

IDAHO PANHANDLE NATIONAL FORESTS

2450
Commercial Sales - Proposed

04-2420-01

STARS 12401

MINI HUME TIMBER SALE REPORT
AND
APPRAISAL

DISTRICT

SUPERVISOR'S OFFICE

Prepared Edwin R. Odegaard
By

Reviewed for Advertisement

Date 5/26/11
By

Date

Reviewed _____
By

Date _____

Reviewed _____
By

Date _____

I hereby certify that this sale meets
the requirements of Secretary's
Regulation 36 CFR 223.30.

Staff Officer, Timber

Date

Mini Hume Timber Sale Timber Sale Report

I. Location

The sale area is 1948 acres in size and is located in sections 4, 9, 10, 14, 15, 16, 17 and 22, T43N, R2W Boise Meridian, Benewah County, Idaho. The timber stand atlas compartment number is 417, St. Joe Ranger District, Idaho Panhandle National Forests. Timber harvest is planned on 321 acres. The sale area lies within the Charlie Creek drainage.

II. Relationship to the Environmental Document and Other Uses

This sale is prepared under the direction of the Charlie Preston Environmental Assessment, approved by Forest Supervisor Mary Farnsworth on February 6, 2012. The purpose of this sale is vegetation management. This sale lies in Forest Plan Management Area 1.

A. Relationship to Private Land/Rights-of-Way: All harvest units and landing locations are located on Forest Service lands.

B. Threatened, Endangered and Sensitive Species:

Goshawk: Any Goshawk nests discovered in or near harvest units during purchaser operations will be protected with a 40 acre no activity buffer as stated within the NEPA document. Project activities would be suspended within the "post fledgling area" associated with the discovered nest between the dates of April 15 through August 15th. If a discovered nest is determined to be "inactive" by the district biologist, activity restrictions would be removed after the date of June 30. See Limited Operation Period C6.316#

C. Wetlands/Streamside Habitats: In-stream channel activities will only occur during base flow with the period between July 15 and September 1.

D. Special Uses, Mining Claims, Range Allotments: One range allotment does overlap the Mini Hume Sale area. The Purchaser should be aware of the possible presence of live stock within the sale area.

E. Noxious Weeds: All off-road logging and constructions equipment will be cleaned prior to entering the project area to remove any dirt which may contain weed seeds or plant materials which may contribute to the spread of noxious weeds.

All grass seed and mulching material will be certified "weed-free".

F. Cultural Resources: The Forest Service shall be notified upon discovery of any artifacts discovered during Purchaser operations. All discoveries will be protected in accordance with the timber sale contract and the National Historic Preservation Act.

G. To the degree practicable stockpiled gravel used for road maintenance will be noxious weed free. If possible, the stockpile will be inspected for noxious weeds growth prior to use. The district botanist should be notified if weeds are found on the stockpiled gravel.

III. Timber Volumes

Units were cruised in 2010 field season. All cruise design and implementation procedures adhered to the standards prescribed in the Forest Service Cruising Handbook 2409.12 and all R1 and IPNF Supplements. **ERROR TERM, VOLUME AND CONFIDENCE INTERVAL based on the AGGREGATED cubic foot product volume is 14.6%.** Maximum allowable for a scaled sale is 20%. Acreages have been determined using global positioning systems with data collected in accordance with forest service manual FSH 2409.12.

Check Cruiser: Edwin R. Odegaard

Qualified Cruiser: Michael Hicks, William Brandt, Cassidy Russell, Cynthia Johnston, J. Mcfarland and Jodie Anderson.

I certify that this sale was cruised by competent cruisers as determined by adequate testing. The estimated cut volumes shown below are within Meet the standards set forth in the Timber Cruising Handbook (FSH 2409.12) as required for Weight Scale sales. Non-sawtimber topwood is mandatory products in all units.

