

Pope & Talbot Ltd.
Arrow Lakes Timber Division
TFL 23

2003
ANNUAL REPORT

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1.0 SUMMARY OF MANAGEMENT ACTIVITIES - TREE FARM LICENCE #23 - 2003

1.1 Performance

1.11	Total scaled volume (firmwood)	452,957 m3
1.12	Total volume removed by Contractors (excluding W&R)	445,939 m3
1.13	Area logged	1,588.0 ha
1.14	Area planted	1,957.7 ha
	Trees planted	2,659,840
1.15	2003 Forest Investment Account (FIA):	
	Strategic Resource Planning Component	\$200,302.04
	Infrastructure Component	\$9,645.82
	Restoration and Rehabilitation Component	\$17,078.17
	Information Gathering and Management Component	\$260,823.27
	FIA Program Delivery	\$44,921.32
	Total Expenditures	\$532,770.62
1.16	Total area abated using prescribed fire	89.2 ha
1.17	Total area mechanically site prepared	248.9 ha
1.18	Total area pruned	42.9 ha
1.19	Total area Juvenile Spaced	7.4 ha

2.0 PRODUCTION

2.1 Annual Cut 2003

The following Table summarizes the Cut Control to date in the Forest Development Plan (2000-2004):

Volume Summary of the Five-Year Plan: 2000-2004 (m ³)		
YEAR	ACTUAL CUT	ALLOWABLE ANNUAL CUT
2000	588,925.5 m3	599,300 m3
2001	493,224.6 m3	599,300 m3
2002	548,140.0 m3	599,300 m3
2003	452,956.6 m3	599,300 m3
2004		
Final 5 Year Position	2,083,246.7 m3	2,397,200 m3

Current 5-Year Cut Control Performance 87%
Pope & Talbot Ltd. Actual Cut = 452,957 m3
of which = 18,749 m3 was Partition Cut
Conventional Actual Cut = 434,208 m3

2.2 Waste & Residue Surveys

Waste & Residue surveys were carried out on TFL 23 according to Ministry of Forests procedures.

The following tables show the results of these surveys conducted in 2003:

2003 TOTAL WASTE & RESIDUE (m³)			
	Columbia F.D.	Arrow F.D.	TOTAL
Avoidable Residue & Waste	370.0	3979.9	4349.9
Unavoidable Residue & Waste	123.0	126.9	249.9
Total Residue & Waste Volume	493.0	4106.8	4599.8
2003 Performance (m³/ha)	19.5	2.5	2.7

The above Waste & Residue volumes will be applied to Cut Control volumes.

2003 TOTAL BILLABLE WASTE (m³)			
	Columbia F.D.	Arrow F.D.	TOTAL
Total Waste Volume	0	0	0
2003 Performance (m³/ha)	0	0	0

3.0 STAND TREATMENT

3.1 Hectares Harvested Treatment Class

Area Harvested in 2003 by Treatment Class (ha)			
Treatment Class Code		Hectares	% of Total
1	Clearcut	64.3	4%
2	Clearcut with Reserves	1409.1	89%
3	Salvage	114.6	7%
4	Seed Tree	0.0	0%
5	Select	0.0	0%
6	Shelter	0.0	0%
TOTAL		1588.0	100%

Appendix II.03 lists the hectares harvested by landscape unit and cutting practice (Treatment Class).

3.2 Hectares Harvested by Age Class

Area Harvested in 2003 by Age Class (ha)			
Age Class		Hectares	% of Total
1-5	100 years and under	431.7	27%
6	101-120 years	307.9	19%
7	121-140 years	287.3	18%
8	141-250 years	555.0	35%
9	Over 250 years	6.1	<1%
TOTAL		1588.0	100%

Appendix II.04 lists the hectares harvested by landscape unit and age class

3.3 Hectares Harvested by Site Index Class

Area Harvested in 2003 by Site Index Class (ha)		
Site Index Class	Hectares	% of Total
GOOD	637.5	40%
MEDIUM	719.1	45%
POOR	192.8	12%
LOW	38.7	2%
TOTAL	1588.0	100%

Appendix II.05 lists the hectares harvested by landscape unit and site index class.

4.0 REFORESTATION

4.1 Tree Seed Inventory

As presented in Appendix II.06, there was private seed, sufficient to grow over 42 million trees, in storage at the Surrey Seed Center as of December 31, 2003. Species and amounts are summarized in Appendix II.06. See Appendix II.06 for tree seed inventory.

SPECIES	AMOUNT (000's)	YEARS OF SUPPLY
Bg	665.7	5+
Bl	104.0	2+
Cw	1061.2	5+
Fdi	7340.4	5+
Lw	1259.8	5+
Pli	7966.4	5+
Pw (Class A)	196.1	5+
Py	683.5	5+
Sx	22,751.9	5+
Total all Species: 42,029.0		

4.2 Plantations

The 2003 planting program is summarized as follows:

2003 PLANTING SUMMARY				
	APPRAISAL	INDUSTRY OUTSTANDING	MINISTRY OUTSTANDING	TOTALS
Columbia Forest District				
Hectares	53.5	0.0	0.0	53.5
Trees	63,320	0	0	63,320
Arrow Forest District				
Hectares	1904.2	0.0	0.0	1904.2
Trees	2,596,520	0	0	2,596,520
TFL 23 Totals				
Hectares	1957.7	0.0	0.0	1957.7
Trees	2,659,840	0	0	2,659,840

The breakdown of seedlings by species for TFL 23 is as follows:

2003 PLANTING SEEDLINGS by SPECIES		
Species	TFL TOTALS	%
Bg	15,420	0.6%
Bl	146,509	5.5%
Cw	95,070	3.6%
Fdi	384,800	14.5%
Lw	266,509	10.0%
Pli	397,040	14.9%
Pw	215,320	8.1%
Py	44,840	1.7%
Sx	1,094,332	41.1%
TOTAL # OF SEEDLINGS	2,659,840	100%

4.3 Silviculture Surveys

During 2003, 8837.3 hectares were surveyed on TFL 23 as follows:

