Yellowknives Dene First Nation Concerns about Potential Environmental Impacts of the JERICHO Diamond Project

May 25, 2001.

Yellowknives Dene First Nation are concerned about potential trans-boundary (Nunavut - N.W.T.) environmental impacts from the proposed Jericho Diamond Project. These we can summarize in 2 categories:

1. cumulative impacts from accidental spills on the Lupin winter road; and

2. effects on the Bathurst caribou herd.

Winter Road:
We are not clear as to the number of truck loads from Yellowknife that Tahera estimates will be required to supply the minesite during mine construction and operation.

Annual # loads during construction (2002 - 2003)= **441**
But Tahera's consultant's Aquatic Impacts Report gives the figure of **361** (*p. 89*)
Annual # loads during operations (2003 - 2005) = **312**
But the Draft Summary *p. 55* states that the max. # of truckloads during operations will be **320.**
We understand that 157 will be needed during underground mining in 2006-2008 and 179 during closure of the mine in 2011.

These estimates represent a 5 - 7% increase (during the first half of the Jericho mine life) in truck traffic on the ice road over what Diavik estimated the total will be for all users of the road[1].

Yellowknives Dene want to maintain the high quality of water and fish habitat found in all lakes and rivers in our traditional lands. This is a strongly held belief that should not be compromised, as a healthy land has nourished and provided for our people over countless generations.

This is why we are concerned over the possibility of accidental contamination of these waters. A possible source of such contamination is the Lupin winter road that will service the Jericho mine and currently services the Lupin, Ekati and Diavik mine sites. Three quarters of the length of this road runs over water. Tahera's aquatics consultant, RL&L, states that a spill of hazardous goods into a small lake on the scale of Lynne Lake (an area of 16 ha) would have a high ecological impact which would be irreversible during the life of the mine.

Tahera's EIA states that the potential for an accidental spill on the winter road is "remote".(*Draft Summary p.78*) Yet they state that one spill can be expected to occur at any time during the life of the mine. This hardly seems to be a remote possibility.

We note that Tahera has included in their quantitative assessment of cumulative effects only the probability of accidental spills (0.003) occurring on the Lupin - Jericho extension of the winter road (*Draft Summary EIS p.79*). No estimates are given of what increase in probability of accidents along the whole length of the road from Yellowknife north arises from the extra 441 truckloads during Jericho mine construction .
If we take DIAVIK's estimates that their 2300 loads during construction of their mine will add 0.6 potential accidents per year to the total probability existing on the winter road "pre-Diavik", then the same accident rate would add an extra 0.1 once construction of Jericho began. During Jericho operations, this accident rate would decline to an extra 0.08. So, during the life of the Jericho project (9 years), we could expect one more accident. But where is that one accident likely to occur? Taking into consideration the fact that >75% of the winter road's length falls within the N.W.T., can we expect this one extra accidental spill to most probably occur on Dene lands rather than in Nunavut?

According to Diavik's estimates, we can expect a total of about 15 to 17 truck accidents on the winter road over a 10 year period [1]. Adding the extra one attributable to the Jericho project yields a cumulative expected total of 16 to 18 accidental spills on the winter road between Yellowknife and Jericho. Assuming that accidents are not distributed evenly along the road, but will probably tend to concentrate at certain places where risks are highest (at corners and at shoreline entrances/exits of water bodies where ice is often thinnest), might we expect that some points on the road would be subjected to multiple accidental spills over this 10-year period? If so, this could change Tahera's evaluation of cumulative effects ("negligible") of the winter road on the environment, due to an amended estimate of the probability of serious water quality degradation or fish habitat destruction for some sensitive water bodies on the route.

Tahera's consultant reminds us that of all the truck traffic that will service Jericho, "not all truck loads contain materials that are hazardous to the aquatic environment."[2] This is undoubtedly correct. However, we should not let this obscure the fact that over the 16 year period from 1983 -98, 87% of accidental spills on the winter road (13 of 15) were petroleum products (diesel and gasoline).

Tahera downplays the potential for negative environmental impact of an oil tanker truck going through the ice by stating that the lighter-than-water petroleum would keep the truck afloat. This may be true for the tanker, but what about the cab and its own fuel, lubricant and coolant contents? Also, are there possibilities of puncture of the tanker by the ice as it goes through?

Perhaps just as important as single spill incidents is the more incremental build-up of smaller amounts of contaminants that could be spilled on the road over prolonged periods due to leaks of fuel, lubricants and coolant from poorly- maintained trucks onto the road. Two of 15 spills along the ice road from 1983-98 were from leaks of 90 and 464 liters[1]. Is Tahera taking steps to ensure that trucks servicing their minesite will not contribute to such a problem?

Caribou:

Northward migration through the project area begins by mid-April, after ice road transport from the south is finished. But haul road between Lupin and Jericho will be active for 1-1.5 months during this migration.

Tahera's EIS states that no part of the project area can be described as "key habitat" for any wildlife species, based on a definition of the habitat supporting $\geq 1\%$ of a population. (*Draft Summary p. 49*) However, in 1 of 6 years (17% of Jericho study years), >10% of the Bathurst herd (1996) were observed resting and feeding in the area for over half a day. This indicates that at least in some years, the Jericho Project area provides important habitat for migrating caribou. This would refute Tahera's contention that the loss of this habitat would not be detectable at a population level (*Draft Summary p. 59*) Further to this, it is our contention that any area that is used only as a migration corridor, especially when it provides a route around large obstacles like cliffs or large bodies of open water, should also be considered as important habitat. When caribou access to a corridor is impeded and they have to detour many extra kilometers to eventually link up with their main migration route, this could force them to use up valuable energy reserves before arriving at calving grounds.

The EIS also states that it will be "unlikely that caribou cows passing Lupin/Jericho on spring migration would also have passed through the Ekati and/or Diavik diamond projects.." [3] However, the caribou telemetry maps in the same report show that in 1997, one cow (#B15b) traveled through both the Lupin - Jericho area and Lac de Gras. Since only one of 23 collared cows did this (4% of sample population), it may indicate a small proportion of the population migrate through the 2 areas, but in our opinion, this does not rate as an "unlikely" occurrence.

If the Jericho Project gets authorization to go ahead , then we would encourage Tahera to continue its funding of research on caribou migration and energetics.

We also wish to remind Tahera that sustainability is not the only aspect of our caribou harvests that we do not want to see deteriorate, but also accessibility. We will not be pleased if, as a result of mining activity and the winter road traffic that Jericho will contribute to, caribou migrations are deflected to routes far away from our communities and traditional hunting areas.

Noise:

In addition to the above concerns, we would also like to direct the Board's attention to a failure of the EIA in the discussion of noise impacts.

To more fully understand the magnitude of the noise zone of *impact around the* mining activities, it would have been useful to have seen a map showing the areas that receive noise in gradations of dB contour lines around the point source(s). This was done quite effectively in Diavik's EA report.

Similarly, a map showing the "disturbance footprint" of aircraft flight noise in and out of the airstrip would have been helpful in evaluating the effects of aircraft noise on migrating caribou and staging/nesting waterfowl. Will all portions of the landing approaches and take-offs ≤500 m above ground level be oriented north-south, or will some, by necessity, be circling in from the east or west ?

Thank you for giving us this opportunity to to bring the above concerns to the Board's attention.

Sincerely,

Rachel Crapeau ____________________
Tim Byers ____________________
(Original copy signed by the above)

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[1] Table 7-11 of Diavik Diamonds Project Environmental Assessment Submission: Environmental Effects Report, Fish and Water,1998

[2] RL&L Environmental Services Ltd. 2000. Jericho Diamond Project Environmental Impact Assessment: Aquatic Biota. Report for Tahera Corp. RL&L Report No. 857bF:101 p.+1 appndx

[3] Hubert & Assoc. Ltd. 2000. 1999 and Y2000 Wildlife Field Studies Data Report, and Project Environmental Effects Assessment on Wildlife, November 2000, p.67

ᔨᐊᓗᓐᓇᐃᒥ ᐃᕿᓖᑦ ᓄᓇᖃᖅᑳᖅᓯᒪᔪᑦ ᐃᓱᒫᓗᒋᔭᖃᕐᕕᖏᑦ ᐱᔾᔪᑎᓖᑦ ᐊᒃᑐᐊᓂᖃᑐᐃᓐᓇᕆᐊᓕᖕᓄᑦ ᐊᐅᑎᑦᑎᓐᓄᑦ ᐃᑲᖕᓗᑦ ᐱᔪᓂᒃ ᔨᐅᓇᑰ ᓯᑎᔪᓂᑦ ᐅᔭᕋᓐᓂᒃ ᐱᓕᕆᕕᐊᓐᓂᒃ

