



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Ed's BSM Sale 341-04-16

District: Tillamook

Date: 8/6/03

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,219,573.00	\$100,741.44	\$1,320,314.44
		Project Work	(\$220,035.00)
		Advertised Value	\$1,100,279.44



Timber Sale Appraisal Timber Description Ed's BSM Sale 341-04-16

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Location: Sections 10, 11, 12, 14, 15, 21, and 22, T2S, R8W, W.M., Tillamook County, Oregon.

Date: 8/6/03

Stand Stocking: 40%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	12	0	95
Alder (Red)	13	0	95

Volume by Grade	Douglas - Fir	Alder (Red)	Total
3S	5,307	0	5,307
4S	793	0	793
Camprun	0	404	404
Total	6,100	404	6,504

Comments: Pond Values Used: 2nd Quarter 2003 + Local Pond Value.

Road Maintenance: Total: \$ 1.59 /mbf

Lower 1.5 miles of BSM Road:

Grading: 1.5 miles x \$400 /mile x 4 times /6504mbf = \$0.37/mbf

Surfacing: 1.5 miles x 30 cu yds crushed rock /mile /mmbf x \$5 /cu yd x 6.5mmbf /6504mbf = \$0.22 /mbf

Final compacting: 1.5 miles x \$580.80 /mile /6504 mbf = \$0.13 /mbf

Upper BSM Road and Simmons Ridge Road:

Surfacing: 3.5 miles x 50 cu yds pit run /mile /mmbf x \$5/ cu yd x 6.5mmbf /6504 mbf = \$0.87 /mbf

Other costs (add Profit and Risk):

Brand and paint: \$2.00 /mbf x 6504 mbf = \$13,008

Other Costs (Profit and Risk included): Total = \$4,193

Non-project road construction: 8 stations x \$150 /station = \$1,200

Pit-run rock for non-project roads: 22 cu yds /station x 8 stations x \$5 /cu yd = \$880

Slash piling & sorting: 597 ac cable clearcut harvest x 1 hr /50 ac x \$110 /hr = \$1,313

Clearing OHV trail: 2000 ft x \$0.40 /ft = \$800



Timber Sale Appraisal

Logging Conditions

Ed's BSM

Sale 341-04-16

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	80.00%	
	Alder (Red)	80.00%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding: No
Logging System:	Cable: Medium Tower >40 - <70		Process: Manual Delimiting
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	6		Bd. Ft./Load: 3,200
Cost/MBF:	\$172.74		
Machines:			
	Log Loader (A)		
	Tower Yarder (Medium)		
Combination#: 2	Douglas - Fir	20.00%	
	Alder (Red)	20.00%	
Yarding Distance:	Short (400 ft)		Downhill Yarding: No
Logging System:	Cable: Medium Tower >40 - <70		Process: Manual Delimiting
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	7		Bd. Ft./Load: 3,200
Cost/MBF:	\$148.06		
Machines:			
	Log Loader (A)		
	Tower Yarder (Medium)		



Timber Sale Appraisal

Logging Costs

Ed's BSM

Sale 341-04-16

"STEWARDSHIP IN FORESTRY"

Date: 8/6/03

Operating Seasons: 2.0

Profit & Risk: 15%

Project Costs: \$220,035

Other Costs (P/R): \$13,008

Slash Disposal: \$0

Other Costs: \$4,193

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

Road Maintenance: \$1.59

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	3.2
Alder (Red)	\$0.00	3.0	2.8

Local Pond Values

Date	Species	Grade	Value
8/6/03	Alder (Red)	Camprun	\$510.00



Timber Sale Appraisal Logging Costs Breakdown Ed's BSM Sale 341-04-16

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Alder (Red)
Logging	167.80	167.80
Road Maintenance	1.67	1.67
Fire Protection	0.83	0.83
Hauling	69.16	53.79
Other (P/R appl.)	2.00	2.00
Profit & Risk	36.22	33.91
Slash Disposal	0.00	0.00
Scaling	2.00	0.00
Other	0.64	0.64
Total	280.32	260.64

Amortization	0.00	0.00
Pond Value	480.25	510.00
Stumpage	199.93	249.36
Amortized	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Ed's BSM Sale 341-04-16

Amortized

	Douglas - Fir	Alder (Red)
MBF	0.00	0.00
Value	0.00	0.00
Total	0.00	0.00

Unamortized

	Douglas - Fir	Alder (Red)
MBF	6,100.00	404.00
Value	199.93	249.36
Total	1,219,573.00	100,741.44

Gross Timber Sale Value

Recovery \$1,320,314.44

Prepared by: Elissa Wells

Date: 8/6/03

District: Tillamook

Phone: (503) 842-2545

PROJECT SUMMARY SHEET

Sale: Ed's BSM

CONSTRUCTION

Point	E to F	7+45	stations =	\$2,789.89
Point	K to L	13+80	stations =	\$15,246.63
Point	M to N	4+85	stations =	\$2,519.77
Point	O to P	3+80	stations =	\$3,443.07
Point	S to T	7+10	stations =	\$6,363.58
SUBTOTAL CONSTRUCTION				\$30,362.93

IMPROVEMENT

Point	A to B	164+85	stations =	\$77,118.71
Point	C to D	16+60	stations =	\$9,571.93
Point	G to H	2+50	stations =	\$1,637.44
Point	I to J	28+70	stations =	\$21,308.52
Point	K to L	10+80	stations =	\$6,955.90
Point	O to P	5+25	stations =	\$3,838.14
Point	Q to R	10+90	stations =	\$6,988.18
Point	S to T	4+70	stations =	\$1,218.58
Point	U to V	14+90	stations =	\$7,007.76
Point	W to X	5+25	stations =	\$1,962.86
Point	Y to Z	57+70	stations =	\$21,097.46
Point	AA to BB	29+25	stations =	\$13,090.81
Point	CC to DD	17+50	stations =	\$5,835.98
SUBTOTAL IMPROVEMENT				\$177,632.25

VACATING

Road Vacating between Points I and J Sta. 28+70 to 75+35				\$9,949.50
SUBTOTAL VACATING				\$9,949.50

MOVE IN

\$2,090.01

GRAND TOTAL

\$220,035

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>		
	0+00 stations 0.00 miles	Road: <u>A to B</u>	164+85 stations 3.12 miles
Construction -		Improvement -	
CLEARING AND GRUBBING -			
Scattering - road		5.05 acres @	\$815.00 per acre = \$4,115.75
Piling - waste areas		0.40 acres @	\$905.00 per acre = \$362.00
			TOTAL CLEARING AND GRUBBING
			\$4,477.75
EXCAVATION -			
Improvement		164.85 sta. @	\$30.00 per sta. = \$4,945.50
Widening - rock	130+35 to 131+35	193 cys. @	\$3.20 per cy. = \$617.60
Berm	9+70 to 10+45	12 cys. @	\$1.15 per cy. = \$13.80
Berm	12+50 to 21+80	57 cys. @	\$1.15 per cy. = \$65.55
Berm	25+40 to 28+15	12 cys. @	\$1.15 per cy. = \$13.80
Berm	35+70 to 38+00	29 cys. @	\$1.15 per cy. = \$33.35
Berm	38+00 to 51+60	84 cys. @	\$1.15 per cy. = \$96.60
Berm	67+30 to 68+50	19 cys. @	\$1.15 per cy. = \$21.85
Berm	72+00 to 75+00	46 cys. @	\$1.15 per cy. = \$52.90
Berm	84+60 to 85+60	16 cys. @	\$1.15 per cy. = \$18.40
Berm	95+80 to 96+80	16 cys. @	\$1.15 per cy. = \$18.40
Berm	133+65 to 137+65	62 cys. @	\$1.15 per cy. = \$71.30
Berm	147+40 to 151+20	47 cys. @	\$1.15 per cy. = \$54.05
Berm	158+30 to 164+85	41 cys. @	\$1.15 per cy. = \$47.15
Pullback	+00 to +90	110 cys. @	\$1.40 per cy. = \$154.00
Pullback	5+90 to 8+15	275 cys. @	\$1.40 per cy. = \$385.00
Pullback	95+25 to 95+80	90 cys. @	\$1.40 per cy. = \$126.00
Pullback	112+70 to 114+95	275 cys. @	\$1.40 per cy. = \$385.00
Pullback	118+25 to 119+75	184 cys. @	\$1.40 per cy. = \$257.60
Pullback	143+25 to 144+15	110 cys. @	\$1.40 per cy. = \$154.00
			TOTAL EXCAVATION
			\$7,531.85
ENDHAUL & COMPACTION-			
Endhaul - truck to waste area Sta. 36+50 A to B from	+00 to 8+15	385 cys. @	\$0.75 per cy. = \$288.75
Endhaul - truck to waste area Sta. 36+50 A to B from	35+70 to 38+00	29 cys. @	\$0.40 per cy. = \$11.60
Endhaul - truck to waste area Sta. 1+50 W to X from	95+25 to 151+20	977 cys. @	\$0.71 per cy. = \$693.67
Compact waste area Sta. 36+50 A to B		414 cys. @	\$0.35 per cy. = \$144.90
Compact waste area Sta. 1+50 W to X		977 cys. @	\$0.35 per cy. = \$341.95
			TOTAL ENDHAUL
			\$1,480.87
CULVERTS - MATERIALS & INSTALLATION			
	Culverts		
	202 LF of 18"	\$2,979.50	0 LF of 24" \$0.00
	0 LF of 30"	\$0.00	0 LF of 36" \$0.00
	0 LF of 42"	\$0.00	0 LF of 48" \$0.00
	0 LF of 54"	\$0.00	0 LF of 60" \$0.00
		\$2,979.50	\$0.00
	Half Rounds		
	120 LF of 21"	\$1,368.00	0 LF of 30" \$0.00
	0 LF of 36"	\$0.00	0 LF of 42" \$0.00
		\$1,368.00	\$0.00
	Culvert Stakes & Markers		
	24 stakes	\$192.00	
	11 markers	\$66.00	
		\$258.00	
			TOTAL CULVERTS
			\$4,605.50
SURFACING-			
Road 0+00 to 164+85	8,995 cy. of Pit Run	@	\$5.88 per c.y. = \$52,888.40
			TOTAL SURFACING
			\$52,888.40
SPECIAL PROJECTS-			
Grade and shape road with a ditch	158.30 stations @	\$14.20 per station	\$2,247.86
Grade and shape road with outslope	6.55 stations @	\$9.75 per station	\$63.86
Roll subgrade w/ vibratory roller prior to rocking	164.85 stations @	\$11.00 per station	\$1,813.35
Remove 3 old culverts form State Land			\$157.57
Remove debris from culvert outlet @ Sta. 136+50			\$65.00
Remove large stumps	2.50 hours @	\$130.00 per hour	\$325.00
Turnouts & turnaround	4.75 hours @	\$130.00 per hour	\$617.50
Grass seed and fertilize road & waste areas	4.69 acres @	\$180.00 per acre	\$844.20
			TOTAL SPECIAL PROJECTS
			\$6,134.34
			GRAND TOTAL
			\$77,118.71