By: Edwin R. Odegaard/s Date: 5/18/2011 Title: Zone Check Cruiser

Net Volume CCF, Conventional Logging Systems

Unit	Ac	C	DF	GF	H	L	LP	WP	TOTAL Sawlog Net CCF	TOTAL Sawlog Net MBF	Non-Saw CCF	Gross Tons *	Logging System
1	37	100	219	226	46	285	205	26	1106	580	80	3739	GB
2	6	15	33	34	7	43	31	4	167	87	12	565	TLM
38	25	67	147	152	31	191	138	17	742	389	54	2510	TLM
83	9	25	160	59	34	20	0	22	320	167	25	1042	SKY
84	30	82	524	192	111	66	0	71	1046	547	81	3414	GB
87	26	83	118	393	174	82	28	7	885	467	64	3100	TLM
88A	5	15	22	72	32	15	5	1	163	86	12	571	GB
88B	25	81	117	387	171	80	28	7	871	460	63	3051	TLM
89A	24	78	111	370	164	77	27	7	833	440	60	2917	GB
89B	10	32	46	154	68	32	11	3	347	183	25	1215	SKY
90	33	91	582	214	123	74	0	79	1162	608	90	3792	SKY
102A	19	60	86	285	126	59	20	5	642	339	46	2249	GB
102B	64	206	295	978	433	203	70	18	2204	1163	158	7718	SKY
ROW	8	61	131	122	0	97	0	6	417	225	21	1327	GB
TOTAL	321	997	2591	3637	1520	1324	563	274	10,906	5,741	790	37210	

* From cruise processing report WT4, combined sawlog & non-saw.

Conversion Factors and Ratios:

Net BF/CF ratio 5.3394

CCF to MBF conversion .5339

Gross CCF to Ton Conversion Factor 3.18

IV. Marking Plan

Cutting Unit Boundary: The cutting unit boundaries are marked with three vertical orange stripes with the central stripe facing into the cutting unit and two opposing stripes facing in the directions of the previous and next boundary tree along the unit boundary. Boundary marks are generally located near eye level or higher. In addition, a horizontal stump mark is painted on the downhill side of the tree in orange paint at ground level.

Leave Trees Marking (LTM): In units designated LTM leave trees are marked with an Orange paint band located near DBH and an Orange stump mark painted horizontally on the downhill side of the tree.

Cut Tree Marking (CTM): In units designated CTM cut trees are marked with a Blue paint band located near DBH and a Blue horizontal stump mark located on the downhill side of the tree.

Unit Number	Cut Timber Designation*	Acres	Marking Code	Marking Paint Colors
1	Leave Tree Marking	37	LTM	Orange
2	Leave Tree Marking	6	LTM	Orange
38	Leave Tree Marking	25	LTM	Orange
83	Cut Tree Marking	9	CTM	Blue
84	Leave Tree Marking	30	LTM	Orange
87	Cut Tree Marking	26	CTM	Blue
88A	Leave Tree Marking	5	LTM	Orange
88B	Leave Tree Marking	25	LTM	Orange
89A	Leave Tree Marking	24	LTM	Orange
89B	Leave Tree Marking	10	LTM	Orange
90	Leave Tree Marking	33	LTM	Orange
102A	Leave Tree Marking	19	LTM	Orange
102B	Leave Tree Marking	64	LTM	Orange

V. Logging Plan

1. General Information:

Intermediate supports: All skyline analyses were completed using Logger PC. Profiles analysis in unit 102B shows that intermediate supports will be needed on some sets. Other skyline units may need intermediate supports on some sets. Timber designated for cutting should be used as jack trees whenever possible.

C6.41# - SPECIAL FELLING REQUIREMENTS. (10/04) Unless otherwise agreed in writing, the following special requirements shall be met in felling timber designated for cutting:

Cutting Unit	Item or Area to be protected	Protection Measure
2,38,83,87,88B,89B & 90	Slopes over 45 percent	Mechanical felling is prohibited on slopes over 45%.
102B	Soils	Mechanical felling is prohibited.

The Mini Hume Timber Sale has been designed to utilize a Link-belt size yarder with a 50 foot tower.

Log Landings: Existing roads will be utilized as landings where appropriate in order to avoid additional soil compaction. Log landing not located on existing or newly-constructed roads, will be decompacted and covered with residual slash and seeded with certified weed free seed upon completion of the sale.

