



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Power Range
Sale TL-341-2022-W00535-01

District: Tillamook

Date: April 26, 2021

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$2,240,063.05	\$390,231.25	\$2,630,294.30
		Project Work:	(\$419,520.00)
		Advertised Value:	\$2,210,774.30



Timber Sale Appraisal
Power Range
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District: Tillamook

Date: April 26, 2021

Timber Description

Location:

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	17	0	80
Western Hemlock / Fir	23	0	80
Sitka Spruce	21	0	100
Alder (Red)	14	0	80

Volume by Grade	2S	3S & 4S 6"-11"	8" - 9"	10" - 11"	12"+	6" - 7"	Total
Douglas - Fir	2,710	2,215	0	0	0	0	4,925
Western Hemlock / Fir	639	169	0	0	0	0	808
Sitka Spruce	130	92	0	0	0	0	222
Red Cedar	0	0	0	0	0	0	0
Alder (Red)	0	0	520	415	447	771	2,153
Total	3,479	2,476	520	415	447	771	8,108

Comments: Pond Values Used: April 2021
Region: Astoria, Forest Grove, and Tillamook

Western red cedar & other cedars stumpage price = \$1,283.00/MBF - \$412.83/MBF = \$870.17/ MBF

Pulp (Conifer and Hardwood) Price = \$ 2.50/ Ton

BRAND AND PAINT ALLOWANCE = \$2.00/ MBF

FUEL COST ALLOWANCE = \$3.00/ Gallon

HAULING COST ALLOWANCE

Hauling cost equivalent to \$950 daily truck cost \$95.00/hr x 10 hr. = \$950.00

Other Costs with Profit and Risk to be added:

Non-Project Rd 1: 11+76 sta. \$150/sta. = \$1,764.00

Non-Project Rd. 2: 11+60 sta. \$150/sta. = \$1,740.00

Non-Project Rd 3: 2+07 sta. \$150/sta. = \$310.50

Non-Project Rd. 4: 0+99 sta. \$150/sta. = \$148.50

Non-Project Rd. 5: 2+08 sta. \$150/sta. = \$312.00

Non-Project Rd. 6: 3+70 sta. \$150/sta. = \$555.00

Non-Project Rd. 7: 6+30 sta. \$185/sta. = \$1,165.50

Non-Project Rd. 8: 4+26 sta. \$150/sta. = \$639.00

Closing Non-Project: 8 Roads x \$50 = \$100.00

Closing Unsurfaced Project: 1 Road x \$50 = \$400.00

Optional Project Rd, Pts QQ to RR: = \$14,616.63

Closing Optional Project Rd: 3 tank traps x \$100/trap = \$300.00

Swing yarding between Pts Q & R: 15 acres x \$200/acre = \$3,000.00

TOTAL Other Costs with profit and Risk to be added = \$25,051.13

Other Costs with No Profit and Risk Added:

Move-in Machine Cleaning: \$1,000/machine x 3 machines x 2 seasons = \$6,000.00

Slash piling and sorting (Cable Settings): \$5/ac x 308ac. = \$1,540.00

Heliport Construction: \$500/unit x 6 unit = \$3,000.00

Road blocking \$50/location x 3 locations = \$150.00

Lift Trees (Area 2): 6 trees x \$300/tree = \$1,800.00

Ditch Cleaning and Bank Sluff Removal:

Mobilization: three times – dump truck w/ tilt bed & small excavator: \$900 x 3 = \$2,700.00

Small excavator (Cat 312 or equivalent): 50 hours @ \$135/ hour = \$6,750.00

Dump truck: 50 hours @ \$90/ hour = \$4,500.00

TOTAL Other Costs no Profit and Risk added = \$26,440.00

ROAD MAINTENANCE:

Spot Rocking: 20cy/MMBF/mile x 8.108 MMBF x \$12/cy x 17.2 miles / 8,108 MBF = \$4.13/MBF

Interim Grading: \$1,150/mile x 17.2 miles x 3 times/ 8,108 MBF = \$7.32/MBF

Final Maintenance Grading: \$1,500/mile x 17.2 miles/ 8,108 MBF = \$3.18/MBF

Final Maintenance Compaction: \$950/mile x 4 miles/ 8,108 MBF = \$0.47/MBF

Total Road Maintenance: = \$15.10/MBF



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Logging Conditions

Combination#: 1	Douglas - Fir	25.66%
	Western Hemlock / Fir	18.99%
	Sitka Spruce	11.98%
	Alder (Red)	26.07%
Logging System:	Cable: Medium Tower >40 - <70	Process: Manual Delimbing
yarding distance:	Short (400 ft)	downhill yarding: No
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	11.5	bd. ft / load: 4300
cost / mbf:	\$123.36	
machines:	Log Loader (A) Tower Yarder (Medium)	
Combination#: 2	Douglas - Fir	21.32%
	Western Hemlock / Fir	17.13%
	Sitka Spruce	16.31%
	Alder (Red)	23.09%
Logging System:	Cable: Medium Tower >40 - <70	Process: Manual Falling/Delimbing
yarding distance:	Medium (800 ft)	downhill yarding: No
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	9.5	bd. ft / load: 4300
cost / mbf:	\$161.57	
machines:	Log Loader (A) Tower Yarder (Medium)	
Combination#: 3	Douglas - Fir	32.47%
	Western Hemlock / Fir	43.91%
	Sitka Spruce	54.86%
	Alder (Red)	25.97%
Logging System:	Cable: Medium Tower >40 - <70	Process: Manual Falling/Delimbing
yarding distance:	Long (1,500 ft)	downhill yarding: No
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	7.5	bd. ft / load: 4300
cost / mbf:	\$204.65	
machines:	Log Loader (A) Tower Yarder (Medium)	
Combination#: 4	Douglas - Fir	20.55%
	Western Hemlock / Fir	19.98%
	Sitka Spruce	16.86%
	Alder (Red)	24.87%
Logging System:	Shovel	Process: Manual Falling/Delimbing
yarding distance:	Medium (800 ft)	downhill yarding: No
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	12	bd. ft / load: 4300
cost / mbf:	\$76.31	



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Logging Costs

Operating Seasons: 2.00	Profit Risk: 15%
Project Costs: \$419,520.00	Other Costs (P/R): \$25,051.13
Slash Disposal: \$0.00	Other Costs: \$26,440.00

Miles of Road

Road Maintenance: \$15.10

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	2.0	3.1
Western Hemlock / Fir	\$0.00	2.0	3.8
Sitka Spruce	\$0.00	2.0	4.3
Alder (Red)	\$0.00	2.0	2.2



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Power Range Sale TL-341-2022-W00535-01

District: Tillamook

Date: April 26, 2021

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$148.24	\$18.12	\$1.08	\$183.88	\$3.09	\$53.16	\$0.00	\$2.00	\$3.26	\$412.83
Western Hemlock / Fir									
\$156.20	\$18.12	\$1.08	\$150.00	\$3.09	\$49.27	\$0.00	\$2.00	\$3.26	\$383.02
Sitka Spruce									
\$166.26	\$15.10	\$1.08	\$110.47	\$3.09	\$44.40	\$0.00	\$2.00	\$3.26	\$345.66
Alder (Red)									
\$141.59	\$18.12	\$1.08	\$259.09	\$3.09	\$63.45	\$0.00	\$2.00	\$3.26	\$491.68

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$818.02	\$405.19	\$0.00
Western Hemlock / Fir	\$0.00	\$638.01	\$254.99	\$0.00
Sitka Spruce	\$0.00	\$518.95	\$173.29	\$0.00
Alder (Red)	\$0.00	\$672.93	\$181.25	\$0.00



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Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Sitka Spruce	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	4,925	\$405.19	\$1,995,560.75
Western Hemlock / Fir	808	\$254.99	\$206,031.92
Sitka Spruce	222	\$173.29	\$38,470.38
Alder (Red)	2,153	\$181.25	\$390,231.25

Gross Timber Sale Value

Recovery: \$2,630,294.30

Prepared By: Sara Stack

Phone: 503-815-7041



PROJECT SUMMARY SHEET

Sale: Power Range

CONSTRUCTION

Point	C to D	22+80	stations =	\$29,521.18
Point	E to F	8+00	stations =	\$14,888.00
Point	G to H	5+20	stations =	\$10,401.00
Point	I to J	7+40	stations =	\$15,237.50
Point	K to L	3+60	stations =	\$1,797.43
Point	M to N	13+00	stations =	\$25,677.73
Point	S to T	3+60	stations =	\$7,695.90
Point	Y to Z	5+30	stations =	\$3,074.65
Point	CC to DD	8+80	stations =	\$9,170.24
Point	EE to FF	13+00	stations =	\$21,528.60
Point	GG to HH	5+20	stations =	\$4,734.28
Point	II to JJ	4+20	stations =	\$8,322.60
Point	KK to LL	5+20	stations =	\$12,131.10
Point	MM to NN	3+50	stations =	\$9,470.45
Point	UU to VV	5+30	stations =	\$13,427.55
SUBTOTAL CONSTRUCTION				\$187,078.21

IMPROVEMENT

Point	A to B	217+00	stations =	\$53,739.56
Point	C to D	68+50	stations =	\$32,438.26
Point	M to N	10+70	stations =	\$8,623.93
Point	O to P	11+00	stations =	\$4,405.36
Point	U to V	52+80	stations =	\$32,648.53
Point	W to X	30+00	stations =	\$3,710.57
Point	AA to BB	51+00	stations =	\$8,451.80
Point	CC to DD	7+60	stations =	\$6,532.66
Point	GG to HH	16+50	stations =	\$10,601.39
Point	OO to PP	52+00	stations =	\$10,044.34
Point	SS to TT	16+60	stations =	\$639.70
Point	WW to XX	5+00	stations =	\$2,975.10
SUBTOTAL IMPROVEMENT				\$174,811.20

RECONSTRUCTION

Point	K to L	9+40	stations =	\$5,546.90
Point	Q to R	26+60	stations =	\$10,793.38
Point	GG to HH	5+70	stations =	\$3,987.54
SUBTOTAL RECONSTRUCTION				\$20,327.82

SPECIAL PROJECTS

Project No. 3	Overburden Removal	\$17,120.00
	Oversize Breakdown & Pit Floor Developmer	\$15,000.00
	Seep Drain	\$1,400.00
SUBTOTAL SPECIAL PROJECTS		\$33,520.00

MOVE IN

\$3,782.77

GRAND TOTAL

\$419,520.00

Sale:		Power Range		Road:		A to B		
Construction -	0+00 0.00	stations miles	Improvement -	217+00 4.11	stations miles	Reconstruction -	0+00 0.00	stations miles
IMPROVEMENT: CLEARING AND GRUBBING -								
Side cast				0.034	acres @	\$860.00	per acre =	\$29.24
Widening				0.045	acres @	\$860.00	per acre =	\$38.70
TOTAL CLEARING AND GRUBBING								\$67.94
IMPROVEMENT: EXCAVATION -								
Pullback				73	cy. @	\$2.00	per c.y.=	\$146.00
Widening				118	cy. @	\$2.00	per c.y.=	\$236.00
TOTAL EXCAVATION								\$382.00
IMPROVEMENT: ENDHAUL -								
Pullback	26+20	to	27+20	73	cy. @	\$3.07	per c.y.=	\$224.11
Widening	51+00	to	51+10	10	cy. @	\$3.25	per c.y.=	\$32.50
Widening	89+50	to	90+00	44	cy. @	\$3.87	per c.y.=	\$170.28
Widening	210+70	to	212+00	64	cy. @	\$3.39	per c.y.=	\$216.96
Spread & compact				191	cy. @	\$0.50	per c.y.=	\$95.50
TOTAL ENDHAUL								\$739.35
CULVERTS - MATERIALS & INSTALLATION								
<u>Culverts</u>								
		180	LF of 18"	\$3,600.00		30	LF of 24"	\$930.00
						80	LF of 36"	\$5,580.00
<u>Culvert Stakes & Markers</u>								
		25	markers	\$200.00				
TOTAL CULVERTS								\$10,310.00
ROCK								
0+00 to	3+00	70	cy. of	Purchased	@	\$26.18	per c.y.=	\$1,832.60
3+00 to	80+30	1,750	cy. of	Stockpile	@	\$10.37	per c.y.=	\$18,147.50
Culvert Bedding/Backfill	All New Pipes	110	cy. of	Stockpile	@	\$9.79	per c.y.=	\$1,076.90
Spot Rock	80+30 to Point B	400	cy. of	Stockpile	@	\$11.35	per c.y.=	\$4,540.00
Junction Rock	0+00	20	cy. of	Purchased	@	\$26.18	per c.y.=	\$523.60
Energy Dissipator	All New Pipes	45	cy. of	Riprap	@	\$17.82	per c.y.=	\$801.90
Energy Dissipator	26+50, 77+50	10	cy. of	Riprap	@	\$17.58	per c.y.=	\$175.80
Rock Ditch Filters	109+20	5	cy. of	Drain Rock	@	\$9.97	per c.y.=	\$49.85
TOTAL ROCK								\$27,148.15
SPECIAL PROJECTS								
Construct outlet ditch for new pipe at 109+00 -		1.00	@	\$60.00				\$60.00
Pull ditch and endhaul -		42.00	stations @	\$130.00		per station		\$5,460.00
Grade and shape road -		217.00	stations @	\$22.00		per station		\$4,774.00
Roll subgrade w/ vibratory roller prior to rocking -		217.00	stations @	\$17.50		per station		\$3,797.50
Remove culverts from state lands -		8.00	@	\$820.00		total		\$820.00
Grass seed and fertilize -		0.23	acres @	\$280.00		per acre		\$64.40
Mulching -		0.149	acres @	\$780.00		per acre		\$116.22
TOTAL SPECIAL PROJECTS								\$15,092.12
GRAND TOTAL								\$53,739.56

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

C to D

Construction -	22+80	stations	Improvement -	68+50	stations	Reconstruction -	0+00	stations
	0.43	miles		1.30	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station		
68+50		69+70	30%		Outslope	\$239	=	\$286.80
69+70		70+60	40%		Outslope	\$303	=	\$272.70
70+60		71+50	60%	0.1	Outslope	\$1,901	=	\$1,710.90
71+50		72+25	35%		Outslope	\$239	=	\$179.25
72+25		74+80	60%	0.1	Outslope	\$1,901	=	\$4,847.55
74+80		78+35	65%	0.2	Outslope	\$2,501	=	\$8,878.55
78+35		82+50	20%		Outslope	\$174	=	\$722.10
82+50		84+20	35%		Outslope	\$239	=	\$406.30
84+20		85+80	20%		Outslope	\$174	=	\$278.40
85+80		86+30	40%		Outslope	\$303	=	\$151.50
86+30		89+30	20%		Outslope	\$174	=	\$522.00
89+30		90+70	40%		Outslope	\$303	=	\$424.20
90+70		91+30	30%		Outslope	\$239	=	\$143.40
TOTAL								\$18,823.65

IMPROVEMENT: CLEARING AND GRUBBING -

Widening	0.009	acres	@	\$860.00	per acre =	\$7.74	
TOTAL CLEARING AND GRUBBING							\$7.74

IMPROVEMENT: EXCAVATION -

Widening	30	cy.	@	\$3.00	per c.y. =	\$90.00	
Clean Catch Basin at 1+70	10	cy.	@	\$2.00	per c.y. =	\$20.00	
TOTAL EXCAVATION							\$110.00

IMPROVEMENT: ENDHAUL -

Widening	52+50	to	53+00	30	cy.	@	\$4.26	per c.y. =	\$127.80
Clean Catch Basin at 1+70				10	cy.	@	\$3.32	per c.y. =	\$33.20
Spread & compact				40	cy.	@	\$0.50	per c.y. =	\$20.00
TOTAL ENDHAUL									\$181.00

CULVERTS - MATERIALS & INSTALLATION

<u>Culvert Stakes & Markers</u>			
2 markers	\$16.00		
		TOTAL CULVERTS	\$16.00

ROCK

68+50	to	91+30	1,280	cy. of	Crushed	@	\$20.72	per c.y. =	\$26,521.60
Spot Rock		0+00 to 68+50	100	cy. of	Stockpile	@	\$13.59	per c.y. =	\$1,359.00
Landing Rock		57+40, 87+20, Point D	210	cy. of	Crushed	@	\$20.89	per c.y. =	\$4,386.90
Loaded Truck Turnaround		52+40	50	cy. of	Crushed	@	\$20.20	per c.y. =	\$1,010.00
Junction Rock		23+00	20	cy. of	Stockpile	@	\$13.52	per c.y. =	\$270.40
Junction Rock		68+50	20	cy. of	Crushed	@	\$20.50	per c.y. =	\$410.00
TOTAL ROCK									\$33,957.90

SPECIAL PROJECTS

Construct waste areas -	2.00	hours	@	\$180.00	per hour	\$360.00	
Construct landings at 57+40, 87+20 & Point D -	3.00	@		\$370.00	each	\$1,110.00	
Construct turnarounds before landings -	2.00	@		\$100.00	each	\$200.00	
Construct Loaded Truck Turnaround at 52+40 -	1.00	@		\$150.00		\$150.00	
Pull ditch and endhaul -	18.00	stations	@	\$130.00	per station	\$2,340.00	
Grade and shape road -	91.30	stations	@	\$22.00	per station	\$2,008.60	
Roll subgrade w/ vibratory roller prior to rocking -	91.30	stations	@	\$17.50	per station	\$1,597.75	
Remove large stumps -	1.00	lump sum	@	\$800.00		\$800.00	
Grass seed and fertilize -	1.06	acres	@	\$280.00	per acre	\$296.80	
TOTAL SPECIAL PROJECTS							\$8,863.15

GRAND TOTAL **\$61,959.44**

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

E to F

<u>Construction -</u>	<u>8+00</u>	<u>stations</u>	<u>Improvement -</u>	<u>0+00</u>	<u>stations</u>	<u>Reconstruction -</u>	<u>0+00</u>	<u>stations</u>
	0.15	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>		
0+00		3+00	20%		Outslope	\$174	=	\$522.00
3+00		4+00	30%		Outslope	\$239	=	\$239.00
4+00		5+00	50%		Outslope	\$573	=	\$573.00
5+00		8+00	30%		Outslope	\$239	=	\$717.00
								TOTAL
								\$2,051.00

ROCK

0+00 to	8+00	470	cy. of	Crushed	@	\$20.82 per c.y.=	\$9,785.40	
Landing Rock	Point F	70	cy. of	Crushed	@	\$20.90 per c.y.=	\$1,463.00	
Junction Rock	0+00	20	cy. of	Crushed	@	\$20.75 per c.y.=	\$415.00	
								TOTAL ROCK
								\$11,663.40

SPECIAL PROJECTS

Construct landing at point F -	1.00	@	\$370.00		\$370.00
Construct turnaround before landing -	1.00	@	\$100.00		\$100.00
Grade and shape road -	8.00	stations @	\$20.00	per station	\$160.00
Roll subgrade w/ vibratory roller prior to rocking -	8.00	stations @	\$17.50	per station	\$140.00
Remove large stumps -	1.00	lump sum @	\$300.00		\$300.00
Grass seed and fertilize -	0.37	acres @	\$280.00	per acre	\$103.60
TOTAL SPECIAL PROJECTS					\$1,173.60

GRAND TOTAL **\$14,888.00**

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

G to H

<u>Construction -</u>	<u>5+20</u>	<u>stations</u>	<u>Improvement -</u>	<u>0+00</u>	<u>stations</u>	<u>Reconstruction -</u>	<u>0+00</u>	<u>stations</u>
	<u>0.10</u>	<u>miles</u>		<u>0.00</u>	<u>miles</u>		<u>0.00</u>	<u>miles</u>

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>			
0+00		1+20	40%			\$303	=		\$363.60
1+20		5+20	30%			\$239	=		\$956.00
									TOTAL
									\$1,319.60

ROCK

0+00	to	5+20	320	cy. of	Crushed	@	\$19.87	per c.y.=	\$6,358.40
Landing Rock		Point H	70	cy. of	Crushed	@	\$19.92	per c.y.=	\$1,394.40
Junction Rock		0+00	20	cy. of	Crushed	@	\$19.82	per c.y.=	\$396.40
									TOTAL ROCK
									\$8,149.20