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>				<u>Road: C to D</u>	
Construction -	<u>0+00</u> stations <u>0.00</u> miles				<u>16+60</u> stations <u>0.31</u> miles	
CLEARING AND GRUBBING -						
Scattering			1.56 acres @	\$815.00 per acre =	\$1,271.40	
Piling - waste area			0.15 acres @	\$905.00 per acre =	\$135.75	
				TOTAL CLEARING AND GRUBBING	\$1,407.15	
EXCAVATION -						
Improvement	0+00 to 8+00		8.00 sta. @	\$150.00 per sta. =	\$1,200.00	
Improvement	8+00 to 16+60		8.60 sta. @	\$100.00 per sta. =	\$860.00	
Berm	0+00 to 8+00		163 cys. @	\$1.15 per cy. =	\$187.45	
Pullback	0+00 to 5+65		1,151 cys. @	\$1.40 per cy. =	\$1,611.40	
				TOTAL EXCAVATION	\$3,858.85	
ENDHAUL & COMPACTION-						
Endhaul - to waste area Sta. 15+50 C to D	0+00 to 8+00		1,314 cys. @	\$0.77 per cy. =	\$1,011.78	
Compact waste area Sta. 15+50 C ot D			1,314 cys. @	\$0.35 per cy. =	\$459.90	
				TOTAL ENDHAUL	\$1,471.68	
CULVERTS - MATERIALS & INSTALLATION						
			Culverts			
			28 LF of 18"	\$413.00		
			0 LF of 30"	\$0.00	0 LF of 24"	\$0.00
			0 LF of 42"	\$0.00	0 LF of 36"	\$0.00
			0 LF of 54"	\$0.00	0 LF of 48"	\$0.00
				\$413.00	0 LF of 60"	\$0.00
						\$0.00
			Half Rounds			
			20 LF of 21"	\$228.00	0 LF of 30"	\$0.00
			0 LF of 36"	\$0.00	0 LF of 42"	\$0.00
				\$228.00		\$0.00
			Culvert Stakes & Markers			
			4 stakes	\$32.00		
			1 markers	\$6.00		
				\$38.00		
					TOTAL CULVERTS	\$679.00
SURFACING-						
0+00 to 8+40	508 cy. of	Pit Run	@	\$4.91 per c.y. =	\$2,494.28	
					TOTAL SURFACING	\$2,494.28
SPECIAL PROJECTS-						
Grade and shape road with ditch			8.00 stations @	\$14.20 per station	\$113.60	
Grade and shape road with outslope			8.60 stations @	\$9.75 per station	\$83.85	
Roll subgrade w/ vibratory roller prior to rocking			16.60 stations @	\$11.00 per station	\$182.60	
Turnouts and turnaround construction			1.00 hour @	\$130.00 per hour	\$130.00	
Remove buried logs			2.50 hour @	\$130.00 per hour	\$325.00	
Remove large stumps			1.50 hour @	\$130.00 per hour	\$195.00	
Grass seed and fertilize - road and waste area			0.57 acres @	\$180.00 per acre	\$102.60	
				TOTAL SPECIAL PROJECTS	\$1,132.65	
GRAND TOTAL					\$9,571.93	

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>		Road: <u>E to F</u>
Construction -	<u>7+45</u> stations <u>0.14</u> miles		Improvement - <u>0+00</u> stations <u>0.00</u> miles
CLEARING AND GRUBBING -			
Scattering	0.68 acres @	\$815.00 per acre =	<u>\$554.20</u>
		TOTAL CLEARING AND GRUBBING	\$554.20
EXCAVATION -			
Construction	0+00 to 7+45	7.45 sta. @	\$210.00 per sta. = <u>\$1,564.50</u>
			TOTAL EXCAVATION
			\$1,564.50
ENDHAUL & COMPACTION-			
Drift & Compact	0+00 to 7+45	7.45 sta. @	\$30.00 per sta. = <u>\$223.50</u>
			TOTAL ENDHAUL
			\$223.50
CULVERTS - MATERIALS & INSTALLATION			
	Culverts		
	0 LF of 18"	\$0.00	0 LF of 24" \$0.00
	0 LF of 30"	\$0.00	0 LF of 36" \$0.00
	0 LF of 42"	\$0.00	0 LF of 48" \$0.00
	0 LF of 54"	\$0.00	0 LF of 60" \$0.00
		\$0.00	\$0.00
	Half Rounds		
	0 LF of 21"	\$0.00	0 LF of 30" \$0.00
	0 LF of 36"	\$0.00	0 LF of 42" \$0.00
		\$0.00	\$0.00
	Culvert Stakes & Markers		
	0 stakes	\$0.00	
	0 marker	\$0.00	
		\$0.00	
			TOTAL CULVERTS
			\$0.00
SURFACING-			
	0 cy. of	@	\$0.00 per c.y. = <u>\$0.00</u>
			TOTAL SURFACING
			\$0.00
SPECIAL PROJECTS			
Grade and shape road with outslope	7.45 stations @	\$9.75 per station	\$72.64
Roll subgrade w/ vibratory roller prior to rocking	7.45 stations @	\$11.00 per station	\$81.95
Install waterbars	4 waterbars @	\$25.00 per waterbar	\$100.00
Turnaround construction	0.25 hour @	\$130.00 per hour	\$32.50
Remove large stumps	1.00 hour @	\$130.00 per hour	\$130.00
Grass seed and fertilize	0.17 acres @	\$180.00 per acre	\$30.60
			TOTAL SPECIAL PROJECTS
			\$447.69
		GRAND TOTAL	\$2,789.89

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>		<u>Road: G to H</u>
Construction -	<u>0+00</u> stations <u>0.00</u> miles		<u>2+50</u> stations <u>0.05</u> miles
CLEARING AND GRUBBING -			
Scattering		0.23 acres @	\$815.00 per acre = <u>\$187.45</u>
			TOTAL CLEARING AND GRUBBING \$187.45
EXCAVATION -			
Improvement	0+00 to 2+50	2.50 sta. @	\$130.00 per sta. = <u>\$325.00</u>
Berm - scatter outside of right-of-way	0+00 to 1+50	31 cys. @	\$1.15 per cy. = <u>\$35.65</u>
			TOTAL EXCAVATION \$325.00
CULVERTS - MATERIALS & INSTALLATION			
Culverts			
0 LF of 18"		\$0.00	0 LF of 24" \$0.00
0 LF of 30"		\$0.00	0 LF of 36" \$0.00
0 LF of 42"		\$0.00	0 LF of 48" \$0.00
0 LF of 54"		\$0.00	0 LF of 60" \$0.00
		\$0.00	\$0.00
Half Rounds			
0 LF of 21"		\$0.00	0 LF of 30" \$0.00
0 LF of 36"		\$0.00	0 LF of 42" \$0.00
		\$0.00	\$0.00
Culvert Stakes & Markers			
0 stakes		\$0.00	
0 marker		\$0.00	
		\$0.00	
			TOTAL CULVERTS \$0.00
SURFACING-			
0+00 to 2+50	158 cy. of	Pit-Run @	\$4.79 per c.y. = <u>\$758.02</u>
			TOTAL SURFACING \$758.02
SPECIAL PROJECTS-			
Grade and shape road with outslope	2.50 stations @	\$9.75 per station	\$24.38
Roll subgrade w/ vibratory roller prior to rocking	2.50 stations @	\$11.00 per station	\$27.50
Install waterbars	3 waterbars @	\$25.00 per waterbar	\$75.00
Remove buried logs	1.00 hour @	\$130.00 per hour	\$130.00
Turnout and turnarounds construction	0.25 hour @	\$130.00 per hour	\$32.50
Remove large stumps	0.50 hour @	\$130.00 per hour	\$65.00
Grass seed and fertilize	0.07 acres @	\$180.00 per acre	\$12.60
			TOTAL SPECIAL PROJECTS \$366.98
GRAND TOTAL			\$1,637.44

SUMMARY OF CONSTRUCTION COST

Sale:

EDS BSM

Road: I to J

Construction -

0+00 stations
0.00 miles

Improvement - 28+70 stations
0.54 miles

CLEARING AND GRUBBING -

Scattering	1.30	acres @	\$815.00	per acre =	<u>\$1,059.50</u>	
TOTAL CLEARING AND GRUBBING						\$1,059.50

EXCAVATION -

Improvement	0+00	to	28+70	28.70	sta. @	\$65.00	per sta. =	\$1,865.50	
Load rock removal from ditchline & subgrade	8+00	to	15+05	35	cys. @	\$0.60	per cy. =	\$21.00	
Berm	0+00	to	16+40	185	cys. @	\$1.15	per cy. =	\$212.75	
Berm	17+20	to	28+70	71	cys. @	\$1.15	per cy. =	\$81.65	
Pullback	1+20	to	10+40	1,189	cys. @	\$1.40	per cy. =	\$1,664.60	
Pullback	13+50	to	15+90	392	cys. @	\$1.40	per cy. =	\$548.80	
Pullback	19+00	to	19+95	194	cys. @	\$1.40	per cy. =	<u>\$271.60</u>	
TOTAL EXCAVATION									\$4,665.90

ENDHAUL & COMPACTION-

Endhaul - to waste area Sta. 29+00 I to J from	0+00	to	28+70	2,066	cys. @	\$0.74	per cy. =	\$1,528.84	
Compact waste area Sta. 29+00 I to J				2,066	cys. @	\$0.35	per cy. =	<u>\$723.10</u>	
TOTAL ENDHAUL									\$2,251.94

CULVERTS - MATERIALS & INSTALLATION

Culverts										
	116	LF of 18"		\$1,711.00		0	LF of 24"	\$0.00		
	0	LF of 30"		\$0.00		0	LF of 36"	\$0.00		
	0	LF of 42"		\$0.00		0	LF of 48"	\$0.00		
	0	LF of 54"		<u>\$0.00</u>		0	LF of 60"	<u>\$0.00</u>		
				\$1,711.00					\$0.00	
Half Rounds										
	50	LF of 21"		\$570.00		0	LF of 30"	\$0.00		
	0	LF of 36"		<u>\$0.00</u>		0	LF of 42"	<u>\$0.00</u>		
				\$570.00					\$0.00	
Culvert Stakes & Markers										
	10	stakes		\$80.00						
	4	markers		<u>\$24.00</u>						
				\$104.00						
TOTAL CULVERTS									\$2,385.00	

