

Felling Type	Ha	Volume	HARVEST METHODS		VOLUME BY TIMBERMARK				SPECIES	
			System	Ha	Volume	Timbermark	Type	Ha	Vol	%
Handfelling	0	0	RW	0.1	42	K2D 012	CROWN	4.7	1974	Ba
Mechanical	4.8	2016	Snorkel	0.0	0	K2D 0R1	RoW	0.1	42	Hw
TOTAL	4.8	2016	Hoe Chuck	4.7	1974				0	Ced
CRUISE VOL/HA (m3)		420	Grapple	0.0	0				0	Cy
ENG VOL/HA (m3)		420	High Lead	0.0	0	TOTAL		4.8	2016	Fd
HAUL DISTANCE			Helicopter	0.0	0	Field Work:	K2 Forestry			Dr
			Harvest Area	4.8	2016	Checked By:	G.Knoll,RPF			Mb
			RW Removed	0.0		AVCF CORP:				OG
			WTRA	0.7		AVCF CORP:				SG
			TLA	0.0						100%
			Gross Area	5.5	2016					CONTRACTOR

PROFESSIONAL SEAL AND SIGNATURE

Digitally signed by George Knoll
 Date: 2016.06.14 20:11:48 -07'00'

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 the standard expected of a member of the Association of British Columbia Forest Professionals.

Harvesting Feature

- TAUP
- Block
- HC Hoechuck, Clear Cut
- HC Hoechuck, Select
- Yarding Direction
- Slope > 35% in Ground Skidding Areas
- Root Rot Area
- Powerline Area

Stream Classification

- S1-S4 Stream
- S5-S6 Stream
- NCD
- Stream, Non Classified

Other Feature

- Riparian Management Zone
- Riparian Reserve Zone
- Wildlife Tree Retention Area
- Timber Leave Area
- Non Productive, Rock
- Non Productive, Wetland
- Park
- Community Forest

Attention!
 Refer to Back for Detailed Operating and Safety Instructions

MAP 1 of 1

Alberni Valley Community Forest K2D Sproat FDU

Harvesting Plan Map Block B16

1:5,000

0 50 100 Meters

Licensee: Alberni Valley Community Forest Corporation
 Forest Region: Coast
 Forest District: South Island
 Reference Map: 92F024, 025, 026 F035, 036
 Datum: NAD 83
 Projection: BC Albers
 TSA: 38 Arrowsmith
 TSB: A
 FIZ: B
 P.S.Y.U.: 471
 Inv. Reg.: 5
 Comp.: 4B (Sproat), 4C (Taylor)
 Drafted: May 26, 2015

By: **econ**

Alberni Valley Community Forest manages waste wood to allow public to have opportunity to cut firewood

Always wear proper personal protective equipment

Do not leave debris on road or in ditches

Do not block roads when cutting wood.

Emergency Information

Community Forest Office (250-731-7377)
 Police & Ambulance 911
 Fire Reporting by cell *5555 or 1-800-663-5555
 Coastal Fire Centre 1-800-951-4200 (24hr)

Restrictions

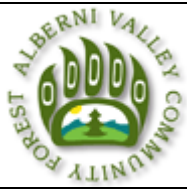
- No Cutting without Permit
- No Cutting In High and Extreme Fire Hazard
- No Dumping or Littering
- Cutting only in Identified Areas
- No Cutting Standing Trees
- No Damaging Regenerating Seedlings
- No Leaving Debris In Streams

NAD83 BLOCK	BC ALBERS		GEOGRAPHIC	
	Easting	Northing	Latitude	Longitude
B16	1070 644	474 085	49° 16' 43.5"	125° 1' 47.8"

Partial Cut- Harvest Blue-dotted trees only

Block Timber Mark: K2D-012
Road Timber Mark: K2D-0R1

- Roads & Trails**
- Highway / FSR
 - Road, existing
 - Road, engineered
 - Road, to be re-activated
 - Road, overgrown
 - >10% Adverse Grade
 - >18% Favourable Grade
 - Old Grade
 - Hiking Trail
 - Rock Bluff
 - Hydro Line
- Falling Corner
 - Landing, Perm., Temp.
 - Station
 - Culvert: New, Existing
 - Bridge: New, Out
 - Quarry
 - Designated Crossing
 - Root Rot Centre
 - Swamp
 - Wildlife Tree



HARVESTING INSTRUCTIONS – OPENING # B16

ACCESS ROAD: Bingo Bay 100

CUTTING PERMIT: NO. 012

TIMBERMARK: K2D 012

EMPLOYEE REQUIREMENTS

- 1) All employees, supervisors and contractors associated with these Harvesting Instructions shall be fully advised of its contents and requirements.
- 2) All litter including cable, oil buckets, grease tubes, newspapers and lunch garbage is to be removed from the site and disposed of appropriately.

