



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Pokegama Sale 341-06-31

District: Klamath/Lake

Date: 7/5/05

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$167,601.18	\$0.00	\$167,601.18
		Project Work	(\$8,983.75)
		Advertised Value	\$158,617.43



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Timber Description Pokegama Sale 341-06-31

District: Klamath/Lake

Location: Portion of Section 11, T41S, R5E, W.M., Klamath County, Oregon.

Date: 7/5/05

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	14	0	97
Incense Cedar	14	0	95
Ponderosa Pine	12	0	97

Volume by Grade	Douglas - Fir	Incense Cedar	Ponderosa Pine	Total
Camprun	0	113	0	113
CR 6" - 8"	75	0	73	148
CR 8" - 14"	95	0	78	173
CR 14" - 22"	101	0	34	135
CR 22"+	10	0	5	15
Total	281	113	190	584

Comments: Pond Values Used: 2nd Quarter 2005.

Additional Costs with P&R:

Dust Abatement: \$5,783.00

Brand & Paint: \$600.00

Additional Fire Protection: \$1,675.00

TOTAL Additional Costs with P&R: \$8,058

Additional Costs without P&R:

Inland Fiber Group Road Use Fee: \$400

TOTAL Additional Costs without P&R: \$400



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal

Logging Conditions

Pokegama

Sale 341-06-31

Combination#: 1

Douglas - Fir	40.00%
Incense Cedar	35.00%
Ponderosa Pine	80.00%

Yarding Distance: Medium (800 ft) **Downhill Yarding:** Yes
Logging System: Wheel Skidder **Process:** Feller Buncher
Tree Size: Small / Thinning 9in (70 Bft/tree), 20+ logs/MBF
Loads/Day: 8 **Bd. Ft./Load:** 3,700
Cost/MBF: \$113.32

Machines:
Feller Buncher w/ Delimber
Log Loader (B)
Stroke Delimber (B)
Tire Skidder

Combination#: 2

Douglas - Fir	60.00%
Incense Cedar	65.00%
Ponderosa Pine	20.00%

Yarding Distance: Medium (800 ft) **Downhill Yarding:** Yes
Logging System: Wheel Skidder **Process:** Manual Falling/Delimiting
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads/Day: 6 **Bd. Ft./Load:** 4,400
Cost/MBF: \$113.67

Machines:
Log Loader (B)
Tire Skidder



Timber Sale Appraisal

Logging Costs

Pokegama

Sale 341-06-31

"STEWARDSHIP IN FORESTRY"

Date: 7/5/05

Operating Seasons: 1.0

Profit & Risk: 12%

Project Costs: \$8,984

Other Costs (P/R): \$8,058

Slash Disposal: \$0

Other Costs: \$400

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Road Maintenance: \$3.18

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	4.0
Incense Cedar	\$0.00	2.0	4.0
Ponderosa Pine	\$0.00	2.0	3.7

Local Pond Values

Date	Species	Grade	Value
7/8/05	Douglas - Fir	CR 6" - 8"	\$545.00
7/8/05	Douglas - Fir	CR 8" - 14"	\$580.00
7/8/05	Douglas - Fir	CR 14" - 22"	\$595.00
7/8/05	Douglas - Fir	CR 22"+	\$595.00
7/8/05	Incense Cedar	Camprun	\$615.00
7/8/05	Ponderosa Pine	CR 6" - 8"	\$305.00
7/8/05	Ponderosa Pine	CR 8" - 14"	\$305.00
7/8/05	Ponderosa Pine	CR 14" - 22"	\$475.00
7/8/05	Ponderosa Pine	CR 22"+	\$565.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Pokegama Sale 341-06-31

Costs	Douglas - Fir	Incense Cedar	Ponderosa Pine
Logging	113.53	113.55	113.39
Road Maintenance	3.28	3.35	3.28
Fire Protection	4.64	4.64	4.64
Hauling	59.28	60.53	59.28
Other (P/R appl.)	13.80	13.80	13.80
Profit & Risk	23.34	23.50	23.33
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	0.68	0.68	0.68
Total	220.55	222.05	220.40

Amortization	0.00	0.00	0.00
Pond Value	576.58	615.00	342.26
Stumpage	356.03	392.95	121.86
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Pokegama Sale 341-06-31

Amortized

	Douglas - Fir	Incense Cedar	Ponderosa Pine
MBF	0.00	0.00	0.00
Value	0.00	0.00	0.00
Total	0.00	0.00	0.00

