

Data Input and Edits

2

2.1 Input Data - Standard Compilation

Standard compilations are based on two input forms, the Map Area Statement (FS 121) and the Cruise Tally Sheet (FS 205). These two types of input are discussed in this chapter.

Two other input forms are used for non-standard compilations, the Stump Cruise Tally Sheet (FS 205S) and the Cruise Percent Reduction Worksheet (FS 221), which are described in Chapters 5 and 6.

A standard data input file is made up of a Map Area Statement and one or more Cruise Tally Sheets.

The Map Area Statement consists of one card type A, 1 or 2 card type Bs, 1 or more card type Cs, 1 or more card type Ds, 0 or more card type Es, 1 or more card type Fs and 1 card type G.

The Cruise Tally Sheet is 63 characters wide and consists of 1 card type 9, 1 or more card type 2s and 0 or more card type 3s.

The Cruise Tally Sheet and Map Area Statement are described in Chapters 6 and 7 of the *Cruising Manual*.

For each card type, a list or a range of the accepted values for each data input field will be given in tabular format. The following key defines acceptable data types:

1. "A" denotes an upper case letter.
2. "X" denotes an alphanumeric character {i.e., A-Z, 0-9}.
3. "9" denotes a digit.
4. "9(L, D)" denotes a number L digits long with D decimal places. The decimal places are implied and should not appear on the input file.
5. "YY" denotes a year.
6. "MM" denotes a month.
7. "{X, Y, Z}" means that only values 'X', 'Y', & 'Z' are permitted.
8. "{1-7}" means that only digits 1 through 7 are permitted.

Further, this chapter defines the data input requirements by specifying data dependency between different fields. For each card type, the list of data dependencies will be broken down by the severity of the error. Field names are capitalized.

The error message column describes the behavior of the system when the edit fails.

1. "I" - an informational message, the compilation will complete normally.
2. "W" - a warning, the compilation will complete but is suspect.
3. "F" - a fatal error, the compilation cannot be completed.
4. "N/A" - no error messages are generated for the field.

For a detailed explanation of the Cruise Tally Sheet and Map Area Statement fields refer to Chapters 6 and 7 of the *Cruising Manual*. The *Cruising Manual* is located on the Internet at URL <http://www.for.gov.bc.ca/hva/manuals/cruising/>

The input data must be submitted in ASCII format. Here is an example of an input file:

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V2004.00
ATL7070001002106CE86000100BD 00000125A 0000000000000 TEST 2000
CRUISER B
BTL7070001 00 13217503015010 A N
CTL7070001 01F H C Y 941M200050
CTL7070001 02F B 440M20005000025
DTL70700010010100025 0200025 M
DTL70700010020100025 020002500025 M
FTL7070001 SC0100050 0200050
FTL7070001 SS020000000025
GTL7070001CLEARCUT SELECTION
9TL70700010010101O011342M 12000B175 SC0602010
2TL70700010010101O01134201410Y 11005 7 34300 E
2TL70700010010101O01134202480F 121024 5400 G
2TL70700010010101O01134203522F 13101 5402
2TL70700010010101O01134204499B 07992 432 3122
2TL70700010010101O01134205388H 08001 4300
2TL70700010010101O01134206398F 04551 4144
2TL70700010010101O01134207400C 08601 5300
2TL70700010010101O01134208355C 03558 4144
9TL70700010010107O011442M 12000B175 SC0602010
2TL70700010010107O01144201355Y 04751 3116
2TL70700010010107O01144202422B 10102 4 4301 1BG
2TL70700010010107O01144203388H 09552 4 4202
2TL70700010010107O01144204395S 04991 3122 6AE
2TL70700010010107O01144205322S 04558 2144
2TL70700010010107O01144206455F 09882 4 3124 5CE
2TL70700010010107O01144207355C 12104
2TL70700010010107O01144208352H 06556
2TL70700010010107O01144209429F 14371 4400
2TL70700010010107O01144210590F 15951 4400
2TL70700010010107O01144211450Y 09003 4400
2TL70700010010107O01144212250Y 03703 2201
9TL70700010010103O021442M 12000B175 SC0502010

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Figure 2.1a Input File (page 1).

