

## **Crown Pastoral Land Tenure Review**

**Lease name : Mt OLYMPUS**

**Lease number : PC 050**

### **Due Diligence Report (including Status Report) - Part 4**

This report and attachments results from a pre-Tenure Review assessment of the pastoral lease for the purpose of confirming land available for Tenure Review and any issues, rights or obligations attaching to it. The information is gathered from files and other sources available to the LINZ contractor.

Part of the information relates to research on the status of the land, resulting in a Status Report that is signed off by a LINZ approving officer. The remainder of the information is not analysed for relevancy or possible action until required, and LINZ does not guarantee its accuracy or completeness as presented.

The report attached is released under the Official Information Act 1982.

**July 09**

# Certificate of Alteration under Section 113, Land Act, 1948

AS AMENDED BY SECTION 12 OF THE LAND AMENDMENT ACT 1950

IN THE MATTER of the Land Transfer Act, 1952, and the Land Act, 1948,

and

IN THE MATTER of ~~lease~~ [licence] from His Majesty the ~~King~~ to ROBERT WALLACE NIGHTMAN of Mount Hutt, Farmer.

of Section Run 102, Block Winterslow, Ashburton County ~~Survey District~~, registered as Pastoral Licence 554, Vol. ~~\_\_\_\_\_~~, folio ~~\_\_\_\_\_~~, Canterbury Land Registry.



THIS is to certify that on the First day of January, 1954, the area of land included in the above-mentioned ~~lease~~ [licence] was altered by the incorporation therein ~~[exclusion therefrom]~~ of the land described in the Schedule hereto and shown red in outline on the plan endorsed hereon.

Consequent on the alteration in area aforesaid, the rental value and annual rent ~~[purchase price and half-yearly instalments]~~ were altered on the same date to the following amounts:—  
remain unchanged.

Rental value: £ 5,000 . . . . . Annual rent: £ 250 . . . . .

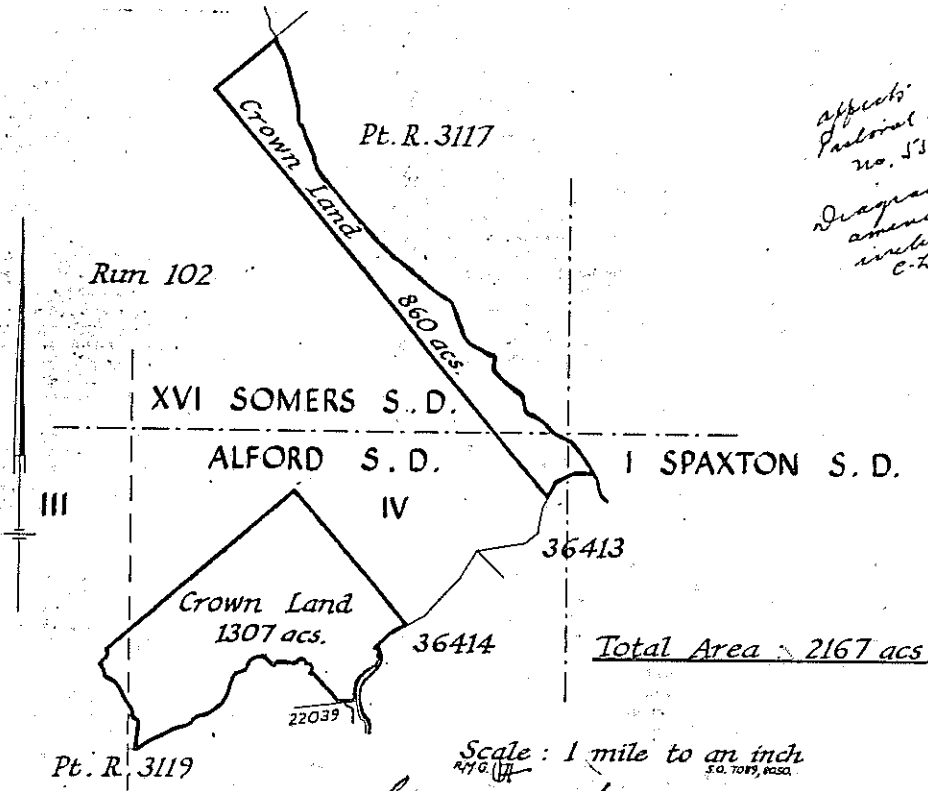
~~Purchase price (exclusive of amounts already paid): £ \_\_\_\_\_~~

~~Half-yearly instalment (term: \_\_\_\_\_ years): £ \_\_\_\_\_~~

### SCHEDULE

(Description and plan of land incorporated or excluded)

Crown land being formerly Part Reserves 3117 and 3119 situated in Block XVI Somers Survey District, Blocks III and IV Alford Survey District, and Block I Spaxton Survey District containing two thousand one hundred and sixty-seven (2,167) acres, more or less.



