Vegetation Map
094I050

British Columbia — Ministry of Forests, Lands and Natural Resource Operations

Scale 1:20,000

0 0.25 0.5 0.75 1 Kilometers

0 0.25 0.5 Miles

Vegetation Data Source: MFLNRO - VRIMS / Ownership
Base Map Source: TRIM / Tantalis

This map is created from information stored digitally in the BC Geographic Warehouse. The map has been structured to support the analytical functions of the Ministry of Forests, Lands, and Natural Resource Operations. The information portrayed may not be complete and up to date Cadastral, administrative boundaries and the Ownership colour theme are for reference purposes only. (Legend revisions June 2014)

Labels Projected To: January 1, 2016

MAP SYMBOLOGY

Forest Inventory Features:
- Forest Vegetation Polygons
- Siviculture Opening in Vegetation
- Permanent Sample Plot (GYS)
- Research Installations

TRIM, Base Features:
- As Built Roads
- Forest Tenure Road Lines
- Paved Roads
- Rough Roads
- Trails/Cutlines
- Railways
- Air/Ferries
- Other lines
- Powerline
- Pipeline
- Buildings
- Misc Areas
- Misc Lines
- Water Lines
- HydroNavBarriers - EBM
- Watercourses - EBM
- Waterbodies - EBM
- Wetlands - EBM
- Ocean - EBM

Administrative Boundaries:
- BC Provincial Boundary
- MFLNRO Region boundary
- Resource District boundary - FADM
- INV Region-Compartment - FADM
- Provincial Forest area - FADM
- Timber Supply Area-Block - FADM
- Tree Farm Licenses - FADM
- Land District boundary
- Administrative boundary
- Survey Parcels - Tantalis
- Municipal boundary (< 1,000,000 ha - 15 % hatch)
- Municipal boundary (> 1,000,000 ha) - no hatch)
- National Parks
- First Nations
- Provincial Parks
- Ecological Reserves
- Protected Areas
- Recreation Areas

Other:
- BCGS Mapsheet Grid (1:20,000)

VEGETATION LABEL DETAILS

Example of a Vegetation Label:

○12
123/L
Fd(Hw)
211-20
he,sl
GL78

LINE DESCRIPTION
1 Silviculture symbol and Opening Number
2 Polygon Number and multi-layer stand indicator (L)
3 Species Composition
ex: the most important layer is described as Fd (Dougls Fir) and Hw (Western Hemlock).
4 Age, Height, Crown Closure Class Code - separator Site Index / estimated SI
ex: stand is age class 2 (21-40 yrs), height class 1 (0.1-10.4m), crown closure class 1 (6-15%), SI 20m
5 Vegetated Density Class (or Non-Forest/Productive Descriptor)
ex: a herb polygon with no distinction between forbs and graminoids, shrubs less that 2m.
6 Disturbance History & year - ex: Logged in 1978

Line 1 - History Record Opeing Number

○12 - opening number valid for BCGS mapsheet   blank - opening number has not been assigned

Line 2 - Polygon No. / Multi-layer

VRIMS Polygon Number - ranging from one to nine digits
/L - Multi-layered stand (a separate description of each layer is availiable in the data base, i.e. 1,2)

Line 3 - BC Tree Code List

Species Compsition: Species are labeled in their order of predominance. Major first Minor in brackets.
The following codes are based on "The B.C. Ministry of Forests Tree Code List" version 4.5 dataed January 2009.

NATIVE CONIFERS
C CEDAR
Cw Western Red Cedar
Y CYPRESS
Yc Yellow Cedar
F DOUGLAS FIR
Fd Douglas Fir
Fdc Coastal Douglas Fir
Fdi Interior Douglas Fir
B FIR (Balsam)
Ba Amabilis Fir
Bg Grand Fir
Bl Subalpine Fir (alpine)
H HEMLOCK
Hm Mountain Hemlock
Hw Western Hemlock
Hxm Mountain x Western Hemlock hydrid
J JUNIPER
Jr Rocky Mtn. Juniper
Js Seaside Juniper
L LARCH
La Alpine Larch
Lt Tamarack
Lw Western Larch
P PINE
Pj Jack Pine
Pf Limber Pine
Pl Lodgepole Pine
Pli Lodgepole Pine (interior)
Pxj Lodgepole x Jack Pine hybrid
Py Ponderosa Pine (yellow)
Plc Shore Pine (coast)
Pw Western White Pine
Pa Whitebark Pine
S SPRUCE
Sb Black Spruce
Se Engelmann Spruce
Ss Sitka Spruce
Sw White Spruce
Sx Spruce hybrid
Sxw Engelmann x White
Sxl Sitka x White
Sxs Sitka x unknown hybrid
T YEW
Tw Western Yew