2003 SILVICULTURE SURVEYS									
Survey Type (activity)	Columbia F.D. (by Fund Source)			Arrow F.D. (by Fund Source)			TFL 23 TOTALS (by Fund Source)		
	IA	IO	MO	IA	IO	MO	IA	IO	MO
BR	0.0	0.0	0.0	30.4	0.0	0.0	30.4	0.0	0.0
FG	140.8	0.0	0.0	2019.5	0.0	0.0	2160.3	0.0	0.0
JS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PL	0.0	0.0	0.0	145.9	0.0	0.0	145.9	0.0	0.0
RA	9.5	0.0	0.0	1009.5	0.0	0.0	1019.0	0.0	0.0
RE	27.6	0.0	0.0	2363.9	0.0	0.0	2391.5	0.0	0.0
RG	44.2	0.0	0.0	1302.6	0.0	0.0	1346.8	0.0	0.0
PR	0.0	0.0	0.0	0.0	0.0	115.3	0.0	0.0	115.3
SU	83.2	0.0	0.0	1544.9	0.0	0.0	1628.1	0.0	0.0
TOTAL	305.3	0.0	0.0	8416.7	0.0	115.3	8722.0	0.0	115.3
Columbia Total 305.3 ha				Arrow Total 8532.0 ha			TFL 23 Total 8837.3 ha		

LEGEND FOR SURVEY TABLE CODES

IA	Industry Appraisal (harvested after 1987)	IO	Industry Outstanding (harvested between 1982 - 1987)	MO	Ministry Outstanding (harvested prior to 1982)
BR	Brushing	RE	Reconnaissance		
FG	Free Growing	RG	Regen Delay – Stocking		
PL	Planting	PR	Pruning Assessment		
RA	Regeneration Performance	SU	Survival		

4.4 Backlog Silviculture Plan

NSR AREA SUMMARY (ha) - as of December 31, 2003				
	I.A.	I.O.	M.O.	TOTAL
Columbia F.D.	41.7	0.0	0.0	41.7
Arrow F.D.	3,126.9	0.0	21.2	3,148.1
TOTAL	3,168.6	0.0	21.2	3,189.8

2004 PLANTING PLAN SUMMARY (ha)				
	I.A.	I.O.	M.O.	TOTAL
Columbia F.D.	0.0	0.0	0.0	0.0
Arrow F.D.	2,494.1	0.0	0.0	2,494.1
TOTAL	2,494.1	0.0	0.0	2,494.1

4.5 Site Preparation

Mechanical site preparation was conducted on a total of 248.9 hectares and prescribed burns were carried out on 89.2 hectares on TFL 23. The objective was to prepare areas for our planting program.

2003 SITE PREPARATION									
TECHNIQUE & METHOD	Columbia F.D.			Arrow F.D.			TFL 23 Totals		
	IA	IO	MO	IA	IO	MO	IA	IO	MO
BU BROAD	0.0	0.0	0.0	68.1	0.0	0.0	68.1	0.0	0.0
BU LAND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BU PBURN	0.0	0.0	0.0	21.1	0.0	0.0	21.1	0.0	0.0
BU PILE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BU SPOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ME MOUND	0.0	0.0	0.0	115.0	0.0	0.0	115.0	0.0	0.0
ME GUARD	0.0	0.0	0.0	1.6	0.0	0.0	1.6	0.0	0.0
ME PILE	0.0	0.0	0.0	36.8	0.0	0.0	36.8	0.0	0.0
ME RESTU	0.0	0.0	0.0	95.5	0.0	0.0	95.5	0.0	0.0
SE TUBEX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	338.1	0.0	0.0	338.1	0.0	0.0
TOTAL ALL	0.0			338.1			338.1		

5.0 STAND TENDING

5.1 Stand Treatments

5.11 Brushing

The objective is to maximize the survival and early growth of young plantations by removing competing vegetation. Manual brushing was conducted in both the Arrow and Columbia Forest Districts.

2003 BRUSHING									
ACTIVITY & METHOD	Columbia F.D.			Arrow F.D.			TFL 23 Total		
	I.A.	I.O.	M.O.	I.A.	I.O.	M.O.	I.A.	I.O.	M.O.
MA BRUSH	37.7	0.0	0.0	114.2	0.0	0.0	151.9	0.0	0.0
MA MANCT	0.0	0.0	0.0	57.9	0.0	0.0	57.9	0.0	0.0
MA POWER	0.0	0.0	0.0	200.1	0.0	0.0	200.1	0.0	0.0
TOTAL	37.7	0.0	0.0	372.2	0.0	0.0	409.9	0.0	0.0
TOTAL ALL	37.7			372.2			409.9		

LEGEND FOR BRUSHING TABLE CODES

MA BRUSH	Manual – Brush Saw	Herbaceous Brushing Management
MA MANCT	Manual – Manual Cutting	Herbaceous Brushing Management
MA POWER	Manual – Power Saw	Conifer Release – Hardwood Management

5.12 Conifer Release

Conifer release was conducted on 200.1 ha of appraisal ground. No conifer release was done on pre-appraisal ground in 2003.

5.13 Herbaceous Brushing

Herbaceous brushing was conducted on 209.8 ha of appraisal ground in 2003. No herbaceous brushing was done on pre-appraisal ground in 2003.

5.14 White Pine Pruning

Pathological pruning of White Pine was completed on 34.4 ha of pre-appraisal ground and 8.5 ha of appraisal ground in 2003. Pruning of 34.4 ha of ground was paid by Forest Investment Account funds.

5.15 Juvenile Spacing and Pruning

Juvenile spacing of natural stands defined as spacing in stands with an average corrected age of less than 40 years, was conducted on 7.4 ha of appraisal ground while no juvenile spacing took place on pre-appraisal on TFL 23 in 2003.

5.2 Stand Tending Summary

During 2003, stand tending treatments took place on a total of 460.2 ha. See Appendix II.09 for the Stand Tending Treatment summary to December 31, 2003.

