was called to order by the Chairman.

Roll Call showed the following members present:

Senate

C. E. Johnson  
J. R. Keller  
Archie H. Miller  
B. G. Novak  
Elmer Peterson  
Thomas P. Welch  
Donald O. Wright

House

Alf L. Bergerud  
Fred A. Cina  
Roy Dunn  
Lloyd Duxbury, Jr.  
H. P. Goodin  
Alfred I. Johnson  
Francis LaBrosse

Mr. Welch. Mr. Montague, if you will present your various witnesses, we will proceed.

Mr. Montague. Mr. Chairman, my name is W. K. Montague. I am here representing the Lake Superior Industrial Bureau, which is an association of mining companies operating in Minnesota, both large and small. While we have a very large delegation here, I wish to assure the members that not everybody is going to attempt to address - we do not even intend to cover the full iron ore tax field. You men have been studying this subject for several years, most of you, and are very familiar with the general picture. What we wish to do today is to really touch on two general subjects. One is to tell something of the more recent developments in the iron ore picture generally - the fields that are coming in and what different companies are doing in the general field of iron ore development. The other field is to discuss the Labor Credits amendments made at the last session of the Legislature and their effect on the operators in Minnesota. On the first subject, - that is the subject of new developments in the iron ore industry generally, I wish first to call upon Mr. Walter Sterling who is the President of Cleveland-Cliffs Iron Company, who has been in the iron ore business for many years. A former resident of Minnesota, now residing in Cleveland. He would like

Mr. Montague - continued.

to tell you something of what is going on, both with respect to his Company's operations and in the industry generally in the development of iron ore. Mr. Sterling.

Mr. Sterling. Gentlemen, it is a pleasure to meet with you and be invited to come here and talk to you, but first I want to tell you that I am not here as an iron ore expert, - there are too many experts here in the room with me who would qualify better than I will. But I come here as a merchant of iron ore. Our Company, the Cleveland-Cliff Iron Company, has to sell the greater part of its production. We operate in Michigan and we operate in Minnesota and the selling of iron ore is becoming increasingly difficult every year. In fact, right now we are into some very intensive competition and it is going to get worse from here out. The competition is going to be both from high grade direct shipping ores and from we are going to get from low grade. What brings the competition so intense is the fact that there is a demand today from all furnace companies for high iron. That means that instead of accepting something 50 or 51 natural as they have in the past, they want an average today of from 56 or higher of ores fed into the blast furnace. That means if you have average ores you are going to have to get 40 or 50% of your stuff in the 60's to average out the low ores 51 to 53. They are doing that because they can't afford to build the blast furnace capacity they need and they find out by enlarging present blast furnaces they can increase the capacity 20 to 25% on a lot of the old furnaces just through enlargement. On top of that they are making savings of 15 to 18% in coke and they are getting an increase of 10 to 15% in capacity just through using high iron instead of average iron. I mentioned a minute ago that we were getting stiff competition both from high grade direct shipping and from low grade ore. In the high grade fields, our main competition in foreign ores is from Steep Rock and Labrador in Canada. Steep Rock this year produced 3 million tons. By 1960 they will be producing about 10 million tons there when Inlands Caland operation comes in on top of their own. You people know something about Labrador because you have been up there. They produced a little over 12 million tons this year and they can step that up increasingly each year from here out. We don't know what the limit will be but they have expensive reserves and they can mine and ship a lot of ore from that property.

Mr. Sterling - continued.

It's good ore. The Steep Rock ore will run about 53 natural with an attractive silica - about 5 to 6 silica. The Labrador ore will run from 54 to 55 iron with an attractive silica. That compares with what we have to produce in Michigan and Minnesota on the average of 50 to 51 iron with silicas running all the way from 8 to 14 or 15%. The next competition, - most intensive, - is coming from Venezuela and I think you are familiar there with with the extensive deposits all across that range, running from El Torreno in the West, which is about 60 miles west of Cerro Bolivar through east of ~~El Pao~~ El Pao - there is just a continuous series of big deposits there and the tonnage is vast. It is a big tonnage. You hear all kinds of figures and you can use your own imagination as to what they are. But, our competition from there is very high grade ore. It runs about a 58 natural with a low silica. It is a well balanced ore. It is liked in the furnaces and it is going to be competitive. It is competitive in the Pittsburgh district right now where it lays down for the same cost per unit as the Mesabi and Michigan ores and after the Seaway is in, it will be competitive throughout the Lake District. In addition to Cerro Bolivar, there are big shipments coming in from El Pao which is owned by Bethlehem, - a new deposit, El Terreno has just been opened up. We know something about that because we drilled it in 1950 to '52 and we didn't keep it because at that time the economics didn't look too good. It has ~~been~~ since been purchased by some oil interests in the United States and is being opened up. There are several other deposits in that area. One of the main ones Maria Luisa is owned by Republic and Hanna, - that will be on the books in a few years and the Venezuelan government owns a big deposit right in that same area that eventually will come in. Next in interest, which is effecting us at the present time is the Marcona deposit in Peru, - that's a high grade iron. It is running about 62 or 63 iron with a 4 or 5 silica; it has a good alumina content, a little manganese; it's a well-balanced ore and at the present, we find that a number of steel companies are contemplating making five to ten year contracts for a certain percent of that ore just for high iron. On the West coast of South America, we have considerable ore coming in from Chile, - most

Mr. Sterling - continued.

of it going into the East coast, and the furnaces in the Birmingham district. That is very competitive. Then in Brazil they have two large deposits. One of them we are the agent for, we sell the ore - that's from the Rio Doce. That's shipping about 4 million tons of ore at the present time and they expect by 1958 to have it expanded to 10 million tons. They are going to increase the gauge of their railroad, open up a new port. In addition, right in that same area, there is a very big deposit of iron ore that is owned by the St. Johns Del Rio Company. It is a gold company, an English concern that has had the iron ore concession on this deposit for years. Right now two of our major steel companies, I understand, are very much interested in it and are figuring on doing something with that deposit. Then in Africa, you know that Republic has opened up Bomi Hills and they are shipping considerable ore from there. Luckily it isn't all coming into the United States because right now with the European situation they find they can unload a good part of it at a better figure in Europe than they can bringing it into the United States. But they bring their lump in and part of their high grade, especially into the Birmingham district. There are two other big deposits being opened up in Liberia and also some deposits being looked at in West Africa. In addition to that, there are some smaller deposits in Honduras and in Columbia that probably would come in. They are the sources of high iron that are really effecting our ore sales and we find them extremely hard to compete with. Now in addition to that, the most fascinating part of the iron ore business ~~is~~ today is the development of low grade. You know what it is here, with the two big developments you have in Minnesota on your taconite. We have opened up two properties in Michigan of Jasper or non-magnetic material. They are in production at the present time and will be expanded so that their capacity will be about doubled in 1959. But the big interest is in the vast deposits of low grade running entirely across Canada and up through the Ungava area. Up on Ungava Bay the Eaton interests have a vast deposit of low grade and further south, in about 15 miles, they have another great big deposit. It is a mixture of specular hematite and magnetite. It can be mined cheaply and transported cheaply. The only thing is they have a short

Mr. Sterling - continued.

operating season and it is up in the waste but it is no different than Northern Sweden where they are mining the year around at the present time. Then, right up there in that same area, there are several other deposits. There is Oceanic, Fort Chino and Fenimore - all big deposits up in this area in through here from Ungava Bay. Then recently there has been a lot of interest in a big deposit in the Belcher Islands that has been known for years. There is a lot of interest in it at the present time due to the fact of this big interest in high iron.

So much for the northern area - and that can come in because it is right near the water - cheap water transportation. It will have to go around and come in the Gulf of St. Lawrence, but with the opening of the Seaway, we open the door for anything anywhere in the world.

South of the Labrador deposit, about 150 miles north of Seven Islands, there is a vast deposit of low grade running clean across through this area near Lake Mistassini and across pretty near to the Lakes area. Among the main deposits up in that area are Wabush that is owned by Canadian Javelin Mining Company ~~and~~ - at least they have taken a lease on it. It is a big deposit, partially decomposed, it can be readily crushed and ground. It is magnetic - mostly magnetic and they will get a very high grade product from it. In that same general vicinity, the Oliver have an enormous deposit in the Nt. Wright district, - that too will be a very big deposit and we can look for a large production of high grade concentrates developed from that. There are two other big deposits in that area - one being looked at by Jones & Laughlin and the other by P.M. right in that same district. A little farther west, - part of this area hasn't been explored - there will probably ~~be~~ be a group of ore deposits in between here in Lake \_\_\_\_\_. At Lake \_\_\_\_\_ we have a big deposit running about two to three hundred million tons of high grade magnetite that we are keeping for reserves. Farther east from there, over in the Sudbury district, J & L have a good deposit of magnetite in Boston Township and Hanna has deposits they are opening up

Mr. Sterling - continued.

at the present time - Moose Mountain. In fact, they are opening that up at the present time. So we can say, gentlemen, that we are going to have a lot of competition from the high grade quality of the low grade ore - it is going to give us ore that is going to have a beautiful structure because it will be in the form of pellets and sinter. It is going to be low in silica, extremely high in iron. The iron will run all the way from 62 up to 67 and 68.

In Michigan we plan our own company plants, within the next 8 or 9 years, to produce between 6 and 7 million tons of the same type product - all from Jasper. Our own part of it will be about 50% and the balance will be in partnership with steel companies. We expect to spend about \$90 million there by 1963 or 4 to get that into production. That is our own share, our partners will be a little more than that, so we will be spending between \$180 and \$200 million to produce low grade. The reason we are doing it is that we have to have 40 or 50% of our entire production or entire sales over 60 iron to help grade up the other materials we are producing on the Mesabi and we are producing in Michigan.

There are other big deposits in Michigan. The Oliver has some big deposits in that same general area - very good Jasper. In Wisconsin, in the Butternut area, they are about ready to come in with some developments there. McCloud Steel has the deposit in that area; J & L are doing a little drilling there; other interests have deposits there. So, we have a large tonnage of low grade in the Lake Superior Area that also will come in, in competition with our standard ores.

