



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
King of Diamonds  
Sale TL-341-2024-W01037-01

District: Tillamook

Date: May 10, 2024

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**Cost Summary**

	<b>Conifer</b>	<b>Hardwood</b>	<b>Total</b>
<b>Gross Timber Sale Value</b>	\$2,378,079.68	\$45,621.00	\$2,423,700.68
		<b>Project Work:</b>	(\$325,490.00)
		<b>Advertised Value:</b>	\$2,098,210.68



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**Timber Description**

**Location:** Section(s) 32, 33 of T2N R7W, Section(s) 4, 6 of T1N R7W W.M.

**Stand Stocking:** 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	100
Alder (Red)	16	0	100

Volume by Grade	2S	3S & 4S 6"-11"	Camprun	Total
Douglas - Fir	3,841	2,833	0	6,674
Alder (Red)	0	0	450	450
<b>Total</b>	3,841	2,833	450	7,124

**Comments:**

Additional Costs--King of Diamonds

Pond Values Used: May 2024

Region: Astoria, Forest Grove, and Tillamook

Western red cedar and other cedars stumpage price = \$1,360/MBF - \$410/MBF = \$948.00/MBF

Western hemlock and true firs stumpage price = \$545/MBF - \$410/MBF = \$133.00/MBF

Sitka Spruce and other spruce stumpage price = \$530/MBF - \$410/MBF = \$118.00/MBF

Big leaf maple and other hardwoods at red alder stumpage price = \$101.38/MBF

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

FUEL COST ALLOWANCE = \$5.00/Gallon

HAULING COST ALLOWANCE (\$120.00/hr x 10 hr. = \$ 1,200.00) = \$1,200/DAY

BRAND AND PAINT ALLOWANCE = \$2.00/ MBF

Other costs with profit and risk added:

Non-Project #1, #2, & #3: \$200/station x 7+18 = \$1,436

Machine time to block/waterbar dirt roads and skid trails: 4 x \$100/spur = \$400

Lift Trees \$400 x 2 = \$800

TOTAL Other Costs with profit and risk to be added = \$2,636

Other Costs with no Profit and Risk Added:

Slash piling and sorting (Cable Settings): \$5/ac x 203 ac. = \$1,015

Heliport Construction: \$200/unit x 3 unit = \$600

Move-in Machine Cleaning: \$1,000/machine x 2 machines x 2 season = \$4,000

Tail hold dozer move-in: \$1,000/machine x 2 machines = \$2,000

TOTAL Other Costs with no Profit and Risk added = \$7,615

ODF Road Maintenance

Spot Rocking: 20cy/MMBF/mile x 7.124 MMBF x \$13/cy x 6.35 miles /7,124 MBF = \$1.65/MBF

Interim Grading and Excavation: \$1,150/mile x 6.35 miles x 2 times/ 7,124 MBF = \$2.05/MBF

Final Maintenance Grading and Excavation: \$1,500/mile x 6.35 miles/ 7,124 MBF = \$1.34/MBF

Final Maintenance Compaction: \$1,000/mile x 5.5 miles/7,124 MBF = \$0.77/MBF

Total Road Maintenance: = \$5.81/MBF



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### Logging Conditions

**Combination#: 1**                      Douglas - Fir                      81.74%  
    Alder (Red)                      76.72%

**Logging System:** Cable: Large Tower >=70                      **Process:** Harvester Head Delimiting

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

**tree size:** Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

**loads / day:** 9                      **bd. ft / load:** 3800

**cost / mbf:** \$250.85

**machines:** Log Loader (A)  
 Forwarder  
 Harvester  
 Tower Yarder (Large)

**Combination#: 2**                      Douglas - Fir                      12.80%  
    Alder (Red)                      15.39%

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

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

**tree size:** Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

**loads / day:** 12                      **bd. ft / load:** 3800

**cost / mbf:** \$219.30

**machines:** Forwarder  
 Harvester

**Combination#: 3**                      Douglas - Fir                      5.46%  
    Alder (Red)                      7.90%

**Logging System:** Cable: Large Tower >=70                      **Process:** Harvester Head Delimiting

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

**tree size:** Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

**loads / day:** 5                      **bd. ft / load:** 3800

**cost / mbf:** \$451.53

**machines:** Log Loader (A)  
 Forwarder  
 Harvester  
 Tower Yarder (Large)



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### Logging Costs

<b>Operating Seasons:</b> 2.00	<b>Profit Risk:</b> 3%
<b>Project Costs:</b> \$325,490.00	<b>Other Costs (P/R):</b> \$2,636.00
<b>Slash Disposal:</b> \$0.00	<b>Other Costs:</b> \$7,615.00

**Miles of Road**

**Road Maintenance:** \$5.81

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	4.8
Alder (Red)	\$0.00	3.0	3.4



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### Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
<b>Douglas - Fir</b>									
\$257.78	\$5.81	\$1.23	\$130.21	\$0.37	\$11.86	\$0.00	\$2.00	\$1.07	\$410.33
<b>Alder (Red)</b>									
\$261.84	\$5.81	\$1.23	\$122.55	\$0.37	\$11.75	\$0.00	\$2.00	\$1.07	\$406.62

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$766.65	\$356.32	\$0.00
Alder (Red)	\$0.00	\$508.00	\$101.38	\$0.00



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### Summary

**Amortized**

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

**Unamortized**

Specie	MBF	Value	Total
Douglas - Fir	6,674	\$356.32	\$2,378,079.68
Alder (Red)	450	\$101.38	\$45,621.00

**Gross Timber Sale Value**

Recovery: \$2,423,700.68

Prepared By: Andrew Ayres

Phone: 503-815-7041



PROJECT SUMMARY SHEET

Sale: King Of Diamonds

**CONSTRUCTION**

Point	C to D	4+15	stations =	\$13,565.32
Point	E to F	3+65	stations =	\$8,293.42
Point	I to J	17+30	stations =	\$46,166.04
Point	K to L	1+75	stations =	\$5,272.65
Point	M to N	4+75	stations =	\$11,486.25
Point	Q to R	5+70	stations =	\$11,274.36
Point	S to T	2+80	stations =	\$4,368.24
Point	W to X	2+80	stations =	\$5,650.09
Point	Y to Z	1+40	stations =	\$3,894.07
Point	AA to BB	3+35	stations =	\$2,767.18
Point	CC to DD	4+10	stations =	\$26,211.13
Point	EE to FF	2+10	stations =	\$19,958.68
<b>SUBTOTAL CONSTRUCTION</b>				<b>\$158,907.43</b>

**IMPROVEMENT**

Point	A to B	336+10	stations =	\$119,347.42
Point	O to P	39+65	stations =	\$3,328.27
Point	U to V	20+70	stations =	\$1,850.36
Point	GG to HH	103+40	stations =	\$11,847.84
<b>SUBTOTAL IMPROVEMENT</b>				<b>\$136,373.89</b>

**SPECIAL PROJECTS**

Brush	7.1	miles of road		\$8,271.50
Install 5 temporary Gates - Farmer Style				\$3,000.00
Incidental Storm Damage Repairs				\$14,315.00
<b>SUBTOTAL SPECIAL PROJECTS</b>				<b>\$25,586.50</b>

**MOVE IN**

**\$4,622.18**

**GRAND TOTAL**

**\$325,490.00**

## SUMMARY OF CONSTRUCTION COST

Sale:	<b>King Of Diamonds</b>	Road:	<b>A to B</b>
Construction -	0+00 stations 0.00 miles	Improvement -	336+10 stations 6.37 miles
Reconstruction -	0+00 stations 0.00 miles		

<b>IMPROVEMENT: CLEARING AND GRUBBING -</b>			
R/W Brush End-Haul - excavator/offroad DT(291+20 to 366+10)	8.000	hours @	\$310.00 per hour = \$2,480.00
Burning	8.000	hours @	\$133.00 per acre = \$1,064.00
R/W Brush scattering & Falling(12+85 to 95+35)	1.136	acres @	\$1,415.00 per acre = \$1,607.44
			<b>TOTAL CLEARING AND GRUBBING</b>
			<b>\$5,151.44</b>

<b>IMPROVEMENT: EXCAVATION -</b>			
Pullback	403	cy. @	\$2.20 per c.y.= \$886.60
			<b>TOTAL EXCAVATION</b>
			<b>\$886.60</b>

<b>IMPROVEMENT: ENDHAUL -</b>			
Pullback	160+60	to	161+10 20 cy. @ \$1.44 per c.y.= \$28.80
Pullback	191+95	to	192+65 166 cy. @ \$1.35 per c.y.= \$224.10
Pullback	202+40	to	203+00 217 cy. @ \$1.30 per c.y.= \$282.10
Spread & compact			403 cy. @ \$0.55 per c.y.= \$221.65
			<b>TOTAL ENDHAUL</b>
			<b>\$756.65</b>

**RECONSTRUCTION: CLEARING AND GRUBBING -**

<b>CULVERTS - MATERIALS &amp; INSTALLATION</b>			
<u>Culverts</u>	230	LF of 18"	\$5,807.50
<u>Culvert Stakes &amp; Markers</u>			
13 markers			\$117.00
			<b>TOTAL CULVERTS</b>
			<b>\$5,924.50</b>

<b>ROCK</b>			
257+45 to 271+00	230	cy. of	Crushed @ \$11.74 per c.y.= \$2,700.20
282+85 to 336+10	2,940	cy. of	Jawrun @ \$21.36 per c.y.= \$62,798.40
291+20 to 302+60	200	cy. of	Crushed @ \$12.77 per c.y.= \$2,554.00
Spot Rock As Directed	200	cy. of	Spot Rock @ \$11.95 per c.y.= \$2,390.00
Landing Rock	334+65	100 cy. of	Jawrun @ \$18.34 per c.y.= \$1,834.00
Trail Hardening	27+45	10 cy. of	Jawrun @ \$20.81 per c.y.= \$208.10
Energy Dissipator	40+45	5 cy. of	Rip rap @ \$8.76 per c.y.= \$43.80
Trail Hardening	83+80	10 cy. of	Jawrun @ \$19.61 per c.y.= \$196.10
Energy Dissipator	88+00	5 cy. of	Rip rap @ \$7.79 per c.y.= \$38.95
Trail Hardening	94+05	10 cy. of	Jawrun @ \$19.40 per c.y.= \$194.00
Energy Dissipator	100+80	5 cy. of	Rip rap @ \$7.52 per c.y.= \$37.60
Energy Dissipator	120+55	5 cy. of	Rip rap @ \$7.10 per c.y.= \$35.50
Energy Dissipator	130+50	5 cy. of	Rip rap @ \$6.89 per c.y.= \$34.45
Trail Hardening	204+05	10 cy. of	Jawrun @ \$17.07 per c.y.= \$170.70
Energy Dissipator	210+40	5 cy. of	Rip rap @ \$5.20 per c.y.= \$26.00
Trail Hardening	224+10	10 cy. of	Jawrun @ \$16.64 per c.y.= \$166.40
Trail Hardening	248+30	10 cy. of	Jawrun @ \$16.51 per c.y.= \$165.10
Culvert Backfill	25yds each	150 cy. of	Crushed @ \$9.23 per c.y.= \$1,384.50
			<b>TOTAL ROCK</b>
			<b>\$74,977.80</b>