6.0 GROWTH AND YIELD

6.1 Permanent Growth Plots

No Permanent Growth Plots were established in 2003.

6.2 Permanent Sample Plots (PSP's)

In 2003, 22 PSP's were re-measured using Forest Investment Account (FIA) funding.

7.0 WHITE PINE TREE IMPROVEMENT PROGRAM

As a member of the Inland Empire Tree Improvement Cooperative (IETIC), Pope & Talbot Ltd. received approximately 3 kilograms (about 20,000 seedlings) of rust resistant White Pine seed from the 2003 Moscow Arboretum Seed Orchard cone collection.

8.0 DEVELOPMENT

8.1 Forest Development Plans

On January 24, 2003 Pope & Talbot Ltd. submitted a Forest Development Plan covering the period 2003 - 2007. The 2003-2007 Forest Development Plan was approved on July 14, 2003. On October 23, 2003, the 2003-2007 FDP was amended to address the Ingersol and Halfway fires.

8.2 Cutting Permits

As of December 31, 2003 Pope & Talbot Ltd. had, under Cutting Permit, 1.87 years of documented conventional wood and 1.23 years of documented helicopter wood. In 2003 \$1,737,803 was spent on Cutting Permit development to maintain volumes under Cutting Permit and to ensure operational flexibility.

8.3 Road Construction - Appraisal

Total roads constructed in 2003 were 117.5 km in the Arrow District. The total cost of road construction was \$4,688,000.

8.4 Grass Seeding - Erosion Control

Grass seeding is done on newly constructed roads (ditchlines, cut slopes, fill slopes, and, in some cases, R/W landings), and again on roads in cut blocks post-harvesting. The seeding is done, primarily, on environmentally sensitive areas, but also to improve aesthetics.

A total of 169.7 kilometres of roads were grass seeded in 2003.

9.0 FOREST PROTECTION - INSECTS AND DISEASES

In the summer of 2003, a forest health helicopter inventory was conducted on TFL 23. P&T staff flew over a two-day period and noted all visible insect and disease activity. As a result, development planning was revised to address any potential concerns. A Forest Health Strategy was completed under the Forest Investment Account schedule. See Appendix II.10.

9.1 Mountain Pine Beetle

The mountain pine beetle is still present in many pine stands in the southern portion of TFL 23. As a result, P&T continued to work on and update its Beetle Management Plan. In the summer of 2003, forest technicians worked on collecting field data in order to establish stand risk indices. This work will continue in 2004.

Harvesting in 2003, that specifically targeted mountain pine beetle infested and susceptible timber types, was carried out in the following areas; CP 277 (Renata), CP 339 (Tulip), CP 334 (Tulip), CP 371 (Octopus), and CP 395 (Woden Creek).

Field layout was completed on the following mountain pine beetle permits; CP 298 (Charity Creek), CP 299 (Lower Bowman), CP 310 (Renata), CP 311 (Renata) as well as Sunshine Creek and Van Houten Creek.

In 2004, harvesting of mountain pine beetle infested and susceptible timber is scheduled for CP 298 (Charity Creek), CP 305 (Faith), CP 339 (Tulip Creek), CP 368 (Gladstone Creek), CP 362 (Gladstone Creek), CP 395 (Woden Creek), CP 383 (Heart Creek), CP 412 (Heart Creek), CP 413 (Stoney) and CP 414 (Octopus). CP layout targeting mountain pine beetle susceptible timber types will continue in 2003.

9.2 Pw Blister Rust

Endemic populations of white pine blister rust are resident in most stands in the Interior Cedar-Hemlock Biogeoclimatic Zone on TFL 23. Harvesting priorities on TFL 23 are not determined by the potential to salvage blister rust infected timber within this zone due to low concentration levels of white pine in most stands. However, Pw blister rust can combine with other forest pathogens to increase mortality.

9.3 Spruce Bark Beetle

Spruce blowdown attracts Spruce Bark Beetles making prompt salvage a priority. Minimal blowdown events have occurred making this a minor problem.

9.4 Douglas-Fir Bark Beetle

The Douglas-fir bark beetle seems to be making a comeback, possibly due to the recent mild winters. P&T continues to monitor for any signs of this pest. Salvage harvesting took place in CP 197 (Arrow Park) to salvage trees infested with the beetle. This was in the latter part of 2003. Also, endemic levels are present in CP 383, Blocks 6 & 7 (Heart Creek), CP 313 (Faith Creek) and CP 364 (Sunshine Creek). All are scheduled for harvest in 2004

9.5 Defoliators

Hemlock looper infested timber, from the last outbreak ending in 1994/1995, exists in compartment 122 (Upper Pingston Creek). No new outbreaks of looper have been detected on TFL 23.

9.6 Armillaria

In 2003, root removal harvesting was completed in CP 366 (Deer Ridge).

Armillaria is a significant forest health pathogen in the southern portion of TFL 23. As a result root removal operations are planned for CP 364 (Sunshine/Gladstone), CP 481 (Cape Horn) and CP 489 (St. Leon Creek) in 2004.

9.7 Spruce Budworm

No spruce budworm was observed in 2003.

9.8 Other Pests

Balsam Bark Beetle – Large-scale salvage was completed in the fall/winter of 2003 in CP 253. Pockets of this beetle still exist in some stands. As a result, all remaining stands will be monitored over the next few years.

Blowdown – Wind continues to damage standing timber. In 2003, blowdown was salvaged in CP 1 (Eddy Road). In 2004, salvage is planned for CP 512 (Blind Bay), CP 483 (McLeod Road) and CP 419 (Eddy Road).

Wildfire – The summer of 2003 brought numerous wildfires. P&T began salvage operations on CP 197 (Ingersol fire), CP 395 (Burton fire), CP 597 (halfway fire and a small fire in CP 1 (Cayuse Creek). Salvage will continue in 2004 in all these permits as well as CP 245 and CP 243 within the Ingersol fire.

