

UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
NORTH PACIFIC DISTRICT

ADDRESS REPLY TO  
DISTRICT FORESTER  
AND REFER TO

POST OFFICE BUILDING  
PORTLAND, OREGON

S D-6,  
Timber Surveys-Wallowa  
McAllister Creek, Powwatka Ridge  
Wildcat Creek.<sup>1</sup>

February 4, 1924

The Forester,  
Washington, D. C.

Dear Sir:

Under separate cover there is being mailed you a set (8 maps) of topography and estimate maps for the McAllister Creek – Powwatka Ridge-Wildcat Creek survey project, Wallowa Forest, 1923. A descriptive and cost report on same is enclosed.

Very truly yours,

*G. J. Buck*

*Acting* District Forester

Enclosure.

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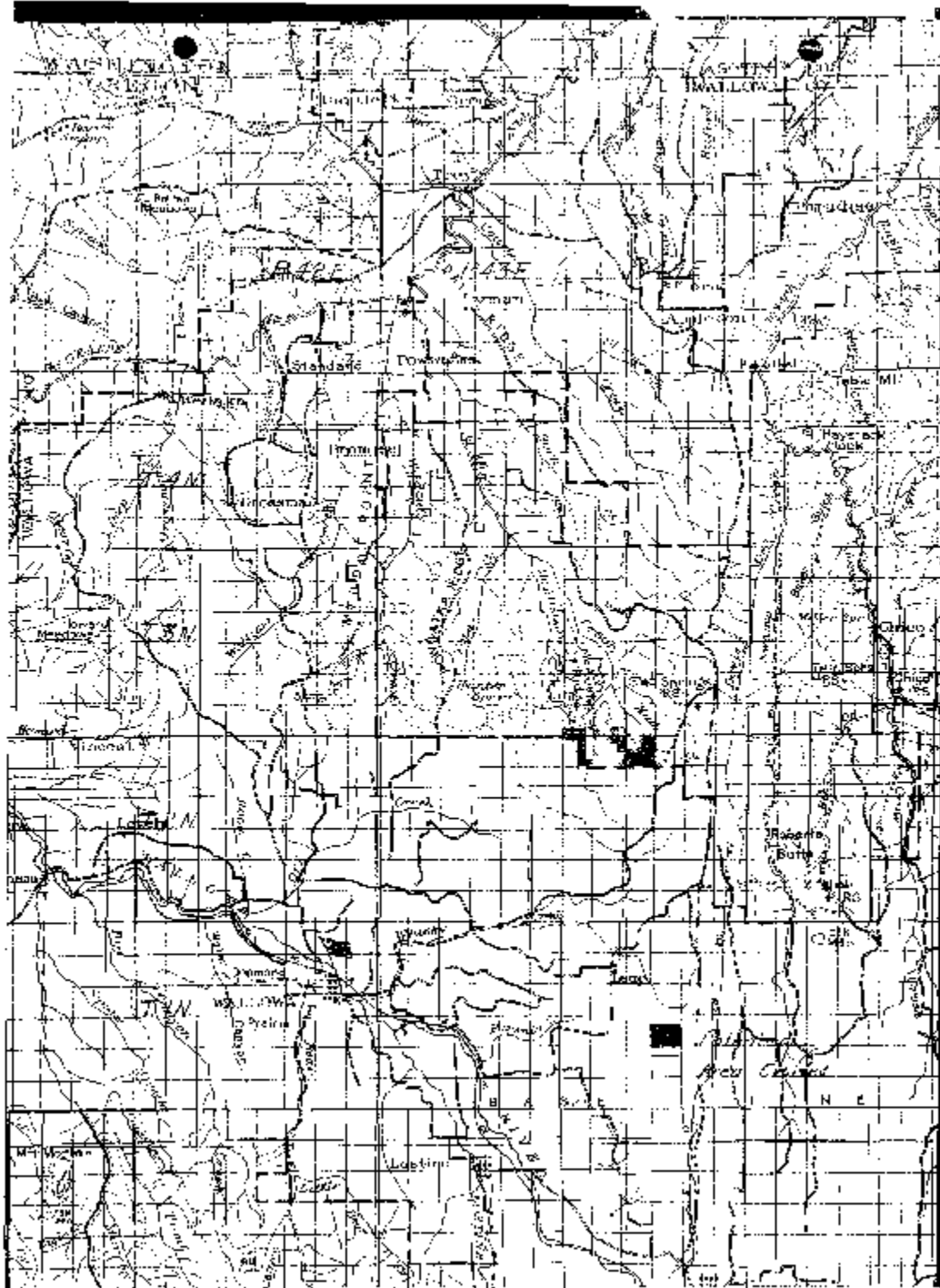
<sup>1</sup> This document was transcribed from a photocopy of the original, which is located in the Supervisor's Office Silviculture Library Archives. To the greatest extent possible, this version is an exact duplicate of the original text.