<b>SPECIAL PROJECTS</b>			
Construct Landings	1.00	hours @	\$220.00 per hour \$220.00
Push up waste piles @ station 253+95	1.00	hours @	\$220.00 per hour \$220.00
Construct ditchouts -	2.00	@	\$60.00 each \$120.00
Ditch - No Endhaul	6.00	hours @	\$220.00 per hour \$1,320.00
Ditch/Ravel removal - Endhaul	25.00	hours @	\$385.00 per hour \$9,625.00
Grade and shape road -	336.10	stations @	\$24.40 per station \$8,200.84
Roll subgrade w/ vibratory roller-45+40-171+60	336.10	stations @	\$19.40 per station \$6,520.34
Remove large stumps -	2.00	lump sum @	\$110.00 \$220.00
Remove culverts from state lands	1.00	@	\$204.70 total \$204.70
Grass seed and fertilize -	15.43	acres @	\$310.00 per acre \$4,783.30
Mulching -	0.250	acres @	\$865.00 per acre \$216.25
			<b>TOTAL SPECIAL PROJECTS</b>
			<b>\$31,650.43</b>

**GRAND TOTAL** **\$119,347.42**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **C to D**

Construction -	4+15	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.08	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	Endhaul	
0+00		0+35	14%			\$125	=			\$43.75
0+35		1+15	35%			\$265	=		\$2,665	\$2,877.00
1+15		4+15	12%			\$125	=			\$375.00
									<b>TOTAL</b>	<b>\$3,295.75</b>

**CULVERTS - MATERIALS & INSTALLATION**

Culverts

50 LF of 48" \$3,808.00

Culvert Stakes & Markers

1 markers \$9.00

**TOTAL CULVERTS \$3,817.00**

**ROCK**

0+00 to	1+00	60	cy. of	Jawrun	@	\$19.28	per c.y.=	\$1,156.80
Intersection Widening	0+00	30	cy. of	Jawrun	@	\$19.27	per c.y.=	\$578.10
Culvert Backfill	2+60	200	cy. of	Jawrun	@	\$19.32	per c.y.=	\$3,864.00
								<b>TOTAL ROCK \$5,598.90</b>

**SPECIAL PROJECTS**

Construct Landings	1.00	hours @	\$220.00	per hour	\$220.00
Grade and shape road -	4.15	stations @	\$24.40	per station	\$101.26
Roll subgrade w/ vibratory roller prior to rocking -	4.15	stations @	\$19.40	per station	\$80.51
Remove large stumps -	2.00	lump sum @	\$110.00		\$220.00
Grass seed and fertilize -	0.19	acres @	\$310.00	per acre	\$58.90
Mulching -	0.200	acres @	\$865.00	per acre	\$173.00
					<b>TOTAL SPECIAL PROJECTS \$853.67</b>

**GRAND TOTAL \$13,565.32**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **E to F**

Construction -	3+65	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.07	miles		0.00	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=	Drill & Shoot	Endhaul	
0+00		3+30	20%			\$193				\$636.90
									<b>TOTAL</b>	<b>\$636.90</b>

**ROCK**

0+00 to	3+65	240	cy. of	Jawrun	@	\$18.88	per c.y.=	\$4,531.20	
Intersection Widening	0+00	30	cy. of	Jawrun	@	\$18.84	per c.y.=	\$565.20	
Landing Rock	3+85	60	cy. of	Jawrun	@	\$18.92	per c.y.=	\$1,135.20	
Turnaround	1+45	30	cy. of	Jawrun	@	\$18.87	per c.y.=	\$566.10	
								<b>TOTAL ROCK</b>	<b>\$6,797.70</b>

**SPECIAL PROJECTS**

Construct Landings	1.00	hours @	\$220.00	per hour	\$220.00	
Endhaul stumps from landing -	0.25	hours @	\$385.00	per hour	\$96.25	
Grade and shape road -	3.65	stations @	\$24.40	per station	\$89.06	
Roll subgrade	3.65	stations @	\$19.40	per station	\$70.81	
Remove large stumps -	3.00	lump sum @	\$110.00		\$330.00	
Grass seed and fertilize -	0.17	acres @	\$310.00	per acre	\$52.70	
					<b>TOTAL SPECIAL PROJECTS</b>	<b>\$858.82</b>

**GRAND TOTAL** **\$8,293.42**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **I to J**

Construction -	17+30 0.33	stations miles	Improvement -	0+00 0.00	stations miles	Reconstruction -	0+00 0.00	stations miles
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**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	Endhaul	
0+00		0+80	22%			\$193	=			\$154.40
0+80		8+20	8%			\$103	=			\$762.20
8+20		9+90	40%			\$337	=			\$572.90
9+90		12+10	19%			\$178	=			\$391.60
12+10		16+60	28%			\$229	=		\$1,380	\$2,410.50
16+60		17+30	8%			\$103	=		\$15,835	\$15,907.10
									<b>TOTAL</b>	<b>\$20,198.70</b>

**CULVERTS - MATERIALS & INSTALLATION**

<u>Culverts</u>	60	LF of 18"	\$1,515.00
			\$1,515.00
<u>Culvert Stakes &amp; Markers</u>	2	markers	\$18.00

**TOTAL CULVERTS \$1,533.00**

**ROCK**

0+00 to	17+30	1,000	cy. of	Jawrun	@	\$18.82 per c.y.=	\$18,820.00	
0+35 to	5+20	60	cy. of	Crushed	@	\$9.79 per c.y.=	\$587.40	
7+55 to	9+90	40	cy. of	Crushed	@	\$9.91 per c.y.=	\$396.40	
Intersection Widening	0+00	30	cy. of	Jawrun	@	\$18.63 per c.y.=	\$558.90	
Energy Dissipator	5yds each	10	cy. of	Rip rap	@	\$5.75 per c.y.=	\$57.50	
Landing Rock	17+30	70	cy. of	Jawrun	@	\$19.00 per c.y.=	\$1,330.00	
							<b>TOTAL ROCK</b>	<b>\$21,750.20</b>

**SPECIAL PROJECTS**

Construct Landings	1.00	hours @	\$220.00	per hour	\$220.00	
Construct waste areas -	2.00	hours @	\$220.00	per hour	\$440.00	
Endhaul stumps from landing -	1.00	hours @	\$385.00	per hour	\$385.00	
Grade and shape road -	17.30	stations @	\$24.40	per station	\$422.12	
Roll subgrade	17.30	stations @	\$19.40	per station	\$335.62	
Remove large stumps -	5.00	lump sum @	\$110.00		\$550.00	
Grass seed and fertilize -	0.79	acres @	\$310.00	per acre	\$244.90	
Mulching -	0.100	acres @	\$865.00	per acre	\$86.50	
					<b>TOTAL SPECIAL PROJECTS</b>	<b>\$2,684.14</b>

**GRAND TOTAL \$46,166.04**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **K to L**

Construction -	1+75	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.03	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	Endhaul	
0+00		1+75	20%			\$193				\$337.75
									<b>TOTAL</b>	<b>\$337.75</b>

<b>ROCK</b>										
0+00	to	1+75	130	cy. of	Jawrun	@	\$18.68	per c.y.=	\$2,428.40	
		0+00	30	cy. of	Jawrun	@	\$18.66	per c.y.=	\$559.80	
		1+75	70	cy. of	Jawrun	@	\$18.70	per c.y.=	\$1,309.00	
									<b>TOTAL ROCK</b>	<b>\$4,297.20</b>

<b>SPECIAL PROJECTS</b>												
			1.50	hours @	\$220.00	per hour	\$330.00					
Construct Landings			0.25	hours @	\$385.00	per hour	\$96.25					
Endhaul stumps from landing -			1.75	stations @	\$24.40	per station	\$42.70					
Grade and shape road -			1.75	stations @	\$19.40	per station	\$33.95					
Roll subgrade w/ vibratory roller prior to rocking -			1.00	lump sum @	\$110.00		\$110.00					
Remove large stumps -			0.08	acres @	\$310.00	per acre	\$24.80					
Grass seed and fertilize -											<b>TOTAL SPECIAL PROJECTS</b>	<b>\$637.70</b>

**GRAND TOTAL** **\$5,272.65**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **M to N**

Construction - <u>4+75</u> stations	Improvement - <u>          </u> stations	Reconstruction - <u>0+00</u> stations
0.09 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	Endhaul	\$916.75
0+00		4+75	20%			\$193				<b>TOTAL</b>
										<b>\$916.75</b>

**CULVERTS - MATERIALS & INSTALLATION**

<u>Culverts</u>	30	LF of 30"	\$1,500.00
			\$1,500.00
<u>Culvert Stakes &amp; Markers</u>	1	markers	\$9.00

**TOTAL CULVERTS      \$1,509.00**

**ROCK**

0+00 to	4+75	310	cy. of	Jawrun	@	\$18.75 per c.y.=	\$5,812.50
Intersection Widening	0+00	30	cy. of	Jawrun	@	\$18.70 per c.y.=	\$561.00
Landing Rock	4+75	60	cy. of	Jawrun	@	\$18.80 per c.y.=	\$1,128.00
<b>TOTAL ROCK</b>							<b>\$7,501.50</b>

**SPECIAL PROJECTS**

Construct Landings	1.00	hours @	\$220.00	per hour	\$220.00	
Construct fill @ station 3+60	2.00	hours @	\$220.00	per hour	\$440.00	
Endhaul stumps from landing -	0.25	hours @	\$385.00	per hour	\$96.25	
Grade and shape road -	4.75	stations @	\$24.40	per station	\$115.90	
Roll subgrade w/ vibratory roller prior to rocking -	4.75	stations @	\$19.40	per station	\$92.15	
Remove large stumps -	4.00	lump sum @	\$110.00		\$440.00	
Grass seed and fertilize -	0.22	acres @	\$310.00	per acre	\$68.20	
Mulching -	0.100	acres @	\$865.00	per acre	\$86.50	
<b>TOTAL SPECIAL PROJECTS</b>						<b>\$1,559.00</b>

**GRAND TOTAL      \$11,486.25**

## SUMMARY OF CONSTRUCTION COST

Sale:

**King Of Diamonds**

Road:

**O to P**

<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	39+65	stations	<u>Reconstruction -</u>	0+00	stations
	0.00	miles		0.75	miles		0.00	miles

<b>ROCK</b>							
Spot Rock	As Directed	20	cy. of	Crushed	@	\$12.87 per c.y.=	\$257.40
							<b>TOTAL ROCK</b>
							<b>\$257.40</b>

<b>SPECIAL PROJECTS</b>							
Remove gate ravel & trees -	2.00	hours @	\$385.00	per hour			\$770.00
Grade and shape road -	39.65	stations @	\$24.40	per station			\$967.46
Roll subgrade w/ vibratory roller prior to rocking -	39.65	stations @	\$19.40	per station			\$769.21
Grass seed and fertilize -	1.82	acres @	\$310.00	per acre			\$564.20
							<b>TOTAL SPECIAL PROJECTS</b>
							<b>\$3,070.87</b>

<b>GRAND TOTAL</b>	<b>\$3,328.27</b>
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## SUMMARY OF CONSTRUCTION COST

Sale:

**King Of Diamonds**

Road:

**Q to R**

<u>Construction -</u>	<u>5+70</u>	stations	<u>Improvement -</u>	<u>0+00</u>	stations	<u>Reconstruction -</u>	<u>0+00</u>	stations
	0.11	miles		0.00	miles		0.00	miles

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

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>	=	<u>Drill &amp; Shoot</u>	<u>Endhaul</u>	
0+00		1+45	27%		Jawrun	\$229	=			\$332.05
1+45		1+85	17%		Jawrun	\$148	=			\$59.20
1+85		3+05	47%		Jawrun	\$380	=			\$456.00
3+05		5+70	10%		Jawrun	\$125	=			\$331.25
									<b>TOTAL</b>	<b>\$1,178.50</b>