10.0 FOREST INVESTMENT ACCOUNT (FIA)

In May 2003, Pope & Talbot entered into a recipient agreement with PricewaterhouseCoopers LLP, administrator of the land base investment program of the Forest Investment Account (FIA). The land base investment program (LBIP) was established by the Provincial Government to deliver high priority and cost-effective forest productivity and sustainability investments. As the FIA program is founded upon a Vote of the Legislature, there is no guarantee of funding in subsequent years. The 2003-2004 FIA allocations were reduced by 21% from the previous year. A reduction of FIA funding is anticipated for 2004-2005.

Pope & Talbot's 2003-2004 FIA Investment Schedule for TFL 23 included eligible projects within the following LBIP components: Strategic Resource Planning, Infrastructure, Restoration and Rehabilitation and Information Gathering and Management. This range of activities represents a balance of investments over the management unit. Currently Pope & Talbot is developing a Sustainable Forest Management Plan (SFMP) for three management units identified within the licensed land base. The SFMP will drive future FIA investment decisions, as well as support the regulatory framework, timber supply analysis and resource specific strategies.

Total expenditures for the TFL 23 2003-2004 FIA Investment Schedule were \$532,771. All total expenditures reported below include a delivery allowance to cover FIA program planning, management and administrative costs. The delivery allowance is calculated based on a percentage of actual project costs.

10.1 Strategic Resource Planning Component

Land Base Investment Rationale (LBIR) documents were developed to guide FIA funding for 2003-2004 and 2004-2005. Several projects were carried out under the Sustainable Forest Management Planning activity area to support preparation of Pope & Talbot's SFMP Version 1.0. These projects include a funding contribution for the West Kootenay Representation Analysis, the joint Pope & Talbot/Slocan Forest Products Management Implications project to assess the operational implications of strategic timber supply analyses, and development of Social and Economic Criteria and Indicator for TFL 23. The Management Unit Strategies activity area included the following projects: TFL 23 Spatial Analysis Update, Silviculture Treatment Regime Initiative Project (STRIP), Caribou Habitat Assessments and a Forest Health Strategy.

Total 2003-2004 expenditures in the Strategic Resource Planning component were \$200,302.04. See Appendix II.10.

10.2 Infrastructure Component

The Infrastructure component included monitoring and maintenance of roads that were deactivated under the Forest Renewal BC program and the 2002-2003 FIA program. A total of 70 km of road was inspected, improvements were made to surface and subsurface drainage on Batys Road and one slide site was stabilized.

Total 2002-2003 expenditures for the Infrastructure component were \$9,645.82. See Appendix II.10.

10.3 Restoration and Rehabilitation Component

Prescriptions were developed and works were completed for the following projects in the Terrestrial Activity Area: 0.35 km of permanent deactivation on Cusson Road Spur C, a bridge removal on Pin Road Branch 7, and a bridge removal on the Finkle Creek Mining Trail. All areas were seeded following deactivation. A channel restoration prescription was revised and works were carried out under the Riparian Activity Area for a tributary to Wilkie Creek.

Total 2003-2004 expenditures for the Restoration and Rehabilitation component were \$17,078.17. See Appendix II.10.

10.4 Information Gathering and Management Component

Six activities were completed under the Information Gathering and Management component. Twenty-two permanent sample plots (PSP) were remeasured on TFL 23. RIC-standard field sampling was conducted to support PEM verification and quality assurance through the Habitat Site Investigations project. The Fish and Fish Habitat Inventory (FFHI) activity included a Phases 1-3 Pre-field Planning project, sampling of 226 sites in the Phases 4-6 Reconnaissance Level (1:20,000) project and the Follow-up Sampling project, and a Digital Mapping Update project. The Pope & Talbot Arrow Lakes Timber Division completed several partnership projects in 2003-2004 including the Central Selkirk Caribou aerial population census, an evaluation of conservation values of different types of old-growth forests in the Incommapleux River valley using epiphytic lichen indicators, and a data exchange project to transform data from GENUS to RESULTS and FTA.

Total 2003-2004 expenditures for the Information Gathering and Management component were \$260,823.27. See Appendix II.10.

11.0 AMENDMENTS TO THE TFL 23 DOCUMENT

There were no Amendments to the TFL 23 Document in 2003.

12.0 2003 INTERNAL EMS AUDIT / EXTERNAL FPB AUDIT

An EMS (Environmental Management System) Audit of the Arrow Timber Division was conducted on December 4th and 5th, 2003, with follow-up as necessary following the audit dates. The audit scope at Arrow for 2003 included the following:

- Planning Program;
- Silviculture Program and
- Divisional EMS maintenance and administration.

Appendix II.01

2003 Cut Control Volume

APPENDIX II.01					
Pope & Talbot Ltd.					
Arrow Lakes Timber Division					
Annual Report for TFL 23					
Cut Control - 2003					
Sum of VOLUME (m3)		AAC CATEGORY			
LICENCE	TIMBERMARK	Conventional	Partition	W & R	Grand Total
TFL23	23/1	2,620.2		18.4	2,638.6
	23/103	921.4			921.4
	23/148			109.7	109.7
	23/152			209.8	209.8
	23/153	3,533.4		136.9	3,670.3
	23/157	2,285.4			2,285.4
	23/159	2,018.3		351.4	2,369.7
	23/187			55.2	55.2
	23/191	1.6		365.9	367.5
	23/197	4,295.8			4,295.8
	23/199			946.3	946.3
	23/201	8,342.8		254.0	8,596.8
	23/207	6,683.4		60.8	6,744.2
	23/209	12,986.6			12,986.6
	23/215	6,172.2			6,172.2
	23/217	191.3			191.3
	23/223	29,518.2			29,518.2
	23/228	54.5		477.4	531.9
	23/232	27,612.6			27,612.6
	23/234	45,373.4			45,373.4
	23/235	100.8			100.8
	23/236	10,138.0			10,138.0
	23/240	1,358.9			1,358.9
	23/256			157.7	157.7
	23/257			207.6	207.6
	23/259	30,300.9			30,300.9
	23/267			105.4	105.4
	23/277	20,929.5		64.3	20,993.8
	23/285			27.3	27.3
	23/287			24.7	24.7
	23/289			65.3	65.3
	23/295	6,665.3			6,665.3
	23/297			8.8	8.8
	23/301			178.1	178.1
	23/302	19,693.3		26.1	19,719.4
	23/304	162.8			162.8
	23/333			9.3	9.3
	23/345			45.9	45.9
	23/362	1,599.6			1,599.6