S D-6  
Timber Surveys-Wallowa  
McAllister Creek, Powwatka Ridge-  
Wildcat Creek.

DESCRIPTIVE AND COST REPORT  
MCALLISTER CREEK, POWWATKA RIDGE,  
AND WILDCAT CREEK TIMBER SURVEY PROJECTS,  
WALLOWA NATIONAL FOREST  
1923

## MCALLISTER CREEK PROJECT

- I. Introduction
- II. Map
- III. Status and ownership
- IV. Silvical description
- V. Logging data
- VI. Description of cruise
- VII. Tables



## **I. Introduction**

The McAllister Creek timber survey project covers 3,311 acres in the northwestern portion of the Wallowa National Forest in T. 3 N., R. 43 E., and T. 2 and 3 N., R. 44 E., W.M. This area includes all the accessible government timber on McAllister Ridge and is separated from the Mud Creek-Davis Creek sale on the east by the deep canyon of Mud Creek, and from Powwatka Ridge unit on the west by the canyon of McAllister Creek.

Of the total stand of 26,738 M. feet found on the area, 40 per cent is yellow pine, 35 per cent Douglas fir, 14 per cent western larch, 10 per cent white fir, and the remainder small amounts of Engelmann spruce and lodgepole pine.

The crew composed of two field assistants and Forest Assistant F. L. Moravets started the project September 28 and finished it October 10.

A 10 per cent cruise was made of the yellow pine areas, and a 5 per cent on the areas where inferior species predominated.

## **II. Map.**

(Attached)

## **III. Status and Ownership.**

Township 3 N., R. 43 E. is unsurveyed, and the portion of the township within the project is all in government ownership. An area of 488 acres is accessible in this township.

Township 3 N. R. 44 E. is surveyed and the area within the project is all in government ownership except for 120 acres of patented land in Section 31 and 40 acres of patented land in Sec. 32. The accessible timbered area in this township is 2,023 acres.

Township 2 N., R. 44 E. is surveyed, and an area of 800 acres is in government ownership within the project.

## **IV. Silvical Description**

Yellow Pine Type. The yellow pine stands are small and occur widely scattered along the ridge, being found on the dryer eastern and southern exposures. Only 28 per cent of the area is covered by yellow pine type and no large bodies of pine occur. Narrow fringes of pine border open parks extending along the ridge, and single trees and small groups occur scattered in the larch-Douglas fir stands. The pine is short boled and limby with an occasional spike-top. It is nearly all mature, but only a small percentage of it is decadent. There is very little yellow pine reproduction under the old stands.

Larch- Douglas Fir Type. The remainder of the area, except for small bodies of immature lodgepole pine, is covered by larch-Douglas fir type in which larch and Douglas fir predominate in about equal amounts with small amounts of white fir in the moist draws. The Douglas fir is small, short boled and with butt rot in the larger trees being killed by mistletoe. White fir is of very poor quality. White fir and Douglas fir reproduction predominates in this type.

