

Certification No.: 2007 - 0092

PLAN TYPE: 1: Clearing

2: Reforestation 3:

This Forest Practices Plan authorises forest practices and operations to which it refers on the land specified within the period specified within the Plan, provided the operations are carried out in accordance with the conditions of the Plan.

This authority is given for the purpose of the Forest Practices Act 1985. Operations under the Plan should ensure that they comply with all relevant laws including the conditions of licences, permits and other authorities issued under other laws.

Coupe name:	Comstock	Location:	Zeehan	PTR Present or Proposed:	No
Tenure:	State Forest	IBRA Region:	West & Southwest	PTR No(s):	N/A
District:	Murchison	Municipality:	Wst Coast	UPI No(s):	N/A
Map Sheet:	Heemskirk	Grid Reference:	357640 5360400	UPI No(s):	

Applicant:	Paul rainbow OBO Zeehan Zinc	Address:	Level 1 199 Macquarie St Hobart	Ph:	6216 2700
Landowner:	Forestry Tasmania	Address:	Melville St Hobart	Ph:	6233 8011
Principal Processor:	N/A	Contractor:			

Current RFA Forest Community and/or Land Use, Operation Prescriptions and Proposed Land Use Areas (ha)						
Forest Community	Presc	Ha	Presc	Ha	Presc	Ha
DRY - scNIT N	CF CLR	19				19
WET -NIT0 NT	CF CLR	6				6
M-	CF CLR	3				3
Net operational area (ha) = 27						
Total Area to be Reforested (ha) 0		Total Area to be Harvested (ha) 27		Total Area of Operation (ha) 27		

Parent Rock 1:	CIV	Soil Desc.1:	YMC	Stoniness 1:	High
Parent Rock 2:		Soil Desc.2:		Stoniness 2:	
Erodibility Class 1:	Med	2:		Majority Slope (deg)	8
				Maximum Altitude (m):	280

Site specific prescription(s) beyond those normally in the Forest Practices Code are included in this Forest Practices Plan for:
 Flora: ☐ Fauna: ☐ Geomorphology: ☐ Soil/Water: ☐ Cultural Heritage: ☐ Landscape: ☐

Minimum class of equipment to be used:	Ground Based Dry:	C1	Wet:	C1	Cable:	N/A
Length of road construction or upgrade:	Class of Road:	1:	2:	3:	4:	
Expected Timber Vols	Sawlog (cu.m/t):	Nil	Other Products:			
	Pulpwood (cu.m/t):	Nil	Volume:			

Quarry Name:	N/A	Maximum Expected Annual Volume to be quarried (cu.m):	
Number:	Depth of Overburden (m):	Maximum Expected Annual Volume to be Crushed (cu.m):	
Person Responsible (Quarry Manager):		Blasting:	

This FPP includes authority and prescriptions for harvesting manfernns and Dicksonia antarctica: ☒ Not Applicable

Estimated number of manfernns to be harvested:			
Tree Fern Harvester:	Address:	Phone:	

Is the operation within a town water catchment?	No	Water Intake Code No:		Distance to Intake (km):	
River:		Town:		Nett Area of Crown Reseve =	N/A
Within a landscape zone in a Municipal Planning?	No	New or major upgrade of existing outlet onto Municipal or Main Roads	No		
Has local Government been consulted as required by FPC?	N/A	Known domestic Water Supply Intake < 2km?	No		

Period to which plan applies:	From:		To:31/12/2015	
	17/8/2007			
Estimated Completion Date:	Roading: N/A		Harvesting:30/12/2008	Reforestation Establishment: 30/12/2009
Plan prepared by: Brett Miller				
Plan certified by: Brett Miller		Date Certified:	17/8/2007	Date Notice of Intent sent: 8/8/2007
Emergency Meeting Point:	304	Location:	Jcn Heemskirk Rd and Trial Harbour Rd	

This FPP may be made available to members of the public and other government departments. Information in FPP's for private property is supplied to Private Forests Tasmania for the collection of their PFT levy and tracking reforestation.

Initials of parties to the Plan: Landowner.....
 Date.....

Applicant
 Date.....

FPO.....
 Date.....