May 25, 2001

ᔨᐊᓗᓐᓇᐃᒥ ᐃᕿᓖᑦ ᓄᓇᖃᖅᑳᖅᓯᒪᔪᖏᑦ ᐃᓱᒫᓗᒋᔭᖃᒻᒪᑕ ᑭᓪᓕᖕᒐᓅᖕᒐᔪᓂᒃ (ᓄᓇᕗᑦ-ᓄᓇᑦᓯᐊᖅ) ᐊᐅᑎᓕᕆᓂᕐᒧᑦ ᐊᒃᑐᐊᓂᓖᑦ ᑐᒃᓯᕋᖅᑕᐅᓯᒪᔪᒃᑯᑦ ᐱᓕᕆᐊᒃᓴᖕᒐᒧᑦ ᔨᐅᓇᑰ ᓯᑎᔪᓂᒃ ᐅᔭᕋᒃᓴᖅᓯᐅᕐᕕᐊᓐᓂᒃ. ᓇᐃᓈᖅᓯᒪᓪᓗᑎᒍ ᑐᑭᓕᐅᕐᓯᒪᔭᕗᑦ ᒪᖀᓕᖕᒐᓪᓗᑎᒃ:

1. ᓴᖅᑭᐊᔪᓐᓇᕐᑐᑦ ᐊᒃᑐᐊᓂᖃᓕᕈᓐᓇᕐᑐᑦ ᐊᐅᑎᑦᑎᓐᓄᑦ ᑯᕕᑎᑦᓯᑲᓪᓚᖕᓂᖅ ᐃᒪᖕᒐᓄᑦ Lupin ᐅᑭᐅᒃᑯᑦ ᐊᖅᑯᑕᐅᕙᒃᑐᒧᑦ; ᐊᒻᒪᓗ

2. ᐊᒃᑐᐊᓂᖃᕈᓐᓇᕐᑐᑦ ᓱᕐᕋᐃᔪᓐᓇᕐᑐᑦ ᕿᖕᒐᐅᑦ ᑐᒃᑐᖏᓐᓄᑦ.

ᐅᑭᐅᒃᑯᑦ ᐊᖅᑯᑕᐅᕙᒃᑐᖅ:
ᖃᐅᔨᒪᓗᐊᖏᓇᑦᑕ ᖃᑦᓯᐅᕙᖕᒪᖕᒐᑕ ᓄᓇᓯᐅᑏᑦ ᐱᕙᒃᑐᑦ ᔨᐊᓗᓐᓇᐃᒥᒃ ᐅᖃᐅᓯᕆᓯᒪᔭᖏᑦ ᑕᕼᐅᕆᒃᑯᑦ ᐊᑑᑎᒐᔭᕐᑕᖏᓐᓂᒃ ᐱᓕᕆᔾᔪᑎᒃᓴᑦ ᐅᓯᔭᐅᖅᑲᑦᑕᕆᔭᕐᒪᑕ ᑕᐃᒍᖓ ᐅᔭᕋᒃᓴᖅᓯᐅᕐᕕᒃ ᓴᓇᔭᐅᓕᕐᐸᑦ ᐊᒻᒪᓗ ᐊᐅᓚᑕᐅᓕᕐᐸᑦ.

ᐊᕐᕋᒍᓕᒫᖅ ᖃᑦᓯᐅᓂᖏᑦ ᐅᓯᔭᑦ ᐊᐅᓚᑕᐅᓕᕐᐸᑦ ᐅᕙᓂ (2002-2003) = 441 ᑭᓯᒥᓕ ᑕᕼᐅᕆᒃᑯᑦ ᑭᓪᓚᑐᕐᑎᖕᒐᑦᑕ ᐃᒪᕐᔫᖕᒐᔪᓄᑦ ᐊᒃᑐᐊᓂᓕᖕᓂᒃ ᑐᓴᒃᓴᓕᐊᕆᓯᒪᔭᖏᑦ ᓇᓗᓇᐃᔭᐃᓯᒪᖕᒪᑕ ᐃᒫᒃ ᐊᓪᓚᒃᓯᒪᔪᖅ 361 (ᒪᒃᐱᒐᖅ 89)

ᐊᕐᕋᒍᓕᒫᖅ ᖃᑦᓯᐅᓂᖏᑦ ᐅᓯᔭᑦ ᐊᐅᓚᑕᐅᓕᕐᐸᑦ ᐅᕙᓂ (2003-2005) = 312 ᓇᓗᓇᐃᔭᕐᓯᒪᔭᐅᔪᒃᑯᑦ ᓇᐃᓈᖅᓯᒪᑎᓪᓗᒋᑦ ᒪᒃᐱᒐᖅ 55 ᐊᖏᓛᖑᓛᕐᑐᒻᒨᖅ ᐅᓯᔭᐅᖅᑲᑦᑕᕆᔭᕐᑐᑦ ᐱᓕᕆᓐᓇᐅᑎᓪᓗᒍ ᑭᓯᐊᓂ ᐃᒪᓐᓇᐃᓪᓗᐊᓛᕐᑐᑦ 320.
ᑐᑭᓯᔭᕐᑎᒍᓪᓕ ᐊᑑᑕᐅᖅᑲᑦᑕᕆᔭᕐᒪᑕ ᐃᒫᑎᒋ 157 ᓄᓇᐅᑉ ᐃᓗᐊᓂ ᐅᔭᕋᒃᓴᕐᓯᐅᕐᓇᐅᑎᓪᓗᒍ ᐊᕐᕌᒍᖓᓂ 2006-2008 ᐊᒻᒪᓗ 179-ᕆᓪᓗᑎᒃ ᐅᒃᑯᐊᖅᑕᐅᕙᓪᓕᐊᓕᕐᐸᑦ ᐊᕐᕌᒍᖓᓂ 2011.

ᑕᒪᒃᑯᐊ ᓇᓗᓇᐃᔭᕐᑕᐅᔾᔪᑎᑦ ᓇᓕᖅᑲᖏᑦ ᐊᖏᓪᓕᓂᖅᑲᒪᑕ ᐃᒫᑎᒋ 5 – 7%-ᓂᒃ (ᐱᒋᐊᓕᓴᕐᑕᐅᓂᖓ ᐊᑑᑎᓕᑕᐃᓐᓇᑎᓪᓗᒍ ᐊᑉᐹ ᐅᔭᕋᒃᓴᖅᓯᐅᕐᕕᖕᒥ ᔨᐅᓇᑰᒥ) ᐊᖅᑯᑕᐅᓴᔭᖅᑎᓪᓗᒍ ᐊᖅᑯᑦ ᐅᑭᐅᒥ ᐃᑯᖓ Diavik-ᒧᑦ ᑲᑎᖅᑐᖅᓯᒪᓪᓗᑎᒃ ᐃᖕᒋᕆᕚᐅᖅᑲᑦᑕᕆᔭᕐᓂᖓ ᐊᖅᑯᑕᐅᔫᑉ.

ᔨᐊᓗᓐᓇᐃᒥ ᐃᕿᓖᑦ ᓄᓇᖃᖅᑳᖅᓯᒪᔪᑦ ᓱᕈᒃᑎᖅᑕᐅᖅᑯᔨᖏᒻᒪᑕ ᐃᒥᑦᓯᐊᐹᓗᖕᒥᒃ ᐊᒻᒪᓗ ᐃᖃᓗᓕᖕᓂᒃ ᐃᓘᓐᓇᐃᓐᓂᒃ ᑕᓯᕐᓂᒃ ᐊᒻᒪᓗ ᑰᖕᓂᒃ ᐱᖅᑯᓯᑐᖃᑦᑎᒍᑦ ᓄᓇᑐᖃᑦᑎᓐᓂ. ᑕᒪᓐᓇ ᐊᒃᓱᕉᑕᐅᓪᓚᕆᒻᒪᑦ ᐊᑲᐅᓈᖅᓯᒪᖏᓚᕿᓂᓕᖕᓄᑦ ᑎᑭᐅᑎᑎᑦᓯᖅᑯᔨᖏᒻᒪᑕ ᑲᖕᒐᖅᓇᖅᑐᒧᑦ ᑭᖑᖕᒐᒧᑦ, ᓄᓇᕐᔪᐊᕗᑦ ᖃᓄᐃᓐᓇᖅᑐᖃᖅᑲᖏᒻᒪᑦ ᓱᕈᒃᑎᖅᓯᒪᖏᒻᒪᑦ ᐆᒪᕕᐅᑦᓯᐊᕈᓐᓇᖅᓱᓂ ᐊᒻᒪᓗ ᐅᐸᑦᓯᐊᕈᐊᓗᓂᒃ ᑕᐃᒪᖕᒐᓂᐊᓗᒃ ᓯᕗᓕᒥᓂᑦᑎᓐᓂᓂᒃ ᐆᒪᒍᑕᐅᖅᑲᑦᑕᖅᓯᒪᖕᒪᑦ.