Now, in regard to standard ores, we are finding that we are going to have to spend considerable money to <sup>im</sup>prove the ores after we produce it. It is costing us a lot of money in Michigan, especially in our deep underground ores. They are costly to produce, but we find now in order to make sales, we are going to have to improve them after we produce them. At the present time we are building an ore treatment plant just east of Negaunee - we are spending a couple of million dollars there right now just for a drying and screening plant and a high density plant to take the dikes and other materials

Mr. Sterling - continued

out of the underground ore that come in, in ~~block~~ block caving as a dilution. We have to do that because we have to raise those ores from a 52 to over 54 natural in the oversize. The undersize take care of themselves. They will be competitive but eventually they are going to have to be sintered because with the present steel demands they are not only - they not only want high iron but they want sized ores and they insist that eventually ~~essentially~~ they will not use fines. What they can't sinter themselves, why they won't buy. So we figure in addition to the cost of concentrating and drying this ore, we are eventually going to have to sinter it. That will mean there will be darn little left in there. For that reason I am not too optimistic about deep underground ores. In fact, I am rather pessimistic. We have some big investments down there in mines. Maybe we will find we have ~~at~~ laid an egg in some places. I hope not, but it could be, because with the present competition in ore throughout the country for probably the next 8 or 10 years, I can't see an increase in ore price big enough to enable us to mine underground and treat it and still sell it in competition with other ores. In Minnesota we are going to have the same problem, more or less. We do - all of our operations in Minnesota are all on ores which have to be beneficiated. We are treating ores running all the way from 25% up to some 40 odd per cent recovery and we are getting a good iron. We are making about a 53 iron in the oversize but in the undersize, now that we are going to have to go to sizing, we are going to have difficulty unloading it. As you all know, the fines on the Mesabi aren't too good, especially from your concentrated ores. When we have to start sizing our ores here which is going to be within the next two or three years, we are going to have to ship a high grade oversize product down to about a quarter inch and we are going to have trouble unloading the undersize because it will not only be fine but it is going to run all the way from 12 to 14 or 15 silica. That means that if and when we sinter it, we are going to have to buy or produce some high iron in the 60's to up-grade these fines in order to make them worthwhile sintering. That, gentlemen, is about our picture and have been awfully glad to tell you about what it is, and as I said before I am talking from the viewpoint of an iron ore merchant and



Mr. Sterling - continued.

not as an iron ore expert. I thank you, gentlemen. Are there any questions? I'd be glad to try to answer them. I might say that this is very much along the line of a talk I gave recently to the Mining Congress in Los Angeles and Mr. Montague has asked for ~~that~~ some copies of that talk and I thought much rather than read that copy today, I'd rather plain talk off the cuff - I thought it would be a little better.

Mr. Welch. Are there any questions by any members of the Commission?

Mr. LaBrosse. There's one question I'd like to ask. You mentioned these deposits of low grade ores. How do they figure on concentrating that?

Mr. Sterling. Most of it is magnetite and it will be crushed and ground and treated by magnetic separation and then pelletized, the same as Reserve. The only thing is that they are working up in that area on about a 2 or 2½ to one recovery whereas in Reserve it is over 3 to 1. Same with the ores in Michigan, we are operating there on around a 2 to 1 recovery which gives us a lot more flexibility.

Mr. Wright. That is in your Jasper operation? 2 to 1?

Mr. Sterling. Jasper, yes, 2 to 1. In fact, the Republic Mine is 175 to 1. We are getting about a 54% recovery, at a 60 mesh grind.

Mr. Cina. What is the projected consumption of iron ore in 1960?

Mr. Sterling. You would have to ask a - you say in 1960? I imagine - I'll take a wild guess - I'm not a blast furnace man nor an expert but I would say probably 155 to 160 million tons.

Mr. Cina. Then, if that tonnage were to be consumed it would be necessary that other ores be brought in to supplement Minnesota production.

Mr. Sterling. Somewhat, but they are coming in at the present time. we are importing 31 million tons this year and we haven't got very much ore from Africa. You can pretty near double the production in Venezuela - that could be doubled very readily. We have only 3 million tons coming out of Brazil. That can easily go to 15 or 20 million tons. There is one thing about the Brazilian ore - it is probably the most high grade ore that they are importing today. It runs about 68 to 69 iron and a 1 or less silica. A large percent of it is lump.

Mr. Cina. The thing I was interested in -

Mr. Sterling. And by 1960 you will have a lot more agglomerates from sinter and from pellets. Erie will be in. Reserve probably won't have their next expansion by then. They will undoubtedly expand again.

Mr. Cina. The thing is though that Minnesota and the Lake Superior almost couldn't produce that tonnage that is required, at maximum production.

Mr. Sterling. You might say that they probably couldn't produce the maximum and I don't think they could in times of abnormal demand and big demand. That's where we are lucky that we have the Seaway and these big <sup>Canadian</sup> deposits. But in Canada and the United States, I think they can readily take care of the normal demands at any time. But it means the importation of a lot of ore from Canada. I really feel that these companies that go in there will be tempted to produce as much as they can there after the Seaway because they have three years of tax-free operation after they get under way and there are ~~is~~ a lot of them who have these concessions at a low royalty and they are going to have cheap transportation eventually.

Mr. Wright. Could you give us an idea along the line that Mr. Cina has brought out as to just what increase in the consumption has taken place, say in the last three or four years.

Mr. Sterling. I could just give you a general picture on that Senator. They figure that the steel consumption or steel demand is going to grow 3% per year - just on population growth alone. Ten years - 30%. That's a rough figure.

Mr. Wright. But for that increase in the demand for steel, it occurs to me that Minnesota production would already be in very serious trouble.

Mr. Sterling. As far as standard ores are concerned, they are in stiff competition at the present time. You know and I know there will always be a demand for this ore and that the country has to keep our reserves in the Lake Superior District developed. But we are going to have a lot of lean years in that time. Iron ore is awfully cyclical - you have good years and bad years and during the cyclical time, why we will have sick operations in these areas because they will be using high iron and

Mr. Sterling - continued.

imported iron so they can get a better production out of their furnace capacity. But in good years, why I think we will be able to sell anything we produce. I mean years - for instance war years, when you can't get imports - then they will take anything you produce, though I hope we don't see too many of them.

Mr. Welch. Thank you very much, Mr. Sterling.

Mr. Montague. Mr. Chairman, I might just supplement one remark made by Mr. Sterling in answer to the question about Minnesota ores being supplemented by ores from these other sources. I have talked with quite a few producers from Minnesota and what they fear that in actual practice, it may work just the other way. That is that once the investments are made in these Canadian operations, particularly as they go into these Canadian low-grades and make the investments necessary there, they will continue to produce substantially to the capacity of the large plants that they will have built from those areas. In good years, as Mr. Sterling says, sure, we will be producing large tonnages from here on top of what they produce there. In poorer years the tendency is going to be to produce from the areas where they have large capital investments in plants because you can't close down the plants as easily as you can a direct shipping underground mine. So you may find the situation, as Mr. Sterling has pointed out, where the cyclic effect is going to hit Minnesota harder whereas these other sources, there will be a tendency to continue production there and cut down on the production from Minnesota pits. Our next speaker on this subject is Mr. Lloyd Severson of the Oliver Iron Mining Division of United States Steel Corporation. I believe that you all know Mr. Severson. He wishes to tell something of their problems on some phases of this same subject. Mr. Severson.

Mr. Severson. Gentlemen, my name is Lloyd J. Severson, as you know. I am Vice President of the Oliver Iron Mining Division of U.S. Steel and I have appeared before you before and I am sure my background, experience and qualifications are on record with you. Mr. Sterling has said some of the things that I had intended to say.

Mr. Severson - continued.

I'll try not to be too repetitive. It just happens that after I had prepared material that I had intended to talk about today, that the Iron Ore Report for 1954 from the United States Bureau of Mines came to my hands. I notice, however, that they are a little slow in Washington - they prepared this on November 15, 1956, but it - I might have used it as a preamble to the remarks I intend to make this morning. I'll just read it for that purpose.

"The changing pattern of the United States iron ore supply was brought clearly into focus in 1954 as domestic mines production decreased to the lowest level since 1946, while iron ore imports were at an all-time high and production from complex mineral dressing plants, for the first time, was significant, according to the Bureau of Mines, United States Department of Interior."

My intention this morning was to tell you something about these changes that are taking place and changes that we expect are going to take place and tell you something about how we think these things can be - how we can correct them or how we can at least remain competitive here in Minnesota. We are certainly not for selling iron ore from Minnesota short entirely. The steel expansion program which Mr. Sterling has mentioned, - he mentioned 3% per year, - I looked up some various sources and found some estimates that estimate an increase of 25% in steel ingot capacity in the next 10 years. Now, whether it is 25 or 30%, I think we can agree that it's a substantial increase that is contemplated and I believed that's based on population increase alone.

Mr. Severson. The present pig iron production in the United States is about 85,000,000 tons a year and the 25% increase would therefore require a production of pig iron of 105,000,000 tons. I'm talking about two different things - the 25% increase in the steel capacity would require an increase from 85,000,000 to 105,000,000 tons of pig iron capacity. Now, to do this with the present ores that we have in Minnesota, - approximately a 50 iron with an average of, let's say, 11 silica or thereabouts, would require

Mr. Severson - continued.

the addition of about 40 large modern blast furnaces with all the additional coke ovens and so on, which would cost perhaps in the neighborhood of \$2 billion at present prices. Now, there are two ways that this production can be achieved. Of course, these new facilities can be put in at a cost. Another way - there are two other ways to improve this. One is to improve the operation of the furnace - the technicological improvements in the furnaces, and that has been going on at a rapid pace, I know. The other is the improvement in the raw material and that, of course, the principal improvement could be in iron ore. As Mr. Sterling pointed out, the furnace operators have been satisfied, more or less with a 50 iron and 11 silica, but they have found that by increasing the iron to a 54 iron and to 8% silica, there is a 13% increase in the production of pig iron from the same furnace, - that is, increasing it from 50 to 54 iron and cutting the silica from 11 to 8. In addition to that, they reduced the amount of limestone needed by 250 pounds and what is perhaps more significant, they reduced the amount of coke that is required by 200 pounds per ton of pig iron.

