

384103

TGS → Huckleberry

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SMITHERS EXPLORATION GROUP

**HUCKLEBERRY - SILVER QUEEN  
FIELD TRIP**

SEX TRIP  
Thurs. Sept. 10/98

**Leaders:** Steve Blower, Huckleberry Mine  
Paul Wojdak, Mines Branch, MEM  
Anne Thompson, Petrascience Consultants Inc.

**STOP 1:** Km 118.5, pullout on right

Two kilometres from Huckleberry ultimate pit. A well-bedded sequence of Hazelton Group fine grained andesite, pyroclastic dacite and feldspar-rich epiclastic. Within this compositional range which unit might one expect the most distant evidence of contact metamorphism or hydrothermal alteration? The most visible indication of the nearby ore deposit is the strong 110° fracturing. These have hair-line chlorite partings. Sporadic quartz-calcite-pyrite veinlets have a similar orientation. One would require detailed familiarity with Hazelton rocks in the area to judge if these clues are sufficient to focus a regional prospecting program. Listen to your hammer's "ring" and compare with the next stop.

**STOP 2:** Km 119.5, pullout on left.

One kilometre from Huckleberry ultimate pit. Hornfelsing of Hazelton andesite by emplacement of the late Cretaceous stock which was responsible for the Huckleberry ore deposit is apparent from the rock's more brittle nature and hammer "ring". There is patchy pervasive chlorite and a subtle darkening of the andesite which might be due to biotite formation. A thin section is required to be certain. These are manifestations of contact metamorphism. The 110° fracturing is prominent and locally contains chlorite-pyrite veinlets with minor chalcopryrite or malachite. In addition, there are bleached envelopes (quartz or calcsilicate?) around chlorite veins. These are probably hydrothermal.

**STOP 3:** Km 120.0, pullout on left.

The ultimate pit wall is 500 metres away, the current pit wall is 1000 metres. Intense fracturing and pyrite stockwork is obvious and indicates likely proximity of significant mineralization to any prospector. Chlorite is pervasive in the altered andesite and is interpreted as a retrograde hydrothermal feature that was superimposed on the biotite hornfels.