2TL70700010010103O02144201455F 08551	4300
2TL70700010010103O02144202488F 03459	4124
2TL70700010010103O02144203389H 09997	2322
2TL70700010010103O02144204499S 12005	6500
2TL70700010010103O02144205572F 14505	6500
9TL70700010010196O021442M 12000F175	SC0502010
2TL70700010010196O02144201455F 08551	4300
2TL70700010010196O02144202488F 03459	4124
2TL70700010010196O02144203389H 09997	3322
2TL70700010010196O02144204499S 12005	6500
2TL70700010010196O02144205389H 09997	4322
2TL70700010010196O02144206499S 12005	6500
9TL70700010020104O011342M 12000F175	SC0802011
2TL70700010020104O01134201398F 085524	5400
2TL70700010020104O01134202422H 07551	4300
2TL70700010020104O01134203366H 06888	4201
2TL70700010020104O01134204102F 10331	6400
2TL70700010020104O01134205245C 03229	1144
9TL70700010020195O011342M 12000F175	SC0802011
2TL70700010020195O01134201398F 085524	5400
2TL70700010020195O01134202422H 07551	4300
2TL70700010020195O01134203366H 06888	4201
2TL70700010020195O01134204102F 10331	6400
2TL70700010020195O01134203366H 06888	4201
2TL70700010020195O01134204102F 10331	6400
9TL70700010020201O021342M 12000F175	SC0502011
2TL70700010020201O02134201455F 08995	4 4124
2TL70700010020201O02134202420H 07551	5303
2TL70700010020201O02134203435B 05522 2	6400
2TL70700010020201O02134204398C 08631	5401
2TL70700010020201O02134205449F 07881	5402
2TL70700010020201O02134206398Y 05562	4 5312
9TL70700010020202O021542M 10000H175	SS0902011
2TL70700010020202O02154201452F 10155	5400
2TL70700010020202O02154202355C 12001	6300
2TL70700010020202O02154203254H 02998	3124
2TL70700010020202O02154204368B 03558	2144

Figure 2.1b Input File (Page 2).

A version number will be placed at the top of the file above card type A. It will start with a V followed by the year, followed by a period followed by 2 digits. For example, the first version in a year would be V2004.00 the next version would be V2004.01.

Figure 2.2a Sample Map Area Statement - Front Side.

