

"VOID" SILVICULTURE PRESCRIPTIONS

MAJOR LICENSEE/SMALL BUSINESS

TSL \_\_\_\_\_  
FL A18978  
CP \_\_\_\_\_ BLK \_\_\_\_\_

1. HARVESTING CLERK

- update SP ledger/FTAS
- pull original and working file and attach the request to void SP

2. HISTORY RECORDS

- If duplicate, what is other CP # \_\_\_\_\_

3. TIMBER TENURES OFFICER/SMALL BUSINESS

- review and recommend to void SP

4. DISTRICT MANAGER

- review
- Void original SP

5. HARVESTING CLERK

- update ledger/FTAS
- photo copy /mail to Licensee (0006T)/file on working file
- make copy of SP for History Records & inspector

6. HISTORY RECORDS

- FYI

7. HARVESTING CLERK

- file

TONY FOLLOWING BLOCKS HAVE BEEN SURRENDERED. ONLY  
CP156/6 HAS AN SP. OTHERS ARE SITE PLANS, SO NOTHING  
TO VOID.

BT

CP Surrender for Tembec Industries Inc. – Revised Jan. 15<sup>th</sup>, 2007

Tenure	CP	Block	Unharvested Or Partial Harvest	Additional Harvest Prior to CP Surrender	Date of CP Surrender
A19040	181	235	unharvested	will complete blocks 231, 233, 236 & 237 prior to surrender	May 1/08
A18978 ✓	151	2	unharvested	none	Dec. 31/07
		3	partial harvest	will complete portions of blk 3 prior to CP surrender	Dec. 31/07
		4	unharvested	none	Dec. 31/07
		5	unharvested	none	Dec. 31/07
	156	6	unharvested	none	Sept. 1/06
	211	4	unharvested	none	Sept. 1/06
	211	5	unharvested	none	Sept. 1/06
	228	2	unharvested	none	Sept. 1/06
TFL 14	165	28	unharvested	none	Sept. 1/06
		29	unharvested	none	Sept. 1/06
	165	30	unharvested	none	Sept. 1/06
		31	unharvested	none	Sept. 1/06
		32	unharvested	none	Sept. 1/06
		37	unharvested	none	Sept. 1/06
		39	unharvested	none	Sept. 1/06
		44	unharvested	none	Sept. 1/06

SP  
SITE PLANS



# TEMBEC INDUSTRIES INC.

## SILVICULTURE PRESCRIPTION AMENDMENT Forest Resource Management – Kootenay North Region

A Silviculture Plan/ Amendment prepared in accordance with section 35 of the Forest Practices Code of British Columbia Act (Bill 75—2002)

REC  
JAN 2 2003  
FRI  
FRI

### TENURE DESCRIPTION

Amendment #: 1	Map Sheet - Opening: 82J002/090		
FL A18978	CP: 156	Block #: 006	Timbermark: EY6-156
Original SP or Last Amendment Date	Amendment is:	Advertisement	
Original: December 19, 2001	( ) Significant	( ) Attached	
	(x) Not Significant	(x) N/A	

### REASON FOR AND DESCRIPTION OF AMENDMENT

Goshawks have constructed additional nests in the cutblock since this Prescription was approved in December of 2001. The nest trees and additional habitat in the vicinity has been reserved as Wildlife Tree Patch. The WTP is an addition to WTP #3 identified in the original SP.

Revised is Section A *Area Summary* and Section C *Forest Resources Identified in the Forest Development Plan Requiring Certain Site Conditions After Harvesting or Site Treatment*.

*Amendments are in bold and italics*

From:

#### A. AREA SUMMARY (Hectares)

STANDARDS UNIT	TOTAL AREA	NON PRODUCTIVE ROADS & LANDINGS	NON PRODUCTIVE NATURAL	RESERVES	OTHER	NET AREA TO REFOREST
1	203.1	7.9		16.8	8.7	169.7
<b>TOTAL</b>	<b>203.1</b>	<b>7.9</b>		<b>16.8</b>	<b>8.7</b>	<b>169.7</b>

#### COMMENTS:

The 'Reserve Other' refers to 8.0ha of Riparian Buffers established adjacent to S6 streams to ensure that harvesting does not increase sedimentation in the Lussier River and 0.7ha of mature timber that will provide stand structure. The reserves were recommendations from a Hydrologic Implication Report and field reviews.

To:

#### A. AREA SUMMARY (Hectares)

STANDARDS UNIT	TOTAL AREA	NON PRODUCTIVE ROADS & LANDINGS	NON PRODUCTIVE NATURAL	RESERVES	OTHER	NET AREA TO REFOREST
1	203.0	7.9		21.4	8.7	165.0
<b>TOTAL</b>	<b>203.0</b>	<b>7.9</b>		<b>21.4</b>	<b>8.7</b>	<b>165.0</b>

#### COMMENTS:

The 'Reserve Other' refers to 8.0ha of Riparian Buffers established adjacent to S6 streams to ensure that harvesting does not increase sedimentation in the Lussier River and 0.7ha of mature timber that will provide stand structure. The reserves were recommendations from a Hydrologic Implication Report and field reviews.

*WTP #3 has been increased in size by 4.6 ha to provide Goshawk habitat.*

From:

**C. FOREST RESOURCES IDENTIFIED IN THE FOREST DEVELOPMENT PLAN REQUIRING CERTAIN SITE CONDITIONS AFTER HARVESTING OR SITE TREATMENT:**




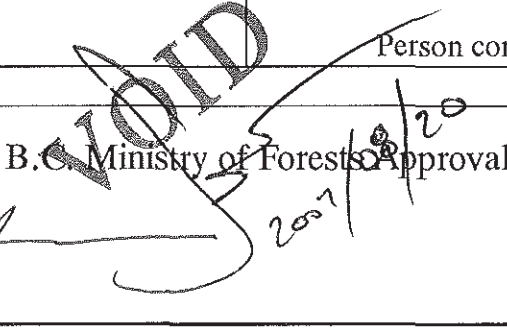
FOREST RESOURCE VALUE	SITE CONDITIONS TO EXIST AFTER HARVEST OR SITE TREATMENT
Domestic Water Supply Intakes	<p>Unnamed stream 1, a licensed stream (C036984LSE7777) was substantially diverted for domestic purposes immediately below the Ram Creek Forest Service Road (outside the proposed block). Where this stream flows through the proposed block, a minimum 20m wide riparian buffer was established adjacent to both sides of the stream, where no harvesting will be undertaken.</p> <p>BC Government line-work obtained from Forest Development Plan maps shows the domestic watershed to be south of the actual stream in an area de-void of streams.</p>
Wildlife Habitat Feature	<p>An active Goshawk nest was identified in the block. The Goshawk nest is 14.1m from the ground in a healthy aspen tree that is 44cm in diameter and 23.1m in height. The nest tree and several perch sites are incorporated into WTP #3. The silviculture system for the remainder of the block is single tree selection with a maximum 20 % basal area removal. A seasonal harvesting restriction has been prescribed to avoid disrupting the goshawks during their breeding period (see Section F for further details).</p> <p>Based on the lack of available information regarding Goshawks, it is unknown whether this system will ensure future re-occupancy of this Goshawk breeding territory. This nest and WTP are part of a Tembec experimental research and monitoring trial studying goshawk nest re-occupancy rates following various harvesting prescriptions (adaptive management).</p>

To:

**C. FOREST RESOURCES IDENTIFIED IN THE FOREST DEVELOPMENT PLAN REQUIRING CERTAIN SITE CONDITIONS AFTER HARVESTING OR SITE TREATMENT:**

FOREST RESOURCE VALUE	SITE CONDITIONS TO EXIST AFTER HARVEST OR SITE TREATMENT
Domestic Water Supply Intakes	<p>Unnamed stream 1, a licensed stream (C036984LSE7777) was substantially diverted for domestic purposes immediately below the Ram Creek Forest Service Road (outside the proposed block). Where this stream flows through the proposed block, a minimum 20m wide riparian buffer was established adjacent to both sides of the stream, where no harvesting will be undertaken.</p> <p>BC Government line-work obtained from Forest Development Plan maps shows the domestic watershed to be south of the actual stream in an area de-void of streams.</p>
Wildlife Habitat Feature	<p>An active Goshawk nest was identified in the block. The Goshawk nest is 14.1m from the ground in a healthy aspen tree that is 44cm in diameter and 23.1m in height. The nest tree and several perch sites are incorporated into WTP #3. The silviculture system for the remainder of the block is single tree selection with a maximum 20 % basal area removal. A seasonal harvesting restriction has been prescribed to avoid disrupting the goshawks during their breeding period (see Section F for further details).</p> <p><i>WTP #3 is increased in size by 4.6ha to accommodate additional Goshawk nests constructed in the Spring of 2002.</i></p> <p>Based on the lack of available information regarding Goshawks, it is unknown whether this system will ensure future re-occupancy of this Goshawk breeding territory. This nest and WTP are part of a Tembec experimental research and monitoring trial studying goshawk nest re-occupancy rates following various harvesting prescriptions (adaptive management).</p>

## I. ADMINISTRATION

<p>Licensee acknowledgement of the requirements under Section 70 (4) of the <u>Forest Practices Code of British Columbia Act.</u></p> <p> _____ TEMBEC INDUSTRIES INC.</p> <p><u>Jan 2/03</u> _____ Date</p>	<p><i>"I certify that the work described herein fulfills standards acceptable to a Registered Professional Forester and that I did personally supervise the work."</i></p> <p> _____ Douglas R. Braybrook, R.P.F.</p> <p><u>Jan. 2, 2003</u> _____ Date</p>
<p>Map Attached: YES</p>	<p><u>Doug Braybrook</u> _____ Person completing this prescription</p>
<p> _____ District Manager or designate</p> <p> B.C. Ministry of Forests Approval <u>2007/01/20</u> _____ Date</p> <p><u>Jan. 29/03</u> _____ Date</p>	

Master SP Form Revised: June 5, 1998



Tembec Industries Inc.

# SILVICULTURE PRESCRIPTION MAP AMENDMENT #1

Licence: A18978

Permit: 156

Block: 006

Location: Lower Lussier-South

Map Reference: 82G092 82T002

Land District: Kootenay

Date: 7-Jun-2003

Forest Region: Nelson

District: Invermere

Supply Block: E

Gross Area (ha): 203.1

Net Area (ha): 165.0

Source: G.P.S

Please note that there may be some discrepancies in area calculations due to rounding associated with Tembec's Forest Management System (FMS) database.

Area Summary (ha)		
SJ	1	Total
Total	203.06	203.1
NP	7.89	7.9
NP	0.00	0.0
NP	0.00	0.0
Reserves	20.14	20.1
Other	0.00	0.0
Net Area	165.04	165.0



## References

- Stream Crossing (Culvert)
- Block Road
- Excavated/Bladed Trail (Approx.)
- Existing Permanent Road
- Existing Temporary Road
- Forest Service Road
- Forwarding/Yarding Trail
- Highway
- Machine Road
- Old Existing Road
- Operational Road
- Private Road
- Proposed For/Yard Trail
- Proposed Permanent Road
- Proposed Temporary Road
- Reconstructed Road
- Sliding/Yarding Direction Trail
- Feathered Buffer
- Machine Free Zone
- Riparian Management Area
- Riparian Management Zone
- Standards Unit
- Bridge (permanent)
- Bridge (portable)
- Cable
- Existing Landing
- Helicopter
- Non-Classified Drainage
- Proposed Landing
- Random Skid
- Rock
- Side Slope
- Tail Hold Tie Back
- Gas Line
- Managed Forest Boundary
- Rivers and Streams
- Transmission Line
- Crown Grant - Park
- Crown Grant - Private Admin.
- Cut Block
- Non-Productive Area
- Reserve - Other
- Riparian Reserve Zone
- Wildlife Tree Patch Reserve

map generated by: J. Johnson

Scale:



TEMPEC INDUSTRIES INC.

NOV 20 2001

FORESTS  
BC**SILVICULTURE PRESCRIPTION***Canal Flats Area*

A Prescription prepared in accordance with the requirements under Section 22 of the Forest Practices Code of British Columbia Act

*Procedures required by the Operational Planning Regulation have been followed for any assessment that is required under section 37 or that is required to provide information referred to under section 39(3)(a). This Silviculture Prescription is consistent with the results or recommendations of any assessment required under section 37 of the Operational Planning Regulation.*

*The proposed silviculture prescription complies with section 7(4), 8(3) and 8(4) of the Timber Harvesting Practices Regulation with respect to prohibition against constructing excavated or bladed trails.*

**A. TENURE**

LICENCE NUMBER: FL A18978	CUTTING PERMIT: 156	BLOCK NUMBER: 006	LOCATION:  Lower Lussier South (Ram Creek Forest Service Road)		TIMBER MARK:  EY6-156
LICENSEE:  Tembec Industries Inc.		MAPSHEET / OPENING NO: <del>82G.J002/90</del> 82G.J002/90	REGION:  Nelson	DISTRICT:  Invermere	TIMBER SUPPLY AREA:  Invermere

**AREA SUMMARY (Hectares)**

STANDARDS UNIT	TOTAL AREA	NON PRODUCTIVE ROADS & LANDINGS	NON PRODUCTIVE NATURAL	RESERVES	OTHER	NET AREA TO REFOREST
1	203.1	7.9		16.8	8.7	169.7
TOTAL	203.1	7.9		16.8	8.7	169.7

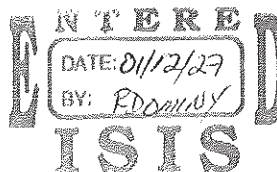
**COMMENTS:**

The 'Reserve Other' refers to 8.0ha of Riparian Buffers established adjacent to S6 streams to ensure that harvesting does not increase sedimentation in the Lussier River and 0.7ha of mature timber that will provide stand structure. The reserves were recommendations from a Hydrologic Implication Report and field reviews.

**B. LONG TERM MANAGEMENT OBJECTIVES:**

(as set out in the FDP or as required to remain consistent with the Operational Planning Regulations)

- ◆ To manage for a mixed stand consisting primarily of Douglas fir and Western Larch while not significantly increasing the 'Equivalent Clearcut Area' of the Lussier River drainage.
- ◆ Future re-entries are subject to hydrological recovery of the Lussier River watershed.
- ◆ Harvesting will partially offset future mortality losses associated with Armillaria Root Disease and Douglas-fir Bark Beetle.



## C. MANAGEMENT MEASURES

### COARSE WOODY DEBRIS

#### COARSE WOODY DEBRIS REQUIRED (CONSISTENT WITH OBJECTIVES IN THE FOREST DEVELOPMENT PLAN):

The establishment of three Wildlife Tree Patches, two 'reserve others', six riparian buffers and a 20% maximum basal area removal for the remaining area will ensure that appropriate CWD is present.

Close utilization standards apply; however, future blowdown or breakage of residual stems will provide coarse woody debris to the site.

#### FOREST RESOURCES IDENTIFIED IN THE FOREST DEVELOPMENT PLAN REQUIRING CERTAIN SITE CONDITIONS AFTER HARVESTING OR SITE TREATMENT:

FOREST RESOURCE VALUE	SITE CONDITIONS TO EXIST AFTER HARVEST OR SITE TREATMENT
Domestic Water Supply Intakes	<p>Unnamed stream 1, a licensed stream (C036984LSE7777) was substantially diverted for domestic purposes immediately below the Ram Creek Forest Service Road (outside the proposed block). Where this stream flows through the proposed block, a minimum 20m wide riparian buffer was established adjacent to both sides of the stream, where no harvesting will be undertaken.</p> <p>BC Government line-work obtained from Forest Development Plan maps shows the domestic watershed to be south of the actual stream in an area de-void of streams.</p>
Wildlife Habitat Feature	<p>An active Goshawk nest was identified in the block. The Goshawk nest is 14.1m from the ground in a healthy aspen tree that is 44cm in diameter and 23.1m in height. The nest tree and several perch sites are incorporated into WTP #3. The silviculture system for the remainder of the block is single tree selection with a maximum 20 % basal area removal. A seasonal harvesting restriction has been prescribed to avoid disrupting the goshawks during their breeding period (see Section F for further details).</p> <p>Based on the lack of available information regarding Goshawks, it is unknown whether this system will ensure future re-occupancy of this Goshawk breeding territory. This nest and WTP are part of a Tembec experimental research and monitoring trial studying goshawk nest re-occupancy rates following various harvesting prescriptions (adaptive management).</p>

#### KNOWN NON-TIMBER FOREST RESOURCES ON OR ADJACENT, REQUIRING CERTAIN SITE CONDITIONS AFTER HARVESTING OR SITE TREATMENT:

NON - TIMBER FOREST RESOURCE VALUE	SITE CONDITIONS TO EXIST AFTER HARVEST OR SITE TREATMENT
Ungulate Winter Range	<p>The Kootenay Boundary Higher Level Plan Order has classified this area as a Fire-Maintained Ecosystem. The area is specifically identified as NDT 4 Managed Forest on BCFS Sheep Creek North Ecosystem Restoration Plan maps.</p> <p>Three Wildlife Tree Patches, two 'reserve others', six Riparian Buffers and a 20% maximum basal area removal will result in little change to ungulate forage/browse capability and thermal cover, thus Ungulate Winter Range conditions will remain similar to current conditions.</p>

#### ARCHAEOLOGICAL SITES:

##### ACTIONS, IF ANY, NECESSARY TO ADEQUATELY MANAGE AND CONSERVE ARCHAEOLOGICAL SITE:

An AIA was completed for this block and two areas containing archaeological resources were removed from the harvest area. The AIA does not apply any further constraints nor is any further archaeological work required.

## FOREST HEALTH

### SIGNIFICANT FOREST HEALTH RISKS IDENTIFIED BY A PEST INCIDENCE SURVEY (IF REQUESTED BY DISTRICT MANAGER):

Minor amounts of Douglas Fir Bark Beetle (IBD) have been identified in the block in distinct centers. Approximately 1% of the stand is infested with IBD.

Moderate to high amounts of Armillaria Root Rot (DRA) has been identified throughout the block. Approximately 5% of the stand is infested with DRA.

### PRESCRIBED MANAGEMENT MEASURES TO REDUCE SIGNIFICANT FOREST HEALTH RISKS IDENTIFIED BY SURVEY:

IBD: Douglas fir Beetle funnel traps were placed along the Ram Creek FSR on April 11, 2001. These traps will help monitor and control IBD. Harvesting will prioritize infested Fd trees to minimize the spread of IBD.

DRA: Intensive treatment measures such as pushfalling/destumping will not be employed due to carbonates at 16-40cm depth, a high compaction hazard, hydrology concerns, and exposed parent material (bedrock) in some areas throughout the block. To minimize the spread of DRA Lw will be prioritized for retention and if spacing is required at a later date, handpulling will be the preferred method.

## D. RIPARIAN ASSESSMENT / MANAGEMENT

NAME or DESCRIPTION	RIPARIAN CLASSIFICATION	RIPARIAN RESERVE ZONE WIDTH (M)	RIPARIAN MANAGEMENT ZONE WIDTH (M)	RIPARIAN MANAGEMENT ZONE RETENTION (sph or rba)
Stream 1	S6	0	20	All - 500 sph
Stream 2	S6	0	20	All - 500 sph
Stream 3	S6	0	20	All - 500 sph
Stream 4	S6	0	20	All - 500 sph
Stream 5	S6	0	20	All - 500 sph
Stream 6	S6	0	20	480-500 sph

### DESCRIPTION OF THE PURPOSE AND EXTENT OF ANY REMOVAL OR MODIFICATION OF TREES PLANNED FOR THE RRZ:

None.

### IN ABSENCE OF RRZ, MEASURES FOR PROTECTING STREAM BANKS:

The RMZ's for Streams 1 through 5 are located in areas designated as Riparian Buffers, where no harvesting activities will be undertaken. A minimum of 20m (20m- 50m range) has been reserved along both side of these streams. A 10m wide Riparian Buffer is established adjacent to both sides of the Stream 6 because the stream disappears underground and is not tributary to the Lussier River. As described in Section A, these areas are retained for hydrologic purposes (minimizing sedimentation in the Lussier River Drainage). These measures will also protect the stream banks.

In addition, minimum 15m wide "Machine Free Zones" have been established adjacent to both sides of all riparian buffers.

### FALLING OR YARDING ACROSS STREAM (INCLUDE DEBRIS MANAGEMENT MEASURES WHEN PROPOSED):

Not applicable (all streams in buffers).

### SHADE MAINTENANCE MEASURES FOR KNOWN TEMPERATURE SENSITIVE STREAMS:

N/A

### COMMENTS:

Species composition varies throughout the riparian buffers and all stems will remain consisting of Fd, Lw, Ep, At, Sx and Pl. All stems (500 sph) will remain in the RMZ's of Streams 1 to 5.

All stems (600 sph) will remain in the inner 10m of the RMZ (Riparian Buffer) adjacent to Stream 6. 80% of the basal area (approx. 480 sph) will be retained in the remainder of the RMZ for stream 6. See Section G for further details.

## E. SOIL CONSERVATION

### HAZARD RATINGS (if the harvest method is other than cable or aerial) & SOIL DISTURBANCE

STANDARDS UNIT	SOIL COMPACTION AND PUDDLING HAZARD	SOIL DISPLACEMENT HAZARD	SURFACE SOIL EROSION HAZARD	MAXIMUM PROPORTION OF NET AREA TO BE REFORESTED THAT MAY BE OCCUPIED BY SOIL DISTURBANCE (%)
1	High	Moderate	High	10

#### COMMENTS:

The soil compaction hazard ranged from Low to Very High. On average it is high. Only one soil pit out of twenty five contained clay. Clay was observed at 20cm depth in this pit, however the SU will be managed as a high compaction hazard.

The soil displacement hazard ranged from Low to High. On average it is Moderate.

The surface soil erosion hazard ranges from Low to High. On average it is High.

### PERMANENT ACCESS STRUCTURES

MAXIMUM PROPORTION OF TOTAL AREA TO BE OCCUPIED BY PERMANENT ACCESS STRUCTURES: 5 %

#### COMMENTS:

Although a maximum 20% basal area removal is planned for the area, all skidtrails will be managed as temporary access structures. Permanent skidtrails are not being used due to hydrological concerns and an unknown re-entry date that depends on hydrological recovery of the Lussier River Watershed.

### TEMPORARY ACCESS STRUCTURES

#### COMMENTS:

A temporary road and two temporary landings are proposed for the block. The temporary road is to be rehabilitated as per Section 14 of the Timber Harvesting Practices Regulation (THPR) and the temporary landings are to be rehabilitated as per Section 17 of the THPR.

Exposed Parent Material (bedrock) is scattered throughout the proposed block.

STANDARDS UNIT	MAXIMUM EXTENT TO WHICH THE MAXIMUM SOIL DISTURBANCE MAY BE TEMPORARILY EXCEEDED TO CONSTRUCT TEMPORARY ACCESS STRUCTURES (%)	MAXIMUM TIME TO COMPLETE REHABILITATION OF TEMPORARY ACCESS STRUCTURES AFTER THE COMPLETION OF HARVESTING (years)	TYPE / DEPTH TO UNFAVOURABLE SUBSOIL (cm)
1	3	2	16-40cm (carbonates) 45-60cm (parent material) 52+ cm (water and root restricting – rock)

# EXCAVATED OR BLADED TRAILS

PORTIONS OF CUTBLOCK WHERE EXCAVATED OR BLADED TRAILS MAY BE CONSTRUCTED:	MAXIMUM HEIGHT OF CUTBANK OF EXCAVATED OR BLADED TRAILS (M)	AVERAGE HEIGHT OF CUTBANK OF EXCAVATED OR BLADED TRAILS (M)	ANY EQUIPMENT OTHER THAN EXCAVATOR PLANNED FOR CONSTRUCTION OF EXCAVATED OR BLADED TRAILS
Throughout the block, excluding 'Machine Free Zones', Reserves (WTP's, Reserve others and Riparian Buffers), and on slopes >40%.	1	0.5	Bulldozer
<p><b>COMMENTS:</b></p> <p>Temporary access structures may not be constructed on sideslopes exceeding 40% .</p> <p>A bulldozer may be used for trail construction where appropriate (i.e. lesser slopes).</p> <p>On small areas the maximum height of cutbank of excavated or bladed trails may be exceeded where required to better utilize terrain features and reduce total soil disturbance.</p>			

## F. CRITICAL SITE CONDITIONS FOR OPERATIONS AFFECTING TIMING

STANDARDS UNIT	CRITICAL SITE CONDITION	OPERATIONAL CONSTRAINT
1	Northern Goshawk	Harvesting activities south of Stream 5 are prohibited during the breeding period from March 15 to September 1.
1	High Compaction	Due to the high compaction hazard, harvesting activities will only be undertaken on designated trails or when soil conditions are suitable (i.e.: dry, frozen, or snow cover of adequate depth).

*Danger trees, damaged trees, and tail holds / tiebacks (where applicable) outside the block boundary may be felled, yarded and utilized. These small areas located outside the block boundary are exempted from the requirements of a forest development plan and silviculture prescription under the authority provided in sections 28(1)(a), 30(1)(b) and 30(1)(c) of the Forest Practices Code of British Columbia Act. The District Manager's approval of this silviculture prescription constitutes approval of this exemption.*

## G. SILVICULTURE SYSTEM

**STANDARDS UNIT:** 1 **SILVICULTURAL SYSTEM:** Single Tree Selection

### STAND STRUCTURE & COMPOSITION GOALS:

The present stand is comprised primarily of Fd and Lw. Species composition, density, age, and size vary throughout the block. Areas exist containing primarily Lw, however the majority of the stand consists of Fd. Minor components of Pl, Py, Ep, At and Sx can also be found scattered throughout the block.

Densities for this multi-layered stand vary from 100-1000 sph, with an average of 500sph. Basal area varies from 10-50 m<sup>2</sup>/ha with an average of 27.3 m<sup>2</sup>/ha for all diameter classes. Average basal areas for the following diameter classes are as follows: DBH 20-40cm = 19.4 m<sup>2</sup>/ha; DBH 40-60cm = 7.4 m<sup>2</sup>/ha; DBH 60cm+ = 0.5 m<sup>2</sup>/ha. The short-term goal is to remove an average of 5.5 m<sup>2</sup>/ha (20% of the stands basal area), while maintaining a multi-layered, uneven-aged stand.

All stems >45cm DBH and all Py, Ep, At & Sx will be reserved, except where they must be removed to facilitate skidtrail construction or if infested with Armillaria Root Rot/Douglas fir Bark Beetle. When identifying trees to be cut, preference will be given first to Fd showing signs of Douglas fir bark beetle/ Armillaria root rot, second to Pl, third to healthy Fd, and lastly to Lw. Small openings, **2 tree lengths in size maximum**, may be created to remove patches of Fd affected by Douglas fir bark beetle/Armillaria root rot and to remove Pl patches, however the objective is a single tree removal.

Included in the 5.5 m<sup>2</sup>/ha (20% removal) are areas removed for skidtrail construction (approx. 5%), patches of Pl (approx. 1%), and patches of Fd affected by pests and disease (approx. 6%). The remaining 8% (approx. 2.2 m<sup>2</sup>/ha) will taken from the healthy Fd and Lw throughout the stand, with preference give to Fd. Remaining basal area will vary from 4.5 - 44.5 m<sup>2</sup>/ha, with an average of 21.8 m<sup>2</sup>/ha.

### SPECIES AND FUNCTION OF TREES TO BE LEFT STANDING:

#### HARVEST AREA:

**OVERSTORY:** The prescription is to reserve 80% of the basal area.

*Sx, Py, Ep and At:* Reserve all Sx, Py, Ep and At, except those that must be removed to facilitate skidtrail construction.

*Pl:* Remove all merchantable Pl >15cm dbh.

*Fd:* Reserve all Fd >45cm dbh, except those removed for skidtrails and DRA/IBD infestations. Other than skidtrails and IBD/DRA infestations, a relatively uniform removal is to occur over the remainder of the block. Fd is a priority for removal over Lw.

*Lw:* Reserve all Lw >45 cm dbh, except those removed for skidtrails. Lw may be removed only when no other species are present for harvesting. As described above Fd is a priority for removal over Lw.

**The maximum opening size that may be created is 2 treelengths where required to address forest health issues and to remove Pl.**

The average post harvest basal area by diameter class will be: 20-40cm = 15.96m<sup>2</sup>/ha; 40-60cm = 5.38m<sup>2</sup>/ha; 60+cm = 0.45m<sup>2</sup>/ha

#### UNDERSTORY:

All non-merchantable stems will be reserved from harvest. These stems consist primarily of Fd, with minor components of Lw and Sx. The understory is distributed very unevenly throughout the block, with openings containing 2000+ sph, and other areas under greater crown closure having less than 100 sph. Up to 15% of the understory may be removed to facilitate falling and skidding.

#### WILDLIFE TREE PATCHES:

WTP #1 contains Stream 1 (domestic watershed, license # C036984LSE7777) and Stream 2. The WTP contains rocky inoperable ground on 35% slopes and mature Fd, Lw and patches of Ep. Also found in the WTP are dead and dying trees, Armillaria Root Rot, large pieces of CWD and uprooted trees, trees with cavities, veteran trees, game trails and a well developed shrub layer.

WTP #2 is adjacent to Stream 4 and contains rocky ground with scattered live and dead Fd. The fir are very branchy and of poor form. Also found in the WTP is Armillaria Root Rot.

WTP #3 contains an active (active in 2001) Goshawk nest and good quality mature Fd, Lw, Ep and Sx. Also found in the WTP are dead and dying trees, Armillaria Root Rot, trees with cavities, game trails, uprooted trees and bedrock outcrops. The Goshawk nest was observed to be active and produce young in Spring/Summer of 1999 and 2001.

#### RESERVE OTHER:

Two areas were removed from the harvest area and placed in reserves that will provide stand structure. These areas contain predominantly Fd.

**COMMENTS:** All leave trees must comply with WCB safety regulations.

Overstory and understory stems are being retained to create/maintain a multi-layered/uneven-aged stand.

## H. STOCKING STANDARDS

STANDARDS UNIT:	BIOGEOCLIMATIC ZONE	SUBZONE	VARIANT	SITE SERIES
1	IDF	dm	2	01 (04)

REGEN DELAY (YEARS):	PREFERRED SPECIES:	ACCEPTABLE SPECIES:		
7	Fd, Lw, Pl, Py	-		
PREFERRED WELL SPACED STEMS / HA	PREFERRED & ACCEPTABLE WELL SPACED STEMS / HA		MINIMUM HORIZONTAL DISTANCE FOR WELL SPACED TREES	MINIMUM PRUNING HEIGHT AT END OF FREE GROWING FOR WHITE PINE BLISTER RUST OR WILDLIFE HABITAT OBJECTIVES:
MINIMUM:	TARGET:	MINIMUM:	(METERS):	(METERS)
Layer 1 – 200	400	200		N/A
Layer 2 – 250	600	300	2.0	
Layer 3 – 300	800	400	2.0	
Layer 4 – 400	1000	500	2.0	
POST SPACING DENSITY (TOTAL COUNTABLE CONIFERS / HA) at free growing MIN: MAX:	FREE GROWING ASSESSMENT PERIOD (YEARS)		FREE GROWING MINIMUM TREE HEIGHT (METERS):	FREE GROWING TREE HEIGHT RELATIVE TO COMPETITION (%):
500 1600	EARLY:	LATE:	Pl, Lw 1.0 Fd 0.8 Others 0.6	125
				MAXIMUM COUNTABLE CONIFERS at free growing (ST/HA): 10 000 Layer 3 only

### ADVANCED REGENERATION ACCEPTABILITY CRITERIA AT FREE GROWING:

The criteria as outlined in the Invermere Forest District Advanced Regeneration Free Growing Acceptability Standards (enacted on August 1, 1997) will be used in determining advanced regeneration acceptability.

### RATIONALE FOR VARIATIONS TO PROVINCIAL SILVICULTURE STOCKING STANDARDS GUIDELINES:

The maximum spacing density has been increased by 600 sph to account for stem mortality caused from snow press, insects and disease.

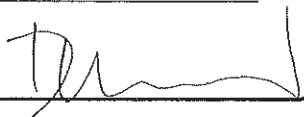

### COMMENTS:

Minimum inter-tree spacing will be 1m for up to one tree per 3.99m survey plot. The reduced inter-tree spacing is required to allow planters to use the best microsites while considering planted and natural stems if artificial reforestation is employed.

If stocking levels drop below minimum numbers at the expiry of the free growing date and it can be determined that Armillaria ostoyae is the cause of mortality, in spite of the prescribed DRA management strategy, and all other free growing requirements have been met, then the stocking standards may be amended to actual stocking levels, at the discretion of the District Manager.

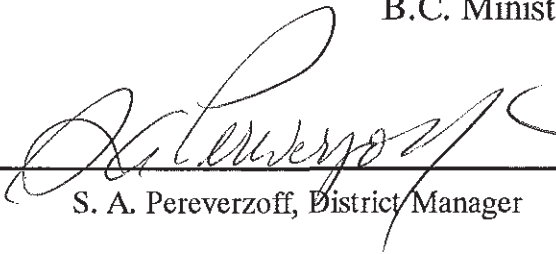
*Livestock grazing is not proposed to be carried out as a vegetation management treatment on the area under this prescription.*

# I. ADMINISTRATION

<p>Licensee acknowledgement of the requirements under Section 70 (4) of the <u>Forest Practices Code of British Columbia Act.</u></p> <p><u></u></p> <p>TEMBEC INDUSTRIES INC.</p> <p><u>Nov 22/01</u></p> <p>Date</p>	<p><i>"I certify that the work described herein fulfills standards acceptable to a Registered Professional Forester and that I did personally supervise the work."</i></p> <p><u></u></p> <p>Douglas R. Braybrook, R.P.F.</p> <p><u>Nov. 20/01</u></p> <p>Date</p>
<p>Map Attached: YES</p>	<p><u>4AFS Ltd. – Dan Foraie/ Tembec - Doug Braybrook</u></p> <p>Person completing this prescription</p>

**VOID**

**B.C. Ministry of Forests Approval**



S. A. Pereverzoff, District Manager

Dec 19/01

Date

Master SP Form Revised: June 5, 1998

Species abbreviations: Pl - interior lodgepole pine; Fd- interior Douglas-fir; Py - yellow pine; Lw - western larch; Sx - hybrid spruce; Se - engelmann spruce; At - trembling aspen; Ep - paper birch; Bl - subalpine fir (balsam).