ᑕᒪᒃᑯᐊᑕᒡᒐ ᐃᓱᒫᓗᒍᑎᒋᒐᑦᑎᒍ ᐱᔮᓇᔪᓐᓂᖅᑭᒃᑲᓗᐊᖅᑎᓪᓗᒍ ᓱᕈᒃᑎᕆᔪᓐᓇᕐᑐᓂᒃ ᐃᒪᑦᑎᓐᓄᑦ ᐱᒥᑎᕆᔪᖅᑲᓐᓂᖅᐸᑦ. ᖁᑦᓴᓇᖅᓂᐅᓴᔪᑦ ᐱᖕᒪᑕ ᓱᕈᒃᑎᕆᓂᐅᓴᔪᑦ ᐃᑲᖕᓗᑦ ᐅᔭᕋᒃᓴᖅᓯᐅᕐᕕᖕᒥᒃ Lupin-ᒥᒃ ᐊᖅᑯᑕᐅᕙᒃᑐᓂ ᐅᑭᐅᖑᑎᓪᓗᒍ ᐅᓯᖅᑲᑦᑕᖅᕕᐅᓛᕐᑐᒥ ᔨᐅᓇᑰᒧᑦ ᐊᒻᒪᓗ ᒫᓐᓇ ᐱᓕᕆᕕᖕᓂ Lupin-ᒥ, Ekati-ᒥ, Diavik-ᒥ, ᑖᒃᑯᓇᓂ ᐅᔭᕋᒃᓴᖅᓯᐅᕐᕕᖕᓂ. ᐊᖏᓂᖅᓴᒨᖕᒐᔪᑦ ᑕᑭᓂᓖᑦ ᑖᑯᐊ ᐊᖅᑯᑎᖏᓐᓄᑦ ᐊᖅᑯᑕᐅᕙᖕᒪᑕ ᐃᒪᓕᖕᓅᖕᒐᔪᑦ. Tahera-ᒥᒃ ᐱᓕᕆᐊᖅᑲᖅᑲᑦᑕᖅᑐᖅ ᐃᒪᕐᒥᐅᑕᓕᕆᔩ, RL&L, ᐅᖅᑲᖅᓯᒪᖕᒪᑦ ᑯᕕᕕᒋᔭᐅᓯᒪᔪᖅ ᐊᒃᑕᓇᕐᒪᑕ ᑕᓯᕐᒧᑦ ᒥᑭᔪᒧᑦ Lynne Lake-ᒧᑦ ᐊᖏᓂᓕᒃ ᐃᒪᐃᓪᓗᐊᕐᑐᒥ 16 ha-ᒥᒃ ᓄᓇᓘᖅᓯᒪᒍᓐᓇᕐᒪᑦ ᐅᑎᕈᓐᓇᕈᓐᓃᕐᓗᓂ ᐱᐅᓯᕐᒥᓄᑦ ᐊᑑᑕᐅᓂᓕᒫᖕᒐᓂ ᐅᔭᕋᒃᓴᖅᓯᐅᕐᕕᒃ.

ᑕᕼᐅᕋ Tehera-ᒧᑦ ᐊᕙᑎᓕᕆᔭᐅᓂᖕᒪᑕ ᑐᑭᖏᑦ ᖃᐅᔨᓴᕐᑕᒥᓃᑦ ᐅᖃᖅᓯᒪᖕᒥᖕᒪᑕ ᐃᒫᒃ ᐊᒃᑕᓇᕐᓂᐅᓴᒐᔭᕐᒥᖕᒪᑦ ᐱᔮᕆᕙᖅᑲᖏᓪᓗᓂ ᑯᕕᕙᖅᑲᓐᓂᖅᐸᑦ ᐅᑭᐅᒥ ᐊᖅᑯᑕᐅᕙᒃᑐᒃᑯᑦ ᐅᖕᒐᓯᒃᑐᒥ (ᓇᓗᓇᐃᔭᕐᓯᒪᔭᖅ ᓇᐃᓈᖅᓯᒪᓪᓗᓂ ᐊᓪᓚᒃᓯᒪᕙᑎᒍᑦ ᒪᐱᒐᖅ 78). ᐅᖅᑲᖅᓯᒪᒐᓗᐊᕐᒥᒃ ᐊᑕᐅᓯᐊᕐᓗᓂ ᐱᔮᕆᖅᒋᑦᑐᒥᒃ ᑕᒪᓐᓇ ᐊᑑᑎᑐᐃᓐᓇᓇᐊᕐᑲᒻᒪᑦ ᐊᑑᑕᐅᓂᓕᒫᖕᒐᓂ ᐅᔭᕋᒃᓴᖅᓯᐅᕕᒃ. ᑕᒪᓐᓇ ᓱᓕᔫᔪᖏᒻᒪᑦ ᓇᓗᓇᐃᔭᐃᒍᑦ ᐅᖕᒐᓯᒃᑐᓃᑦᑐᓄᑦ.

ᐃᖅᑲᐅᒪᓂᐊᕋᑦᑎᒍ ᑳᑯᐊ ᑕᕼᐅᕋᒃᑯᑦ ᐃᓚᒥᔭᐅᑎᑦᓯᖕᒪᑕ ᖃᑦᓯᐅᓂᕆᒐᔭᕐᑕᖏᓐᓂᒃ ᖃᐅᔨᓴᕈᑎᑎᒍᑦ ᐱᔾᔪᑕᐅᑐᐃᓐᓇᕆᐊᓕᖕᓂᒃ ᐱᔮᕆᖏᒃᑲᓗᐊᕐᓗᑎᒃ ᑯᕕᕙᖅᑲᓐᓂᖅᐸᑦ ᓇᓗᓇᐃᔭᕐᓯᒪᔭᐅᓂᐊ (0.003) ᐃᑲᓂ ᐊᑑᑎᓕᓐᓂᓪᒪᑦ Lupin – Jericho-ᑯᓐᓄᑦ ᑕᑭᓪᓕᒥᐊᖅᑕᐅᓯᒪᓂᐊᒍᑦ ᐊᖅᑯᑕᐅᕖᑉ ᐅᑭᐅᒥ (ᑕᒪᓐᓇ ᓇᓗᓇᐃᔭᖅᓯᒪᔭᖅ ᓇᐃᓈᖅᓯᒪᕙᑎᒍᑦ ᐊᕙᑎᓕᕆᔾᔪᑎᑎᒍᑦ ᒪᒃᐱᒐᖅ 79). ᓱᓕ ᑕᒪᓐᓇ ᒥᒃᓯᑦᑎᒍᑦ ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖅᑲᖏᑦᑐᖅ ᖃᓄᖅ ᐊᑑᑕᐅᒍᓐᓇᑐᐃᓐᓇᕆᐊᓕᖕᓂᒃ ᐱᕚᓪᓕᖅᓯᒪᓂᓕᖕᒥᒃ ᐱᔮᕆᒐᑎᒃ ᑕᒪᑐᒧᖕᒐᖕᒐᔪᒥᒃ ᐊᖅᑯᑎᒃᑯᑦ ᔪᐊᓗᓐᓇᐃ ᑲᓇᖕᓇᖕᒐᓂ ᐊᒃᓴᓗᑏᑦ ᐅᓯᔮᑦ ᐱᕙᖕᒪᑕ 441-ᖕᒍᔪᑦ ᔪᐅᕆᑰ ᐅᔭᕋᒃᓴᖅᓯᐅᖅᕕᐊᓄᑦ ᓴᓇᔭᐅᑎᓪᓗᒍ.

