

# TIMBER SALE REPORT & APPRAISAL

## Sinker 1

### Integrated Resource Timber Contract #21101

Boise National Forest  
Mountain Home Ranger District

10/31/2022

**Prepared by:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
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**1. GENERAL TIMBER CONTRACT INFORMATION**

Contract Type: 2400-13  
 Scaling Method: Total (100%) Weight Scale  
 Contract Area Acres: 3680 acres  
 Treatment Acres: 1,199.1 acres  
 Normal Operating Season: April 16 to October 31  
 Termination Date: December 31, 2027  
 Bid Guarantee: N/A

**a. Contract Rates, Products and Estimated Quantities**

Contract Species: Douglas fir and Other  
 Product: Sawtimber  
 Unit of Measure: Ton  
 Estimated Quantity: 28,675  
 Base Rate: N/A  
 Advertised Rate: \$5.81/Ton  
 Total Sale Value: \$5.81/Ton x 28,675 Tons = \$166,601.75  
 Performance Bond: \$16,700.00 Minimum

(Final bond amount normally will be 10% of the bid value, rounded up to nearest \$100.00 when the bid value of the contract does not exceed \$10,000, and rounded up to the nearest \$1,000.00 when the bid value exceeds \$10,000)

**b. Required Deposits**

Slash Disposal: \$0.87/Ton  
 Road Maintenance: \$1.05/Ton

Net Volume (Appraised and Contract Unit of Measure)

Species	Net CCF	Net MBF	Tons (Contract Unit of Measure)	Quad Mean DBH	Adv. Rates (\$/Ton)
Douglas-fir (DF)	7474	3791	20,686	14.6	5.18
Ponderosa pine (PP)	2887	1433	7989	13.3	7.29
<b>TOTAL</b>	10361	5224	<b>28,675</b>	14.2	5.81

**c. Specified Road Information, Appraisal Costs and Deposits**

Road Reconstruction: \$55,185.00  
 Reconstruction Miles: 3.77  
 Road Completion Date: September 15, 2024  
 Deposit for Reconstruction Engineering Services (DRES): \$18,360.00

**d. Road Maintenance**

Approximate Miles: 26.07

**2. DESCRIPTION OF TIMBER CONTRACT**

**a. Location and Size of Contract**

The Sinker 1 contract area is located approximately 13 miles northeast of Boise, ID. The Contract Area is approximately 3,680 acres more or less located in T. 5 N., R. 3 E., Secs 07-08, 17-21, 28-31 of the Boise Meridian (Boise County). Timber is designated for harvest on approximately 1,199.1 acres within the contract area. There are 46 cutting units comprised of approximately 75% Douglas-fir and 25% Ponderosa Pine.

There is within the contract area an unestimated quantity of Combined Softwood (Douglas-fir and Other) sawtimber that may be Included Timber upon written agreement. There are 7 units totaling 103.8 acres.

**b. Land Status**

All harvest units are on National Forest lands.

**c. Basis for Selecting Area**

The Sinker Creek Boise Ridge Forest Health Project, signed December 2020, and the Bogus Basin Forest Health Plan, signed 2016, are the two authorizing documents for this timber contract. The purpose of this project is to improve forest resiliency to insect, disease, and wildfire disturbance by managing stand structure and species composition that will contribute to achieving Forest Plan desired conditions. This project will promote the development of the large tree size class dominated by early seral tree species (e.g., ponderosa pine and western larch) that will contribute to achieving Forest Plan desired vegetation and associated wildlife source habitat conditions. This project meets current direction in the Forest Plan for the Boise National Forest and was selected for treatment in the 5-Year Timber Sale Action Plan.

**d. Appraisal Point and Route of Haul to Appraisal Point**

This contract was appraised to Woodgrain Inc. in Emmett, Idaho.

There are two routes of haul that will be necessary on this contract. The first route is approx. 44 miles via NFSR 297 (Bogus Basin Rd) into Boise, ID; and then North on ID Hwy 16 to Emmett. This route is the only option for approximately 30% of the sale volume due to the angle of the access road which prohibits a northbound turn. The second route is approx. 87 miles via Forest Road 297, 374, and 366 to Grimes Creek; then Southwest along ID Hwy 21 to Boise, ID; and North on ID Hwy 16 to Emmett.