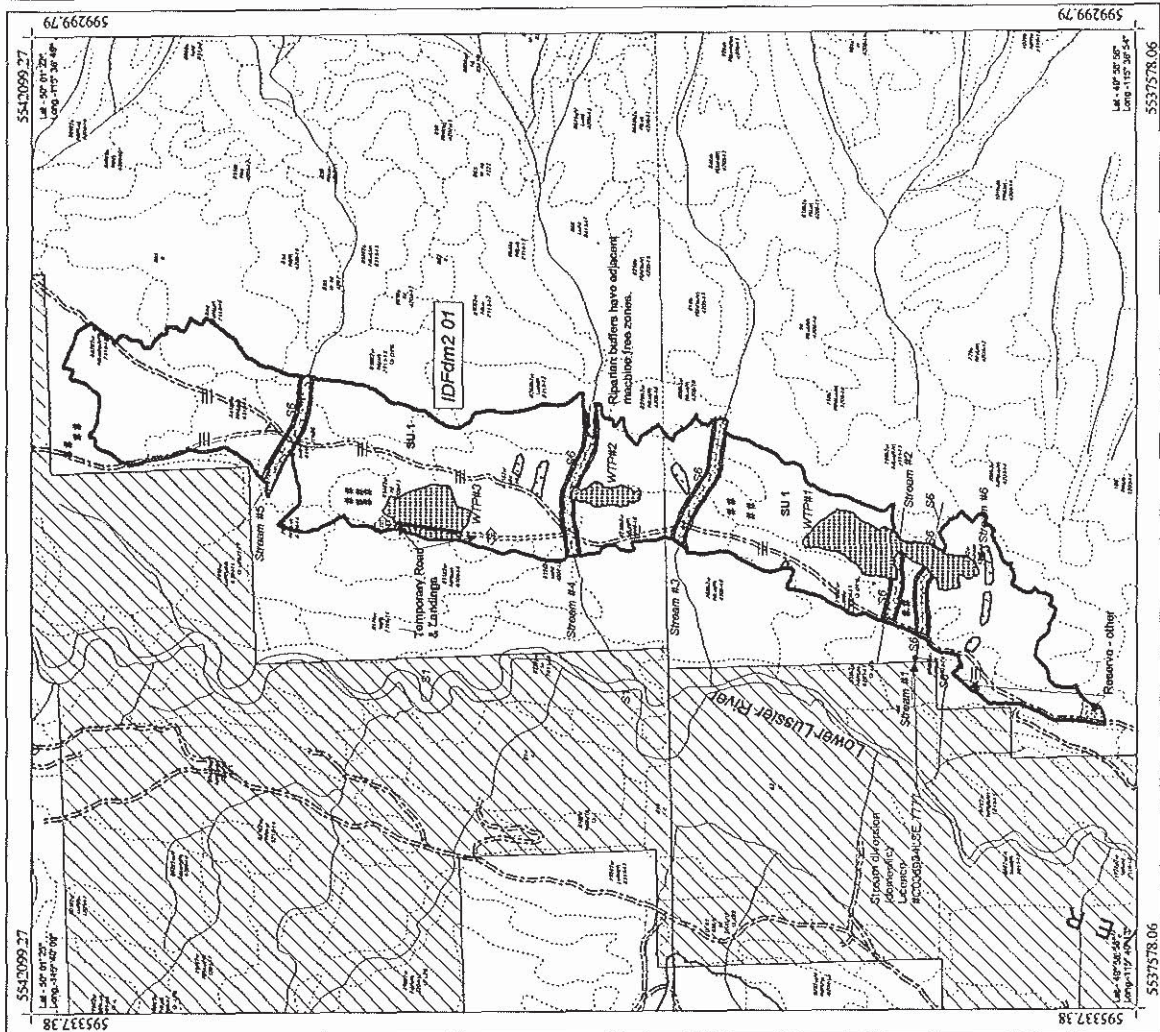
**Tembec Industries Inc.**  
**SILVICULTURE**  
**PRESCRIPTION MAP**

**Licence:** A18978  
**Permit:** 156  
**Block:** 006  
**Location:** Lower Lussier-South

**Map Reference:** 82G092 82J002  
**Land District:** Kootenay  
**Forest Region:** Nelson  
**District:** Invermere  
**Source:** G.P.S.  
**Date:** 19-Nov-2001  
**Supply Block:** E  
**Gross Area (ha):** 203.1  
**Net Area (ha):** 169.7

Please note that there may be some discrepancies in  
 area calculations between this map and the  
 Forest Management System (FMS) database.

Area Summary (ha)	
SU	1
Total	203.1
NP	203.1
UN	7.9
NP	0.0
Natural	23.5
Reserves	0.0
Other	0.0
Net	169.7



**References**

- Stream Crossing (Culvert)
- Block Road
- Excavated/Bladed Trail (Approx.)
- Existing Permanent Road
- Existing Temporary Road
- Forest Service Road
- Forwarding/Yarding Trail
- Highway
- Mainline Road
- Old Existing Road
- Operational Road
- Private Road
- Proposed For/Yard Trail
- Proposed Permanent Road
- Proposed Temporary Road
- Reconstructed Road
- Skidding/Yarding Direction Trail
- Feathered Buffer
- Machine Free Zone
- Riparian Buffer
- Riparian Management Zone
- Standards Unit
- Bridge (permanent)
- Bridge (portable)
- Cable
- Existing Landing
- Helicopter
- Non-Classified Drainage
- Proposed Landing
- Random Skid
- Rock
- Side Slope
- Tail Hold/Tie Back
- Gas Line
- Managed Forest Boundary
- Rivers and Streams
- Transmission Line
- Crown Grant - Park
- Crown Grant - Private Admin.
- Cut Block
- Non-Productive Area
- Reserve - Other
- Riparian Reserve Zone
- Wildlife Tree Patch Reserve

Map prepared by J. Johnson

Scale: 1:20000

## CP DELETION ROUTE TAG

LICENSE: A18978 CP: 156 Location: \_\_\_\_\_

EXPIRY DATE MARCH 31 / 2007

	Days	Initial/Date
<b><u>RESOURCE CLERK</u></b> <ul style="list-style-type: none"> <li>- Print expiry report from FTA (or at licensee's request)</li> <li>- E-mail C&amp;E for information only</li> </ul>	5	<u>LB</u> <u>07/03/15</u>
<b><u>RESOURCE CLERK</u></b> <ul style="list-style-type: none"> <li>- Attach route tag to file</li> <li>- Check RESULTS for data</li> <li>- If no data, e-mail licensee &amp; C&amp;E forester</li> <li>- <b><u>HOLD for data</u></b></li> <li>- Once data received</li> <li>- Enter hectares logged on each block</li> <li>- ---logging start date</li> <li>- ---logging completion date</li> <li>- Change block status to "S"</li> <li>- Change CP status to "HC"</li> <li>- If reported in Results all Info will be in FTA - change status</li> <li>- Delete CP from G: drive</li> </ul>	15	<u>LB</u>
<b><u>WASTE AND RESIDUE</u></b> <ul style="list-style-type: none"> <li>- Ensure waste billing is complete</li> </ul>	<u>R.M.</u>	<u>P. M.</u> <u>May 23/06</u>
<b><u>RESOURCE CLERK</u></b> <ul style="list-style-type: none"> <li>- E-mail C&amp;E Tech advising CP deleted</li> <li>- copy of Route tag for Q&amp;A</li> <li>- Forward file to filing for deletion</li> </ul>	G	<u>LB</u> <u>07/05/24</u>
<b><u>FILE CLERK</u></b> <ul style="list-style-type: none"> <li>- Close file</li> </ul>	10	_____



GESTION DES RESSOURCES FORESTIERES  
FOREST RESOURCE MANAGEMENT

Division BRITISH COLUMBIA Division

KOOTENAY NORTH  
9006 Grainger Road  
P.O. Box 68  
Canal Flats, British Columbia V0B 1B0

**RECEIVED**

**AUG 18 2004**

**MINISTRY OF FORESTS  
CRANBROOK BC**

Téléphone : (250) 349-5294  
Télécopieur / Fax : (250) 349-5250

August 16, 2004

Ministry of Forests  
1902 Theatre Rd.  
Cranbrook, B.C.  
V1C 6H3

File: FL A18978  
CP 156, 186, 206, 212, 216

Attention: Tony Wideski, District Manager

Dear Sir:

Digital files have been submitted to your office for the blocks listed below. The Site Plans and/or Silviculture Prescriptions were amended accordingly and do not require District Manager (DM) approval.

Location	CP	Block	Operational Plan	Reason for Amendment
Ram Creek	156	006	Silviculture Prescription	0.1 ha's of block added to existing WTP#3 due to active Goshawk nest.
Nippin Creek	186	002	Silviculture Prescription	0.7 ha's of block added to existing WTP due to active Goshawk nest.
Doctor Creek	206	001	Site Plan	1.7 ha's of MPB salvage added to block.
Whitetail Brook	212	003	Site Plan	1.5 ha's of block incorporated into a WTP due to active Cooper Hawk nest.
Koos Creek	216	004	Site Plan	0.2 ha's added to block.

If you have any further questions or concerns please contact Glen Kovacic (extension 127) at our Canal Flats office.

Yours truly,

  
Barry Benson, R.P.F.  
Planning Superintendent, Kootenay North Region

/gk

**INFORMATION  
ONLY**



L'ESPRIT D'INNOVATION  
THE SPIRIT OF INNOVATION



# MEMORANDUM

December 5, 2001

TO: Serg Pereverzoff  
District Manager

FROM: Kelly Love  
Silviculture Prescription Forester

FILE: 19500-40 FL A18978 CP 156 Ram Creek

RE: Attached SP for FL A18978 CP 156 Block 6

Please find attached the SP for the above block.

## SILVICULTURE SYSTEMS FIELD INSPECTIONS

BLOCK	Silviculture System	Field Inspections
6	Single Tree Selection 20% Removal	Jablanczy Smedstad

## COMMENTS

A field review of the block was also carried out by Barry Benson & Doug Braybrook of Tembec, Mark Smedstad & Emile Begin of the MoF, and John Bergenske of EKES.

The SP was prepared by Tembec in consultation & concurrence with the Sheep Creek Residents and Martin Carver, the Sheep Creek Residents' Consulting Hydrologist. As indicated in Section G of the SP, the prescription is for a light partial cut, removing 20% of the pre-harvest basal area.

The Sheep Creek Residents and the Forest Service have agreed there will be no more harvesting in the area until significant hydrological recovery has occurred. This is also supported by Dave Glunns, the Regional Forest Service Hydrologist.

*what area ??*

*no additional  
concerns  
S.J.*

## **ISSUES & RISK FACTORS**

### **FDP Compliance/Block Size**

This block is included in FDP Amendment #12, which has been approved. The block is over 200 ha in size, which has been approved via the FDP Amendment. The retention level is 80% of the pre-harvest basal area.

### **HLP Compliance**

HLP compliance was examined during the review of FDP Amendment # 12. A copy of the HLP Checklist is attached.

### **Description of Single Tree Selection System - Section G of SP**

The SP prescribes a Single Tree Selection System.

In our SP comments we recommended that the SP provide the Planned Residual Stand Structure by 10 cm diameter classes as per page 33 of the SP Guidebook (attached.)

Tembec indicated that a breakdown by 10 cm classes is of little use to their loggers. Their assessment is that broader diameter classes are more useful for loggers. Tembec also indicated that as per paragraph 4 on page 6 of the SP, only 8% of the basal area is prescribed for removal outside of Skid Trails, PI patches, and Fd infected by pests and disease, and that as per paragraph 3 essentially all stems > 45 cm are reserved.

The post-harvest basal area by diameter class is indicated approximately half way down the box on page 6 of the SP. The attached Dec. 5, 2001 Tembec email and table provide the basis for harvest levels for the 3 diameter classes.

### **DRA Risk**

As indicated on page 3 of the SP under Forest Health, there are moderate to high levels of DRA in the block. Because of the presence of carbonates, the high compaction hazard, and hydrological concerns, stumping is not prescribed.

The SP was reviewed by Emile Begin, the District Forest Health Officer, and he expressed concerns for increased levels of DRA after harvesting. This is outlined in his attached email of Sept. 21, 2001.

### **Very High Compaction Hazard Soil Disturbance Limits**

The comments under Soil Conservation on page 4 of the SP indicate that the soil compaction ranged from Low to Very High on this 203 hectare block. Generally past practice has been to prescribe for the most limiting factors, if the areas with the most limiting factors are not stratified into separate SUs. This has not been done in this case and some areas of Very High Compaction may have soil disturbance levels of 10% plus 5%, rather than the recommended limits of 5% plus 5%.

### **WTP Number 3**

In his SP comments Peter Holmes expressed concerns with the road through WTP 3. WTP 3 contains a goshawk nest as indicated on page 2 of the SP under the heading Wildlife Habitat Feature.

This was discussed with Doug Braybrook of Tembec. Doug indicated that the WTP was originally smaller, but was increased to its present size because of recommendations by Tembec's biologists to address concerns for the goshawk nest. As also noted on page 4 of the SP under Temporary Access Structures and on the SP map, the Road and Landing in WTP 3 are temporary access structures, and they will be rehabilitated.

### **AIA**

As indicated on page 2 of the SP, two areas identified in the AIA have been removed from the harvest area. These areas were originally identified on the SP map as Cultural Heritage Reserves. In our SP comments we requested that Tembec remove this designation to help protect the confidentiality of the archaeological values. This has been done, and the SP no longer refers to Cultural Heritage Reserves.

### **FOREST PRACTICES CODE**

Compliance with the Code was noted in the attached FPC Checklist.

## RECOMMENDATION

Reviews by the Silviculture Prescription Forester and the Silviculture Audit Forester indicate that the SP meets the legal requirements of the FPC. Based on these reviews and the information noted above, the SP is recommended for approval subject to your agreement that the issues and risk factors noted above have been adequately addressed by Tembec.



Kelly Love  
Silviculture Prescription Forester

Attachments: ✓SP

- ✓CP 156 FDP Amendment # 12 HLP Checklist
- ✓SP Guidebook page 33
- ✓Email of Dec. 5, 2001 from Tembec regarding post harvest basal area
- ✓Email of Sept. 21, 2001 from Emile Begin regarding DRA concerns
- ✓FPC Checklist

pc

Mark Smedstad, RA Timber

# FOREST DEVELOPMENT PLAN AMENDMENT - HIGHER LEVEL PLAN CHECKLIST

LICENSE: FL FDP: 2000-2004 Amendment # 12 CP: 156 Date: September 13, 2001  
A18978

SECTION	DESCRIPTION	Yes/No/ N/A
BIODIVERSITY EMPHASIS	BEO as assigned by HLP Order map 1.1 Low	Yes
OLD AND MATURE	LU is in deficit for Old and Old+Mature	Yes
	Propose variance from HLP strategies document: <b>As per objective 2(5) of the strategies document mature forest is being retained via the 20% removal prescription.</b>	Yes
	Footnote J allows for the use of stand structure attributes in lieu of age with DM/DEO agreement (PI rule)	N/A
	S. 2(2) allows, when recruiting, younger seral stages and protracted time frames with DM/DEO agreement.	N/A
	S. 2(3) allows the use of forest stands one age class less up to 25% of the mature component only in order to provide short term flexibility for FDP's	N/A
	Partial cutting to retain mature forest attributes (70% BA retention): <b>As described above</b>	Yes
	Broad scale variances provided in Delegation Letter (RM & Regional Director Level)	N/A
CARIBOU	Proposed block or road is within Caribou Habitat Area map 3.1	No
	Proposals within Caribou Habitat area will be consistent with table 3.1 and strategies document. Rationale attached.	N/A
GREEN-UP PATCH SIZE	Openings greater than 40 ha proposed	Yes
	Openings greater than 40 ha consistent with the DM policy for OPR's 11(2)(b): <b>20% max BA removal and also approved in the FDP</b>	Yes
GRIZZLY BEAR HABITAT & CONNECTIVITY	Connectivity-proposal is within a "red flagged" BEC – Refer to MOF and MOE Rationale: <b>Maximum 20% BA removal will not impact connectivity.</b>	Yes
	Grizzly Bear Habitat- Proposal is within 50 m of an Avalanche Track – Attach MOE comments	No
CONSUMPTIVE USE STREAMS	A C.U.S. (Domestic Watershed) is located within the block although its actual location is different from that shown on the FDP. The actual domestic watershed diversion is shown on the Silviculture Prescription map.	Yes
	Proposals adjacent to CUS respect Streamside Management Zone: <b>A buffer up to 50m wide has been established upstream of the intake. For all intents and purposes this could be referred to as a streamside management zone although it is not a legal requirement in this case.</b>	Yes
ENHANCED RESOURCE DEVELOPMENT ZONES-TIMBER	This objective is not in effect, see HLP S. 7(2) Transition	N/A
FIRE MAINTAINED ECOSYSTEMS	Proposal is within NDT 4	Yes
	Proposal is consistent with NDT 4 plan: <b>Hydrology constraints preclude ungulate winter range restoration.</b> <i>Debatable</i>	No
VISUALS	Proposal is within Scenic Area	No
	Proposals within scenic areas are consistent with objectives.	N/A



SUBJECT: FDP Amendment #12

DATE: 15 Oct / 2000

FILE NO. Tembec FL  
CP 156

ATTENTION: FILE

REMARKS:

Steve Jablanczy indicates that  
FDP Amendment #12 is approved.

G.1 SILVICULTURAL SYSTEMS		
SU	SILVICULTURAL SYSTEM / VARIANT / PHASE	
A	Strip shelterwood	
SU	RESIDUAL STAND STRUCTURE	
A	BA (m <sup>2</sup> /ha)	
	A target basal area of 25 m <sup>2</sup> /ha will be retained after the first entry.	
SU	COMMENTS	
A	STAND STRUCTURE AND SITE CONDITION	This stand is currently dominated by age class 8 (141–250 years) Cw and Hw (with a minor component of Ac) averaging 34 m in height. In order to provide a suitable environment for Cw, Hw, and Ss regeneration, the stand will be harvested in strips with a maximum width of 40 m. Residual strips will be of equivalent width.
A	LEAVE TREE SPECIES AND FUNCTIONS	Residual strips will include the main species components of the current stand (Cw, Hw, and Ac). Strips will be in an east–west orientation whenever possible to maximize shade production and to reduce blow-down potential from outflow winds blowing from the southeast.

Figure 26. Example silvicultural system – strip shelterwood.

G.1 SILVICULTURAL SYSTEMS										
SU	SILVICULTURAL SYSTEM / VARIANT / PHASE									
	Single tree selection									
SU	RESIDUAL STAND STRUCTURE									
A	BA (m <sup>2</sup> /ha)									
	20									
SU	COMMENTS									
A	STAND STRUCTURE AND SITE CONDITION	The existing stand has a good distribution of size classes in all four layers, making it relatively easy to obtain the desired stand structure. Subsequent harvesting entries are expected to retain similar stand structure. The stocking table below illustrates the planned distribution of stems by diameter class. The existing species composition is Hw <sub>60</sub> Cw <sub>20</sub> Ba <sub>20</sub> .								
A	LEAVE TREE SPECIES AND FUNCTIONS	The desired post-harvest composition is Hw <sub>40</sub> Cw <sub>40</sub> Ba <sub>20</sub> . The function of leave trees is to provide suitable conditions for regeneration, to mitigate visual concerns in this visually sensitive landscape, and to allow for another harvest entry in approximately 25 years. In addition, all Ba greater than 50 cm dbh will be retained as wildlife trees and for recruitment of large CWD.								
SU	PLANNED RESIDUAL STRUCTURE									
A	dbh CLASS (cm)	7.6–15.0	15.1–20.0	20.1–25.0	25.1–30.0	30.1–35.0	35.1–40.0	40.1–45.0	45.1–50.0+	TOTAL
A	APPROX. DENSITY (stems/ha)	600	210	100	80	50	30	20	10	1100

Figure 27. Example silvicultural system – single tree selection.

## Love, Kelly FOR:EX

---

**From:** Doug Braybrook [dbraybrook@crestbrook.com]  
**Sent:** Wednesday, December 05, 2001 11:13 AM  
**To:** Love, Kelly FOR:EX  
**Subject:** CP 156-006 BA retention



CP 156 Post Harvest

Basal Area...

Hi Kelly

Enclosed is a table that I generated this morning showing how I get to the BA retention numbers prescribed in the SP.

I am sending it to you FYI.

Doug Braybrook, RPF  
Canal Flats, Area Forester

**CP 156 Post Harvest Basal Area**

DIAMETER CLASS	ORIGINAL AVERAGE BASAL AREA (m <sup>2</sup> /ha)	SKIDTRAIL VOLUME REMOVAL (5%) (m <sup>2</sup> /ha)	PI VOLUME REMOVAL (1%) (m <sup>2</sup> /ha)	DISEASE VOLUME REMOVAL (6%) (m <sup>2</sup> /ha)	HEALTHY Fd & Lw VOLUME REMOVAL (8%) (m <sup>2</sup> /ha)	POST HARVEST AVERAGE BASAL AREA RETENTION (m <sup>2</sup> /ha)
20-40cm	19.4	0.97	0.19	1.14	1.14	15.96
40-60cm	7.4	0.37	0.07	0.44	1.14	5.38
60+cm	0.5	0.02	-	0.03	-	0.45
TOTAL						21.79

## Love, Kelly FOR:EX

---

**From:** Begin, Emile FOR:EX  
**Sent:** Friday, September 21, 2001 9:09 AM  
**To:** Love, Kelly FOR:EX  
**Subject:** RE: Tembec CP 156 Block 6 Ram Creek

Hi Kelly. I have been involved with the public meetings and field trips for this block. I have also placed the funnel traps with the residents and provided them with some information on Fir beetle and root rot. I have also expressed my concerns regarding the effects partial harvesting combined with the observable Armillaria root rot levels could have on this forest and the SP.

There may be an opportunity to use Hypholoma in this area to manage root rot. However, because of the water concerns, and the current research nature of the Hypholoma treatment we have chosen to not apply Hypholoma here. The research is very promising however, not certain enough to apply in this location at this time. Hand pulling may help however, the partial harvesting will cause a substantial increase in the root rot levels. That remains a concern for me. We may see a root rot response in as little as 6 months (i.e. mortality of residual mature and immature trees) or not for several years.

While the harvesting will reduce the initial Fir beetle concerns it may contribute to an increase later. We will need to monitor this area for a few years after the treatment and see what happens. Soils concerns do prevent a mechanical root rot treatment....Hypholoma may be a future help. Funnel traps for Fir beetle is effective and will also help. The root rot is adding a level of uncertainty to this treatment that is not readily definable or agreed upon by many people given our current level of knowledge.

I would anticipate higher levels of immature stand pest activity due to root rot.

I think the SP provides an option for harvesting that reflects the view of a few people. It suggests that root rot concerns are not as critical as the forest health community considers them to be. However, there is a limited amount of quantifiable impact information on the effects caused by Armillaria root rot when viewed on a site specific level. There is also a limited number of options available. Do nothing is not acceptable and a root removal treatment is also not acceptable. Species shifts to Larch or Yellow pine or Lodgepole pine in place of Douglas Fir and reduced stocking levels may be a better option.

Emile Begin  
Forest Health Officer  
Box 189  
Invermere Forest District, V0A 1K0  
Phone (250) 342-4316  
Fax (250) 342-4247  
E-Mail [emile.begin@gems6.gov.bc.ca](mailto:emile.begin@gems6.gov.bc.ca)

-----Original Message-----

**From:** Love, Kelly FOR:EX  
**Sent:** Thursday, September 20, 2001 3:11 PM  
**To:** Begin, Emile; Brookes, Simon; Cleary, Jerome; Cote, Diana; Crowley, Daryl; Dominy, Richard; Holmes, Peter; Jablanczy, Steve; Jones, Stan; Love, Kelly; McConnell, Cy; Quick, Les; Sky, Kreg; Smedstad, Mark; Smith, Darrell  
**Subject:** Tembec CP 156 Block 6 Ram Creek

### SP Referral: Above area

Tembec has submitted SP(s) for the above area.

The SPs are located in the cabinet in the Resource Services Section.

This is a 203 ha STS block. It has been field reviewed by Steve Jablanczy and Mark Smedstad. If you have any questions on this block, Steve or Mark should be able to answer them. As noted on page 6 of the SP, the total Basal

# INVERMERE FOREST DISTRICT SILVICULTURE PRESCRIPTION CHECKLIST

June 15, 1998

LICENSEE Tembe LICENCE A18348 CP 156 BLOCK (S) 6

NEW SP ☒ BACKLOG SP ☐

REVIEWED BY: J. Love DATE: 15 Oct / 01

MEETS FPC: Yes SIGNATURE: [Signature]

## Caveat

*This document is intend as information material only, and not as legal advice or opinion. For legal advice please consult your legal services provider. In all cases, the wording in the legislation and regulations should be relied upon rather than these materials. Please note that amendments may be made to the legislation and regulations after the date of this document.*

## Forest Practices Code of B.C. Act

12 (a) a prescription must include	Y	N	N/A
(i) long term management objectives set out in	✓		
(A) an FDP or	✓		
in the absence of an FDP, in an HLP			✓
(B) in the absence of objectives in an FDP or an HLP, in accordance with the regulations, if any			✓
(ii) a description of the silviculture system,	✓		
post harvest stand structure,	✓		
and site condition	✓		
(iii) prescribed stocking requirements	✓		
(iv) a map describing approx. location of permanent access,	✓		
temporary roads and landings			✓
(v) limits for temporary & permanent access and for	✓		
soil disturbance	✓		
(vi) matters required by regulation	✓		

(b) if it is an SP referred to in Section 22 it must	Y	N	N/A	
(i) be consistent, at the date submitted for DM approval, with	✓			FDP
(A) any FDP in effect, or	✓			Amend
(B) if an FDP is not required, with any HLP			✓	#12
(ii) meet Act, regs, and stds in effect 4 months before the date the SP is submitted, unless the Act, regs or stds specify otherwise	✓			Reviewed by Cy

Section 22 refers to SPs which the DM must prepare for (1) (a): TSLs that are not majors, (b): areas of natural damage, (c): areas of unauthorised timber harvest.

McCennell

(c) if it is an SP referred to in Section 23 (backlog SP) it must	Y	N	N/A	
be consistent with any HLP in effect when the SP is submitted			✓	
(d) it must be	Y	N	N/A	
signed and sealed by an RPF	✓			

## OPERATIONAL PLANNING REGULATION

Consistent with FDP

Section 20 (1) (b) SP is consistent with FDP for Category A blocks

	Y	N	N/A	
(i) the year of harvest, if timing is critical for non timber resources			✓	Reviewed
(iii) whether the silviculture system is clearcut or partial cut	✓			by Cy
(vi) whether the block is cable, aerial or ground based or a combination of these methods	✓			McCennell

Section 37 Information that must be available before SP approval

(1) subject to subsections (4) & (5), the following assessments must be carried out and made available to the DM upon request:

	Y	N	N/A	
(a) if in a known scenic area, a VIA that demonstrates the timber harvesting is consistent with established VQOs	no	note	→	SP does not specifically state which Assessments were done.
(b) a terrain stability field assessment if				
(i) none done for SP in community w/s (41 (6) of Act) because under 16(3) of OPR, none required for FDP				
(ii) the block is located in area not in community w/s (41 (6) of Act) and has M landslide, pot. u/s or >60% & ≤ 70% slopes				
(iii) block identified by DM as requiring terrain field assessment				
(iv) indicators of pot. u/s are ID'd while doing field work	✓			

SP contains blanket/generic statement. Licensee RPF responsibility to ensure this is done according to FPC & legal reqs.

	Y	N	N/A
(c) gully assessment for blocks on the coast	N/A	N/A	N/A
(d) a pest incidence survey if required by the DM	<i>see</i>	<i>note</i>	
(e) an AIA if DM is satisfied it is necessary	<i>on</i>	<i>previous</i>	
(f) a riparian assessment to	<i>page</i>		
(i) determine riparian class of streams, wetlands & lakes			
(ii) identify fish streams in community watersheds			
(2) Despite 1(b), terrain assessment not required if M landslide and			
(a) all of the following conditions are met:			
(i) the area is located in the interior			
(ii) the proposed timber harvesting method is cable or aerial			
(iii) no excavated or bladed trails will be constructed, or			
(b) assessment done for road location & it included harvest area			
(3) information required by section 37 is not part of the SP			
(4) for minor salvage or expedited major salvage, a VIA is not required unless requested by the DM			
(5) for emergency harvesting, no assessments are required unless the DM requests, in writing, a terrain stability field assessment			

Section 38 Assessment Results      A silviculture prescription must contain a statement that, with respect to an assessment referred to under section 37 or the information referred to under section 39 (3) (a),

	Y	N	N/A
(a) procedures required by OPR have been followed for assessments under sec. 37 or to provide info. under sec. 39 (3) (a),	✓		
(b) the SP is consistent with the results or recommendations of any assessment required under section 37, and	✓		
(c) the SP complies with section 7 (4), 8 (3) and 8 (4) of the THPR, regarding prohibition against excavated or bladed trails	✓		

### Section 39 (1)

Definitions of layer terms related to stocking standards

*(Single tree  
Sd)*

(a) for clearcutting, patch cutting and group selection, group shelterwood, group seed tree, and clearcutting with group reserves, stocking requirements means all the following:

	Y	N	N/A
(i) preferred and acceptable species of trees			
(ii) minimum intertree distance			
(iii) target number of preferred and acceptable species			
(iv) minimum number of preferred and acceptable species			
(v) minimum number of preferred species			

	Y	N	N/A
(vi) maximum number of coniferous trees	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vii) maximum and minimum coniferous trees after spacing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(viii) required standards at free growing, including:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(A) minimum height	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(B) height of tree relative to competing vegetation within 1 m	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ix) minimum pruning height at the end of free growing if:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(A) control of white pine blister rust is required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(B) stand densities for wildlife management are 30% < mss	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(b) for commercial thinning, harvesting of poles, sanitation treatments and other intermediate cuttings that do not have regeneration objectives:

	Y	N	N/A
(i) preferred and acceptable species of trees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) stand structure goals incl planned residual ba or density/ha	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) species and function of leave trees for non timber resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(c) for even-aged partial cutting not described in paragraph (a):

	Y	N	N/A
(i) all requirements referred to in paragraph (a) and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) stand structure goals incl planned residual ba or density/ha	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(d) for single tree selection all of the following:

	Y	N	N/A
(i) for all layers, the preferred and acceptable species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) for the regen, sapling and pole layers, the min intertree distance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) for all layers, target number of pref and acceptable species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) for all layers, minimum number of pref and acceptable species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(v) for all layers, the minimum number of preferred species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vi) for the sapling layer, the maximum number of coniferous trees	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vii) for the sapling layer, max and min conif trees after spacing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(viii) the planned residual basal area per hectare	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ix) the approximate number of trees by diameter class	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(x) the required standards at free growing, including:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(A) minimum height for the regeneration layer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(B) height of tree relative to competing vegetation for regen layer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(2) the silviculture prescription must describe the location of:

	Y	N	N/A
(a) areas from which timber is to be harvested	✓		
(b) areas where timber was destroyed or damaged	<del>✓</del>		✓
(c) the area from which timber was cut in contravention			✓
(d) mappable reserves including WTPs and RRZs	✓		

(3) A person must ensure that the SP does the following:

	Y	N	N/A
(a) specifies:	✓		
(i) the biogeoclimatic ecosystem classification	✓		
(ii) for areas ID'd in an FDP to be harvested by other than cable or aerial, the hazards for compaction, erosion and displacement	✓		
(iii) any indicators of potential slope instability, if a terrain stability field assessment has not been carried out, and			✓
(iv) if temporary access structures are proposed, depth to & type of unfavorable subsoil, <del>and risk of sediment delivery to streams</del>	✓		
(b) if a pest incidence survey is carried out under 37 (1) (d), identifies significant forest health risks, specifies management strategies to reduce risks	✓		

	Y	N	N/A
(c) silvicultural system,	✓		
including species and function of any trees to be left standing	✓		
(d) without limiting paragraph (c), for group selection, description of the range and approx. average opening size			✓
(e) any critical site conditions that affect the timing of operations and the manner in which they affect them	✓		
(f) total area, including rock, water, swamp, reserves and any other area whether or <del>not</del> it is capable of growing trees	✓		
(g) describes the net area to be reforested	✓		
(h) max.% of total area that may be occupied by permanent access	✓		
(i) max.% of net area that may be occupied by soil disturbance	✓		
(j) max. extent to which limits in paragraph (i) may be temporarily exceeded to construct temporary access structures	✓		
(k) identifies:	✓		
(i) those portions of the cutblock where excavated or bladed trails may be constructed	✓		
(ii) max. and average height of cutbanks, for excavated or bladed trails, and	✓		

	Y	N	N/A
(iii) equipment to be used for trail construction if other than an excavator	✓		
(l) max. time to complete rehab of temporary access, measured from completion of harvesting	✓		
(m) describes:	✓		
(i) volume and range of piece sizes of CWD, if any, required to accommodate any CWD objectives in an FDP	✓		
(ii) site conditions that must exist, if any, after a harvest or site treatment to accommodate forest resources identified in the FDP or, in the absence of an FDP in any HLP that applies to the area	✓		
(iii) site conditions that must exist, if any, after a harvest or site treatment to accommodate known non-timber forest resources on or adjacent to SP that weren't referenced in subparagraph (ii), and	✓		
(iv) actions, if any, that are necessary to adequately manage and conserve archaeological sites	✓		
(n) if livestock grazing is proposed for vegetation management			✓
(o) contains the stocking requirements	✓		
(p) contains the regeneration date	✓		
(q) contains the free growing assessment period	✓		
(r) signature of the major license holder or person authorized to sign for the holder	✓		

Section 4 (a) Mapping requirements

	Y	N	N/A
(4) a person must ensure, that the prescription describes or contains all of the following:	✓		
(a) a map that illustrates:	✓		
(i) the total area outlined in subsection (3) (f)	✓		
(ii) all streams, wetlands, lakes, and	✓		
(A) their riparian class, and	✓		
(B) if they are streams in a community watershed, whether they are fish streams			✓
(iii) a known forest ecosystem network			✓
(iv) a wildlife habitat area identified as known in the FDP in which the cutblock is proposed to achieve category A status, or in the FDP in which the part of the FDP that is the cutblock, is amended			✓
(v) sensitive areas			✓
(vi) known res. features, other than domestic water supply intakes	✓		
(vii) known licensed domestic water supply intakes and related water supply infrastructure	Ⓢ		

	Y	N	N/A
(viii) known community water supply intakes and related water supply infrastructure			✓
(ix) known temperature sensitive streams			✓
(x) the approximate location of permanent access structures other than gravel or rock pits	✓		
(xi) the approximate location of gravel pits and rock pits, if within 20 m of the top of a gully sidewall or the outer edge of an RMA			✓
(xii) the approximate location of temporary roads and landings	✓		✓
(xiii) the biogeoclimatic ecosystem classification	✓		
(xiv) the approximate location of a gully			✓
(A) on the Coast if gully is identified in a gully assessment as requiring special management for concerns in subsection (6), or	N/A	N/A	N/A
(B) in the Interior if the gully requires special management to address the concerns referred to in subsection (6);			✓
(xv) the approximate location and type of stream crossings			✓
(b) for each stream and wetland describes:	✓		
(i) the RRZ,			✓
a description of the purpose and extent of any removal or modification of trees in the RRZ and			✓
any related forest practices in this zone, and			✓
(ii) the RMZ and	✓		
a description of the residual ba or sph to be retained	✓		
(c) for each lake in and adjacent to the area:			✓
(i) where applicable, the known lake class			✓
(ii) the information required in paragraph (b) (i) and (ii), and			✓
(iii) the lakeshore management zone and			✓
the residual ba or sph to be retained			✓
(5) If harvesting is proposed for areas that are within an RMA or lakeshore management area, a person must ensure that the silviculture prescription			✓
(a) states whether falling or yarding across streams will be done and, if so, describes the strategies for debris management, and			✓
(b) describes the strategies for			✓
(i) protecting stream banks, if the stream has no RRZ, and	✓		
(ii) maintaining shade over known temperature sensitive streams			✓
(6) If harvesting is proposed for a gully on the Coast, the SP must describe strategies consistent with the gully assessment referred to in section 37 (1) for	N/A	N/A	N/A
(a) debris management			✓
(b) protecting gully banks, minimizing damage to the understorey and addressing sediment and debris transport potential, and			✓

	Y	N	N/A
(c) felling and yarding across gullies, if proposed			↓
7) An SP prepared under sections 22 (1) (b) or (c), 22 (4) to (6) or 23 of the Act need not meet the following requirements			↓

Sections 22 (1) (b) & (c) and sections 22 (4) to (6) refer to timber damaged by natural causes and timber cut in contravention. Section 23 refers to backlog areas.