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᐊ Diavik-ᑯᑦ ᐅᓯᕙᒃᑕᖏᑦ 2300 ᓴᓇᓐᓇᐅᑎᓪᓗᒍ ᐃᓚᒥᓕᐅᑎᓪᓚᕆᓖᕐᒪᑕ ᐊᒃᑕᓈᖅᑭᔾᔪᑕᐅᔪᓐᓇᕐᑐᓄᑦ ᐃᒪᓐᓇ 0.6 ᓇᓗᓇᐃᔭᕐᑕᐅᓂᐊᒍᑦ ᐱᑳᓪᓚᒍᑕᐅᔪᓐᓇᕐᑐᑦ ᐊᕐᕌᒍᓕᒫᖅ ᐅᑭᐅᖕᒍᑎᓪᓗᒍ ᓯᕗᓐᖕᒐᒍ ᓴᓇᔭᐅᑎᓪᓗᒍ ᐊᖅᑯᑦ "ᑕᐃᕕᒃᒍᑦ", ᑕᐃᒪᓐᓇᓴᐃᓐᓇᖅ ᐱᑳᓪᓚᒍᑕᐅᑐᐃᓐᓇᕆᐊᓕᒃ ᐱᔮᕆᔭᐅᖏᓪᓗᓂ ᐃᓚᒥᓕᐅᑎᒐᔭᕐᒪᑦ ᓯᓚᑖᓄᖕᒐᓂᓕᒃᒥᒃ 0.1-ᒥᒃ ᐱᒋᐊᓕᕐᐸᑕ ᓴᓇᔪᑦ ᔪᐅᕆᑰᒥᒃ. ᐱᓕᕆᐊᖕᒍᓕᖅᐸᑦ ᔪᐅᕆᑰ ᐊᐅᓚᑕᐅᓗᓂ, ᑕᒪᓐᓇ ᓇᓗᓇᐃᔭᖅᓯᒪᓂᐊ ᐊᒃᐸᐸᓪᓕᕋᔭᕐᒪᑦ ᐃᒫᒃ 0.08-ᒥᒃ. ᐊᓱᐃᓪᓛᒃ, ᐱᓕᕆᐊᖕᒍᓂᓕᒫᖕᒐᓂ ᔪᐅᕆᑰ ᐊᕐᕌᒍᓐᓂᒃ 9-ᓂᒃ, ᓂᕆᐅᓐᓂᐅᓴᑐᐃᓐᓇᕋᑦᑕ ᓱᓕ ᐊᑕᐅᓯᐊᕐᓗᑎᒃ ᑕᐃᒪᐃᑎᑦᓯᑲᓪᓚᒍᑕᐅᑐᐃᓐᓇᕆᐊᓕᖕᒥᒃ ᐱᔮᕆᖏᑦᑐᑎᒍᑦ. ᖃᓄᕐᓕ ᑕᐃᓐᓇ ᓇᓗᓇᐃᔭᕈᑎᒥᓂᖅ ᐊᑕᐅᓯᐊᕐᓂᕋᐃᔾᔪᑦ ᐊᑑᑕᐅᑐᐃᓐᓇᕆᐊᓕᒃ? ᑕᒪᒃᑯᐊ ᒪᓕᒃᓗᒋᑦ 75% ᐅᑭᐅᒥ ᐊᖅᑯᑕᐅᕙᒃᑐᒃᑯᑦ ᐊᒃᑐᐊᓂᓕᒃ ᓄᓇᑦᓯᐊᕐᒎᖕᒐᓂᓕᒃ, ᓂᕆᐅᒋᐊᖅᑲᑉᐱᑖ ᓱᓕ ᐊᑑᑕᐅᔪᓐᓇᕐᑐᓂᒃ ᑯᕕᓯᓂᕐᒥᒃ ᐱᔮᕆᔭᐅᖏᑐᒃᑯᑦ ᐊᑑᑎᔪᖅᑐᐃᓐᓇᕆᐊᖅᑲᒻᒪᑦ ᐃᕿᓖᑦ ᓄᓇᖕᒐᓐᓄᑦ ᓄᓇᕗᑦᒎᖏᑦᑐᖅ?

ᓇᓗᓇᐃᔭᖅᓯᒪᔭᖏᑦᑎᒍᓪᓕ ᑕᐃᕕᒃᑯᑦ, ᓂᕆᐅᒥᓂᖅᑲᑉᕕᒥᔪᓐᓇᕋᑦᑎᒍ ᑎᑭᐅᑎᓯᒪᓗᑎᒃ 15 - 17-ᒧᑦ ᐅᑭᐅᒥ ᐊᖅᑯᑕᐅᕙᒃᑐᑎᒍᑦ ᐅᓯᕙᒃᑐᓄᑦ ᐊᕐᕌᒍᐃᑦ ᖁᓕᑦ ᐊᑑᑎᓂᓕᒫᖏᓐᓂ. ᐃᓚᒥᓕᐅᑎᓗᒋᑦ ᔪᐅᕆᑰ ᐱᓕᕆᕕᐊᓐᓂ ᑲᑎᕐᑐᕐᓗᑎᒃ ᒥᒃᓴᐅᓴᒐᔭᕐᑐᑦ 16-18-ᒧᑦ ᐱᔮᕆᕙᖅᑲᖏᓪᓗᓂ ᑯᕕᕙᖅᑲᓐᓂᕐᐸᑦ ᐅᑭᐅᒥ ᐊᖅᑯᑕᐅᕙᒃᑐᒃᑯᑦ ᐊᑯᖕᒐᓐᓂ ᔪᐊᓗᓐᓇᐃ ᐊᒻᒪᓗ ᔪᐅᕆᑰᑯᑦ. ᑕᒪᒃᑯᐊ ᐱᔮᕆᔭᐅᒐᑎᒃ ᐊᑑᑕᐅᑳᓪᓚᓲᑦ ᐊᖅᑯᑎᓕᒫᒃᑯᑦ ᑕᐃᒪᓐᓇᐃᓕᐅᕆᕙᖏᒻᒪᑕ, ᐃᓚᖏᑦᑎᒍᑦ ᖃᐅᔨᓴᑦᓯᐊᖅᑕᑦᑐᒃᓴᐅᖕᒪᑕ ᐊᑦᑕᓇᕐᓂᖅᓴᒃᑯᑦ (ᑎᕆᕐᑯᖏᑦᑎᒍᑦ ᐊᒻᒪᓗ ᓯᓈᖏᑦᑎᒍᑦ ᐃᓯᕆᐊᓕᖏᑦᑎᒍᑦ ᐊᓂᒎᑎᒋᐊᓕᖏᑦᑎᒍᓪᓗ ᑕᓰᑦ ᐃᒪᐃᑦ ᓵᓂᖅᓴᐅᕙᒃᑐᒃᑯᑦ ᓯᑰᓕᕋᐃᒻᒪᑦ), ᓂᕆᐅᓐᓂᖅᑲᕆᐊᖅᑲᑉᐱᑖ ᐃᓘᓐᓂᒃᑯᑦ ᐊᖅᑯᑕᐅᕖᒃᑯᑦ ᑕᒪᒃᑯᐊ ᓴᕿᓐᓂᐅᓴᑐᐃᓐᓇᖅᑲᑦᑕᓂᐊᕐᒪᑕ ᐱᔮᕆᔭᐅᒐᑎᒃ ᑯᕕᕖᐅᒃᑲᓪᓚᐸᓐᓂᐊᖅᑐᑦ ᐊᕐᕌᒍᐃᑦ ᖁᓕᑦ ᐊᑑᑎᑎᓪᓗᒋᑦ? ᑕᐃᒪᓐᓇᐃᐸᐸᑦ, ᐊᓯᕈᖅᑎᓚᖕᒪᑕ ᓇᓗᓇᐃᔭᖅᓯᒪᕕᖏᑦᑎᒍᑦ ᑕᕼᐅᕋᒃᑯᑦ ("ᐃᒃᐱᒍᓱᑦᓯᐊᖏᓐᓂᕐᒧᑦ") ᐅᑭᐅᒥ ᐊᖅᑯᑕᐅᕙᒃᑐᑎᒍᑦ ᐊᕙᑎᑦᑎᓐᓅᖕᒐᔪᓄᑦ, ᑕᒪᒃᑯᐊ ᐋᕿᒋᐊᕐᑕᐅᒃᐸᑕ ᓇᓗᓇᐃᔭᐃᔾᔪᑎᑦ ᑐᑭᖏᑦ ᐃᒫᓪᓚᕆᐊᓗᒃ ᓱᕐᕋᐃᒍᓐᓇᕐᒪᑕ ᒥᒃᓴᐅᓴᖕᓂᖏᑦᑎᒍᑦ ᐊᒃᑐᐊᓂᖅᑲᓐᓂᖏᑦ ᐱᐅᔪᓂᒃ ᐃᒥᕐᒥᒃ ᐊᒻᒪᓗ ᐃᖅᑲᓗᓕᖕᓄᑦ ᓱᕈᒃᑎᕆᓂᐅᔪᖕᒪᑕ ᐊᓯᒥᓄᑦ ᐊᒃᑐᐊᔭᐅᓚᐅᕐᓯᒪᖏᑦᑐᓄᑦ ᐋᓪᓚᒥᔭᒥᓄᑦ ᑎᒥᖏᓐᓄᑦ ᑕᓰᑦ ᐊᖅᑯᑕᐅᕙᒃᑐᓃᑦᑐᓄᑦ.