NATIVE HARDWOODS
D ALDER
Dr Red Alder
U APPLE
Up Pacific Crab Apple
A ASPEN, COTTONWOOD or POPLAR
Ac Poplar
Acb Balsam Poplar
Act Black Cottonwood
Ax hybrid Poplars
At Trembling Aspen
R ARBUTUS
Ra Arbutus
E BIRCH
Ea Alaska Paper Birch
Exp Alaska x Paper Birch hybrid
Ep Paper Birch (white)
Ew Water Birch
K CASCARA
Kc Cascara
V CHERRY
Vb Bitter Cherry
Vv Choke Cherry
Vp Pin Cherry
G DOGWOOD
Gp Pacific Dogwood (western flowering)
M MAPLE
Mb Bigleaf Maple (broadleaf)
Mv Vine Maple
Q OAK
Qg Garry Oak
W WILLOW
Wb Bebb's Willow
Wp Pacific Willow
Wa Peachleaf Willow (Barclay's)
Wd Pussy Willow (gray-leaved)
Ws Scouler's Willow
Wt Sitka Willow (tea-leaved)

UNKNOWN - OTHER
X UNKNOWN
Xc unknown conifer
Xh unknown hardwood
Z OTHER (tree not on list)
Zc other conifer
Zh other hardwood

EXOTICS
APPLE
Ua Apple
ASPEN, COTTONWOOD or POPLAR
Ad *Southern Cottonwood
BIRCH
Ee European Birch
Es Silver Birch (swamp)
Ey *Yellow Birch
CHERRY
Vs Sweet Cherry
CYPRESS
Yp *Port Orford Cedar
FIR (Balsam)
Bb *Balsam Fir
Bp Noble Fir
Bm *Shasta Red Fir
Bc *White Fir
LARCH
Ld *Dahurian Larch
Ls *Siberian Larch
MAPLE
Me Box Elder
Mn *Norway Maple
Ms *Sycamore Maple
OAK
Qe *English Oak
Qw *White Oak
OTHER EXOTICS
Oa *Incense Cedar
Ob *Giant Sequoia
Oc *Coast Redwood
Od European Mountain Ash
Oe Siberian Elm (southern)
Of Common Pear
Og Oregon Ash
Oh *White Ash
Oi *Shagbark Hickory
Oj Tree-of-heaven
Ok Japanese Walnut
PINE
Pm *Monterey Pine
Pr *Red Pine
Ps *Sugar Pine
SPRUCE
Sn *Norway Spruce

Line 4

4a AGE CLASS CODE	LIMITS (years)	4b HEIGHT CLASS CODE	LIMITS (metres)	4c CROWN CLOSURE CLASS CODE	LIMITS (percentage)
				0	0 - 5
1	1-20	1	0.1 - 10.4	1	6 - 15
2	21-40	2	10.5 - 19.4	2	16 - 25
3	41-60	3	19.5 - 28.4	3	26 - 35
4	61-80	4	28.5 - 37.4	4	36 - 45
5	81-100	5	37.5 - 46.4	5	46 - 55
6	101-120	6	46.5 - 55.4	6	56 - 65
7	121-140	7	55.5 - 64.4	7	66 - 75
8	141-250	8	65.5 +	8	76 - 85
9	251 +			9	86 - 100

4d SITE INDEX
All SI are shown to the nearest metre referenced at 50 years Breast Height Age. SI is based on the age and height of the leading species. When an accurate SI cannot be obtained from age and height, estimated SI is shown after, or replaces the SI.

4e ESTIMATED SITE INDEX
SI is estimated when suitable SI trees arenot present, e.g. young stands (<30yrs). It is denoted by a slash which always precedes it. Associated fields in the data base are Inventory Type Group and SI Estimated source code.

Line 5 Vegetation records

VEGETATED NON-TREE CATEGORIES (for V and I records)

NON-TREED SHRUB
st SHRUB TALL - shrub with average shrub height > or = to two metres.
sl SHRUB LOW - shrub with average shrub height < two metres.