SPECIAL PROJECTS

Construct landing at point H -	1.00	@	\$370.00		\$370.00
Construct turnaround before landing -	1.00	@	\$100.00		\$100.00
Grade and shape road -	5.20	stations @	\$20.00	per station	\$104.00
Roll subgrade w/ vibratory roller prior to rocking -	5.20	stations @	\$17.50	per station	\$91.00
Remove large stumps -	1.00	lump sum @	\$200.00		\$200.00
Grass seed and fertilize -	0.24	acres @	\$280.00	per acre	\$67.20
					TOTAL SPECIAL PROJECTS
					\$932.20

GRAND TOTAL **\$10,401.00**

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

I to J

<u>Construction -</u>	<u>7+40</u>	<u>stations</u>	<u>Improvement -</u>	<u>0+00</u>	<u>stations</u>	<u>Reconstruction -</u>	<u>0+00</u>	<u>stations</u>
	<u>0.14</u>	<u>miles</u>		<u>0.00</u>	<u>miles</u>		<u>0.00</u>	<u>miles</u>

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>			
0+00		0+60	40%			\$303	=		\$181.80
0+60		7+40	25%			\$206	=		\$1,400.80
									TOTAL
									\$1,582.60

ROCK

0+00	to	7+40	460	cy. of	Crushed	@	\$19.90	per c.y.=	\$9,154.00
Landing Rock		4+20, Point J	140	cy. of	Crushed	@	\$19.94	per c.y.=	\$2,791.60
Junction Rock		0+00	20	cy. of	Crushed	@	\$19.83	per c.y.=	\$396.60
									TOTAL ROCK
									\$12,342.20

SPECIAL PROJECTS

Construct landing at 4+20 & Point J -	2.00	@	\$370.00	each	\$740.00
Construct turnarounds before landings -	2.00	@	\$100.00	each	\$200.00
Grade and shape road -	7.40	stations @	\$20.00	per station	\$148.00
Roll subgrade w/ vibratory roller prior to rocking -	7.40	stations @	\$17.50	per station	\$129.50
Grass seed and fertilize -	0.34	acres @	\$280.00	per acre	\$95.20
					TOTAL SPECIAL PROJECTS
					\$1,312.70

GRAND TOTAL **\$15,237.50**

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

K to L

<u>Construction -</u>	<u>3+60</u>	<u>stations</u>	<u>Improvement -</u>	<u>0+00</u>	<u>stations</u>	<u>Reconstruction -</u>	<u>9+40</u>	<u>stations</u>
	0.07	miles		0.00	miles		0.18	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>			
9+40		10+00	50%		Outslope	\$573	=		\$343.80
10+00		12+40	30%		Outslope	\$239	=		\$573.60
12+40		13+00	20%		Outslope	\$174	=		\$104.40
TOTAL									\$1,021.80

RECONSTRUCTION: CLEARING AND GRUBBING -

Widening	0.094	acres	@	\$860.00	per acre =	\$80.84	
Scattering	0.910	acres	@	\$1,275.00	per acre =	\$1,160.25	
TOTAL CLEARING AND GRUBBING							\$1,241.09

RECONSTRUCTION: EXCAVATION -

Widening	394	cy.	@	\$2.00	per c.y. =	\$788.00	
TOTAL EXCAVATION							\$788.00

RECONSTRUCTION: ENDHAUL -

Widening	2+60	to	4+80	255	cy.	@	\$3.14	per c.y. =	\$800.70
Widening	7+00	to	8+20	139	cy.	@	\$3.56	per c.y. =	\$494.84
Spread & compact				394	cy.	@	\$0.50	per c.y. =	\$197.00
TOTAL ENDHAUL									\$1,492.54

ROCK

0+00	to	1+00	60	cy. of	Crushed	@	\$20.09	per c.y. =	\$1,205.40
TOTAL ROCK									\$1,205.40

SPECIAL PROJECTS

Reconstruct landings at 9+40 & Point L -	2.00	@	\$370.00		\$740.00
Construct turnarounds before landings -	2.00	@	\$100.00		\$200.00
Grade and shape road -	13.00	stations @	\$20.00	per station	\$260.00
Roll subgrade w/ vibratory roller prior to rocking -	13.00	stations @	\$17.50	per station	\$227.50
Grass seed and fertilize -	0.60	acres @	\$280.00	per acre	\$168.00
TOTAL SPECIAL PROJECTS					\$1,595.50

GRAND TOTAL **\$7,344.33**

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

M to N

<u>Construction -</u>	<u>13+00</u>	<u>stations</u>	<u>Improvement -</u>	<u>10+70</u>	<u>stations</u>	<u>Reconstruction -</u>	<u>0+00</u>	<u>stations</u>
	0.25	miles		0.20	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station		
10+70		11+40	30%		Outslope	\$239	=	\$167.30
11+40		14+70	60%	0.1	Outslope	\$1,901	=	\$6,273.30
14+70		16+70	65%	0.2	Outslope	\$2,501	=	\$5,002.00
16+70		17+20	60%	0.3	Outslope	\$2,039	=	\$1,019.50
17+20		18+30	30%		Outslope	\$239	=	\$262.90
18+30		20+30	40%		Outslope	\$303	=	\$606.00
20+30		22+40	30%		Outslope	\$239	=	\$501.90
22+40		23+10	60%	0.4	Outslope	\$2,103	=	\$1,472.10
23+10		23+70	30%		Outslope	\$239	=	\$143.40
TOTAL								\$15,448.40

IMPROVEMENT: CLEARING AND GRUBBING -

Widening	0.011	acres @	\$860.00	per acre =	\$9.46	
TOTAL CLEARING AND GRUBBING						\$9.46

IMPROVEMENT: EXCAVATION -

Widening	35	cy. @	\$2.00	per c.y.=	\$70.00	
TOTAL EXCAVATION						\$70.00

IMPROVEMENT: ENDHAUL -

Widening	4+00	to	4+40	35	cy. @	\$3.07	per c.y.=	\$107.45
Spread & compact				35	cy. @	\$0.50	per c.y.=	\$17.50
TOTAL ENDHAUL								\$124.95

CULVERTS - MATERIALS & INSTALLATION

<u>Culvert Stakes & Markers</u>								
1 marker				\$8.00				
TOTAL CULVERTS								\$8.00

ROCK

10+70	to	23+70	720	cy. of	Crushed	@	\$19.43	per c.y.=	\$13,989.60
Spot Rock		0+00 to 10+70	30	cy. of	Stockpile	@	\$12.88	per c.y.=	\$386.40
Landing Rock		Point N	70	cy. of	Crushed	@	\$19.55	per c.y.=	\$1,368.50
Junction Rock		10+70	20	cy. of	Crushed	@	\$19.31	per c.y.=	\$386.20
Junction Rock		0+00	20	cy. of	Stockpile	@	\$12.82	per c.y.=	\$256.40
TOTAL ROCK									\$16,387.10

SPECIAL PROJECTS

Construct waste areas -	2.50	hours @	\$180.00	per hour	\$450.00	
Construct landing at Point N -	1.00	@	\$370.00		\$370.00	
Construct turnaround before landing -	1.00	@	\$100.00		\$100.00	
Grade and shape road -	23.70	stations @	\$22.00	per station	\$521.40	
Roll subgrade w/ vibratory roller prior to rocking -	23.70	stations @	\$17.50	per station	\$414.75	
Grass seed and fertilize -	1.42	acres @	\$280.00	per acre	\$397.60	
TOTAL SPECIAL PROJECTS						\$2,253.75

GRAND TOTAL **\$34,301.66**

SUMMARY OF CONSTRUCTION COST

Sale:			Power Range			Road:			O to P		
Construction -	0+00	stations	Improvement -	11+00	stations	Reconstruction -	0+00	stations			
	0.00	miles		0.21	miles		0.00	miles			
IMPROVEMENT: CLEARING AND GRUBBING -											
Widening				0.068	acres @	\$860.00	per acre =	\$58.48			
							TOTAL CLEARING AND GRUBBING				\$58.48
IMPROVEMENT: EXCAVATION -											
Widening				282	cy. @	\$2.00	per c.y. =	\$564.00			
							TOTAL EXCAVATION				\$564.00
IMPROVEMENT: ENDHAUL -											
Widening	0+00	to	1+50	174	cy. @	\$3.07	per c.y. =	\$534.18			
Widening	4+00	to	5+00	78	cy. @	\$3.00	per c.y. =	\$234.00			
Widening	7+50	to	8+00	30	cy. @	\$3.03	per c.y. =	\$90.90			
Spread & compact				282	cy. @	\$0.50	per c.y. =	\$141.00			
							TOTAL ENDHAUL				\$1,000.08
ROCK											
Spot Rock	0+00 to Point P	30	cy. of	Stockpile	@	\$12.94	per c.y. =	\$388.20			
Landing Rock	Point P	70	cy. of	Crushed	@	\$19.49	per c.y. =	\$1,364.30			
Junction Rock	0+00	20	cy. of	Stockpile	@	\$12.91	per c.y. =	\$258.20			
							TOTAL ROCK				\$2,010.70
SPECIAL PROJECTS											
Improve landing -				1.50	hours @	\$160.00	per hour	\$240.00			
Construct turnaround before landing -				1.00	@	\$100.00		\$100.00			
Grade and shape road -				11.00	stations @	\$20.00	per station	\$220.00			
Roll subgrade w/ vibratory roller prior to rocking -				11.00	stations @	\$17.50	per station	\$192.50			
Grass seed and fertilize -				0.07	acres @	\$280.00	per acre	\$19.60			
							TOTAL SPECIAL PROJECTS				\$772.10
GRAND TOTAL											\$4,405.36

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

Q to R

<u>Construction -</u>	<u>0+00</u>	stations	<u>Improvement -</u>	<u>0+00</u>	stations	<u>Reconstruction -</u>	<u>26+60</u>	stations
	0.00	miles		0.00	miles		0.50	miles

RECONSTRUCTION: CLEARING AND GRUBBING -

Widening	0.169	acres	@	\$860.00	per acre =	\$145.34
Scattering	0.980	acres	@	\$1,275.00	per acre =	\$1,249.50

TOTAL CLEARING AND GRUBBING \$1,394.84

RECONSTRUCTION: EXCAVATION -

Widening	876	cy.	@	\$2.00	per c.y.=	\$1,752.00
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TOTAL EXCAVATION \$1,752.00

RECONSTRUCTION: ENDHAUL -

Widening	3+50	to	4+00	30	cy.	@	\$3.01	per c.y.=	\$90.30
Widening	5+80	to	7+20	472	cy.	@	\$3.12	per c.y.=	\$1,472.64
Widening	16+50	to	18+20	198	cy.	@	\$3.17	per c.y.=	\$627.66
Widening	19+80	to	21+80	146	cy.	@	\$3.19	per c.y.=	\$465.74
Widening	26+00	to	26+60	30	cy.	@	\$3.45	per c.y.=	\$103.50
Spread & compact				876	cy.	@	\$0.50	per c.y.=	\$438.00

TOTAL ENDHAUL \$3,197.84

ROCK

0+00	to	1+00	60	cy. of	Crushed	@	\$20.29	per c.y.=	\$1,217.40
25+60	to	26+60	60	cy. of	Crushed	@	\$19.05	per c.y.=	\$1,143.00

TOTAL ROCK \$2,360.40

SPECIAL PROJECTS

Construct landings at 7+20 and 14+00 -	2.00	@	\$370.00	each	\$740.00
Grade and shape road -	26.60	stations @	\$20.00	per station	\$532.00
Roll subgrade w/ vibratory roller prior to rocking -	26.60	stations @	\$17.50	per station	\$465.50
Remove large stumps -	1.00	lump sum @	\$180.00		\$180.00
Grass seed and fertilize -	0.61	acres @	\$280.00	per acre	\$170.80

TOTAL SPECIAL PROJECTS \$2,088.30

GRAND TOTAL \$10,793.38

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

S to T

<u>Construction -</u>	<u>3+60</u>	<u>stations</u>	<u>Improvement -</u>	<u>0+00</u>	<u>stations</u>	<u>Reconstruction -</u>	<u>0+00</u>	<u>stations</u>
	<u>0.07</u>	<u>miles</u>		<u>0.00</u>	<u>miles</u>		<u>0.00</u>	<u>miles</u>

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>		
0+00		0+70	20%		Outslope	\$174	=	\$121.80
0+70		2+30	30%		Outslope	\$239	=	\$382.40
2+30		2+80	40%		Outslope	\$303	=	\$151.50
2+80		3+60	20%		Outslope	\$174	=	\$139.20
								TOTAL
								\$794.90

ROCK

0+00 to	3+60	240	cy. of	Crushed	@	\$18.79 per c.y.=	\$4,509.60	
Landing Rock	Point T	70	cy. of	Crushed	@	\$18.84 per c.y.=	\$1,318.80	
Junction Rock	0+00	20	cy. of	Crushed	@	\$18.76 per c.y.=	\$375.20	
								TOTAL ROCK
								\$6,203.60

SPECIAL PROJECTS

Construct landing at Point T -	1.00	@	\$370.00	\$370.00	
Construct turnaround before landing -	1.00	@	\$100.00	\$100.00	
Grade and shape road -	3.60	stations @	\$20.00	per station	\$72.00
Roll subgrade w/ vibratory roller prior to rocking -	3.60	stations @	\$17.50	per station	\$63.00
Grass seed and fertilize -	0.33	acres @	\$280.00	per acre	\$92.40
					TOTAL SPECIAL PROJECTS
					\$697.40

GRAND TOTAL **\$7,695.90**

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

U to V

Construction -	0+00	stations	Improvement -	52+80	stations	Reconstruction -	0+00	stations
	0.00	miles		1.00	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Side cast	0.069	acres @	\$860.00	per acre =	\$59.34	
Widening	0.064	acres @	\$860.00	per acre =	\$55.04	
TOTAL CLEARING AND GRUBBING						\$114.38

IMPROVEMENT: EXCAVATION -

Pullback	217	cy. @	\$2.00	per c.y. =	\$434.00	
Widening	204	cy. @	\$2.00	per c.y. =	\$408.00	
TOTAL EXCAVATION						\$842.00

IMPROVEMENT: ENDHAUL -

Pullback	37+30	to	39+30	217	cy. @	\$4.77	per c.y. =	\$1,035.09	
Widening	9+00	to	10+00	30	cy. @	\$3.87	per c.y. =	\$116.10	
Widening	37+30	to	39+30	174	cy. @	\$4.77	per c.y. =	\$829.98	
Spread & compact				421	cy. @	\$0.50	per c.y. =	\$210.50	
TOTAL ENDHAUL									\$2,191.67

CULVERTS - MATERIALS & INSTALLATION

Culverts

50 LF of 36" \$3,480.00

Culvert Stakes & Markers

5 markers \$40.00

TOTAL CULVERTS \$3,520.00

ROCK

0+00 to	52+80	1,190	cy. of	Stockpile	@	\$12.27	per c.y. =	\$14,601.30	
Landing Rock	9+00, 33+80, Point V	210	cy. of	Crushed	@	\$19.28	per c.y. =	\$4,048.80	
Turnaround Rock	Before Landings	90	cy. of	Crushed	@	\$19.28	per c.y. =	\$1,735.20	
Junction Rock	0+00	20	cy. of	Stockpile	@	\$11.98	per c.y. =	\$239.60	
Shoulder Repair	27+70	10	cy. of	Riprap	@	\$18.11	per c.y. =	\$181.10	
Energy Dissipator	8+80	5	cy. of	Riprap	@	\$17.64	per c.y. =	\$88.20	
Bedding/Backfill	8+80	20	cy. of	Stockpile	@	\$10.87	per c.y. =	\$217.40	
TOTAL ROCK									\$21,111.60

SPECIAL PROJECTS

Construct landings at 9+00 & 33+80 -	2.00	@	\$370.00	each	\$740.00	
Improve landing at Point V -	1.00	@	\$180.00		\$180.00	
Construct turnarounds before landings -	3.00	@	\$100.00	each	\$300.00	
Pull ditch and endhaul -	8.00	stations @	\$130.00	per station	\$1,040.00	
Grade and shape road -	52.80	stations @	\$22.00	per station	\$1,161.60	
Roll subgrade w/ vibratory roller prior to rocking -	52.80	stations @	\$17.50	per station	\$924.00	
Remove culverts from state lands -	1.00	@	\$358.90	total	\$358.90	
Grass seed and fertilize -	0.25	acres @	\$280.00	per acre	\$70.00	
Mulching -	0.121	acres @	\$780.00	per acre	\$94.38	
TOTAL SPECIAL PROJECTS						\$4,868.88

GRAND TOTAL \$32,648.53

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

W to X

Construction -	<u>0+00</u>	stations	Improvement -	<u>30+00</u>	stations	Reconstruction -	<u>0+00</u>	stations
	0.00	miles		0.57	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Widening	0.014	acres	@	\$860.00	per acre =	<u>\$12.04</u>	\$12.04
TOTAL CLEARING AND GRUBBING							

IMPROVEMENT: EXCAVATION -

Widening	44	cy.	@	\$2.00	per c.y.=	<u>\$88.00</u>	\$88.00
TOTAL EXCAVATION							

IMPROVEMENT: ENDHAUL -

Widening	19+00	to	20+20	<u>44</u>	cy.	@	\$3.74	per c.y.=	\$164.56
Spread & compact				44	cy.	@	\$0.50	per c.y.=	<u>\$22.00</u>
TOTAL ENDHAUL									\$186.56

CULVERTS - MATERIALS & INSTALLATION

Culverts

30 LF of 24" \$930.00

Culvert Stakes & Markers

1 marker \$8.00

TOTAL CULVERTS \$938.00

ROCK

Culvert Bedding/Backfill	1+00	10	cy. of	Stockpile	@	\$10.38 per c.y.=	\$103.80
Spot Rock	0+00 to 25+00	50	cy. of	Stockpile	@	\$11.69 per c.y.=	\$584.50
Energy Dissipator	1+00	5	cy. of	Riprap	@	\$17.56 per c.y.=	\$87.80
Ditch Fill	12+30 to 12+60	5	cy. of	Crushed	@	\$17.95 per c.y.=	\$89.75
							TOTAL ROCK
							\$865.85

SPECIAL PROJECTS

Grade and shape road -	30.00	stations @	\$22.00	per station	\$660.00
Roll subgrade w/ vibratory roller prior to rocking -	30.00	stations @	\$17.50	per station	\$525.00
Remove culverts from state lands -	1.00	@	\$358.90	total	\$358.90
Grass seed and fertilize -	0.08	acres @	\$280.00	per acre	\$22.40
Mulching -	0.069	acres @	\$780.00	per acre	\$53.82
TOTAL SPECIAL PROJECTS					\$1,620.12

GRAND TOTAL \$3,710.57

SUMMARY OF CONSTRUCTION COST

Sale:			Power Range			Road:			Y to Z		
<u>Construction -</u>			5+30 stations			<u>Improvement -</u>			0+00 stations		
			0.10 miles						0.00 miles		
<u>Reconstruction -</u>			0+00 stations						0.00 miles		
			0.00 miles								

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+50	35%		Outslope	\$239	=	\$358.50	
1+50		5+30	25%		Outslope	\$206	=	\$782.80	
								TOTAL	\$1,141.30

ROCK									
0+00	to	1+00	60	cy. of	Crushed	@	\$18.79 per c.y.=	\$1,127.40	
								TOTAL ROCK	\$1,127.40

SPECIAL PROJECTS									
Construct landing at Point Z -				1.00	@	\$370.00		\$370.00	
Construct turnaround before landing -				1.00	@	\$100.00		\$100.00	
Grade and shape road -				5.30	stations @	\$20.00	per station	\$106.00	
Roll subgrade w/ vibratory roller prior to rocking -				5.30	stations @	\$17.50	per station	\$92.75	
Grass seed and fertilize -				0.49	acres @	\$280.00	per acre	\$137.20	
								TOTAL SPECIAL PROJECTS	\$805.95
								GRAND TOTAL	\$3,074.65

SUMMARY OF CONSTRUCTION COST

Sale:	Power Range			Road:	AA to BB		
<u>Construction -</u>		<u>0+00</u>	stations	<u>Improvement -</u>		<u>51+00</u>	stations
		0.00	miles			0.97	miles
<u>Reconstruction -</u>		<u>0+00</u>	stations			<u>0+00</u>	stations
		0.00	miles			0.00	miles

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	30	LF of 18"	\$600.00				
<u>Culvert Stakes & Markers</u>	3	markers	\$24.00				
						TOTAL CULVERTS	\$624.00