A weighted average of the two routes was used to determine the final estimated haul cost.

**e. Silviculture Prescriptions**

<b>Unit</b>	<b>Silvicultural Prescription</b>	<b>Target Basal Area</b>	<b>Species and/or Diameter Retention</b>
1, 2, 3	Variable Density Thin from Below		Leave Tree Mark
6	Thin from Below with Sanitation	73	Retain all DF > 20 Retain all PP > 18
8, 12C	Shelterwood with Reserves	33	Retain all DF > 26 Retain all PP
9	Shelterwood with Reserves	41	Retain all DF > 26 Retain all PP
10, 13, 19A, 19C, 20, 20A, 21	Thin from Below with Sanitation	72	Retain all DF > 20 Retain all PP > 13
14, 15B, 16, 17C	Thin from Below with Sanitation	81	Retain all DF > 20 Retain all PP > 11
15A, 17A, 18	Thin from Below with Sanitation	62	Retain all DF > 20 Retain all PP > 15
17B	Improvement Thin	106	Retain all DF > 15 Retain all PP
12B, 19B	Improvement Thin	102	Retain all DF > 14 Retain all PP
22, 23A, 24, 25	Thin from Below with Sanitation	79	Retain all DF > 20 Retain all PP > 16.5
23B, 31, 32, 33, 34, 35, 36, 37	Improvement Thin	61	Retain all DF > 21.5 Retain all PP
29, 30, 30A	Thin from Below with Sanitation	104	Retain all DF > 28 Retain all PP > 17.5
27, 28	Improvement Thin	97	Retain all DF > 28 Retain all PP
48, 49, 51	Shelterwood with Reserves	32	Retain all DF > 28 Retain all PP
45A	Improvement Thin	99	Retain all DF > 24 Retain all PP > 12
50	Shelterwood with Reserves	93	Retain all DF > 20 Retain all PP

**f. Unique Circumstances****1. Access**

Approximately 30% of the contract volume will be hauled across privately owned lands on National Forest System Roads (NFSR) 297B, and 297B2. These roads have Cost Share Easements between the Forest Service and the landowners. Special Provision C5.123# Road Use Liability Insurance is included in this contract. Contractor will be

required to provide a copy of its insurance policy or provide the Certificate of Insurance as set forth in this provision.

**2. Use of Roads by Contractor (C5.12#)**

There are **several unique hauling restrictions** in this contract. Please refer to this provision for all hauling restrictions.

**3. Sale Operation Restrictions (C6.312#)**

There are **several operation restrictions** in this contract. Please refer to this provision for all operating restrictions.

**3. CONDITIONS OF THE TIMBER CONTRACT**

**a. Planned Cutting Methods**

The designation method for Units 1, 2, and 3 is LTM, provision C2.356# - INDIVIDUAL TREES (LEAVE TREE MARKING). Trees marked above and below stump with orange paint shall not be cut. All live, dead and windthrown trees meeting utilization standards in A2 are designated for cutting.

The designation method for all other units is DxSPD, provision C2.352# - Designation by Species and Diameter. Trees that meet Utilization Standards are designated for cutting except trees marked with orange paint or described to be left uncut. Please refer to this provision for specifics and trees to be left uncut.

Boundaries are designated by a horizontal line and unit number facing into the interior of the cutting unit, with a single vertical line on each side of the tree indicating the direction to the next boundary. A stump mark is located at the base of the tree on the downhill side. Boundary trees shall not be cut. Boundary trees are not designated along roads. Instead, the road indicates the boundary, as shown on the Contract Area Map.

**b. Slash Treatment**

Slash must be piled at landing locations in accordance with contract specifications. Leave tops and limbs attached to felled trees and yard included timber to landings (Whole Tree Yard). Tops, limbs and portions of trees broken during felling operations, and/or lost on the way to the landing site during skidding and yarding operations that do not contain a merchantable piece, will not be required to be yarded, but shall be lopped and scattered in accordance with contract specifications. All System Roads and Trails shall be cleaned in accordance with contract specifications. Residual trees damaged as a result of normal operations shall be felled in accordance with contract specifications.

