



TIMBER NOTICE OF SALE

SALE NAME: TOUTLE TYPHOON

AGREEMENT NO: 30-094319

AUCTION: February 23, 2017 starting at 10:00 a.m., COUNTY: Cowlitz
Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 11 miles east of Toutle

PRODUCTS SOLD AND SALE AREA: All timber, except leave trees banded with a single ring of blue paint, trees bounded by yellow Leave Tree Area tags, snags, all standing trees greater than 45 inches DBH, and all down timber existing 3 years prior to the day of sale bounded by: White "Timber Sale Boundary" tags, private reprod marked with pink flagging, and the 4230 road in Unit 1 on part(s) of Sections 16 all in Township 9 North, Range 2 East, W.M., containing 94 acres, more or less.

CERTIFICATION: This sale is certified under the Sustainable Forestry Initiative® program Standard (cert no: BV-SFIS-US09000572)

ESTIMATED SALE VOLUMES AND QUALITY:

Table with columns: Species, Avg DBH, Ring Count, Total MBF, MBF Grade (1P, 2P, 3P, SM, S, 2S, 3S, 4S, UT). Rows include Douglas fir, Hemlock, Red cedar, Cottonwood, and Sale Total.

MINIMUM BID: \$0.00 BID METHOD: Sealed Bids

PERFORMANCE SECURITY: \$0.00 SALE TYPE: Lump Sum

EXPIRATION DATE: October 31, 2018 ALLOCATION: Export Restricted

BID DEPOSIT: \$0.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable, Shovel, Forwarder and Track skidder. Harvesting activities are estimated to be 30% cable harvesting and 70% ground-based harvesting. Ground-based harvesting equipment shall be restricted to slopes of 40% and less, and during dry soil conditions. See clauses H-140 and H-141 for further harvest requirements. A detailed felling and yarding plan shall be required prior to any harvest activities and approved in writing by the Contract Administrator.

ROADS: 31.69 stations of optional construction. 11.66 stations of optional reconstruction. 208.12 stations of required pre-haul maintenance. 12.74 stations of required medium abandonment. Rock for construction, reconstruction, and pre-haul maintenance under this contract may be obtained at no cost to the Purchaser from the following rock sources; 2 INCH MINUS CRUSHED ROCK, SELECT PIT RUN ROCK and LIGHT LOOSE RIP RAP from the 4232 Pit located in Section 09, Township 09 North, Range 02 East, WM, SELECT PIT RUN ROCK and LIGHT LOOSE RIP RAP from the 4657 Pit located in Section 20, Township 09 North, Range 02 East W.M., and 501 cubic yards of CRUSHED



## TIMBER NOTICE OF SALE

ROCK from the 4672 Stockpile located at Station 7+17 on the 4672 road. Rock amounts used in accordance with the quantities on the ROCK LIST may be obtained from any commercial source at the Purchaser's expense. Rock sources are subject to written approval by the Contract Administrator before their use. Road construction will not be permitted from September 30 to May 1 unless authorized in writing by the Contract Administrator.