BLOCK DESCRIPTION CARD		HEIGHT/DIAMETER DESCRIPTION CARD		HARVESTING DESCRIPTION CARD		TREATMENT UNIT DESCRIPTION CARD							
BLOCK NO.	TYPE NO.	A (hectares)	B (hectares)	C (hectares)	D (hectares)	E (hectares)	F (hectares)	G (hectares)	H (hectares)	I (hectares)	J (hectares)	K (hectares)	L to QJ (hectares)
11	1	18	19	20	21	22	23	24	25	26	27	28	29
12	2	30	31	32	33	34	35	36	37	38	39	40	41
13	3	42	43	44	45	46	47	48	49	50	51	52	53
14	4	54	55	56	57	58	59	60	61	62	63	64	65
15	5	66	67	68	69	70	71	72	73	74	75	76	77
16	6	78	79	80	81	82	83	84	85	86	87	88	89
17	7	90	91	92	93	94	95	96	97	98	99	100	101
18	8	102	103	104	105	106	107	108	109	110	111	112	113
19	9	114	115	116	117	118	119	120	121	122	123	124	125
20	10	126	127	128	129	130	131	132	133	134	135	136	137
21	11	138	139	140	141	142	143	144	145	146	147	148	149
22	12	150	151	152	153	154	155	156	157	158	159	160	161
23	13	162	163	164	165	166	167	168	169	170	171	172	173
24	14	174	175	176	177	178	179	180	181	182	183	184	185
25	15	186	187	188	189	190	191	192	193	194	195	196	197
26	16	198	199	200	201	202	203	204	205	206	207	208	209
27	17	210	211	212	213	214	215	216	217	218	219	220	221
28	18	222	223	224	225	226	227	228	229	230	231	232	233
29	19	234	235	236	237	238	239	240	241	242	243	244	245
30	20	246	247	248	249	250	251	252	253	254	255	256	257
31	21	258	259	260	261	262	263	264	265	266	267	268	269
32	22	270	271	272	273	274	275	276	277	278	279	280	281
33	23	282	283	284	285	286	287	288	289	290	291	292	293
34	24	294	295	296	297	298	299	300	301	302	303	304	305
35	25	306	307	308	309	310	311	312	313	314	315	316	317
36	26	318	319	320	321	322	323	324	325	326	327	328	329
37	27	330	331	332	333	334	335	336	337	338	339	340	341
38	28	342	343	344	345	346	347	348	349	350	351	352	353
39	29	354	355	356	357	358	359	360	361	362	363	364	365
40	30	366	367	368	369	370	371	372	373	374	375	376	377
41	31	378	379	380	381	382	383	384	385	386	387	388	389
42	32	390	391	392	393	394	395	396	397	398	399	400	401
43	33	402	403	404	405	406	407	408	409	410	411	412	413
44	34	414	415	416	417	418	419	420	421	422	423	424	425
45	35	426	427	428	429	430	431	432	433	434	435	436	437
46	36	438	439	440	441	442	443	444	445	446	447	448	449
47	37	450	451	452	453	454	455	456	457	458	459	460	461
48	38	462	463	464	465	466	467	468	469	470	471	472	473
49	39	474	475	476	477	478	479	480	481	482	483	484	485
50	40	486	487	488	489	490	491	492	493	494	495	496	497
51	41	498	499	500	501	502	503	504	505	506	507	508	509
52	42	510	511	512	513	514	515	516	517	518	519	520	521
53	43	522	523	524	525	526	527	528	529	530	531	532	533
54	44	534	535	536	537	538	539	540	541	542	543	544	545
55	45	546	547	548	549	550	551	552	553	554	555	556	557
56	46	558	559	560	561	562	563	564	565	566	567	568	569
57	47	570	571	572	573	574	575	576	577	578	579	580	581
58	48	582	583	584	585	586	587	588	589	590	591	592	593
59	49	594	595	596	597	598	599	600	601	602	603	604	605
60	50	606	607	608	609	610	611	612	613	614	615	616	617
61	51	618	619	620	621	622	623	624	625	626	627	628	629
62	52	630	631	632	633	634	635	636	637	638	639	640	641
63	53	642	643	644	645	646	647	648	649	650	651	652	653
64	54	654	655	656	657	658	659	660	661	662	663	664	665
65	55	666	667	668	669	670	671	672	673	674	675	676	677
66	56	678	679	680	681	682	683	684	685	686	687	688	689
67	57	690	691	692	693	694	695	696	697	698	699	700	701
68	58	702	703	704	705	706	707	708	709	710	711	712	713
69	59	714	715	716	717	718	719	720	721	722	723	724	725
70	60	726	727	728	729	730	731	732	733	734	735	736	737
71	61	738	739	740	741	742	743	744	745	746	747	748	749
72	62	750	751	752	753	754	755	756	757	758	759	760	761
73	63	762	763	764	765	766	767	768	769	770	771	772	773
74	64	774	775	776	777	778	779	780	781	782	783	784	785
75	65	786	787	788	789	790	791	792	793	794	795	796	797
76	66	798	799	800	801	802	803	804	805	806	807	808	809
77	67	810	811	812	813	814	815	816	817	818	819	820	821
78	68	822	823	824	825	826	827	828	829	830	831	832	833
79	69	834	835	836	837	838	839	840	841	842	843	844	845
80	70	846	847	848	849	850	851	852	853	854	855	856	857
81	71	858	859	860	861	862	863	864	865	866	867	868	869
82	72	870	871	872	873	874	875	876	877	878	879	880	881
83	73	882	883	884	885	886	887	888	889	890	891	892	893
84	74	894	895	896	897	898	899	900	901	902	903	904	905
85	75	906	907	908	909	910	911	912	913	914	915	916	917
86	76	918	919	920	921	922	923	924	925	926	927	928	929
87	77	930	931	932	933	934	935	936	937	938	939	940	941
88	78	942	943	944	945	946	947	948	949	950	951	952	953
89	79	954	955	956	957	958	959	960	961	962	963	964	965
90	80	966	967	968	969	970	971	972	973	974	975	976	977
91	81	978	979	980	981	982	983	984	985	986	987	988	989
92	82	990	991	992	993	994	995	996	997	998	999	1000	1001
93	83	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013
94	84	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025
95	85	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037
96	86	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049
97	87	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061
98	88	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073
99	89	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085
100	90	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097
101	91	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109
102	92	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119		

2.2 Card type A

2.2.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"A" - hard coded	F
2-7	License	Refer to Cruising Manual , Chapter 7	F
8-10	Cutting Permit	XXX	F
11-13	No. of Blocks	999	I
14	Forest Region	1-3	F
15-16	Forest District	Refer to Appendix 6 - Regions and Districts	F
17	F.I.Z.	A-L	F
18	Unit Type	0,1,2,3,5,7, B, C, E, G, K, L, M, P, S, T, W, blank	F
19-20	Unit No.	99	W
21	Block	9	F
22-26	Elevation	99999	I
27	Tenure	A, B, S, T, U, V, W, X, Y, 1-9	I
28	Quota	D, H, N, Q, R, S, T, blank	I
29	Sale Type	A-K, M, N, R	I
30-37	Total Merchantable Area	9 (8, 1)	F
38	Report Type	Blank, A	I
39-40	Zone	08-11	I
41-46	East	280,000-720,000	I
47-53	North	5,351,000-6,653,000	I
54-80	Locality Description	Any value is accepted	N/A

2.2.2 Fatal Errors

For Unit Type 'T', the Unit Numbers must come from the list of valid Tree Farming Licenses. All TFL's are listed in Table 17 of the [Cruising Manual](#).