ᑕᕼᐅᕋᒃᑯᑦ ᐱᒃᑯᔾᔪᔪᖕᒐᑦ ᐅᕙᑦᑎᓐᓂᒃ ᐃᖅᑲᐃᑎᑦᓯᓯᒪᖕᒪᑕ ᑕᐃᒪᒎᖅ ᐅᖅᑯᒪᐃᑦᑐᖅᓯᐅᑏᑦ ᐊᒃᓴᓗᑏᑦ ᐅᓯᖅᑲᑦᑕᓂᐊᕐᑐᑦ ᔪᐅᕆᑰᒃᑯᓐᓄᑦ, "ᐃᓘᓐᓇᑎᒎᖅ ᐅᓯᔪᐃᓐᓇᐅᖅᑲᑦᑕᔫᖏᒻᒪᑕ ᐊᒃᑕᓈᖅᑐᖅᑕᓕᒫᓂᒃ ᐃᒪᕐᒥᐅᑖᓅᖕᒐᔪᓕᖕᓄᑦ ᐊᕙᑎᑦᑎᓐᓄᑦ". ᑕᒪᓐᓇ ᓱᓕᓗᐊᖅᑰᖏᑦᑐᖅ. ᑭᓯᒥᓕ, ᐳᐃᒍᕆᐊᖅᑲᖏᓇᑦᑎᒍ ᐊᑑᑕᐅᓯᒪᔪᑦ ᐅᖕᒐᑖᓅᖕᒐᓕᖅᑐᑦ ᐊᕐᕌᒍᐃᑦ 16 ᐱᒋᐊᓚᐅᖅᓯᒪᖕᒪᑕᓂᒃ 1983-98-ᒧᑦ, 87%-ᖕᒍᒻᒪᑕ ᐱᔮᕆᓇᑎᒃ ᑯᕕᔪᐅᑲᓪᓚᖅᑲᑦᑕᖅᓯᒪᕙᑦ ᐅᑭᐅᒃᑯᑦ ᐊᖅᑯᑎᒃᑯᑦ (13-ᖕᒍᔪᑦ 15-ᓂᒃ ᐱᔪᑦ) ᐅᖅᓱᐊᓗᖕᓂᒃ (ᐅᖅᓱᖅᑎᕈᑏᑦ ᐊᒻᒪᓗ ᒐᓴᓖᑦ).

ᑕᕼᐅᕋᒃᑯᑦ ᐱᑐᐊᖅᑎᑦᓯᑕᐃᓕᖅᑲᑦᑕᕐᒪᑕ ᑕᒪᒃᑯᓂᖕᒐ ᐊᒃᑕᓈᖅᑭᔾᔪᑕᐅᔪᓐᓇᕐᓂᓕᖕᓂᒃ ᐃᒃᐱᒍᓱᒃᓯᐊᕐᑎᒃ ᐊᑑᑕᐅᔪᓐᓇᕐᑐᓄᑦ ᐊᕙᑎᑦᑎᓐᓅᖕᒐᔪᓄᑦ ᐊᒃᑐᐊᓂᖅᑲᓕᕈᓐᓇᕐᑐᓂᒃ ᐱᔪᓐᓂᒃ ᐅᖅᓱᐊᓗᒃᑕᐅᑎᓂᒃ ᐅᓯᔪᓂᒃ ᓯᑯᑉ ᖃᖕᒐᒍᑦ ᐅᓯᔪᐅᕙᒃᑐᓪᓗᒎᖅ ᐳᒃᑕᒍᓐᓇᕋᓱᐊᖅᑲᑦᑕᕐᒪᑕ ᐃᒫᕐᓂᕈᑎᒃ ᑕᓯᕐᓂ.

ᐅᖅᓱᐊᓗᒃᑕᕈᑏᑦ ᐱᔾᔪᑕᐅᑎᓪᓗᒋᑦ ᑕᒪᒃᑯᐊ ᓱᓕᑐᐃᓐᓇᕆᐊᓕᐅᒐᓗᐊᑦ, ᑭᓯᒥᓕ ᐅᓯᖃᑦᑕᒥᖕᒪᑕ ᐊᒻᒪᓗ ᐅᖅᓱᖃᕆᐊᖃᕆᓪᓗᑎᒃ, ᐅᖅᓱᖅᑎᕈᑎᖕᒋᓪᓗ, ᖁᐊᓐᓇᖕᒋᑦᑐᖁᑎᖕᒋᓪᓗ? ᐊᒻᒪᓗ, ᑭᓚᒃᑐᖃᑐᐃᓐᓇᕆᐊᖃᑉᐸᒃᑭᕚ ᐅᖅᓱᐊᓗᒃᑕᐅᑎᓂᒃ ᓯᑯᒃᑯᑦ ᑲᑕᒃᑐᖃᖅᐸᑦ?

ᒪᑯᐊᖕᒋᓛᒃ ᐃᓱᒫᓗᖕᓇᕐᓂᖃᑦᑐᐃᓐᓇᐅᒥᐊᖃᒻᒪᑕ ᐊᑕᐅᓯᐊᕋᓗᐊᕐᓗᑎᒃ ᑯᕕᔪᖃᑳᓪᓚᒪᐃᑉᐸᑦ ᐊᑑᑕᐅᕙᒃᑐᑦ ᐱᕙᓪᓕᕈᑕᐅᔪᓐᓇᕐᒪᑕ ᐊᖏᓪᓕᒍᑕᐅᕙᒃᑐᑦ ᓱᕈᒃᑎᕆᔭᓐᓇᕐᑐᑦ ᐊᖅᑯᑎᒃᑯᑦ ᐃᓂᑐᖃᐅᕙᒃᑐᑎᒍᑦ ᐅᖅᓱᐊᓗᐃᑦ ᕿᓪᓛᓂᑯᐃᑦ, ᐅᖅᓱᖅᑎᕈᑎᒥᓃᑦ, ᖁᐊᕐᓇᖕᒋᑦᑐᓪᓗ, ᑕᒪᒃᑯᐊ ᐊᒃᓵᓗᑎᑦ ᐃᓚᖕᒋᑦ ᒥᐊᓂᕆᔭᐅᑦᓯᐊᕙᖕᒋᑦᑐᑦ ᐊᖅᑯᑎᒃᑰᐸᒃᑐᑦ. ᒪᕐᕈᒃ 15-ᓂᒃ ᐱᔫᒃ ᑯᑉᕕᓂᑯᕕᓃᒃ ᖃᖕᒐᒍᑦ ᓯᑰᑉ ᑕᐃᒪᖕᒐᓂᑦ 1983-98-ᒧᑦ ᕿᓪᓛᓂᑯᕕᓂᕐᓂᒃ ᐱᔪᑦ 90 ᐊᒻᒪᓗ 464 litres-ᐅᖁᒪᐃᓐᓂᓛᑦ. ᑕᕼᐅᕋᒃᑯᑦ ᐅᔾᔨᑐᖅᑎᑦᓯᓯᐊᖃᑦᑕᖅᑑᒐᓗᐊᑦ ᐅᓯᔨᓂᒃ ᐊᒃᓵᓗᑎᒃᑯᑦ ᐱᓕᕆᕚᒃᑐᓂᒃ ᑕᒪᒃᑯᐊ ᐊᑲᐃᓪᓛᒍᓐᓇᕆᐊᖕᒋᓐᓂᒃ?

ᑐᒃᑐᐃᑦ:
ᐱᓱᒃᐸᒃᑐᑦ ᑲᓇᖕᓇᕐᒧᑦ ᐊᖅᑯᓵᖅᐸᒃᓯᑎᒃ ᓴᓇᕕᐅᔪᓄᑦ ᐱᒋᐊᖅᐸᒃᑐᓄᑦ ᕿᑎᖕᒐᓂ ᐄᐳᕈ, ᑭᖑᖕᒪᒍᑦ ᐊᖅᑯᑕᐅᔪᑦ ᓯᑯᒃᑯᑦ ᐱᔪᓂᒃ ᐅᐊᖕᓇᒥᒃ. ᑲᓕᕝᕕᐅᕙᒃᑐᑦ ᐊᑯᖕᒐᓐᓂ Lupin ᐊᒻᒪᓗ Jericho-ᑯᑦ ᐊᖁᑕᐅᕙᖕᒪᑕ ᑕᖅᑭᓂᒃ 1-1.5 ᑐᒃᑐᐃᑦ ᐱᓱᖕᓇᖅᑦᑎᓪᓗᒋᑦ.