When I have appeared before this Commission before, I think I have briefly mentioned the ore improvement program. I can say that we have under way, - that is my company, the Oliver, - we have under way research on a general ore improvement program. But further than that, we have underway some actual production facilities for the ore improvement program in the form of screening plants. The purpose of these plants is to size the ore. It has been determined by work that has been done in past years that by screening out the coarse and charging it and screening it into proper size ~~fraction~~ into the furnace and sintering the fines and charging it into the furnace, that the production from the furnace can be very materially increased. So, in that connection, we are now in the process of installing screening plants at our Rouchleau Mine, and another screening plant at our Sherman group of mines and we are also installing screening facilities and sizing facilities at all of our concentrating plants. We expect next year to ship a very considerable portion of our production, which as of

Mr. Severson - continued.

this moment we estimate will be about 35 million tons. We expect to ship a very substantial portion of that, possibly 20 million tons, I don't know yet, sized into fines and coarse, all in an effort to make our ores more competitive, to be able to stand up against competition that is coming - that we are facing.

Mr. Severson. In addition to that, as I have mentioned, we have a general ore improvement program. I believe that within a short time that there won't be any direct shipping ore from Minnesota - that is, the term is nearly obsolete now and I should say in a very short time it will be completely obsolete because no ores will be shipped direct, so-called, as they come from the mine. Some of the present ores that are considered so-called direct ores are going to have to be beneficiated in order to be accepted on the market.

Mr. Severson. I have some samples here that I would like to show. I have tried to make these things as graphic as possible. This bottle contains 10 pounds of iron ore and this represents up to this divider, the amount of iron ore that we shipped from Minnesota last year direct as it came from the mine and above that divider is the relative amount of concentrates - bear in mind that's as nearly as we can make it, relatively. Now, theoretically, that 10 pounds of iron would produce a bar of pig iron this long - actually this bar is made out of steel, so if somebody were to take it and weigh it, I would probably be a few ounces off, but theoretically from 50% iron, the average shipped from Minnesota in 1956-1958, this would be the length of the bar. This is a 1" bar that would come from Minnesota. (Bar size - 1" x 1" x 19½")

Mr. Severson. This is ten pounds of iron ore that comes from Labrador. It is 54 natural and you can notice we have tried to fill these bottles in both the same way and we have carried them down here on cotton battin practically so that they wouldn't settle down, but nevertheless you can see that it takes up less space in the bottle. This represents the amount of pig iron that would come from the same 10 pounds of ore. Just compare this bar as compared with the one from Minnesota. (Bar size- 1" x 1" x 20-3/4").

Mr. Severson. This is ten pounds of iron ore from Venezuela from Cerro Bolivar and has a 58 natural iron and the bar of pig iron that could be made from that would be so long, (Bar Size 1" x 1" x 22<sup>1</sup>/<sub>2</sub>" ) compared with Labrador next to it and Minnesota on my left.

Mr. Severson. Now, Mr. Sterling talked to you about some of the concentrating ore in Quebec. I have a sample here which is typical here of considerable of the amounts of low grade materials found in Quebec and in Labrador and represents material about which you read in the papers, I'm sure, - Jones & Laughlin, Javelin and others. There are other types of ore, but I would say this is a typical ore. This is the concentrate that was made from that material. It has a 66 natural iron. Like any concentrates, you have a certain amount of control over the grade that you want to make it at. However, this is somewhat decomposed, separates at a coarse grain, can be concentrated by gravity methods and the silica is free - there is only iron silica and can be separated freely so that you can make a 66 iron with a 4 to 5 silica. This is the bar of pig iron that can be made from ten pounds of these concentrates (Bar size 1" x 1" x 25<sup>1</sup>/<sub>2</sub>" )

Mr. Montague. Mr. Severson, while you have those bars, I wonder if for the record you can give the dimensions.

Mr. Severson. Yes, indeed.

Minnesota bar - - - - - 1" square bar, 19<sup>1</sup>/<sub>4</sub> " long.

Labrador-Quebec bar - - - - - 1" square bar, 20 3/4" long.

Venezuela bar - - - - - 1" square bar, 22<sup>1</sup>/<sub>4</sub>" long.

Labrador-Quebec Concentrate 1" square bar, 25<sup>1</sup>/<sub>2</sub>" long.

Mr. Cina. That Labrador-Quebec concentrate would be similar to our taconite?

Mr. Severson. It's similar to the taconite, yes, but I would say it has greater similarity to the Republic Mine, or to the Jaspers in Michigan.

Mr. Bergerud. What is the principal item of cost in that - does it have any relationship?

Mr. Severson. I don't know that I can answer that at this time. You understand that these ores are not in production. They are only being examined. I am

Mr. Severson - continued.

referring to the Labrador-Quebec ore. My point is, however, to take Minnesota and that possible source - whether it is economical or not, I am not prepared to say except what you read in the papers, - there are some people looking at it and into it in a serious way. You have this much margin with which to either pay additional costs or more significantly, to improve the production that you have from existing facilities.

Mr. Cina. Mr. Severson, when I asked you about a similarity, I meant - I didn't mean similar in the quality of ore, I meant Minnesota taconite might produce that length of bar too.

Mr. Severson. The Minnesota taconite - I'm sorry, I should have had a bar made out of the taconite, I guess. But it would be just slightly longer than the Venezuelan direct shipping ore because the - about half way in between, I guess. The natural iron from Minnesota Taconite is about 62%, so that 58 to 62 to 66 would be just half way in between.

Mr. Severson. By way of conclusion, I think our job here is to do everything possible we can to improve our Minnesota ores. If this is the highest one of the possible competitors (Labrador Quebec concentrate), try and stretch this bar out. Now, the only way that we know how to do that is by a general ore improvement program, screening will do some of it we hope, concentrating, or perhaps some of this material is going to have to be roasted. Even the direct, so-called natural ore, would be roasted and then concentrated. As I say, that's a matter of research which is now under way on an active basis. We don't know the answer for some time. However, I couldn't come before this Commission hardly without making a plea on the tax situation and I'd say this about that: With our taxes already  $3\frac{1}{2}$  times higher than taxes on other Minnesota business corporations, that we are carrying a burden heavier than any of our foreign or domestic competitors when we start out in this race. I am sure that you all appreciate that the tax climate involved is a very important factor in any corporate decision as to where they spend the money. Personally, or here in Minnesota we are interested that the money be spent here to prove this ore and I think that we have got



Mr. Severson - continued.

to have fair taxes which to my own way of thinking would be a reduction in taxes rather than an increase so that we would have a fair shake in this race to try and keep up with our competitors either foreign ores or domestic. Thank you very much.

Mr. Wright. Mr. Severson. What is the principal factor in the cost of beneficiating this product which you have called here Minnesota ~~average~~ average shipping 50% natural iron. Now, when you start in to beneficiate that and bring it up to a higher natural iron content, what is the principal item of cost in that?

Mr. Severson. I think you have two main items of cost. One you add an additional plant with this operating cost - let's call that one thing. The other thing is that you throw away some iron because naturally when you run it through a plant to make a higher grade product, you put the sand and the tailings - all that you can, but you put some iron in there with it which is certainly a loss. I'd say that any mining concern would have to regard that also as cost as against conditions under which you could ship it directly.

Mr. Wright. What relationship then, in your operation of beneficiating ore - you have the cost of a beneficiating plant of some kind and you are losing some material. Those are both costs. What relationship does that have to the labor involved?

Mr. Severson. It would certainly increase the labor, undoubtedly.

Mr. Wright. I am trying to get an idea as to how much that additional cost created by beneficiation would be represented by labor.

Mr. Severson. I am afraid I wouldn't have the information in my head. I could give you some idea if I had some time to look into it. It would certainly be an increase.

Mr. Johnson, A.I. Mr. Chairman. Do you feel that meeting the demand by the blast furnaces and the steel companies is one of the first things we are going to have to do in Minnesota is to start concentrating our ore more - have less bulk and so forth in shipment to the blast furnaces?

Mr. Severson. Yes, definitely.

Mr. Johnson, A.I. Immediately?

Mr. Severson. The immediate job is the screening into the coarse and fine.  
The reason for that is that if a blast furnace man can put <sup>plus</sup> half inch minus 2 inch material into his furnace and he knows that's the way the gases get to it, the fines aren't in there to clog up the gases. They can sinter the fines and put them in too, it also keeps the charge open so that the air can get through and the gases can get to the iron to diffuse it. That's the immediate job and considerable improvement is expected from that.

Mr. Johnson, A.I. Naturally the equipment that you are going to use, the facilities are going to be geared to that kind of concentration, but there is going to be some additional employment?

Mr. Severson. No doubt about it.

Mr. Johnson, A.I. For the time being, you feel that?

Mr. Severson. Yes, Indeed. We have two very large screening plants being installed, - one at, I mentioned, at the Sherman and the other one at the Rouchleau. I am certain that they are going to employ quite a number of people. They are very large plants.

Mr. Johnson, A.I. Especially until after you get your machinery in - and you take up that slack of -

Mr. Severson. These plants won't run themselves, we have to have some men.

Mr. Johnson, A.I. Oh, you have to have some men but modern machinery will probably facilitate that concentration too, don't you think?

Mr. Severson. Well, we are putting in the most modern machinery that we know how.

Mr. Johnson, A.I. I mean, as time goes on.

Mr. Cina. You have a plant in operation now on fines, haven't you in Virginia?

Mr. Severson. Yes, it's been there but it has been for the purpose of screening for the sintering machine. That's only a small one - produces maybe a half a million tons a year or something like that. Now we are talking about 8 to 9 million tons a year. And we are talking 8 to 9 million tons at the Sherman from that screening plant. I didn't come prepared with the number of men we expect to employ in those two screening plants but you can't do that amount of work without having quite a number of people there, I know that.

Mr. Johnson, A.I. Well, it's really some encouragement to us in Minnesota to know that we are going to have more employment because of this -

Mr. Severson. It is unavoidable - we are going to have more employment as you improve your product.

Mr. Wright. Mr. Chairman, that's the reason I asked the question of Mr. Severson. I was trying to find out for the benefit of the Commission. In my very awkward way of putting it, - what portion of these costs is occasioned by the beneficiation, is going to be represented by the increased labor that you are going to have? That's why I asked the question. Maybe somebody else here can answer the question. If not, why it can be given to the Commission by correspondence or some such way.