Landings that are conducive to dispersed camping as determined by the district recreation specialist may be exempt from these restoration activities upon written agreement.

2. Sale Averages

Skyline

In units labeled "SKY" on the Sale Area Map a Linkbelt type yarding with a 50 foot tower will be used for the yarding of designated timber. Except where converging, corridors shall be spaced 150 feet apart.

Landings will be piled and roads used as landing will be kept clear of debris and restored to original condition upon completion of yarding activities.

Longest Set: Profile analysis indicated that the longest skyline span with the sale is located in the northern portion of unit 102B. This span will require an estimated 1,209 feet of skyline and 1043 feet of mainline.

Intermediate Supports: In unit 102B intermediate supports will be required on some sets. Generally, spans below the support trees are short, no more the 400 feet. In some cases, the use of intermediate supports may be avoided if a yarder with a larger tower is used.

The external yard distance (average) for skyline is 650 feet.

Tracked Line Machine

In units 2, 38, 83, 87 and unit 88B a Tracked Line Machine will be required for timber removal. This machine must be equipped with tracks and capable of yarding to a maximum distance of 800 feet.

Tractor Swing: Tractor swing will be required in units labeled TLM on the sale area map where it is necessary to skid harvested timber from TLM landings to system roads for haul.

All off-road landings used during TLM operations will be de-compacted and seeded upon completion of logging activities.

The external yarding distance (average) for TLM units is 318 feet.

Ground Based Skidding (tractor/log forward)

In units marked “GB” on the sale area map a ground based yarding system will be used for harvest activities. All skid trails will be spaced 100 feet apart except where converging.

The longest skidding distance is estimated to be 1,100 feet.

The average external yarding distance for ground based unit is 620 feet.

R102: SALE SUMMARY BY LOGGING METHOD

FOR CUT TREES ONLY

-- BOARD FOOT --

CRUISE#: 20111 SALE#: 20114

SALENAME: Hume Creek

RUN DATE & TIME: 03-01-2012 15:13:28

VERSION: 04.12.2011
VOLUME LIBRARY VERSION: 03.18.2011

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	GROSS BF	TOTAL DEF%	NET BF	ESTIM TREES	GROSS BF/ ACRE	NET BF/ ACRE	TREES/ ACRE	MEAN DBH	MEAN HGT	NET BF/ TREE	16' LOGS/ GROSS MBF	AVG SLOPE	ACRES
GB 01 P	2493747	11.1	2216535	21104	20424	18153	172.8	11.0	82.8	105	28.7	13.5	122.1
01 TOTAL	2493747	11.1	2216535	21104	20424	18153	172.8	11.0	82.8	105	28.7	13.5	122.1
GB 08 S	197129	0.0	197129	0	1614	1614	0.0	0.0	0.0	0	0.0	13.5	122.1
GB 08 R	0	0.0	29750	0	0	244	0.0	0.0	0.0	0	0.0	13.5	122.1
08 TOTAL	197129	0.0	226879	0	1614	1858	0.0	0.0	0.0	0	0.0	13.5	122.1
GB TOTAL	2690876	9.2	2443414	21104	22038	20012	172.8	11.0	82.8	116	26.6	13.5	122.1
SKY 01 P	2404618	11.8	2121089	20579	20783	18333	177.9	10.9	83.8	103	29.3	32.1	115.7
01 TOTAL	2404618	11.8	2121089	20579	20783	18333	177.9	10.9	83.8	103	29.3	15.7	115.7
SKY 08 S	193084	0.0	193084	0	1669	1669	0.0	0.0	0.0	0	0.0	32.1	115.7
SKY 08 R	0	0.0	27706	0	0	239	0.0	0.0	0.0	0	0.0	32.1	115.7
08 TOTAL	193084	0.0	220791	0	1669	1908	0.0	0.0	0.0	0	0.0	32.1	115.7
SKY TOTAL	2597703	9.8	2341879	20579	22452	20241	177.9	10.9	83.8	114	27.2	32.1	115.7
TLM 01 P	1612317	13.0	1403089	13841	19881	17301	170.7	10.9	82.4	101	29.1	35.1	81.1
01 TOTAL	1612317	13.0	1403089	13841	19881	17301	170.7	10.9	82.4	101	29.1	32.6	81.1
TLM 08 S	127330	0.0	127330	0	1570	1570	0.0	0.0	0.0	0	0.0	35.1	81.1
TLM 08 R	0	0.0	28905	0	0	356	0.0	0.0	0.0	0	0.0	35.1	81.1
08 TOTAL	127330	0.0	156234	0	1570	1926	0.0	0.0	0.0	0	0.0	35.1	81.1
TLM TOTAL	1739647	10.4	1559324	13841	21451	19227	170.7	10.9	82.4	113	27.0	35.1	81.1

