



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Lost Pony

Sale AT-341-2016-41-

District: Astoria

Date: April 11, 2016

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$2,882,073.10	\$594.30	\$2,882,667.40
		Project Work:	(\$422,698.00)
		Advertised Value:	\$2,459,969.40



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Timber Description

Location: Portions of Sections 3, 4, and 10, T6N, R6W, and portions of Section 34, T7N, R6W, W.M., Clatsop County, Oregon.

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	20	0	97
Western Hemlock / Fir	14	0	97
Maple	14	0	95

Volume by Grade	2S	3S	4S	CR 8" - 14"	Total
Douglas - Fir	5,792	1,149	385	0	7,326
Western Hemlock / Fir	90	69	43	0	202
Maple	0	0	0	5	5
Total	5,882	1,218	428	5	7,533

Comments: Pond Values Used: 1st Quarter Calendar Year 2016.

Expected Log Markets: Mist, OR; Tillamook, OR; Forest Grove, OR.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$968.68/\text{MBF} = \$1,185/\text{MBF} - \$216.32/\text{MBF}$

Red Alder Stumpage Price = Pond Value minus Logging Cost:
 $\$388.68/\text{MBF} = \$605/\text{MBF} - \$216.32/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to \$780 daily truck cost.

Other Costs (with Profit & Risk to be added):

100% Branding and Painting: $\$1/\text{MBF} \times 7,533 \text{ MBF} = \$7,533$

Log Loader Slash & Landing Piling (includes Move-In and Pile Materials) = \$10,562 (see attached appraisal)

Machine Washing for Noxious Weed Compliance = \$2,000

TOTAL Other Costs (with Profit & Risk to be added) = \$20,095

Other Costs (No Profit & Risk added):

None.



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Logging Conditions

Combination#: 1

Douglas - Fir	64.00%
Western Hemlock / Fir	64.00%
Maple	64.00%

Logging System: Cable: Large Tower ≥ 70 **Process:** Manual Falling/Delimbing

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

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

loads / day: 10 **bd. ft / load:** 4000

cost / mbf: \$170.00

machines: Log Loader (A)
Tower Yarder (Large)

Combination#: 2

Douglas - Fir	36.00%
Western Hemlock / Fir	36.00%
Maple	36.00%

Logging System: Shovel **Process:** Manual Falling/Delimbing

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

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

loads / day: 15 **bd. ft / load:** 4000

cost / mbf: \$65.62

machines: Shovel Logger



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Date: April 11, 2016

Logging Costs

Operating Seasons: 3.00	Profit Risk: 14%
Project Costs: \$422,698.00	Other Costs (P/R): \$20,095.00
Slash Disposal: \$0.00	Other Costs: \$0.00

Miles of Road

Road Maintenance: \$3.79

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	3.0	5.0
Western Hemlock / Fir	\$0.00	3.0	4.0
Maple	\$0.00	2.0	3.0



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District: Astoria

Date: April 11, 2016

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$132.42	\$3.90	\$1.75	\$53.56	\$2.67	\$27.20	\$0.00	\$5.00	\$0.00	\$226.50
Western Hemlock / Fir									
\$132.42	\$3.90	\$1.75	\$66.95	\$2.67	\$29.08	\$0.00	\$5.00	\$0.00	\$241.77
Maple									
\$132.42	\$3.98	\$1.75	\$136.50	\$2.67	\$38.82	\$0.00	\$5.00	\$0.00	\$321.14

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$614.26	\$387.76	\$0.00
Western Hemlock / Fir	\$0.00	\$446.44	\$204.67	\$0.00
Maple	\$0.00	\$440.00	\$118.86	\$0.00



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District: Astoria

Date: April 11, 2016

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Maple	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	7,326	\$387.76	\$2,840,729.76
Western Hemlock / Fir	202	\$204.67	\$41,343.34
Maple	5	\$118.86	\$594.30

Gross Timber Sale Value

Recovery: \$2,882,667.40

Prepared By: Kevin Berry

Phone: 503-325-5451

Road Maintenance Cost Summary

Sale:	Lost Pony	MBF:	7,533
Date:	07-Jan-15	\$/MBF:	\$3.79
By:	K. Berry		

Type	Equipment/Rationale	Move In	Times	Hours	Rate	Cost
Progressive Operations 1st Entry	Grader 14G	\$778	1	16	\$100	\$2,378
	Dump Truck 12CY x 1	\$163	2	8	\$79	\$1,590
	FE Loader C966	\$778	1	8	\$83	\$1,442
	Vibratory Roller	\$778	1	8	\$77	\$1,394
	Water Truck 2,500 gallon	\$190	1	8	\$89	\$902
Final Haul Maintenance Haul Route	Grader 14G	\$778	1	40	\$100	\$4,778
	Dump Truck 12CY x 2	\$163	2	24	\$79	\$4,118
	Vibratory Roller	\$778	1	40	\$77	\$3,858
	Water Truck 2,500 gallon	\$190	1	40	\$89	\$3,750
	FE Loader C966	\$778	1	24	\$83	\$2,770
Total	Rubber Tire Backhoe	\$321	1	16	\$77	\$1,553
						\$28,533

Production Rates	Miles/day	Distance(miles)	Days
Grader	1.5	3.0	2.0
Vibratory Roller	1.5	1.5	1.0

Production Rates	Miles/day	Distance(miles)	Days
Grader	1.5	7.6	5.1
Vibratory Roller	1.5	7.6	5.1

Site Prep Appraisal																														
Sale Number: 341-16-41 Sale Name: Lost Pony Date: 01/09/2016 <table> <tr> <th>Vegetation Type/Zone</th><th>Vegetation Type/Zone Code</th><th>Production Rate (hr/ac)</th><th>Estimated Piles/Acre</th></tr> <tr> <td>Doug-fir</td><td>A</td><td>1.0</td><td>3.0</td></tr> <tr> <td>Hemlock/Fir</td><td>B</td><td>1.5</td><td>4.0</td></tr> <tr> <td>Hemlock/Spruce</td><td>C</td><td>2.0</td><td>6.0</td></tr> <tr> <td>Hemlock</td><td>D</td><td>2.0</td><td>6.0</td></tr> <tr> <td>Conifer/Hardwood</td><td>E</td><td>1.5</td><td>3.0</td></tr> </table>							Vegetation Type/Zone	Vegetation Type/Zone Code	Production Rate (hr/ac)	Estimated Piles/Acre	Doug-fir	A	1.0	3.0	Hemlock/Fir	B	1.5	4.0	Hemlock/Spruce	C	2.0	6.0	Hemlock	D	2.0	6.0	Conifer/Hardwood	E	1.5	3.0
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Conifer/Hardwood	E	1.5	3.0																											
Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour	Total Cost/Area																								
1	MC	A	46	46	\$110.00	\$5,060.00																								
2	MC	A	12	12	\$110.00	\$1,320.00																								
Sub Total =						\$6,380.00																								
Sale Area	Number of Landings to be Piled	Cost/Landing Pile*	Total Cost/Area	Number of In-Unit Piles	Material Cost/Pile	Total Cost/Area																								
1	4	\$263.00	\$1,052.00	138	\$5.00	\$690.00																								
2	5	\$263.00	\$1,315.00	36	\$5.00	\$180.00																								
*Cost includes separating firewood																														
Sub Total =						\$3,237.00																								
Move-In Allowance	Number of Move-In's	Total Move-In Allowance																												
\$945.00	1	\$945.00	Sub Total =																											
Grand Total =						\$10,562.00																								

Vegetation Type/Zone	Vegetation Type/Zone Code	Production Rate (hr/ac)	Estimated Piles/Acre
Doug-fir	A	1.0	3.0
Hemlock/Fir	B	1.5	4.0
Hemlock/Spruce	C	2.0	6.0
Hemlock	D	2.0	6.0
Conifer/Hardwood	E	1.5	3.0

