Timber Sale Appraisal
Lost Hills

Sale TL-341-2018-102-

District: Tillamook

Date: February 12, 2018

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$481,882.53	$1,152,019.33	$1,633,901.86
		Project Work:	($189,180.00)
		Advertised Value:	$1,444,721.86

Timber Description

Location: Sections 19 and 30, T3N, R8W, and sections 24, 25 and 26, T3N, R9W, W.M., Tillamook County, Oregon.

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	19	0	95
Western Hemlock / Fir	41	0	95
Sitka Spruce	16	0	95
Alder (Red)	16	0	95
Maple	20	0	95

Volume by Grade	2S	3S & 4S 6"-11"	8" - 9"	10" - 11"	12"+	6" - 7"	3S	4S	Total
Douglas - Fir	824	269	0	0	0	0	0	0	1,093
Western Hemlock / Fir	58	6	0	0	0	0	0	0	64
Sitka Spruce	7	26	0	0	0	0	0	0	33
Alder (Red)	0	0	574	1,018	709	755	0	0	3,056
Maple	18	0	0	0	0	0	24	9	51
Total	907	301	574	1,018	709	755	24	9	4,297

Comments: Pond Values Used: December, 2017

Western rededar and Other Cedars Stumpage Price = Pond Value – Logging Cost
$1,550/MBF - $376/MBF = $1,174/MBF

Pulp (Conifer and Hardwood) Price = $ 25/MBF

SCALING COST ALLOWANCE = $ 5.00/ MBF
BRANDING AND PAINTING COST ALLOWANCE = $2.00/MBF
FUEL COST ALLOWANCE = $3.00/ Gallon
HAULING COST ALLOWANCE
Hauling cost equivalent to $780 daily truck cost

Other Costs with Profit and Risk to be added:
Snag Creation Areas 1, 2 and 3: 418 snags at $10/tree = $4,180

TOTAL Other Costs with profit and Risk to be added = $4,180

Other Costs with No Profit and Risk Added:
Machine Cleaning: $1,000/machine x 3 = $3,000
Slash piling and sorting (Cable Ground): $5/ac x 170 ac = $850
Heliport Construction: 8 hours machine time @ $140/ hour = $1,120
Non-project road #1 construction: 5.0 stations x $250/station = $1,250
Non-project road #2 construction: 12.0 stations x $250/station = $3,000
Non-project road #3 construction: 8.0 stations x $250/station = $2,000
Non-project road #4 construction: 4.0 stations x $250/station = $1,000
Non-project road #5 construction: 9.5 stations x $250/station = $2,375
Approach Rock (pit run) spurs: 100 cy/spur x $6.00/cy x 4 spurs = $2,400
Block unsurfaced roads (Five Non-Project roads) with tank traps: 5 x $50 each = $250
Tailhold Dozer: 1 month x $1500/month + $300 move-in = $1,800

Ditch Cleaning, Bank Sluff Removal, Deadman Tailhold:
Mobilization: two times– dump truck w/tilt bed & small excavator: $890 x 2 = $1,780
Small excavator (Cat 312 or equivalent): 50 hrs. @ $95/hr = $4,750
Dump truck: 45 hrs. @ $90/hr = $4,050

TOTAL Other Costs no Profit and Risk added = $ 29,625

ROAD MAINTENANCE: Cook Creek, McPherson and Lost Creek Roads

Spot rocking: 20cy/MMBF/mile x 4.265 x $25.00/cy x 6.0 miles / 4265MBF = $3.00/MBF
Interim Grading: 6.0 miles x 3 times x $500/mile / 4265MBF = $2.11/MBF
Final Maintenance Grading: $1,500 x 6.0miles / 4265MBF = $2.11/MBF
Final Maintenance Compaction: $950/mile x 5.0 miles/4265 MBF = $1.11/MBF
Total Road Maintenance: $8.33/MBF

Logging Conditions

Combination#: 1

Douglas - Fir	14.55%
Sitka Spruce	3.03%
Alder (Red)	34.65%
Maple	19.41%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Harvester Head Delimbing

yarding distance: Long (1,500 ft) **downhill yarding:** No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 6 **bd. ft / load:** 3700

cost / mbf: $350.47

machines:

Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 2

Douglas - Fir	63.47%
Western Hemlock / Fir	70.00%
Sitka Spruce	70.76%
Alder (Red)	51.48%
Maple	64.61%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Harvester Head Delimbing

yarding distance: Medium (800 ft) **downhill yarding:** No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 7 **bd. ft / load:** 4600

cost / mbf: $241.63

machines:

Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 3

Logging System: Cable: Medium Tower >40 - <70 **Process:** Harvester Head Delimbing

yarding distance: Short (400 ft) **downhill yarding:** No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 10 **bd. ft / load:** 4100

cost / mbf: $189.77

machines:

Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 4

Douglas - Fir	21.99%
Western Hemlock / Fir	30.00%
Sitka Spruce	26.21%
Alder (Red)	13.87%
Maple	15.98%

Logging System: Shovel **Process:** Harvester Head Delimbing

yarding distance: Short (400 ft) **downhill yarding:** No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 11 **bd. ft / load:** 3800

cost / mbf: $127.85

machines: Forwarder
Harvester

Logging Costs

Operating Seasons:	2.00	**Profit Risk:**	12%
Project Costs:	$189,180.00	**Other Costs (P/R):**	$4,180.00
Slash Disposal:	$0.00	**Other Costs:**	$29,625.00

Miles of Road

Road Maintenance: $8.33

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	3.9
Western Hemlock / Fir	$0.00	3.0	3.4
Sitka Spruce	$0.00	3.0	3.5
Alder (Red)	$0.00	3.0	4.2
Maple	$0.00	3.0	3.5

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling / Brand & Paint	Other	Total
Douglas - Fir									
$232.45	$8.75	$2.04	$105.00	$0.97	$41.91	$0.00	$7.00	$6.89	$405.01
Western Hemlock / Fir									
$207.50	$8.75	$2.04	$80.29	$0.97	$35.95	$0.00	$7.00	$6.89	$349.39
Sitka Spruce									
$215.10	$8.75	$2.04	$78.00	$0.97	$36.58	$0.00	$7.00	$6.89	$355.33
Alder (Red)									
$263.56	$8.75	$2.04	$65.00	$0.97	$40.84	$0.00	$7.00	$6.89	$395.05
Maple									
$244.58	$8.75	$2.04	$78.00	$0.97	$40.12	$0.00	$7.00	$6.89	$388.35

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$820.12	$415.11	$0.00
Western Hemlock / Fir	$0.00	$700.60	$351.21	$0.00
Sitka Spruce	$0.00	$527.75	$172.42	$0.00
Alder (Red)	$0.00	$770.61	$375.56	$0.00
Maple	$0.00	$472.82	$84.47	$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
Maple	0	$0.00	$0.00

Unamortized

Specie	**MBF**	**Value**	**Total**
Douglas - Fir	1,093	$415.11	$453,715.23
Western Hemlock / Fir	64	$351.21	$22,477.44
Sitka Spruce	33	$172.42	$5,689.86
Alder (Red)	3,056	$375.56	$1,147,711.36
Maple	51	$84.47	$4,307.97

