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## Gartner Lee Limited

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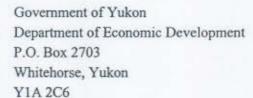
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Attn: Mr. Jesse Duke, Mining Facilitator

Dear Mr. Duke:

June 13, 2000

Re: Case History of Environmental Assessment and Regulation of B.Y.G. Mt.

Nansen Mine

Please find attached ten (10) copies of the Final Report for the Case History of the BYG Mine at Mount Nansen. We have incorporated the comment/clarifications provided to us by the various reviewers. We have also included a digital copy of the report on diskette as requested.

Thank you for the opportunity to work with you on this project and I look forward to working with you again in the future. Please feel free to contact me if you have any questions or concerns with any aspect of this report.

Yours very truly, GARTNER LEE LIMITED

Leslie Gomm, Ph.D., P.Eng.

Senior Environmental Engineer



### **Executive Summary**

Gartner Lee Limited was requested by YTG Economic Development to complete a summary of the issues that were associated with the assessment and permitting of the BYG Mine at Mt. Nansen. A summary of the major issues which occurred during the production and post-production phases of this project is also included. This report outlines in considerable detail the issues associated with the environmental assessment, licencing and operations of the B.Y.G. Mt. Nansen Mine in a fair and balance manner.

The BYG Resources Inc. Mt. Nansen project was an open pit hard rock gold mine located 60 kilometres west of Carmacks Yukon. The project underwent a Level II Environmental Assessment, originally initiated in 1988 under EARPGO, with the issuance of the Final Decision Report in December 1995. The Mt. Nansen project was licenced under the Yukon Waters Act in March 1996. The mine was in operation from the fall of 1996 until February 1999. In March 1999, BYG put themselves into receivership. Throughout the operating life of the project, there were regular notices of violations of the Water Licence from DIAND including water quality exceedances, late submission of reports and studies, and late security deposit payments. Charges were laid against BYG for Water Licence violations and upheld by the court in the spring of 1999. In July 1999 the receiver, D. Manning and Associates, abandoned the site and under Section 37 of the Yukon Waters Act, DIAND assumed control of the site. Since then DIAND has received a new water licence for the emergency care and maintenance of the site, specifically the tailings pond and its associated discharge.

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Given the history of the development and operation of this mine, it is evident that the BYG Mt. Nansen project has been a controversial project in terms of environmental risk. The objective of this review is to summarize the key issues that arose during the assessment, permitting and operational phases of this project and identify what steps were taken to deal with these issues. Recommendations have been suggested to help identify how this type of situation can be avoided in the future. Some of these recommendations include the following:

- stronger mechanisms to ensure compliance with Water Licence requirements,
- mechanisms to incorporate past practices in the review/regulatory process along with methods for the assessment of adequate security,
- · mechanisms for thorough technical review of final design plans within Water Licence process, and
- stronger linkages between the Yukon Water Board and DIAND when reviewing applications.

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Appendix A Summary of Background Review

#### Introduction

Gartner Lee Limited was contracted by the Department of Economic Development to conduct a "fair and balanced" synopsis of the issues that were associated with the environmental assessment and regulatory approval of the BYG mine at Mt. Nansen. Specifically, Gartner Lee was contracted to provide a review of the following:

- · IEE Guidelines used for the project;
- · Timelines for the environmental review of the project;
- A record of meetings conducted for the review;
- · A summary of key technical issues;
- A summary of key IEE comments and addendums;
- · A summary of the Screening Report recommendations;
- A review of the Water License process, including timelines;
- A summary of key issues raised during the Water License process;
- · A summary of the issues during production at the BYG Mine.

### 1. Objectives

As outlined above, the overall objective of this project is to provide a "fair and balanced" review of the issues that were associated with the assessment and permitting of the BYG Mine at Mt. Nansen. In addition to this, a summary of the issues which occurred during both the production and post-production phases of this mining project has been included in the review. It is clear that the BYG Mine has been a controversial project for Yukon Territory in terms of environmental risk. This review is seen to be the first attempt at capturing the approaches that were taken to deal with issues which were part of the BYG Mine both at the assessment/permitting stage and the production stage.

### 2. B.Y.G Mt. Nansen Mine Project Description

The Mt. Nansen Mine Project was an open pit hard rock gold mine operated by B.Y.G. Resources Inc. It is located approximately 60 kilometres west of Carmacks. The site lies in the traditional territory of the Little Salmon/Carmacks First Nation. A gravel road from Carmacks which, is maintained by the Yukon Territorial Government accesses the site. The overall project consisted of 257 mineral claims and 30 mineral leases with a total area of 5300 hectares.

Gold was originally discovered at this location in 1943. A 300 ton/day flotation mill was constructed in 1966 and operated in 1966/67 and 1976/77. Much of the infrastructure from this operation was left on site. In 1984, B.Y.G. Resources Inc. acquired these properties and combined them with additional claims to form the current property block at the Mt. Nansen Mine. Extensive exploration was carried out in the area from 1985 to 1989. While in operation, B.Y.G. was the sole owner of the mine.

The facilities on site during full mine operation include:

- · Open pit operation on the Brown-McDade zone,
- Cyanidation/carbon-in-pulp (CIP) gold recovery mill,
- Tailings dam system including impoundment dam, water treatment plant, diversion ditches, emergency spillway and a seepage collection dam,
- · Culvert crossing at Victoria Creek,
- · Water supply system from Victoria Creek,
- · Diesel power plant, warehouse and shop, and
- · Kitchen-bunkhouse complex including cafeteria and offices.

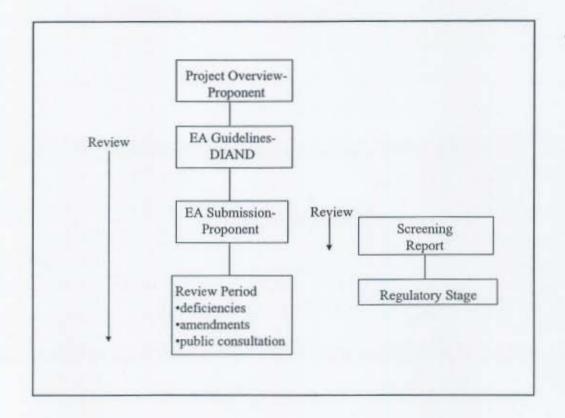
# 3. Summary of Environmental Assessment and Regulatory Approvals for Yukon Territory

Mining development projects in Yukon Territory undergo environmental assessment (EA) under the authority of the Canadian Environmental Assessment Act (CEAA). The goal of environmental assessment (EA) is to promote practices and policies that promote the concept of sustainable development. EA is a planning tool that is used to assess the impact of a development project on the environment and the mitigative measures required to deal with these impacts. Issues such as mitigative measures, residual impacts, follow up monitoring and cumulative impacts are aspects that are considered during an environmental assessment.

The overall purpose of CEAA is to ensure that the environmental effects of projects receive careful consideration prior to regulatory action by the Responsible Authorities (RAs). Environmental assessment under CEAA can be carried out at a Screening Level or as a Comprehensive Study or as a Panel Review. Mediation is also possible under CEAA to resolve outstanding issues associated with a review. The Yukon Region of DIAND assesses the vast majority of development projects at the Screening Level. Locally these are referred to as a "Level 1" Screening which is carried out by the individual Project Officer. A "Level 2" Screening is a more rigorous process that involves a stakeholder committee termed the Regional Environmental Review Committee or RERC that is chaired by the Environment Director, for the Yukon Region of DIAND. Figure 1 shows the basic process which is followed in Yukon Territory for the environmental review of mining projects.

The completion of an environmental assessment does not provide a proponent with the authority to mine but does guide the regulatory agencies with decisions with respect to licenses and approvals that provide the terms and conditions for a mine to proceed. The major regulatory approvals required to permit a mine in Yukon Territory fall under the Territorial Lands Act (e.g. Surface Lease), the Yukon Water Act (e.g. Water License) and the Quartz Mining Act (e.g. Production License).

Figure 1 Simplified Environmental Assessment Process for Yukon Territory



### 4. Environmental Assessment Stage

The following section summarizes the results of the background review of the Environmental Assessment Screening process for the Mt. Nansen Project. The records contained in the Public Registry were the chief source of documented information for this review. Notes to file, letters, memos, records of telephone conversations, meeting notes and minutes and other sources of information are found in the Public Registry. This provided for a relatively complete review of this stage of the project. A complete chronological summary of this registry review is in Appendix A. References to specific documents in the summary are provided in parenthesis. Table 1 outlines the major timelines for the Environmental Assessment of the Mt. Nansen Mine Project.

A Level II Environmental Assessment of the mining and milling of the Brown- McDade Deposit, installation of culvert at Victoria Creek, and associated land use and quarry permits was initiated under EARPGO in 1988. In 1988 and 1989, BYG Natural Resources Inc. submitted an Exploration and Development Overview for the Mt. Nansen Property to DIAND. This information was distributed to the Regional Environmental Review Committee (RERC) for review.

The initial proposal was for a heap leach operation. Comments regarding the review of the submission were sent to the proponent in May 1990. For the next four years, while there was some ongoing correspondence between DIAND and the proponent, the project was essentially on hold pending financing and improved metal prices. In June 1994, BYG submitted their Project Overview for review, which included a conventional mill and floatation circuit. At this time BYG requested that the reports submitted in 1989 be considered as part of their Project Overview submission. IEE Guidelines were issued to BYG on November 10, 1994 and BYG submitted their IEE on November 18, 1994. It was then distributed to RERC with comments requested by January 27, 1995. The majority of the comments were received on time with the remainder being submitted at a February 22, 1995 RERC meeting. On March 21, 1995 the IEE Review and a Request for an Addendum was sent to BYG. BYG responded to this request for additional information with the submission of the Addendum on April 7, 1995. A Preliminary Draft Screening Report was issued to the RERC and BYG on July 27, 1995 and the public on November 15, 1995. During the review, there was ongoing correspondence and meetings with the various agencies and the proponent to deal with the various issues. The final EARP Screening and Decision Report was issued on December 27, 1995.

#### 4.1 Timelines

The major timelines for the environmental assessment are summarized in Table 1.

Table 1: Environmental Assessment Timelines

Project Initiation	Information Requirements Issued	March 15, 1988
	BYG Reports to RERC	March 20, 1989
	Review of Submission	March 20, 1989 - May 9, 1990
	Ongoing Correspondence re: Status of Project	May 9, 1990 – May 31, 1994 .
	Request for Project Overview by DIAND E&LC	May 31, 1994
	Preparation of Project Overview by BYG	May 31, 1994 – June 16, 1994
Project Overview	Submission of Project Overview by BYG	June 16, 1994
	Preparation of IEE Guidelines	
IEE Guidelines	Release of Final IEE Guidelines	November 10, 1994
IEE Submission	IEE Submission to DIAND E&LC	November 22, 1994
Review of IEE	Initial Review by RERC	November 22, 1994 - March 21, 1995
	Initial RERC Review of IEE Submission and Request for Addendum to BYG	March 21, 1995
	Submission of IEE Addendum	April 7, 1995
	Ongoing Submission by BYG and Review by RERC	April 7, 1995 – July 27, 1995
Preliminary Draft Screening Report	Draft Issued to RERC and Proponent excluding assessment of Tailings dam and associated facilities due to pending required work	July 27, 1995
	Ongoing Submission and Review wrt Tailings Facilities and additional Environmental Issues	July 27, 1995 - November 15, 1995
	Draft Screening Report issued for Public Comment	November 15, 1995 – December 15, 1995
EARP Screening Report	Decision Report Issued	December 27, 1995

#### 4.2 Major Issues and Recommendations

Some of the major issues identified in Initial Review of IEE included the following:

- · Suitability of the location and design of the tailings impoundment facility.
- Inadequate baseline information for water and climate especially for the prediction of wastewater treatment and mill requirements.
- ARD issues including the lack of testing for acid generating and neutralizing potential of both the ore and waste rock.
- The adequacy of the water balance especially pertaining to Tailings Impoundment and allowances for ditch leakage. Given the nature of the material, there was the potential for significant ditch leakage.
- Insufficient geotechnical information collected to support design of the tailings impoundment
  including subgrade conditions, permafrost characterization, ground conditions, and foundation
  properties. Generally it was considered that geotechnical investigations for the Mt. Nansen Mine
  were insufficient and comments such as "underdesigned" (97) were raised at the environmental
  assessment stage.