Sale Number: 341-16-41
Sale Name: Lost Pony
Date: 01/09/2016

Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour	Total Cost/Area	
1	MC	A	46	46	\$110.00	\$5,060.00	
2	MC	A	12	12	\$110.00	\$1,320.00	
Sub Total =						\$6,380.00	
Sale Area	Number of Landings to be Piled	Cost/Landing Pile*	Total Cost/Area	Number of In- Unit Piles	Material Cost/Pile	Total Cost/Area	
1	4	\$263.00	\$1,052.00	138	\$5.00	\$690.00	
2	5	\$263.00	\$1,315.00	36	\$5.00	\$180.00	
*Cost includes separating firewood						Sub Total =	\$3,237.00
Move-In Allowance	Number of Move-In's	Total Move-In Allowance					
\$945.00	1	\$945.00	Sub Total =				\$945.00
Grand Total =						\$10,562.00	

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Lost Pony

ROAD CONSTRUCTION:

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 1			
	A to B, 2A to 2B	7.70	\$16,654.34
	TOTALS	7.70	\$16,654

ROAD IMPROVEMENT:

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 2			
	I1 to I2, I2 to I3, I4 to I5	380.90	\$49,705
	TOTALS	380.90	\$49,705

SPECIAL PROJECTS:

	<u>Description</u>	<u>Cost</u>
Project No. 3	Knob Point Rock Development, Crushing, and Stockpiling	\$336,609
	Project Road Maintenance	\$12,378
	TOTAL	\$348,987

MOVE IN:

<u>Equipment</u>	<u>Cost</u>
Dozer (D8)	\$1,406.00
Excavator (C330)	\$1,406.00
Skidder (C518)	\$717.00
Dump Trucks (12cy x 6)	\$978.00
Front End Loader (C966)	\$778.00
Backhoe (C 580)	\$321.00
Grader (14G)	\$778.00
Vibratory Roller	\$778.00
Water Truck (2,500 gallon)	\$190.00
TOTAL	\$7,352.00

GRAND TOTAL **\$422,698**

Compiled By: W. Lawrence / K. Berry *FL* Date: 01/29/2016

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Lost Pony ROAD: A-B(3.6Sta.), 2A-2B(4.10) POINTS: A-B(3.6Sta.), 2A-2B(4.10) NEW CONSTRUCTION: 7.70 STATIONS IMPROVEMENT: 0.15 MILES 0.00 MILES

CLEARING & GRUBBING				
Method	Acres/amount	X	Rate	Cost
A to B Scatter Outside of Right of Way	0.50	X	\$ 1,337	\$668.50
1A Landing Construction				
1B to 1C Scatter Outside of Right of Way	1.70		\$ 1,337	\$2,272.90
SUB TOTAL FOR CLEARING & GRUBBING				\$2,941

EXCAVATION				
Material	Cy/amount	X	Rate	Cost
A to B Common Drift (\$/C.Y.)	550	X	\$1.80	\$990.00
Embankment Compaction (\$/C.Y.)	520	X	\$0.70	\$364.00
Additional time to develop fill material				
D8(Hrs.)	2	X	\$158.00	\$316.00
C330(Hrs.)	1	X	\$155.00	\$155.00
Seed and mulch borrow site (\$/Ac.)	0.15	X	\$1,794.00	\$269.10
Fill Armoring C330(Hrs.)	10	X	\$155.00	\$1,550.00
1A Landing Construction (\$/LDG)	1.00		\$389.00	\$389.00
2A Landing Construction (\$/LDG)	1.00		\$389.00	\$389.00
2B to 2C Common drift excavation (\$/C.Y.)	1.00		\$389.00	\$389.00
Landing Construction (\$/LDG)	1.00		\$389.00	\$389.00
SUB TOTAL FOR EXCAVATION				\$5,200

CULVERT MATERIALS AND INSTALLATION				
Location	Dia/type	Lineal ft.	Rate	Cost
A to B 2+25 18" ACSP	40		\$28.54	\$1,141.60
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION				\$1,152

Other/miscellaneous:			
Description	Quantity	Rate	Cost
Culvert Marker	1.00	\$10.00	\$10.00
Culvert stakes & markers:			\$0.00
Subtotal of Clearing, Exc., Culv.			
			\$9,293

SURFACING									
Subgrade prep:		Description		Stations/ amount		Rate/ sta/amt		Cost	
		Grade, Shape and Ditch 16' (A-B, 2A-2B)		7.70		x		\$191.19	
		Subgrade Compaction (A-B, 2A-2B)		7.70		x		\$155.46	

ROAD SEGMENT											
A to B		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)		Rate/ Sta./ amt.		Cost	
Application		Rock Size and Type		Depth of Rock (inches)		Location		Volume (CY) per station		Number of	
Base Rock		4"-0" crushed		9		0+00 - 3+60		56 station		3.60 stations	
Turnouts		4"-0" crushed		9		1+50		25 TO		1 TO's	
Traction Rock		3/4"-0" crushed		2		0+00 - 1+50		13 station		1.5 stations	
Junctions		4"-0" crushed		N/A		0+00 & 3+60		11 Junctions		2 junctions	
Fill Armor		24"-6" rip-rap		N/A		2+00 - 2+50		11 load		17 loads	
Total Rock for Road Segment:				A to B				455			

										\$3,355	
ROAD SEGMENT											
1A		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)		Rate/ Sta./ amt.		Cost	
Application		Rock Size and Type		Depth of Rock (inches)		Location		Volume (CY) per		Number of	
Landings		6"-0" pit-run		N/A		0+00		44 Landing		1.00 Landings	
Total Rock for Road Segment:				1A				44		\$345	

										\$345	
ROAD SEGMENT											
2A		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)		Rate/ Sta./ amt.		Cost	
Application		Rock Size and Type		Depth of Rock (inches)		Location		Volume (CY) per		Number of	
Landings		6"-0" pit-run		N/A		0+00		44 Landing		1.00 Landings	
Total Rock for Road Segment:				2A				44		\$345	

										\$2,534	
ROAD SEGMENT											
2B to 2C		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)		Rate/ Sta./ amt.		Cost	
Application		Rock Size and Type		Depth of Rock (inches)		Location		Volume (CY) per		Number of	
Base Rock		4"-0" crushed		9		0+00 - 4+10		56 station		4.10 stations	
Junction Rock		4"-0" crushed		N/A		0+00		22 Junctions		1.00 Junctions	
Turn Around		4"-0" crushed		N/A		3+20		22 T/As		1.00 T/A	
Landings		6"-0" pit-run		N/A		4+10		44 Landing		1 Landings	
Total Rock for Road Segment:				2B to 2C				318			

										\$7,361	
SUB TOTAL FOR SURFACING											
		24"-6" r		187		6"-0"pr		132		522	
		4"-0" crushed		3/4"-0" crushed		20		Total		861	

										\$7,361	
SPECIAL PROJECTS											
Description		No sta		Rate/sta		Cost					
		7.70		\$56.48		\$434.90					

SUB TOTAL FOR SPECIAL PROJECTS											
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SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Lost Pony
 ROAD: 11-12(273.2 Sta.), 12-13(101.5 Sta.), 14-15(6.2 S
 POINTS:
 NEW CONSTRUCTION: STATIONS 0.00 MILES
 IMPROVEMENT: 380.90 STATIONS 7.21 MILES

CLEARING & GRUBBING			
Method	Acres/amount	x	Rate = Cost
SUB TOTAL FOR CLEARING & GRUBBING \$0			

EXCAVATION			
Material	Cyl/amount	x	Rate = Cost
12 to 13			
38+60 Intall ditch filters C330(Hrs.)	1	X	\$155.00
12 to 13			
24+30 - 29+00 Road surface ripping, partial road outslipping, and sidecast pullback. C330(Hrs.)	2	X	\$155.00
			\$310.00
			\$158.00
			\$155.00
26+60 Remove existing culvert C330(Hrs.)	1	X	\$79.00
			\$40.00
			\$80.00
			\$42.92
			\$3.20
54+90 - 55+70 Install cutslope buttressing C330(Hrs.)	10	X	\$155.00
			\$79.00
			\$2.75
			\$825.00
			\$160.00
			\$85.84
			\$6.40
101+50 Improve landing D8(Hrs.)	1	X	\$158.00
14 to 15			
6+20 Improve landing D8(Hrs.)	1	X	\$158.00
SUB TOTAL FOR EXCAVATION \$4,719			