Mr. Wright. There's another question I would like to ask about this matter of blast furnaces. I suppose I am obnoxious on the Commission, but I do try to get some of these things translated into terms that the ordinary layman can understand and possibly, and even in more clear terms so that the Commission will understand it. You talked about the fines blocking the gases going through the furnace. That is all technical and I don't think I understand it. How does it help the blast furnace operator? In the end, how does that help the blast furnace operator? How does it reduce his cost? Apparently we are doing all of this because it reduces the cost to the blast furnace operator.

Mr. Severson. Well, it reduces the cost of pig iron that can be made from it - from iron ore. It increases the capacity from the existing facilities.

Mr. Wright. They can get more out of the same furnace in the same length of time? Same labor?

Mr. Severson. Yes, that's right. This might illustrate it. This is one that has some fines in it (sample of Minnesota ore) and to try to blow air through there, of course, is more difficult than to take up here where the stuff has been washed - that's essentially a sized ore. That's the way our sized ores will look, pretty much - to blow air through there is really a very simple thing. I mean, that's open and lose and the gases can get through there and contact the ore.

Mr. Bergerud. You have been operating for years on these fines, I take it for many years and now you feel that if you can make the sizes why you will feel that it will be a more efficient operation and production. Why hasn't that been done before?

Mr. Severson. It is like many things - the technological improvement is just now caught up with us. The economic need for it -

Mr. Bergerud. (interposing) The need from a competitive point hadn't been before you.

Mr. Severson. Primarily. There wasn't an economic need for it before and when you bump against your capacity and the demand for products, you seek the best and cheapest possible way to supply that demand. That's one way that will help.

Mr. Dunn. Mr. Severson, you said that was the Labrador-Quebec concentrate you had there in that tube on the left? You said that was not in production?

Mr. Severson. It is not in production.

Mr. Dunn. That bar was made from it? Where does that come from in Labrador?

Mr. Severson. It is about 150 miles north of the St. Lawrence. The Quebec-Labrador border comes down here and it is located in that general area. It starts about 125 miles from the St. Lawrence and continues about 200 miles.

Mr. Dunn. That's what you call a low grade ore, isn't it?

Mr. Severson. That's right - about 30 to 40 per cent iron.

Mr. Dunn. And that's close enough so that it can be handled by that railroad that's in there?

Mr. Severson. Some of it can and some of it can't probably, or won't be.

Mr. Dunn. Did you say Jones & Laughlin - that was their mine?

Mr. Severson. Jones & Laughlin have been examining it. I believe that this Javelin Mine, Pickands-Mather have - are examining an area of this material. Hanna Company, or the Iron Ore Company of Canada also have some of it and the U.S. Steel Corporation also has some.

Mr. Dunn. Let me ask you this. Do you feel that ore can be processed and laid down there at Seven Islands in competition with that direct shipping ore that's coming out of Knob Lake?

Mr. Severson. Yes, I do.

Mr. Welch. Are there any other questions of Mr. Severson?

Mr. Montague. I wonder if I could ask Mr. Severson a question. Mr. Severson, can ~~in~~/that separation - concentration of crude ore ~~being~~ be done at fairly coarse crush or grind, or is it like our Minnesota taconite which you have to grind down very fine to make the separation?

Mr. Severson. This material will make concentrate starting at about 10 mesh, and from 10 to about 35 mesh is the finest of any material that I have heard about. Minnesota taconites, on the other hand, must be ground by and large, minus 200 mesh.

Mr. Montague. Does that make a very substantial difference in the cost?

Mr. Severson. Of course the grinding cost involved is increased many times. It is much more difficult to grind Minnesota taconite, there's no question about that.

Mr. Montague. What accounts for that difference, is it the size of the materials or particles of iron?

Mr. Severson. The size - the coarser you can leave it, the less grinding you have to put in to it. Further than that, of course, you have had some natural decomposition here which perhaps helps the separation of the grains.

Mr. Severson. I might just add one thing more. The shipments, I had them figured out just before I left - an estimate of them and it looked like they would be 63 million tons in Minnesota in 1956, of which our, speaking for Oliver, our share is 29 million 7. I mentioned while I was talking - in my presentation, that we expected

Mr. Severson - continued.

to ship, as of this moment, our plans are to ship ~~25,000~~ 35,200,000 tons next year, which should mean that the industry would ship 70 million plus or thereabouts.

Mr. Wright. That's a very important figure to us in figuring our budgets. Your idea, at the present time, as I understand, that Minnesota will ship about 70 million tons in 1957?

Mr. Severson. That's our estimate at the moment. Now, many things bear on that -

Mr. Wright. I understand that. We figured, I believe, 65 million tons for 1956 and probably would have reached that and beyond it if it hadn't been for the shipping and labor conditions.

Mr. Welch. Mr. Montague?

Mr. Montague. Mr. Chairman. Mr. Severson had prepared a statement along the same lines of his oral presentation and Miss Wylie will distribute copies of it. He did not, of course, read the statement or follow it exactly, but he covered the same matters that he covered by his oral statement.

Mr. Montague. I would next like to call for just a few minutes on Mr. Everette Joppa who is with Pickands-Mather and Company, the third largest producer of iron ore from Minnesota and the Lake Superior District. Mr. Joppa lives in Duluth and manages mining operations actively for that concern. Mr. Joppa.

Mr. Joppa. Just to give you background of my qualifications, I might say that I am a registered mining engineer in the State of Minnesota. I have been actively engaged in iron ore mining with Pickands-Mather for 31 years and a few years prior to that when I first got out of school, I was with the Oliver Mining Company. I had intended to talk to you about one thing but the Javelin property has been brought up in these talks and I would like to just expand a little bit on that. Just recently we made a deal, or a contract with the Javelin - Canadian Javelin, and have acquired at least 200 million tons of concentrates that is similar to the nature of this (Quebec-Labrador concentrate). What test work we have done to date will give us at least a 66 and maybe higher natural

Mr. Joopa - continued.

iron. We have done very little prospecting of the ore and that research and geological work will be carried on in the next three years. The second development we have in Canada is called the Wilton Mines. I'll just show that on the map here briefly. About 45 miles north and west of Ottawa on the Quebec side of the Ottawa River. The Wilton Mines is a high grade property - it's a magnetite and again, it's about a 66 iron with a 3 silica, a very low phosphorus. We are actively engaged in building a mill and the minimum that we expect will be 600,000 tons a year. That will be in production about this time next fall. The third area that we are now actively exploring is the Wisconsin area, southwest of Wisconsin about 65 miles. We have been actively engaged in drilling that for the last year. The results that we have obtained are very promising. What test work we have done to date will give us about a 63 iron or close to the iron that you get out of your taconites. We have potentially a very large tonnage. Just what tonnage it is, we are not sure yet. At the present time, and we have just completed this, we trenched across the total formation - some 800 feet in width, acquired a sample of about 200,000 tons which we have shipped from a small town which we call Butternut to our Hibbing Laboratory where it is now in the process of being treated. In this treatment we were trying to find out the characteristics of the ore and how we can recover it. There are some very decided advantages to this ore in comparison even with taconites. You heard Mr. Severson speak of grindability. Now that is one of the processes involved in crushing down any ore. This ore is much softer - that is, its hardest is much less than taconite. Therefore the problem of acquiring the ore as far as crushing definitely is going to be easier. It is a magnetite, sintering characteristic to the taconite in that it is fine grained and has to be crushed to a certain percentage below 350 mesh. This property is leased by the McCloud Steel of Detroit. They are using low grade ore at the present time - what they call low grade ores, normally coming from the Minnesota area, around 50, 51, 52 natural. They had a very efficient furnace there but are not getting the capacity out of that furnace due to the fact of

Mr. Joppa - continued.

use of low grade ore and they are definitely looking for something to supplement those low grade ores and they think they have it here. They engaged us to do the exploration and the development and the research that is necessary to bring this into production. If this fulfills their expectations, I would prophesy that within two to three years it will be in development and production, with a production of about a million and a half tons a year.

Mr. Wright. Where are the McClelland Steel people?

Mr. Joppa. In Detroit, Michigan.

Mr. Montague. Mr. Chairman, I might just summarize a little bit some of the points these gentlemen have made here. You all know that some years ago there was considerable concern about the future supplies of iron ore for the steel industry. There was a very intensive campaign put on for exploration and research with respect to iron ores to assure the future supply to the steel industry. What you are hearing today is that that program is borne fruit to a much greater degree than was anticipated when the research was started. In the prepared statement of Mr. Sterling that was left with you, which, by the way was an address that he gave to the Mining Congress out in California a month ago and was not prepared in any way with reference to this Commission. It was a talk to a bunch of mining men out there on what Cleveland-Cliffs thought of the iron ore situation. There is this significant paragraph:

"The intensive world-wide search for iron ore and the intensive research to find economical means to use low grade taconite and jaspers continued unabated through 1956. Enough deposits have been developed or are being developed since World War II - both high grade and low grade - to remove any fear that we shall run out of iron ore in the near future. In fact, the industry may find itself temporarily over-developed with regard to some kinds of iron ore."