	Y	N	N/A
(a) if trees will not be harvested on the area under the SP and the SP states that msp will not be used, the requirements of subsection (3) (a) (ii) to (iv), (c) to (e), (h) to (l), 4 (a) (ix) to (xii), (xiv) and (xv), and			↓
(b) if trees will not be harvested, the requirements of subsection (3) (a) (iii) and (iv), (c), (d), (h) and (j) to (l) and 4 (a) (ix) to (xii) and (xiv)			↓
			↓
(8) an SP prepared for commercial thinning, harvesting of poles, sanitation treatments and other intermediate cuttings without regeneration objectives			↓
a) need not meet the requirements of subsection (3) (c), (g), (n), (p) and (q), and			↓
(b) must specify that the SP only covers commercial thinning, harvesting of poles, sanitation treatments or other intermediate cuttings without regeneration objectives			✓

Section 40 Exemption from SP may be subject to conditions

If the DM exempts a person from the requirement for an SP under section 30 of the Act

	Y	N	N/A
(a) the DM may place conditions on the person, and			↓
(b) the person must comply with the conditions			↓

Section 41 Species selection

	Y	N	N/A
When proposing species composition underion 39 (3) (o), a person must, unless otherwise specified in an HLP, select a mix of species that is ecologically suited to the area, if a mix of species was present before harvesting	✓		

## Section 47

## Review and comment

	Y	N	N/A
(1) by notice in writing, the DM may require an SP or amendment to be made available for review and comment as per the notice			↓
(2) a notice under subsection (1) may specify requirements related to review and comment, including, without limitation, the period for review and the requirements for dealing with comments			
(3) if an assessment required under sections 15 to 17 or 37 has been completed, the licensee must, on a reviewer's request, make the assessment available to the reviewer			
(4) the licensee must make an assessment to be reviewed under subsection (3) available at their place of business nearest to the area under the SP or at another location specified by the DM			
(5) a person who reviews an SP may submit comments in writing during the period allowed for review under subsection (2)			✓

**TIMBER HARVESTING PRACTICES REGULATION**

Consistent with THPR with regard to:

## Section 7

## Harvesting restrictions in community watersheds

	Y	N	N/A
(2) prohibition on harvesting if landslide likelihood is H			↓
(3) prohibition on clearcutting if landslide likelihood is M			
(4) restrictions on excavated trail construction without assessment of erosion haz. and risk of sediment delivery to streams			
(7) protection of known community water supply intakes and infrastructures			✓

## Section 8

## Harvesting restrictions on potentially unstable terrain inside and outside community watersheds (W/S)

	Y	N	N/A
(2) prohibitions on clearcutting outside community W/S if landslide likelihood is H unless:			↓
(a) assessor's opinion is clearcutting will not significantly increase risk of landslide and there is a low likelihood of landslide debris			
(i) entering a fish stream or perennial stream that is a direct tributary to a fish stream or			✓

	Y	N	N/A
(ii) causing damage to private property or public utilities including roads, bridges, transmission lines, pipelines rec sites etc. or			
(b) the use of a clearcut silviculture system has been approved in an FDP or SP			
(3) prohibitions on construction of excavated trails outside community W/S if landslide likelihood is H			
(4) restrictions on excavated trails both inside and outside of a community watershed if landslide likelihood is M unless:			
(a) assessor believes that the trails can be constructed and rehabilitated in a manner that will not significantly increase the risk of landslides and			
(b) there is a low likelihood of landslide debris:			
(i) entering a perennial stream in a community watershed, a fish stream, or a perennial stream that is a direct tributary to a fish stream or			
(ii) causing damage to private property or public utilities including roads, bridges, transmission lines, pipelines rec sites etc.			✓

Not  
Specifically  
noted,  
License  
RPF  
Responsibility.

## Section 9

## Green-up - Harvesting adjacent to previously harvested areas

	Y	N	N/A
(1) a person may only harvest a cutblock that is adjacent to a previously harvested cutblock if that cutblock is greened-up			
(2) despite subsection (1) a person may harvest a cutblock that is adjacent to a previously harvested cutblock that is not greened-up, if any of the following are met			
(a) the cutblock to be harvested is under a licence to cut or CTP			
(b) a partial cut silvicultural system is used that retains trees in a uniform distribution and 40% or more of the preharvest BA is retained			
(c) a partial cut silvicultural system is used that retains less than 40% of the preharvest BA, and			
(i) before commencement of harvesting the DM has authorized, in writing, retention of less than 40% of the preharvest BA, and			
ii) after completion of harvesting, either the retained trees are uniformly distributed or the block is stocked with a top height of at least 3 m			
(d) the total area of			
(i) the cutblock to be harvested, and			✓

	Y	N	N/A
(ii) the harvested cutblocks that are not greened-up and that are adjacent to the cutblock to be harvested does not exceed the maximum size for cutblocks specified or varied under section 11 of the Operational Planning Regulation			
(e) the harvesting of the cutblock is necessary to achieve established VQOs and the harvesting has either been approved in an operational plan or authorized by the DM in writing			
(f) the resultant opening has been authorized by the DM, in a written notice given to the person, on the grounds that it will be consistent with the structural characteristics and the temporal and spatial distribution of natural openings			
(g) the proposed harvesting will recover timber that was damaged by fire, insects, wind or other similar events and, wherever possible, the cutblock to be harvested incorporates structural characteristics of natural disturbance			↓

Blk > 40 ha  
but  
only  
20%  
Removal  
Σ

Section 21 Temporary stream crossings

	Y	N	N/A
(1) A person harvesting must not construct a temporary stream crossing unless authorized by the DM (on the SP map)			✓

Section 10 Felling adjacent to streams wetlands, lakes, etc. (RRZs)

	Y	N	N/A
(3) (a) (ii) A person must not harvest or modify trees in a RRZ unless approved by the DM for			
(A) recreation facility management			
(B) reducing windthrow potential by topping or pruning			
(C) removal for approved stream crossings			
(D) for road construction under an approved layout and design			
(E) corridors for full suspension yarding			
(F) removal of any tree which is hazardous to workers			
(G) a range development			
(H) any other similar activity			
(b) (ii) unless approved by the DM with agreement of the DEO for			
(A) windthrow or damage by fire, insects, disease, etc.			
(B) sanitation treatments			
(C) managing fisheries and wildlife values			
(D) any other similar activity			✓

FILE COPY  
RECEIVED

NOV 23 2001



GESTION DES RESSOURCES FORESTIÈRES  
FOREST RESOURCE MANAGEMENT

Division BRITISH COLUMBIA Division MINISTRY OF FORESTS  
VERMOREL B.C.

220 Cranbrook Street North  
P.O. Box 4600  
Cranbrook, British Columbia V1C 4J7

Téléphone: (250) 426-6241  
Télécopieur / Fax: (250) 426-5372

November 21, 2001

Ministry of Forests  
Box 189  
Invermere, B.C.  
V0A 1K0

File: F.L. A18978  
CP 156

Attention: Serg Pereverzoff, District Manager

**Re: Silviculture Prescriptions – CP 156**

Dear Sir:

Enclosed for your approval is a Silviculture Prescription for CP 156 Block 006 in the Lower Lussier / Ram Creek area. Please replace originally submitted SP and map with this revised version.

Please feel free to contact our Canal area office if you have any questions or concerns.

Yours truly,

Dave P.C. Brown  
Administrative Forester

CC: Barry Benson  
Forest Planning Superintendent

NOTIFICATION OF RECEIPT  
AND ACKNOWLEDGEMENT

DATE Nov 23/01

Ministry of Forests

Invermere Forest District

File #

Amendment #

Initial

19560-46 A18978 CP156

grm

Encl: SP's, Map's

## SILVICULTURE PRESCRIPTION REVIEW COMMENTS

Tembec

FL A18978 CP 156 Lower Lussier – Ram Creek

Block 6

October 17, 2001

*sent Oct 23 / att'd email*

The SP for the above area has been reviewed. The following revisions are recommended prior to resubmission to the District Manager for approval.

Comments have been broken down into the following categories:

- Legal requirements prefaced by L
- Errors prefaced by E
- Guidelines agreed to by Licensees and the Ministry prefaced by G
- Recommendations for improved management prefaced by M
- Items for discussion prefaced by ?

*As discussed  
by Doug &  
Kelly Nov 13/01*

The Licensee should examine the SP prior to resubmission and ensure all general and block specific comments are addressed and ensure the SP meets the requirements of the *Forest Practices Code of British Columbia Act*.

If you have any questions or if you wish to discuss these comments, please call Kelly Love at 342-4200 prior to resubmitting the final SP to the District Manager.

### GENERAL COMMENTS

#### Temporary Roads

✓ *TAS Sec of SP will note % for Rd if REQ'D. (prob not 1 ha ~ 1/2%)*  
Barry Benson's email of April 16, 2001 refers to discussions between Ross and Martin regarding a temporary road. Has this been resolved? Is there any need for any roads to be prescribed as temporary roads?

*Will revise SP & PAS/TAS to delineate green rd as temp. rd.  
And will revise map → Temp Rd as per legend*

#### October 18, 2001 AIA in North Portion of the Block

✓ G The SP should mention the AIA to be carried out on this area and indicate whether or not anything was found.

See also further comments regarding AIAs below.

*Corrections made.*

## WTP #3

*Tembec will pres Rd as Temporary Rd. / Rd will be reclaimed, as per VHPRO*

DM ☒ OK M Peter Holmes reviewed the SP and expressed concerns for the road through WTP #3. His concerns are that safety trees removed for the road and access provided for firewood cutters may compromise the viability of the WTP.

Peter requested that an alternate location be examined for the road, and if this is not feasible that the SP specify that the road be physically closed at Stream 4 after the completion of harvesting operations. This would also serve to protect the goshawk nest in WTP #3. *Also note WTP increased from one as per Tembec Biologists. NB 20% cut in rest of Block*

## BLOCK SPECIFIC COMMENTS

*/ called Reserve Other*  
X Archaeological Values - Sec A (Comments), Sec C (CWD, UWR & Arch. Sites), Sec E (Ex/BI Trail Locations), Sec G (Res Other), & Map

G The SP prescribes Cultural Heritage Resources Reserves to address the areas containing archaeological values. This is an appropriate action to deal with these archaeological values.

The specific location of the archaeological values is generally considered to be confidential information that should not be presented in public documents such as SPs. It is recommended that the specific location of the archaeological values not be shown on the SP map and that the specific references to these values (in the above sections of the SP) be deleted from the SP. Options to address these values and ensure they are not compromised by harvesting activities could include:

- Deletion of the areas from the block
- Delineation of the areas as reserves without specifying the reason for the reserves
- Mentioning Cultural Heritage areas in the SP in general terms and advising Tembec staff verbally of their locations to ensure that harvesting activities do not impact them

If there are questions on how best to deal with this issue, please contact Diana Cote in our office.

## Section D

X G The SP prescribes minimum 20 m buffers with no harvesting on either side of streams 1 to 5. It is expected that this means both sides of the streams. The SP should be revised to indicate that the buffers are on both sides of the streams.

X G The SP also prescribes a 10 m wide buffer adjacent to stream 6. The SP should be revised to indicate that this buffer is also on both sides of stream 6.

### Section D and Map

- X G Section D prescribes 15 m MFZs adjacent to the riparian buffers. As above, it should be noted that the MFZs are on both sides of the riparian buffers.

- X ? Why are the MFZs not on the map? If they are not to be shown on the map, it would be appropriate that the map note indicate that the MFZs are 15 m wide and on both sides of the riparian buffers.

are but very narrow (also noted on map.)

### Sec D Measures for Protection of Stream Banks & Sec E Excavated or Bladed Trails

- X E Both of the above sections refer to crossings and both indicate that the crossings are shown on the SP map. The crossings were not found on the map nor the map legend. This should be reviewed and corrected.

delete ref to xing

(4)

### Section E Excavated or Bladed Trails

- X G What is RE in the description of the excavated or bladed trail locations in the block? This should be reviewed and clarified.

deleted

### Section G

- X L The SP should provide the function of the leave trees in both the o/s and u/s.

L G The SP should provide the Planned Residual Structure by 10 cm diameter classes as shown on page 33 of the Feb. 2000 SP Guidebook. Prescribing the residual stand structure by diameter class in this manner will enable the DM to conduct an informed review of the appropriateness of the leave tree data.

This area will be subject to intense public scrutiny by the Sheep Creek residents and other members of the public. It is important that the SP use clear, measurable language to describe the leave tree specifications. The following revisions to Section G of the SP are recommended to help ensure this is done.

- X G The last sentence in paragraph 2 should be revised to remove the words "goal" and "approximately." This sentence should indicate that 5.5 m<sup>2</sup>/ha (20% of the stand's basal area) will be removed.

- All spl > 45 cm are reserved
  - Note small % removal in Non Trail Non P1
- Dis 6% rest 8%

- ~~G~~ The first sentence under the heading Harvest Area should be revised to delete the word "objective." This sentence should indicate that 80% of the preharvest basal area is to be reserved.

## Section H

- ✓ E The DRA clause is missing a word. The clause should be corrected to indicate, "all other free growing requirements." As it is written in the SP without the word "other," the clause is contradictory.



Kelly Love  
Silviculture Prescription Forester

cc Mark Smedstad, Resource Assistant Timber  
Diana Cote, Aboriginal Forestry Advisor

## Love, Kelly FOR:EX

---

**From:** Love, Kelly FOR:EX  
**Sent:** Tuesday, October 23, 2001 9:01 AM  
**To:** 'dbraybrook@crestbrook.com'  
**Subject:** SP Comments CP 186 and CP 156

Doug,

I tried to get hold of Barry to discuss these with him s.22 i. I will call him on Fri to discuss these and see if he would like to look after them, or if he'd rather have us talk them over when you get back. Please give me a call when you're back to discuss where these are.

Thanks,



CP 156 Bk 06.doc



CP 186.doc

---

Kelly Love  
Silviculture Prescriptions Forester  
Invermere Forest District  
Phone: 250-342-4219 Fax: 250-342-4247  
Email: Kelly.Love@gems7.gov.bc.ca

## Love, Kelly FOR:EX

**From:** Holmes, Peter ELP:EX  
**Sent:** Monday, October 01, 2001 9:24 AM  
**To:** Love, Kelly FOR:EX  
**Subject:** RE: Tembec CP 156 Block 6 Ram Creek

Kelly:

The only major concern I have with the proposed SP relates to the road through WTP #3. Building a road through a WTP will reduce its effectiveness by removal of standing wildlife trees as per the WCB regulations and fire wood cutters. It appears that topography has limited options for this road location but if this is not the case please have alternative locations explored. If no other location is feasible, the road should only be temporary and physically restricted to 4x4 traffic.

Peter.

-----Original Message-----

**From:** Love, Kelly FOR:EX  
**Sent:** September 20, 2001 3:11 PM  
**To:** Begin, Emile; Brookes, Simon; Cleary, Jerome; Cote, Diana; Crowley, Daryl; Dominy, Richard; Holmes, Peter; Jablanczy, Steve; Jones, Stan; Love, Kelly; McConnell, Cy; Quick, Les; Sky, Kreg; Smedstad, Mark; Smith, Darrell  
**Subject:** Tembec CP 156 Block 6 Ram Creek

**SP Referral:** Above area

Tembec has submitted SP(s) for the above area.

The SPs are located in the cabinet in the Resource Services Section.

This is a 203 ha STS block. It has been field reviewed by Steve Jablanczy and Mark Smedstad. If you have any questions on this block, Steve or Mark should be able to answer them. As noted on page 6 of the SP, the total Basal Area removal from the NAR is 20%.

Please review them, attach any comments to the file, and sign off the check list under your program's section.

The review will end on: Oct. 5/01.

Pls advise Kelly Love within 5 days if you have no concerns with these SPs.

If you have any questions, please contact: Mark Smedstad

Kelly Love  
Silviculture Prescription Forester  
Invermere Forest District

Phone (250) 342-4200  
Kelly.Love@gems7.gov.bc.ca

Love, Kelly FOR:EX

---

From: Smedstad, Mark FOR:EX  
Sent: Wednesday, October 10, 2001 2:58 PM  
To: Love, Kelly FOR:EX  
Subject: Tembec CP 156 Block 6 Ram Crk.

Kelly I have review block 6, both on site aswell as office. I have only a few concerns they are as follows:

- ✓• WTP # 3 I concur with P. Holmes. I would also mention that this WTP is the one with a active Goshawk nest, no we really want to build a road close to it? I would like to see Pete comment on that question. How far from the proposed road is the nest located?
- ✓• Concur with Silviculture system this is what was agreed upon with Sheep Creek residents and Tembec.

---

**Mark Smedstad**  
Resource Assistant Timber  
Invermere Forest District  
(250) 342-4251

✓

## Love, Kelly FOR:EX

---

**From:** Doug Braybrook [dbraybrook@crestbrook.com]  
**Sent:** Wednesday, October 10, 2001 1:44 PM  
**To:** Cote, Diana M FOR:EX; Love, Kelly FOR:EX; Godlien, Teena D FOR:EX  
**Cc:** 'bbenson@crestbrook.com'  
**Subject:** CP 156-006 Ram Creek SP & Road Permit Application

Hi guys.

I commissioned an AIA for a mod/high polygon in the southern portion of this block which is located in LU 4. This is reflected in the SP submission.

It turns out that there is another polygon in the northern portion (LU 5) of the block. This polygon information was not available when I submitted the SP. I have scheduled Ages Ltd. to conduct the AIA for this polygon on October 18th. Kelly we might as well as continue with the SP approval process as I do not expect it to be approved soon. If anything is found I will modify the SP if necessary.

Teena, this AIA issue does not affect our Road Permit application so it is business as usual with the RP proposal.

Doug Braybrook, RPF  
Canal Flats, Area Forester

## Smedstad, Mark FOR:EX

**From:** Doug Braybrook [dbraybrook@crestbrook.com]  
**Sent:** Wednesday, April 18, 2001 3:49 PM  
**To:** 'bbenson@crestbrook.com'; 'John Bergenske'; 'Ross Guest'; Smedstad, Mark FOR:EX; Jablanczy, Steve FOR:EX  
**Cc:** 'Lloyd Havens'  
**Subject:** RE: CP 156 field trip on April 11th

I have one addition to Barry's comments. There is the occasional Lodgepole pine tree in the block and I have included them in the SP as priority for removal behind skidtrails and Root Rot/Beetle infestations but ahead of healthy Fd and Lw. I have also included the max. opening size of 2 treelengths as a result of the Carver report.

Anyway comments please let me know.

Doug Braybrook, RPF  
Canal Flats, Area Forester

-----Original Message-----

**From:** Barry Benson [SMTP:bbenson@crestbrook.com]  
**Sent:** Monday, April 16, 2001 4:21 PM  
**To:** 'John Bergenske'; 'Ross Guest'; 'Mark Smedstad'; 'Steve Jablanczy'  
**Cc:** 'Lloyd Havens'; 'Doug Braybrook'  
**Subject:** CP 156 field trip on April 11th

Hi everyone,

Thanks to John, Ross, and the rest of the Sheep Cr. residents for their keen involvement in the recent field trip of CP 156 - 006. I appreciate the constructive dialogue that the group partakes in and the input and thoughts from everyone.

I thought I would reconfirm all that was agreed to on the field trip:

- ✓ 1) Large veteran Fd and LW are not prevalent and therefore stems >45cm DSH will be reserved from harvesting for recruitment. pg 6 SP.
- ✓ 2) Douglas fir (20 - 45 cm DSH) will be the species sought after for harvesting in the stand. The order of priority is as follows: a) skid trails, b) fir bark beetle and root rot patches, c) minor single tree selection of the Fd throughout the stand. It should be noted that if there are no fir present in an area then the Larch will be targetted for removal. pg 6 SP.  
Shouldn't be a big deal because we are talking about a pure larch type so its presence is obviously not a concern.
- 3) Machine free zones will be ribboned in the field.
- 4) Martin Carver will do a final review ensuring that all is well from a hydrological point of view.

① For you Ross, you stated that you will be in contact with Martin to discuss the temporary road that is required in the block.

If there are any other comments or if I have missed something please get back to me.

Thanks

✓

## Love, Kelly FOR:EX

---

**From:** Cote, Diana M FOR:EX  
**Sent:** Friday, September 28, 2001 9:38 AM  
**To:** Love, Kelly FOR:EX  
**Subject:** RE: Tembec cp Block 6 Ram Creek.

Very Good Kelly.  
Thank you

Diana Cote  
Aboriginal Liaison Officer  
Ministry of Forests  
Invermere District  
(Phone) 250 342 4324  
(Fax) 250 342 4247

Visit the "New" Invermere Forest District Webpage at:  
<http://www.for.gov.bc.ca/nelson/district/invermer>

-----Original Message-----

**From:** Love, Kelly FOR:EX  
**Sent:** Friday, September 28, 2001 9:37 AM  
**To:** Cote, Diana M FOR:EX  
**Cc:** Smedstad, Mark FOR:EX  
**Subject:** RE: Tembec cp Block 6 Ram Creek.

Diana,

Thank you for the note indicating that you concur with the measures in the SP to address archaeological issues on CP 156 Block 6.

As we discussed, I will request that Tembec revise the map to remove the notation showing the location of the archaeological reserves, because this is confidential information.

---

Kelly Love  
Silviculture Prescriptions Forester  
Invermere Forest District  
Phone: 250-342-4219 Fax: 250-342-4247  
Email: [Kelly.Love@gems7.gov.bc.ca](mailto:Kelly.Love@gems7.gov.bc.ca)

-----Original Message-----

**From:** Cote, Diana M FOR:EX  
**Sent:** Thursday, September 27, 2001 2:48 PM  
**To:** Love, Kelly FOR:EX  
**Subject:** Tembec cp Block 6 Ram Creek.

I have reviewed this block via foot pedestrian and concur with the Cultural Heritage Resource Reserve for the Archaeological sites found within this block.

Diana

See no further Concerns regarding Cultural Heritages.

Diana

Diana Cote  
Aboriginal Liaison Officer  
Ministry of Forests  
Invermere District  
(Phone) 250 342 4324  
(Fax) 250 342 4247

Visit the "New" Invermere Forest District Webpage at:  
<http://www.for.gov.bc.ca/nelson/district/invermer>

FAX

GESTION DES RESSOURCES FORESTIERES  
FOREST RESOURCE MANAGEMENT

Division BRITISH COLUMBIA Division

CANAL FLATS Woodlands  
5006 Grainger Road  
P.O. Box 62  
Canal Flats, British Columbia V0B 1B0Telephone: (250) 349-5254  
Télécopieur / Fax: (250) 349-5250

Destinataire / To:

S. Joblan:zy / K. Love

Fax:

Compagnie / Company:

Expéditeur / From:

Dany B.

Date:

Aug. 30/01

Pages (incluant celle-ci / Including this one):

2

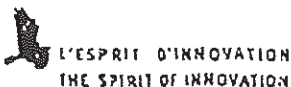
OBJET / SUBJECT:

WTP Table CP156

## MESSAGE

SP's to be submitted soon

Dany B.

L'ESPRIT D'INNOVATION  
THE SPIRIT OF INNOVATION

S.V.P. communiquer avec l'expéditeur si vous ne recevez pas toutes les pages / Please contact the sender if any pages are missing.

## WTP SUMMARY - RAM CREEK CP 156-006

LU: 5 TARGET WTP%: 5.1 IDF= 5%

CP	BLOCK/ SU	AREA (ha.)	BEC	TARGET WTP AREA (ha.)		SP WTP AREA (ha.)		COMMENTS
				THLB	Non THLB	THLB (single trees)	Non THLB	
156	006	203.1	IDF	5.1	5.1	6.8	10.0	(single trees) = number in brackets refers to the contribution of single trees if any Single trees have not been included in the calculation as the silv. system is single tree selection and future harvesting likely.
	TOTAL			5.1	5.1	6.8	10.0	
								Note: Single Tree Hectares derived as follows: Sph * net area / 600 sph

# Inspection Plan - Timber Activities

Licensee Temble

CP: 156

Block: 6

Values (A) Max 24			Likelihood of a Detrimental Event (B) Max 18	
Environmental	Social	Economic		
<b>Soils Conservation</b> Site Sensitivity Rating Very High 4 High (3) 3 Moderate 2 Low 1	<b>Cultural Values</b> Confirmed (3) 3 Unconfirmed 2 Confirmed, no existing values 1	<b>Utilities</b> Present (3) 3 Absent (NA) NA	<b>Licensee Performance</b> Previous non-compliance 3 New tenure holder 2 In compliance (1) 1	<b>Silviculture System</b> Selection cut (3) 3 CC with reserves Clear cut 1
<b>Watershed</b> Consumptive - community or domestic 3 Irrigation (2) 2 Other 1	<b>Landscape Sensitivity</b> Retention (3) 3 Partial retention 2 Modification 1	<b>Range</b> Use and improvements 3 Use, no improvements (2) 2 No use 1	<b>Tenure Type</b> TSL major/minor 3 Woodlot 2 TFL/FL (1) 1	<b>Harvest Method</b> Random skid 3 Bladed or excavated (2) 2 Cable heli NA
<b>Streams</b> Class S1-S3 5 Class S4-S5 (3) 3 S6 - Ephemeral 1 Not applicable NA			<b>Stream Crossing</b> NA Crossing S4 3 Crossing S5-S6 that flows into S1-S4 2 Crossing S5-S6 1	<b>Harvest Season</b> Spring 3 Summer-fall (2) 2 Winter 1
<b>Wildlife</b> Wildlife tree patch (3) 3 Winter range 2 Summer range 1				

Sum of Value Points 19  
 Divide by # of boxes excl N/A 7  
 Equals Box A

A  
2.7

Sum of Points 9  
 Divide by # of boxes 5  
 (excl N/A) Equals Box B

B  
1.8

"Box A" x "Box B" equals

C  
5

Inspection Rating Chart (Input Value to Box D)

Very High (VH)	9
High (H)	7 - 8
Medium (M)	4 - 6
Low (L)	1 - 3

Inspection Rating

D M

Modified Inspection Rating

E .

Modified Inspection Rating Qualifier:

Estimated Number of Inspections

7

Employee's Name

M. Smead

Date Entered

Oct 10/2001

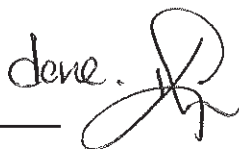
## Love, Kelly FOR:EX

---

From: Love, Kelly FOR:EX  
Sent: Monday, October 15, 2001 11:07 AM  
To: McConnell, Cy FOR:EX  
Subject: RE: Opening #'s CP 186,156

FILE A18978  
CP 156  
Ram CK

Yes, I will add the opening numbers.

*dene.* 

---

Kelly Love  
Silviculture Prescriptions Forester  
Invermere Forest District  
Phone: 250-342-4219 Fax: 250-342-4247  
Email: Kelly.Love@gems7.gov.bc.ca

-----Original Message-----

From: McConnell, Cy FOR:EX  
Sent: Monday, October 15, 2001 8:18 AM  
To: Love, Kelly FOR:EX  
Subject: FW: Opening #'s CP 186,156

Kelly, do you still have these SP's to add the opening numbers?

→ CP 186 Block 1 opening # 129 82J024  
CP 186 Block 2 opening # 130 82J024 ✓  
→ CP 156 Block 6 opening # 90 82J002 ✓

Cy McConnell  
Field Operations Supervisor  
Invermere Forest District  
% (250) 342-4218 or Fax (250) 342-4247  
\* Cy.McConnell@gems7.gov.bc.ca

Visit the Invermere Forest District Webpage at:  
<http://www.for.gov.bc.ca/nelson/district/invermer>

## Love, Kelly FOR:EX

---

**From:** Love, Kelly FOR:EX  
**Sent:** Thursday, September 20, 2001 3:11 PM  
**To:** Begin, Emile; Brookes, Simon; Cleary, Jerome; Cote, Diana; Crowley, Daryl; Dominy, Richard; Holmes, Peter; Jablanczy, Steve; Jones, Stan; Love, Kelly; McConnell, Cy; Quick, Les; Sky, Kreg; Smedstad, Mark; Smith, Darrell  
**Subject:** Tembec CP 156 Block 6 Ram Creek

### **SP Referral:** Above area

Tembec has submitted SP(s) for the above area.

The SPs are located in the cabinet in the Resource Services Section.

This is a 203 ha STS block. It has been field reviewed by Steve Jablanczy and Mark Smedstad. If you have any questions on this block, Steve or Mark should be able to answer them. As noted on page 6 of the SP, the total Basal Area removal from the NAR is 20%.

Please review them, attach any comments to the file, and sign off the check list under your program's section.

The review will end on: Oct. 5/01.

Pls advise Kelly Love within 5 days if you have no concerns with these SPs.

If you have any questions, please contact: Mark Smedstad

Kelly Love  
Silviculture Prescription Forester  
Invermere Forest District

Phone (250) 342-4200  
Kelly.Love@gems7.gov.bc.ca



GESTION DES RESSOURCES FORESTIÈRES  
FOREST RESOURCE MANAGEMENT

Division BRITISH COLUMBIA Division

220 Cranbrook Street North  
P.O. Box 4600  
Cranbrook, British Columbia V1C 4J7

**FILE COPY**

Téléphone: (250) 426-6241  
Télécopieur / Fax: (250) 426-5372

**RECEIVED**

**SEP 12 2001**

MINISTRY OF FORESTS  
INVERMERE R.C.

September 5, 2001

Ministry of Forests  
Box 189  
Invermere, B.C. V0A 1K0

File: F.L. A18978  
2000-2004 FDP  
CP 156

Attention: Serg Pereverzoff, District Manager

**RE: FDP Amendment #12**

Dear Serg:

Enclosed for your approval is Forest Development Plan #12 and Silviculture Prescription for CP 156 Block 006 in the Ram Creek area.

The prescription was completed in concurrence with the hydrological assessment completed by Martin Carver and in consultation with the Sheep Creek Residents.

If you have any questions of concerns please call Barry Benson at the Canal Flats Office.

Yours truly,

Dave P.C. Brown  
Administrative Forester

CC: Barry Benson  
Forest Planning Superintendent

BB\cb

Encl: FDP Amend #12, Harvesting, Road Construction, & Road Deactivation Tables,  
FDP Amendment maps, SP, SP map, & digital files

NOTIFICATION OF RECEIPT  
AND ACKNOWLEDGEMENT

DATE Sept 12/01

Ministry of Forests

Invermere Forest District

File # 0500-40 A18978 CP 186

Amendment #

Initial DB



L'ESPRIT D'INNOVATION  
THE SPIRIT OF INNOVATION

**INVERMERE FOREST DISTRICT  
SILVICULTURE PRESCRIPTION / INITIAL SUBMISSION  
ROUTE TAG**

LICENSEE Tembec LICENCE A18978 CP 156 Blks 006

Work days to complete

Event #

Initial / Date

**RESOURCE CLERK**

02 days

Event #210

- request file folder ✓
- attach route tag ✓
- enter into FTAS - status SP ✓

*gm, Sept 18/01*

**SP FORESTER**

04 days

- ensure written input from Range Rec, FH ✓
- ✓-enter into SP tracking ledger: *AR*
- ✓-ensure seal, signature.
- send out 10 day notification on email
- ✓-place SPs in cabinet
- ✓-review SPs
- ✓-snow free review period
- ✓-assign target completion date considering complexity: Oct 5/01

*AR 20 Sept/01*

**FOS**

- co-ordinate field reviews on representative blocks with DS, ROs, MOE, RAT, Licensee ✓
- check FDP consistency (AIA & Dom w/s) *check completed Oct 18/01*
- check consistency with Secs 7, 8 & 9 of THPR - comm. w/s, pot. w/s, & green-up ✓
- review with SP Forester if DES review required ✓
- ensure opening #'s have been obtained ✓
- check 5 day response *OK 01/10/01*

**RA Tech**

10 days

- assign risk ratings to all blocks
- field check stream crossings
- attach SP review comments

*M. 1 Oct 10/01*

**SP FORESTER**

11 days

- ✓-complete FPC checklist
- ✓-ensure comments from RA Tech, Sil, Rec, **DEC** **AOA**
- ✓-ensure comments are agreed to by: DS, **FOS** **Range** and **FH** *No Range or Rec Comments rec'd*
- advise MOE or ROs and forward to DM for decision).
- ✓-ensure 40 day SNOW FREE review period met (if not advise licensee of reason).
- ✓-consolidate comments, formulate response to Licensee
- ✓-note date SPs returned to licensee on SP ledger: *AR 23/Oct/01*

**SP FORESTER**

09 days

- ✓-enter date SP resubmitted on SP ledger: Nov 23/01
- ✓-ensure changes made to SP as required.
- ✓-review comments, note concerns
- ✓-memo to DM if OK, to Licensee if not
- ✓-forward package to RO timber

*AR 5 Dec/01*

✓-FDP Amend #12 Approved.  
continued on next page  
✓-DRA pg 3 of SP.  
✓-VH Compac pg 4 of SP.

✓-Pg 3 SP Comments → ST Sel.

TIMBER OFFICER	02 days	-review SPs	SJ 110 Dec/01
DM	02 days	-sign SPs	Dec 19/01
SP FORESTER	02 days	<input checked="" type="checkbox"/> fax copy of signature page to Licensee <input checked="" type="checkbox"/> <del>cc signature page to FOS Timber</del> <input checked="" type="checkbox"/> update ledger date approved	120 Dec/01
SILVICULTURE FORESTER	02 days	-MLSIS data entry -enter approved date on SP tracking ledger	10/12/27
RESOURCE CLERK	07 days	<input checked="" type="checkbox"/> update ledger ch. 02/01/02 <input type="checkbox"/> make 3 copies of each SP date: _____ <input type="checkbox"/> copies to: CP legal file Timber RA Tech: _____ ISIS filing basket (Background info on CP operational file) <input type="checkbox"/> original to Fireproof file cabinet	1

File to ⇒ 19500-40-A18978-CP156

**Smedstad, Mark FOR:EX**

---

**From:** s.22  
**Sent:** Tuesday, May 15, 2001 10:33 PM  
**To:** s.22; Smedstad, Mark FOR:EX;  
**Cc:** Jablanczy, Steve FOR:EX; s.22; Peatt, Alan FPB:EX; s.22  
s.22  
**Subject:** Re: CP 156 field trip on April 11th



Letter to BB re cut May  
9, 200...

Barry,

Please find attached a letter in response to your letter of May 9, 2001.

s.22

Hi Barry,

Further to our field trip on April 11, 2001 and our recent phone conversations, here is our response to your memo of April 16, 2001. I have copied all the people you had copied but have added copies to s.22 and the Ram Creek residents who have email.

In this response I am assuming that all the requirements of the prescription as contained in s.22 report are to be applied unless they are specifically changed in this memo.

As you noted, the block contains active fir bark beetle and Armillaria root rot, Diseased trees will be given high priority for harvest and will be included in the 20% basal area removal.

We have noted the absence of large veteran Douglas Fir and Larch throughout the block therefore stems greater the 45cm DSH will be reserved from harvesting for recruitment.