**Stop 4: East Zone Pit - 982 Bench**

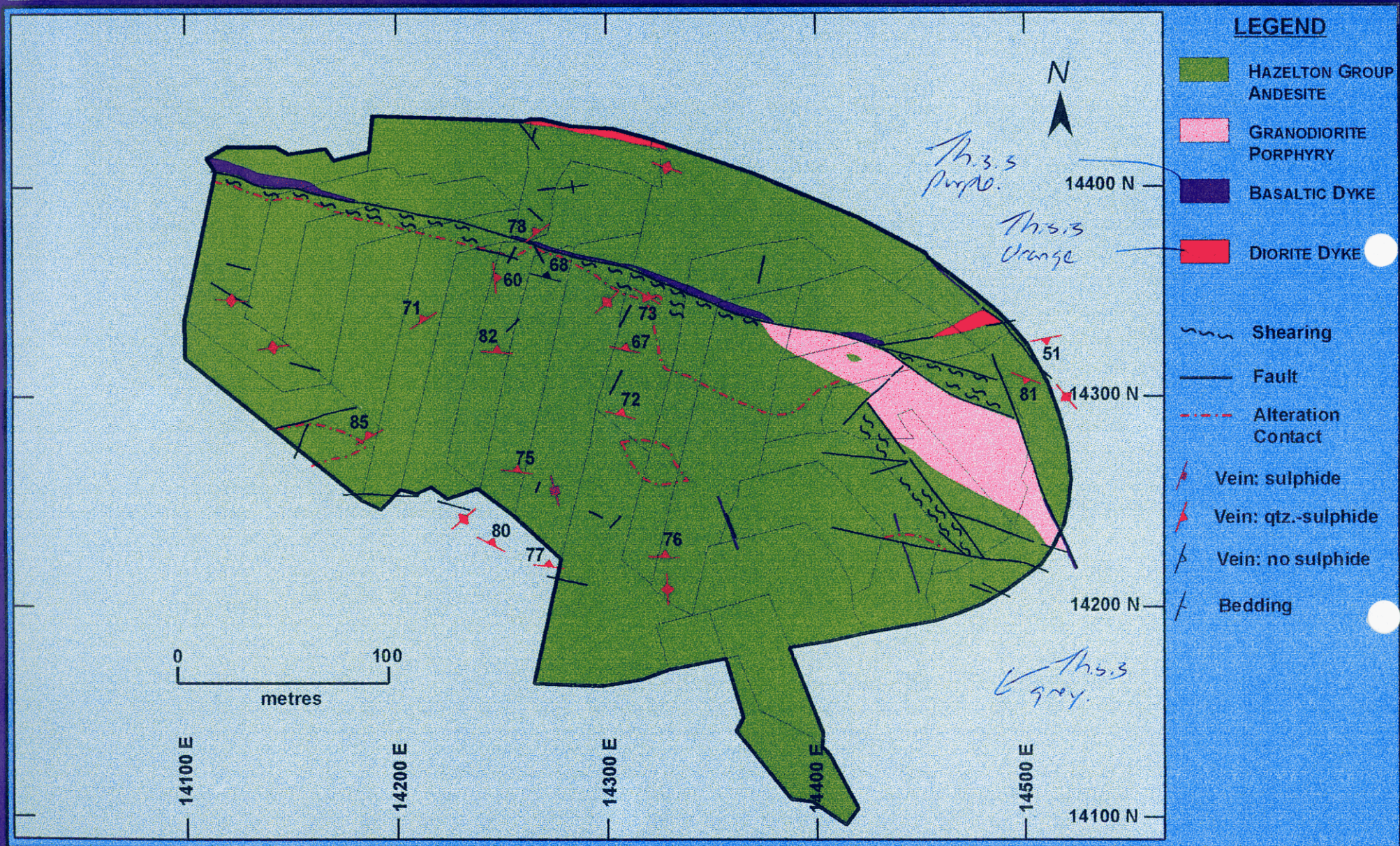
At the west end, intense pervasive biotite alteration of the Hazelton group andesite with common mineralized quartz veins. All original textures have been obliterated by the alteration. Note the intensely fractured rock typically found in this gypsum depleted zone. At the east end, intensely clay/sericite altered granodiorite of the Bulkley intrusions. All of the feldspars have been replaced by clay and sericite although some original porphyritic textures are still present.