BYG Natural Resources responded to the above issues by the submission of various reports as their IEE Addendum (spring 1995). Following a review of this addendum, the outstanding issues generally surrounded the lack of geotechnical and design information related to tailings, diversions and spillways. DIAND's consultant advised that "...the geotechnical data and other information collected to date are insufficient for the feasibility level of this project, or as support for the IEE" (97). They stated that the information provided to date on the proposed tailings impoundment location indicated there are areas of ice rich permafrost which could result in thaw unstable conditions. The reviewers felt that there was insufficient information on climatic conditions, soil characteristics, ground temperatures and thermal conductivities to support the conceptual design (135). Additional concerns also included the stability of arsenic in the tailings and its treatment in the effluents and potential impact on surface and ground water (135).

In response to these concerns, BYG commissioned its geotechnical consultants to prepare a report to deal with the request for information and also prepare a detailed program of additional field and office engineering to complete a final detailed design (136).

Concurrent with the environmental assessment of this project, the Yukon Territorial Water Board was reviewing a Type A Water Licence Application from BYG for the proposed mine development. A public hearing for the application had been set for June 6th 1995. Due to the outstanding issues that the RERC had with the proposed development, they were unable to complete the EARP assessment by the intent date for the public hearing (134). DIAND Water Resources felt that for licensing, detailed design information was required and as of yet it had not been provided to the Water Board in support of the licence application (139). DIAND felt that, given the amount of existing information available, the

Board was being asked to licence a tailings impoundment based on its concept and then have the details reviewed at a later date. Water Resources felt that past experiences has shown that it is difficult to enforce licences that allow for conceptual design (139).

During the review of the Water Licence application, a letter was sent by BYG's consultant to the Chair of the Water Board which stated that the level of detail being requested was beyond that required by EARP (137). BYG requested that the hearing proceed as scheduled with a final approval on dam design prior to construction. The Water Board considered both the position of the RERC and the proponent and decided to proceed with the public hearing.

Subsequently, DIAND sent a letter to the Water Board advising that they were not prepared to participate in the upcoming public hearing set for June 6th, 1995. DIAND further indicated that while they are not looking for detailed final designs, RERC does require strong preliminary design supported by data (153). This level of information, they felt, had not been provided by the proponent. DIAND further indicated that detailed designs, drawings, Design Criteria report and Construction Quality Assurance documents are also necessary for the Water Licence applications. Other federal departments such as Environmental Protection and the Department of Fisheries and Oceans also notified the YTWB that they would not be participating in the hearing (152).

The Board responded by asking DIAND to reconsider their position. The Board stated that they will not conclude the deliberation of this application without the EARP decision, but the Board felt that certain aspects of the application could be reviewed and it would be unfair to refuse the proponents' request to proceed.

RERC's major concerns were reiterated to BYG in a letter on June 5, 1995. The main technical issues which remained unresolved related primarily to BYG's intention to construct the tailings facility on discontinuous permafrost with insufficient baseline information for the design (151). Additional collection of field data to clearly define the site conditions was required to enable the RERC to fully assess whether the potential environment effects from the tailings could be mitigated by the proposed design. This letter further went on to state that RERC had been consistent in their request for this information from the proponent and referred the proponent to the IEE guidelines (November 14, 1994), discussion at meetings (February 22 and March 1, 1995), the initial review of IEE submission (March 21, 1995), and the two reports prepared by DIAND's consultant (February 21 and May 5, 1995). The letter acknowledged the receipt of BYG's proposed geotechnical program and stated that comments from DIAND's consultant would be forthcoming. On June 26, 1995 DIAND notified BYG to proceed with the field program to be followed up by submission of a report at the end of the program.

While BYG was in the process of collecting and assessing requests for outstanding information, RERC prepared the preliminary draft screening report excluding the assessment of the tailings dam and associated facilities. In early August, BYG filed a Schedule III (Notice of Water Use Without Licence) to the Water Board (182). This was then forwarded to Water Resources. This Schedule III stated BYG's

intention to construct a dam for storage of mine tailings. DIAND Water Resources responded to this request on August 7, 1995 and notified BYG that a Schedule III would not allow for the construction of a tailings storage dam. In absence of a type A Water Licence, any construction of the actual tailings storage dam would be considered a violation of the Yukon Waters Act. BYG was also told of this requirement for dam construction in a telephone conversation earlier on July 30, 1995. In a site inspection on August 10<sup>th</sup>, BYG queried how high they could build the tailings dam. They were told again that no construction of the dam was allowed. BYG indicated that if the footprint of the dam was not completed in the 1995 summer season, the mine would be unable to start up in 1996.

Follow up correspondence sent on August 14th to BYG from Water Resources advised BYG to not proceed with the construction of the stream diversion and tailings dam as proposed in an earlier letter (August 9th). Water Resources determined that the work is an integral part of the Water Licence application and should not proceed until the licence was issued. Due to the concerns over these structures, Water Resources expected to review the tailings dam/diversion design as part of the screening process.

In August 1995 BYG's geotechnical consultants report on the tailings impoundment was submitted. A review by DIAND's consultant was completed on September 12, 1995. The review indicated that many of the previously expressed concerns have been addressed in this report but states that the design is based on rather "optimistic interpretations of the data. The reviewer states that the design is based on the observational approach, mitigating adverse impacts will be dealt with if and when they occur.

On November 15, 1995 a draft screening report was issued for public comment. On November 29, 1995 DIAND forwarded a copy of this report to the Water Board for their information. They indicated that further information was still required in support of the Water Licence and this was reinforced in the EARP screening which indicated where further information should be submitted in support of the Water Licence application. In light of the fact that the proposed design was an observational approach, RERC recommended that detailed study plans be submitted to the Board that describe the objectives, methodology, action plans and triggers for action. At the time DIAND stated that while there are concerns with taking this approach, these concerns could be dealt with in the regulatory process.

On December 27, 1995 DIAND issued the EARP Decision Report for BYG Natural Resources Inc. Mt. Nansen Gold Mine Project.

### 5. Regulatory Approval Stage

### 5.1 B.Y.G. Natural Resources Inc. QZ94-004

As discussed previously, on March 21, 1995, BYG Natural Resources Inc. submitted an application for a Type A Water Use Licence for quartz mining undertaking (QZ94-004). A public hearing was held on June 6th, 1995 at the request of the applicant. DIAND and Environment Canada/Department of Fisheries did not participate in this hearing, as the environmental assessment of the project had not been completed. The public hearing was adjourned until the completion of the environmental screening process.

Between the time of the public hearing and the completion of the EA, many of the technical issues raised were resolved through the review process, with the proponent and the various government agencies coming to agreement on many issues. As a result no issues were presented to the Board for decision. In it's review of the application the Board considered the proponents application, the Screening and Decision Report, an intervention from DIAND, a joint intervention from Environmental Protection/Department of Fisheries and Oceans, transcripts of the public hearing, and the Board's own authorities and responsibilities. The public hearing was not reconvened, as it was not requested by any of the parties involved. DIAND's intervention stated that they agree with the recommendations in the Screening Report and supported the licencing of the project provided that the recommendations in the Screening Report are incorporated in the terms and conditions of the Water Licence (227).

In it's decision, the Board supported the majority of the agreements that had been reached between the proponent and the various governmental agencies, many of which were outlined in the screening report. As a result many of these recommendations, including requirements for additional studies, were adopted in the Water Licence with the exception of schedule of security payment and the requirement for the sealing of the Brown-McDade adit (230).

The Mt. Nansen mine was eventually licenced under the Yukon Waters Act March 14, 1996, Licence Number QZ94-004.

### 6. Mine Production Stage

The files in DIAND Water Resources provided the majority of the information for the background review of the production stage of the Mt. Nansen Mine. The chronological summary of this review is also found in Appendix A. Throughout the operating life of the Mt. Nansen mine, there were continuous notice of violations of the Water Licence with respect to failure of various water quality tests as well as the submission of various reports and studies, and security deposit payments that were required in their Water Licence. The following is a summary of the key events and issues that occurred during BYG's operation of the Mt. Nansen Mine.

#### Table 2: Summary of Key Events and Issues: Production Stage

	Date	Activity	Comments/Issues	Ref.
1996	Summer 1996	Construction on Tailings Facility		
	August 16, 1996	DIAND notifies BYG	BYG is out of compliance. No water samples had been taken to date as required in their monitoring program	237
	October, 1996	Commissioning of Tailings Facility		
	November 7, 1996	DIAND notifies BYG	BYG is out of compliance. Initial security deposit of \$50,000 is late. It was due April 16, 1996.	240
	November 8, 1996	DIAND's interpretation of BYG's start up date.	Therefore \$250,000 due December 8, 1996	241
	November 16, 1996	Site visit by DIAND	Identifies that the water balance used underestimated the volume of water entering the pond. Tailings pond water would need to be discharged by June 1997, much earlier than originally anticipated.	243
	December 10, 1996	BYG's official start up date		
1997	January 23, 1997	BYG applies for Water Licence Amendment QZ96-004	Required for the withdrawal of water from wells in the vicinity of the mill site.	252
	January 27, 1997	DIAND notifies BYG of non-compliance	BYG is out of compliance. BYG had not submitted security deposit of \$250,000	254
	January 31, 1997	Distribution of application QZ96-004 for RERC Review	Level I CEAA screening initiated by DIAND Water Resources for this application	257
	February 7, 1997	DIAND receives payment		258
	March 18, 1997	DIAND notifies BYG of non-compliance	BYG is out of compliance. Tailings Arsenic Stability Program not initiated and various concerns identified with the 1996 Annual Report including several water quality sampling parameters not being reported.	265
_	March 25, 1997	CEAA review of Amendment Application	A hearing is not requested but DIAND's	266

Date	Activity	Comments/Issues	Ref.
	QZ96-004 completed	intervention requests that BYG address additional arsenic loading to the Tailings effluent in the Tailings Arsenic Stability Program and Groundwater Arsenic Attenuation Program	
April 2, 1997	Site Inspection	Cyanide destruction facility not operating to specifications and reclaim pumping system is not operational. Environmental Coordinator for mine had not been hired yet. DIAND also warns BYG to used caution in the proposed collection ditch construction.	268
April 9, 1997	Meeting with DIAND Water Resources and BYG	Discussion of the many environmental concerns and BYG's proposed solutions.	270
April 11, 1997	Letter from DIAND Water Resources to BYG	DIAND expresses concern with increasing potential for significant environmental problems due to elevated levels of total cyanide, arsenic and metals in tailings pond.	271
April 17, 1997	Letter from BYG to DIAND Water Resources	Outlines various measures to be taken to become compliant.	272
April 28, 1997	Letter to BYG as follow up to April 22 Site Inspection	DIAND outlines various concerns including high cyanide levels above licence limits in pond, failure to report a tailings spill to Yukon Spill line as required by licence, the location of tailings and reclaim lines, and contrary to previous correspondence, the reclaim pump was not operational.	273
May 7, 1997	Site Inspection	BYG is out of compliance. Continual non- compliance with several problems documented, of which BYG is notified, including unlicenced diversion ditch construction, elevated cyanide	275

Date	Activity	Comments/Issues	Ref.
		concentrations, increased sediment loading to ditches, and seepage escaping from collection pond.	
May 20, 1997	Formal Notice to BYG from DIAND	Instructing BYG to take immediate action to ensure no flow released from seepage pond and return all seepage water to tailings pond. BYG also recommended to have a geotechnical assessment of the diversion ditch structural failure	277
May 22, 1997	Official Warning to BYG from DIAND	BYG is out of compliance. BYG is non-compliant due to the failure to collect water quality samples in March 1997.	279
May 28, 1997	Direction for immediate action to BYG from DIAND	BYG is directed to collect and pump contaminated seepage water back to tailings pond and seek recommendations regarding piping of the seepage dam.	280
May 30, 1997	Water Licence Amendment QZ96-004 is granted by YTWB		281
June 2, 1997	DIAND notifies BYG of toxicity test failure	BYG is out of compliance. Sample of seepage collection pond water taken May 15, 1997 was acutely toxic and therefore in violation of the Water Licence. They are directed to ensure no discharges to Dome Creek. DIAND also summarizes outstanding compliance issues and reminds BYG of nine studies and reports that are required by the Water Licence.	282
June 13, 1997	BYG notifies DIAND of request to use effluent treatment facility	The use of the effluent treatment facility at this time is in contravention of the Water Licence which states that a design plan for the facility must be submitted six months prior to any planned	284