Unamortized

	Douglas - Fir	Incense Cedar	Ponderosa Pine
MBF	281.00	113.00	190.00
Value	356.03	392.95	121.86
Total	100,044.43	44,403.35	23,153.40

Gross Timber Sale Value

Recovery \$167,601.18

Prepared by: Ed Scheick

Date: 7/5/05

District: Klamath/Lake

Phone: (541) 883-5681

**Pokegama
341-06-31**

Summary of Project Work

Project #1: Road Construction	\$500.00
Project #2: Fell, Skid, & Pile Submerchantable	\$3,760.00
Project #3: Road Closures	\$200.00
Project #4: Slashing	\$220.00
Project #5: Tractor Piling	\$1,100.00
Project #6: Sporax Teatment	\$3,203.75
TOTAL	\$8,983.75

Pokegama

341-06-31

Additional Costs Sheet



"STEWARDSHIP IN FORESTRY"

Road Maintenance

Move-in cost (grader):	\$ 300.00
Number of Bladings	1
Number of Miles to be Bladed	8.2
Miles / Hour for equipment	0.5
Cost / Hour:	\$ 95.00
Total Grading Hours:	16.4
Grading Cost:	\$ 1,558.00
Total Cost:	\$ 1,858.00
Cost / MBF	\$ 3.18

Dust Abatement (Profit & Risk Included)

PP	190,000	BF	33% Average Load	3700	BF	51	# of Loads
DF	281,000	BF	48% Average Load	4000	BF	70	# of Loads
IC	113,000	BF	19% Average Load	4000	BF	28	# of Loads
Total:	584,000	BF					
						Total Loads	149.9

Assume:

5	Trucks/Day
2	Trips / Day
10	Loads Per Day

15	Hauling Days
5	Hours / Day
\$ 75.00	Cost / Hour
75	Total Hours
\$ 158.00	Move-In for Water Truck
\$ 5,625.00	Dust Abatement Cost
\$ 5,783.00	Total Cost
\$ 9.90	Cost / MBF

Brand & Paint

15	Hauling Days
2	Hours / Day
\$ 20.00	Cost / Hour
\$ 600.00	Total Cost
\$ 1.03	Cost / MBF

Pokegama

341-06-31

Project # 1 Road Construction

Move-in cost Cat \$ 300.00



New Construction

"STEWARDSHIP IN FORESTRY"

	Points	Distance (feet)	Ft./HR.	Hours	Cost HR.(cat)	Cost
Clear, Grub, Shape	A to B	315	315	1	100	\$ 100.00
Clear, Grub, Shape	C to D	435	435	1	100	\$ 100.00
	Total	750		2		\$ 200.00

\$500.00 Includes Move In

Project #2 Fell, Skid, & Pile Submerchantable Material

62.00	Total Subsawlog Volume MBF
\$ 42.50	Fell & Skid / MBF
\$ 7.50	Sort / MBF
\$ 50.00	Total / MBF
\$ 3,100.00	Total Cost

Landing Cleanup (included with Project # 2)

3	Number of Landings			
Shovel Time: 1	Hours / Landing	\$ 120.00	Cost / Hour	\$ 360.00
Cat Time: 1	Hours / Landing	\$ 100.00	Cost / Hour	\$ 300.00
			Total Cost:	\$ 660.00

Project #3 Road Closures

Road Blocking

2	Number of Closure Points(A&C)
1	Hours / Point (include travel)
	Cost / Hour (Shovel)
\$100.00	Cost / Hour (Cat)
2	Total Road Blocking Hours
\$200.00	Total Cost

Project #4 Slashing

11	Number of Acres
\$20.00	Cost/Acre
\$220.00	Total Cost

Project #5 Tractor Piling

11	Number of Acres
1	Hours/Acre
<u>\$100.00</u>	Cost/Hour(Cat)
11	Total Hours
\$1,100.00	Total Cost

Project #6 Sporax Stump Treatment

76	Acres to be treated
1292	Estimated # of Stumps 14" and Greater
22.5	Estimated Basal Area of Stumps 14" and Greater (Sq Ft./Ac)
25	Application Rate for Sporax (Sq.Ft./Lb)
75	Pounds Sporax Necessary for Treatment
<u>\$1.45</u>	Price/Lb. Sporax
<u>\$95.00</u>	Price for Dye
\$203.75	Cost for Chemical Supplies
15	Cutting Days
10	Hours/Day
<u>\$20.00</u>	Cost/Hour
\$3,000.00	Labor Cost