1. For Unit Type 'T', columns 6-7 must match columns 19-20.
2. If the Unit Type is blank and the Unit Number is 26 or 75 then the Unit Block must be coded.
3. If the Unit Type is 'A' and the Unit Number is 10, then the Unit Block must be coded 1 or 2.
4. If the Unit Number is one of {25, 39, 43, 45, 47 or 49}, then the Unit Block must be coded.
5. Unit identity does not agree with licence number.
6. Unit identity does not agree with allowable F.I.Z.
7. For Coast compilations, the Forest Inventory Zone must be A, B or C.
8. Invalid District within Region. Refer to Appendix 6.

2.2.3 Warning

1. Unity identity column cannot be blank.

2.2.4 Messages

1. UTM co-ordinates and Zones must be valid for the specified Region. For a list of UTM co-ordinates refer to chapter 7 of the [Cruising Manual](#).

2.3 Card Type B - Compilation Standard

2.3.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"B" - hard coded	F
2-10	N/A	Same as card type A	F
11	N/A	Blank - not used	W
12	Selective Cut Ind.	Blank, C, L	F
13	Double Sampling	0, 1	F
14	Special Comp.	Blank for Coast, 1 or 2 for Interior	I
15	Tree Class Comp.	0, 1	F
16	Species Comp.	0, 1	F
17-18	Type of Comp.	03, 32	F
19-21	DBH lower limit	9 (3, 1)	I
22-24	Stump height	999	I
25-27	Top diameter	9 (3, 1)	I
28-39	Log length	99	I
30-31, 45-46, 60-61	Species Exceptions	Refer to Cruising Manual , Section 6.3.2	F
32-33, 47-48, 62-63	Type of Comp.	03, 32	F
34-36, 49-51, 64-66	DBH lower limit for species exceptions	Blank, 9 (3, 1)	I

Column Position	Column Name	Accepted Values	Error Type
37-39, 52-54, 67-69	Stump height for species exceptions	Blank, 999	I
40-42, 55-57, 70-72	Top diameter for species exceptions	Blank, 9 (3, 1)	I
43-44, 58-59, 73-74	Log length for species exceptions	Blank, 99	I
75	Block vs. Avg. line	A, B	F
76	N/A	N/A	N/A
77	100% cruise	Blank, A	N/A
78	Measurement type	C, R	N/A
79	Diameter measure	I	N/A
80	Stump cruise	Blank, S	N/A

2.3.2 Fatal Errors

1. For Interior compilations, the Special Compilation cannot be 0.
2. The DBH Lower Limit is less than or equal to the Top Diameter.
3. Columns 2-10 must be the same as card type A.

2.3.3 Warnings

1. Exception Log Lengths should be between 2 and 11 m.

2.3.4 Messages

1. If Tree Class Combination is coded 1, then mark all reports "Not for Appraisals".
2. For Interior compilations, if the Special Compilation is coded 1, then mark all reports "Sale is in the Wet Belt".
3. For Interior compilations, if the Special Compilation is coded 2, then mark all reports "Sale is in the Dry Belt".
4. If the standard merchantability requirements are not coded as outlined below, then mark all reports "Not for Appraisals":

Coast	Log length = 10.0 meters Mature: Minimum DBH = 17.5, Minimum Top Diameter = 15.0 Immature: Minimum DBH = 12.0, Minimum Top Diameter = 10.0 Exception: the portion of the Kalum Forest District, West of the Cascades must allow for Interior Standard Utilization Specifications
Interior	Log length = 5.0 meters Minimum DBH = 17.5, Minimum Top Diameter = 10.0 Exception 1: Lodgepole Pine, Minimum DBH = 12.5 Exception 2: Red Cedar Top Diameter = 15.0 if more than 50% of the Red Cedar net volume is over 140 years old

2.4 Card type C - Type Identity

2.4.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"C" - hard coded	F
2-10	N/A	Same as card type A	F
11-13	N/A	N/A	N/A
14-15	Type number	99 or blanks	F
16-17	Major Species 1	Refer to Cruising Manual , Section 6.3.2	W
18-19	Major Species 2	Same as above	W
20-21	Major Species 3	Same as above	W
22-23	Minor Species 1	Same as above	W
24	Age Class	1-9	W
25	Height Class	1-8	W
26	Stocking Class	0-3	W
27	Site Class	G, M, P, L	W
28	Type Identity	1-3	F
29-33, 34-38, Etc.	Treatment unit areas A-CU	9 (5, 1) or blanks	F

2.4.2 Fatal Errors

1. At least one STU area must be greater than 0.
2. There must be at least one timber type.
3. Columns 2-10 must be the same as card type A.