As witness my hand, this 20th day of January 1954

*[Signature]*  
Assistant Commissioner of Crown Lands.

**APPENDIX B – LAND STATUS REPORT**  
**(Certified Correct by Chief Surveyor)**

# **LAND STATUS REPORT**

**for  
Tenure Review**

## **RYTON STATION (MT OLYMPUS)**

**Prepared by Don McGregor, McGregor Property Services Limited  
for and on behalf of Q.V. Valuations**

**March 2002**

**Q.V. VALUATIONS  
CHRISTCHURCH OFFICE**

**Project Number : QVV 366**

This report has been prepared on the instruction of Land Information New Zealand in terms of **Contract No : 50272 (as yet undated)** and is undertaken for the purposes of the Crown Pastoral Land Act 1998.

<b>LAND STATUS REPORT for Ryton Station (Mt Olympus) Tenure</b>	LIPS Ref: 12755
<b>Review</b>	
<b>Property</b>   1   of   1	

<b>Land District</b>	Canterbury
<b>Legal Description</b>	Run 179, situated in Blocks X XI XIV and XV, Harper and II III VI and VII, Coleridge Survey Districts.
<b>Area</b>	5058.5705 hectares.
<b>Status</b>	Crown land subject to the Land Act 1948.
<b>Instrument of title / lease</b>	Computer Interest Register (Pastoral Lease) CB529/90 pursuant to Section 66 and registered under Section 83 of the Land Act 1948 as varied by Memorandum of Renewal 749840.1.
<b>Encumbrances</b>	Subject to: 1) Part IVA of the Conservation Act 1987, upon disposition. 2) 677166.1 Land Improvement Agreement pursuant to Section 30A Soil Conservation and Rivers Control Act 1941.
<b>Statute</b>	Land Act 1948 and Crown Pastoral Land Act 1998.

<b>Data Correct as at</b>	5 March 2002.
<b>[Certification Attached]</b>	Yes

<b>Prepared by</b>	Don McGregor
<b>Crown Accredited Supplier</b>	McGregor Property Services Limited, Christchurch for and on behalf of Q.V. Valuations

**Certification:**

Pursuant to section 11(1)(f) of the Survey Act 1986 and acting under delegated authority of the Surveyor – General pursuant to section 11(2) of that act, I hereby certify that the land described above is Crown Land subject to the Land Act 1948.

*R. Moulton*


Date: 28/3/2002

R Moulton, Chief Surveyor (Canterbury Land District)  
Land Information New Zealand, Christchurch

## CERTIFICATION

Report to the Chief Surveyor, Christchurch, for certification of Status Investigation for RYTON STATION (MT OLYMPUS) Pastoral Lease Tenure Review.

1. I, Donald McGregor of McGregor Property Services Limited, acting for and on behalf of QV Valuations, certify that the status report enclosed for certification is in order for signature.
2. In giving this certification I, Donald McGregor of McGregor Property Services Limited, acting for and on behalf of Q.V. Valuations, undertake that the status report has been completed in compliance with all relevant policy instructions and in particular, OSG Standard 1999/05 and the Regulatory Chiefs' Land Status Investigations Guidelines 1999/01.