Date	Activity	Comments/Issues	Ref
		discharge.	
June 13, 1997	DIAND responds to BYG's request	Water Resources acknowledges treatment facility being built is in contravention of the licence and requests a design plan immediately for approval. BYG notified that any non-compliant discharge would be dealt with accordingly.	285
June 25, 1997	Meeting with DIAND,BYG and their consultants	Discussion of the problems associated with the site including diversion ditches, seepage collection pond, seepage from tailings dam, water balance accuracy, water treatment plant and other proposed licence amendments.	28
July 16, 1997	Site Inspection Report	BYG is out of compliance. Cyanide levels in impoundment were still above licence limits and there was water seeping through the frozen dam core.	29
July 21, 1997	Telephone conversation with BYG and DIAND –Urgent	BYG reports information on tailings dam indicating the possibility of a failure in the immediate future. There had been significant increases in seepage volume since the last inspection. The toe area of the dam was "jelly-like" and BYG's consultant recommended the immediate construction of a toe berm.	29
July 22, 1997	Site visit by DIAND		29
July 24, 1997	Letter from DIAND ARDG to BYG	Expresses concern with the tailing dam integrity and urges BYG to take necessary action as well as to inform the various affected parties.	29
July 30, 1997	BYG applies for Emergency Water Licence Amendment (QZ97-024)	For the construction of a toe berm and the start up of the water treatment plant to discharge water from the impoundment to enable the reduction of	29

Date	Activity	Comments/Issues	Ref.
		hydrostatic pressure on the dam.	
August 8, 1997	Emergency Amendment QZ97-024 granted	Discharge is allowed as long as it meets all licence limits. DIAND Water Resources supported this amendment. The only objection came from Little Salmon Carmacks First Nation.	301
August 20, 1997	Letter from DIAND Water Resources to BYG	BYG is out of compliance. Letter offers several comments regarding Water Licence compliance including:  Continual release of sediment from diversion ditches  Required improvements to seepage flow collection  Continual SAD cyanide exceedance in pond  Lateness of June 1997 monthly report  Late submission of other reports and studies.  Requirement of revised water balance in monthly reports.	307
August 21, 1997	DIAND Water comments on June 1997 report	BYG is out of compliance. They were concerned about lack of attention in BYG's reporting, with the exclusion of important information including sample date, sample location and data for various required parameters. BYG has been notified above the latter deficiency on several previous occasions. Total cyanide, iron and manganese were above licence standards	308
September 9, 1997	Letter from BYG to DIAND Water Resources	Requesting a discharge date of September 15, 1997	311
September 11, 1997	Letter from DIAND Water Resource to BYG	Granting permission of discharge on September 15th	312

Date		Activity	Comments/Issues	Ref
Septembe	er 22, 1997	Mining operations halted	For diversion ditch and spill way repairs.	313
Septembe	er 23, 1997	DIAND Water Resources notifies BYG of exceedence	BYG is out of compliance. Cyanide levels in tailings pond and seepage water are too high.	314
Septemb	er 24, 1997	DIAND Water Resources requests more frequent sampling	Due to detectable levels of cyanide found downstream in Dome Creek (Station D2).	315
October	16, 1997	Site Inspection	BYG is out of compliance. BYG was found out of compliance on several counts. The mine manager was cautioned and tape-recorded and informed that if the October 16 <sup>th</sup> bioassay fails, charges will be laid.	316
October	28, 1997	Direction issued to BYG under Section 37(1)(a)(ii) and Section 37 (1)(b)	BYG is out of compliance. BYG must prevent the discharge of effluent not meeting licence standards. Direction based on tailings pond water and sediment exceeding metals, cyanide and arsenic licence limits. This Direction also expressed concern that the continual operation of the mill was resulting in increasing water levels in the pond.	320
October	29, 1997	Telephone conversation with DIAND Water Resources and BYG	BYG outlined the steps that they would take to comply with the Direction.	321
October	30, 1997	Letter from DIAND Water Resources to BYG	Reinforcing the requirement for the submission of the water treatment plans and tailings characterization by October 31st.	322
Novemb	per 13, 1997	Temporary shutdown	Mining facilities were shut down for a six-week period to allow for the necessary changes and upgrades to the treatment plant.	32:
Decembe	er 15, 1997	Notice to BYG from DIAND	BYG is out of compliance. Security deposit of \$145,000 due December 10 <sup>th</sup> has not been received.	

	Date	Activity	Comments/Issues	Ref.
1998	January 21, 1998	Letter to BYG from DIAND Water Resources	Demanded immediate payment of overdue security of \$145,000	330
	January 27, 1998	BYG commences discharge		331
	January 29, 1998	Environment Canada applies for Emergency Amendment QZ97-027	Requested in order to stop the practice of mixing effluent with fresh water and therefore diluting the discharge to meet discharge standards.	333
	January 30, 1998	Interpretation of licence issued by YTWB	Interpretation stated that the existing Water Licence and amendments did not allow for the direction of water from groundwater sources to the effluent discharge and therefore, does not permit the uses of this water for the purposes of dilution.	334
	February 2, 1998	Letter to DIAND Water Resources from Environment Canada	Asked if DIAND is now willing to enforce the dilution restriction on BYG's water use.	336
	February 3, 1998	BYG applies for Emergency Amendment (QZ97-028)	Requesting temporary relief of the toxicity requirement, therefore enabling a large discharge volume, and relocation of the compliance point for this test. This was requested to reduce the volume of water in the tailings impoundment to provide capacity for spring freshet.	337
	February 9, 1998	Charges laid against BYG for Water Licence violations	Four counts included:  Discharge of toxic effluent on October 16, 1998  Failure to submit reports between July 29, 1997 and February 1, 1998  Tailings pond cyanide concentrations exceed allowable limit of 25 mg/l between May 20, 1997 and January 27, 1998  BYG's officials knowingly made false statements to the YTWB	339

Date	Activity	Comments/Issues	Ref.
February 20, 1998	Emergency Amendment QZ97-028 granted	Permitted a sixty-day exemption from the toxicity requirement. Amendment also included several monitoring and reporting conditions as well as required the submission of a comprehensive report of BYG's commitments to ensure future effluent compliance. As part of this process, BYG assured the YTWB that it would not be running mill operations unless there is capacity to provide water to the mill.	342
February 26, 1998	Meeting with BYG and DIAND officials	Issues covered included:  Status of overdue reports  Effective date of emergency amendment  Use of dilution water  Operation and performance of treatment plant  Seepage concerns  Resumption of mill operations  Raising of the dam	343
March 3, 1998	Directions Issued to BYG under Yukon Water Act	Registered letter contained five directions:  Cease dilution of effluent  Complete installation of tailings dam instrumentation  Commence volumetric readings of seepage water pumped to pond  Do not mine ores from areas other than Brown-McDade  Do not raise the dam without licence amendment	346
March 6, 1998	Letter to DIAND Water Resources from BYG	Notified DIAND that BYG would continue to dilute despite direction issued on March 3 <sup>rd</sup>	347

Date	Activity	Comments/Issues	Ref.
March 9, 1998	Letter to BYG from DIAND Water Resources	BYG is out of compliance. Reiterated to BYG that they must cease dilution of the effluent	348
March 11, 1998	Public Interest Hearing on BYG Natural Resources (QZ94-004)	This meeting was held in response to concerns raised by the Little Salmon Carmacks First Nation and the Village of Carmacks during the review of Emergency Amendment QZ97-024. These concerns dealt generally with the environmental management at the mine site.	
March 18, 1998	Letter to BYG from DIAND Water Resources	DIAND notified BYG of the concern over the continued milling when pond water levels are critical. BYG is told that they will be held responsible for the consequences.	349
March 25, 1998	BYG applies for Licence Amendment (QZ97-029)	BYG wanted to build interceptor ditches to collect runoff and pipe around the pond and discharge into the spillway. This was to alleviate the potential problems due to the significantly larger amount of runoff anticipated in the spring. This increased runoff volume was due to an error in the water balance had underestimated the drainage area.	350
March 26, 1998	CEAA Screening of application QZ97-029 initiated by DIAND Water Resources	Given the significant variations between the approved project and the actual site conditions, the existing EARP screening report could not be applied.	351
April 3, 1998	BYG applies for Emergency Amendment (QZ97-030)	Requested for the continuation of the temporary relief of the toxicity requirement	353
April 17, 1998	BYG withdraws application QZ97-030	YTWB determined that this application would not be considered an emergency	356
Summer and Fall, 1998	Site Inspections	BYG is out of compliance. Continual failure of the water quality and bioassay tests carried out by	

Date	Activity	Comments/Issues	Ref.
		Water Resources Inspectors	
May 5, 1998	Meeting with DIAND, BYG and their consultants	Discussed several issues including dam instrumentation, stability and improvements, water treatment plant problems, outstanding reports and mill circuits	359
December 1, 1998	BYG issued Directions 98-06 to 98-11 under Yukon Waters Act	BYG is out of compliance. BYG has failed to comply with the terms and conditions of its Water Licence (and amendments). The following additional directions were issued:  • Cease deposition of tailings above licence limit elevations  • Cease all mining and milling of sulphide ores  • Cease dilution of tailings effluent  • Reduce cyanide levels in the pond to below licence limits.  • Collect and characterize all seepage and return to pond  • Submit a plan to Water Resources on how BYG will deal with these directions  It was noted in this correspondence that failure to comply with these and previously issued directions would result in increased and more stringent enforcement.	373
December 3, 1998	BYG applies for Water Licence Amendment (QZ98-033)	For the inclusion of the mining and milling of ores from "Flex Zone" in the existing Water Licence. Initial review by DIAND Water Resources states that mining of this ore is prohibited in the existing licence and deposition of potentially acid generating wastes is not allowed.	375

	Date	Activity	Comments/Issues	Ref.
	December 24, 1998	DIAND Water Resources request licence amendment	Requested that BYG be required to immediately provide a security of \$8,038,434. This increase in the amount of security is in response to a cost estimate for decommissioning and abandonment of the Mt. Nansen site prepared by J. Brodie under contract to DIAND Water Resources. DIAND Water Resources requested this revision to the cost estimate to reflect the current site conditions, which were not adequately reflected in the initial draft plan.	383
	December 28, 1998	BYG submits Water Licence Amendment Application QZ98-035	Requested the addition of sulphide floatation circuit to the mill and beach tailings up to spillway invert level.	384
	December 31, 1998	Letter to DIAND Water Resources from BYG	BYG disputes Directions issued December 1st	387
1999	January 14, 1999	Letter to BYG from DIAND Water Resources	BYG is out of compliance. Requested immediate payment of overdue \$225,000 security payment by January 26, 1999 and a plan for dealing with the Directions issued in December. BYG is told that failure to comply would result in additional enforcement action under Yukon Waters Act or petitioning of the YTWB for licence cancellation.	389
	February 10, 1999	DIAND Water issues additional Directions to BYG	Based of the BYG's plan to continue operations while they attempt to deal with the existing problems and licence violations. The following Directions were issued:  • Payment of outstanding security by February 18, 1999  • Immediate treatment of pond water to reduce	390

Date	Activity	Comments/Issues	Ref.
		cyanide levels to licence limit. Written notification of commencement of treatment required by February 18th  Provision acid-base accounting (ABA) and dam stability report by February 18th  Failure to comply with directions would result in ceasing of milling and tailings deposition by 5:00 pm February 18, 1999	
February 17, 1999	Letter from BYG's Lawyers to DIAND Water Resources	Notified DIAND that BYG was unable to make the requested payment. The stated reason is that BYG was unable to raise funds in an environment of negative media. It was also stated that BYG needed to have the various hearings for the various amendments to enable other ore bodies to be mined.	
February 18, 1999	Letter from DIAND Water Resources to BYG's Lawyer	Explained the CEAA screening process and confirmed the Directions issued on February 10, 1999	394
February 18, 1999	BYG ceases operation		

#### 7. Post Production

#### 7.1 Receivership

Although operations had ceased there were still outstanding applications for amendments for BYG's Water Licence QZ94-004. These included:

- · Board proposed changes as a result of the March 1998 Public Interest Hearing
- DIAND requested increase in Water Licence security (QZ98-037)
- Amendment for mining and processing of other ore bodies (QZ98-033)
- Amendment for tailings deposition to level of spillway invert (QZ98-035)

The first two amendments required environmental screening under CEAA which was to be carried out by Water Resources. The latter two amendments were to be carried out by the Environment Directorate in a Level II process. At this time there was insufficient information to allow the initiation of a CEAA screening.