Gross Timber Sale Value

Recovery: $1,633,901.86

Prepared By: Harold Stevens

Phone: 503-815-7044

OREGON DEPARTMENT OF FORESTRY
"STEWARDSHIP IN FORESTRY"

PROJECT SUMMARY SHEET

Sale: Lost Hills

CONSTRUCTION

Point	C to D	14+60	stations =	$59,707.67
Point	E to F	16+00	stations =	$18,881.34
Point	G to H	17+95	stations =	$54,759.42
			SUBTOTAL CONSTRUCTION	**$133,348.43**

IMPROVEMENT

Point	A to B	325+35	stations =	$36,486.63
Point	E to F	14+30	stations =	$12,452.02
Point	I to J	6+75	stations =	$1,123.73
			SUBTOTAL IMPROVEMENT	**$50,062.38**

RECONSTRUCTION

Point	A to B	0+85	stations =	$145.37
			SUBTOTAL RECONSTRUCTION	**$145.37**

MOVE IN	**$5,623.82**
GRAND TOTAL	**$189,180.00**

SUMMARY OF CONSTRUCTION COST

Sale: **Lost Hills** Road: **A to B**

Construction -	0+00	stations	Improvement -	325+35	stations	Reconstruction -	0+85	stations
	0.00	miles		6.16	miles		0.02	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Side cast	0.020	acres	@	$660.00	per acre =	$13.20	
Widening	0.094	acres	@	$660.00	per acre =	$62.04	
				TOTAL CLEARING AND GRUBBING			**$75.24**

IMPROVEMENT: EXCAVATION -

Pullback	245	cy. @	$1.75	per c.y.=	$428.75	
Widening	470	cy. @	$1.75	per c.y.=	$822.50	
				TOTAL EXCAVATION		**$1,251.25**

IMPROVEMENT: ENDHAUL -

Pullback	177+31	to	178+11	180	cy. @	$3.04	per c.y.=	$547.20	
Pullback	308+15	to	309+00	65	cy. @	$2.82	per c.y.=	$183.30	
Widening	176+63	to	178+03	260	cy. @	$3.04	per c.y.=	$790.40	
Widening	203+15	to	204+15	95	cy. @	$2.76	per c.y.=	$262.20	
Widening	209+80	to	210+80	115	cy. @	$2.63	per c.y.=	$302.45	
							TOTAL ENDHAUL		**$2,085.55**

RECONSTRUCTION: CLEARING AND GRUBBING -

Scattering	0.060	acres	@	$980.00	per acre =	$58.80	
				TOTAL CLEARING AND GRUBBING			**$58.80**

CULVERTS - MATERIALS & INSTALLATION

Culverts

320	LF of 18"	$5,600	0	LF of 24"	$0
50	LF of 8"	$167	0	LF of 36"	$0
		$5,767			$0

MISC

1	18" to 8" Red	$150	1	90deg Elbow	$150
		$150			$150

Culvert Stakes & Markers

10	stakes	$80
25	markers	$200
		$280

TOTAL CULVERTS **$6,347**

ROCK

294+40 to	325+35	1,100	cy. of	Jawrun	@	$13.25	per c.y.=	$14,575	
Cross Drain Backfill/bedding	20cy/x-dra	180	cy. of	Crushed	@	$16.28	per c.y.=	$2,930	
Cross Drain energy dissipator	As Marked	35	cy. of	Riprap	@	$35.33	per c.y.=	$1,237	
Road Widening	177+25	20	cy. of	Crushed	@	$16.23	per c.y.=	$325	
Road Widening	177+25	35	cy. of	Jawrun	@	$9.09	per c.y.=	$318	
Intersection Widening	325+35	50	cy. of	Jawrun	@	$11.73	per c.y.=	$587	
Road Widening	203+65	15	cy. of	Crushed	@	$16.91	per c.y.=	$254	
Road Widening	203+65	25	cy. of	Jawrun	@	$9.56	per c.y.=	$239	
Road Widening	209+30	15	cy. of	Crushed	@	$16.91	per c.y.=	$254	
Road Widening	209+30	25	cy. of	Jawrun	@	$9.67	per c.y.=	$242	
Spot Rock	297+10	10	cy. of	Jawrun	@	$11.23	per c.y.=	$112	
								TOTAL ROCK	**$21,073**

SPECIAL PROJECTS

Endhaul Culvert Material at 25+30, 101+75, 112+55, 122+20, and 187+80	100.00	Yards @	$4.90	per yard	$490
Construct waste areas -	16.00	hours @	$150.00	per hour	$2,400
Clean/Construct Ditchlines-Endhaul	6.64	stations @	$100.00	per station	$664
Clean/Construct Ditchlines-No Endhaul	13.48	stations @	$60.00	per station	$809
Culvert Cleanout	1.00	@	$20.00	each	$20
Grade and shape road(294+40 to 325+35) -	30.95	stations @	$15.50	per station	$480
Install conveyor belt berms	1.00	stations @	$165.00	per station	$165
Roll Road following grading(294+40 to 325+35) -	30.95	stations @	$13.20	per station	$409
Grass seed and fertilize -	0.02	acres @	$220.00	per acre	$4
Mulching -	0.500	acres @	$600.00	per acre	$300
			TOTAL SPECIAL PROJECTS		**$5,741**

GRAND TOTAL **$36,632**

SUMMARY OF CONSTRUCTION COST

Sale: **Lost Hills** Road: **C to D**

Construction -	14+60	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.28	miles		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	Drill & Shoot CUYDS	Endhaul Waste		
0+00		0+69	56%		ditch	$996		$1,920	=	$2,607
0+69		2+53	25%		ditch	$312			=	$574
2+53		3+50	55%		ditch	$996		$1,630	=	$2,596
3+50		4+23	27%		ditch	$312			=	$228
4+23		6+53	45%		ditch	$680		$3,955	=	$5,519
6+53		7+10	68%		ditch	$2,700		$2,010	=	$3,549
7+10		8+79	48%		ditch	$680		$3,365	=	$4,514
8+79		9+94	33%		ditch	$410		$1,705	=	$2,177
9+94		10+59	46%		ditch	$680		$1,030	=	$1,472
10+59		13+45	60%		ditch	$2,194		$5,170	=	$11,445
13+45		14+30	49%		ditch	$680		$1,780	=	$2,358
14+30		14+60	24%		ditch	$290		$355	=	$442
								TOTAL CONSTRUCTION		**$37,481.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts

200	LF of 18"	$3,500.00	0	LF of 24"	$0.00	
		$3,500.00			$0.00	

Culvert Stakes & Markers

6 markers	$48.00		
	$48.00	**TOTAL CULVERTS**	**$3,548.00**

ROCK

0+00	to	14+60	1,140	cy. of	Jawrun	@	$10.07	per c.y.=	$11,479.80	
Approach		As Marked	30	cy. of	Jawrun	@	$9.94	per c.y.=	$298.20	
Landing		As Marked	150	cy. of	Jawrun	@	$10.13	per c.y.=	$1,519.50	
Energy Dissipator		s each except 0	25	cy. of	Riprap	@	$37.13	per c.y.=	$928.25	
Traction Rock		9+40-14+60	90	cy. of	Crushed	@	$19.99	per c.y.=	$1,799.10	
									TOTAL ROCK	**$16,024.85**