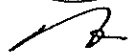
D McGregor  
McGregor Property Services Limited  
Accredited Supplier  
5 March 2002



COMPUTER INTEREST REGISTER  
UNDER LAND TRANSFER ACT 1952



Historical Search Copy

  
R.W. Muir  
Registrar-General  
of Land

Identifier **CB529/90**  
Land Registration District **Canterbury**  
Date Registered 22 May 1958 01:36 pm

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Type	Lease under s83 Land Act 1948	Term	thirty three years commencing on the first day of July 1954 and renewed for further 33 years commencing on 1.7.1987
Area	5058.5705 hectares more or less		

Legal Description Run 179

Original Proprietors  
Ryton Station Limited

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**Interests**

504624.1 Variation of the terms of the within Lease - 28.8.1984 at 9.02 am  
677166.1 Land Improvement Agreement pursuant to Section 30A Soil Conservation and Rivers Control Act 1941 - 27.4.1987 at 11.18 am  
749840.1 Renewal of within Lease for 33 years commencing on 1.7.1987 and variation of terms hereof - 5.7.1988 at 11.13 am  
988162.2 Mortgage to Trust Bank Canterbury Limited - 13.4.1992 at 11.25 am

A Sheets

Patrol Run Licence No. 476  
issued as a Renewal of Licence No. 476  
registered in Vol. 3 fol.

NEW ZEALAND  
CANTERBURY  
LAND DISTRICT

Not Registered under Land Transfer Act—Registered under Section 83.  
Land Act, 1948



Registrar-General, Vol. 529 fol. 90  
22nd day of May  
1952 at 1.26 o'clock p.m.  
C. J. G. (Principal Land Registrar)

Pastoral Lease of Pastoral Land under the Land Act, 1948  
No. P.50

This Deed, made the first day of March, one thousand nine hundred and fifty-four between HER MAJESTY THE QUEEN (who, with his heirs and successors, is hereinafter referred to as "the Lessor"), of the one part, and

- IAN RODRICK COLERIDGE MURCHISON, of Lake Coleridge, Sheepfarmer (2/15ths),
- RONALD SINCLAIR MURCHISON of Christchurch, Solicitor (2/15ths)
- JAMES DEANS of Homobush, farmer and ROBERT JOHN SINCLAIR MURCHISON of Blenheim, Clerk (jointly inter on 2/15ths)
- JOHN NOLAN MURCHISON of Lake Coleridge, Sheepfarmer, (3/20ths)
- MICHAEL RODRICK MURCHISON of Lake Coleridge, Sheepfarmer (3/20ths)
- NEIL SINCLAIR MURCHISON of Christchurch, Solicitor (1/10th)
- WALTER ROBERT MCCALLUM of Christchurch, Public Accountant and CHRISTINA McLEOD GUTHRIE of Christchurch, Widow (jointly inter on 3/15ths)

of (who, with his heirs, administrators, and permitted assigns, is hereinafter referred to as "the Lessee") of the other part, that, in consideration of the rent hereinafter specified, and of the covenants, conditions, and agreements herein contained or implied and on the part of the Lessee to be paid, observed, and performed, the Lessor doth hereby divide and lease unto the Lessee that piece or parcel of land containing by admeasurement twelve thousand five hundred (12,500) or thereabouts acres and more or less, a little more or less, situated in the Land District of Canterbury and being Run 179, situated in Blocks X, XI, XIV, XV Harper Survey District and Blocks II, III, VI, VII Coleridge Survey District

(hereinafter referred to as "the said land"), as the same is more particularly delineated in the plan drawn hereon and therein coloured red in outline; together with the rights, easements, and appurtenances thereto belonging. TO HOLD the said premises intended to be hereby demised unto the Lessee for the term of thirty-three years commencing on the first day of July one thousand nine hundred and fifty-four together with the period between the date of this lease and the aforesaid first day of July Yielding and paying therefor during the said term unto the Department of Lands and Survey at the Principal Land Office for the said Land District of Canterbury the clear annual rent of forty-pounds (£ 40.-.-.-) payable without demand by equal half-yearly payments in advance on the 1st day of January and the 1st day of July in each and every year during the said term. And also paying in respect of the improvements specified in the Schedule hereto the sum of (£ ) by a deposit of (£ ) (the receipt of which sum is hereby acknowledged) and thereafter by ( ) half-yearly instalments of pounds shillings and pence (£ : : ) on the 1st day of January and 1st day of July in each year in the same manner as aforesaid.