We agreed that Douglas fir (20 - 45 cm DSH) will be the species sought after for harvesting in the stand. Therefore the order of priority is skid trails, fir bark beetle, root rot patches and minor single tree selection of Douglas fir throughout the stand.

You had suggested that Larch should replace Douglas Fir in areas where there is no Douglas Fir present. As I mentioned to you in our phone call, we are concerned that this will lead to decreasing Larch representation on the hill as there will not be enough disturbance to facilitate Larch regeneration. We would rather see the pure Larch stands reserved. You indicated that this further reserving should not materially impact your harvest due to the limited areas of pure Larch.

Further, where Py occurs, it will be left unless beetle infested.

Based on comments made during the field trip we understand that where there is occasional Lodgepole pine in the block, it will be included in the SP as priority for removal behind skidtrails and Root Rot/Beetle infestations but ahead of healthy Douglas Fir.

Also as stated during the field trip the maximum opening size will be no greater than 2 tree lengths.

Machine free zones are to be ribboned in the field. It appears that this process is underway and may already have been completed.

We are operating on the assumption that all deciduous trees will be reserved.

You indicated the need to use an old existing road approx. 450 meters long that is located within CP 156-006 to overcome the adverse skidding in a large portion of the cutblock. You further stated that the road would be temporary and debuilt upon completion of harvesting. As you know this road is not now in use. Its present condition deters public use thereby reducing the fire hazard that is already high due to careless practices of people using the hot pools. Our group is very concerned that your activities will result in this road becoming available to the public after your use of it for this harvest. You have indicate that the road will be "debuilt" and we will be looking to you to ensure this "debuild" permanently takes the road out of use for the general public. Assuming you are in agreement with these requirements, we will agree to the your use of this road as indicated.

During the field trip there was some talk of a need to "blade" some parts of the hill. We have always understood that there would be no blading as it could lead to greater site degradation than any of the other concerns being addressed in the prescription. We believe that no blading of skid trails should be written into the prescription.

In order to maximize the overall benefits to the ecosystem we would recommend that while this block is being primarily managed for hydrological concerns, wherever possible, any small openings (2 tree lengths) and skid roads should be concentrated on southerly aspects to enhance early spring forage opportunities.

As you know, the harvesting in this block has been a controversial issue in our community in large part due to the excessive harvesting that has taken place in the rest of the watershed. Further, this block has significance to numerous members of our group as it is a major portion of their viewscape and extensive harvesting would materially affect erosion problems already being experienced, reduce property values and adversely affect existing commercial operations. With that in mind it would seem reasonable to prescribe that there would be no further entry into this block for at least 20 years.

You and I have discussed the merits of having s.22 return to the area to do a final review ensuring that all is well from a hydrological point of view. This review is to be combined with a field trip for interested residents and a community meeting to ensure everyone affected is aware of the final terms of the prescription and that s.22 believes the prescription is in keeping with the recommendations included in his report. It is also important to ensure full understanding because, as you know, this harvesting will be closely watched by a number of our members. Full understanding before harvesting begins will reduce the possibility of disruption during the harvesting.

Barry, we appear to be closing in on a prescription that represents the valid concerns and needs of all the parties. Please confirm your agreement to the above detail at your convenience.

s.22 on behalf of the Concerned Residents of Sheep Creek.  
-----

## CP DELETION ROUTE TAG

LICENSE: 1918978 CP: 156 Location: \_\_\_\_\_

EXPIRY DATE MARCH 31 / 2007

	Days	Initial/Date
<b><u>RESOURCE CLERK</u></b> <ul style="list-style-type: none"> <li>- Print expiry report from FTA (or at licensee's request)</li> <li>- E-mail C&amp;E for information only</li> </ul>	5	<u>LB</u> <u>07/03/15</u>
<b><u>RESOURCE CLERK</u></b> <ul style="list-style-type: none"> <li>- Attach route tag to file</li> <li>- Check RESULTS for data</li> <li>- If no data, e-mail licensee &amp; C&amp;E forester</li> <li>- <b><u>HOLD for data</u></b></li> <li>- Once data received</li> <li>- Enter hectares logged on each block</li> <li>- ---logging start date</li> <li>- ---logging completion date</li> <li>- Change block status to "S"</li> <li>- Change CP status to "HC"</li> <li>- If reported in Results all Info will be in FTA - change status</li> <li>- Delete CP from G: drive</li> </ul>	15	<u>LB</u>
<b><u>WASTE AND RESIDUE</u></b> <ul style="list-style-type: none"> <li>- Ensure waste billing is complete</li> </ul>	<u>R.M.</u>	<u>R.M.</u> <u>May 23/06</u>
<b><u>RESOURCE CLERK</u></b> <ul style="list-style-type: none"> <li>- E-mail C&amp;E Tech advising CP deleted</li> <li>- copy of Route tag for Q&amp;A</li> <li>- Forward file to filing for deletion</li> </ul>	6	<u>LB</u> <u>07/05/04</u>
<b><u>FILE CLERK</u></b> <ul style="list-style-type: none"> <li>- Close file</li> </ul>	10	_____

G:\Workgrp\wpdocs\TIMBER\Route Tags\Deletion Route tag.doc  
23/02/2007

[Tenure](#) [CP/Mark](#) [Cut Block](#) [Assoc. Files](#) [Assoc. Client](#) [AAC](#) [Sale Info](#) [Tenure Appl.](#) [Notes](#)  
[Sctn./Brnch.](#) [G Rotation](#) [H Rotation](#) [Cpy Rotation](#) [TL Blk](#) [CP/CB Amend.](#) [Road Amend.](#) [Rec Project](#)

## FTA903 - Cut Block List

File: **A18978**  Type: A01 - Forest Licence Admin Org: RSI - Southern Interior Forest Region  
CP: **156** File Status: HI - issued As of: 2000-01-01  
Cut Block: Award Date: 1982-12-01 Expiry Date: 2021-11-29  
Licensee: 00001402 00 TEMBEC INDUSTRIES INC.

[Back To Search](#)[Add New](#)

1 rows returned

CP	Timber Mark	Salvage Type	Mark Status	CutBlock	Status	Harvest Date		Harvest Area (ha)			Authorized		Links
						Start	Complete	Planned Gross	Planned Net	Actual Gross	File	CP	
156	EY6156		HI	6	PP	2003-12-01		203.0000	165.0000	0.0000			<a href="#">Results</a> <a href="#">Map View</a> <a href="#">Details</a>

[Feedback](#) [Disclaimer](#) [Privacy](#) [Copyright](#)

MINISTRY OF FORESTS

[http://apps12.for.gov.bc.ca/fta/fta903CutblkLstAction.do?dataBean.p\\_cutting\\_permit\\_id=156&dataBean...](http://apps12.for.gov.bc.ca/fta/fta903CutblkLstAction.do?dataBean.p_cutting_permit_id=156&dataBean...) 2007-03-15

Document name: G:\Workgrp\steno\TIMBER\Nicole\Extension.doc GB  
Contact: Georgina Borho (250)426-1755  
Date typed: 2007/01/18 Date last saved: 2007-01-18 9:38 am

File: 19500-45/A18978 CP'S 156, 211 and 228

March 13, 2007

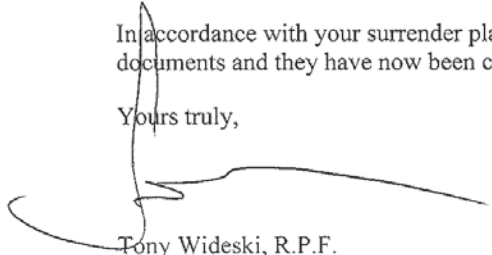
Tembec Industries Inc.  
Ken Gauthier  
General Manager, Kootenay Central  
Box 4600  
Cranbrook, British Columbia V1C 4J7

Dear Ken Gauthier:

The following cutting permits for Forest Licence A18978 have been deleted as per your surrender plan dated February 9, 2007. CP's 156, 211 and 228.

In accordance with your surrender plan, we have received your original cutting permit documents and they have now been cancelled.

Yours truly,



Tony Wideski, R.P.F.  
District Manager  
Rocky Mountain Forest District



---

Ministry of  
Forests and Range

Rocky Mountain Forest District

1902 Theatre Road  
Cranbrook, B.C.  
V1C 7G1

1902 Theatre Road  
Cranbrook, B.C. V1C 7G1

Tel: (250) 426-1700  
Fax: (250) 426-1777



**FOREST LICENCE NO. A18978**  
**CUTTING PERMIT NO. 156**



PURSUANT TO paragraph [7.05] of Forest Licence No. A18978 (the "Licence"), this Cutting Permit is issued to:

**Tembec Industries Inc.**  
**Box 4600**  
**Cranbrook, B.C. V1C 4J7**  
(the "Licensee")

**1.00 PERMIT AREA AND TERM**

- 1.01 Subject to the Licence and the Acts, regulations and standards referred to in paragraph [8.01] of the Licence, the Licensee is authorized to harvest timber from the areas of Crown land designated for harvest on the map attached as Exhibit "A" to this Cutting Permit.
- 1.02 Subject to paragraph 1.03, the term of this Cutting Permit is **three years**, beginning on **November 1, 2001**, and ending on **October 31, 2004**.
- 1.03 As provided in paragraph [7.13] of the Licence, the District Manager, in a notice given to the Licensee, may
  - (a) extend the term of a cutting permit, and
  - (b) if he or she does so, amend this Cutting Permit to the extent necessary to ensure it is consistent with the forest development plan in effect at the time this Cutting Permit is extended.

**2.00 SPECIAL CONDITIONS AND REQUIREMENTS**

- 2.01 The Licensee must comply with the conditions and requirements set out in Schedule "A" to this Cutting Permit.

**3.00 FELLING, BUCKING AND UTILIZATION SPECIFICATIONS**

- 3.01 Subject to paragraph 3.04, the Licensee must
  - (a) fell standing timber of the species specified in Schedule "B" to this Cutting Permit, in accordance with the felling specifications set out in that Schedule,
  - (b) buck felled and dead-and-down timber of the species referred to in subparagraph (a) in accordance with the bucking specifications set out in Schedule "B" to this Cutting Permit, and

- (c) utilize all timber of the species and grades specified as obligatory utilization in Schedule "B" to this Cutting Permit if the timber meets the utilization specifications set out in that Schedule.
- 3.02 Schedule "B" to this Cutting Permit may include a requirement that the Licensee fell other timber in addition to the timber referred to in subparagraph 3.01(a), in which case, subject to paragraph 3.04, the Licensee must fell but need not utilize such timber.
- 3.03 Subject to paragraph 3.04, the Licensee may utilize
  - (a) timber of the species and grades specified as optional utilization in Schedule "B" to this Cutting Permit, and
  - (b) timber referred to in paragraph 3.02.
- 3.04 The Licensee must not fell standing timber, or must not buck or utilize felled or dead-and-down timber, as the case may be, if
  - (a) the timber is specified as reserved timber in Schedule "B" to this Cutting Permit, or
  - (b) under an operational plan or the Acts, regulations or standards referred to in paragraph [8.01] of the Licence, the Licensee is required not to fell the timber, or not to buck or utilize the timber, for any reason, including silviculture, biodiversity or other forest management reasons.

#### 4.00 TIMBER MARK

- 4.01 The timber mark for this Cutting Permit is:
 

E Y 6  
1 5 6
- 4.02 If directed to do so by the District Manager, the Licensee must erect signs at all exits from the areas of Crown land referred to in paragraph 1.01, clearly showing the timber mark(s) referred to in paragraph 4.01.

#### 5.00 SCALE-BASED STUMPAGE

- 5.01 For the purpose of determining the amount of stumpage payable in respect of timber harvested from the areas of Crown land referred to in paragraph 1.01, the volume or quantity of timber harvested will be determined using information provided in a scale of the timber.
- 5.02 The Licensee must ensure that
  - (a) all timber harvested from the areas of Crown land referred to in paragraph 1.01 is scaled, and

- (b) the scale of the timber is conducted properly in accordance with the requirements of the *Forest Act* and the regulations made under that Act.

#### 6.00 ROADS

- 6.01 Subject to the Licence and the Acts, regulations and standards referred to in paragraph [8.01] of the Licence, the Licensee may construct or modify roads under the authority of this Cutting Permit on areas of Crown land referred to in paragraph 1.01 if the roads are
  - (a) wholly contained within a cutblock identified on a forest development plan, and
  - (b) not identified on a forest development plan as providing access to more than one cutblock.

#### 7.00 MISCELLANEOUS

- 7.01 The Exhibit and the Schedules to this Cutting Permit are deemed to be part of this Cutting Permit.
- 7.02 As provided in paragraph [7.14] of the Licence, this Cutting Permit is deemed to be part of the Licence.
- 7.03 The Licence will govern the interpretation of this Cutting Permit.

DATED

Dec 02/01

  
S.A. Pereverzoff, District Manager  
Invermere Forest District

## **SCHEDULE "A"**

### **SPECIAL CONDITIONS AND REQUIREMENTS**

**1.00 Orderly and Sanitary Condition**

The Licensee shall, concurrently with harvesting operations, leave all areas in an orderly and sanitary condition.

**2.00 Removal on Termination**

The Licensee shall remove all logging equipment on an area of land referred to in paragraph 1.01 of the CP and shall leave all areas in an orderly and sanitary condition upon the earlier of completion of operations or expiry of the CP.

**3.00 Discharge of substance**

In the event that the Licensee causes or permits the discharge into the land or water of a substance that is, or may be, injurious to health, the Licensee shall promptly notify the Medical Health Officer of the location, time, duration, nature and quantity of the discharge of the substance and shall take immediate action to prevent and cease the discharge.

**4.00 Special Forest Products**

Subject to designated Forest Official approval, special forest products may be cut at the Licensee's option.

**5.00 Cut Control**

For cut control purposes, this Cutting Permit is designated as endemic.

**SCHEDULE "B" - INTERIOR****FELLING, BUCKING AND UTILIZATION SPECIFICATIONS****1.00 FELLING SPECIFICATIONS**

- 1.01 Subject to paragraph 1.02, standing timber of the species shown on the table attached to this Schedule must be felled in accordance with the following specifications:
- (a) all timber meeting the minimum diameter at stump height shown for that species in the table attached to this Schedule must be felled; and
  - (b) unless otherwise authorized in writing by the District Manager, timber must be felled to a stump height that does not exceed the maximum stump height shown for that species in the table attached to this Schedule.
- 1.02 The Licensee must not fell standing timber if
- (a) the timber is specified in Part 6.00 as reserved timber, or
  - (b) under an operational plan or the Acts, regulations or standards referred to in paragraph [8.01] of the Licence, the Licensee is required not to fell the timber for any reason, including silviculture, biodiversity or other forest management reasons.

**2.00 BUCKING SPECIFICATIONS**

- 2.01 Subject to paragraph 2.02, felled and dead-and-down timber of the species referred to in paragraph 1.01 must be bucked so as to maximize the volume of logs and slabs which
- (a) meet the utilization specifications referred to in paragraph 3.01, and
  - (b) are of the species and grades specified as obligatory utilization under Part 4.00.
- 2.02 The Licensee must not buck felled or dead-and-down timber if
- (a) the timber is specified in Part 6.00 as reserved timber, or
  - (b) under an operational plan or the Acts, regulations or standards referred to in paragraph [8.01] of the Licence, the Licensee is required not to buck the timber for any reason, including silviculture, biodiversity or other forest management reasons.

**3.00 UTILIZATION SPECIFICATIONS**

- 3.01 Subject to paragraphs 3.02 and 3.03, the following utilization specifications apply to timber authorized for harvest under this Cutting Permit:
- (a) all butt logs meeting
    - (i) the minimum diameter at stump height,
    - (ii) the minimum log length, and
    - (iii) the minimum top diameter
 shown for that species in the table attached to this Schedule must be utilized; and
  - (b) all top logs meeting
    - (i) the minimum log length, and
    - (ii) the minimum top diameter
 shown for that species in the table attached to this Schedule must be utilized;
  - (c) all slabs meeting
    - (i) the minimum slab length, and
    - (ii) the minimum slab thickness
 shown for that species in the table attached to this Schedule must be utilized.
- 3.02 The Licensee need not utilize timber of the species and grades specified in Part 5.00 as optional utilization.
- 3.03 The Licensee must not utilize timber if
- (a) the timber is specified in Part 6.00 as reserved timber, or
  - (b) under an operational plan or the Acts, regulations or standards referred to in paragraph [8.01] of the Licence, the Licensee is required not to utilize the timber for any reason, including silviculture, biodiversity or other forest management reasons.

**4.00 OBLIGATORY UTILIZATION**

- 4.01 Timber of the following species and grades is specified as obligatory utilization:
- (a) all coniferous species that are
    - (i) Sawlog Grade (Grade Code Blank), or
    - (ii) Dead and Dry Sawlog (Grade Code 3).

**5.00 OPTIONAL UTILIZATION**

- 5.01 Timber of the following species and grades is specified as optional utilization:

- (a) firmwood rejects;
- (b) all deciduous species of all grades; and
- (c) all coniferous species of the following grades:
  - (i) Lumber Reject (Grade Code 4);
  - (ii) Dead and Dry Lumber Reject (Grade Code 5); and
  - (iii) Undersized Log Grade (Grade Code 6).

## 6.00 RESERVED TIMBER

6.01 The following timber is specified as reserved timber:

- (a) As per approved Silviculture Prescription(s).

## 7.00 DEFINITIONS

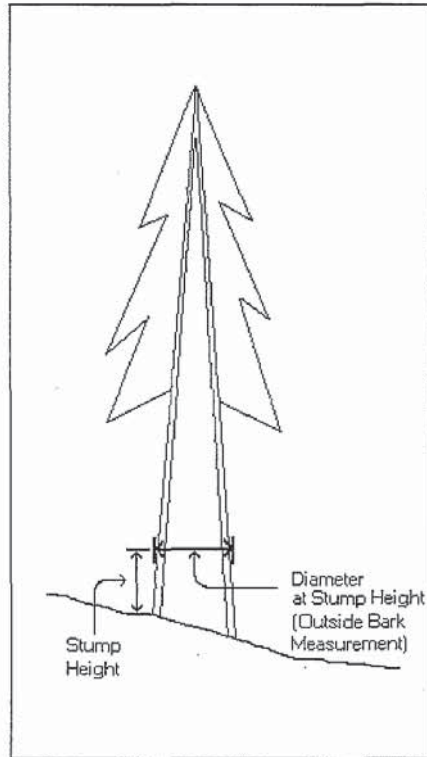
7.01 In this Schedule, as exemplified by the diagrams attached to this Schedule,

- (a) "butt end" means the log end that was previously attached to the stump;
- (b) "butt log" means the log cut from the portion of the tree that was previously attached to the stump;
- (c) "diameter at stump height" means
  - (i) in the case of standing timber, the diameter of the tree (outside bark) measured at the point of the maximum stump height shown in the table attached to this Schedule, and
  - (ii) in the case of a butt log, the diameter (outside bark) at the butt end of the log; and
- (d) "slab" means one of 2 or more parts of a log produced as a result of the log fracturing along its length;
- (e) "stump height" means the height of the stump measured on the side of the stump adjacent to the highest ground;
- (f) "top diameter" means the diameter (inside bark) at the narrowest end of the log;
- (g) "top log" means any log that is not a butt log.

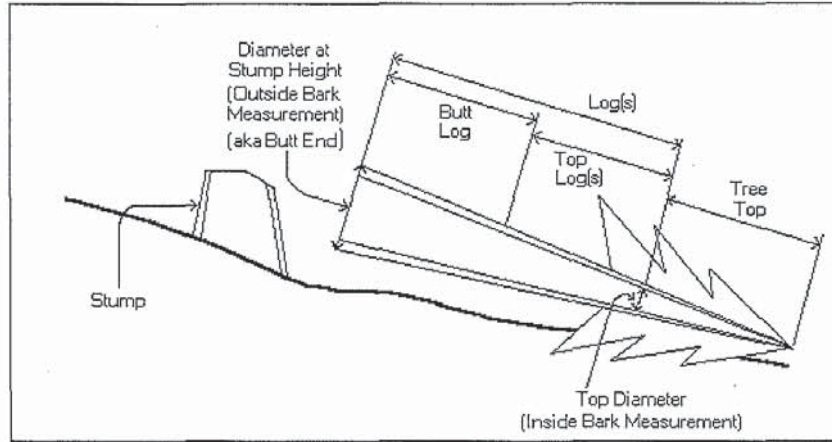
## SCHEDULE "B" – INTERIOR

### Diagrams and Tables for all Block(s)]

#### 1. Falling Specifications



Species	Maximum Stump Height	Minimum Diameter at Stump Height
Lodgepole Pine	30 cm	15 cm
Douglas Fir	30 cm	20 cm
Spruce	30 cm	20 cm
Other species	30 cm	20 cm

**SCHEDULE "B" - INTERIOR****Diagrams and Tables  
for all Block(s)****2. Utilization Specifications**

Species	Minimum Log or Slab Length	Minimum Diameter at Stump Height	Minimum Top Diameter or Slab Thickness
Lodgepole Pine	3 m	15 cm	10 cm
Douglas Fir	3 m	20 cm	10 cm
Spruce	3 m	20 cm	10 cm
Cedar	3 m	20 cm	15 cm
Other species	3 m	20 cm	10 cm

Note: Minimum top diameter or slab thickness (inside bark measurement) for cedar older than 141 years is 15.0 cm.

**Forest:**  
Invermere Forest District

**Name:**  
FLCPA18978\_XBA\_DIN

**Business Key:**  
A18978  
CP 156  
CB 6

**Applicant's Name:**  
TEMBEC INDUSTRIES INC.

**Applicant's Address:**  
CANAL FLATS  
ATTENTION ACCOUNTS PAYABLE  
BOX 4600

CRANBROOK  
V1C4J7

**Purpose:**  
NEW

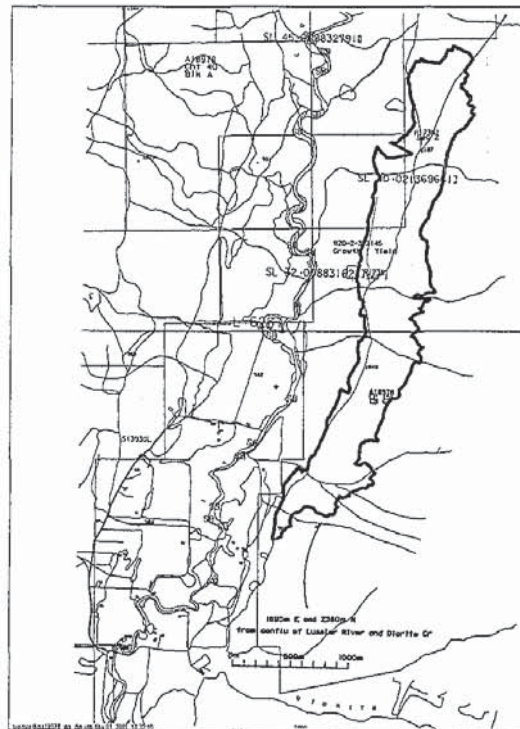
*LANDS TO BE CLEARED SHOWN IN BOLD BLACK ON THE MAP*

MARKED "EXHIBIT A", DATED: 2001/11/01 ND ATTACHED HERETO

"EXHIBIT A"

**Name:** A18978  
CP 156  
CB 6

**Date:** 2001/11/01



**Point of Commencement:**

082J012 Diorite Creek Block 6: 203.1 ha POC: 1695mE and 2380mN of conflu. of Lussier River and Diorite Creek Growth and Yield Plot 2145 on Edge of Block, No encroachment on Private Land. Excluded thereout FSR 4603.05, Save and Excepting prior rights of R12381, A18978 cht 32

**Point of Termination:****Subject To:****ATLAS AND LEGAL SURVEYS REPORT****Refers To:**

COAL LICENSE CONFLICT: N

Adjudication Date: 2001/11/01

MINES REPORT CONFLICT: N

Adjudicated By: DEWATERE

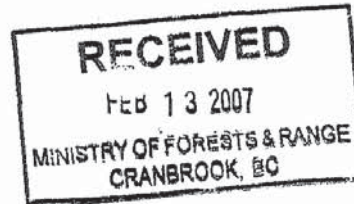
ALR REPORT CONFLICT: N

Approved: ✓

Disallowed:

February 9, 2007

Ministry of Forests and Range  
Rocky Mountain District  
1902 Theatre Road  
Cranbrook BC V1C 6H3



Attn: Gary Dolynchuk  
Tenures Supervisor

Dear Gary:

Enclosed with this letter are the original approved Cutting Permit documents (A18978 – CP 156, CP 211, CP 228 and TFL 14 – CP 165) that are part of unharvested CP Surrender package that was approved on January 30<sup>th</sup>, 2007. Cutting permits A18978 – CP 151 and A19040 – CP 181 will follow upon additional harvest prior to the CP Surrender dates of Dec. 31/07 and May 1/08 respectively.

If you have any questions please contact me at (250) 426-9247.

Yours truly,

A handwritten signature in black ink, appearing to read "Chris Stagg".

Chris Stagg, RPF  
Chief Forester, Tembec Enterprises Inc.  
Western Canada Operations

CS:ll

Encl.

pc: Brian Dureski, Tembec – Kootenay Central Region  
Ken Streloff, Tembec – Kootenay Columbia Region  
Paul Frasca, Tembec – Kootenay Columbia Region



**ROUTE TAG 12**

**REAPPRAISALS AND EXTENSIONS**

FL/TFL: A18978 CP: 156 Expiry Date: March 31/2007  
ZHT: \_\_\_\_\_

**INITIALS/DATE**

**1. RESOURCE CLERK (1 day)**

- Pull file and attach appraisal and NF176
- record in ledger
- forward to Pre-award Tech

LB 04/08/19

**2. PRE-AWARD TECH (10 days)**

- review
- Extend ☒ Delete ☐ Use RT #13
- re-appraise yes ☐ no ☐ (no further action)
- update work events (#20)

MA 04/10/14

**3. ENGINEERING (3 days)**

Sign appraisal if applicable

N/A

**4. TIMBER TENURES OFFICER (1 day)**

- confirm need for extension
- sign appraisal/engineering if applicable

N/A

**5. RESOURCE CLERK (5 - 10 days)**

- forward Appraisal/NF176 sheet to notify Valuation
- if only extending-send e-mail to Kamloops advising to have rates extended
- extend date in fias/events, record date in ledger
- hold for rates
- prepare extension letter
- update work events
- copy of reappraisal to licensee

LB 04/10/21

**6. DISTRICT MANAGER (1 day)**

- sign

N/A

**7. RESOURCE CLERK (1 day)**

- Mail extension letter

N/A

**8. C&E INSPECTOR**

N/A 04 10 22

**9. QUALITY ASSURANCE**

LB 04/11/09



File: 19500-45/A18978

November 4, 2003

Tembec Industries Inc.  
Box 4600  
Cranbrook, British Columbia V1C 4J7

Dear Sir/Madam:

**Re: A18978 – North Region**

Pursuant to authority contained in the following permits, extension is hereby granted terminating on the following date. On that date all your rights under these specified permits will cease.

Cutting Permit	Timber Mark	Expiry Date Extension
105	EY6105	March 31, 2007
108	EY6108	March 31, 2007
132	EY6132	March 31, 2007
138	EY6138	March 31, 2007
141	EY6141	March 31, 2007
143	EY6143	March 31, 2007
144	EY6144	March 31, 2007
149	EY6149	March 31, 2007
150	EY6150	March 31, 2007
151	EY6151	March 31, 2007
152	EY6152	March 31, 2007
156	EY6156	March 31, 2007
163	EY6163	March 31, 2007
173	EY6173	March 31, 2007
178	EY6178	March 31, 2007
179	EY6179	March 31, 2007
180	EY6180	March 31, 2007
181	EY6181	March 31, 2007
186	EY6186	March 31, 2007
188	EY6188	March 31, 2007
189	EY6189	March 31, 2007



Page 1 of 2

Ministry of  
Forests

Rocky Mountain Forest District

1902 Theatre Road  
Cranbrook, B.C.  
V1C 7G1

1902 Theatre Road  
Cranbrook, B.C. V1C 7G1

Tel: (250) 426-1700  
Fax: (250) 426-1777

Cutting Permit	Timber Mark	Expiry Date Extension
190	EY6190	March 31, 2007
192	EY6192	March 31, 2007
193	EY6193	March 31, 2007
194	EY6194	March 31, 2007
202	EY6202	March 31, 2007
209	EY6209	March 31, 2007
214	EY6214	March 31, 2007
215	EY6215	March 31, 2007
216	EY6216	March 31, 2007
343	EY6343	March 31, 2007
199	EY6199	March 31, 2007
399	EY6399	March 31, 2007

This notice forms an integral part of the Permit document and should be attached thereto.

Yours truly,

**Original Signed By**  
**Tony Wideski, R.P.F.**

Tony Wideski, RPF  
District Manager  
Rocky Mountain Forest District

**ROUTE TAG 12**

**REAPPRAISALS AND EXTENSIONS**

FL/TFL: A18978 CP: 156 Expiry Date: Oct. 31/03  
ZHT: \_\_\_\_\_

**INITIALS/DATE**

**1. RESOURCE CLERK** (1 day)

- Pull file and attach appraisal and NF176
- record in ledger
- forward to Pre-award Tech

JB 03/09/25

**2. PRE-AWARD TECH** (10 days)

- review
- Extend ☒ Delete \_\_\_\_\_ Use RT #13
- re-appraise if necessary
- update work events (#20)

MA 0310-01

**3. ENGINEERING** (3 days)

- Sign appraisal if applicable

N/A

**4. TIMBER TENURES OFFICER** (1 day)

- confirm need for extension
- sign appraisal/engineering if applicable

JB 10-1

**5. RESOURCE CLERK** (5 - 10 days)

- forward Appraisal/NF176 sheet to Valuation
- if only extending-send e-mail to Kamloops advising to have rates extended
- extend date in ftas/events, record date in ledger
- hold for rates
- prepare extension letter
- update work events
- copy of reappraisal to licensee

JB 03/10/06

N/A

**6. DISTRICT MANAGER** (1 day)

- sign

N/A

**7. RESOURCE CLERK** (1 day)

- Mail extension letter

N/A

**8. C&E INSPECTOR**

JB. OCT 9 2003

**9. QUALITY ASSURANCE**

**Borho, Georgina FOR:EX**

---

**To:** Davidson, Linda FOR:EX  
**Subject:** CP extensions

Please extend the following CP'S in your systems to end of October, 2004.

A18978 CP 141-EY6141  
A18978 CP 156-EY6156  
Thanks.

Georgina Borho  
Resource Clerk  
Rocky Mountain Forest District  
Phone: (250)426-1755  
Fax: (250)426-1777  
E-mail: Georgina.Borho@gems4.gov.bc.ca



GESTION DES RESSOURCES FORESTIÈRES  
FOREST RESOURCE MANAGEMENT

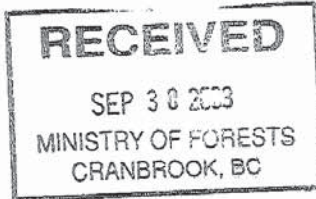
Division BRITISH COLUMBIA Division

220 Cranbrook Street North  
P.O. Box 4600  
Cranbrook, British Columbia V1C 4J7

Téléphone : (250) 426-6241  
Télécopieur / Fax : (250) 426-5372

September 25, 2003

Ministry of Forests  
1902 Theatre Road  
Cranbrook, B.C.  
V1C 6H3



File: FL A18978  
CP 141 & 156

Attention: Tony Wideski, District Manager

**Subject: Reappraisal – CP 141 & 156**

Dear Tony:

Please renew Cutting Permits and appraisals for CP 141 in the Mudd Creek and CP 156 in the Ram Creek area for FL A18978. These permits expire on October 31, 2003. There have been no significant changed circumstances as identified in Section 2 of the Interior Appraisal Manual, therefore, a reappraisal is not required.

If there are any questions or concerns please contact the Canal Flats office.

Yours truly,

Barry Benson  
Planning Superintendent, North Region

/cb



L'ESPRIT D'INNOVATION  
THE SPIRIT OF INNOVATION

SILVICULTURE PRESCRIPTION AMENDMENT  
 Forest Resource Management – Kootenay North Region

 REC-1  
 JAN 2 2003  
 DIS-1  
 10:00 AM

A Silviculture Plan/ Amendment prepared in accordance with section 35 of the Forest Practices Code of British Columbia Act (Bill 75—2002)

## TENURE DESCRIPTION

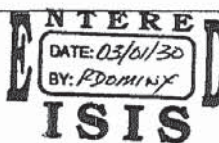
Amendment #: 1	Map Sheet - Opening: 82J002/090
FLA18978 CP: 156	Block #: 006 Timbermark: EY6-156
Original SP or Last Amendment Date	Amendment is:
Original: December 19, 2001	( ) Significant (x) Not Significant
	Advertisement ( ) Attached (x) N/A

## REASON FOR AND DESCRIPTION OF AMENDMENT

Goshawks have constructed additional nests in the cutblock since this Prescription was approved in December of 2001. The nest trees and additional habitat in the vicinity has been reserved as Wildlife Tree Patch. The WTP is an addition to WTP #3 identified in the original SP.

Revised is Section A Area Summary and Section C Forest Resources Identified in the Forest Development Plan Requiring Certain Site Conditions After Harvesting or Site Treatment.

Amendments are in bold and italics



From:

## A. AREA SUMMARY (Hectares)

STANDARDS UNIT	TOTAL AREA	NON PRODUCTIVE ROADS & LANDINGS	NON PRODUCTIVE NATURAL	RESERVES	OTHER	NET AREA TO REFOREST
1	203.1	7.9		16.8	8.7	169.7
<b>TOTAL</b>	<b>203.1</b>	<b>7.9</b>		<b>16.8</b>	<b>8.7</b>	<b>169.7</b>

## COMMENTS:

The 'Reserve Other' refers to 8.0ha of Riparian Buffers established adjacent to S6 streams to ensure that harvesting does not increase sedimentation in the Lussier River and 0.7ha of mature timber that will provide stand structure. The reserves were recommendations from a Hydrologic Implication Report and field reviews.

To:

## A. AREA SUMMARY (Hectares)

STANDARDS UNIT	TOTAL AREA	NON PRODUCTIVE ROADS & LANDINGS	NON PRODUCTIVE NATURAL	RESERVES	OTHER	NET AREA TO REFOREST
1	203.0	7.9		21.4	8.7	165.0
<b>TOTAL</b>	<b>203.0</b>	<b>7.9</b>		<b>21.4</b>	<b>8.7</b>	<b>165.0</b>

## COMMENTS:

The 'Reserve Other' refers to 8.0ha of Riparian Buffers established adjacent to S6 streams to ensure that harvesting does not increase sedimentation in the Lussier River and 0.7ha of mature timber that will provide stand structure. The reserves were recommendations from a Hydrologic Implication Report and field reviews.

