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(Summary Only of Talk Presented)

Comments on Canmore Mines - have been operating in Bow Valley since 1886, surface mining last four (?) years. Nine out of ten coal companies are concerned about the environment, for the following two reasons:

- 1) public image
- 2) more conscientious reasons

Concern the company shows for reclamation depends on three things:

- 1) depends on the personal concern of the individuals in charge of the company
- 2) attitude of the owners of the company - many are prepared to put money into it
- 3) depends on the attitude of the average employee, not only the owners but the people working for that company -- a case of educating employees as to what and what not should be done.

I believe that until proven otherwise, you get more things done by talking than by fighting. As an example, to quote Sir Winston Churchill, "Talk, talk, talk rather than war, war, war". My point is in your attitude to coal companies. Give them a chance to explain to you what they are trying to do and retain the cooperation of the coal companies. Unfair criticism by people who do not know the facts of the operations of the coal companies creates adverse reaction.

Showed Slides.

1. Canmore Corridor area.
2. Coal seam.
3. Site after strip mining is completed.
4. Same section of strip mine after reclamation - absolutely impossible to bring area back exactly as it was before strip mining.
5. Bull-dozing.
6. Abandoned mine, showing the worst possible condition.
7. Shows the three separate stock piles - rocks, gravel and soil - located on Mount Rundle strip mine.
8. Recharge pond.
9. View of Mount Rundle strip mine.
10. Strip mine shown earlier - full length of valley - originally covered with dense lumber.
11. Same strip mine taken from exactly the same point, looking the other way.
12. Mulching operation in progress.
13. Closer view, about two weeks after mulching operation.
14. How an area completely covered by dense forest can be opened up a little and possibly create pasture suitable for wildlife.
15. This is the only area for which I have a slide, shows a nine acre experiment plot on which we did establish vegetation.

It is my honest belief that where reclamation is not possible after surface mining, there should be no surface mining.

We have done a wildlife survey of the area where we are strip mining - a summer student surveyed three areas by following cutlines through the forest and just counted tracks - admittedly an amateur way of doing it. . .

Question Period

- Q. (to H. Etter) Have you any indication that sheep would not do as well on the species that you have rather than going into the exotic species?
- A. It is quite possible from a pasture point of view. It could even do better. It is not very consistent with ecology. What are we really reclaiming for in wildlife habitat? Reclamationists must be made aware of the intimacy of the habitat. It is not so much will they do better, but is it consistent with the principal of ecological protection.
- Q. (to H. Etter) I would not be too concerned about the fact that you are bringing in some exotic species that are temporary and will help stabilize the soil, but they should be replanted by native species and the best ones should eventually take over.
- A. It is a possibility that the species we put in now will be more successful. I find it difficult in my mind to visualize the kinds of success which we are used to in ranges.
- Q. (to G. Stephenson) There are two things that come to my mind. One is the opportunity of strip mining in alpine areas. The other point I would like to make is that in areas where the government has leases in the alpine areas, will these leases be cancelled?
- A. Quite honestly, I have not seen a strip mine in alpine areas. If the re-vegetation process is so difficult that it takes 200 years to grow, the government will not allow a strip mine where you can not reclaim the surfaces.
- Q. (to L. Yule) Does reclamation apply to explorations only? Also, reclamation is for some reason synonymous with vegetation. A good example is in the Yukon. Various ranges are now devoid of Dahl sheep. Now, is the government to re-establish those sheep at government expense?
- A. This is not really government policy. This is sometimes the lack of co-ordination between various agencies of the government. Under the new proposed Reclamation of Surfaces Act this is one of the things that is taken into consideration. If a coal mine company goes in there and say for instance takes a sheep range, it is proposed that they would be required to replace that sheep range in some way or another.

Q. (to L. Yule) Yes, but the range is useless without the sheep. If the government decides we have 100 or 500 sheep there and they decide it is in the best public interest to have these sheep established, the government is forced to do it.

A. The government is not forced to do it.

- Discussion re submitting mine plans prior to exploration -

L. Yule - The people that work with this find it almost impossible to submit mining plans prior to exploration because they have to go in and explore, drill and do a tremendous amount of work to find out where the coal seams are before there is any possibility of submitting a plan.

Q. (to L. Yule) Do I understand that they do not have to or can not submit an exploration plan? Are they required to submit an exploration plan?

A. Yes.

E. Scheffler - We don't know their time schedule as to when they are going to explore. One of the things we have done, is that we have developed guide lines where they have to destroy and close the access roads after they have finished with their exploration.

Q. Where is the coal going?

A. Japan.

Comment - After 17 years with the provincial government agencies I have developed a very pessimistic outlook with regards to your coal development areas in Alberta and the reason for my feeling this way is the government's fragmentary, uncoordinated program. If they do permit exploration they actually determine how the roads will go in if they do go. The way it has been in the past, you have certain individuals in the branch and certain industries that are trying to do the job, but there is no way in which you can get effective multiple use. I have seen nothing yet to indicate that we can expect anything different so that by 1985 when 25,000 acres of the province are stripped, what portion of that is going to be reclaimed? I would like to be optimistic that there were a number of companies like Gerry's that would reclaim it.