\$3,203.75 Total Cost for Treatment

Cost Summary

\$500.00	Project # 1 ~ Road Construction	\$	1,858.00	Road Maintenance
\$3,760.00	Project # 2 ~ Fell, Skid, & Pile Submerchantable	\$	5,783.00	Dust Abatement
\$200.00	Project #3 ~ Road Closures	\$	<u>600.00</u>	Paint and Brand
\$220.00	Project #4~ Slashing			
\$1,100.00	Project#5~ Tractor Piling	\$	8,241.00	Total Cost
<u>\$3,203.75</u>	Project#6~ Sporax Treatment			
\$8,983.75	Total Cost			

POKEGAMA

341-06-31
Cruise Report



"STEWARDSHIP IN FORESTRY"

SALE NAME: Pokegama

LEGAL DESCRIPTION: Township 41S, Range 5E, Portion of Section 11.

BOUNDARY LINES:

Unit boundaries are posted with "Timber Sale Boundary" signs, marked with fluorescent orange paint and fluorescent orange flagging.

FUND: 100% B.O.F.

ACREAGE: Total sale acreage is 76 acres.

Mapping was accomplished using a handheld Global Positioning System unit with the data run on the district Geographical Information System Program.

TREATMENT:

The entire timber sale is a selection cut that is leave tree marked with orange paint. Wildlife trees are designated with an orange "W".

CRUISE METHOD:

Variable Plot cruise with all the plots being measure plots. Fixed plot cruise for all submerchantable material (5.0" to 8.0"), with all plots being measure plots.

BASAL AREA FACTOR:

Area	BAF	Type Acreage
Entire Sale Area	14 BAF	76 acres

Full point plots taken, 1/50th acre fixed plots for submerchantable material (5.0" to 8.0" DBH)

PLOT DESIGNATION:

Plot centers were established at every plot. White flagging with the corresponding plot number was attached to the plot center and also to the nearest available tree branch.

SAMPLE SIZE CALCULATIONS:

Pokegama Timber Sale			
	CV %	Desired SE %	Acres
Total Sale Area	80	15	76.0

$$\text{Number of Plots} = \frac{T^2 C^2}{A^2}$$

C = Coefficient of Variation in Percent (Taken from inventory data)

T = Number of Standard Errors

A = Desired Sampling Error for a sale of this size and value

$$\text{Total Sale Number of Plots: } \frac{(1)^2(80)^2}{15^2} = 29 \text{ Plots}$$

Measurements and Grading:

- DBH and Height were measured on all “in” trees in the plot.
- All plots were measure plots.
- Pulp volume and sawlog volume cruised.
- See attached species and grade tables for minimum requirements.
- All trees were graded using the segment system.
- Separate fixed plot cruise for all submerchantable material (5” to 8”)

TREE HEIGHT:

All trees were measured to a fixed diameter outside bark. This height is usually taken as high up the bole as possible, where the cruiser can clearly see the bole, and the taper remains constant (usually 6 or 8 inches). The log segments are broken out and graded accordingly.

MINIMUM D.B.H.:

8.0” D.B.H. for sawlog volume. (Must have a minimum of 20 board feet.)

5.0” D.B.H. for pulp volume.

DIAMETER STANDARDS:

1” diameter class

BTR:

Standard ratios were used. See attached species tables.

FORM FACTOR:

Form factor was measured or estimated at 16' for each tree. Each tree was assigned its own FF.

FORM POINT:

All trees were sighted at D.B.H.

VOLUME COMPUTATION:

All cruise data was input and run at the district on Atterbury's Super Ace program.

CRUISERS: Ed Scheick

FINAL CRUISE RESULTS:

Pokegama Timber Sale			
	CV %	SE %	Acres
Total Sale Area	54	10.1	76

TIMBER DESCRIPTION

	Species	Average DBH	Gross Volume (MBF)	Net Volume (MBF)
Total Sale Area	Ponderosa Pine	12.4	192	190
	Douglas Fir	14.2	288	281
	Incense Cedar	14.1	118	113
Total MBF				584

(Volumes taken from Species, Sort Grade –Board Foot Volumes Report)

GREEN PULP VOLUME

This volume was obtained from the variable plot cruise (>8" DBH) and the fixed plot cruise (5.0"-8.0"). All material was graded green pulp. See grade table for minimum standards. The summary for green pulp listed below includes all types for the timber sale.