*WTP #3 has been increased in size by 4.6 ha to provide Goshawk habitat.*

From:

**C. FOREST RESOURCES IDENTIFIED IN THE FOREST DEVELOPMENT PLAN REQUIRING CERTAIN SITE CONDITIONS AFTER HARVESTING OR SITE TREATMENT:**

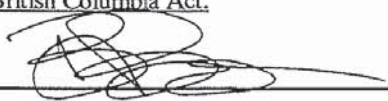
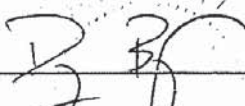
FOREST RESOURCE VALUE	SITE CONDITIONS TO EXIST AFTER HARVEST OR SITE TREATMENT
Domestic Water Supply Intakes	<p>Unnamed stream 1, a licensed stream (C036984LSE7777) was substantially diverted for domestic purposes immediately below the Ram Creek Forest Service Road (outside the proposed block). Where this stream flows through the proposed block, a minimum 20m wide riparian buffer was established adjacent to both sides of the stream, where no harvesting will be undertaken.</p> <p>BC Government line-work obtained from Forest Development Plan maps shows the domestic watershed to be south of the actual stream in an area de-void of streams.</p>
Wildlife Habitat Feature	<p>An active Goshawk nest was identified in the block. The Goshawk nest is 14.1m from the ground in a healthy aspen tree that is 44cm in diameter and 23.1m in height. The nest tree and several perch sites are incorporated into WTP #3. The silviculture system for the remainder of the block is single tree selection with a maximum 20 % basal area removal. A seasonal harvesting restriction has been prescribed to avoid disrupting the goshawks during their breeding period (see Section F for further details).</p> <p>Based on the lack of available information regarding Goshawks, it is unknown whether this system will ensure future re-occupancy of this Goshawk breeding territory. This nest and WTP are part of a Tembec experimental research and monitoring trial studying goshawk nest re-occupancy rates following various harvesting prescriptions (adaptive management).</p>


To:

**C. FOREST RESOURCES IDENTIFIED IN THE FOREST DEVELOPMENT PLAN REQUIRING CERTAIN SITE CONDITIONS AFTER HARVESTING OR SITE TREATMENT:**

FOREST RESOURCE VALUE	SITE CONDITIONS TO EXIST AFTER HARVEST OR SITE TREATMENT
Domestic Water Supply Intakes	<p>Unnamed stream 1, a licensed stream (C036984LSE7777) was substantially diverted for domestic purposes immediately below the Ram Creek Forest Service Road (outside the proposed block). Where this stream flows through the proposed block, a minimum 20m wide riparian buffer was established adjacent to both sides of the stream, where no harvesting will be undertaken.</p> <p>BC Government line-work obtained from Forest Development Plan maps shows the domestic watershed to be south of the actual stream in an area de-void of streams.</p>
Wildlife Habitat Feature	<p>An active Goshawk nest was identified in the block. The Goshawk nest is 14.1m from the ground in a healthy aspen tree that is 44cm in diameter and 23.1m in height. The nest tree and several perch sites are incorporated into WTP #3. The silviculture system for the remainder of the block is single tree selection with a maximum 20 % basal area removal. A seasonal harvesting restriction has been prescribed to avoid disrupting the goshawks during their breeding period (see Section F for further details).</p> <p><i>WTP #3 is increased in size by 4.6ha to accommodate additional Goshawk nests constructed in the Spring of 2002.</i></p> <p>Based on the lack of available information regarding Goshawks, it is unknown whether this system will ensure future re-occupancy of this Goshawk breeding territory. This nest and WTP are part of a Tembec experimental research and monitoring trial studying goshawk nest re-occupancy rates following various harvesting prescriptions (adaptive management).</p>

## I. ADMINISTRATION

<p>Licensee acknowledgement of the requirements under Section 70 (4) of the <u>Forest Practices Code of British Columbia Act</u>.</p> <p> _____ TEMBEC INDUSTRIES INC.</p> <p><u>Jan 2/03</u> _____ Date</p>	<p><i>"I certify that the work described herein fulfills standards acceptable to a Registered Professional Forester and that I did personally supervise the work."</i></p> <p> _____ Douglas R. Braybrook, R.P.F.</p> <p><u>Jan. 2, 2003</u> _____ Date</p>
<p>Map Attached: YES</p>	<p><u>Doug Braybrook</u> _____ Person completing this prescription</p>

<p>B.C. Ministry of Forests Approval</p>	
<p> _____ District Manager or designate</p>	<p><u>Jan. 29/03</u> _____ Date</p>

Master SP Form Revised: June 5, 1998



**SILVICULTURE  
PRESCRIPTION MAP  
AMENDMENT #1**

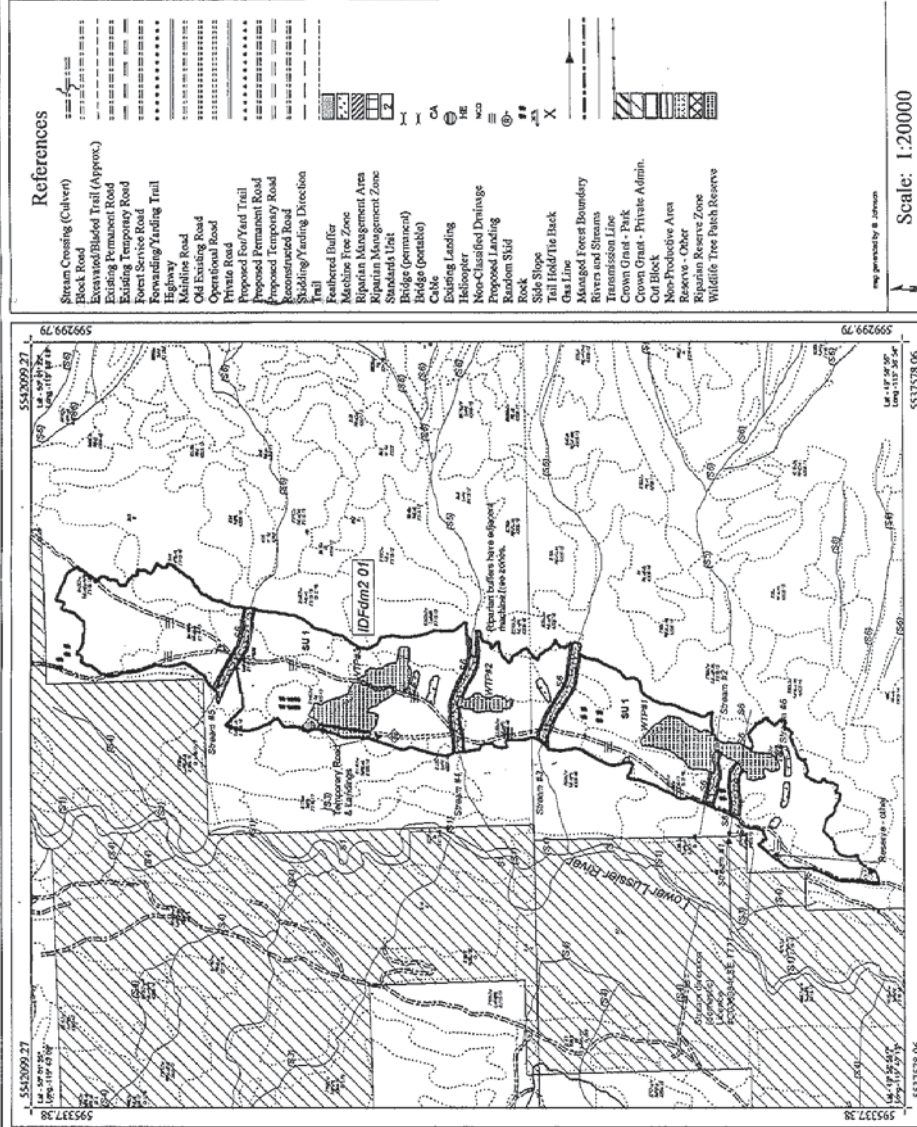
**Licence: A18978  
Permit: 156  
Block: 006  
Location: Lower Lussier-South**

Map Reference: 83G092 82102  
Land District: Kootenay  
Forest Region: Nelson  
District: Invermere  
Source: C.F.S.  
Date: 7-Jan-2003  
Supply Block: E  
Gross Area (ha): 203.1  
Net Area (ha): 165.0

Please note that there may be some discrepancies in area calculations due to rounding and with Tembec's Forest Management System (FMS) software.

**Area Summary (ha)**

Category	1	Total
Total	203.1	203.1
Non-Forest	37.9	37.9
Forest	165.0	165.0
Non-Forest	37.9	37.9
Forest	165.0	165.0
Non-Forest	37.9	37.9
Forest	165.0	165.0
Non-Forest	37.9	37.9
Forest	165.0	165.0



**References**

- Stream Crossing (Culvert)
- Block Road
- Excavated/Bladed Trail (Approx.)
- Existing Permanent Road
- Existing Temporary Road
- Forest Service Road
- Forest Service Trail
- Highway
- Mainline Road
- Old Existing Road
- Operational Road
- Private Road
- Proposed For/Yard Trail
- Proposed Permanent Road
- Reconstructed Road
- Blading/Tending Direction
- Trail
- Forest Buffer
- Machine Free Zone
- Riparian Management Area
- Riparian Management Zone
- Standards Unit
- Bridge (permanently)
- Bridge (portable)
- Cable
- Existing Landing
- Helicopter
- Non-Classified Drainage
- Proposed Landing
- Rock
- Rock
- Slope
- Tail Road/Tie Back
- Gas Line
- Managed Forest Boundary
- Rivers and Streams
- Transmission Line
- Crown Grant - Park
- Crown Grant - Private Admin.
- Cut Block
- Non-Productive Area
- Reserve of Crown
- Riparian Buffer Zone
- Wildlife Tree Patch Reserve

Scale: 1:20000



BRITISH  
COLUMBIA

FILE COPY

Ministry of  
Forests

NEGATIVE

JAN 29 2003

MINISTRY OF FORESTS  
INVERMERE DISTRICT

REGIONAL MANAGER  
MINISTRY OF FORESTS  
518 LAKE STREET  
NELSON  
BRITISH COLUMBIA  
V1L 4C6



Date: January 17, 2003

TEMBEC INDUSTRIES INC.  
WOODLANDS ACCOUNTING  
BOX 4600  
CRANBROOK  
BRITISH COLUMBIA

V1C 4J7

In reference to:  
Client Number: 00001402  
Forest File: A18978  
Cutting Permit: 156  
Timber Mark: EY6156

Invermere Forest District  
Nelson Forest Region

### Stumpage Advisory Notice

Attached is a summary of the appraisal information used in determining the stumpage rate for this cutting authority.

The cutting authority Total Stumpage Rate of \$4.67 per cubic metre is effective for sawlogs scaled between

November 01, 2002 and December 31, 2002


inclusive unless this cutting authority is reappraised during this period in accordance with the applicable Appraisal Manual.

The Miscellaneous Stumpage Rates listed in the applicable Appraisal Manual in effect on the date of scale take precedence over the above rate. A levy and/or bonus may be applied to any Miscellaneous Stumpage Rate.

Objections to this rate determination should be brought immediately to the attention of the undersigned in this office. The formal 21 day review period specified in the Forest Act begins upon delivery of this notice. Consideration of any objection does not delay the determination nor stop the 21 day review period. Any rate change or redetermination as a result of an objection will result in a new Stumpage Advisory Notice being issued.

The Reserve Rate will be redetermined on January 1, April 1, July 1, and October 1 each year, or on any date specified by the Minister of Forests, according to appraisal policies then in effect.

Please be advised that this letter and information is releasable under the Freedom of Information and Protection of Privacy Act.

  
Neil Bow  
Timber Pricing Officer (A)  
Attachment

This notice forms an integral part of the cutting authority document and should be attached thereto.

FOAVL1

DISTRICT COPY

Date: January 17, 2003

In reference to:  
 Client Number: 00001402  
 Forest File: A18978  
 Cutting Permit: 156  
 Timber Mark: EY6156

Invermere Forest District  
 Nelson Forest Region

The following is a listing of cutting authority and individual species rate calculations effective when scaled between

November 01, 2002 and December 31, 2002

inclusive unless this cutting authority is reappraised during this period in accordance with the applicable Appraisal Manual.

Cutting Authority Rate Calculation Detail		Species Rate Calculation Detail						
		Species Code	Reserve Rate (\$/m3)	Silviculture Levy (\$/m3)	Development Levy (\$/m3)	Upset Rate (\$/m3)	Bonus Bid (\$/m3)	Total Rate (\$/m3)
Estimated Value	\$114.99	FI	4.67	0.00	0.00	4.67	0.00	4.67
- Estimated Cost	\$106.30	LO	4.67	0.00	0.00	4.67	0.00	4.67
= Stand Value Index	\$8.69							
- Mean Value Index	\$23.33							
+ Base Rate	\$19.31							
= Indicated Rate	\$4.67							
Reserve Rate	\$4.67							
+ Development Levy	\$0.00							
+ Silviculture Levy	\$0.00							
= Upset Rate	\$4.67							

This notice forms an integral part of the cutting authority document and should be attached thereto.

DISTRICT COPY

FOASAI

REPORT ID: IASR083      MINISTRY OF FORESTS      PAGE: 1  
 RUN DATE: 2003-01-17      INTERIOR APPRAISAL SYSTEM      USERID: TRKERBY  
 RUN TIME: 10.01.38      LOGGING AND SILVICULTURE COST      DATABASE: SQLP1  
                                  ESTIMATE  
 Timber Mark: EY6156      Appraisal Effective Date: 2002-11-01

Nelson Forest Region  
 Invermere Forest District

Licence: A18978      Invermere TSA Block E  
 Cutting Permit: 156      Total Volume: 5,606  
 Calculation Date: 2003-01-17      Expiry Date: 2003-10-31  
  
 Logging Trend Factor: 1.000      MVI Eligible Indicator: Y  
 Silviculture Trend Factor: 1.000      Adjust Quarterly Indicator: Y  
 Manufacturing Trend Factor: 1.000  
 Stumpage Rate Effective Date: 2002-11-01

PHASE	Subphase Cost (\$/m3)	Phase Total (\$/m3)
DEVELOPMENT:		
Tabulated		
Culverts		
Roads		
Fencing and Cattle Guards		
Allocated Development		
Engineered Development		
TREE TO TRUCK:		
Ground Skidding (Clear Cut)		
Ground Skidding (Partial Cut)		
Overhead Cable Yarding Highlead & Grapple (Clear)		
Overhead Cable Yarding Highlead & Grapple (Partial)		
Overhead Cable Yarding Skyline		
Helicopter Logging (Clear)		
Helicopter Logging (Partial)		
Horse Logging		
Specified Operation		
LOG TRANSPORTATION:		
Hauling		
Primary		
Secondary		
Water Transportation		
Special Transportation and Specified Operations		
Road Management		
Road Use		

REPORT ID: IASR083  
RUN DATE: 2003-01-17  
RUN TIME: 10.01.38

MINISTRY OF FORESTS  
INTERIOR APPRAISAL SYSTEM  
LOGGING AND SILVICULTURE COST  
ESTIMATE

PAGE: 2  
USERID: TRKERBY  
DATABASE: SQLP1

Timber Mark: EY6156

Appraisal Effective Date: 2002-11-01

PHASE	Subphase Cost (\$/m3)	Phase Total (\$/m3)
ADMINISTRATION & OTHER: Overhead		\$17, s.21
Low Volume additive:		
TOTAL LOGGING COST:	\$17, s.21	
TOTAL TRENDENED LOGGING COST:		
SILVICULTURE: Basic		\$17, s.21
Specified		
TOTAL TRENDENED SILVICULTURE COST:		

\*\*\* Normal end of report \*\*\*

January 8, 2003

Ministry of Forests  
Box 189  
Invermere, B.C.  
V0A 1K0

FILE COPY

File: FL A18978  
CP 156

Attention: Tony Wideski, District Manager

Re: SP Amendment #1

Dear Sir:

Please find enclosed for your approval a Silviculture Prescription Amendment for the following block in the Canal Flats operating area for FL A18978:

Location	CP	Block
Ram Creek	156	006

Please contact our Canal Flats area office if you have any concerns or questions.

Yours truly,



Barry Benson  
Planning Superintendent, North Region

CC: FRM, Cranbrook Office  
/cb

Encl.: SP Amendment & map

NOTIFICATION OF RECEIPT  
AND ACKNOWLEDGEMENT

DATE Jan 21/03

Ministry of Forests  
Invermere Forest District  
File # 19500-40/A18978 CP 156  
Amendment #  
Initial CB

**MAJOR TENURE REAPPRAISAL AND EXTENSION  
ROUTE TAG**

**F.L./T.F.L.** A18978 , C.P. 156

<b>CHARGE</b>	<b>DUTIES</b>	<b>INITIAL/DATE</b>
---------------	---------------	---------------------

**RESOURCE CLERK**

- upon receipt of reappraisal
- ☒ attach route tag
- ☒ update PC list reappraisal received

CL 1 Sept 9/02

**PRE AWARD TECH**

- CP scheduled in Development Plan
- Yes \_\_\_\_\_ No \_\_\_\_\_
- ☐ CP extended for 12 months using previous data
- ☐ PHSP submitted/approved for each block
- ☐ PHSP & appraisal data correspond
- ☐ complete appraisal review & field check review
- ☐ Licensee advised of any appraisal changes
- ☐ Copy of changes & signature page to Licensee
- ☐ update events in FTAS

Mark  
please return to Resource  
Services by:

1

**R.O. Timber**

- ☐ review and sign appraisal worksheet
- ☐ review processing time

SL 03/12/02

**RESOURCE CLERK**

- ☒ Update PC list
- ☒ Fax appraisal and NF176 to Region, file on oper. file
- ☐ complete extension letter
- h/a g/resource/harvesting/timber/CPEXTEND
- forward to DM for signature \_\_\_\_\_
- ☐ enter into FTAS
- ☐ update events

CL 1 Dec 3/02

G:\WorkGrp\RESOURCE\HARVEST\ROUTETAG\EXTENRT.DOC



TO				FROM			
NAME <i>M. SEREDIUK</i>				NAME <i>M. SMEO</i>			
MINISTRY OFFICE OR FACILITY				MINISTRY OFFICE OR FACILITY			
PHONE NO.		FAX NO.		PHONE NO.		FAX NO.	
SENT BY		DATE Y M D		NO. PAGES TO FOLLOW		AUTHORIZED SIGNATURE	
<p><i>NERVY as per our Discussion</i></p> <p><i>SMEO.</i></p> <p><i>Nervy Agreed with J. Thom.</i> <i>and N. STAIRS.</i></p>							
<p><b>REPLY</b></p>							



# Facsimile Cover Sheet

To:	Mark Serediuk
Company:	Tembec - Canal
Phone:	
Fax:	
From:	Nathan Stairs
Email:	
Phone:	342 4229
Fax:	342 4247
Date:	01/11/21
Pages including this cover page:	1

## Re: CP 156 Appraisal

Hi Mark. I got your fax of Nov 16 with the adjustments you've made. The following is what I have signed off and my rationale:

1. Rd Const Section 2 (600 m): you removed the gravel and the gravel truck but you put the D8 hours up from <sup>s.17, s.21</sup> 1. I have put it back at <sup>s.17, s.21</sup> 1 hrs and approved \$1208.50.
2. Rd Deac for Sect 1 (800m): you removed the <sup>s.17, s.21</sup> but left <sup>s.17, s.21</sup> hrs with a D8 to rip 800 m of basically flat rd. I have approved <sup>s.17, s.21</sup> hrs and the mob for a total of \$1643.50.
3. Replacement of rd running surfac 6 km: you have deleted the gravel and the D8 and left <sup>s.17, s.21</sup> hrs with a grader. However while not gravelling the road sounds like the correct approach it leaves simply grading the road as not eligible as an engineered estimate. There for I have not entered an amount for this item.

looks harsh but  
not much I can do.  
Nathan

4. Other Structures (Sec. 4 p. 22)

Type	Number
Fencing(100's of meters)	
Cattle Guards	
Pipeline Crossings	

5. \*\*\* Allocated Development (Sec. 4 pp.12) (SBFEP and Apportionment Agreements)

Applicable Volume\*: \_\_\_\_\_ M<sup>3</sup>

\* Complete only when different from Cutting Authority Volume.

** Identifier	Original Cost Estimate		Trend Factor	1999 Cost Estimate \$
	Estimate \$	Year		

6. Engineered Development (Sec. 4 pp. 23-27)

Applicable Volume\*: \_\_\_\_\_ M<sup>3</sup>

\*Complete only when different from Cutting Authority Volume.

** Identifier	Original Cost Estimate		Trend Factor	1998 Cost Estimate \$
	Estimate \$	Year		
Road Construction Sec 2	\$1,541.00	1999		\$1,541.00
Deactivation Sec 1	\$3,306.00	1999		\$3,306.00
Replacement of road running				
Surface 6 km	\$4,220.00	1999		\$4,220.00

Surface maintenance not ECE \*

R.O. Engineering

\*\* Signature : \_\_\_\_\_

Approval Date: \_\_\_\_\_

Applicable Volume: Complete only when different from Cutting Authority Volume.

Please ensure that it is evident what the moneys were expended for. 'Indicate what is being done: upgrade, reconstruction, new road, replace bridge, endhaul, deactivation, road closure, as per the Appraisal Manual sec. 4.pp.21-26

To be trended as per the Appraisal Manual sec. 4.pp.23-24.

INVERMERE FOREST DISTRICT  
APPRAISAL FIELD CHECK REVIEW

Licence: TIMBER Licence: A18478 CP: 156 Mark: EYE 156  
Effective Date: 01/11/01 (Yr/Mo/Da) Expiry Date: 03/10/31 Cruise Based: Yes (No)  
Appraisal Type: New Reappraisal Damage or Amendment (From NF 194)  
Location: LOWE LUSSET SOUTH

Respond to the following questions with ✓ if field check has been completed, or with \* if field check has not been completed (if \* then briefly explain).

- ☐ Cutting Permit has been Check Cruised? If not, complete \* below.  
\* ☐ Checked species, timber type, age, height, and vol/ha information.  
☐ Road Permit roads have been constructed.  
☐ Block roads and operational landings have been constructed.

Tree to Truck:

- ☐ Harvesting systems are required as specified.  
☐ Sensitive Site designation appropriate.  
☐ Specified Operation is required.

Log Transportation:

- ☐ Verified cycle times for new road sections, and/or spot check cycle times.

Development, Drainage Structures:

- ☐ Check requirement for drainage structures; size, length, and number.  
☐ Tabular bridge location, type, span and crib height. R.O. Eng.: Initial \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Development, Tabular Roads:

- ☐ Verified road construction, type, length, moisture, side slope and % rock.  
☐ Verified road; stabilizing length, depth, haul distance and material type.  
☐ Wing fencing/Cattle Guards (if applicable).

Engineered Development:

- ☐ Need for field inspection- L \_\_\_\_ M \_\_\_\_ H \_\_\_\_ by Eng. \_\_\_\_ Timb. \_\_\_\_ by Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
☐ Verified Engineered Development costs.  
☐ Road Permit coincides with Appraisal Initial \_\_\_\_\_ (R.O. Eng/Eng. Ass't)  
R.O. Eng.: Initial \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Basic Silviculture:

- ☐ Verified Root Disease present and treatment as specified.

REAPPRAISAL \* (\*Through consultation with Compliance)  
☐ Verified additional/deleted area. NA  
☒ Verified cutblocks/portions of cutblocks remaining to be cut.  
☒ Verified road construction, and development as specified.  
☒ Verified reappraisal reflects actual harvesting/silvicultural treatments.  
VARIANCE: Yes ☐ No ☐ (Note on ledger)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If changes are made to the submitted appraisal as a result of office or field review and/or variances are found comment on a greensheet and attach it to this form.

Field Review by: [Signature] R.A. Timber Date: 02/09/23

Ledgered by: \_\_\_\_\_ Valuation Tech. Date: 1/1/

Approved by: GT R.O. Timber Date: 03/14/02

**FILE COPY**

August 27, 2002

SEP - 6 2002

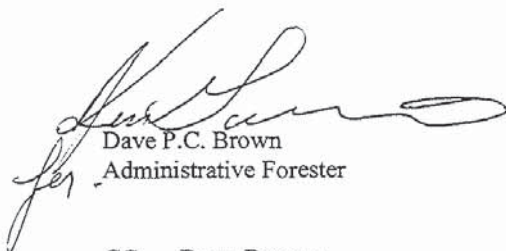
Ministry of Forests  
Box 189  
Invermere, B.C. V0A 1K0File: F.L. A18978  
C.P. 141, 156, 186Attention: *Tony Widski*  
Serg Pereverzoff, District Manager**Re: Reappraisal - CP 141, 156, 186**

Dear Serg:

Please renew Cutting Permits 141, 156, 186 for FL A18978 which expire on October 31, 2002. To assist in reappraisal, Interior Appraisal Data Sheets are included.

If you have any questions or concerns please call the Canal Flats office.

Yours truly,

  
Dave P.C. Brown  
Administrative ForesterCC: Barry Benson  
Canal Flats Planning Superintendent

/cb

L'ESPRIT Ench Interior Appraisal Data Sheets  
THE SPIRIT OF INNOVATION



FILE: 19500-20/A18978 CP156

Reminder - Check FTAS

DATE: Dec. 3/02

MARK: E46156

FAX TO: 354-6250

- 1 File Room (Pull file/make up file & forward w/package to Revenue Section)
- 2 Revenue Section  
Nelson Forest Region

Comments: \_\_\_\_\_

Attention: Appraisal Clerk

☐ Appraise (New)

☒ Reappraise

☐ Amendment

**NF 194 ATTACHED:**

Please check:  
(IF APPLICABLE)

Bid Proposal ☐  
Direct Sale ☐

Salvage Sale ☐  
L/C under SB ☐

**NF 194 NOT ATTACHED: (EXTENSIONS)**

FTAS UPDATED: \_\_\_\_\_

TIMBER MARK: \_\_\_\_\_

Extend FIXED Rates to \_\_\_\_YY \_\_\_\_MM \_\_\_\_DD

Extend ADJUSTING Rates to \_\_\_\_YY \_\_\_\_MM \_\_\_\_DD (Require Approval)

NOTE:

TENURE OFFICER/SB FORESTER APPROVAL OF ADJUSTING RATE EXTENSION:

Initials: \_\_\_\_\_ Date: \_\_\_\_\_

Extension of adjusting rates are only permitted if no timber is expected to be scaled on the cutting authority during the next year or there is less than 2000 m<sup>3</sup> of merchantable timber remaining on the cutting authority.

Resource Clerk [Signature]

[Signature] Forest District

NF 176



BRITISH  
COLUMBIA

SEP - 6 2002

MINISTRY OF FOREST  
INDUSTRY

Ministry of  
Forests



## INTERIOR APPRAISAL DATA SUBMISSION

Licence FLA18978 Permit 156 Mark E76156

Licencee Tembec Inc.

### ACKNOWLEDGEMENTS

This Appraisal Data Submission contains, as of this date, truthful information on the timber to be harvested, site conditions, harvesting, development, and silviculture plans and other information, all prepared according to the *Interior Appraisal Manual*.

☒ Check if appropriate



I certify that there have been no changes, to the data elements, specified operation or detailed engineering methodologies, or amendments to the cutting authority since the last appraisal or reappraisal.



I certify that there are less than 2 000 cubic metres of merchantable timber remaining on the cutting authority area and that no timber is expected to be harvested during the next year. I am requesting that the current stumpage rate be extended.

☒ Check one of the boxes below if the work herein has not been carried out directly by the signing RPF




I certify that the work described herein fulfils standards acceptable of a Registered Professional Forester and that I did personally supervise the work.



I certify that I have reviewed this document and while I did not personally supervise the work described, I have determined that this work has been done to standards acceptable of a Registered Professional Forester.

Registered Professional Forester:

Name: <u>Barry Benson</u>	R.P.F. # <u>3022</u>	RPF's Signature and Seal: 
Phone: <u>(250) 349-5294</u>		
Fax: <u>(250) 349-5250</u>		
E-mail Address:		
Date (ccyy/mm/dd): <u>2002/08/29</u>		

The information contained in this package may be released under the *Freedom of Information and Protection of Privacy Act*.

April 1, 2002

Page 1

The information contained in this package may be released under the Freedom of Information and Protection of Privacy Act.  
*This field data sheet is compatible with the Interior Appraisal Manual effective July 1, 2001*

Licensee: Tembec Mark: EY6156  
 Licence No.: FL A18978 CP: 156  
 Effective Date: 02/11/01 Expiry Date: 03/10/31  
 yy/mm/dd yy/mm/dd

Cruise-Based: (Y or N) \_\_\_\_\_

Appraisal Type (X one): New \_\_\_\_\_ Reappraisal X  
 (Sec. 2 pp. 3 to 9) Amendment \_\_\_\_\_ Damage \_\_\_\_\_

Compilation SE% = \_\_\_\_\_ Check Cruised: (Y or N) \_\_\_\_\_

Geographic Location: Lower Lussier South Supply Block: E

**AREA (Hectares to nearest 0.1)**

Total Merchantable Area = 164.1 ha

Minus Area of roads harvested  
 under another mark = \_\_\_\_\_ ha

Other mark = \_\_\_\_\_

Plus Area of roads harvested  
 outside of cut blocks  
 under this cutting authority  
 mark (if applicable) = \_\_\_\_\_ ha

Original merch. area = 164.1 ha

Plus Additions: \_\_\_\_\_ ha

Minus Deletions: \_\_\_\_\_ ha

Net Total merch. area = 164.1 ha

Area remaining to be cut = 164.1 ha

**VOLUME (M3 to nearest whole number)**

Merch. Volume Cruised = 5606 m3

Minus Volume from roads harvested  
 under another mark (if part of  
 merchantable volume above) = \_\_\_\_\_ m3

Minus Volume reserved on partial cut  
 areas (if not removed above) = \_\_\_\_\_ m3

Plus Volume from roads harvested outside  
 cut blocks (if applicable) = \_\_\_\_\_ m3

Original merch. volume = 5606 m3

Plus Additions: \_\_\_\_\_ m3

Minus Deletions: \_\_\_\_\_ m3

Total current merch. vol. = 5606 m3

(Sec. 4 pp.4,5)

Approx. volume remaining = 5606 m3

Pt. of Appraisal (Sec. 2 pp.12,13) Canal Flats

Actual Destination: Canal Flats

Isolated Cutting Authority: (Y or N) N Specified Operation: (Y or N) Y  
 (Sec. 4 pp.49) (Sec. 4 pp.3)

**SPECIES INFORMATION TABLE - (Sec. 4 p. 4)**

SPECIES INFORMATION TABLE - (Sec. 4 p. 4)						
Species	Volume (m3) (Sec.4 pp 4,5)	Decay (%) (Sec.4 pp 4,5)	Stud Log % (Sec.3 pg 9)	Cruise Average LRF (Sec.4 pp 4,5)	Burn (%) (L,M & H) (Sec.3 pg 6)	Selling Price Zone 7, 17 or 37*
Balsam (BA)						7
Cedar (CE)						
Douglas fir (FI)	3079	4	33	186	0	
Hemlock (HE)						
Larch (LA)						
Lodgepole pine (LO)	2527	11	93	164	0	
Spruce (SP)						
White pine (WH)						
Yellow pine (YE)						
TOTAL MERCH. VOLUME	5606	*Selling Price Zone: 17 if Av. tree vol. <.3 m3 , Zone 37 if HE 04 mandatory				

**TREE TO TRUCK DATA**

Support Centre (Sec.4 p.30-31)

Canal Flats

Distance (km):

41

Variables (Sec.4 pp. 28)	Ground Skidding		Overhead Cable		Skyline >300m or Int. Sup.	Helicopter
	Clear Cut (Sec.4.pp33,4)	Partial Cut * (Sec.4.pp33,4)	Clear-cut (Sec.4.pp 34,5)	Partial Cut (Sec.4.pp 34,5)	(Sec.4.pp35,6)	(Sec.4.pp 33)
Area (Hectares)		164.1				
Vol. to be Harvested* -m3 (Sec.4 pp5)		5606				
Biogeoclimatic Zone ** (Sec. 4 pp. 29)		IDF				
Volume/tree - m3 (Sec. 4 pp. 31)		0.27				
Volume/hectare - m3 (Sec. 4 pp. 29)		34				
Stand Defect (DWB %) (Sec. 4 pp. 31)		11				
Partial cut % *** (Sec. 4 pp. 29,30)		18				
Average Slope - % (Sec. 4 pp. 29)		30				
Blowdown - % (Sec. 4 pp. 29)		25				
Heavy Fire Damage - % (Sec. 4 pp. 36)		0				
Dead Useless Snags -% (Sec.4 pp.36)		12				
Skyline Yarding Slope Distance (Sec.4 pp.32)						
Heli Yarding Map Distance (Sec.4 pp.32)						
Hemlock ****						
Douglas fir ****						
Spruce ****						
Lodgepole Pine ****						

	Volume m3	Hectares
Horse Logging (Sec.4 pp.33)		

\* Volume to be harvested based on factored volumes.

\*\* Dominant zone by volume of system.

\*\*\* Partial Cut - ground skidding, cable or helicopter: 1-89% of total merch. vol. removed.

All partial cut 90% removal and greater are clear cut.

\*\*\*\* Volumes to be taken from the Harvest Method Summary of the Cruise compilation

Total Volume (m3) based on above harvesting systems =	5606	Total Hectares =	164.1
---	------	------------------	-------

**Specified Logging Operations \*\*\*\* (Sec. 4 pp.3)**

Description:	Volume (m3)	Cost Estimate \$/m3

\*\*\*\* Attach Specified Logging Operations details.

**Note:**

Skidder swing will only be considered between harvest methods listed in Sec. 4.4.1 (four methods), in order to deliver logs to an existing or appraised road/landing

## LOG TRANSPORTATION DATA (Sec.4pp 38-42)

Hauling: Highway Haul x Off Highway Haul \_\_\_\_\_

Secondary Haul Time \_\_\_\_\_ hours

Primary Cycle Time Calculation					
Road Identifier ( Primary/Secondary)	Distance (km)	Speed (km/hr)		Time (minutes)	
		Loaded	Empty	Loaded	Empty
Highway To Secondary	28.0	90.0	100.0	18.7	16.8
Secondary highway to Common	10.2	40.0	60.0	15.3	10.2
Common to Mid Permit	3.0	20.0	30.0	9.0	6.0
Subtotal =				43	33

Cable prorated delay \_\_\_\_\_ (based on 75 min. delay time)  
 Non-cable prorated delay 60 (based on 60 min. delay time)  
**Load Handling Delay (minutes)** 60  
**Loaded plus Empty (minutes)** 76  
**Total Cycle Time (minutes)** 136 = 2.3 hours

## Water Transportation (Sec.4 pp 41) (CHECK ONE):

Slocan(SLLK) \_\_\_\_\_ Arrow(ARLK) \_\_\_\_\_  
 Kinbasket(KILK) \_\_\_\_\_ Koot.(KOLK) \_\_\_\_\_ Revelstoke(RELK) \_\_\_\_\_

## Lake Tow Distance (nearest 1 Km) \_\_\_\_\_

Dump and Boom Yes \_\_\_\_\_ (CHECK IF YES)

Dewater/Reload Yes \_\_\_\_\_

Road Maintenance Yes X (sec.4 pp.43-46)

## Road Use Charge (explain) \_\_\_\_\_

(Sec. 4 pp 47)

\$ Cost/M3

## Barge/Ferry Used for Truck Haul

(Sec.4 pp42) If Yes, check applicable one:

BUK \_\_\_\_\_ Kinbasket (Reservoir Lake)  
 BUR \_\_\_\_\_ 1880 Res. (Reservoir Lake)  
 BUA \_\_\_\_\_ All Others (Natural Lakes)

## Barge/Ferry Used for Crew Transportation

(Sec.4 pp42)

If yes check

BFA \_\_\_\_\_ Kinbasket

## Specified Transp. Systems (Sec 4 pp3)

Kinbasket Lake Barge/Ferry not used for truck haul (private).