WATER QUALITY

- 1) The overall objective of this cutblock is timber harvesting without impacting water quality.
- 2) All ditches and culverts **must** remain as free flowing as possible through all phases of harvesting.
- 3) Cutblock B16 lies within the Sproat Lake Community Watershed, sedimentation into streams is to be minimized to the fullest extent possible.
- 4) Cutblock B16 is within a Rainfall Shutdown Area with the following shutdown/start-up Criteria:
Shutdown Criteria: Activities must shut down if: The total rainfall reaches **75mm in 24 hours**. Onsite rain gauges should be used and monitored daily.
Start-Up Criteria: Activities may start-up when: The total rainfall is equal to or less than 30mm in 24 hours, or the water balance falls below 75mm. Soil drainage rate is 40mm in 24hrs. Refer to the Return to work guide in the tender document for more information.

FORESTRY

- 1) Invasive Plants: Broom occurs along sections of the high way on route to the setting. Follow FSP measures for invasive plants. Cut and remove plants in association with road reactivation, clean machinery as required. Monitor and treat broom and other invasive species during early establishment. Grass seed exposed soil on or adjacent to roads, trails, and landing sites as soon as possible following harvest.

FIRST NATIONS

- 1) This cutblock is in the Hupacusath and Tshahat traditional territory. If any additional potential culturally modified tree (CMT) (whether live or dead and standing or fallen) or any other cultural feature is encountered within the opening during any harvesting phase, operations will cease in the immediate vicinity of the CMT or cultural feature. AVCF Manager is to be notified immediately upon discovery of any potential CMT or cultural feature.

FALLING of SNAGS and DANGER TREES

- 1) In accordance with WSBC Regulations, snags and danger trees within the cutblock and outside the cutblock boundaries for a distance of not more than 50 meters that endanger workers are approved for falling under the logging plan for this cutblock. **EXCEPT FOR AREAS ADJACENT TO ITLP PROPERTY FROM FC 10 TO 11.** Danger trees and snags outside this 50 meter hazard area that are required to be felled should be recorded on a map for future reference. Sanitation falling will proceed if the occasional stem is required to be removed along the cutblock boundary. The Ministry of Forests will be notified if danger trees and/or snags are identified in groups and removal will result in the cutblock boundary being substantially impacted. Snags and danger trees meeting utilization specifications will be recovered.
- 2) If a bear den or raptor nest is encountered during falling operations, the tree will be reserved from falling along with a protection patch of timber surrounding it. AVCF is to be notified immediately. If the bear den tree is partially cut operations will proceed in conformance with WSBC regulations.
- 3) Wildlife Tree Patches or Wildlife Tree Retention Areas have been established, and are marked on the 1:5000 map. Any danger trees felled within the WTP or WTRA will be left as Coarse Woody Debris.

CUTBLOCK BOUNDARY TREATMENTS

- 1) All marked boundary trees except snags and danger trees must remain standing during and after the completion of harvesting. Trees adjacent to edges that cannot be felled into the setting will require approval from AVCF prior to falling. AVCF is to be notified immediately.
- 2) Leave trees may be substituted if, for safety reasons, a faller feels it is necessary to do so, but alternate leave trees must be retained and should be well rooted and of the same species and diameter

YARDING and LOADING PRESCRIPTIONS

- 1) No roadside landing of logs within 3 meters of any streambank along all roadsides. All drainage structures will be maintained and remain functional.
 - 2) Avoid excessive ground lead gouging due to surface erosion potential. If soil disturbance occurs, then grass seeding will be required.
 - 3) During the bark peeling stage of growth, the tree bole is highly susceptible to damage. Contact with retention trees during harvesting operation should be avoided between April 1 st and June 15 th.
 - 4) Leave trees may be substituted if, for safety reasons, a faller feels it is necessary to do so, but alternative trees must be retained and should be well rooted and of the same species, diameter and vigor.
 - 5) No more than 10% of the retention trees in the aggregate or dispersed retention areas or single retention trees in this cutblock may have significant damage.
- Significant damage to Hw, Fd, and Cw is defined as a tree with:
 One or more wounds (i.e. exposed cambium) that girdle more than 1/3 the circumference of the stem.
 Any wounds on a supporting root within one metre of the stem. A gouge – a wound that penetrates (splintered) into the sapwood or deeper.
 Additionally, for Hw and Cw only: A wound >400cm² on the stem.