In March, 1999 BYG Natural Resources Inc. put themselves into receivership and appointed D. Manning and Associates as the receiver. As a result of the various Water Licence violations and defaults the Department of Justice at this time was pursuing court action against the company. In May the case went to court and BYG was found guilty on all three charges under the Yukon Waters Act with a fine of \$100,000 for each. In a letter from the DIAND Minister, the receiver's lawyer was told that all but the first of the Directions given on February 10, 1999 remained (403). The one direction revoked pertained to the payment of the security.

On going inspection at this time indicates that the concentrations of cyanide in the tailings pond were still non-compliant. On July 19th a Direction (99-05) is issued to the receiver instructing it to maintain environmental safety at the Mt. Nansen site as well as the continuation to meet the terms and conditions of the existing Water Licence and amendments. On July 20th the receivers legal council notified DIAND's council, that under the Bankruptcy and Insolvency Act, the receiver has abandoned the tailings pond and is not responsible to any Directions that DIAND may make nor, is it liable for failure to comply with any Direction or order (407). DIAND is informed that on July 19th that 10 of the 11 employees remaining on site had been dismissed from their jobs (405). The remaining employee's responsibilities will be limited to generator maintenance, operation of seepage pumps and site security. A site visit by DIAND Water Resources on July 22, 1999 found that the water treatment plant operator had also remained on site to ensure plant operation in anticipation of employment from DIAND (407). He left the site the same day as no offer of employment was made.

During the period of the receivership DIAND stated that there had been no effort made by the receiver to contact the Water Resources Division or did they formally respond to the Direction issued in July. On July 24th DIAND Water Resources notified the receiver that they would be taking actions for the

purposes of maintaining water and effluent treatment and control obligations of the licensee/receiver. It also intends to seek recovery of expenditures incurred while taking these actions.

On July 28, 1999 DIAND legal council is informed that the receiver for BYG Natural Resources will be abandoning the entire Mt. Nansen Mine site under the Bankruptcy and Insolvency Act.

#### 7.2 DIAND – Water Resources QZ99-043

On July 28, 1999, D. Manning and Associates, the Receiver for BYG Resources Inc. Mt Nansen mine, abandoned the site. Under Section 37 of the Yukon Waters Act, DIAND assumed control of the site and was taking measures to prevent further environmental problems associated with the mine. DIAND did not want to assume the responsibilities assigned to BYG under licence QZ94-004 and as such applied for a new Water Licence for emergency care and maintenance operation on August 4, 1999.

On September 17th, 1999 DIAND received a water use licence for the care and maintenance operations at the Mt. Nansen site to prevent further environmental harm. Under this licence, approximately 1500 m³/day of treated tailings pond water was to be discharged into Dome Creek. The goal of the discharge is to the lower the water level in the impoundment in order to accommodate the potential inflow during spring melt. Also included in the Water Licence is the provision for cleaning diversion channels, collection and pumping of dam seepage and construction of associated earthworks. An ongoing monitoring program was also laid out in the Water Licence, with weekly samples of the treated discharge being taken and analyzed while the treatment plant is operated. Monthly surveillance would also be required when the treatment plant is not operating.

Since DIAND began operating the treatment plant at the site, they found that the pond water could be treated to meet discharge standards with the exception of ammonia concentrations. Due to the elevated ammonia levels the lethal toxicity test (LT50) requirement could not be achieved. When they originally applied for the Water Licence, DIAND anticipated, based on historical plant operation information, that the water treatment plant could be operated optimally at 1000 m³/day and discharge effluent with cyanide, copper and ammonia concentrations which would not be toxic to fish. After trying various treatment scenarios, although cyanide and copper levels were being reduced to meet licence criteria, ammonia concentrations were at levels toxic to fish: 12 mg/l compared to 2 to 5 mg/l. Also, DIAND found that they could achieve maximum achievable discharges of approximately 600 m³/day, not the 1000 m³/day required to adequately lower the pond prior to freeze-up.

As a result DIAND applied for an Emergency Amendment to their Water Licence requesting either of the following:

- Removal of the requirement for the treated effluent to meet the lethal toxicity (LT50) bioassay for the remainder of the licence; or
- Enable the dilution of the water treatment plant effluent using water from Victoria Creek and therefore increase the maximum quantity of deposit of waste to be increased to 2000 m³/day.



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On September 28, 1999 the Yukon Territorial Water Board granted the Emergency Amendment with the removal of the LT50 (lethal toxicity) requirement until December 15, 1999 (Clause 22).

The water treatment plant started discharging to Dome Creek on September 28, 1999. Prior to that, the plant was not operating adequately to allow for discharge. Discharge to Dome Creek continued until midnight December 15, 1999. As of December 15th, approximately 24,000 m³ of water had been removed from the pond with an estimated 34,000 m³ remaining. Since then on-going care and maintenance is continuing to ensure proper operation and maintenance of the seepage collection system. Ohgoing studies are investigating other methods of reducing water volume in the pond such as snowmaking and ice harvesting.

### 8. Summary of Key Issues

The following is a summary of key issues and problems that lead to the existing situation at the BYG Mt. Nansen Mine Site.

- General disregard by BYG of deadlines stipulated in the Water Licence for submission of studies, reports and security deposits. At the time the submission of these reports may not have appeared to be crucial. However, they may have provided important information and could have been used to assess potential environmental issues during the operation of the mine. For example, if updated Water Balances had been submitted with the monthly reports, the problem with the early filling of the pond may have been identified sooner.
- The dam never worked according to design and this was aggravated by the fact that there was substantial ditch leakage to the pond. This, in conjunction with the lack of water recycle and the inaccurate water balance, resulted in the treatment and discharge of the tailings water earlier than planned and serious environmental risks.
- 3. The treatment plant never worked properly. A detailed design and operations report was never submitted to the Water Board. A requirement in the licence stated that a detailed water treatment program be developed, tested and submitted to the board six months prior to any planned discharge. This did not occur prior to requirement for emergency discharge to reduce the volume in the tailings pond.
- In the review of the files, especially those in Water Resources, it is apparent that there was significant staff turnover at the mine site, specifically those in charge of the environmental work.
- 5. During the allowed emergency discharge, the mine continued to operate, generating additional wastes for deposition. It was obvious at this time that the treatment plant could not meet the required discharge parameters. At this point, no additional water (other than natural runoff etc.) should have been allowed to enter the pond. This would have enabled the recirculation of treated tailings pond water back to the pond to optimize the treatment plant operation to meet discharge limits.
- BYG continued to dilute the discharge water with fresh water to meet licence requirements.

- 7. The lack of enforceability of the Yukon Waters Act. According to Section 37 of the act, actions such as stop work orders can only be made if:
  - (a) (i) waters have been used in contravention of the licence,
  - (a) (ii) waste has been deposited in contravention of the licence, or
  - (a) (iii) there has been a failure of work related to the use of water or deposition of waste, and
  - (b) that a danger to persons, property or environment may result.

Therefore, even though there is a violation of the Water Licence, such as the failure to provide the required reports or exceedence of a discharge limit, there also must be the potential danger to persons, property or environment. The Act does not give an Inspector the power to issue a stop work order based on the potential that there might be some danger at some future time (per. Comm. D. Sherstone, 2000). This effectively limits follow up actions by the regulator to deal with routine compliance issues as they arise. It should be noted that once a mine has been closed or abandoned, it is much easier to take enforcement action according to Section 39(1)(b).

8. In summary, overall failure of BYG to meet the licence requirements throughout the life of the mine and the limited ability of the federal government to take effective corrective actions to ensure compliance with the water license.

#### 9. Recommendations

The following are some recommendations about the environmental assessment/regulatory/enforcement processes that can be made based on the review of the BYG Mt. Nansen Project.

- 1. A stronger mechanism to ensure compliance with all Water Licence requirements. Perhaps a "ticketing system" is required to deal with short term and/or daily violations. It is important to note many of the terms and conditions contained in a water license includes reports (e.g. monthly reports, effluent treatment studies), security deposits, studies, programs and surviellence monitoring. These are important milestones for the regulators to assess the performance of a mine (versus the predictions at the environmental assessment stage) and to provide a "early warning system" for environmental risk. The Yukon Waters Act would require an amendment to provide for improved enforcement capabilities.
- 2. A mechanism to incorporate past practices in the review of Water Licence applications and amendment applications. It was obvious from the beginning that BYG generally disregarded various aspects of the Water Licence, yet they were continually granted further amendments. Although many of these were emergency amendments and reactionary to an eminent crisis, the amendment could have stipulated a cleaning up of operating practices to ensure no further non-compliance. Even when the mine was shut and being taking to court for licence violations, further amendments and associated CEAA screenings were being reviewed.
- 3. A mechanism for the assessment of adequate security for the proposed life of the project. This security should be a cost of doing business, not contingent on the issue of a Water Licence. Under Section 14 (4)(d) of the Yukon Waters Act, the Board is required to ascertain that the licencee has the financial resources to carry out the proposed undertaking.

- A mechanism that allows for the thorough technical review and approval of final design plans within the Water Licence process.
- Governmental agencies need to work together as a team, including the Water Board, to ensure the
  environmental integrity, soundness, and suitability of the mitigative measures and engineering design
  of mining projects being reviewed.
- 6. Given the history of the BYG mining project, a stronger linkage between the Yukon Water Board and the regional office of DIAND in terms of reviewing applications and for the preparation of terms and conditions for a water license would be a positive step. This could provide a forum for dealing with complex technical issues associated with licensing major industrial projects. A model which 'should be followed in this context is the Technical Advisory Committee (TAC) which is used to support the NWT Water Board.

# Appendix A

Summary of Background Review

#### BYG RESOURCES Mt. NANSEN

Stage of Review	#	Date	To	From	Subject	Comments
Project Overview	1	09-Jan-87	Norecol	DIAND, Water	Data from a 1985 site visit	
	2	01-Mar-87	File	Norecol	Environmental Info Package	
	3	24-Sep-87	File	NA	Notes regarding meeting with Archer Cathro	pilot project, would not need water license
	4	12-Feb-88	File	NA	Press release	r
	5	15-Mar-88	RERC Members	M.Crombie	Info meeting notification	project information requirements
	6	23-Mar-88	M. Crombie	Archer Cathro	RERC meeting with BYG/Archer Cathro	update on current status of Mt. Nansen project, draft project information requirements circulated @ meeting, asked for comments on this and other info submitted by proponent, proposed heap leach mine initially
	7	15-Apr-88	M. Crombie	EPS	Comments back from Environment Canada	heap leaching project info requirements, environmental info package by Hawes, exploration and development overview, draft info package
	8	25-Apr-88	M. Crombie	YTG	Comments back from YTG Ren.Res.	flagged no exp. With heap leach technology
	9	06-May-88	Archer Cathro	RERC	Finalized outline for project info requirements	asked for additional info not required for screening, but would be required at a later date for licensing, etc.
	10	18-May-88	RERC	DFO	Comments back	
	11	07-Jul-88	File	Water Quality	Sampling @ Mt. Nansen on June 23/88	Archer Cathro exploration camp on Pony Creek; using all water from Pony Creek
	12	15-Jul-88	File	Water rights	Report of Mine inspection on June 23/88	possibility of test heap leach for late summer

