

District: Astoria

Date: June

June 13, 2008

cost summary

	Conifer	Hardwood	Total		
Gross Timber Sale Value	\$356,456.89	\$0.00	\$356,456.89		
		Project Work:	\$0.00		
		Advertised Value:	\$356,456.89		



"STEWARDSHIP IN FORESTRY"

District: Astoria

Date:

June 13, 2008

timber description

Location: Portions of Section 30, T4N, R6W, and portions of Sections 13, 14, 15, 21, 22, 23,

24, and 25, T4N, R7W, W.M., Clatsop County, Oregon.

Stand Stocking: 60%

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SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	95
Western Hemlock / Fir	20	0	93

Volume by Grade	2\$	38	48	Total
Douglas - Fir	691	838	134	1,663
Western Hemlock / Fir	470	790	279	1,539
Total	1,161	1,628	413	3,202



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Shorn Sheep Salvage Sale 341-09-29

District: Astoria Date: June 13, 2008

comments: Pond Values Used: 1st Quarter Calendar Year 2008.

Anticipated Log Markets: Clatskanie, Mist, and Tillamook, OR and Longview, WA

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost \$700/MBF = \$1,050/MBF - \$350/MBF

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost \$350/MBF = \$645/MBF - \$295/MBF

HAULING

Hauling costs equivalent to \$700 daily truck cost.

Other Costs (with Profit and Risk to be added): 100% Branding and Painting: \$1/MBF x 3,202 MBF = \$3,202 Additional Felling & Bucking Costs: \$30/MBF x 3,202 MBF = \$96,060 TOTAL Other Costs (with Profit and Risk to be added) = \$99,262

Other Costs (No Profit and Risk added):
Slash Piling with Log Loader:
43.6 hours X \$120/hour = \$5,232
Mobilization (\$945)x 2 = \$1,890
Additional Slash Piling at Cable Landings:
6 Landings X 3 hours/landing X \$87.50/hour = \$1,575
TOTAL Other Costs (No Profit and Risk added) = \$8,697



"STEWARDSHIP IN FORESTRY"

Astoria

Timber Sale Appraisal Shorn Sheep Salvage Sale 341-09-29

Date:

June 13, 2008

logging conditions

combination#: 1

District:

Douglas - Fir

40.00%

Western Hemlock / Fir

40.00%

yarding distance: Medium (800 ft) logging system:

bd. ft / load:

downhill yarding: Process: Stroke Delimber

tree size:

Cable: Small Tower <=40 Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

4,800

loads / day: cost / mbf:

5.0

\$118.09

machines:

Log Loader (A)

Stroke Delimber (A) Tower Yarder (Small)

combination#: 2

Douglas - Fir

60.00%

Western Hemlock / Fir

60.00%

yarding distance: Short (400 ft)

logging system:

Shovel

downhill yarding: No Process: Manual Delimbing

tree size:

Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF

4,800

loads / day:

5.0

bd. ft / load:

\$104.36 cost / mbf:

machines:

Shovel Logger

6/13/08



"STEWARDSHIP IN FORESTRY"

District:

Astoria

Date:

June 13, 2008

logging costs

Operating Seasons:

2.00

Profit Risk:

20.00%

Project Costs:

\$0.00

Other Costs (P/R):

\$99,262.00

Slash Disposal:

\$0.00

Other Costs:

\$8,697.00

Miles of Road

Road Maintenance:

\$4.94

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$/MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.5
Western Hemlock / Fir	\$0.00	3.0	3.5



"STEWARDSHIP IN FORESTRY"

Astoria

District:

Timber Sale Appraisal Shorn Sheep Salvage Sale 341-09-29

Date:

June 13, 2008

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - \$109.85	Fir \$5.19	\$2.74	\$45.37	\$31.00	\$38.83	\$0.00	\$2.00	\$2.72	\$237.70
Western F \$109.85	lemlock / \$5.29	Fir \$2.74	\$59.45	\$31.00	\$41.67	\$0.00	\$2.00	\$2.72	\$254.72

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$403.34	\$165.64	\$0.00
Western Hemlock / Fir	\$0.00	\$307.35	\$52.63	\$0.00

6 6/13/08



"STEWARDSHIP IN FORESTRY"

District: Astoria

Date:

June 13, 2008

summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,663	\$165.64	\$275,459.32
Western Hemlock / Fir	1,539	\$52.63	\$80,997.57

Gross Timber Sale Value

Recovery:

\$356,456.89

Prepared by: Peter Stone

Phone: 503-325-5451

TIMBER CRUISE REPORT

Shorn Sheep Salvage FY 2009

1. **Sale Area Location:** Area 1 - Roadside Salvage is located in portions of Sections 30, T4N, R6W and portions of Sections 13-15, 21-25, T4N, R7W, W.M., Clatsop County, Oregon.

<u>Areas 2 and 3</u> - (Sheep Shack) is located in portions of Section 25, T4N, R7W, W.M., Clatsop County, Oregon

<u>Areas 4-9, 11-13</u> - (Spruced Up Combination) is located in portions of Sections 22, 23, 24, T4N, R7W, W.M., Clatsop County, Oregon.

<u>Area 10</u> - (Quartz Thinning) is located in portions of Sections 15 and 22, T4N, R7W, W.M., Clatsop County, Oregon.

2. **Fund Distribution:** BOF = 100%

Tax Code = 8-01 (100%)

3. Sale Acreage and Treatments by Area:

Area	Original Sale Name	Harvest Type	MC Acres	Scattered Acres	Survey Method
1	N/A	Roadside	N/A	N/A	GIS
2	Sheep Shack	Scattered	N/A	4	GIŞ
3	Sheep Shack	Modified Clearcut	48	N/A	GIS
4	Spruced Up Combination	Modified Clearcut	20	N/A	GIS
5	Spruced Up Combination	Modified Clearcut	14	N/A	GIS
6	Spruced Up Combination	Scattered	N/A	25	GIS
7	Spruced Up Combination	Scattered	N/A	17	GIS
8	Spruced Up Combination	Scattered	N/A	9	GIS
9	Spruced Up Combination	Modified Clearcut	36	N/A	GIS
10	Quartz Creek Combination	Modified Clearcut	11	N/A	GIS
11	Spruced Up Combination	Scattered	N/A	6	GIS
12	Spruced Up Combination	Scattered	N/A	1	GIS
13	Spruced Up Combination	Scattered	N/A	4	GIS
TOTAL			129	66	

4. **Cruise Method and Computations:** All volume results were derived from data collected for the Sheep Shack, Quartz Creek Combination, and Spruced Up Combination timber sales and roadside tally.

Based on field evaluations, the following percentage adjustments were applied:

<u>Area 1</u> (Roadside Salvage): Counted number of whole trees and calculated volume using original leave stand from Quartz Creek Combination.

<u>Areas 2, 6-8, and 11-14</u> (Scattered Salvage): Estimated that approximately 35% of the existing volume from the original "leave" stand cruise will be removed from Scattered Salvage areas.

<u>Areas 3-5, 9, and 10</u> (Modified Clearcuts): Estimated that approximately 80% of the existing volume from the original "leave" stand cruise will be removed.

The cruise calculations were processed in the Astoria District office. The field cruise volumes were then evaluated and reviewed to calculate a per acre and sale volume. Percentages were used from the cruise for species and grades to establish the total sale volume.

Timber Description: All areas have been thinned within the last eight years. The timber type is predominately Douglas-fir and western hemlock with scattered mixed conifers approximately 50-65 years old. Average tree DBH ranges are from 17" to 24". There is a mix of scattered blowdown and concentrated patches of blowdown.

<u>Area 1</u> is a roadside salvage harvesting only those trees blown down and those that are root sprung (leaning) within 100' of existing roads. A portion of this volume has been removed from the road prism and is decked adjacent to the existing roads.

<u>Areas 2, 6-8, and 11-14</u> will be salvage logged, harvesting only those trees blown down and those that are root sprung (leaning more than 10 degrees).