SPECIAL PROJECTS

Construct waste area -	8.00	hours @	$155.00	per hour	$1,240.00	
Construct Landings	4.00	hours @	$155.00	per hour	$620.00	
Grade and shape road -	14.60	stations @	$15.50	per station	$226.30	
Roll subgrade w/ vibratory roller prior to rocking -	14.60	stations @	$13.20	per station	$192.72	
Remove large stumps -	4.00	@	$75.00	each	$300.00	
Grass seed and fertilize -	0.34	acres @	$220.00	per acre	$74.80	
					TOTAL SPECIAL PROJECTS	**$2,653.82**

GRAND TOTAL **$59,707.67**

SUMMARY OF CONSTRUCTION COST

Sale: **Lost Hills** Road: **E to F**

Construction -	16+00	stations	Improvement -	14+30	stations	Reconstruction -	0+00	stations
	0.30	miles		0.27	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	Drill & Shoot CUYDS	Endhaul Waste		
14+30		17+36	14%		Outslope	$245			=	$750
17+36		19+84	41%		Outslope	$567			=	$1,406
19+84		30+30	18%		Outslope	$267			=	$2,793
									TOTAL CONSTRUCTION	**$4,949.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts							
30	LF of 18"	$525.00	0	LF of 24"	$0.00		
		$525.00			$0.00		
Culvert Stakes & Markers							
1	markers	$8.00					
		$8.00				**TOTAL CULVERTS**	**$533.00**

ROCK

0+00	to	14+30	500	cy. of	Jawrun	@	$11.39	per c.y.=	$5,695.00	
14+30	to	30+30	1,340	cy. of	Jawrun	@	$9.99	per c.y.=	$13,386.60	
Approach		14+30	30	cy. of	Jawrun	@	$9.47	per c.y.=	$284.10	
Landing Rock		50/Landing	200	cy. of	Jawrun	@	$10.01	per c.y.=	$2,002.00	
Energy Dissipater		10+85	5	cy. of	Riprap	@	$37.69	per c.y.=	$188.45	
Culvert Backfill		10+85	20	cy. of	Crushed	@	$18.08	per c.y.=	$361.60	
									TOTAL ROCK	**$21,917.75**

SPECIAL PROJECTS

Develop Waste Area	8.00	hours @	$155.00	per hour	$1,240.00	
Construct ditches-	13.40	stations @	$100.00	per station	$1,340.00	
Endhaul Slump @ 3+75 and Culvert Installation	120.00	yds@	$2.75	per yard	$330.00	
Grade and shape road -	30.30	stations @	$15.50	per station	$469.65	
Roll subgrade w/ vibratory roller prior to rocking -	30.30	stations @	$13.20	per station	$399.96	
Grass seed and fertilize -	0.70	acres @	$220.00	per acre	$154.00	
					TOTAL SPECIAL PROJECTS	**$3,933.61**

GRAND TOTAL **$31,333.36**

SUMMARY OF CONSTRUCTION COST

Sale: **Lost Hills** Road: **G to H**

Construction -	17+95	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.34	miles		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	Drill & Shoot CUYDS	Endhaul Waste		
0+00		0+42	30%		Outslope	$410			=	$172
0+42		4+69	60%		Outslope	$1,493		$3,840	=	$10,215
4+69		5+68	47%		Outslope	$680			=	$673
5+68		7+01	64%		Outslope	$1,687		$2,355	=	$4,599
7+01		8+66	54%		Outslope	$905			=	$1,493
8+66		9+87	69%		Outslope	$1,832		$4,125	=	$6,342
9+87		11+42	24%		Outslope	$290			=	$450
11+42		13+33	63%		Outslope	$1,687		$3,560	=	$6,782
13+33		17+95	34%		Outslope	$410		$5,095	=	$6,989
								TOTAL CONSTRUCTION		**$37,715.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts

30	LF of 18"	$525.00	0	LF of 24"	$0.00
		$525.00			$0.00

Culvert Stakes & Markers

1 markers $8.00

$8.00

TOTAL CULVERTS **$533.00**

ROCK

0+00	to	17+95	1,400	cy. of	Jawrun	@	$9.66	per c.y.=	$13,524.00
Approach		0+00	30	cy. of	Jawrun	@	$9.50	per c.y.=	$285.00
Landing Rock		50cy/Landing	100	cy. of	Jawrun	@	$9.82	per c.y.=	$982.00
Energy Dissipater		0+40	5	cy. of	Riprap	@	$37.01	per c.y.=	$185.05

TOTAL ROCK **$14,976.05**

SPECIAL PROJECTS

Construct 2 50ft Landings	6.00	hours @	$155.00	per hour	$930.00
Grade and shape road -	17.95	stations @	$15.50	per station	$278.23
Roll subgrade w/ vibratory roller prior to rocking -	17.95	stations @	$13.20	per station	$236.94
Grass seed and fertilize -	0.41	acres @	$220.00	per acre	$90.20

TOTAL SPECIAL PROJECTS **$1,535.37**

GRAND TOTAL **$54,759.42**

SUMMARY OF CONSTRUCTION COST

Sale: **Lost Hills**

Road: **I to J**

Construction -	0+00	stations	Improvement -	6+75	stations	Reconstruction -	0+00	stations
	0.00	miles		0.13	miles		0.00	miles

SPECIAL PROJECTS

Clear Road & Clean Ditches	6.00	hours @	$155.00	per hour	$930.00	
Grade and shape road -	6.75	stations @	$15.50	per station	$104.63	
Roll subgrade w/ vibratory roller prior to rocking -	6.75	stations @	$13.20	per station	$89.10	
				TOTAL SPECIAL PROJECTS		**$1,123.73**
				GRAND TOTAL		**$1,123.73**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

General Information

Pit:	Jaw	Location:	Sec. 35, T3N, R9W, W.M.	
Sale:	**Lost Hills**		Road:	6165 c.y.
Swell:	1.40		Stockpile:	c.y.
Shirinkage	1.16		Total Truck Loads:	6165 c.y.
Drill Pct.:	0%		In Place Total:	4404 c.y.

Pit Development

Pit Development & Cleanup including Clearing and grubbing of Waste Area at adjacent to pit, place overburden in Waste Area, spread and compact.

Total Estimated: $800.00

Per Cubic Yard: $0.13

Manufacturing

Rip Rock:	$1.90	/cu.yd.
Load Crusher:	$0.70	/cu.yd.
Crush Rock(3"):	$2.60	/cu.yd.
Crush Rock(6"):	$2.15	/cu.yd.
Load Dump Truck:	$0.70	/cu.yd.