CULVERT MATERIALS AND INSTALLATION					
Location	Dial/type	Lineal ft.	Rate	Cost	
				\$0.00	
				\$0.00	
				\$0.00	
Other/miscellaneous:					
Culvert stakes & markers:					
			Quantity	Rate	Cost
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION \$0					
Subtotal of Clearing, Exc., Culv.					\$4,719

SURFACING									
Subgrade prep:									
Description		Stations/amount		Rate/sta/amt		Cost			
Sod Removal & Ditch Restoration: (12-13, 14-15)		(Grader time \$/Hr.)		20.00		x		\$100.00	
Sod Removal & Ditch Restoration: (12-13, 14-15)		(Backhoe time \$/Hr.)		20.00		x		\$1,540.00	
Sod Removal & Ditch Restoration: (12-13, 14-15)		(D.Truck time \$/Hr.)		20.00		x		\$79.00	
								\$1,560.00	
ROAD SEGMENT									
11 to 12		POINT TO POINT		Sta. to Sta.		Rate/ Sta./ amt.		Cost	
Application		Depth of Rock (inches)		0+00 to 273+20		TOTAL VOLUME (CY)			
Rock Size and Type		Location		Number of					
3/4"-0" crushed		0+00 - 273+20		66		726		\$5,808	
6"-4" pit run		38+60		1		11		\$7.85	
Total Rock for Road Segment:		11 to 12				737		\$5,894	
ROAD SEGMENT									
12 to 13		POINT TO POINT		Sta. to Sta.		Rate/ Sta./ amt.		Cost	
Application		Depth of Rock (inches)		0+00 to 101+50		TOTAL VOLUME (CY)			
Rock Size and Type		Location		Number of					
4"-0" crushed		0+00 - 101+50		25		275		\$2,200	
4"-0" crushed		21+00, 34+80,		7		77		\$616	
3/4"-0" crushed		1+80, 10+00,		55		55		\$440	
Turnout Improvement		46+30, 76+25		2		22		\$176	
Turnaround Improvement		0+00 - 19+60,		42		549		\$4,389	
Traction Rock		2		10		110		\$712	
3/4"-0" crushed		54+90 - 55+70		5		112		\$7.85	
Cut Slope Buttrressing		101+50				1,143		\$8,964	
24"-6" rip-rap									
6"-0" pit run									
Processing:									
ROAD SEGMENT									
14 to 15		POINT TO POINT		Sta. to Sta.		Rate/ Sta./ amt.		Cost	
Application		Depth of Rock (inches)		0+00 to 6+20		TOTAL VOLUME (CY)			
Rock Size and Type		Location		Number of					
4"-0" crushed		0+00 - 6+20		2		22		\$176	
4"-0" crushed		2+65		1		11		\$88	
6"-0" pit run		6+20		2		22		\$173	
Total Rock for Road Segment:		14 to 15				55		\$437	
Processing:									
Water, Process & Compact: (11-12, 12-13, 14-15)									
Traction Rock Water, Process & Compact: (12-13 (0+00-19+60, 46+30-49+50, 50+70-58+90, 63+20-74+40))									

CRUSHED ROCK COST

SALE NAME: Lost Pony
PROJECT: _____
QUARRY: Viewpoint Stockpiles

MATERIAL: 3/4"-0" & 4"-0"
Crushed

DATE: 12/23/2015
BY: W.L /

[illegible]

ROCK HAUL:

Truck type: D20 No. trucks:
 Delay min.: 8 Efficiency: 85%

Ave haul:	\$6.01	/cy
Load:	\$0.72	/cy
Spread:	\$1.26	/cy

Truck type: D12 No. trucks: 6
 Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
 Delay min.: 5 Efficiency: 85%

Production: cy/day = 630

CRUSHED ROCK HAUL COSTS 2,291 cy @ \$8.00 /cy

PIT RUN ROCK COST

SALE NAME: Lost Pony
PROJECT:
QUARRY: Viewpoint Quarry

MATERIAL: Pit Run

DATE: 12/23/2015
BY: W.L. /

[illegible]

ROCK HAUL:

Truck type: D20 No. trucks:
 Delay min.: 8 Efficiency: 85%

Ave haul:	\$5.86	/cy
Load:	\$0.72	/cy
Spread:	\$1.26	/cy

Truck type:	<u>D12</u>	No. trucks:	<u>6</u>
Delay min.:	<u>6</u>	Efficiency:	<u>85%</u>

Truck type: D10 No. trucks:
 Delay min.: 5 Efficiency: 85%

Production: cy/day = 646

PIT RUN ROCK HAUL COSTS

209 cy @ \$7.85 /cy

RIP RAP ROCK COST

SALE NAME: Lost Pony
PROJECT: _____
QUARRY: Viewpoint Quarry

DATE: 12/23/2015
BY: W.L.

[illegible]

ROCK HAUL:

Truck type:	<u>D12</u>	No. trucks:	<u>6</u>
Delay min.:	<u>6</u>	Efficiency:	<u>85%</u>
Truck type:	<u>D10</u>	No. trucks:	<u> </u>
Delay min.:	<u>5</u>	Efficiency:	<u>85%</u>

Ave haul: \$5.57 /cy
Load: \$0.90 /cy
Develop: _____ /cy

Production: cy/day = 680

RIP RAP ROCK HAUL COSTS 297 cy @ \$6.47 /cy

RIP RAP ROCK COST

SALE NAME:	Lost Pony
PROJECT:	3
QUARRY:	Knob Point

MATERIAL: Crushing Reject

DATE: 12/29/2015
BY: W. Lawrence

[illegible]

ROCK HAUL:

Truck type:	D12	No. trucks:	2
Delay min.:	6	Efficiency:	85%
Truck type:	D10	No. trucks:	
Delay min.:	5	Efficiency:	85%

Ave haul:	\$1.37	/cy
Load:	\$0.48	/cy
Compaction		/cy

Production: cy/day = 920

HAUL COSTS

1,827 cy @ \$1.85 /cy

Projects Road Maintenance Cost Summary

Sale: Lost Pony
Date: 29-Jan-16
By: W. Lawrence

Type	Equipment/Rationale			Hours	Rate	Cost
Project Work	Grader 14G			45	\$100	\$4,500
Final Haul	Dump Truck 12CY			20	\$79	\$1,580
Road	FE Loader C966			10	\$83	\$830
Maintenance	Vibratory Roller			45	\$77	\$3,465
	Water Truck 2,500 gallon			23	\$89	\$2,003
Total						\$12,378

Production Rates

Grader

Vibratory Roller

Miles/day	Distance(miles)	Days
1.5	6.75	4.5
1.5	6.75	4.5

NOTE:	Viewpoint Quarry & Stockpile Haul (Nicolai & Greasy Spoon)	6.00	Miles
	Knob Point Stockpiling Haul	0.75	Miles
	TOTAL=	6.75	Miles

Road Maintenance Cost Summary

Sale: Lost Pony

Date: 07-Jan-15

By: K. Berry

MBF: 7,533

\$/MBF: \$3.79

Type	Equipment/Rationale	Move In	Times	Hours	Rate	Cost
Progressive Operations 1st Entry	Grader 14G	\$778	1	16	\$100	\$2,378
	Dump Truck 12CY x 1	\$163	2	8	\$79	\$1,590
	FE Loader C966	\$778	1	8	\$83	\$1,442
	Vibratory Roller	\$778	1	8	\$77	\$1,394
	Water Truck 2,500 gallon	\$190	1	8	\$89	\$902
Final Haul Maintenance Haul Route	Grader 14G	\$778	1	40	\$100	\$4,778
	Dump Truck 12CY x 2	\$163	2	24	\$79	\$4,118
	Vibratory Roller	\$778	1	40	\$77	\$3,858
	Water Truck 2,500 gallon	\$190	1	40	\$89	\$3,750
	FE Loader C966	\$778	1	24	\$83	\$2,770
Total	Rubber Tire Backhoe	\$321	1	16	\$77	\$1,553
						\$28,533

Progressive Ops. 1st Entry	Production Rates	Miles/day	Distance(miles)	Days
	Grader	1.5	3.0	2.0
	Vibratory Roller	1.5	1.5	1.0

Final Road Maintenance	Production Rates	Miles/day	Distance(miles)	Days
	Grader	1.5	7.6	5.1
	Vibratory Roller	1.5	7.6	5.1

**Lost Pony
TIMBER CRUISE REPORT
FY 2016**

1. **Sale Area Location:** Areas 1, 2, and 3 are located in portions of Sections 3, 4, and 10 of T6N, R6W, and portions of Section 34 of T7N, R6W W.M., Clatsop County, Oregon.