## V. Logging Data

McAllister Ridge extends northward towards the intersection of Mud Creek and McAllister Creek canyons, and the natural outlet of the timber is to the south. The area can be tapped from this direction by the extension of a logging railroad operating in the Mud Creek sale to the east, but the small amount of pine and its widely scattered location would not warrant the building of a railroad for a very great distance up the ridge. There is very little difference in elevation along the ridge, there being a 100 foot rise from the southern part of the project to the center of Sec. 30, beyond which point it is not doubt inadvisable to log at the present time.

Railroad construction cost would be high, due to the rocky character of the surface, there being a very shallow layer of soil over the rock. Grades would not be excessive, however.

Undergrowth in the pine stands is very sparse and would not hinder logging. In the larch-Douglas fir stands, it is rather dense consisting mostly of reproduction.

Very little of the timber is decadent and may be safely held.

## VI. Description of Field Work

Control - A large portion of the area within the project had been mapped the past spring by Thomas and Meservey, and their control was found along the east and west section lines. This control consisted of retracing the east and west lines by transit, and carrying elevations along these line with spirit levels. The vertical control was based on a spirit level benchmark on a logging railroad which in turn was based on a benchmark on the main line of the O. W. R. & N. Company.

Control for the remainder of the area consisted of extending a chained compass line north from a know  $\frac{1}{4}$  S. corner in order to tap a long narrow portion of the ridge unsurveyed by Thomas and Meservey. Vertical control along this line was carried by barometers and based on elevations established by Thomas and Meservey.

Topography – Topography was taken only on that portion of the area uncovered by the Thomas and Meservey survey which consisted of running four strips to each forty and mapping to a 20-foot contour interval. This topography fitted very well that on the east mapped by the Forest Service, but was about 250 feet higher than that on the west based on the grazing reconnaissance of 1913, and adapted at the time of the Powwatka Ridge survey. Topography on the remainder of the area was taken and found to tie in well with the Thomas and Meservey map.

Strip Estimating – a 10 per cent cruise was made on all areas of yellow pine, but due to the scattered character of the types, it was necessary at times to vary the location of the strips in order to obtain a representative cruise. The areas of inferior species were cruised by the regular 5 per cent strips.

There was but one estimator other than the Chief of Party, and no check estimates were run due to lack of time.

Office Computation – The Blue Mountain volume table by log heights was used for the yellow pine. For Douglas fir and white fir a table based on the Pelican Bay table for Douglas fir was used, and one based on the Austin, Oregon table was used for western larch. Lodgepole pine table was based on the Ochoco table, and for Engelmann spruce, one based on a Colorado-

Utah table was used. All of these tables were corrected to correspond with heights obtained on the project.

Tables used for these species follow:

Decimal "C"

D.B.H. Inches	Douglas Fir	White Fir	Lodgepole Pine	Englemann Spruce
12	7	7	7	7
14	9	9	10	9
16	13	13	18	15
18	26	26	28	23
20	38	38	36	27
22	53	53	44	39
24	65	65	53	55
26	83	83	64	78
28	100	100		94
30	120	120		110
32	133	133		
34	158	158		
36	175	175		
38	189	189		
40	203	203		
42	240	240		
44	253	253		
46	269	269		
48	281	281		

T. 3 N., R. 43 E.

Estimate by Species and Sections – M. feet BM

Section No.	Area Acres	Y	DF	WL	WF	ES	LP	Total, all Species by Sections.
13	121	891	331	84	24			1,330
24	90	388	366	77	100			931
25	277	824	773	202	158			1,957
Total	488	2,103	1,470	363	282			4,218

T. 2 N., R. 44 E.

Estimate by Species and Sections – M. feet B M

Section No.	Area Acres	Y	DF	WL	WF	ES	LP	Total All Species by Sections.
4	160	490	844	213	215			1,762
5	520	999	1,339	935	521	4	80	3,878
6	120	62	403	119	13			597
Total	800	1,551	2,586	1,267	749	4	80	6,237