Move In / Set Up

Move In/Set-up Jaw	1	@	$1,799.00	=	$1,799.00
Move in Roller and Compactor	1	@	$247.52	=	$247.52
Move in Grader	1	@	$91.00	=	$91.00
Move in D-8	1	@	$453.96	=	$453.96
Move in Excavator	1	@	$498.77	=	$498.77
Move in Trucks	3	@	$71.95	=	$215.85
Move in Water Truck	1	@	$84.58	=	$84.58

Subtotal $1,591.68

Per Cubic Yard: $0.26

Base Cost 3"=	$6.29	Per Cu.Yd.	@	cuyds
Base Cost 6"=	$5.84	Per Cu.Yd.	@	cuyds

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 29440 32535 (Jawrun)	4.51	2.45	6.29	13.25	1100		$14,575.00
A to B Road Widening (Jawrun)	2.14	1.11	5.84	9.09	35		$318.15
A to B Intersection Widening (Jawrun)	4.78	1.11	5.84	11.73	50		$586.50
A to B Road Widening (Jawrun)	2.61	1.11	5.84	9.56	25		$239.00
A to B Road Widening (Jawrun)	2.72	1.11	5.84	9.67	25		$241.75
A to B Spot Rock (Jawrun)	4.28	1.11	5.84	11.23	10		$112.30
C to D 0 1460 (Jawrun)	3.12	1.11	5.84	10.07	1140		$11,479.80
C to D Approach (Jawrun)	2.99	1.11	5.84	9.94	30		$298.20
C to D Landing (Jawrun)	3.18	1.11	5.84	10.13	150		$1,519.50
E to F 0 1430 (Jawrun)	2.65	2.45	6.29	11.39	500		$5,695.00
E to F 1430 3030 (Jawrun)	3.04	1.11	5.84	9.99	1340		$13,386.60
E to F Approach (Jawrun)	2.52	1.11	5.84	9.47	30		$284.10
E to F Landing Rock (Jawrun)	3.06	1.11	5.84	10.01	200		$2,002.00
G to H 0 1795 (Jawrun)	2.71	1.11	5.84	9.66	1400		$13,524.00
G to H Approach (Jawrun)	2.55	1.11	5.84	9.50	30		$285.00
G to H Landing Rock (Jawrun)	2.87	1.11	5.84	9.82	100		$982.00
				Total C.Y.	6165	Sub Total	$65,528.90

TOTAL ROCKING COSTS	$65,528.90

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

General Information

Pit: Commercial
Sale: **Lost Hills**
Swell: 0.00
Shirinkage 0.00
Drill Pct.: 0%

Location: Sec. 15, T1S, R7W, W.M.
Road: 410 c.y.
Stockpile: c.y.
Total Truck Loads: 410 c.y.
In Place Total: c.y.

Base Cost 24"-12"= $30.00 Per Cu.Yd. @ cuyds
Base Cost 1.5"-0"= $11.25 Per Cu.Yd. @ cuyds

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 Cross Drain Backfill/bedding (Crushed)	4.43	0.60	11.25	16.28	180		$2,930.40
A to B Cross Drain energy dissipator (Riprap)	4.43	0.90	30.00	35.33	35		$1,236.55
A to B Road Widening (Crushed)	2.53	2.45	11.25	16.23	20		$324.60
A to B Road Widening (Crushed)	3.21	2.45	11.25	16.91	15		$253.65
A to B Road Widening (Crushed)	3.21	2.45	11.25	16.91	15		$253.65
C to D Energy Dissipator (Riprap)	6.23	0.90	30.00	37.13	25		$928.25
C to D Traction Rock (Crushed)	6.29	2.45	11.25	19.99	90		$1,799.10
E to F Energy Dissipater (Riprap)	6.79	0.90	30.00	37.69	5		$188.45
E to F Culvert Backfill (Crushed)	6.23	0.60	11.25	18.08	20		$361.60
G to H Energy Dissipater (Riprap)	6.11	0.90	30.00	37.01	5		$185.05
				Total C.Y.	410	Sub Total	$8,461.30

TOTAL ROCKING COSTS $8,461.30

Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **Lost Hills**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
58.0	Pavement	30
3.0	Main Lines	7
5.0	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	0.00	0.41	0.41	$0.00	$0.00
0	Brush Cutter	$0.00		$4.00	0.00	0.28	0.28	$0.00	$0.00
0	Graders	$0.00		$3.65	0.00	0.00	0	$0.00	$0.00
0	Loader (Small)	$0.00	1	$3.55	0.00	0.00	0	$0.00	$0.00
0	Loader (Med. & Large)	$0.00	1	$9.00	0.00	0.00	0	$0.00	$0.00
0	Rollers (smooth/grid) & Compactors	$0.00		$5.00	0.00	0.00	0	$0.00	$0.00
0	Excavators (Small)	$0.00		$22.00	0.00	0.00	0	$0.00	$0.00
0	Excavators (Med.)	$0.00		$35.50	0.00	0.00	0	$0.00	$0.00
2	Excavators (Large)	$1,971.65	1	$44.80	0.00	4.24	4.24	$379.90	$2,351.55
0	Tired Backhoes/Skidders	$0.00		$3.00	0.00	0.00	0	$0.00	$0.00
2	Tractors (D6)	$1,438.75	0	$7.10	0.00	4.24	4.24	$60.21	$1,498.96
0	Tractors (D7)	$0.00	2	$11.30	0.00	0.00	0	$0.00	$0.00
0	Tractor (D8)	$0.00	2	$15.10	0.00	0.00	0	$0.00	$0.00
0	Dump Truck (10 cy +)	$0.00		$2.85	0.00	0.00	0	$0.00	$0.00
2	Dump Truck (Off Hiway)	$1,545.61	1	$4.75	0.00	4.24	4.24	$40.28	$1,585.89
1	Water Truck (1500 Gal)	$175.34		$2.85	0.00	4.24	4.24	$12.08	$187.42
0	Water Truck (2500 Gal)	$0.00		$2.85	0.00	0.00	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:	$5,623.82

Lost Hills

Volume Summary

Area 1-Modified Clearcut

93 acres

SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	2.5	236	1%	234
Red Alder	19.2	1784	2%	1748
Bigleaf Maple	0.1	11	2%	11
TOTAL	21.8	2031		1993

Area 2-Modified Clearcut

72 acres

SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	3	211	1%	209
Bigleaf Maple	0.3	22	1%	22
Red Alder	13	941	2%	922
Sitka Spruce	0.1	5	1%	5
TOTAL	16.4	1180		1159

Area 3-Modified Clearcut

44 acres

SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	14.9	656	1%	650
Western hemlock	1.5	64	1%	64
Sitka Spruce	0.6	28	1%	28
Bigleaf Maple	0.4	18	2%	18
Red Alder	9.0	394	2%	386
TOTAL	26.4	1161		1146

TOTAL SALE VOLUME 209 acres

SPECIES	Cruised Net (MBF)	Net Sale (MBF)
Douglas-fir	1104	1093
Western hemlock	64	64
Sitka Spruce	33	33
Bigleaf Maple	51	51
Red Alder	3119	3057
TOTAL	4372	4297

FI TLOGSTVB

Log Stock Table - MBF

Project: LOSTHILL

T03N R09W S25 TSALE **T03N R09W S25 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	09W	25	AREA1_GROW	SALE	93.00	33	97

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Date 1/9/2018
Time 7:14:31AM