COUPE NAME

Zeekun Mine
(Block) (Coupe No.) (Letter)

FPP NUMBER

BRM0370
(FPP Planning Initials and Number)

FPP Preparation Meeting

Plan Prepared by: BRETT MILLER

(Signature)	Peer Review Date: <u>1/1</u>
Planning (Dean Tuson)	
Sales (Chris Gray)	
Works (Nigel Foss)	
Roads & Fire (Dean Sheehan)	

(Signature)	Planning (Dean Tuson)	2	7	2007
	Sales (Chris Gray)	2	7	2007
	Works (Nigel Foss)	6	7	2007
	Roads & Fire (Dean Sheehan)	2	2	07
	District Forest Manager	16	8	07

Final Sign Off

Have Notice of Intent forms been sent (if no notify SFO Planning) ☐

Boundary Survey Is the coupe adjacent to Private Property/Formal Reserve? ☐ If Yes notify Mark Pearce for boundary location

Fire Issues associated with this plan have been discussed ☐

Soil Surveys Has Future Use been agreed? ☐

Fenced Areas Is Cartage planned through a fenced coupe? ☐

If yes, discuss with Native Forests (Heath Ralston)

Has Seed Evaluation Form been completed? ☐

Key Issues:

Insert into E4. (a) Stocking Standards

1. Site preparation: Rip compacted soils sites and spread available topsoil.

2. Collect on site seed of original forest species ^{plan} Sow in a manner like to ensure regeneration success. Include both overstorey and understorey species (eg spot sow eucalypts, pre-treat and sow acacias, spread ka tree heads)

3. Control any invasive weeds such as pasture grasses or gorse to reduce competition to the slower growing native species.

Is roading required for this coupe? Yes / No

If Yes, get latest road location from Mark Pearce or Jody Cartwright.

Is the Coupe in the Current Three Year Plan? Yes / No

If No, notify Stuart Swanson

Are any stream location alterations required Yes / No

If Yes Pass onto Dean Tuson

Is a Post Harvest Archaeological survey required? Yes / No

Please forward map to Jody Cartwright

Certification Due Date

Has coupe boundary been marked as per attached map

yes / no



FOREST PRACTICES PLAN

A GENERAL

- Forest Practices shall be carried out in accordance with the principles and approaches specified in the Forest Practices Code (Forest Practices Board 2000). All Forest Practices Code (FPC) mandatory statements ("will" statements) apply, whether or not they are referred to below. The specific requirements set out below are also mandatory.
- A copy of this Forest Practices Plan should be present on site during the construction phase.
- All operations are to be carried out in a safe manner in accordance with the requirements of the Workplace Health and Safety Act 1995.
- All operations will be carried out in a manner to minimise soil disturbance and turbidity in streams and in water in the dam being constructed.
- The removal of timber felled to waste and logging residues will be the responsibility of the dam proponents.
- Certain dam construction activities will occur within the area covered by this Plan while the plan remains current. These activities are dealt with/covered in by the document - "Waste Management Plan, December 2003"
- If forestry operations finish prior to the expiration of this Forest Practices Plan a Variation should be sought to end the Plan as soon as practical after the end of forestry operations.


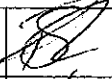

B. BUILDING ACCESS TO THE FOREST (ROADING)

Refer also to Part D. Conservation of Natural and Cultural Values and Part F. Management of Fuels, Oils, Rubbish and Emissions

- The drainage systems of existing access roads and tracks will be kept clear and functional at all times during the construction phase of the proposed road diversion, polishing pond construction and waste rock dumping area.

Person or organisation assuming primary responsibility for management of forest practices under this section of the plan.

Zeehan Zinc Limited

Initials of parties to the Plan	Landowner		Applicant		FPO	
	Date	16/8/07	Date	10/8/7	Date	19/8/07

**C. HARVESTING OF THE TIMBER**

Refer also to Part D. Conservation of Natural and Cultural Values and Part F. Management of Fuels, Oils, Rubbish and Emissions

- Operation Summary - Harvest prescription for settling pond area is **clearfall**. The equipment to be used is class C1. Harvesting of timber will only occur within the harvest boundary as indicated on the attached FPP Map and as marked on the ground in **Blue** tape by Zeehan Zinc Ptd Ltd.