ROCK							
0+00	to	20+50	360	cy. of	Stockpile	@	\$11.48 per c.y.= \$4,132.80
Spot Rock		20+50 to Point BB	100	cy. of	Stockpile	@	\$11.74 per c.y.= \$1,174.00
Junction Rock		0+00	10	cy. of	Stockpile	@	\$11.37 per c.y.= \$113.70
						TOTAL ROCK	\$5,420.50

SPECIAL PROJECTS							
Improve landing at Point BB -			1.00	@	\$200.00		\$200.00
Construct ditch from 13+70 to 14+00 -			0.30	stations @	\$230.00	per station	\$69.00
Grade and shape road -			51.00	stations @	\$22.00	per station	\$1,122.00
Grade and shape upper leg of delta junction -			2.90	stations @	\$22.00	per station	\$63.80
Construct outlet ditch for new pipe at 13+70 -			1.00	@	\$60.00		\$60.00
Roll subgrade w/ vibratory roller prior to rocking -			51.00	stations @	\$17.50	per station	\$892.50
						TOTAL SPECIAL PROJECTS	\$2,407.30
						GRAND TOTAL	\$8,451.80

SUMMARY OF CONSTRUCTION COST

Sale:	Power Range		Road:	CC to DD	
Construction -	<u>8+80</u>	stations	Improvement -	<u>7+60</u>	stations
	<u>0.17</u>	miles		<u>0.14</u>	miles
Reconstruction -	<u>0+00</u>	stations			
	<u>0.00</u>	miles			

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -									
	<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u>	<u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>	
7+60			16+40	25%			Outslope	\$206	=
									\$1,812.80
									TOTAL
									\$1,812.80

IMPROVEMENT: CLEARING AND GRUBBING -									
Scattering									
						0.140	acres @	\$1,275.00 per acre =	\$178.50
								TOTAL CLEARING AND GRUBBING	\$178.50

ROCK									
7+60 to			16+40	510	cy. of	Crushed	@	\$19.00 per c.y.=	\$9,690.00
Spot Rock			0+00 - 7+60	50	cy. of	Stockpile	@	\$11.91 per c.y.=	\$595.50
Landing Rock			Point DD	70	cy. of	Crushed	@	\$19.09 per c.y.=	\$1,336.30
Junction Rock			7+60	20	cy. of	Crushed	@	\$18.90 per c.y.=	\$378.00
								TOTAL ROCK	\$11,999.80

SPECIAL PROJECTS									
Construct landing at Point DD -				1.00	@	\$370.00		\$370.00	
Construct turnaround before landing -				1.00	@	\$100.00		\$100.00	
Grade and shape road -				16.40	stations @	\$20.00	per station	\$328.00	
Roll subgrade w/ vibratory roller prior to rocking -				16.40	stations @	\$17.50	per station	\$287.00	
Remove large stumps -				1.00	lump sum @	\$400.00		\$400.00	
Grass seed and fertilize -				0.81	acres @	\$280.00	per acre	\$226.80	
								TOTAL SPECIAL PROJECTS	\$1,711.80
								GRAND TOTAL	\$15,702.90

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

EE to FF

Construction -	13+00	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.25	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

	Avg. Dist.						
Station	to Station	Avg. Sideslope	To W.A. (mi.)	Outslope/Ditch	Cost per Station		
0+00	4+50	20%		Outslope	\$174	=	\$783.00
4+50	7+80	30%		Outslope	\$239	=	\$788.70
7+80	10+20	20%		Outslope	\$174	=	\$417.60
10+20	13+00	30%		Outslope	\$239	=	\$669.20
						TOTAL	\$2,658.50

ROCK

0+00 to	13+00	750	cy. of	Crushed	@	\$18.86 per c.y.=	\$14,145.00
Landing Rock	7+80, Point FF	140	cy. of	Crushed	@	\$18.96 per c.y.=	\$2,654.40
Junction Rock	0+00	20	cy. of	Crushed	@	\$18.76 per c.y.=	\$375.20
							TOTAL ROCK
							\$17,174.60

SPECIAL PROJECTS

Construct landings at 7+80 and Point FF -	2.00	@	\$370.00	each	\$740.00	
Construct turnarounds before landings -	2.00	@	\$100.00	each	\$200.00	
Grade and shape road -	13.00	stations @	\$20.00	per station	\$260.00	
Roll subgrade w/ vibratory roller prior to rocking -	13.00	stations @	\$17.50	per station	\$227.50	
Remove large stumps -	1.00	lump sum @	\$100.00		\$100.00	
Grass seed and fertilize -	0.60	acres @	\$280.00	per acre	\$168.00	
				TOTAL SPECIAL PROJECTS		\$1,695.50

GRAND TOTAL

\$21,528.60

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

GG to HH

<u>Construction -</u>	<u>5+20</u>	stations	<u>Improvement -</u>	<u>16+50</u>	stations	<u>Reconstruction -</u>	<u>5+70</u>	stations
	0.10	miles		0.31	miles		0.11	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station		
22+20		23+00	30%		Outslope	\$239	=	\$191.20
23+00		24+20	20%		Outslope	\$174	=	\$208.80
24+20		26+90	45%		Outslope	\$336	=	\$907.20
26+90		27+20	50%		Outslope	\$573	=	\$171.90
27+20		27+40	30%		Outslope	\$239	=	\$47.80
								TOTAL
								\$1,526.90

IMPROVEMENT: CLEARING AND GRUBBING -

Widening	0.012	acres	@	\$860.00	per acre =	\$10.32	
Scattering	0.040	acres	@	\$1,275.00	per acre =	\$51.00	
TOTAL CLEARING AND GRUBBING							\$61.32

IMPROVEMENT: EXCAVATION -

Widening	64	cy.	@	\$2.00	per c.y. =	\$128.00	
TOTAL EXCAVATION							\$128.00

IMPROVEMENT: ENDHAUL -

Widening	1+40	to	2+00	52	cy.	@	\$3.09	per c.y. =	\$160.68
Widening	14+80	to	15+00	12	cy.	@	\$3.51	per c.y. =	\$42.12
Spread & compact				64	cy.	@	\$0.50	per c.y. =	\$32.00
TOTAL ENDHAUL									\$234.80

RECONSTRUCTION: CLEARING AND GRUBBING -

Scattering	0.370	acres	@	\$1,275.00	per acre =	\$471.75	
TOTAL CLEARING AND GRUBBING							\$471.75

CULVERTS - MATERIALS & INSTALLATION

Culverts

40 LF of 24" \$1,240.00

Culvert Stakes & Markers

1 marker \$8.00

TOTAL CULVERTS \$1,248.00

ROCK

16+50 to	27+40	620	cy. of	Crushed	@	\$18.89	per c.y. =	\$11,711.80
Spot Rock	0+00-16+50	80	cy. of	Stockpile	@	\$11.67	per c.y. =	\$933.60
Landing Rock	Point HH	70	cy. of	Crushed	@	\$19.03	per c.y. =	\$1,332.10
TOTAL ROCK								
\$13,977.50								

SPECIAL PROJECTS

Construct landing at Point HH -	1.00	@	\$370.00	\$370.00
Construct turnaround before landing -	1.00	@	\$100.00	\$100.00
Grade and shape road -	27.40	stations @	\$20.00	per station \$548.00
Roll subgrade w/ vibratory roller prior to rocking -	27.40	stations @	\$17.50	per station \$479.50
Grass seed and fertilize -	0.50	acres @	\$280.00	per acre \$140.00
Mulching -	0.048	acres @	\$780.00	per acre \$37.44
TOTAL SPECIAL PROJECTS				\$1,674.94

GRAND TOTAL \$19,323.21

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

II to JJ

Construction -	<u>4+20</u> 0.08	stations miles	Improvement -	<u>0+00</u> 0.00	stations miles	Reconstruction -	<u>0+00</u> 0.00	stations miles
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CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist. To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>			
0+00		2+30	30%		Outslope	\$239	=	\$549.70	
2+30		3+00	40%		Outslope	\$303	=	\$212.10	
3+00		4+20	30%		Outslope	\$239	=	\$286.80	
								TOTAL	\$1,048.60

ROCK

0+00 to	4+20	260	cy. of	Crushed	@	\$18.83 per c.y.=	\$4,895.80
Landing Rock	Point JJ	70	cy. of	Crushed	@	\$18.89 per c.y.=	\$1,322.30
Junction Rock	0+00	20	cy. of	Crushed	@	\$18.76 per c.y.=	\$375.20
							TOTAL ROCK
							\$6,593.30

SPECIAL PROJECTS

Construct landing at Point JJ -	1.00	@	\$370.00		\$370.00
Construct turnaround before landing -	1.00	@	\$100.00		\$100.00
Grade and shape road -	4.20	stations @	\$20.00	per station	\$84.00
Roll subgrade w/ vibratory roller prior to rocking -	4.20	stations @	\$17.50	per station	\$73.50
Grass seed and fertilize -	0.19	acres @	\$280.00	per acre	\$53.20
			TOTAL SPECIAL PROJECTS		\$680.70
			GRAND TOTAL		\$8,322.60

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Power Range</u>				Road:	<u>KK to LL</u>			
<u>Construction -</u>		<u>5+20</u> stations	<u>Improvement -</u>		<u>0+00</u> stations	<u>Reconstruction -</u>		<u>0+00</u> stations	
		0.10 miles			0.00 miles			0.00 miles	
CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -									
	<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>		
	0+00		2+00	30%		Outslope	\$239	=	\$478.00
	2+00		3+00	20%		Outslope	\$174	=	\$174.00
	3+00		3+60	30%		Outslope	\$239	=	\$143.40
	3+60		4+60	20%		Outslope	\$174	=	\$174.00
	4+60		5+20	30%		Outslope	\$239	=	\$143.40
									<u>TOTAL</u>
									\$1,112.80
ROCK									
0+00	to	5+20	350	cy. of	Crushed	@	\$18.83 per c.y.=		\$6,590.50
Landing Rock		3+20,Point LL	140	cy. of	Crushed	@	\$18.93 per c.y.=		\$2,650.20
Junction Rock		0+00	20	cy. of	Crushed	@	\$18.77 per c.y.=		\$375.40
									<u>TOTAL ROCK</u>
									\$9,616.10
SPECIAL PROJECTS									
Construct landing at 3+20 & Point LL -			2.00	@	\$370.00	each	\$740.00		
Construct turnarounds before landings -			2.00	@	\$100.00	each	\$200.00		
Grade and shape road -			5.20	stations @	\$20.00	per station	\$104.00		
Roll subgrade w/ vibratory roller prior to rocking -			5.20	stations @	\$17.50	per station	\$91.00		
Remove large stumps -			1.00	lump sum @	\$200.00		\$200.00		
Grass seed and fertilize -			0.24	acres @	\$280.00	per acre	\$67.20		
							<u>TOTAL SPECIAL PROJECTS</u>		\$1,402.20
							GRAND TOTAL		\$12,131.10

SUMMARY OF CONSTRUCTION COST

Sale:				Power Range		Road:				MM to NN	
<u>Construction -</u>		<u>3+50</u>	stations	<u>Improvement -</u>		<u>0+00</u>	stations	<u>Reconstruction -</u>		<u>0+00</u>	stations
		0.07	miles			0.00	miles			0.00	miles
CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -											
	<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>				
	0+00		1+60	25%		Outslope	\$206	=		\$329.60	
	1+60		2+00	40%		Outslope	\$303	=		\$121.20	
	2+00		3+00	60%	0.6	Outslope	\$2,241	=		\$2,241.00	
	3+00		3+50	30%		Outslope	\$239	=		\$119.50	
										TOTAL	\$2,811.30
ROCK											
0+00	to	3+50	230	cy. of	Crushed	@	\$18.78	per c.y.=		\$4,319.40	
Landing Rock		Point NN	70	cy. of	Crushed	@	\$18.83	per c.y.=		\$1,318.10	
Junction Rock		0+00	20	cy. of	Crushed	@	\$18.78	per c.y.=		\$375.60	
										TOTAL ROCK	\$6,013.10
SPECIAL PROJECTS											
Construct landing at Point NN -						1.00	@	\$370.00		\$370.00	
Construct turnaround before landing -						1.00	@	\$100.00		\$100.00	
Grade and shape road -						3.50	stations @	\$20.00	per station	\$70.00	
Roll subgrade w/ vibratory roller prior to rocking -						3.50	stations @	\$17.50	per station	\$61.25	
Grass seed and fertilize -						0.16	acres @	\$280.00	per acre	\$44.80	
										TOTAL SPECIAL PROJECTS	\$646.05
										GRAND TOTAL	\$9,470.45

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

OO to PP

Construction -	0+00	stations	Improvement -	52+00	stations	Reconstruction -	0+00	stations
	0.00	miles		0.98	miles		0.00	miles

CULVERTS - MATERIALS & INSTALLATION

Culvert Stakes & Markers

2 markers

\$16.00

TOTAL CULVERTS

\$16.00

ROCK

27+40 to	38+20	250	cy. of	Stockpile	@	\$11.16 per c.y.=	\$2,790.00
Spot Rock	0+00 to 27+40	50	cy. of	Stockpile	@	\$10.94 per c.y.=	\$547.00
Spot Rock	38+20 to Point PP	30	cy. of	Stockpile	@	\$11.28 per c.y.=	\$338.40
Free Drain Rock	29+20, 30+20, 31+20	30	cy. of	Drain Rock	@	\$10.02 per c.y.=	\$300.60
Ditch Fill	29+20 to 31+20	40	cy. of	Riprap	@	\$17.56 per c.y.=	\$702.40
Energy Dissipator	1+80,31+50,32+00	30	cy. of	Riprap	@	\$17.69 per c.y.=	\$530.70

TOTAL ROCK

\$5,209.10

SPECIAL PROJECTS

Construct free drains across road -	3.00	@	\$720.00	each	\$2,160.00
Nonwoven geotxtile -	150.00	square yds @	\$0.60	per sq yrd	\$90.00
Grade and shape road -	52.00	stations @	\$22.00	per station	\$1,144.00
Excavate bench below culvert outlet to place riprap at 1+80 -	0.50	hours@	\$165.00	per hour	\$82.50
Roll subgrade w/ vibratory roller prior to rocking -	52.00	stations @	\$17.50	per station	\$910.00
Remove culverts from state lands -	1.00	@	\$358.90	total	\$358.90
Grass seed and fertilize -	0.13	acres @	\$280.00	per acre	\$36.40
Mulching -	0.048	acres @	\$780.00	per acre	\$37.44

TOTAL SPECIAL PROJECTS

\$4,819.24

GRAND TOTAL

\$10,044.34

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

QQ to RR

--OPTIONAL--

<u>Construction -</u>	<u>0+00</u>	stations	<u>Improvement -</u>	<u>0+00</u>	stations	<u>Reconstruction -</u>	<u>31+30</u>	stations
	<u>0.00</u>	miles		<u>0.00</u>	miles		<u>0.59</u>	miles

RECONSTRUCTION: CLEARING AND GRUBBING -

Widening	0.120	acres	@	\$860.00	per acre =	\$103.20	
Scattering	2.300	acres	@	\$1,275.00	per acre =	\$2,932.50	
TOTAL CLEARING AND GRUBBING							\$3,035.70

RECONSTRUCTION: EXCAVATION -

Pullback	348	cy.	@	\$2.00	per c.y.=	\$696.00	
Widening	209	cy.	@	\$2.00	per c.y.=	\$418.00	
Push through existing waste from 0+00 to 1+00 -	160	cy.	@	\$1.50	per c.y.=	\$240.00	
TOTAL EXCAVATION							\$1,354.00

RECONSTRUCTION: ENDHAUL -

Pullback	8+80	to	11+00	239	cy.	@	\$3.00	per c.y.=	\$717.00	
Pullback	27+20	to	28+20	109	cy.	@	\$3.43	per c.y.=	\$373.87	
Widening	10+80	to	11+50	122	cy.	@	\$3.15	per c.y.=	\$384.30	
Widening	27+20	to	28+20	87	cy.	@	\$3.43	per c.y.=	\$298.41	
Spread & compact				557	cy.	@	\$0.50	per c.y.=	\$278.50	
TOTAL ENDHAUL										\$2,052.08

CULVERTS - MATERIALS & INSTALLATION

Culverts

80 LF of 24" \$2,480.00

Culvert Stakes & Markers

2 markers \$16.00

TOTAL CULVERTS \$2,496.00

ROCK

0+00 to 1+00	60	cy. of	Crushed	@	\$18.78	per c.y.=	\$1,126.80	
10+20 to 10+80	40	cy. of	Crushed	@	\$18.83	per c.y.=	\$753.20	
28+60 to 29+60	60	cy. of	Crushed	@	\$19.59	per c.y.=	\$1,175.40	
Energy Dissipator 10+50, 28+80	10	cy. of	Riprap	@	\$17.81	per c.y.=	\$178.10	
TOTAL ROCK								\$3,233.50

SPECIAL PROJECTS

Construct landing at Point RR -	1.00	@	\$370.00		\$370.00	
Construct turnaround before landing -	1.00	@	\$100.00		\$100.00	
Grade and shape road -	31.30	stations @	\$20.00	per station	\$626.00	
Roll subgrade w/ vibratory roller prior to rocking -	31.30	stations @	\$17.50	per station	\$547.75	
Remove large stumps -	1.00	lump sum @	\$600.00		\$600.00	
Grass seed and fertilize -	0.72	acres @	\$280.00	per acre	\$201.60	
TOTAL SPECIAL PROJECTS						\$2,445.35

GRAND TOTAL \$14,616.63

SUMMARY OF CONSTRUCTION COST

Sale:		Power Range		Road:		SS to TT	
<u>Construction -</u>	<u>0+00</u> stations	<u>Improvement -</u>	<u>16+60</u> stations	<u>Reconstruction -</u>	<u>0+00</u> stations		
	0.00 miles		0.31 miles		0.00 miles		
ROCK							
Bedding/Backfill	0+50	10	cy. of	Stockpile	@	\$9.45 per c.y.=	<u>\$94.50</u>
							TOTAL ROCK
							\$94.50
SPECIAL PROJECTS							
Grade and shape road -		16.60	stations @		\$22.00	per station	\$365.20
Install rubber water diverter at 0+50 -		1.00	@		\$180.00		<u>\$180.00</u>
							TOTAL SPECIAL PROJECTS
							\$545.20
GRAND TOTAL							\$639.70

SUMMARY OF CONSTRUCTION COST

Sale:

Power Range

Road:

UU to VV

Construction -	5+30	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.10	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

[illegible]

ROCK

0+00	to	5+30	330	cy. of	Crushed	@	\$18.91	per c.y.=	\$6,240.30
Landing Rock		Point VV	70	cy. of	Crushed	@	\$18.99	per c.y.=	\$1,329.30
Junction Rock		0+00	20	cy. of	Crushed	@	\$18.84	per c.y.=	\$376.80
									TOTAL ROCK
									\$7,946.40

SPECIAL PROJECTS

Construct landing at Point VV -	1.00	@	\$370.00		\$370.00
Construct turnaround before landing -	1.00	@	\$100.00	per station	\$100.00
Grade and shape road -	5.30	stations @	\$20.00	per station	\$106.00
Roll subgrade w/ vibratory roller prior to rocking -	5.30	stations @	\$17.50	per station	\$92.75
Grass seed and fertilize -	0.24	acres @	\$280.00	per acre	\$67.20
			TOTAL SPECIAL PROJECTS		\$735.95
			GRAND TOTAL		\$13,427.55

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Power Range</u>			Road:	<u>WW to XX</u>		
<u>Construction -</u>		<u>0+00</u> stations	<u>Improvement -</u>	<u>5+00</u> stations	<u>Reconstruction -</u>	<u>0+00</u> stations	
		0.00 miles		0.09 miles		0.00 miles	

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>		50	LF of 24"	\$1,550.00		
<u>Culvert Stakes & Markers</u>		1 marker	\$8.00			
				TOTAL CULVERTS		\$1,558.00

ROCK							
Culvert Bedding	3+20	20	cy. of	Stockpile	@	\$9.99 per c.y.=	\$199.80
Spot Rock	0+00 to 3+40	30	cy. of	Stockpile	@	\$11.17 per c.y.=	\$335.10
Energy Dissipator	End of Seep Drain	10	cy. of	Riprap	@	\$17.57 per c.y.=	\$175.70
				TOTAL ROCK			\$710.60

SPECIAL PROJECTS							
Construct enlarged catch basin for new culvert at 3+20 -		1.00	@	\$80.00		\$80.00	
Pull ditch and endhaul -		4.70	stations @	\$80.00	per station	\$376.00	
Grade and shape road -		5.00	stations @	\$22.00	per station	\$110.00	
Roll subgrade w/ vibratory roller prior to rocking -		5.00	stations @	\$17.50	per station	\$87.50	
Grass seed and fertilize -		0.05	acres @	\$280.00	per acre	\$14.00	
Mulching -		0.050	acres @	\$780.00	per acre	\$39.00	
				TOTAL SPECIAL PROJECTS			\$706.50
				GRAND TOTAL			\$2,975.10

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	4" Quarry	Location:	NE 1/4, NE 1/4, Sec 11, T1S, R8W, WM
Sale:	Power Range	Road:	9030 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	9030 c.y.
Drill Pct.:	75%	In Place Total:	6450 c.y.