NON-TREED HERB
he HERB - herb with no distinction between forbs and graminoids.
hf HERB - FORBS - herb with forbs > 50% of the herb cover.
hg HERB - GRAMINOIDS - herb with gaminoids > 50% of the herb cover.

NON-TREED BRYOID
by BRYOIDS - bryoid with no distinction between mosses and lichens by cover.
bm BRYOID - MOSS - bryoid with mosses, liverworts, and hornworts > 50% of the bryoid cover.
bl BRYOID - LICHENS - bryoid with lichens > 50% of the bryoid cover.

NON VEGETATED
el Exposed Land
ro Rock / Rubble
si Snow / Ice

NON-VEGETATED CATEGORIES (for V and I records)

ap AIRPORT	gp GRAVEL PIT	mu MUDFLAT SEDIMENT	rm RESERVOIR MARGIN
be BEACH	la LAKE	mz RUBBLY MINE SPOILS	rn RAILWAY SURFACE
bl BLOCKFIELD	lb LAVA BED	oc OCEAN	rs RIVER SEDIMENTS
br BEDROCK	ll LANDING	ot OTHER	rz ROAD SURFACE
bu BURNED AREA	ls POND or LAKE SEDIMENTS	pn SNOW COVER	ta TALUS
cb CUTBANK	mi OPEN PIT MINE	re RESERVOIR	tz TAILINGS
es EXPOSED SOILS	mn MORAINE	ri RIVER / STREAM	ur URBAN
gl GLACIER			

Note: Water categories (la, oc, re, ri) not labelled over 90 percent coverage.

NON-FOREST / NON-PRODUCTIVE DESCRIPTOR CODES (for F records)

A ALPINE	NP NON PRODUCTIVE	SAND SAND
AF ALPINE FOREST /Species	NPBR NON PRODUCTIVE BRUSH	TIDE TIDAL FLAT
C CULTIVATED	NPBU NON PRODUCTIVE BURN	U URBAN
CL CLAY BANK	NPF NON PRODUCTIVE FOREST /Species	
G GRAVEL BAR	NTA NO TYPING AVAILABLE	NC NON COMMERCIAL
GR GRAVEL PIT	OR OPEN RANGE	NCBR NON COMERCIAL BRUSH
ICE ICEFIELD	P HAYFIELD	NP NON PRODUCTIVE
M MEADOW	R ROCK	NSR NOT SUFFICIENTLY RESTOCKED
MUD MUD FLAT	S SWAMP	NTA NO TYPING AVAILABLE

Line 6 - Disturbance History

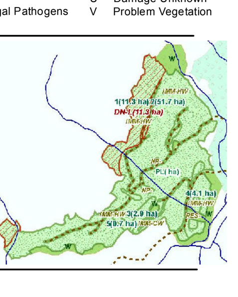
Disturbance type code preceeded by symbol, followed by earliest date
First character of disturbance type designates category, refer to official code list for sub-category descriptions.

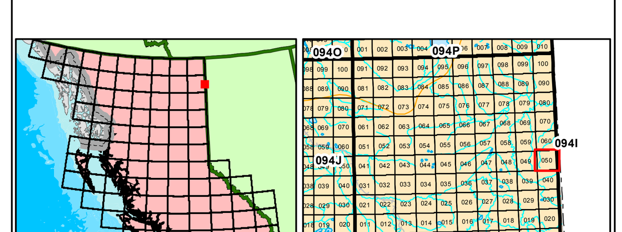
A Animal Damage	L Logging	R Site Rehabilitation
B Wildfire	M Mite Damage	T Treatment Injuries
C Cone and Seed Insects	N Non-Biological Injuries	U Damage Unknown
D Diseases	P Cone and Seedling Fungal Pathogens	V Problem Vegetation
I Insects		