Person or organisation assuming primary responsibility for management of forest practices under this section of the plan.

Zeehan Zinc Limited

C.1. LANDINGSLanding Placement

- Landings will not be needed as no commercial timber is being extracted within the FPP area.

Landing Management

- N/A

C.2. SNIG TRACKS

- N/A

C.3. FELLING (Refer also to Part D of this FPP)

- The aim of the FPP is to clear a section of native vegetation for the construction of a polishing pond/tailings dam and the diversion of the Trial Harbour Road.
- It will be necessary to collect seed from the area to be cleared during the harvesting operation. The seed collection will adhere to the procedures outlined in "Safety Procedures for Seed Collectors (September 1997)".

Person nominated to identify and mark harvest/clearing boundaries

Person/Organisation nominated: Zeehan Zinc Limited

C.4. LOGGING EQUIPMENT

- The minimum standard of equipment to be used in this operation is FPC Class C1 equipment.

C.5. STREAMSIDE MANAGEMENT

- The acid mine drainage coming out of the adit under the existing mine workings is to be diverted into the Tailings Dam/polishing pond. This will eliminate the acid water going down the Comstock Creek catchment. Comstock Creek will be diverted above the adit into a small tributary of Comstock Creek that enters below the Tailings Dam. Refer to attached maps and the 'Waste Management Plan - December 2003' for further information on streamside management.
- The proposed operation is to divert Comstock Creek into a settling pond. The upper catchment of the Creek is being diverted into a tributary of Comstock Creek so that no acid drainage enters the lower catchment.

Initials of parties to the Plan	Landowner		Applicant		FPO	
	Date	15/8/09	Date	10/8/7	Date	17/8/07



- The acid water is coming from the mining area (open cut mine, adits and shafts). The State government built a drainage adit in 1936 which places acid water directly into Comstock Creek.
- The water quality issue is being addressed by the diversion of the polluted Comstock Creek into a settling pond. See attached maps for the diversion location.
- All other streams within the FPP area will not be affected by the current land clearing and dam construction activities.

Person nominated to identify and mark streamside boundaries
Person/Organisation nominated: Zeehan Zinc Limited

C.6. RESTORATION *(by the nominated works contractor)*

- Operation Summary - All restoration activity will be carried out progressively.

(a) LANDINGS

- N/A

(b) SNIG TRACKS

- Temporary track restoration will be carried out progressively in accordance with the FPC for **moderate** erodibility soils.

(c) ROADING

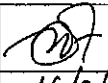
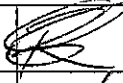

- Drainage systems including table drains, culverts and trafficable grips will be kept functional at all times during the operation and will be left clear and functioning at the completion of the operation.
- Any temporary tracks used during the construction of the tailings dam/polishing pond area will be restored using the principles set out in section C3.2 of the Forest Practices Code (2000).

d) VACATING THE COUPE

- The contractor will inform Zeehan Zinc when restoration works are complete to enable a final inspection to be carried out, prior to removing all machinery from the harvest area.

D. CONSERVATION OF NATURAL AND CULTURAL VALUES
Prescriptions to manage flora, fauna, geomorphic, cultural heritage, landscape and soil and water values
D.1. FLORA

- All machinery will be washed down as per the "Tasmanian Washdown Guidelines" prior to entering the site and leaving the coupe.
- All earthmoving machinery (e.g. dozers, excavators, loaders) and forest harvesting machinery (e.g. skidders, forwarders and excavators) must be washed down prior to entering the FPP area.
- Washdown should be done either at the point of departure from the previous operation, or at a designated washdown facility with a well-drained hard surface.