R102: SALE SUMMARY BY LOGGING METHOD

FOR CUT TREES ONLY

-- BOARD FOOT --

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	GROSS BF	TOTAL DEF%	NET BF	ESTIM TREES	GROSS BF/ ACRE	NET BF/ ACRE	TREES/ ACRE	MEAN DBH	MEAN HGT	NET BF/ TREE	16' LOGS/ GROSS MBF	AVG SLOPE
TOTALS/AVE	7028226	9.7	6344617	55524	22039	19895	174.1	11.0	83.1	114	26.9	25.1

Note: Right of way acres and volume are included into the GB (ground based) summary in the table above.

GB = Ground Based Skidding System or Mechanized

SKY = Skyline Yarding System

TLM = Tracked Line Machine

Product 01 P = Sawlog

Product 08 S = Topwood

Product 08 R = Allocated Pulp (not topwood)

R103: SALE SUMMARY BY LOGGING METHOD
 FOR CUT TREES ONLY
 -- CUBIC FOOT --
 CRUISE#: 20111 SALE#: 20114
 SALENAME: Hume Creek
 RUN DATE & TIME: 03-01-2012 15:13:28

VERSION: 04.12.2011
 VOLUME LIBRARY VERSION: 03.18.2011

L P O R G O D M U T C H T		GROSS CF	TOTAL DEF%	NET CF	ESTIM TREES	GROSS CF/ ACRE	NET CF/ ACRE	TREES/ ACRE	MEAN DBH	MEAN HGT	NET CF/ TREE	16' LOGS/ GROSS CCF	AVG SLOPE	ACRES
GB	01 P	473806	11.2	420805	21104	3880	3446	172.8	11.0	82.8	20	15.1	13.5	122.1
	01 TOTAL	473806	11.2	420805	21104	3880	3446	172.8	11.0	82.8	20	15.1	13.5	122.1
GB	08 S	30008	0.0	30008	0	246	246	0.0	0.0	0.0	0	0.0	13.5	122.1
GB	08 R	0	0.0	5570	0	0	46	0.0	0.0	0.0	0	0.0	13.5	122.1
	08 TOTAL	30008	0.0	35578	0	246	291	0.0	0.0	0.0	0	0.0	13.5	122.1
GB	TOTAL	503813	9.4	456383	21104	4126	3738	172.8	11.0	82.8	22	14.2	13.5	122.1
SKY	01 P	457775	11.9	403251	20579	3957	3485	177.9	10.9	83.8	20	15.4	32.1	115.7
	01 TOTAL	457775	11.9	403251	20579	3957	3485	177.9	10.9	83.8	20	15.4	15.7	115.7
SKY	08 S	29824	0.0	29824	0	258	258	0.0	0.0	0.0	0	0.0	32.1	115.7
SKY	08 R	0	0.0	5099	0	0	44	0.0	0.0	0.0	0	0.0	32.1	115.7
	08 TOTAL	29824	0.0	34924	0	258	302	0.0	0.0	0.0	0	0.0	32.1	115.7
SKY	TOTAL	487599	10.1	438174	20579	4214	3787	177.9	10.9	83.8	21	14.5	32.1	115.7
TLM	01 P	306690	13.1	266556	13841	3782	3287	170.7	10.9	82.4	19	15.3	35.1	81.1
	01 TOTAL	306690	13.1	266556	13841	3782	3287	170.7	10.9	82.4	19	15.3	32.6	81.1
TLM	08 S	19192	0.0	19192	0	237	237	0.0	0.0	0.0	0	0.0	35.1	81.1
TLM	08 R	0	0.0	5398	0	0	67	0.0	0.0	0.0	0	0.0	35.1	81.1
	08 TOTAL	19192	0.0	24589	0	237	303	0.0	0.0	0.0	0	0.0	35.1	81.1
TLM	TOTAL	325882	10.7	291145	13841	4018	3590	170.7	10.9	82.4	21	14.4	35.1	81.1