	Species	Green Pulp Volume (MBF)
Total Sale Area Variable	Ponderosa Pine	13
	Douglas Fir	2
	Incense Cedar	8
		Total: 23 MBF

(Volumes taken from Species, Sort Grade –Board Foot Volumes Report)

	Species	Green Pulp Volume (MBF)
Total Sale Area Fixed	Ponderosa Pine	4
	Douglas Fir	10
	Incense Cedar	25
		Total: 39 MBF

Total Green Pulp Volume: 62 MBF

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT POKEGAMA				DATE	6/6/2005	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
41S	5E	11	VARIABLE	0600	76.00	29	181	1	E	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		29	181	6.2						
CRUISE		28	181	6.5	6,743	2.7				
DBH COUNT										
REFOREST										
COUNT										
BLANKS		1								
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
P PINE	67	38.5	12.4	37		32.3	2,700	2,661	644	642
DOUG-FIR	64	28.0	14.2	43	8	30.9	3,810	3,724	818	818
INC CED	50	22.3	14.1	29		24.1	1,745	1,599	453	436
TOTAL	181	88.7	13.4	37		87.4	8,255	7,984	1,915	1,896
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
P PINE	142.2	17.4	122	148	173					
DOUG-FIR	106.3	13.3	263	303	343					
INC CED	127.8	18.1	183	224	264					
TOTAL	125.8	9.4	203	224	244	633	158	70		
CL: 68.1 %	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
P PINE	118.8	14.5	28	32	37					
DOUG-FIR	93.1	11.6	54	61	69					
INC CED	112.8	16.0	45	53	61					
TOTAL	109.9	8.2	44	48	52	483	121	54		
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
P PINE	133.0	25.1	29	38	48					
DOUG-FIR	114.0	21.5	22	28	34					
INC CED	133.7	25.3	17	22	28					
TOTAL	81.5	15.4	75	89	102	275	69	31		
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
P PINE	112.2	21.2	25	32	39					
DOUG-FIR	96.4	18.2	25	31	37					
INC CED	97.9	18.5	20	24	29					
TOTAL	54.1	10.2	78	87	96	121	30	13		
CL: 68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
P PINE	107.1	20.2	2,123	2,661	3,200					
DOUG-FIR	98.8	18.7	3,029	3,724	4,419					
INC CED	98.2	18.6	1,302	1,599	1,895					
TOTAL	53.3	10.1	7,180	7,984	8,789	118	29	13		
CL: 68.1 %	COEFF	NET CUFT FT/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
P PINE	109.8	20.8	508	642	775					
DOUG-FIR	97.6	18.5	667	818	969					
INC CED	95.4	18.0	357	436	515					