APPENDIX II.01					
Pope & Talbot Ltd.					
Arrow Lakes Timber Division					
Annual Report for TFL 23					
Cut Control - 2003					
Sum of VOLUME (m3)		AAC CATEGORY			
LICENCE	TIMBERMARK	Conventional	Partition	W & R	Grand Total
TFL23	23/363			96.3	96.3
	23/365			167.3	167.3
	23/366	3,354.7		184.5	3,539.2
	23/368	4,918.5			4,918.5
	23/371			824.0	824.0
	23/385		11,554.6	13.7	11,568.3
	23/395	59,345.8			59,345.8
	23/399	22,563.8			22,563.8
	23/402	3,347.9			3,347.9
	23/406	11,235.8			11,235.8
	23/416	6,503.6		227.0	6,730.6
	23/418	1,252.2	4,833.0		6,085.2
	23/422		1,786.2	603.3	2,389.5
	23/483			66.2	66.2
	23/491			90.6	90.6
	23/499	3,814.7		23.6	3,838.3
	23/505	2,135.3			2,135.3
	23/529	10,238.5		164.7	10,403.2
	23/577	2,376.9			2,376.9
	BZ001	39.3			39.3
	R07922	40,301.7		591.3	40,893.0
	R10983			17.6	17.6
	T0519A	9,219.2			9,219.2
	T0595A	10.9			10.9
	T0610A	3,569.8			3,569.8
	T0649A			18.0	18.0
TFL23 Total		427,788.7	18,173.8	6,994.3	452,956.8
Grand Total		427,788.7	18,173.8	6,994.3	452,956.8

Appendix II.03

Hectares Harvested by Treatment Class

APPENDIX II.03					
Pope & Talbot Ltd.					
Arrow Lakes Timber Division					
2003 - Annual Report for TFL 23					
Area (hectares) Harvested by Treatment Type					
Sum of AREA	TREATMENT CLASS				
LANDSCAPE_UNIT	CCRES	CLEAR	SALVAGE	Grand Total	
Barnes-Whatshan	303.4	15.4		318.8	
Cayuse	34.1			34.1	
Fosthall	56.3			56.3	
Gladstone	37.5		3.4	40.9	
Halfway	77.8		8.6	86.4	
Johnston	223.4	9.5		232.9	
Trout	78.6			78.6	
Vipond	321.0	19.1	96.4	436.6	
Woden	276.9	20.3	6.2	303.4	
Grand Total	1409.1	64.3	114.6	1588.0	
	89%	4%	7%	100%	

Appendix II.04

Hectares Harvested by Age Class

APPENDIX II.04						
Pope & Talbot Ltd.						
Arrow Lakes Timber Division						
2003 - Annual Report for TFL 23						
Area (hectares) Harvested by Age Class						
Sum of AREA	AGE CLASS					
LANDSCAPE_UNIT	Age Class 5	Age Class 6	Age Class 7	Age Class 8	Age Class 9	Grand Total
Barnes-Whatshan	0.1	29.9	40.7	245.9	2.2	318.8
Cayuse	25.8		1.3	7.0		34.1
Fosthall	3.7	19.8	5.2	26.9	0.6	56.3
Gladstone	19.7	0.8	19.8	0.7		40.9
Halfway	24.5	21.3	8.0	32.5	0.1	86.4
Johnston	157.5	14.1	15.5	45.8		232.9
Trout		0.0	30.0	47.8	0.8	78.6
Vipond	41.6	123.2	153.4	116.1	2.3	436.6
Woden	158.7	98.8	13.5	32.3	0.0	303.4
Grand Total	431.7	307.9	287.3	555.0	6.1	1588.0
	27%	19%	18%	35%	0%	100%
Age Class Key						
Age Class 5	81-100 years					
Age Class 6	101-120 years					
Age Class 7	121-140 years					
Age Class 8	141-250 years					
Age Class 9	251+ years					

Appendix II.05

Hectares Harvested by Site Index Class

APPENDIX II.05					
Pope & Talbot Ltd.					
Arrow Lakes Timber Division					
2003 - Annual Report for TFL 23					
Area (hectares) Harvested by Site Index Class					
Sum of AREA	ADJ SI GROUP				
LANDSCAPE_UNIT	GOOD	MEDIUM	POOR	LOW	Grand Total
Barnes-Whatshan	40.9	229.1	48.5	0.2	318.8
Cayuse	1.0	15.7	4.7	12.8	34.1
Fosthall	24.5	16.3	15.5		56.3
Gladstone	12.7	26.3	2.0		40.9
Halfway	25.5	34.3	25.2	1.4	86.4
Johnston	150.9	68.2	13.4	0.4	232.9
Trout	22.6	42.3	13.7		78.6
Vipond	151.9	195.5	69.7	19.4	436.6
Woden	207.5	91.4	0.0	4.5	303.4
Grand Total	637.5	719.1	192.8	38.7	1588.0
	40%	45%	12%	2%	100%