R103: SALE SUMMARY BY LOGGING METHOD
 FOR CUT TREES ONLY
 -- CUBIC FOOT --

L P O R G O D M U T C H T		GROSS CF	TOTAL DEF%	NET CF	ESTIM TREES	GROSS CF/ ACRE	NET CF/ ACRE	TREES/ ACRE	MEAN DBH	MEAN HGT	NET CF/ TREE	16' LOGS/ GROSS CCF	AVG SLOPE
TOTALS/AVE		1317295	10.0	1185703	55524	4131	3718	174.1	11.0	83.1	21	14.3	25.1

Note: Right of way acres and volume are included into the GB (ground based) summary in the table above.
 GB = Ground Based Skidding System or Mechanized
 SKY = Skyline Yarding System
 TLM = Tracked Line Machine
 Product 01 P = Sawlog
 Product 08 S = Topwood
 Product 08 R = Allocated Pulp Product (not topwood)

	SPECIES OR SPECIES GROUP										TOTALS & AVERAGES
	WP	PP	DF	L	GF	C	S	LP	AF	H	
Avg. DBH (inches)	11.6	0.0	12.9	10.1	11.2	10.0	0.0	11.7	0.0	10.3	11.0
Avg. Tree Height (feet)	89.8	0.0	90.2	89.2	90.6	62.3	0.0	81.7	0.0	78.9	83.1
Avg. Tree Height (logs)	4.6	0.0	4.5	4.3	4.5	2.8	0.0	4.2	0.0	3.6	4.0
Basal Area/Acre (sq.ft.)	2.7	0.0	28.9	17.1	33.9	17.7	0.0	6.4	0.0	18.0	124.7
Trees/Acre	3.3	0.0	29.4	28.5	46.3	30.0	0.0	7.8	0.0	28.7	174.1
Trees/MBF (Gross)	7.0	0.0	6.3	11.0	6.5	16.8	0.0	7.3	0.0	10.4	8.5
Logs/Acre	15.3	0.0	132.4	122.6	209.8	84.9	0.0	32.6	0.0	104.7	702.2
Logs/MBF (Gross)	31.9	0.0	28.5	47.2	29.6	47.5	0.0	30.2	0.0	38.0	34.4
Logs/MBF (Net)	34.1	0.0	30.9	55.5	33.8	57.2	0.0	35.7	0.0	42.4	39.0
Total Defect(%)	6.5%	0.0%	7.7%	15.0%	12.4%	17.0%	0.0%	15.4%	0.0%	10.5%	11.8%
Gross Cut Volume (MBF)	152.9	0.0	1479.7	828.1	2257.3	570.2	0.0	344.1	0.0	878.4	6510.7
Net Cut Volume (MBF)	142.9	0.0	1366.0	704.1	1976.7	473.5	0.0	291.0	0.0	786.4	5740.7
Avg. Net Vol/Tree (BF)	134.1	0.0	145.8	77.3	133.9	49.5	0.0	116.6	0.0	85.8	103.4
Avg. Net Vol/Acre (MBF)	0.4	0.0	4.3	2.2	6.2	1.5	0.0	0.9	0.0	2.5	18.0

VI. Transportation System

From St. Maries Idaho the Mini Hume Timber Sale is accessed by driving 14.4 miles south on State Highway 3 to its junction with State Highway 6. Turn right on SH 6 proceed west approximately 7 miles to Emida Idaho and then turn left onto the Charlie Creek road (FR299) and proceed .4 miles to its junction with the Hume Creek road (FR 1479). Turn right onto the Hume Creek road and proceed approximately 2.4 miles to its junction with FR 1950. Turn left on FR 1950. Proceed thru the gate on road 1950 approximately 1 mile to the sale center.