You can hardly pick up a financial or iron ore or steel paper or magazine without seeing some of these results referred to. For instance, I ~~asked~~ have before me an excerpt



Mr. Montague - continued.

here from the Wall Street Journal of October 11, 1956, referring to one of these developments that has been mentioned here. The heading "J & L leases iron ore deposits in Canada from Gulf \_\_\_\_ Unit". The article points ~~the~~ out that it took an option for leasing this property in 1954, had been exploring the property and have now exercised the option and taken up the leases on the property. The J & L magazine, which they print for their employees, points out that they had picked up this property and also that they have taken options on areas in Ashland County, Wisconsin, similar to the area that Mr. Joppa spoke about. Sometime ago, this spring, the newspapers carried the story of how the United States Steel Corporation had been taking options for concessions on the large deposits in Quebec which have been referred to by Mr. Severson. It told of their conference with the Premere of Quebec on working out the arrangements for that concession. Reference has been made that Hanna, of course, is actively in the Labrador field on the direct shipping ore and the fact that they have some of this additional low grade materials that they are interested in. Mr. Joppa has referred to the fact that Pickands-Mather has taken over that Javelin property in this same area that was being referred to in Labrador-Quebec and is now going ahead with an extensive exploration and research program there, as well as the one in Wisconsin. Now, it just happens that those four concerns, well, those three concerns that I have referred to first, U.S. Steel Corporation - the Oliver; Hanna; Pickands-Mather, are the three largest producers of ore from Minnesota and from the Lake Superior District and Cleveland-Cliffs about whom Mr. Sterling spoke, I believe is the fourth largest, and J & L of whom I spoke, comes pretty well up the list, so that any idea that Minnesota is in a position where they need have no fears for the future; that they have got a monopoly of iron ore, that regardless of what they do, there is always going to be investments of money made in Minnesota, is a \_\_\_\_\_ (not audible). The industry has shown its good faith - shown its faith in Minnesota by the money it is putting in the present taconite development, but if Minnesota is going to maintain its position in the iron ore world, the present development

Mr. Montague - continued.

of Reserve at Silver Bay is going to have to be at least doubled; Erie's operation is going to have to be greatly increased in taconite. You are going to have to build taconite plants. They are going to be built by the Oliver or Erie or Reserve or some of the other steel companies, to produce, as has been stated many times, 40 million tons of taconite a year, in order to keep Minnesota's position as the leading producer of iron ore. It certainly is to the interests of the state that nothing be done that discourages the tremendous investments that are going to be necessary for that production. Because, <sup>if</sup> instead of making the investments here, they concentrate on other fields, we may be a long time before we reach the level which everybody is assuming that we will reach in the taconite development.

Mr. Montague. Now, that is the presentation that we wanted to make on the general iron ore picture. At the last session of the Legislature there was a revision of the labor credits provision of the occupation tax law.

Mr. Welch. Mr. Montague, I would like to make an inquiry. You have now presented your first topic? Now, about how much time will you require to make your presentation on the item of labor credits?

Mr. Montague. I would say a half an hour, not over 40 minutes would do it.

Mr. Welch. Alright, I just wanted to get an idea. Gentlemen, would you like to take about 5 minute recess before the presentation on labor credits?

Mr. Welch. Gentlemen, the meeting will come to order. Mr. Montague.

Mr. Montague. Mr. Chairman. I meant to refer to the fact that the Canadian Department of Mines and Technical Surveys have issued issued a Mineral Resources Information Circular, M.R. 17, on March 29, 1956, dealing with the developments that have been referred to in Canada. It is an official Canadian Development Circular on a survey on the iron ore industry in Canada during 1955. I believe that the Commission has been furnished with copies of that.

Mr. Welch. Yes, thank you.

Mr. Montague. The next field which we wish to cover is the change made in the labor credits provision of the occupation tax law at the 1955 Session of the Legislature. We wish to present that because we believe that the changes made have had far different results than were anticipated by the members of the Legislature. Unfortunately, the final bill was written in the last days of the session when the members of the Legislature are being pushed to the limit. There is not opportunity for full consideration of all these questions, and we feel that the members may be surprised to find some of the results that have come from that change in labor credits.

Mr. Montague. In 1953, the occupation tax law had been amended with respect to labor credits and to provide about this system - I won't attempt to go into all the details of it. But it put in one class, underground mines and mines from which more than 30% of the crude ore produced, had to be concentrated by jigging, heavy media or some process of that kind. If more than 40% of the ore had to be beneficiated by one of those processes, the mine went into the same class as the underground mine. Also, the first 100,000 tons of production from an open pit mine went into that class. Those mines were given a credit of a certain percentage of the excess labor costs, - that is, there was a breaking point set - they were given 10% of the labor cost above 60¢ a ton and not in excess of 78¢ a ton and 15% of that labor cost in excess of 78¢ a ton as a credit against the tax. Other ores, that is the mines which did not concentrate more than 40% of their production, and produced more than 100,000 tons a year, were also given labor credit but only at a higher breaking point level. They were given a smaller percentage and the labor costs had to be higher before they would benefit from them. In effect, what was set up, was a system of graduating the tax so as to give relief, by way of credits, which was in effect resulted in a lower rate, as to mines that for one reason or another, had high labor costs. That system had been in effect, of course, for some years before 1953. It was revised at the 1953 Session along the lines that I just stated. There had been trouble at each previous session from the fact that as labor costs generally increased, the breaking point would have to be increased in order to

Mr. Montague - continued.

confine the credits to the high labor cost mines that were intended to be benefited. Those breaking points were raised several times. Also, one purpose of that was to prevent the amount total amount of the labor credits, reducing the total yield of the tax by more than the members of the Legislature thought proper. So the 1953 law had another provision put in which was hoped would make it unnecessary to be coming back each session of the Legislature and revising these figures. That provision was that the total amount of all credits to all companies - to all mines - by virtue of this labor credits provision could never exceed 7.3% of the total tax. That the gross tax could never be reduced by more than 7.3% by these labor credits. That was the situation when the 1955 session started.

Mr. Montague. In the 1955 session, this result was accomplished. They eliminated any credit at all for any wash ores or any ores produced by any - any direct shipping ores produced except by underground methods. In other words, they said that the only mines which would get any credit at all, would be the underground mines, taconite operations and mines where the ore had to be beneficiated by what we call jig or other methods - that is by jigging, heavy media, magnetic concentration, or some method of separation more extensive than the straight washing process. They allowed no credit whatever except to that class of mines so that the first thing that was done was to cut out all labor credits whatever for the wash ores, the direct shipping open pit ores. ~~except~~ All credit was cut off from any of those mines regardless of how high their labor costs might be or regardless of what difficult conditions they might be operating under to produce the ore. That was the first major change.

Mr. Montague. The second was that even with respect to the jig - that is the mines where the ores had to be concentrated, they confined the credit to that percentage of the total ore produced that was actually jigged or went through the heavy media process. Instead of classifying a mine upon the basis that if more than 40% of the ore had to be done that way, that the whole mine would be classified and get that credit, they had confined it to just the proportionate part of the ore which

Mr. Montague - continued.

actually went through the jigging process. Those were the two major changes made. There was an adjustment of the breaking point, increasing that because of increased labor costs. There was a reduction of the 7.3 overall limitation to 6.2 because they took underground ores and taconite out from the limitation. I might say that the mining industry has no objection to the portions of the 1955 amendments that raised the breaking point. We realize that as general labor costs went up that the adjustment of those breaking points was probably necessary to confine the credit to the general kinds of operations. The features of the law which had results which we don't believe that the Legislature did not appreciate were those that eliminated entirely any credit for wash ores or direct shipping open pit ores, thereby even in the case of scam operations denying them any labor credit no matter how high the labor costs were and the feather which provided that while you determined the labor cost by dividing your total labor bill of the mine by all tonnage, both jig or \_\_\_\_\_, therefore you only got labor credit for that proportion of your product that was actually jigged. In other words, they did not even attempt to allocate the labor costs - the higher labor costs to the jig portion. They said you ~~gotta~~ have to determine your labor costs on the basis of all your ores but you only get credit on the percentage that you actually put through the jig machine.

Mr. Montague. The first speaker that we would like to have talk on these changes is one who is known to all of you for a great number of years. Mr. E. P. Scallon who is an independent mining engineer, speaking here as a representative of the Hanna interests. Mr. Scallon.

Mr. Scallon. Well, I was going to speak on the labor credits and the changes that resulted from the last session, but when Will Montague got finished, I can't see that there is much left to say. He did a very fine job. There isn't much to say, really, Will make a very good explanation. One of the reasons why I was introduced here as a representative of the M. A. Hanna Company and that must always be explained, the M. A.

Mr. Scallon - continued.

Hanna

is not what you might call a unified company. It's an operating company for several others and one time it has an interest in an operation and another time it has no interest.<sup>It's</sup> an operating agent and what not. It happened to have taken over Butler Brothers, which you are all quite familiar with. Butler Brothers was a St. Paul firm and Pioneers and I believe you will all give them credit as pioneers in research in iron ore. The labor credits, really, I had lots to do with its original passage - it was a non-partisan piece of legislation to help the people like Butler Brothers who were fighting the low grade ores and had no economical means for doing it. It was to encourage some of these people like Butlers, and they were alone at the time in this work. The labor credits and two other laws were passed in the '37 and '39 sessions of the Legislature and they were very helpful. They built a heavy media plant at Crosby, using the best known patents that were then known - they were taken out down at Joplin, Missouri, using lead ore as a media. It cost \$165,000 to build that plant after research had been carried on all over, everywhere and after the second day it operated, the plant was a complete failure. They didn't stop, they kept on and we were greatly encouraged by this Legislature. You all know my sympathies are naturally with the Legislature, having been a member for many, many years. We kept on and developed the ferro silicon process - Butler Brothers, a Minnesota company, which I think is the greatest development in mining of any kind since the turn of the century when \_\_\_\_\_ flotation was discovered. It has increased the tonnage of ore in this State tremendously, not only privately owned ore, but ore owned by the State itself. It's the greatest development we have had. At that time, they held out this labor credit and two or three other small - they are not small, they are good, as an encouragement to us and we made good on it and we appreciated it, very much. Now, at the last session of the Legislature, I am certain - I must first talk about the '53 session. We had a subcommittee in the House and that subcommittee had called me in and called others in who had been associated with this history of this Legislature and it was the intention to have a bill passed - to get the bill in such

Mr. Scallon - continued.

shape we wouldn't have it up every two years - every time that there is an increase in labor. And so we put an industry limitation on it. Fred, I don't remember whether you were on this committee or not, but I remember hearing you explain it on the floor of the house that you thought that '53 law was satisfactory to everybody and that we were really finished with it.

Mr. Cina. It was my bill, I think.

