

**Audit of Timber Harvesting and Road  
Construction, Maintenance, and Deactivation**

**Lignum Ltd.  
Forest Licence A20003**

**FPB/ARC/22  
December 1999**

# Table of Contents

- A. Report from the Board
- B. Forest Practices Board Compliance Audit Process
- C. Report from the Auditor
- 1.0 Introduction
- 2.0 Audit Scope
- 3.0 Audit Findings
- 4.0 Audit Opinion

## **Report from the Board**

## A. Report from the Board

This is the Forest Practices Board's report on a compliance audit<sup>1</sup> of forest licence A20003<sup>2</sup> held by Lignum Ltd. (Lignum). Lignum's operating areas are located near 100 Mile House between Clinton and the Fraser River and north to Lac La Hache.

The audit examined Lignum's timber harvesting and road construction, maintenance and deactivation, and the related operational plans, for the period August 1, 1998 to August 20, 1999, to assess compliance with the *Forest Practices Code of British Columbia Act* and the related regulations (the Code).

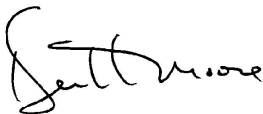
The Board's conclusions are based on an audit of the following plans and practices:

- harvesting of 39 cutblocks
- silviculture prescriptions for future harvesting of 19 cutblocks
- construction, layout and design of 15 road sections, totalling 64 kilometres
- permanent deactivation of one road section, totalling 0.3 kilometres
- maintenance and temporary deactivation of approximately 234 kilometres of road

There were no bridges within the operating area.

### Conclusions

Lignum's timber harvesting, road maintenance and deactivation practices were all in compliance with the Code. Road construction complied in all significant respects. The few instances of non-compliance in road construction were minor in nature and had no impact on the environment.



Keith Moore  
Chair

December 1, 1999

The panel of the Board that considered the Report from the auditor and concluded this report was Keith Moore.

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<sup>1</sup> Part B of this document provides background information on the Board's audit program and the process followed by the Board in preparing its report.

<sup>2</sup> The report from the auditor (Part C of this document) provides specifics about the operating areas of Forest Licence A20003 and the forest planning and field activities of Lignum Ltd. that were the subject of this audit and the audit findings.

## **Forest Practices Board Compliance Audit Process**

## **B. Forest Practices Board Compliance Audit Process**

### **Background**

The Forest Practices Board conducts audits of government's and agreement holder's compliance with the *Forest Practices Code of British Columbia Act* and regulations (the Code). The Board is given the authority to conduct these periodic independent audits by section 176 of the Act. Compliance audits examine forest planning and practices to determine whether or not they meet Code requirements.

The Board undertakes both "limited scope" and "full scope" compliance audits. A limited scope audit involves the examination of selected forest practices (e.g., roads, or timber harvesting, or silviculture) and the related operational planning activities. A full scope audit examines all operational planning activities and forest practices.

The Board determines how many audits it will conduct in a year, and what type of audits (limited or full scope), based on budget and other considerations. The Board audits agreement holders who have forest licences or other tenures under the *Forest Act* or the *Range Act*. The Board also audits government's Small Business Forest Enterprise Program (SBFEP) which is administered by Ministry of Forests district offices. Selection of agreement holders and district SBFEPs for audit is done randomly, using a computer program, to ensure a fair, unbiased selection of auditees.

### **Audit Standards**

Audits by the Forest Practices Board are conducted in accordance with the auditing standards developed by the Board. These standards are consistent with generally accepted auditing standards.

The audits determine compliance with the Code based on criteria derived from the *Forest Practices Code of British Columbia Act* and its related regulations. Audit criteria are established for the evaluation or measurement of each practice required by the Code. The criteria reflect judgments about the level of performance that constitutes compliance with each requirement.

The standards and procedures for compliance audits are described in the Board's *Compliance Audit Reference Manual*.

### **Audit Process**

#### **Conducting the Audit**

Once the Board selects an audit and decides on the scope of the audit (limited scope or full scope), the staff and resources required to conduct the audit and the period covered by the audit are determined. Board staff also meet with the party being audited to discuss the logistics of the audit before commencing the work.

All the activities carried out during the period subject to audit are identified. This includes activities such as the sites harvested or replanted and road sections built or deactivated during the audit period. The items that comprise each forest activity are referred to as a "population." For example, all sites harvested form the "timber harvesting population." All road sections

constructed from the “road construction population.” The populations are then sub-divided based on factors such as the characteristics of the sites and the potential severity of the consequences of non-compliance on the sites.

