

September 22, 2008

**DAISHOWA-MARUBENI INTERNATIONAL LTD.  
Peace River Pulp Division**

**FINAL HARVEST PLAN**

**INTRODUCTION**

This plan for Operating Area **DTLP160001-Area 3** issued under **DTA160001** covers the operating period from September 18, 2008 to April 30, 2013.

The proposed location of manufacture for deciduous volume harvested under the authority of this plan is the Daishowa-Marubeni International Ltd., Peace River Pulp Mill located near Peace River, Alberta.

Incidental coniferous timber harvested as a result of deciduous harvesting operations, will be directed to Manning Diversified Forest Products (MDFP).

Table 7 of Peace River Pulp Division's (PRPD) 2008 General Development Plan (GDP) summarizes incidental conifer volumes and destination.

This plan is not integrated with MDFP. Due to conflicting operational timelines MDFP and DMI have agreed to submit separate Final Harvest Plans.

Upon delivery to the respective mill sites all material will be weigh scaled.

**DECIDUOUS PRODUCTION (Quadrant)**

**CONIFEROUS PRODUCTION (FMA)**

Proposed production for this timber year:

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Deciduous Dominated Stands: **105,398 m<sup>3</sup>**  
Incidental Deciduous: **20,117 m<sup>3</sup>**

Coniferous Dominated Stands: **16,133 m<sup>3</sup>**  
Incidental Coniferous: **22,316 m<sup>3</sup>**

The deciduous production record is summarized in **Table 1** of PRPD's 2008 GDP.

## **WOOD OPERATIONS**

Deciduous operating conditions and merchantability standards are subject to the MDFP Timber Harvest Planning and Operating Ground Rules, Operating Conditions listed in Section 5 of PRPD's General Development Plan and any additional Operating conditions listed in the Alberta Sustainable Resource Development (ASRD) Letter of Approval.

The coniferous operations and merchantability standards will comply with the MDFP Timber Harvest Planning and Operating Ground Rules and any additional Operating conditions listed in the ASRD Letter of Approval.

## **ACCESS DEVELOPMENT**

Prior to company use of any existing road, pipeline, powerline, wellsite or other disposition held by a third party, the consent of the holder will be obtained.

Reclamation will be concurrent with completion of operations. The access development and reclamation will follow DMI's company's weed control plan.

## **Licences of Occupation:**

<b>Number</b>	<b>Held By</b>	<b>Road Class</b>	<b>Season of operation</b>
LOC 990750	CNRL	V	Frozen
LOC 990751	DMI	V	Frozen
LOC 990752	CNRL	V	Frozen
MSL 991082	CNRL		Frozen
LOC 000590	Corinthian Energy Corp	V	Frozen
MSL 000749	Corinthian Energy Corp		Frozen
PLA 072707	Nova Gas		Frozen
FRD 700016	Bison Tower Road	III	Frozen
LOC 2946	MDFP	V	Frozen
LOC2058	MDFP	V	Frozen
LOC 061441	Castle Rock Petroleum Ltd	V	Frozen
MSL 061844	Castle Rock Petroleum Ltd		Frozen

## **Road Construction**

### **Class V Roads**

In-block roads will be installed during harvest . The block roads will be reclaimed upon completion of hauling. Road numbers correspond to the block they lead to.

#### **Access Construction:**

<b>Road Number</b>	<b>Class</b>	<b>Frozen or Non-frozen</b>	<b>Tenure</b>	<b>Development Required</b>	<b>Reclamation</b>	<b>Company</b>
22	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
300	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
301	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
303	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
304	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
305	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
306	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
307	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
308	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
919	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
3007	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI
3008	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI

Road Number	Class	Frozen or Non-frozen	Tenure	Development Required	Reclamation	Company
3030	V	Frozen	1 Year	Blade line, Pre-log and stump access and block roads	Rollback and Piling as required	DMI

### **STREAM CROSSINGS**

The table below lists the crossings to be utilized during this timber year. This table does not list crossings that are located on routes held under LOC by DMI or other companies.

The crossings constructed with snow or log fills will be removed after operations are completed.

The crossings listed in this table do not require any approval from Department of Fisheries and Ocean Canada or the Water Management Division of Alberta Environment.

Crossing No.	Structure	Stream Class	Company
300	Log/Snow Fill	Intermittent	DMI
301	Log/Snow Fill	Intermittent	DMI
302	Log/Snow Fill	Intermittent	DMI
303	Log/Snow Fill	Intermittent	DMI

### **OPERATIONS**

Deciduous operating conditions and merchantability standards are subject to the MDFP Timber Harvest Planning and Operating Ground Rules, Operating Conditions listed in Section 5 of the PRPD General Development Plan and any additional Operating conditions listed in Alberta Sustainable Resource Development (ASRD) Letter of Approval.