Pit Development & Cleanup including Clearing and grubbing of						\$2,686.95
Waste Area adjacent to pit, place overburden						
in Waste Area, spread						
Drill & Shoot:		\$6.50 /cu.yd.	x	4838 cu.yds.	=	\$31,447.00
Rip Rock:		\$3.00 /cu.yd.	x	1612 cu.yds.	=	\$4,836.00
Load Crusher:		\$1.00 /cu.yd.	x	9030 cu.yds.	=	\$9,030.00
Crush Rock:		\$3.75 /cu.yd.	x	9030 cu.yds.	=	\$33,862.50
Load Dump Truck:		\$1.00 /cu.yd.	x	9030 cu.yds.	=	\$9,030.00
Oversize Reduction:		\$6.00 /cu.yd.	x	2258 cu.yds.	=	\$13,548.00

Subtotal \$104,440.45

Move In/Set-up Crusher	1	@	\$3,922.00	=	\$3,922.00
Move In and set up Drill and Compressor	1	@	\$757.36	=	\$757.36
Move in Roller and Compactor	1	@	\$430.50	=	\$430.50
Move in Grader	1	@	\$717.86	=	\$717.86
Move in D-8	1	@	\$910.86	=	\$910.86
Move in Loader	1	@	\$747.86	=	\$747.86
Move in Excavator	1	@	\$862.86	=	\$862.86
Move in Trucks	4	@	\$153.00	=	\$612.00

Subtotal \$8,961.30

Base Cost=	\$12.56	Per Cu.Yd.	TOTAL PRODUCTION COSTS	\$113,401.75
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Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B Energy Dissipator (Riprap)	3.26	2.00	12.56	17.82	45	\$801.90
A to B Energy Dissipator (Riprap)	3.02	2.00	12.56	17.58	10	\$175.80
C to D 6850 9130 (Crushed)	4.96	3.20	12.56	20.72	1280	\$26,521.60
C to D Landing Rock (Crushed)	5.13	3.20	12.56	20.89	210	\$4,386.90
C to D Loaded Truck Turnaround (Crushed)	4.44	3.20	12.56	20.20	50	\$1,010.00
C to D Junction Rock (Crushed)	4.74	3.20	12.56	20.50	20	\$410.00
E to F 0 800 (Crushed)	5.06	3.20	12.56	20.82	470	\$9,785.40
E to F Landing Rock (Crushed)	5.14	3.20	12.56	20.90	70	\$1,463.00
E to F Junction Rock (Crushed)	4.99	3.20	12.56	20.75	20	\$415.00
G to H 0 520 (Crushed)	4.11	3.20	12.56	19.87	320	\$6,358.40
G to H Landing Rock (Crushed)	4.16	3.20	12.56	19.92	70	\$1,394.40
G to H Junction Rock (Crushed)	4.06	3.20	12.56	19.82	20	\$396.40
I to J 0 740 (Crushed)	4.14	3.20	12.56	19.90	460	\$9,154.00
I to J Landing Rock (Crushed)	4.18	3.20	12.56	19.94	140	\$2,791.60
I to J Junction Rock (Crushed)	4.07	3.20	12.56	19.83	20	\$396.60
K to L 0 100 (Crushed)	4.33	3.20	12.56	20.09	60	\$1,205.40
M to N 1070 2370 (Crushed)	3.67	3.20	12.56	19.43	720	\$13,989.60
M to N Landing Rock (Crushed)	3.79	3.20	12.56	19.55	70	\$1,368.50
M to N Junction Rock (Crushed)	3.55	3.20	12.56	19.31	20	\$386.20
O to P Landing Rock (Crushed)	3.73	3.20	12.56	19.49	70	\$1,364.30
Q to R 0 100 (Crushed)	4.53	3.20	12.56	20.29	60	\$1,217.40
Q to R 2560 2660 (Crushed)	3.29	3.20	12.56	19.05	60	\$1,143.00
S to T 0 360 (Crushed)	3.03	3.20	12.56	18.79	240	\$4,509.60
S to T Landing Rock (Crushed)	3.08	3.20	12.56	18.84	70	\$1,318.80
S to T Junction Rock (Crushed)	3.00	3.20	12.56	18.76	20	\$375.20
U to V Landing Rock (Crushed)	3.52	3.20	12.56	19.28	210	\$4,048.80
U to V Turnaround Rock (Crushed)	3.52	3.20	12.56	19.28	90	\$1,735.20
U to V Shoulder Repair (Riprap)	3.55	2.00	12.56	18.11	10	\$181.10
U to V Energy Dissipator (Riprap)	3.08	2.00	12.56	17.64	5	\$88.20
W to X Energy Dissipator (Riprap)	3.00	2.00	12.56	17.56	5	\$87.80
W to X Ditch Fill (Crushed)	3.39	2.00	12.56	17.95	5	\$89.75
Y to Z 0 100 (Crushed)	3.03	3.20	12.56	18.79	60	\$1,127.40
CC to DD 760 1640 (Crushed)	3.24	3.20	12.56	19.00	510	\$9,690.00
CC to DD Landing Rock (Crushed)	3.33	3.20	12.56	19.09	70	\$1,336.30
CC to DD Junction Rock (Crushed)	3.14	3.20	12.56	18.90	20	\$378.00
EE to FF 0 1300 (Crushed)	3.10	3.20	12.56	18.86	750	\$14,145.00
EE to FF Landing Rock (Crushed)	3.20	3.20	12.56	18.96	140	\$2,654.40
EE to FF Junction Rock (Crushed)	3.00	3.20	12.56	18.76	20	\$375.20
GG to HH 1650 2740 (Crushed)	3.13	3.20	12.56	18.89	620	\$11,711.80
GG to HH Landing Rock (Crushed)	3.27	3.20	12.56	19.03	70	\$1,332.10
II to JJ 0 420 (Crushed)	3.07	3.20	12.56	18.83	260	\$4,895.80
II to JJ Landing Rock (Crushed)	3.13	3.20	12.56	18.89	70	\$1,322.30
II to JJ Junction Rock (Crushed)	3.00	3.20	12.56	18.76	20	\$375.20
KK to LL 0 520 (Crushed)	3.07	3.20	12.56	18.83	350	\$6,590.50
KK to LL Landing Rock (Crushed)	3.17	3.20	12.56	18.93	140	\$2,650.20
KK to LL Junction Rock (Crushed)	3.01	3.20	12.56	18.77	20	\$375.40
MM to NN 0 350 (Crushed)	3.02	3.20	12.56	18.78	230	\$4,319.40
MM to NN Landing Rock (Crushed)	3.07	3.20	12.56	18.83	70	\$1,318.10
MM to NN Junction Rock (Crushed)	3.02	3.20	12.56	18.78	20	\$375.60
OO to PP Ditch Fill (Riprap)	3.00	2.00	12.56	17.56	40	\$702.40
OO to PP Energy Dissipator (Riprap)	3.13	2.00	12.56	17.69	30	\$530.70
QQ to RR 0 100 (Crushed)	3.02	3.20	12.56	18.78	60 (OPTIONAL)	\$1,126.80
QQ to RR 1020 1080 (Crushed)	3.07	3.20	12.56	18.83	40 (OPTIONAL)	\$753.20
QQ to RR 2860 2960 (Crushed)	3.83	3.20	12.56	19.59	60 (OPTIONAL)	\$1,175.40
QQ to RR Energy Dissipator (Riprap)	3.25	2.00	12.56	17.81	10 (OPTIONAL)	\$178.10
UU to VV 0 530 (Crushed)	3.15	3.20	12.56	18.91	330	\$6,240.30
UU to VV Landing Rock (Crushed)	3.23	3.20	12.56	18.99	70	\$1,329.30
UU to VV Junction Rock (Crushed)	3.08	3.20	12.56	18.84	20	\$376.80
WW to XX Energy Dissipator (Riprap)	3.01	2.00	12.56	17.57	10	\$175.70
Total C.Y.					9030	Sub Total \$176,131.25

TOTAL ROCKING COSTS \$176,131.25

STOCKPILE USE COST SUMMARY

Jordan Stockpile:	2" Stockpile	Location:	SW 1/4, SW 1/4, Sec 29, T1N, R7W, WM
Sale:	Power Range	Road:	4760 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	4760 c.y.
Drill Pct.:	0%	In Place Total:	3400 c.y.

Load Dump Truck: \$1.00 /cu.yd. x 4760 cu.yds. = \$4,760.00

Subtotal \$4,760.00

Move in Roller and Compactor	1	@	\$430.50	=	\$430.50
Move in Grader	1	@	\$717.86	=	\$717.86
Move in Loader	1	@	\$747.86	=	\$747.86
Move in Trucks	4	@	\$153.00	=	\$612.00

Subtotal \$2,508.22

Base Cost= \$1.53 Per Cu.Yd.

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B 300 8030 (Stockpile)	5.64	3.20	1.53	10.37	1750	\$18,147.50
A to B Culvert Bedding/Backfill (Stockpile)	6.26	2.00	1.53	9.79	110	\$1,076.90
A to B Spot Rock (Stockpile)	6.62	3.20	1.53	11.35	400	\$4,540.00
C to D Spot Rock (Stockpile)	8.86	3.20	1.53	13.59	100	\$1,359.00
C to D Junction Rock (Stockpile)	8.79	3.20	1.53	13.52	20	\$270.40
M to N Spot Rock (Stockpile)	8.15	3.20	1.53	12.88	30	\$386.40
M to N Junction Rock (Stockpile)	8.09	3.20	1.53	12.82	20	\$256.40
O to P Spot Rock (Stockpile)	8.21	3.20	1.53	12.94	30	\$388.20
O to P Junction Rock (Stockpile)	8.18	3.20	1.53	12.91	20	\$258.20
U to V 0 5280 (Stockpile)	7.54	3.20	1.53	12.27	1190	\$14,601.30
U to V Junction Rock (Stockpile)	7.25	3.20	1.53	11.98	20	\$239.60
U to V Bedding/Backfill (Stockpile)	7.34	2.00	1.53	10.87	20	\$217.40
W to X Culvert Bedding/Backfill (Stockpile)	6.85	2.00	1.53	10.38	10	\$103.80
W to X Spot Rock (Stockpile)	6.96	3.20	1.53	11.69	50	\$584.50
AA to BB 0 2050 (Stockpile)	6.75	3.20	1.53	11.48	360	\$4,132.80
AA to BB Spot Rock (Stockpile)	7.01	3.20	1.53	11.74	100	\$1,174.00
AA to BB Junction Rock (Stockpile)	6.64	3.20	1.53	11.37	10	\$113.70
CC to DD Spot Rock (Stockpile)	7.18	3.20	1.53	11.91	50	\$595.50
GG to HH Spot Rock (Stockpile)	6.94	3.20	1.53	11.67	80	\$933.60
OO to PP 2740 3820 (Stockpile)	6.43	3.20	1.53	11.16	250	\$2,790.00
OO to PP Spot Rock (Stockpile)	6.21	3.20	1.53	10.94	50	\$547.00
OO to PP Spot Rock (Stockpile)	6.55	3.20	1.53	11.28	30	\$338.40
SS to TT Bedding/Backfill (Stockpile)	5.92	2.00	1.53	9.45	10	\$94.50
WW to XX Culvert Bedding (Stockpile)	6.46	2.00	1.53	9.99	20	\$199.80
WW to XX Spot Rock (Stockpile)	6.44	3.20	1.53	11.17	30	\$335.10
Total C.Y.					4760	Sub Total \$53,684.00

TOTAL ROCKING COSTS	\$53,684.00
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Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **Power Range**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
24.0	Pavement	30
1.0	Main Lines	7
6.0	Steep Grades	2

[illegible]



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *Power Range*

1. Type of Sale

Regeneration harvest, Recovery.

2. Legal Description

Sections 1, 2, & 3, T1S, R8W, W.M. Tillamook County, Oregon, and Sections 34 & 35, T1N, R8W, W.M. Tillamook County, Oregon.

3. Sale Acreage

Sale acreage was determined by GPS and orthophotographs along with GIS.

	ACRES	
	<u>Gross</u>	<u>Net</u>
Unit 1 (Modified Clearcut)	72	50
Unit 2 (Modified Clearcut)	97	87
Unit 3 (Modified Clearcut)	67	49
Unit 4 (Modified Clearcut)	120	89
Unit 5 (Modified Clearcut)	127	110
Unit 6 (Modified Clearcut)	8	8
Total Acres	491	393

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

Gross acres, less green tree retention, roads, Non-required thinning areas, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. Cruising Procedures

A. Cruise Method

Units 1 & 2 were cruised utilizing a 400' x 175' grid. Unit 3 was cruised utilizing a 265' x 265' grid. Unit 4 was cruised utilizing a 500' x 175' grid. Unit 5 was cruised utilizing a 625' x 175' grid. Unit 6 was cruised utilizing a 200' x 200' grid.

All timber sale units were cruised with a variable plot sampling method. All conifers 8" DBH and greater, and all hardwoods 10" DBH and greater, were recorded on all plots. Each plot recorded the following data: species, diameter at breast height (DBH), bole height, form factor, and grade. Merchantable heights were recorded at 6" and 7" outside bark diameters for conifer and hardwoods, respectively.

B. Plot size

Point of observation was 4.0'. Form factor was measured at 16.0'.

Unit	BAF
1	40.00
2	33.61
3	33.61
4	40.00
5	33.61
6	33.61

C. Grading System

All trees were graded according to Columbia River Log Scaling and Grading Rules. Log lengths favored 40-foot lengths.

5. Computation Procedure

Cruise data was entered into SuperAce for computation of basal area, advertised volume, volume summary, log stock table, and stand table summary for each species and type. Cruise volumes were cruised by the Marketing Unit in 2021. Plots landing in riparian areas or areas excluded from the timber sale harvest areas were removed from computation procedures.

Net sale acreage was used for volume calculation.

Cruise Statistics (Board Foot Volumes)			
Unit	Number of Plots	SE (%)	CV (%)
1	25	8.7	42.9
2	37	10.0	60.6
3	22	12.9	59.1
4	41	8.0	51.6
5	41	7.4	47.7
6	7	21.0	51.6
Total	96	11.3 (avg.)	52.2 (avg.)

6. Hidden Defect and Breakage

A 1-2% reduction was applied to conifers, and a 2-4% reduction applied to hardwood volumes for hidden defect and breakage.

7. Timber Description

Unit 1 is approximately 62 years old and is a predominantly Douglas-fir conifer-dominated stand with a red alder component, as well as minor amounts of western

hemlock and Sitka spruce. The Unit was burned in the Tillamook Fire of 1933, and the Saddle Mountain Fire of 1939. In portions of the stand east of the Coast Range Road North unidentified fungal bodies were observed growing on several Douglas-fir boles. An ice and wind event in February of 2021 resulted in some top damage to conifer in the Unit, and somewhat more top and bole damage to some of the red alder in the Unit.

Unit 2 is approximately 69 years old and is dominated by Douglas-fir with a significant red alder component, and a minor amount of western hemlock, western red cedar, and scattered other miscellaneous conifers. The area in Unit 2 burned in the 1933 Tillamook Fire, as well as the 1939 Saddle Mountain Fire. An ice and wind weather event in February of 2021 caused some windthrow on the eastern face of the Unit, and pockets of top and bole damage to red alder in the southern face of the Unit.

Unit 3 is approximately 60 years old and is a Douglas-fir dominated stand with a red alder component, and a minor amount of western hemlock, Sitka spruce, and noble fir. The area in Unit 3 was burned in the Tillamook Fire of 1933, as well as the Saddle Mountain Fire of 1939. Additionally, approximately 50% of the eastern half of the Unit was herbicide sprayed in the 1970's as part of a red alder treatment project. A wind and ice weather event in February of 2021 caused some minor top damage to some of the conifer in the Unit, and more significant top and bole damage to red alder in the unit, particularly on the steeper, higher elevation slope. The weather event also caused sporadic windthrow and tip overs throughout the Unit.

Unit 4 is approximately 60 years old and is a Douglas-fir dominated stand with a minor amount of western hemlock, red alder, Sitka spruce, and western red cedar. The area comprising the Unit burned in both the Tillamook Fire of 1933 and the Saddle Mountain Fire of 1939. An ice and wind weather event in February of 2021 caused damage to conifer tops and some alder throughout the Unit and contributed to some windthrow and tip-overs adjacent to the in-Unit riparian areas.

Unit 5 is approximately 60 years old and is a Douglas-fir dominated stand with a significant alder component. Additionally, modest amounts of western hemlock exist within the stand, as well as minor amounts of Sitka spruce. The area within the Unit burned in both the 1933 Tillamook Fire and the 1939 Saddle Mountain Fire. In February 2021, an ice and wind event caused areas of damage to the Unit, particularly above 1200 feet elevation, with much of the alder experiencing top damage, some bole breakage, and pockets of tip overs and blow down. The weather event caused some top damage to some conifer, but not to the same degree of severity as the alder.

Unit 6 is approximately 60 years old and is a red alder-dominated bench, with pockets of larger-diameter Douglas-fir and western hemlock. Minor amounts of Sitka spruce and noble fir are also present. The timber in the Unit burned during both the 1933 Tillamook Fire and the 1939 Saddle Mountain Fire. Decline in a small number of the conifer was noted, with a few recently dead conifers observed with significant insect infestations.

The sale is comprised of multiple merchantable species, please see the table below:

Unit #	Species	DBH	Merchantable Bole Height (feet)	Merchantable top (inches inside bark)
1	Douglas-fir	17.6	59	5
1	Red alder	14.2	44	6
1	Western hemlock	30.2	80	5
2	Douglas-fir	17.4	70	5
2	Red alder	15.3	50	6
2	Western hemlock	29.6	77	5
3	Douglas-fir	18.4	67	5
3	Red alder	14.4	40	6
3	Western hemlock	26.2	91	5
4	Douglas-fir	18.2	73	5
4	Red alder	14.1	42	6
4	Western hemlock	21.3	75	5
4	Sitka spruce	16.6	28	5
5	Douglas-fir	15.2	48	5
5	Red alder	14.1	35	6
5	Western hemlock	22.5	71	5
5	Sitka spruce	24.3	49	5
6	Douglas-fir	19.1	61	5
6	Red alder	13.2	33	6
6	Western hemlock	23.6	80	5
6	Sitka spruce	26.0	63	5

Above data derived from Statistics (type) report using SuperAce 2008, developed by Atterbury consultants, Inc.

8. Cruiser Names/Dates

The timber sale was cruised by the Marketing Unit of the Tillamook District from January to March of 2021.