Mr. Scallon. I guess it was your bill, Fred, a part of it was, I just don't remember. You had lots to do with it anyhow. And we had a bill that was satisfactory. Now, I think the folks at the last session, that their good intentions miscarried - as best as I can understand from those boys who were the authors of the bill. They thought they were helping the industry whereas, as a matter of fact they hurt them very, very much indeed by the bill. I know that a committee of this kind is entitled to say to a man who stands up here and says something is wrong, you are entitled to say well, what about it, what are you going to do about it, what do you suggest. That is proper for you to say. If you said - I'll say it for you. I thought that the '53 law was good - I really thought it was good and that you had a limitation so that the amount of money taken away from the treasury was always limited and likewise it wouldn't be coming up every two years. Now, I do think that what happened in the last session was a ~~mis-~~carriage of intentions to help the industry and it just didn't work out that way, that's all. Will has explained the changes to you and I read your report of '53 and I know that you are all very, very familiar with this subject of labor credits from your own report here. Now, there have been a couple of questions - there have been some questions asked by the committee this morning. A lot has been said about all of this competition which is coming in from every direction and how we must improve the grade of Minnesota ore in order to make them saleable. Now, we have a class of ore - the very class I am talking about - the ore which was brought into commercial competition by the introduction of this heavy media process. That, of course, would be the first ore to go down in this State. It isn't going to be the ores where there is hundreds

Mr. Scallon - continued.

and millions of dollars invested in plants - nobody is going to run away from those - nobody is going to run away from \$4 or \$5 hundred million dollars. They are more likely to run away from the smaller mines where they haven't got \$4 or \$5 hundred million dollars. Now labor credit helped those particular mines I'm talking about and helped them greatly. Many members asked if we are compelled now to go further than heavy media, fine grind and then to sinter, will it increase employment - that was one of the questions. Why, surely it will increase employment. Anytime that you carry ore down to a greater degree of concentration, you are handling that many more tons from the very beginning - from the time you charge the strip until you are finished. And you get into the sintering as we are doing at Crosby, at one of our mines, and of course, you use coal in that, plants aren't large enough to afford some of the greater investments that are being made in pelletizing and what not, the more you concentrate this ore, the more it is going to produce. As to the reasons - another question, someone said why is it that these steel companies - it is just now realized all of a sudden that they have got to have a better grade of ore. Well, first of all, I think that I am going to undertake a couple of answers to that. Most of these ores which have been pointed out here, I think have been known about for quite a long time - a very long time. You get an outfit like Reserve which goes to work and shows that there is a future in treating that kind of ore and then follow up with another one pretty soon, you have given everybody courage to go into that kind of thing in the first place. Secondly, the increase in the capacity that is anticipated in furnaces during the next ten years, is enormous. And there are two ways to increase that capacity - it was brought out to some extent. One way is by building all new plants and putting in a lot of money and there's another way and that is to increase the capacity of the present plants by putting higher grade ore into them. Now then, as to money - that hasn't been mentioned here today, - money is getting very difficult to get a hold of, to come by. These lower grade ores



Mr. Scallon - continued.

of which I talk about - the low grade mines - the ones with the least profit in Minnesota, will be the ones that will have the hardest time borrowing money to get money. You got to get money by profit or you got to get money by investments or by borrowing. If you are not making money, you will have difficulty getting money by investments or by borrowing and, of course, you don't make profits if you don't get it, that's all there is to it. So, any help you give the lower grade mines that will be the first ones to be dropped, will really be a great help to Minnesota and you are really only ~~perpetuating~~ perpetuating a policy that you adopted in about '37 or '39 and has been appreciated and helpful. I thank you very much, that's all I have to say.

Mr. Welch. Are there any questions of Mr. Scallon? Thank you.

Mr. Montague. The next man that I would like to introduce to the Commission is a representative of the Snyder Mining Company, one of the smaller operators in Minnesota. The Snyder Mining Company produces ore for Shenango Furnace Company, a small pig iron producing concern in Pittsburgh and \_\_\_\_\_ Steel, one of the specialty manufacturing companies. It derives its name from William B. Snyder who was one of the very early men in the development of the Mesabi Range. Mr. Spensieri would like to show what the change in the labor credits has done to their operations. The change - the thing that hit them and it hit them right between the eyes, is the removal of all credits except in jig or worse mines - removal of all credits from ores which are wash ores or open pit direct shipping ores, regardless of how costly they may be, regardless of how much labor may cost. Mr. Spensieri.

Mr. Spensieri. Mr. Chairman, Members of the Legislative Tax Commission, I probably should begin by identifying myself. My name is A. J. Spensieri and I am with the Snyder Mining Company in their Duluth Office. As a representative of the Snyder Mining Company, one of the smaller independent operators, I would like to present some evidence as to what effect the changes made in the labor credits has had against the occupation tax paid by the Snyder Mining Company. The table that we have passed out

Mr. Spensieri - continued.

to you illustrates how the changes in the labor credit law has effected Snyder Mining Company's occupation tax during the past five years. Now, as you will note by the table, the changes in the labor credit law has had a decided effect on the Snyder Mining Company's occupation tax. The occupation tax paid has risen from \$48,328 in 1953 to \$180,867 in 1955. During this period, the percentage of labor credits allowed decreased from 54% in '52, as you will notice by the table, to 2% in 1955, and the change in the law was a major contributing factor in the increase of the occupation tax paid by the Snyder Mining Company. The labor credit of 2% allowed in 1955 was due to an allowance granted for sintering 20,000 tons of Whiteside paint ore as an experiment. Except for the small tonnage of sinter ore, Snyder Mining Company would have had no labor credits in 1955 and no labor credit will be forthcoming for the tonnage mined this year - that is 1956 on the 916,265 tons shipped. Now, the Snyder Mining Company operates two marginal properties, that is, the Whiteside and the Webb Sellers Triangle Mines which entails stripping large quantities of rock for relatively small quantities of ore. As an illustration, I would like to site our Whiteside Mine. The Whiteside Mine located near Buhl, Minnesota, was originally opened as an underground mine in 1910. It operated until 1914, when it was closed down because it was unprofitable to operate it as an underground mine. It remained idle until 1951, when it was thought that with the advent of modern machinery, it might be operated as an open pit. The major factor that encouraged opening the Whiteside Mine as an open pit mine was the fact that we were asked to operate the adjacent property in conjunction with the Whiteside Mine, which reduced operating costs. The Whiteside Mine will require approximately 7 million, 7 hundred thousand cubic yards of rock and 3 million, 9 hundred thousand cubic yards of surface stripping. This stripping will produce approximately 4 million tons of ore. The total stripping will require an investment of over \$7 million, four hundred thousand dollars, which averages about \$1.83 per ton of ore to be mined and already mined. This heavy stripping cost is made to produce a sub-standard grade of ore which to date has averaged only 46.86 natural

Mr. Spensieri - continued.

iron which, incidently, falls in the double penalty class. It is evident that this low grade ore would be non-merchantable and could not be utilized without mixing with a high grade ore from other sources. The whiteside ore is a high alumina ore which cannot be beneficiated by any known methods now being used on the Mesabi Range. By reason of the nature of the operation at the Whiteside Mine, it involves a heavy labor cost, which in 1955 amounted to over \$700, 000 on a shipment of 328,000 tons of ore, - or an average of \$2.11 per ton shipped. By reason of the change in the 1955 law, which eliminated all labor credits from direct, open pit shipping ore, Snyder Mining Company realized no credits for the huge amount of money expended for labor as a labor credit against the occupation tax. A somewhat similar condition exists at our Webb Sellers Triangle Mine at Hibbing. Now, if the 1953 law had not been changed by the Legislature in 1955, Snyder Mining Company would have been allowed a labor credit of approximately \$59,000 against the \$183,801 gross occupation tax assessed in 1955. In conclusion, may I say, that the Snyder Mining Company feels that marginal property, such as our whiteside Mine with a heavy stripping ratio and low grade ores, should be given substantial labor credit for the large amount of labor cost involved.

Mr. Cina. I'd like to ask a question. In '52, the Whiteside Mine had no labor credits - they paid no tax then. In '55, they paid a tax of \$55,770. There was a considerable tonnage mined that year. Then this figure of \$48,328 and \$180,857 - that doesn't really represent the difference in labor credits.

Mr. Spensieri. Not all, no sir. I agree with you on that, but I can tell you this, that it has had a major factor in regard to the increase in our taxes.

Mr. Cina. Oh, I don't doubt that, it does. You said your tax credit would have been \$59,000 in 1955?

Mr. Spensieri. That's right, for 1955.

Mr. Cina. That's on the whole group?

Mr. Spensieri. That's right, whereas they only got \$2,944 which was due to the experiment of sintering that Whiteside paint ore.

Mr. Montague. The next representative of the industry that I would like to call upon is Mr. Tom Binger of Hibbing, who represents a group of very small, independent operators. They include some of the scum operators who are going into the open pits that were considered more or less exhausted or into portions of pits where it is not economical to use large equipment to get out the ore. Mr. Binger.

Mr. Binger. In addition to representing the Independent Iron Ore Association, I am also Secretary of three of them, - Coons Pacific Company, Pittsburgh Pacific Company and Pacific Isle Mining Company. There are actually 11 operating companies which belong to this Independent Iron Ore Association. Each one of them, on the average, produces about 400,000 tons a year. If you will bear with me for a moment, I can't talk in million dollar figures, we had better get down in the thousands for a little while. In 1955, these 11 producers produced about 4 million, 300 thousand tons of ore, or about 6%, a little better than 6% of the total shipment from Minnesota in that year. This production, for the most part, came from operations in property that had been operated before by other mining companies. In fact, in some cases, by four different mining companies. Some of the production came from properties that had been worked as underground mines back in the first world War and through the use of small equipment, a centrally located beneficiating plant that are built to service rail haul ore from widely scattered properties, they find it possible to make a profit - not always a profit - but we usually do make a small profit on the tons of ore we produce in this manner. We have felt, this whole group of companies have felt the competitive pinch about which you have heard so much this morning. We felt it not next year, we felt it in '54 greatly and we are continuing to feel it. I am sorry to hear Mr. Severson say they are going to start sizing their ores because some of our companies have been doing it for two years and that's one of the gimmicks we had that made possible for us to sell. After the gentlemen that appeared on the program first this morning got through with ~~him~~

Mr. Binger - continued.

