"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Greasy Alder
Sale 341-10-01

District: Astoria **Date:** July 13, 2009

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$49,569.26	$188,231.22	$237,800.48
		Project Work:	$(45,909.00)
		Advertised Value:	$191,891.48

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Greasy Alder
Sale 341-10-01

District: **Astoria** **Date:** **July 13, 2009**

timber description

Location: Portions of Sections 33 and 34, T7N, R6W, W.M., Clatsop County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	16	0	97
Western Hemlock / Fir	28	0	97
Red Cedar	21	0	97
Alder (Red)	14	0	97
Maple	16	0	97

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	177	130	21	0	328
Western Hemlock / Fir	2	0	0	0	2
Red Cedar	1	0	0	0	1
Alder (Red)	0	0	0	758	758
Maple	0	0	0	11	11
Total	180	130	21	769	1,100

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Greasy Alder
Sale 341-10-01

District: Astoria **Date: July 13, 2009**

comments: Pond Values Used: 2nd Quarter Calendar Year 2009.

Log Markets: Mist, Clatskanie, Tillamook, Forest Grove.

SCALING COST ALLOWANCE = $5.00/MBF

FUEL COST ALLOWANCE = $3.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to $700 daily truck cost.

Other Costs (with Profit & Risk to be added):
100% Brand and Paint: $1/MBF x 1,100 MBF =$1,100
Log Loader Landing Slash Piling: 12 Hours x $65/hour=
$780
TOTAL Other Costs (with Profit and Risk to be added) =$1,880

Other Costs (No Profit & Risk added):
None.

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Greasy Alder
Sale 341-10-01

District: Astoria **Date:** July 13, 2009

logging conditions

combination#: 1

Douglas - Fir	13.90%
Western Hemlock / Fir	60.00%
Red Cedar	60.00%
Alder (Red)	56.52%
Maple	60.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process**: Manual Delimbing
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 9.0 **bd. ft / load:** 4,200
cost / mbf: $71.46

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

combination#: 2

Douglas - Fir	9.27%
Western Hemlock / Fir	40.00%
Red Cedar	40.00%
Alder (Red)	37.68%
Maple	40.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process**: Manual Delimbing
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 11.0 **bd. ft / load:** 4,200
cost / mbf: $54.21

machines: Shovel Logger

combination#: 3

Douglas - Fir	59.16%
Alder (Red)	4.47%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process**: Manual Delimbing
tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
loads / day: 6.0 **bd. ft / load:** 4,800
cost / mbf: $93.78

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

combination#: 4

Douglas - Fir	17.67%
Alder (Red)	1.34%

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Greasy Alder
Sale 341-10-01

District: Astoria **Date: July 13, 2009**

yarding distance:	Short (400 ft)	**downhill yarding:**	No
logging system:	Shovel	**Process**:	Manual Delimbing
tree size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
loads / day:	9.0	**bd. ft / load:**	4,800
cost / mbf:	$57.98		

machines: Shovel Logger

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Greasy Alder
Sale 341-10-01

District: Astoria **Date:** July 13, 2009

logging costs

Operating Seasons:	2.00	**Profit Risk:**	14.00%
Project Costs:	$45,909.00	**Other Costs (P/R):**	$1,880.00
Slash Disposal:	$0.00	**Other Costs:**	$0.00

Miles of Road

Road Maintenance: $9.57

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	4.0	4.8
Western Hemlock / Fir	$0.00	4.0	4.8
Red Cedar	$0.00	3.0	3.6
Alder (Red)	$0.00	3.0	3.6
Maple	$0.00	3.0	3.6

Local Pond Values

Date	Specie	Grade	Value
7/13/09	Alder (Red)	Camprun	$415.00

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Greasy Alder
Sale 341-10-01

District: Astoria **Date:** July 13, 2009

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$80.68	$9.86	$7.97	$32.94	$1.71	$18.64	$0.00	$5.00	$0.00	$156.80
Western Hemlock / Fir									
$64.56	$9.86	$7.97	$32.94	$1.71	$16.39	$0.00	$5.00	$0.00	$138.43
Red Cedar									
$64.56	$9.86	$7.97	$58.57	$1.71	$19.97	$0.00	$5.00	$0.00	$167.64
Alder (Red)									
$65.78	$9.86	$7.97	$58.57	$1.71	$20.14	$0.00	$5.00	$0.00	$169.03
Maple									
$64.56	$9.86	$7.97	$58.57	$1.71	$19.97	$0.00	$5.00	$0.00	$167.64