9. Revenue Distribution

FDF: 100%

Tax Code: 902: 93%, 5600: 7%

Deed Numbers: 162, 168, 169, 186, and 211

10. Attachments

Volume Summaries

Stand Tables (6)

Log Stock Tables (6)

Species, Sort, Grade Tables (6)

Logging Plan (4)

11. Stand and Log Stock Tables Species Key

BM – Bigleaf maple leave

DF – Douglas-fir take

NF – Noble fir take

NL – Noble fir leave

RA – Red alder take

SS – Sitka spruce take

SL – Sitka spruce leave

WH – Western hemlock take

WL – Western hemlock leave

RC – Western red cedar take

RL – Western red cedar leave

OC – Other conifer (conifer snag)

OH – Other hardwood (hardwood snag)

Prepared by: Sara Stack

Date: 6/7/2021

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)												Page		1					
				Project: PRANGE												Date		5/24/2021					
																Time		12:42:55PM					
T01S R08W S02 T00MC														T01S R08W S02 T00MC									
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt					
01S		08W		02		UNIT 1		00MC		50.00		25		158		S		W					
S So Gr T rt ad Spp				% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre		
									Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf						
DF				CO	2	60	.3	10,398	10,364	518		39	61	1		99	40	16	411	2.45	25.2		
DF				CO	3	29	1.3	4,999	4,936	247		100	0	0	1	99	39	9	112	0.82	44.2		
DF				CO	4	11	.2	1,876	1,871	94	74	26		28	39	5	28	25	6	29	0.37	63.5	
DF				Totals		66	.6	17,273	17,172	859	8	32	24	37	4	5	1	91	32	9	129	1.04	132.9
RA				H	2	11	4.0	956	918	46		49	51	22	54	25	27	16	237	1.95	3.9		
RA				H	3	15	.8	1,237	1,227	61		100			8	92	39	10	155	1.12	7.9		
RA				H	4	74	.4	5,860	5,836	292		100		3	25	16	55	32	7	55	0.57	106.3	
RA				Totals		30	.9	8,054	7,982	399		88	6	6	5	26	12	57	33	7	68	0.65	118.1
WH				CO	2	91	6.7	996	930	46		39	61			100	40	19	587	3.49	1.6		
WH				CO	3	5		42	42	2		100				100	36	10	140	1.59	.3		
WH				CO	4	4		39	39	2		100		31	69		25	7	40	0.76	1.0		
WH				Totals		4	6.2	1,077	1,011	51		8	36	56	1	3	96	34	14	353	2.60	2.9	
SL				CO	4	100		34	34	2		100			100		22	6	30	0.80	1.1		
SL				Totals		0		34	34	2		100			100		22	6	30	0.80	1.1		
Type Totals							.9	26,439	26,199	1,310	5	48	19	28	4	11	4	81	32	8	103	0.87	255.0

TC		TSTNDSUM															Stand Table Summary																	
																	Project			PRANGE														
T01S R08W S02 T00MC																	T01S R08W S02 T00MC																	
Twp		Rge		Sec		Tract			Type			Acres		Plots		Sample Trees			Page:		1													
01S		08W		02		UNIT 1			00MC			50.00		25		158			Date:		05/24/2021													
																			Time:		12:42:55PM													
S Spc	T	Sample		FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s																				
		DBH	Trees						Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF																		
DF		8	1	80	17	7.092	2.48	7.09	3.2	20.0	.66	23	142	33	12	7																		
DF		10	3	82	47	13.616	7.43	13.62	8.6	26.7	3.33	117	363	167	58	18																		
DF		11	1	78	45	3.751	2.48	3.75	11.1	30.0	1.19	42	113	60	21	6																		
DF		12	3	83	82	9.456	7.43	12.61	16.2	52.5	5.84	205	662	292	102	33																		
DF		14	1	85	124	2.316	2.48	4.63	20.6	95.0	2.72	95	440	136	48	22																		
DF		15	3	84	98	6.052	7.43	12.10	20.7	76.7	7.14	250	928	357	125	46																		
DF		16	3	83	86	5.319	7.43	10.64	21.5	75.0	6.52	229	798	326	114	40																		
DF		17	3	80	98	4.711	7.43	9.42	24.4	85.0	6.56	230	801	328	115	40																		
DF		19	3	81	89	3.772	7.43	7.54	26.5	95.0	5.69	200	717	285	100	36																		
DF		20	3	85	106	3.404	7.43	6.81	39.6	138.3	7.68	269	942	384	135	47																		
DF		21	4	83	98	4.117	9.90	9.26	37.3	124.4	9.85	346	1,153	493	173	58																		
DF		23	4	86	102	3.432	9.90	8.58	43.1	162.0	10.54	370	1,390	527	185	69																		
DF		24	1	83	130	.788	2.48	2.36	45.9	190.0	3.09	109	449	155	54	22																		
DF		25	1	88	113	.726	2.48	2.18	47.1	206.7	2.92	103	450	146	51	23																		
DF		26	3	85	102	2.014	7.43	4.03	67.7	266.7	7.77	273	1,074	388	136	54																		
DF		27	1	88	114	.623	2.48	1.87	57.1	266.7	3.04	107	498	152	53	25																		
DF		28	2	84	106	1.158	4.95	2.32	79.2	307.5	5.22	183	712	261	92	36																		
DF		29	3	79	120	1.619	7.43	4.32	70.2	275.0	8.64	303	1,187	432	152	59																		
DF		31	1	85	131	.472	2.48	1.42	81.3	390.0	3.28	115	553	164	58	28																		
DF		32	3	84	105	1.330	7.43	3.10	91.9	391.4	8.12	285	1,214	406	143	61																		
DF		33	1	77	142	.417	2.48	1.25	89.8	370.0	3.20	112	463	160	56	23																		
DF		35	2	79	120	.741	4.95	1.85	107.9	444.0	5.70	200	823	285	100	41																		
DF		39	1	78	132	.298	2.48	.90	121.7	520.0	3.11	109	466	155	54	23																		
DF		42	2	80	113	.515	4.95	1.29	152.6	650.0	5.59	196	836	280	98	42																		
DF		Totals		53	82	79	77.737	131.20	132.93	33.6	129.2	127.41	4,470	17,172	6,370	2,235	859																	
RA		10	3	84	62	14.327	7.81	14.33	10.5	40.0	4.15	151	573	208	75	29																		
RA		11	6	81	69	23.680	15.63	23.68	13.7	50.0	8.94	325	1,184	447	163	59																		
RA		12	1	80	93	3.316	2.60	3.32	21.1	70.0	1.92	70	232	96	35	12																		
RA		13	4	79	72	11.303	10.42	11.30	21.6	60.0	6.72	244	678	336	122	34																		
RA		14	4	76	74	9.746	10.42	14.62	15.4	48.3	6.20	226	707	310	113	35																		
RA		15	6	82	73	12.735	15.63	16.98	22.3	76.2	10.43	379	1,295	522	190	65																		
RA		16	6	77	74	11.193	15.63	13.06	30.0	80.0	10.79	392	1,045	539	196	52																		
RA		18	3	79	84	4.422	7.81	7.37	28.6	98.0	5.80	211	722	290	105	36																		
RA		19	2	79	73	2.646	5.21	2.65	39.6	95.0	2.88	105	251	144	52	13																		
RA		20	1	86	76	1.194	2.60	2.39	33.1	105.0	2.17	79	251	109	40	13																		
RA		21	3	71	60	3.249	7.81	3.25	30.8	103.3	2.75	100	336	138	50	17																		
RA		22	2	69	51	1.973	5.21	1.97	41.0	80.0	2.22	81	158	111	40	8																		
RA		24	1	85	70	.829	2.60	1.66	42.7	180.0	1.95	71	298	97	35	15																		
RA		25	1	85	74	.764	2.60	1.53	46.4	165.0	1.95	71	252	98	35	13																		
RA		Totals		43	80	71	101.376	112.00	118.09	21.2	67.6	68.89	2,505	7,982	3,444	1,253	399																	
WH		24	1	85	84	.679	2.13	1.36	54.4	200.0	2.36	74	272	118	37	14																		
WH		36	2	83	106	.604	4.27	1.51	121.3	490.0	5.86	183	739	293	92	37																		
WH		Totals		3	84	94	1.283	6.40	2.87	89.6	352.6	8.22	257	1,011	411	128	51																	
SL		16	1	78	27	1.146	1.60	1.15	17.5	30.0	.52	20	34	26	10	2																		
SL		Totals		1	78	27	1.146	1.60	1.15	17.5	30.0	0.52	20	34	26	10	2																	
OC		15	1	77	92	1.304	1.60																											
OC		Totals		1	77	92	1.304	1.60																										
Totals				101	81	75	182.846	252.80	255.04	28.4	102.7	205.04	7252	26,199	10,252	3,626	1,310																	

TC TLOGSTVB				Log Stock Table - MBF																					
				Project: PRANGE																					
T01S R08W S02 T00MC												T01S R08W S02 T00M													
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1																
01S	08W	02	UNIT 1	00MC	50.00	25	158	Date	5/24/2021																
									Time	12:42:54PM															
Spp	T	S	So	Gr	Log	Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches														
											2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+			
DF		CO	2		16		4		4	.5							4								
DF		CO	2		40		515	.3	514	59.8					98	60	190	118	47						
DF		CO	3		14		1		1	.1					1										
DF		CO	3		22		1		1	.2					1										
DF		CO	3		24		1		1	.1					1										
DF		CO	3		36		3		3	.3					3										
DF		CO	3		38		6		6	.7					6										
DF		CO	3		40		238	1.3	234	27.3			38	95	101										
DF		CO	4		12		1		1	.2		0	1												
DF		CO	4		14		9		9	1.1		1	8	1											
DF		CO	4		16		3		3	.4		3													
DF		CO	4		18		7		7	.8		1		6											
DF		CO	4		20		6		6	.7		6													
DF		CO	4		22		7	3.2	7	.8		5		2											
DF		CO	4		24		14		14	1.6		8			6										
DF		CO	4		26		6		6	.7		6													
DF		CO	4		28		8		8	.9		8													
DF		CO	4		30		2		2	.2		2													
DF		CO	4		32		3		3	.4		3													
DF		CO	4		34		2		2	.2		2													
DF		CO	4		36		6		6	.7		6													
DF		CO	4		38		5		5	.6		3	2												
DF		CO	4		40		15		15	1.8		15													
DF		Totals					864		859	65.5		69	49	111	111	99	60	195	118	47					
RA		H	2		18		12	16.1	10	2.5									10						
RA		H	2		24		25		25	6.2							11	13							
RA		H	2		38		11		11	2.8						11									
RA		H	3		30		5	9.1	5	1.2					5										
RA		H	3		40		56		56	14.1					56										
RA		H	4		14		4		4	.9				4											
RA		H	4		20		5		5	1.4			5												
RA		H	4		21		7		7	1.9					7										
RA		H	4		22		7		7	1.7			7												
RA		H	4		24		2		2	.6			2												
RA		H	4		26		11		11	2.7			11												
RA		H	4		28		15		15	3.6			15												
RA		H	4		30		32		32	8.1			32												
RA		H	4		32		15		15	3.8			6	10											
RA		H	4		34		32		32	7.9			32												
RA		H	4		36		24		24	5.9			24												
RA		H	4		38		16	7.8	14	3.6			14												
RA		H	4		40		124		124	31.0			72	52											
RA		Totals					403		399	30.5			219	65	69	11	11	13	10						
WH		CO	2		40		50	6.7	46	91.9							12	6	11	17					
WH		CO	3		36		2		2	4.2					2										
WH		CO	4		14		1		1	1.2					1										
WH		CO	4		30		1		1	2.7			1												
WH		Totals					54	6.2	51	3.9			1		3		12	6	11	17					

TC				TLOGSTVB				Log Stock Table - MBF																													
								Project:				PRANGE																									
T01S R08W S02 T00MC												T01S R08W S02 T00M																									
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		Page		2																			
01S		08W		02		UNIT 1		00MC		50.00		25		158		Date		5/24/2021																			
																Time		12:42:54PM																			
S		So Gr		Log		Gross		%		Net		%		Net Volume by Scaling Diameter in Inches																							
Spp		T				MBF		Def		MBF		Spc		2-3		4-5		6-7		8-9		10-11		12-13		14-15		16-19		20-23		24-29		30-39		40+	
SL		CO		4		22		2		2		100.0				2																					
SL				Totals		2		2		.1				2																							
Total All Species						1,322		1,310		100.0		69		271		176		182		111		84		214		139		64									

T	Species, Sort Grade - Board Foot Volumes (Type)														Page 1						
	Project: PRANGE														Date 5/24/2021						
															Time 12:44:56PM						
T01S R08W S01 T00MC										T01S R08W S01 T00MC											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees				CuFt	BdFt									
01S	08W	01	UNIT 2	00MC	87.00	37	226				S	W									
S So Gr T rt ad Spp			%	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre	
			Net BdFt					Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf					
RA	H	2	19	.3	1,665	1,660	144	91 9				13 87				38 14	269 1.87	6.2			
RA	H	3	30	.4	2,603	2,592	226	67 33				4 96				39 11	165 1.22	15.7			
RA	H	4	51		4,326	4,326	376	98 2				5	22	3	70	32 7	60 0.60	72.0			
RA Totals			41	.2	8,594	8,578	746	70 29 2				3	15	2	81	33 8	91 0.81	93.9			
DF	CO	2	49	.6	5,744	5,711	497	56 44				1 2 97				40 15	368 2.17	15.5			
DF	CO	3	40	.1	4,605	4,600	400	87 12 1				1	5	0	94	38 9	119 0.88	38.8			
DF	CO	4	11	2.3	1,202	1,175	102	66	34				17	57	16	10	26 5	30 0.33	39.3		
DF Totals			55	.6	11,552	11,486	999	7	38	33	23	2	8	3	87	33 9	123 0.95	93.6			
WH	CO	2	84		460	460	40	16 84				100				40 17	484 3.07	1.0			
WH	CO	3	16		85	85	7	4	55	40				16	15 69				28 8	90 1.15	1.0
WH Totals			3		545	545	47	1	9	20	70	2	2 95				34 12	287 2.28	1.9		
RL	CO	3	85		75	75	7	100				100				40 11	180 1.53	.4			
RL	CO	4	15		12	12	1	100				100				24 5	30 0.40	.4			
RL Totals			0		87	87	8	14	86				14				86	32 8	105 1.11	.8	
Type Totals				.4	20,778	20,696	1,801	4	51	30	15	3	10	2	85	33 8	109 0.90	190.2			

TC		TSTNDSUM													Stand Table Summary												
Project													PRANGE														
T01S R08W S01 T00MC													T01S R08W S01 T00MC														
Twp	Rge	Sec	Tract		Type			Acres		Plots	Sample Trees			Page:		1											
01S	08W	01	UNIT 2		00MC			87.00		37	226			Date:		05/24/2021											
														Time:		12:44:57PM											
S Spc	T	Sample		FF	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	Tons	Totals												
		DBH	Trees	16'	Tot				Net Cu.Ft.	Net Bd.Ft.		Cu.Ft. Acre	Bd.Ft. Acre		Cunits	MBF											
DF		8	1	79	48	2.602	.91	2.60	5.6	20.0	.41	15	52	36	13	5											
DF		10	4	83	54	6.662	3.63	6.66	7.0	30.0	1.33	47	200	116	41	17											
DF		11	3	82	56	4.129	2.73	4.13	13.6	33.3	1.60	56	138	139	49	12											
DF		12	1	87	80	1.157	.91	2.31	10.5	40.0	.69	24	93	60	21	8											
DF		13	5	81	99	4.927	4.54	9.85	14.8	55.0	4.17	146	542	362	127	47											
DF		14	3	83	89	2.549	2.73	5.10	16.9	61.7	2.45	86	314	213	75	27											
DF		15	4	81	101	2.961	3.63	5.92	21.3	77.5	3.60	126	459	313	110	40											
DF		16	4	75	80	2.602	3.63	5.20	21.6	60.0	3.20	112	312	278	98	27											
DF		17	6	83	101	3.458	5.45	5.76	31.4	119.0	5.17	181	686	450	158	60											
DF		18	7	81	95	3.598	6.36	7.20	31.0	107.1	6.35	223	771	552	194	67											
DF		19	7	83	123	3.229	6.36	7.84	33.5	132.4	7.50	263	1,038	652	229	90											
DF		20	3	70	67	1.249	2.73	2.50	27.2	75.0	1.94	68	187	169	59	16											
DF		21	3	80	101	1.133	2.73	2.27	43.1	150.0	2.78	98	340	242	85	30											
DF		22	5	83	108	1.721	4.54	4.13	40.1	151.7	4.72	166	626	411	144	54											
DF		23	4	80	104	1.259	3.63	2.52	53.6	180.0	3.85	135	453	335	117	39											
DF		24	8	83	119	2.313	7.27	6.07	50.2	204.8	8.68	305	1,243	755	265	108											
DF		25	4	83	129	1.066	3.63	2.93	53.6	224.5	4.48	157	658	389	137	57											
DF		26	5	85	121	1.232	4.54	2.96	57.0	244.2	4.80	169	722	418	147	63											
DF		27	3	81	130	.685	2.73	2.06	58.3	235.6	3.42	120	484	297	104	42											
DF		28	4	84	121	.850	3.63	2.12	71.6	300.0	4.33	152	637	377	132	55											
DF		29	1	82	87	.198	.91	.40	74.7	260.0	.84	30	103	73	26	9											
DF		30	1	80	132	.185	.91	.56	70.3	280.0	1.11	39	155	97	34	14											
DF		31	1	89	133	.173	.91	.52	82.6	426.7	1.22	43	222	106	37	19											
DF		34	1	89	134	.144	.91	.43	103.8	566.7	1.28	45	245	111	39	21											
DF		35	2	84	135	.272	1.82	.82	101.3	481.7	2.35	83	393	205	72	34											
DF		36	1	90	126	.129	.91	.39	111.6	586.7	1.23	43	226	107	37	20											
DF		37	1	84	117	.122	.91	.36	101.1	506.7	1.05	37	185	91	32	16											
DF		Totals	92	82	90	50.606	83.57	93.61	31.7	122.7	84.55	2,966	11,486	7,356	2,581	999											
RA		9	2	85	54	4.112	1.82	2.06	8.3	30.0	.47	17	62	41	15	5											
RA		10	7	80	59	11.658	6.36	8.33	10.2	34.0	2.34	85	283	204	74	25											
RA		11	4	78	32	5.506	3.63	2.75	10.4	30.0	.79	29	83	68	25	7											
RA		12	6	81	72	6.940	5.45	4.63	14.4	47.5	1.83	67	220	160	58	19											
RA		13	6	81	121	5.913	5.45	8.87	19.5	83.3	4.76	173	739	414	151	64											
RA		14	10	79	78	8.497	9.08	8.50	25.0	85.0	5.84	212	722	508	185	63											
RA		15	16	82	78	11.843	14.53	13.32	30.7	97.8	11.25	409	1,303	979	356	113											
RA		16	4	86	45	2.602	3.63	2.60	23.6	60.0	1.69	62	156	147	54	14											
RA		17	10	82	96	5.763	9.08	12.10	27.1	98.6	9.01	328	1,193	784	285	104											
RA		18	6	79	65	3.084	5.45	4.63	25.2	83.3	3.21	117	386	279	102	34											
RA		19	8	81	69	3.691	7.27	6.00	31.9	105.4	5.26	191	632	458	166	55											
RA		20	9	84	77	3.747	8.18	6.25	40.8	124.0	7.01	255	774	610	222	67											
RA		21	7	76	75	2.644	6.36	3.02	37.4	120.0	3.11	113	363	271	98	32											
RA		22	12	76	76	4.129	10.90	6.54	40.0	128.9	7.19	261	843	625	227	73											
RA		23	5	81	67	1.574	4.54	1.57	60.2	196.0	2.61	95	309	227	82	27											
RA		24	1	90	67	.289	.91	.58	44.9	155.0	.71	26	90	62	23	8											
RA		25	2	78	65	.533	1.82	1.07	45.0	145.0	1.32	48	155	115	42	13											
RA		26	1	88	116	.246	.91	.74	57.7	270.0	1.17	43	200	102	37	17											
RA		31	1	71	89	.173	.91	.35	56.3	195.0	.54	20	68	47	17	6											
RA		Totals	117	81	73	82.946	106.28	93.89	27.2	91.4	70.12	2,550	8,578	6,101	2,218	746											
WH		21	1	89	69	.378	.91	.76	33.8	105.0	.82	26	79	71	22	7											
WH		32	1	79	105	.163	.91	.33	112.1	425.0	1.17	36	138	102	32	12											
WH		34	2	76	121	.288	1.82	.58	103.9	425.0	1.92	60	245	167	52	21											

TC		TSTNDSUM													Stand Table Summary														
															Project			PRANGE											
T01S R08W S01 T00MC															T01S R08W S01 T00MC														
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees			Page:		2									
01S		08W		01		UNIT 2		00MC			87.00		37		226			Date:		05/24/2021									
															Time:		12:44:57PM												
S Spc	T	Sample		FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s															
		DBH	Trees						Net	Net				Tons	Cunits	MBF													
WH		37		1	78	103	.122	.91	.24	102.2	340.0	.80	25	83	69	22	7												
WH		Totals		5	82	95	.950	4.54	1.90	77.2	286.9	4.70	147	545	409	128	47												
RL		20		1	77	81	.416	.91	.83	35.4	105.0	.69	30	87	60	26	8												
RL		Totals		1	77	81	.416	.91	.83	35.4	105.0	0.69	30	87	60	26	8												
BM		10		1	99	17	1.665	.91																					
BM		13		1	35	22	.985	.91																					
BM		21		1	72	36	.378	.91																					
BM		24		1	79	41	.289	.91																					
BM		25		1	72	43	.266	.91																					
BM		27		1	82	45	.228	.91																					
BM		Totals		6	75	25	3.813	5.45																					
Totals				221	81	78	138.731	200.75	190.23	29.9	108.8	160.06	5692	20,696	13,925	4,952	1,801												