High stumps will be utilized along common boundaries between conifer and deciduous blocks as a defining line on the ground for future work in these blocks.

Within DUA stands every effort will be made to preserve as much understory as possible with the intent of bringing these stands back to a DC standard.

Coniferous harvesting will be mechanized and completed with a feller-buncher, grapple skidder, and delimeter with tree-length haul to the sawmill.

Deciduous harvesting will utilize a Feller-buncher, grapple skidder and a bush chipper hauling chips to the pulp mill.

### **TRAPPER NOTIFICATION**

All Trappers will receive a copy of this Final AOP..

<b>Number</b>	<b>Holder</b>	<b>Contact Date</b>	<b>Method</b>
1755	Rodney Karpiak	September 2008	Registered Mail
1236	Kirk Vandemark	September 2008	Registered Mail

### **DESIGN CONSIDERATIONS**

The design considerations for this Annual Operating Plan have been taken from the Manning Diversified DFMP.

1. Implement a single-pass harvest system that utilizes natural stand boundaries as block boundaries to avoid potential fragmentation of the landbase.
2. Retain area within harvested areas as outlined in MDFP Detailed Forest Management Plan.
3. Design in-block roading that minimize road construction, reclamation requirements, and minimize access throughout the area after harvest.

### **CUTBLOCK SUMMARY**

The cutblock summary is listed below.

<b>Block Number</b>	<b>Total Area (ha)</b>	<b>GPS Retention Area (Ha)</b>	<b>GPS Retention (%)</b>	<b>DEC. VOL. (m<sup>3</sup>)</b>	<b>Inc. CON. VOL. (m<sup>3</sup>)</b>	<b>Inc. Dec</b>	<b>CON. VOL. (m<sup>3</sup>)</b>	<b>DUA STANDS</b>
22	24.9	2.6	9	5,470	4,040			
300	80.8	5.5	6	21,202	4,086			
301	3.2	0.0	0	927	168			
303	4.1	0.0	0	779	205			
304	2.6	0.0	0	735	133			
305	4.8	0.0	0	983	168			
306	186.2	7.8	4	46,781	8,847			
307	93.8	10.8	10	27,559	3,960			
308	24.6	0.0	0	961	709			
919	59.4	4.0	6			10,077	7,436	DUA
3007	11.7	0	0			2,396	1,768	DUA
3008	24.7	0	0			4,927	4,599	DUA

Block Number	Total Area (ha)	GPS Retention Area (Ha)	GPS Retention (%)	DEC. VOL. (m <sup>3</sup> )	Inc. CON. VOL. (m <sup>3</sup> )	Inc. Dec	CON. VOL. (m <sup>3</sup> )	DUA STANDS
3030	25.9	1.3	5			2,717	2,330	DUA
Total	527.6	32.0	6	105,398	22,316	20,117	16,133	

<b>BLOCK OPENING TABLE</b>	
Block Numbers	Total Area
306	186.2

**Detailed block plans will be submitted for blocks over 100 ha before operations commence.**

The planned variance for blocks in this plan from the spatial harvest sequence P16\_90003 for this Final Harvest Plan is 18%. Most of this variance is do to buffering of creeks. A variance Summary table will be submitted by October 3, 2008.

## RETENTION

Block Group Size Range	Distribution of Structure Retention										
	Block	Area	Laid Out Retention				Retention Prescription**				Retention Area
< 0.4 ha patches			0.4 to 1 ha	1.1 to 9.9 ha	10+ ha	Up to 100 Residual Trees	0.4 to 1.0 ha	1.1 to 9.9 ha	10+ ha		
< 5 ha	301	3.2									0
	303	4.1									0
	304	2.6									0
	305	4.8									0
5 to 9.9 ha											
10 to 59.9 ha	22	24.9			2.6			0.4			3.0
	308	24.6					0.4				0.4
	919	59.4			4.0				2.3		6.3
	3007	11.7					0.2				0.2
	3008	24.7						0.5			0.5
> 60 ha	300	80.8			5.5			0.5			1.8
									2.4		7.9

	306	186.2			7.8				14.9	22.7
	307	93.8			10.8			4.7		15.5
		515.9			32.0		1.8	9.4	14.9	58.31

\*\* These numbers may vary from actual. Actual numbers will be supplied in the as-built plans.

### **BLOCK SEQUENCING**

All blocks except 305 within this Final harvest plan are in a ‘Special Access’ area. During any extended periods (longer than 72 hrs) of suspended activity access will be blocked off.

Block sequence: 22, 3008, 919, 307, 306, 304, 306, 303, 300, 301, 308, 3030 and 30073030.

Block 305 is within an ungulate winter range and will be harvested as earlier as possible to finish all activities before the Jan 15 deadline.