Q. (to G. Stephenson) I understand that a lot of the coal seams are relatively small and coal operation will only last for a few years in these mountain ranges and if development was going to occur it would be extensive throughout the sheep range. How large are these seams? Are they quite small? Pursuing the idea of sheep being removed from ranges and there being no way of getting them back, is it possible to build a new range prior to a mine going into operation?

A. The seams that are being worked now are 5 feet high to 150 feet thick. I think the point to remember is of the total coal reserve of 3 to 4 per cent is amendable to surface reclaim. A large strip mine is a very large capital expenditure. Seams near the surface are very limited. In 100 years time we will not want any coal. I think in 50 years time the amount of coal we will need will be dying out.

Establishing a new range adjacent to existing ones - my suggestion to this one would be this -- if you open up a mine the first thing you have to do is to ban all hunting in that area. My experience is that by opening up roads you are very very subject to poaching. The sheep on the mine property are relatively tame. You can get as close as 18 yards from them and they will not move. With an automatic rifle you could eliminate half the herd. Another pet peeve of mine is a lot of your Fish and Wildlife Officers are not covering this. You need more Fish and Wildlife Officers.

- Q. (to L. Yule) There seems to be a bit of inconsistency that perhaps Mr. Yule can clear up for us. Earlier, Mr. Stephenson expressed the idea that strip mining could not occur above the timberline because of the fragile ecology. However, as many of you saw in the Grande Cache area, one area is above the timberline. I am wondering how the mining company in Grande Cache could go ahead and develop this for strip mining when in fact they could not reclaim it.
- A. I know Grande Cache and Coleman Collieries are mining well above the timberline. As far as I know this is not against any regulation.
- G. Stephenson - My feeling is that if you can't re-establish vegetation you should not mine. Maybe mining above the timberline is possible.
- Q. Is there a regulation stating that you must reclaim?
- A. I do not think there is a regulation but it is a policy that if you can't reclaim you should not mine. Of course this is a very difficult subject because for instance if you are in a rock area where there is nothing growing at the present time, would you say that they should not mine there? Take a particular case of Coleman Collieries which is working at the present time - there is no vegetation (unlike Grande Cache where you have big grassy areas). If there was nothing there in the beginning, and if you say you put it back in its natural state, no reclamation is necessary.
- Q. (to L. Yule) Around Coleman Collieries there are all kinds of other companies above the tree line. It brings up a point again which has been brought forth by several people and that is that we must get at things above the tree line. It seems that they issue permits on an automatic basis whether this can be reclaimed or not. It is so inconsistent with the fact that you are issuing permits automatically.
- A. I am seeking information on this. What is the objection if, for instance, you have rock basis above the tree or grass line, for issuing coal permits?
- M. Quaedvlieg - There are several. In an area which is 4 miles long they have put in over 50 miles of exploration roads. Now, if they do not strip they have already done considerable work in there and the area involved in exploration alone may exceed the area involved in the mining. I think we will probably see a decrease in the area of elk and sheep.
- E. Scheffler - The Right of Entry legislation literally prevents us from stopping mining companies as well as other mineral developments. Invariably they get the permit under present legislation. This again is under review.

- Comment - Assuming you have a defined criteria for what the responsibilities of a mine site are, what procedures do you plan to use to make sure the company has attempted to rehabilitate? If in fact they do not do it, what penalties are anticipated for the company involved? - Answer. The penalty is not laid down in legislation. It is at the discretion of the Minister under the new Environmental Disturbance Act. I think they should propose a standard which would be more uniformly applied.
- J. Stelfox - I think the public and the government are being extremely naive that you must reclaim when it has not even been shown that reclamation is possible. Why even let them go in an area to explore before the government proves that reclamation is possible.
- B. Kemper - In many explorations there have been moderate successes in establishing re-vegetation. The agencies have put clauses in all the things that have been brought up. If certain clauses have been removed, we have done the best we can.
- Q. (to G. Stephenson) There is an excellent report "Review of the Mining Problems throughout the States" showing results of mining and not reclaiming. I have seen nothing yet in our standards to show that the regulations we have are legally binding. Several companies have done irreparable damage and have left the country. In the Province of Alberta, will repair work be done with taxpayers money?
- A. In order to obtain permission to strip mine you have to put forth a deposit towards reclaiming. We have the bonding now - up to thirty thousand dollars.
- Q. Despite that bond, if you can't reclaim, thirty thousand dollars does not mean anything.
- A. We have attempted to come up with a figure that we thought would reclaim an area. We have researched some American figures and have come up with this figure.