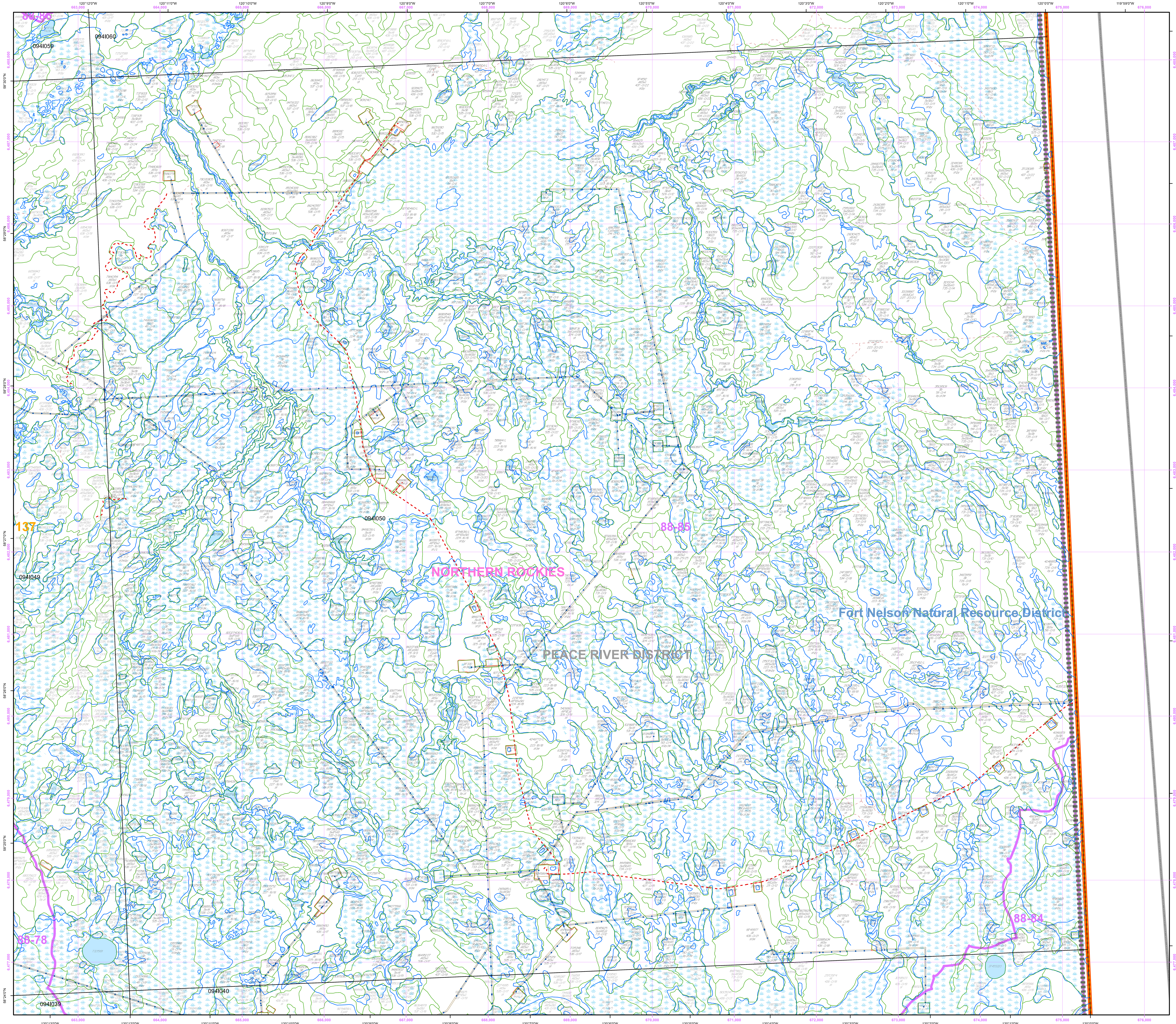
Example Opening History Details

Detailed Silviculture information is available on the BCGW utilizing either IMF or ArcMap. The MapView example is of themed RESULTS data.

The Ministry of Forests, Mines and Lands web application MAPVIEW is available to view this type of detailed information. Select the SILVICULTURE tab then click on "Display Silviculture Map" to turn on display values for -
- OPENING
- OPENING LABELS
- OPENING - PLANTING ACTIVITY
- ACTIVITY TREATMENT UNIT
- STANDARDS UNIT
- SILVICULTURE FOREST COVER
- WILDLIFE TREE PATCH