2.4.3 Warnings

1. The sum of the STU areas must equal the Total Area coded on card type A.

2.4.4 Messages

1. Type Identities greater than 3 are invalid or incorrect.
2. If the Type Number is blank, all the subsequent card type C fields should be blank.
3. Timber type numbers should appear only once on the card type Cs.

2.5 Card Type D - Block Description

2.5.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"D" - hard coded	F
2-10	N/A	Same as card type A	F
11-13	Block number	XXX	N/A
14-15	Type number	99 or blanks	F
16	Block Maturity	Blank, I, M	I
17-21, 22-26, Etc.	Treatment unit areas A-CU	9 (5, 1) or blanks	F

2.5.2 Fatal Errors

1. A block must contain at least one timber type.
2. Columns 2-10 must be the same as card type A.
3. There must be the same number of blocks coded on card type Ds as is specified on card type A.
4. The sum of the type areas within blocks must be equal to the total type area on card type C.

2.5.3 Messages

1. Type Numbers must be coded on a preceding card type C.
2. If a Type Number is blank, then all of its Treatment Unit Areas should be blank.
3. For Coast compilations, if the Block Maturity is not coded, mark all reports "Not for Appraisals"
4. There should be at least one block.

2.6 Card Type E - Height/Diameter Description

2.6.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"E" - hard coded	F
2-10	N/A	Same as card type A	F
11-13	N/A	Blanks	I
14	Calc. height only	Blank, 0, 1	F
15-16	Species used	Refer to Cruising Manual , Section 6.3.2	F
17-18, 19-20, 21-22	Species to be replaced 1, 2 & 3	Same as above	F
23-24	Type used	99 or blanks	I
24-25, 26-27... 79-80	Types to be replaced 1, 2, ... 28	99 or blanks	I

2.6.2 Messages

1. There should be no blanks between the types coded in columns 25-80.
2. Type Numbers must be coded on a preceding card type C.

2.7 Card Type F - Harvesting Method Description

2.7.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"F" - hard coded	F
2-10	N/A	Same as card type A	F
11	N/A	Blank	N/A
12-13	Harvesting method	CC, CS, HC, HS, SC, SS, HO, LC, LS, SP	F
14-15	Type number	99 or blanks	F
16		Blank	N/A
17-21, 22-26, Etc.	Treatment unit areas A-CU	9 (5, 1) or blanks	F

2.7.2 Fatal Errors

1. There must be at least 1 Harvesting Method.
2. The sum of the type areas within Harvesting Methods must be equal to the total type area on card type C.

2.7.3 Warnings

1. A Harvesting Method should appear only once on the card type Fs.
2. Type Numbers should be coded on a preceding card type C.

2.8 Card Type G - Treatment Unit Description

2.8.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"G" - hard coded	F
2-10	N/A	Same as card type A	F
11-20, 21-30, Etc.	Silviculture Treatment Units A-CU	XXXXXXXXXX	N/A

2.8.2 Fatal Errors

1. There must be 1 card type G.
2. There must be an equal number of Treatment Unit Names specified in card type G as there are Treatment Unit Areas on card type C.

2.9 Card Type H – Non Productive Areas

2.9.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"H" - hard coded	F
2-10	N/A	Same as card type A	F
11-13	Block No.	XXX	N/A
14-18	R/W Removed Under Other Licence	9 (5, 1) or blanks	F
19-28 34-43 49-58 Etc.	Other Non Productive Description	AAAAAAAAAA or blanks	N/A
29-33 44-48 59-63 Etc.	Other Non Productive Area	9 (5,1) or blanks	N/A

2.10 Cruise Tally Sheet Image

[illegible]

Figure 2.3a Interior Cruise Tally Sheet - Front Side.