TC TLOGSTVB				Log Stock Table - MBF																	
				Project: PRANGE																	
T01S R08W S01 T00MC										T01S R08W S01 T00M											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1												
01S	08W	01	UNIT 2	00MC	87.00	37	226	Date	5/24/2021												
										Time	12:44:56PM										
Spp	T	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches											
										2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RA		H	2	24		7		7	.9					7							
RA		H	2	30		13	3.7	12	1.6						12						
RA		H	2	40		126		126	16.8					56	32	37					
RA		H	3	24		6		6	.8					6							
RA		H	3	30		5	18.2	4	.5					4							
RA		H	3	40		216		216	28.9					142	74						
RA		H	4	12		1		1	.1			1									
RA		H	4	14		2		2	.3			2									
RA		H	4	15		3		3	.4			3									
RA		H	4	16		1		1	.1			1									
RA		H	4	17		1		1	.1			1									
RA		H	4	18		9		9	1.1			9									
RA		H	4	20		5		5	.6			5									
RA		H	4	22		7		7	.9			7									
RA		H	4	24		8		8	1.0			6	2								
RA		H	4	26		18		18	2.5			18									
RA		H	4	28		16		16	2.1			16									
RA		H	4	30		34		34	4.6			21	14								
RA		H	4	34		11		11	1.5			11									
RA		H	4	36		4		4	.5			4									
RA		H	4	40		258		258	34.6			74	176		8						
RA		Totals				748		746	41.4			177	192	152	145	44	37				
DF		CO	2	20		4		4	.4								4				
DF		CO	2	34		11		11	1.1										11		
DF		CO	2	36		7		7	.7					7							
DF		CO	2	40		478	.6	475	47.5					99	94	217	24	40			
DF		CO	3	18		1		1	.1					1							
DF		CO	3	20		2		2	.2					2							
DF		CO	3	22		8		8	.8				1	7							
DF		CO	3	24		8		8	.8					8							
DF		CO	3	26		1		1	.1				1								
DF		CO	3	28		1		1	.1			1									
DF		CO	3	32		2		2	.2			2									
DF		CO	3	36		3		3	.3			3									
DF		CO	3	40		375	.1	374	37.4			43	136	142	33	5	15				
DF		CO	4	16		4		4	.4		3	1									
DF		CO	4	18		6		6	.6		6										
DF		CO	4	20		7		7	.7		6	1									
DF		CO	4	22		23		23	2.3			21		2							
DF		CO	4	23		5		5	.5		5										
DF		CO	4	24		1		1	.1			1									
DF		CO	4	26		7		7	.7		7										
DF		CO	4	28		12		12	1.2		7	1	5								
DF		CO	4	30		9		9	.9		7	2									
DF		CO	4	34		19	12.5	17	1.7		15	2									
DF		CO	4	36		5		5	.5		5										
DF		CO	4	40		5		5	.5		5										
DF		Totals				1,005		999	55.5		67	77	144	162	139	100	236	24	52		
WH		CO	2	40		40		40	84.3					7		13	20				

TC TLOGSTVB				Log Stock Table - MBF															
				Project: PRANGE															
T01S R08W S01 T00MC										T01S R08W S01 T00M									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees				Page	2							
01S	08W	01	UNIT 2	00MC	87.00	37	226				Date	5/24/2021							
										Time	12:44:56PM								
S Spp	So T	Gr rt	Log de Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
WH	CO	3	18	1		1	1.8					1							
WH	CO	3	19	0		0	.7		0										
WH	CO	3	32	1		1	2.4			1									
WH	CO	3	40	5		5	10.8					2	3						
WH	Totals			47		47	2.6		0		1	3	10		13	20			
RL	CO	3	40	7		7	85.7					7							
RL	CO	4	24	1		1	14.3		1										
RL	Totals			8		8	.4		1			7							
Total All Species				1,808		1,801	100.0		68	253	336	323	293	144	286	44	52		

T	Species, Sort Grade - Board Foot Volumes (Type)										Page 1								
	Project: PRANGE										Date	5/24/2021							
											Time	12:46:51PM							
T01S R08W S02 T00MC										T01S R08W S02 T00MC									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
01S	08W	02	UNIT 3	00MC	49.00	22	128	S	W										
S So Gr T rt ad Spp		% Net BdFt	Bd. Ft. per Acre		Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre			
		Def%	Gross	Net		Log Scale Dia.				Log Length				Ln	Dia		Bd	CF/ Lf	
						4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft			
DF	CO	2		59	7,415	7,415		47	53				100	40	17	464	2.57	16.0	
DF	CO	3		33	4,033	4,033		100		2	2		97	39	9	105	0.79	38.4	
DF	CO	4		8	977	977		91	9	32	6		61	28	5	30	0.37	32.3	
DF	Totals			62	12,426	12,426		7	33	28	32		96	35	9	143	1.04	86.7	
RA	H	2		16	885	885		78	22	33		21	46	25	15	207	2.11	4.3	
RA	H	3		27	1,468	1,468		59	41	4	23	29	43	31	11	136	1.15	10.8	
RA	H	4		57	1.6	3,058	3,010	100		9	20	3	68	31	7	53	0.59	57.0	
RA	Totals			27	.9	5,411	5,363		72	24	4		58	31	8	74	0.75	72.1	
WH	CO	2		76	1,002	1,002		35	65				100	40	17	493	2.75	2.0	
WH	CO	3		21	274	274		100			22		78	37	10	135	1.09	2.0	
WH	CO	4		3	26	26		100			100			24	5	30	0.40	.9	
WH	Totals			7	1,302	1,302		2	21	27	50		93	36	12	263	1.77	4.9	
SL	CO	2		100	430	430		100		100				17	33	885	8.33	.5	
SL	Totals			2	430	430		21		100				17	33	885	8.33	.5	
NL	CO	2		96	350	350		30	70				100	40	19	600	2.85	.6	
NL	CO	3		4	15	15		100			100			26	8	50	0.79	.3	
NL	Totals			2	364	364		4	29	67		4	96	35	15	417	2.35	.9	
Type Totals					.2	19,933	19,885		974	5	42	26	28	7	6	3	83		165.1

TC		Stand Table Summary														
TSTNDSUM		Project PRANGE														
T01S R08W S02 T00MC													T01S R08W S02 T00MC			
Twp	Rge	Sec	Tract	Type				Acres	Plots	Sample Trees			Page:	1		
01S	08W	02	UNIT 3	00MC				49.00	22	128			Date:	05/24/2021		
													Time:	12:46:52PM		
S Spc	T	Sample		FF	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s		
		DBH	Trees	16'	Tot				Net Cu.Ft.	Net Bd.Ft.		Cu.Ft. Acre	Bd.Ft. Acre			
DF		11	1	85	88	7.459	4.92	7.46	18.5	70.0	3.94	138	522	193	68	26
DF		12	1	86	55	6.268	4.92	6.27	15.1	40.0	2.70	95	251	132	46	12
DF		15	3	83	88	12.034	14.77	24.07	19.6	73.3	13.47	473	1,765	660	232	86
DF		16	1	85	76	3.526	4.92	7.05	19.3	70.0	3.88	136	494	190	67	24
DF		17	1	79	101	3.123	4.92	6.25	27.4	95.0	4.87	171	593	239	84	29
DF		18	1	80	73	2.786	4.92	5.57	24.4	70.0	3.87	136	390	190	67	19
DF		21	1	86	111	2.047	4.92	4.09	46.7	190.0	5.45	191	778	267	94	38
DF		24	2	84	117	3.134	9.85	7.83	52.8	208.0	11.78	413	1,630	577	203	80
DF		25	2	86	106	2.888	9.85	7.22	54.0	218.0	11.11	390	1,574	544	191	77
DF		26	2	86	102	2.670	9.85	5.34	68.3	255.0	10.39	365	1,362	509	179	67
DF		36	2	81	136	1.393	9.85	4.18	104.9	486.7	12.50	438	2,034	612	215	100
DF		45	1	82	124	.446	4.92	1.34	164.3	773.3	6.26	220	1,034	307	108	51
DF		Totals	18	84	89	47.773	88.61	86.67	36.5	143.4	90.22	3,166	12,426	4,421	1,551	609
RA		10	3	77	43	11.941	6.51	7.96	11.1	45.0	2.43	88	358	119	43	18
RA		11	3	83	58	9.869	6.51	6.58	11.7	45.0	2.13	77	296	104	38	15
RA		12	3	78	60	8.293	6.51	5.53	15.3	45.0	2.32	84	249	114	41	12
RA		13	1	82	61	2.355	2.17	2.36	22.4	60.0	1.45	53	141	71	26	7
RA		14	5	81	67	10.154	10.85	8.12	23.1	65.0	5.17	188	528	253	92	26
RA		15	5	85	56	8.845	10.85	10.61	22.7	66.7	6.64	241	708	325	118	35
RA		16	6	79	77	9.329	13.03	10.88	25.4	77.1	7.59	276	840	372	135	41
RA		17	5	85	72	6.887	10.85	11.02	23.5	85.0	7.12	259	937	349	127	46
RA		18	1	87	62	1.229	2.17	2.46	21.3	80.0	1.44	52	197	70	26	10
RA		21	1	81	80	.903	2.17	.90	74.2	290.0	1.84	67	262	90	33	13
RA		22	1	92	52	.822	2.17	1.64	26.6	140.0	1.20	44	230	59	21	11
RA		23	2	84	61	1.505	4.34	2.26	48.7	120.0	3.03	110	271	148	54	13
RA		26	2	80	64	1.178	4.34	1.77	67.8	196.7	3.29	120	347	161	59	17
RA		Totals	38	81	61	73.309	82.50	72.09	23.0	74.4	45.64	1,659	5,363	2,237	813	263
WH		23	1	86	126	.882	2.55	2.65	45.4	203.3	3.85	120	538	189	59	26
WH		28	1	82	100	.595	2.55	1.19	84.7	310.0	3.23	101	369	158	49	18
WH		29	1	85	91	.555	2.55	1.11	84.4	355.0	3.00	94	394	147	46	19
WH		Totals	3	85	109	2.033	7.64	4.95	63.6	263.0	10.08	315	1,302	494	154	64
SL		48	1	83	73	.243	3.06	.49	141.6	885.0	1.79	69	430	88	34	21
SL		Totals	1	83	73	.243	3.06	.49	141.6	885.0	1.79	69	430	88	34	21
NL		31	1	88	130	.291	1.53	.87	82.9	416.7	1.74	73	364	85	36	18
NL		Totals	1	88	130	.291	1.53	.87	82.9	416.7	1.74	73	364	85	36	18
OC		16	1	84	62	1.094	1.53									
OC		Totals	1	84	62	1.094	1.53									
OH		12	1	77	60	2.334	1.83									
OH		16	1	80	77	1.313	1.83									
OH		17	1	67	65	1.163	1.83									
OH		18	1	82	78	1.037	1.83									
OH		19	1	77	57	.931	1.83									
OH		Totals	5	77	66	6.779	9.17									
Totals			67	82	72	131.522	194.02	165.07	32.0	120.5	149.47	5281	19,885	7,324	2,588	974

TC TLOGSTVB				Log Stock Table - MBF Project: PRANGE															
T01S R08W S02 T00MC										T01S R08W S02 T00M									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1										
01S	08W	02	UNIT 3	00MC	49.00	22	128	Date	5/24/2021										
								Time	12:46:51PM										
S Spp	So	Gr	Log	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	CO	2	40	363		363	59.7					15	69	177	32	34	36		
DF	CO	3	16	2		2	.3					2							
DF	CO	3	20	2		2	.3					2							
DF	CO	3	26	3		3	.5					3							
DF	CO	3	40	191		191	31.3			34	93	63							
DF	CO	4	14	1		1	.2			1									
DF	CO	4	16	3		3	.4			3									
DF	CO	4	18	7		7	1.2			7									
DF	CO	4	20	4		4	.6			4									
DF	CO	4	30	3		3	.5				3								
DF	CO	4	36	6		6	1.0			6									
DF	CO	4	38	12		12	2.0			12									
DF	CO	4	40	11		11	1.8			11									
DF	Totals			609		609	62.5		43	39	93	70	15	69	177	32	34	36	
RA	H	2	12	5		5	1.8					5							
RA	H	2	16	10		10	3.7							10					
RA	H	2	32	9		9	3.5							9					
RA	H	2	40	20		20	7.5					7		13					
RA	H	3	14	3		3	1.2					3							
RA	H	3	28	8		8	3.2					8							
RA	H	3	30	8		8	3.2					8							
RA	H	3	32	9		9	3.6					9							
RA	H	3	34	11		11	4.4						11						
RA	H	3	36	10		10	3.6							10					
RA	H	3	40	22		22	8.2					22							
RA	H	4	16	6		6	2.5			6									
RA	H	4	18	2		2	.9			1	2								
RA	H	4	20	4		4	1.5			4									
RA	H	4	22	9		9	3.6			9									
RA	H	4	24	6		6	2.4			1	5								
RA	H	4	26	2		2	.8			2									
RA	H	4	28	9		9	3.5			4	5								
RA	H	4	30	3		3	1.2			3									
RA	H	4	32	4		4	1.4			4									
RA	H	4	36	10		10	3.7			10									
RA	H	4	38	24	5.6	23	8.7			16	7								
RA	H	4	40	69	1.4	68	25.9			43	25								
RA	Totals			265		263	27.0			104	44	42	32	22	19				
WH	CO	2	40	49		49	77.0							49					
WH	CO	3	30	3		3	4.7					3							
WH	CO	3	40	10		10	16.3				3	8							
WH	CO	4	24	1		1	2.0		1										
WH	Totals			64		64	6.5		1		3	11		49					
SL	CO	2	16	7		7	34.5									7			
SL	CO	2	18	14		14	65.5										14		
SL	Totals			21		21	2.2									7		14	
NL	CO	2	40	17		17	96.0							5		12			

TC TLOGSTVB				Log Stock Table - MBF																
				Project: PRANGE																
T01S R08W S02 T00MC										T01S R08W S02 T00M										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2											
01S	08W	02	UNIT 3	00MC	49.00	22	128	Date	5/24/2021											
								Time	12:46:51PM											
Spp	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
	T	rt	de	Len	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
	NL	CO	3	26	1		1	4.0			1									
	NL	Totals			18		18	1.8			1				5		12			
Total All Species				977		974	100.0	45		142	141	123	47	97	245	44	42	50		

T	Species, Sort Grade - Board Foot Volumes (Type)													Page		1										
Project: PRANGE													Date		5/24/2021											
													Time		1:41:14PM											
T01S R08W S02 T00MC													T01S R08W S02 T00MC													
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt																	
01S	08W	02	UNIT 4	00MC	89.00	41	222	S	W																	
S So Gr Spp T rt ad			%	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre								
			Net BdFt					Log Scale Dia.				Log Length				Ln	Dia		Bd	CF/ Lf						
										4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft						
DF	CO	2	56	1.4	11,292	11,129	990					67	33		2	2	97	40	14	304	1.83	36.6				
DF	CO	3	35	1.1	6,741	6,668	593				90	10			2	2	96	40	8	107	0.78	62.1				
DF	CO	4	9		1,762	1,762	157			72	28			16	25	14	45	28	5	33	0.40	52.6				
DF	Totals		76	1.2	19,795	19,559	1,741			6	33	42	19	1	4	3	92	36	9	129	0.96	151.3				
RA	H	3	22	1.9	419	411	37			100				11				89				30	11	128	1.10	3.2
RA	H	4	78	.9	1,443	1,431	127			100				8				16	11	65	31	7	56	0.57	25.4	
RA	Totals		7	1.1	1,863	1,842	164			100				8				13	8	71	31	7	64	0.63	28.6	
WH	CO	2	74		2,692	2,692	240					55	45				100	40	15	387	2.05	7.0				
WH	CO	3	21	1.3	747	737	66				76	24			16		84	37	9	113	0.93	6.5				
WH	CO	4	5	4.4	174	166	15			26	74			53	26	20		21	7	34	0.54	4.9				
WH	Totals		14	.5	3,613	3,596	320			1	19	46	34	2	5	1	92	34	11	196	1.37	18.3				
SS	CO	2	58		450	450	40					66	34		53		47	33	15	303	3.36	1.5				
SS	CO	3	28	10.8	235	210	19				54	46					100	40	8	93	1.27	2.3				
SS	CO	4	14	24.8	137	103	9			52	10		38	62	38			20	6	30	0.54	3.4				
SS	Totals		3	7.2	823	763	68			7	16	51	25	8	36		56	29	9	107	1.53	7.1				
RL	CO	4	100		88	88	8			100				100								22	5	20	0.29	4.4
RL	Totals		0		88	88	8			100				100								22	5	20	0.29	4.4
Type Totals				1.3	26,182	25,848	2,300			6	35	39	20	2	6	3	89	34	9	123	0.96	209.8				

TC		TSTNDSUM															Stand Table Summary														
Project															PRANGE																
T01S R08W S02 T00MC															T01S R08W S02 T00MC																
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees			Page:		1											
01S		08W		02		UNIT 4		00MC			89.00		41		222			Date:		05/24/2021											
																		Time:		1:41:14PM											
S		Sample			Av		Trees/			BA/		Logs		Average Log		Net		Net		Totals											
T		DBH		Trees		FF		Ht		Acre		Acre		Acre		Net		Net		Tons		Cunits		MBF							
Spc				16'		Tot								Cu.Ft.		Bd.Ft.		Cu.Ft.		Bd.Ft.											
DF		10	1	90	52	3.354	1.83	3.35	9.8	40.0	.94	33	134	84	29	12															
DF		11	2	81	72	5.544	3.66	5.54	16.1	50.0	2.55	89	277	227	80	25															
DF		12	2	83	86	4.658	3.66	6.99	15.2	53.3	3.04	107	373	270	95	33															
DF		13	2	83	73	3.969	3.66	5.95	15.3	46.7	2.59	91	278	231	81	25															
DF		14	3	83	90	5.134	5.49	10.27	16.5	56.7	4.83	170	582	430	151	52															
DF		15	5	84	73	7.453	9.15	10.43	22.9	71.4	6.81	239	745	606	213	66															
DF		16	2	82	80	2.620	3.66	3.93	26.2	90.0	2.93	103	354	261	92	31															
DF		17	7	84	93	8.124	12.80	15.09	27.0	96.2	11.62	408	1,451	1,034	363	129															
DF		18	7	87	108	7.246	12.80	16.56	29.3	110.0	13.83	485	1,822	1,231	432	162															
DF		19	12	86	110	11.149	21.95	24.16	34.0	127.7	23.39	821	3,084	2,082	730	275															
DF		20	6	84	105	5.031	10.98	10.90	35.7	126.2	11.08	389	1,375	986	346	122															
DF		21	5	84	106	3.803	9.15	7.61	42.1	156.0	9.12	320	1,186	812	285	106															
DF		22	5	85	99	3.465	9.15	6.93	46.9	166.0	9.27	325	1,150	825	289	102															
DF		23	3	85	115	1.902	5.49	4.44	48.1	192.9	6.08	213	856	541	190	76															
DF		24	2	84	123	1.165	3.66	3.49	45.4	190.0	4.52	159	664	403	141	59															
DF		25	1	85	96	.537	1.83	1.07	60.4	230.0	1.85	65	247	164	58	22															
DF		26	1	86	117	.496	1.83	1.49	50.9	206.7	2.16	76	308	192	67	27															
DF		27	2	81	115	.920	3.66	2.30	63.1	226.0	4.13	145	520	368	129	46															
DF		28	1	75	124	.428	1.83	1.28	60.6	223.3	2.22	78	287	197	69	26															
DF		29	5	81	127	1.994	9.15	4.79	80.5	330.8	10.98	385	1,583	977	343	141															
DF		31	1	83	135	.349	1.83	1.05	76.4	343.3	2.28	80	359	203	71	32															
DF		33	1	85	152	.308	1.83	.92	100.0	500.0	2.63	92	462	234	82	41															
DF		34	1	89	147	.290	1.83	.87	110.9	556.7	2.75	97	485	245	86	43															
DF		35	3	81	127	.821	5.49	1.92	105.3	510.0	5.75	202	977	512	180	87															
DF		Totals		80	84	95	80.758	146.34	151.33	34.2	129.2	147.36	5,170	19,559	13,115	4,602	1,741														
WH		15	1	70	58	1.345	1.65	1.35	25.7	70.0	1.11	35	94	99	31	8															
WH		16	1	85	64	1.182	1.65	1.18	34.9	90.0	1.32	41	106	118	37	9															
WH		20	3	88	110	2.270	4.95	6.05	35.3	151.2	6.84	214	916	608	190	81															
WH		21	1	89	123	.686	1.65	2.06	38.5	176.7	2.54	79	364	226	71	32															
WH		22	1	86	84	.625	1.65	1.25	43.5	175.0	1.74	54	219	155	48	19															
WH		25	3	86	113	1.453	4.95	3.39	63.6	264.3	6.90	216	896	614	192	80															
WH		26	1	88	119	.448	1.65	1.34	58.9	276.7	2.53	79	372	225	70	33															
WH		29	1	85	104	.360	1.65	1.08	68.8	320.0	2.38	74	346	212	66	31															
WH		31	1	83	122	.315	1.65	.63	88.4	450.0	1.78	56	283	159	50	25															
WH		Totals		13	84	96	8.686	21.46	18.34	46.3	196.1	27.14	848	3,596	2,415	755	320														
RA		9	1	85	26	3.558	1.57	3.56	5.7	20.0	.56	20	71	50	18	6															
RA		10	1	83	33	2.882	1.57	2.88	8.2	30.0	.65	24	86	58	21	8															
RA		12	3	87	74	6.004	4.72	6.00	19.4	73.3	3.20	117	440	285	104	39															
RA		14	2	78	80	2.941	3.14	2.94	30.7	80.0	2.48	90	235	221	80	21															
RA		15	3	84	87	3.842	4.72	5.12	21.7	90.0	3.06	111	461	273	99	41															
RA		16	2	71	67	2.251	3.14	3.38	15.0	46.7	1.39	51	158	124	45	14															
RA		17	1	78	78	.997	1.57	1.00	17.7	60.0	.48	18	60	43	16	5															
RA		19	2	78	72	1.597	3.14	2.39	32.3	90.0	2.12	77	216	189	69	19															
RA		20	1	77	62	.720	1.57	.72	25.4	60.0	.50	18	43	45	16	4															
RA		21	1	71	53	.653	1.57																								
RA		22	1	72	86	.595	1.57	.60	36.8	120.0	.60	22	71	54	19	6															
RA		Totals		18	82	64	26.041	28.29	28.59	19.2	64.4	15.07	548	1,842	1,341	488	164														
SS		9	1	72	17	3.312	1.46																								
SS		10	1	83	27	2.683	1.46	2.68	6.8	20.0	.48	18	54	42	16	5															
SS		17	1	77	55	.928	1.46	.93	39.3	60.0	.95	36	56	84	32	5															