Appendix II.06

Tree Seed Register as of December 31, 2003

APPENDIX II.06								
Pope & Talbot Ltd.								
Arrow Lakes Timber Division								
2003 - Annual Report for TFL 23								
Seedlot Listing								
(April 14, 2004)								
Sp.	Seedlot	Genetic Class	Mean Elev.	Min. Elev.	Max. Elev.	Collection Year	Total Grams	Trees (k)
BG	42054	B	550	350	850	1996	6,232	77.7
	42067	B	800	600	1100	1997	5,343	53.2
	44018	B	750	550	1050	1999	20,216	292.1
	44019	B	900	700	1200	1999	18,043	242.5
Total For Species:							49,834	665.5
BL	48045	B	1650	1450	1950	2002	5,604	89.2
	42072	B	1700	1500	2000	1997	174	4.8
Total For Species:							5,778	94.0
CW	42083	B	900	700	1200	1997	1,658	620.6
	42084	B	1150	950	1450	1997	1,060	440.6
Total For Species:							2,718	1,061.2
FDI	05458	B	732	532	1032	1983	143	5.9
	05729	B	701	501	1001	1987	18,226	830.9
	05744	B	1050	850	1350	1988	2,085	90.7
	05746	B	950	750	1250	1988	131	6.9
	30604	B	650	450	950	1990	35,365	1,409.0
	30605	B	750	550	1050	1990	18,794	966.8
	31407	B	800	600	1100	1990	14,839	690.2
	33331	B	530	330	830	1990	5,245	229.4
	33332	B	630	430	930	1990	5,167	226.0
	33333	B	720	520	1020	1990	5,651	257.6
	33337	B	720	520	1020	1990	5,703	308.3
	33338	B	550	350	850	1990	1,555	80.8
	33339	B	650	450	950	1990	1,139	52.9
	33340	B	750	550	1050	1990	2,835	129.2
	33341	B	850	650	1150	1990	5,949	263.0
	33342	B	950	750	1250	1990	13,924	701.6
	33343	B	1050	850	1350	1990	150	7.0
	33344	B	810	610	1110	1990	6,446	311.6
	33345	B	900	700	1200	1990	7,840	382.7
	33349	B	550	350	850	1990	6,618	292.5

APPENDIX II.06								
Pope & Talbot Ltd.								
Arrow Lakes Timber Division								
2003 - Annual Report for TFL 23								
Seedlot Listing								
(April 14, 2004)								
Sp.	Seedlot	Genetic Class	Mean Elev.	Min. Elev.	Max. Elev.	Collection Year	Total Grams	Trees (k)
	45778	B	1240	1040	1540	1997	33	1.5
Total For Species:							157,838	7,244.5
LW	04962	B	1150	950	1450	1987	2,062	223.5
	31724	B	750	550	1050	1990	54	4.0
	35682	B	550	350	850	1992	355	18.2
	35683	B	750	550	1050	1992	2,354	79.3
	35684	B	850	650	1150	1992	1,024	54.2
	39148	B	1250	1050	1550	1993	5,471	219.7
	42022	B	590	390	890	1995	63	3.2
	42023	B	750	550	1050	1995	1,571	57.8
	42055	B	750	550	1050	1996	466	27.7
	42056	B	1025	825	1325	1996	12	0.8
	47212	B	605	405	905	1996	246	28.4
	39150	B	1350	1150	1650	1993	10,078	512.6
Total For Species:							23,756	1,229.4
PLI	05669	B	930	830	1230	1988	6,049	758.4
	05726	B	1418	1318	1718	1987	100	9.2
	05728	B	1463	1363	1763	1987	7,982	914.2
	05750	B	700	600	1000	1988	201	24.8
	05757	B	700	600	1000	1989	3,981	687.5
	05758	B	800	700	1100	1989	3,699	625.2
	05759	B	900	800	1200	1989	5,197	913.9
	30312	B	700	600	1000	1989	825	125.7
	33347	B	1480	1380	1780	1991	8,921	1,187.3
	33348	B	1550	1450	1850	1993	203	29.2
	33351	B	1750	1650	2050	1991	743	77.6
	33352	B	1650	1550	1950	1991	715	79.3
	33353	B	1550	1450	1850	1991	409	48.8
	42059	B+	600	400	900	1996	2,728	394.4
	42060	B	750	650	1050	1996	3,353	453.1
	44001	B+	600	400	900	1997	905	117.7
	42011	B	1800	1700	2100	1995	501	71.8
	42012	B	1750	1650	2050	1995	402	59.1
	42016	B	1100	1000	1400	1995	1,681	262.4

APPENDIX II.06								
Pope & Talbot Ltd.								
Arrow Lakes Timber Division								
2003 - Annual Report for TFL 23								
Seedlot Listing								
(April 14, 2004)								
Sp.	Seedlot	Genetic Class	Mean Elev.	Min. Elev.	Max. Elev.	Collection Year	Total Grams	Trees (k)
	42017	B	1000	900	1300	1995	944	145.2
	42087	B	950	850	1250	1995	1,547	223.0
	42100	B	1000	900	1300	1997	2,498	386.5
	46091	B	1280	1180	1580	1997	100	12.1
	46098	B	1800	1700	2100	1997	2,385	360.5
	Total For Species:						56,069	7,966.9
PW	06957	A	1204	1	1450	1994	165	2.8
	60419	A	950	1	1450	1997	6,826	84.2
	61227	A	975	1	1400	1998	1,529	24.0
	61229	A	975	1	1400	2000	2,300	33.4
	61230	A	975	1	1400	2001	2,042	36.8
	61231	A	975	1	1400	2002	1,089	17.7
	Total For Species:						289,388	4,274.9
PY	30455	B	905	705	1205	1991	421	3.1
	31821	B	840	640	1140	1991	14,814	98.3
	32742	B	840	640	1140	1991	18,007	119.5
	33354	B	660	460	960	1991	124	0.9
	40370	B	875	675	1175	1997	3,518	27.5
	42001	B	600	400	900	1994	33,275	114.1
	42004	B	700	500	1000	1994	12,705	65.4
	44020	B	1000	800	1300	1999	32,562	241.6
	Total For Species:						115,426	670.4
SX	02431	B	1463	1263	1863	1974	2,706	266.4
	02432	B	1463	1263	1863	1974	2,296	215.9
	05459	B	777	577	1177	1983	21,707	3,615.1
	05740	B	1400	1200	1800	1988	13,990	2,650.4
	05741	B	1500	1300	1900	1988	10,822	1,485.2
	05743	B	1200	1000	1600	1988	6,234	970.7
	30318	B	746	546	1146	1990	43,743	5,578.7
	33336	B	1290	1090	1690	1990	639	115.0
	33355	B	1100	900	1500	1991	11,223	2,226.8
	33356	B	1190	990	1590	1991	5,452	1,075.0