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$305.47	$148.67	$0.00
Western Hemlock / Fir	$0.00	$255.00	$116.57	$0.00
Red Cedar	$0.00	$740.00	$572.36	$0.00
Alder (Red)	$0.00	$415.00	$245.97	$0.00
Maple	$0.00	$330.00	$162.36	$0.00

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Greasy Alder
Sale 341-10-01

District: **Astoria** **Date:** **July 13, 2009**

summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	$0.00	$0.00
Western Hemlock / Fir	0	$0.00	$0.00
Red Cedar	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	328	$148.67	$48,763.76
Western Hemlock / Fir	2	$116.57	$233.14
Red Cedar	1	$572.36	$572.36
Alder (Red)	758	$245.97	$186,445.26
Maple	11	$162.36	$1,785.96

Gross Timber Sale Value

Recovery: $237,800.48

Prepared by: Lanny Freeman **Phone:** 503-325-5451

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Greasy Alder

NEW CONSTRUCTION:

Project No. 1

	Road segment	Length/Sta		Cost	
Rocked Roads	2A-2B, 2C-2D & 2E-2F	34.50		$33,802	
Dirt Roads	1A-1B & 2C-2D	9.65		$3,247	
	TOTALS	44.15	0.84 miles		$37,048

SPECIAL PROJECTS:

Project No. 1

Project Work Road Maintenance	$2,688

MOVE IN:

Equipment	Cost	
Dozer (D8)	$1,220	
Dump Trucks (12 cy x 3)	$423	
Dump Trucks (20 cy x 3)	$498	
F E Loader (C966)	$675	
Grader (14G)	$675	
Rubber Tire Skidder (C518)	$622	
Vibratory Roller	$675	
Water Truck (2,500 gallon)	$165	
Excavator (C330)	$1,220	
TOTAL		$6,173

GRAND TOTAL **$45,909**

Compiled By: L. Freeman FL Date: 05/22/2009

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Greasy Alder (Designed Roads)
ROADS: 2A-2B (30+00)

NEW CONSTRUCTION: 30.00 **STATIONS** 0.57 **MILES**
IMPROVEMENT: **STATIONS** 0.00 **MILES**

CLEARING & GRUBBING

Method		Acres/amount		Rate	=	Cost
Scatter Outside of R/W	2A-2B only	2.6	x	$1,161.00	=	$3,018.60

SUB TOTAL FOR CLEARING & GRUBBING $3,019

EXCAVATION

Material	2A-2B only	Cy/amount/station		Rate	=	Cost
Common drift excavation $$/cy		2,751	x	$1.60	=	$4,401.60
Embankment comapaction $$/cy		2,855	x	$0.60	=	$1,713.00
Cut Slope Rounding		10	x	$37.00	=	$370.00
Landing Construction $$/landing Point 2B		1	x	$338.00	=	$338.00

SUB TOTAL FOR EXCAVATION $6,823

CULVERT MATERIALS AND INSTALLATION

	Location	Dia/type	Lineal ft.	Rate	Cost	No. bands	Rate	Cost
2A to 2B	14+70	18"CPP	30	$17.64	$529.20			
2A to 2B	18+35	18"CPP	30	$17.64	$529.20			
2A to 2B	20+20	18" CPP	40	$17.64	$705.60			
2A to 2B	25+85	18"CPP	30	$17.64	$529.20			

$2,293.20

	Description	Quantity	Rate	Cost
Other/miscellaneous:				
Culvert stakes & markers:	6' Fiberglass Markers Includes Installation	3	$18.00	$54.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION $54