<u>Areas 3-5, 9, and 10</u> are areas where most of the trees have blown down, and will be logged to salvage the downed trees and most of the remaining standing trees. Five wildlife trees per acre will be selected by PURCHASER and approved by STATE.

- **6. Statistical Analysis and Stand Summary:** A statistical analysis was not calculated. Stand Volume Reports are attached.
- 7. Volumes by Species and Sale Areas: Some calculated volumes include "in-growth". The total net MBF volumes by species and grade are as follows:

Species	DBH	Net. Vol.	2 Saw	3 Saw	4 Saw	Sale%
Douglas-fir	21"	1,663	691	838	134	52
W. Hemlock / True Fir	20"	1,539	470	790	279	48
Totals		3,202				

The cruise volume for the modified clearcuts was reduced by an estimated 20 percent for defect, breakage, snags, and wildlife trees that will be left. Salvage volume breakdowns were derived based on percentages of cruised volumes from Quartz Creek Combination, Spruced Up Combination, and Sheep Shack timber sales.

8.	Approvals:	ghllim			
	Prepared by:	Peter Stone	Date:	May 16, 2008	

9. Attachments:

Leave Tree Volumes (11 pages)

1100

uastz Ckreek TC TSTATS PAGE **PROJECT** J. Long **QUARTZ** DATE 4/11/2001 TWP RGE SECT TRACT TYPE ACRES **PLOTS** TREES 4N **7W** 13 A-1&3&4 LEAV 774.00 82 126 **ESTIMATED** PERCENT TREES TOTAL SAMPLE **PLOTS** TREES PER PLOT TREES TREES TOTAL 82 385 4.7 CRUISE 28 126 4.5 52,727 .2 REFOREST COUNT 54 259 4.8 **BLANKS** 100 % STAND SUMMARY **SAMPLE** TREES AVG BOLE REL BASAL GROSS NET **GROSS** NET TREES /ACRE **DBH** LEN DEN AREA BF/AC BF/AC CF/AC CF/AC DOUGLEAV 80 38.7 21.4 74 97.1 14,320 14.077 3,695 3,695 HEMLEAV 19 13.5 18.6 69 25.4 3,716 3,716 988 988 **NFIRLEAV** 11 5.9 22.2 79 4 16.0 2.776 2,764 661 661 SN 13 5.4 19.4 39 11.1 231 231 71 71 ALDRLEAV 1 3.2 20.0 48 7.0 607 607 195 195 NOB FIR 1 .6 16.0 50 0 .8 88 88 22 22 **CEDLEAV** ł .8 10.0 17 .4 15 15 5 5 TOTAL 126 68.1 20.6 68 157.8 21,752 21,497 5,638 5,638 COEFF TREES/ACRE # OF PLOTS REQ. INF. POP. SD: VAR.% S.E.% LOW AVG HIGH 5 10 12 DOUGLEAV 50.3 5.6 37 39 41 HEMLEAV 146.4 16.2 11 14 16 **NFIRLEAV** 143.3 15.8 5 6 7 SN 241.6 26.7 4 5 7 ALDRLEAV 377.0 41.6 2 3 5 NOB FIR 636.3 70.3 0 1 1 **CEDLEAV** 905.5 100.0 1 2 TOTAL 34.3 3.8 66 68 71 47 12 8 COEFF BASAL AREA/ACRE # OF PLOTS REQ. INF. POP. SD: VAR.% S.E.% LOW AVG HIGH 5 10 12 DOUGLEAV 45.2 5.0 92 97 102 HEMLEAV 144.8 16.0 21 25 29 **NFIRLEAV** 137.1 15.1 14 16 18 224.1 24.7 8 11 14 ALDRLEAV 377.0 41.6 4 7 10 NOB FIR 636.3 70.3 0 1 1 **CEDLEAV** 905.5 100.0 0 0 1 TOTAL 24.5 2.7 154 158 162 24 4 COEFF NET BF/ACRE # OF PLOTS REQ. INF. POP. SD: 1 VAR.% S.E.% LOW AVGHIGH 5 10 12 DOUGLEAV 48.3 5.3 13,325 14,077 T4,828 HEMLEAV 148.6 16.4 3,106 3,716 4,326 **NFIRLEAV** 138.3 15.3 2,342 2,764 3,186 SN 292.1 32.3 156 231 305 ALDRLEAV 377.0 41.6 354 607 859 NOB FIR 636.3 70.3 26 88 150 **CEDLEAY** 905.5 100.0 0 15 30 TOTAL 23.I 2.5 20,949 21,497 22,045 21 5 4

(Quar	z C	knee	k	Com	b'not or	`			
TC TSTATS J. Long			+	S PROJ	TATIS ECT	STICS QUARTZ	+	······································	PAGE DATE	4/I 1/2001
TWP RGE	SECT T	RACT		TYPE	, A	CRES	PLOTS	TREES	2.112	4/11/2001
4N 7W	23 A	2LEAVE		LEAV		173.00	25			
				LIEITY		173.00		47	<u> </u>	
				TOPEA		ESTIMATE		PERCENT		
	PLOTS	TDEEG		TREES		TOTAL		SAMPLE		
TOTAL		TREES		PER PLO)T	TREES		TREES		
TOTAL	25	106		4.2						
CRUISE REFOREST	12	47		3.9		9,712		.5		
COUNT	13	50								
BLANKS	13	59		4.5						
100 %										
100 70										
			STA	ND SU	MMAR	Y				
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUGLEAV	33	31.4	22.6	84		87.4	15,073	15,043	3,664	3,664
NFIRLEAV	6	9.3	20.6	78		5 21.5	3,858	3,858	887	887
SN HEMLEAV	3	6.5	21.3	33		16.1	1,007	1,007	307	307
ALDRLEAV	4 1	4.1	20.5	75		9.4	1,557	1,557	396	396
TOTAL	1 47	4.8 56.1	16.0	55		6.7	722	722	212	212
TOTAL	77	50.1	21.5	74		141.2	22,217	22,187	5,466	5,466
an .	COEFF			TREES	/ACRE		#	OF PLOTS	REO. I	NF. POP.
SD: 1 DOUGLEAV	VAR.%	S.E.%	· L		AVG	HIGH		5	10	12
NFIRLEAV	50.3 122.0	10.1		28	31	35	··			
SN	200.7	24.4 40.1		7	9	12				21
HEMLEAV	208.0	41.6		4 2	7 4	9				
ALDRLEAV	322.7	64.5		2	4 5	6 8				
TOTAL	42.9	8.6		51	<i>56</i>	61		7.4		
<u> </u>								74	18	13
SD: 1	COEFF	0.54			AREA/A		#	OF PLOTS F	EQ. I	NF. POP.
DOUGLEAV	VAR.% 36.8	S.E.%	L(OW .	AVG	HIGH		5	10	12
NFIRLEAV	118.3	23.7		81 16	87 22	94				
SN	200.5	40.1		10	22 16	27				
HEMLEAV	193.4	38.7		6	9	23 13				
ALDRLEAV	322.7	64.5		2	7	13				
TOTAL	31.5	6.3		132	141	150		40	10	7
	COEFF			NET BF		•		OF PLOTS R		
SD: 1	VAR.%	S.E.%	LC)W	AVG	HIGH	#		-	VF. POP.
DOUGLEAV	38.0	7.6			15,043	16,185		5	10	12
NFIRLEAV	119.3	23.9		,938	3,858	4,779				ļ
SN	205.2	41.0		593	1,007	1,420				
HEMLEAV	194.3	38.9		952	1,557	2,163				
ALDRLEAV	322.7	64.5		256	722	1,188				ļ
TOTAL	21.7	4.3	21,	223 2	2,187	23,150		19	5	3
										_