APPENDIX II.06								
Pope & Talbot Ltd.								
Arrow Lakes Timber Division								
2003 - Annual Report for TFL 23								
Seedlot Listing								
(April 14, 2004)								
Sp.	Seedlot	Genetic Class	Mean Elev.	Min. Elev.	Max. Elev.	Collection Year	Total Grams	Trees (k)
	33357	B	1680	1480	2080	1991	14,222	1,550.4
	33366	B	1370	1170	1770	1991	9,530	1,742.2
	33367	B	1280	1080	1680	1991	1,539	261.5
	33368	B	1190	990	1590	1991	5,337	998.6
	Total For Species:						149,440	22,751.9
	Total For Division:							45,958.7

Appendix II.07

Summary of Artificial Reforestation as of December 31, 2003

APPENDIX II.07							
T.F.L. # 23							
SUMMARY OF ARTIFICIAL REFORESTATION							
As of December 31, 2003							

<p align="center">SUMMARY OF ARTIFICIAL REFORESTATION</p> <p align="center">As of December 31, 2003</p>	
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As of December 31, 2003

[illegible]

GROSS HECTARES PLANTED				GROSS HECTARES DIRECT SEEDED				GROSS AREA (ha)
	Revelstoke	Arrow			Revelstoke	Arrow		ARTIFICIALLY
Year	Forest District	Forest District	Total	Year	Forest District	Forest District	Total	REFORESTED
1957		4.9	4.9	1957				4.9
1961		24.3	24.3	1961				24.3
1962		61.5	61.5	1962	TRIAL			61.5
1963		16.2	16.2	1963				16.2
1964	15.4	79.3	94.7	1964	8.1		8.1	102.8
1965	132.4	27.9	160.3	1965				160.3
1966	32.8	63.2	96.0	1966				96.0
1967	42.5	26.3	68.8	1967	8.1		8.1	76.9
1968	55.1	42.1	97.2	1968				97.2
1969	161.1		161.1	1969				161.1
1970	370.9		370.9	1970	30.4		30.4	401.3
1971	168.4		168.4	1971				168.4
1972	170.9	29.1	200.0	1972				200.0
1973	102.8	166.0	268.8	1973				268.8
1974		138.1	138.1	1974				138.1
1975	312.6	466.8	779.4	1975				779.4
1976	336.4	214.2	550.6	1976				550.6
1977	95.5	594.0	689.5	1977				689.5
1978	401.2	544.1	945.3	1978				945.3
1979	853.0	177.2	1,030.2	1979				1,030.2
1980	406.7	565.9	972.6	1980				972.6
1981		983.5	983.5	1981		2.2	2.2	985.7
1982	777.3		777.3	1982				777.3
1983	158.5	678.5	837.0	1983				837.0
1984	1,005.5	115.6	1,121.1	1984				1,121.1
1985	248.5	860.8	1,109.3	1985				1,109.3
1986	780.8	750.4	1,531.2	1986				1,531.2
1987	847.0	660.7	1,507.7	1987				1,507.7
1988	1,158.3	1,270.3	2,428.6	1988				2,428.6
1989	1,423.8	2,428.3	3,852.1	1989				3,852.1
1990	886.4	4,407.1	5,293.5	1990				5,293.5
1991	1,667.1	2,471.9	4,139.0	1991				4,139.0
1992	485.2	1,373.0	1,858.2	1992				1,858.2
1993	7.7	1,444.9	1,452.6	1993				1,452.6
1994	367.8	1,595.2	1,963.0	1994				1,963.0
1995	185.9	1,733.9	1,919.8	1995				1,919.8
1996	92.8	1,722.4	1,815.2	1996				1,815.2
1997	159.8	1,423.4	1,583.2	1997				1,583.2
1998	51.8	1,464.5	1,516.3	1998				1,516.3
1999	53.2	1,801.3	1,854.5	1999				1,854.5
2000	55.0	1,967.8	2,022.8	2000				2,022.8
2001	144.6	2,453.6	2,598.2	2001				2,598.2

GROSS HECTARES PLANTED				GROSS HECTARES DIRECT SEEDDED				GROSS AREA (ha)
	Revelstoke	Arrow			Revelstoke	Arrow		ARTIFICIALLY REFORESTED
Year	Forest District	Forest District	Total	Year	Forest District	Forest District	Total	
2002	83.2	2,431.5	2,514.7	2002				2,514.7
2003	53.5	1,904.2	1,957.7	2003				1,957.7
	14,351.4	39,183.9	53,535.3		46.6	2.2	48.8	53,584.1
cjs								
6/3/2004								

2 of 2

Appendix II.09

Summary of Pre-Commercial Stand Treatment as of December 31, 2003

APPENDIX II.09											
T.F.L. #23											
SUMMARY OF PRE-COMMERCIAL STAND TREATMENT											
AS OF DECEMBER 31, 2003											
HECTARES BY TREATMENT TYPE (1)											
				4	2		2			3	
				BRUSHING							
	PRE-COMMERCIAL	JUVENILE	CONIFER	&	PW PRUNING		FIR PRUNING		DECIDUOUS	RESIDUAL	
YEAR	THINNING	SPACING	RELEASE	WEEDING	PRIMARY	SECONDARY	PRIMARY	SECONDARY	CONTROL	FALLING	TOTAL
1980		3			0						3
1981		11			0						11
1982		31	7	98	0	111					136
1983	399	171	23	51	3	131	6		87	45	785
1984	57	185	266		0	443		285	123	15	646
1985	88	115	3	43	6	116				594	849
1986	47	98	2	12	24	14				79	262
1987		188	13		0	201				192	393
1988		102	36	67	0	139			36	120	361
1989		50		331	0						381
1990		207		1,954	0	40					2,161
1991	3	152		3,687	0						3,842
1992		18		2,521	6		2	18			2,547
1993		18		2,456	21	19					2,495
1994		31		1,355	165	17					1,551
1995		7		1,625	570	0					2,202
1996	0	95	0	1,436	492	0	13	0	0	0	2,036
1997	0	263	0	1,724	296	0		0	0	0	2,283
1998	0	265	0	1,508	282	0	0	0	0	0	2,055
1999	0	38	0	1,399	234	0	0	0	0	0	1,671
2000	0	24	0	1,721	0	0	0	0	0	0	1,745
2001	0	0	0	1,408	0	0	0	0	0	0	1,408