SURFACING-

0+00 to 28+70	1,676	cy. of	Pit-Run	@	\$5.39	per c.y. =	\$9,032.29	
TOTAL SURFACING								\$9,032.29

SPECIAL PROJECTS-

Grade and shape road with ditch	28.70	stations @	\$14.20	per station	\$407.54	
Roll subgrade w/ vibratory roller prior to rocking	28.70	stations @	\$11.00	per station	\$315.70	
Replace fill at Sta. 9+45	0.75	hour @	\$130.00	per hour	\$97.50	
Remove 2 culverts form State Land					\$105.05	
Remove rock from ditch and subgrade - excavator with rock breaker	1.50	hour @	\$155.00	per hour	\$232.50	
Remove buried logs	1.00	hour @	\$130.00	per hour	\$130.00	
Turnouts and Turnaround construction	1.50	hour @	\$130.00	per hour	\$195.00	
Remove large stumps	1.00	hour @	\$130.00	per hour	\$130.00	
Grass seed and fertilize	1.67	acres @	\$180.00	per acre	<u>\$300.60</u>	
TOTAL SPECIAL PROJECTS						\$1,913.89

GRAND TOTAL **\$21,308.52**

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>		Road: <u>I to J 28+70 to 75+35 Road Vacating</u>								
Construction -	<table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: right;">0+00</td> <td style="text-align: left;">stations</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">0.00</td> <td style="text-align: left; border-top: 1px solid black;">miles</td> </tr> </table>	0+00	stations	0.00	miles		<table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: right;">46+65</td> <td style="text-align: left;">stations</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">0.88</td> <td style="text-align: left; border-top: 1px solid black;">miles</td> </tr> </table>	46+65	stations	0.88	miles
0+00	stations										
0.00	miles										
46+65	stations										
0.88	miles										
CLEARING AND GRUBBING -											
Scattering	1.46 acres @	\$815.00 per acre =	\$1,189.90								
Grubbing - waste area	0.20 acres @	\$905.00 per acre =	\$181.00								
		TOTAL CLEARING AND GRUBBING	\$1,370.90								
EXCAVATION -											
Fullback sidecast	1529 cys. @	\$1.40 per cy. =	\$2,140.60								
Remove buried logs	6.0 hrs. @	\$130.00 per hr. =	\$780.00								
Fill removal and resloping old culvert location at 1 1/2:1 fill slopes	5.0 hrs. @	\$130.00 per hr. =	\$650.00								
		TOTAL EXCAVATION	\$3,570.60								
COMPACTION -											
Fullback - local placement at toe of cut bank	1529 cys. @	\$0.35 per cy. =	\$535.15								
Fill removal - local placement at toe of cut bank	3.0 hrs. @	\$130.00 per hr. =	\$390.00								
		TOTAL ENDHAUL	\$925.15								
CULVERTS - MATERIALS & INSTALLATION											
Culverts											
0	LF of 18"	\$0.00									
0	LF of 30"	\$0.00									
0	LF of 42"	\$0.00									
0	LF of 54"	\$0.00									
		\$0.00									
Half Rounds											
0	LF of 21"	\$0.00									
0	LF of 36"	\$0.00									
		\$0.00									
Culvert Stakes & Markers											
0	stakes	\$0.00									
0	markers	\$0.00									
		\$0.00									
		TOTAL CULVERTS	\$0.00								
SURFACING-											
0	cy. of	@	\$0.00 per c.y. = \$0.00								
			TOTAL SURFACING								
			\$0.00								
SPECIAL PROJECTS-											
Within area move-in for an excavator and cat			\$105.28								
Remove 5 culverts from State Land			\$262.62								
Tip subgrade and outslope - cat	46.65 stations @	\$45.00 per station	\$2,099.25								
Block access at Sta. 29+00			\$97.50								
Install waterbars	16 waterbars @	\$25.00 per waterbar	\$400.00								
Remove large stumps	1.00 hour @	\$130.00 per hour	\$130.00								
Mulch - old roadbed Sta. 59+00 to 77+35	0.63 acres @	\$1,000.00 per acre	\$630.00								
Grass seed and fertilize - old roadbed and waste area	1.99 acres @	\$180.00 per acre	\$358.20								
		TOTAL SPECIAL PROJECTS	\$4,082.85								
GRAND TOTAL			\$9,949.50								

SUMMARY OF CONSTRUCTION COST

Sale:	EDS BSM	Road:	M to N
Construction -	$\frac{4 + 85}{0.09}$ stations miles	Improvement -	$\frac{0 + 00}{0.00}$ stations miles
CLEARING AND GRUBBING -			
Soattering - road	0.45 acres @	\$815.00 per acre =	\$362.97
Piling - waste areas	0.30 acres @	\$905.00 per acre =	\$271.50
		TOTAL CLEARING AND GRUBBING	\$634.47
EXCAVATION -			
Construction	0 + 00 to 4 + 85	4.85 sta. @	\$225.00 per sta. =
			\$1,091.25
		TOTAL EXCAVATION	\$1,091.25
ENDHAUL & COMPACTION-			
Drift & Compact	0 + 00 to 4 + 85	4.85 sta. @	\$45.00 per sta. =
			\$218.25
		TOTAL ENDHAUL	\$218.25
CULVERTS - MATERIALS & INSTALLATION			
	Culverts		
	0 LF of 18"	\$0.00	0 LF of 24"
	0 LF of 30"	\$0.00	0 LF of 36"
	0 LF of 42"	\$0.00	0 LF of 48"
	0 LF of 54"	\$0.00	0 LF of 60"
	<u>\$0.00</u>		<u>\$0.00</u>
	Half Rounds		
	0 LF of 21"	\$0.00	0 LF of 30"
	0 LF of 36"	\$0.00	0 LF of 42"
	<u>\$0.00</u>		<u>\$0.00</u>
	Culvert Stakes & Markers		
	0 stakes	\$0.00	
	0 marker	\$0.00	
	<u>\$0.00</u>		
			TOTAL CULVERTS
			\$0.00
SURFACING-			
	cy. of	@	per c.y. =
			\$0.00
			TOTAL SURFACING
			\$0.00
SPECIAL PROJECTS-			
Install waterbars	2 waterbars @	\$25.00 per waterbar	\$50.00
Grade and shape road with outslope	4.85 stations @	\$13.70 per station	\$66.45
Roll subgrade w/ vibratory roller prior to rocking	4.85 stations @	\$11.00 per station	\$53.35
Remove large stumps	1.00 hours @	\$130.00 per hour	\$130.00
Turnaround & waste area construction	1.50 hours @	\$130.00 per hour	\$195.00
Grass seed and fertilize - road & waste area	0.45 acres @	\$180.00 per acre	\$81.00
		TOTAL SPECIAL PROJECTS	\$575.80
		GRAND TOTAL	\$2,519.77

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>		Road: <u>0 to P</u>
Construction -	<u>3+80</u> stations <u>0.07</u> miles		Improvement - <u>5+25</u> stations <u>0.10</u> miles
CLEARING AND GRUBBING -			
Scattering		0.59 acres @	\$815.00 per acre = \$480.85
Piling - waste areas		0.25 acres @	\$905.00 per acre = \$226.25
			TOTAL CLEARING AND GRUBBING
			\$707.10
EXCAVATION -			
Construction	0+00 to 3+80	3.80 sta. @	\$300.00 per sta. = \$1,140.00
Improvement	3+80 to 9+05	5.25 sta. @	\$150.00 per sta. = \$787.50
			TOTAL EXCAVATION
			\$1,927.50
ENDHAUL and COMPACTION-			
Drift & Compact	0+00 to 3+80	3.80 sta. @	\$60.00 per sta. = \$228.00
Drift & Compact	3+80 to 9+05	5.25 sta. @	\$35.00 per sta. = \$183.75
			TOTAL ENDHAUL
			\$228.00
CULVERTS - MATERIALS & INSTALLATION			
	Culverts		
	0 LF of 18"	\$0.00	0 LF of 24" \$0.00
	0 LF of 30"	\$0.00	0 LF of 36" \$0.00
	0 LF of 42"	\$0.00	0 LF of 48" \$0.00
	0 LF of 54"	\$0.00	0 LF of 60" \$0.00
		\$0.00	\$0.00
	Half Rounds		
	0 LF of 21"	\$0.00	0 LF of 30" \$0.00
	0 LF of 36"	\$0.00	0 LF of 42" \$0.00
		\$0.00	\$0.00
	Culvert Stakes & Markers		
	0 stakes	\$0.00	
	0 markers	\$0.00	
		\$0.00	
			TOTAL CULVERTS
			\$0.00
SURFACING-			
0+00 to 9+05	522 cy. of	Pit-Run @	\$6.93 per c.y. = \$3,618.33
			TOTAL SURFACING
			\$3,618.33
SPECIAL PROJECTS-			
Install waterbars		4 waterbars @	\$25.00 per waterbar \$100.00
Grade and shape road with outslope		9.05 stations @	\$9.75 per station \$88.24
Roll subgrade w/ vibratory roller prior to rocking		9.05 stations @	\$11.00 per station \$99.55
Turnaround & waste area construction		1.25 hour @	\$130.00 per hour \$162.50
Remove large stumps		2.00 hour @	\$130.00 per hour \$260.00
Grass seed and fertilize - road and waste area		0.50 acres @	\$180.00 per acre \$90.00
			TOTAL SPECIAL PROJECTS
			\$800.29
			GRAND TOTAL
			\$7,281.21