Quartz Creek Combination Attachment D

TC ·	TSTNDSU	JM			•	•	Star	nd Tabl	e Sumi	nary			0.		7
J. Lon	ıg •						Pro	ject	QUART	Z '			Pa	ge lot	r J
T4N	R7W S	13 TL	EAV										T/N D7	XV C12 TD	(TS 4 Y r
Twn	Rσe	Sec	Tra	ot		· Secondario State State	Tama			ni -	-	<u>, 1000.ed = 1000.ed</u>		W S13 T]	
4N	7W	13		&3&			LEAV		xcres 74.00	Plots 82	Sample 126		Date: Time:	4/11/01	
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1	\mathbf{s}	Sampl	le FF		Trees	/ BA/	Logs	Net	Net	Tons/	Net Cu.Ft.	Net Bd.Ft.	T	otals	
Spc	T DBH	Trees	16	Tot	•	Acre		1	Bd.Ft.	Acre	Acre	Acre	Tons		ă en ri
DL	12	2	87		3.092		3.09	15.5	50.0	<u> </u>	48	135	Tons	Cunits 371	MBF
DL DL	14 15	l	81				1.14	15.0	50.0		17	57		132	120 44
DL	16	4	86 83		3.958 2.609		7.92 6.96	20.5	73.8	l	162	584		1,256	452
DL	17	1	89		.770		2.31	19.7 23.7	73.7 93.3		137	513		1,064	397
DL	18	5	85		3.436		7.56	30.4	108.2		55 230	216 818		423	167
DL	19	4	88		2.467		5.55	35.0	123.3		194	685		1,776 1,504	633
DL	20	3	87		1.670		3.90	38.3	138.6		149	540		1,304 1,155	530 418
DL DL	21 22	. 5 . 7	85 84		2.524		5.55	43.2	151.8		240	843		1,856	653
DL	23	4	84 86		3.220 1.683	8.50 4.86	8.28 3.79	39.0	147.2		323	1,219		2,499	943
DL	24	4	81	91	1.546		3.79 3.09	52.1 56.1	188.9 188.8		197	715		1,528	554
DL	25	3	82		1.069	3.64	2.49	56.7	205.7		174 141	584 513		1,343	452
DL	26	7	86	95	2.305	8.50	5.27	61.1	238.7		322	1,258		1,095 2,490	397
DL DL	27	7	86	96	2.138	8.50	4.89	64.9	261.9		317	1,280		2,454	974 990
DL	28 29	9 2	83 82	116 122	2.556		7.38	60.8	252.3		449	1,863	ľ	3,477	1,442
DL	30	. 2	84	123	.529 .495	2.43 2.43	1.85 1.48	57.6 74.8	247.1		107	458		826	354
DL	31	4	82	110	.927	4.86	2.55	74.8	340.0 301.8		111 186	505	ŀ	860	391
DL	32	2	77	100	.435	2.43	1.09	82.0	290.0		89	769 315		1,436	595
DL	36	I	84	97	.172	1.21	.34	136.5	550.0		47	189		690 363	244 146
DL	Totals	80	85	95	38.736	97.14	86.48	42.7	162.8		3,695	14,077		28,597	10,895
HL HL	13	1	89	77	1.451	1.34	2.90	15.5	55.0		45	160	<u> </u>	348	10,893
HL	15 16	1 2	83 86	79 88	1.090 1.916	1.34	2.18	21.5	70.0		47	153		363	118
HL	17	2.	83	94	1.697	2.67 2.67	3.83 3.39	26.0 29.5	97.5		100	374	<u> </u>	771	289
HL	18	2	86	98	1.514	2.67	3.03	36.8	102.5 125.0		100	348		775	269
HL	19	4	87	85	2.754	5.35	5.51	36.7	125.9		,111 202	378 694		861	293
HL	20	1	89	100	.613	1.34	1.23	50.0	180.0		61	221		1,563 475	537 171
HL HL	23 24	1	82	65		1.34	.93	40.5	145.0		38	134		291	104
HL	27	4 1	88 91	96 89	1.703	5.35	4.68	49.1	209.1		230	979		1,779	758
HL						1.34	1.01	54.3	273.3		55	276		424	213
NFL	Totals 15	19	86	88	13.538		28.69	34.5	129.5		988	3,716		7,650	2,876
NFL	16	1	88 88	94 99	1.184 1.041	1.45 1.45	2.37	24.0	90.0		57	213		440	165
NFL	21	1	81	99	.604	1.45	3.12 1.81	19.3 31.0	76.7 113.3		60 56	239		467	185
NFL	22	l	92	81	.550	1.45	1.10	43.5	170.0		56 48	205 187		435	159
NFL	24	1	86	99	.463	1.45	.93	63.5	235.0		59	217		371 455	145
NFL	25	1	91	87	.426	1.45	.85	63.5	260.0		54	222		455 419	168 172
NFL NFL	26 28	2 1		113	.788	2.91	2.36	53.7	228.3		127	540		982	418
NFL	31	1		106 125	.340 .277	1.45 1.45	.68	81.5	325.0		55	221		429	171
NFL	32	ì	87			1.45	.83 .78	91.0 88.7	470.0 420.0		76 69	391 328		586	303
NFL	Totals	11	87	100	5.934		14.84	44.6	186.3			_ [536	254
AL	20	ì	86	56		6.97	6.39	30.5	95.0		661 195	2,764		5,119	2,139
AL	Totals	1	86	56		6.97	6.39	30.5	95.0		195			1,508	470
SN	10	1	80	39	1.561	.85			- 75.0		193	607		1,508	470
SN	15	3	84	93		2.55	.69	36.0	150.0		25	104	_		
SN	16	1	76	17	.610	.85	.61	16.0	50.0		10	104 30		193 76	81 24
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TC T		SU	M		•			Stan Pro		e Sumn QUART	•		<u>- </u>	page	2	of	3
		e—	3 TLE Sec 13	Trac	23&4			Type LEAV	· · · · · ·	4.00	Plots S	Sample 126			ge: te:	V S13 TI 2 4/11/01 1:36:54	e e e e e e e e e e e e e e e e e e e
	S T Di		Sample Trees	FF 16		Trees/ Acre		Logs Acre	Net	ige Log Net Bd.Ft.		Net Cu.Ft.	Net Bd.Ft.	i		tals	
SN		9	1	69	34	.432	.85				Acre	Acre	Acre	Tons	5	Cunits	MBF
SN		24	1	UF	59	.432	.85 .85	.43	23.0	70.0		10	30			77	23
SN SN] 2	27	1	70 90	25 130	.214	.85 .85	.21	53.0	160.0		11	34			88	27
SN	5	5	1	85	18	.052	.85										
SN	5	8	1	85	16	.046	.85										
SN	6	4	1	90	34	.038	.85										
SN		0	1	82	41	.024	.85	.02	623.0	1290.0		15	31			118	24
SN	Tota	als	13	80	58	5.383	11.07	1.97	36.1	116.8		71	231	 		551	178
NF		6	1	89	63	.587	.82	1.17	19.0	75.0		22	88			173	68
NF	Tota	ls	1	89	63	.587	.82	1.17	19.0	75.0		22	88	1		173	68
CL		0	1	77	22	.751	.41	.75	7.0	20.0		5	15	 		41	12
CL	Tota	ds	1	77	22	.751	.41	.75	7.0	20.0		5	15	 		41	12
Γotals			126	85	88	68.123 1	57.80	140.29	40.2	153.2		5638	21,497			43,638	16,638