2. **Fund Distribution:** BOF 100%
Tax Code 8-01 (100%)

3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Existing R/W	New R/W*	Stream Buffer	Net Acres	Survey Method
1	Modified Clearcut	78	2	0	5	71	GIS
2	Modified Clearcut	103	3	1	6	93	GIS
3	Right of Way	1	0	0	0	1	GIS
TOTALS				1		165	

4. **Cruisers and Cruise Dates:** Areas 1 and 2 were cruised by Kevin Berry, Dave Rygell, Andrew Arvin, John Choate, and Nick Haile in January 2016.

5. Cruise Method and Computation:

Areas 1 and 2 are Modified Clearcut units and were variable plot cruised using a 40 BAF. The plots are located on a 7 chain by 4 chain grid, with every third plot measured and graded. A total of 57 plots were sampled, with 19 measured and graded plots, and 38 count plots.

All cruisers used Allegro² data collectors, and were downloaded to the Atterbury Super A.C.E. program in District for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria district office.

AREA	CRUISE	TRACT	TYPE	ACRES
1	T6NR6W03	Area1and2	TAKE	71
2	T6NR6W03	Area1and2	TAKE	93
3	T6NR6W03	Area1and2	RW	1

6. Timber Description:

Areas 1 and 2 are modified clearcut units, averaging 70 – 85 years-old, consisting of Douglas-fir, with minor amounts of western hemlock and bigleaf maple. The average Douglas-fir tree size to be harvested is 20.4 inches DBH, with an average height of 77 feet to a merchantable top (40% of DBH) the average DBH of hemlock to be harvested is 14.7 inches, with an average bole height of 57 feet to a merchantable top. Bigleaf maple has an average DBH of 14.0 inches, and an average height of 35 feet to a merchantable top. The average volume (net) is approximately 45.7 MBF/acre.

Area 3 R/W is similar to the timber description mentioned above for Areas 1 and 2. The average volume (net) is approximately 46.0 MBF/acre.

7. Statistical Analysis and Stand Summary: (See "Statistics" - Type Reports, attached)
Statistics for Stand B.F. volumes

Area	Estimated CV	Target SE%	Actual CV	Actual SE%
1	50%	8%	39%	5%

8. Volumes by Species and Log Grade: (See "Species, Sort, Grade" - Project Report, attached).
Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

Species	DBH	Net Vol. MBF	2 Saw	3 Saw	4 Saw	Camp Run	% D & B	% Sale
Douglas-fir	20.4"	7,326	5,792	1,149	385		3.4%	97%
Hemlock/True-fir	14.7"	202	90	69	43		1.4%	2%
Bigleaf Maple	14.0"	5				5	1%	<1%
TOTALS		7,533	5,882	1,218	428	5	3.4%	100%

9. Approvals:

Prepared by: Kevin Berry Date: 01/05/16

Unit Forester Approval:  Date: 1/13/16

- 10. Attachments:**
- Cruise Designs and Maps - 4 pages
 - Volume Report - 3 pages
 - Statistics Reports - 3 pages
 - Stand Table Summary - 2 pages
 - Log Stock Tables - 2 pages

X:\STATE_FORESTS\UNIT_JEWELL\Timber Sales\2016\Lost Pony\Sale Prep\LP_CruiseReport.docx

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Lost Pony **Area(s)** 1 and 2

Harvest Type: Modified Clearcut

Approx. Cruise Acres: 165 **Estimated CV%** 50 Net BF or
BA/Acre **SE% Objective** 8

Planned Sale Volume: 8.450 MMBF **Estimated Sale Area Value/Acre:** \$ 15,986

A. Cruise Goals: (a) Grade minimum 100 trees:

Determine log grades for sale value; Determine snag and leave tree species and sizes;
Determine "diameter limit" harvest parameters;

B. Cruise Design:

1. Plot Cruises: BAF 40 Full point

Cruise Line Direction(s) N-S

Cruise Line Spacing 7 chains

Cruise Plot Spacing 4 chains

Grade/Count Ratio 1:2

Record all hardwood as camp run. Record all cedar as leave. Record all snags as SN
and record diameter & total height. If plot lands in buffer then offset at least 1/2 chain
outside the buffer.

C. Tree Measurements:

1. Diameter: Minimum DBH to cruise is 8 " for conifers and 10" for hardwoods.
Record dbh to nearest 1" for trees 8"-24", and to nearest 2" for trees > 24".

2. Bole Length: Record bole length to nearest foot at TCD. For trees greater than 100
feet in merchantable height, estimating to the nearest 5 feet is acceptable.

3. Top Cruise Diameter (TCD): Minimum top outside bark is 7 " or 40% of dob at 16'
form point. Generally, use 7" outside bark for trees less than 18" dbh and 40% of dob
@ FP for trees greater than 18" dbh.

4. Form Factors: (1) Measure or estimate a 16' form factor for every conifer tree
measured/graded; Hardwood form factors are a Standard 87.

5. Tree Segments: Record log segments in "standard" 32" and 40' log lengths
whenever possible. Do not record odd segments just to maximize grade. The
maximum segment length is 40'. The minimum segment length is 12' for conifer and 8'
for hardwoods. Minimum merchantable diameter for conifer is 8" dbh and 10" dbh for
hardwoods. One foot of trim is assumed for each merchantable segment.

6. Species, Sort, and Grade Codes:

- A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple);
B. Sort: Use code "1" (Domestic).
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; 0 = Cull

7. Deductions: Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable.

8. Standard Field Procedures: Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at intervisible points. On "measure/grade" plots paint the tree diameter on each tree starting with the first tree right of the cruise line direction and continuing clockwise.

9. Cruising Equipment: Relaskop, Rangefinder, Biltmore Stick, Compass, Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging.

10. Attachments: A. Cruise Map (showing cruise unit boundaries, cruise lines and plot locations, BAF or plot size, measure/count plot ratio, north arrow, and scale bar.