Subtotal **$12,188**

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Greasy Alder (Field Designed Roads)
ROAD: 2E to 2F (4.50)
04/16/2009

NEW CONSTRUCTION: 4.50 STATIONS 0.09 MILES
IMPROVEMENT: STATIONS 0.00 MILES

CLEARING & GRUBBING

Method	Acres/amount	x	Rate	=	Cost
Scatter Outside of R/W	0.5	x	$1,161.00	=	$580.50

SUB TOTAL FOR CLEARING & GRUBBING $581

EXCAVATION

Material	Sta/amount	x	Rate	=	Cost
Balanced Construction	3	x	$106.00	=	$318.00
Common (Drift Earth up to 200') $$/sta.	1.50	x	$165.00	=	$247.50
Embankment Compaction	180	x	$0.60	=	$108.00
Cutslope Rounding	2.00	x	$37.00	=	$74.00
Landing Construction $$/landing 2D & 2F	1	x	$338.00	=	$338.00

SUB TOTAL FOR EXCAVATION $1,086

CULVERT MATERIALS AND INSTALLATION

Location	Dia/type	Lineal ft.	Rate	Cost	No. bands	Rate	Cost

	Description	Quantity	Rate	Cost
Other/miscellaneous:				$0.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION $0

Subtotal **$1,666**

SUMMARY OF CONSTRUCTION COSTS

SALE NAI Greasy Alder (Field Design) **NEW CONSTRUCTION:** 9.65 **STATIONS** 0.18 **MILES**
ROAD: 1A to 1B (4+00) & 2C to 2D (5+65) **IMPROVEMENT:** **STATIONS** 0.00 **MILES**
14' Outsloped Dirt Spurs

CLEARING & GRUBBING

Method	Acres/amou	x	Rate	=	Cost
Scatter Outside of R/W	0.9	x	$1,161.00	=	$1,044.90

SUB TOTAL FOR CLEARING & GRUBBING $1,045

EXCAVATION

Material	Sta/amount	x	Rate	=	Cost
Balanced Construction	6.00	x	$106.00	=	$636.00
Common (Drift Earth up to 200')	3.65	x	$165.00	=	$602.25
Landing Construction $$/landing	2	x	$338.00	=	$676.00
1B & 2D					

SUB TOTAL FOR EXCAVATION $1,914

SUBGRADE PREPERATION

Subgrade prep: Description	Stations/ amount	x	Rate/ sta/amt	Cost
Grade, 14' Outslope	9.65	x	$15.93	$153.72
Waterbar	9.65	x	$13.85	$133.65

SUB TOTAL FOR SUBGRADE PREP $287

CULVERT MATERIALS AND INSTALLATION

Location	Dia/type	Lineal ft.	Rate	Cost	No. bands	Rate	Cost

	Description	Quantity	Rate	Cost
Other/miscellaneous:	Culvert markers:			$0.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION $0

GRAND TOTAL FOR CULVERT MATERIALS & INSTALLATION $3,247

Project No. 1 New Road Construction

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Greasy Alder
ROAD: 2A-2B (30+00) & 2E-2F (4+50)

NEW CONSTRUCTION: 34.50 **STATIONS** 0.65 **MILES**
IMPROVEMENT: 0.00 **STATIONS** 0.00 **MILES**

SURFACING

Subgrade prep:

Description	Stations/ amount	x	Rate/ sta/amt	Cost
Grade, Shape and Ditch 16'	34.50	x	$21.55	$743.48
Subgrade Compaction	34.50	x	$17.52	$604.44
				$1,347.92