Overflow Labels

469145 AtSb(Sw) 212-14/14 st by	9800976 he sl by	16111635/L At 223-18/18 st	20826714 Sw(P(At) 326-0/14 st	28976546 SbSw 514-0/7 by sl	36849630 Sb(Lt) 411-0/6 by sl	73307686 SbAt 526-0/8 sl	77128317 la be	82116797 At(Pl) 227-16/16 st	85576107 la be	90616605 Sb 511-0/4 by sl he	97040016 Sb 510-0/5 sl by be
511447 es	9889007/L At 224-16/16 st by	16166775 Sb 511-0/4 by sl he	21089011 AtSb(Sw) 535-0/15 sl	29080308 At(Ep) 225-23/23 st	37086751 mu	73577531 Sb 310-0/10 sl be mu by	77440119 Sb 310-0/4 sl by	82126995 la be	85889958 At 227-18/18 sl	90641581 SwAt(Ep) 434-0/18 st by	97237006 he mu sl
569856 AtSw 226-18/18 by sl	10428969 SbAt 211-14/14 sl by	16251368/L SwAt(Sb) 533-0/14 sl	21567018 Sb 510-0/4 by sl be	29286094 AtSw(Sb) 435-0/17 st	37390721 Sb(AtSw) 421-0/12 sl by	73850133/L At 531-0/15 st	77467746 Sb 511-0/4 by sl be	82156428/L Sw(PlAt) 534-0/16 sl be	85928819 At(SbSw) 223-18/18 st	90725874 AtPl(SwSb) 224-18/18 st	97277166 la be
791646 Sb 510-0/5 sl by	10460710 SwAt(Sb) 736-0/10 st	16321804 SwSb 423-0/17 he sl mu	22056941 Sb 511-0/4 by sl be	29349924 SbSw 526-0/13 sl by	37791492 Ep(Sb) 424-0/13 st by	73657253 AtSwSb 211-7/4 sl be by	77619748 AtSw(Sb) 224-15/15 st be	82276316 la be	86109094 At 227-16/16 st	90901496 SwAt 535-0/14 st by	97415715 Sb 511-0/4 sl by
938678 At(Sb) 226-16/16 sl	10528039 es	16449776 AtSw 435-0/22 st	22097742 At(PlSw) 326-0/21 st	29661369 SbAt(SwSb) 213-0/16 sl by be	37831730 Sb(At)(Lt) 735-0/11 st	73748755 AtSw(SbEp) 213-11/9 st by	77614454 At 430-0/18 st by	82366854 At(Pl) 227-16/16 st	86379998 Sb 310-0/6 sl by	90910945 AtSw 536-0/16 st	97536758 la be
966134 PlAt 222-16/16 by sl	10600932 SwAt(Sb) 736-0/10 st	16519956 AtSw 226-16/16 st	22286999/L At(PlSw) 225-18/18 st	29820796 Sb(Sw) 511-0/6 by sl	37941858 At(EpSb(Lt)) 323-0/14 st	73928805 Sb 511-0/4 by sl be	77706657 Sb 511-0/6 by sl be	82380874 Sb 414-0/6 sl by	86726578 Sb 511-0/4 by sl be	90939034 la be	97715903 EpAt(Pl) 215-0/11 st
986308 he mu sl	10650841 At(EpSw 216-0/6 st	16537350 SwAt(Sb) 535-0/15 sl	22361172 Sb 510-0/7 he mu sl by	29901099 Sb 310-0/5 by sl	38731065 es sl be	73887727/L Sw 531-0/15 sl be	77856001 Sb(PlAt) 311-0/10 sl by	82458818 At(Pl) 227-16/16 st	87015627 At 436-0/18 st	91181102 AtSw 537-0/16 st	97717012 la be
1277858 la be	10888777 Sw(SbAt) 734-0/11 st	16706072 Sb 510-0/4 by sl be	22385316 At(Ep)Sw 211-0/12 st	30016874 Sb 511-0/4 by sl be	38850066 Sb(SwAt) 724-0/10 by sl	73987324 At 228-16/15 st	78211470 At 438-0/17	82489268 At 227-16/16 st	87025055 la be	91287668 SbAt 216-15/15 st by	97719881 Sb 513-0/4 sl by