Initials of parties to the Plan	Landowner		Applicant		FPO	
	Date	16/8/07	Date	10/8/7	Date	17/8/07



D.2. FAUNA

- **Grey Goshawk** - Roads and quarries should be located to avoid potential grey goshawk habitat wherever possible.
- **Wedge-tailed eagle** - Although a nest has not been found during a pre-logging search this is not a guarantee that no nests occur in the harvest area or immediately adjacent to the area. Therefore, please instruct contractors to notify the FPB Zoologist via the Forest Practices Officer in charge of the operation if any nests are discovered during the operation. **If a nest is discovered during the breeding season (August - January inclusive)** immediately cease all forestry activity within 500 m of the nest or within 1 km if in line of sight of the nest. The nest site will be inspected by the FPB Zoologist and/or DPIWE specialist and advice on appropriate further action will be provided as soon as possible. **If a nest is discovered outside the breeding season (February - July inclusive)** cease all forestry activities within 500 m of the nest. The nest site will be inspected by the FPB Zoologist and/or DPIWE specialist and advice on appropriate further action will be provided as soon as possible. At this time of year in most situations the operation can resume outside the agreed 10 ha reserve boundary.
- **Spotted-tailed Quoll** - Areas within the operation area which have a natural high diversity of refuge sites such as fallen logs, dense understorey, rocks and wombat burrows will be captured by the areas of native vegetation surrounding the development area (eg., streamside reserves, wildlife habitat strips, retained native vegetation and clumps).

D.4. GEOSCIENCE

- No special prescriptions apply

D.4. CULTURAL HERITAGE

- If any Aboriginal cultural material is unearthed during the operation, work should cease immediately and the Tasmanian Aboriginal Land and Sea Council or the Aboriginal Heritage Office contacted via the Forest Practices Authority senior archaeologist.

D.5. LANDSCAPE MANAGEMENT

- No special prescriptions apply.

D.6. SOIL AND WATER

- Soil and water issues are addressed in the document - "*Waste Management Plan, December 2003*" (Copy of document available from Zeehan Zinc)).

E. ESTABLISHING AND MAINTAINING FORESTS

Refer also to Part D. Conservation of Natural and Cultural Values and Part F. Management of Fuels, Oils, Rubbish and Emissions

Person or organisation assuming primary responsibility for management of forest practices under this section of the plan

Zeehan Zinc Limited

E.1. ESTABLISHMENT

Coupe: Comstock - Zeehan

FPP No : BRM0370

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Initials of parties to the Plan	Landowner		Applicant		FPO	
	Date	16/8/07	Date	10/8/07	Date	17/8/07

**(a) SITE PREPARATION (for burning)**

1. Rip compacted sites and spread available topsoil
2. Collect on site seed of original forest species. This must be planted or sown in a manner to ensure regeneration success. Include both understorey and over storey species. (e.g. spot sow Eucalypts, pre treat and sow Acacias, spread Tea Tree branches a tree crowns.
3. Control any invasive weeds such as pasture grasses or gorse to reduce competition to the slower growing native species.
4. If further information is required, go to the web site shown below to seek advice regarding purchase of suitable seed:

<http://www.forestrytas.com.au/forestrytas/seedcentre/catalog/default.php>

Zeehan Zinc is responsible for re forestation of the site.

(b) BURNING

- N/A

(c) SOWING TREATMENT

- See Section E.1. (a) above.

E.2. RESTORATION *(by the reforestation contractor)***(a) ROADING**

- N/A

(b) FIRE BREAKS

- N/A

(c) VACATING THE COUPE

N/A

E.3. PROTECTION OF GROWING STOCK**(a) GENERAL**

- Is there a fire management plan for this area?

☐

Yes

☒

No

(check box or bold appropriate option)

(b) FIRE PROTECTION**FIRE FIGHTING EQUIPMENT**

Harvesting and clearing contractors, during the Fire Permit Period, will have the following fire fighting equipment on site:

Conventional harvesting & clearing operations

- A tank of at least 300 litres capacity full of water and designed to be transported within the timber harvesting area.
- A self-priming centrifugal pump producing a pressure of at least 400 KPA at shut off, with fittings and 60 metres of hose.
- 2 rakehoes.

Coupe: Comstock - Zeehan

FPP No : BRM0370

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Initials of parties to the Plan	Landowner		Applicant		FPO	
	Date	16/8/07	Date	10/8/07	Date	27/8/07



- Either a knapsack or 1 charged air-water fire extinguisher with 9 litres of foam/water to be carried on each snigging, felling, and processing machine.
- Regular maintenance of mufflers, spark arresters, running gear and removal of debris from manifolds and base plates
- 1 set of Fire Weather Observer's instruments and log book.