Cruise Design by: Kevin Berry
Approved by: [Signature]
Date: 12/30/15

Lost Pony Cruise Map

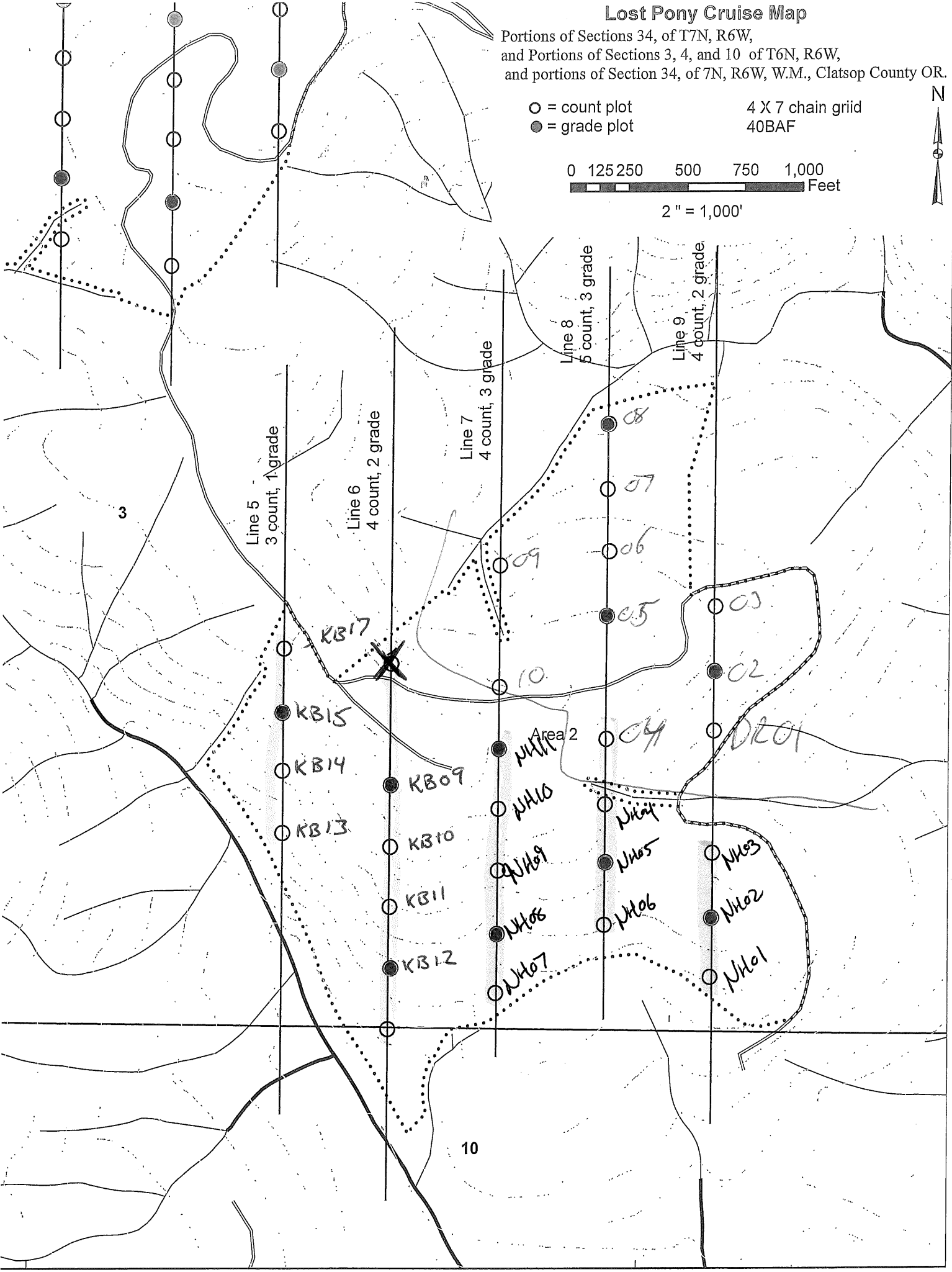
Portions of Sections 34, of T7N, R6W,
and Portions of Sections 3, 4, and 10 of T6N, R6W,
and portions of Section 34, of 7N, R6W, W.M., Clatsop County OR.

○ = count plot
● = grade plot

4 X 7 chain grid
40BAF

0 125 250 500 750 1,000
Feet

2" = 1,000'



Lost Pony Cruise Map

Portions of Sections 34, of T7N, R6W,
and Portions of Sections 3, 4, and 10 of T6N, R6W,
and portions of Section 34, of 7N, R6W, W.M., Clatsop County OR.

○ = count plot

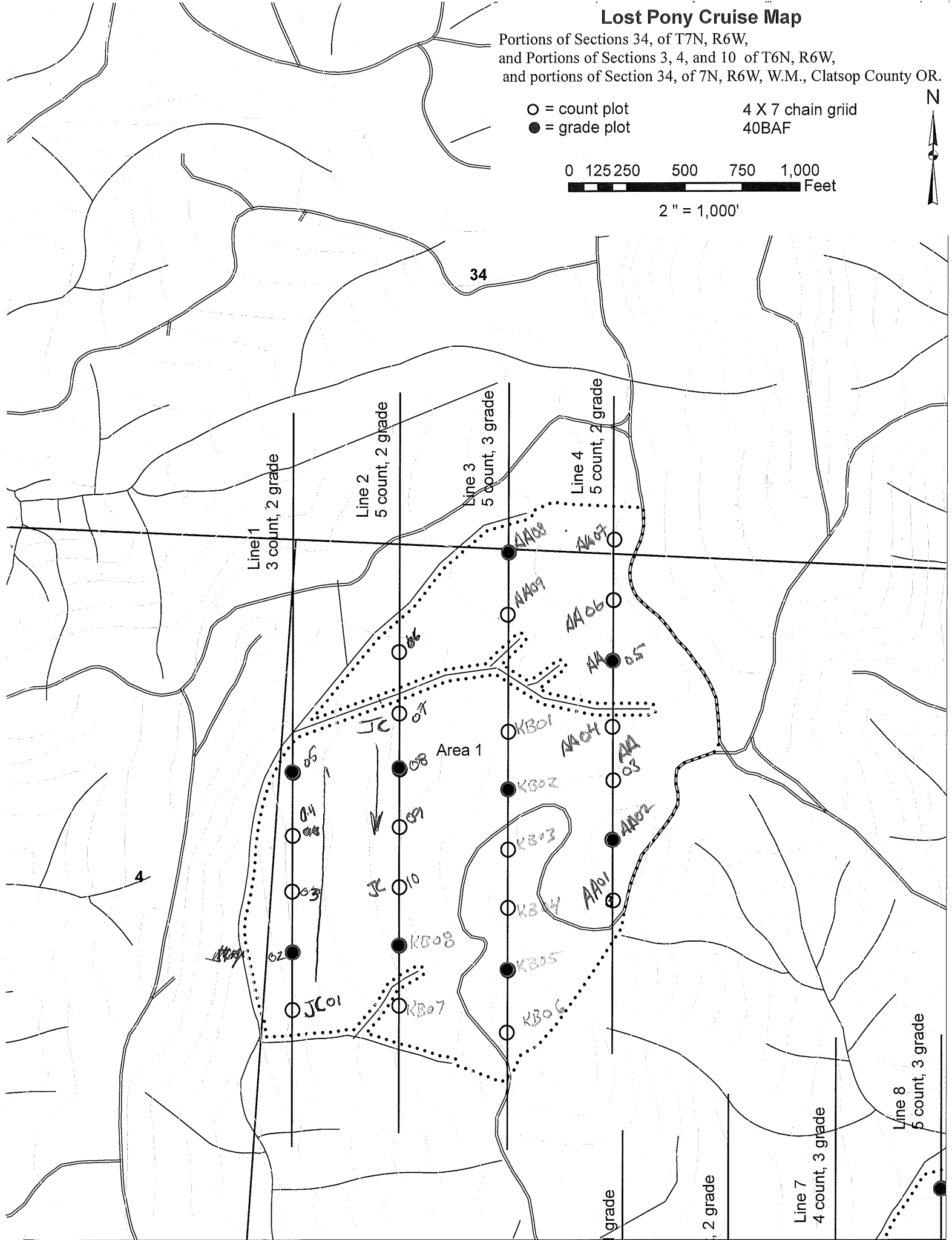
● = grade plot

4 X 7 chain grid

40BAF

0 125 250 500 750 1,000
Feet

2" = 1,000'



Species, Sort Grade - Board Foot Volumes (Project)

T06N R06W S03 TyROW 1.00
T06N R06W S03 TyTAKE 164.00

Project: LOSTPONY**Acres 165.00**

Page 1
Date 1/7/2016
Time 10:31:32AM

Spp	So Gr T rt ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre		
							Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf			
							4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99							
D	DOCU		100.0		957												18	18		0.00	5.1
D	DO2S	79	1.5	35,634	35,101	5,792		6	32	62		0	1	16	82		38	16	411	2.32	85.5
D	DO3S	15	1.2	7,046	6,961	1,149			90	9	1	2	8	44	46		33	9	95	0.83	72.9
D	DO4S	6		2,336	2,336	386		2	97	1		16	32	37	14		26	6	38	0.44	61.4
D Totals		97	3.4	45,973	44,399	7,326		0	24	27	49	2	4	22	73		33	11	197	1.38	224.9
H	DO2S	44	2.6	558	543	90				16	84				100		40	18	553	3.12	1.0
H	DO3S	34	.6	421	418	69			100			3		36	61		34	9	112	0.88	3.7
H	DO4S	22		263	263	43			100					36	64		33	6	44	0.39	5.9
H Totals		3	1.4	1,242	1,225	202			56	7	37	1	8	12	79		34	8	115	0.86	10.7
M	DOCR	100		33	33	5			100					100			35	6	50	0.60	.7
M Totals		0		33	33	5			100					100			35	6	50	0.60	.7
Totals			3.4	47,248	45,657	7,533		0	25	26	49	2	4	22	73		33	11	193	1.36	236.2