\$Cost/M3 \_\_\_\_\_

## ADMINISTRATION AND OTHER COSTS (Sec. 4 p. 48)

Isolated cutting authority - Kinbasket Lake only (Sec. 4 p. 49), (Code 3) - Yes or No \_\_\_\_\_

## ROAD AND DRAINAGE STRUCTURES (New, Reconstruction &amp; Upgrade)

1 Culverts (Tabulated) (Sec. 4 pp. 18-19) Applicable Volume\* \_\_\_\_\_ (m<sup>3</sup>)

Circular Pipe Diameter	Circular Pipe Length	Number Required
1.0 m		
1.2 m		
1.4 m		
1.6 m		
1.8 m		

2. Bridges Applicable Volume\* \_\_\_\_\_ (m<sup>3</sup>)

(Previously tabular) (Sec. 4 p. 20) (Engineered ) (Sec. 4 p. 23-27)

Bridge Identifier	Bridge Type**	Average Crib Height (m)	Span Length (m)	Engineered Cost (\$) Estimate	Cost Estimate Base Year	Trend Factor	1999 Cost Estimate	R.O. ENG. Approval

\* Applicable Volume: Complete only when different from Cutting Authority Volume.

\*\* Bridge Types: S = Steel, L = Log, C = Concrete, G = Glulam, P = Portable.  
 Attach supporting information for bridges. Confirm if portable bridge (Sec 4 pp.26)  
 is a new purchase or has been previously used elsewhere.

**3. Tabular Road Construction Data (New Construction Only) - (Sec. 4 pp. 12-17)**Road Identifier: Ram Creek Spur 1Biogeoclimatic Zone: IDFRoad Group Number - 10 or 11 - per Table 4-3 (Sec.4 pp 17) 10**Group 10**

Boundary

Cranbrook

Invermere

**Group 11**

Arrow

Columbia

Kootenay Lake

Applicable Volume\*

M3

\*Complete only when different from Cutting Authority Volume.

	Road Section Number	Road Type <sup>1</sup> O,B,W (Sec.4 pp13)	Section Length >.1 Km (Sec.4 pp13)	SUBGRADE			ADDITIONAL STABILIZING MATERIAL
				Soil Moisture <sup>2</sup> Blank or W (Sec.4 pp15)	Side Slope % Rd. Gr. 10&11 (Sec.4 pp14)	Rock (%) Rd. Group 11 (Sec.4 pp14)	Stabilizing Length >.1Km (Sec.4 pp20-22)
1	Seg 1 Seg 1 0+000-0+763	B	0.8		18	6	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Biogeo. Zone Length\* 0.8 Km.

\* Keep Biogeoclimatic zones separate.

Draw a line across this page with Biogeo. Zone Length or attach additional pages if necessary.

1 Road Type: **O**perational, **B**lock, **W**inter(Snow) (Sec. 4 pp13)

2 Soil Moisture Regime not Applicable for Road Groups 10 and 11

3 One way

## 4. Other Structures (Sec. 4 p. 22)

Type	Number
Fencing(100's of meters)	
Cattle Guards	
Pipeline Crossings	

## 5. \*\*\* Allocated Development (Sec. 4 pp.12) (SBFEP and Apportionment Agreements)

Applicable Volume\*: \_\_\_\_\_ M<sup>3</sup>

\* Complete only when different from Cutting Authority Volume.

** Identifier	Original Cost Estimate		Trend Factor	1999 Cost Estimate \$
	Estimate \$	Year		

## 6. Engineered Development (Sec. 4 pp. 23-27)

Applicable Volume\*: \_\_\_\_\_ M<sup>3</sup>

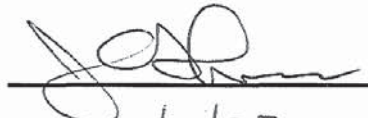
\*Complete only when different from Cutting Authority Volume

** Identifier	Original Cost Estimate		Trend Factor	1998 Cost Estimate \$
	Estimate \$	Year		
Road Construction Sec 2	<del>\$1,541.00</del>	1999		<del>\$1,541.00</del>
Deactivation Sec 1	<del>\$3,306.00</del>	1999		<del>\$3,306.00</del>
Replacement of road running				
Surface 6 km	\$4,220.00	1999		\$4,220.00

R.O. Engineering

\*\* Signature :

Approval Date:

  
 02/11/27

\* Applicable Volume: Complete only when different from Cutting Authority Volume.

\*\* Please ensure that it is evident what the moneys were expended for. 'Indicate what is being done: upgrade, reconstruction, new road, replace bridge, endhaul, deactivation, road closure, as per the Appraisal Manual sec. 4.pp.21-26

\*\*\* To be trended as per the Appraisal Manual sec. 4.pp.23-24.

**BASIC SILVICULTURE (Sec. 4 pp. 52-54)**

Treatment Regime	Total Area for Silviculture (ha)	Non-commercial Brush Areas Less Than 4 ha ** (Sec. 4 pp. 54)	R Factor (Sec. 4 pp. 54)
A			
B			
D	164.1	0.0	0.18
E			
G			
H			
No Treatment	0.0		
Total Area	164.1		

Total Merchantable Area\* = 164.1 ha

Plus Additions\* = \_\_\_\_\_ ha

Minus Deletions\* = \_\_\_\_\_ ha

Subtotal (Area of cut blocks) = \_\_\_\_\_ ha

Minus Area roads &amp; landings = \_\_\_\_\_ ha

Minus Area of Imm/NP = \_\_\_\_\_ ha

\*\*Plus Area of NCB &lt; 4 ha = \_\_\_\_\_ ha

**Total Area For Silviculture****Cost Estimate =** 164.1 ha**Root Disease Control**

(Specified Operation Sec.4 pp.2-3)

Includes Lodgepole pine stems from 12.5 cm dbh and deciduous and other conifers from 17.5 cm dbh.

Include copies of the total stem stand tables (# of stems by diameter class) for the area of root disease control. For root disease control, do not use the factored (reduced) stand tables. Note the number of hectares requiring root disease control on the stand table for each area.

**Pushover Logging or Destumping**  
 (and "popup")

\_\_\_\_\_ ha

Volume = \_\_\_\_\_ m<sup>3</sup>**Cost Estimate =** \_\_\_\_\_ (Region will calculate the cost estimate.)

\*From Page 1 of this NF 194.

\*\*Individual areas of NCB &gt; 4 ha in size must not be included in the appraisal. (Sec.4 pp.54)

## Rates

**Small Business Enterprise Program Levies (Sec.6 pp.8)**

	Sawlogs	Grade 3	Grade 4,5,6
Include Levy for Basic Silviculture? (YES or NO)	_____	_____	_____
Include Levy for Development? (YES or NO)	_____	_____	_____

Explain Levy \_\_\_\_\_

**Competitive Special Forest Products**

Species _____	Product _____
Species _____	Product _____
Species _____	Product _____


**REPORT - PRINTING**

Address - Recipient of 10-day letter  
 Company Name, Address, Postal Code  
 Tembec Industries Inc.  
 P.O. Box 4600  
 Cranbrook, B.C. V1C 4J7  
 Attention: Troy Hromadnik

**Woodlot Annual Rate Selection - Select one**Annual Adjusting ☐ (No change in rate until next annual re-appraisal)Quarterly-Adjusting ☐ (Rate changes every January, April, July and October)

Licensee Signature: \_\_\_\_\_

(Print name)

  
 Barry Benson

Date: \_\_\_\_\_

Aug 29/02

**DATA SHEET REVIEWED BY R.A. TIMBER**

Ministry Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Dec 01/02

**LAST MOF FIELD REVIEW BY:**

Ministry Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Dec 01/02

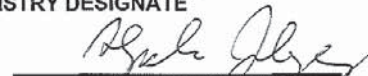
**APPROVED BY MINISTRY DESIGNATE**

Ministry Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Dec 03/02

(Print name)

  
 S. Labanczyk

# ENGINEERED CONSTRUCTION COST ESTIMATES

1 Page of 1

LICENCE FL A18978

C.P. 156

Date: 9-Oct-01

Name and/or Location: Lower Lussier South

Description: Reconstruction of Sec. 2 Seg. 1

Effective Date of Engineered Estimate: 1-Nov-01

	TYPE	FUNCTION (Per Appraisal Manual)	HOURS	RATE/ HOUR (JULY 1/98)	TOTAL
1) Comp. bid costs					
2) Machine					
Cost:	Cat D8	Reconstruct		s.17, s.21	\$1,330.00
	Grader 14G	Reconstruct			\$211.00
3) Labour					
Cost:					
4) Materials					
Cost:					
5) Freight + haulage for materials only					
Cost:					
6) Engineering - if applicable					
<b>TOTAL COST ESTIMATE</b>				<b>(JULY 1, 1998)</b>	<b>\$1,541.00</b>

1. Refer to Appendix 1 of the Interior Appraisal Manual for equipment, labour and material rates.
2. List each machine employed and work performed.
4. Freight and haulage allowed for permanent type bridges (i.e., steel, concrete, or glu-lam).  
No GST to be included, PST is allowed on materials.
6. Cost of designed and engineering for log bridges not allowed. Cost of design, inspection and supervision for more for other more complex structures by a professional engineer not on salary may be allowed.

Resource Officer Engineering:

Signature

Date:

**ENGINEERED CONSTRUCTION COST ESTIMATES**

1 Page of 1

LICENCE **FL A18978**C.P. **156**Date: **9-Oct-01**Name and/or Location: **Lower Lussier - South**Description: **Road Deactivation for Sec 1**Effective Date of Engineered Estimate: **November 1, 2001**

	TYPE	FUNCTION (Per Appraisal Manual)	HOURS	RATE/ HOUR (JULY 1/98)	TOTAL
1) Comp. bid costs					
2) Machine					
Cost:	Cat D8	Deactivation		s.17, s.21	\$2,660.00
3) Labour					
Cost:					
4) Materials					
Cost:					
5) Freight + haulage for materials only	Lowbed	MOB & DeMOB		s.17, s.21	\$646.00
Cost:					
6) Engineering - if applicable					
TOTAL COST ESTIMATE			(JULY 1, 1998)		\$3,306.00

1. Refer to Appendix 1 of the Interior Appraisal Manual for equipment, labour and material rates.
2. List each machine employed and work performed.
4. Freight and haulage allowed for permanent type bridges (i.e., steel, concrete, or glu-lam).  
No GST to be included, PST is allowed on materials.
6. Cost of designed and engineering for log bridges not allowed. Cost of design, inspection and supervision for more for other more complex structures by a professional engineer not on salary may be allowed.

Resource Officer Engineering:

Signature

Date:

LICENCE FL A18978

C.P. 156

Date: 9-Oct-01

Name and/or Location: Lower Lussier - South

Description: Replacement of Road running surface - 6 km

Effective Date of Engineered Estimate: November 1, 2001

	TYPE	FUNCTION (Per Appraisal Manual)	HOURS	RATE/ HOUR (JULY 1/98)	TOTAL
1) Comp. bid costs					
2) Machine					
Cost:	Grader	road running surface		\$ 17, \$ 21	\$4,220.00
3) Labour					
Cost:					
4) Materials					
Cost:					
5) Freight + haulage for materials only					
Cost:					
6) Engineering - if applicable					
<b>TOTAL COST ESTIMATE</b>				<b>(JULY 1, 1998)</b>	<b>\$4,220.00</b>

1. Refer to Appendix 1 of the Interior Appraisal Manual for equipment, labour and material rates.
2. List each machine employed and work performed.
4. Freight and haulage allowed for permanent type bridges (i.e., steel, concrete, or glu-lam). No GST to be included, PST is allowed on materials.
6. Cost of designed and engineering for log bridges not allowed. Cost of design, inspection and supervision for more for other more complex structures by a professional engineer not on salary may be allowed.

Resource Officer Engineering: \_\_\_\_\_

Date: \_\_\_\_\_

CP 156

P. 11

**INVERMERE DISTRICT  
CUTTING PERMIT / FINAL SUBMISSION ROUTE TAG**

LICENSEE Tembec LICENCE A18978 CP 156 Blks         
 Target Date Nov 11/01 Disk included Y N ✓  
 Area Lower Tussie South

RESOURCE CLERK 02 days-attach route tag

- ✓ update ledger
- ✓ change FTAS from SP to PP update PC LIST
- ✓ attach CP smoothsheet
- ✓ Update events

CL 10/11/01/8

FOS 04 days

- confirm FDP are approved
- check for completeness: covering letter, appraisal, cruise compilation, cruise, map, SP, logging plan
- meet with RA
- assign target completion date (bench mark 60 days)
- Verify Road Permit requirements
- Non-road permit const. approval in Cut blocks
- Access (Road Use) cleared
- Update events

AM 10/10/25

**\* Note**  
**Growth + Yield #2145 on Edge of Block**

DRAFTING  
 In house pre-status

02 days

Rec Oct 25/01

- submit clearance
- draw Exhibit 'A' -make 3 copies for file
- update FTAS
- Update events

AM 01/11/01

RA Tech

21 days

- review appraisal, attach field review checklist
- complete smoothsheet and draft clauses
- Update events

RO TIMBER

02 days

- review and sign-appraisal
- Update events

RESOURCE CLERK 02 days-prepare CP document

- change FTAS status PP to PI
- forward appraisal with pages from doc to region
- Update events

AM Dec 3/01

FOS

02 days

- review CP document
- ensure SP's are signed
- check for concerns for cover letter
- Update events

ST 01/14/02

RESOURCE CLERK 02 days-check with FOS for concerns for cover letter

- ✓ -do cover letter
- ✓ -make two copies of document
- ✓ -forward to DM for signature.
- Update events

AM Dec 7/01

DM

02 days

- review and sign CP document

✓ 1

RESOURCE CLERK 02 days-mail original to Licensee

- ✓ 2nd copy to file
- ✓ copy of cover letter and Exhibit A to RTEB
- ✓ update FTAS (HI), PC list and ledger
- ✓ forward to RA Tech
- ✓ Update events

CL 01/12/01

RA Tech

(pre-award)

02 days

- enter block information in FTAS
- inspection set-ups

RA 1 JAN 30/02

FILE



TEMBEC INDUSTRIES INC.

NOV 27 2001  
FORESTS**SILVICULTURE PRESCRIPTION***Canal Flats Area*

A Prescription prepared in accordance with the requirements under Section 22 of the Forest Practices Code of British Columbia Act

*Procedures required by the Operational Planning Regulation have been followed for any assessment that is required under section 37 or that is required to provide information referred to under section 39(3)(a). This Silviculture Prescription is consistent with the results or recommendations of any assessment required under section 37 of the Operational Planning Regulation.*

*The proposed silviculture prescription complies with section 7(4), 8(3) and 8(4) of the Timber Harvesting Practices Regulation with respect to prohibition against constructing excavated or bladed trails.*

**A. TENURE**

LICENCE NUMBER: FL A18978	CUTTING PERMIT: 156	BLOCK NUMBER: 006	LOCATION: Lower Lussier South (Ram Creek Forest Service Road)		TIMBER MARK: EY6-156
LICENSEE: Tembec Industries Inc.		MAPSHEET / OPENING NO: <del>82GJ002/90</del> 82GJ002/90	REGION: Nelson	DISTRICT: Invermere	TIMBER SUPPLY AREA: Invermere

**AREA SUMMARY (Hectares)**

STANDARDS UNIT	TOTAL AREA	NON PRODUCTIVE ROADS & LANDINGS	NON PRODUCTIVE NATURAL	RESERVES	OTHER	NET AREA TO REFOREST
1	203.1	7.9		16.8	8.7	169.7
TOTAL	203.1	7.9		16.8	8.7	169.7

**COMMENTS:**

The 'Reserve Other' refers to 8.0ha of Riparian Buffers established adjacent to S6 streams to ensure that harvesting does not increase sedimentation in the Lussier River and 0.7ha of mature timber that will provide stand structure. The reserves were recommendations from a Hydrologic Implication Report and field reviews.

**B. LONG TERM MANAGEMENT OBJECTIVES:**

(as set out in the FDP or as required to remain consistent with the Operational Planning Regulations)

- ◆ To manage for a mixed stand consisting primarily of Douglas fir and Western Larch while not significantly increasing the 'Equivalent Clearcut Area' of the Lussier River drainage.
- ◆ Future re-entries are subject to hydrological recovery of the Lussier River watershed.
- ◆ Harvesting will partially offset future mortality losses associated with Armillaria Root Disease and Douglas-fir Bark Beetle.



SILVICULTURE PRESCRIPTION

CP 156 BLOCK 006

Print Date: 11/20/01

PAGE 1

## C. MANAGEMENT MEASURES

### COARSE WOODY DEBRIS

COARSE WOODY DEBRIS REQUIRED (CONSISTENT WITH OBJECTIVES IN THE FOREST DEVELOPMENT PLAN):	
The establishment of three Wildlife Tree Patches, two 'reserve others', six riparian buffers and a 20% maximum basal area removal for the remaining area will ensure that appropriate CWD is present.	
Close utilization standards apply; however, future blowdown or breakage of residual stems will provide coarse woody debris to the site.	

### FOREST RESOURCES IDENTIFIED IN THE FOREST DEVELOPMENT PLAN REQUIRING CERTAIN SITE CONDITIONS AFTER HARVESTING OR SITE TREATMENT:

FOREST RESOURCE VALUE	SITE CONDITIONS TO EXIST AFTER HARVEST OR SITE TREATMENT
Domestic Water Supply Intakes	<p>Unnamed stream 1, a licensed stream (C036984LSE7777) was substantially diverted for domestic purposes immediately below the Ram Creek Forest Service Road (outside the proposed block). Where this stream flows through the proposed block, a minimum 20m wide riparian buffer was established adjacent to both sides of the stream, where no harvesting will be undertaken.</p> <p>BC Government line-work obtained from Forest Development Plan maps shows the domestic watershed to be south of the actual stream in an area de-void of streams.</p>
Wildlife Habitat Feature	<p>An active Goshawk nest was identified in the block. The Goshawk nest is 14.1m from the ground in a healthy aspen tree that is 44cm in diameter and 23.1m in height. The nest tree and several perch sites are incorporated into WTP #3. The silviculture system for the remainder of the block is single tree selection with a maximum 20 % basal area removal. A seasonal harvesting restriction has been prescribed to avoid disrupting the goshawks during their breeding period (see Section F for further details).</p> <p>Based on the lack of available information regarding Goshawks, it is unknown whether this system will ensure future re-occupancy of this Goshawk breeding territory. This nest and WTP are part of a Tembec experimental research and monitoring trial studying goshawk nest re-occupancy rates following various harvesting prescriptions (adaptive management).</p>

### KNOWN NON-TIMBER FOREST RESOURCES, ON OR ADJACENT, REQUIRING CERTAIN SITE CONDITIONS AFTER HARVESTING OR SITE TREATMENT:

NON - TIMBER FOREST RESOURCE VALUE	SITE CONDITIONS TO EXIST AFTER HARVEST OR SITE TREATMENT
Ungulate Winter Range	<p>The Kootenay Boundary Higher Level Plan Order has classified this area as a Fire-Maintained Ecosystem. The area is specifically identified as NDT 4 Managed Forest on BCFS Sheep Creek North Ecosystem Restoration Plan maps.</p> <p>Three Wildlife Tree Patches, two 'reserve others', six Riparian Buffers and a 20% maximum basal area removal will result in little change to ungulate forage/browse capability and thermal cover, thus Ungulate Winter Range conditions will remain similar to current conditions.</p>

### ARCHAEOLOGICAL SITES:

ACTIONS, IF ANY, NECESSARY TO ADEQUATELY MANAGE AND CONSERVE ARCHAEOLOGICAL SITE:
An AIA was completed for this block and two areas containing archaeological resources were removed from the harvest area. The AIA does not apply any further constraints nor is any further archaeological work required.

## FOREST HEALTH

### SIGNIFICANT FOREST HEALTH RISKS IDENTIFIED BY A PEST INCIDENCE SURVEY (IF REQUESTED BY DISTRICT MANAGER):

Minor amounts of Douglas Fir Bark Beetle (IBD) have been identified in the block in distinct centers. Approximately 1% of the stand is infested with IBD.

Moderate to high amounts of Armillaria Root Rot (DRA) has been identified throughout the block. Approximately 5% of the stand is infested with DRA.

### PRESCRIBED MANAGEMENT MEASURES TO REDUCE SIGNIFICANT FOREST HEALTH RISKS IDENTIFIED BY SURVEY:

IBD: Douglas fir Beetle funnel traps were placed along the Ram Creek FSR on April 11, 2001. These traps will help monitor and control IBD. Harvesting will prioritize infested Fd trees to minimize the spread of IBD.

DRA: Intensive treatment measures such as pushfalling/destumping will not be employed due to carbonates at 16-40cm depth, a high compaction hazard, hydrology concerns, and exposed parent material (bedrock) in some areas throughout the block. To minimize the spread of DRA Lw will be prioritized for retention and if spacing is required at a later date, handpulling will be the preferred method.

## D. RIPARIAN ASSESSMENT / MANAGEMENT

NAME or DESCRIPTION	RIPARIAN CLASSIFICATION	RIPARIAN RESERVE ZONE WIDTH (M)	RIPARIAN MANAGEMENT ZONE WIDTH (M)	RIPARIAN MANAGEMENT ZONE RETENTION (sph or rba)
Stream 1	S6	0	20	All - 500 sph
Stream 2	S6	0	20	All - 500 sph
Stream 3	S6	0	20	All - 500 sph
Stream 4	S6	0	20	All - 500 sph
Stream 5	S6	0	20	All - 500 sph
Stream 6	S6	0	20	480-500 sph

DESCRIPTION OF THE PURPOSE AND EXTENT OF ANY REMOVAL OR MODIFICATION OF TREES PLANNED FOR THE RRZ:

None.

IN ABSENCE OF RRZ, MEASURES FOR PROTECTING STREAM BANKS:

The RMZ's for Streams 1 through 5 are located in areas designated as Riparian Buffers, where no harvesting activities will be undertaken. A minimum of 20m (20m- 50m range) has been reserved along both side of these streams. A 10m wide Riparian Buffer is established adjacent to both sides of the Stream 6 because the stream disappears underground and is not tributary to the Lussier River. As described in Section A, these areas are retained for hydrologic purposes (minimizing sedimentation in the Lussier River Drainage). These measures will also protect the stream banks.

In addition, minimum 15m wide "Machine Free Zones" have been established adjacent to both sides of all riparian buffers.

FALLING OR YARDING ACROSS STREAM (INCLUDE DEBRIS MANAGEMENT MEASURES WHEN PROPOSED):

Not applicable (all streams in buffers).

SHADE MAINTENANCE MEASURES FOR KNOWN TEMPERATURE SENSITIVE STREAMS:

N/A

COMMENTS:

Species composition varies throughout the riparian buffers and all stems will remain consisting of Fd, Lw, Ep, At, Sx and Pl. All stems (500 sph) will remain in the RMZ's of Streams 1 to 5.

All stems (600 sph) will remain in the inner 10m of the RMZ (Riparian Buffer) adjacent to Stream 6. 80% of the basal area (approx. 480 sph) will be retained in the remainder of the RMZ for stream 6. See Section G for further details.

## E. SOIL CONSERVATION

### HAZARD RATINGS (if the harvest method is other than cable or aerial) & SOIL DISTURBANCE

STANDARDS UNIT	SOIL COMPACTION AND PUDDLING HAZARD	SOIL DISPLACEMENT HAZARD	SURFACE SOIL EROSION HAZARD	MAXIMUM PROPORTION OF NET AREA TO BE REFORESTED THAT MAY BE OCCUPIED BY SOIL DISTURBANCE (%)
1	High	Moderate	High	10
<p>COMMENTS:</p> <p>The soil compaction hazard ranged from Low to Very High. On average it is high. Only one soil pit out of twenty five contained clay. Clay was observed at 20cm depth in this pit, however the SU will be managed as a high compaction hazard.</p> <p>The soil displacement hazard ranged from Low to High. On average it is Moderate.</p> <p>The surface soil erosion hazard ranges from Low to High. On average it is High.</p>				

### PERMANENT ACCESS STRUCTURES

MAXIMUM PROPORTION OF TOTAL AREA TO BE OCCUPIED BY PERMANENT ACCESS STRUCTURES:	5 %
<p>COMMENTS:</p> <p>Although a maximum 20% basal area removal is planned for the area, all skidtrails will be managed as temporary access structures. Permanent skidtrails are not being used due to hydrological concerns and an unknown re-entry date that depends on hydrological recovery of the Lussier River Watershed.</p>	

### TEMPORARY ACCESS STRUCTURES

<p>COMMENTS:</p> <p>A temporary road and two temporary landings are proposed for the block. The temporary road is to be rehabilitated as per Section 14 of the Timber Harvesting Practices Regulation (THPR) and the temporary landings are to be rehabilitated as per Section 17 of the THPR.</p> <p>Exposed Parent Material (bedrock) is scattered throughout the proposed block.</p>			
STANDARDS UNIT	MAXIMUM EXTENT TO WHICH THE MAXIMUM SOIL DISTURBANCE MAY BE TEMPORARILY EXCEEDED TO CONSTRUCT TEMPORARY ACCESS STRUCTURES (%)	MAXIMUM TIME TO COMPLETE REHABILITATION OF TEMPORARY ACCESS STRUCTURES AFTER THE COMPLETION OF HARVESTING (years)	TYPE / DEPTH TO UNFAVOURABLE SUBSOIL (cm)
1	3	2	16-40cm (carbonates) 45-60cm (parent material) 52+ cm (water and root restricting - rock)

# EXCAVATED OR BLADED TRAILS

PORTIONS OF CUTBLOCK WHERE EXCAVATED OR BLADED TRAILS MAY BE CONSTRUCTED:	MAXIMUM HEIGHT OF CUTBANK OF EXCAVATED OR BLADED TRAILS (M)	AVERAGE HEIGHT OF CUTBANK OF EXCAVATED OR BLADED TRAILS (M)	ANY EQUIPMENT OTHER THAN EXCAVATOR PLANNED FOR CONSTRUCTION OF EXCAVATED OR BLADED TRAILS
Throughout the block, excluding 'Machine Free Zones', Reserves (WTP's, Reserve others and Riparian Buffers), and on slopes >40%.	1	0.5	Bulldozer
<p>COMMENTS:</p> <p>Temporary access structures may not be constructed on sideslopes exceeding 40% .</p> <p>A bulldozer may be used for trail construction where appropriate (i.e. lesser slopes).</p> <p>On small areas the maximum height of cutbank of excavated or bladed trails may be exceeded where required to better utilize terrain features and reduce total soil disturbance.</p>			

## F. CRITICAL SITE CONDITIONS FOR OPERATIONS AFFECTING TIMING

STANDARDS UNIT	CRITICAL SITE CONDITION	OPERATIONAL CONSTRAINT
1.	Northern Goshawk	Harvesting activities south of Stream 5 are prohibited during the breeding period from March 15 to September 1.
1	High Compaction	Due to the high compaction hazard, harvesting activities will only be undertaken on designated trails or when soil conditions are suitable (i.e.: dry, frozen, or snow cover of adequate depth).

*Danger trees, damaged trees, and tail holds / tiebacks (where applicable) outside the block boundary may be felled, yarded and utilized. These small areas located outside the block boundary are exempted from the requirements of a forest development plan and silviculture prescription under the authority provided in sections 28(1)(a), 30(1)(b) and 30(1)(c) of the Forest Practices Code of British Columbia Act. The District Manager's approval of this silviculture prescription constitutes approval of this exemption.*

## G. SILVICULTURE SYSTEM

### STANDARDS UNIT:

1

### SILVICULTURAL SYSTEM:

Single Tree Selection

#### STAND STRUCTURE & COMPOSITION GOALS:

The present stand is comprised primarily of Fd and Lw. Species composition, density, age, and size vary throughout the block. Areas exist containing primarily Lw, however the majority of the stand consists of Fd. Minor components of Pl, Py, Ep, At and Sx can also be found scattered throughout the block.

Densities for this multi-layered stand vary from 100-1000 sph, with an average of 500sph. Basal area varies from 10-50 m<sup>2</sup>/ha with an average of 27.3 m<sup>2</sup>/ha for all diameter classes. Average basal areas for the following diameter classes are as follows: DBH 20-40cm = 19.4 m<sup>2</sup>/ha; DBH 40-60cm = 7.4 m<sup>2</sup>/ha; DBH 60cm+ = 0.5 m<sup>2</sup>/ha. The short-term goal is to remove an average of 5.5 m<sup>2</sup>/ha (20% of the stands basal area), while maintaining a multi-layered, uneven-aged stand.

All stems >45cm DBH and all Py, Ep, At & Sx will be reserved, except where they must be removed to facilitate skidtrail construction or if infested with Armillaria Root Rot/Douglas fir Bark Beetle. When identifying trees to be cut, preference will be given first to Fd showing signs of Douglas fir bark beetle/ Armillaria root rot, second to Pl, third to healthy Fd, and lastly to Lw. Small openings, 2 tree lengths in size maximum, may be created to remove patches of Fd affected by Douglas fir bark beetle/Armillaria root rot and to remove Pl patches, however the objective is a single tree removal.

Included in the 5.5 m<sup>2</sup>/ha (20% removal) are areas removed for skidtrail construction (approx. 5%), patches of Pl (approx. 1%), and patches of Fd affected by pests and disease (approx. 6%). The remaining 8% (approx. 2.2 m<sup>2</sup>/ha) will taken from the healthy Fd and Lw throughout the stand, with preference give to Fd. Remaining basal area will vary from 4.5 - 44.5 m<sup>2</sup>/ha, with an average of 21.8 m<sup>2</sup>/ha.

#### SPECIES AND FUNCTION OF TREES TO BE LEFT STANDING:

##### HARVEST AREA:

OVERSTORY: The prescription is to reserve 80% of the basal area.

*Sx, Py, Ep and At:* Reserve all Sx, Py, Ep and At, except those that must be removed to facilitate skidtrail construction.

*Pl:* Remove all merchantable Pl >15cm dbh.

*Fd:* Reserve all Fd >45cm dbh, except those removed for skidtrails and DRA/IBD infestations. Other than skidtrails and IBD/DRA infestations, a relatively uniform removal is to occur over the remainder of the block. Fd is a priority for removal over Lw.

*Lw:* Reserve all Lw >45 cm dbh, except those removed for skidtrails. Lw may be removed only when no other species are present for harvesting. As described above Fd is a priority for removal over Lw.

**The maximum opening size that may be created is 2 treelengths where required to address forest health issues and to remove Pl.**

The average post harvest basal area by diameter class will be: 20-40cm = 15.96m<sup>2</sup>/ha; 40-60cm = 5.38m<sup>2</sup>/ha; 60+cm = 0.45m<sup>2</sup>/ha

##### UNDERSTORY:

All non-merchantable stems will be reserved from harvest. These stems consist primarily of Fd, with minor components of Lw and Sx. The understory is distributed very unevenly throughout the block, with openings containing 2000+ sph, and other areas under greater crown closure having less than 100 sph. Up to 15% of the understory may be removed to facilitate falling and skidding.

##### WILDLIFE TREE PATCHES:

WTP #1 contains Stream 1 (domestic watershed, license # C036984LSE7777) and Stream 2. The WTP contains rocky inoperable ground on 35% slopes and mature Fd, Lw and patches of Ep. Also found in the WTP are dead and dying trees, Armillaria Root Rot, large pieces of CWD and uprooted trees, trees with cavities, veteran trees, game trails and a well developed shrub layer.

WTP #2 is adjacent to Stream 4 and contains rocky ground with scattered live and dead Fd. The fir are very branchy and of poor form. Also found in the WTP is Armillaria Root Rot.

WTP #3 contains an active (active in 2001) Goshawk nest and good quality mature Fd, Lw, Ep and Sx. Also found in the WTP are dead and dying trees, Armillaria Root Rot, trees with cavities, game trails, uprooted trees and bedrock outcrops. The Goshawk nest was observed to be active and produce young in Spring/Summer of 1999 and 2001.

##### RESERVE OTHER:

Two areas were removed from the harvest area and placed in reserves that will provide stand structure. These areas contain predominantly Fd.

**COMMENTS:** All leave trees must comply with WCB safety regulations.

Overstory and understory stems are being retained to create/maintain a multi-layered/uneven-aged stand.



## H. STOCKING STANDARDS

STANDARDS UNIT:	BIOGEOCLIMATIC ZONE	SUBZONE	VARIANT	SITE SERIES
1	IDF	dm	2	01 (04)

REGEN DELAY (YEARS):	PREFERRED SPECIES:		ACCEPTABLE SPECIES:	
7	Fd, Lw, Pl, Py		-	
PREFERRED WELL SPACED STEMS / HA	PREFERRED & ACCEPTABLE WELL SPACED STEMS / HA		MINIMUM HORIZONTAL DISTANCE FOR WELL SPACED TREES	MINIMUM PRUNING HEIGHT AT END OF FREE GROWING FOR WHITE PINE BLISTER RUST OR WILDLIFE HABITAT OBJECTIVES:
MINIMUM:	TARGET:	MINIMUM:	(METERS):	(METERS)
Layer 1 – 200	400	200		N/A
Layer 2 – 250	600	300	2.0	
Layer 3 – 300	800	400	2.0	
Layer 4 – 400	1000	500	2.0	
POST SPACING DENSITY (TOTAL COUNTABLE CONIFERS / HA) at free growing MIN: MAX:	FREE GROWING ASSESSMENT PERIOD (YEARS)		FREE GROWING MINIMUM TREE HEIGHT (METERS):	FREE GROWING TREE HEIGHT RELATIVE TO COMPETITION (%):
500 1600	EARLY:	LATE:	Pl, Lw 1.0	125
	12	15	Fd 0.8	
			Others 0.6	
<b>ADVANCED REGENERATION ACCEPTABILITY CRITERIA AT FREE GROWING:</b> The criteria as outlined in the Invermere Forest District Advanced Regeneration Free Growing Acceptability Standards (enacted on August 1, 1997) will be used in determining advanced regeneration acceptability.				
<b>RATIONALE FOR VARIATIONS TO PROVINCIAL SILVICULTURE STOCKING STANDARDS GUIDELINES:</b> The maximum spacing density has been increased by 600 sph to account for stem mortality caused from snow press, insects and disease.				
<b>COMMENTS:</b> Minimum inter-tree spacing will be 1m for up to one tree per 3.99m survey plot. The reduced inter-tree spacing is required to allow planters to use the best microsites while considering planted and natural stems if artificial reforestation is employed. If stocking levels drop below minimum numbers at the expiry of the free growing date and it can be determined that <i>Armillaria ostoyae</i> is the cause of mortality, in spite of the prescribed DRA management strategy, and all other free growing requirements have been met, then the stocking standards may be amended to actual stocking levels, at the discretion of the District Manager.				