ROAD SEGMENT 2A to 2B — POINT TO POINT: 2A to 2B — Sta. to Sta.: 0+00 to 30+00

Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	4"-0" Crushed	2A-2B	8	station	50	stations	30.00	1,500	$5.48	$8,220	
Traction Rock	3/4"-0" Crushed	0+00 - 2+00	3	station	19	stations	2	38	$5.48	$208	
Traction Rock	3/4"-0" Crushed	5+90 - 19+90	3	station	19	stations	14	266	$5.48	$1,458	
Curve Widdening	4"-0" Crushed		8				84	84	$5.48	$460	
Curve Widdening	3/4"-0" Crushed		3				48	48	$5.48	$263	
Turnouts	4"-0" Crushed		8	turnouts	22	turnouts	4	88	$5.48	$482	
Turnouts	3/4"-0" Crushed	Sta. 11+40	3	turnouts	8	turnouts	1	8	$5.48	$44	
Turnaround	4"-0" Crushed	Sta. 27+50	8	T/A	13	T/A	1	13	$5.48	$71	
Junction	4"-0" Crushed	2A	8	junction	24	juntions	1	24	$5.48	$132	
Junction	3/4"-0" Crushed	2A	3	jucntion	12	junctions	1	12	$5.48	$66	
Landing	6"-0" Pit-run	2B	N/A	landing	50	landings	1	50	$8.98	$449	
Total Rock for Road Segment:			2A to 2B					2,131			$11,853

ROAD SEGMENT 2E to 2F — POINT TO POINT: 2E to 2F — Sta. to Sta.: 0+00 to 4+50

Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	4"-0" Crushed	2E to 2F	8	station	50	stations	4.50	225	$5.48	$1,233	
Curve Widdening	4"-0" Crushed		8				24	24	$5.48	$132	
Turnouts	4"-0" Crushed		8	turnout	22	turnouts	1.00	22	$5.48	$121	
Turnaround	4"-0" Crushed		8	T/A	13	turnarounds	1.00	13	$5.48	$71	
Junction	4"-0" Crushed	2E	8	junction	24	junctions	1	24	$5.48	$132	
Junction	3/4"-0" Crushed	2E	3	junction	12	junctions	1	12	$5.48	$66	
Landing	6"-0" Pit-run	2F	N/A	landing	50	landings	1	50	$8.98	$449	
Total Rock for Road Segment:			2E to 2F					370			$2,203

Processing:

Description	No.sta	Rate/sta	Cost
Water, Process & Compact Crushed Rock; In two 4 inch lifts 34.5 sta. x 2= 69.0 stations	69.00	$49.02	$3,382
Process traction rock: In one 3 inch lift	19.00	$49.02	$931

SUB TOTAL FOR SURFACING **$19,717**

SPECIAL PROJECTS

Description				Cost
Develop Pit-run Rock 100 cy. X $2.30 cy.	100	$2.30	=	$230

SUB TOTAL FOR SPECIAL PROJECTS $230

GRAND TOTAL **$19,947**

Compiled By: L. freeman

Date: 05/11/2009

CRUSHED ROCK COST

SALE NAME: Greasy Alder
PROJECT: No. 1
QUARRY: Bovine Stockpile Sites

ROCK TYPE: Crushed
3/4"-0 " & 4"-0"

DATE: 04/16/2009
BY: L. Freeman

		Cubic Yards							
Segment	Stations	Trac. Rock	Running	Turnout	Turnaround	Junction	Curve W.		Total
2A to 2B	30.00	208	1,500	98	24	36	32		1,898
2E to 2F	4.50		225	22	24	24	24		319
Grand Total	34.50	208	1,725	120	48	60	56		2,217

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
2A to 2B	30.00	1,898		1	3	1.48	0.50	0.30	0.10	5.88
2E to 2F	4.50	319		1	3	1.62	0.50	0.30	0.10	6.52
TOTAL	34.50	2,217								AVERAGE HAUL
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL				**1.00**	**2.57**	**1.50**	**0.50**	**0.30**	**0.10**	**5.97**
						Average Round Trip Distance (miles)			11.94	

ROCK HAUL:

Truck type: D20 No. trucks: 3
Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: 3
Delay min.: 6 Efficiency: 85%

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

Ave haul: $4.25 /cy
Load: $0.45 /cy
Spread: $0.78 /cy

Production: cy/day = 943

CRUSHED ROCK HAUL COSTS 2,217 cy @ **$5.48** /cy

PIT RUN ROCK COST

SALE NAME: Greasy Alder
PROJECT: No. 1
QUARRY: Northrup Quarry
ROCK TYPE: Pit Run 6"-0"
DATE: 04/16/2009
BY: L. Freeman