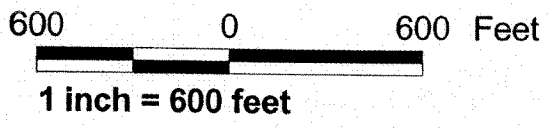
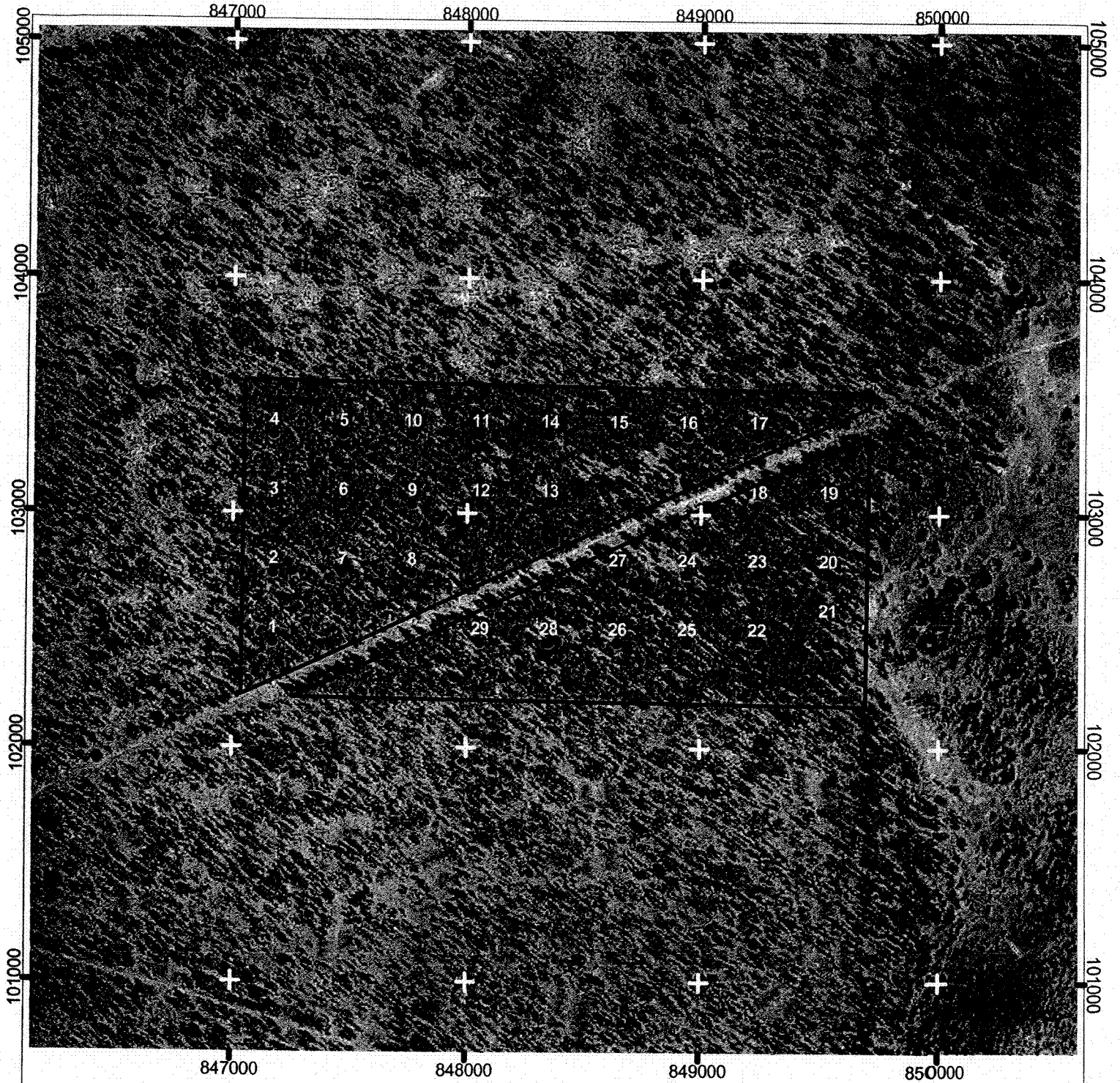
Species, Sort Grade - Board Foot Volumes (Project)

T41S R5E S11 Ty0600 76.00

Project: **POKEGAMA**
Acres **76.00**

Page **1**
Date **6/6/2005**
Time **2:18:27PM**

S Spp	So T	Gr rt	ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre	
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf		
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
PP	CUCU				100.0	10											4		0.00	2.0	
PP	CR CR			93	1.2	2,518	2,489	189			67	24	8	16	15	46	24	26	71	0.64	35.0
PP	CR GP			7		172	172	13	56	44				100			12	8	0.20	20.4	
PP Totals				33	1.5	2,700	2,661	202	4	66	23	8	21	14	43	22	20	46	0.54	57.5	
IC	CUCU				100.0	86											6		0.00	1.0	
IC	CR CR			93	3.9	1,548	1,488	113			40	31	29	21	22	53	3	23	86	1.01	17.4
IC	CR GP			7		111	111	8	34	66				100			12	8	0.25	13.4	
IC Totals				20	8.4	1,745	1,599	121	2	42	29	27	27	21	49	3	18	50	0.78	31.8	
DF	CUCU																3		0.00	1.2	
DF	CR CR			99	2.3	3,788	3,703	281			49	31	20	7	8	59	26	28	106	0.82	34.9
DF	CR GP			1		21	21	2			100			100			13	10	0.28	2.1	
DF Totals				47	2.2	3,810	3,724	283		50	31	20	7	8	59	25	27	97	0.80	38.2	
Totals					3.3	8,255	7,984	607	2	54	28	17	16	13	52	20	22	63	0.69	127.5	



SLI Stand Map
Stand #: 600, 75 acres
 S11 T41.00S R 5.00, W.M.
 KLAMATH County, OR