ᑕᕼᐅᕋᒃᑯᑦ ᐊᕙᑎᓕᕆᔨᖕᒋᓐᓅᖕᒐᔪᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖕᒋᑦ ᐅᖃᖅᓯᒪᖕᒪᑕ ᐊᒃᑐᐊᓂᖃᖕᒋᒋᐊᖕᒋᓐᓂᒃ ᓴᓇᕕᖕᒋᑦ ᓱᖅᑯᐃᖅᑕᐅᓯᒪᔪᓄᑦ "ᓂᕐᔪᑎᓪᓚᕆᓐᓅᖕᒐᔪᓄᑦ" ᖃᓄᐃᑦᑐᑐᐃᓐᓇᓕᒫᕐᓯᐊᓄᑦ ᐱᔪᓂᒃ ᓂᕐᔪᑎᓄᑦ, ᓇᓗᓇᐃᔭᕐᓯᒪᔪᑦ ᑐᑭᖃᖅᓱᑎᒃ ᓂᕐᔪᑎᓅᖕᒐᓂᖅ ᑐᑭᓕᐅᕐᓯᒪᔪᖅ >1% ᖃᑦᓯᐅᓂᖕᒋᑦ. (ᓇᓗᓇᐃᔭᖅᓯᒪᔭᖅ ᓇᐃᓈᖅᓯᒪᔪᒃᑯᑦ ᒪᒃᐱᒐᖅ 49). ᑭᓯᒥᓕ, 1 ᐱᔪᖅ 6-ᓂᒃ ᐊᕐᕌᒍᖅᑎᒍᑦ (17% ᔨᐅᕆᑰᒃᑯᑦ ᖃᐅᔨᓴᕐᓯᒪᔫᒍᑦ ᓇᓗᓇᐃᔭᕐᓯᒪᓂᓛᑦ ᐊᕐᕌᒍᖅᑎᒍᑦ), >10%-ᒥᒃ ᕿᖕᒐᐅᑦ ᑐᒃᑐᖕᒋᑦ (1996-ᒥ ᑕᑯᔭᐅᓚᐅᖅᓯᒪᖕᒪᑕ ᖃᐅᔭᐅᓪᓗᑎᒃ ᕿᑲᖅᑎᓪᓗᒋᑦ ᑕᖃᐃᖅᓯᑎᓪᓗᒋᑦ ᑐᒃᑐᐃᑦ ᐊᒻᒪᓗ ᓂᕆᖃᑦᑎᓪᓗᒋᑦ ᑕᑉᐸᓂᒃᓴᐃᓐᓇᖅ ᓄᓇᒥ ᐅᓪᓗᓕᒫᑲᓴᒃ. ᑕᒪᓐᓇᓗ ᓇᓗᓇᖕᒋᔾᔪᑎᖃᒻᒪᑦ ᐃᓛᓐᓂᒃᑯᑦ ᐊᕐᕌᒍᐃᑦ, ᔨᐅᕆᑰᒃᑯᑦ ᓴᓇᕕᐊᓪᓚᑦ ᓄᓇ ᐃᒪᓪᓚᕆᐊᓗᒃ ᐊᑑᑕᐅᓂᖅᑐᖅ ᓂᕐᔪᑎᓄᑦ ᐱᓯᓕᕐᐃᒻᒪᑕ ᑐᒃᑐᐃᑦ. ᑕᒪᓐᓇᓗ ᑭᐅᔾᔪᑎᒋᒋᐊᖃᕐᔭᕐᒪᒍ ᐊᐃᕙᒍᑎᒥᓗᒍ ᑕᕼᐅᕋᒃᑯᑦ ᖃᓄᖅ ᐱᔾᔪᑎᒋᔭᒥᒍᑦ ᑭᐅᔭᓇᖅᕕᖅᑲᓯᐊᓕᕈᑎᒃ ᑕᒪᒃᑯᐊ ᓂᕐᔪᑎᑦ ᐊᓯᐅᕐᓕᕐᐸᑕ ᓇᓗᓇᕈᑎᖃᕐᔭᕐᒪᑕ ᖃᑦᓯᐅᓂᕆᔨᖕᒋᑦ ᖃᓄᐃᓪᓗᐊᕐᓂᕆᔨᖕᒋᑦ ᑐᒃᑐᐃᑦ (ᓇᓗᓇᐃᔭᕐᓯᒪᔪᑦ ᓇᐃᓈᖅᓯᒪᓪᓗᑎᒃ ᐊᓪᓚᒃᓯᒪᔪᑦ ᒪᒃᐱᒐᖅ 59). ᓱᓕᓗ ᑕᒪᓐᓇ ᐱᔾᔪᑕᐅᑎᓪᓗᒍ, ᐅᖃᐅᓯᕆᔭᕐᑎᒍᑦ ᑐᑭᓕᐅᕐᓯᒪᔪᒃᑯᑦ ᑕᒫᓂ ᓄᓇᒥ ᐊᑐᖅᑕᐅᕙᒃᑐᒃᑯᑦ ᐊᖅᑯᑕᐅᓪᓗᓂ ᑭᓯᐊᓂ ᑐᒃᑐᓄᑦ ᐱᓯᓕᕐᐃᒻᒪᑕ, ᐅᐃᕙᕆᐊᖃᓕᕐᐃᒐᒥᒃ ᐊᒻᕕᐊᖅᑎᒥᓐᓂᒃ ᓄᓇᒎᖕᒐᔪᓂᒃ ᒪᑯᓂᖕᒐ ᖃᖅᑲᓂᒃ ᐅᐸᓗᑭᐊᖅ ᐃᑎᔪᓂᒃ ᑕᓯᕐᓂᒃ, ᑕᒪᒃᑯᐊ ᐃᓱᒪᒋᔭᐅᖃᑕᐅᔭᓐᓇᖅᑐᑦ ᓂᕐᔪᑎᓅᖕᒐᔪᑦ. ᑐᒃᑐᐃᑦ ᐊᖅᑯᑎᓕᓇᐊᓇᓕᒪᔪᑎᒎᓕᕐᐃᒪᒥᒃ ᐊᕕᐊᖅᕕᐅᒎᖕᒍᒻᒪᑕ ᑭᓯᐊᓂ ᐅᖕᒐᓂᖅᓴᒃᑰᓯᐊᒎᖕᒍᒻᒪᑕ ᐅᐃᐸᓇᑭᓪᓗᑎᒃ ᐅᖕᒐᓂᖅᓴᒃᑰᓕᕐᓯᑎᒃ ᑎᑭᐅᑎᓂᐊᕐᓗᐊᖅᓯᑎᒃ ᐅᐸᒃᑕᒥ ᐊᖅᑯᓛᓄᑦ ᐱᓱᒃᓯᑎᒃ, ᑕᒪᓐᓇᓗ ᓱᕐᕋᐃᔭᓐᓇᕐᒪᑦ ᑭᖑᕙᕐᓂᕈᑎᒃ ᐃᕐᓂᐅᕐᕕᖕᒥᓐᓄᑦ ᐊᑲᐃᓪᓕᐅᑎᓂᖅᑲᕈᓐᓇᕐᒪᑦ ᑕᒪᒃᑯᓄᖕ.

ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔪᑦ ᐊᒃᑐᐊᓂᓛᑦ ᐅᖃᖅᓯᒪᖕᒥᖕᒪᑕ ᐃᒫᒃ "ᑐᒃᑐᐃᓪᓚ ᐊᕐᓇᐃᑦ ᐅᕗᓈᖅᑦᑕᑦᑰᖕᒋᒻᒪᑕ Lupin/Jericho-ᑯᑦ ᐅᐱᕐᖕᒐᒥ ᐱᓯᓕᕐᐃᒻᒪᑕ ᐃᑯᓈᖅᑦᑕᑦᑰᒻᒪᑕ Ekati-ᑯᑦ ᐊᒻᒪᓗ/ ᐅᐸᓗᑭᐊᖅ ᐅᔭᕐᓴᕐᓯᐅᖅᕕᐊᒍᑦ Diavik-ᑯᑦ ᓯᑎᓛᓂᒃ ᓴᓇᕕᖕᒐᕐᑎᒍᑦ..." ᐃᒪᓐᓇᐃᓕᖕᒐᒻᒪᑕ, ᑐᒃᑐᑦ ᖁᖕᒐᓯᕐᒥᐅᑕᓛᑦ ᖃᐅᔨᓴᕈᑎᑎᒍᑦ ᓄᓇᖑᐊᕐᑎᒍᑦ ᐊᓪᓚᒃᓯᒪᓕᐅᕐᓯᒪᖕᒪᑕ ᑐᓴᒃᓴᐅᓪᓗᓂ 1997-ᐅᑎᓪᓗᒍ, ᐊᑕᐅᓯᖅ ᐊᕐᓇᖅ ᑐᒃᑐ ᓈᓴᐅᑎᓕᒃ (#B15b) ᐃᖕᒋᕐᕋᓕᐅᕐᓯᒪᖕᒪᑦ ᐊᖅᑯᑎᖃᖅᓱᓂ Lupin – Jericho-ᑯᑦ ᓇᔪᕐᑕᖕᒐᒍᑦ ᐊᒻᒪᓗ Lac deGras-ᑯᑦ. ᑕᐃᒪᖕᒐᓂᑦ ᐊᑕᐅᓯᖅ ᐊᑑᑎᓯᒪᔪᖅ ᖁᖕᒐᓯᕈᖅᑕᐅᓯᒪᔪᓂᒃ 23-ᓂᒃ ᐊᕐᓇᓂᒃ (4% ᓱᖅᑯᐃᔭᕈᑕᐅᓯᒪᔪᖅ ᓇᓗᓇᖕᒋᔾᔪᑕᐅᓪᓗᓂ ᖃᑦᓯᓄᑦ), ᑎᑭᐅᑎᓯᒪᖃᑦᑕᕐᒪᕐᑦᑕ ᑕᒪᓐᓇ ᓇᓗᓇᖕᒋᔾᔪᑕᐅᒍᓐᓇᕐᒪᓪᓗ ᐃᓚᐃᓐᓇᖕᒋᓐᓄᑦ ᖃᓄᐃᓪᓗᐊᖅᑎᒥᔪ ᐱᓱᒃᐸᕐᒪᕐᑦᑕ ᑕᕝᕙᓇ ᓄᓇᒃᑯᑦ ᒪᕐᕈᓕᖕᒐᔪᑎᒍᑦ, ᐃᓱᒪᒋᔭᕐᑎᒍᓪᓕ, ᓱᖅᑯᐃᔭᐅᑎᒃᓴᐅᖕᒋᓪᓚᑦ "ᖁᓚᕐᓇᕆᐊᖕᒐᓂᒃ" ᐊᖅᑯᑕᐅᕙᖕᒪᖔᑦ.