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page		1			
				Project: LOSTPONY										Date		1/7/2016			
														Time		10:32:12AM			
T06N R06W S03 TTAKE										T06N R06W S03 TTAKE									
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt	
06N		06W		03		AREA1AND2		TAKE		164.00		57		103		1		W	
S So Gr T rt ad Spp			% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
								Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf			
D DO CU			79	100.0 957			5,757	6 32 62				0 1 16 82				18 18 0.00			5.1
D DO 2S			15	1.5 35,634 35,101			1,142	90 9 1				2 8 44 46				38 16 411 2.32			85.5
D DO 3S			6	1.2 7,046 6,961			383	2 97 1				16 32 37 14				33 9 95 0.83			72.9
D DO 4S				2,336 2,336												26 6 38 0.44			61.4
D Totals			97	3.4 45,972 44,398			7,281	0 24 27 49				2 4 22 73				33 11 197 1.38			224.9
H DO 2S			34	2.6 558 543			89	16 84				100				40 18 553 3.12			1.0
H DO 3S			22	.6 421 418			69	100				3 36 61				34 9 112 0.88			3.7
H DO 4S				263 263			43	100				36 64				33 6 44 0.39			5.9
H Totals			3	1.4 1,242 1,225			201	56 7 37				1 8 12 79				34 8 115 0.86			10.7
M DO CR			100	33 33			5	100				100				35 6 50 0.60			.7
M Totals			0	33 33			5	100				100				35 6 50 0.60			.7
Type Totals				3.4 47,247 45,656			7,488	0 25 26 49				2 4 22 73				33 11 193 1.36			236.2

T		Species, Sort Grade - Board Foot Volumes (Type)												Page		1						
TSPCSTGR		Project: LOSTPONY												Date		1/7/2016						
														Time		10:34:31AM						
T06N R06W S03 TROW										T06N R06W S03 TROW												
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt													
06N	06W	03	AREA1AND2	ROW	1.00	57	111	1	W													
S So Gr T rt ad Spp			% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre		
			Def%	Gross	Net	Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/ Lf					
										4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft		
D	DO	CU		100.0	960													18	18		0.00	5.2
D	DO	2S	79	1.5	35,745	35,210	35			6	32	62		0	1	16	82	38	16	411	2.32	85.8
D	DO	3S	15	1.2	7,068	6,983	7			90	9	1		2	8	44	46	33	9	95	0.83	73.1
D	DO	4S	6		2,344	2,344	2	2	97	1				16	32	37	14	26	6	38	0.44	61.6
D Totals			97	3.4	46,115	44,537	45	0	24	27	49		2	4	22	73		33	11	197	1.38	225.6
H	DO	2S	44	2.6	558	543	1			16	84					100		40	18	553	3.12	1.0
H	DO	3S	34	.6	421	418	0			100				3		36	61	34	9	112	0.88	3.7
H	DO	4S	22		263	263	0			100					36		64	33	6	44	0.39	5.9
H Totals			3	1.4	1,242	1,225	1			56	7	37		1	8	12	79	34	8	115	0.86	10.7
M	DO	CR	100		33	33	0			100						100		35	6	50	0.60	.7
M Totals			0		33	33	0			100						100		35	6	50	0.60	.7
Type Totals				3.4	47,390	45,794	46	0	25	26	49		2	4	22	73		33	11	193	1.36	236.9

TC PSTATS					PROJECT STATISTICS				PAGE	1	
					PROJECT	LOSTPONY			DATE	1/7/2016	
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
06N	06	03	AREA1AND2	ROW	165.00	114	683	1	W		
06N	06W	03	AREA1AND2	TAKE							
					TREES	ESTIMATED	PERCENT				
					PER PLOT	TOTAL	SAMPLE				
			PLOTS	TREES		TREES	TREES				
TOTAL			114	683	6.0						
CRUISE			38	212	5.6	17,532	1.2				
DBH COUNT											
REFOREST											
COUNT			76	471	6.2						
BLANKS											
100 %											
STAND SUMMARY											
			SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS
			TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC
DOUG FIR			192	99.0	20.4	77	49.8	225.3	45,973	44,399	10,374
WHEMLOCK			10	6.6	14.7	57	2.0	7.7	1,242	1,225	312
SNAG			8	.0	18.3	62	0.0	.1			
BL MAPLE			2	.7	14.0	35	0.2	.7	33	33	14
TOTAL			212	106.3	20.1	76	52.2	233.8	47,248	45,657	10,700
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF						# OF TREES REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15
DOUG FIR			100.4	7.2	864	931	998				
WHEMLOCK			95.6	31.8	311	456	601				
SNAG											
BL MAPLE					50	50	50				
TOTAL			106.3	7.3	802	865	928	451	113	50	
CL	68.1	COEFF	TREES/ACRE						# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15
DOUG FIR			125.2	11.7	87	99	111				
WHEMLOCK			561.2	52.5	3	7	10				
SNAG			332.8	31.1	0	0	0				
BL MAPLE			1061.2	99.3	0	1	1				
TOTAL			124.5	11.7	94	106	119	619	155	69	
CL	68.1	COEFF	BASAL AREA/ACRE						# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15
DOUG FIR			115.2	10.8	201	225	250				
WHEMLOCK			474.0	44.4	4	8	11				
SNAG			311.9	29.2	0	0	0				
BL MAPLE			1061.2	99.3	0	1	1				
TOTAL			113.4	10.6	209	234	259	514	128	57	
CL	68.1	COEFF	NET BF/ACRE						# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH			5	10	15
DOUG FIR			115.0	10.8	39,623	44,399	49,176				
WHEMLOCK			460.2	43.1	697	1,225	1,752				
SNAG											
BL MAPLE			1061.2	99.3	0	33	65				
TOTAL			113.7	10.6	40,801	45,657	50,513	516	129	57	

TC TSTATS				STATISTICS				PAGE	1			
				PROJECT LOSTPONY				DATE	1/7/2016			
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt			
06N	06W	03	AREA1AND2	ROW	1.00	57	350	1	W			
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL			57	350	6.1							
CRUISE			19	110	5.8	112	98.0					
DBH COUNT												
REFOREST												
COUNT			38	240	6.3							
BLANKS												
100 %												
STAND SUMMARY												
SAMPLE TREES			TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC	
DOUG FIR			96	99.3	20.4	77	50.0	226.0	46,115	44,537	10,406	10,214
SNAG			8	5.7	18.3	62	2.5	10.5				
WHEMLOCK			5	6.6	14.7	57	2.0	7.7	1,242	1,225	312	312
BL MAPLE			1	.7	14.0	35	0.2	.7	33	33	14	14
TOTAL			110	112.3	20.0	75	54.8	244.9	47,390	45,794	10,732	10,540
CONFIDENCE LIMITS OF THE SAMPLE												
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR												
CL:	68.1 %	COEFF		SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR		100.7	10.3	835	931	1,027						
SNAG												
WHEMLOCK		101.4	50.4	226	456	686						
BL MAPLE												
TOTAL		110.2	10.5	746	834	921		485	121	54		
CL:	68.1 %	COEFF		TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR		54.1	7.2	92	99	106						
SNAG		225.4	29.8	4	6	7						
WHEMLOCK		394.7	52.2	3	7	10						
BL MAPLE		755.0	99.9	0	1	1						
TOTAL		53.1	7.0	104	112	120		113	28	13		
CL:	68.1 %	COEFF		BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR		41.3	5.5	214	226	238						
SNAG		209.7	27.8	8	11	13						
WHEMLOCK		331.2	43.8	4	8	11						
BL MAPLE		755.0	99.9	0	1	1						
TOTAL		39.1	5.2	232	245	258		61	15	7		
CL:	68.1 %	COEFF		NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR		40.9	5.4	42,124	44,537	46,950						
SNAG												
WHEMLOCK		321.1	42.5	704	1,225	1,745						
BL MAPLE		755.0	99.9	0	33	66						
TOTAL		39.4	5.2	43,408	45,794	48,181		62	15	7		