1569415 At(Sb) 226-16/16 sl	12341421 SwAt(Ac) 434-0/20 st	17057906 Sb 410-0/6 sl be by mu	22711654 At(SbSw) 211-14/14 sl be by	30306565 Sb(AtSw) 526-0/7 by sl	39130530 Sw(SbAt) 736-0/12 st	74017127 At 228-16/15 st	78266566 Sb 511-0/4 by sl be	82689312 At 224-18/18 ri st	87126627 PlAt 214-15/15 by sl	91311240 Sw(At) 536-0/15 st	97866122 EpAt(Pl) 215-0/11 st
1747866 he mu sl	12718690 At 228-18/18 st	17269567 AtSw(Ep) 224-16/16 st	22786609/L At(PlSwSb) 222-16/16 st be by	30515367 Sb 514-0/6 by sl be	39875937 SwSb(Lt) 733-0/10 st by	74097149 Sb 511-0/4 by sl be	78279787 Sb(Lt) 411-0/8 sl by	82737695 At(PlSw) 225-16/16 st by	87199757 At 227-18/18 st	91378687 At 226-16/16 r z	97905824 Sb 511-0/4 sl by be
2217608/L SwAt 533-0/15 sl be	12900853 SwAt(Sb) 734-0/10 st	17440789 SwAt(Sb) 526-0/12 st	23346009/L SwAt(Sb) 731-0/9 st by	30549153 Sw(AtSb) 536-0/15 st	39909380 SwSbAt(Lt) 734-0/9 st by	74127032 At(Ep)Sw 225-18/18 st be by	78419255 At(PlSw) 224-18/18 by be sl	82790371 la be	87318419 At(SbSwPl) 221-16/16 st by	91466310 At(PlSwSb) 224-18/18 st	98449760 Sb 513-0/5 sl by
2528616 SwAt 735-0/9 st	12910934 At(Sw) 420-0/16 he sl mu by	17528581 At(SwPl) 535-0/16 st	23426483 SbEpAt(Lt) 213-15/15 by sl be	30675889 At 436-0/19 sl	40009553 SbSwLt(At) 723-0/8 sl by	74206726 Sb 411-0/6 sl by	78538552 At 227-16/16 st	82811633 At(Pl) 223-18/18 by sl	87775670 Sb 510-0/4 he by sl mu	91661375 SwAt 536-0/15 st	98591461 AtSw 537-0/16 st
3249106/L At(PlSwSb) 224-16/16 st by	13031441 At(Sw) 420-0/16 he sl mu by	17910155 Sb 310-0/6 sl by	23629170 sl he mu by	30738656/L At(Sw) 235-25/25 st	40239101 SwSb 721-0/8 sl by	74366417 AtSw(SbPl) 227-18/18 st	78876791/L Sw(PlAt) 534-0/16 sl be	82825738 At(Pl) 223-18/18 by sl	87936781 At(PlSwSb) 224-18/18 st by	91687744/L SwAt 533-0/15 sl be	98595327 SbAt(Sw) 525-0/13 sl by
4245864 he es sl by	13141415 SwAt(Sb) 436-0/22 st	17937632 SbSw(Lt) 526-0/7 sl by	23671611 mu he sl	30766046 Sb(Lt) 416-0/7 sl by	40418642 Sb 510-0/4 sl by	74656282 At(Sb) 226-18/18 by sl	78927286 At(PlSwSb) 436-0/16 st	82916648 la be	88240117 la be	91755066 he mu sl	98726154 AtPl(SwSb) 224-18/18 st
4331700 Sb 512-0/5 sl by	13240592 SbAt 526-0/12 by sl	18221069 Sb 310-0/5 by sl	23728768/L At(Sw) 235-25/25 st	31856418 es	40757078 mu	74666075 AtSbSw 223-18/18 by sl be	79228362 At 224-18/18 ri st	83156592 Sb 511-0/6 sl by be	88259842 At(SbSw) 227-18/18 st	91776497 PlAt 226-16/16 st	98840232 SbLt 513-0/6 sl by
4659437 Sb 511-0/4 by sl he	13311024 At(Ep)Sw 216-0/6 st	18301823 Sb 410-0/6 sl	23817949 Sb 511-0/4 by sl be	31959481 Sb(SwAt) 724-0/8 sl by	41357329 At(Sb) 424-0/12 sl be by	74727540 la be	79236547 Sb 511-0/4 by sl be	83217419 Sb 511-0/4 by sl be	88326710 PlAt 214-15/15 sl by	92118551/L At 224-18/18 st be r z	99076278 PlAt 222-16/16 by sl