**ROCK**

0+00	to	5+70	360	cy. of	Jawrun	@	\$17.26	per c.y.=	\$6,213.60	
0+75	to	1+40	15	cy. of	Crushed	@	\$8.32	per c.y.=	\$124.80	
1+95	to	3+05	25	cy. of	Crushed	@	\$8.34	per c.y.=	\$208.50	
Traction Rock		4+10	20	cy. of	Crushed	@	\$8.39	per c.y.=	\$167.80	
Intersection Widening		0+00	30	cy. of	Jawrun	@	\$17.20	per c.y.=	\$516.00	
Curve Widening		1+40	20	cy. of	Jawrun	@	\$17.23	per c.y.=	\$344.60	
Curve Widening		3+40	20	cy. of	Jawrun	@	\$17.27	per c.y.=	\$345.40	
Landing Rock		5+70	70	cy. of	Jawrun	@	\$17.32	per c.y.=	\$1,212.40	
									<b>TOTAL ROCK</b>	<b>\$9,133.10</b>

**SPECIAL PROJECTS**

Construct Landings	2.00	hours @	\$220.00	per hour	\$440.00	
Endhaul stumps from landing -	0.50	hours @	\$385.00	per hour	\$192.50	
Grade and shape road -	5.70	stations @	\$24.40	per station	\$139.08	
Roll subgrade w/ vibratory roller prior to rocking -	5.70	stations @	\$19.40	per station	\$110.58	
Grass seed and fertilize -	0.26	acres @	\$310.00	per acre	\$80.60	
					<b>TOTAL SPECIAL PROJECTS</b>	<b>\$962.76</b>

**GRAND TOTAL** **\$11,274.36**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **S to T**

<u>Construction -</u>	<u>2+80</u>	stations	<u>Improvement -</u>	<u>0+00</u>	stations	<u>Reconstruction -</u>	<u>0+00</u>	stations
	0.05	miles		0.00	miles		0.00	miles

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

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>	=	<u>Drill &amp; Shoot</u>	<u>Endhaul</u>	
0+00		2+80	2%			\$76				\$212.80
									<b>TOTAL</b>	<b>\$212.80</b>

**ROCK**

0+00 to	2+80	170	cy. of	Jawrun	@	\$17.42 per c.y.=	\$2,961.40	
Intersection Widening	0+00	30	cy. of	Jawrun	@	\$17.39 per c.y.=	\$521.70	
Intersection Widening	2+80	30	cy. of	Jawrun	@	\$16.98 per c.y.=	\$509.40	
							<b>TOTAL ROCK</b>	<b>\$3,992.50</b>

**SPECIAL PROJECTS**

Grade and shape road -	2.80	stations @	\$24.40	per station	\$68.32	
Roll subgrade w/ vibratory roller prior to rocking -	2.80	stations @	\$19.40	per station	\$54.32	
Grass seed and fertilize -	0.13	acres @	\$310.00	per acre	\$40.30	
					<b>TOTAL SPECIAL PROJECTS</b>	<b>\$162.94</b>

**GRAND TOTAL** **\$4,368.24**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **U to V**

<u>Construction -</u>	<u>0+00</u>	stations	<u>Improvement -</u>	<u>20+70</u>	stations	<u>Reconstruction -</u>	<u>0+00</u>	stations
	0.00	miles		0.39	miles		0.00	miles

**ROCK**

Spot Rock	As Directed	20	cy. of	Crushed	@	\$12.84 per c.y.=	\$256.80
Spot Rock	15+05	10	cy. of	Jawrun	@	\$17.24 per c.y.=	\$172.40
<b>TOTAL ROCK</b>							<b>\$429.20</b>

**SPECIAL PROJECTS**

Block trail @ station 15+05 with logs	1.00	hours @	\$220.00	per hour	\$220.00
Grade and shape road -	20.70	stations @	\$24.40	per station	\$505.08
Roll subgrade w/ vibratory roller prior to rocking -	20.70	stations @	\$19.40	per station	\$401.58
Grass seed and fertilize -	0.95	acres @	\$310.00	per acre	\$294.50
<b>TOTAL SPECIAL PROJECTS</b>					<b>\$1,421.16</b>

**GRAND TOTAL** **\$1,850.36**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **W to X**

Construction -	2+80	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.05	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	Endhaul	
0+00		2+80	20%			\$193				\$540.40
									<b>TOTAL</b>	<b>\$540.40</b>

**ROCK**

0+00 to		2+80		170	cy. of	Jawrun	@	\$16.96	per c.y.=	\$2,883.20
Intersection Widening		0+00		30	cy. of	Jawrun	@	\$16.93	per c.y.=	\$507.90
Landing Rock		2+80		60	cy. of	Jawrun	@	\$16.99	per c.y.=	\$1,019.40
									<b>TOTAL ROCK</b>	<b>\$4,410.50</b>

**SPECIAL PROJECTS**

Construct Landings	1.00	hours @	\$220.00	per hour	\$220.00
Endhaul stumps from landing -	0.25	hours @	\$385.00	per hour	\$96.25
Grade and shape road -	2.80	stations @	\$24.40	per station	\$68.32
Roll subgrade w/ vibratory roller prior to rocking -	2.80	stations @	\$19.40	per station	\$54.32
Remove large stumps -	2.00	lump sum @	\$110.00		\$220.00
Grass seed and fertilize -	0.13	acres @	\$310.00	per acre	\$40.30
					<b>TOTAL SPECIAL PROJECTS</b>
					<b>\$699.19</b>

**GRAND TOTAL** **\$5,650.09**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **Y to Z**

Construction -	1+40	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.03	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	Endhaul	
0+00		1+40	20%			\$193				\$270.20
									<b>TOTAL</b>	<b>\$270.20</b>

**ROCK**

0+00 to	1+40	80	cy. of	Jawrun	@	\$17.04	per c.y.=		\$1,363.20	
Intersection Widening	0+00	30	cy. of	Jawrun	@	\$17.03	per c.y.=		\$510.90	
Landing Rock	1+40	60	cy. of	Jawrun	@	\$17.06	per c.y.=		\$1,023.60	
									<b>TOTAL ROCK</b>	<b>\$2,897.70</b>

**SPECIAL PROJECTS**

Construct Landings	1.00	hours @	\$220.00	per hour		\$220.00	
Endhaul stumps from landing -	0.25	hours @	\$385.00	per hour		\$96.25	
Grade and shape road -	1.40	stations @	\$24.40	per station		\$34.16	
Roll subgrade w/ vibratory roller prior to rocking -	1.40	stations @	\$19.40	per station		\$27.16	
Remove large stumps -	3.00	lump sum @	\$110.00			\$330.00	
Grass seed and fertilize -	0.06	acres @	\$310.00	per acre		\$18.60	
						<b>TOTAL SPECIAL PROJECTS</b>	<b>\$726.17</b>

**GRAND TOTAL** **\$3,894.07**



## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **CC to DD**

Construction -	4+10	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.08	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	Endhaul	
0+00		3+15	50%			\$636	=		\$15,140	\$17,143.40
3+15		4+10	20%			\$193	=			\$183.35
									<b>TOTAL</b>	<b>\$17,326.75</b>

**CULVERTS - MATERIALS & INSTALLATION**

<u>Culverts</u>	30	LF of 18"	\$757.50
			\$757.50
<u>Culvert Stakes &amp; Markers</u>			
1 markers			\$9.00

**TOTAL CULVERTS** **\$766.50**

**ROCK**

0+00 to	4+10	270 cy. of	Jawrun	@	\$17.91 per c.y.=	\$4,835.70
Intersection Widening	0+00	30 cy. of	Jawrun	@	\$17.87 per c.y.=	\$536.10
Landing Rock	4+10	70 cy. of	Jawrun	@	\$17.96 per c.y.=	\$1,257.20
Energy Dissipator	0+55	5 cy. of	Rip Rap	@	\$7.08 per c.y.=	\$35.40
<b>TOTAL ROCK</b>						<b>\$6,664.40</b>

**SPECIAL PROJECTS**

Construct Landings	2.00	hours @	\$220.00	per hour	\$440.00	
Construct ditchouts -	1.00	@	\$60.00	each	\$60.00	
Endhaul stumps from landing -	1.00	hours @	\$385.00	per hour	\$385.00	
Grade and shape road -	4.10	stations @	\$24.40	per station	\$100.04	
Roll subgrade w/ vibratory roller prior to rocking -	4.10	stations @	\$19.40	per station	\$79.54	
Remove large stumps -	3.00	lump sum @	\$110.00		\$330.00	
Grass seed and fertilize -	0.19	acres @	\$310.00	per acre	\$58.90	
<b>TOTAL SPECIAL PROJECTS</b>						<b>\$1,453.48</b>

**GRAND TOTAL** **\$26,211.13**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **EE to FF**

Construction -	2+10	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.04	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	Endhaul	
0+00		2+10	20%			\$193			\$11,810	\$12,215.30
									<b>TOTAL</b>	<b>\$12,215.30</b>

**ROCK**

0+00 to	2+10	140	cy. of	Jawrun	@	\$18.19 per c.y.=	\$2,546.60	
Intersection Widening	0+00	30	cy. of	Jawrun	@	\$18.17 per c.y.=	\$545.10	
Landing Rock	0+95	70	cy. of	Jawrun	@	\$18.19 per c.y.=	\$1,273.30	
Landing Rock	2+10	70	cy. of	Jawrun	@	\$18.22 per c.y.=	\$1,275.40	
							<b>TOTAL ROCK</b>	<b>\$5,640.40</b>

**SPECIAL PROJECTS**

Construct Landings	4.00	hours @	\$220.00	per hour	\$880.00	
Endhaul stumps from landing -	2.00	hours @	\$385.00	per hour	\$770.00	
Grade and shape road -	2.10	stations @	\$24.40	per station	\$51.24	
Roll subgrade w/ vibratory roller prior to rocking -	2.10	stations @	\$19.40	per station	\$40.74	
Remove large stumps -	3.00	lump sum @	\$110.00		\$330.00	
Grass seed and fertilize -	0.10	acres @	\$310.00	per acre	\$31.00	
					<b>TOTAL SPECIAL PROJECTS</b>	<b>\$2,102.98</b>

**GRAND TOTAL** **\$19,958.68**

## SUMMARY OF CONSTRUCTION COST

Sale: **King Of Diamonds**

Road: **GG to HH**

Construction -	0+00	stations	Improvement -	103+40	stations	Reconstruction -	0+00	stations
	0.00	miles		1.96	miles		0.00	miles

**IMPROVEMENT: CLEARING AND GRUBBING -**

Side cast	0.059	acres @	\$955.00	per acre =	\$56.35	
<b>TOTAL CLEARING AND GRUBBING</b>						<b>\$56.35</b>

**IMPROVEMENT: EXCAVATION -**

Pullback	345	cy. @	\$2.20	per c.y. =	\$759.00	
<b>TOTAL EXCAVATION</b>						<b>\$759.00</b>

**IMPROVEMENT: ENDDHAUL -**

Pullback	9+15	to	9+35	12	cy. @	\$1.22	per c.y. =	\$14.64
Pullback	84+20	to	85+65	294	cy. @	\$1.44	per c.y. =	\$423.36
Pullback	94+05	to	94+45	23	cy. @	\$1.23	per c.y. =	\$28.29
Pullback	96+20	to	96+40	16	cy. @	\$1.18	per c.y. =	\$18.88
Spread & compact				345	cy. @	\$0.55	per c.y. =	\$189.75
<b>TOTAL ENDDHAUL</b>								<b>\$674.92</b>