				(ch-	C^{ν}	مامه	Ca	mhlh	LN.	^			
TC	TSTNDS	UM			<u>XIV</u>	1145	Sta	nd Tabl	e Sum	mary	MION	1			
J. Lo								ject	QUAR	•			Pag	e 3 of	f 3
ŧ		S23 TL											T4N R7	W S23 TI	LEAV
4N	7W	—See- 23		ict LEA	VE	· · · · · · · · · · · · · · · · · · ·	Type LEAV		cres 3.00	Plots 25	Sample	Trees	Page: Date: Time:	1 4/11/01 1:32:59	прал
	s	Sampl	e FI	Av F Ht	ı		Logs		age Log Net	Tons	Net	Net	 	tals	TIM
		H Trees	16	То	t Acre	Acre	. 0		Bd.Ft.	Acre	/ Cu.Ft Acre	. Bd.Ft. Acre	Tons	Cunits	MBF
DL DL	17	4	- 88					28.1	104.4	 	425	1,579		735	
DL	18		86					34.5	117.5		207	704		755 358	273
DL	19	1	88		1			41.5	150.0	ľ	112	403	•	336 193	122
DL	20	. 1	86			_		41.5	150.0		101	364		174	70
DL	21 22	2	87				6.61	32.8	136.7		217	903		375	63
DL	23	3	88				7.02	44.4	168.6]	312	1,184		540	156
DL	24	3	85				8.26	40.0	164.4	1	330	1,358		572	205
DL	26	3 5	85		-10-23		6.74	46.9	186.2		316	1,256		547	235
DL	28		87			13.24	10.77	52.4	230.0	İ	565	2,478		977	217
DL	29	3 3	85		-,		5.57	63.2	273.3		352	1,523		610	429
DL	31	2	85				5.20	77.7	350.0		404	1,819		698	264
DL	33		84	,	1		3.03	71.0	325.0		215	985		372	315
l Dr.] 33	1	82	116	.446	2.65	1.34	81.7	363.3		109	486		189	170
DL	Totals	33	86	108	31.406	87.39	80.77	45.4	186.2		3,664	15,043			84
NFL	16	1	91	89	2.568	3.59	5.14	26.0	100.0		134	514		6,339	2,602
NFL	19	1	92	102	1.821	3.59	5.46	28.3	123.3		155	674	-	231	89
NFL	20	1	91	91	1.643	3.59	3.29	39.5	145.0		130	477		268	117
NFL	22	1	89	97	1.358	3.59	4.07	36.7	156.7		. 149	638		225	82
NFL	23	1	92	96	1.243	3.59	3.73	39.7	186.7		148	696		258	110
NFL	32	1	91	116	.642	3.59	1.93	89.0	446.7		171	860		256	120
NFL	Totals	6	91	96	9.274	21.51	-33.61					800		2 9 7	149
HL	15	1	89	91			23.61	37.6	163.4		887	3,858		1,534	667
HL	22	1	88	97	1.917	2.35	3.83	23.5	85.0		90	326		156	56
HL	23	1	88	97	.891	2.35	1.78	56.5	215.0		101	383		174	66
HL	30	, 1	87	102	.815	2.35	1.63	62.5	235.0		102	383		176	66
HL	1				.479	2.35	1.44	71.7	323.3	• .	103	465		178	80
	Totals	4	88	95	4.103		8.69	45.6	179.3	·	396	1,557		685	269
SN	20	1	85	59	2.465		4.93	30.0	105.0		148	518			
SN	22	2	75	36	4.074	10.76	4.07	39.0	120.0		159	489		256	90
SN	Totals	3	79	44	6.539	16.13	9.00	34.1	111.8					275	85
AL	16	1	87	65	4.814		9.63	22.0			307	1,007		531	174
AL	Totals		87	65	4.814				75.0		212	722		366	125
Totals		47					9.63	22.0	75.0		212	722		366	125
		4/	87	94	56.137 14	11.16	131.70	41.5	168.5		5466	22,187		9,455	3,838

Areas 1,143, \$44 Leave Sheep Shack

Hicas	1,1A, 3, 54	Leave		<u> </u>	<u> </u>	<u>Una</u>	<u></u>	· · ·		
TC TSTATS			***	ST PROJE	ATIS CT	FICS SHEEP			PAGE DATE 10	0/26/2004
TWP RGE	SECT TR	ACT	- "	TYPE	A	CRES	PLOTS	TREES	CuFt	BdFt
04N 07W	25134			PCHL		223.00	70	247	1	_ <u>W</u>
		-		TREES		ESTIMATEI TOTAL		ERCENT AMPLE		
	PLOTS	TREES		PER PLO	r	TREES	T	REES	,	
TOTAL	70	247		3.5						
CRUISE DBH COUNT REFOREST	25	82		3.3	i	10,689		.8		
COUNT BLANKS 100 %	45	162		3.6					,	
			STA	ND SUM	IMARY	7				
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUGLEAV	57	37.4	21.4	89		93.6	16,280	16,018	4,062	4,034
SFIRLEAV	19	5.5	24.9	103		3 18.7	4,436	4,225	957	917
SNAG	2	2.1	14.3	43		2.4	67		40	
HEMLEAV	ı	.6	24.0	66		1.9	269	269	68	68
ALDRLEAV	2	1.4	13.9	38		1.4	146	146	42	42
CEDLEAV	1	.9	10.0	17		.5	26	26	7 5 176	5.069
TOTAL	82	47.9	21.3	85		118.6	21,225	20,685	5,176	5,068
<u> </u>	COEFF			SAMPL			#	OF TREES		INF. POP.
SD: 1	VAR.%	S.E.%	I	.OW	AVG	HIGH		5	10	1:
DOUGLEAV SFIRLEAV	88.2 210.5	9.7 23.2		309 158	342 206	375 254				
SNAG	005.5	100.0			5	11				
HEMLEAV	905.5 696.6	100.0 76.9		1	3	5				
ALDRLEAV CEDLEAV	905.5	100.0		0	0	1				
TOTAL	64.7	7.1		517	557	597		167	42	I
	COEFF			TREES	ACRE		#	OF PLOTS	REQ.	INF. POP.
SD: 1	VAR.%	S.E.%	I	.OW	AVG	HIGH		5	10	1.
DOUGLEAV	41.3	4.9		36	37	39				
SFIRLEAV	162.7	19.4		4	6	7				
SNAG	377.3	45.1		1	2	3				
HEMLEAV	409.1	48.9		0	1	1				
ALDRLEAV	620.0	74.1		0 .	1	2				
CEDLEAV	836.7	100.0			1	2		20	7	
TOTAL	26.5	3.2		46	48	49		28	7	
	COEFF		_	BASAL			#	OF PLOTS		INF. POP.
SD: 1	VAR.%		L	.OW 89	AVG 94	HIGH 98		5	10	1:
DOUGLEAV	39.6	4.7		89 15	94 19	98 22				
SFIRLEAV	166.4 363.2	19.9 43.4		15 l	2	3				
SNAG HEMLEAV	303.2 409.1	48.9		1	2	3				
ALDRLEAV	620.0	74.1		0	Ī	3				
CEDLEAV	836.7	100.0		0	0	1				
TOTAL	15.8	1.9		116	119	121		10	2	
	COEFF		-	NET BE	/ACRE	····	#	OF PLOTS	REO.	INF. POP.
en. i	VAR.%	S.E.%	T	OW.	AVG	HIGH	"	5	10	I:
SD: 1 DOUGLEAV	VAR.% 39.9	5.E.76 4.8			16,018	16,782			··········	
SFIRLEAV	39.9 173.1	20.7		3,351	4,225	5,099				
SNAG	-,			•						
HEMLEAV	409.1	48.9		137	269	401				
ALDRLEAV	620.0	74.1		38	146	255				
CEDLEAV	836.7	100.0		0	26	53			_	
	horn Sh <i>e</i> €p0Sal	vage <i>2.6</i>	2	0,140 Cré	<u>Réfrépo</u>	ort 21,230		19	⁵ Pa	ge 8 of 16 ²

Areas 1/4 ? 4 Leave Stand Table Summary

TC TSTNDSUM

SHEEP Project

T04N R07W S25 TPCHL

Page: Sample Trees **Plots** Acres

T04N R07W S25

Type PCHL Rge Sec Tract Date: 10/26/200 70 82 223.00 134 Time: 10:25:20AM 07W 25 04N