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+
RA		H	2	30	43	4.0	41	2.3							20	21				
RA		H	2	32	48	3.6	46	2.6						28	18					
RA		H	2	40	358	3.0	347	19.5						223	85	40				
RA		H	3	20	26		26	1.5					26							
RA		H	3	32	39		39	2.2					39							
RA		H	3	40	489	1.7	481	27.0					481							
RA		H	4	13	5		5	.3			5									
RA		H	4	15	7		7	.4			7									
RA		H	4	16	23		23	1.3			23									
RA		H	4	17	2		2	.1			2									
RA		H	4	18	9		9	.5			9									
RA		H	4	19	12		12	.7			12									
RA		H	4	20	25		25	1.4			25									
RA		H	4	21	29	3.8	28	1.6			28									
RA		H	4	22	20	4.9	19	1.1			19									
RA		H	4	23	25	10.1	22	1.2			22									
RA		H	4	24	15		15	.9			15									
RA		H	4	25	3		3	.2			3									
RA		H	4	26	4		4	.2			4									
RA		H	4	27	7		7	.4			7									
RA		H	4	28	2		2	.1			2									
RA		H	4	29	4		4	.2			4									
RA		H	4	30	18		18	1.0			18									
RA		H	4	31	3		3	.2			3									
RA		H	4	32	56	13.1	49	2.7			6	43								
RA		H	4	33	35		35	2.0			35									
RA		H	4	34	18	2.9	18	1.0			18									
RA		H	4	35	9		9	.5			9									
RA		H	4	38	18		18	1.0			18									
RA		H	4	40	481	3.2	465	26.1			161	305								
RA			Totals		1,835	2.7	1,784	87.8			456	348	546	251	123	61				
DF		CO	2	32	5		5	2.0						5						
DF		CO	2	40	116		116	49.3						34	38	45				
DF		CO	3	20	6		6	2.7				6								
DF		CO	3	31	2		2	.7			2									
DF		CO	3	32	5		5	2.2					5							
DF		CO	3	40	73	1.3	72	30.4			13	46	13							
DF		CO	4	18	3		3	1.1		3										
DF		CO	4	19	5		5	1.9		5										
DF		CO	4	20	1		1	.3			1									
DF		CO	4	23	3		3	1.4		2	1									
DF		CO	4	24	3		3	1.2		3										
DF		CO	4	26	1		1	.5			1									
DF		CO	4	28	4		4	1.6		4										
DF		CO	4	31	8		8	3.4		8										
DF		CO	4	35	2		2	1.0		2										
DF			Totals		237		236	11.6		26	18	52	18	39	38	45				
BM		H	2	40	10	6.9	10	87.1							10					
BM		H	4	30	1		1	12.9			1									

FI TLOGSTVB

Log Stock Table - MBF

Project: LOSTHILL

T03N R09W S25 TSALE

T03N R09W S25 TSAL

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	09W	25	AREA1_GROW	SALE	93.00	33	97

Page 2
Date 1/9/2018
Time 7:14:31AM

	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
Spp	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+
BM				Totals	12	6.1	11	.5			1				10					
Total All Species					2,083	2.5	2,031	100.0		26	476	400	564	289	170	106				

FI TSTNDSUM

Stand Table Summary

Project **LOSTHILL**

T03N R09W S25 TSALE **T03N R09W S25 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	09W	25	AREA1_GROW	SALE	93.00	33	97

Page: 1
Date: 01/09/201
Time: 7:12:02AM

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
RA		10		86	105	10.066	5.93	17.14	11.1	51.9	5.22	190	889	485	177	83
RA		11		78	94	8.319	5.93	11.33	16.0	59.2	5.00	182	671	465	169	62
RA		12		85	113	9.320	7.90	19.05	14.5	60.6	7.60	276	1,154	707	257	107
RA		14		85	94	9.927	9.88	18.26	17.9	67.6	8.99	327	1,235	836	304	115
RA		15		85	84	13.695	15.80	24.49	20.0	73.3	13.46	490	1,795	1,252	455	167
RA		16		86	87	7.456	9.88	15.24	21.4	83.4	8.96	326	1,271	834	303	118
RA		17		84	78	14.417	21.73	25.45	26.2	96.1	18.33	667	2,446	1,705	620	227
RA		18		86	87	9.288	15.80	18.98	28.5	109.9	14.89	542	2,086	1,385	504	194
RA		19		86	90	9.320	17.78	19.05	32.9	125.9	17.22	626	2,398	1,602	582	223
RA		20		86	88	3.718	7.90	7.60	36.5	131.0	7.62	277	996	709	258	93
RA		21		84	77	4.194	9.88	8.57	35.5	122.9	8.37	304	1,053	778	283	98
RA		22		86	88	3.043	7.90	6.22	44.2	157.8	7.57	275	982	704	256	91
RA		23		85	79	4.159	11.85	7.79	47.9	165.0	10.27	373	1,286	955	347	120
RA		25		85	72	.583	1.98	1.19	51.0	163.5	1.67	61	195	155	56	18
RA		26		85	88	.537	1.98	1.10	60.3	242.4	1.82	66	266	169	62	25
RA		27		85	90	.496	1.98	1.01	72.2	281.8	2.01	73	286	187	68	27
RA		30		83	73	.399	1.98	.82	76.2	219.8	1.71	62	179	159	58	17
RA		Totals		85	90	108.938	156.06	203.30	25.2	94.4	140.73	5,117	19,188	13,088	4,759	1,784
DF		9		83	67	2.532	1.18	2.65	7.8	32.7	.59	21	87	55	19	8
DF		13		85	72	3.640	3.53	6.35	13.4	52.4	2.43	85	332	226	79	31
DF		14		85	93	1.046	1.18	2.19	16.2	60.0	1.01	35	131	94	33	12
DF		15		84	88	1.823	2.35	3.81	19.8	76.4	2.15	76	291	200	70	27
DF		16		88	93	.801	1.18	1.68	23.5	98.2	1.12	39	164	104	37	15
DF		19		86	98	.568	1.18	1.19	35.0	130.9	1.19	42	156	110	39	14
DF		22		87	106	.465	1.18	.97	44.0	163.6	1.22	43	159	113	40	15
DF		24		85	94	.775	2.35	1.62	51.3	188.2	2.37	83	305	220	77	28
DF		25		87	120	.356	1.18	1.12	44.2	203.6	1.41	49	227	131	46	21
DF		27		82	90	.607	2.35	1.27	62.3	220.9	2.26	79	280	210	74	26
DF		28		85	124	.281	1.18	.88	58.3	265.4	1.47	51	234	136	48	22
DF		32		84	105	.213	1.18	.45	99.4	376.3	1.26	44	168	118	41	16
DF		Totals		85	84	13.108	19.98	24.17	26.8	104.9	18.48	648	2,536	1,718	603	236
BM		24		85	88	.332	1.03	.68	52.3	174.7	.94	35	119	87	33	11
BM		Totals		85	88	.332	1.03	.68	52.3	174.7	0.94	35	119	87	33	11
Totals				85	89	122.377	177.07	228.15	25.4	95.7	160.14	5801	21,842	14,893	5,395	2,031

FI TLOGSTVB

Log Stock Table - MBF

Project: **LOSTHILL**

T03N R09W S25 TSALE **T03N R09W S25 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1
03N	09W	25	AREA2_GROW	SALE	72.00	27	72	Date	1/9/2018
								Time	7:25:24AM