*Livestock grazing is not proposed to be carried out as a vegetation management treatment on the area under this prescription.*

# I. ADMINISTRATION

<p>Licensee acknowledgement of the requirements under Section 70 (4) of the <u>Forest Practices Code of British Columbia Act.</u></p> <p></p> <p>TEMBEC INDUSTRIES INC.</p> <p><u>Nov 22/07</u></p> <p>Date</p>	<p><i>"I certify that the work described herein fulfills standards acceptable to a Registered Professional Forester and that I did personally supervise the work."</i></p> <p></p> <p>Douglas R. Braybrook, R.P.F.</p> <p><u>Nov. 20/01</u></p> <p>Date</p>
<p>Map Attached: YES</p>	<p>4AFS Ltd. – Dan Foraie/ Tembec - Doug Braybrook</p> <p>Person completing this prescription</p>

<p>B.C. Ministry of Forests Approval</p>	
<p></p> <p>S. A. Pereverzoff, District Manager</p>	<p><u>Dec 19/01</u></p> <p>Date</p>

Master SP Form Revised: June 5, 1998

Species abbreviations: Pl - interior lodgepole pine; Fd - interior Douglas-fir; Py - yellow pine; Lw - western larch; Sx - hybrid spruce; Se - engelmann spruce; At - trembling aspen; Ep - paper birch; Bl - subalpine fir (balsam).

SILVICULTURE PRESCRIPTION

156  
CP ~~156~~ BLOCK ~~156~~ 606

Print Date: 11/20/01

PAGE 8



A18978 CH32  
4603.05  
G072  
J002  
R12381  
G+Y2145

outh

onstrated by: S. Johnson

SECTION

SECTION

SECTION

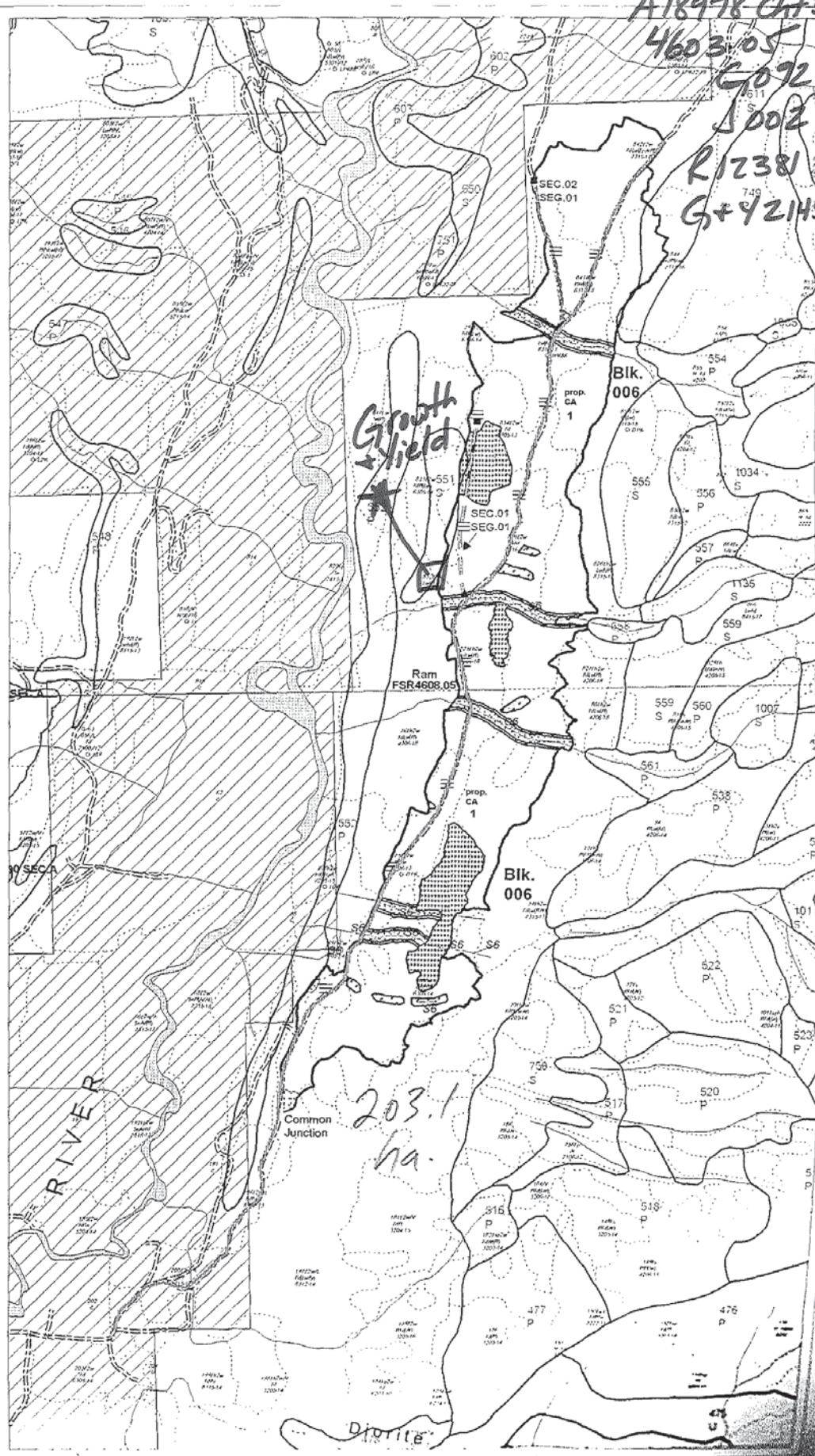
SECTION

SECTION

SECTION

SECTION

100





Distribution: LICENSEE, FILE,  
Document name: G:\WorkGrp\RESOURCE\HARVEST\CP\CP Cover Tembec CF.doc ID  
CONTACT: Iris Dubé, A/Administrator Services Supervisor, Invermere Forest District, 250-342-4213  
Date typed: 98/02/02 Date revised:

File: 19500-45/A18978 CP 156

December 10, 2001

Tembec Industries Inc.  
Box 4600  
Cranbrook, B.C. V1C 4J6

Dear Sirs:

**Re: Forest Licence A18978 CP 156:**

Enclosed is your copy of Forest Licence A18978 CP 156 signed by the District Manager.

For Cut Control purposes, this Cutting Permit has been designated as endemic.

This permit is subject to the *Forest Practices Code of British Columbia Act*. Be prepared to comply with all conditions set forth in this permit and the Licence document before proceeding.

Yours truly,

 Iris Dubé  
A/Admin/Resource Services Supervisor

Enclosure: Cutting Permit 156

Ministry of  
Forests

Invermere Forest District

625 4<sup>th</sup> Street, Invermere

Mailing Address:  
PO Box 189 Stn Prov Govt  
Invermere, BC V0A 1K0

Tel: (250) 342-4200  
Fax: (250) 342-4247



FOREST LICENCE NO. A18978

CUTTING PERMIT NO. 156



PURSUANT TO paragraph [7.05] of Forest Licence No. A18978 (the "Licence"), this Cutting Permit is issued to:

**Tembec Industries Inc.**  
Box 4600  
Cranbrook, B.C. V1C 4J7  
(the "Licensee")

#### 1.00 PERMIT AREA AND TERM

- 1.01 Subject to the Licence and the Acts, regulations and standards referred to in paragraph [8.01] of the Licence, the Licensee is authorized to harvest timber from the areas of Crown land designated for harvest on the map attached as Exhibit "A" to this Cutting Permit.
- 1.02 Subject to paragraph 1.03, the term of this Cutting Permit is **three years**, beginning on **November 1, 2001**, and ending on **October 31, 2004**.
- 1.03 As provided in paragraph [7.13] of the Licence, the District Manager, in a notice given to the Licensee, may
  - (a) extend the term of a cutting permit, and
  - (b) if he or she does so, amend this Cutting Permit to the extent necessary to ensure it is consistent with the forest development plan in effect at the time this Cutting Permit is extended.

#### 2.00 SPECIAL CONDITIONS AND REQUIREMENTS

- 2.01 The Licensee must comply with the conditions and requirements set out in Schedule "A" to this Cutting Permit.

#### 3.00 FELLING, BUCKING AND UTILIZATION SPECIFICATIONS

- 3.01 Subject to paragraph 3.04, the Licensee must
  - (a) fell standing timber of the species specified in Schedule "B" to this Cutting Permit, in accordance with the felling specifications set out in that Schedule,
  - (b) buck felled and dead-and-down timber of the species referred to in subparagraph (a) in accordance with the bucking specifications set out in Schedule "B" to this Cutting Permit, and

- (c) utilize all timber of the species and grades specified as obligatory utilization in Schedule "B" to this Cutting Permit if the timber meets the utilization specifications set out in that Schedule.
- 3.02 Schedule "B" to this Cutting Permit may include a requirement that the Licensee fell other timber in addition to the timber referred to in subparagraph 3.01(a), in which case, subject to paragraph 3.04, the Licensee must fell but need not utilize such timber.
- 3.03 Subject to paragraph 3.04, the Licensee may utilize
  - (a) timber of the species and grades specified as optional utilization in Schedule "B" to this Cutting Permit, and
  - (b) timber referred to in paragraph 3.02.
- 3.04 The Licensee must not fell standing timber, or must not buck or utilize felled or dead-and-down timber, as the case may be, if
  - (a) the timber is specified as reserved timber in Schedule "B" to this Cutting Permit, or
  - (b) under an operational plan or the Acts, regulations or standards referred to in paragraph [8.01] of the Licence, the Licensee is required not to fell the timber, or not to buck or utilize the timber, for any reason, including silviculture, biodiversity or other forest management reasons.

#### 4.00 TIMBER MARK

- 4.01 The timber mark for this Cutting Permit is:
 

E Y 6  
1 5 6
- 4.02 If directed to do so by the District Manager, the Licensee must erect signs at all exits from the areas of Crown land referred to in paragraph 1.01, clearly showing the timber mark(s) referred to in paragraph 4.01.

#### 5.00 SCALE-BASED STUMPAGE

- 5.01 For the purpose of determining the amount of stumpage payable in respect of timber harvested from the areas of Crown land referred to in paragraph 1.01, the volume or quantity of timber harvested will be determined using information provided in a scale of the timber.
- 5.02 The Licensee must ensure that
  - (a) all timber harvested from the areas of Crown land referred to in paragraph 1.01 is scaled, and

- (b) the scale of the timber is conducted properly in accordance with the requirements of the *Forest Act* and the regulations made under that Act.

#### 6.00 ROADS

- 6.01 Subject to the Licence and the Acts, regulations and standards referred to in paragraph [8.01] of the Licence, the Licensee may construct or modify roads under the authority of this Cutting Permit on areas of Crown land referred to in paragraph 1.01 if the roads are
  - (a) wholly contained within a cutblock identified on a forest development plan, and
  - (b) not identified on a forest development plan as providing access to more than one cutblock.

#### 7.00 MISCELLANEOUS

- 7.01 The Exhibit and the Schedules to this Cutting Permit are deemed to be part of this Cutting Permit.
- 7.02 As provided in paragraph [7.14] of the Licence, this Cutting Permit is deemed to be part of the Licence.
- 7.03 The Licence will govern the interpretation of this Cutting Permit.

DATED

Dec 02/01

  
S.A. Pereverzoff, District Manager  
Invermere Forest District

## **SCHEDULE "A"**

### **SPECIAL CONDITIONS AND REQUIREMENTS**

**1.00 Orderly and Sanitary Condition**

The Licensee shall, concurrently with harvesting operations, leave all areas in an orderly and sanitary condition.

**2.00 Removal on Termination**

The Licensee shall remove all logging equipment on an area of land referred to in paragraph 1.01 of the CP and shall leave all areas in an orderly and sanitary condition upon the earlier of completion of operations or expiry of the CP.

**3.00 Discharge of substance**

In the event that the Licensee causes or permits the discharge into the land or water of a substance that is, or may be, injurious to health, the Licensee shall promptly notify the Medical Health Officer of the location, time, duration, nature and quantity of the discharge of the substance and shall take immediate action to prevent and cease the discharge.

**4.00 Special Forest Products**

Subject to designated Forest Official approval, special forest products may be cut at the Licensee's option.

**5.00 Cut Control**

For cut control purposes, this Cutting Permit is designated as endemic.

## SCHEDULE "B" - INTERIOR

### FELLING, BUCKING AND UTILIZATION SPECIFICATIONS

#### 1.00 FELLING SPECIFICATIONS

- 1.01 Subject to paragraph 1.02, standing timber of the species shown on the table attached to this Schedule must be felled in accordance with the following specifications:
- (a) all timber meeting the minimum diameter at stump height shown for that species in the table attached to this Schedule must be felled; and
  - (b) unless otherwise authorized in writing by the District Manager, timber must be felled to a stump height that does not exceed the maximum stump height shown for that species in the table attached to this Schedule.
- 1.02 The Licensee must not fell standing timber if
- (a) the timber is specified in Part 6.00 as reserved timber, or
  - (b) under an operational plan or the Acts, regulations or standards referred to in paragraph [8.01] of the Licence, the Licensee is required not to fell the timber for any reason, including silviculture, biodiversity or other forest management reasons.

#### 2.00 BUCKING SPECIFICATIONS

- 2.01 Subject to paragraph 2.02, felled and dead-and-down timber of the species referred to in paragraph 1.01 must be bucked so as to maximize the volume of logs and slabs which
- (a) meet the utilization specifications referred to in paragraph 3.01, and
  - (b) are of the species and grades specified as obligatory utilization under Part 4.00.
- 2.02 The Licensee must not buck felled or dead-and-down timber if
- (a) the timber is specified in Part 6.00 as reserved timber, or
  - (b) under an operational plan or the Acts, regulations or standards referred to in paragraph [8.01] of the Licence, the Licensee is required not to buck the timber for any reason, including silviculture, biodiversity or other forest management reasons.

**3.00 UTILIZATION SPECIFICATIONS**

- 3.01 Subject to paragraphs 3.02 and 3.03, the following utilization specifications apply to timber authorized for harvest under this Cutting Permit:
- (a) all butt logs meeting
    - (i) the minimum diameter at stump height,
    - (ii) the minimum log length, and
    - (iii) the minimum top diameter
 shown for that species in the table attached to this Schedule must be utilized; and
  - (b) all top logs meeting
    - (i) the minimum log length, and
    - (ii) the minimum top diameter
 shown for that species in the table attached to this Schedule must be utilized;
  - (c) all slabs meeting
    - (i) the minimum slab length, and
    - (ii) the minimum slab thickness
 shown for that species in the table attached to this Schedule must be utilized.
- 3.02 The Licensee need not utilize timber of the species and grades specified in Part 5.00 as optional utilization.
- 3.03 The Licensee must not utilize timber if
- (a) the timber is specified in Part 6.00 as reserved timber, or
  - (b) under an operational plan or the Acts, regulations or standards referred to in paragraph [8.01] of the Licence, the Licensee is required not to utilize the timber for any reason, including silviculture, biodiversity or other forest management reasons.

**4.00 OBLIGATORY UTILIZATION**

- 4.01 Timber of the following species and grades is specified as obligatory utilization:
- (a) all coniferous species that are
    - (i) Sawlog Grade (Grade Code Blank), or
    - (ii) Dead and Dry Sawlog (Grade Code 3).

**5.00 OPTIONAL UTILIZATION**

- 5.01 Timber of the following species and grades is specified as optional utilization:

- (a) firmwood rejects;
- (b) all deciduous species of all grades; and
- (c) all coniferous species of the following grades:
  - (i) Lumber Reject (Grade Code 4);
  - (ii) Dead and Dry Lumber Reject (Grade Code 5); and
  - (iii) Undersized Log Grade (Grade Code 6).

## 6.00 RESERVED TIMBER

6.01 The following timber is specified as reserved timber:

- (a) As per approved Silviculture Prescription(s).

## 7.00 DEFINITIONS

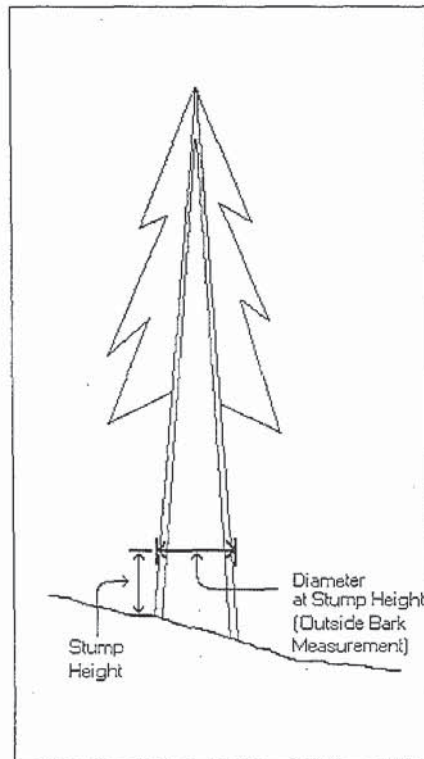
7.01 In this Schedule, as exemplified by the diagrams attached to this Schedule,

- (a) "butt end" means the log end that was previously attached to the stump;
- (b) "butt log" means the log cut from the portion of the tree that was previously attached to the stump;
- (c) "diameter at stump height" means
  - (i) in the case of standing timber, the diameter of the tree (outside bark) measured at the point of the maximum stump height shown in the table attached to this Schedule, and
  - (ii) in the case of a butt log, the diameter (outside bark) at the butt end of the log; and
- (d) "slab" means one of 2 or more parts of a log produced as a result of the log fracturing along its length;
- (e) "stump height" means the height of the stump measured on the side of the stump adjacent to the highest ground;
- (f) "top diameter" means the diameter (inside bark) at the narrowest end of the log;
- (g) "top log" means any log that is not a butt log.

## SCHEDULE "B" – INTERIOR

### Diagrams and Tables for all Block(s)]

#### 1. Falling Specifications

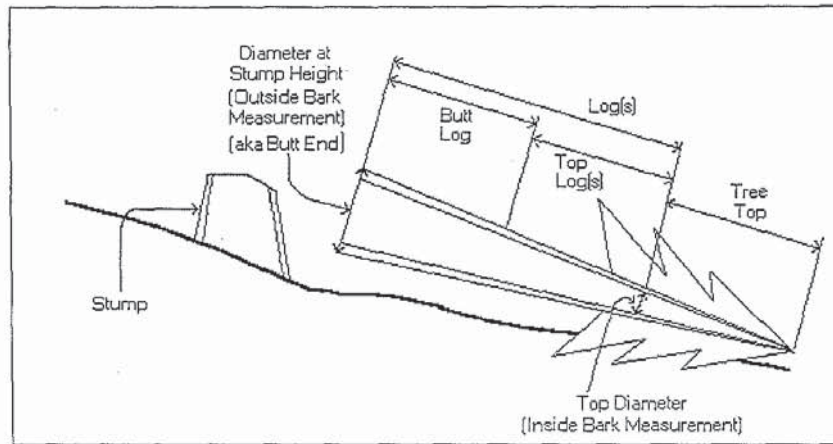


Species	Maximum Stump Height	Minimum Diameter at Stump Height
Lodgepole Pine	30 cm	15 cm
Douglas Fir	30 cm	20 cm
Spruce	30 cm	20 cm
Other species	30 cm	20 cm

## SCHEDULE "B" - INTERIOR

### Diagrams and Tables for all Block(s)

#### 2. Utilization Specifications



Species	Minimum Log or Slab Length	Minimum Diameter at Stump Height	Minimum Top Diameter or Slab Thickness
Lodgepole Pine	3 m	15 cm	10 cm
Douglas Fir	3 m	20 cm	10 cm
Spruce	3 m	20 cm	10 cm
Cedar	3 m	20 cm	15 cm
Other species	3 m	20 cm	10 cm

Note: Minimum top diameter or slab thickness (inside bark measurement) for cedar older than 141 years is 15.0 cm.

**FILE COPY**

Date: December 06, 2001

TEMBEC INDUSTRIES INC.  
WOODLANDS ACCOUNTING  
BOX 4600  
CRANBROOK  
BRITISH COLUMBIA

V1C 4J7

RECEIVED

DEC 20 2001

MINISTRY OF FORESTS  
INVERMERE DISTRICTIn reference to:  
Client Number: 00001402  
Forest File: A18978  
Cutting Permit: 156  
Timber Mark: EY6156Invermere Forest District  
Nelson Forest RegionStumpage Advisory Notice

Attached is a summary of the appraisal information used in determining the stumpage rate for this cutting authority.

The cutting authority Total Stumpage Rate of \$24.72 per cubic metre is effective for sawlogs scaled between

November 01, 2001 and December 31, 2001


inclusive unless this cutting authority is reappraised during this period in accordance with the applicable Appraisal Manual.

The Miscellaneous Stumpage Rates listed in the applicable Appraisal Manual in effect on the date of scale take precedence over the above rate. A levy and/or bonus may be applied to any Miscellaneous Stumpage Rate.

Objections to this rate determination should be brought immediately to the attention of the undersigned in this office. The formal 21 day review period specified in the Forest Act begins upon delivery of this notice. Consideration of any objection does not delay the determination nor stop the 21 day review period. Any rate change or redetermination as a result of an objection will result in a new Stumpage Advisory Notice being issued.

The Reserve Rate will be redetermined on January 1, April 1, July 1, and October 1 each year, or on any date specified by the Minister of Forests, according to appraisal policies then in effect.

Please be advised that this letter and information is releasable under the Freedom of Information and Protection of Privacy Act.

  
Neil Bow  
Timber Pricing Officer (A)  
Attachment

This notice forms an integral part of the cutting authority document and should be attached thereto.

PDAVL1

DISTRICT COPY

Date: December 06, 2001

In reference to:  
 Client Number: 00001402  
 Forest File: A18978  
 Cutting Permit: 156  
 Timber Mark: EY6156

Invermere Forest District  
 Nelson Forest Region

The following is a listing of cutting authority and individual species rate calculations effective when scaled between

November 01, 2001 and December 31, 2001

inclusive unless this cutting authority is reappraised during this period in accordance with the applicable Appraisal Manual.

Cutting Authority Rate Calculation Detail		Species Rate Calculation Detail					
		Species Code	Reserve Rate (\$/m3)	Silviculture Levy (\$/m3)	Development Levy (\$/m3)	Upset Rate (\$/m3)	Total Rate (\$/m3)
Estimated Value	\$121.77	FI	24.72	0.00	0.00	24.72	24.72
- Estimated Cost	\$102.88	LO	24.72	0.00	0.00	24.72	24.72
= Stand Value Index	\$18.89						
- Mean Value Index	\$20.62						
+ Base Rate	\$26.45						
= Indicated Rate	\$24.72						
Reserve Rate	\$24.72						
+ Development Levy	\$0.00						
+ Silviculture Levy	\$0.00						
= Upset Rate	\$24.72						

This notice forms an integral part of the cutting authority document and should be attached thereto.

DISTRICT COPY

FDASA1

REPORT ID: IASR083  
RUN DATE: 2001-12-06  
RUN TIME: 11.19.31

MINISTRY OF FORESTS  
INTERIOR APPRAISAL SYSTEM  
LOGGING AND SILVICULTURE COST  
ESTIMATE

PAGE: 1  
USERID: TRKERBY  
DATABASE: SQLP1

Timber Mark: EY6156

Appraisal Effective Date: 2001-11-01

Nelson Forest Region  
Invermere Forest District

Licence: A18978  
Cutting Permit: 156  
Calculation Date: 2001-12-06

Invermere TSA Block E  
Total Volume: 5,606  
Expiry Date: 2002-10-31

Logging Trend Factor: 1.000  
Silviculture Trend Factor: 1.000  
Manufacturing Trend Factor: 1.000  
Stumpage Rate Effective Date: 2001-11-01

MVI Eligible Indicator: Y  
Adjust Quarterly Indicator: Y

PHASE	Subphase Cost (\$/m3)	Phase Total (\$/m3)
DEVELOPMENT:		
Tabulated		
Culverts	0.00	
Roads	7,149.60	
Fencing and Cattle Guards	0.00	
Allocated Development	0.00	
Engineered Development	2,852.00	
TREE TO TRUCK:		
Ground Skidding (Clear Cut)		
Ground Skidding (Partial Cut)		
Overhead Cable Yarding Highlead & Grapple (Clear)		
Overhead Cable Yarding Highlead & Grapple (Partial)		
Overhead Cable Yarding Skyline		
Helicopter Logging		
Horse Logging		
Specified Operation		
LOG TRANSPORTATION:		
Hauling		
Primary		
Secondary		
Water Transportation		
Special Transportation and Specified Operations		
Road Maintenance		
Road Use		

s.17, s.21

s.17, s.21

s.17, s.21

REPORT ID: IASR083  
RUN DATE: 2001-12-06  
RUN TIME: 11.19.31

MINISTRY OF FORESTS  
INTERIOR APPRAISAL SYSTEM  
LOGGING AND SILVICULTURE COST  
ESTIMATE

PAGE: 2  
USERID: TRKERBY  
DATABASE: SQLP1

Timber Mark: EY6156

Appraisal Effective Date: 2001-11-01

PHASE	Subphase Cost (\$/m3)	Phase Total (\$/m3)
ADMINISTRATION & OTHER:		
Overhead		\$ 17, s.21
Low Volume additive:		
TOTAL LOGGING COST:	\$ 17, s.21	
TOTAL TRENDLED LOGGING COST:		
SILVICULTURE:		
Basic	1	\$ 17, s.21
Specified		
TOTAL TRENDLED SILVICULTURE COST:		

\*\*\* Normal end of report \*\*\*



# Facsimile Cover Sheet

To:	Mark Serediuk
Company:	Tembec - Canal
Phone:	
Fax:	
From:	Nathan Stairs
Email:	
Phone:	342 4229
Fax:	342 4247
Date:	01/11/21
Pages including this cover page:	1

## Re: CP 156 Appraisal

Hi Mark. I got your fax of Nov 16 with the adjustments you've made. The following is what I have signed off and my rationale:

1. Rd Const Section 2 (600 m): you removed the gravel and the gravel truck but you put the D8 hours up from ~~1.5~~ <sup>5.7</sup> hrs. I have put it back at ~~1.5~~ <sup>5.7</sup> hrs and approved \$1208.50.
2. Rd Deac for Sect 1 (800m): you removed the ~~1.5~~ <sup>5.7</sup> but left ~~1.5~~ <sup>5.7</sup> hrs with a D8 to rip 800 m of basically flat rd. I have approved ~~1.5~~ <sup>5.7</sup> hrs and the ~~mob~~ <sup>mob</sup> for a total of \$1643.50.
3. Replacement of rd running surface 6 km: you have deleted the gravel and the D8 and left 40 hrs with a grader. However while not gravelling the road sounds like the correct approach, it leaves simply grading the road as not eligible as an engineered estimate. There for I have not entered an amount for this item.

looks harsh but  
not much I can do.  
Nathan.

## Stairs, Nathan FOR:EX

**From:** Smedstad, Mark FOR:EX  
**Sent:** Tuesday, November 13, 2001 9:42 AM  
**To:** Stairs, Nathan FOR:EX  
**Subject:** RE: CP 156 Appraisal

### Answers

Question 1 does it need gravel? The Ram Creek road is very bony they are only removing Approx 5000m3 of timber or 140 logging truck load. Do we normally gravel, if not why gravel this road!  
Question 2 Is this resonable? No the entire road doesn't need gravel.  
Question 3 cross ditching? All that would be done is cross ditching.

**Mark Smedstad**  
Resource Assistant Timber  
Invermere Forest District  
(250) 342-4251

### Original Message

**From:** Stairs, Nathan FOR:EX  
**Sent:** Thursday, November 08, 2001 2:47 PM  
**To:** Smedstad, Mark FOR:EX  
**Cc:** Godlien, Teena D FOR:EX  
**Subject:** RE: CP 156 Appraisal

Mark - I've got to this appraisal and see the upper section and segment you mean on the map. They're asking for 600 m and you're saying they probably only need 300 m. In their estimate they have 17 hrs with a D8, 17 hrs with a gravel truck, 17 hrs with a grader, and 500 yd3 of gravel. Without seeing this road, I have trouble with 1) not knowing if 17 hrs with a D8 is appropriate for 600 m or 300 m, and 2) does it need gravel?  
As well, they're asking for \$17,256 to gravel the entire 6 km of road from the south end of the FSR to the northern edge of their northern block. Is this reasonable? ie does the road need to be totally gravelled? Note - they've asked for 1446 yd3 which equates to 2 inches depth throughout.  
Finally, they want \$4780 to deactivate section 1, the southern spur (800 m long). It includes 17 hrs with a D8 and 17 hrs with a 225 excavator. If the average side slopes are 10%, then what could you do to deactivate it other than cross-ditch and waterbar it with a hoe in about 17 hrs?  
Teena - since you've been out there recently as well, do have anything to add?

**Nathan Stairs, P.Eng.**  
Engineering Officer  
Invermere Forest District  
Ph (250) 342-4229 Fax (250) 342-4247  
Nathan.Stairs@gems5.gov.bc.ca

### Original Message

**From:** Smedstad, Mark FOR:EX  
**Sent:** Friday, November 02, 2001 2:09 PM  
**To:** Stairs, Nathan FOR:EX  
**Cc:** McConnell, Cy FOR:EX; Jablanczy, Steve FOR:EX  
**Subject:** CP 156 Appraisal

Nathan, Tembec (canal flats) will have an appraisal coming at you this week for CP 156 L. Lussier River. I have noted in it they are asking for road (re)construction sec.02 seg.01. This section accesses private land, I don't think any road is needed past the landing,

**Mark Smedstad**  
Resource Assistant Timber



Province of  
British Columbia

Ministry of  
Forests



# FAX HEADER

FILE NO.

A18978  
CP156

<b>TO</b>	
NAME	MARK SEREDIUK
MINISTRY OFFICE OR FACILITY	TEMPEC
PHONE NO.	FAX NO.
SENT BY	DATE Y M D 01/11/01



Ministry of Forests  
Invermere Forest District

Mark Smedstad  
FOREST OFFICER

Mailing Address:  
PO Box 189  
Invermere BC V0A 1K0  
www.for.gov.bc.ca/nelson/district/invermer

Telephone: (250)342-4251  
Facsimile: (250) 342-4247  
e-mail: Mark.Smedstad@gems4.gov.bc.ca

Location:  
625-4th Street  
Invermere, B.C.

MESSAGE

MARK I HAVE the following concerns with  
CP 156 APPRAISAL.

1) TABULAR ROAD SECTION SEG 1 SEG 1 0+000 + 0+763

I field inspected this w STEVE JABLONCZY WE SAW 0%  
Rock & Side Slope Average WAS MAX 10%

∴ PLEASE Adjust your #5.

THANKS

SMED

REPLY

GESTION DES RESSOURCES FORESTIERES  
FOREST RESOURCE MANAGEMENT

Division BRITISH COLUMBIA Division

CANAL FLATS Woodlands  
9006 Grainger Road  
P.O. Box 68  
Canal Flats, British Columbia V0B 1B0Téléphone : (250) 349-5294  
Télécopieur / Fax : (250) 349-5250**FAX**

Destinataire / To :

Nathan Stairs

Fax :

C.C. :

Expéditeur / From :

Mark Sereduk

Date :

Nov. 16, 2001

Pages (incluant celle-ci / Including this one) :

5

OBJET / SUBJECT :

CP156 Appraisal

## MESSAGE

I have made adjustments to the CD156 eng costs after talking to our area staff, and considering your comments. The DB for deactivation is used for ripping the road after we are done.

L'ESPRIT D'INNOVATION  
THE SPIRIT OF INNOVATION

S.V.P. communiquer avec l'expéditeur si vous ne recevez pas toutes les pages. / Please contact the sender if any pages are missing.

NOV 16 2001 11:34

+2503495250

PAGE.01

## Interior Appraisal Data Sheet

## 4. Other Structures (Sec. 4 p. 22)

Type	Number
Fencing(100's of meters)	
Cattle Guards	
Pipeline Crossings	

## 5. \*\*\* Allocated Development (Sec. 4 pp.12) (SBFEP and Apportionment Agreements)

Applicable Volume\*: \_\_\_\_\_ M

\* Complete only when different from Cutting Authority Volume.

** Identifier	Original Cost Estimate		Trend Factor	1999 Cost Estimate \$
	Estimate \$	Year		

## 6. Engineered Development (Sec. 4 pp. 23-27)

Applicable Volume\*: \_\_\_\_\_ M

\*Complete only when different from Cutting Authority Volume.

** Identifier	Original Cost Estimate		Trend Factor	1998 Cost Estimate \$
	Estimate \$	Year		
Road Construction Sec 2	\$1,541.00	1999		\$1,541.00
Deactivation Sec 1	\$3,306.00	1999		\$3,306.00
Replacement of road running				
Surface 6 km	\$4,220.00	1999		\$4,220.00

R.O. Engineering

\*\* Signature : \_\_\_\_\_

Approval Date: \_\_\_\_\_

\* Applicable Volume: Complete only when different from Cutting Authority Volume.

\*\* Please ensure that it is evident what the moneys were expended for. Indicate what is being done: upgrade, reconstruction, new road, replace bridge, endhaul, deactivation, road closure, as per the Appraisal Manual sec. 4.pp.21-26

\*\*\* To be trended as per the Appraisal Manual sec. 4.pp.23-24.

CP 156

Page 6

16/11/01

NOV 16 2001 11:35

+2503495250

PAGE. 02

ENGINEERED CONSTRUCTION COST ESTIMATES

1 Page of 1

LICENCE FL A18978C.P. 156Date: 09-Oct-01Name and/or Location: Lower Lussier SouthDescription: Reconstruction of Sec. 2 Seg. 1 <sup>600m</sup>Effective Date of Engineered Estimate: 01-Nov-01

	TYPE	FUNCTION (Per Appraisal Manual)	HOURS	RATE/ HOUR (JULY 1/98)	TOTAL
1) Comp. bid costs			6		
2) Machine					
Cost:	Cat D8	Reconstruct		s.17, s.21	\$1,330.00
	Grader 14G	Reconstruct			\$211.00
3) Labour					
Cost:					
4) Materials					
Cost:					
5) Freight + haulage for materials only					
Cost:					
6) Engineering - if applicable					
<b>TOTAL COST ESTIMATE</b>				<b>(JULY 1, 1998)</b>	<b>\$1,541.00</b>

1. Refer to Appendix 1 of the Interior Appraisal Manual for equipment, labour and material rates.
2. List each machine employed and work performed.
4. Freight and haulage allowed for permanent type bridges (i.e., steel, concrete, or glu-lam).  
No GST to be included, PST is allowed on materials.
6. Cost of designed and engineering for log bridges not allowed. Cost of design, inspection and supervision for more for other more complex structures by a professional engineer not on salary may be allowed.

Resource Officer Engineering:

Signature

Date:

CP 156

9

NOV 16 2001 11:35

+2503495250

PAGE. 03

**ENGINEERED CONSTRUCTION COST ESTIMATES**

1 Page of 1

LICENCE FL A18978C.P. 156Date: 09-Oct-01Name and/or Location: Lower Lussier - SouthDescription: Road Deactivation for Sec 1 - 800mEffective Date of Engineered Estimate: November 1, 2001

	TYPE	FUNCTION (Per Appraisal Manual)	HOURS	RATE/ HOUR (JULY 1/98)	TOTAL
1) Comp. bid costs					
2) Machine Cost:	Cat D8	Deactivation		s. 17, s. 21	\$2,660.00 <sup>997.50</sup>
3) Labour Cost:					
4) Materials Cost:					
5) Freight + haulage for materials only Cost:	Lowbed	MOB & DeMOB		s. 17, s. 21	\$646.00
6) Engineering - if applicable					
TOTAL COST ESTIMATE (JULY 1, 1998)					\$3,306.00 <sup>1643.50</sup>

1. Refer to Appendix 1 of the Interior Appraisal Manual for equipment, labour and material rates.
2. List each machine employed and work performed.
4. Freight and haulage allowed for permanent type bridges (i.e., steel, concrete, or glu-lam). No GST to be included, PST is allowed on materials.
6. Cost of designed and engineering for log bridges not allowed. Cost of design, inspection and supervision for more for other more complex structures by a professional engineer not on salary may be allowed.