FIRE WEATHER MONITORING

Conventional harvesting & clearing operations

Fire weather monitoring will be undertaken at 10.00, 12.00 & 14.00 hours every day during the fire permit period by a qualified observer, unless it is actually raining & hourly from 10.00 hours on days that a Severe Weather Warning has been issued.

Operation Closure

Harvesting & clearing operations will cease when:

Conventional harvesting & clearing operations (non Wet forest types)

- The Fire Danger Index (FDI) is 24 or on a day when a Fire Weather Warning has been issued, the measured relative humidity falls to 30% or below. Operations may recommence when weather conditions have eased and have fallen below the stated closure criteria.

(c) BROWSING

- N/A.

E.4. ASSESSMENT OF REFORESTATION

(a) STOCKING STANDARDS

Stocking standards are to be evaluated by a Forest Practices Officer approximately 18 months after time of sowing seed.

Zeehan Zinc is responsible for ensuring that a Forest Practices Officer undertakes and inspection of the site.

F. MANAGEMENT OF FUELS, OILS, RUBBISH AND EMISSIONS

(a) MANAGEMENT OF FUEL AND LUBRICANTS

- Any fuel and oil spills will be contained as soon as possible and clean up procedures will be promptly implemented where necessary.
- Fuel and oil spills that cause or threaten to cause environmental harm will be reported to Zeehan Zinc Limited as soon as possible.
- Site for equipment refuelling will be located at least forty (40) metres from any water course to minimise the adverse effects on water quality in the event of any spillage and will be surrounded by an earthen bund capable of containing a fuel spill.

(b) RUBBISH

- All rubbish, oil and other litter from the operation will be contained within an appropriate receptacle and will be removed upon completion of the operation to an approved municipal tip site.

Initials of parties to the Plan	Landowner		Applicant		FPO	
	Date	16/8/07	Date	10/8/7	Date	17/8/07

**MAP TO SHOW (separate maps may be required for different operations, such as harvesting and reforestation)**

1. Contours, scale and north direction.
2. Boundary of FPP
3. Property boundaries
4. Operational boundaries :
 - Harvesting boundaries
 - Reforestation treatments
 - Reserves
 - Special treatment areas.
5. Sites of natural and cultural significance.
6. FPP Number.
7. Streamside management including marked boundaries of streamside reserves and class.
8. Bridges and fords.
9. Stream crossings
10. Snig track direction
11. Landings
12. Existing and proposed roads and proposed major upgrading including borrow pits.
13. Section boundaries including wet/dry logging areas, cable/conventional logging, reforestation treatments such as burning, sowing, cultivating, planting and areas to be reserved.
14. Cultivation and windrow direction.
15. Firebreaks
16. Additional information as applicable.

Scale: 1:10 000 preferred
 1:25 000 minimum
 Key symbols to be used.

Initials of parties to the Plan	Landowner		Applicant		FPO	
	Date	16/8/07	Date	10/8/7	Date	17/8/07

**ACKNOWLEDGEMENT OF PERSONS/ORGANISATIONS IN RELATION TO FOREST PRACTICES PLAN
No BRM0370****1. Landowners consent**

I am the owner of the land or the authorised agent of the owner of the land referred to in the attached Forest Practices Plan No. BRM0370 and have given my approval for the plan to be submitted to the Forest Practices Authority for certification under section 19 of the *Forest Practices Act 1985*. I understand that, under section 25C of the *Private Forests Act 1994*, if I am a private landowner, I may be required to pay a levy to Private Forests Tasmania based on the nett area of forest operations under the plan.

Name M. Farrow

Company or other entity Forestry Tasmania

Address P.O. Box 88

..... Burnie Tas 7320

Phone

Signature [Signature]

Date 16/8/07

2. Acknowledgement of applicant

I submit the attached Forest Practices Plan No. BRM0370 to the Forest Practices Authority and apply for its certification. I acknowledge that I understand the provisions of the plan, and that I am responsible for ensuring that the plan is complied with unless otherwise stated in the plan. I understand that I am responsible for the lodgment of interim compliance reports with the Forest Practices Authority within 30 days of the completion of each discrete operational phase* under the plan; and further, for the lodgment of a final compliance report with the Forest Practices Authority within 30 days of the expiry of the plan. I understand that under sections 18(4A) and 18(4B) of the Forest Practices Act 1985, I must pay a prescribed application fee at a time, and in a manner, determined by the Authority.