		Cubic Yards							
Segment	Stations	Landing	Landing	Turnout	Turnaround	Junction	Fill	Misc	Total
2A to 2B		50							
2E to 2F		50							
Grand Total		100							

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES 50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
2A to 2B		50			3	3.00	1.53	0.50	0.10	7.63
2E to 2F		50			3	3.00	1.43	0.50	0.10	8.03
TOTAL		100								AVERAGE HAUL
STA./NO.		CU. YD.								
CUBIC YARD WEIGHTED HAUL					**2.75**	**3.00**	**1.48**	**0.50**	**0.10**	**7.83**
								Average Round Trip Distance (miles)		15.66

7.1
7.1

ROCK HAUL:

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

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

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

Ave haul: $6.74 /cy
Load: $0.78 /cy
Spread: $1.46 /cy

Production: cy/day = 519

PIT RUN ROCK HAUL COSTS cy @ **$8.98 /cy**

Final Road Maintenance Cost Summary

Sale: Greasy Alder
Date: 05-May-09
By: L. Freeman

MBF: 1,100
$$/MBF: $9.57

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Final Road Maintenance (4 miles)	Grader 14G	$675	1	27	$93	$3,186
	Dump Truck 12CY x 2	$141	2	16	$73	$1,450
	FE Loader C966	$675	1	8	$77	$1,291
	*Vibratory Roller	$675	1	27	$72	$2,619
	Water Truck 2,500 gallon	$165	1	20	$83	$1,825
	Labor			4	$38	$152
Total						$10,523

Production Rates

Production Rates	Miles/day	Distance(miles)	Days
Grader	1.5	4.0	2.7
Vibratory Roller*	1.5	4.0	2.7

Road Maintenance after completion of Projects

Sale: Greasy Alder
Date: 11-May-09
By: L. Freeman

Type	Equipment/Rationale			Hours	Rate	Cost	
Final Haul Road Maintenance Haul Route	Grader 14G			16	$93	$1,488	
	Dump Truck 12CY			8	$73	$584	
	FE Loader C966			8	$77	$616	
Total							$2,688

Production Rates	Miles/day	Distance(miles)	Days
Grader	3.0	4.8	1.6
Vibratory Roller	3.0	4.8	1.6

Greasy Alder
TIMBER CRUISE REPORT
FY 2010

1. Sale Area Location: Areas 1 and 2 are located in Portions of Sections 33 and 34, T7N, R6W, W.M., Clatsop County, Oregon.

2. Fund Distribution: BOF 100%
Tax Code 30-05 (100%)

3. Sale Acreage by Area:

Area	Treatment	Gross Acres	Existing R/W	New R/W	Stream Buffer	Net Acres	Survey Method
1	Retention Cut	18.5	2.5	0.5	0.5	15	GIS
2	Retention Cut	44	0	2.5	2.5	39	GIS
3 R/W	In Sale R/W	3	0	0	0	3	GIS
4 R/W	Out of Sale R/W	1	0	0	0	1	GIS
TOTALS		**66.5**	**2.5**	**3**	**2.5**	**58**	

4. Cruisers and Cruise Dates: Areas 1 and 2 were cruised by Derek Bangs, Peter Stone, Lanny Freeman and Dave Wolfgram, in April, 2009.

5. Cruise Method and Computation:

Areas 1 and 2 (Hardwood) are "retention cut" units and were cruised using a 40 BAF. The plots are located on a 3 chain by 3 chain grid, with every other plot being measured and graded. A total of 46 plots were sampled, with 26 measured and graded plots, 19 count plots, and 1 blank plots. All hardwoods over 8 inches DBH will be harvested.
Area 2 (Conifer): The conifer stands in Area 2 were stratified and cruised separately (13 acres). The conifer stands are to be thinned to 150 ft^2/acre. The "biggest and best" trees were recorded as "leave" trees to meet a target residual basal area of 150 ft^2/acre. Cedar is a reserve species, and were recorded as "leave" trees. A total of 19 plots were sampled with 9 graded plots and 10 count plots. Plots are located on a 3 by 3 chain grid with every other plot being measured and graded.
Area 3 R/W The right-of-way volume was calculated by multiplying the R/W acreage and the average volume per acre from the plots in Areas 1 and 2. In-sale right-of-way totals 3 acres.
Area 4 R/W The out of sale right-of-way volume was ITS cruised by grading and measuring every fifth alder tree and grading every conifer tree. A total of 122 alders were tallied with 24 alder trees being measured and graded. A total of 21 Doug-fir were measured and graded. Out of sale right-of-way totals one acre.