### **ACREAGE DETERMINATION**

**CRUISE METHOD:** The sale acres were determined by GPS. The sale area was cruised using a variable plot cruise method.

**FEES:** \$48,937.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

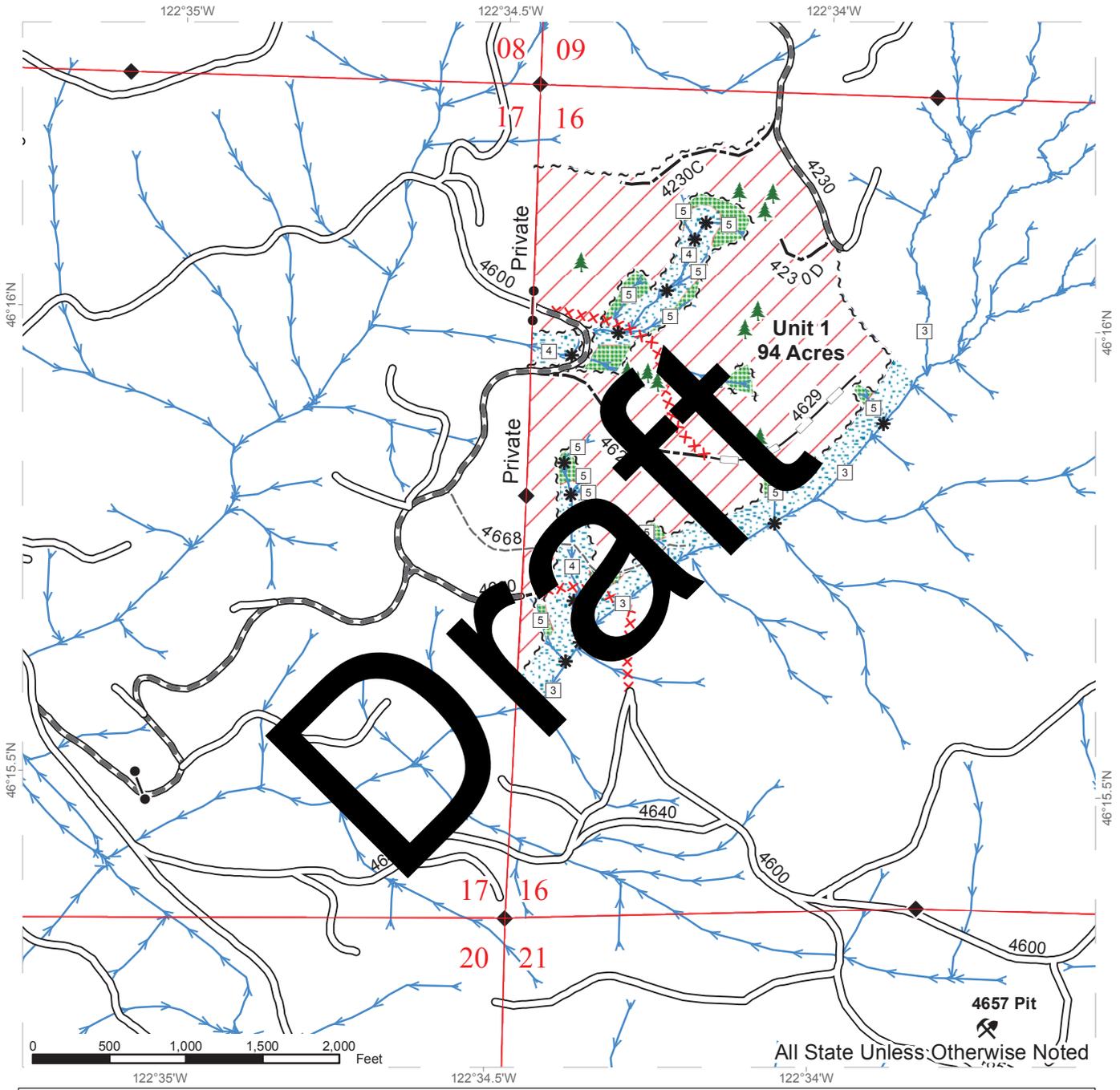
**SPECIAL REMARKS:** This sale has approximately 724 MBF of high quality DF 2 sawlog, 378 MBF of high quality DF 3 sawlog, 74 MBF of high quality WH 1 sawlog, and 60 MBF of high quality WH 3 sawlog. The gate at station 1+00 on the 4672 road shall be kept closed and locked except during periods of haul. The gate shall remain open during haul must be locked or securely fastened in the open position. The gate must be closed at termination of use. See driving map for gate locations. PCP 1-1 gate keys may be obtained from the Pacific Cascade Region office.

Draft

# TIMBER SALE MAP

**SALE NAME:** TOUTLE TYPHOON  
**AGREEMENT #:** 30-094319  
**TOWNSHIP(S):** T09R02E  
**TRUST(S):** Common School and Indemnity(3), Scientific School (10)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** COWLITZ  
**ELEVATION RGE:** 1121-1581