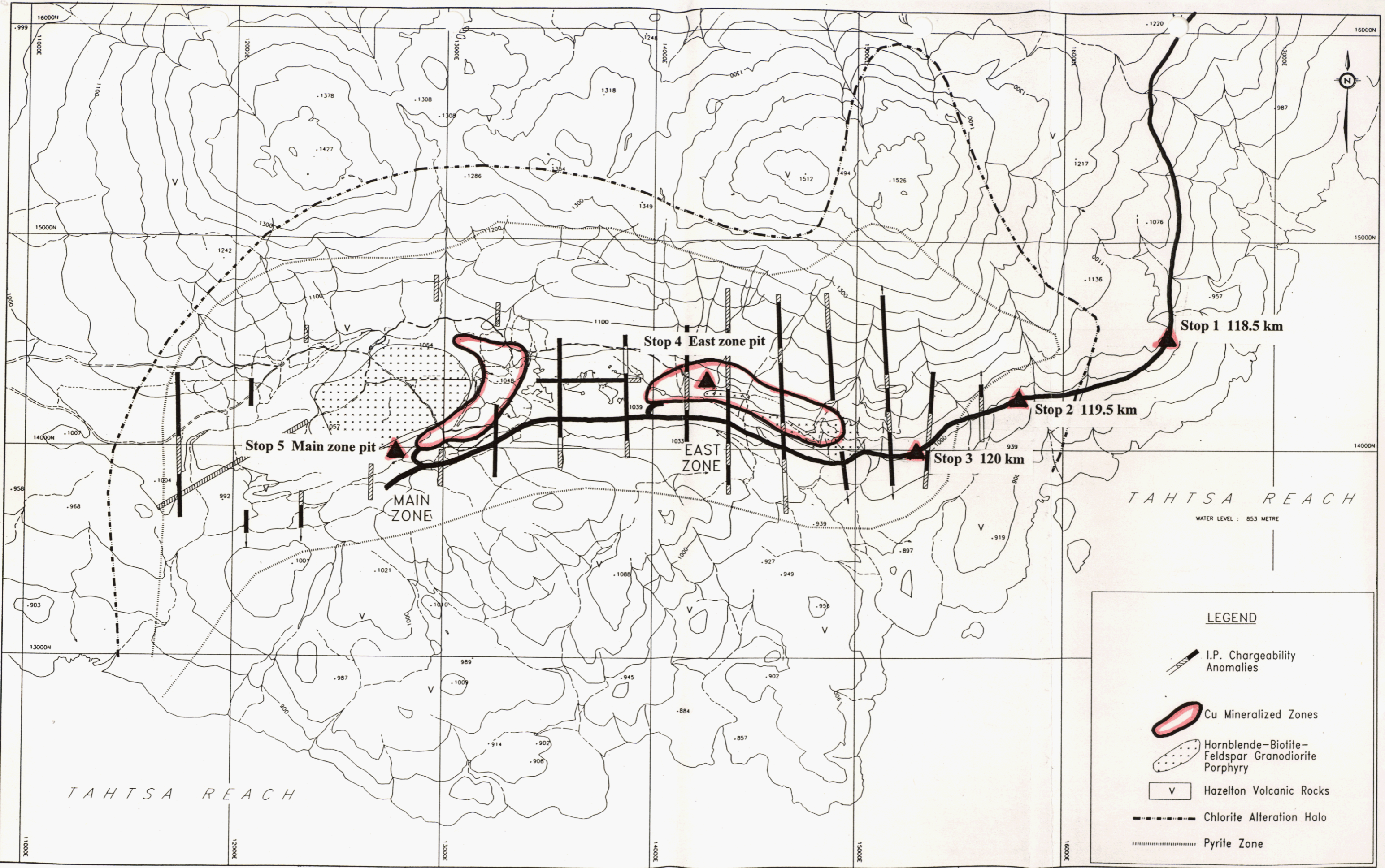
**Stop 5: Main Zone Pit - NAG Quarry**

Relatively fresh, although weakly mineralized granodiorite from the Main zone stock (Bulkley intrusions). Note the quartz veining, moderate potassic (kspar) alteration envelopes around the quartz veins and local pervasive clay/sericite alteration. The relatively low sulphide concentrations (especially pyrite) are indicative of this rock's low acid generation potential.



# Huckleberry Mine: Geology





HUCKLEBERRY PROJECT - GEOLOGICAL-GEOPHYSICAL COMPILATION



Huckleberry Mines Ltd.  
Huckleberry Mine

TGS → Huckleberry

**Schroeter, Tom EM:EX**

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**From:** Schroeter, Tom EM:EX  
**Sent:** Tuesday, September 29, 1998 1:46 PM  
**To:** Hermann, Fred EM:EX  
**Cc:** Bergen, Wally EM:EX; Smyth, Ron EM:EX  
**Subject:** RE: Huckleberry  
**Sensitivity:** Private

Fred, I'm sorry if the comment has apparently become "high-profile". It resulted from a question I asked during my visit regarding stockpiling of lower grade (i.e. below current economic viability) for possible treatment to recover utilizing other techniques like dump leaching. Perhaps I misunderstood the answer I was given, but I thought there was some concern about the money the company would have to give to the government (taxes) in order to "store" (i.e. stockpile) materials for further consideration/treatment. I'm not aware of this kind of scenario; perhaps it's clear in the Project Approval permit? The other point was the physical (space) requirements in an already constrained site. If I'm off base with my comments, I apologize. Tom.

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**From:** Hermann, Fred EM:EX  
**Sent:** Tuesday, September 29, 1998 1:20 PM  
**To:** Bergen, Wally EM:EX; Schroeter, Tom EM:EX  
**Cc:** Smyth, Ron EM:EX  
**Subject:** Huckleberry  
**Sensitivity:** Private

Tom

Your comment in the weekly report regarding Huckleberry highgrading has raised considerable interest in Victoria. We require significant background data to either substantiate or repudiate the statement.