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+
RA		H	2	16	11		11	1.2									11			
RA		H	2	30	6		6	.6						6						
RA		H	2	32	29	9.9	27	2.8						13			14			
RA		H	2	40	146	5.2	138	14.7						95	44					
RA		H	3	16	10		10	1.1					10							
RA		H	3	26	11		11	1.1					11							
RA		H	3	30	14	15.4	12	1.3					12							
RA		H	3	32	98	3.2	95	10.1					95							
RA		H	3	40	277	2.5	270	28.7					270							
RA		H	4	13	2		2	.2			2									
RA		H	4	16	12		12	1.3			9	3								
RA		H	4	17	7		7	.8			7									
RA		H	4	18	11		11	1.2			11									
RA		H	4	19	17		17	1.8			17									
RA		H	4	20	5		5	.6			5									
RA		H	4	21	14		14	1.5			14									
RA		H	4	22	3		3	.3			3									
RA		H	4	23	17		17	1.8			17									
RA		H	4	24	7		7	.8			7									
RA		H	4	25	3		3	.3			3									
RA		H	4	26	14		14	1.5			14									
RA		H	4	31	1		1	.1			1									
RA		H	4	32	55	11.1	49	5.2				49								
RA		H	4	33	5		5	.5			5									
RA		H	4	34	15	13.3	13	1.3			13									
RA		H	4	37	31	7.5	28	3.0			28									
RA		H	4	38	12		12	1.2			12									
RA		H	4	40	145	3.4	141	14.9			38	102								
RA		Totals			979	3.9	941	79.8			207	155	398	114	44		25			
DF		CO	2	16	14		14	6.6									14			
DF		CO	2	32	7		7	3.4						7						
DF		CO	2	40	128	2.7	125	59.2						25	16	65	20			
DF		CO	3	29	2		2	.9				2								
DF		CO	3	32	29		29	13.8					29							
DF		CO	3	33	3		3	1.4			3									
DF		CO	3	34	3		3	1.3				3								
DF		CO	4	16	8		8	3.8		8										
DF		CO	4	19	1		1	.6			1									
DF		CO	4	21	2		2	1.1		2										
DF		CO	4	22	4		4	2.1		3	2									
DF		CO	4	35	3		3	1.6		3										
DF		CO	4	38	9		9	4.3		9										
DF		Totals			214	1.6	211	17.9		25	6	5	29	32	16	65	34			
BM		H	3	30	19		19	84.6					19							
BM		H	4	19	3		3	15.4			3									
BM		Totals			22		22	1.9			3		19							
SS		CO	4	18	5		5	100.0		5										

FI TLOGSTVB

Log Stock Table - MBF

Project: LOSTHILL

T03N R09W S25 TSALE

T03N R09W S25 TSAL

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	09W	25	AREA2_GROW	SALE	72.00	27	72

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Date 1/9/2018
Time 7:25:24AM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net 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+
SS		Totals			5		5	.5		5										
Total All Species					1,221	3.4	1,180	100.0		31	216	159	445	145	59	65	59			

Net Volume by Scaling Diameter in Inches

FI TSTNDSUM

Stand Table Summary

Project **LOSTHILL**

T03N R09W S25 TSALE **T03N R09W S25 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	09W	25	AREA2_GROW	SALE	72.00	27	72

Page: 1
Date: 01/09/2018
Time: 7:22:50AM

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
RA		10		75	77	3.469	1.99	3.52	16.8	66.1	1.63	59	233	117	43	17
RA		11		84	86	8.601	5.98	8.73	17.9	69.8	4.30	156	609	310	113	44
RA		12		85	58	4.818	3.99	4.89	18.8	55.1	2.52	92	269	182	66	19
RA		13		86	82	4.105	3.99	8.33	14.9	57.8	3.41	124	482	246	89	35
RA		14		84	77	7.080	7.97	14.37	15.9	59.2	6.30	229	851	453	165	61
RA		15		86	82	7.709	9.96	15.65	20.3	74.9	8.74	318	1,172	629	229	84
RA		16		86	79	14.906	21.92	30.25	22.8	87.6	18.99	690	2,652	1,367	497	191
RA		17		84	83	14.404	23.91	28.02	27.7	99.2	21.35	776	2,778	1,537	559	200
RA		18		86	75	5.353	9.96	9.78	31.6	111.4	8.49	309	1,089	611	222	78
RA		19		84	81	4.805	9.96	9.75	33.7	113.5	9.05	329	1,107	651	237	80
RA		21		84	69	2.602	5.98	4.40	39.9	112.4	4.83	176	495	348	126	36
RA		24		85	79	.656	1.99	1.33	50.0	176.3	1.83	67	235	132	48	17
RA		25		84	72	.602	1.99	1.22	51.1	159.8	1.72	62	195	124	45	14
RA		26		84	79	1.110	3.99	2.25	52.0	170.8	3.22	117	385	232	84	28
RA		28		84	67	.476	1.99	.97	52.5	247.9	1.39	51	239	100	37	17
RA		29		84	64	.442	1.99	.45	80.7	176.3	1.00	36	79	72	26	6
RA		34		83	73	.319	1.99	.65	95.4	314.0	1.70	62	203	122	44	15
RA		Totals		84	78	81.456	119.56	144.55	25.3	90.4	100.45	3,653	13,073	7,233	2,630	941
DF		9		65	27	5.065	2.31	5.22	4.8	21.6	.72	25	113	52	18	8
DF		12		78	61	2.849	2.31	2.94	18.3	43.1	1.53	54	127	110	39	9
DF		16		83	74	1.603	2.31	3.30	20.2	75.4	1.90	67	249	137	48	18
DF		17		83	71	1.420	2.31	2.93	21.5	75.4	1.79	63	221	129	45	16
DF		20		82	97	1.026	2.31	2.11	39.4	123.9	2.38	83	262	171	60	19
DF		26		82	95	.607	2.31	1.25	64.2	204.7	2.29	80	256	165	58	18
DF		27		86	124	1.126	4.63	3.48	60.2	280.2	5.97	209	975	430	151	70
DF		31		84	110	.456	2.31	1.41	60.4	290.9	2.43	85	410	175	61	30
DF		35		80	96	.355	2.31	.73	115.9	431.0	2.42	85	315	174	61	23
DF		Totals		76	63	14.506	23.13	23.38	32.2	125.2	21.42	752	2,928	1,542	541	211
BM		16		84	69	2.140	3.13	4.34	19.1	71.0	2.20	83	308	159	60	22
BM		Totals		84	69	2.140	3.13	4.34	19.1	71.0	2.20	83	308	159	60	22
SS		16		54	24	3.193	4.20	3.29	15.0	22.6	1.28	49	74	92	35	5
SS		Totals		54	24	3.193	4.20	3.29	15.0	22.6	1.28	49	74	92	35	5
Totals				82	74	101.294	150.02	175.56	25.8	93.3	125.36	4537	16,384	9,026	3,267	1,180

FI TLOGSTVB

Log Stock Table - MBF

Project: LOSTHILL

T03N R08W S19 TSALE

T03N R08W S19 TSAL

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	08W	19	AREA3_GROW	SALE	44.00	23	71