their talks, I'm not so sure whether I am not worried more about the competitive situation than I am about the taxes, but we are here to talk about taxes. I am not sure what the future of these small companies is and I don't think anybody can tell us. We are struggling to stay in business. We are struggling to increase the size of our companies. We are struggling to seek out new methods for creating higher grade ores. We have to be using smaller equipment. We can't buy a 30-yard drag line machine to operate a pit which contains 100,000 tons of ore. I have seen some of these operations in which they have two 3 quarter yard shovels, one working on the bottom of the bank, loading off from the bottom, and another one up on top, trying to work it up from the top. We are really small operators. Some of them are a little bigger than that, certainly, but they don't anywhere near approach the magnitude of these other operations that you have been hearing about. I think the labor credit law as it was originally introduced, was designed to help this kind of operation. Butler Brothers, in those days, was one of these small companies, - one of the ~~aggressive~~ aggressive small companies, and Mr. Scallon has told you that law in some respects was designed to help that company. In more recent years, it has helped the companies which I represent, greatly. Now, I didn't keep current on what was going on in the last session of the Legislature. I guess I should have, but I was quite disturbed when that labor credit was amended, especially in the respect that it was amended. The effect on the group of companies which I represent, I knew was disproportionate, but I didn't know how disproportionate until a few days ago when I started to work out these figures. The total increase in iron ore taxes occasioned by the amendment in that labor credit was about \$906,000. The State of Minnesota received \$906,000 more in taxes than they would have, had that amendment not been introduced. In the industry, it amounted to an increase of occupation taxes of about 3%. These 11 small producers of which I speak, it increased their taxes 15% as compared to about 2.7% on the balance of the industry. Of the \$900,000 that the State of Minnesota received, the independent companies paid approximately 13%, and you can contrast that

Mr. Binger - continued.

with the 6% of the total shipments of iron ore which they were called upon to produce. In theory, I can't see why an underground operation - a high cost underground operation, should receive any more of a credit than a very high cost scam operation. The percentage of dollars that we spend for labor because of the use of the small equipment that we do, is certainly not greatly disproportionate to the proportion of labor dollars expended in an underground operation. I heard - one year I appeared before this Commission, somebody did raise the point that this labor credit ~~originally~~ provision was actually a bonus of some kind for an inefficient operator. Well, it might possibly be - I think the operations of the independents are certainly as efficient as the other operations. They have to be, because the profit margin is smaller. Our costs are high because of the necessity to use different machinery to concentrate more of our ores, percentage-wise. We do have members of management and direct supervisory people with a substantial equity interest in the business. I would think that those things tend to make our operation as efficient as any others. I don't think there is too much to the argument that the labor credit is of any benefit to an inefficient operator. The hundred thousand tons - if you take the amendment in '53, you could almost sit down and say every portion of that which was amended was being directly aimed at this smaller group of individuals - or companies. The throwing out of the first 100,000 tons breaking point - almost all the properties that this smaller companies operate, produce less than 100,000 tons a year. The throwing out of the open pit and wash ore concentrates and reducing the labor credit as it applies to jig and worse ores and leaving the labor credit the same for taconite operation, - none of my companies can afford to be in taconite. They would love to be but they don't have that kind of money. None of my companies can look too anxiously at an underground operation that requires very high capital cost before you get your first ton of ore. Our companies are scam operators. Some of their ores are direct shipping ores, but they are hard to get direct shipping ores, they are high cost.

Mr. Binger - continued.

We think that's - or we hoped that's the kind of ores this labor credit is designed to benefit.

Mr. Wright. May I ask a question? What do you call a scam operator. We have kicked that language around here from time to time.

Mr. Binger. I guess I call any company I represent a scam operator. A scam operator is, - essentially the term roughly applies to a company that will go into a property that has been exhausted of the higher grade ores, or the larger block of high grade ores, and scam out small areas of high grade, pick out areas of third grade ores, heavy media ores, that have been left by a former operator. They are the cleaners-up of the properties that have been left by the bigger operators. It is not our choice, understand, to be scam operators. Those are the properties that are available to us. We are all latecomers to the industry, most of us starting in business either during the last World War or after it. These properties are available to us. That's what we have to be satisfied with.

Mr. Wright. These companies you represent - they mine and sell iron ore, they are not in the production of steel?

Mr. Binger. We mine and sell iron ore. There isn't one of them that has any interest in the steel companies. There is one that is - that Inland Steel Company does have an interest in. For the most part they are independently owned.

Mr. Wright. And the people you represent, they don't own iron mines in the common sense of the term? They do not own the property. They lease the property after a bigger ~~xxxxx~~ company with bigger equipment has finished.

Mr. Binger. Yes sir. There are exceptions to that but for the most part they are lease hold interests only that they have.

Mr. Wright. Do they do any of this work on state-owned lands that have been exhausted in the common terms of -

Mr. Binger. A great deal of it, yes.

Mr. Wright. On state-owned land?

Mr. Binger. On state-owned lands, yes. That is one source of properties we have. As you know, the state has competitive bidding for properties. They had one this fall in which we -

Mr. Wright. Now, are those state-owned properties that have been worked by the larger mining companies?

Mr. Binger. Yes.

Mr. Wright. So you re-lease them after those original leases have expired when the companies with their big machinery are through with them?

Mr. Binger. Either expired or been cancelled, yes.

Mr. Wright. Now, if it were not for this operation that you call the scam operators, would there any demand or need for the tail ends of these mining properties that are owned by the state?

Mr. Binger. If it were not for these scam operators, the ore wouldn't be mined now. If it were mined now, it would still be there 20 years from now, but I think we are all interested in generating royalty dollars, tax dollars and payroll dollars today, not 20 years from now.

Mr. Wright. Out of some of these operations at least, the state gets not only what occupation tax you do pay and in addition the state gets its lease royalties because the state is the owner of the mines.

Mr. Binger. Yes sir.

Mr. LaBrosse. Mr Chairman, may I ask one question. Assuming that it got to a point you weren't given relief and you could not compete with these larger companies, would you estimate among your 11 operators approximately how many jobs - how many men would be affected? Could you estimate that?

Mr. Binger. I think between 2 and 3 thousand. That's a guess.

Mr. Wright. That's direct employment?

Mr. Binger. Yes.



Mr. Johnson, A.I. What is the approximate volume in tons that your 11 operators are producing?

Mr. Binger. In 1955 they produced approximately 4 million, three hundred thousand tons, or about 6% of the total production from Minnesota. It varies between 4% and 6% in the last few years.

Mr. Johnson, A.I. They are small in volume.

Mr. Binger. That's right. The largest in '55, produced, I think, less than 600,000 tons.

Mr. Welch. Any other questions?

Mr. Cina. I wonder, Tom, maybe you might mention who some of these companies are.

Mr. Binger. Skubic Brothers in Virginia; Haley-Young; at Hibbing; Rud Fryberger; Pacific Isle; W.S. Moore Company, -some of you, I am sure, are familiar with Moore; Pioneer Mining Company; Zontelli Brothers on the Cuyuna Range largely; E. W. Coones Company - the E.W. Coones Company's name has been changed to Pittsburgh Pacific Company; Pacific Isle Mining Company of which I am Secretary.

Mr. Bergerud. Is the principal problem the elimination of the open pit credit? You talked about several items here and I -

Mr. Binger. Yes, the elimination of the open pit credit is an important item. The abandonment of that 100,000 ton which I thought was somewhat aimed to help this particular group of companies. It is awful hard to evaluate just what sections of that amendment -

Mr. Bergerud (interposing) In other words, open pit, low labor doesn't always follow, does it. Is that the point?

Mr. Binger. That's very correct, yes.

Mr. Welch. Is there anything further?

Mr. Binger. Thank you.

Mr. Montague. I possibly should not have let Miss Wylie put on a new record for the very few words that I am going to add. Gentlemen, that concludes our presentation. I want to point out that the principal justification, principal reasons for the labor credit, regardless of what is said in the preamble of the law, was that the Legislature realized that the occupation tax was a terrifically high tax when you look at it from the standpoint of what it means compared to the net income. You are imposing a tax which runs from 25 to 30% of net income by reason of the fact that they cannot take the deductions which they would take under the corporate net income tax law. The Legislature realized that they couldn't get the tax that high - the borderline, high cost operation - the industry thinks the level of the tax is too high as applied to anybody. But for the Legislature to say that they are going to impose that kind of tax upon the kind of operations which have been described to you here, we think reaching a result the Legislature never intended. The industry thinks that should be corrected, if it can be, at this coming session. We wish to thank the members of the Commission for their full consideration you have given us this morning. Thank you.

Mr. Welch. You will note from the agenda that this concludes the hearing of the representatives of the mining industry and we yet have discussion of the final report for the '57 Legislature. I think that will take a little time. What is your wish as to recessing for lunch.

On motion, the Commission recessed until 2:00 P.M. and upon reconvening, the following action was taken.

After a discussion on how to handle the final report, Mr. Wright moved that  
by the Chairman.  
five members be appointed to serve as a drafting committee, which motion was seconded and was adopted. The Drafting Committee appointed is as follows:

Wright  
Novak  
Johnson, A.I.  
Cina  
Welch

Mr. Cina moved that the report that is written be written as a supplement

to the 1955 Report, which motion was duly seconded and adopted.

Mr. Wright moved that the Chairman be authorized to employ Mr. Downing for two months at \$1800.00 with one-half of the amount to be paid at this time, and the employment is considered to be retroactive to November 7, 1956. Motion duly seconded and adopted.

Mr. Cina moved that any members of the Commission desiring to attend the meeting of the Counsel of State Governments at Chicago on December 6-8, 1956 be authorized to do so and that their actual expenses be paid from Commission funds. Motion duly seconded and adopted.

It was determined that the Drafting Committee would meet on December 13, 1956, at 9:30 A.M. and that the full Commission would meet on December 18, 1956, at 10:00 A.M.

On motion the Commission adjourned.