T. 3 N., R 44 E.  
Estimate by Species and Sections – M. feet B.M.

Section No.	Area Acres	Y	DF	WL	WF	ES	LP	Total all Species by Sections
18	131	508	511	112	278			1,409
19	487	1,771	1,365	526	444		42	4,148
20	69	335	468	292	25			1,120
29	68	305	113	56	2		1	477
30	611	2,163	1,458	883	725	6	74	5,309
31	318	762	608	135	73		11	1,589
32	339	1,102	768	250	89		22	2,231
<b>Total</b>	<b>2,023</b>	<b>6,946</b>	<b>5,291</b>	<b>2,254</b>	<b>1,636</b>	<b>6</b>	<b>150</b>	<b>16,283</b>

Summary by Townships – M. feet B.M.

Township and Range	Area Acres	Y	DF	WL	WF	ES	LP	Total all Species by Townships
2-44	800	1,551	2,586	1,267	749	4	80	6,237
3-44	2,023	6,946	5,291	2,254	1,636	6	150	16,283
3-43	488	2,103	1,470	363	282			4,218
<b>Total by Species</b>	<b>3,311</b>	<b>10,600</b>	<b>9,347</b>	<b>3,884</b>	<b>2,667</b>	<b>10</b>	<b>230</b>	<b>26,738</b>



POWWATKA RIDGE AND WILDCAT CREEK  
TIMBER SURVEY 1923

Location and Acreage

This survey covers the scattered areas of government timber on Powwatka Ridge in T. 4 N., R. 43 E. and on Wildcat Creek in T. 3 N. and 4 N., R. 43 E., W.M.

In T. 3 N., R. 43 E. on the west side of Wildcat Creek, 24 forties and lots with an accessible area of 599 acres were covered.

In T. 4 N., R. 43 E. on the west side of Wildcat Creek, 6 lots with an accessible area of 119 acres were covered, while on Powwatka Ridge 15 forties with an accessible area of 279 acres were cruised.

Description of Cruise

The cruise was made by one crew composed of Forest Ranger, L. A. Carpenter, compass man, and Forest Assistant F. L. Moravets, estimator, during the week of October 12 to 20.

All of the area was cruised by the regular 10 per cent method, except where it was advisable to vary the location of the strips, due to inaccessibility of portions of the forty, and irregularity in types.

No topography was taken because of the scattered location of the areas and the absence of reliable control.

Practically all of the area covered on Powwatka Ridge, T. 4 N., R. 43 E., had previously been cruised at the time of the Powwatka Ridge survey in 1920. A comparison of the two cruises shows considerable difference in estimates for several of the forties, but small differences in species totals, and grand total. This comparison is made later on in this report.

Map

See McAllister Creek survey report.

Silvical Description, Logging Data, and Management

See Powwatka Ridge survey report, 1920

Volume Tables.

See McAllister Creek survey report.

T. 3 N., R. 43 E.

Wildcat Creek

Estimate by Species and Sections – M. feet BM

Section No.	Area Acres	Y	DF	WL	WF	ES	LP	Total All Species By Sections
6	76	523	61	44				628
7	81	536	83	68				687
18	50	423	66					487
19	192	683	525	151	75			1,434
30	200	471	464	349	90	38	5	1,417
Total	599	2636	1,199	612	165	38	5	4,655

T. 4 N., R. 43 E.

Wildcat Creek

Estimate by Species and Sections – M. feet BM

Section No.	Area Acres	Y	DF	WL	WF	ES	LP	Total All Species by Sections
7	22	228						228
18	65	627	64					691
30	32	153	83	80				316
Total	119	1008	147	80				1,235

T. 4 N., R. 43 E.

Powwatka Ridge

Estimate by Species and Sections – M. feet BM

Section No.	Y	DF	WL	WF	ES	LP	Total All Species by Sections
17	18	41					41
28	29	114	24				138
29	100	390	57	102	4		553
32	182	760	143	65	60		1,028
34	20	160		19			179
Totals	279	1465	224	186	64		1,939