4706030 es	13659739 At 228-18/18 st	18305787 es	24046071/L SwAt(Sb) 734-0/9 st	32439055 st mu be by	42016492 AtSwSb 437-0/19 sl	74729210 At(Sb) 221-15/15 st by	79286459 Sb 511-0/4 by sl be	83531473 Sw(AtSb) 436-0/16 st	88358153 At 227-16/16 st	92205321 Sb 511-0/4 by sl be	99147746 es
4856162 Sb 511-0/4 by sl be	13739921 AtSw 435-0/22 st	18307149 Sb 415-0/4 by sl	24076831 SbAt 324-0/12 by sl	32798339 Sb(Lt) 514-0/5 by sl	42186654 he mu sl	74936585 AtSbSw 223-18/18 by sl be	79378265/L AtSw 533-0/16 sl be	83570364 At(Sw) 221-18/18 sl es	88930765 AtSw 536-0/16 st	92540221 At 223-18/18 st	99261182/L SwAt 531-0/16 sl be
5556073/L At 225-18/18 st be	13960318 la be	18371690 Sw(AtSb) 536-0/14	24160400 Sw(Lt)Sb 734-0/13 st by	32938518 Sb(Lt) 524-0/7 by sl	42396492 At 437-0/18 sl	75039957 Sb 411-0/7 sl by	79447070 Sb 511-0/4 by sl be	83677525 Sb 511-0/4 by sl be	88978225/L At 226-18/18 sl be	92625075 At(EpPl) 215-0/11 st	99811621 by sl be
5678233 SbSw(At) 725-0/8 by sl	14000439 SbAt 526-0/12 by sl	18549312 sl be mu by	24332532 he mu sl	32977570 Sb 511-0/4 by sl be	42726194 AtSw 433-0/19 sl	75267939/L Sw 534-0/15 sl be	79616979 At(PlSwSb) 436-0/16 sl	83749999 la be	88989601 gp	92635239 AtPl(SwSb) 224-18/18 st	
5941709 SwEp 327-0/22 by	14071233 SbLt 414-0/9 sl by	18858117 mu sl be by	24656403 SbEpAt(Lt) 213-15/15 by sl be	33116393 At(Ep) 211-0/10 st	43095572 he sl	75269052/L Sw 531-0/15 sl be	79686044 PlAt 227-16/16 st	83855625/L Sw(PlAt) 534-0/16 sl be	89041017 SwSbAt 530-0/15 sl	92769633 AtSw 536-0/15 st	
6210681 Sw(SbAt) 726-0/9 sl	14318643/L AtSw(Sb) 531-0/16 st	19078344 At(SwPl) 326-0/21 st	24869543 he mu sl	33130749 SwSb 726-0/9 by sl	43135611 Sb(Sw) 515-0/5 by sl	75355531 Sb 411-0/6 sl by	79948207 mu be by sl	84087390 Sb 511-0/4 by sl be	89228139 la be	93028806 At 228-16/16	
6315581 Sb 511-0/4 by sl be	14521087 Sb(Sw) 411-0/7 sl by	19217957 SbLt 514-0/4 by sl	24948645 mu be sl by	33757877 Sb(SwAt) 724-0/8 sl by	70561091 SbSwAt 513-0/6 sl be by	75376090 he sl	80025656 Sb(PlAt) 311-0/10 sl by	84127128 Sb 511-0/4 by sl be	89275818 At(Pl) 226-16/16	93050057 Sw 720-0/9 sl	
6396364 AtPl(SwSb) 224-18/18 st	14529290 Sb(AtSw) 210-16/16 sl mu be by	19218374 At 227-16/16 st	25371849 Sb(Lt) 515-0/6 by sl	33809442 AtSb(Ep) 235-25/25 st	71170577 Sb 414-0/6 sl by	75525614/L Sw(SbAt) 531-0/14 sl by	80150105 AtSw(Sb) 427-0/11 sl	84156836 PlAt 214-15/15 by sl	89546966 PlAt 215-15/15 by	93111551 SbSw 426-0/14 by sl	
6409803 EpAt(Sw) 214-0/10 st	14570932 SwAt 535-0/15 st	19266128/L At(PlSwSb) 222-16/16 st be by	25461519 SbSw(At) 526-0/12 sl	33821271 Sw(SbAt) 535-0/15 st	71179414 SbLt 514-0/5 sl by mu	75588311/L AtSw 531-0/16 st be	80217189 mu be by sl	84188145 At(SbSwPl) 224-16/16 st by	89558131 he by	93127781 la be	