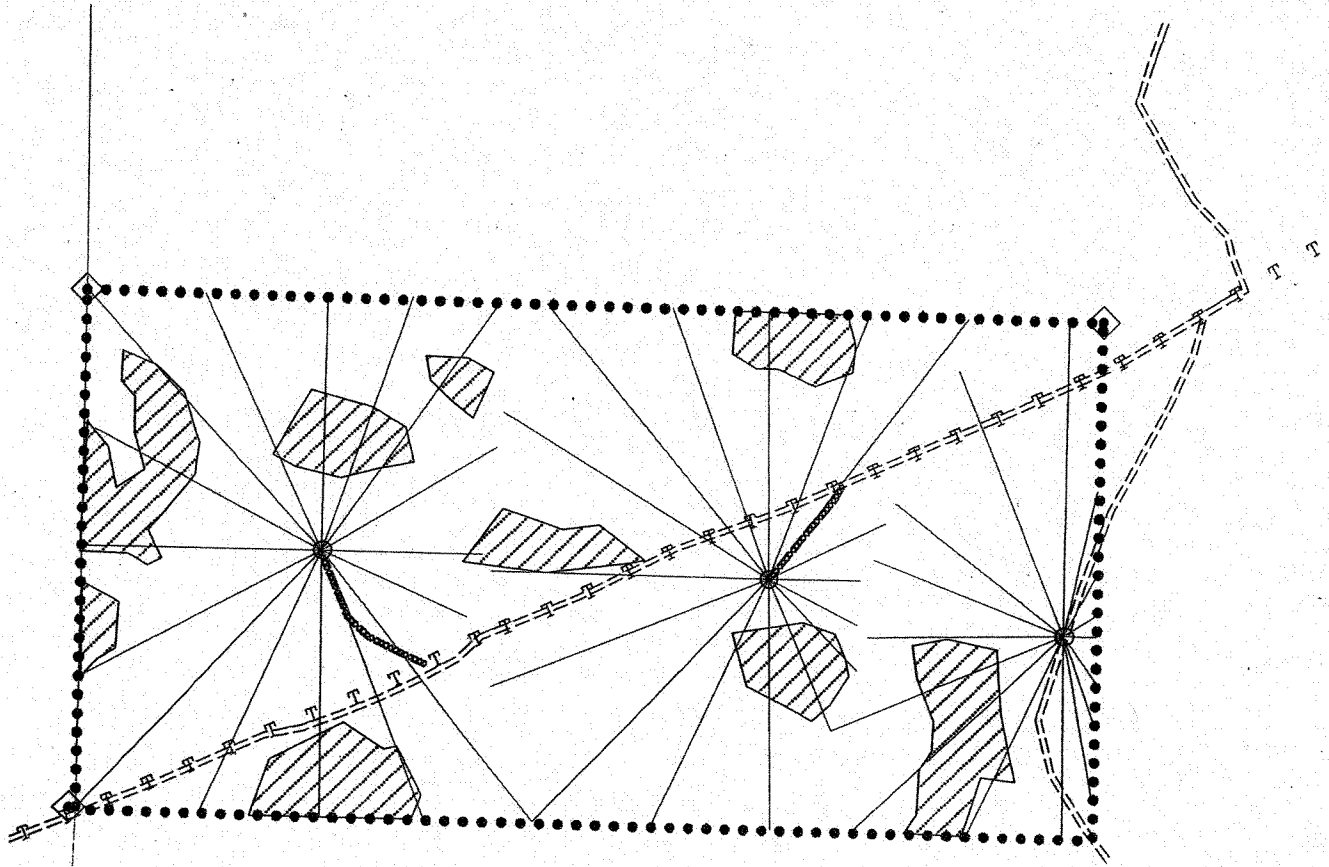
CRUISE INFO
 Plot Spacing:
 See Attached For
 Line and Plot Info.
 FPSgroup temp

CRUISER **PLOTS**









- Type and Owner Boundary
- Stand Boundary
- Section Lines
- Roads
- Streams
- Ownership Bdry
- Line Start Point

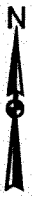


"STEWARDSHIP IN FORESTRY"
 created: 05/17/2005



1:6000
1 inch equals 500 feet

LEGEND			
	Skid Trails		Powerline
	Section Line		Unsurfaced Road
	Timber Sale Boundary (Posted)		Group Selection Harvest
			Landing
			Unsurfaced Road (Construction Required)



LOGGING PLAN
 OF TIMBER SALE CONTRACT #341-06-31
 POKEGAMA TIMBER SALE
 PORTION OF SECTION 11, T41S, R5E, W.M.
 KLAMATH COUNTY, OREGON
 76 ACRES