Other roads used to access timber sale units that spur off of road 1950 include FR 1950C, FR 1950C.2 (to be constructed), 1950CB (to be constructed) and FR 1954.

Temporary Roads, Landings and Skid Trails:

Temporary road will be constructed to access unit 84. Temporary roads will be obliterated when harvest operations have been completed.

Tractor swing trails will be needed to access TLM unit 38, 83, 87 and 88B. These heavily used skid trails will be de-compacted and seeded upon completion of harvest activities. Off-road landings associated with these swing trials will be de-compacted and seeded upon completion of harvest activities.

Total miles of temporary road = .14 miles accessing unit 84
 Total Allowance \$2,591.00

Total miles of tractor swing trail to access units 2, 38, 83, 84, 87 and 88B = 2 miles

Scarification, Outslope and Revegetation Cost (2009 cost guide)	Total Miles	Total Allowance
\$675/mi * 1.07 mob cost	2mi	\$1,445

Total TLM associated landings to be decompacted and seeded.

Feet of Swing Trail	Landing Spacing	Landing Size	Total Landing Ac	Cost per Acre Seeding and De-compaction	Total Cost Landing AC*Cost/AC*1.07
6,469	100 feet	.1 acres	6.5	\$583*	\$4,055

*Scarification, outslope and re-vegetation cost per acres from engineering cost guide (cost/mile converted to acres).

Total Appraisal Allowance = \$8,524 or \$0.78 /CCF

Road Construction/Reconstruction

Road No.	Miles		Purchaser Costs	
	Construction	Reconstruction	Construction	Reconstruction
1950C.2	0.76		\$51,704.14	
1950CB	0.64		\$49,792.67	
TOTAL			\$101,496.81	

Road Construction Completion Date: October 15, 2013

Total Purchaser Costs: \$101,496.81

Estimated Cost per CCF (All Species): \$ 9.31

System Road Stabilization - C5.419# = \$3025.00 or \$0.28/CCF

(See timber sale contract provision for further information)

VII. Erosion Control

Purchaser shall be required to seed and fertilize areas of disturbed/exposed mineral soils caused during logging operations.

Seed and Fertilizer application periods shall be between the periods June 1 to June 15 and from September 15 to October 31. Seed shall be applied evenly at the rate of 19 pounds per acre and 200 pounds of fertilizer per acre.

Seed quantity:

SPECIES	PLS LBS/AC
Slender wheatgrass "Pryor" or "Revenue" (<i>Elymus trachycaulus</i> ssp. <i>trachycaulus</i>)	3.0
Hard fescue "Durar" (<i>Festuca brevipila</i> , synonym: <i>Festuca ovina</i> var. <i>duriuscula</i>)	5.0
Mountain brome "Bromar" (<i>Bromus marginatus</i>)	5.0
Annual rye (<i>Lolium multiflorum</i>)	4.0
*Alsike clover (<i>Trifolium hybridum</i>)	2.0
TOTAL	19.0

Acceptable substitutes:

Blue wildrye "Arlington" or "Elkton" (*Elymus glaucus*) @ 3 PLS LBS/AC for slender wheatgrass
 Streambank wheatgrass "Sodar" @ 3 PLS LBS/AC for slender wheatgrass

Type of Fertilizer	Pounds Per Acre
16-16-16	200

Material Costs

Seeding Cost/Acre		\$31.00
Fertilization Cost/Acre		\$51.00
Seed and Fertilizer Cost/Acre		\$82.00
Laborer (AD-C)		\$17.40
Total Labor Cost@3ac/hr per Acre		\$5.80
Total Cost/Acre		\$87.80

Total Acres To be Hand Seeded

Logging System	Estimated Percent of acres to be seeded	Total Acres	Acres to be Seeded	Total Cost
Tractor	5%	153	8	\$ 702.40
Skyline	4%	166	7	\$614.60
Total Cost				\$1,317.00
Total Sawlog (CCF), Conventional Logging System Only		10906		
Cost/CCF				\$0.12