Stage of Review	#	Date	To	From	Subject	Comments
	13	20-Mar-89	RERC	DIAND	Distribution of reports submitted for review	1. Report on geology and mineral inventory 2. Mil and surface facilities feasability study 3. Tailings Dam report 4. Environmental update report; comments requested by April 7/89; answer 2 questions: 1) is there sufficient info to make a decision - if yes, can project proceed to next stage, with what recommendations; 2) if no, what issues need to be addressed, are there information deficiencies, or should an IEE be requested
		20 11101 00	1,121,13			objection to current state of Victoria Creek
	14	05-Apr-89	RERC	DFO	Comments by Fisheries	crossing
	15	06-Apr-89	RERC	CYI	Response from CYI	
	16	10-Apr-89	RERC	YTG	Comments from Wildlife	sufficient info to make decision
4:	17	11-Apr-89	RERC	Water Resources	Comments	sufficient info for RERC review but further info required for regulatory process, if some specific info regarding development of open pit is provided, then regulatory process can proceed
	18	12-Apr-89	RERC	Economic Dev.	Comments	impressed with proponents willingness to address environmental concerns, but no socio-economic report, this is needed
	19	20-Apr-89	RERC	EPS	Comments	more info; concerned with tailings treatment and water treatment
	20	09-May-89	LSCFN	RERC	Request for their comments;	
	21	29-Jun-89	File	WQ	Inspection Report	results from June 20-21/89 site visit
	22	1990 March	File	GeoEngineering	Mt. Nansen geotech inspection report	authorized by DIAND in May 1989
	23	08-Apr-90	DIAND	LSCFN	Money for Studies	requesting money to do a study on effects of cyanide of the environment
	24	09-May-90	BYG	RERC	Review submissions from RERC members	further info required
	25	07-Nov-90		Fraser Lands	Notification of lease expiry	lease then renewed

### BYG Mt. Nansen Project

Stage of Review	#	Date	To	From	Subject	Comments
	26	28-May-91	BYG	DIAND	Status of Mt. Nansen project	last correspondance sent May 9, 1990 and none of the required info has been provided; surface lease renewal has been requested but these cannot be renewed until environmental screening has been completed under EARPGO
	27	14-Jun-91	Env. Dir.	BYG	Project on hold awaiting better metal prices and financing	upset about news that lease cannot be renewed until EARP screening is completed; request En. Dir. Sanction this renewal
	28	02-Dec-91	Env. Dir.	Lands	Status of screening	will not hold up renewal of lease if a condition is noted in level I screening and lease renewal that any new development will not be considered until level II screening has been completed
	29	24-Sep-92	File	DIAND Water	Chris Babcock with mining company of Washington State wants to do a pilot heap leach project near Mt. Nansesn	DIAND suggested a Type B water license under schedule #3
	30	15-Jul-93	BYG	E&LC	Status of proposed development	presently under level II screening; request confirmation with regards to project within 1 mont, if not project will be officially deactivated
	31	19-Jul-93	E&LC	BYG	Request to continue with project	
	32	17-Feb-94	File	Env.Dir.	Level II Environmental Assessment	company has funding, no longer do heap leaching; conventional mill and flotation operation want to go into operation in 1994
	33	26-Apr-94	BYG	E&LC	Current status of development and EA plans	prior to any reg. license or permitting EA must be carried out - 1. Must submit a detailed project overview; 2. From that IEE guidelines will be provided; - preliminary information guidelines were provided in March 1988, also enclosed draf project overview guidelines
	34	27-Apr-94			Meeting with BYG	

### BYG Mt. Nansen Project

Stage of Review	#	Date	To	From	Subject	Comments
	35	31-May-94	BYG	E&LC	Letter follow-up to a meeting	requesting project overview to include info deficiencies raised in 1989 also saying that RERC will have to revisit project due to changes in EA in Yukon since 1994
	36	16-Jun-94	File		E&LC and BYG meeting	submission of project overview to be distributed to RERC; RERC discuss at July meeting; working or IEE based on deficiency from before, will incorporate deficiencies raised in project overview review; E&LC will try and provide IEE guidelines by August 1994; BYG - want to have permitting in place by May 1995
	37	20-Jun-94	RERC	E&LC	Project overview distribution	comments due July 29/94; revised to Aug 17/94
	38	23-Jun-94	DIAND Water	Dan Cornett	Project overview for Mt. Nansen project for RERC review	suggests a meeting for early July/94; final comments requested before July 29
	39	05-Jul-94	E&LC	YTG Heritage	Comments on project overview	
	40	05-Jul-94				concerns raised by Water - neither of the proposed tailings storage sites chosen in 1989 ar suitable from a geotechnical perspective
	41	03-Aug-94			RERC meeting to deal with Mt. Nansen project	
	42	04-Aug-94	Dan Cornett	Bill Slater	RERC meeting on August 3/94	notes
	43	08-Aug-94	RERC	E&LC	Comments due Aug 17	
	44	09-Aug-94	E&LC	DIAND Env. Dir.	Comments submitted	
	45	10-Aug-94	E&LC	DIAND Geology	Comments	info needed for IEE: completeness of project overview; acid generation potential of mined rock geotech work on-site; geological processes and terrain hazards; and reclamation planning
	46	11-Aug-94	E&LC	YTG	Comments submitted	

### BYG Mt. Nansen Project

Stage of Review	#	Date	To	From	Subject	Comments
	47	12-Aug-94	BYG	E&LC	Comments from DIAND Geology sent	
	48	12-Aug-94	E&LC	Environment Canada	Comments submitted	
	49	16-Aug-94	E&LC	Health and Welfare	Comments	
	50	17-Aug-94	E&LC	YTG Ren. Res	Comments submitted	
	51	17-Aug-94		E&LC	Forwarding YTG Ren. Res. Comments	
	52	18-Aug-94	E&LC	DIAND Lands	Comments submitted	
	53	25-Aug-94			Site visit by RERC	
	54	31-Aug-94	E&LC	DIAND Water	Comments submitted	complete description of milling process should be provided; details on open pit plans, schedules, phasing and design should be provided
	55	06-Sep-94		BYG	press release	
	56	16-Sep-94		BYG	Submit cyanide destruction test work	CYI and LSC will not submit comments at this point but will review draft IEE guidelines
	57	30-Sep-94			Cyanide test work distributed	
	58	19-Oct-94	LSCFN		Cyanide test work distributed	
IEE Guidelines	59	25-Oct-94	BYG	E&LC	faxed draft of IEE guidelines	
	60	25-Oct-94	RERC	E&LC	sent draft IEE guidelines	to be finalized at Nov meeting
	61	01-Nov-94			RERC meeting	was to discuss IEE guidelines but this was not fully completed because of lack of time and not al members were present for complete discussion; comments requested in writing
	62	02-Nov-94	E&LC	C&TS	Comments on IEE	
	63	02-Nov-94	E&LC	YTG Minerals	Comments	
	64	04-Nov-94		Environment Canada	Comments on IEE	
	65	04-Nov-94		YTG Heritage	Comments on IEE	
	66	04-Nov-94	E&LC	YTG Ren. Res	Comments on IEE	
	67	07-Nov-94		YTG Ec. Dev.	Comments on IEE	
	68	07-Nov-94	E&LC	Exp&Geol.Serv.Div.	Comments on IEE	

Stage of Review	#	Date	То	From	Subject	Comments
	69	14-Nov-94	BYG	E&LC	Final IEE guidelines	fax to their consultants T.W. Higgs on Nov 10/94
	70	16-Nov-94	E&LC	Health and Welfare	Concerns re Mt. Nansen project	
EE Submission	71	18-Nov-94	E&LC	BYG (Higgs)	IEE submitted	
	72	23-Nov-94			RERC meeting	IEE presented; review comments due Jan 27/95
	73	30-Nov-94	E&LC	DFO	IEE comments	defer comments on Victoria Creek crossing
	74	06-Dec-94	Dist. List	RERC Coordinator	Corrections to IEE Vol. 1	
	75	16-Dec-94		Env. Dir.	Questions to consider when reviewing BYG's IEE submission	
	76	16-Dec-94	RERC	E&LC	Screening considerations for IEE review	
	77	19-Dec-94	Carmacks	E&LC	Request for contact name	encouraging interest in the project
nitial Review of IEE	78	19-Dec-94	File	E&LC	Public distribution of IEE	
	79	19-Dec-94	DIAND Water	Dan Cornett	Info provided for review of IEE Vol 1&2	comments deadline Jan 27/95
1	80	29-Dec-94	E&LC	YTG Heritage	Comments on IEE	
	81	05-Jan-95	E&LC	DIAND Water	Their geotech consultants can't make the Jan 27/95 deadline	realistic date for comments from GeoEng. Is mid March (including Bud's review of his report)
	82	13-Jan-95	Dan Cornett	wa	Comments on IEE	parameters covered in analysis not adequte; sampling frequency not sufficient; QA/QC data missing; report is deficient in baseline WQ data, acid/base accounting and leachable metals supporting data;
	83		Gerry Whitley	wa	Comments	regulatory concerns of Mt. Nansen IEE report - due to short life span of mine, the abandonment plan should be in and insurance monies secured before issuance of water license;
	84	25-Jan-95		YTG Ren. Res	Comments on IEE	
	85	27-Jan-95	100000000000000000000000000000000000000	YTG C&TS	Comments on IEE	
	86	27-Jan-95	E&LC	YTG Ec.Dev.	Comments on IEE	

Stage of Review	#	Date	То	From	Subject	Comments
	87	01-Feb-95	E&LC	DIAND Water	Comments	except geotechnical and physical stability review
	88	02-Feb-95	E&LC	BYG	Time lines	due to project needs - will file a water license application by Feb 15/95
	89	02-Feb-95	E&LC	Environment Canada	Comments on IEE	
	90	03-Feb-95	BYG	E&LC	Time line concerns	
	91	03-Feb-95	Bill Slater	Hydrology	Comments on IEE	classification and additional info required - peak flow estimate required for the proposed Victoria Creek crossing
	92	03-Feb-95	E&LC	DIAND Water	Comments on IEE	
	93	07-Feb-95	E&LC	Environment Canada	Addendum to comments	
	94	16-Feb-95	File	Bill Slater	Security deposit and geotech comments	are costs associated with closure and reclamation adequate; should ask BYG to submit another proposal for providing security
	95	16-Feb-95	E&LC	Carmacks	Comments on IEE	
	96	10-Feb-95	E&LC	DIAND Geology	Comments on IEE	
	97	21-Feb-95	DIAND	GeoEngineering	Comments on IEE	
	98	22-Feb-95			RERC meeting	review and clarification of concerns submitted by RERC, preparation of letter to BYG
	99	01-Mar-95			Meeting with DIAND, BYG, Klohn-Crippen and T.W. Higgs	geotechnical concerns
	100	06-Mar-95	RERC	E&LC	Review of IEE	draft letter for review by RERC
	101	21-Mar-95	BYG	E&LC	Initial review of IEE	
	102	22-Mar-95	RERC	Env. Dir.	Update on status and recommended approach	
	103	The second secon	T.W. Higgs	E&LC	Level II screening information	

Stage of Review	#	Date	To	From	Subject	Comments
	104	28-Mar-95	BYG	E&LC	RERC review and pending water license application	identifies issues that require clarification before DIAND can complete EARP review; Diand will not finalize review or participate in regulatory process until raised concerns have been adequately dealt with at which time a decision order will be prepared
	105	29-Mar-95	L. Craig	Kevin McDonnell	Status of BYG and decision to proceed with water license public hearing at this stage in EARP	deficiency letter sent March 21 - BYG expect to have response by April 10/95; BYG has submitted water license application and wants to have public hearing in May/95; need water license to secure financing; DIAND won't proceed to a hearing until a decision report is prepared - earliest is June/95 as long as BYG IEE addendum addresses the concerns and issues raised; date set for hearing is June 6/95
	106	01-Apr-95	The second secon	YTG Heritage	IEE comment addendum	type B water license
	107	03-Apr-95	DIAND	YTWB	Notice of Water License hearing QZ94-003, June 6/95	Intent date for application is May 26/95; merge Victoria Creek Type B in A application
	108	04-Apr-95	E&LC	Klohn-Crippen	Tailings report	
	109	06-Apr-95	DIAND, Water	YTWB	Notice of receiving water license appl.	
	110	10-Apr-95		T.W. Higgs	Titration analysis	
	111	10-Apr-95	RERC	E&LC	IEE addendum	Victoria Creek letter for review by May 1/95; titration report
	112	12-Apr-95		DIAND, Water	Copy of Type B water licens appl	for culvert installation
	113	13-Apr-95	DIAND Water	BYG	Victoria Creek application	as long as YTWB does not issue license before considering decision report; whether before or after hearing E&LC has no concerns
	114	16-Apr-95	RERC	E&LC	Tailings impoundment update distributed	comments due May 1; additional info to come - addendum, tailings filtration regulations
	115	16-Apr-95	E&LC	T.W. Higgs	IEE addendum	addresses issues in March 21/95 report
	116	17-Apr-95	YTWB	BYG	Victoria Creek crossing water license appl.	results of hydrological analysis and preliminary design studies