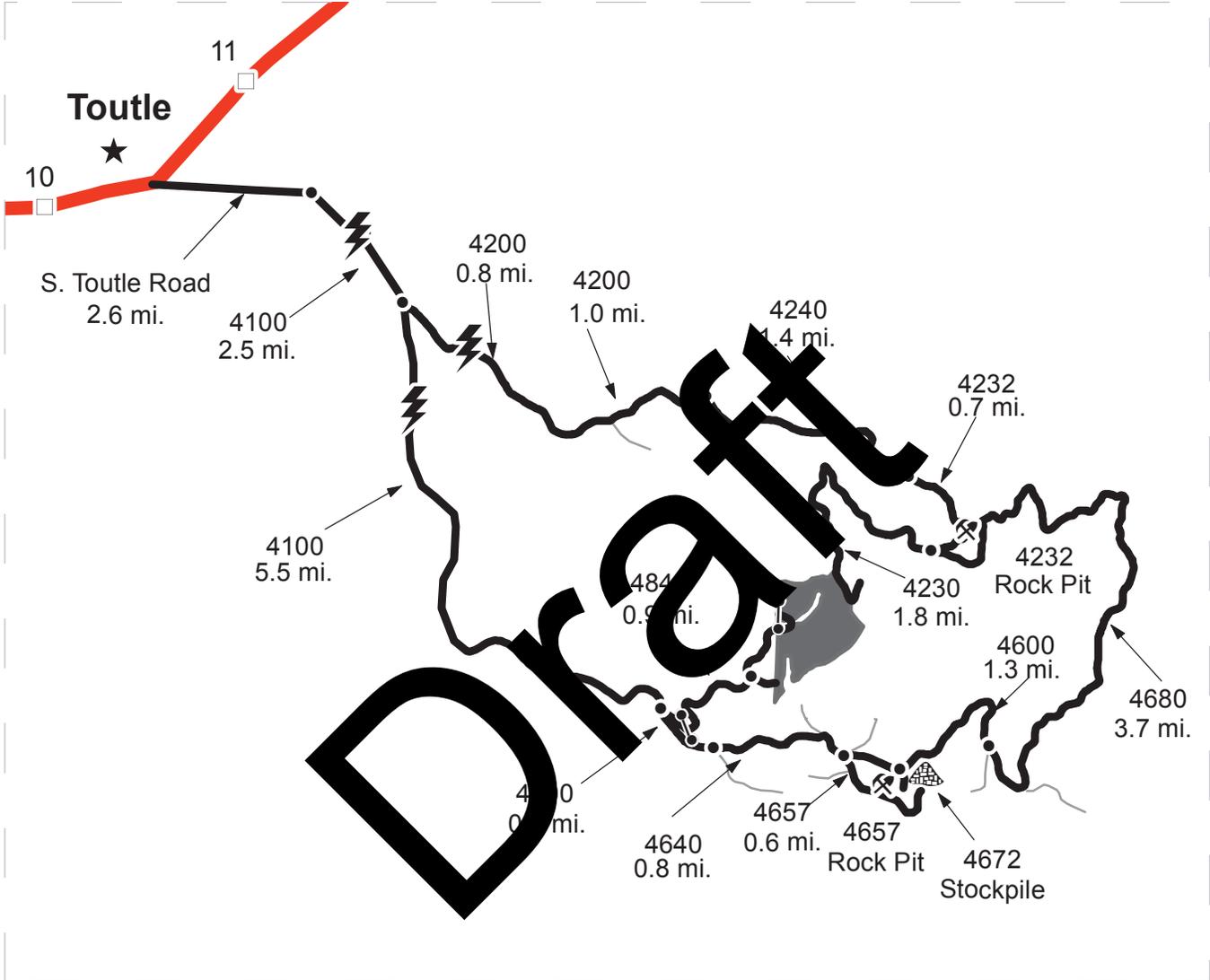


Sale Area	Existing Roads	Streams
Leave Tree Area	Required Pre-Haul Maintenance	Stream Type
Riparian Mgt Zone	Abandoned Road	Stream Type Break
Sale Boundary Tags	Optional Construction	Leave Trees
Leave Tree Tags	Optional Reconstruction	Gate (ABA)
	Old Grades/Trails	Existing Rock Pit
		Monumented Corners