All cruisers used Corvallis MicroTechnology (CMT) and/or Allegro 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 and 2	07N06W SEC 33	ALDER	TAKE	44
2	07N06W SEC 33	A2 FIR	TAKE	13
3 R/W	07N06W SEC 33	AREA 12	ISRW	3
4 R/W	07N06W SEC 34	ROW	0ROW	1

6. Timber Description Areas 1 and 2 are "retention" cut units, approximately 50 years old, consisting of primarily red alder with Douglas-fir stands within Area 2. Some maple, hemlock, and cedar is dispersed throughout both sale areas. Area 2 Douglas-fir stands will be thinned to a SDI of 30 (150 Sq.Ft.BA), removing approximately 106 trees per acre and 22.7 MBF/acre. The average conifer "take" tree size is 16 inches DBH and 62 feet to a merchantable top (6 inch d.i.b.). Areas 1 and 2 Alder stands will be harvested leaving the scattered conifers standing. The average alder tree is 14 inches DBH and 47 feet to a merchantable top (6 inch d.i.b.), with an average of 16.7 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 33 MBF/acre.
Area 4 R/W is similar to the timber description mentioned above for Areas 1 and 2. The average volume (net) is approximately 19 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 and 2 (Hardwood)	55%	11%	55.3%	8.1%
2 (Conifer)	55%	11%	33.9%	8.0%

* Statistics for the thinning unit (Area 2) is for the total stand.

8. Volumes by Species and Log Grade: (See "Species, Sort, Grade - Type and Project Reports, attached, of individual sale areas and combined areas and two cruise types).
Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

Species	DBH	Net Vol.	2 Saw	3Saw	4 Saw	CampRun	% D & B	% Sale
Douglas-fir	16"	328	177	130	21	0	3.6%	30%
Western Hemlock/fir	28"	2	2	0	0	0	3.2%	<1%
Red Cedar	21"	1	1	0	0	0	<1.0%	<1%
Alder	14"	758	0	0	0	758	3.3%	69%
Big Leaf Maple	16"	11	0	0	0	11	2.6%	1%
TOTALS		**1,100**	**180**	**130**	**21**	**769**		**100%**