TC TSTATS				STATISTICS				PAGE 1			
				PROJECT	LOSTPONY			DATE	1/7/2016		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
06N	06W	03	AREA1AND2	TAKE	164.00	57	333	1	W		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
					TREES	TREES					
TOTAL		57	333	5.8							
CRUISE		19	102	5.4	17,419					.6	
DBH COUNT											
REFOREST											
COUNT		38	231	6.1							
BLANKS											
100 %											
STAND SUMMARY											
		SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
		TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR		96	99.0	20.4	77	49.8	225.3	45,972	44,398	10,374	10,183
WHEMLOCK		5	6.6	14.7	57	2.0	7.7	1,242	1,225	312	312
BL MAPLE		1	.7	14.0	35	0.2	.7	33	33	14	14
TOTAL		102	106.2	20.1	76	52.1	233.7	47,247	45,656	10,699	10,508
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL:	68.1 %	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR		100.7	10.3	835	931	1,027					
WHEMLOCK		101.4	50.4	226	456	686					
BL MAPLE											
TOTAL		102.7	10.2	808	899	990	421	105	47		
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR		54.6	7.2	92	99	106					
WHEMLOCK		394.7	52.2	3	7	10					
BL MAPLE		755.0	99.9	0	1	1					
TOTAL		53.8	7.1	99	106	114	116	29	13		
CL:	68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR		41.9	5.5	213	225	238					
WHEMLOCK		331.2	43.8	4	8	11					
BL MAPLE		755.0	99.9	0	1	1					
TOTAL		39.3	5.2	222	234	246	62	15	7		
CL:	68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR		41.5	5.5	41,960	44,398	46,837					
WHEMLOCK		321.1	42.5	704	1,225	1,745					
BL MAPLE		755.0	99.9	0	33	66					
TOTAL		39.6	5.2	43,263	45,656	48,049	63	16	7		

TC		PSTNDSUM		Stand Table Summary										Page		1	
														Date:		1/7/2016	
T06N R06W S03 TyROW1.00 T06N R06W S03 TyTAKE164.00				Project						LOSTPONY				Time:		11:54:40AM	
				Acres						165.00				Grown Year:			
S SpC	T	Tot							Average Log		Net		Net		Totals		
		DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF	
D		9	2	88	60	5.311	2.35	5.31	9.0	30.0		48	159		79	26	
D		10	2	89	68	4.302	2.35	4.30	12.0	50.0		52	215		85	35	
D		11	4	87	63	7.111	4.69	10.67	11.0	43.3		117	462		194	76	
D		12	4	86	114	5.975	4.69	11.95	14.5	52.5		173	627		286	104	
D		13	2	88	66	2.546	2.35	2.55	24.0	70.0		61	178		101	29	
D		14	2	86	97	2.195	2.35	4.39	18.5	65.0		81	285		134	47	
D		15	8	88	101	7.649	9.39	15.30	24.0	93.8		367	1,434		606	237	
D		16	12	87	94	10.084	14.08	18.49	24.9	92.7		460	1,714		760	283	
D		17	8	86	108	5.955	9.39	13.40	29.3	107.8		393	1,444		648	238	
D		18	4	87	132	2.656	4.69	7.97	29.3	115.0		234	916		386	151	
D		19	10	88	95	5.959	11.73	13.11	34.2	122.7		448	1,609		739	265	
D		20	14	87	114	7.529	16.43	19.36	37.6	142.8		727	2,764		1,200	456	
D		21	2	92	125	.976	2.35	2.93	40.7	180.0		119	527		196	87	
D		22	10	87	126	4.445	11.73	13.33	42.4	172.7		565	2,302		933	380	
D		23	4	92	141	1.627	4.69	5.69	46.3	214.3		264	1,220		435	201	
D		24	12	84	134	4.482	14.08	13.44	51.2	207.2		688	2,786		1,135	460	
D		25	6	85	115	2.065	7.04	6.20	49.9	195.6		309	1,212		510	200	
D		26	10	87	118	3.182	11.73	8.27	58.7	248.5		486	2,056		801	339	
D		27	8	88	132	2.361	9.39	6.49	71.6	322.7		465	2,095		767	346	
D		28	8	86	132	2.195	9.39	6.04	75.5	321.8		455	1,943		752	321	
D		29	10	87	129	2.558	11.73	7.16	76.4	356.4		547	2,553		902	421	
D		30	6	87	141	1.434	7.04	4.30	87.6	416.7		377	1,793		622	296	
D		33	2	85	132	.395	2.35	1.19	92.7	463.3		110	549		181	91	
D		34	4	87	143	.744	4.69	2.23	114.0	518.3		255	1,157		420	191	
D		35	4	90	157	.702	4.69	2.11	130.2	655.0		274	1,380		453	228	
D		36	6	87	149	.996	7.04	2.66	124.0	641.3		329	1,703		543	281	
D		37	8	88	150	1.257	9.39	3.77	131.3	685.8		495	2,586		817	427	
D		39	2	89	129	.283	2.35	.85	140.0	743.3		119	631		196	104	
D		40	2	86	129	.269	2.35	.81	141.3	686.7		114	554		188	91	
D		41	4	88	164	.512	4.69	1.79	159.3	884.3		285	1,584		471	261	
D		42	6	85	149	.732	7.04	2.20	173.7	876.7		381	1,924		629	318	
D		48	2	89	155	.187	2.35	.56	242.7	1316.7		136	738		224	122	
D		50	2	85	159	.172	2.35	.52	257.7	1350.0		133	697		219	115	
D		54	2	85	133	.148	2.35	.44	260.0	1356.7		115	600		190	99	
D		Totals	192	87	106	98.991	225.27	219.76	46.3	202.0		10,183	44,399		16,802	7,326	
H		10	2	89	78	2.831	1.54	2.83	15.0	60.0		42	170		70	28	
H		13	2	88	87	1.675	1.54	3.35	16.5	60.0		55	201		91	33	
H		14	2	88	98	1.444	1.54	2.89	24.0	90.0		69	260		114	43	
H		28	2	85	122	.361	1.54	1.08	73.0	313.3		79	339		130	56	
H		33	2	82	99	.260	1.54	.52	126.0	490.0		66	255		108	42	
H		Totals	10	88	88	6.571	7.72	10.67	29.2	114.8		312	1,225		514	202	
M		14	2	87	45	.656	.70	.66	21.0	50.0		14	33		23	5	
M		Totals	2	87	45	.656	.70	.66	21.0	50.0		14	33		23	5	
SN		15	3	82	75	.019	.02										
SN		16	1	92	80	.006	.01										
SN		18	1	83	78	.005	.01										
SN		25	2	90	35	.005	.02										
SN		60	1	89	17	.000	.01										
SN		Totals	8	85	70	.035	.06										

TC		PSTNDSUM		Stand Table Summary								Page		2	
												Date:		1/7/2016	
T06N R06W S03 TyROW1.00 T06N R06W S03 TyTAKE164.00				Project				LOSTPONY				Time:		11:54:40AM	
				Acres				165.00				Grown Year:			
S				Tot					Average Log						
Spc T		Sample		FF		Av		Trees/		BA/		Logs		Average Log	
		DBH		Trees		16'		Ht		Acre		Acre		Acre	
										Net		Net		Net	
										Cu.Ft.		Bd.Ft.		Cu.Ft.	
										Tons/		Cu.Ft.		Bd.Ft.	
										Acre		Acre		Acre	
												Tons		Totals	
														Cunits	
														MBF	
Totals		212		87		104		106.253		233.75		231.09		45.5	
														197.6	
														10,508	
														45,657	
														17,339	
														7,533	