# DRIVING MAP

**SALE NAME:** TOUTLE TYPHOON  
**AGREEMENT#:** 30-094319  
**TOWNSHIP(S):** T09R02E  
**TRUST(S):** Common School and Indemnity(3)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** COWLITZ  
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<ul style="list-style-type: none"> <li> Timber Sale Unit</li> <li> Highway</li> <li> Haul Route</li> <li> Other Route</li> <li> Milemarker Post</li> <li> Distance Break</li> <li> Distance Indicator</li> <li> Gate (ABA)</li> <li> Existing Rock Pit</li> <li> Stockpile</li> </ul>	<p><b><u>DRIVING DIRECTIONS:</u></b></p> <p>Take Exit 49 off I-5. Follow SR 504 east for 10.4 mi. Turn right onto South Toutle Rd. Continue 2.6 mi. Drive 2.4 mi. on the 4100, to the 4100/4200 intersection.</p> <p>To access north of the unit and 4232 rock pit - Take a left onto the 4200. Continue 1.9 mi. take a left onto the 4240. Continue 1.3 mi. to the 4232, drive another 0.7 mi. The 4232 rock pit will be on the left. Continue on to the 4230. Drive 1.7 mi. The unit will be on the right.</p> <p>To access south of the unit - From the 4100/4200 junction continue on the 4100 Drive 5.5 miles. Take a left onto the 4840 go through the (ABA lock) at the 4840 entrance. Continue 0.9 mi. Turn left on the 4600 to the south entrance.</p> <p>4657 Rock Pit and 4657 stockpile - from the 4100/4840 junction, travel 0.2 mi on the 4100 turn left left on the 4640. continue on to the 4640 for 0.8 mi. Take a sight right on the 4657, the rock pit is on the left. continue further another 0.2 mi, and the stock pile is on the right.</p>
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# Cruise Narrative

<b>Sale Name:</b> Toutle Typhoon	<b>Region:</b> Pacific Cascade
<b>App. #:</b> 30-	<b>District:</b> St. Helens
<b>Lead Cruiser:</b> Eric Carlson	<b>Completion date:</b> 7-28-2016
<b>Other Cruisers:</b> Bryce Frank, Kalvin Bailey	

**Unit acreage specifications:**

1	94	Yes	
Total	94	Yes	

**Unit cruise specifications:**

Unit #	Sample type (VP, FP, ITS,100%)	Expansion factor (BAF, full/half)	Sighting height (4.5 ft, 16 ft.)	Grid size (Plot spacing or % of plot)	Plot ratio (Cru./Tally)	Total number of plots
1	VP	40	4.5 ft	10' x 210'	1:1	93

**Sale/Cruise Description:**

<b>Minor species cruise intensity:</b>	Cruised on appropriate plots.
<b>Minimum cruise spec:</b>	40% Of Form- Factor at 16' net D.O. for 5 inch Top, and merchantable top.
<b>Avg. ring count by sp:</b>	DF = 7      WH = 7      SS = n/a
<b>Leave/take tree description:</b>	Leave tree crews are bounded with yellow "Leave Tree Area" tags and pink flags. Individual leave trees are marked with a single band of blue paint.
<b>Sort Description:</b>	<p><b>HA</b> – Logs meeting the following criteria: Surface characteristics for a high quality A sort will have sound tight knots not to exceed 1 ½" in diameter, numbering not more than an average of one per foot of log length. May include logs with not more than two larger knots. Knots and knot indicators ½" in diameter and smaller shall not be a determining factor. Logs will have a growth ring count of 6 or more rings per inch in the outer third top end of the log. (min dia 8".)</p> <p><b>HB</b> – Logs meeting the following criteria: Surface characteristics for a B sort will have sound tight knots not to exceed 1 ½" in diameter. May include logs with not more than two larger knots up to 2 ½" in diameter. Logs will have a growth ring count of 6 or more rings per inch in the outer third to end of the log. (min dia 8".)</p> <p><b>R</b> – Logs meeting the following criteria: Gross diameter of 12 inches or greater, excessive knots greater than 2 ½ inches with recovery less than 65% of the net scale.</p>
<b>Status Description:</b>	<p><b>P</b> – Logs classified as pole volume.</p> <p><b>D</b> – Logs classified as merchantable dead timber.</p>

**Field Observations:**

**Toutle Typhoon** - consists of 1 unit in total. This Unit is a VRH lump sum sale. This unit has a significant amount nice Douglas-fir B sort and some high quality A sort. Access is relatively easy as the unit is located directly off the 4600. You will need an ABA-1 key to access the unit.

Unit 1 is located off the 4600 to the northeast and southeast. This unit consisted mainly of Douglas-fir at 85% and some Western Hemlock 14% and minimal amounts of Western Red Cedar. The average diameter of Douglas-fir is 18.3 inches and the average bole ht. is 85 ft. Defect for this unit is at 3.5% and is composed of spike knots, hooked butts and sweep. This unit consisted of 94 acres for an average per-acre net volume of 29,327 bdf and a total volume of 2,757 mbf.