9. Approvals:

Prepared by: Lanny Freeman **Date:** April 27, 2009

Unit Forester Approval: _____ **Date:** _____

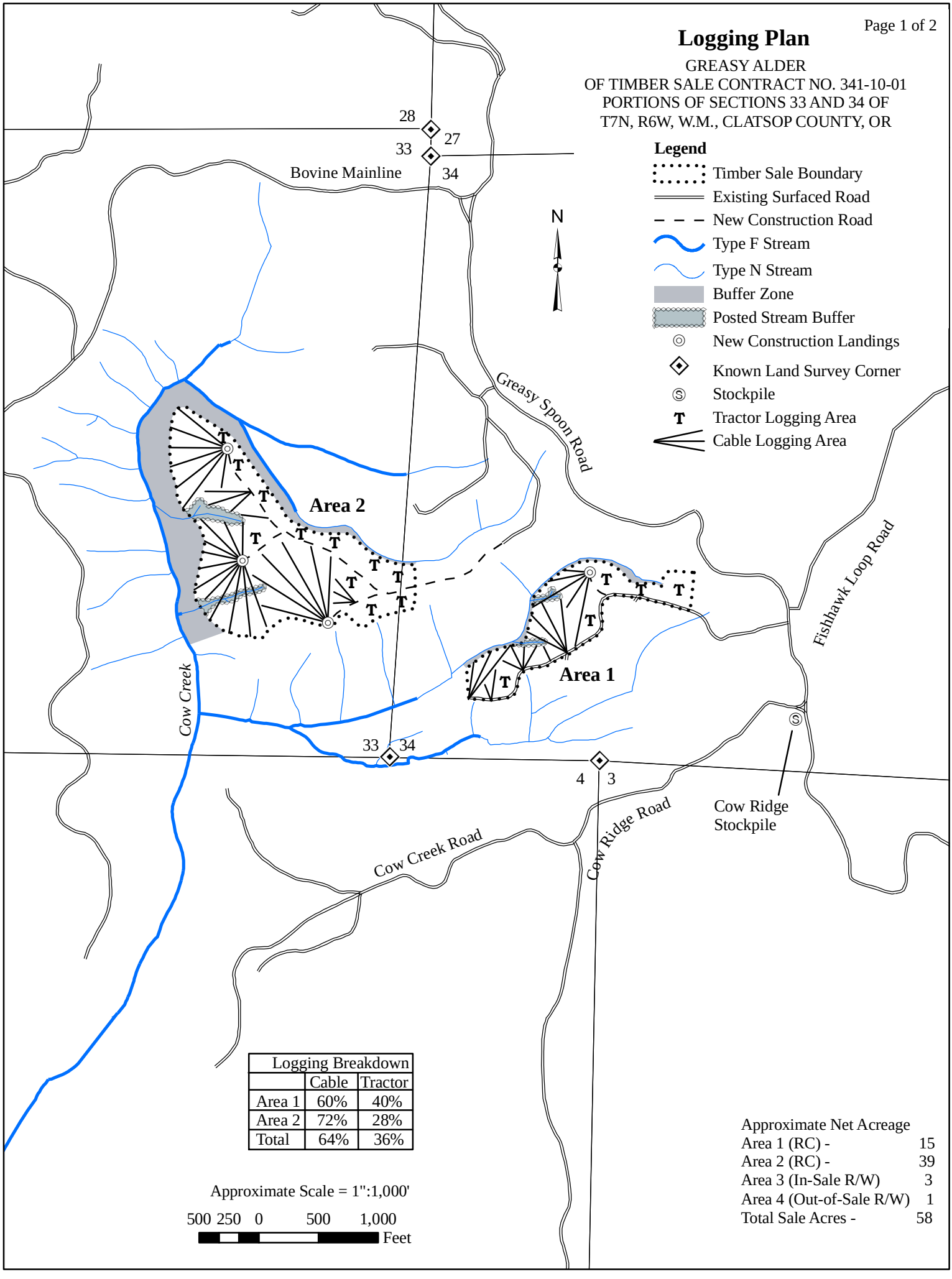
10. Attachments:

Cruise Designs (1)
Cruise Maps (1)
Volume Reports - 5 pages
Statistics Report - 8 pages
Stand Table - 1 page
Log Stock Tables – 2 pages

X:\Jewell_Unit\Timber Sales\2010\Greasy Alder\CruiseReport2.doc

Logging Plan

GREASY ALDER
OF TIMBER SALE CONTRACT NO. 341-10-01
PORTIONS OF SECTIONS 33 AND 34 OF
T7N, R6W, W.M., CLATSOP COUNTY, OR



Legend

- Timber Sale Boundary
- Existing Surfaced Road
- New Construction Road
- Type F Stream
- Type N Stream
- Buffer Zone
- Posted Stream Buffer
- New Construction Landings
- Known Land Survey Corner
- Stockpile
- T Tractor Logging Area
- Cable Logging Area

Logging Breakdown		
	Cable	Tractor
Area 1	60%	40%
Area 2	72%	28%
Total	64%	36%

Approximate Scale = 1":1,000'

500 250 0 500 1,000 Feet

Approximate Net Acreage

Area 1 (RC) -	15
Area 2 (RC) -	39
Area 3 (In-Sale R/W)	3
Area 4 (Out-of-Sale R/W)	1
Total Sale Acres -	58