PNT’s present in this area are:

PNT710839: Silviculture plot

PNT950022: Research plot ( outside deciduous blocks)

PNT020194: Non merchantable PSP ( Nivma Plot 0001/ Outside deciduous blocks)

There are no conditions present with any of these PNT’s that would prevent harvesting.

### **SLASH DISPOSAL**

- Slash disposal, of top and limb accumulation from tree length harvesting and access clearing debris, will be piling and burning.
- Debris disposal from chipping will be spread out along with the tops and limbs from the tree length operations, then piled and burned.
- Refer to section 5 2008 GDP for Debris disposal Guidelines to be followed.

*If chipping debris is to be left on site to be disposed of by burning, the Forest Protection Division “Debris Disposal Guidelines” criteria regarding pile size and spacing will be adhered to. DMI will inform ASRD of any debris disposal strategy changes.*

### **HISTORICAL RESOURCE CONSIDERATIONS**

This plan’s operations will comply with the Alberta Historical Resources Act

## UNDERSTORY MANAGEMENT

No understory was encountered during layout. Any understory encountered during operations within these blocks will be assessed and protection measures implemented as indicated in DMI's understory protection guidelines.

The inspecting Forest-Officer will be notified of any changes to the understory protection prescriptions.

## REFORESTATION PROGRAM

The Reforestation Table below outlines the proposed harvest system, silviculture system (strategy) and reforestation tactic for the blocks to be harvested.

An equal area of DUA stands will be brought back to a DC standard.

### **SILVICULTURE STRATEGIES**

Timber Year	DISPOSITION	Block	(ha) (0.1 ha)	FROZEN or NONFROZEN HARVEST	Proposed Harvest System	SILVICULTURE SYSTEM	REFORESTATION TACTIC	DUA STANDS
2008	DTLP160001- Area 3	22	24.9	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering	
2008	DTLP160001- Area 3	300	80.8	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering	
2008	DTLP160001- Area 3	301	3.2	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering	
2008	DTLP160001- Area 3	303	4.1	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering	
2008	DTLP160001- Area 3	304	2.6	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering	
2008	DTLP160001- Area 3	305	4.8	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering	
2008	DTLP160001- Area 3	306	186.2	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering	
2008	DTLP160001- Area 3	307	93.8	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering	
2008	DTLP160001- Area 3	308	24.6	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering	
2008	DTLP160001- Area 3	919	59.4	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering/planting	DUA
2008	DTLP160001- Area 3	3007		FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering/planting	DUA
2008	DTLP160001- Area 3	3008	24.7	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering/planting	DUA
2008	DTLP160001- Area 3	3030	25.9	FROZEN	Roadside Chipper	Clearcut	Leave For Natural Suckering/planting	DUA

The Table below outlines pre harvest strata polygons by the four cover types based upon the current Forest Inventory data.

**Pre-harvest Landbase**

<u>Timber Year</u>	<u>DISPOSITION</u>	<u>Block</u>	<u>Map Inventory Type (pre-harvest)-ha</u>				<u>Declaration</u>	
			<u>ha (0.1 ha)</u>	<u>C</u>	<u>CD</u>	<u>DC</u>		<u>D</u>
2008	DTLP160001-Area 3	22	24.9	0.0	0.0	24.9	0.0	DC
2008	DTLP160001-Area 3	300	80.8	1.4	0.0	4.5	75.0	D
2008	DTLP160001-Area 3	301	3.2	0.0	0.0	0.0	3.2	D
2008	DTLP160001-Area 3	303	4.1	0.0	0.0	0.0	4.1	D
2008	DTLP160001-Area 3	304	2.6	0.0	0.0	0.0	2.6	D
2008	DTLP160001-Area 3	305	4.8	0.0	0.0	0.0	4.8	D
2008	DTLP160001-Area 3	306	186.2	1.4	0.0	8.2	176.7	D
2008	DTLP160001-Area 3	307	93.8	0.0	0.0	0.0	93.8	D
2008	DTLP160001-Area 3	308	5.7	0.0	0.0	5.7	0.0	DC
2008	DTLP160001-Area 3	919	59.4	0.0	0.0	59.4	0.0	DC
2008	DTLP160001-Area 3	3007	11.7	0.0	0.0	11.7	0.0	DC
2008	DTLP160001-Area 3	3008	24.7	4.0	0.0	20.7	0.0	DC
2008	DTLP160001-Area 3	3030	25.9	1.4	0.0	24.5	0.0	DC
			527.65 15.9	8.2	0	159.6147 .9	360.2	

**ENDORSEMENT OF FHP BY FMA HOLDER**  
**ENDORSEMENT OF FHP DTLP160001:**

**Both companies have reviewed this FHP.**

FHP prepared by:	Reviewed By FMA Holder:
Name: Trina Tosh RPFT 070056	Name: Clarence Budal RPFT#040041
Position: Forest Resources Supervisor - Planning	Position: Woodlands Supervisor of Operations
Signature: _____	Signature: _____
Date: June 19,2008	Date: _____
Daishowa-Marubeni International Ltd. Peace River Pulp Division Postal Bag 6500 Peace River, AB T8S 1V5 (780) 624-7415	Manning Diversified Forest Products Box 370 Manning, AB T0H 2M0