Resource Officer Engineering:

Signature \_\_\_\_\_

Date: \_\_\_\_\_

CP 156

10

NOV 16 2001 11:36

+2503495250

PAGE. 04

**ENGINEERED CONSTRUCTION COST ESTIMATES**Page of 1LICENCE FL A18978C.P. 156Date: 09-Oct-01Name and/or Location: Lower Lussier - SouthDescription: Replacement of Road running surface - 6 km ? *no pits just grading*Effective Date of Engineered Estimate: November 1, 2001

	TYPE	FUNCTION (Per Appraisal Manual)	HOURS	RATE/ HOUR (JULY 1/98)	TOTAL
1) Comp. bid costs					
2) Machine					
Cost:	Grader	road running surface		\$17, \$21	\$4,220.00
3) Labour					
Cost:			<i>= 5 days of grading?</i>		
4) Materials					
Cost:					
5) Freight + haulage for materials only					
Cost:					
6) Engineering - if applicable					
TOTAL COST ESTIMATE			(JULY 1, 1998)		\$4,220.00

1. Refer to Appendix 1 of the Interior Appraisal Manual for equipment, labour and material rates.
2. List each machine employed and work performed.
4. Freight and haulage allowed for permanent type bridges (i.e., steel, concrete, or glu-lam). No GST to be included, PST is allowed on materials.
6. Cost of designed and engineering for log bridges not allowed. Cost of design, inspection and supervision for more for other more complex structures by a professional engineer not on salary may be allowed.

Resource Officer Engineering: \_\_\_\_\_

Date: \_\_\_\_\_

Signature

CP 156

P. 11

NOV 16 2001 11:36

+2503495250

PAGE. 05

# CP SMOOTH SHEET

Forest Licence A18978

Cutting Permit 15b

Cover Letter add any exceptional considerations

Award date Nov 1 / 01 Term 3 yr

Timber Mark 6 Y 6  
1 5 6

## Schedule A: Special Conditions

Standard Clauses (glossary cpstandard) (Please cross out if you don't require one of the following clauses)

### 1.00 Orderly and Sanitary Condition

The Licensee shall, concurrently with harvesting operations, leave all areas in an orderly and sanitary condition.

### 2.00 Removal on Termination

The Licensee shall remove all logging equipment on an area of land referred to in paragraph 1.01 of the CP and shall leave all areas in an orderly and sanitary condition upon the earlier of completion of operations or expiry of the CP.

### 3.00 Discharge of substance

In the event that the Licensee causes or permits the discharge into the land or water of a substance that is, or may be, injurious to health, the Licensee shall promptly notify the Medical Health Officer of the location, time, duration, nature and quantity of the discharge of the substance and shall take immediate action to prevent and cease the discharge.

### 4.00 Special Forest Products

Subject to designated Forest Official approval, special forest products may be cut at the Licensee's option.

### 5.00 Cut Control

For cut control purposes, (CP #) is designated as catastrophic endemic.

**Optional Clauses** (glossary coptional)

- ☐ 1.00 Schedule of Blocks  
The Licensee must ensure that
- (a) all phases of timber harvesting and related operations under or associated with this CP are synchronized, and
  - (b) all harvesting on one area designated for harvest under this CP is completed to the satisfaction of the Forest Officer before harvesting is commenced on another area.

**Schedule B: Obligatory Utilization**

- ☐ Interior Catastrophic stands (Obligatory) (always use catastrophic)

**Schedule B: Optional Utilization**

- ☐ Interior Catastrophic stands (Optional) (always use catastrophic)

**Schedule B: Reserved Timber**

Salvage permits only

- ☐ Live trees reserved species/type?

**1. Falling Specifications** (glossary falling specs)

Species	Maximum Stump Height	Minimum Diameter at Stump Height
Lodgepole Pine	30 cm	15 cm
Douglas Fir	30 cm	20 cm
Spruce	30 cm	20 cm
Other species	30 cm	20 cm

**2. Utilization Specifications** (glossary utilization specs)

Species	Minimum Log or Slab Length	Minimum Diameter at Stump Height	Minimum Top Diameter or Slab Thickness
Lodgepole Pine	3 m	15 cm	10 cm
Douglas Fir	3 m	20 cm	10 cm
Spruce	3 m	20 cm	10 cm
Cedar	3 m	20 cm	15 cm
Other species	3 m	20 cm	10 cm

INVERMERE FOREST DISTRICT  
APPRAISAL FIELD CHECK REVIEW

Licence: TEMBER Licence: A1897B CP: 156 Mark: EX 156  
Effective Date: 01/11/01 (Yr/Mo/Da) Expiry Date: 01/10/31 Cruise Based: Yes (No)  
Appraisal Type: (New) Reappraisal Damage or Amendment (From NF 194)  
Location: L. LUSSETER South.

Respond to the following questions with ✓ if field check has been completed, or with \* if field check has not been completed (if \* then briefly explain).

- ☒ Cutting Permit has been Check Cruised? If not, complete \* below.  
\* ☐ Checked species, timber type, age, height, and vol/ha information.  
☒ Road Permit roads have been constructed.  
☐ Block roads and operational landings have been constructed.

Tree to Truck:

- ☒ Harvesting systems are required as specified.  
☐ Sensitive Site designation appropriate.  
☐ Specified Operation is required.

Log Transportation:

- ☒ Verified cycle times for new road sections, and/or spot check cycle times.

Development, Drainage Structures:

- ☐ Check requirement for drainage structures; size, length, and number.  
☐ Tabular bridge location, type, span and crib height. R.O. Eng.: Initial \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Development, Tabular Roads:

- ☒ Verified road construction, type, length, moisture, side slope and % rock.  
☐ Verified road: stabilizing length, depth, haul distance and material type.  
☐ Wing fencing/Cattle Guards (if applicable).

Engineered Development:

- ☐ Need for field inspection- L \_\_\_ M \_\_\_ H \_\_\_ by Eng. \_\_\_ Timb. \_\_\_ by Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
☐ Verified Engineered Development costs.  
☐ Road Permit coincides with Appraisal Initial \_\_\_\_\_ (R.O. Eng/Eng. Ass't)  
R.O. Eng.: Initial \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Basic Silviculture:

- ☒ Verified Root Disease present and treatment as specified.

REAPPRAISAL \* (\*Through consultation with Compliance)

- ☐ Verified additional/deleted area.  
☐ Verified cutblocks/portions of cutblocks remaining to be cut.  
☐ Verified road construction, and development as specified.  
☐ Verified reappraisal reflects actual harvesting/silvicultural treatments.

VARIANCE: Yes ☐ No ☐ (Note on ledger)

Comments: D.C. note no signature pg. 5 and ✓

o Blowdown to. Seems High.

o 2 Big PILES 2 PILES are not there - Taken out of Appraisal

If changes are made to the submitted appraisal as a result of office or field review and/or variances are found comment on a greensheet and attach it to this form.

Field Review by: M. SNEED R.A. Timber Date: 01/11/25

Ledgered by: 10 Valuation Tech. Date: 01/11/28

Approved by: ST R.O. Timber Date: 01/14/03

NO SIGNATURES!



GESTION DES RESSOURCES FORESTIÈRES  
FOREST RESOURCE MANAGEMENT

Division BRITISH COLUMBIA Division

220 Cranbrook Street North  
P.O. Box 4600  
Cranbrook, British Columbia V1C 4J7

Téléphone: (250) 426-6241  
Télécopieur / Fax: (250) 426-5372

**FILE COPY**

RECEIVED

OCT 18 2001

MINISTRY OF FORESTS  
INVERMERE DISTRICT

File: CP 156

Date: October 9, 2001

Ministry of Forests  
Box 189  
Invermere, British Columbia  
V0A 1K0

Dear Sir:

Please find attached our final application for CP 156, Licence # FL A18978.

in the vicinity of Lower Lussier - South.

This application was developed in consideration of the strategic and operational plans applicable to the CP area and the Invermere CP application submission requirements area as follows:

#### PLANNING

##### 1) Strategic/Higher Level Plans

- East Kootenay Land Use Plan

Resource Zone ☒ IRMZ ☐ ERDZ ☐ SRMZ

- Draft Landscape Unit # I 4

- Biodiversity Emphasis Option Low

- Sensitive Area Date Approved     /     /     or N/A ☒

- TRP Date Approved     /     /     or N/A ☒

Rationale:    

NOTIFICATION OF RECEIPT  
AND ACKNOWLEDGEMENT

DATE Oct 18 2001

Ministry of Forests  
Invermere Forest District  
File # 19500-40/A18978 CP 156  
Amendment #      
Initial TL



L'ESPRIT D'INNOVATION  
THE SPIRIT OF INNOVATION

CP 156 Lower Lussier - South

2) Operations Plans for Cutting Permit or Road Permit (Previously Approved or Supply Application)

Date Approved or Date Submitted

- Forest Development Plan 00 / 08 / 16
- Forest Development Plan Amendment 01 / 09 / 06
- Forest Development Plan Exemption      /      /
- Silviculture Prescription 01 / 09 / 06
- Silviculture Prescription Exemption      /      /

## CP SUBMISSION REQUIREMENTS

- 1 : 20,000 map(or suitable scale) ☒ or N/A ☐
- Cruise Compilation ☒ or N/A ☐

Rationale: Cruise Compilation enclosed

- Appraisal Data Sheet ☒ or N/A ☐

Rationale: \_\_\_\_\_

- 1 : 20,000 Traversed Harvest Area Map,, ☒ or N/A ☐  
Forest Cover Base

Rationale: See Appraisal Map

- Dxf File and Auto Cad map with UTM Coordinates ☒ or N/A ☐

Rationale: \_\_\_\_\_

CP 156 Lower Lussier - South

## RP SUBMISSION REQUIREMENTS

	Date Approved or Date <u>Submitted</u>	N/A
• Road Permit Application		<input type="checkbox"/>
→Schedule A Design Criteria	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
→Schedule A Engineering Structures Table	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
→Schedule A Road Specifications	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
→Map 1 : 20,000, legend, DGN files	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
• Plans and Profiles	____ / ____ / ____	<input checked="" type="checkbox"/>
• Terrain Stability Requirements	____ / ____ / ____	<input checked="" type="checkbox"/>
• Major Structure Requirements	____ / ____ / ____	<input checked="" type="checkbox"/>
• Road Use Permit (to be submitted)	____ / ____ / ____	<input type="checkbox"/>
• Road Use Permit Exemption	____ / ____ / ____	<input checked="" type="checkbox"/>

As an integral part of the Cutting Permit document we are requesting approval to harvest special forest products in the Cutting Permit area.

This application is consistent with the planning process and legal requirements applicable to the CP Area. I trust it meets with your approval.

Yours truly,



Dave P.C. Brown  
Administration Forester

cc: Barry Benson,  
Canal Flats Planning Superintendent

MS\cb

encl.

CP 156 Lower Lussier - South



FILE: 19500-40 A18978 CP156

Reminder - Check FTAS

DATE: Dec 3/01

MARK: \_\_\_\_\_

FAX TO: 354-6250

1 File Room (Pull file/make up file & forward w/package to Revenue Section)

2 Revenue Section

Nelson Forest Region

Comments: \_\_\_\_\_

Attention: Appraisal Clerk

☒ Appraise (New)

☐ Reappraise

☐ Amendment

NF 194 ATTACHED:

Please check:  
(IF APPLICABLE)

Bid Proposal ☐  
Direct Sale ☐

Salvage Sale ☐  
L/C under SB ☐

NF 194 NOT ATTACHED: (EXTENSIONS)

FTAS UPDATED: \_\_\_\_\_ TIMBER MARK: \_\_\_\_\_

Extend FIXED Rates to \_\_\_\_YY \_\_\_\_MM \_\_\_\_DD

Extend ADJUSTING Rates to \_\_\_\_YY \_\_\_\_MM \_\_\_\_DD (Require Approval)

NOTE:

TENURE OFFICER/SB FORESTER APPROVAL OF ADJUSTING RATE EXTENSION:

Initials: \_\_\_\_\_ Date: \_\_\_\_\_

Extension of adjusting rates are only permitted if no timber is expected to be scaled on the cutting authority during the next year or there is less than 2000 m<sup>3</sup> of merchantable timber remaining on the cutting authority.

Resource Clerk

[Signature]

[Signature]

Forest District

NF 176

# Interior Appraisal Data Sheet

The information contained in this package may be released under the Freedom of Information and Protection of Privacy Act.  
This field data sheet is compatible with the Interior Appraisal Manual effective July 1, 2001

**Licensee:** Tembec **Mark:** EY6156  
**Licence No.:** FL A18978 **CP:** 156  
**Effective Date:** 01/11/01 **Expiry Date:** 02/10/31  
yy/mm/dd yy/mm/dd  
**Cruise-Based:** (Y or N)                       
**Appraisal Type (X one):** New ☒ Reappraisal                       
 (Sec. 2 pp. 3 to 9) Amendment                      Damage                       
**Compilation SE% =**                      **Check Cruised:** (Y or N)                       
**Geographic Location:** Lower Lussier South **Supply Block:** E  
**AREA (Hectares to nearest 0.1)** **VOLUME (M3 to nearest whole number)**  
 Total Merchantable Area = 164.1 ha Merch. Volume Cruised = 5606 m3  
 Minus Area of roads harvested under another mark =                      ha  
 Other mark =                      ha  
 Plus Area of roads harvested outside of cut blocks under this cutting authority mark (if applicable) =                      ha  
 Original merch. area = 164.1 ha  
 Plus Additions:                      ha  
 Minus Deletions:                      ha  
 Net Total merch. area = 164.1 ha  
 Area remaining to be cut = 164.1 ha  
 Minus Volume from roads harvested under another mark (if part of merchantable volume above) =                      m3  
 Minus Volume reserved on partial cut areas (if not removed above) =                      m3  
 Plus Volume from roads harvested outside cut blocks (if applicable) =                      m3  
 Original merch. volume = 5606 m3  
 Plus Additions:                      m3  
 Minus Deletions:                      m3  
 Total current merch. vol. = 5606 m3  
 (Sec. 4 pp.4,5) Approx. volume remaining = 5606 m3  
 Pt. of Appraisal(Sec. 2pp12,1: Canal Flats) Actual Destination: Canal Flats  
**Isolated Cutting Authority:** (Y or N) N **Specified Operation:** (Y or N) Y  
(Sec.4 pp.49) (Sec.4 pp 3)

SPECIES INFORMATION TABLE - (Sec. 4 p. 4)						
Species	Volume (m3) (Sec.4 pp 4,5)	Decay (%) (Sec.4 pp 4,5)	Stud Log % (Sec.3 pg 9)	Cruise Average LRF (Sec.4 pp 4,5)	Burn (%) (L, M & H) (Sec.3 pg 6)	Selling Price Zone 7, 17 or 37*
Balsam (BA)						7
Cedar (CE)						
Douglas fir (FI)	3079	4	33	186	0	
Hemlock (HE)						
Larch (LA)						
Lodgepole pine (LO)	2527	11	93	164	0	
Spruce (SP)						
White pine (WH)						
Yellow pine (YE)						
TOTAL MERCH. VOLUME	5606	*Selling Price Zone: 17 if Av.tree vol. <.3 m3 , Zone 37 if HE 04 mandatory				

## TREE TO TRUCK DATA

Support Centre (Sec.4 p.30-31)

Canal Flats

Distance (km):

41

Variables (Sec.4 pp. 28)	Ground Skidding		Overhead Cable		Skyline >300m or Int. Sup. (Sec.4,pp35,6)	Helicopter (Sec.4,pp 33)
	Clear Cut (Sec.4,pp33,4)	Partial Cut * (Sec.4,pp33,4)	Clear-cut (Sec.4,pp 34,5)	Partial Cut (Sec.4,pp 34,5)		
Area (Hectares)		164.1				
Vol. to be Harvested* -m3 (Sec.4 pp5)		5606				
Biogeoclimatic Zone ** (Sec. 4 pp. 29)		IDF				
Volume/tree - m3 (Sec. 4 pp. 31)		0.27				
Volume/hectare - m3 (Sec. 4 pp. 29)		34				
Stand Defect (DWB %) (Sec. 4 pp. 31)		11				
Partial cut % *** (Sec. 4 pp. 29,30)		18				
Average Slope - % (Sec. 4 pp. 29)		30				
Blowdown - % (Sec. 4 pp. 29)		25				
Heavy Fire Damage - % (Sec. 4 pp. 36)		0				
Dead Useless Snags - % (Sec.4 pp.36)		12				
Skyline Yarding Slope Distance (Sec.4 pp.32)						
Heli Yarding Map Distance (Sec.4 pp.32)						
Hemlock ****						
Douglas fir ****						
Spruce ****						
Lodgepole Pine ****						

	Volume m3	Hectares
Horse Logging (Sec.4 pp.33)		

\* Volume to be harvested based on factored volumes.

\*\* Dominant zone by volume of system.

\*\*\* Partial Cut - ground skidding, cable or helicopter: 1-89% of total merch. vol. removed.

All partial cut 90% removal and greater are clear cut.

\*\*\*\* Volumes to be taken from the Harvest Method Summary of the Cruise compilation

Total Volume (m3) based on above harvesting systems =	5606	Total Hectares =	164.1
---	------	------------------	-------

## Specified Logging Operations \*\*\*\* (Sec. 4 pp.3)

Description:	Volume (m3)	Cost Estimate \$/m3

\*\*\*\* Attach Specified Logging Operations details.

## Note:

Skidder swing will only be considered between harvest methods listed in Sec. 4.4.1 (four methods), in order to deliver logs to an existing or appraised road/landing

## LOG TRANSPORTATION DATA (Sec.4pp 38-42)

Hauling: Highway Haul x Off Highway Haul \_\_\_\_\_

Secondary Haul Time \_\_\_\_\_ hours

Primary Cycle Time Calculation					
Road Identifier ( Primary/Secondary)	Distance (km)	Speed (km/hr)		Time (minutes)	
		Loaded	Empty	Loaded	Empty
Highway To Secondary	28.0	90.0	100.0	18.7	16.8
Secondary highway to Common	10.2	40.0	60.0	15.3	10.2
Common to Mid Permit	3.0	20.0	30.0	9.0	6.0
Subtotal =				43	33

Cable prorated delay \_\_\_\_\_ (based on 75 min. delay time) Loaded Empty  
 Non-cable prorated delay 60 (based on 60 min. delay time)

Load Handling Delay (minutes) 60Loaded plus Empty (minutes) 76Total Cycle Time (minutes) 136 = 2.3 hours

Water Transportation (Sec.4 pp 41) (CHECK ONE):

Slocan(SLLK) \_\_\_\_\_

Arrow(ARLK) \_\_\_\_\_

Kinbasket(KILK) \_\_\_\_\_

Koot.(KOLK) \_\_\_\_\_

Revelstoke(RELK) \_\_\_\_\_

Lake Tow Distance (nearest 1 Km)

Dump and Boom Yes \_\_\_\_\_ (CHECK IF YES)

Dewater/Reload Yes \_\_\_\_\_

Road Maintenance Yes X (sec.4 pp.43-46)

Road Use Charge (explain) \_\_\_\_\_

(Sec. 4 pp 47)

\$ Cost/M3

Barge/Ferry Used for Truck Haul

(Sec.4 pp42)

If Yes, check applicable one:

BUK

Kinbasket (Reservoir Lake)

BUR

1880 Res. (Reservoir Lake)

BUA

All Others (Natural Lakes)

Barge/Ferry Used for Crew Transportation

(Sec.4 pp42)

If yes check

BFA

Kinbasket

Specified Transp. Systems (Sec 4 pp3)

Kinbasket Lake Barge/Ferry not used for truck haul (private).

\$Cost/M3 \_\_\_\_\_

## ADMINISTRATION AND OTHER COSTS (Sec. 4 p. 48)

Isolated cutting authority - Kinbasket Lake only (Sec. 4 p. 49), (Code 3) - Yes or No \_\_\_\_\_

## ROAD AND DRAINAGE STRUCTURES (New, Reconstruction &amp; Upgrade)

1 Culverts (Tabulated) (Sec. 4 pp. 18-19)      Applicable Volume\* \_\_\_\_\_ (m³)

Circular Pipe Diameter	Circular Pipe Length	Number Required
1.0 m		
1.2 m	<del>10.0 m</del> (M.S.)	<del>4</del> (M.S.)
1.4 m		
1.6 m	<del>10.0 m</del> (M.S.)	<del>4</del> (M.S.)
1.8 m		

## 2. Bridges

Applicable Volume\* \_\_\_\_\_ (m³)

(Previously tabular) (Sec. 4 p. 20)

(Engineered) (Sec. 4 p. 23-27)

Bridge Identifier	Bridge Type**	Average Crib Height (m)	Span Length (m)	Engineered Cost (\$) Estimate	Cost Estimate Base Year	Trend Factor	1999 Cost Estimate	R.O. ENG. Approval

\* Applicable Volume: Complete only when different from Cutting Authority Volume.

\*\* Bridge Types: S = Steel, L = Log, C = Concrete, G = Gluelam, P = Portable.  
 Attach supporting information for bridges. Confirm if portable bridge (Sec 4 pp.26)  
 is a new purchase or has been previously used elsewhere.

3. Tabular Road Construction Data (New Construction Only) - (Sec. 4 pp. 12-17)

Road Identifier: Ram Creek Spur 1

Biogeoclimatic Zone: IDF

Road Group Number - 10 or 11 - per Table 4-3 (Sec.4 pp 17) 10

Group 10

Boundary

Cranbrook

Invermere

Group 11

Arrow

Columbia

Kootenay Lake

Applicable Volume\* M3

\*Complete only when different from Cutting Authority Volume.

	Road Section Number	Road Type <sup>1</sup> O,B,W (Sec.4 pp13)	Section Length >.1 Km (Sec.4 pp13)	SUBGRADE			ADDITIONAL STABILIZING MATERIAL
				Soil Moisture <sup>2</sup> Blank or W (Sec.4 pp15)	Side Slope % Rd. Gr. 10&11 (Sec.4 pp14)	Rock (%) Rd. Group 11 (Sec.4 pp14)	Stabilizing Length >.1Km (Sec.4 pp20-22)
1	Seg 1 Seg 1 0+000-0+763	B	0.8		<u>11.5</u> <del>10</del>	<u>11.5</u> <del>10</del>	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Biogeo. Zone Length\* 0.8 Km.

\* Keep Biogeoclimatic zones separate.

Draw a line across this page with Biogeo. Zone Length or attach additional pages if necessary.

1 Road Type: Operational, Block, Winter(Snow) (Sec. 4 pp13)

2 Soil Moisture Regime not Applicable for Road Groups 10 and 11

3 One way

## 4. Other Structures (Sec. 4 p. 22)

Type	Number
Fencing(100's of meters)	
Cattle Guards	
Pipeline Crossings	

## 5. \*\*\* Allocated Development (Sec. 4 pp.12) (SBFEP and Apportionment Agreements)

Applicable Volume\*: \_\_\_\_\_ M<sup>3</sup>

\* Complete only when different from Cutting Authority Volume.

** Identifier	Original Cost Estimate		Trend Factor	1999 Cost Estimate \$
	Estimate \$	Year		

## 6. Engineered Development (Sec. 4 pp. 23-27)

Applicable Volume\*: \_\_\_\_\_ M<sup>3</sup>

\*Complete only when different from Cutting Authority Volume.

** Identifier	Original Cost Estimate		Trend Factor	1998 Cost Estimate \$
	Estimate \$	Year		
Road Construction Sec 2	\$4,137.50 x	1999		\$4,137.50 x
Deactivation Sec 1	\$3,155.20 x	1999		\$4,780.00 x
Replacement of road running				
Surface 6 km	φ \$17,256.00 x	1999		φ \$17,256.00 x

R.O. Engineering

\*\* Signature :

*N. Stairs*

Approval Date:

*Nov 21/01*

\* Applicable Volume: Complete only when different from Cutting Authority Volume.

\*\* Please ensure that it is evident what the moneys were expended for. 'Indicate what is being done: upgrade, reconstruction, new road, replace bridge, endhaul, deactivation, road closure, as per the Appraisal Manual sec. 4.pp.21-26

\*\*\* To be trended as per the Appraisal Manual sec. 4.pp.23-24.

**BASIC SILVICULTURE (Sec. 4 pp. 52-54)**

Treatment Regime	Total Area for Silviculture (ha)	Non-commercial Brush Areas Less Than 4 ha ** (Sec. 4 pp. 54)	R Factor (Sec. 4 pp. 54)
A			
B			
D	168.6	0.0	0.18
E			
G			
H			
No Treatment	34.5		
<b>Total Area</b>	<b>203.1</b>		

Total Merchantable Area\* = 164.1 haPlus Additions\* = 39.0 haMinus Deletions\* =          haSubtotal (Area of cut blocks) = 203.1 haMinus Area roads & landings = 34.5 haMinus Area of Imm/NP =          ha\*\*Plus Area of NCB <4 ha =          ha**Total Area For Silviculture****Cost Estimate = 168.6 ha****Root Disease Control**

(Specified Operation Sec.4 pp.2-3)

Includes Lodgepole pine stems from 12.5 cm dbh and deciduous and other conifers from 17.5 cm dbh.

Include copies of the total stem stand tables (# of stems by diameter class) for the area of root disease control. For root disease control, do not use the factored (reduced) stand tables. Note the number of hectares requiring root disease control on the stand table for each area.

**Pushover Logging or Destumping**  
(and "popup")

         haVolume =          m<sup>3</sup>**Cost Estimate =** (Region will calculate the cost estimate.)

\*From Page 1 of this NF 194.

\*\*Individual areas of NCB &gt; 4 ha in size must not be included in the appraisal. (Sec.4 pp.54)

## Interior Appraisal Data Sheet

## Rates

**Small Business Enterprise Program Levies (Sec.6 pp.8)**

		Sawlogs	Grade 3	Grade 4,5,6
Include Levy for Basic Silviculture?	(YES or NO)	_____	_____	_____
Include Levy for Development?	(YES or NO)	_____	_____	_____

Explain Levy \_\_\_\_\_

**Competitive Special Forest Products**

Species	_____	Product	_____
Species	_____	Product	_____
Species	_____	Product	_____

**REPORT - PRINTING**

Address - Recipient of 10-day letter  
Company Name, Address, Postal Code  
Tembec Industries Inc.  
P.O. Box 4600  
Cranbrook, B.C. V1C 4J7  
Attention: Troy Hromadnik

**Woodlot Annual Rate Selection - Select one**Annual Adjusting ☐ (No change in rate until next annual re-appraisal)Quarterly-Adjusting ☐ (Rate changes every January, April, July and October)

Licensee Signature: \_\_\_\_\_

(Print name)

Date: \_\_\_\_\_

**DATA SHEET REVIEWED BY R.A. TIMBER**

Ministry Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**LAST MOF FIELD REVIEW BY:**

Ministry Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**APPROVED BY MINISTRY DESIGNATE**

Ministry Signature: \_\_\_\_\_

Date: \_\_\_\_\_

(Print name)

CP 158

DEC 03 2001 13:35

Page 8

+2503495250

10/9/01  
PAGE. 03

BRITISH  
COLUMBIAMinistry of  
Forests

## INTERIOR APPRAISAL DATA SUBMISSION

Licence Tembec Ind. Inc. Permit 156 Mark E46156.

## ACKNOWLEDGEMENTS

This Appraisal Data Submission contains, as of this date, truthful information on the timber to be harvested, site conditions, harvesting, development, and silviculture plans and other information, all prepared according to the *Interior Appraisal Manual*.

Registered Professional Forester:

Name: BARRY BENSON

R.P.F.:

RPF's Signature and Seal:

R.P.F. #: 3022Phone: (250) 349-5294Fax: (250) 349-5250E-mail Address: bbenson@crestbrook.com

Date (ccyy/mm/dd):

2001/12/03.

The information contained in this package may be released under the *Freedom of Information and Protection of Privacy Act*.

November 1, 2001

DEC 03 2001 13:35

+2503495250

PAGE. 02

**WEIGHTED CYCLE TIME  
CRESTBROOK FOREST INDUSTRIES LTD.  
CANAL FLATS AREA**

LOCATION: Lower Lussier - South

CP: 156

COMMON JUNCTION: South end of block 006

(see appraisal map for common junction location)

CYCLE TIME CALCULATIONS					
DESCRIPTION	DISTANCE (km's)	SPEED (km/hr)		TIME (hrs)	
		LOADED	EMPTY	LOADED	EMPTY
highway	28	90	100	18.67	16.80
secondary highway to	10.2	40.00	60.00	15.23	10.15
common to mid permit	3.0	20.00	30.00	9.00	6.00
<b>TOTAL</b>	<b>41.2</b>	<b>57.56</b>	<b>74.93</b>	<b>42.9</b>	<b>33.0</b>
					<b>75.8</b>

FINAL CYCLE TIME: 2.3

Total Factored Volume of Permit: 5606

Block	Length	Volume	% of Permit	Distance
6	3000	5606	1.00	3.00
				3.00

APPRAISAL.XLS

**BASIC SILVICULTURE - R FACTOR**  
**CRESTBROOK FOREST INDUSTRIES LTD.**  
**CANAL FLATS AREA**

Location: Lower Lussier - South  
 CP: 156

BLOCK	T.U.	BIO-GEO. ZONE	SILVICULTURE SYSTEM	TOTAL VOLUME	FACTORED VOLUME	GROSS HA.	NET HA.	TREATMENT REGIME	PERCENT REMOVAL
6	1	IDFdm2 01	single tree sel	30564	5606	203.1	168.6	D	0.18
				30564	5606				

**SUMMARY OF:**

**R FACTOR**

D	30564	5606	0.18
	30564	5606	0.18

# ENGINEERED CONSTRUCTION COST ESTIMATES

1

Page of

1

LICENCE FL A18978

C.P. 156

Date: 9-Oct-01

Name and/or Location: Lower Lussier South

Description: Reconstruction of Sec. 2 Seg. 1

Effective Date of Engineered Estimate: 1-Nov-01

	TYPE	FUNCTION (Per Appraisal Manual)	HOURS	RATE/ HOUR (JULY 1/98)	TOTAL
1) Comp. bid costs					
2) Machine					
Cost:	Cat D8 Gravel Truck Grader 14G	Reconstruct Reconstruct Reconstruct	> 1	s.17, s.21	\$997.50 \$429.00 \$211.00
3) Labour					
Cost:					
4) Materials					
Cost:	Gravel	Reconstruct		s.17, s.21	\$2,500.00
5) Freight + haulage for materials only					
Cost:					
6) Engineering - if applicable					
TOTAL COST ESTIMATE				(JULY 1, 1998)	\$4,137.50

1. Refer to Appendix 1 of the Interior Appraisal Manual for equipment, labour and material rates.
2. List each machine employed and work performed.
4. Freight and haulage allowed for permanent type bridges (i.e., steel, concrete, or glu-lam). No GST to be included, PST is allowed on materials.
6. Cost of designed and engineering for log bridges not allowed. Cost of design, inspection and supervision for more for other more complex structures by a professional engineer not on salary may be allowed.

Resource Officer Engineering:

Signature

Date:

# ENGINEERED CONSTRUCTION COST ESTIMATES

1

Page of

1

LICENCE FL A18978

C.P. 156

Date: 09-Oct-01

Name and/or Location: Lower Lussier - South

Description: Road Deactivation for Sec 1

Effective Date of Engineered Estimate: November 1, 2001

	TYPE	FUNCTION (Per Appraisal Manual)	HOURS	RATE/ HOUR (JULY 1/98)	TOTAL
1) Comp. bid costs					
2) Machine					
Cost:	Cat D8 Cat 225	Deactivation Deactivation		s. 17, s. 21	\$2,660.00 \$1,474.00
3) Labour					
Cost:					
4) Materials					
Cost:					
5) Freight + haulage for materials only	Lowbed	MOB & DeMOB		s. 17, s. 21	\$646.00
Cost:					
6) Engineering - if applicable					
TOTAL COST ESTIMATE			(JULY 1, 1998)		\$4,780.00

1. Refer to Appendix 1 of the Interior Appraisal Manual for equipment, labour and material rates.
2. List each machine employed and work performed.
4. Freight and haulage allowed for permanent type bridges (i.e., steel, concrete, or glu-lam). No GST to be included, PST is allowed on materials.
6. Cost of designed and engineering for log bridges not allowed. Cost of design, inspection and supervision for more for other more complex structures by a professional engineer not on salary may be allowed.

Resource Officer Engineering:

Signature

Date:

LICENCE FL A18978

C.P. 156

Date: 9-Oct-01

Name and/or Location: Lower Lussier - South

Description: Replacement of Road running surface - 6 km

Effective Date of Engineered Estimate: November 1, 2001

	TYPE	FUNCTION (Per Appraisal Manual)	HOURS	RATE/ HOUR (JULY 1/98)	TOTAL
1) Comp. bid costs					
2) Machine					
Cost:	Cat D8 Grader	Replacement of road running surface		\$ 17, s.21	\$6,650.00 \$3,376.00
3) Labour					
Cost:					
4) Materials					
Cost:	Gravel	Replacement of road running surface		\$ 17, s.21	\$7,230.00
5) Freight + haulage for materials only					
Cost:					
6) Engineering - if applicable					
TOTAL COST ESTIMATE			(JULY 1, 1998)		\$17,256.00

1. Refer to Appendix 1 of the Interior Appraisal Manual for equipment, labour and material rates.
2. List each machine employed and work performed.
4. Freight and haulage allowed for permanent type bridges (i.e., steel, concrete, or glu-lam). No GST to be included, PST is allowed on materials.
6. Cost of designed and engineering for log bridges not allowed. Cost of design, inspection and supervision for more for other more complex structures by a professional engineer not on salary may be allowed.

Resource Officer Engineering:

Signature

Date:

Height Measurements in the RAM burn.

Aug. 99

3 areas surveyed (see maps):

Ram area: 4 recce lines 3.78m avg.

Avg ht. (leader/total): 60cm/378cm

number trees over 3m tall/plot: 5.2 (plot multiplier = 200)

Inventory label:	layer 4	Se8Fd1Bl1-7-1.2-18-20-3560/(99)(7)
	layer 3	Pl7Se1Fd1Lw1-10-3.5-18-20-1750/(99)(7)
	layer 2	Pl10-12-4.5-18-20-10/(99)(7)

Coyote area: 4 recce lines 3.0 m avg.

Avg ht. (leader/total): 51cm/300cm

number trees over 3m tall/plot: 4.8

Inventory label:	layer 4	Se5Pl4Bl1-7-1.0-18-20-6020/(99)(7)
	layer 3	Pl10-10-3.0-20-4530/(99)(7)

Lussier area: 3 recce lines 3.0 m avg.

Avg ht. (leader/total): 55cm/305cm

number trees over 3m tall/plot: 4.5

Inventory label:	layer 4	Pl10-7-1.2-18-20-453/(99)(7)
	layer 3	Pl10-10-3.0-18-20-2253/(99)(7)

Completed by John Brace and Jen Stalker, Aug. 26/99.

Ram fire regen height.  
 Info supplied by CFI Sept 15/99  
 SERG - AW  
 STEVE - SS  
 CLIFF - OS  
 FYI.

⇒ FILE.