The most efficient means of obtaining information to conclude whether there is compliance with the Code is chosen for each population. Because of limited resources, sampling is usually relied upon to obtain audit evidence, rather than inspecting all activities.

Individual sites and forest practices within each population have different characteristics, such as the type of terrain or type of yarding. Each population is divided into distinct sub-populations on the basis of common characteristics (e.g., steep ground vs. flat ground). A separate sample is selected for each population (e.g., the cutblocks selected for auditing timber harvesting). Within each population, more audit effort (i.e., more audit sampling) is allocated to the sub-population where the risk of non-compliance is greater.

Audit work in the field includes assessments from helicopters and intensive ground procedures such as the measurement of specific features like road width. The audit teams generally spend two to three weeks in the field.

### **Evaluating the Results**

The Board recognizes that compliance with the many requirements of the Code is more a matter of degree than absolute adherence. Determining compliance requires the exercise of professional judgment within the direction provided by the Board.

Auditors collect, analyze, interpret and document information to support the audit results. The audit team, comprised of professionals and technical experts, first determines whether forest practices are in compliance with Code requirements. For those practices considered to not be in compliance, the audit team then evaluates the degree to which the practices are judged not in compliance. The significance of the non-compliance is determined based on a number of criteria including the magnitude of the event, the frequency of its occurrence, and the severity of the consequences.

As part of the assessment process, auditors categorize their findings into the following levels of compliance:

**Compliance** – where the auditor finds that practices meet Code requirements.

**Not significant non-compliance** – where the auditor, upon reaching a non-compliance conclusion, determines that a non-compliance event, or the accumulation and consequences of a number of non-compliance events, is not significant and is not considered worthy of reporting.

**Significant non-compliance** – where the auditor determines that the event or condition, or the accumulation and consequences of a number of non-compliance events or conditions, is significant and is considered worthy of reporting.

**Significant breach** – where the auditor finds that significant harm has occurred or is beginning to occur to persons or the environment as a result of the non-compliance. A significant breach can also result from the cumulative effect of a number of non-compliance events or conditions.

Identification of a possible significant breach requires the auditor to conduct tests to confirm whether or not there has been a breach. If it is determined that a significant breach has

occurred, the auditor is required by the *Forest Practices Board Regulation* to immediately advise the Board, the party being audited, and the Ministers of Forests, Energy & Mines, and Environment, Lands & Parks.

## **Reporting**

Based on the above evaluation, the auditor then prepares the “Report from the Auditor” for submission to the Board. The party being audited is given a draft of the report before it is submitted to the Board so that the party is fully aware of the findings. The party is also kept fully informed of the audit findings throughout the process, and is given opportunities to provide additional relevant information and to ensure the auditor has complete and correct information.

Once the auditor submits the report, the Board reviews it and determines whether any party or person is potentially adversely affected by the audit findings. If so, the party or person must be given an opportunity to make representations before the Board decides the matter and issues a final report to the public and government. The representations allow potentially adversely affected parties to present their views to the Board.

At the discretion of the Board, representations may be written or oral. The Board will generally offer written representations to potentially adversely affected parties, unless the circumstances strongly support the need for an oral hearing.

The Board then reviews both the report from the auditor and the representations before preparing its final report, which includes the Board’s conclusions and may also include recommendations, if appropriate.

If the Board’s conclusions or recommendations result in newly adversely affected parties or persons, additional representations would be required.

Once the representations have been completed, the report is finalized and released: first to the auditee and then to the public and government.



## **Report from the Auditor**

## C. Report from the Auditor

### 1.0 Introduction

As part of the Forest Practices Board's 1999 compliance audit program, Forest Licence A20003 was selected for audit from the population of major forest licences within the Cariboo Forest Region. The licence, held by Lignum Ltd., was selected randomly and not on the basis of location or level of performance.

The licence is a volume based licence within the 100 Mile House Timber Supply Area. Forest licences do not have specific borders within which activities take place. However, the traditional "operating area" for the licence, although it includes the operations of other licensees, is fairly well defined. The area is located near 100 Mile House between Clinton and the Fraser River and north to Lac La Hache, as shown on the attached map.

Forest Licence A20003 has an allowable annual cut of 103,446 cubic metres, however, over the audit time frame which spanned two cut control periods, approximately 160,000 cubic metres was harvested.

### 2.0 Audit Scope

The audit examined the planning and field activities related to timber harvesting and road construction, maintenance and deactivation. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code), including the transitional provisions of the Code.