TC		TSTNDSUM												Stand Table Summary													
														Project				PRANGE									
T01S R08W S02 T00MC														T01S R08W S02 T00MC													
Twp		Rge		Sec		Tract		Type				Acres		Plots		Sample Trees		Page:		2							
01S		08W		02		UNIT 4		00MC				89.00		41		222		Date:		05/24/2021							
														Time:		1:41:14PM											
S Spc	T	Sample		FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s													
		DBH	Trees						Net	Net				Tons	Cunits	MBF											
SS		18	1	79	55	.828	1.46	.83	44.7	70.0	.96	37	58	86	33	5											
SS		23	2	81	58	1.014	2.93	1.52	47.0	123.3	1.86	71	188	165	64	17											
SS		32	2	81	54	.524	2.93	.52	135.9	220.0	1.85	71	115	165	63	10											
SS		33	1	80	64	.246	1.46	.25	161.6	400.0	1.03	40	99	92	35	9											
SS		36	1	83	95	.207	1.46	.41	94.8	470.0	1.02	39	195	91	35	17											
SS		Totals		10	78	36	9.744	14.63	7.15	43.9	106.8	8.15	314	763	725	279	68										
RL		9	1	79	45	4.417	1.95	4.42	6.4	20.0	.66	28	88	59	25	8											
RL		Totals		1	79	45	4.417	1.95	4.42	6.4	20.0	0.66	28	88	59	25	8										
OC		15	2	85	97	1.590	1.95																				
OC		17	1	77	76	.619	.98																				
OC		23	1	86	57	.338	.98																				
OC		Totals		4	83	87	2.547	3.90																			
Totals				126	83	83	132.193	216.59	209.82	32.9	123.2	198.37	6908	25,848	17,655	6,148	2,300										

TC TLOGSTVB				Log Stock Table - MBF																					
				Project: PRANGE																					
T01S R08W S02 T00MC										T01S R08W S02 T00M															
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1																
01S	08W	02	UNIT 4	00MC	89.00	41	222	Date	5/24/2021																
										Time	1:41:13PM														
Spp	S	So	Gr	Log	T	rt	de	Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches												
													2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
DF	CO	2	26						18		18	1.0										18			
DF	CO	2	32						16		16	.9									16				
DF	CO	2	40						970	1.5	956	54.9				410	176	269		48	53				
DF	CO	3	28						2		2	.1				2									
DF	CO	3	30						13	15.4	11	.7				11									
DF	CO	3	34						11		11	.7			6	5									
DF	CO	3	36						11		11	.6				3		8							
DF	CO	3	40						562	.8	558	32.0			133	176	194	35	19						
DF	CO	4	12						3		3	.2		2	1										
DF	CO	4	14						1		1	.1		1											
DF	CO	4	16						5		5	.3		1	3										
DF	CO	4	18						12		12	.7		12											
DF	CO	4	19						2		2	.1		2											
DF	CO	4	20						3		3	.2		2	1										
DF	CO	4	22						14		14	.8		9	3	1									
DF	CO	4	24						3		3	.2				3									
DF	CO	4	28						10		10	.6		10											
DF	CO	4	30						12		12	.7		5			7								
DF	CO	4	32						7		7	.4		7											
DF	CO	4	34						16		16	.9		16											
DF	CO	4	36						31		31	1.8		18	3	11									
DF	CO	4	38						30		30	1.7		19	11										
DF	CO	4	40						10		10	.6		10											
DF	Totals								1,762	1.2	1,741	75.7		112	161	198	216	445	203	269	64	71			
RA	H	3	12						4		4	2.4				4									
RA	H	3	40						33	2.1	33	19.9				33									
RA	H	4	16						2	50.0	1	.7			1										
RA	H	4	18						8		8	5.2			8										
RA	H	4	22						8		8	4.7			8										
RA	H	4	30						13		13	7.8			13										
RA	H	4	32						5		5	3.1			5										
RA	H	4	34						9		9	5.4			9										
RA	H	4	36						5		5	3.2			5										
RA	H	4	38						5		5	3.0			5										
RA	H	4	40						73		73	44.6			9	64									
RA	Totals								166	1.1	164	7.1			63	64	37								
WH	CO	2	40						240		240	74.9					32	82	84	42					
WH	CO	3	28						11		11	3.3			2	8									
WH	CO	3	40						56	1.5	55	17.2				30	9	16							
WH	CO	4	14						1		1	.2				1									
WH	CO	4	16						6		6	1.8		1	1		3								
WH	CO	4	18						1		1	.4		1											
WH	CO	4	22						1		1	.4		1											
WH	CO	4	30						3	20.0	3	.8			3										
WH	CO	4	34						3		3	.9				3									
WH	Totals								322		320	13.9		4	6	42	13	48	82	84	42				
SS	CO	2	22						14		14	20.3									14				
SS	CO	2	26						7		7	10.6					7								

TC TLOGSTVB				Log Stock Table - MBF Project: PRANGE															
T01S R08W S02 T00MC										T01S R08W S02 T00M									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2										
01S	08W	02	UNIT 4	00MC	89.00	41	222	Date	5/24/2021										
								Time	1:41:13PM										
S Spp	So T	Gr rt	Log de Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
SS		CO	2	40	19		19	28.0					10		9				
SS		CO	3	40	21	10.8	19	27.5			10		9						
SS		CO	4	16	1	33.3	1	1.3				1							
SS		CO	4	20	5		5	7.0		5									
SS		CO	4	22	6	42.4	4	5.2								4			
SS Totals				73	7.2	68	3.0		5	10	1	26		12		14			
RL		CO	4	22	8		8	100.0		8									
RL Totals				8		8	.3		8										
Total All Species				2,330	1.3	2,300	100.0		129	241	305	265	519	285	365	106	85		

T	Species, Sort Grade - Board Foot Volumes (Type)															Page 1					
	Project: PRANGE															Date	5/24/2021				
																Time	12:52:31PM				
T01S R08W S03 T00MC															T01S R08W S03 T00MC						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
01S	08W	03	UNIT 5	00MC	110.00	41	271	S	W												
S So Gr T rt ad Spp			%	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre			
			Net BdFt					Log Scale Dia.				Log Length				Ln	Dia		Bd	CF/ Lf	
RA	H	2	8		484	484	53			83	17	37	22		41	27	14	194	1.46	2.5	
RA	H	3	21	1.3	1,184	1,169	129			85	15	10	10	7	73	31	11	126	1.24	9.3	
RA	H	4	71	3.9	4,104	3,943	434			97	3	12	28	6	54	29	7	50	0.59	79.0	
RA	Totals		33	3.1	5,772	5,596	616			86	12	1	14	24	6	57	29	8	62	0.68	90.8
DF	CO	2	46	1.1	3,251	3,214	354			72	28				100	40	14	316	1.96	10.2	
DF	CO	3	37		2,537	2,537	279		100						100	40	8	97	0.75	26.2	
DF	CO	4	17		1,109	1,109	122	91	9			13	44	24	19	27	5	29	0.40	38.3	
DF	Totals		41	.5	6,897	6,860	755	15	38	34	13	2	7	4	87	33	7	92	0.81	74.6	
SS	CO	2	58	1.9	824	809	89			41	59	20		28	52	31	18	376	3.02	2.2	
SS	CO	3	22	8.9	339	309	34		73	27					100	40	10	130	1.17	2.4	
SS	CO	4	20	6.2	294	276	30	14	86				27	47	26	32	8	71	1.35	3.9	
SS	Totals		8	4.4	1,457	1,393	153	3	33	30	34	12	5	25	58	34	11	165	1.68	8.4	
WH	CO	2	80	.4	2,225	2,215	244			42	58				100	40	16	411	2.51	5.4	
WH	CO	3	12	1.2	348	344	38		100			24		6	70	33	9	82	0.84	4.2	
WH	CO	4	8		205	205	23	53	47			3	22	12	62	34	6	43	0.57	4.8	
WH	Totals		16	.5	2,778	2,764	304	4	16	34	46	3	2	2	94	36	10	192	1.45	14.4	
SL	CO	2	88	20.7	120	95	10		100						100	40	14	230	2.83	.4	
SL	CO	4	12		12	12	1	100				100				16	7	30	0.67	.4	
SL	Totals		1	18.8	132	107	12	12	88			12			88	28	11	130	2.21	.8	
BM	H	4	100		89	89	10		35	65		100				19	9	57	0.72	1.6	
BM	Totals		1		89	89	10		35	65		100				19	9	57	0.72	1.6	
WL	CO	2	100		58	58	6		100						100	40	13	240	2.17	.2	
WL	Totals		0		58	58	6		100						100	40	13	240	2.17	.2	
Type Totals				1.8	17,183	16,866	1,855	7	50	27	16	7	11	6	75	31	8	88	0.86	190.8	

TC		TSTNDSUM														Stand Table Summary															
																		Project		PRANGE											
T01S R08W S03 T00MC																		T01S R08W S03 T00MC													
Twp		Rge		Sec		Tract		Type				Acres		Plots		Sample Trees		Page:		2											
01S		08W		03		UNIT 5		00MC				110.00		41		271		Date:		05/24/2021											
																		Time:		12:52:31PM											
S	T	Sample		FF	Ht	Av	Trees/	BA/	Logs	Average Log		Tons/	Net	Net	T o t a l s																
		DBH	Trees							Net	Net				Cu.Ft.	Cu.Ft.	Bd.Ft.	Tons	Cunits	MBF											
SS		16		1	88	63	1.585	2.21	1.59	31.5	80.0	1.30	50	127	143	55	14														
SS		18		1	78	38	1.252	2.21	1.25	28.7	50.0	.94	36	63	103	40	7														
SS		20		1	80	48	1.015	2.21	1.01	44.6	100.0	1.18	45	101	129	50	11														
SS		24		1	83	80	.705	2.21	1.41	51.5	180.0	1.89	73	254	207	80	28														
SS		27		2	81	65	1.113	4.43	1.67	67.1	200.0	2.91	112	334	321	123	37														
SS		28		1	79	64	.518	2.21	.52	110.2	210.0	1.48	57	109	163	63	12														
SS		33		1	93	78	.373	2.21	.75	103.1	435.0	2.00	77	324	220	84	36														
SS		41		1	67	81	.241	2.21	.24	113.4	340.0	.71	27	82	78	30	9														
SS		46		1	70	71	.192	2.21																							
SS		Totals		10	82	60	6.994	22.13	8.44	56.5	165.2	12.40	477	1,393	1,364	525	153														
SL		27		1	77	70	.412	1.64	.82	61.9	130.0	1.33	51	107	146	56	12														
SL		Totals		1	77	70	.412	1.64	.82	61.9	130.0	1.33	51	107	146	56	12														
BM		12		1	77	29	1.044	.82	1.04	10.5	30.0	.29	11	31	32	12	3														
BM		17		1	88	63	.520	.82	.52	20.9	110.0	.29	11	57	32	12	6														
BM		Totals		2	81	40	1.564	1.64	1.56	14.0	56.6	0.58	22	89	64	24	10														
WL		25		1	86	63	.240	.82	.24	86.6	240.0	.67	21	58	73	23	6														
WL		Totals		1	86	63	.240	.82	.24	86.6	240.0	0.67	21	58	73	23	6														
OC		15		1	80	65	1.336	1.64																							
OC		19		1	69	40	.625	1.23																							
OC		20		1	73	58	.564	1.23																							
OC		Totals		3	76	57	2.524	4.10																							
Totals				149	81	59	167.754	221.33	190.84	26.8	88.4	145.23	5112	16,866	15,976	5,623	1,855														

TC PLOGSTVB			Log Stock Table - MBF																		
T01S R08W S03 Ty00MC				110.00		Project:		PRANGE										Page		1	
						Acres		110.00										Date		5/24/2021	
																		Time		12:52:30PM	
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches													
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+		
SS		CO 2	14	18		18	11.6									18					
SS		CO 2	32	25		25	16.2							25							
SS		CO 2	40	48	3.6	46	30.3					12				34					
SS		CO 3	40	37	8.9	34	22.2			14		11		9							
SS		CO 4	26	8	16.7	7	4.5			7											
SS		CO 4	30	1		1	.8		1												
SS		CO 4	34	14		14	9.3		3		11										
SS		CO 4	38	9	7.1	8	5.2					8									
SS		Totals		160	4.4	153	8.3		4		32	19	12		34	52					
DF		CO 2	38	17		17	2.3					17									
DF		CO 2	40	340	1.2	336	44.6					115	80	86		55					
DF		CO 3	40	279		279	37.0			95	72	112									
DF		CO 4	12	2		2	.3			2											
DF		CO 4	14	2		2	.2			1	1										
DF		CO 4	16	10		10	1.4		10												
DF		CO 4	20	2		2	.2		2												
DF		CO 4	22	14		14	1.8		14												
DF		CO 4	23	5		5	.7		5												
DF		CO 4	24	3		3	.5		3												
DF		CO 4	26	10		10	1.3		10												
DF		CO 4	30	21		21	2.8		21												
DF		CO 4	32	8		8	1.1		8												
DF		CO 4	34	22		22	2.9		18	3											
DF		CO 4	36	3		3	.5			3											
DF		CO 4	38	10		10	1.3		10												
DF		CO 4	40	9		9	1.2		9												
DF		Totals		759		755	40.7		112	105	73	112	133	80	86	55					
WH		CO 2	40	245		244	80.1					39	31	147		27					
WH		CO 3	16	9		9	2.9					9									
WH		CO 3	32	3	16.7	2	.8			2											
WH		CO 3	40	27		27	8.8			11	9	7									
WH		CO 4	16	1		1	.2			1											
WH		CO 4	24	1		1	.4			1											
WH		CO 4	30	4		4	1.3			2	2										

[illegible]

TC		PLOGSTVB		Log Stock Table - MBF																	
T01S R08W S03 Ty00MC110.00				Project: Acres		PRANGE 110.00										Page		3			
																Date		5/24/2021			
																Time		12:52:30PM			
Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	Spc	Net Volume by Scaling Diameter in Inches												
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
BM		H	4	18	6		6	64.6					6								
BM		H	4	20	3		3	35.4			3										
BM		Totals			10		10	.5			3		6								
Total		All Species			1,890	1.8	1,855	100.0	128		368	287	269	240	154	266	143				

T	Species, Sort Grade - Board Foot Volumes (Type)										Page 1							
	Project: PRANGE										Date	5/24/2021						
											Time	12:56:03PM						
T01S R08W S03 T00MC										T01S R08W S03 T00MC								
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt									
01S	08W	03	UNIT 6	00MC	8.00	7	42	S	W									
S So Gr T rt ad Spp			% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre
			Def%	Gross	Net	Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/ Lf	

TC		TSTNDSUM		Stand Table Summary													
Project															PRANGE		
T01S R08W S03 T00MC													T01S R08W S03 T00MC				
Twp	Rge	Sec	Tract	Type				Acres	Plots	Sample Trees			Page:	1			
01S	08W	03	UNIT 6	00MC				8.00	7	42			Date:	05/24/2021			
													Time:	12:56:04PM			
S Spc	T	Sample		FF	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net	Net	Totals	Tons	Cunits	MBF	
		DBH	Trees	16'	Tot	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre							
RA		10	1	69	70	8.803	4.80	8.80	14.6	50.0	3.52	128	440	28	10	4	
RA		11	5	82	42	36.377	24.01	29.10	9.5	32.5	7.61	277	946	61	22	8	
RA		12	3	85	40	18.340	14.40	18.34	13.1	40.0	6.59	240	734	53	19	6	
RA		13	2	86	45	10.418	9.60	10.42	17.2	40.0	4.91	179	417	39	14	3	
RA		14	2	79	56	8.983	9.60	8.98	23.4	60.0	5.78	210	539	46	17	4	
RA		15	1	93	57	3.913	4.80	7.83	14.7	65.0	3.16	115	509	25	9	4	
RA		16	2	78	65	6.878	9.60	6.88	27.5	105.0	5.21	189	722	42	15	6	
RA		17	2	87	66	6.092	9.60	9.14	22.7	100.0	5.70	207	914	46	17	7	
RA		18	1	88	67	2.717	4.80	5.43	20.0	75.0	2.99	109	408	24	9	3	
RA		19	1	90	70	2.439	4.80	4.88	25.4	80.0	3.40	124	390	27	10	3	
RA		22	1	88	58	1.819	4.80										
RA		Totals	21	82	50	106.778	100.83	109.80	16.2	54.8	48.89	1,778	6,018	391	142	48	
DF		13	2	80	70	10.418	9.60	10.42	23.1	65.0	6.85	240	677	55	19	5	
DF		15	1	80	68	3.913	4.80	3.91	29.9	70.0	3.33	117	274	27	9	2	
DF		19	2	86	86	4.877	9.60	9.75	29.1	102.5	8.08	284	1,000	65	23	8	
DF		20	1	83	69	2.201	4.80	2.20	44.2	120.0	2.77	97	264	22	8	2	
DF		27	2	86	104	2.415	9.60	2.42	74.8	275.0	5.15	181	664	41	14	5	
DF		29	1	89	91	1.047	4.80										
DF		31	1	83	93	.916	4.80	1.83	93.3	335.0	4.87	171	614	39	14	5	
DF		33	1	91	115	.808	4.80	2.43	84.3	420.0	5.83	204	1,019	47	16	8	
DF		Totals	11	83	79	26.595	52.82	32.96	39.3	136.9	36.89	1,294	4,511	295	104	36	
WH		21	1	78	77	1.996	4.80	3.99	38.6	110.0	4.94	154	439	39	12	4	
WH		22	1	77	96	1.819	4.80	3.64	48.7	140.0	5.66	177	509	45	14	4	
WH		24	1	80	98	1.528	4.80	3.06	60.6	210.0	5.93	185	642	47	15	5	
WH		25	2	89	109	2.817	9.60	5.63	71.1	315.0	12.82	401	1,775	103	32	14	
WH		26	1	86	112	1.302	4.80	2.60	76.2	350.0	6.35	199	912	51	16	7	
WH		Totals	6	83	98	9.463	28.81	18.93	59.0	226.0	35.70	1,116	4,277	286	89	34	
NL		39	1	82	113	.579	4.80	1.74	119.4	546.7	4.98	207	949	40	17	8	
NL		Totals	1	82	113	.579	4.80	1.74	119.4	546.7	4.98	207	949	40	17	8	
SS		26	1	84	79	1.302	4.80	2.60	37.4	155.0	2.53	97	404	20	8	3	
SS		Totals	1	84	79	1.302	4.80	2.60	37.4	155.0	2.53	97	404	20	8	3	
OH		19	2	82	49	4.877	9.60										
OH		Totals	2	82	49	4.877	9.60										
Totals			42	82	59	149.594	201.66	166.02	27.1	97.3	128.99	4493	16,159	1,032	359	129	