Name Paul Rainbow

Company or other entity Zeehan Zinc Limited

Address Level 1 199 Macquarie St

..... Hobart 7000

Phone 03 6216 2700

Signature [Signature]

Date 10/08/2007

*Discrete operational phases under this plan include (tick box against each forest practice proposed):

- ☐ Road construction ☒ Assessment of reforestation
- ☐ Tree fern harvesting ☒ Tree clearing
- ☐ Timber harvesting ☐ Quarry operation
- ☒ Forest establishment (including reforestation, i.e. restocking land with trees)

Initials of parties to the Plan	Landowner	<u>[Signature]</u>	Applicant	<u>[Signature]</u>	FPO	<u>[Signature]</u>
	Date	<u>16/8/07</u>	Date	<u>10/8/7</u>	Date	<u>17/8/07</u>

**Forest Practices Officer (Planning)**

Certified by Brett Miller

Signature

Date

17/8/07

Name

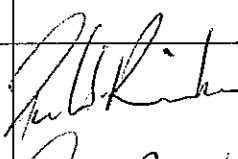
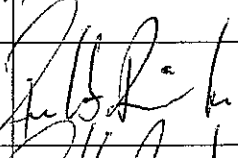
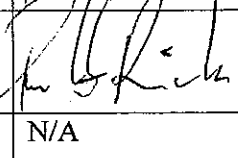
Brett Miller

Pursuant to a delegation from the Forest Practices Authority under section 43 of the Forest Practices Act 1985.

Initials of parties to the Plan	Landowner		Applicant		FPO	
	Date	16/8/07	Date	10/8/07	Date	17/8/07

Acknowledgement of persons or organisations with primary responsibility for management of forest practices*

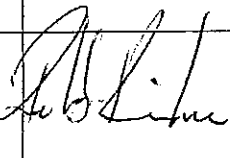
Each of the undersigned acknowledges that as an individual/authorised representative of a company or other entity, they are/that entity is the person responsible for the forest practice to be conducted under Forest Practices Plan No. BRM0370 that appears to the immediate left of that signature. It is understood that this responsibility does not include the day to day oversight of contractor employees, which is the responsibility of the individual contractors.

Forest practice	Signature	Date	Name	Company or other entity	Address
Road construction	N/A				
Tree fern harvesting	N/A				
Timber harvesting <i>clearing contractor if applicable</i>					
Forest establishment <i>Zeehan Zinc</i>		10/8/07	PAUL S RAINBOW	ZEEHAN ZINC LTD	21, 199 MACQUARIE ST.
Assessment of reforestation <i>Zeehan Zinc</i>		10/8/07	PAUL S RAINBOW	ZEEHAN ZINC LTD	HOBART.
Tree clearing <i>clearing contractor</i>		10/8/07	PAUL S RAINBOW	ZEEHAN ZINC LTD	IAS 7000.
Quarry operation	N/A				

* This form does not need to be completed if the applicant to the FPP is also the person responsible (as above) for all forest practices to be undertaken.

Acknowledgement of persons or organisations with specific responsibilities under Forest Practices Plan No. BRM0370