ᔨᐅᕆᑰᒃᑯᑦ ᓴᓇᕕᒃᓴᖕᒐᑦ ᐊᖏᖅᑕᐅᒃᐸᑕ ᐱᒋᐊᕈᓐᓇᕐᓂᖅᑕᐅᓗᑎᒃ, ᐊᓯᐃᓪᓛᒃ ᐅᕙᒍᑦ ᑎᓕᐅᕆᐊᓪᓚᕆᒥᐊᖃᓪᓚᕆᑦᑐᑦ ᐊᑑᑎᓪᓚᕆᑯᓪᓗᒋᑦ ᑕᕼᐅᕋᒃᑯᑦ ᑲᔪᓯᖁᓗᒋᑦ ᐊᑑᑎᐸᒃᑕᒥᓐᓂᒃ ᑮᓇᐅᔮᕐᑎᒍᑦ ᖃᐅᔨᓴᕈᑎᑎᓯᔭᐅᑉᐸᒃᑐᓂᒃ ᕿᒥᕐᕈᔭᐅᓪᓗᓂ ᑐᒃᑐᐃᑦ ᐱᓱᖕᓂᖃᕐᑦᑕᕐᒪᑕ ᐊᒻᒪᓗ ᐅᒪᖁᑎᖃᕐᓯᐊᕐᒪᑕ.

ᐊᑑᑎᖏᓐᓇᕈᒪᖕᒥᔪᒍᑦ ᑕᕼᐅᖅᑯᑦ ᐊᑑᑏᓐᓇᑦᓯᐊᖅᑕᖁᓗᒋᑦ ᒪᑭᒪᑎᑦᓯᓯᐊᕈᑎᓂᒃ ᐱᔾᔪᑎᖅᑐᐃᓐᓇᑎᓐᓇᒋᑦ ᑐᒃᑐᐃᑦ ᓂᕐᔪᑕᐅᓂᖏᑦ ᑕᒪᒃᑯᐊ ᓱᕈᒃᑎᖁᖏᓇᑦᑎᒍ, ᐊᒻᒪᓗ ᐊᑐᐃᓐᓇᓈᓐᓇᕈᒪᒐᑦᑎᒍ. ᖁᕕᐊᓱᒐᔭᖏᓇᑦᑕ, ᑕᒪᒃᑯᐊ ᐅᔭᕿᒃᓴᖅᓯᐅᕐᕕᖏᓐᓂᒃ ᐊᐅᓚᑦᓯᕕᐅᕙᒃᑐᑦ ᐊᒻᒪᓗ ᐊᖅᑯᑕᐅᕙᒃᑐᑦ ᐅᑭᐅᒥ ᓄᓇᓯᐅᑎᓄᑦ ᔩᐅᓇᑰᒃᑯᓐᓄᑦ ᐱᐅᖏᑦᑐᓂᒃ ᐱᓚᕿᐅᑎᓂᒃ, ᑐᒃᑐᓄᑦ ᐊᖁᑕᐅᕙᒃᑐᑦ ᐱᓱᒃᕕᐱᕆᕙᒃᑕᒥᒍᑦ ᐅᐃᕙᖃᑦᑕᓕᕐᒪᑕ ᐅᖓᓯᒃᑐᐊᓗᒃᑯᑦ ᐅᖓᓯᒥᔫᓗᖏᑦᑎᒍᑦ ᓄᓇᓕᖁᑎᑦᑕ ᐊᒻᒪᓗ ᐊᖑᓚᓱᒃᕕᐅᕙᓚᐅᖅᓯᒪᔪᑦ ᐅᕙᑦᓯᐊᕈ ᐱᐅᓯᑐᖃᑦᑎᒍᑦ ᓄᓇᐃᑦ.

ᑐᓴᖅᓴᐅᔪᑦ ᐱᕙᓗᒃᑐᑦ:
ᑕᒪᒃᑯᓄᖓ ᐅᑯᐊ ᐃᓚᒥᓂᐅᑎᔪᑦ ᐅᖃᐅᓯᕆᓴᑦᑖᑦᑕᓐᓄᑦ ᖁᓛᓂ, ᐃᓱᒫᓗᖕᓇᕐᑐᑦ ᖃᐅᔨᖁᒐᑦᑎᒍ ᑲᑎᒪᔩᑦ ᐊᑑᑕᐅᑦᓯᐊᖃᑦᑕᖏᑦᑐᓂᒃ ᖃᐅᔨᓴᖅᑎᓄᑦ ᐊᒃᑐᐊᓂᓕᖕᓂᒃ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐱᔾᔪᑕᐅᑎᓪᓗᒋᑦ ᑐᓴᕐᓃᑦᑐᑦ ᐋᓪᓚᐃᑦ ᐱᕙᓗᐃᑦ ᐊᒃᑐᐊᓂᓖᑦ.

ᑐᑭᓯᔭᐅᕚᓪᓚᖁᓪᓗᒋᑦ ᑐᓴᖅᓴᐅᓂᐅᓴᑐᐃᓐᓇᕙᒃᑐᑦ ᓇᑭᑦ ᐱᔪᑦ ᐅᔭᕿᒃᓴᖅᓯᐅᖅᕖᑦ ᐊᐅᓚᑦᑎᖏᓐᓂᒃ, ᓯᕗᓐᓚᒍᑦ ᐊᑲᐅᓈᖅᓯᒪᒍᓐᓇᖅᑐᒃᑦᑐᒥᓂᐅᓚᓗᐊᖅ ᓴᕿᐅᒪᔪᖃᑉᐸᑦ ᓄᓇᖑᐊᑎᒍᑦ ᓇᒥ ᓄᓇᓂ ᑐᓴᖅᓴᐅᕕᐅᔪᓐᓇᕐᑐᓂᒃ ᓄᒍᑦ ᑎᑭᑉᕕᐅᔪᓐᓇᕐᑐᓂᒃ ᓄᓇᐅᑉ ᐃᕙᖏᑦ ᒪᓕᒃᑐᒋᑦ ᓇᑭᑦ ᐱᖕᒪᖕᒐᑕ. ᑕᒪᒃᑯᐊ ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖃᒻᒪᑕ ᐊᑑᑎᓂᖅᓯᐊᕈᓐᓇᑐᒃᑯᑦ ᐱᓕᕆᕕᐊᒍᑦ ᑕᐃᕕᒃᑯᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᐅᑦ ᑐᓴᒐᒃᓴᓕᐊᕆᓯᒪᓪᓗᓂ.

ᐊᔾᔨᐸᓗᐊᑦᑕᐅᖅ, ᓄᓇᖑᐊᑎᒍᑦ ᓴᕿᐅᒪᔪᖅ "ᐊᕕᐊᕈᓐᓇᖅᑐᑦ ᓇᓗᓇᐃᔭᕐᓯᒪᔪᑦ" ᖃᖓᑕᔫᖅᐸᓗᒃ ᐊᒻᒪᓗ ᖃᖓᑕᔫᒃᑯᕕᖕᒥᒃ ᒥᑉᕕᖕᓂᒃ ᑕᒪᒃᑯᐊᑦᑕᐅᖅ ᐃᑲᔪᕐᓂᖃᕈᓐᓇᕐᑐᒥᓃᑦ ᖃᐅᔨᓴᖅᑕᐅᖃᑕᐅᓗᑎᒃ ᓱᕿᐃᒍᑎᕆᔪᓐᓇᖅᑕᖏᑦ ᖃᖓᑕᔫᑦ ᓂᐱᖏᑦ ᑕᒪᒃᑯᐊ ᑐᒃᑐᐃᑦ ᐱᓱᖕᓇᖃᓕᕿᐃᒪᑕ, ᐃᓂᖏᓐᓄᑦ, ᑎᑭᕿᓕᕿᐃᒻᒪᑕ ᐅᓪᓕᔭᖅᑐᖅᓱᑎᒃ ᐃᒪᕐᒥᐅᑕᐃᑦ ᑎᖕᒥᐊᑦ. ᐃᓚᖏᑦ ᐱᕙᒃᑐᑦ ᒥᑭᐊᖅᑐᓕᕿᐃᒻᒪᑕ ᐊᒻᒪᓗ ᖃᖓᑦᑕᓕᕿᐃᒻᒪᑕ <500 ᓱᑲᓐᓂᖃᖅᓱᑎᒃ ᑕᐃᒪᓐᓇ ᖁᓛᒍᑦ ᓄᓇᐅᑉ ᐊᐃᔪᑦ ᑲᓇᖕᓇᕐᒧᑦ ᐅᐊᖕᓇᒧᓪᓗ, ᐅᑉᐸᓗᑭᐊᖅ ᐃᓚᖏᑦ, ᑲᐃᕙᒃᐸᒃᑐᑦ ᐱᔪᑦ ᐅᖁᒻᒥᒃ ᐊᒻᒪᓗ ᐅᐊᓕᓂᕐᒥᒃ?