Page 1
Date 1/3/2018
Time 10:37:33AM

	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
Spp	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+
DF		CO	2	16	11		11	1.7										11		
DF		CO	2	28	19		19	2.8										19		
DF		CO	2	32	28		28	4.3						13		15				
DF		CO	2	40	519	2.4	506	77.2						14	56	207	78	152		
DF		CO	3	16	5		5	.7								5				
DF		CO	3	22	2		2	.2					2							
DF		CO	3	23	3		3	.5					3							
DF		CO	3	24	2		2	.3					2							
DF		CO	3	30	2		2	.3				2								
DF		CO	3	32	43		43	6.5				5	26	12						
DF		CO	3	34	2		2	.3				2								
DF		CO	3	36	3		3	.4					3							
DF		CO	3	37	3		3	.4			3									
DF		CO	3	39	3		3	.4					3							
DF		CO	3	40	7		7	1.0				4	3							
DF		CO	4	16	2		2	.4		1	1									
DF		CO	4	18	1		1	.2			1									
DF		CO	4	19	2		2	.3			2									
DF		CO	4	21	3		3	.5		1	2									
DF		CO	4	22	3		3	.5		2			2							
DF		CO	4	23	1		1	.2			1									
DF		CO	4	40	5		5	.8		5										
DF		Totals			669	1.9	656	56.5		9	10	14	42	39	56	226	78	181		
RA		H	2	24	16	4.1	15	3.9							6	9				
RA		H	2	40	29	2.4	28	7.2							17	12				
RA		H	3	32	31		31	7.9					18	13						
RA		H	3	40	54	3.0	52	13.3					23	30						
RA		H	4	12	4		4	1.0				4								
RA		H	4	14	6		6	1.5								6				
RA		H	4	16	14		14	3.5			1			6	7					
RA		H	4	18	4		4	1.0			4									
RA		H	4	20	7		7	1.8			7									
RA		H	4	21	7		7	1.7			7									
RA		H	4	22	4		4	1.1			4									
RA		H	4	23	3		3	.7			3									
RA		H	4	24	3		3	.8			3									
RA		H	4	25	4		4	1.0			4									
RA		H	4	26	6		6	1.5			6									
RA		H	4	27	1		1	.3			1									
RA		H	4	28	5		5	1.2			5									
RA		H	4	29	4		4	.9			4									
RA		H	4	31	4		4	.9			4									
RA		H	4	32	30	18.4	24	6.2			9	7	8							
RA		H	4	33	8		8	2.1			8									
RA		H	4	36	5		5	1.2			5									
RA		H	4	37	8		8	1.9			8									
RA		H	4	38	3		3	.8			3									
RA		H	4	40	150	3.9	144	36.4			24	73	47							
RA		Totals			409	3.5	394	34.0			108	84	96	49	30	27				

FI TLOGSTVB

Log Stock Table - MBF

Project: LOSTHILL

T03N R08W S19 TSALE | **T03N R08W S19 TSAL**

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**
03N	08W	19	AREA3_GROW	SALE	44.00	23	71

Page 2
Date 1/3/2018
Time 10:37:33AM

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+
WH		CO	2	24	1		1	1.2						1						
WH		CO	2	29	1		1	1.6						1						
WH		CO	2	32	4		4	5.5								4				
WH		CO	2	40	54	2.1	53	83.0								4	5	22	22	
WH		CO	3	18	1		1	1.0					1							
WH		CO	3	20	1		1	1.0					1							
WH		CO	3	40	5	21.1	4	6.7									4			
WH		Totals			66	3.5	64	5.5					1	2		8	9	22	22	
SS		CO	2	32	8	5.3	7	26.5						7						
SS		CO	3	32	9		9	30.8					9							
SS		CO	3	40	8		8	29.7			8									
SS		CO	4	20	1		1	4.4			1									
SS		CO	4	27	1		1	4.4		1										
SS		CO	4	33	2	25.0	1	4.0		1										
SS		Totals			29	2.7	28	2.4		2	10		9	7						
BM		H	2	16	8		8	41.7									8			
BM		H	4	35	1		1	7.4			1									
BM		H	4	40	9		9	50.9				4	5							
BM		Totals			18		18	1.6			1	4	5				8			
Total All Species					1,191	2.5	1,161	100.0		12	130	102	153	97	86	260	95	203	22	

FI TSTNDSUM

Stand Table Summary

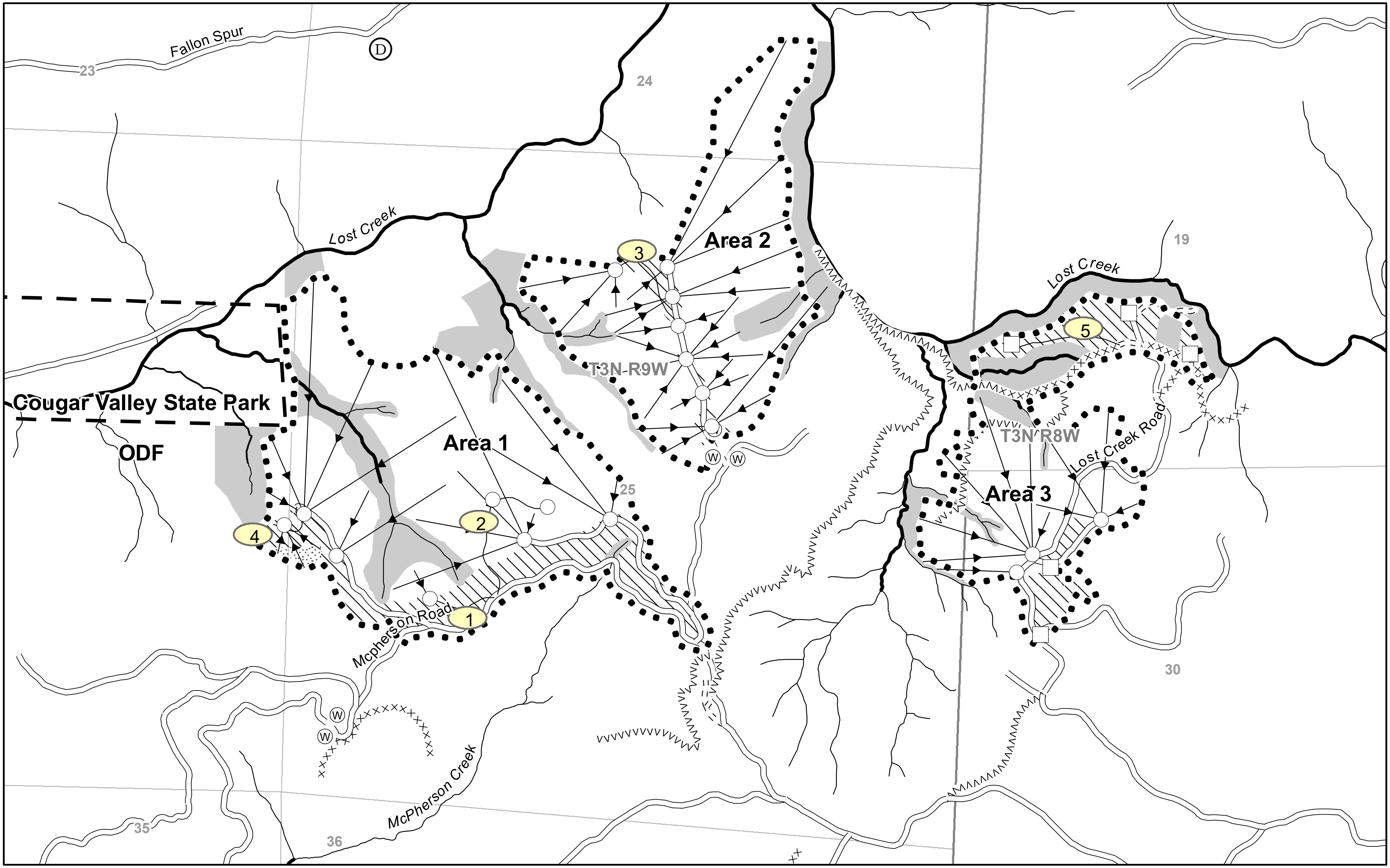
Project **LOSTHILL**

T03N R08W S19 TSALE **T03N R08W S19 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	08W	19	AREA3_GROW	SALE	44.00	23	71