A comparison of the estimates obtained at the time of the Powwatka Ridge project, 1920; with those obtained by the 1923 survey for the same forties follows:

T. 4 N., R. 43 E.

Powwatka Ridge

Estimate by Species and Forties – M. feet BM

Project	Forty and Section	Y	DF	WL	WF	Total All Species
Conover	NW of NW, sec.28	2				2
Moravets	“ “	20	4			24
Conover	SE of NW, sec.28	43	2			45
Moravets	“ “	94	20			114
Conover	NW of SE, sec.29	82	14	10	4	110
Moravets	“ “	45	11	23	1	80
Conover	SW of SE, sec.29	130	1	20		151
Moravets	“ “	108	26	56	3	193
Conover	SE of SE, sec. 29	55	14	10		79
Moravets	” ”	208	13	8		229
Conover	NE of NE, sec. 32	201	18			219
Moravets	“ “	150	20			170
Conover	NW of NE, sec. 32	194	55	19	3	271
Moravets	“ “	83	4	19	16	122
Conover	SW of NE, sec 32	152	41	16	6	215
Moravets	“ “	127	12	4		143
Conover	SE of NE, sec. 32	167	97	47	10	321
Moravets	“ “	227	86	37	39	389
Conover	Total	1026	242	122	23	1,413
Moravets	“	1062	196	143	63	1,464

## COST REPORT

McAllister Creek, Powwatka Ridge, and Wildcat Creek projects combined.

### I. Field Work

(a) Area cruised – 4,308 acres.

(b) Control

1. Primary – None

2. Secondary – 2.5 miles

(c) Total man days - 73

(d) Salary – total, including bonus - \$259.50

(e) Average daily wage - \$3.555

(f) Expenses:

Subsistence supplies	\$54.30
Travel	125.83
Hauling	55.83
Equipment	<u>8.27</u>
Total	\$244.23

Average per man day - \$3.345.

(g) Subdivided Field Costs

1. Control, Secondary

Man days - 6

Salaries - \$21.33

Expenses prorated 20.07

Total \$41.40

2. Strip Cruising

Man days - 30

Salary - \$ 106.65

Expenses prorated - 100.35

Total \$ 207.00

3. Job to job travel

Man days – 13

Salary - \$ 46.21

Expenses prorated 43.48

Total \$ 89.69

4. Moving Camp

Man days – 9

Salary - \$ 32.00

Expenses prorated 30.10

Total \$ 62.10

5. <u>Sundays</u>		
	Man days – 9	
	Salary -	\$ 32.00
	Expenses prorated	<u>30.10</u>
	Total	\$ 62.10
6. <u>Rain</u>		
	Man days – 6	
	Salary -	\$21.33
	Expenses prorated	<u>20.07</u>
	Total	\$ 41.40
7. <u>Total Field Work</u>		
	Man days - 73	
	Salary -	\$ 259.50
	Expenses	<u>244.23</u>
	Total	\$503.73

Area Cruised - 4,308 acres  
Volume cruised - 34,567 M. feet.  
Cost of fieldwork per acre - \$ 0.117  
Cost of fieldwork per M. feet - \$ 0.014.

II. Office Work

Activity	Man Days	Costs
Topographic Map	6	\$29.00
Estimates	3	25.00
Estimate Maps	3	14.50
Type Maps	2	9.67
Report	4	19.33
Blueprinting	1	7.14
Total	19	\$104.64

III. Total Costs.

Field Work –	\$259.50
	244.23
Office Work -	<u>104.64</u>
Total	\$608.34

Area cruised - 4,308 acres.  
Volume cruised – 34,567 M. feet

Total Cost per acre.

Field -	\$0.117
Office -	<u>0.024</u>
Total.....	\$0.141

Total cost per M. feet BM.

Field and Office -	\$0.018
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Approved:

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Forest Supervisor

*F.L. Moravets*  
Forest Assistant