6774472/L At 225-18/18 st	14608977/L At(Sw) 224-16/16 st by	19477883 SwAt(Sb) 725-0/9 st by	25661648 SwAtSb(Lt) 534-0/13 sl by	34201219 At(Sw) 326-0/17 st	71929712 SwAtSb 635-0/15 st	75604926 Sb(LtAt) 313-0/10 sl mu	80278166 la be	84231544 SbAt 426-0/15 st by	89745127 la be	93827629/L SwAt 533-0/15 sl be	
6908123 AtPl(SwSb) 224-18/18 st	14708807 mu be sl	19590176 At(Sw) 227-0/15 st	25778236/L At(Sw) 235-25/25 be by sl	34761174 Sw(AtSb) 436-0/20 by sl	72298976 At(Sw) 223-15/15 st	75845867 Sb 511-0/4 by sl be	80378426/L Sw 533-0/15 sl be	84368734 At 227-16/16 st	90080745/L At 223-18/18 sl be	94420341 SbSw(At) 523-0/7 sl be	
7159456 At 228-18/18 sl	14759847 SwAt(Sb) 434-0/20 st by	19600287 Sw(AtSb) 526-0/11 by sl	25816594 Sb 510-0/4 by sl be	35269287 AtSb 236-25/25 st	72341169 AtSw(Ep) 311-0/11 st	75876396 SwSbAt 436-0/16 sl by	80486229/L Sw(PlAt) 534-0/16 sl be	84426029 PlAt 227-16/16 st	90166254 PlAt 226-16/16 st	94778013/L AtPl(SwSb) 224-16/16 st by	
7379505 he mu sl	15130135 At(Sw) 227-0/15 st	19608233 At(SbSw) 211-14/14 sl be by	25956272 SbEpAt(Lt) 213-15/15 by sl be	35566812 SwSb 721-0/9 sl by	72458809 Sb 211-7/7 by sl be	76191264 AtSw 537-0/17 sl	81158679 la be	84618905 Sb 511-0/6 sl by	90297704 At 535-0/16 st	95380685 Sb 310-0/6 sl by	
7708227/L AtPl(SwSb) 224-16/16 st by	15431387 At(Sw) 420-0/16 he sl mu by	19780076 At(Sw) 227-0/15 st	26707737/L At(PlSw) 225-18/18 st	35751886 SbLt 413-0/9 sl by	72668443 Sw(AtSb) 536-0/14 by sl	76500946 AtSw 522-0/11 sl	81188590 At 227-16/16 st	84869228 At(SbSw) 223-18/18 st	90298961 es be sl	95881614 At(AcSw) 437-0/22 sl	
8278401 Sb 511-0/4 by sl be	15450235 SbAt 526-0/12 by sl	20041805 SwAt(Sb) 536-0/14	26851862 At(EpSb) 311-0/11 st by	35949463 SbLt 522-0/7 sl by	72718308 SbSwAt 211-7/7 sl be by	76516116 PlAt 227-16/16 st	81198135 Sb 511-0/4 by sl be	85106813 PlAt 216-15/15 by sl	90317467 Sb 511-0/4 by sl be	96147318 AtSw 536-0/18 sl	
8770896 he sl by	15560624 Sb(Sw) 726-0/10 st	20175830 es	26936227 es	35956367 At 436-0/19 sl	72878330 SwSbAt 436-0/16 sl by	76647664 Sb 511-0/4 by sl be	84210352 Sw(AtSb) 436-0/16 st	85146534 Sb 511-0/4 by sl be	90385155 Sb 510-0/4 he by sl mu	96645605 Sb 510-0/4 he by sl mu	
9426024 SbEpAt(Lt) 213-15/15 by sl be	15708781 At(SbSw) 211-12/12 sl by be	20401758 SbAt 420-0/17 sl ri be	27941899 SwAt(Sb) 536-0/15 sl by	36519607 SbLt 522-0/7 sl by	73128807 At(SwSb) 226-15/15 st	76869760/L Sw 531-0/15 sl be	81525565 At(Pl) 226-16/16	85288930 he by	90435820 SwAt 536-0/16 st	96729937 Sb(SwAt) 530-0/14 sl be by mu	
9525117 SbSw 427-0/14 by	15897728 Sw(AtSb) 725-0/9 st by	20826541 Sb 510-0/4 by sl be	28188567 Sb 511-0/4 by sl be	36737714 SbLt 514-0/4 by sl	73141448 sl mu be	77017324 AtSw(Sb) 226-18/18 st	82107074 Lt(Sb) 213-15/15 sl be	85308798 At(AtSb) 223-18/18 st	90615060 SwAt 536-0/15	96966037 LtSb 212-10/10 sl	