The harvest systems are 30% Uphill cable and 70% Ground based.

Grant: 03,10

Prepared by: Eric Carlson

Title: Timber Cruiser

Draft

TC PSPCSTGR **Species, Sort Grade - Board Foot Volumes (Project)**

T09N R02E S16 Ty00U1 94.00	<b>Project: TOUTLETY</b>	<b>Page 1</b>
	<b>Acres 94.00</b>	<b>Date 7/28/2016</b>
		<b>Time 8:31:13AM</b>

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			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		
									5-7	8-11	12-15	16+	12-20	21-30	31-35	36-99						
DF	CU	CU														0	7		0.00	12.5		
DF	HA	2S			213	213	20			100					100	40	13	243	1.44	.9		
DF	HB	2S		31	2.3	7,669	7,496	705			80	20			1	99	40	13	261	1.59	28.8	
DF	HB	3S		16	2.7	4,131	4,021	378		100					8	92	39	10	129	0.85	31.3	
DF	D	SM				115	115	11				100				40	16	400	2.27	.3		
DF	D	2S		21	4.8	5,425	5,163	485			67	33			5	95	39	14	306	1.93	16.9	
DF	D	3S		22	6.1	5,873	5,517	519	26	74				1	1	42	56	36	8	86	0.68	63.8
DF	D	4S		9		2,112	2,112	199	97	3				34	17	13	36	24	6	27	0.32	77.4
DF	D	UT		1		156	156	15	76		24			24	41		35	30	6	41	0.35	3.8
<b>DF Totals</b>				85	3.5	25,694	24,793	2,331	14	33	39	13		3	2	13	82	31	9	105	0.87	235.5
WH	CU	CU														0	7		0.00	5.6		
WH	HB	2S		19	.6	789	784	74								39	14	301	1.72	2.6		
WH	HB	3S		15	3.8	660	635	60		100						39	9	121	0.81	5.3		
WH	D	2S		35	5.4	1,509	1,429	134								40	15	358	2.26	4.0		
WH	D	3S		15	2.9	652	633	60	44	56						37	8	86	0.77	7.3		
WH	D	4S		9		381	381	36	98							31	5	34	0.31	11.3		
WH	D	UT		7		250	250	23	67	33						28	6	49	0.40	5.1		
<b>WH Totals</b>				14	3.0	4,241	4,112	387	26	11			1	7	7	85	30	8	100	0.87	41.3	
RC	CU	CU														12			0.00	.1		
RC	D	3S		95	7.5	328	302	28								36	13	269	2.39	1.1		
RC	D	4S		5		14	14	1	73	27				54	46	16	6	20	0.41	.7		
<b>RC Totals</b>				1	7.1		317	30	28	16	53			2	2	96	26	11	159	1.94	2.0	
CW	D	UT		29			30	3								18	23	420	3.01	.1		
CW	D	1S		71		73	73	7								40	24	1010	4.72	.1		
<b>CW Totals</b>				0		104		10			100			29		71	29	24	715	4.19	.1	
<b>Totals</b>					3.5	30,381	29,327	2,757	15	32	38	15		3	3	12	82	31	8	105	0.88	278.9