SNYDER MINING COMPANY

OCCUPATION TAX DATA

<u>Year</u>	<u>Mine</u>	<u>Tons</u>	<u>Gross Tax</u>	<u>Percent Labor Credit Allowed Against Gross Tax</u>	<u>Labor Credit Allowed</u>	<u>Net Tax Paid</u>
1952	Shenango	127,009	\$ 12,216	55	\$ 6,719	\$ 5,497
	Webb Sellers					
	Triangle	388,074	93,893	54	51,062	42,831
	Whiteside	<u>91,650</u>	<u>None</u>	<u>None</u>	<u>None</u>	<u>None</u>
	Total	606,733	106,109	54	57,781	48,328
1953	Shenango	11,154	593	46	271	322
	Webb Sellers					
	Triangle	470,337	109,018	30	32,313	76,705
	Whiteside	<u>283,303</u>	<u>74,500</u>	<u>46</u>	<u>34,046</u>	<u>40,454</u>
	Total	764,794	184,111	36	66,630	117,481
1954	Shenango	None	-	-	-	-
	Webb Sellers					
	Triangle	301,029	72,296	28	19,912	52,384
	Whiteside	<u>283,201</u>	<u>76,713</u>	<u>22</u>	<u>16,760</u>	<u>59,953</u>
	Total	584,230	149,009	25	36,672	112,337
1955	Shenango	5,600	3,076	None	None	3,076
	South Tener	2,228	1,845	None	None	1,845
	Webb Sellers					
	Triangle	484,991	120,166	None	None	120,166
	Whiteside	<u>328,644</u>	<u>58,714</u>	<u>2</u>	<u>2,944</u>	<u>55,770</u>
	Total	821,463	183,801	2	2,944	180,857
1956	Webb Sellers					
	Triangle	532,925	?		None	?
	Whiteside	<u>383,340</u>	<u>?</u>	<u>-</u>	<u>None</u>	<u>?</u>
	Total	916,265	?	-	None	?

REVIEW AND OUTLOOK FOR THE IRON ORE INDUSTRY

The year 1956 could probably have been the top year in iron ore history had it not been for a steel strike which cut down the greater part of the production in the Lake Superior district for a 5-weeks period and for a further curtailment in production and shipments through a strike of the licensed officers on a large part of the Great Lakes bulk carriers' fleet. This strike has extended over a 5-week period and may probably further hamper shipments throughout the entire Lake season. This has resulted in a loss of about 15 million tons of production and shipments from the Lake Superior area. Fortunately, shipments could continue from Labrador and Steep Rock in Canada and from foreign sources in South America, Africa and Sweden; and as a result, we will still have a good iron ore year with an estimated 133,000,000 tons, of which 31,000,000 tons will be foreign imports. It is interesting to note that foreign imports of ore have increased from 11 million tons in 1953 and 23 million tons in 1955 to a probable 31,000,000 tons in 1956. Imports will, no doubt, continue to increase. Where the balance will be struck between domestic production and foreign imports is not readily predictable since the economic aspects must be tempered by national security considerations.

The intensive world-wide search for iron ore and the intensive research to find economical means to use low grade taconite and jaspers continued unabated through 1956. Enough deposits have been developed or are being developed since World War II - both high grade and low grade - to remove any fear that we shall run out of iron ore in the near future. In fact, the industry may find itself temporarily over-developed with regard to some kinds of iron ore.

Because the field was more fertile, the search for and development of new high grade direct shipping iron ore deposits has been concentrated abroad.

In Venezuela, the Orinoco Mining Company continued to expand production from Cerro Bolivar, and Bethlehem's El Pao deposit continued as a steady producer and the vast tonnage of ore available in that country will permit a much greater expansion. Significant tonnages of iron ore are now coming from Peru's Marcona deposit developed by Utah Construction Company and from the Chilean ore deposits. There was some increase in output from Cia Vale de Rio Doce's Brazilian deposits in 1956 and there are indications that Brazil's tremendous iron ore deposits are going to be developed much more rapidly in the future.

On the African continent, Republic Steel Company's Bomi Hills deposit continued to export iron ore steadily in 1956. Exploration by Swedish and United States interests has disclosed two new Liberian iron ore deposits, and Frobisher Ltd., controlled by Ventures, Ltd., is developing the Ft. Gourand deposits in French West Africa.

Because of its proximity to the United States and because its political climate is favorable, Canada has become the scene of an unprecedented development in the iron ore field over the past few years. This pace of development continues. In Canada, both high grade and low grade deposits are being sought and developed because of the economic factor of contiguity to markets. The Iron Ore Company of Canada expects to produce and ship approximately 12 to 13 million tons of direct shipping iron ore in 1956 from its iron range lying along the border between Labrador and Quebec, 360 miles north of Seven Islands, Quebec, and we can possibly expect further expansion from this range up to a possible 20 million tons in the next few years. Steep Rock's output will be over 3 million tons this year and by 1960 or 1961, when Inland's Caland comes into production, the Steep Rock area might readily reach 10 million tons per year. Algoma continues to expand its iron ore operations to meet its growing needs. However, the main interest in Canada at present is the intensive search for suitable low grade ore deposits which can be concentrated and agglomerated for shipment both to the United States and abroad.

Vast deposits of iron ore formation scattered throughout Canada are being thoroughly explored and tested. In the far north, the Eaton interests are doing considerable work on their Ungava deposits, and sampling and drilling continues in the Oceanic, Fort Chino and the Fenimore deposits in that area. Interest has also been revived in the low grade iron ore deposits in the Belcher Islands in Hudson Bay.

South of the Iron Ore Company of Canada's iron range and about 150 to 200 miles north of Seven Islands extensive low grade deposits of iron ore have been discovered and are being intensively explored and tested. In this area, Canadian Javelin has the Wabush deposit; south of Wabush, Pickands Mather is exploring the Bellechasse deposit; northwest of Wabush, Jones & Laughlin Steel Company is drilling the iron formation controlled by Quebec Cobalt & Exploration, Ltd.; and near Mt. Wright in this same general area, the U. S. Steel Corporation through its subsidiary, Cartier Mining Company, is carrying on an extensive drilling and testing program on low grade iron formations. Much further west in the Lake Mistassini district, The Cleveland-Cliffs Iron Company and O'Brien, Ltd., are continuing their exploration and testing on large deposits. Further to the west, work is being conducted on ore deposits contiguous to the Great Lakes. As previously reported, Pickands Mather is developing the Bristol property near Ottawa. Pellets were shipped in 1956 from Bethlehem's Marmora deposit in Ontario, and the first high grade iron ore pellets as a by-product were shipped by the International Nickel Company. On the British Columbia seaboard, the U. S. Steel Corporation and Warren S. Moore Company are reported to have made significant discoveries of low grade iron ore deposits. There are, of course, countless other iron ore prospects in Canada to which attention is being directed by many of the iron ore and steel producing companies of both Canada and the United States.

It is interesting to note that as a result of the big expansion demanded in steel that a new concept is developing as to what constitutes an acceptable

iron ore for blast furnace use. This has intensified the search for suitable low grade ores both in the United States and Canada. The steel companies are finding that a part of their necessary expansion can be taken up by the use of high grade iron ores which will average 60 per cent or more in natural iron as compared with the usual average of 51.50 per cent. They are also securing much improved blast furnace results with sized ores, screening out and sintering the finer sizes. As a result, the interest in the high quality agglomerates from suitable low grade ores has been further stimulated and an increased activity in research to produce such ores has been necessitated. This has also increased the research work in a general ore improvement program on the average grade of ores being presently produced through upgrading, sizing, sintering, and bedding of ores to meet the restrictive requirements. While research on low grade iron formation has been going on for thirty years or more, the large-scale breakthrough to fruitful development has come about in the last five years. Erie Mining Company's and Reserve Mining Company's and U. S. Steel Corporation's taconite, concentrating, and pelletizing plants in Minnesota; The Cleveland-Cliffs Iron Company's development of two low grade concentrating properties in Michigan; Bethlehem's low grade operations at Marmora; and International Nickel Company's by-product of high grade iron ore pellets in Ontario are samples of the breakthrough that has been made in the problem of utilizing the low grade iron ore deposits in the United States and Canada. Many other low grade deposits in this country can and will be developed in the near future as a result of tailoring ore dressing techniques to the particular characteristics of those deposits by research workers.

What can be expected for the future of the iron ore industry?

There is no doubt that in general adequate tonnages of iron ore will be available in the next few years from the deposits now being or about to be developed. Yet, certain trends in the steel industry in connection with its expansion plans give indication that in spite of the general abundance of iron



ore, there may exist a scarcity in certain types of iron ore, particularly in the field of concentrates, agglomerates, and for ore suitably located with regard to centers of use. The steel industry, now recognizing that iron ore from low grade deposits can be obtained in several forms of agglomerates, has itself embarked on research to determine the most economically suitable form of agglomerate to use. Because the steel industry uses complexly different practices from plant to plant, there is little likelihood that only one form of agglomerate will prove to be best. Of this we can be sure, however, and that is that the iron ore industry can through continued research contribute new and better raw materials to the steel industry.

Production of high grade agglomerates may also develop a source of open hearth ore to relieve the acute shortage of this material here in the United States.

One other interesting point in steel company research is the accelerated activity in search of an acceptable form of direct reduction of iron ore. Several processes are being tested and the metallurgists are enthusiastic about the long term prospect.

In 1956, two major new steel plant expansions were announced. The U. S. Steel Corporation plans to build a new plant in the San Francisco area and Jones & Laughlin Steel Company plans to build a new steel plant in the Houston, Texas area. These developments point up the importance of iron ore deposits located within economic haul distances from these new plants. Population shifts to the southwest and western United States will make this an ever-increasing trend in both steel and iron ore.

Now, while we may have iron ore running out of our ears for the next few years, the growing world-wide demand for steel makes it imperative that all of the readily available sources of iron ore be developed. Here in the United States it will behoove us to see that our deposits of both high grade and low grade iron ores in the Great Lakes area are fully developed; that we conserve

somewhat our direct shipping ore and the readily concentrated ores from our open pits in an effort to allow for flexibility in production in times of national emergency. By operating such properties on a curtailed basis, they can be kept ready for maximum production when needed. This curtailed output, augmented by underground ores, agglomerates from low grade ores, and foreign imports, can readily take care of the normal demand for iron ore. I should emphasize here that for security reasons this country --- and the steel industry especially --- should insure such a program by encouraging the development of these properties and maintaining an adequate fleet of Lake bulk carriers. And most important, they should support a price structure on iron ore that will permit such an expansion. This will require enormous expenditures by the mining industry and will necessitate not only a price which will help generate a part of the capital needed but from the angle of national defense should require adequate tax consideration in the form of rapid amortization.

Thus, we can insure a healthy iron ore industry in this country for many years to come.

#