CHECKED BY (PRINT)		DATE		Y		M		D		CRUISED BY (PRINT)		DATE		Y		M		D	
SIGNATURE										SIGNATURE (I CERTIFY THAT THIS IS A TRUE STATEMENT OF SAMPLING DONE BY ME AT THE PLACE SHOWN)									
TREE CLASS (Unless noted, age in 10's + 13 or 14)										ECOSYSTEM									
PATH CODE BY TREE THIRD										SNOW DEPTH									
1 Older Immature										REMARKS (OTHER DEFECTS AND QUALITY FACTORS AFFECTING LOGGING)									
2 Older Immature - Suspect																			
3 Older Imm Dead Potential																			
4 Dead Useless																			
5 Mature																			
6 Live Useless																			
7 Mature-Dead Potential																			
8 Younger Immature																			
9 Younger Imm Dead Potential																			
DISEASE CODES										FIRE CODES									
4 BLISTER										A Scorching bark and foliage, no charring in merchant portion of trunk.									
5 RUST										B Charring of wood fibre > 100 cm but < 1/3 of tree radius in merchant portion of trunk.									
6 ON PW										C Charring of wood fibre in 1/3 or more areas > 100 cm ² > 1/3 of tree radius or > 1 check > 1/3 of tree radius if dbh < 30 cm.									
7 ROOT ROT										D MODERATE									
8 LIGHT										E HEAVY									
9 K																			
L																			
UPROOTED CODES										CONDITION									
1 NONE										E LESS THAN OR EQUAL TO ONE CLEAN BREAK									
2 THREE BRANCHES OVER 10 cm										F MORE THAN ONE CLEAN BREAK OR ONE OR MORE SHATTERED BREAKS									
3 TWO Q										G MORE THAN ONE CLEAN BREAK OR ONE OR MORE SHATTERED BREAKS									
4 FOUR Q										H SUPPRESSED									
KNOT CODE QUARTERS (Q) WITH KNOTS										CROWN CLASS (CC)									
0 NONE										1 DOMINANT									
1 ONE Q										2 CO-DOMINANT									
2 TWO Q										3 INTERMEDIATE									
3 THREE Q										4 SUPPRESSED									
4 FOUR Q																			
DISEASE CODES										FIRE CODES									
4 BLISTER										A Scorching bark and foliage, no charring in merchant portion of trunk.									
5 RUST										B Charring of wood fibre > 100 cm but < 1/3 of tree radius in merchant portion of trunk.									
6 ON PW										C Charring of wood fibre in 1/3 or more areas > 100 cm ² > 1/3 of tree radius or > 1 check > 1/3 of tree radius if dbh < 30 cm.									
7 ROOT ROT										D MODERATE									
8 LIGHT										E HEAVY									
9 K																			
L																			
UPROOTED CODES										CONDITION									
1 NONE										E LESS THAN OR EQUAL TO ONE CLEAN BREAK									
2 THREE BRANCHES OVER 10 cm										F MORE THAN ONE CLEAN BREAK OR ONE OR MORE SHATTERED BREAKS									
3 TWO Q										G MORE THAN ONE CLEAN BREAK OR ONE OR MORE SHATTERED BREAKS									
4 FOUR Q										H SUPPRESSED									
KNOT CODE QUARTERS (Q) WITH KNOTS										CROWN CLASS (CC)									
0 NONE										1 DOMINANT									
1 ONE Q										2 CO-DOMINANT									
2 TWO Q										3 INTERMEDIATE									
3 THREE Q										4 SUPPRESSED									
4 FOUR Q																			
DISEASE CODES										FIRE CODES									
4 BLISTER										A Scorching bark and foliage, no charring in merchant portion of trunk.									
5 RUST										B Charring of wood fibre > 100 cm but < 1/3 of tree radius in merchant portion of trunk.									
6 ON PW										C Charring of wood fibre in 1/3 or more areas > 100 cm ² > 1/3 of tree radius or > 1 check > 1/3 of tree radius if dbh < 30 cm.									
7 ROOT ROT										D MODERATE									
8 LIGHT										E HEAVY									
9 K																			
L																			
UPROOTED CODES										CONDITION									
1 NONE										E LESS THAN OR EQUAL TO ONE CLEAN BREAK									
2 THREE BRANCHES OVER 10 cm										F MORE THAN ONE CLEAN BREAK OR ONE OR MORE SHATTERED BREAKS									
3 TWO Q										G MORE THAN ONE CLEAN BREAK OR ONE OR MORE SHATTERED BREAKS									
4 FOUR Q										H SUPPRESSED									
KNOT CODE QUARTERS (Q) WITH KNOTS										CROWN CLASS (CC)									
0 NONE										1 DOMINANT									
1 ONE Q										2 CO-DOMINANT									
2 TWO Q										3 INTERMEDIATE									
3 THREE Q										4 SUPPRESSED									
4 FOUR Q																			
DISEASE CODES										FIRE CODES									
4 BLISTER										A Scorching bark and foliage, no charring in merchant portion of trunk.									
5 RUST										B Charring of wood fibre > 100 cm but < 1/3 of tree radius in merchant portion of trunk.									
6 ON PW										C Charring of wood fibre in 1/3 or more areas > 100 cm ² > 1/3 of tree radius or > 1 check > 1/3 of tree radius if dbh < 30 cm.									
7 ROOT ROT										D MODERATE									
8 LIGHT										E HEAVY									
9 K																			
L																			
UPROOTED CODES										CONDITION									
1 NONE										E LESS THAN OR EQUAL TO ONE CLEAN BREAK									
2 THREE BRANCHES OVER 10 cm										F MORE THAN ONE CLEAN BREAK OR ONE OR MORE SHATTERED BREAKS									
3 TWO Q										G MORE THAN ONE CLEAN BREAK OR ONE OR MORE SHATTERED BREAKS									
4 FOUR Q										H SUPPRESSED									
KNOT CODE QUARTERS (Q) WITH KNOTS										CROWN CLASS (CC)									
0 NONE										1 DOMINANT									
1 ONE Q										2 CO-DOMINANT									
2 TWO Q										3 INTERMEDIATE									
3 THREE Q										4 SUPPRESSED									
4 FOUR Q																			
DISEASE CODES										FIRE CODES									
4 BLISTER										A Scorching bark and foliage, no charring in merchant portion of trunk.									
5 RUST										B Charring of wood fibre > 100 cm but < 1/3 of tree radius in merchant portion of trunk.									
6 ON PW										C Charring of wood fibre in 1/3 or more areas > 100 cm ² > 1/3 of tree radius or > 1 check > 1/3 of tree radius if dbh < 30 cm.									
7 ROOT ROT										D MODERATE									
8 LIGHT										E HEAVY									
9 K																			
L																			
UPROOTED CODES																			