**CULVERTS - MATERIALS & INSTALLATION**

<u>Culverts</u>	30	LF of 18"	\$757.50		
<u>Culvert Stakes &amp; Markers</u>		2 markers	\$18.00		
<b>TOTAL CULVERTS</b>					<b>\$775.50</b>

**ROCK**

Spot Rock	As Directed	50	cy. of	Crushed	@	\$13.49	per c.y. =	\$674.50
Energy Dissipator	84+60	5	cy. of	Rip Rap	@	\$7.31	per c.y. =	\$36.55
Energy Dissipator	95+95	5	cy. of	Rip Rap	@	\$7.55	per c.y. =	\$37.75
Culvert Backfill	84+60	20	cy. of	Crushed	@	\$11.48	per c.y. =	\$229.60
Culvert Backfill	95+95	20	cy. of	Crushed	@	\$11.59	per c.y. =	\$231.80
Energy Dissipator	83+10	5	cy. of	Rip Rap	@	\$7.78	per c.y. =	\$38.90
Energy Dissipator	94+25	5	cy. of	Rip Rap	@	\$8.01	per c.y. =	\$40.05
<b>TOTAL ROCK</b>								<b>\$1,289.15</b>

**SPECIAL PROJECTS**

Rock hammer boulder @ station 96+20	1.00	hours @	\$280.00	per hour	\$280.00
Remove slump on road @ station 95+95	1.00	hours @	\$385.00	per hour	\$385.00
Ditch - Endhaul	4.00	hours @	\$385.00	per hour	\$1,540.00
Grade and shape road -	103.40	stations @	\$24.40	per station	\$2,522.96
Roll subgrade w/ vibratory roller prior to rocking -	103.40	stations @	\$19.40	per station	\$2,005.96
Grass seed and fertilize -	4.75	acres @	\$310.00	per acre	\$1,472.50
Mulching -	0.100	acres @	\$865.00	per acre	\$86.50
<b>TOTAL SPECIAL PROJECTS</b>					<b>\$8,292.92</b>

**GRAND TOTAL** **\$11,847.84**

### 1.5" CRUSHED ROCK COST SUMMARY

Pit:	1.5" Stockpile	Location:	Sec. 30, T2N, R7W, W.M.
Sale:	<b>King Of Diamonds</b>	Road:	590 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	590 c.y.
Drill Pct.:	0%	In Place Total:	421 c.y.

Load Dump Truck: \$1.20 /cu.yd. x 590 cu.yds. = \$708.00

Subtotal \$708.00

Move in Loader 1 @ \$490.00 = \$490.00  
 Subtotal \$490.00

Base Cost= \$2.03 Per Cu.Yd. TOTAL PRODUCTION COSTS \$1,198.00

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 25745 27100 (Crushed)	6.51	3.20	2.03	11.74	230	\$2,700.20
A to B 29120 30260 (Crushed)	7.54	3.20	2.03	12.77	200	\$2,554.00
I to J 35 520 (Crushed)	4.56	3.20	2.03	9.79	60	\$587.40
I to J 755 990 (Crushed)	4.68	3.20	2.03	9.91	40	\$396.40
Q to R 75 140 (Crushed)	3.09	3.20	2.03	8.32	15	\$124.80
Q to R 195 305 (Crushed)	3.11	3.20	2.03	8.34	25	\$208.50
Q to R Traction Rock (Crushed)	3.16	3.20	2.03	8.39	20	\$167.80
Total C.Y.					590	Sub Total \$6,739.10

TOTAL ROCKING COSTS \$6,739.10

## 2" CRUSHED ROCK COST SUMMARY

Pit:	2" Stockpile	Location:	Sec. 29 , T1N, R7W, W.M.
Sale:	<b>King Of Diamonds</b>	Road:	480 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	480 c.y.
Drill Pct.:	0%	In Place Total:	343 c.y.

Load Dump Truck: \_\_\_\_\_ \$1.20 /cu.yd. x \_\_\_\_\_ 480 cu.yds. = \$576.00

Subtotal \$576.00

Move in Loader 1 @ \$490.00 = \$490.00  
Subtotal \$490.00

Base Cost= \_\_\_\_\_ \$2.22 Per Cu.Yd. TOTAL PRODUCTION COSTS \$1,066.00

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base/load Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B Spot Rock (Spot Rock)	6.18	3.55	2.22	11.95	200	\$2,390.00
A to B Culvert Backfill (Crushed)	5.81	1.20	2.22	9.23	150	\$1,384.50
O to P Spot Rock (Crushed)	7.10	3.55	2.22	12.87	20	\$257.40
U to V Spot Rock (Crushed)	7.07	3.55	2.22	12.84	20	\$256.80
GG to HH Spot Rock (Crushed)	7.72	3.55	2.22	13.49	50	\$674.50
GG to HH Culvert Backfill (Crushed)	8.06	1.20	2.22	11.48	20	\$229.60
GG to HH Culvert Backfill (Crushed)	8.17	1.20	2.22	11.59	20	\$231.80
Total C.Y.					480	Sub Total <span style="border-bottom: 1px solid black;">\$5,424.60</span>

TOTAL ROCKING COSTS \$5,424.60

## THUNDER CAT PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Jawrun Pit	Location:	Sec. 25 , T2N, R8W, W.M.
Sale:	<b>King Of Diamonds</b>	Road:	7390 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	7390 c.y.
Drill Pct.:	100%	In Place Total:	5279 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.	\$4,400.00
Drill & Shoot:	\$3.60 /cu.yd. x 5279 cu.yds. = \$19,004.40
Push Rock:	\$1.20 /cu.yd. x 7390 cu.yds. = \$8,868.00
Load Crusher:	\$1.20 /cu.yd. x 7390 cu.yds. = \$8,868.00
Crush Rock:	\$2.50 /cu.yd. x 7390 cu.yds. = \$18,475.00
Load Dump Truck:	\$1.20 /cu.yd. x 7390 cu.yds. = \$8,868.00

Subtotal \$68,483.40

Move In/Set-up Jaw	1	@	\$2,005.00	=	\$2,005.00
Move In and set up Drill and Compressor	1	@	\$449.50	=	\$449.50
Move in Roller and Compactor	1	@	\$395.50	=	\$395.50
Move in Grader	1	@	\$441.00	=	\$441.00
Move in Loader	1	@	\$490.00	=	\$490.00
Move in Excavator	1	@	\$605.00	=	\$605.00
Move in Trucks	3	@	\$155.17	=	\$465.51
Move in Water Truck	1	@	\$155.17	=	\$155.17
				Subtotal	\$5,006.68

TOTAL PRODUCTION COSTS \$73,490.08

Base Cost= \$9.94 Per Cu.Yd.

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B 28285 33610 (Jawrun)	7.87	3.55	9.94	21.36	2940	\$62,798.40
A to B Landing Rock (Jawrun)	4.85	3.55	9.94	18.34	100	\$1,834.00
A to B Trail Hardening (Jawrun)	7.32	3.55	9.94	20.81	10	\$208.10
A to B Trail Hardening (Jawrun)	6.12	3.55	9.94	19.61	10	\$196.10
A to B Trail Hardening (Jawrun)	5.91	3.55	9.94	19.40	10	\$194.00
A to B Trail Hardening (Jawrun)	3.58	3.55	9.94	17.07	10	\$170.70
A to B Trail Hardening (Jawrun)	3.15	3.55	9.94	16.64	10	\$166.40
A to B Trail Hardening (Jawrun)	3.02	3.55	9.94	16.51	10	\$165.10
C to D 0 100 (Jawrun)	5.79	3.55	9.94	19.28	60	\$1,156.80
C to D Intersection Widening (Jawrun)	5.78	3.55	9.94	19.27	30	\$578.10
C to D Culvert Backfill (Jawrun)	5.83	3.55	9.94	19.32	200	\$3,864.00
E to F 0 365 (Jawrun)	5.39	3.55	9.94	18.88	240	\$4,531.20
E to F Intersection Widening (Jawrun)	5.35	3.55	9.94	18.84	30	\$565.20
E to F Landing Rock (Jawrun)	5.43	3.55	9.94	18.92	60	\$1,135.20
E to F Turnaround (Jawrun)	5.38	3.55	9.94	18.87	30	\$566.10
I to J 0 1730 (Jawrun)	5.33	3.55	9.94	18.82	1000	\$18,820.00
I to J Intersection Widening (Jawrun)	5.14	3.55	9.94	18.63	30	\$558.90
I to J Landing Rock (Jawrun)	5.51	3.55	9.94	19.00	70	\$1,330.00
K to L 0 175 (Jawrun)	5.19	3.55	9.94	18.68	130	\$2,428.40
K to L Intersection Widening (Jawrun)	5.17	3.55	9.94	18.66	30	\$559.80
K to L Landing Rock (Jawrun)	5.21	3.55	9.94	18.70	70	\$1,309.00
M to N 0 475 (Jawrun)	5.26	3.55	9.94	18.75	310	\$5,812.50
M to N Intersection Widening (Jawrun)	5.21	3.55	9.94	18.70	30	\$561.00
M to N Landing Rock (Jawrun)	5.31	3.55	9.94	18.80	60	\$1,128.00
Q to R 0 570 (Jawrun)	3.77	3.55	9.94	17.26	360	\$6,213.60
Q to R Intersection Widening (Jawrun)	3.71	3.55	9.94	17.20	30	\$516.00
Q to R Curve Widening (Jawrun)	3.74	3.55	9.94	17.23	20	\$344.60
Q to R Curve Widening (Jawrun)	3.78	3.55	9.94	17.27	20	\$345.40
Q to R Landing Rock (Jawrun)	3.83	3.55	9.94	17.32	70	\$1,212.40
S to T 0 280 (Jawrun)	3.93	3.55	9.94	17.42	170	\$2,961.40
S to T Intersection Widening (Jawrun)	3.90	3.55	9.94	17.39	30	\$521.70
S to T Intersection Widening (Jawrun)	3.49	3.55	9.94	16.98	30	\$509.40
U to V Spot Rock (Jawrun)	3.75	3.55	9.94	17.24	10	\$172.40
W to X 0 280 (Jawrun)	3.47	3.55	9.94	16.96	170	\$2,883.20
W to X Intersection Widening (Jawrun)	3.44	3.55	9.94	16.93	30	\$507.90
W to X Landing Rock (Jawrun)	3.50	3.55	9.94	16.99	60	\$1,019.40
Y to Z 0 140 (Jawrun)	3.55	3.55	9.94	17.04	80	\$1,363.20
Y to Z Intersection Widening (Jawrun)	3.54	3.55	9.94	17.03	30	\$510.90
Y to Z Landing Rock (Jawrun)	3.57	3.55	9.94	17.06	60	\$1,023.60
AA to BB 0 100 (Jawrun)	3.75	3.55	9.94	17.24	60	\$1,034.40
CC to DD 0 410 (Jawrun)	4.42	3.55	9.94	17.91	270	\$4,835.70
CC to DD Intersection Widening (Jawrun)	4.38	3.55	9.94	17.87	30	\$536.10
CC to DD Landing Rock (Jawrun)	4.47	3.55	9.94	17.96	70	\$1,257.20
EE to FF 0 210 (Jawrun)	4.70	3.55	9.94	18.19	140	\$2,546.60
EE to FF Intersection Widening (Jawrun)	4.68	3.55	9.94	18.17	30	\$545.10
EE to FF Landing Rock (Jawrun)	4.70	3.55	9.94	18.19	70	\$1,273.30
EE to FF Landing Rock (Jawrun)	4.73	3.55	9.94	18.22	70	\$1,275.40
Total C.Y.					7390	Sub Total \$144,045.90

TOTAL ROCKING COSTS \$144,045.90

## RIP RAP PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Rip Rap Pit	Location:	Sec. 30, T2N, R7W, W.M.
Sale:	<b>King Of Diamonds</b>	Road:	65 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	65 c.y.
Drill Pct.:	0%	In Place Total:	46 c.y.