Slash deposits identified under “Required Deposits” are being collected to cover the cost of post-sale landing slash pile burning conducted by U.S. Forest Service personnel. The Sinker 1 Brush Disposal Plan is on file at the District Office.

### **c. Water Quality Protection and Erosion Control**

No timber harvest or off-road equipment allowed within a 120-foot slope distance from the high-water mark of any intermittent or 260-foot of perennial streams in Units 1-3. No timber harvest or off-road equipment allowed within 30-foot slope distance from the high-water mark of any intermittent or 75-foot of perennial streams in the remainder of the contract area.

Fuel storage is not permitted within an SMZ. Refueling or servicing of vehicles or equipment should not take place unless there is no alternative. Forest Service shall approve of such sites if no acceptable alternative is available.

Landings and skid trails will be re-vegetated with approved weed-seed-free seed mixes to stabilize soils. Skid trails are to be laid out to reduce erosion and will require agreement by the timber sale administrator before tree falling occurs. Temporary roads not shown on the Contract Area Map as remain open shall be closed after use in accordance with C5.34#. All temporary roads not normally open to public access shall be block when operations are not occurring for 7 or more days.

### **d. Relevant Mitigation Measures & Design Criteria**

Mitigation measures and design criteria applicable to this timber sale were incorporated from both the Bogus Basin Forest Health Project and Sinker Creek – Boise Ridge Forest Health Project documents.

## **4. CRUISE INFORMATION**

The contract area was laid out, marked, and cruised in Fiscal Years 2020, 2021 and 2022. The contract area was sampled using a variable plot cruise method (PCM) with two sampling strata. A 20 BAF was used to determine count trees in strata 1 (Sawtimber) and strata 3 (Dead Fuelwood). After data collection, the dead fuelwood (Strata 3) was removed from the cruise volumes and not considered as mandatory removal. That data for trees/acre was used to estimate the stewardship item for felling, bucking, and decking hazard trees along road and trail corridors. Collected field data was entered and processed using U.S. Forest Service Cruise Processing software, version 2022.03.23.

Unseen defect and breakage were included in the volume totals (8% for DF, and 3% for PP).

Sampling error standards for product quantity estimates on commercial timber contracts can be found in Chapter 40 of the Timber Cruising Handbook (2409.12). The estimated total contract value (expected bid) and the contract type, using prices in effect when the fieldwork for the cruise is initiated, are the basis for the “Sale-as-a-Whole” sampling error.

This contract was designed as a scaled contract with an estimated value of approximately \$746,499.00 in 2020 before the rise in costs, including unusual adjustments and road costs. The allowable sampling error for a contract of this value and contract type is 30% or less. The Sinker 1 sampling error is 27.32%.

**a. Volume Summary**

Volume Reported by Individual Tree Species

Sawtimber	Gross CCF	Defect %	Net CCF	Net MBF	Tons (Contract Unit of Measure)	% Vol	Est.Trees
Douglas-fir (DF)	8,596.25	13.1	7,473.84	3,790.68	20,686	72.14	26,922
Ponderosa Pine (PP)	3,214.12	10.2	2,886.44	1,433.91	7989	27.86	14,549
<b>TOTAL</b>	<b>11810.37</b>	<b>12.3</b>	<b>10,360.28</b>	<b>5,224.59</b>	<b>28,675</b>	<b>100</b>	<b>41,471</b>

**b. Contract Volume**

The volume components of Douglas-fir and Ponderosa pine sawtimber were combined into one contract species to be sold by the ton.