Figure 2.3b Cruise Tally Sheet - Reverse Side.

2.11 Card Type 9 - Plot Identity Information

2.11.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"9" - hard coded	N/A
2-10	Same as card type A	Same as card type A	W
11-13	Block	XXX	F
14-15	Strip	XX	F
16-17	Plot	XX	F
18	Original or Check	O, C	F
19-20	Type number	99	F
21-22	Age in 10s	99	F
23-24	Height in 3m	Blanks or 99	F
25	Plot type	Blank, C, M, S	F
26	Plot card sequence	Blank - not used ¹	N/A
27-30	Hectares	Blanks or 9 (4, 3)	F
31-35	Basal area factor	Blanks or 9 (5, 3)	F
36	Plot sweep	F, B	F
37-39	DBH limit	9 (3, 1)	F
40-43	Sub-plot hectares	Blanks or 9 (4, 3)	F
44-48	Sub-plot BAF	Blanks or 9 (5, 3)	F
49	Sub-plot prism sweep	Blank or F, H, B	I
50-52	Sub-plot DBH limit	Blanks or 9 (3, 1)	F

Column Position	Column Name	Accepted Values	Error Type
53-54	Harvesting method	Refer to card type F, positions 12-13. Blanks are not permitted	F
55-57	Slope percent	999	F
58-61	Cruise date	YYMM	F

- 1 This field is used on stump cruise tally cards to indicate ordering of tally sheets when more than one tally sheet is required for a plot. It is not used in a compilation.

2.11.2 Fatal Errors

1. Timber Type must match a valid type from card type C.
2. Block must match a valid block from card type D.
3. Average height field is required for PSYUs Bowron, Longworth, Monkman, Purden and Robson, and for TFL 30.
4. Block/Strip/Plot combinations must be unique.
5. Both Hectares and BAF cannot be coded in a main/sub plot.
6. Count plots are not allowed for a fixed area compilation.
7. For count plots, the Prism Sweep must be full ('F').
8. For interior compilations the card type 9 Main/Sub Plot DBH must be the same as the card type B merchantability requirements or exception DBH lower limit, whichever is lower.
9. For coast compilations, the card type 9 Main/Sub Plot DBH must be the same as the block maturity DBH limit, determined by the Block Maturity indicator on card type D.
10. Harvesting Method must occur on a card type F.
11. Harvesting Method/Timber Type combination must occur on a card type F.

12. Fixed plot areas must be the same for all plots in a type.
13. The date must be included on the tally card.

2.11.3 Warnings

1. Variable plot BAFs should be the same for all plots in a type.
2. There must be at least 2 plots per type for average line method compilations.
3. There must be at least 2 plots per type for each block for block method compilations.

2.11.4 Messages

1. If the Sub Plot BAF/plot size are greater than the Main Plot BAF/plot size.
2. If the Sub Plot BAF/plot size are both blank, then the Sub Plot Sweep and DBH should also be blank.
3. Sweep in sub plot must be equal to Sweep in the main plot.
4. Main plot or sub plot DBH lower limit should not be less than the compilation standard or exception DBH lower limit, whichever is lower.