## Final Harvest Plan Checklist

<b>Area:</b>	Peace River	<b>Disposition Number:</b>	DTLP160001-Area 3
<b>Company:</b>	Daishowa Marubeni International Ltd	<b>Date Disposition Issued:</b>	May 1, 2004
<b>Season of Harvest:</b>	Frozen ground	<b>Date Disposition Expires:</b>	April 30, 2024
<b>CTQ/DTA Number:</b>	DTAP160001	<b>Submission Date:</b>	September 22, 2008
<b>APPROVAL ITEM</b>			
Validated by RFP		Yes	
Deletions and deferrals < 20% of SHS		To be submitted at a later date	
Area does not exceed 100% SHS		Yes	
Compartment Assessment Required		No	
Adheres to all ground rules		Yes	
Plan signed by imbedded tenure holders		In review	
<b>Administrative Considerations</b>			
<b>Copies of FHP to:</b>			
	-Area Planning Forester	Yes	
	-Forest Officer	Yes	
	-Fish & Wildlife	Yes	
	-Other (MDFP)	Yes	
	FHP consistent with approved higher plans	Yes	
	Required Disposition has been issued and is active	Yes	

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<b>Season of Harvest:</b>	Frozen ground	<b>Date Disposition Expires:</b>	April 30, 2024
<b>CTQ/DTA Number:</b>	DTAP160001	<b>Submission Date:</b>	September 22, 2008
<b>FHP complete and legible</b>			
	-maps	Yes	
	-block tables	Yes	
	-reforestation program	Yes	
	-detailed blocks plans where requested	N/A	
	-contingency plans	N/A	
	Copies required as per FMA	Yes	
<b>Utilization</b>			
	Variance reported and summarized for FHP	To be submitted at a later date	
	Utilization standard matches license document	Yes	
	Deviations from utilization standards are identified and justified.	N/A	
<b>Ground Rule Deviations</b>			
	All blocks containing ground rule deviations have been identified. Justification provided for all ground rule deviations.	N/A	
<b>Integration with other Users</b>			
	If plan is not integrated justification is provided.	Yes	
	Recipient of incidental volumes and chargeability is identified.	Yes	
	Trappers have been identified and contacted	Yes	
	Trapper cabins, trails and other improvements are identified and integrated into plan.	Yes	
	Recreational groups have been identified and contacted where issues have been observed.	N/A	
	GTA completed and grazing disposition holders have been contacted	N/A	
	Historical sites have been identified and integrated into the plan.	Historical review done no issues.	
	Any issues raised by other users or the	No concerns	

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<b>Season of Harvest:</b>	Frozen ground	<b>Date Disposition Expires:</b>	April 30, 2024
<b>CTQ/DTA Number:</b>	DTAP160001	<b>Submission Date:</b>	September 22, 2008
	public has been documented	raised	
	Potential land use conflicts have been documented and mitigated.	No conflicts to date	
<b>Access Management</b>			
	Access management, including control measures have been described and identified.	Yes	
<b>Sensitive Sites</b>			
	Aesthetic/recreation concerns addressed	N/A	
	Water source areas identified and potential impacts mitigated	N/A	
	Permafrost/peat land areas impacted by operations are identified and justified	N/A	
<b>Road Design</b>			
	Location, design and width of corridors have been identified	N/A	
	List of watercourse crossings including crossing type, water classification, map identifier, ect	Yes	
	Crossings not exempt under the Water act are identified	N/A	
	Any proposed permanent access in Caribou zones, Grizzly Bear zones, or ungulate winter range have been identified and justified.	N/A	
	Existing access and LOC's integrated into the road plan are identified	Yes	
	Road reclamation and abandonment plan included	Yes	
	Removal and reclamation of old crossings identified	N/A	
<b>Wildlife</b>			
	Wildlife zones within the planning area are identified and addressed	Yes	
	Harvest areas with timing restrictions identified. Block sequence may be required.	Yes	

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<b>CTQ/DTA Number:</b>	DTAP160001	<b>Submission Date:</b>	September 22, 2008
	All known sensitive wildlife sites have been addressed.	N/A	
<b>Insect , Disease and Fire</b>			
	Firesmart tactics are identified and described	N/A	
	Known insect and disease infestations are identified and described	N/A	
	Mitigation of infestation, disease or endangered timber described	N/A	
	Debris disposal methods identified	Yes	
<b>Silviculture</b>			
	Watercourse crossings maintained for silviculture purposes are identified	N/A	
	Pre-harvest strata declaration is identified.	Yes	