VIII. Sale Area Improvement - Reforestation

N/A

IX. Hazard Reduction

Purchaser Requirements C6.7#						
Unit	Pile Landings	Grapple Pile	Overwinter Slash	Leave Tops and Lop	Yard Tops	Fell Damaged Residual
All	X					
1, 83, 84, 87, 88A, 88B, 89A, 89B, 90, 102A, & 102B						X
1, 83, 84, 87, 88A, 88B, 89A, 89B, 90, 102A, & 102B		X				
2, 38, 83, 84, 88A, 88B, 89A, 89B, 90, 102A, & 102B					X	
87				X		
1		X	X			

Purchaser Allowances

Unit	Fell Damaged Residual	Pile Landings	Grapple Pile (units)	Leave Tops and Lop
All		X		
1, 83, 84, 87, 88A, 88B, 89A, 89B, 90, 102A, & 102B			X	
83, 84, 87, 88A, 88B, 89A, 89B, 90, 102A, & 102B	X			
87				X

Forest Service Collections

Unit	Burn Landing Piles	Burn Grapple Piles	Pre and Post Burn Evaluation
All	X		X
1, 83, 84, 87, 88A, 88B, 89A, 89B, 90, 102A, & 102B		X	X

X. Other Provisions

A. Period of contract:

1. Normal operating season: May 1 to October 15
2. Termination date: October 15, 2017
3. Road Completion Date: October 15, 2013
4. Limited Operation Period: No Operations in units 102A and 102B between the dates of April 15 through August 15th for goshawk nest protection.

B. Purchaser Fire Liability:

1. Personnel and Equipment	
Item	Personnel
Sawyer	3
Yarder	4
Skidder	2
Truck drivers	4
Loader	1
Woods Boss	1

2. Cost Calculations

Total number of personnel	15
Number of hours per day	12
Total hours per crew day	180
Hourly rate for ADC firefighter	\$17.40
Average daily cost	\$3,132.00
Average fire length (Days)	5
Purchaser obligation for operation fire	\$15,660.00
Rounded up to nearest \$100	\$15,700.00

C. Other unique requirements:

C6.632# - TEMPORARY ROAD AND TRACTOR ROAD OBLITERATION. (2/02)

Notwithstanding the provisions of B6.63 and B6.65, unless otherwise agreed, temporary roads accessing all units and tractor roads within all units constructed for use with this sale shall be obliterated after they have served the Purchaser's purpose. Obliteration shall consist of recontouring road prism including all cut and fill slopes to natural ground contour. Equipment will not be permitted to operate outside the clearing limits. In addition, from 4 to 6 tons per acre of clearing or logging slash, stumps or other woody debris shall be placed and scattered uniformly on the top of the recontoured corridor.

C6.7 - HAZARD REDUCTION AND SITE PREPARATION.

Overwintering Slash, Harvest Units 1

In harvest unit 1, activity slash will remain in place before machine (grapple) piling for one season from the time that harvest occurs. For winter harvest (December-February), logging slash should remain untreated for up to 15 months and for spring harvest (March- May), untreated slash should remain on the ground for up to 12 months; and for summer and fall harvest (June-November), slash should remain on the ground for up to 9 months

XI. Sale Objective Code

PURPOSE	ACTIVITY	PERCENTAGE
TC	01	100%

VALID PURPOSE CODES:

- TC -- Timber Commodity Purpose
- FS -- Forest Stewardship Purpose
- PP -- Personal Use

VALID ACTIVITY CODES:

- TC 01 -- Timber Purpose
- FS 10 -- Forest and Ecosystem Health
- FS 20 -- Recreation/Visual/Cultural Resource Enhancements
- FS 30 -- Wildlife Habitat Management
- FS 40 -- Fisheries Habitat Management and Watershed Improvement
- FS 50 -- T&E Species Habitat Management
- FS 60 -- Range Resource Enhancements
- FS 70 -- Non-Timber Products
- FS 90 -- Other
- PP 80 -- Personal Use Products