TC PSTATS						PROJECT STATISTICS				PAGE	1
						PROJECT		TOUTLETY		DATE	7/28/2016
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt	
09N	02E	16	TOUTLETY	00U1		94.00	93	468	S	W	
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL			93	468	5.0						
CRUISE			46	224	4.9	10,709	2.1				
DBH COUNT											
REFOREST											
COUNT			43	241	5.6						
BLANKS			4								
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	186	92.8	18.3	85	39.5	168.6	25,694	24,793	6,374	6,376	
WHEMLOCK	33	20.2	16.3	75	7.2	29.1	4,241	4,112	1,076	1,076	
WR CEDAR	4	.9	25.3	64	0.6	3.1	342	317	102	102	
COTWOOD	1	.1	33.0	60	0.1	.4	104	104	18	18	
<b>TOTAL</b>	<b>224</b>	<b>113.9</b>	<b>18.0</b>	<b>83</b>	<b>47.4</b>	<b>201.1</b>	<b>381</b>	<b>29,327</b>	<b>7,569</b>	<b>7,571</b>	
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		55.1	4.1	328	356	356					
WHEMLOCK		64.6	11.4	315	355	396					
WR CEDAR		78.2	44.7	2	508	72					
COTWOOD											
<b>TOTAL</b>		<b>60.2</b>	<b>4.6</b>	<b>338</b>	<b>352</b>	<b>366</b>	<b>145</b>	<b>36</b>	<b>16</b>		
CL	68.1	COEFF	SAMPLE TREES - CF			# OF TREES REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR		47.0		83	86	89					
WHEMLOCK		58.3	10.3	87	92	102					
WR CEDAR		57.6	32.9		152	202					
COTWOOD											
<b>TOTAL</b>		<b>51.1</b>	<b>3.4</b>	<b>86</b>	<b>89</b>	<b>92</b>	<b>104</b>	<b>26</b>	<b>12</b>		
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		62.1	6.4	87	93	99					
WHEMLOCK		193.0	20.0	16	20	24					
WR CEDAR		440.4	45.6	0	1	1					
COTWOOD		964.4	99.9	0	0	0					
<b>TOTAL</b>		<b>54.0</b>	<b>5.6</b>	<b>108</b>	<b>114</b>	<b>120</b>	<b>117</b>	<b>29</b>	<b>13</b>		
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		57.1	5.9	159	169	179					
WHEMLOCK		172.5	17.9	24	29	34					
WR CEDAR		448.3	46.4	2	3	4					
COTWOOD		964.4	99.9	0	0	1					
<b>TOTAL</b>		<b>44.8</b>	<b>4.6</b>	<b>192</b>	<b>201</b>	<b>211</b>	<b>80</b>	<b>20</b>	<b>9</b>		
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		57.0	5.9	23,328	24,793	26,259					
WHEMLOCK		173.0	17.9	3,375	4,112	4,849					
WR CEDAR		500.0	51.8	153	317	482					
COTWOOD		964.4	99.9	0	104	207					

TC PSTATS		<b>PROJECT STATISTICS</b>							PAGE	2
		PROJECT		TOUTLETY			DATE		7/28/2016	
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
09N	02E	16	TOUTLETY	00U1		94.00	93	468	S	W
CL	68.1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15	
<b>TOTAL</b>			45.2	4.7	27,955	29,327	30,699	81	20	9
CL	68.1	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR		57.2	5.9	5,998	6,376	6,753				
WHEMLOCK		173.0	17.9	883	1,076	1,269				
WR CEDAR		463.9	48.1	53	102	151				
COTWOOD		964.4	99.9	0	18	35				
<b>TOTAL</b>			44.9	4.7	7,219	7,571	7,923	80	20	9

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**Species Summary - Trees, Logs, Tons, CCF, MBF**