All timber harvesting and road construction, maintenance and deactivation activities and obligations for the period August 1, 1998, to August 20, 1999, were included in the scope of the audit. This involved examining all aspects of operational planning - such as forest development plans<sup>i</sup>, silviculture prescriptions<sup>ii</sup>, and, where applicable, logging plans<sup>iii</sup> - that supported the activities examined during the audit.

The following activities were carried out during the audit period, and were therefore subject to audit:

- harvesting of 39 cutblocks
- silviculture prescriptions for the future harvesting of 19 cutblocks
- construction and layout and design of 15 road section totaling 64 kilometres
- permanent deactivation of one road section totaling 0.3 kilometres
- maintenance and temporary deactivation of approximately 234 kilometres of road

There were no bridges within the operating area.

Section 3 describes the audit of these activities and the results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 4.0, May 1999*, sets out the standards and procedures that were used to carry out this audit.

### 3.0 Audit Findings

#### Planning and practices examined

The audit work on selected roads and cutblocks included assessments from the air using helicopters and ground-based procedures. The audit examined:

- harvesting of 11 cutblocks
- silviculture prescriptions for the future harvesting of four cutblocks
- construction of nine road sections totaling 14 kilometres
- layout and design of one road section totaling nine kilometres
- permanent deactivation of one road section totaling 0.3 kilometres
- maintenance and temporary deactivation of approximately 142 kilometres of road using ground procedures and an undetermined length of roads by helicopter

#### Findings

The audit found that Lignum Ltd. complied, in all significant respects, with the road and timber harvesting requirements of the Code.


The audit did not identify any non-compliance items in the areas of timber harvesting, road maintenance and road deactivation. The instances of non-compliance in the area of road construction were few in number and inconsequential in nature.

### 4.0 Audit Opinion

In my opinion, the timber harvesting and road construction, maintenance and deactivation activities carried out by Lignum Ltd. on Forest Licence A20003 from August 1, 1998, to August 20, 1999, were in compliance, in all significant respects, with the road and harvesting requirements of the Code as of August 1999.

In reference to compliance, the term “in all significant respects” recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

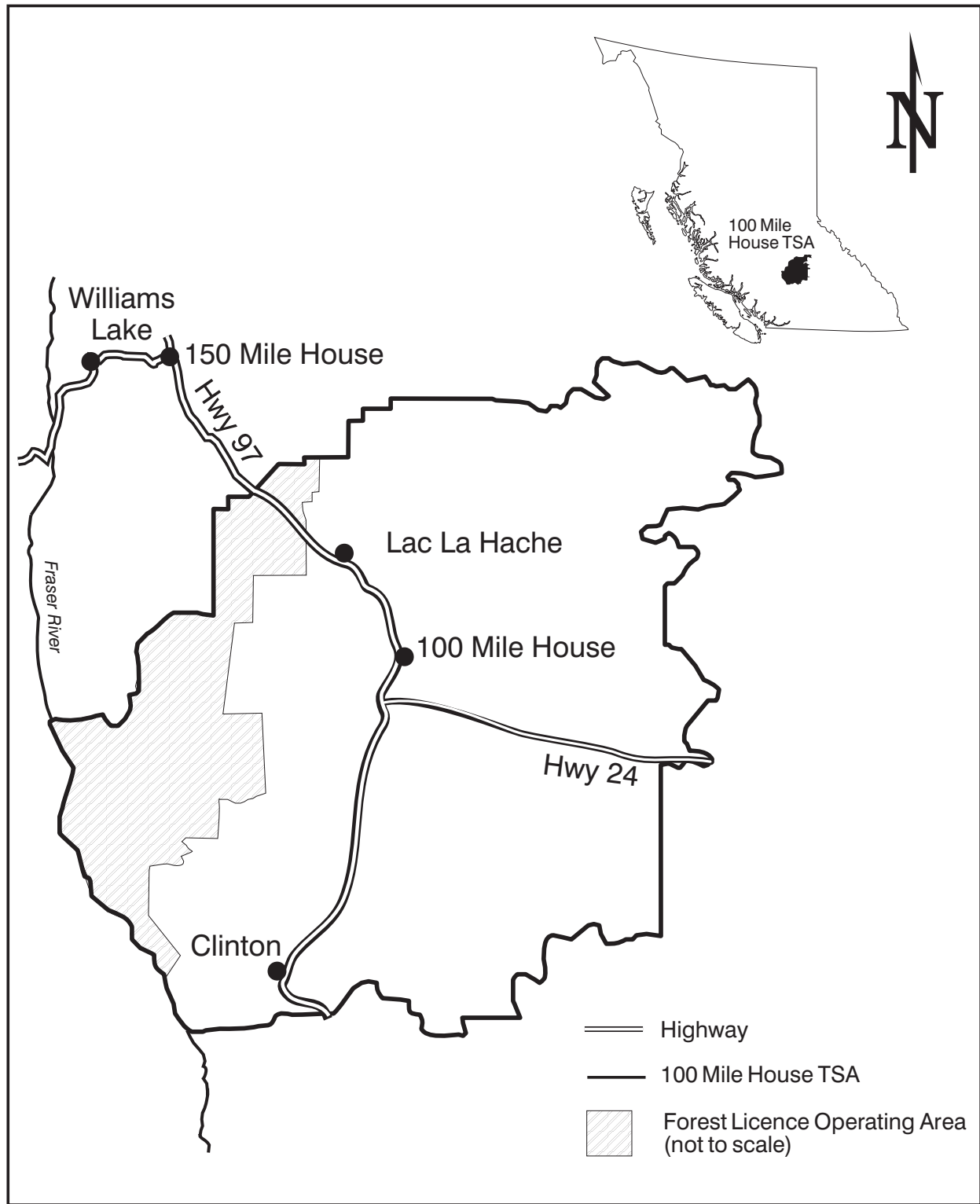
Section 2 and 3 of this report from the auditor describes the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient road and timber harvesting practices to support an overall evaluation of compliance with the Code.