SUMMARY OF CONSTRUCTION COST

Sale:	EDS BSM				Road:	Q to R			
Construction -	0+00 stations 0.00 miles				Improvement -	10+90 stations 0.21 miles			
CLEARING AND GRUBBING -									
Scattering				0.83 acres @		\$815.00 per acre =		\$676.45	
Piling - waste areas				0.20 acres @		\$905.00 per acre =		\$181.00	
						TOTAL CLEARING AND GRUBBING			\$857.45
EXCAVATION -									
Improvement	0+00	to	10+90	10.90 sta. @		\$65.00 per sta. =		\$708.50	
Widening	4+70	to	7+60	924 cys. @		\$1.15 per cy. =		\$1,062.80	
						TOTAL EXCAVATION			\$1,771.10
ENDHAUL & COMPACTION-									
Endhaul - waste area Sta. 10+00 Q to R fr	4+70	to	7+60	924 cys. @		\$0.65 per cy. =		\$600.60	
Compact waste area Sta. 10+00 Q to R				924 cys. @		\$0.35 per cy. =		\$323.40	
						TOTAL ENDHAUL			\$924.00
CULVERTS - MATERIALS & INSTALLATION									
	Culverts								
	0	LF of 18"		\$0.00		0	LF of 24"		\$0.00
	0	LF of 30"		\$0.00		0	LF of 36"		\$0.00
	0	LF of 42"		\$0.00		0	LF of 48"		\$0.00
	0	LF of 54"		\$0.00		0	LF of 60"		\$0.00
				\$0.00					\$0.00
	Half Rounds								
	0	LF of 21"		\$0.00		0	LF of 30"		\$0.00
	0	LF of 36"		\$0.00		0	LF of 42"		\$0.00
				\$0.00					\$0.00
	Culvert Stakes & Markers								
	0	stakes		\$0.00					
	0	markers		\$0.00					
				\$0.00					
						TOTAL CULVERTS			\$0.00
SURFACING-									
	0+00	to	10+90	621 cy. of	Pit-run	@	\$4.44 per c.y. =		\$2,758.35
							TOTAL SURFACING		\$2,758.35
SPECIAL PROJECTS-									
Grade and shape road with outslope				10.90 stations @		\$9.75 per station		\$106.28	
Roll subgrade w/ vibratory roller prior to rocking				10.90 stations @		\$11.00 per station		\$119.90	
Remove large stumps				1.50 hours @		\$130.00 per hour		\$195.00	
Turnout, turnaround & waste area construction				1.25 hours @		\$130.00 per hour		\$162.50	
Grass seed and fertilize - road and waste area				0.52 acres @		\$180.00 per acre		\$93.60	
						TOTAL SPECIAL PROJECTS			\$677.28
GRAND TOTAL								\$6,988.18	

SUMMARY OF CONSTRUCTION COST

Site:	EDS BSM	Road:	S to T
Construction -	<div style="display: flex; justify-content: space-between;"> 7 + 10 stations </div> <div style="display: flex; justify-content: space-between;"> 0.13 miles </div>	Improvement -	<div style="display: flex; justify-content: space-between;"> 4 + 70 stations </div> <div style="display: flex; justify-content: space-between;"> 0.09 miles </div>
CLEARING AND GRUBBING -			
Scattering - road		1.08 acres @	\$815.00 per acre = \$880.20
Piling - waste areas		0.20 acres @	\$905.00 per acre = \$181.00
			TOTAL CLEARING AND GRUBBING
			\$1,061.20
EXCAVATION -			
Construction	0+00 to 6+22	918 cys. @	\$1.15 per cy. = \$1,055.70
Construction	6+22 to 7+10	0.9 sta. @	\$130.00 per sta. = \$114.40
Improvement	7+10 to 11+80	4.7 sta. @	\$100.00 per sta. = \$470.00
			TOTAL EXCAVATION
			\$1,640.10
ENDHAUL & COMPACTION-			
Endhaul - waste area Sta. 6+22 to 11+80 S to T from	1+30 to 6+22	550 cys. @	\$0.73 per cy. = \$401.50
Drift & Compact	7+10 to 11+80	4.70 sta. @	\$45.00 per sta. = \$211.50
Fill placement	0+00 to 6+22	368 cys. @	\$0.35 per cy. = \$128.80
Compact waste area Sta. 6+22 to 11+80 S to T		550 cys. @	\$0.35 per cy. = \$192.50
			TOTAL ENDHAUL
			\$934.30
CULVERTS - MATERIALS & INSTALLATION			
	Culverts		
	0 LF of 18"	\$0.00	0 LF of 24" \$0.00
	0 LF of 30"	\$0.00	0 LF of 36" \$0.00
	0 LF of 42"	\$0.00	0 LF of 48" \$0.00
	0 LF of 54"	\$0.00	0 LF of 60" \$0.00
		\$0.00	
		\$0.00	\$0.00
	Half Rounds		
	0 LF of 21"	\$0.00	0 LF of 30" \$0.00
	0 LF of 36"	\$0.00	0 LF of 42" \$0.00
		\$0.00	
		\$0.00	\$0.00
	Culvert Stakes & Markers		
	0 stakes	\$0.00	
	0 marker	\$0.00	
		\$0.00	
		\$0.00	\$0.00
			TOTAL CULVERTS
			\$0.00
SURFACING-			
	0+00 to 7+10	439 cy. of Pit-Run @	\$6.49 per c.y. = \$2,849.11
			TOTAL SURFACING
			\$2,849.11
SPECIAL PROJECTS-			
Install waterbars		4 waterbars @	\$25.00 per waterbar \$100.00
Grade and shape road with outslope		11.80 stations @	\$9.75 per station \$115.05
Roll subgrade w/ vibratory roller prior to rocking		11.80 stations @	\$11.00 per station \$129.80
Remove large stumps		4.00 hours @	\$130.00 per hour \$520.00
Turnout, turnarounds & waste area construction		1.00 hours @	\$130.00 per hour \$130.00
Grass seed and fertilize - road & waste area		0.57 acres @	\$180.00 per acre \$102.60
			TOTAL SPECIAL PROJECTS
			\$1,097.45
GRAND TOTAL			\$7,582.16

SUMMARY OF CONSTRUCTION COST

Sale:	EDS BSM				Road: U to V
Construction -	0+00 stations 0.00 miles				Improvement - 14+90 stations 0.28 miles
CLEARING AND GRUBBING -					
Scattering			1.40 acres @	\$815.00 per acre =	\$1,141.00
Piling - waste area			0.12 acres @	\$905.00 per acre =	\$108.60
				TOTAL CLEARING AND GRUBBING	\$1,249.60
EXCAVATION -					
Improvement	0+00 to 14+90		14.90 sta. @	\$65.00 per sta. =	\$968.50
Sidecast pullback	0+00 to 8+70		1418 cys. @	\$1.40 per cy. =	\$1,985.20
				TOTAL EXCAVATION	\$2,953.70
ENDHAUL and COMPACTION-					
Endhaul - truck to waste area Sta. 10+80 U to V from	0+00 to 8+70		1418 cys. @	\$0.47 per cy. =	\$666.46
Compact waste area Sta. 10+80 U to V			1,418 cys. @	\$0.35 per cy. =	\$496.30
				TOTAL ENDHAUL	\$1,162.76
CULVERTS - MATERIALS & INSTALLATION					
		Culverts			
		0 LF of 18"	\$0.00	0 LF of 24"	\$0.00
		0 LF of 30"	\$0.00	0 LF of 36"	\$0.00
		0 LF of 42"	\$0.00	0 LF of 48"	\$0.00
		0 LF of 54"	\$0.00	0 LF of 60"	\$0.00
			\$0.00		\$0.00
		Half Rounds			
		0 LF of 21"	\$0.00	0 LF of 30"	\$0.00
		0 LF of 36"	\$0.00	0 LF of 42"	\$0.00
			\$0.00		\$0.00
		Culvert Stakes & Markers			
		0 stakes	\$0.00		
		0 markers	\$0.00		
			\$0.00		
				TOTAL CULVERTS	\$0.00
SURFACING-	0+00 to 2+00	132 cy. of	Pit Run	@	\$6.46 per c.y. = \$852.72
					TOTAL SURFACING
					\$852.72
SPECIAL PROJECTS-					
Grade and shape road with outslope			14.90 stations @	\$9.75 per station	\$145.28
Roll subgrade w/ vibratory roller prior to rocking			14.90 stations @	\$11.00 per station	\$163.90
Turnouts and turnaround construction			1.00 hour @	\$130.00 per hour	\$130.00
Remove large stumps			1.50 hour @	\$130.00 per hour	\$195.00
Grass seed and fertilize road and waste area			0.86 acres @	\$180.00 per acre	\$154.80
				TOTAL SPECIAL PROJECTS	\$788.98
GRAND TOTAL					\$7,007.76

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>		Road:	<u>W to X</u>
Construction -	<u>0+00</u> stations <u>0.00</u> miles		Improvement -	<u>5+25</u> stations <u>0.10</u> miles
CLEARING AND GRUBBING -				
Scattering		0.18 acres @	\$815.00 per acre =	<u>\$146.70</u>
			TOTAL CLEARING AND GRUBBING	
				\$146.70
EXCAVATION -				
Improvement	0+00 to 5+25	5.25 sta. @	\$100.00 per sta. =	<u>\$525.00</u>
			TOTAL EXCAVATION	
				\$525.00
ENDHAUL and COMPACTION-				
	0+00 to +00	0.00 sta. @	\$0.00 per sta. =	<u>\$0.00</u>
			TOTAL ENDHAUL	
				\$0.00
CULVERTS - MATERIALS & INSTALLATION				
	Culverts			
	0	LF of 18"	\$0.00	
	0	LF of 30"	\$0.00	
	0	LF of 42"	\$0.00	
	0	LF of 54"	<u>\$0.00</u>	
			\$0.00	
	0	LF of 24"	\$0.00	
	0	LF of 36"	\$0.00	
	0	LF of 48"	\$0.00	
	0	LF of 60"	<u>\$0.00</u>	
			\$0.00	
	Half Rounds			
	0	LF of 21"	\$0.00	
	0	LF of 36"	<u>\$0.00</u>	
			\$0.00	
	Culvert Stakes & Markers			
	0	stakes	\$0.00	
	0	markers	<u>\$0.00</u>	
			\$0.00	
			TOTAL CULVERTS	
				\$0.00
SURFACING-				
0+00 to 2+00	132	cy. of	Pit Run @	\$6.59 per c.y. = <u>\$869.88</u>
			TOTAL SURFACING	
				\$869.88
SPECIAL PROJECTS-				
Install waterbars	3	waterbars @	\$25.00 per waterbar	\$75.00
Grade and shape road with outslope	5.25	stations @	\$13.70 per station	\$71.93
Roll subgrade w/ vibratory roller prior to rocking	5.25	stations @	\$11.00 per station	\$57.75
Turnarounds construction	0.50	hour @	\$130.00 per hour	\$65.00
Remove large stumps	1.00	hour @	\$130.00 per hour	\$130.00
Grass seed and fertilize road and waste area	0.12	acres @	\$180.00 per acre	\$21.60
			TOTAL SPECIAL PROJECTS	
				\$421.28
GRAND TOTAL				\$1,962.86