Please work with Wally and the Smithers Staff to provide detail regarding the statement.

Information is due to my office not later than 4:00 p.m. Wednesday September 30.

Thanks

Fred

**Schroeter, Tom EM:EX**

→ Huckleberry

**From:** Schroeter, Tom EM:EX  
**Sent:** Wednesday, September 30, 1998 7:25 AM  
**To:** Anderson, Duane EM:EX  
**Subject:** RE: Quick question  
**Sensitivity:** Private

Duane, thanks for comments. Tom.

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**From:** Anderson, Duane EM:EX  
**Sent:** Tuesday, September 29, 1998 5:29 PM  
**To:** Schroeter, Tom EM:EX  
**Subject:** RE: Quick question  
**Sensitivity:** Private

Tom:

haven't done any research and will keep ear open; however, not familiar with any significant gov't charges directly linked to stockpiles of ore. Recall that Equity had large stockpile, think that Afton was likewise, and was not (to my knowledge) ever raised as an issue.

"Minor charges or costs" might include corporation capital tax (0.3% of book value of stockpile - million tonnes @ \$3.00/t (?) ==> \$9,000 per year) and possibly property tax (not sure but will enquire as to how "raw materials inventories" are treated for property tax purposes). Not to be cavalier with industry cost items but tend to view associated costs as irritating.

Just remembered how ELP infuriated coal industry with waste rock fee of \$0.50 per tonne. We argued for its elimination for years and not sure if it's still in effect or not. Not obvious how it would apply here but will enquire if fee still around.

Duane A.

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**From:** Schroeter, Tom EM:EX  
**Sent:** Tuesday, September 29, 1998 2:35 PM  
**To:** Anderson, Duane EM:EX  
**Subject:** RE: Quick question  
**Sensitivity:** Private

Duane, just got back from field and will provide comments re-"Overview Paper" later this week. As for the Huckleberry comment, perhaps I was mistaken? When I inquired about a stockpile of lower-grade material, perhaps for future processing (e.g. dump leaching), I thought the answers where that the company couldn't afford the potential land cost to "store" lower grade material (i.e. taxes?) by gov't and that there was a physical limitation on site. Can you elaborate on the former comment? Is/could there some sort of tax or lease fee charged for 'storage' here? Tom

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**From:** Anderson, Duane EM:EX  
**Sent:** Monday, September 28, 1998 2:55 PM  
**To:** Schroeter, Tom EM:EX  
**Subject:** Quick question  
**Sensitivity:** Private

1) appreciate any comments or corrections re: Overview Paper prepared for DM Kang that Director

TS → Huckleberry

**Schroeter, Tom EM:EX**

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**From:** Smyth, Ron EM:EX  
**Sent:** Monday, September 28, 1998 12:04 PM  
**To:** TSCHROETER  
**Cc:** Hermann, Fred EM:EX  
**Subject:** Huckleberry  
**Sensitivity:** Private

Tom,

Please talk to the relevant mine inspector about your charge in your weekly report that Huckleberry is highgrading the deposits. Please write me a note on the issue that I can share with Fred and Joan.

We are naturally concerned and if there is some action that Govt should/ can take then we should be aware of this.

Cheers,

Ron Smyth  
Director, Geological Survey Branch  
Tel: (250)-952-0374  
Fax: (250)-952-0381  
<http://www.ei.gov.bc.ca/geology>

Note new e-mail address: [ron.smyth@gems4.gov.bc.ca](mailto:ron.smyth@gems4.gov.bc.ca)

TGS → Huckleberry

**Schroeter, Tom EM:EX**

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**To:** Schroeter, Tom EM:EX  
**Subject:** Quick question  
**Sensitivity:** Private

1) appreciate any comments or corrections re: Overview Paper prepared for DM Kang that Director Koncohrada e-mailed over to you;

2) your Sep 24/98 weekly report re: field visits and Huckleberry states that "Unfortunately, the deposits are being "high-graded", due to prohibitive gov't costs or stockpiling lower-grade material" - caught my attention and would appreciate if you could elaborate on those costs.

Duane A.



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