Log Stock Table - MBF

T06N R06W S03 TyROW 1.00
T06N R06W S03 TyTAKE 164.00

Project: LOSTPONY
Acres 165.00

Page 1
Date 1/7/2016
Time 10:44:06AM

S T Spp	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
							2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
D	DO CU	4	9	100.0														
D	DO CU	6	29	100.0														
D	DO CU	8	6	100.0														
D	DO CU	10	21	100.0														
D	DO CU	25	75	100.0														
D	DO CU	34	17	100.0														
D	DO 2S	20	34	20.0	27	.4									27			
D	DO 2S	24	43		43	.6								43				
D	DO 2S	27	29		29	.4						22	8					
D	DO 2S	32	952		946	12.9					59	294	105	218	157	113		
D	DO 2S	39	12		12	.2								12				
D	DO 2S	40	4,810	1.6	4,734	64.6					291	384	698	1079	884	934	463	
D	DO 3S	15	2		2	.0			2									
D	DO 3S	18	5		5	.1						5						
D	DO 3S	20	19		19	.3				5	14							
D	DO 3S	21	4		4	.1				4								
D	DO 3S	22	6		6	.1								6				
D	DO 3S	23	41		41	.6			26		15							
D	DO 3S	25	6		6	.1			6									
D	DO 3S	27	13		13	.2				6	7							
D	DO 3S	28	6		6	.1				6								
D	DO 3S	29	7		7	.1					7							
D	DO 3S	30	14		14	.2			8	6								
D	DO 3S	31	6		6	.1				6								
D	DO 3S	32	471	1.8	463	6.3			9	159	264	31						
D	DO 3S	33	33		33	.5			25	8								
D	DO 3S	36	16		16	.2				5			11					
D	DO 3S	37	57		57	.8			17	32		7						
D	DO 3S	40	435	1.3	429	5.9			68	132	175	55						
D	DO 3S	41	22		22	.3			22									
D	DO 4S	15	5		5	.1			3	2								
D	DO 4S	16	15		15	.2			12	3								
D	DO 4S	17	4		4	.0			4									
D	DO 4S	18	22		22	.3			22									
D	DO 4S	20	18		18	.2			13	4								
D	DO 4S	21	23		23	.3			18			5						

Log Stock Table - MBF

T06N R06W S03 TyROW 1.00
T06N R06W S03 TyTAKE 164.00

Project: LOSTPONY
Acres 165.00

Page 2
Date 1/7/2016
Time 10:44:06AM

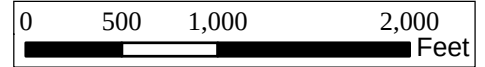
S Spp	T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
D		DO	4S	22		5	5	.1			5								
D		DO	4S	23		9	9	.1				9							
D		DO	4S	24		22	22	.3			22								
D		DO	4S	25		12	12	.2	7		5								
D		DO	4S	26		8	8	.1			8								
D		DO	4S	27		11	11	.1			11								
D		DO	4S	28		26	26	.4			26								
D		DO	4S	30		7	7	.1			7								
D		DO	4S	31		27	27	.4			27								
D		DO	4S	32		107	107	1.5			107								
D		DO	4S	33		10	10	.1			10								
D		DO	4S	36		17	17	.2			17								
D		DO	4S	40		15	15	.2			15								
D		DO	4S	41		22	22	.3			22								
D		Totals				7,586	3.4	7,326	97.2	7	538	388	831	804	822	1358	1068	1047	463
H		DO	2S	40		92	2.6	90	44.4				14			75			
H		DO	3S	17		2		2	1.2		2								
H		DO	3S	32		25		25	12.3		25								
H		DO	3S	40		42	1.0	42	20.7			42							
H		DO	4S	26		8		8	4.1		8								
H		DO	4S	28		7		7	3.5		7								
H		DO	4S	40		28		28	13.9		28								
H		Totals				205	1.4	202	2.7		43	27	42	14			75		
M		DO	CR	35		5		5	100.0		5								
M		Totals				5		5	.1		5								
Total		All Species				7,796	3.4	7,533	100.0	7	586	415	873	818	822	1358	1144	1047	463

LOGGING PLAN MAP

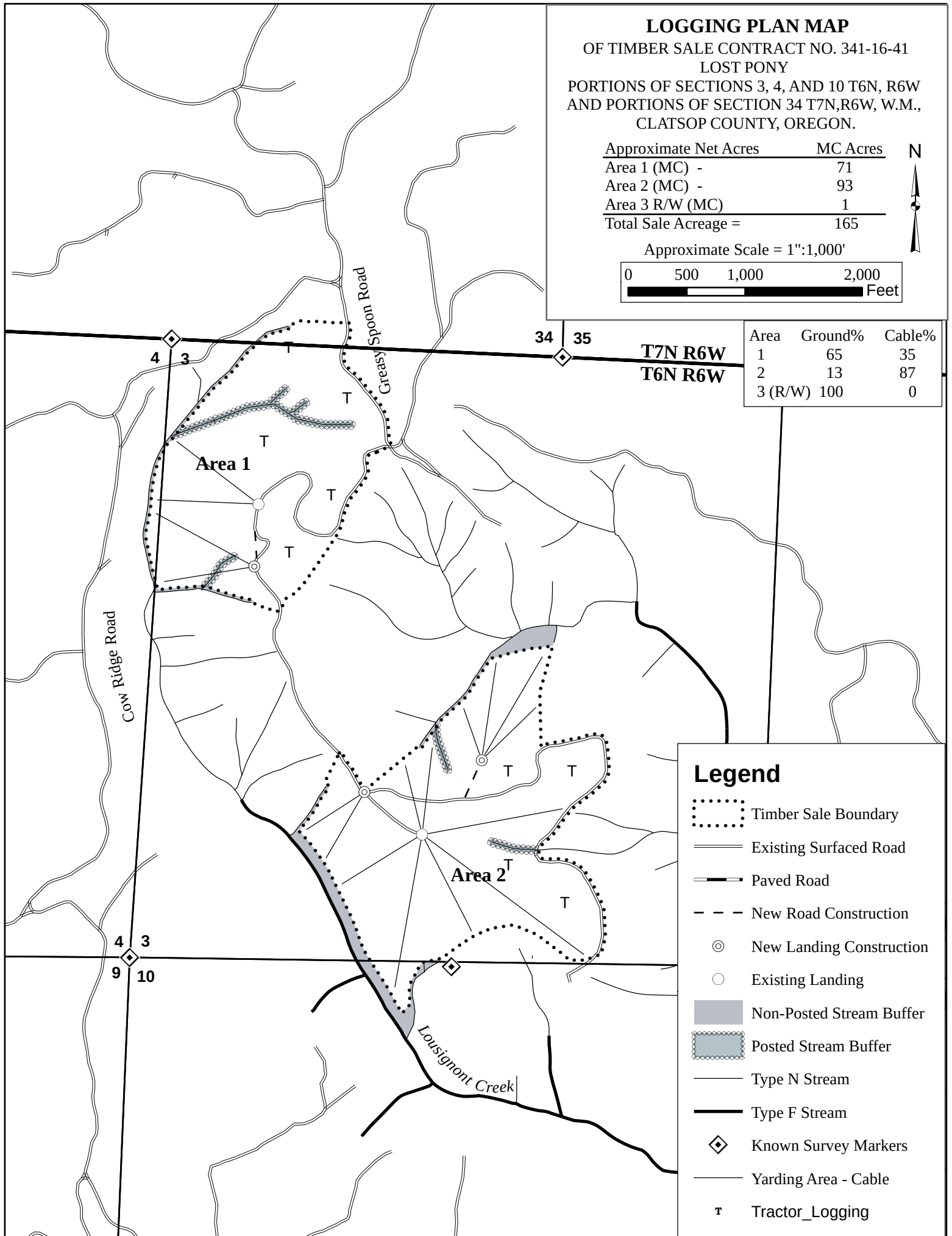
OF TIMBER SALE CONTRACT NO. 341-16-41
LOST PONY
PORTIONS OF SECTIONS 3, 4, AND 10 T6N, R6W
AND PORTIONS OF SECTION 34 T7N,R6W, W.M.,
CLATSOP COUNTY, OREGON.

Approximate Net Acres	MC Acres
Area 1 (MC) -	71
Area 2 (MC) -	93
Area 3 R/W (MC)	1
Total Sale Acreage =	165

Approximate Scale = 1":1,000'



Area	Ground%	Cable%
1	65	35
2	13	87
3 (R/W)	100	0



Legend

- Timber Sale Boundary
- Existing Surfaced Road
- Paved Road
- New Road Construction
- New Landing Construction
- Existing Landing
- Non-Posted Stream Buffer
- Posted Stream Buffer
- Type N Stream
- Type F Stream
- Known Survey Markers
- Yarding Area - Cable
- Tractor_Logging