Stage of Review	#	Date	То	From	Subject	Comments
	117	17-Apr-95	E&LC	кс	Victoria Crossing, hydrological analysis and preliminary design	
	118	17-Apr-95	E&LC	BYG	Updated submission for Victoria Creek crossing	culvert design
	119	19-Apr-95	E&LC	YTG Heritage	Comments on addendum	Victoria Creek crossing
	120	19-Apr-95	RERC	DIAND Water	Type B Water Lic. Appl. MS95- 001	Victoria Creek crossing, intent day May 29/95; tw water license applications will be dalt with seperately
	121	20-Apr-95	RERC	E&LC	Updated Victoria Creek submission	
	122	24-Apr-95	RERC	Land Use	Comments on Victoria Creek application	
	123	27-Apr-95	E&LC	EC	Comments on Victoria Creek crossing application and IEE addendum re crossing	
	124	28-Apr-95	E&LC	YTG Ren. Res	Comments on Victoria Creek crossing application MS95-001	
	125	03-May-95		DIAND Water	Hydrology comments	proceed with design
	126	03-May-95		EPS	Comments on addendum	draft
	127	04-May-95		DIAND Geology	Comments on IEE addendum	no concerns
	128	05-May-95		DIAND Water	Comments on IEE addendum	
	129		DIAND Water	Geology	Review of Mt. Nansen project	
	130	08-May-95	E&LC	EP/EC	Final comments on IEE addendum	
	131	08-May-95	E&LC	YCS	Comments on IEE	
	132	08-May-95			Telephone conversation BYG and E&LC	concerned about implication of DIAND Waters comments re level of info required for screening report; DIAND will come to a position on this and get back to BYG
	133	11-May-95	DIAND	Land Use	Permit appl.	Land Use permit appl. YA5X921; Quarry Permit appl. 951515

Stage of Review	#	Date	То	From	Subject	Comments
	134	15-May-95	YTWB	DIAND	Postponement of Public Hearing	advising YTWB that RERC is unable to complete EA by intent date for public hearing - reasons: info deficiencies pertaining to lack of geotech info nes. To support proposed tailings facility design
	135	16-May-95	File	E&LC	Internal Memo	can they proceed with preparation of screeing reports; major isues: geotech and design; info for tailings pond, diversion and spill ways
	136	19-May-95	кс	BYG	Request a report to deal with geotech issues of tailings dam and construction	due by May 24/95
	137	19-May-95	YTWB	T.W. Higgs	Screening timing	issues and request to not postpone hearing; RERC requireing too much detail in design
	138	19-May-95	RERC	E&LC	Copy of May 15 letter to YTWB and Milo's report	
	139	23-May-95			BYG Issue Paper	YTWB decided to proceed with hearing; BYG will provide additional geotech and design info by May 24; YTWB is being asked by BYG to license a tailings dam concept then have the design details reviewed for approval later - this type of water license can be hard to enforce
	140	23-May-95			Record of discussion	YTWB to proceed with hearing regardless of screening report; board could still change hearing date
	141	25-May-95	YTWB	DIAND Water	EARP screening for Victoria Creek MS95-001	crossing is being reviewed as part of level II RERC screening of Mt. Nansen project; Water license authorization cannot be issued until level I screening is complete
	142	25-May-95	YTWB	Crombie/Sherstone	Advising that will not be able to participate in hearing	request that the board consider conveying a pre- hearing conference to discuss postponement; will not be intervening
	143	25-May-95	BYG, E&LC, YTWB	кс	Klohn's response to RERC comments	

Stage of Review	#	Date	To	From	Subject	Comments
	144	26-May-95	YTWB	EC & DFO	Will not be intervening due to information deficiencies	request postponement for deadline of intervention until screeing report is complete
	145	26-May-95		YTWB	Notice of pre-hearing conference on May 30/95	
	146	30-May-95		YTWB	Request for postponement is denied	but as screening is not complete it's licensing decision
	147	30-May-95	DIAND	YTWB	Requesting DIAND to reconsider it's participation in the hearing	
	148	31-May-95	Dep. Justice	E&LC	Meeting on BYG	EARP screening and YTWB reulatory process
	149	31-May-95	RERC	E&LC	Distribution of KC letter	comments by June 9/95
	150	02-Jun-95	GeoEngineering	DIAND Water	Review and recommendations re final design of tailings pond	
	151	05-Jun-95	RERC	BYG	letter to April 95 addendum report and information requested in March 21/95	significant outstanding items raised in GeoEngineering report dated May 5/95
	152	05-Jun-95	YTWB	EP & DFO	Notice that EP and DFO will not attend hearing	
	153	05-Jun-95	YTWB	DIAND	DIAND will not attend hearing	BYG provided insufficient information
	154	06-Jun-95	DIAND	LSCFN	First Nation does not have a problem with BYG	
	155	06-Jun-95			Meeting with BYG	status of EARP review
	156	08-Jun-95	DIAND Water	Brodie	Draft report	concern for physical stability of tailings embankment and chemical stability of tailings and mine workings
46	157	12-Jun-95	DIAND	Brodie	Reclamation unit cost review for BYG	draft report with Fred Privett's comments
	158	14-Jun-95	File	Dan Adam	Chronology	summary of key events related to the EA of BYG
EARP Screening Report	159	19-Jun-95	YTWB	RERC	Seeking direction on requirement of the Board for EARP submission	
	160	20-Jun-95	Selkirk FN	E&LC	Addressing concerns of SFN	

Stage of Review	#	Date	To	From	Subject	Comments
	161	20-Jun-95			Record of discussion between Kevin McDonnell and Jim Smith	
	162	20-Jun-95	E&LC	BYG	Map showing mine location and FN traditional territories	
	163	21-Jun-95	DIAND	YTG Fisheries	Fish distribution survey of creeks that may be impacted	
	164	22-Jun-95	DIAND Technical Review Committee	BYG	distribution of draft screening report	
	165	24-Jun-95	E&LC	EC	comments on draft screening report	
	166	26-Jun-95	E&LC	Hugh Copeland	comments on draft screening report	
	167	26-Jun-95	BYG	RERC	Response to May 31/95	re concerns of KC report
	168	28-Jun-95	YTWB	RERC	re Class B water license application	
	169	29-Jun-95	BYG	E&LC	Fish distribution survey sent to BYG	
	170	04-Jul-95	E&LC	BYG	Project schedule	
	171	05-Jul-95	E&LC	T.W. Higgs	Revised water quality predictions at Station V2, Victoria Creek	
	172	05-Jul-95	File	E&LC	Record of discusion	Victoria Creek water quality
	173	05-Jul-95	RERC	BYG	Request for letter to investors	re creek crossing
	174	06-Jul-95	EC	E&LC	Review revised water quality predictions at Station V2	
	175	11-Jul-95	File	E&LC	Record of discusion between Kevin McDonnell and Higgs	
	176	14-Jul-95	RERC	E&LC	BYG status	
	177	15-Jul-95	File		List of BYG correspondance from Jan/95 to July/ 95	

Stage of Review	#	Date	To	From	Subject	Comments
	178	18-Jul-95	File		RERC meeting with Selkirk FN and LSCFN	
	179	27-Jul-95	RERC and BYG	DIAND	Draft screening report	distribution
	180	27-Jul-95	DIAND	RERC	Letter re draft screening report	RERC feels they are unable to make a screening recommendation
	181	30-Jul-95	Dan Cornett	BYG	Memo	level of construction permitted before receiving type A license
	182	01-Aug-95		BYG	Notice of water use without a license	
	183	04-Aug-95	File	E&LC	Summary of meeting	BYG security
	184	07-Aug-95	BYG	DIAND	Notice of violation	construction of the actual tailings storage dam would be considered a violation
	185	09-Aug-95	DIAND	BYG	Will not start work until water license approved	want to continue with prep. Work
	186	09-Aug-95	DIAND	BYG	Comments on reclamation report by Brodie	
	187	10-Aug-95		Northern Tutchone Council	Voicing concerns re Victoria Creek crossing	
	188	14-Aug-95	RERC Tech.Group	Klohn-Crippen	Distribution of KC report	
	189	14-Aug-95	BYG	DIAND Water	Warning not to proceed with any prep work	
	190	16-Aug-95	DIAND Water	BYG	Confirming that construction has stopped	
	191	22-Aug-95			Inspection report by Kevin Rumsey	
	192	23-Aug-95	Fred Privett	Higgs	Comments on Brodie report	reclamation costs seem high
	193	24-Aug-95	RERC	YTWB	Response to letter from June19/95	re Water license application
	194	01-Sep-95	E&LC	DIAND Geology	Comments on KC report - Mt.Nansen Tailings Impoundment Final Design Report	KC report provides strong preliminary design supported by adequate geotech info; concerned about removing surficial organic material beneath embankment

Stage of Review	#	Date	To	From	Subject	Comments
					Summary of outstanding issues	
	195	06-Sep-95	File		and options	
					Notes on meeting with BYG,	
	196	08-Sep-95	File		EC, Eco. Dev. And Env. Dir.	
					Comments re Galenko 900	
			200000000000000000000000000000000000000		Plug performance and	
	197	12-Sep-95	DIAND	EC	implications	
					Comments on Sept 7/95 site	
	198	12-Sep-95	E&LC	BYG	visit	states that ARD only short term problem
					KC providing comments re 2	
					inquiries from RERC pertaining	
					to possible construction of bulk	
	199	15-Sep-95	BYG	KC	head	
	200	21-Sep-95	DIAND Water	Milos Stepanek	Review of KC report	tailings impoundment
	201	26-Sep-95	Rerc	E&LC	Status of EARP review	
					Status of EARP review as	
	202	26-Sep-95	BYG	E&LC	discussed Sept 25/95	
	203	Sept 7 /95	File		Summary of deficiencies	
					Letter from KC with response	
	204	17-Oct-95	RERC	BYG	to RERC concerns	
	The second second				Agrees with BYG that ARD	AND THE RESERVE AND ADDRESS OF THE PARTY OF
	205	19-Oct-95	E&LC	EC	potential is low	considers mitigation proposed by BYG adequate
	206	23-Oct-95			Draft screening report	
	207	30-Oct-95	Dan Adam	E&LC	BYG discusion with Jim Smith	
	208		RERC	DIAND Water	Comments on draft report	
	209	01-Nov-95	E&LC	Exp.& Geo.Ser.Div.	Comments on draft report	
					Revised reclamation cost	
	210	06-Nov-95	DIAND	Brodie	review	
	211	06-Nov-95			Draft Screening report	
	212	07-Nov-95	File	Dan Cornett	Record of discusion with BYG	
	213		Ruth Gotthardt	Dan Cornett	Archaeological Sites	one site in the Victoria Creek crossing area
	214	10-Nov-95		Norecol	Geochemical review of BYG	
	215	16-Nov-95			EARP Screening Report	

Stage of Review	#	Date	То	From	Subject	Comments
	216	23-Nov-95	RERC	E&LC	Comments on screening report	issues that need clarification
	217	29-Nov-95	YTWB	RERC		clarification on several points to Judi Doering's letter from Aug 24/95
	218	01-Dec-95	RERC	BYG.	Supplemental info in response to Screening Report issued Nov 15/95	
4	219	14-Dec-95	EC,DFO,RERC	YTWB	Water use application by BYG	
	220	14-Dec-95	RERC	Bob Tate	Public comment on screening report	
	221	16-Dec-95		E&LC	Record of phone conversation with Bob Tate	answered all questions Bob had
	222		DIAND Water	Brodie	Water license application review	
	223	20-Dec-95	DIAND	TW Higgs	Proposed terms and conditions of Mt. Nansen water license appl.	
	224	20-Dec-95		кс	Set of guidelines required by DIAND	
	225	20-Dec-95		Fred Privett	Issues with reclamation security	
	226		Public dist. List, RERC, BYG	DIAND	EARP Decision Report	
	227	27-Dec-95		DIAND	DIAND Intervention	
	228	28-Dec-95	DIAND, YTWB	EC, DFO	Water use license application	agreement providing conditions are met
	229		RERC, BYG	YTWB	Hearing scheduled for Jan 8/96 cancelled	
	230	13-Feb-96		DIAND	YTWB grants BYG water use license QZ94-004	Reason for Decision
	231	14-Feb-96		Land Resources	Land Use permit and Quarry permit	
	232	15-Feb-96		YTWB	Action request	