Load Dump Truck: \_\_\_\_\_ \$1.20 /cu.yd. x \_\_\_\_\_ 65 cu.yds. = \_\_\_\_\_ \$78.00

Subtotal \_\_\_\_\_ \$78.00

Base Cost= \_\_\_\_\_ \$1.20 Per Cu.Yd. TOTAL PRODUCTION COSTS \$78.00

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B Energy Dissipator (Rip rap)	6.36	1.20	1.20	8.76	5	\$43.80
A to B Energy Dissipator (Rip rap)	5.39	1.20	1.20	7.79	5	\$38.95
A to B Energy Dissipator (Rip rap)	5.12	1.20	1.20	7.52	5	\$37.60
A to B Energy Dissipator (Rip rap)	4.70	1.20	1.20	7.10	5	\$35.50
A to B Energy Dissipator (Rip rap)	4.49	1.20	1.20	6.89	5	\$34.45
A to B Energy Dissipator (Rip rap)	2.80	1.20	1.20	5.20	5	\$26.00
I to J Energy Dissipator (Rip rap)	3.35	1.20	1.20	5.75	10	\$57.50
CC to DD Energy Dissipator (Rip Rap)	4.68	1.20	1.20	7.08	5	\$35.40
GG to HH Energy Dissipator (Rip Rap)	4.91	1.20	1.20	7.31	5	\$36.55
GG to HH Energy Dissipator (Rip Rap)	5.15	1.20	1.20	7.55	5	\$37.75
GG to HH Energy Dissipator (Rip Rap)	4.88	1.70	1.20	7.78	5	\$38.90
GG to HH Energy Dissipator (Rip Rap)	5.11	1.70	1.20	8.01	5	\$40.05
Total C.Y.					65	Sub Total \$462.45

TOTAL ROCKING COSTS \$462.45

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

Sale: **King Of Diamonds**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
49.0	Pavement	30
0.0	Main Lines	7
0.0	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
1	Brush Cutter	\$343.00		\$4.00	0.00	11.25	11.3	\$45.00	\$388.00
1	Graders	\$441.00		\$3.65	0.00	4.50	4.5	\$16.43	\$457.43
2	Excavators (Large)	\$1,210.00	1	\$44.80	0.00	4.50	4.5	\$403.20	\$1,613.20
1	Tractor (D8)	\$703.00	2	\$15.10	0.00	4.50	4.5	\$67.95	\$770.95
2	Dump Truck (Off Hiway)	\$1,152.50	1	\$4.75	0.00	4.50	4.5	\$42.75	\$1,195.25
1	Water Truck (2500 Gal)	\$184.52		\$2.85	0.00	4.50	4.5	\$12.83	\$197.35
<b>TOTAL MOVE-IN COSTS:</b>									<b>\$4,622.18</b>



## OREGON DEPARTMENT OF FORESTRY CRUISE REPORT King of Diamonds

### Type of Sale

Regeneration harvest, Recovery

### Legal Description

Section 6 & 4, of T1N R7W. Tillamook County, W.M.  
 Sections 32 & 33 of T2N R7W. Tillamook County, W.M.

### Sale Acreage

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

	<u>ACRES</u>	
	<u>Gross</u>	<u>Net</u>
<b>Unit 1 (Modified Clearcut)</b>	88	71
<b>Unit 2 (Modified Clearcut)</b>	110	85
<b>Unit 3 (Modified Clearcut)</b>	116	77
<b>Total</b>	314	233

#### Gross Acres

Area within the Timber Sale Boundary signs

#### Net acres

*Used for calculating the advertised volume.*

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

### Cruising Procedures

#### A. Cruise Method

The timber sale was cruised using variable plot sampling. All conifers 8” DBH and greater containing 20 board feet and all hardwoods 10” DBH and greater containing 30 board feet were recorded on all plots. Species, DBH (to nearest inch), merchantable bole length (to nearest foot), form factor, and defect were recorded for all measure trees. Merchantable heights were recorded to 6” and 7” outside bark for conifers and hardwoods, respectively.

#### B. Plot size

Unit	BAF	Spacing
1	40.00	325’ x 325’
2	40.00	250’ x 250’
3	40.00	350’ x 350’

#### C. Grading System

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

### **Computation Procedure**

Plot data was entered into SuperAce for computation of basal area, advertised volume, volume summary, log stock table, and stand table for each species and type.

Net sale acreage was used for volume calculation.

Unit	Cruise Statistics (Board Foot Volumes)			
	Acres	Number of Plots	SE (%)	CV (%)
1	71	24	10.5	50.3
2	85	27	6.7	34.0
3	77	27	8.8	45.1
Project Total	233	78	5.0	44.2

### **Hidden Defect and Breakage**

A 1% reduction for conifers and a 2% reduction for hardwood volumes were applied for hidden defect and breakage.

### **Timber Description**

All units were planted between 1956 and 1960.

Unit 1 is modified clearcut. The Unit is a Douglas-fir dominated stand with a small Red Alder component. The area has no past management.

Unit 2 is modified clearcut. The Unit is a Douglas-fir dominated stand. The unit was thinned in 2002 as part of the Elk Wallow timber sale.

Unit 3 is modified clearcut. The Unit is a Douglas-fir dominated stand with a small Red Alder component. Approximately 50% of the unit was thinned in 2000 as part of the Cedar Jones timber sale.

Sale Unit	Age	Species	DBH	Merchantable Bole Height (feet)
1	66	Douglas-fir	18.7	83
		Red Alder	16.6	54
2	66	Douglas-fir	20.9	85
		Red alder	15	36
3	66	Douglas-fir	16.2	68
		Red Alder	15.3	40

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

**Cruiser /Dates**

ODF Staff Cruised; November - December 2023.

**Revenue Distribution**

BOF – 100%

Tax Code: 5600 (85%)

902 (15%)

Deed Numbers: 96, 138, 35

**Attachments**

Volume Summary Table (3)

Stand Table (3)

Log Stock Table (3)

Species, Sort, Grade Table (3)

Logging Plan (3)

**Stand and Log Stock Tables Species Key**

DF – Douglas-fir

RA – Red alder

TC		TLOGSTVB		Log Stock Table - MBF															
Project:										KINGD									
T03N R07W S12 T0100										T03N R07W S12 T0100									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1										
03N	07W	12	419	0100	71.00	24	65	Date	3/20/2024										
								Time	9:55:13AM										
Spp	T	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches										
									MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15
DF	CO	2	30		26		26	1.2								26			
DF	CO	2	40		1,324		1,324	61.1			9	100	335	275	457	108	41		
DF	CO	3	16		7		7	.3		7									
DF	CO	3	22		4		4	.2		2		2							
DF	CO	3	23		3		3	.1		3									
DF	CO	3	24		4		4	.2		4									
DF	CO	3	25		16		16	.7		14	2								
DF	CO	3	26		4		4	.2		4									
DF	CO	3	27		2		2	.1			2								
DF	CO	3	29		3		3	.1			3								
DF	CO	3	30		7		7	.3		2	3	2							
DF	CO	3	31		2		2	.1			2								
DF	CO	3	32		3		3	.1			3								
DF	CO	3	33		7		7	.3			7								
DF	CO	3	34		7		7	.3		7									
DF	CO	3	35		6		6	.3		3	3								
DF	CO	3	40		717		717	33.1		20	199	98	374	13	12				
DF	CO	4	18		2		2	.1		2									
DF	CO	4	19		4		4	.2		4									
DF	CO	4	20		2		2	.1		2									
DF	CO	4	22		4		4	.2		2		2							
DF	CO	4	23		1		1	.1		1									
DF	CO	4	25		2		2	.1			2								
DF	CO	4	26		2		2	.1		2									
DF	CO	4	31		3		3	.1		3									
DF	CO	4	32		3		3	.1		3									
DF	CO	4	33		3		3	.1		3									
DF	Totals				2,168		2,168	91.0		89	234	104	474	348	287	457	134	41	
RA	H	3	33		11		11	4.9			11								
RA	H	3	36		8		8	4.0			8								
RA	H	3	37		28		28	13.3			28								
RA	H	3	40		97		97	45.4				25	38	34					
RA	H	4	1																
RA	H	4	16		10		10	4.9			10								
RA	H	4	30		8		8	3.9			8								
RA	H	4	40		50		50	23.5			8	42							
RA	Totals				213		213	9.0			75	67	38	34					
Total All Species					2,382		2,382	100.0		89	309	171	512	382	287	457	134	41	

<b>T03N R07W S12 T0100</b>										<b>T03N R07W S12 T0100</b>				
<b>Twp</b>	<b>Rge</b>	<b>Sec</b>	<b>Tract</b>	<b>Type</b>	<b>Acres</b>	<b>Plots</b>	<b>Sample Trees</b>	<b>CuFt</b>	<b>BdFt</b>					
<b>03N</b>	<b>07W</b>	<b>12</b>	<b>419</b>	<b>0100</b>	<b>71.00</b>	<b>24</b>	<b>65</b>	<b>S</b>	<b>W</b>					

Spp	S	So	Gr	%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log				Logs Per /Acre		
									Net	Def%	Gross	Net	Net MBF	Log Scale Dia.				Log Length				Ln	Dia
					4-5	6-11	12-16							17+	12-20	21-30	31-35	36-99	Ft	In			
DF	CO	2		62	19,026	19,026	1,351	8	55	37		2	98	40	14	324	1.74	58.7					
DF	CO	3		36	11,140	11,140	791	8	88	3		1	5	3	91	37	7	86	0.63	130.0			
DF	CO	4		2	373	373	27	86	14			31	36	32		24	5	25	0.35	14.7			
<b>DF</b>	<b>Totals</b>			91	30,539	30,539	2,168	4	37	35	23	1	4	2	94	37	9	150	0.97	203.3			
RA	H	3		67	2,033	2,033	144	77	23				7	93	38	8	104	0.95	19.5				
RA	H	4		33	973	973	69	100				15	12		73	27	7	58	0.66	16.7			
<b>RA</b>	<b>Totals</b>			9	3,006	3,006	213	84	16			5	4	5	86	32	8	83	0.84	36.3			
<b>Type Totals</b>					33,545	33,545	2,382	4	42	33	21	1	4	2	93	36	9	140	0.95	239.6			