T09N R02E S16 Ty00U1 94.0

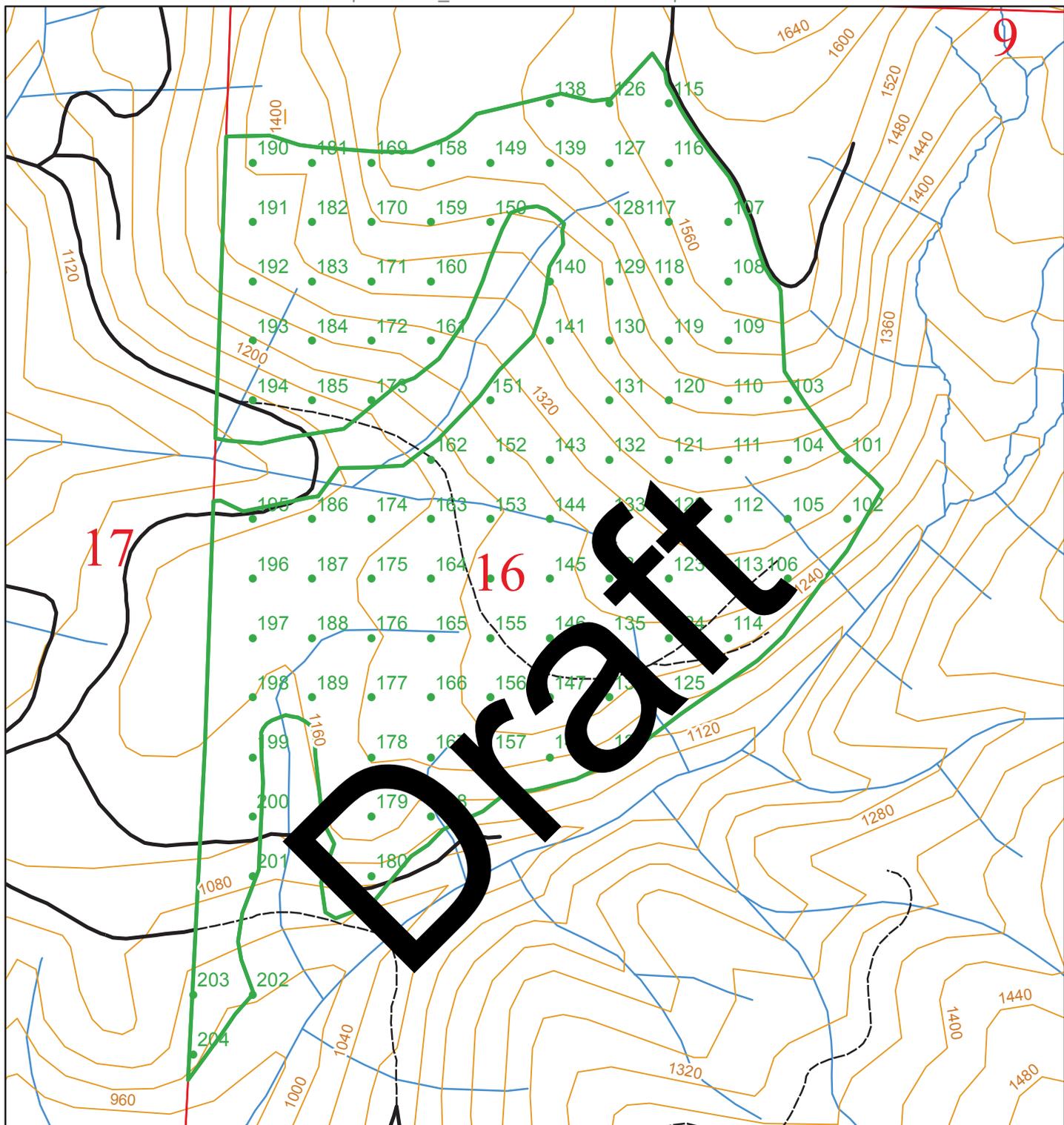
**Project TOUTLETY**  
**Acres 94.00**

**Page No 1**  
**Date: 7/28/2016**  
**Time 8:31:15AM**

Species	Total	Total	Total	Net Cubic Ft/		CF/	Total CCF		Total MBF	
	Trees	Logs	Tons	Tree	Log	LF	Gross	Net	Gross	Net
DOUG FIR	8,720	20,963	17,076	68.72	28.59	0.87	5,992	5,993	2,415	2,331
WHEMLOCK	1,901	3,350	3,236	53.21	30.19	0.89	1,011	1,011	399	387
WR CEDAR	81	174	224	117.58	54.77	1.96	96	96	32	30
COTWOOD	7	14	41	243.17	121.59	4.19	17	17	10	10
<b>Totals</b>	10,709	24,501	20,577	66.45	29.05	0.88	7,115	7,116	2,856	2,757

Wood Type	Total	Total	Total	Net Cubic Ft/		CF/	Total CCF		Total MBF	
Species	Trees	Logs	Tons	Tree	Log	LF	Gross	Net	Gross	Net
C	10,702	24,487	20,537	66.34	28.99	0.88	7,098	7,100	2,846	2,747
H	7	14	41	243.17	121.59	4.19	17	17	10	10
<b>Totals</b>	10,709	24,501	20,577	66.45	29.05	0.88	7,115	7,116	2,856	2,757

Draft



**FMU POLYGON AND SAMPLE POINT INFORMATION**

FMU_NM:	TOUTLE TYPHOON	Township:	T09R02E
FMU_ID:	72490	DNR Region:	PACIFIC CASC
Acres:	acres	Total Sample Points:	104
County:	COWLITZ	Spacing Between Points:	Width: 210 Height: 210
		Point Rotation Degrees:	0



Scale 1:6,000

**Legend**

- Sample Points
- FMU polys
- Public Land Survey Sections
- Contours 40-foot