04N	·) / VV	£5 I	.34										I me:	10.25.20	
					Av	Tuesel	DA/	Logs	Avera Net	ge Log Net	Tons/	Net Cu.Ft.	Net Bd.Ft.	To	tals	
	S		Sample			Trees/ Acre	Acre	Logs Acre		Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
	1		Trees		Tot	1.537	1.64	3.07	24.0	90.0		74	277	· 	164	62.
DL		14	1	84 89	92	1.337	1.64	2.68	21.5	80.0		58	214		128	48
DL	1	15 16	1 1	0) 3/	107	1.176	1.64	2.35	27.0	105.0		64	247		142	55
DL		17	3	88	110	3.126	4.93	8.34	24.7	93.8		206	782	•	460	174
DL		18	2	86	108	1.859	3.29	4.65	28.6	106.0		133	· 493		296	110
DL	-	19	5	87	117	4.171	8.21	10.85	33.6	125.4		365	1,360		813	303
DL DL		20	5	87	112	3,765	8.21	9.79	36.2	133.8		355	1,310		791	292
DL	ı	2 I	3	88	108	2.049	4.93	4.78	43.7	162.9		209	779		466	174
DL	ļ	22	7	87	120	4.356		11.20	46.6	186.1		521	2,085		1.163	465
DL	- 1	23	7	87	115	3.985		10.82	47.3	192.I		512	2,078		1,141	463
DL		24	7	85	113	3.660		9.93	49.5	198.9	-	492	1,976		1,097	441
DL		25	6	85	112	2.891	9.86	6.26	55.9	230.0		350	1,441		781	321
DL		26	3	86	120	1.337	4.93	4.01	56.6	238.9	•	227	958		506	214
DL	- [27	2	86	129	.826	3.29	2.48	64.0	256.7		159	636		354	142
DL	l	29	1	84	118	.358	1.64	1.07	68.0	273.3		73	294		163	65
DL		30	1	82	120	.335	1.64	1.00	71.7	293.3		72	294		160	66
DL		31	2	88	132	.627	3.29	1.88	88.3	423.3		166	796		370	178
DL	∵	Totals	57	87	114	37.396	93.63	95.16	42.4	168.3		4,034	16,018		8,997	3.572
SFL		19	2	90	123	1.001	1.97	3.00	33.3	138.3		100	415		223	93
SFL		21	1	89	132	.410	.99	1.23	43.7	193.3		54	238	1	120	53
SFL		22	1	88	119	.373	.99	1.12	41.3	176.7		46	198		103	44
SFL		23	2	92	120	.683	1.97	2.05	47.5	218.3		97	447		217	100
SFL	ļ	24	2	88	118	.627	1.97	1.57	58.8	244.0		- 92	383		206	85
SFL		25	2	88	130	.578	1.97	1.16	54.8	232.5	1	63	269		141	60
SFI.		26	1	88	129	.267	.99	.80	62.0	270.0		50	217		111	48
SFL		27	3	91	130	.744	2.96	2.23	70.3	347.8		157	776		350	173 59
SFL	į	31	-	92		.188	.99	.56	89.0	466.7		50	263		112 352	179
SFL		32	3	91	131	.529		1.59	99.4	505.6	ļ	158 49	803		332 110	48
SFL		37	1	86	129	.132		.40	124.7	546.7	<u> </u>		216			
SFL		Totals	19	90	125	5.533	18.73	15.71	58.4	269.0		917	4,225	ļ	2,045	942
HL		24	i	88	79	.611	1.92	1.22	55.5	220.0		68	269		151	60
HL		Totals	1	88	79	.611	1.92	1.22	55.5	220.0		68	269		151	60
AL	_	12	1	87	66	.917	.72	.92	21.0	70.0	1	19	64	İ	43	14
AL		17	1	87				.91	25.0	90.0		23	82		51	18
AL		Totals	2	87	67	1.374	1.44	1.83	23.0	80.0		42	146		94	33
CL		10	1	83	20	.880	.48	.88	8.0	30.0		7	26		16	6
CL		Totals	1	83	20	.880	.48	.88	8.0	30.0		7	26		16	6
SN		12	1	82	48	1.528	1.20									
SN		19	1	80	30	.610	1.20					·				
SN		Total	2	81	43	2.138	2.40									
Total	le .	1	82	87	109	47.933	118.60	114.81	44.1	180.2		5068	20,685		11,303	4,613

Ace.	2 beave	. 5	neps	Shac	K					
TC TSTATS		·		ST PROJE	ATIS'	FICS SHEEP			PAGE DATE	10/26/2004
TWP RGE	SECT TR	ACT		TYPE	A	CRES	PLOTS	TREES	CuFt	BdFt
04N 07W	25 2·			PCLL		68.00	29	122	1 .	W
40>					XESSES.	ESTIMATEL	P	ERCENT	Sensores el Marie de Sens	
4615.				TREES		TOTAL		AMPLE		
	PLOTS	TREES	-	PER PLO	Γ	TREES	Т	REES		
TOTAL	29	122		4.2					•	
CRUISE	14	58	•	4.1	•	3,920		1.5		
DBH COUNT										
REFOREST										
COUNT	15	64		4.3						
BLANKS										
100 %						.,				
			STA	AND SUM	IMARY	7				
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	S NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUGLEAV	48	40.3	22.3	90		108.9	20,061	19,696	4,767	4,723
ALDRLEAV	5	9.9	16.0	44		13.9	1,391	1,371	397	393
HEMLEAV	2	5.0	. 19.5	90		10.4	1,907	1,835	484	484
SFIRLEAV	3	2.4	25.0	97		1 8.1	1,846	1,828	397	393
TOTAL	58	<i>57.6</i>	21.2	83		141.4	25,205	24,730	6,044	5,993
	COEFF			SAMPL	E TREE	S - BF	#	OF TREES	REO.	INF. POP.
SD: 1	VAR.%	S.E.%	L	.OW	AVG	HIGH		5	10	15
DOUGLEAV	66.1	8.7		427	468	509				
ALDRLEAV	344.9	45.3		7	12	18			ì	
HEMLEAV	534.2	70.1		4	13	21				
SFIRLEAV	456.5	59.9		17	42	68				
TOTAL	50.4	6.6		500	535	570		102	25	
	COEFF			TREES/			#	OF PLOTS	REQ.	INF. POP.
SD: 1	VAR.%	S.E.%	L	.OW	AVG	HIGH		5	10	15
DOUGLEAV	40.6	7.5	•	37	40	43				•
ALDRLEAV	285.3	53.0		5	10	15				
HEMLEAV	174.5	32.4		3	5	7 3				
SFIRLEAV	213.2 <i>34</i> .5	39.6 <i>6.4</i>		1 54	58	3 61		<i>4</i> 8	12	5
TOTAL		0.7								
_	COEFF	0.50/		BASAL.			. #	OF PLOTS	-	INF. POP.
SD: I	VAR.%	S.E,%	<u></u>	OW 102	AVG 109	HIGH 116		5	10	15
DOUGLEAV	32.6	6.1 53.0		7	109	21				
ALDRLEAV	285.3 174.4	33.0 32.4		7	10	14				
HEMLEAV SFIRLEAV	211.7	39.3		5	8	11		1		
TOTAL	13.3	2.5		138	141	145		7	2	1
	COEFF			NET BF			#	OF PLOTS	•	INF. POP.
SD: 1	VAR.%	S.E.%	T	OW	AVG	HIGH	"	5	10	15
SD: 1 DOUGLEAV	32.4	6.0			9,696	20,882			10	13
	297.6	55.3	-	613	1,371	2,129	•			
AI DRI HAV				-	•					
ALDRLEAV HEMLEAV	174.5	32.4		1,241	1,835	2,429				
ALDRLEAV HEMLEAV SFIRLEAV	174.5 212.4	32.4 39.4		i,241 1,107	1,835 1,828	2,429 2,548				

Areas 1,14,3, &4 Leave

Stand Table Summary

TC TSTNDSUM

Project SHEEP

T04N R07W S25 TPCHL

Twp Rge Sec Tract 04N 07W 25 134

Type PCHL

Acres 223.00

Plots Sar 70

Sample Trees 82 T04N R07W S25

Page:

Date: 10/26/200 Time: 10:25:20AM

04N	()7W	25	134	1			1.	CHL	<i></i>		, -			Time:	10:25:20	AW
	\mathbf{s}		Samp	e F		Av Ht	Trees/	BA/	Logs	Net	ige Log Net	Tons/	Net Cu.Ft.	Net Bd.Ft.		tals	
			Trees			Tot		Acre	Acre	Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
		14	1		<u>. </u>	121	1.537	1.64	3.07	24.0	90.0		74	277		164	62.
DL	1	15	ı		89	92	1.339	1.64	2.68	21.5	80.0		58	214		128	48
DL DL		16	1		87	107	1.176	1.64	2.35	27.0	105.0		64	247		142	55
DL		17	3		88	110	3.126	4.93	8.34	24.7	93.8		206	782		460	174
DL		18	2		86	108	1.859	3.29	4.65	28.6	106.0		133	493		296	110
DL		19	5		87	117	4.171	8.21	10.85	33.6	125.4		365	1,360		813	303
DL	J	20	5		87	112	3.765	8.21	9.79	36.2	133.8		355	1,310		791	292
DL	- 1	21	3		88	108	2.049	4.93	4.78	43.7	162.9		209	779		466	174
DL		22	7		87	120	4.356	11.50	11.20	46.6	186.1		521	2,085		1,163	465
DL		23	7		87	115	3.985	11.50	10.82	47.3	192.1		512	2,078		1,141	463
DL		24	7		85	113	3.660	11.50	9.93	49.5	198.9		492	1,976		1,097	441
DL		25	6		85	112	2.891	9.86	6.26	55.9	230.0		350	1,441		781	321
DL		26	3		86	120	1.337	4.93	4.01	56.6	238.9		227	958		506	214
DL		27	2		86	129	.826	- 3.29	2.48	64.0	256.7		159	636		354	142
DL		29	1		84	118	.358	1.64	1.07	68.0	273.3		73	294		163	65
DL		30	ì		82	120	.335	1.64	1.00	71.7	293.3		72	294		160	66
DL		31	2		88	132	.627	3.29	1.88	88.3	423.3		166	796		370	178
DL		Totals	57		87	114	37.396	93.63	95.16	42.4	168.3		4,034	16,018		8,997	3,572
		├			90	123	1.001	1.97	3.00	33.3	138.3		100	415		223	93
SFL		19	2		89	132	.410	.99	1.23	43.7	193.3	•	54	238		120	53
SFL		21	j		88	119	.373	.99	1.12	41.3	176.7	ļ	46	198		103	44
SFL	,	22	1 2		92	120	.683	1.97	2.05	47.5	218.3	1	97	447		217	100
SFL		23	2		88	1-18	.627	1.97	1.57	58.8	244.0		• 92	383		206	85
SFL		24 25	2		88	130	.578	1.97	1.16	54.8	232.5	١.	63	269		141	60
SFL		26	1		88	129	.267	.99	.80	62.0	270.0		50	217		111	48
SFL		27	3		91	130	.744		2.23	70.3	347.8		157	776		350	173
SFL SFL		31	-		92	122	.188	.99	.56	89.0	466.7	1	50	263		. 112	59
SFL		32			91	131	.529		1.59	99.4	505.6		158	803	ł	352	179
SFL		37			86		.132		.40	124.7	546.7	1	49	216		110	48
		Totals			90		<u> </u>	18.73	15.71	58.4	269.0	 	917	4,225		2,045	942
SFL HL		24		1	88		.611	1.92	1,22	55.5	220.0	<u> </u>	68	269		151	60
<u> </u>		<u> </u>		1	88		.611		1.22	55.5	220.0	-	68	269	ļ	151	60
HL	_	Total							.92	21.0	70.0	 	19	64		43	14
AL		12		l	87		.917			25.0			23	82		51	18
AL		17	<u> </u>	l 	87		.457		.91			<u> </u>				94	33
AL		Total	s ·	2	87				1.83	23.0		-	42	146		16	6
CL		10)	i	83	20	.880	.48	.88	8.0			7				
CL	_	Total	s	1	83	20	.880			8.0	30.0		7	26		16	6
SN		12	_ -	1	82	48	1.528										
SN		19		1	80	30	.610	1.20				<u> </u>					
SN		Total	ls	2	81	43	2.138	3 2.40								11.000	4.612
Tota		+	8	2	0	109	47 933	118 60	114.81	44.1	180.2	1	5068	20,685	1	11,303	4,613

Stand Table Summary TC TSTNDSUM SHEEP

Project

T04N R07W S25 TPCLL T04N R07W S25 TPCLL Page:

Twp Rge Sec Tract 04N 07W 25 2 Sample Trees Type Plots Acres Date: 10/26/200 PCLL 68.00 29 58 Time: 10:25:20AM