TC		TSTNDSUM											Stand Table Summary			
Project														KINGD		
T03N R07W S12 T0100											T03N R07W S12 T0100					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
03N	07W	12	419	0100	71.00	24	65	Date:	03/20/2024							
								Time:	9:55:14AM							
Spc	S T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
		DBH	Trees	FF 16'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF		11	2	86	98	10.010	6.61	15.01	12.8	53.3	5.48	192	801	389	137	57
DF		13	1	86	72	3.583	3.30	3.58	21.1	70.0	2.15	75	251	153	54	18
DF		14	6	86	87	18.539	19.82	27.81	20.7	80.0	16.43	577	2,225	1,167	409	158
DF		16	3	88	112	7.097	9.91	14.19	25.1	105.0	10.16	356	1,490	721	253	106
DF		17	5	86	113	10.477	16.52	20.95	30.0	121.0	17.91	628	2,536	1,272	446	180
DF		18	2	84	102	3.738	6.61	9.35	26.0	94.0	6.91	243	878	491	172	62
DF		19	6	88	107	10.065	19.82	23.49	31.8	126.4	21.29	747	2,969	1,511	530	211
DF		20	5	85	110	7.570	16.52	18.17	35.1	132.5	18.16	637	2,407	1,289	452	171
DF		21	2	90	114	2.746	6.61	6.87	39.8	172.0	7.78	273	1,181	552	194	84
DF		22	3	87	129	3.754	9.91	11.26	39.3	175.6	12.62	443	1,977	896	314	140
DF		23	4	88	126	4.579	13.21	13.74	43.3	194.2	16.97	595	2,667	1,205	423	189
DF		24	3	86	116	3.154	9.91	8.41	48.8	202.5	11.71	411	1,703	831	292	121
DF		25	2	87	140	1.938	6.61	5.81	55.6	255.0	9.21	323	1,483	654	229	105
DF		26	4	88	135	3.583	13.21	10.75	58.5	270.0	17.91	628	2,903	1,272	446	206
DF		27	2	89	132	1.661	6.61	4.98	62.4	291.7	8.86	311	1,454	629	221	103
DF		29	2	90	131	1.440	6.61	4.32	71.5	358.3	8.80	309	1,548	625	219	110
DF		32	1	83	121	.591	3.30	1.77	69.5	320.0	3.51	123	568	249	88	40
DF		33	1	86	125	.556	3.30	1.67	87.1	390.0	4.14	145	651	294	103	46
DF		39	1	89	134	.398	3.30	1.19	134.7	710.0	4.59	161	848	326	114	60
DF		Totals	55	87	107	95.482	181.67	203.34	35.3	150.2	204.59	7,179	30,539	14,526	5,097	2,168
RA		12	1	77	65	6.669	5.24	6.67	18.2	60.0	3.33	121	400	237	86	28
RA		14	1	80	109	4.900	5.24	9.80	19.5	75.0	5.26	191	735	374	136	52
RA		18	3	80	66	8.892	15.71	11.86	35.5	97.5	11.57	421	1,156	822	299	82
RA		22	2	78	83	3.969	10.48	7.94	32.0	90.0	6.99	254	714	496	180	51
RA		Totals	7	79	77	24.430	36.67	36.26	27.2	82.9	27.16	988	3,006	1,928	701	213
Totals			62	85	101	119.913	218.33	239.60	34.1	140.0	231.75	8166	33,545	16,454	5,798	2,382

TC		TLOGSTVB		Log Stock Table - MBF														
Project:										KINGD								
T02N R07W S32 T0100						T02N R07W S32 T0100												
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1									
02N	07W	32	596	0100	85.00	27	69	Date	3/13/2024									
									Time	10:20:56AM								
Spp	T	So	Gr	Log	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches									
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29
DF		CO	2	40	1,638		1,638	62.9				336	329	727	202	45		
DF		CO	3	29	3		3	.1			3							
DF		CO	3	30	4		4	.1			4							
DF		CO	3	32	4		4	.1										
DF		CO	3	36	8		8	.3			4	4						
DF		CO	3	40	829		829	31.8			101	222	401	46		60		
DF		CO	4	12	6		6	.2		2	3	1						
DF		CO	4	13	2		2	.1		2								
DF		CO	4	14	3		3	.1			3							
DF		CO	4	15	5		5	.2			3	2						
DF		CO	4	17	9		9	.4		6	2	2						
DF		CO	4	18	4		4	.2		2	2							
DF		CO	4	19	13		13	.5		11	2							
DF		CO	4	21	2		2	.1		2								
DF		CO	4	22	7		7	.3		4	3							
DF		CO	4	24	12		12	.5		12								
DF		CO	4	25	3		3	.1			3							
DF		CO	4	27	6		6	.2		3	3							
DF		CO	4	28	9		9	.3		9								
DF		CO	4	31	9		9	.3		9								
DF		CO	4	33	5		5	.2		5								
DF		CO	4	40	23		23	.9		23								
DF		Totals			2,606		2,606	96.4		89	137	235	401	382	329	786	202	45
RA	H	3	32		9		9	9.2			9							
RA	H	3	34		29		29	30.1			29							
RA	H	3	40		52		52	53.3			16		36					
RA	H	4	30		7		7	7.4			7							
RA	Totals				98		98	3.6			62		36					
Total All Species					2,704		2,704	100.0		89	199	235	437	382	329	786	202	45

<b>T02N R07W S32 T0100</b>										<b>T02N R07W S32 T0100</b>			
<b>Twp</b>	<b>Rge</b>	<b>Sec</b>	<b>Tract</b>	<b>Type</b>	<b>Acres</b>	<b>Plots</b>	<b>Sample Trees</b>	<b>CuFt</b>	<b>BdFt</b>				
<b>02N</b>	<b>07W</b>	<b>32</b>	<b>596</b>	<b>0100</b>	<b>85.00</b>	<b>27</b>	<b>69</b>	<b>S</b>	<b>W</b>				

Spp	S	So	Gr	%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log				Logs Per /Acre			
									Net	BdFt	Def%	Gross	Net	Net MBF	Log Scale Dia.				Log Length				Ln	Dia
					4-5	6-11	12-16								17+	12-20	21-30	31-35	36-99	Ft		In		
DF	CO	2		62	19,276	19,276	1,638			45	55					100	40	15	381	2.08	50.6			
DF	CO	3		33	9,984	9,984	849		88	8	4			1	0	99	40	9	126	0.86	79.4			
DF	CO	4		5	1,396	1,396	119	75	25					36	32	12	20	23	6	26	0.36	53.3		
<b>DF</b>	<b>Totals</b>			96	30,655	30,655	2,606	3	30	31	36	2	2	1	96	35	10	167	1.15	183.3				
RA	H	3		92	1,067	1,067	91		100						42	58	36	7	72	0.73	14.9			
RA	H	4		8	85	85	7		100					100			30	6	40	0.80	2.1			
<b>RA</b>	<b>Totals</b>			4	1,152	1,152	98		100			7	39	53	35	7	68	0.74	17.0					
<b>Type Totals</b>					31,807	31,807	2,704	3	32	30	35	2	2	2	94	35	9	159	1.11	200.3				

TC		TSTNDSUM		Stand Table Summary												
Project														KINGD		
T02N R07W S32 T0100										T02N R07W S32 T0100						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees			Page:	1					
02N	07W	32	596	0100	85.00	27	69			Date:	03/13/2024					
										Time:	10:20:58AM					
Spc	S T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF
DF		11	1	83	33	4.710	3.11	4.71	8.2	30.0	1.10	39	141	93	33	12
DF		13	1	86	86	3.373	3.11	6.75	13.7	55.0	2.62	92	371	223	78	32
DF		14	1	85	117	2.908	3.11	5.82	19.4	80.0	3.22	113	465	274	96	40
DF		16	6	86	109	13.359	18.65	31.17	22.4	88.6	19.86	697	2,761	1,688	592	235
DF		17	2	87	115	3.944	6.22	7.89	29.1	120.0	6.55	230	947	557	195	80
DF		18	5	86	94	8.796	15.54	17.59	30.1	110.0	15.08	529	1,935	1,282	450	164
DF		19	3	88	114	4.737	9.33	11.05	33.1	131.4	10.44	366	1,453	887	311	123
DF		20	2	85	99	2.850	6.22	5.70	37.6	135.0	6.11	214	769	519	182	65
DF		21	3	84	117	3.877	9.33	10.34	35.9	136.2	10.59	371	1,409	900	316	120
DF		22	3	85	100	3.533	9.33	8.24	41.0	160.0	9.64	338	1,319	819	287	112
DF		23	5	86	116	5.387	15.54	14.01	44.6	186.2	17.81	625	2,607	1,514	531	222
DF		24	1	88	117	.990	3.11	2.97	43.3	190.0	3.67	129	564	312	109	48
DF		25	7	86	125	6.384	21.76	19.15	49.5	218.1	27.04	949	4,177	2,299	807	355
DF		26	5	86	123	4.216	15.54	10.96	60.3	263.8	18.83	661	2,892	1,601	562	246
DF		27	4	86	117	3.127	12.43	7.82	59.9	256.0	13.36	469	2,002	1,135	398	170
DF		28	3	86	111	2.181	9.33	5.09	72.7	310.0	10.55	370	1,578	897	315	134
DF		29	2	85	111	1.355	6.22	3.39	73.3	314.0	7.08	248	1,064	602	211	90
DF		30	3	86	118	1.900	9.33	5.07	78.6	356.2	11.36	398	1,805	965	339	153
DF		31	2	84	115	1.186	6.22	2.97	85.8	376.0	7.25	254	1,115	616	216	95
DF		33	2	90	114	1.047	6.22	2.62	100.4	490.0	7.49	263	1,282	637	223	109
DF		Totals	61	86	106	79.859	189.63	183.29	40.1	167.3	209.64	7,356	30,655	17,819	6,252	2,606
RA		10	1	83	70	5.432	2.96	5.43	12.6	50.0	1.88	69	272	160	58	23
RA		13	1	80	62	3.214	2.96	3.21	22.4	60.0	1.98	72	193	168	61	16
RA		15	1	82	30	2.414	2.96									
RA		16	2	84	40	4.244	5.93	4.24	23.3	45.0	2.72	99	191	231	84	16
RA		18	1	85	64	1.677	2.96	1.68	46.3	150.0	2.13	78	252	181	66	21
RA		19	1	85	41	1.505	2.96	1.50	33.4	50.0	1.38	50	75	117	43	6
RA		24	1	79	58	.943	2.96	.94	81.4	180.0	2.11	77	170	179	65	14
RA		Totals	8	83	54	19.430	23.70	17.02	26.1	67.7	12.21	444	1,152	1,038	377	98
Totals			69	85	96	99.289	213.33	200.30	38.9	158.8	221.85	7800	31,807	18,857	6,630	2,704

TC		TLOGSTVB		Log Stock Table - MBF																
Project:										KINGD										
T01N R07W S06 T0100										T01N R07W S06 T0100										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
01N	07W	06	344	0100	77.00	27	52	Date	3/20/2024											
									Time	10:00:06AM										
Spp	T	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches										
										MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15
DF		CO	2		40	959		959	48.7					170	365	318	106			
DF		CO	3		27	3		3	.1											
DF		CO	3		29	4		4	.2			4								
DF		CO	3		31	4		4	.2				4							
DF		CO	3		36	9		9	.5			9								
DF		CO	3		40	789		789	40.1			124	248	376			41			
DF		CO	4		12	1		1	.1			1								
DF		CO	4		14	4		4	.2			4								
DF		CO	4		15	2		2	.1			2								
DF		CO	4		17	2		2	.1			2								
DF		CO	4		18	10		10	.5			8	3							
DF		CO	4		20	5		5	.3			5								
DF		CO	4		22	26		26	1.3			23	3							
DF		CO	4		23	3		3	.2				3							
DF		CO	4		24	48		48	2.4			48								
DF		CO	4		26	4		4	.2			4								
DF		CO	4		27	4		4	.2			4								
DF		CO	4		28	4		4	.2			4								
DF		CO	4		29	20		20	1.0			20								
DF		CO	4		32	12		12	.6			12								
DF		CO	4		33	10		10	.5			10								
DF		CO	4		34	22		22	1.1			22								
DF		CO	4		37	22		22	1.1			22								
DF		Totals				1,968		1,968	93.0			191	146	255	376	170	365	359	106	
RA		H	3		40	70		70	47.2				70							
RA		H	4		16	5		5	3.1			5								
RA		H	4		17	3		3	2.2			3								
RA		H	4		24	8		8	5.4			8								
RA		H	4		34	10		10	6.9			10								
RA		H	4		36	14		14	9.4			14								
RA		H	4		37	26		26	17.5			26								
RA		H	4		40	12		12	8.3			12								
RA		Totals				148		148	7.0			78	70							
Total All Species						2,116		2,116	100.0			191	224	324	376	170	365	359	106	