Christopher R. Mosher, CA  
Auditor

Victoria, British Columbia  
November 22, 1999

# Audit of Lignum Ltd. Forest Licence A20003



## Endnotes

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- <sup>i</sup> A forest development plan is an operational plan which provides the public and government agencies with information about the location and scheduling of proposed roads and cutblocks for harvesting timber over a period of at least five years. The plan must specify measures that will be carried out to protect forest resources (including water, fisheries, and other forest resources). It must also illustrate and describe how objectives and strategies established in higher level plans, where they have been prepared, will be carried out. Site specific plans are required to be consistent with the forest development plan.
- <sup>ii</sup> A silviculture prescription is a site specific operational plan that describes the forest management objectives for an area to be harvested (a cutblock). The silviculture prescriptions examined in the audit are required to describe the management activities proposed to maintain the inherent productivity of the site, accommodate all resource values including biological diversity, and produce a free growing stand capable of meeting stated management objectives. Silviculture prescriptions must be consistent with higher level plans that encompass the area to which the prescription applies.
- <sup>iii</sup> A logging plan is an operational plan that details how, when, and where timber harvesting and road construction activities will take place in a cutblock, in accordance with the approved silviculture prescription and forest development plan for the area. Information about other forest resource values, plus all current field information for the area, must be clearly shown in the logging plan. The requirement to prepare logging plans was repealed on June 15, 1998, but may be in effect in limited circumstances. Logging plans approved before June 15, 1998 continue to be in effect until timber harvesting is completed.

[Home](#) > [Media Room](#) > [News Releases](#) > [News Releases 1999](#) > Lignum Ltd.'s Forestry Operations Get Clean Audit From Forest Practices Board

# NEWS RELEASE

For Immediate Release  
December 9, 1999

## Lignum Ltd.'s Forestry Operations Get Clean Audit From Forest Practices Board

VICTORIA - Lignum Ltd.'s operations near 100 Mile House are complying with the Forest Practices Code, according to a Forest Practices Board audit released today.

"Lignum's practices complied with the code in all significant respects," said board chair Keith Moore. "The audit did not identify any non-compliance in timber harvesting, road maintenance and road deactivation. The few instances of non-compliance in road construction had no impact on the environment."

Timber harvesting and road construction, maintenance and deactivation activities between August 1998 and August 1999 were included in the scope of the Board's audit of Forest Licence A20003. This licence was selected for audit randomly, not on the basis of location or level of performance.

Lignum's main operating areas are near 100 Mile House between Clinton and the Fraser River and north to Lac La Hache.

The board has undertaken nine compliance audits this year. Lignum is the second 1999 audit report to be published.

The board is B.C.'s independent watchdog for sound forest practices. The board reports to the public and government about compliance with the Forest Practices Code and the achievement of its intent. The board's main roles are auditing forest practices, undertaking investigations in response to public complaints, undertaking special investigations of any code-related forestry issues, participating in administrative reviews and appeals and providing reports on board activities, findings and recommendations.

 [Backgrounder](#)

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The audit examined Lignum's timber harvesting and road activities, and related operational plans for the period August 1, 1998, to August 20, 1999.

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