Spc T DBH Trees 16' Tot Acre Acre Acre Cu.Ft. Bd.Ft. Acre Acre Acre Cu.Ft. Bd.Ft. Acre Acre Acre Cunits MBF DL 12 1 85 167 2.889 2.27 8.67 14.0 56.7 121 491 83 33 DL 16 1 88 115 1.625 2.27 3.25 30.5 120.0 99 390 67 27 DL 17 2 85 101 2.879 4.54 5.76 29.5 107.5 170 619 116 42 DL 18 1 88 125 1.284 2.27 3.85 27.7 103.3 107 398 72 27					Av			_	ľ	ige Log		Net	Net		Totals	
DL	1							Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.			
DL	Spc				Tot		Acre	Acre	1		Acre	Acre	Acre	Tons	Cunits	MBF
DL	1	1 .	=		167	2.889		8.67	14.0				491		83	33
DL	•								1			99	390		67	27
DL	l .			85		2.879	4.54	5.76	1				619		116	42
DL 20 3 89 106 3.120 6.81 8.32 34.3 132.5 285 1,102 194 75 DL 21 4 87 114 3.773 9.08 10.38 38.4 146.4 398 1.519 271 103 DL 22 6 88 117 5.157 13.61 15.47 40.1 169.4 621 2.622 422 178 DL 23 4 88 117 3.146 9.08 8.65 47.8 199.1 414 1,722 281 117 DL 24 5 88 123 3.611 11.34 10.83 48.9 214.0 529 2.318 360 158 DL 25 3 87 122 1.997 6.81 5.32 55.5 245.0 296 1,305 201 89 DL 26 6 85 118 3.692 13.61 11.08 54.7 232.2 606 2.572 412 175 DL 27 1 87 120 5.71 2.27 1.14 81.0 380.0 92 434 63 29 DL 28 3 86 113 1.592 6.81 4.24 67.7 291.2 288 1.236 196 84 DL 29 1 84 111 4.95 2.27 1.48 62.0 286.7 92 425 63 29 DL 30 1 84 116 462 2.27 1.48 62.0 286.7 92 425 63 29 DL 31 3 84 126 1.299 6.81 3.90 78.3 358.9 305 1,398 208 95 DL Totals 48 87 119 40.302 108.91 109.50 43.1 179.9 4.723 19,696 3.212 1.339 HL 19 1 89 104 2.648 5.21 5.30 44.0 175.0 233 927 158 63 HL 20 1 88 116 2.390 5.21 4.78 52.5 190.0 233 927 158 63 SFL 23 1 86 105 4.040 2.77 1.87 65.0 275.0 122 515 83 35 SFL 24 1 89 116 8.61 2.70 2.88 51.0 236.7 132 611 90 42 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1,828 267 124 AL 14 1 87 74 2.601 2.78 5.50 165 65.0 86 338 38 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 1311 418 89 28 AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL 17 1 86 65 5.992 1.990 17.85 22.0 76.8 393 1.371 267 93				88			2.27	3.85	- 27.7	103.3		107	398		72	27
DL 21	1								1				714		135	49
DL 22 6 88 117 5.157 13.61 15.47 40.1 169.4 621 2.622 422 178 DL 23 4 88 117 3.146 9.08 8.65 47.8 199.1 414 1,722 281 117 DL 24 5 88 123 3.611 11.34 10.83 48.9 214.0 529 2,318 360 158 DL 25 3 87 122 1.997 6.81 5.32 55.5 245.0 296 1,305 201 89 DL 26 6 85 118 3.692 13.61 11.08 54.7 232.2 606 2,572 412 175 DL 27 1 87 120 .571 2.27 1.14 81.0 380.0 92 434 63 29 DL 28 3 86 113 1.592 6.81 4.24 67.7 291.2 288 1.236 196 84 DL 29 1 84 111 4.95 2.27 1.48 62.0 286.7 92 425 63 29 DL 30 1 84 116 4.62 2.27 1.39 74.0 310.0 103 430 70 29 DL 31 3 84 126 4.22 2.27 1.39 74.0 310.0 103 430 70 29 DL 32 1 86 105 4.06 2.27 2.27 4.78 52.5 190.0 251 908 171 62 DL Totals 48 87 119 40.302 108.91 109.50 43.1 179.9 4.723 19.696 3.212 1.339 HL 19 1 89 104 2.648 5.21 5.30 44.0 175.0 233 927 158 63 HL 20 1 88 116 2.390 5.21 4.78 52.5 190.0 251 908 171 62 HL Totals 2 89 110 5.038 10.43 10.08 48.0 182.1 484 1.835 329 125 SFL 23 1 89 116 8.61 2.70 2.58 51.0 236.7 132 611 90 42 SFL 20 1 92 127 5.89 2.70 1.77 79.0 396.7 140 701 95 48 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1.828 267 124 AL 14 1 87 74 2.601 2.78 5.50 65.0 86 338 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21			-											-	194	75
DL	I.	- 1											1,519		271	103
DL	1								t .				2,622		422	178
DL 25 3 87 122 1.997 6.81 5.32 55.5 245.0 296 1,305 201 89 DL 26 6 85 118 3.692 13.61 11.08 54.7 232.2 606 2,572 412 175 DL 27 1 87 120 5.71 2.27 1.14 81.0 380.0 92 434 63 29 DL 28 3 86 113 1.592 6.81 4.24 67.7 291.2 288 1,236 196 84 DL 29 1 84 111 4.95 2.27 1.48 62.0 286.7 92 425 63 29 DL 30 1 84 16 4.62 2.27 1.39 74.0 310.0 103 430 70 29 DL 31 3 84 126 1.299 6.81 3.90 78.3 358.9 305 1,398 208 95 DL 32 1 86 105 406 2.27 DL Totals 48 87 119 40.302 108.91 109.50 43.1 179.9 4.723 19,696 3.212 1.339 HL 19 1 89 104 2.648 5.21 5.30 44.0 175.0 233 927 158 63 HL 20 1 88 116 2.390 5.21 4.78 52.5 190.0 251 908 171 62 HL Totals 2 89 110 5.038 10.43 10.08 48.0 182.1 484 1.835 329 125 SFL 23 1 89 116 8.61 2.70 2.58 51.0 236.7 132 611 90 42 SFL 29 1 92 127 5.89 2.70 1.77 79.0 396.7 140 701 95 48 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1.828 267 124 AL 14 1 87 74 2.601 2.78 5.20 16.5 65.0 86 338 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL Totals 5 86 65 9.922 13.90 17.85 22.0 76.8 393 1,371 267 93													-		281	117
DL 26 6 85 118 3.692 13.61 11.08 54.7 232.2 606 2.572 412 175													2,318		360	158
DL 27	i .		=										1,305		201	89
DL 28 3 86 113 1.592 6.81 4.24 67.7 291.2 288 1,236 196 84 DL 29 1 84 111 .495 2.27 1.48 62.0 286.7 92 425 63 29 DL 30 1 84 116 .462 2.27 1.39 74.0 310.0 103 430 70 29 DL 31 3 84 126 .466 2.27 1.39 78.3 358.9 305 1,398 208 95 DL Totals 48 87 119 40.302 108.91 109.50 43.1 179.9 4,723 19,696 3,212 1.339 HL 19 1 89 104 2.648 5.21 5.30 44.0 175.0 233 927 158 63 HL 70 1 88 116 2.390 5.21	1												2,572		412	175
DI												92	434		63	29
DL 30	DL		-	86				4.24	67.7	291.2		288	1,236		196	84
DL 31 3 84 126 1.299 6.81 3.90 78.3 358.9 305 1,398 208 95 DL Totals 48 87 119 40.302 108.91 109.50 43.1 179.9 4,723 19,696 3,212 1.339 HL 19 1 89 104 2.648 5.21 5.30 44.0 175.0 233 927 158 63 HL 20 1 88 116 2.390 5.21 4.78 52.5 190.0 251 908 171 62 HL Totals 2 89 110 5.038 10.43 10.08 48.0 182.1 484 1.835 329 125 SFL 23 1 89 116 .937 2.70 1.87 65.0 275.0 122 515 83 35 SFL 24 1 89 116 .861 2.7		29) 1	84				1.48	62.0	286.7		92	425	1	63	29
DL 32 1 86 105 .406 2.27 Section 1 19 4.0302 108.91 109.50 43.1 179.9 4.723 19,696 3.212 1.339 HL 19 1 89 104 2.648 5.21 5.30 44.0 175.0 233 927 158 63 HL 20 1 88 116 2.390 5.21 4.78 52.5 190.0 251 908 171 62 HL Totals 2 89 110 5.038 10.43 10.08 48.0 182.1 484 1,835 329 125 SFL 23 1 89 116 .937 2.70 1.87 65.0 275.0 122 515 83 35 SFL 24 1 89 116 .861 2.70 2.58 51.0 236.7 132 611 90 42 SFL 29 1<	2	30	1	84				1.39	74.0	310.0		103	430		70	29
DL Totals 48 87 119 40.302 108.91 109.50 43.1 179.9 4,723 19,696 3,212 1,339 HL 19 1 89 104 2.648 5.21 5.30 44.0 175.0 233 927 158 63 HL 20 1 88 116 2.390 5.21 4.78 52.5 190.0 251 908 171 62 HL Totals 2 89 110 5.038 10.43 10.08 48.0 182.1 484 1,835 329 125 SFL 23 1 89 116 .937 2.70 1.87 65.0 275.0 122 515 83 35 SFL 24 1 89 116 .861 2.70 2.58 51.0 236.7 132 611 90 42 SFL 29 1 92 127 .589 2.70 </td <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td>3.90</td> <td>78.3</td> <td>358.9</td> <td></td> <td>305</td> <td>1,398</td> <td></td> <td>208</td> <td>95</td>			_					3.90	78.3	358.9		305	1,398		208	95
HL 19 1 89 104 2.648 5.21 5.30 44.0 175.0 233 927 158 63 HL 20 1 88 116 2.390 5.21 4.78 52.5 190.0 251 908 171 62 HL Totals 2 89 110 5.038 10.43 10.08 48.0 182.1 484 1,835 329 125 SFL 23 1 89 116 .937 2.70 1.87 65.0 275.0 122 515 83 35 SFL 24 1 89 116 .861 2.70 2.58 51.0 236.7 132 611 90 42 SFL 29 1 92 127 .589 2.70 1.77 79.0 396.7 140 701 95 48 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1,828 267 124 AL 14 1 87 74 2.601 2.78 5.20 16.5 65.0 86 338 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21 AL Totals 5 86 65 9.922 13.90 17.85 22.0 76.8 393 1,371 267 93	DL	32	! I	86	105	.406	2.27									
HL 20 i 88 116 2.390 5.21 4.78 52.5 190.0 251 908 171 62 HL Totals 2 89 110 5.038 10.43 10.08 48.0 182.1 484 1.835 329 125 SFL 23 1 89 116 .937 2.70 1.87 65.0 275.0 122 515 83 35 SFL 24 1 89 116 .861 2.70 2.58 51.0 236.7 132 611 90 42 SFL 29 1 92 127 .589 2.70 1.77 79.0 396.7 140 701 95 48 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1.828 267 124 AL 14 1 87 74 2.601 2.78 5.20 16.5 65.0 86 338 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21 AL Totals 5 86 65 9.922 13.90 17.85 22.0 76.8 393 1.371 267 93	DL	Total	s 48	87	119	40.302	108.91	109.50	43.1	179.9		4,723	19,696		3,212	1.339
HL 20 1 88 116 2.390 5.21 4.78 52.5 190.0 251 908 171 62 HL Totals 2 89 110 5.038 10.43 10.08 48.0 182.1 484 1,835 329 125 SFL 23 1 89 116 .937 2.70 1.87 65.0 275.0 122 515 83 35 SFL 24 1 89 116 .861 2.70 2.58 51.0 236.7 132 611 90 42 SFL 29 1 92 127 .589 2.70 1.77 79.0 396.7 140 701 95 48 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1,828 267 124 AL 14 1 87 74 2.601 2.78 5.20 16.5 65.0 86 338 58 23 AL<	HL	19	I	89	104	2.648	5.21	5.30	44.0	175.0		233	927		158	63
SFL 23 1 89 116 .937 2.70 1.87 65.0 275.0 122 515 83 35 SFL 24 1 89 116 .861 2.70 2.58 51.0 236.7 132 611 90 42 SFL 29 1 92 127 .589 2.70 1.77 79.0 396.7 140 701 95 48 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1,828 267 124 AL 14 1 87 74 2.601 2.78 5.20 16.5 65.0 86 338 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 <	HL	20	l l	. 88	116	2.390	5.21	4.78	52.5	190.0		251				
SFL 23 1 89 116 .937 2.70 1.87 65.0 275.0 122 515 83 35 SFL 24 1 89 116 .861 2.70 2.58 51.0 236.7 132 611 90 42 SFL 29 1 92 127 .589 2.70 1.77 79.0 396.7 140 701 95 48 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1,828 267 124 AL 14 1 87 74 2.601 2.78 5.20 16.5 65.0 86 338 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 <	HL	Total	s 2	89	110	5.038	10.43	10.08	48.0	182.1		484	1,835		329	1,25
SFL 24 1 89 116 .861 2.70 2.58 51.0 236.7 132 611 90 42 SFL 29 1 92 127 .589 2.70 1.77 79.0 396.7 140 701 95 48 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1,828 267 124 AL 14 1 87 74 2.601 2.78 5.20 16.5 65.0 86 338 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21 AL Tot	SFL	23	i	89	116	.937	2.70	1.87	65.0	275.0		122	515		83	35
SFL 29 1 92 127 .589 2.70 1.77 79.0 396.7 140 701 95 48 SFL Totals 3 90 119 2.387 8.11 6.22 63.2 293.7 393 1,828 267 124 AL 14 1 87 74 2.601 2.78 5.20 16.5 65.0 86 338 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21 AL Totals 5 86 65 9.922 13.90 <	SFL	24	1	89	116	.861	2.70	2.58	51.0	236.7		132	611			
AL 14 1 87 74 2.601 2.78 5.20 16.5 65.0 86 338 58 23 AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21 AL Totals 5 86 65 9.922 13.90 17.85 22.0 76.8 393 1,371 267 93	SFL	29	1	92	127	.589	2.70	1.77	79.0	396.7		140	701		95	
AL 16 2 86 55 3.983 5.56 5.97 22.0 70.0 131 418 89 28 AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21 AL Totals 5 86 65 9.922 13.90 17.85 22.0 76.8 393 1,371 267 93	SFL	Total	s 3	90	119	2.387	8.11	6.22	63.2	293.7		393	1,828		267	124
AL 17 1 86 66 1.764 2.78 3.53 23.0 85.0 81 300 55 20 AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21 AL Totals 5 86 65 9.922 13.90 17.85 22.0 76.8 393 1.371 267 93	AL			87			2.78	5.20	16.5	65.0		86	338		58	23
AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21 AL Totals 5 86 65 9.922 13.90 17.85 22.0 76.8 393 1,371 267 93	AL	16	2	86	55	3.983	5.56	5.97	22.0	70.0		131	418		8 9	28
AL 18 1 87 78 1.574 2.78 3.15 30.0 100.0 94 315 64 21 21 21 22 23 24 25 25 25 25 25 25 25		1						3.53	23.0	85.0		18	300			
75	AL	18	1	87	78	1.574	2.78	3.15	30.0	100.0		94	315		64	
Totals 58 87 109 57.649 141.35 143.65 41.7 172.2 5993 24,730 4,075 1,682	AL	Total	s 5	86	65	9.922	13.90	17.85	22.0	76.8		393	1,371	***************************************	267	93
	Totals		58	87	109	57.649 1	41.35	143.65	41.7	172.2		5993	24,730		4,075	1,682