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>		Road:	<u>Y to Z</u>
Construction -	<u>0+00</u> stations <u>0.00</u> miles		Improvement -	<u>57+70</u> stations <u>1.09</u> miles
CLEARING AND GRUBBING - Scattering		1.52 acres @	\$815.00 per acre =	<u>\$1,238.80</u>
			TOTAL CLEARING AND GRUBBING	\$1,238.80
EXCAVATION -				
Improvement	0+00 to 57+70	57.70 sta. @	\$30.00 per sta. =	\$1,731.00
Berm - scatter material outside of right-of-way	6+25 to 11+25	46 cys. @	\$1.15 per cy. =	\$52.90
Berm - scatter material outside of right-of-way	19+80 to 31+15	24 cys. @	\$1.15 per cy. =	\$27.60
Berm - scatter material outside of right-of-way	37+55 to 39+40	17 cys. @	\$1.15 per cy. =	<u>\$19.55</u>
			TOTAL EXCAVATION	\$1,783.90
ENDHAUL and COMPACTION-				
	0+00 to +00	0.00 sta. @	\$0.00 per sta. =	<u>\$0.00</u>
			TOTAL ENDHAUL	\$0.00
CULVERTS - MATERIALS & INSTALLATION				
	Culverts			
	96 LF of 18"	\$1,416.00	0 LF of 24"	\$0.00
	0 LF of 30"	\$0.00	0 LF of 36"	\$0.00
	0 LF of 42"	\$0.00	0 LF of 48"	\$0.00
	0 LF of 54"	<u>\$0.00</u>	0 LF of 60"	<u>\$0.00</u>
		\$1,416.00		\$0.00
	Half Rounds			
	0 LF of 21"	\$0.00	0 LF of 30"	\$0.00
	0 LF of 36"	<u>\$0.00</u>	0 LF of 42"	<u>\$0.00</u>
		\$0.00		\$0.00
	Culvert Stakes & Markers			
	10 stakes	\$80.00		
	3 markers	<u>\$18.00</u>		
		\$98.00		
			TOTAL CULVERTS	\$1,514.00
SURFACING-	0+00 to 48+70	2,719 cy. of Pit Run @	\$5.10 per c.y. =	\$13,866.90
			TOTAL SURFACING	\$13,866.90
SPECIAL PROJECTS-				
Grade and shape road with ditch		18.30 stations @	\$14.20 per station	\$259.86
Grade and shape road with outslope		39.40 stations @	\$9.75 per station	\$384.15
Roll subgrade w/ vibratory roller prior to rocking		57.70 stations @	\$11.00 per station	\$634.70
Turnouts and turnaround construction		1.75 hour @	\$130.00 per hour	\$227.50
Remove 2 culverts form State Land				\$105.05
Block access @ 1+75 with 2 tank traps		1.50 hour @	\$130.00 per hour	\$195.00
Remove buried logs		1.00 hour @	\$130.00 per hour	\$130.00
Remove large stumps		4.00 hour @	\$130.00 per hour	\$520.00
Grass seed and fertilize		1.32 acres @	\$180.00 per acre	<u>\$237.60</u>
			TOTAL SPECIAL PROJECTS	\$2,693.86
			GRAND TOTAL	\$21,097.46

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>	Road: <u>AA to BB</u>
Construction -	<u>0+00</u> stations <u>0.00</u> miles	Improvement - <u>29+25</u> stations <u>0.55</u> miles
CLEARING AND GRUBBING -		
Scattering	0.81 acres @	\$815.00 per acre = \$660.15
Waste area - pile	0.10 acres @	\$905.00 per acre = \$90.50
		<u>TOTAL CLEARING AND GRUBBING</u>
		\$750.65
EXCAVATION -		
Improvement	26.15 sta. @	\$45.00 per sta. = \$1,176.75
Berm	9+00 to 11+40 49 cys. @	\$1.15 per cy. = \$56.35
Widening	19+10 to 20+80 1.70 sta. @	\$225.00 per sta. = \$382.50
Curve	20+80 to 22+20 1.40 sta. @	\$300.00 per sta. = \$420.00
		<u>TOTAL EXCAVATION</u>
		\$2,035.60
ENDHAUL and COMPACTION-		
Drift & Compact	19+10 to 22+20 3.10 sta. @	\$60.00 per sta. = \$186.00
Endhaul - truck to waste area Sta. 26+50 AA to BB from	9+00 to 11+40 49 cys. @	\$0.70 per cy. = \$34.30
Compact waste	9+00 to 11+40 49 cys. @	\$0.35 per cy. = \$17.15
		<u>TOTAL ENDHAUL</u>
		\$237.45
CULVERTS - MATERIALS & INSTALLATION		
	Culverts	
	78 LF of 18" \$1,150.50	0 LF of 24" \$0.00
	0 LF of 30" \$0.00	0 LF of 36" \$0.00
	0 LF of 42" \$0.00	0 LF of 48" \$0.00
	0 LF of 54" \$0.00	0 LF of 60" \$0.00
	<u>\$1,150.50</u>	<u>\$0.00</u>
	Half Rounds	
	20 LF of 21" \$228.00	0 LF of 30" \$0.00
	0 LF of 36" \$0.00	0 LF of 42" \$0.00
	<u>\$228.00</u>	<u>\$0.00</u>
	Culvert Stakes & Markers	
	4 stakes \$32.00	
	3 markers \$18.00	
	<u>\$50.00</u>	
		<u>TOTAL CULVERTS</u>
		\$1,428.50
SURFACING-	0+00 to 29+25 1,631 cy. of Pit Run @	\$4.54 per c.y. = \$7,404.74
		<u>TOTAL SURFACING</u>
		\$7,404.74
SPECIAL PROJECTS-		
Grade and shape road with ditch	21.70 stations @	\$17.40 per station \$377.58
Grade and shape road with outslope	7.55 stations @	\$13.70 per station \$103.44
Roll subgrade w/ vibratory roller prior to rocking	29.25 stations @	\$11.00 per station \$321.75
Turnouts and turnaround construction	1.25 hour @	\$130.00 per hour \$162.50
Remove large stumps	1.00 hour @	\$130.00 per hour \$130.00
Grass seed and fertilize road and waste area	0.77 acres @	\$180.00 per acre \$138.60
		<u>TOTAL SPECIAL PROJECTS</u>
		\$1,233.87

GRAND TOTAL **\$13,090.81**

SUMMARY OF CONSTRUCTION COST

Sale:	<u>EDS BSM</u>	Road: <u>CC to DD</u>
Construction -	<u>0+00 stations</u> <u>0.00 miles</u>	Improvement - <u>17+50 stations</u> <u>0.33 miles</u>
CLEARING AND GRUBBING -		
Scattering - road	0.80 acres @	\$815.00 per acre = \$852.00
Piling - waste area	0.17 acres @	\$905.00 per acre = \$153.85
		TOTAL CLEARING AND GRUBBING \$805.85
EXCAVATION -		
Pullback	0+00 to 17+50 2,139 cys. @	\$1.40 per cy. = \$2,994.60
		TOTAL EXCAVATION \$2,994.60
ENDHAUL & COMPACTION-		
Endhaul - to waste area Sta. 18+50 CCtoDD from	0+00 to 17+50 2,139 cys. @	\$0.52 per cy. = \$1,112.28
Compact waste area Sta. 18+50 CC to DD	2,139 cys. @	\$0.35 per cy. = \$748.65
		TOTAL ENDHAUL \$1,860.93
CULVERTS - MATERIALS & INSTALLATION		
Culverts		
0 LF of 18"	\$0.00	0 LF of 24" \$0.00
0 LF of 30"	\$0.00	0 LF of 36" \$0.00
0 LF of 42"	\$0.00	0 LF of 48" \$0.00
0 LF of 54"	\$0.00	0 LF of 60" \$0.00
	\$0.00	\$0.00
Half Rounds		
0 LF of 21"	\$0.00	0 LF of 30" \$0.00
0 LF of 36"	\$0.00	0 LF of 42" \$0.00
	\$0.00	\$0.00
Culvert Stakes & Markers		
0 stakes	\$0.00	
0 markers	\$0.00	
	\$0.00	
		TOTAL CULVERTS \$0.00
SURFACING-		
0 cy. of	@	\$0.00 per c.y. = \$0.00
		TOTAL SURFACING \$0.00
SPECIAL PROJECTS-		
Grass seed and fertilize 0+00 to 17+50 & waste area	0.97 acres @	\$180.00 per acre \$174.60
		TOTAL SPECIAL PROJECTS \$174.60
		GRAND TOTAL \$5,835.98

MOVE-IN CALCULATIONS

Sale: **EDS BSM**

LOWBOY HAUL (One Way)		
DISTANCE	ROADWAY	AVE SPEED (MPH)
14.0	Highway	40
1.7	Main Lines (Off Road)	12
0.0	Pulling Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
0	Drill & Compressor	\$0.00		\$46.00	0	0	0	\$0.00	\$0.00
1	Rock Breaker	\$110.88		\$4.00	0	4.8	4.8	\$19.20	\$130.08
1	Graders	\$40.27		\$3.65	0	0	0	\$0.00	\$40.27
0	Loader (Small)	\$0.00	1	\$3.55	0	0	0	\$0.00	\$0.00
0	Loader (Med. & Large)	\$0.00	1	\$9.00	0	0	0	\$0.00	\$0.00
1	Rollers & Compactors	\$110.88		\$5.00	0	14.8	14.8	\$74.00	\$184.88
0	Excavators (Small)	\$0.00		\$22.00	0	0	0	\$0.00	\$0.00
0	Excavators (Med.)	\$0.00		\$35.50	0	0	0	\$0.00	\$0.00
1	Excavators (Large)	\$178.72	1	\$44.80	0	14.8	14.8	\$663.04	\$841.76
0	Rubber Tired Backhoes/Skidlers	\$0.00		\$3.00	0	0	0	\$0.00	\$0.00
0	Tractors (D6)	\$0.00	2	\$7.10	0	0	0	\$0.00	\$0.00
1	Tractors (D7)	\$171.83	2	\$11.30	0	9.7	9.7	\$109.61	\$281.44
1	Tractor (D8)	\$177.48	2	\$15.10	0	14.8	14.8	\$223.48	\$400.96
3	Dump Truck (10 cy +)	\$84.08		\$2.85	0	14.8	14.8	\$126.54	\$210.62
0	Dump Truck (Off Hiway)	\$0.00	1	\$4.75	0	0	0	\$0.00	\$0.00
0	Water Truck (1500 Gal)	\$0.00		\$2.85	0	0	0	\$0.00	\$0.00
0	Water Truck (2500 Gal)	\$0.00		\$2.85	0	0	0	\$0.00	\$0.00
0	Jaw	\$1,066.00							
0	2-Stage Crusher	\$1,597.00							
0	3-Stage Crusher	\$2,489.00							

TOTAL MOVE-IN COSTS: \$2,090.01

PIT RUN ROCK DEVELOPMENT COST SUMMARY

Sale: **EDS BSM**

Station 25 + 00 on AA to BB

Pit: Ridge Top
 Rock: Pit-run
 Swell: 1.40
 Shrinkage: 1.16
 Drill Pct.: 80%

Location: SW 1/4, SE 1/4, Sec 21, T2S, R8W, W.M.
 Road: 4350 c.y.
 Stockpile Base: c.y.
 Total Truck Loads: 4350 c.y.
 In Place Total: 3107 c.y.