<b>T01N R07W S06 T0100</b>										<b>T01N R07W S06 T0100</b>				
<b>Twp</b>	<b>Rge</b>	<b>Sec</b>	<b>Tract</b>	<b>Type</b>	<b>Acres</b>	<b>Plots</b>	<b>Sample Trees</b>	<b>CuFt</b>	<b>BdFt</b>					
01N	07W	06	344	0100	77.00	27	52	S	W					

S T	So rt	Gr ad	%	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
								Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf	
DF	CO	2	48	12,456	12,456	959		71	29				100	40	15	363	1.95	34.3		
DF	CO	3	41	10,499	10,499	808		95	5		1	0	99	40	9	114	0.74	92.2		
DF	CO	4	11	2,598	2,598	200	96	4		12	55	22	11	25	5	28	0.28	93.1		
<b>DF</b>	<b>Totals</b>		93	25,553	25,553	1,968	10	39	35	16	1	6	2	90	34	8	116	0.82	219.6	
RA	H	3	47	907	907	70		100					100	40	8	95	1.05	9.6		
RA	H	4	53	1,016	1,016	78		100		10	10	13	67	30	6	45	0.66	22.5		
<b>RA</b>	<b>Totals</b>		7	1,922	1,922	148		100		5	5	7	82	33	7	60	0.80	32.1		
<b>Type Totals</b>				27,475	27,475	2,116	9	44	32	15	2	6	3	90	34	8	109	0.81	251.6	

TC		TSTNDSUM		Stand Table Summary												
Project														KINGD		
T01N R07W S06 T0100										T01N R07W S06 T0100						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
01N	07W	06	344	0100	77.00	27	52	Date:	03/13/2024							
								Time:	10:40:43AM							
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF
DF		8	1	89	48	11.217	3.92	11.22	4.8	30.0	1.55	54	336	119	42	26
DF		9	1	89	50	8.863	3.92	8.86	7.0	30.0	1.78	62	266	137	48	20
DF		10	2	85	59	14.357	7.83	14.36	10.3	40.0	4.20	147	574	323	113	44
DF		12	3	87	94	14.956	11.75	29.91	12.3	48.3	10.51	369	1,446	810	284	111
DF		14	2	84	77	7.325	7.83	10.99	19.2	60.0	6.00	211	659	462	162	51
DF		15	4	87	106	12.762	15.66	25.52	21.0	87.5	15.30	537	2,233	1,178	413	172
DF		16	1	85	138	2.804	3.92	8.41	22.2	96.7	5.33	187	813	410	144	63
DF		17	4	85	103	9.936	15.66	22.36	25.5	98.9	16.26	571	2,211	1,252	439	170
DF		19	2	87	87	3.977	7.83	7.95	31.3	115.0	7.10	249	915	546	192	70
DF		20	3	86	116	5.384	11.75	14.36	33.4	132.5	13.67	480	1,902	1,053	369	146
DF		21	2	84	125	3.256	7.83	8.14	36.6	154.0	8.49	298	1,253	654	229	97
DF		22	3	87	122	4.450	11.75	13.35	38.7	171.1	14.73	517	2,284	1,134	398	176
DF		23	5	87	119	6.785	19.58	20.36	41.2	178.7	23.92	839	3,637	1,842	646	280
DF		24	2	84	112	2.493	7.83	4.99	56.9	225.0	8.09	284	1,122	623	219	86
DF		25	1	88	136	1.149	3.92	3.45	44.2	223.3	4.34	152	770	334	117	59
DF		26	1	86	130	1.062	3.92	3.19	57.4	256.7	5.21	183	818	401	141	63
DF		27	1	89	135	.985	3.92	2.95	62.7	296.7	5.28	185	876	407	143	67
DF		28	2	86	118	1.831	7.83	4.58	70.5	304.0	9.20	323	1,392	709	249	107
DF		30	1	92	138	.798	3.92	2.39	82.0	433.3	5.59	196	1,037	431	151	80
DF		31	1	91	130	.747	3.92	2.24	84.3	450.0	5.39	189	1,008	415	146	78
DF	Totals	42	87	90		115.134	164.44	219.57	27.5	116.4	171.94	6,033	25,553	13,239	4,645	1,968
RA		11	1	78	76	5.612	3.70	5.61	15.8	60.0	2.44	89	337	188	68	26
RA		14	1	78	32	3.465	3.70	3.46	15.2	30.0	1.45	53	104	111	41	8
RA		15	2	76	69	6.036	7.41	9.05	22.6	56.7	5.64	205	513	434	158	40
RA		16	3	77	56	7.958	11.11	7.96	33.5	66.7	7.33	267	531	564	205	41
RA		17	1	78	68	2.350	3.70	2.35	42.3	90.0	2.73	99	211	211	77	16
RA		18	1	85	18	2.096	3.70	2.10	15.1	20.0	.87	32	42	67	24	3
RA		21	1	72	61	1.540	3.70	1.54	66.5	120.0	2.82	102	185	217	79	14
RA	Totals	10	77	58		29.056	37.04	32.07	26.4	59.9	23.28	847	1,922	1,793	652	148
Totals		52	85	84		144.190	201.48	251.64	27.3	109.2	195.22	6880	27,475	15,032	5,297	2,116



"STEWARDSHIP IN FORESTRY"

## King of Diamonds

### Volume Summary

<b>Unit 1-Modified Clearcut</b>				
71 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	30.54	2168	1%	2146
Hemlock		0	2%	0
Spruce		0	1%	0
Noble Fir		0	1%	0
Alder	3.01	213	2%	209
<b>TOTAL</b>	<b>33.55</b>	<b>2381.0</b>		<b>2355</b>

<b>Unit 2-Modified Clearcut</b>				
85 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	30.66	2606	1%	2580
Hemlock		0	2%	0
Spruce		0	1%	0
Noble Fir		0	1%	0
Alder	1.15	98	2%	96
<b>TOTAL</b>	<b>31.81</b>	<b>2704</b>		<b>2676</b>

<b>Unit 3- Modified Clearcut</b>				
77 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	25.55	1968	1%	1948
Hemlock		0	1%	0
Spruce		0	1%	0
Noble Fir		0	1%	0
Alder	1.92	148	2%	145
<b>TOTAL</b>	<b>27.47</b>	<b>2116</b>		<b>2093</b>



"STEWARDSHIP IN FORESTRY"

## *King of Diamonds*

### Volume Summary

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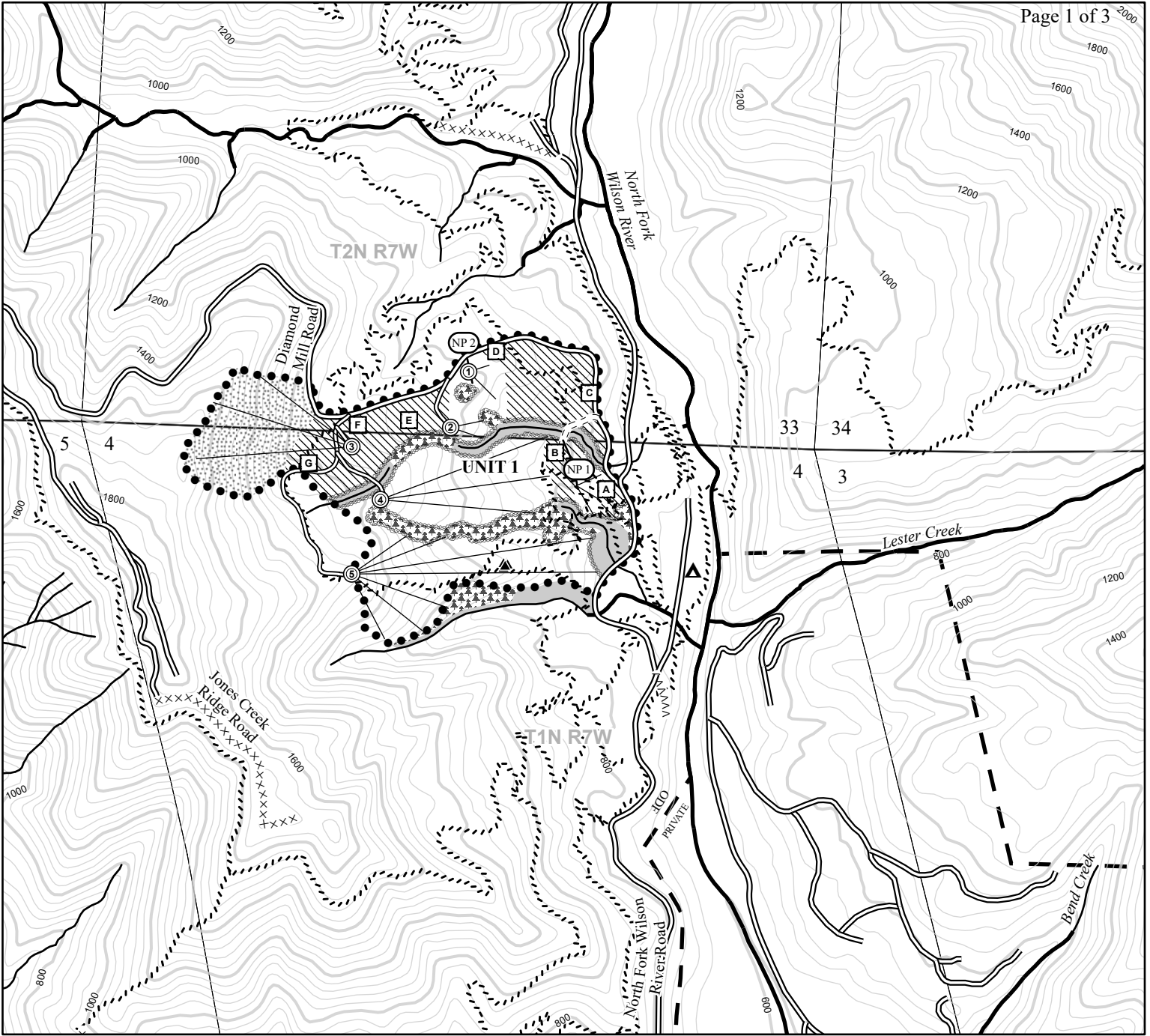
"STEWARDSHIP IN FORESTRY"

## King of Diamonds

### Volume Summary

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<b>TOTAL SALE VOLUME</b>		<b>233</b>	<b>acres</b>
<b>SPECIES</b>	<b>Cruised Net (MBF)</b>	<b>Net Sale (MBF)</b>	
Douglas-fir	6742	6674	
Hemlock	0	0	
Spruce	0	0	
Noble Fir	0	0	
Red Alder	459	450	
<b>TOTAL</b>	<b>7201</b>	<b>7124</b>	



- Legend**
- ▨ Riparian Buffer
  - Ground
  - ⊙ Landing To Be Constructed
  - Cable Logging
  - ⋯ Cable Haulback
  - ▨ Ground Based
  - ▬ Surfaced Road
  - ×× Blocked Road
  - vvv Abandoned Road
  - ▬ Project construction, Surfaced,
  - ▬ Project construction, Unsurfaced,
  - ▬ Type-F Stream
  - ▬ Type-N Stream
  - ▲ Green Tree Retention
  - Sections
  - 200' Contour
  - 40' Contour
  - ▬ Riparian Boundary
  - Timber Sale Boundary
  - ▬ Property Line
  - ▬ Non Project
  - ⋯ Recreation Trail
  - ▲ Campgrounds
  - ▲ Reserve Timber

# LOGGING PLAN

FOR TIMBER SALE CONTRACT TL-341-2024-W01037-01  
 KING OF DIAMONDS  
 SECTIONS 4 & 6 of T1N R7W & 32 & 33 of T2N R7W W.M.  
 TILLAMOOK COUNTY, OREGON

Tillamook District GIS  
 MARCH 2024

This product is for informational use and may not be  
 suitable for legal, engineering, or surveying purposes.