Spruced up combination

LEAUE TREES IN AREA I

TYPE REPORT(KC) STATISTICAL SUMMARY

GON DEPT. OF FORESTRY JECT SPRUCED TRACT: AREA I THINNING Trees 207

Plots 45

BFT:W

PAGE

TWP 04N RGE 07W SEC 22 TY LEAV AC 643.30 PAUL

DATE: 04/13/98 CUB:1

TIME: 10:20am

				· ····		ESTIMATED	TD	ERCENT				
				TREI		TOTAL		AMPLE				
	PLOTS	TRE	ES	PER I		TREES		TREES				
[OTAL	45	20			. 6							
CRUISE	45	20			. 6	67386		0.3				
COUNT												
3LANKS												
L00%												
	······································				STAND SU	TMACS DV		· · · · · · · · · · · · · · · · · · ·			.	
	SAMPLE	TREES	ΑV			BASAL	GROSS	NE'	יי יי	GRO	ss	NET
	TREES	/ACRE	D4			AREA	BF/AC			CF/		CF/AC
√HEMLOCK	1KEES 86	49.2	15.			64.2	9272				66	2355
OUG FIR		43.3	16.			64.2	9089				78	2370
NOB FIR	34	12.1	19.				5196				.90	1185
S SPRUCE	1	0.1	32.			0.7	102		99		25	25
3 SPROCE				~ · · · · · · · · · · · · · · · · · · ·								
POTAL	207	104.8	16.	5 6	2	154.6	23659	225	97	59	59	5935
5D:1	COEF	F.			TREES/AG	CRE	# OF	PLOTS	REQ.	_	INF.	POP.
	VAR		E.8	LOW	AVE	HIGH		5%	10%		1	L5%
MLOCK	109.	7 16	.3	41.2	49.2	57.2						
JG FIR	116.	2 17	.3	35.8	43.3	50.8						
NOB FIR	181.	5 27	1.1	8.8	12.1	15.4						
3 SPRUCE	670.	8 100	0.0		0.1	0.3						
FOTAL	45.	3 6	.8	97.7	104.8	111.8		82	57			42
SD:1	COEF	·F·		BAS	AL AREA	/ACRE	# OF	PLOTS	REQ.	_	INF	. POP.
	VAR		E.%	LOW	AVE	HIGH		5%	10%		1	L5%
WHEMLOCK			.0	55.2	64.2	73.2						
DOUG FIR			8.1	56.0	64.2	72.4						
NOB FIR	169.	7 25	5.3	19.0	25.4	31.8						
S SPRUCE	670.	8 100	0.0		0.7	1.5						
FOTAL	17.	0 2	2.5	150.7	154.6	158.5		12	8			6
SD:1	COEF	'F'.		N.	ET BF/A	CRE	# OH	FPLOTS	REQ.	_	INF	. POP.
	VÁR		E.%	LOW	AVE	HIGH		5%	10%			15%
WHEMLOCK			5.5	7426	8787							
DOUG FIR			3.3	7559	8721	9883						
NOB FIR	179.		5.7	3657	4990	6323						
5 SPRUCE					99	198						
TOTAL	32.		8.1	21507	22597	23687		42	29			21
SD:1	COEF	F.	<u></u>	NET	CUBIC F	T/ACRE	# OI	PLOTS	REQ.	_		
	VAF		E.8	LOW	AVE			5%	10%	:		15%
WHEMLOCK			1.9	2004	2355	2706						
~~UG FIR			3.1	2059	2370	2681						
3 FIR	175.		5.1	876	1185	1495						
SPRUCE			0.0		25							
TOTAL	25.	3 .	3.8	5711	5935	6159		26	18	;		13