Logging Plan

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OF TIMBER SALE CONTRACT NO. 341-10-01
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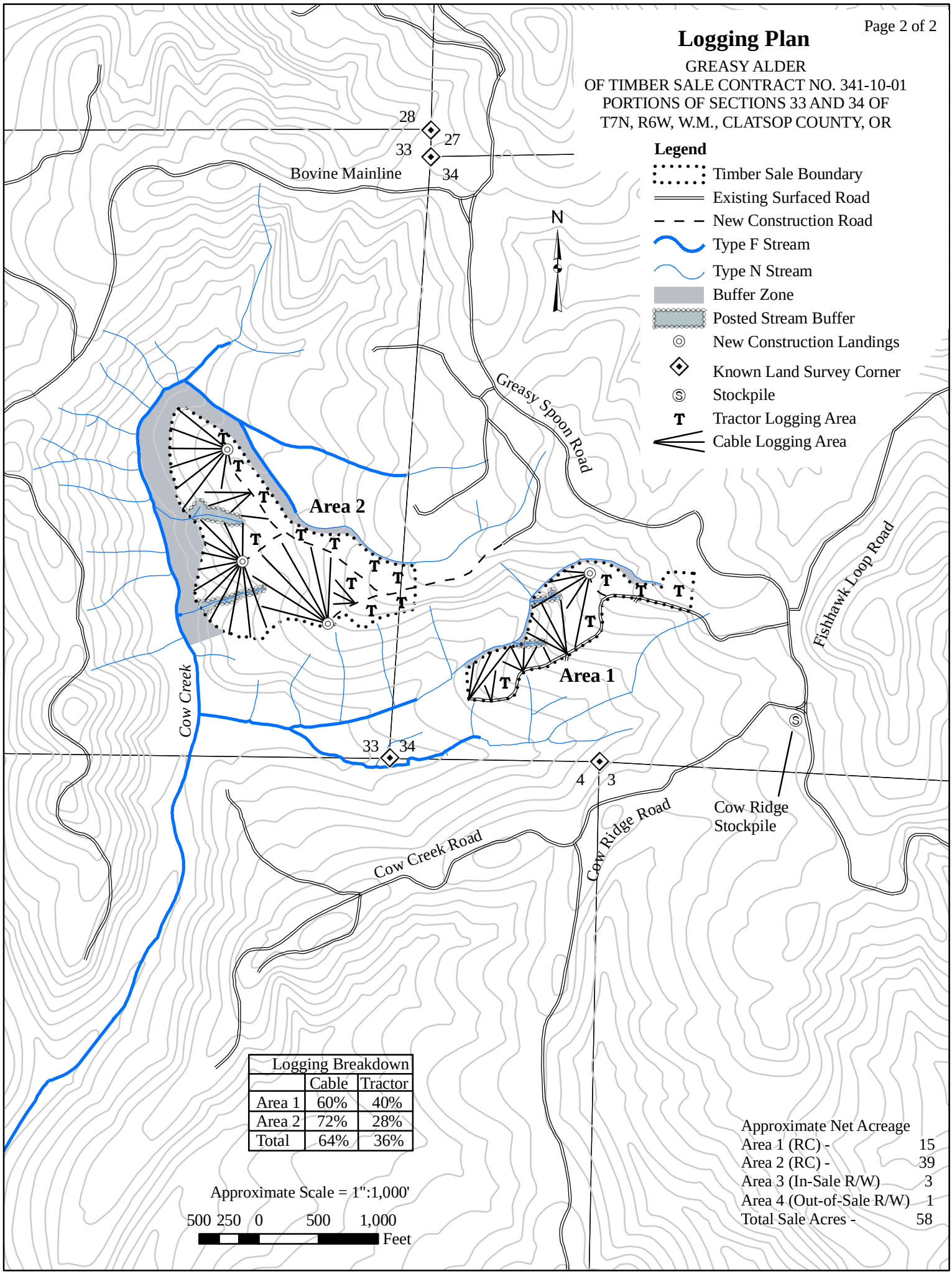
T7N, R6W, W.M., CLATSOP COUNTY, OR



Legend

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