Cruise Volume Reported by Contract Species Groupings

Contract Species Grouping	Net CCF	Net MBF	Tons Conversion CCF/Tons	Contract Tons	Tons/Ac
Douglas fir and Other	10,360.28	5,224.59	0.3613	28,675	23.91
<b>Total</b>	<b>10,360.28</b>	<b>5,224.59</b>	<b>0.3613</b>	<b>28,675</b>	<b>23.91</b>

Cutting Unit Acres and Harvest Volume in CCF and Tons

Unit	Acres	DF Net CCF	PP Net CCF	Net CCF Per Unit	Tons Per Unit (Contract Unit of Measure)
1	273.2	1702.82	657.67	2360.49	6534.00
2	59.8	372.73	143.96	516.68	1431.00
3	51.0	317.88	122.77	440.65	1219.00
6	2.8	17.45	6.74	24.19	67.00
8	18.3	114.06	44.05	158.11	438.00
9	4.3	26.80	10.35	37.15	103.00
10	8.5	52.98	20.46	73.44	203.00



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<b>Unit</b>	<b>Acres</b>	<b>DF Net CCF</b>	<b>PP Net CCF</b>	<b>Net CCF Per Unit</b>	<b>Tons Per Unit (Contract Unit of Measure)</b>
12B, C	12.5	77.91	30.09	108.00	299.00
13	10.6	66.07	25.52	91.59	253.00
14	24.0	149.59	57.77	207.36	574.00
15A, B	67.2	418.85	161.77	580.62	1,607.00
16	53.3	332.21	128.31	460.52	1,275.00
17A, B, C	20.7	129.02	49.83	178.85	495.00
18	20.0	124.66	48.15	172.80	478.00
19A	36.8	26.18	10.11	36.29	100.00
19	4.2	229.37	88.59	317.96	880.00
20	19.7	122.79	47.42	170.21	471.00
20A	18.3	114.06	44.05	158.11	438.00
21	30.2	188.23	72.70	260.93	722.00
22	20.3	126.53	48.87	175.39	485.00
23A, B	17.0	105.96	40.92	146.88	406.00
24	14.1	87.88	33.94	121.83	338.00
25	32.3	201.32	77.76	279.08	773.00
27	3.5	21.82	8.43	30.24	83.00
28	17.9	111.57	43.09	154.66	428.00
29	75.7	471.83	182.23	654.06	1,810.00
30	14.3	89.13	34.42	123.55	342.00
30A	11.2	69.81	26.96	96.77	268.00
31	56.4	351.53	135.77	487.30	1,349.00
32	47.1	293.57	113.38	406.95	1,126.00
33	11.3	70.43	27.20	97.63	270.00
34	7.7	47.99	18.54	66.53	184.00
35	20.5	127.77	49.35	177.12	491.00
36	44.5	277.36	107.12	384.49	1,064.00
37	16.5	102.84	39.72	142.56	395.00
45A	10.6	66.07	25.52	91.59	253.00
48	1.9	11.84	4.57	16.42	46.00
49	2.0	12.47	4.81	17.28	47.00
50	29.5	183.87	71.01	254.88	705.00
51	9.4	58.59	22.63	81.22	225.00
<b>TOTAL</b>	<b>1,199.1</b>	<b>2,094.98</b>	<b>85.01</b>	<b>4,925.36</b>	<b>28,675.00</b>

Net Volume Harvest per Acre = **23.91Tons/acre (8.68 CCF)**

The timber for this contract has been designated and cruised using the procedures and standards in the National Forest Timber Cruising Handbook (2409.12, Chapter 43.6). Cruise records, letter

of cruise acceptance by a certified check cruiser (FSM 2442.04), and Inspection Reports are on file at the District Office.

**c. Area Determination**

Harvest units were traversed using the Trimble Geo XT 6000GPS. The files were corrected using the Pathfinder Office Software version 5.81. Procedures used for determining the acreages of harvest units in the timber contract area are in accordance with the standards set forth in FSH 2409.12 Chapter 50. GPS data was collected during the 2020 and 2021 field seasons. All units met the required area-error of 10% or less.

**5. APPRAISAL**

All sales over \$2,000 dollars in appraised value are processed using the Transaction Evidence Appraisal TEA234 MS Access-based Appraisal System to generate the 2400-17 summary report. The 2400-17 summary report and appraised cost allowances provided are displayed in CCF, unless otherwise indicated.