Page: 1
Date: 01/03/2018
Time: 10:37:33AM

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		14		84	54	2.944	3.21	2.97	21.6	41.2	1.83	64	122	80	28	5
DF		17		84	70	1.997	3.21	4.03	19.7	72.0	2.26	79	290	99	35	13
DF		21		87	109	1.309	3.21	3.96	31.9	130.3	3.60	126	517	159	56	23
DF		22		88	113	1.192	3.21	3.61	36.8	164.6	3.79	133	595	167	58	26
DF		24		88	107	1.002	3.21	2.02	61.5	252.1	3.55	124	510	156	55	22
DF		25		84	113	.923	3.21	2.80	46.4	192.1	3.70	130	537	163	57	24
DF		27		88	123	3.958	16.07	11.99	59.2	278.5	20.23	710	3,340	890	312	147
DF		28		88	120	1.472	6.43	4.46	61.7	276.1	7.84	275	1,231	345	121	54
DF		29		88	138	.686	3.21	2.08	75.1	370.4	4.45	156	770	196	69	34
DF		34		88	143	.499	3.21	1.51	107.9	562.5	4.65	163	851	205	72	37
DF		36		84	111	.891	6.43	2.70	90.8	451.0	6.98	245	1,217	307	108	54
DF		37		86	128	2.108	16.07	6.39	113.8	574.8	20.71	727	3,671	911	320	162
DF		38		84	99	.400	3.21	.81	150.0	596.8	3.45	121	482	152	53	21
DF		40		87	129	.361	3.21	1.09	138.2	713.4	4.30	151	780	189	66	34
DF		Totals		86	105	19.741	77.12	50.43	63.6	295.7	91.34	3,205	14,912	4,019	1,410	656
RA		10		87	100	7.835	4.38	11.81	11.2	48.5	3.63	132	573	160	58	25
RA		12		85	95	10.881	8.77	19.14	14.3	56.4	7.54	274	1,080	332	121	48
RA		13		87	96	6.954	6.58	13.98	16.4	62.4	6.32	230	872	278	101	38
RA		14		86	102	5.996	6.58	12.05	20.6	83.2	6.84	249	1,002	301	109	44
RA		15		86	91	8.705	10.96	17.50	21.9	88.4	10.53	383	1,546	463	168	68
RA		16		87	82	1.530	2.19	3.08	23.7	83.2	2.00	73	256	88	32	11
RA		17		83	65	5.422	8.77	9.53	22.8	80.2	5.98	217	765	263	96	34
RA		18		83	69	2.418	4.38	3.64	34.9	100.5	3.50	127	366	154	56	16
RA		19		84	74	5.403	10.96	9.77	33.4	106.3	8.98	327	1,038	395	144	46
RA		22		85	72	.809	2.19	1.63	34.9	129.9	1.56	57	211	69	25	9
RA		23		85	83	1.481	4.38	2.98	47.8	171.5	3.91	142	511	172	63	22
RA		24		78	64	1.360	4.38	2.73	32.8	106.6	2.47	90	291	109	39	13
RA		27		87	77	.537	2.19	1.08	49.0	155.9	1.46	53	168	64	23	7
RA		28		87	79	.500	2.19	1.00	76.0	280.7	2.10	76	282	92	34	12
RA		Totals		85	88	59.831	78.91	109.91	22.1	81.5	66.81	2,430	8,961	2,940	1,069	394
WH		40		86	113	.178	1.53	.54	126.5	653.4	2.19	68	353	96	30	16
WH		41		83	130	.170	1.53	.51	126.6	688.2	2.08	65	353	92	29	16
WH		43		85	137	.154	1.53	.47	169.4	799.4	2.53	79	372	111	35	16
WH		45		86	129	.140	1.53	.42	177.9	893.2	2.42	75	379	106	33	17
WH		Totals		85	127	.642	6.12	1.94	148.0	749.9	9.21	288	1,458	405	127	64
SS		12		80	67	3.014	2.45	3.04	20.3	62.6	1.60	62	190	71	27	8
SS		18		84	68	1.340	2.45	2.71	24.5	83.4	1.72	66	226	76	29	10
SS		22		78	73	.897	2.45	1.81	40.9	109.5	1.93	74	198	85	33	9
SS		23		68	39	.821	2.45	.83	60.4	31.3	1.30	50	26	57	22	1
SS		Totals		79	64	6.071	9.79	8.39	30.0	76.3	6.55	252	640	288	111	28
BM		24		79	54	1.507	4.86	1.51	80.1	140.3	3.21	121	212	141	53	9
BM		27		82	60	.595	2.43	1.20	47.8	171.5	1.52	57	205	67	25	9
BM		Totals		80	56	2.102	7.28	2.71	65.9	154.1	4.73	178	418	208	79	18
Totals				85	90	88.387	179.22	173.38	36.6	152.2	178.65	6353	26,389	7,861	2,795	1,161



- Rock source
- Ⓢ Stock pile
- Ⓦ Waste area
- Bridge
- Gate
- Survey corner
- Ⓣ Truck turn-around
- Ⓗ Helicopter landing zone

- Buffer
- ☒ Non-required thinning
- ☐ Cable yarding
- ▧ Ground yarding
- ▨ Helicopter yarding
- Downhill yarding
- Green tree retention area

- Restricted area
- Area boundary
- Sale boundary
- Ownership boundary
- Fish stream
- Non-fish stream
- Unsurfaced road
- Surfaced road
- Paved road
- VVVVVVV Abandoned road

- --A-- Swing road
- ② Non-project road
- ××××× Blocked road
- ////// OHV trail
- Non-motorized trail
- Ⓣ—Ⓣ— Transmission line
- +++++ Railroad
- Cable yarding
- ☐ Ground Landing
- ○ Yarder Landing

LOGGING PLAN

Timber Sale Contract No. 341-18-102
LOST HILLS

Portions of Sections 19 & 30, T3N, R8W, and
Sections 24, 25, & 26, T3N, R9W, W.M.,
Tillamook County, Oregon

1,000 0 1,000 Feet

N

Area	Type of Operation	Acres Gross	Acres Net
1	Modified Clearcut	122	93
2	Modified Clearcut	91	72
3	Modified Clearcut	67	44
Total		280	209

Tillamook District GIS
01/08/2018