Stage of Review	#	Date	To	From	Subject	Comments
	233	04-Apr-96	File	DIAND	YTWB grants BYG water use license MS95-001	Reason for Decision
	234	15-May-96	File		BYG	re signing socio-economic agreement with Little Salmon Carmacks FN
	235	27-May-96	DFO	Robert Thompson, Inspector	Warning ticket issued for activity on Victoria Creek	
	236	23-Jul-96	DIAND, Water	WQ	Inspection report from July 9 /96 site visit	exceeds license limit for TSS
	237	16-Aug-96	BYG	WR Inspector	Informing BYG of license conditions needing immediate attention	
	238	20-Sep-96	File	DIAND	E.C.Spill report	diesel storage tank spilled 15,000 L diesel fuel flowed into Dome Creek, cause- vanadalism/sabotage
	239	26-Sep-96	BYG	WR Inspector	Concerns regarding recent spill	procedures of events after spill was known and general compliance
	240	07-Nov-96	BYG	WR Inspector	Security Deposit due April 14/96 not received; Due to mill start-up second deposit due by Dec 8/96	failure to deposit by Nov 15/96 will result in enforcement action
	241	08-Nov-96	WR	BYG	Money will be deposited by Nov 15/96	do not agree with interpretation of mill start-up
	242	15-Nov-96		BYG	Security deposit chequr \$50,000 sent to Brian Gibson	
	243	16-Nov-96	File		Site Visit	
	244	25-Nov-96	WR	BYG	October Monthly Report	QZ94-004
	245	25-Nov-96	WR	WQ	WQ inspection report	from Nov 16/96 site visit
	246	25-Nov-96	WR	BYG	Notification of mill start-up date as Dec 10/96	
	247	29-Nov-96	YTWB	WR	Changes to water source at BYG not minor amendment	should be considered major due to change of source
	248	30-Dec-96	WR	BYG	Nov report late	BYG working on license ammendment appl; 8 studies to be initiated by Jan 10/97

Stage of Review	#	Date	To	From	Subject	Comments
	249	13-Jan-97	TYTWB	BYG	Filing ammendment appl.	
	250	21-Jan-97	File		Inspection Report	
	251	22-Jan-97	WR	YTWB	Asking if BYG will need EA before decision can be made re: ammendment appl.	
	252	23-Jan-97	YTWB	BYG	Application for WL Amendment QZ97-004	use of water from wells
	253	27-Jan-97	DIAND, Water	Brian Gibson	BYG has not deposited security money	
	254	27-Jan-97	BYG	WR	Notification that BYG is out of compliance	security deposit of \$250,000
	255	27-Jan-97	WR	BYG	Asking for more time, short on cash,	WR refused to delay
	256	29-Jan-97	WR	BYG	December monthly report	
	257	31-Jan-97	RERC Tech.Group	DIAND Water	CEAA screening	license amendment application, submit comments by Feb 21/97
	258	07-Feb-97	WR	Brian Gibson	Security deposit received	7.77
	259	10-Feb-97	YTWB	WR	CEAA screening expected to be completed Feb 28/97	
	260	12-Feb-97	WR	Exp.& Geo.Ser.Div.	Comments back	BYG should take into account arsenic loading from new water source
	261	18-Feb-97	WR	YTWB	Notice of Public Hearing for April 9/97	Intervention deadline - March 26/97
	262	21-Feb-97	BYG	WR	Review of Temp. Closure Plan	Final Temporary closure plan submitted by Mar 21/97
	263	03-Mar-97	YTWB	WR	CEAA screening completed	found no adverse environmental effects
	264	03-Mar-97	WR	BYG	January monthly report	
	265	18-Mar-97	WR	BYG	BYG out of compliance	Tailings Arsenic Stability Program not started, no report submitted; Bill Slater working on intervention - having difficulty attempting to require BYG to address additional arsenic loading
	266	25-Mar-97	YTWB	WR	Ammendment application QZ96-004	review completed, not requesting a hearing

Stage of Review	#	Date	To	From	Subject	Comments
	-				BYG's failure to carry out	
	267	27-Mar-97	WR	EP	arsenic stability test program	EP very concerned
	268	02-Apr-97	File		Inspection Report	CN destruction facility not operating as designed CN concentrations very elevated within tailings effluent
	269	08-Apr-97	WR	BYG	Action plan to ensure compliance	
	270	09-Apr-97			Meeting with DIAND and BYG	discussion of environmental concerns
	271	11-Apr-97	BYG	WR	Letter of concern	concerns with increasing potential for significant environmental problems
	272	17-Apr-97	WR	BYG	Addressing outstanding concerns	environmental and regulatory
	273	28-Apr-97	BYG	WR	Follow-up letter to April 22/97 site inspection	outlining various concerns
	274	02-May-97	File	WQ	Inspection on April 22/97	BYG out of compliance, very high CN levels
	275	07-May-97			Site Inspection	continual non-compliance problems documented
	276	09-May-97	YTWB	WR	BYG built an unauthorized extension to diversion ditch;	expect BYG to submit ammendment application allow it
	277		BYG	WR	Formal Notice to BYG	instructing BYG to take immediate action to ensure no flow from seepage pond and return seepage water to tailings pond
	278		File		3 culverts washed out	-X-1/2
	279	22-May-97	BYG	WR	Official Warning	failure to collect samples in March
	280	28-May-97	BYG	WR	Direction for immediate action	collect and pump discharge seepage water back to tailings pond; seek rec. from KC
	281	30-May-97	WR	YTWB	Water license QZ94-004 ammendment approved	
	282	02-Jun-97	BYG	WR	Bioassay of May 15 acutely toxic to fish	
	283	12-Jun-97	WR	BYG	Repair work on temp, diversion ditch not completed	ammendment appl. For intercept ditch on hold

BYG Mt. Nansen Project

Stage of Review	#	Date	То	From	Subject	Comments
	284	13-Jun-97	WR	BYG	Want to use effluent treatment facility eventhough in contravention of water license	
	285	13-Jun-97	BYG	WR	Advising that any discharge not in compliance will be dealt with accordingly	
	286	22-Jun-97	кс	BYG	Key items of concern	seepage at toe of dam #1; leakage from dam #2; degradation of ditches and emetrgency spillway; water balance
	287	25-Jun-97			Meeting with DIAND and BYG	discuss problems associated with the site
	288	26-Jun-97	BYG	DIAND Water	Follow-up from June 25/97 meeting	planned amendments to license
	289	27-Jun-97	File	WQ	Inspection on June 5/97	tailings pond CN non-compliant
	290	16-Jul-97	File	wq	Inspection on June 17/97	CN levels in TP still too high; TP water seeping through frozen core dam
	291	17-Jul-97	BYG	DIAND, Mining	All mining and hauling activity in the Mt. Nansen area suspended until engineering plan is submitted and approved	
	292	21-Jul-97	BYG+WR	EBA	Potential dam failure at tailings dam #1	
	293	21-Jul-97	BYG	WR	Informing BYG of actions taken	
	294	21-Jul-97	WR	BYG	Reporting possible catastrophic tainings dam failure in immediate future	
	295	22-Jul-97			Site visit	
	296	23-Jul-97	WR	WQ	Contingency plan for water release from tailings dam	
	297	24-Jul-97	BYG	DIAND ARDG	Letter re: tailings dam integrety	urging BYG to take necessary action

Stage of Review	#	Date	To	From	Subject	Comments
	298	30-Jul-97	YTWB	BYG	Request for emergency ammendment QZ97-024	
	299		YTWB	WR	Review of application QZ97- 024, Emergency Ammendment	recommended by WR
	300	07-Aug-97	YTWB	DIAND	CEAA screening not required	
	301	08-Aug-97	WR	YTWB	Chairperson has signed ammendment #2 to WL QZ94- 004	Reason for Decision
	302	08-Aug-97	File	YTWB	Received objections to emergency ammendment from LSCFN	reasons given: 2 members were exposed to CN gas; fuel spills that have not been properly addressed; and BYG has not lived up to socio-economic agreement
	303	11-Aug-97	File	wa	Inspection on July 22/97	CN in TP high, mercury high; CN in seepage pon increased along with cadmium and copper
	304	16-Aug-97	File	YTWB	LSCFN have asked Board to issue a restraining order under Ch.14 of UFA	
	305	18-Aug-97		LSCFN	Retracting request for restraining order	still want public hearing
	306	20-Aug-97	LSCFN	YTWB	Stating that hearing cannot be held until FN identify specific sections of UFA and provide a rationale and background info in support of application	need rationale and background info by Aug 29/9' to be brought before the Board at September meeting for restraining order
	307	20-Aug-97	BYG	DWR	Letter re: compliance	comments on non-compliance issues
	308	21-Aug-97			WR comments on June 1997 report	concerned by lack of BYG's reporting attention
	309	22-Aug-97	WR	Geo-Engineering	Tailings pond performance	long term stability of dam is qustionable at best
	310	03-Sep-97		wq	Inspection on Aug 12/97	CN in TP still high; CN just detectable in Dome Creek

BYG Mt. Nansen Project

Stage of Review	#	Date	To	From	Subject	Comments
	311	09-Sep-97	WR	BYG	Seeking permission to discharge water from WTP on Sept 15/97	
	312		BYG	WR	Permission to discharge	
	313	22-Sep-97	WR	BYG	Mining operations halted to do diversion ditch and spillway repairs	
	314	23-Sep-97	BYG	WR	Notification that CN levels are too high within TP and tailings seepage; Stn. D2 too high in TSS and TDS	
	315	24-Sep-97	BYG	WR	Requesting more frequent sampling	
*	316	16-Oct-97	File	WR	Status update as of Oct 16/97 site inspection	out of compliance on several counts; Mine manager was cautioned and tape recorded; informed if Oct 16/97 bioassay fails, charges will be laid against BYG
	317	20-Oct-97	File	WR	Official investigation is under way after BYG failed 2 bioassay tests	
	318	21-Oct-97	YTWB	BYG	Requesting 3 month extension for submitting "Revised Tailings/Water Management Plan"	
	319	28-Oct-97	LSCFN;BYG;Ma yor of Carmacks	YTWB	Notification of Public Hearing	set for Jan 14/98 in Carmacks
*	320	28-Oct-97	BYG	WR	Direction issued to BYG under Section 37 (1)(a)(iii) and Section 37 (1)(b)	instructing BYG to prevent discharge of effluent from TP which does not meet standards set out in WL QZ94-004
	321	29-Oct-97	WR	BYG	Acknowledgement of receiving directions	outlining steps for compliance
	322	30-Oct-97	BYG	WR	3 month extension not granted	

BYG Mt. Nansen Project

Stage of Review	#	Date	To	From	Subject	Comments
	323	13-Nov-97	WR	BYG	Closing mine facilities for 6 weeks to make nes. Changes and upgrades to WTP	closure eliminates threat of overflow
	324	14-Nov-97	WR	BYG	Spill incident	approx. 450 gal of mill slurry spilled into mill yard
	325	20-Nov-97	File	WQ	Inspection on Nov 5/97	CN jump at Stn. E1
	326	15-Dec-97	BYG	WR	Notice of missing security deposit of \$145,000	was due Dec 10/97
	327	17-Dec-97		YTWB	Postponement of public hearing	rescheduled for March 11/98
	328	02-Jan-98	File	WQ	Inspection on Dec 3/97	high CN, nitrogen compounds and copper
	329	16-Jan-98	File	WQ	Inspection on Dec 23/97	out of compliance with CN content of tailings pond water
	330	21-Jan-98	BYG	WR	Demand of payment of security deposit	
	331	27-Jan-98			BYG commences discharge	
	332	29-Jan-98	WR	DIAND HQ	Security deposit received	
	333	29-Jan-98	YTWB	EP	Request for emergency ammendment in order to stop BYG from discharging tailings pond water	BYG is mixing fresh water with effluent from waste water treatment plant so they can pass bioassay test
	334	30-Jan-98			Interpretation of license issued by YTWB	existing license does not allow use of groundwate to dilute discharge
	335	02-Feb-98	YTWB	LSCFN	Concerns regarding practice of mixing fresh water with effluent	
	336	02-Feb-98	WR	EP	Effluent dilution	is WR willing to enforce restriction of water use
	337	03-Feb-98	YTWB	BYG	Application for emergency ammendment	
	338	04-Feb-98	YTWB	WR	Emergency discharge does not need CEAA screening	BYG's request to change sampling points is not an emenrgency and should not be considered
	339	09-Feb-98	Dep. of Justice	WR	DIAND Public Statement on the laying of charges against BYG	