**a. Appraisal Data**

BULLETIN R4 Z1 (SW Intermountain Zone) effective June 2022 until superseded, was used for this timber contract appraisal. Timber from this contract was appraised to Emmett, ID.

**b. Skid-Yard Cost Adjustments**

The skid/yard cost adjustments (formerly called the logging cost adjustment) is calculated using the TEA234 MS Access-based Appraisal System. The estimated average skid distance used in the appraisal was 600 feet.

**Sale Skid-Yard Cost = \$89.41/CCF**

**c. Haul Cost Adjustments**

Two different haul routes were assessed, and a total weighted average was used for appraisal. The first haul route was for 30% of the sale volume that is required to haul down pavement into Boise but is restricted to 5 loads per day and any additional loads require a pilot car. The second haul route is for the remaining 70% of volume that can travel Forest Service Roads and have no load restrictions. Haul costs were estimated by determining the mileage and round-trip minutes (RTMs) from the sale area to the most advantageous appraisal point (Emmett, ID).

Route	Volume (CCF)	One Way Miles	RTM	Total (\$/CCF)
Boise	2913.45	44	333	\$60.26
Pine Creek	7446.95	87	433	\$89.43
<b>Total</b>	<b>10360.4</b>	<b>75</b>	<b>409</b>	<b>\$82.09</b>

**Sale Haul Costs = \$82.09/CCF**

**d. Road Maintenance Adjustments**

A total allowance of \$96,616.00 for road maintenance costs was provided in the appraisal. Road maintenance costs are the sum of the pre-haul, during haul, and post haul road maintenance, and the collection of road maintenance deposits.

Purchaser Responsibility: \$66,616/10,360.40 CCF  
\$6.43/CCF  
Forest Service Costs: \$30,000/10,360.40 CCF  
\$2.90/CCF  
**\$1.05/Ton** (collected as Road Maintenance Deposit)

**Sale Road Maintenance Costs = \$9.33/CCF**

**e. Sale Slash Disposal Adjustments**

A total allowance of \$58,726.40 for estimated costs for machine and hand piling slash at landings, lop and scatter, and the felling of damaged residual trees was provided in the appraisal.

Purchaser Responsibility: \$33,787.20/10,360.40 CCF  
\$3.26/CCF  
Forest Service Costs: \$24,939.20/10,360.40 CCF  
\$2.41/CCF  
**\$0.87/Ton** (Collected as Slash Disposal Deposits)

**Sale Slash Costs = \$5.67/CCF**

**f. Temporary Road Adjustments**

As identified in the Logging Plan and displayed on the Contract Area Map, 3.58 miles of newly constructed temporary road and 10.31 miles of existing template temporary road will be needed to complete this sale. Temporary road costs only include construction for this sale as they will remain open after commercial harvest is complete. A total allowance of \$112,840 was provided in the appraisal.

**Sale Temporary Road Costs = \$10.89/CCF**

**g. Unusual & Quality Adjustments**

An unusual adjustment was applied to this sale to account for the following items: Pilot cars, truck standby delays, barricade removal & replacement, a message board, additional equipment moves, and lowboy staging.

**Total Unusual Adjustments = -\$14.06/CCF**

## **h. Specified Roads**

As identified in the Schedule of Items, Road Plans and displayed on the Contract Area Map; N/A miles of specified road construction and 3.78 miles specified road reconstruction will be required to complete this sale. A total allowance of \$73,545.00 was provided in the appraisal for specified roads.

Road Construction: N/A

Road Reconstruction: \$55,185.00

Deposit for Reconstruction Engineering Services (DRES): \$18,360.00

**Sale Specified Road Costs = \$73,545.00**

## **6. OTHER TIMBER CONTRACT INFORMATION**

### **a. Fire Precautionary Period**

May 10 to October 20

### **b. Contractor Obligation for Fire**

Personnel Costs:

5 people x 14 hours (\$34.77/hour): \$2,433.90

Equipment Costs/day:

Vans/Pickups \$784.00

D6 High Track Cat w/ Operator \$2,800.00

Type 2 Water Tender w/operator \$1,764.00

\$7,782.00

Total Rounded to the next \$100: **\$7,800.00**