Clear, scalp, load & compact overburden; construct access road:

D-8 Cat and excavator - 4 Hrs. @ \$260.00/Hr \$1,040.00

Waste area next to pit is for pit waste only.

Grass seed and fertilize waste area and access road : 0.10 acres @ \$180.00/ac \$18.00

Drill and Shoot	<u>\$2.10</u> /cu.yd.	<u>2486</u> cu.yds.	=	\$5,220.00
Strip	<u>\$1.75</u> /cu.yd.	<u>621</u> cu.yds.	=	\$1,087.50
Push Rock	<u>\$0.60</u> /cu.yd.	<u>4350</u> cu.yds.	=	\$2,610.00
Load Dump Truck:	<u>\$0.60</u> /cu.yd.	<u>4350</u> cu.yds.	=	<u>\$2,610.00</u>
		Subtotal		<u>\$12,585.50</u>

Move in Drill	244.28
Move in Loader	190.68
Move in D8	221.27
Move in Excavator	308.64
Move-in Trucks	<u>108.87</u>
	Subtotal <u>\$1,073.74</u>

TOTAL PRODUCTION COSTS \$13,659.24

Base Cost = \$3.14 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
Y to Z	<u>\$1.06</u>	<u>\$0.90</u>	<u>\$3.14</u>	<u>\$5.10</u>	<u>2719</u>	<u>\$13,866.90</u>
AA to BB	<u>\$0.50</u>	<u>\$0.90</u>	<u>\$3.14</u>	<u>\$4.54</u>	<u>1631</u>	<u>\$7,404.74</u>
				Total C.Y.	<u>4350</u>	Sub Total <u>\$21,271.64</u>

TOTAL ROCKING COSTS \$21,271.64

PIT RUN ROCK DEVELOPMENT COST SUMMARY

Sale: **EDS BSM**

Station 37 + 35 on A to B

Pit: BSM # 1
 Rock: Pit-run
 Swell: 1.40
 Shrinkage: 1.16
 Drill Pct.: 0%

Location: NE 1/4, NE 1/4, Sec 15, T2S, R8W, W.M.
 Road: 10282 c.y.
 Stockpile Base: c.y.
 Total Truck Loads: 10282 c.y.
 In Place Total: 7344 c.y.

Clear, scalp, load & compact overburden; construct access road:
 D-8 Cat and excavator - 16 Hrs. @ \$260.00/Hr \$4,160.00
 End-haul overburden to waste area:
 Dump Truck-32 Hrs. @ \$57.00/Hr \$1,824.00
 Grass seed and fertilize waste area and access road : 0.2 acres @ \$180.00/acre \$36.00
 Strip \$1.75 /cu.yd. 7344 cu.yds. = \$12,852.34
 Push Rock \$0.60 /cu.yd. 10282 cu.yds. = \$6,169.13
 Load Dump Truck: \$0.60 /cu.yd. 10282 cu.yds. = \$6,169.13
Subtotal \$31,210.59

Move in Loader from Edwards Cr. Pit 5.22
 Move in D8 from Edwards Cr. Pit 8.76
 Move in Excavator from Edwards Cr. Pit 25.98
 Move-in Trucks from Edwards Cr. Pit 4.96
Subtotal \$44.92

TOTAL PRODUCTION COSTS \$31,255.51

Base Cost = \$3.04 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
A to B	\$1.94	\$0.90	\$3.04	\$5.88	8995	<u>\$52,888.40</u>
C to D	\$0.97	\$0.90	\$3.04	\$4.91	508	<u>\$2,494.28</u>
G to H	\$0.85	\$0.90	\$3.04	\$4.79	158	<u>\$758.02</u>
Q to R	\$0.50	\$0.90	\$3.04	\$4.44	621	<u>\$2,757.24</u>
Total C.Y.					10282	Sub Total <u>\$58,897.93</u>

TOTAL ROCKING COSTS \$58,897.93

PIT RUN ROCK DEVELOPMENT COST SUMMARY

Sale: **EDS BSM**

Station 72+00 on A to B

Pit: BSM # 2
 Rock: Pit-run
 Swell: 1.40
 Shrinkage: 1.16
 Drill Pct.: 80%

Location: W 1/2, SE 1/4, Sec 15, T2S, R8W, W.M.
 Road: 2379 c.y.
 Stockpile Base: c.y.
 Total Truck Loads: 2379 c.y.
 In Place Total: 1699 c.y.

Clear, scalp, load & compact overburden; construct access road:

D-8 Cat and excavator - 16 Hrs. @ \$260.00/Hr	\$4,160.00
End-haul overburden to waste area:	
Dump Truck-32 Hrs. @ \$57.00/Hr	\$1,824.00
Grass seed and fertilize waste area and access road : 0.30 acres @ \$180.00/ac	\$54.00
Strip \$1.75 /cu.yd. 1699 cu.yds. =	\$2,973.75
Push Rock \$0.60 /cu.yd. 2379 cu.yds. =	\$1,427.40
Load Dump Truck: \$0.60 /cu.yd. 2379 cu.yds. =	\$1,427.40
Subtotal	\$11,866.55

Move in Drill from K to L Pit	9.66
Move in Loader from K to L Pit	1.89
Move in D8 from K to L Pit	3.17
Move in Excavator from K to L Pitt	9.41
Move-in Trucks from K to L Pit	1.80
Subtotal	\$25.93

TOTAL PRODUCTION COSTS \$11,892.48

Base Cost = \$5.00 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds
A to B	\$1.06	\$0.90	\$5.00	\$6.96	1676
S to T	\$0.59	\$0.90	\$5.00	\$6.49	439
U to V	\$0.56	\$0.90	\$5.00	\$6.46	132
W to X	\$0.69	\$0.90	\$5.00	\$6.59	132
Total C.Y.					2379

ROCK COST
\$11,664.96
\$2,849.11
\$852.72
\$869.88
Sub Total \$16,236.67

TOTAL ROCKING COSTS \$16,236.67

PIT RUN ROCK DEVELOPMENT COST SUMMARY

Sale: **EDS BSM**

Station 16 + 40 on I to J

Pit: Edwards Creek Road

Location: NW 1/4, NE 1/4, Sec 15, T2S, R8W, W.M.

Rock: Pit-run

Road: 1676 c.y.

Swall: 1.40

Stockpile Base: c.y.

Shrinkage: 1.16

Total Truck Loads: 1676 c.y.

Drill Pct.: 50%

In Place Total: 1197 c.y.

Clear, scalp, load & compact overburden; construct access road:

D-8 Cat and excavator - 6 Hrs. @ \$260.00/Hr \$1,560.00

End-haul overburden to waste area:

Dump Truck-12 Hrs. @ \$57.00/Hr \$684.00

Grass seed and fertilize waste area and access road : 0.20 acres @ \$180.00/ac \$36.00

Drill and Shoot \$2.10 /cu.yd. 598 cu.yds. = \$1,256.81

Strip \$1.75 /cu.yd. 598 cu.yds. = \$1,047.34

Push Rock \$0.60 /cu.yd. 1676 cu.yds. = \$1,005.45

Load Dump Truck: \$0.60 /cu.yd. 1676 cu.yds. = \$1,005.45

Subtotal \$6,595.06

Move in Drill from BSM # 2 Pit 32.20

Move in Loader from BSM # 2 Pit 6.30

Move in D8 from BSM # 2 Pit 10.57

Move in Excavator from BSM # 2 Pit 31.36

Move-in Trucks from BSM # 2 Pit 5.99

Subtotal \$86.42

TOTAL PRODUCTION COSTS	\$6,681.48
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Base Cost = \$3.99 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds
I to J	\$0.50	\$0.90	\$3.99	\$5.39	1676
				Total C.Y.	1676

ROCK COST
<u>\$9,032.29</u>
Sub Total \$9,032.29

TOTAL ROCKING COSTS	\$9,032.29
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PIT RUN ROCK DEVELOPMENT COST SUMMARY

Sale: **EDS BSM**

Station 2+60 on K to L

Pit: Edwards Creek Road

Location: SE 1/4, SW 1/4, Sec 15, T2S, R8W, W.M.

Rock: Pit-run

Road: 975 c.y.

Swell: 1.40

Stockpile Base: c.y.

Shrinkage: 1.16

Total Truck Loads: 975 c.y.

Drill Pct.: 100%

In Place Total: 696 c.y.

Clear, scalp, load & compact overburden; construct access road:

D-8 Cat and excavator - 6 Hrs. @ \$260.00/Hr \$1,560.00

End-haul overburden to waste area:

Dump Truck-12 Hrs. @ \$57.00/Hr \$684.00

Grass seed and fertilize waste area and access road : 0.10 acres @ \$180.00/ac \$18.00

Drill and Shoot \$2.10 /cu.yd. 696 cu.yds. = \$1,462.13

Push Rock \$0.60 /cu.yd. 975 cu.yds. = \$584.85

Load Dump Truck: \$0.60 /cu.yd. 975 cu.yds. = \$584.85

Subtotal \$4,893.83

Move in Drill from Ridge Top Pit 138.00

Move in Loader from Ridge Top Pit 27.00

Move in D8 from Ridge Top Pit 45.30

Move in Excavator from Ridge Top Pit 134.40

Move-in Trucks from Ridge Top Pit 25.65

Subtotal \$370.35

TOTAL PRODUCTION COSTS	\$5,264.18
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Base Cost = \$5.40 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
K to L	\$0.39	\$0.90	\$5.40	\$6.69	453	<u>\$3,028.90</u>
O to P	\$0.63	\$0.90	\$5.40	\$6.93	522	<u>\$3,617.46</u>
Total C.Y.					975	Sub Total \$6,646.36

TOTAL ROCKING COSTS	\$6,646.36
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OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *Ed's BSM*

1. **Type of Sale**

63% Clearcut, 34% Regeneration harvest, and 3% Partial Cut; 100% Recovery

2. **Legal Description**

Portions of sections 10, 11, 12, 14, 15, 21, and 22, T2S, R8W, W.M., Tillamook County, Oregon.

3. **Sale Acreage**

Total net acres for the sale include 385 acres of clearcut, 212 acres of regeneration harvest, and 18 acres of partial cut. Sale boundaries were plotted on a digital orthophotos and acreage was calculated using GIS.