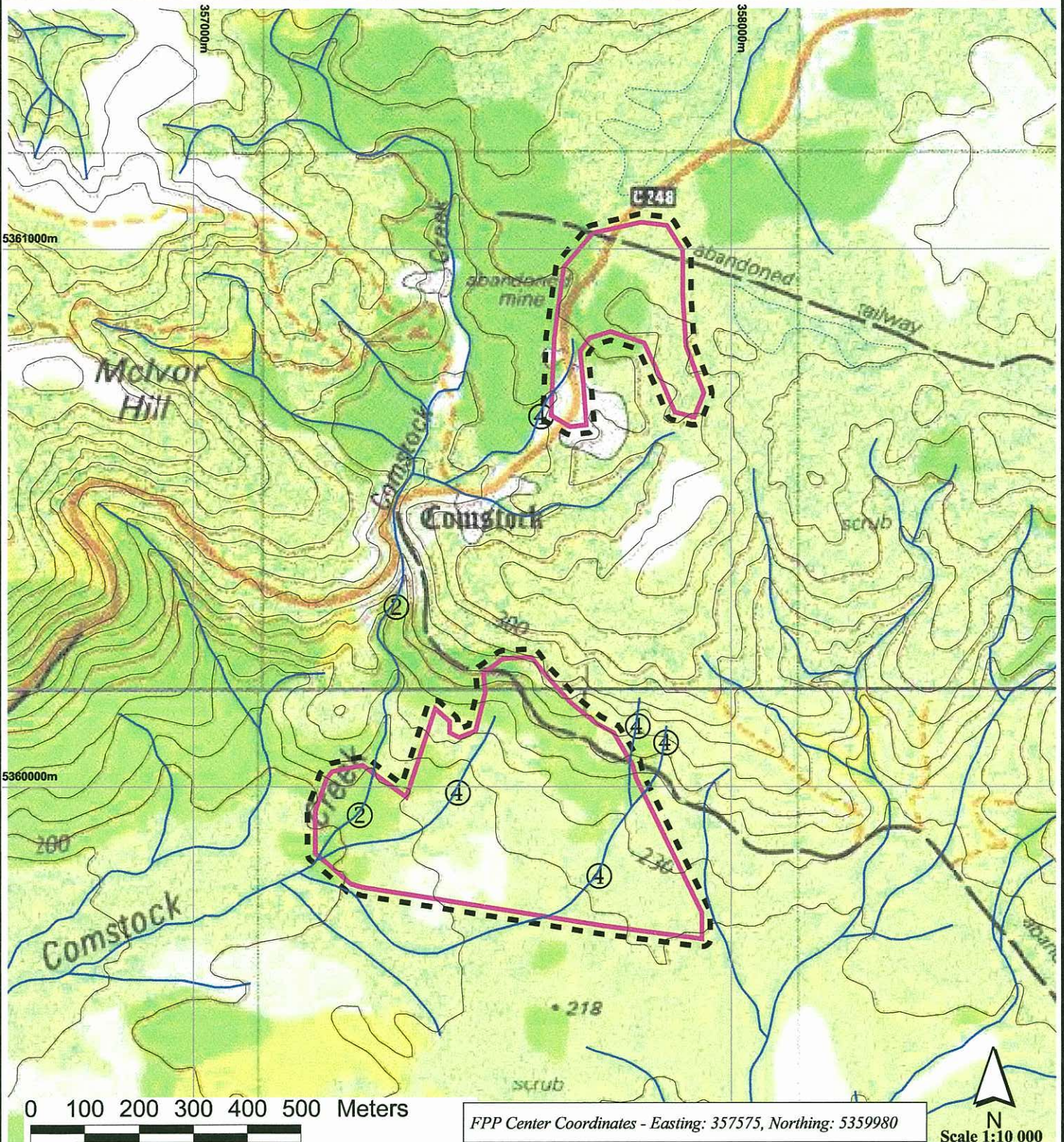
As an individual/authorised representative of a company or other entity, I acknowledge that I accept/that entity accepts responsibility for undertaking the activity specified in Forest Practices Plan No. BRM0370 that appears to the immediate left of my signature.

Activity specified in Forest Practices Plan	Signature	Date	Name	Company or other entity	Address
Marking of proposed road locations	N/A				
Marking of harvesting and reserve boundaries		10/8/07	PAUL S RAINBOW	Zeehan Zinc	41, 194 MACQUARIE ST HOBART
Marking of reforestation boundaries	N/A				
Organising an Aboriginal archaeological survey	N/A				

* This form does not need to be completed if the applicant to the FPP accepts the responsibility for undertaking the activities listed.

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Coupe: Zeehan Zinc



BRM0370

Mapsheet: Trial (3435)

Key:

Forest Practices Plan Boundary

Operational Boundaries:

Harvest Boundary

Stream Features:

Class 2 Stream

Class 4 Stream

Coupe: Zeehan Zinc

Location: Comstock

EMP: 304

Harvest Area: 27.7 ha



GDA94 Data: 28/07/2007

FPO Initials: _____