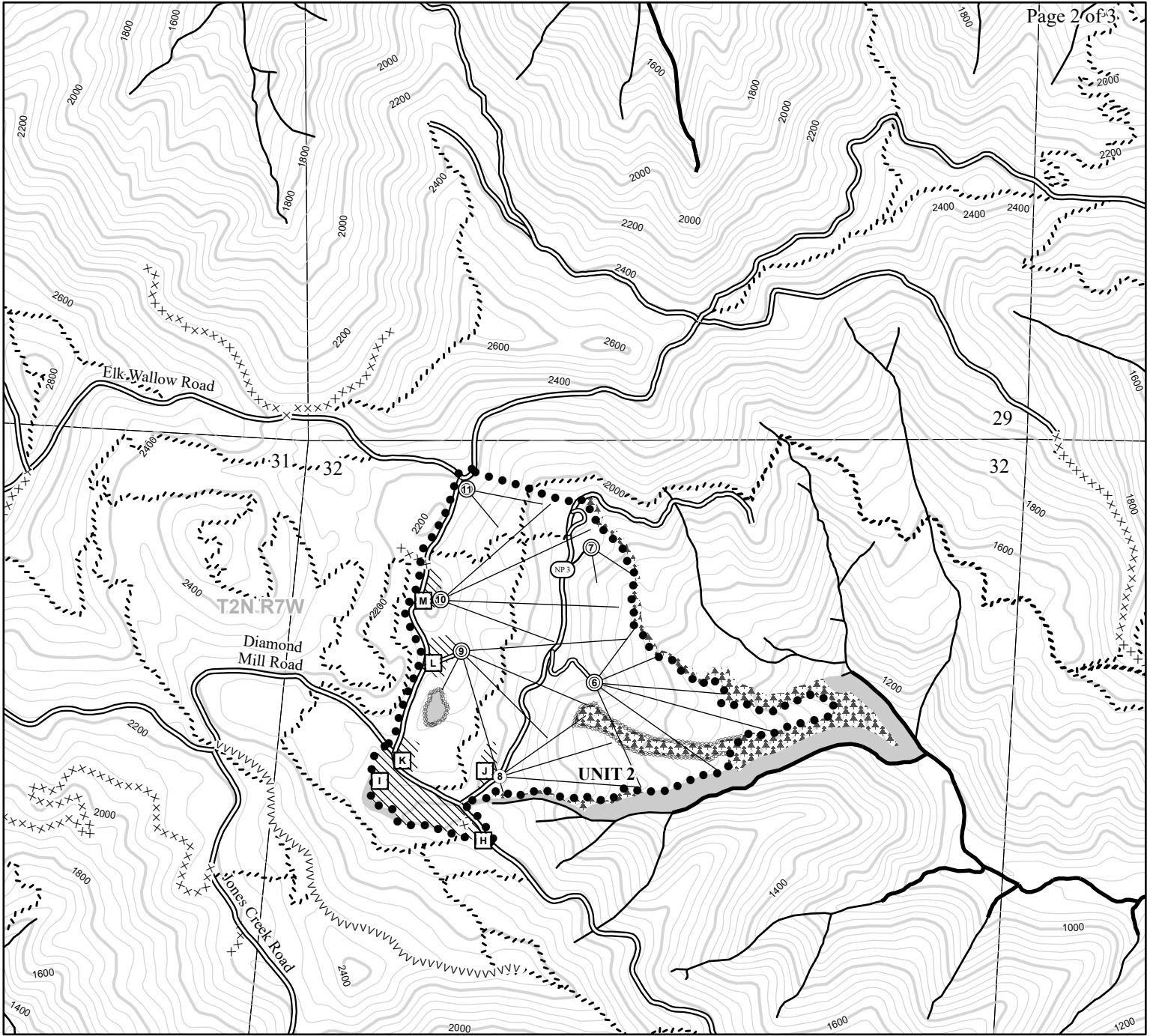
NET ACRES

1:12,000

1 inch = 1,000 feet



	GROUND	CABLE	TOTAL
UNIT 1	21	50	71
UNIT 2	8	77	85
UNIT 3	0	77	77
<b>TOTAL</b>	<b>30</b>	<b>206</b>	<b>233</b>



- Legend**
- ▬ Riparian Buffer
  - Ground
  - ⊙ Landing To Be Constructed
  - Existing Landing
  - Cable Logging
  - ▨ Ground Based
  - ⋯ Recreation Trail
  - ▬ Surfaced Road
  - ×× Blocked Road
  - v v v Abandoned Road
  - ▬ Project construction, Surfaced,
  - ▬ Non Project
  - ▬ Type-F Stream
  - ▬ Type-N Stream
  - ▲▲▲ Green Tree Retention
  - Sections
  - 200' Contour
  - 40' Contour
  - ▬ Riparian Boundary
  - Timber Sale Boundary

# LOGGING PLAN

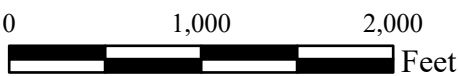
FOR TIMBER SALE CONTRACT TL-341-2024-W01037-01  
 KING OF DIAMONDS  
 SECTIONS 4 & 6 of T1N R7W & 32 &, 33 T2N R7W W.M.  
 TILLAMOOK COUNTY, OREGON

Tillamook District GIS  
 MARCH 2024

This product is for informational use and may not be  
 suitable for legal, engineering, or surveying purposes.

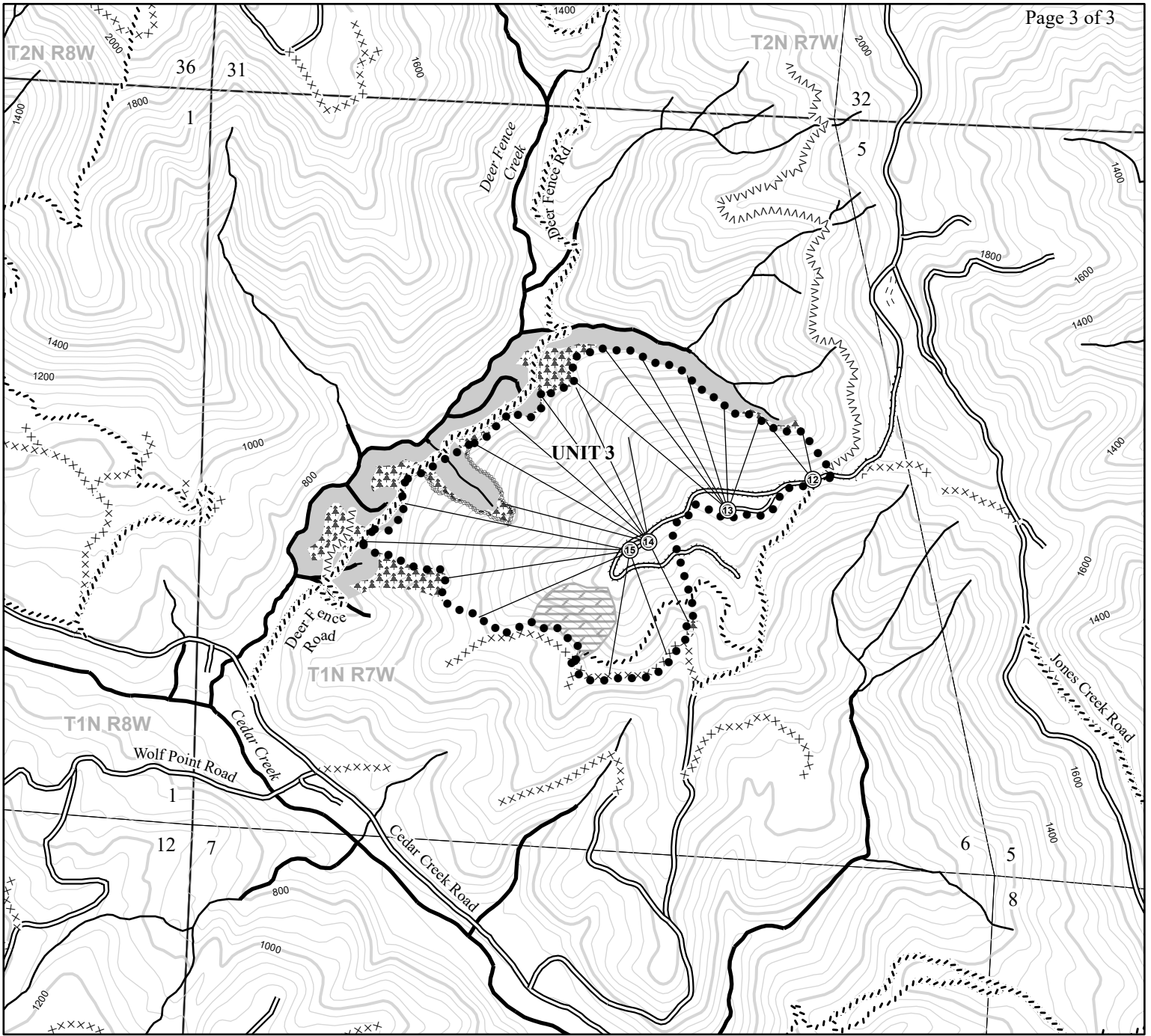


1:12,000  
 1 inch = 1,000 feet



NET ACRES

	GROUND	CABLE	TOTAL
UNIT 1	21	50	71
UNIT 2	8	77	85
UNIT 3	0	77	77
<b>TOTAL</b>	<b>30</b>	<b>206</b>	<b>233</b>



- Legend**
- Riparian Buffer
  - Landing To Be Constructed
  - Cable Logging
  - Recreation Trail
  - Surfaced Road
  - Unsurfaced Road
  - Blocked Road
  - Abandoned Road
  - Project construction, Surfaced,
  - Project construction, Unsurfaced,
  - Type-F Stream
  - Type-N Stream
  - Green Tree Retention
  - Unposted Buffer
  - Sections
  - 200' Contour
  - 40' Contour
  - Riparian Boundary
  - Timber Sale Boundary
  - Road\_updates

# LOGGING PLAN

FOR TIMBER SALE CONTRACT TL-341-2024-W01037-01  
 KING OF DIAMONDS  
 SECTIONS 4 & 6 of T1N R7W & 32 &, 33 T2N R7W W.M.  
 TILLAMOOK COUNTY, OREGON

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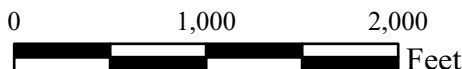
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