	ACRES		
	<u>Sale</u> ¹	<u>Total</u> ²	<u>Net</u> ³
Area 1 (Clearcut)	24	26	23
Area 2 (Regen)	9	11	9
Area 3 (Clearcut)	12	13	12
Area 4 (Regen)	151	148	147
Area 5 (Clearcut)	40	39	39
Area 6 (Clearcut)	11	14	11
Area 7 (Regen)	61	56	56
Area 8 (Clearcut)	12	12	12
Area 9 (Clearcut)	104	109	101
Area 10 (Clearcut)	42	49	41
Area 11 (Clearcut)	43	52	42
Area 12 (Clearcut)	40	40	38
Area 13 (Partial Cut)	18	18	18
Area 14 (Clearcut)	46	51	45
Area 15 (Clearcut)	23	21	21
Subtotal Clearcut	397	426	385
Subtotal Regen	221	215	212
Subtotal Partial Cut	18	18	18
TOTAL	636	659	615

¹ Sale Acres

Area within the Timber Sale Boundary signs

2 Total acres

For accomplishment reporting

Clearcut harvest (Clearcut and Regen Harvest Types) - Sale acres; plus green tree retention acres outside the sale boundary; less roads and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

Partial Cut - Sale acres, less areas of low stocking, hardwoods, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

3 Net acres

Used for calculating the advertised volume.

Clearcut - Sale acres, less green tree retention, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

Partial Cut - Same as total acres

4. Cruising Procedures

A. Cruise Method:

191 variable-radius plots were measured with proportional numbers of count and grade plots in each sale area. Cruise lines were run at various directions appropriate for each sale area and spaced at 230-foot intervals. On all plots, tree count by diameter and species was recorded, and alder was measured for height and was graded. On 75 plots, Douglas-fir 9-inches DBH and greater was measured for height and form, and graded. In areas that are 25 acres and smaller, every other plot was a grade plot. In areas greater than 25 acres, every third plot was a grade plot. Diameters were measured to the nearest inch; heights were measured to the nearest foot.

B. Plot size

A basal area factor (BAF) of 20 was used to select Douglas-fir and a BAF of 10 was used for alder, other species, and snags. The point of observation for all species was 4.5 feet.

C. Grading System

Douglas-fir was graded to a 6" top diameter, favoring 40-foot log lengths, based on the Columbia River Official Log Scaling and Grading Bureau rules. Alder was measured to an 8" top diameter and graded camprun.

5. Computation Procedure

Average DBH, basal area, and volume-basal-area ratio (VBAR) were computed using SuperAce Timberland Appraisal and Planning System software (Atterbury Consultants Inc, version 95.02.21). SuperAce data were entered into an Excel Volume Summary spreadsheet to calculate net volumes. This cruise had a coefficient of variation (CV) of 30.7 and standard error (SE) of 2.2% for net board feet per acre.

6. Hidden Defect and Breakage

A 5% reduction for defect and breakage was applied to the volume.

7. Timber Description

This sale area burned in the 1933, 1939, and 1951 Tillamook fires and was seeded in 1958. Portions were replanted in 1964. Portions of Areas 4-8 and 12-15 were pre-commercially thinned in 1987 and 1990. These stands have a closed single canopy structure of 35-40-year-old Douglas-fir showing severe symptoms of Swiss Needle Cast.

8. Cruiser Names/Dates

E. Wells, D. Everingham, J. Pine / Oct. - Nov. 2002

9. Revenue Distribution

100% FDF

Tax Code: 9-1

Deed Numbers: 169, 230, and 569. There is a \$434.50 land cost retirement associated with deed 569.

92% Rehabilitation Obligated

10. Attachments

Stand Tables (for Regen Areas 2, 4, & 7, and Partial Cut Area 13)

Volume Summary

Logging Plan



Ed's BSM

Volume Summary

"STEWARDSHIP IN FORESTRY"

Area 1							
CC 23 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	12	173	91	15.7	361	5%	343
Alder	13	23	52	1.2	28	5%	27
TOTAL							370

Area 2							
Regen 9 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	11	108	92	9.9	89	5%	85
Alder	13	40	48	1.9	17	5%	16
TOTAL							101

Area 3							
CC 12 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	11	176	91	16.0	192	5%	182
Alder	13	20	35	0.7	8	5%	8
TOTAL							190

Area 4							
Regen 147 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	13	116	91	10.6	1558	5%	1480
Alder	14	2	50	0.1	15	5%	14
TOTAL							1494

Ed's BSM

Volume Summary

Area 5							
CC		39 acres					
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	14	144	88	12.7	495	5%	470
TOTAL							470

Area 6							
CC		11 acres					
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	14	130	77	10.0	110	5%	105
Alder	14	15	53	0.8	9	5%	9
TOTAL							114

Area 7							
Regen		56 acres					
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	13	124	86	10.7	599	5%	569
TOTAL							569

Area 8							
CC		12 acres					
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	13	163	90	14.7	176	5%	167
TOTAL							167

Area 9							
CC		101 acres					
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	12	119	93	11.1	1121	5%	1065
Alder	14	20	54	1.1	111	5%	105
TOTAL							1170

Ed's BSM

Volume Summary

Area 10							
CC 41 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	11	107	70	7.5	308	5%	293
Alder	14	22	46	1.0	41	5%	39
TOTAL							332

Area 11							
CC 42 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	13	91	87	7.9	332	5%	315
Alder	14	23	61	1.4	59	5%	56
TOTAL							371

Area 12							
CC 38 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	12	141	77	10.9	414	5%	393
Alder	12	20	56	1.1	42	5%	40
TOTAL							433

Area 13							
PC 18 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	11	50	90	4.3	77	5%	73
Alder	12	15	58	0.9	16	5%	15
TOTAL							88

Area 14							
CC 45 acres							
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	12	96	81	7.8	351	5%	333
Alder	14	25	60	1.5	68	5%	65
TOTAL							398

Ed's BSM

Volume Summary

Area 15							
CC		21 acres					
SPECIES	QMD	Basal Area	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	12	143	80	11.4	239	5%	227
Alder	13	9	51	0.5	11	5%	10
TOTAL							237

TOTAL SALE VOLUME 615 net harvest acres				
SPECIES	QMD	MBF	D&B	Net Vol. (MBF)
Douglas-fir	12	6422	5%	6100
Alder	13	425	5%	404
TOTAL		6847		6504

Ed's BSM - Area 2 - Regeneration

DBH	Douglas-fir Tk tr/acre	Douglas-fir Lv tr/acre
8"	0.0	0.0
9"	18.4	0.0
10"	51.8	0.0
11"	36.0	0.0
12"	41.6	0.0
13"	0.0	0.0
14"	15.2	11.4
15"	0.0	9.6
16"	0.0	5.6
18"	0.0	0.0
20"	0.0	1.8
22"	0.0	0.0
24"	0.0	0.0
26"	0.0	0.0
28"	0.0	0.0
30"	0.0	0.0
32"	0.0	0.0
34"	0.0	0.0
Total	163.0	28.4

TOTAL STAND

	Douglas-fir	Red Alder
BA/acre	144	40
Lv BA/ac	36	0
Tk BA/ac	108	40
RD Total	42	

Current Ave Stand Diameter	12
Leave Stand - QM Diameter	15
Take trees - QM Diameter	11
Relative Density -expected	9

Douglas-fir	BA	QMD
Total	144	12
Leave	36	15
Take	108	11

Douglas-fir	
Stand Density Index	41
SDI- Expected	9

Ed's BSM - Area 4 - Regeneration

DBH	Douglas-fir Tk tr/acre	Douglas-fir Lv tr/acre
8"	0.0	0.0
9"	9.7	0.0
10"	8.8	0.0
11"	11.8	0.0
12"	23.3	0.0
13"	20.8	0.0
14"	36.0	0.0
15"	16.4	0.0
16"	2.9	13.3
18"	0.0	6.7
20"	0.0	1.4
22"	0.0	0.0
24"	0.0	0.0
26"	0.0	0.0
28"	0.0	0.0
30"	0.0	0.0
32"	0.0	0.0
34"	0.0	0.0
Total	129.8	21.3

TOTAL STAND

	Douglas-fir	Red Alder
BA/acre	151	2
Lv BA/ac	34	
Tk BA/ac	116	2
RD Total	41	

Current Ave Stand Diameter	14
Leave Stand - QM Diameter	17
Take trees - QM Diameter	13
Relative Density - expected	8

Douglas-fir	BA	QMD
Total	151	14
Leave	34	17
Take	116	13

Douglas-fir	
Stand Density Index	41
SDI- Expected	8

Ed's BSM - Area 7 - Regeneration

DBH	Douglas-fir Tk tr/acre	Douglas-fir Lv tr/acre
8"	0.0	0.0
9"	2.4	0.0
10"	3.9	0.0
11"	6.3	0.0
12"	23.3	0.0
13"	23.2	0.0
14"	40.0	0.0
15"	18.5	0.0
16"	8.8	10.3
18"	0.0	8.1
20"	0.0	1.9
22"	0.0	0.0
24"	0.0	0.0
26"	0.0	0.0
28"	0.0	0.0
30"	0.0	0.0
32"	0.0	0.0
34"	0.0	0.0
Total	126.4	20.3

TOTAL STAND

	Douglas-fir	Red Alder
BA/acre	158	1
Lv BA/ac	34	
Tk BA/ac	124	1
RD Total	42	

Current Ave Stand Diameter	14
Leave Stand - QM Diameter	17
Take trees - QM Diameter	13
Relative Density - expected	8

Douglas-fir	BA	QMD
Total	158	14
Leave	34	17
Take	124	13

Douglas-fir	
Stand Density Index	42
SDI- Expected	8

Ed's BSM - Area 13 - Partial Cut

DBH	Douglas-fir Tk tr/acre	Douglas-fir Lv tr/acre
8"	0.0	0.0
9"	7.7	0.0
10"	24.7	0.0
11"	15.0	0.0
12"	17.3	0.0
13"	11.0	0.0
14"	0.0	41.2
15"	0.0	10.7
16"	0.0	14.0
18"	0.0	9.2
20"	0.0	1.5
22"	0.0	5.3
24"	0.0	2.0
26"	0.0	0.0
28"	0.0	0.0
30"	0.0	0.0
32"	0.0	0.0
34"	0.0	0.0
Total	75.7	83.8