ᖁᔭᓐᓇᒦᒃ ᐅᖃᕈᓐᓇᖅᑎᑦᓯᒐᑦᓯ ᐅᕙᑦᑎᓐᓂᒃ ᑕᒪᒃᑯᐊ ᐱᔾᔪᑎᒋᔭᕗᓐᓂ ᐃᓱᒫᓗᒋᔭᖃᕐᕕᕗᑦ ᑲᑎᒪᔩᓄᑦ ᖃᐅᔨᒪᔭᐅᖁᔭᕗᑦ.

ᐊᓪᓚᒃᑐᖅ,

Rachel Crapeau ______________________
Tim Byers ______________________
(ᐅᑯᐊ ᐱᔪᑦ ᐊᓪᓚᒃᑕᐅᒋᐊᖓᖅᑐᒥᓂᕐᒥᒃ ᐊᔾᔨᑦᓯᐊᖏᑦ ᖁᓛᓃᑦᑐᑦ)

ᓯᕗᓪᓕᖅ ᓇᓗᓇᐃᔭᖅᓯᒪᓂᓕᒃ ᐅᕙᓂ 7-11 ᐅᑯᓇᖓᑦ ᐱᔪᑦ ᑕᐃᕕᒃ ᓯᑎᓖᓂᒃ ᐅᔭᕿᓐᓂᒃ ᐱᓕᕆᕕᐊᓐᓂᒃ ᐊᕙᑎᓕᕆᓂᕐᒥᒃ ᖃᐅᔨᓴᕈᑎᓂᒃ ᑐᓂᔭᐅᓯᒪᔪᑦ: ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᓱᕿᐃᔪᓐᓇᕐᑐᑦ ᑐᓴᒃᓴᑦ, ᐃᖃᓗᓐᓄᑦ ᐊᒻᒪᓗ ᐃᒫᓄᑦ, 1998-ᒥ.

ᑐᓪᓕᐊ RL&L-ᑯᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᖏᓐᓂᒃ 2000-ᒥ ᔩᐅᓇᑰᒃᑯᑦ ᓯᑎᓖᓂᒃ ᐅᔭᕿᒃᓴᖅᓯᐅᕐᕕᐊᑦ ᐊᕙᑎᑦᑎᓐᓄᑦ ᐊᒃᑐᐊᓂᓕᖕᓂᒃ ᖃᐅᔨᓴᕈᑎᑦ: ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒥᒃ ᑐᓴᒃᓴᑦ ᐅᑯᓄᖓ ᑕᕼᐅᕐ ᑯᐊᐳᓈᓴᖕᑯᑦ RL&L ᑐᓴᒃᓴᓕᐊᖏᑦ ᓈᓴᐅᑖ 857bF:101 p.+1 appndx.

ᐱᖓᔪᐊᑦ Hubert & Assoc. Ltd. 2000. 1999 ᐊᒻᒪᓗ Y2000 ᐆᒪᔪᓕᕆᓂᕐᒥᒃ ᖃᐅᔨᓴᕈᑎᑦ ᑐᓴᒃᓴᓕᐊᕆᓯᒪᔪᑦ, ᐊᒻᒪᓗ ᐱᓕᕆᐊᒃᓴᐅᓂᖏᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐊᒃᑐᐊᓂᕐᕕᐅᓂᕐᒧᑦ ᖃᐅᔨᓴᕈᑎᑦ ᐆᒪᔪᓄᑦ, November 2000, p.67

ᐅᖃᐅᓯᓇᒋᐊᖃᑦᑐᓇᖏᓇᑦᑎᑐᓕ ᑲᑎᒪᔪᖃᑦᑎᓪᓗᒍ ᓂᐱᑦᑎᒍᑦ ᑕᒪᓐᓇ ᐋᖅᑭᒃᓯᒪᔭᕗᑦ. ᖁᔭᓕᑐᐃᓐᓇᕐᓂᐊᕐᑐᖕᒐᐃᓛᒃ ᐊᐱᖁᑕᐅᔪᓂᒃ ᑭᐅᒍᓐᓇᕐᓂᐊᕋᒪ ᑲᑎᒪᔨᓄᑦ ᐅᐸᓗᑭᐊᖅ ᐊᓯᖏᓐᓄᑦ ᐃᓕᒋᔭᐅᔾᔪᑎᓕᖕᓄᑦ ᐊᐱᖁᑎᖃᕈᒪᔪᖃᑉᐸᑦ ᐅᑯᓂᖓ ᐊᓪᓚᒃᓯᒪᔪᓂᒃ ᐱᔾᔪᑕᐅᔪᖃᑦᑎᓪᓗᒍ.

ᑭᖑᓪᓕᕐᐹᒥ ᐅᖃᕈᒪᔪᖓ, ᐅᖃᐅᔾᔭᐅᖃᑦᑕᕈᒪᒐᑦᑕ ᓯᕗᓐᖓᒍᑐᖅ (ᐃᒻᒪᖄᖃᐃ ᐱᓇᓱᐊᕈᓰᒃ ᒪᕐᕈᒃ) ᖃᓄᐃᓐᓇᖅ ᐊᓯᕈᖅᑎᖅᑐᖃᕋᐃᑉᐸᑦ ᑲᑎᒪᔾᔭᑕᐅᓂᐅᓴᔪᖃᑦᑎᓪᓗᒍ ᐅᐸᓗᑭᐊᖅ ᑭᒃᑯᓕᒫᑦ ᖃᐃᖁᔭᐅᓯᒪᓂᐊᕐᑎᓪᓗᒋᑦ ᑲᑎᒪᔪᖃᑦᑎᓪᓗᒍ ᐊᑑᑕᐅᔪᖃᓐᓂᐊᖅᑎᓪᓗᒍ. ᑕᐃᒪᓐᓇᐃᓕᖓᕙᒃᐸᑕ ᖃᓄᐃᓐᓇᖅ ᐋᖅᑮᓯᒪᒍᓐᓇᖃᑦᑕᖅᓂᐊᖅᑦᑕ ᐊᑲᐅᓈᖅᕕᒋᓇᓱᐊᖅᓱᑎᒍ ᐊᑑᑎᓂᖅᑲᕐᕕᒋᒋᐊᓕᕗᑦ ᖃᖕᒐᑦᑕᐅᑎᕗᑦ ᐊᒻᒪᓗ ᑐᔪᕐᒥᕕᖕᓄᑦ ᐋᖅᑭᒃᓯᓇᐊᖅᑲᑦᑕᖅᑎᒍ ᓯᕗᓐᖓᒍᑦ. ᐊᑑᑕᐅᓂᐅᓴᖕᒪᑕᓗ ᐱᔾᔪᑎᓕᒐᓚᐃᑦ ᑲᑎᒪᓂᕐᒧᑦ ᐅᔭᕋᒃᓴᖅᓯᐅᕐᕕᓕᓇᓂᕐᒧᑦ ᓯᑎᓘᓂᒃ ᑕᑉᐸᓂᑦᓴᐃᓐᓇᖅ ᐱᓇᓱᐊᕈᓯᕐᒥ ᑕᒪᒃᑯᐊ ᑕᐃᒪᐃᑎᓪᓗᒋᑦ ᐱᕕᒃᓴᐅᔪᑦ ᖃᓂᒌᓗᐊᕐᒪᑕ, ᐱᔾᔪᑎᓖᑦᑕᐅᖅ ᐋᖅᑭᒃᓱᐃᕗᓗᑦ.

ᖁᔭᓐᓇᒦᑦ ᓯᑕᑉᐸᓂ.

ᑕᒡᕙᐅᕗᑎᑦ,

ᑎᒻ ᐸᐃᔅ
Tim Byers