TC TLOGSTVB				Log Stock Table - MBF																
				Project: PRANGE																
T01S R08W S03 T00MC										T01S R08W S03 T00M										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
01S	08W	03	UNIT 6	00MC	8.00	7	42	Date	5/24/2021											
										Time	12:56:03PM									
S Spp	So T	Gr rt	Log de Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches												
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
RA	H	2	14	4		4	8.6					2	2							
RA	H	2	36	4		4	9.1					4								
RA	H	3	26	3		3	7.2					3								
RA	H	3	34	4		4	8.6					4								
RA	H	3	40	3		3	6.1					3								
RA	H	4	12	0		0	.4			0										
RA	H	4	16	1		1	1.3			1										
RA	H	4	20	2		2	4.4			1	1									
RA	H	4	22	1		1	3.0			1										
RA	H	4	28	5	8.8	4	9.0			4										
RA	H	4	30	2		2	4.1			2										
RA	H	4	32	5		5	9.6			5										
RA	H	4	34	10		10	20.1			10										
RA	H	4	36	2		2	3.4			2										
RA	H	4	38	3		3	5.2			3										
RA Totals				49		48	37.2			28	1	10	6	2						
DF	CO	2	16	2		2	5.9							2						
DF	CO	2	40	21		21	57.3					4		2	9	6				
DF	CO	3	38	1		1	1.4			1										
DF	CO	3	40	12		12	32.6			9	3									
DF	CO	4	16	0		0	.5				0									
DF	CO	4	34	1		1	2.2		1											
DF Totals				36		36	27.9		1	9	3		4	4	9	6				
WH	CO	2	34	2		2	5.2					2								
WH	CO	2	40	28		28	81.2					7		4	17					
WH	CO	3	40	4		4	11.0			1	1	2								
WH	CO	4	22	0		0	.9		0											
WH	CO	4	40	1		1	1.7		1											
WH Totals				34		34	26.5		1	1	1	2	8	4	17					
NL	CO	2	40	7		7	98.2							2			6			
NL	CO	4	14	0		0	1.8			0										
NL Totals				8		8	5.9			0				2			6			
SS	CO	2	16	3		3	77.4								3					
SS	CO	3	34	1		1	22.6			1										
SS Totals				3		3	2.5			1					3					
Total All Species				130		129	100.0		2	38	6	12	19	12	28	6	6			



"STEWARDSHIP IN FORESTRY"

Power Range

Volume Summary

Unit 1-Modified Clearcut				
50 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	17.2	859	1%	850
Hemlock	1.01	51	1%	50
Spruce	0.00	0	1%	0
Noble Fir	0.00	0	1%	0
Alder	8.0	399	2%	391
TOTAL	26.2	1308.1		1291

Unit 2-Modified Clearcut				
87 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	11.5	999	2%	979
Hemlock	0.5	47	2%	46
Spruce	0.0	0	1%	0
W. red cedar	0.0	0	1%	0
Alder	8.6	746	4%	716
TOTAL	20.6	1793		1741

Unit 3-Modified Clearcut				
49 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	12.4	609	2%	597
Hemlock	1.3	64	2%	63
Spruce	0.0	0	2%	0
Noble Fir	0.0	0	2%	0
Alder	5.4	263	4%	252
TOTAL	19.1	935		912



"STEWARDSHIP IN FORESTRY"

Power Range

Volume Summary

Unit 4-Modified Clearcut				
89 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	19.6	1741	1%	1723
Hemlock	3.6	320	2%	314
Spruce	0.8	68	1%	67
W. red cedar	0.0	0	1%	0
Alder	1.8	164	4%	157
TOTAL	25.8	2292		2261

Unit 5-Modified Clearcut				
110 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	6.86	755	2%	740
Hemlock	2.76	304	1%	301
Spruce	1.39	153	1%	152
Noble Fir	0.00	0	1%	0
Alder	5.60	616	4%	591
TOTAL	16.6	1827		1784

Unit 6-Modified Clearcut				
8 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	4.51	36	1%	36
Hemlock	4.28	34	1%	34
Spruce	0.40	3	1%	3
Noble fir	0.00	0	1%	0
Alder	6.02	48	4%	46
TOTAL	15.2	122		119

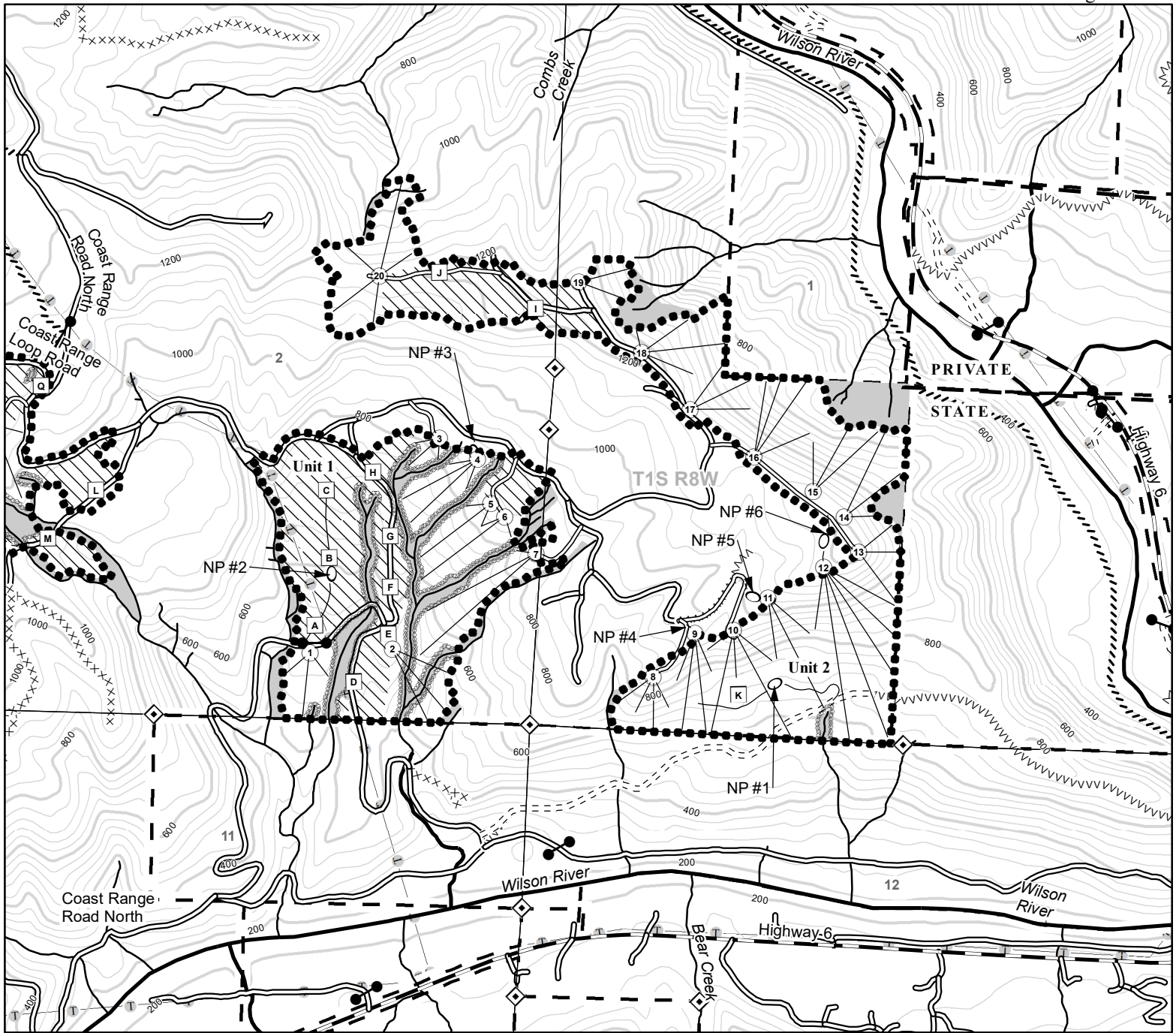


"STEWARDSHIP IN FORESTRY"

Power Range

Volume Summary

TOTAL SALE VOLUME		
	393	acres
SPECIES	Cruised Net (MBF)	Net Sale (MBF)
Douglas-fir	4998	4925
Hemlock	820	808
Spruce	224	222
Western red cedar	0	0
Red Alder	2236	2153
TOTAL	8278	8108



- Riparian Boundary
- Timber Sale Boundary
- Cable Landing
- Tractor Landing
- Gate
- Non-project Construction
- /// Ground Yarding
- \\ Cable Logging
- Type-F Stream
- Type-N Stream
- Surfaced Road
- xxxx Blocked Road
- //// Recreation Trail
- ⚡ Electric Transmission Lines
- 40' Contour
- 200' Contour
- ▨ Riparian Buffer
- ▤ ODF Ownership
- Sections

LOGGING PLAN

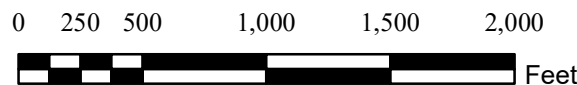
FOR TIMBER SALE CONTRACT TL-341-2022-W00535-01
POWER RANGE
PORTIONS OF SECTIONS 1, 2, 3 & 10 of T1S R8W and
SECTIONS 34 & 35 of T1N R8W W.M.
TILLAMOOK COUNTY, OREGON

Tillamook District GIS
June, 2021

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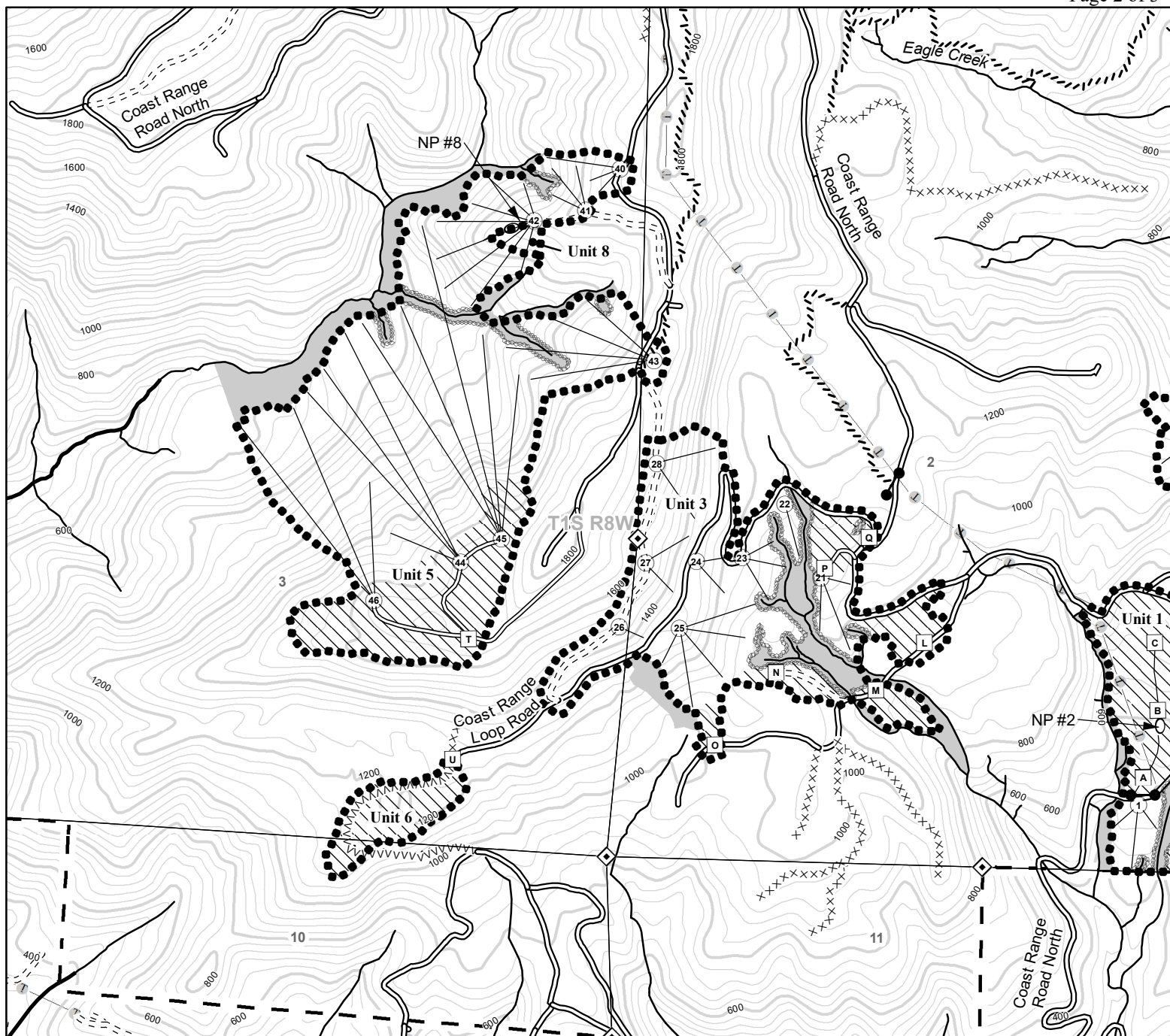
1:12,000

1 inch = 1,000 feet



NET ACRES

	GROUND	CABLE	TOTAL
UNIT 1	26	24	50
UNIT 2	11	76	87
UNIT 3	13	36	49
UNIT 4	6	83	89
UNIT 5	22	88	110
UNIT 6	8	0	8
UNIT 7	--	--	--
UNIT 8	--	--	--
TOTAL	86	307	393



- Riparian Boundary
- Timber Sale Boundary
- Cable Landing
- Tractor Landing
- Gate
- Non-project Construction
- /// Ground Yarding
- \\ Cable Logging
- Type-F Stream
- Type-N Stream
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- 40' Contour
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- Riparian Buffer
- ODF Ownership
- Sections

LOGGING PLAN

FOR TIMBER SALE CONTRACT TL-341-2022-W00535-01
POWER RANGE
PORTIONS OF SECTIONS 1, 2, 3 & 10 of T1S R8W and
SECTIONS 34 & 35 of T1N R8W W.M.
TILLAMOOK COUNTY, OREGON

Tillamook District GIS
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1:12,000

1 inch = 1,000 feet

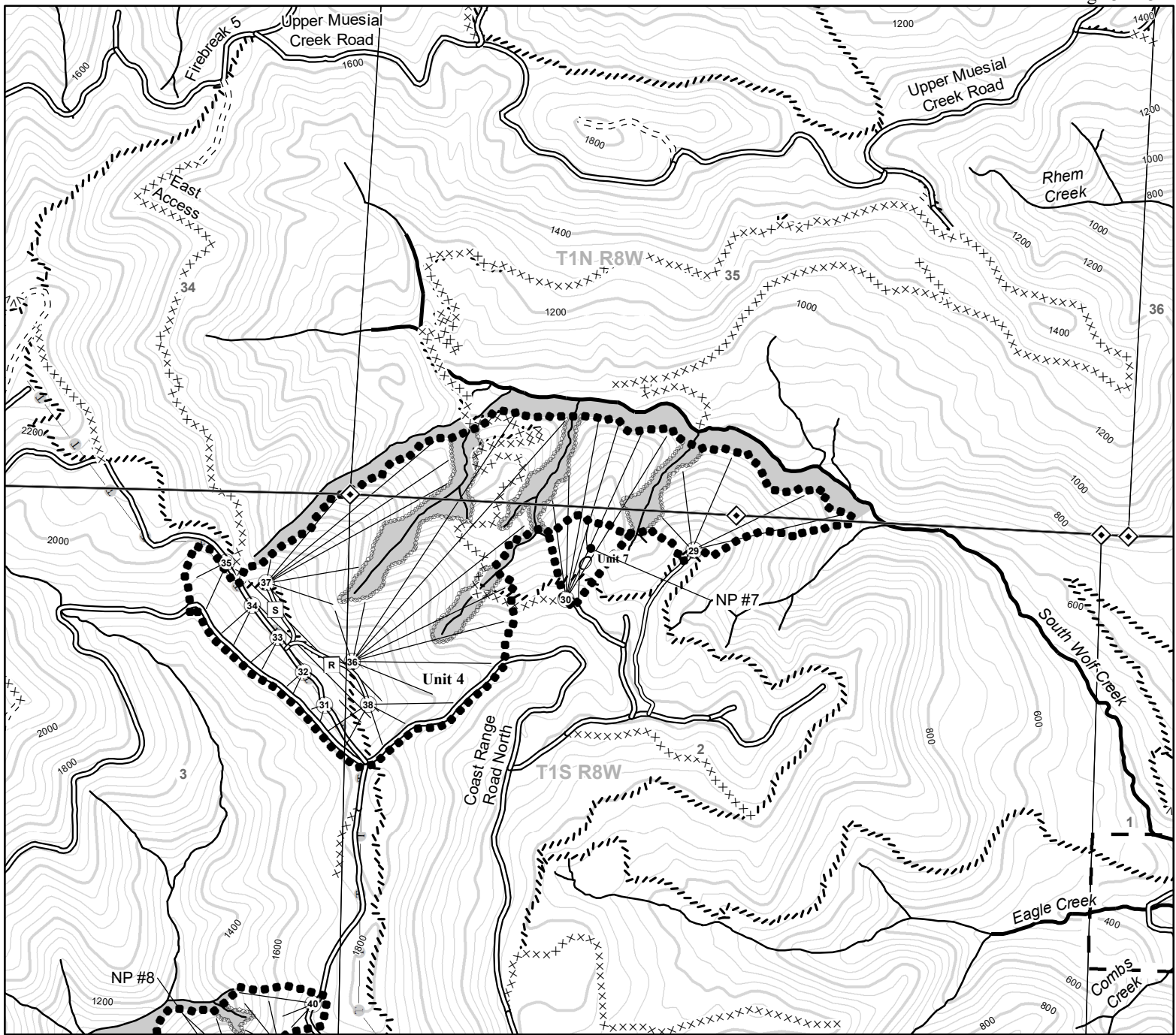
0 250 500 1,000 1,500 2,000

Feet



NET ACRES

	GROUND	CABLE	TOTAL
UNIT 1	26	24	50
UNIT 2	11	76	87
UNIT 3	13	36	49
UNIT 4	6	83	89
UNIT 5	22	88	110
UNIT 6	8	0	8
UNIT 7	--	--	--
UNIT 8	--	--	--
TOTAL	86	307	393



- Riparian Boundary
- ● ● Timber Sale Boundary
- Cable Landing
- Tractor Landing
- Gate
- Non-project Construction
- /// Ground Yarding
- \\ Cable Logging
- Type-F Stream
- Type-N Stream
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- × × × × Blocked Road
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- 40' Contour
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- ▬ ODF Ownership
- Sections

LOGGING PLAN

FOR TIMBER SALE CONTRACT TL-341-2022-W00535-01
POWER RANGE
PORTIONS OF SECTIONS 1, 2, 3 & 10 of T1S R8W and
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TILLAMOOK COUNTY, OREGON

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June, 2021

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1:12,000

1 inch = 1,000 feet

0 250 500 1,000 1,500 2,000

Feet



NET ACRES

	GROUND	CABLE	TOTAL
UNIT 1	26	24	50
UNIT 2	11	76	87
UNIT 3	13	36	49
UNIT 4	6	83	89
UNIT 5	22	88	110
UNIT 6	8	0	8
UNIT 7	--	--	--
UNIT 8	--	--	--
TOTAL	86	307	393