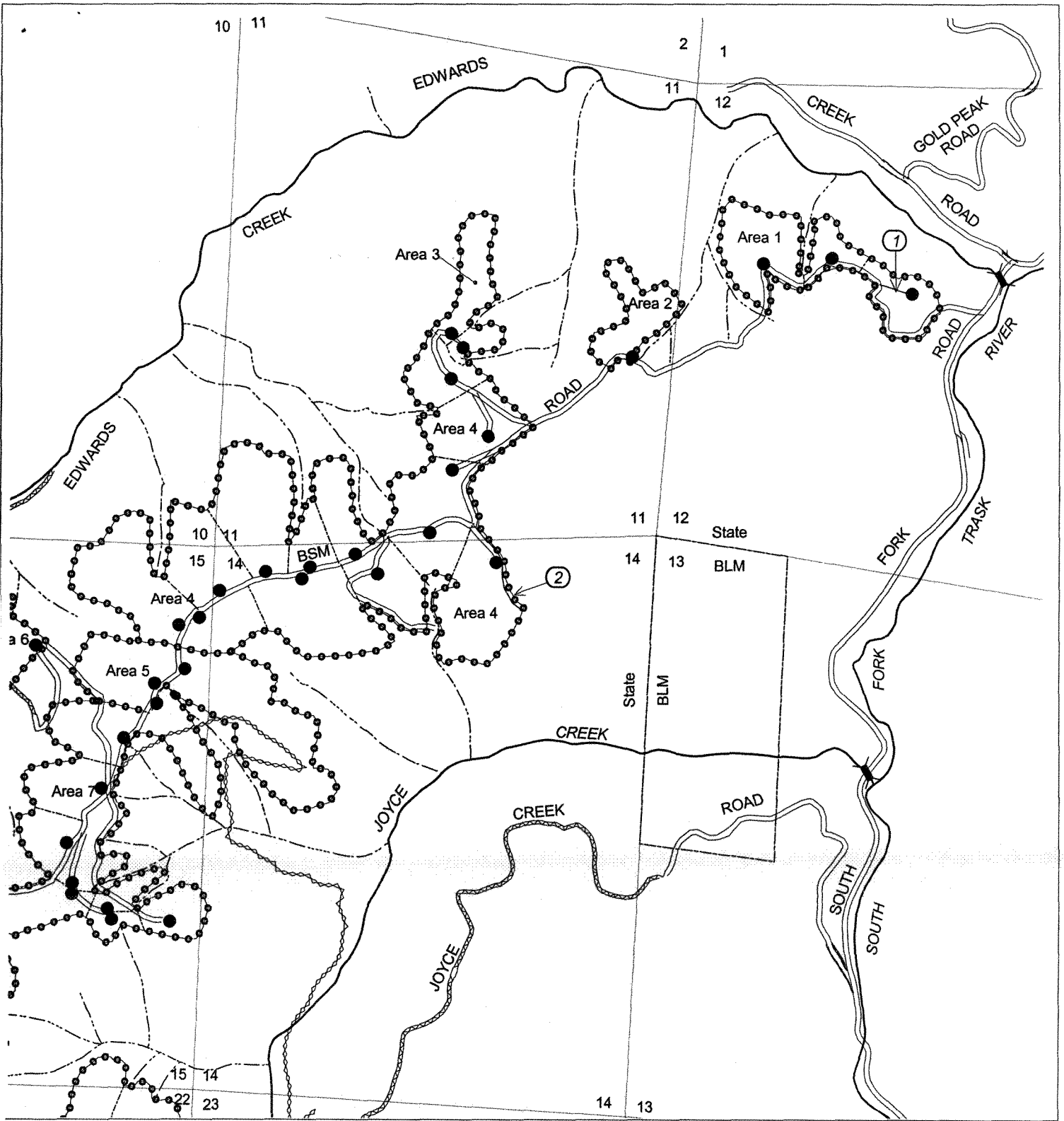
TOTAL STAND

	Douglas-fir	Red Alder
BA/acre	167	15
Lv BA/ac	117	
Tk BA/ac	50	15
RD Total	45	

Current Ave Stand Diameter	14
Leave Stand - QM Diameter	16
Take trees - QM Diameter	11
Relative Density - expected	29

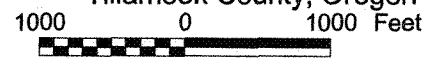
Douglas-fir	BA	QMD
Total	167	14
Leave	117	16
Take	50	11

Douglas-fir	
Stand Density Index	45
SDI- Expected	30

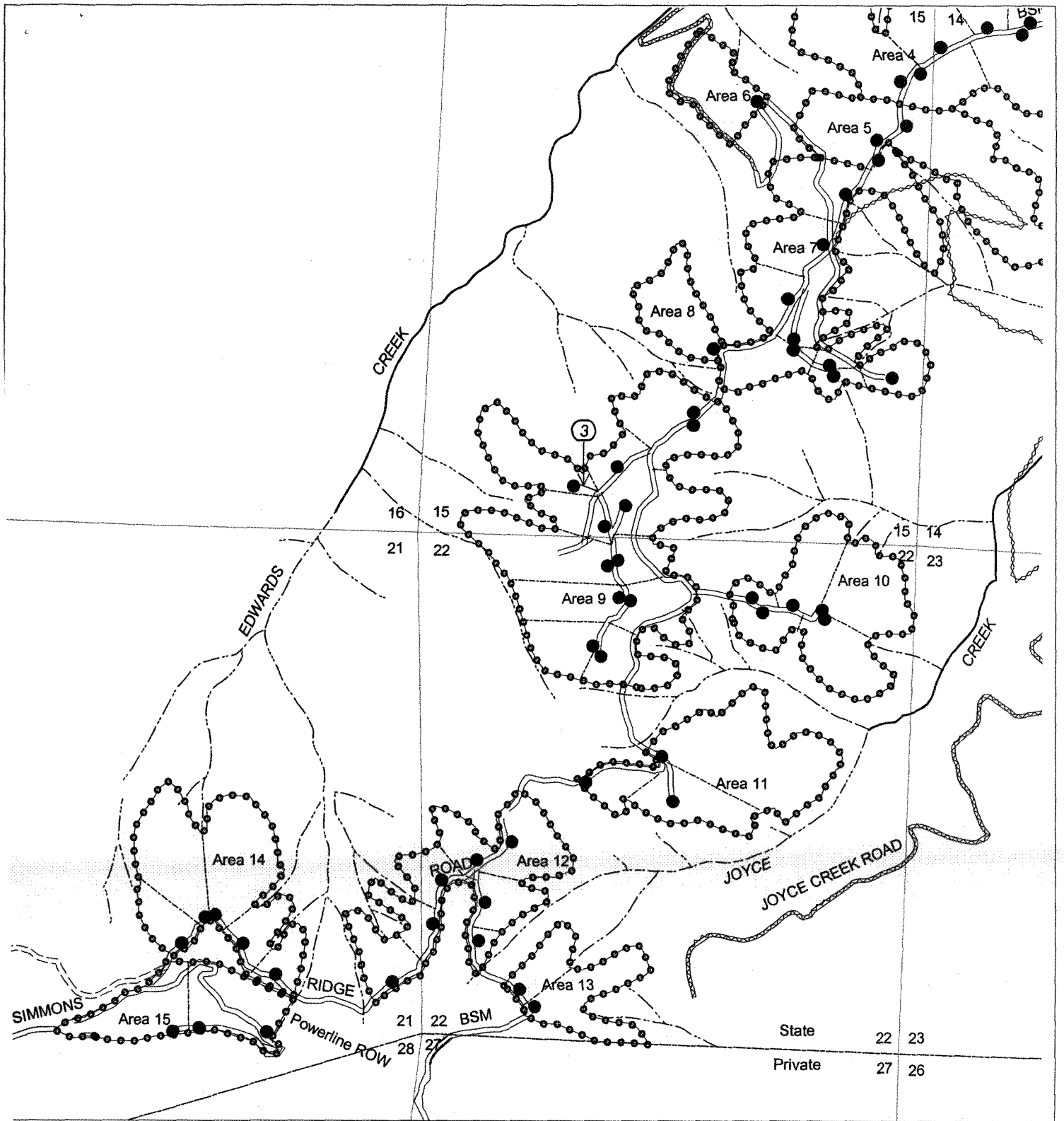


- Tractor landing
- Cable landing
- ▲ Domestic water supply
- ⊗ Bridge
- ⊗ Block
- Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- Buffer
- Non-required thinning
- ⊂ Green tree retention area
- Setting boundary
- - - Area boundary
- ⊙ Sale boundary
- Ownership boundary
- Type-F stream
- Type-N stream
- Surfaced road
- Unsurfaced road
- State highway
- County road
- ⊙ Non-project road
- - - Swing road
- ⊂ Abandoned road
- ⊂ OHV trail
- ⊂ Non-motorized trail

LOGGING PLAN
 Timber Sale Contract No. 341-04-016
 Ed's BSM
 Portions of Sections 10, 11, 12, 14, 15,
 21 and 22, T2S, R8W, W. M.
 Tillamook County, Oregon



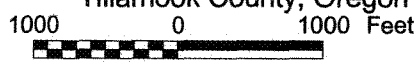
Area	Type of Operation	Acres	
		Net	Sale
1	Clear Cut	23	24
2	Regeneration Cut	9	9
3	Clear Cut	12	12
4	Regeneration Cut	147	151
5	Clear Cut	39	40
6	Clear Cut	11	11
7	Regeneration Cut	56	61
8	Clear Cut	12	12
9	Clear Cut	101	104
10	Clear Cut	41	42
11	Clear Cut	42	43
12	Clear Cut	38	40
13	Partial Cut	18	18
14	Clear Cut	45	46
15	Clear Cut	21	23
Total		615	636



State	22	23
Private	27	26

- Tractor landing
- Cable landing
- ▲ Domestic water supply
- ⊗ Bridge
- ⊗ Block
- ▭ Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- Buffer
- Non-required thinning
- ▭ Green tree retention area
- Setting boundary
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- ⊙ Sale boundary
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- Surfaced road
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9	Clear Cut	101	104
10	Clear Cut	41	42
11	Clear Cut	42	43
12	Clear Cut	38	40
13	Partial Cut	18	18
14	Clear Cut	45	46
15	Clear Cut	21	23
Total		615	636

OREGON DEPARTMENT OF FORESTRY
WRITTEN PLAN
FOR PROJECT WORK ONLY

SALE NAME: Ed's BSM

PROTECTED WATERS Edwards Creek

LOCATIONS: Portions of the following: Section 15 T2S, R8W, W.M. Tillamook County, Oregon.

ACTIVITIES: Culvert removals and road vacating within 100 feet of Type F streams.

PROTECTION MEASURES:

- No in stream activity will be conducted prior to July 1st or after September 15th without prior approval.
- All necessary measures will be taken to prevent sediment from entering "live" streams, including but not limited to:
 - Machine activity in the stream and disturbance of existing vegetation will be kept to a minimum.
 - Work will be performed only during dry weather periods and low water stream flows.
 - Stream water will be diverted around the work area to protect water quality.
 - Ditchouts, waterbars and leadoff ditches will be constructed to direct water with sediment away from streams.
 - Culverts that are removed from the road vacating will have original stream channel grade, width and orientation reestablished. Channel banks shall have side slopes constructed at a 1 ½:1 width to height ratio.
 - Waste material will be placed and compacted in stable locations marked in the field. Material at these locations shall have back slopes constructed at a 1 ½:1 width to height ratio.
 - All disturbed soil will be grass seeded and fertilized. Mulch will be applied to disturbed soil on work along Edwards Creek to minimize erosion.

PREPARED BY: David L. Stone, Road Specialist
January 14, 2003