2.12 Card Type 2 - Tree Details

2.12.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
1	Card type	"2" - hard coded	F
2-24	N/A	Identical to card type 9	F
25-26	Tree number	01-99	F
27-29	Total height	9 (3, 1)	F
30-31	Species	Refer to Cruising Manual , Section 6.3.2	F
32-35	DBH	9 (4, 1)	F
36	Tree class	1-9	F
37	Conk	1-7, Blank	F
38	Blind conk	1-7, Blank	F
39	Scar	1-7, Blank	F
40	Fork or crook	1-7, Blank	F
41	Frost crack	1-7, Blank	F
42	Mistletoe	1-7, Blank	F
43	Rotten branch	1-7, Blank	F
44	Dead top	1-7, Blank	F
45	Spiral grain	0-9	F
46	Sweep	0, 1, 2, Blank (Coast)	F
47	Lean	0, 1, 2, Blank (Coast)	F
48	Log no. of 1 st live limb	1-9	F

Column Position	Column Name	Accepted Values	Error Type
49	Log no. of 1 st stub	1-9	F
50	Knots in 1 st 5 m	0-6	F
51	Knots in 2 nd 5 m	0-6	F
52-58	N/A	Not used at this time	N/A
59	Selective	Blank, C, L	F
60	Root rot	Blank 1 – 7, J, K, L	F
61	Insect and disease damage	1, 2, 3, 4, 5, 6, 7, 8, X, Y	W
62	Fire damage	A, B, C	W
63	Blowdown damage	E, G	W

2.12.2 Fatal Errors

- Count trees tallied for a species without measured trees tallied. Tree class 4 and 6 trees are not considered “measure” trees.
- For tree class 2, pathological codes are required.

2.12.3 Warnings

- Insect damage code must be valid for species (refer to the [Cruising Manual](#), Section A.6.1).
- Damage codes must be valid for tree class.

Damage Code	1	2	3	4	Tree Class 5	6	7	8	9	Species
1	X	X			X			X		Pl,Py,Pw,B
2	X	X			X			X		Pl,Py,Pw,B
3			X				X		X	Pl,Py,Pw,B
4	X	X			X			X	X	Pw
5	X	X			X			X		S,F
6	X	X			X			X		S,F
7			X				X		X	S,F
8	X	X			X			X		F
X	X	X			X			X		All
Y	X	X	X		X		X	X	X	All
A	X	X	X		X		X	X	X	All
B	X	X	X		X		X	X	X	All
C	X	X	X		X		X	X	X	All
E	X	X	X		X		X	X	X	All
G	X	X	X		X		X	X	X	All

2.12.4 Messages

1. For interior compilations, if the tree DBH is less than the compilation standard DBH lower limit, then the tree will not be used.
2. For coast compilations, if the tree DBH is less than the compilation standard DBH lower limit OR the block maturity DBH lower limit, then the tree will not be used.
3. If the tree class is 4 or 6 and the Tree Class combination is not coded 1, then the tree will only contribute to the snag percent.
4. If the selective cut indicator does not match the card type B selective cut indicator then the tree will not be compiled.
5. A tree with a height less than 3 m will not be used.
6. A tree with no height and the species does not exist on a card type E will not be used.
7. No pathological codes are allowed for tree classes 1, 4, and 6.
8. For tree classes 4 and 6, do not code quality remarks.

2.13 Card Type 3 - Sample Tree Details

2.13.1 Table of Data Types

Column Position	Column Name	Accepted Values	Error Type
2-24	N/A	Identical to card type 9	F
36	Crown class	1-4	I
37-39	Total age	999	F

2.13.2 Messages

1. The tree height is not in range for species in Forest Inventory Zone - refer to Appendix 4.
2. The total age is not in range for species in Forest Inventory Zone - refer to Appendix 5.

2.14 Report 001A - Sample Listing (Partial)

Edit Error Report - Required.

FOREST REVENUE BRANCH - 2001.0 COMPUTED 2001-03-19 15:44:21
(001) PAGE 1

11111111112222222223333333334444444445555555556666666667777777778

1234567890123456789012345678901234567890123456789012345678901234567890

1 ATL7070001002106CE86000100BD 00000125A 0000000000000 TEST 2000 CRUISER B
REPORT DESIGNATOR - CC 38 - INFO MAYBE USED FOR APPRAISALS
UTM ZONE - CC 39-40 - IS INVALID
DISTRICT NAME = SOUTH ISLAND
PSYU VANCOUVER -
UTM ZONE - CC 39-40 - IS INVALID CODE

2 BTL7070001 00 13217503015010 A

N THIS CRUISE WILL BE COMPILED USING AVERAGE LINE METHOD

3 CTL7070001 01F H C Y 941M200050

4 CTL7070001 02F B 440M20005000025

5 DTL70700010010100025 0200025 M

6 DTL70700010020100025 020002500025 M

7 FTL7070001 SC0100050 0200050

8 FTL7070001 SS0200000000025

9 GTL7070001CLEARCUT SELECTION

10 9TL707000100101010011342M 12000B175 SC0602010
PLOT AGE FOR CONIFEROUS - MATURE - SEE TABLE 17

PAGE 11

11 2TL70700010010101001134201410Y 11005 7 3 4300 F

Figure 2.4 Report 001A.