Stage of Review	#	Date	To	From	Subject	Comments
	340	12-Feb-98	YTWB	WR	DIAND will accede to BYG's request provided conditions layed out are met	BYG traet effluent 2)     LC50 waived only from Jan26/98 to May 26/98 3     BYG cease diluting effluent 4)     LC50 sampling point not be altered
	341	17-Feb-98	File	wa	Inspection on Feb 2/98	undiluted WTP product does not meet license conditions for LC50, manganese and zinc
	342	20-Feb-98	YTWB	Minister of DIAND	Emergency ammendment approved	
	343	26-Feb-98			Meeting with BYG and DIAND	use of dilution water; seepage concerns; raising the dam;
	344	27-Feb-98	YTWB	WR	Public hearing on March 11/98	WR wishes to intervene
	345	03-Mar-98	File	WQ	Inspection on Jan 27/98	out of ompliance @ E1 for CN and @ E7 for bioassay, cadmium and zinc
	346	03-Mar-98			Directions issued to BYG under YWA	
	347	06-Mar-98	WR	BYG	Will continue to dilute despite Direction One (1) of March 3/98 by DIAND	
	348	09-Mar-98	BYG	WR	Failure to cease dilution of effluent will result in action taken against BYG under YWA	
	349	18-Mar-98	BYG	WR	WR advises that contraventions of the water license will be strictly dealt with	
	350	25-Mar-98	YTWB	BYG		to allow construction and operation of system of intercept ditches
	351	26-Mar-98	Dist. List	DIAND Water	CEAA screening for water license amendment application	
	352	27-Mar-98	Sherstone	Slater	Internal memo	original EARP inappropriate for application to a current review of BYG's project

Stage of Review	#	Date	To	From	Subject	Comments
	353	03-Apr-98	YTWB	BYG	Application for emergency amendment QZ97-030	
	354	07-Apr-98		DIAND Water	Recommendation for full CEAA screening	
	355	09-Apr-98	YTWB	DIAND Water	Emergency Amendment Appl	DIAND has determined that present situation at BYG does not constitute an emergency for the purpose of CEAA
	356	17-Apr-98	YTWB	BYG	Withdrawal of application QZ97 030	
	357	27-Apr-98	File	WQ	Inspection on April 16/98	D2 and Dome Creek diversion way above license limit for TSS
	358	30-Apr-98	EP	BYG	Spill report	9000 L of treated seepage water due to #2 seepage dam overflow - pump failure
	359	05-May-98			Meeting with DIAND and BYG	discussing several issues
	360	15-Jul-98	BYG	WR	CEAA screening of appl. for ammendment QZ97-029	need more info from BYG before EA can proceed
	361	23-Jul-98	WR	EP	observed fish kill at mouth of Dome Crek	
	362	29-Jul-98	File	wa	Inspection on June 18/98	over the limit for Cn (total and WAD), Cu, Fe, Mn disolved As and Ammonia
	363	25-Aug-98	Dist. List	DIAND Water	New information	changes to water license to allow construction of ditches
	364	31-Aug-98	Dist. List	DIAND Water	Site visit to BYG by a reviewer	
	365	08-Sep-98	File	WQ	Inspection on Aug 19/98	over the limit for CN and failed bioassay test
	366	15-Sep-98	BYG	DIAND Water	Ammendment to water license to permit continued operation	
	367	28-Sep-98	File	BYG	Inspection on Sept15/98	out of compliance @ E1 - total CN
	368	07-Oct-98	WR	WQ	BYG Operations observations	E7 remains above license limit for CN

Stage of Review	#	Date	To	From	Subject	Comments
	369	13-Nov-98	WR	Brodie Consulting	Recommend that current practice of processing potentially acid generating materials be terminated	
	370	19-Nov-98			Draft Screening Report CEAA Level I	
	371	23-Nov-98	WR	Geo-Engineering	Tailings pond dam monitoring	significant foundation thawing occurred locally an overall long term trend is toward foundation permafrost degradation
	372	24-Nov-98	DIAND Water	E&LC	Comments on draft screening report	
	373	01-Dec-98	BYG	WR	Additional Directions issued under YWA	
	374	02-Dec-98	Dep. of Justice	WR	6 Directions issued to BYG pertaining to a number of significant violations	
	375	03-Dec-98	YTWB	BYG	Application for WL Amendment QZ98-033	for the inclusion of milling and minig ore from the Flex Zone
	376	04-Dec-98	Dis. List	DIAND Water	Completion of CEAA Level I screening and Decision Report	
	377	04-Dec-98	E&LC	DIAND Water	Comments on draft screening report	
	378	09-Dec-98	Mining Land Use and BYG	DIAND Water	Stating that BYG has been informed on several occassions over the past 12 months of the need to amend water license	
	379	14-Dec-98	WR	wq	CN results in tailings pond water were 100 and 112 ppm	
	380	14-Dec-98	WR	DIAND HQ	No security deposit received and no word from BYG	was due Dec 10/98
	381	17-Dec-98	YTWB	DIAND Water	Appl. to amend water license by BYG (QZ98-033)	

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	382	21-Dec-98	Dist. List	YTWB	Report on March 11/98 Public Interest Hearing	examines the current and potential effectiveness of environmental protection measures @ BYG
	383	24-Dec-98	YTWB	WR	Request to ammend BYG license	to require the BYG to immediately provide a security of \$ 8,038,434
	384	28-Dec-98	YTWB	BYG	Water License Amendment application QZ98-035	
	385	30-Dec-98	BYG	Mineral Resources	Requirement for license	under Section 139 of the Yukon Quartz Minig Act
	386	31-Dec-98	DIAND	Geology	Informing that operating mines will require license as of June 16/99	
	387	31-Dec-98	WR	BYG	Disputing Directions issued Dec 1/98	
	388	04-Jan-99	Dep. of Justice	WR	DIAND seeking cancellation of BYG's water license	
	389	14-Jan-99	BYG	DIAND	Security deposit still not	deadline for payment is Jan 26/99 security payment deadline: Feb 18/99; written
*	390	10-Feb-99	BYG	WR	Further Directions issued	confirmation of commencement of treatment of tailings pond water by Feb 18/99; failure to comply - BYG is to cease all milling activities and deposition of tailings
	391	16-Feb-99	BYG	YTWB	Application pending	
	392	17-Feb-99	DIAND Water	BYG Lawyer	BYG unable to pay by Feb 18	as requested by DIAND
	393	18-Feb-99	Minister of DIAND	BYG Lawyer	Asking Minister Jane Steward to review Directions authored by WR	
	394	18-Feb-99	BYG Lawyer	DIAND Water	Informing that BYG must cease operation	as of 17:00 on Feb 18/99
	395	22-Feb-99	File	WR	Site inspection on Feb 19/99	verfication that all operations had stopped
	396	15-Mar-99	YTWB	WR	Initiated CEAA screening with limited info available	for proposed ammendment by YTWB (QZ97-029)
	397	25-Mar-99	Dist. List	Fred Privett	BYG's appt. of a Receiver	to sort out affairs
	398	06-Apr-99	BYG Receiver	DIAND Water	Introducing Fred Privett	to facilitate communications

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	399	07-Apr-99	Dist. List	Fred Privett	Draft letter to BYG Receiver	
	400	12-Apr-99	File	WQ	Inspection on March 31/99	E2 seepage return of major concern: CN, Cu, Na and ammonia
	401	04-May-99	File	WR	Internal memo	significant problems may develop between DIAND and YTWB due to YTWB's approach to ammendment of BYG WL
	402	19-May-99	BYG Receiver	WR	Regina vs BYG natural Resources Inc.	advising that BYG was found guilty on all charges under YWA; fine of \$ 100,000 per count
	403	31-May-99	BYG Lawyer	Minister of DIAND	Review of Directions issued by WR	revoked Direction 99-01, all other directions stand
	404	24-Jun-99	File	WQ	Inspection on June 23/99	tailings pond water CN non-compliant
	405	19-Jul-99	File	WR	BYG Receiver's lawyer informed DIAND on July 16/99 that receiver intends to cease all environmental work at the mine	uncertain if receiver intends to retain any control
	406	19-Jul-99	BYG Receiver	WR	Direction issued under YWA	BYG's decision not to continue the environmental maintenance and monitoring programs required under license QZ94-004.
	407	24-Jul-99	BYG Receiver	WR	Formal Notification	Notice of DIAND's intention to take measures to protect the environment at Mt.Nansen
	408	28-Jul-99	DIAND Lawyer	BYG Receiver's Lawyer	Receiver abandoning entire Mt. Nansen Mine effective July 28/99	pursuant to s.14.06 of the Bankruptcy and Insolvency Act
	409	29-Jul-99	BYG Receiver's Lawyer	WR	Receiver's complete abandonment	WR will take approp. Enforcement action under YWA if receiver has any further involvement with mine
DIAND Care and Maintenance license QZ99-043	410	04-Aug-99	YTWB	WR	Application for Type B Water License	to allow DIAND to undertake emergency care and maintenance operation
	411	09-Aug-99	File	WR	Formal Notification	determination of abandonment of mine and seizure of water license security under section 39 of YWA

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	412	20-Sep-99	wa	WR	Dilution of effluent as a means of meeting our W.L. standards	
	413	21-Sep-99	Dist. List	WR	Effluent discharge occurring from Mt. Nansen WTP	achieving compliance by diluting effluent with fresh water from Victoria Creek wells
	414	23-Sep-99	WR	YTWB	Reason for decision	didn't present sufficiently compelling rationale to support absense of fish toxicity requirement
	415	24-Sep-99	YTWB	WR	Request for emergency ammendment	to make the LC50 test not apply
	416	28-Sep-99	List	YTWB	Emergency ammendment granted	317.00
	417	21-Oct-99	File	wq	Inspection on Sept 27&28 / 99	WTP started discharging to Dome Creek on Sep.28/99; getting a reduction in WAD CN but no total
	418	15-Nov-99	File	WR	Weekly report	still operating; approx. 15,000 m3 removed from pond since September; volume in pond approx. 43,000 m3
	419	16-Nov-99	WR	WQ	Water Quality Audit	report from Nov 10, 1999 inspection
	420	24-Nov-99	WR	WQ	Inspection from Oct 26/99	WTP discharge diluted
	421	24-Nov-99	WR	wq	Sampling from Nov 2/99	WTP discharge to dam and Dome Creek on Oct 31/99
	422	22-Nov-99	WR	Stroshein	Weekly report	
	423	29-Nov-99	WR	Stroshein	Weekly report	
	424	06-Dec-99	WR	Stroshein	Weekly report	
	425	07-Dec-99	Dist. List	WR		
	426	13-Dec-99	WR	Stroshein	Weekly report	
	427	15-Dec-99	WR	Geo-Engineering	Report on March 11/98 Public Interest Hearing	Review of Monitoring Data and Preliminary Assessment
	428	13-Dec-99	File	WR	Telecon with Graham Dickson on Dec 7/99	
	429	20-Dec-99	WR	EBA	Mt. Nansen Dam Saftey Assessment	Report from Oct 28 and 31, 1999 monitoring survey
	430	20-Dec-99		WR	Media visit to Mt. Nansen on Dec 17, 1999	

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	431	21-Dec-99	WR	Stroshein	Final Progress Report	
	432	21-Dec-99	WR	WQ	Sampling from Nov 30/99	WTP discharge to Dome Creek
	433	22-Dec-99	WR	WQ	Sampling from Dec 8/99	WTP discharge to tailings pond
	434	04-Jan-00	WR	EBA	four memos EBA prepared for Klohn	1-Review of Settlement Pin data; 2-Review of 1996 Construction Report; 3-Summary of 1997 Toe Berm Construction; 4-Review of Seepage Records
	435	06-Jan-00	File	WQ	Cyanide analysis @ Mt. Nansen Mine Site	Lab values of cyanide suspected to be too high
	436	14-Jan-00	Distribution List	WR	Dam Saftey Assessment of Mt. Nansen Tailings Dam	QZ99-043 Part A, Section 10 requirement
	437	25-Jan-00	Dist. List	WR	Update on Mt. Nansen Mine situation	Mine officially shut-down on Dec 15/99
	438	27-Jan-00	YSC	WR	Response to YSC letter from Jan 07, 2000	Jan 7/00 letter not on file