SAFETY

Road and in-block safety hazards associated with block B16 have been identified on the harvest and road instruction maps. In the event additional in-block safety hazards (temporary or permanent) are encountered or develop during road construction or harvesting phases, a plan must be developed to address the hazard. Any identified permanent hazards must be reported back to AVCF (using Hazard/Issue Report Form).

POWERLINES AND PUBLIC ROADS

Powerlines are located on the North side of Highway 4, across the road from block B16. Due diligence is required by the falling contractor to ensure that trees are felled in a safe manner. Highway 4 parallels the block on the north edge as well. Falling along this edge will be within 1 and ½ tree lengths therefore traffic control will be required during falling operations.

SPECIFIC BLOCK COMMENTS

MACHINE OPERATORS WILL MONITOR SOILS FOR COMPACTION DURING RAIN EVENTS, AND MOVE TO DRIER AREAS WITHIN THE CUTBLOCK SHOULD COMPACTION AND/OR RUTTING OCCUR.

TREES MARKED FOR REMOVAL IN THE PARTIAL CUT AREA HAVE BEEN MARKED IN THE FIELD WITH BLUE PAINTED DOTS. LEAVE TREES MAY BE FELLED FOR SAFETY REASONS BUT ALTERNATIVE TREES OF THE SAME DIAMETER AND SPECIES MUST BE RETAINED TO REPLACE THE FELLED TREE.

HARVESTING ISSUES

MACHINE OPERATORS SHOULD BE AWARE OF STEEP HOECHUCKING AREAS WITHIN THE CUTBLOCK. THESE AREAS ARE IDENTIFIED ON THE HARVESTING MAP.

RIPARIAN MANAGEMENT STRATEGIES

Creek I.D.	CLASS	MANAGEMENT STRATEGIES FOR RIPARIAN MANAGEMENT ZONES (RMZ) INCLUDING PROTECTING STREAM
	NCD	- NCD(s) within the harvest area will be FX and YX. No RMZ is required. - Note all streams lie within the Sproat Lake Community Watershed, minimize sedimentation at all costs.
		STREAM REACH AND RMA IS OUTSIDE OF THE HARVEST AREA
		STREAM REACH OUTSIDE HARVEST AREA, PORTIONS OF THE RMA WITHIN THE HARVEST AREA
Stream 2 and 4	S3	FA YA NC
		PORTIONS OF STREAM REACH AND RMA ARE WITHIN THE HARVEST AREA
Stream 4-1	S4	FA YX at designated crossings only. NC
		PRESCRIPTION DEFINITIONS
	YX	Yard across Acceptable
	FX	Fall Across Acceptable
	FA/BL	Fall Away. Timber is to be felled away. Leaners and hazard trees that cannot be safely felled away shall be felled and left bridging the stream.
	FA	Fall Away. Timber is to be felled away.
	YA	Yard Away. Timber is to be yarded away. In order to improve deflection, cables are allowed to be suspended above the stream. Non-fish streams: merchantable leaners and danger trees that have been felled across the stream will, by necessity, be yarded across the stream. Fish streams: Leaners and danger trees which have been felled across the stream will be left unless detrimental to the stream.
	HH	100% harvested (no retention of saplings)
	RS	Retain saplings on the streambanks (non-merchantable)
	FE	Feathered edge.
	BPT	Blue painted trees (selected for removal). Faller's choice of alternate tree if unable to fall painted tree safely.
	NHZ	No harvest zone. Trees are to be felled away from the zone. Safe trees that cannot be felled away are to be left as part of the NHZ. Danger trees must be felled and will be left for future LWD or be removed if detrimental to the stream.
	MFZ	Machine free zone.
	MC	Machine Clean transportable introduced large woody debris (LWD) and accumulations concurrent with yarding.
	HC	Hand Clean introduced transportable debris.
	NC	No cleaning required. Keep channel free on introduced debris concurrent with yarding.