APPENDIX II.09											
T.F.L. #23											
SUMMARY OF PRE-COMMERCIAL STAND TREATMENT											
AS OF DECEMBER 31, 2003											
HECTARES BY TREATMENT TYPE (1)											
				4	2		2			3	
				BRUSHING	PW PRUNING		FIR PRUNING		DECIDUOUS	RESIDUAL	
YEAR	PRE-COMMERCIAL	JUVENILE	CONIFER	&	PRIMARY	SECONDARY	PRIMARY	SECONDARY	CONTROL	FALLING	TOTAL
	THINNING	SPACING	RELEASE	WEEDING							
2002	0	15	0	787	186	0	0	0	0	0	989
2003	0	7	0	410	43	0	0	0	0	0	460
TOTALS	594	2,094	350	24,593	2,328	1,231	21	303	246	1,045	31,272
1	For areas where a combination of treatments were applied, the total area (rounded to the nearest hectare) was defined by the primary treatment type.										
2	PRIMARY: Refers to areas where pruning was the primary treatment while, SECONDARY: Refers to areas where pruning was carried out concurrently with an associated primary treatment. The later areas do not contribute to the total treatment hectares listed.										
3	The 1984 hectares given for deciduous seed tree control are approximate net hectares. Gross hectares were essentially the cut block size while net hectares were the approximate portions of the cut blocks treated.										
4	Includes Sheep Grazing and Chemical Brushing; therefore includes manual, biological and chemical brushing.										

Appendix II.10

2003 Forest Investment account (FIA) summary of expenditures for the year ending March 31, 2003

APPENDIX II.10						
Pope & Talbot Ltd.						
Arrow Lakes Timber Division						
2003-2004 FOREST INVESTMENT ACCOUNT						
INVESTMENT SCHEDULE #SOTFL234217						
Component	Activity Area	Eligible Activities	Project Description	FIA Project #	Outputs	Total Cost*
Strategic Resource Planning	Land Base Investment Rationale (LBIR)	2003-2004 LBIR Preparation	LBIR document to guide FIA project funding allocation for 2003-2004 fiscal year.	4217011	1 document	\$ 2,117.50
		2004-2005 LBIR Preparation	LBIR document to guide FIA project funding allocation for 2004-2005 fiscal year.	4217022	1 document	\$ 770.35
	Sustainable Forest Management Planning	Preparation of SFM Plan Version 1.0	Further development of the sustainable forest management framework into Version 1.0 of the SFM Plan	4217001	1 report	\$ 9,904.00
		West Kootenay Representation Analysis	Representation analysis of ecosystem clusters in an unmanaged state	4217002	report and database	\$ 12,625.00
		Management Implications	Assessment of the operational implications of strategic timber supply analyses by mapping current operational conditions.	4217018	report	\$ 40,700.80
		Social & Economic Criteria & Indicator Development	Identification and selection of potential social and economic indicators for TFL 23	4217015	report	\$ 8,455.13
	Management Unit Strategies	TFL 23 Spatial Analysis	Update of the KBLUP spatial analysis	4217019	report / GIS	\$ 11,789.00
		STRIP	Development of the decision-making framework to link "on the ground" forest management activities with higher-level landscape objectives.	4217012	LU reports	\$ 12,488.50
		Caribou Habitat Assessments	Landscape and stand level assessments of caribou habitat to support the TFL 23 LUP Strategy and SFMP ecological criteria.	4217006	Planning unit reports and maps	\$ 42,355.40
		Forest Health Strategy	MPB management strategy and TFL 23 Forest Health Strategy	4217016	report and maps	\$ 59,096.36
	TOTAL					\$ 200,302.04
Infrastructure	Roads	Environmental Maintenance on Wilderness Roads (prescriptions and major works), EE	Monitoring and maintenance of previous FRBC and FIA road deactivation	4217005	70 km	\$ 9,645.82

APPENDIX II.10						
Pope & Talbot Ltd.						
Arrow Lakes Timber Division						
2003-2004 FOREST INVESTMENT ACCOUNT						
INVESTMENT SCHEDULE #SOTFL234217						
Component	Activity Area	Eligible Activities	Project Description	FIA Project #	Outputs	Total Cost*
	TOTAL					\$ 9,645.82
Restoration and Rehabilitation	Riparian	Prescriptions	Wilkie Face Tributary channel restoration prescription and works	4217013	1 site	\$ 4,410.99
	Terrestrial (roads, gullies, ecosystems)	Assessments, Treatments	Permanent deactivation and bridge removal of non-status roads	4217014	3 sites	\$ 12,667.18
	TOTAL					\$ 17,078.17
Information Gathering and Management	Resource Inventories	PEM - Habitat Site Investigations	RIC standard field sampling in support of PEM verification and QA	4217003	78 plots	\$ 50,020.58
		Fish & Fish Habitat	Phases 1-6 Reconnaissance (1:20,000) FFHI, Follow-up Sampling, and Digital Mapping Updates	4217004	226 sites; 4 reports	\$ 148,566.03
		Biodiversity - Wildlife Habitat Mapping	Central Selkirk Caribou Population Census	4217017	report	\$ 19,452.00
	Monitoring	Terrestrial, Biological and Physical Monitoring	Fish River Lichen Study	4217021	report	\$ 12,622.40
	Forest Dynamics	G&Y	PSP Re-measurements on TFL 23	4217008	22 plots	\$ 23,162.26
	Data Management	Shared Data Exchange	Data transformation from GENUS to RESULTS and FTA	4217007	2 reports	\$ 7,000.00
	TOTAL					\$ 260,823.27
			FIA Program Delivery			\$ 44,921.32
		PROGRAM TOTAL				\$ 532,770.62