AND the Lessee doth hereby covenant with the Lessor as follows, that is to say:-

1. THAT the Lessee will fully and punctually pay the rent hereinafter specified at the times and in the manner hereinbefore agreed in that behalf; and also will pay and discharge all rates, taxes, assessments, and outgoings whatsoever that now are or hereafter may be assessed, levied, or payable in respect of the said land or any part thereof during the said term.
2. THAT the Lessee will within one year after the date of this lease take up his residence on the said land, and thereafter throughout the term of the lease will reside continuously on the said land.
3. THAT the Lessee will hold and use the said land as his own and hereof will not transfer, assign, sublet, mortgage, charge, or part with possession of the said land or any part thereof without the previous approval of the Land Settlement Board: Provided that such approval will not be necessary in the case of a mortgage to the Crown or to a Department of State.
4. THAT the Lessee will at all times fence the said land diligently and in a husbandlike manner according to the rules of good husbandry and will not in any way commit waste.
5. THAT the Lessee will throughout the term of his lease to the satisfaction of the Commissioner of Crown Lands for the Land District of (hereinafter referred to as the Commissioner) cut and trim all fire fences and hedges, clear and keep clear the said land of all noxious weeds, and will comply strictly with the provisions of the Noxious Weeds Act, 1928.
6. THAT the Lessee will keep the said land free from wild animals, rabbits, and other vermin, and generally comply with the provisions of the Rabbit Nuisance Act, 1928.
7. THAT the Lessee will clean and clear from wash and keep open all creeks, drains, ditches, and watercourses upon the said land, including any drains or ditches which may be constructed by the Commissioner after the commencement of the term of the lease; and will not at any time without the prior consent of the Commissioner alter the channel of any such creek or watercourse or stop or divert in water flowing therein.
8. THAT the Lessee will at all times during the said term repair and maintain and keep in good substantial repair, order, and condition all improvements belonging to the Crown (including improvements hereinafter specified) now or hereafter erected on the said land, and will not, without the prior written consent of the Commissioner, pull down or remove them or any part of them.
9. THAT the Lessee will insure all buildings belonging to the Crown (including improvements hereinafter specified) now or hereafter erected on the said land their full insurable value in the name of the Commissioner in some insurance office approved by the Commissioner and will pay all premiums falling due under every such insurance policy and deposit the same to the Commissioner every month policy and, not later than the first day of the month in which any such premium becomes payable, the receipt for that premium.
10. THAT the Lessee will not throughout the term of the lease without the prior consent of the Commissioner, which consent may be given on such terms and conditions (including the payment of royalty) as the Commissioner thinks fit, fell, sell, or remove any timber, tree, or bush growing, standing, or lying on the said land, and that he will throughout the term of the lease prevent the destruction of any such timber, tree, or bush unless the Commissioner otherwise approves: Provided that the consent of the Commissioner as aforesaid shall not be necessary where any such timber or tree is required for any agricultural, pastoral, household, roadmaking, or building purpose on the said land and where the timber or tree has been planted by the Lessee.
11. THAT the Lessee shall not, except for the purpose of complying with any of the provisions of the Noxious Weeds Act, 1928, burn any rubbish, scrub, fern, or grass on the said land, nor permit any rubbish, scrub, fern, or grass on the said land to be burned, unless in either case he shall have obtained the prior consent in writing of the Commissioner, which consent may be given subject to such terms and conditions as the Commissioner may deem necessary.
12. THAT officers and employees of the Department of Internal Affairs shall at all times have a right of ingress, egress, and regress over the land comprised in this lease for the purpose of determining whether such land or any adjoining land is infested with deer, wild goats, wild pigs, opossums, or other animals which the said Department is charged with the duty of exterminating or controlling, or for the purpose of destroying any such animals: Provided that such officers and employees in the performance of the said duties shall at all times avoid undue disturbance of the Lessee's stock.

AND it is hereby agreed and declared by and between the Lessor and the Lessee:-

- (a) THAT the Lessee shall have the exclusive right of pasturage over the said land, but shall have no right to the soil.
- (b) THAT the Lessor shall have no right, title, or claim whatsoever to any minerals (within the meaning of the Land Act, 1948) on or under the surface of the soil of the said land, and all such minerals are reserved to Her Majesty together with a free right of way over the said land in favour of the Commissioner or of any person authorised by him and of all persons lawfully engaged in the working, extraction, or removal of any mineral on or under the surface of the said land or any adjacent land of the Crown, subject to the payment to the Lessee of compensation for all damage done to improvements on the said land belonging to the Lessee in the working, extraction, or removal of any such minerals: Provided that there shall be no right of way over, or right to work, extract, or remove any mineral from, any part of the said land which is for the time being under crop or used or situated within the limits of a yard, garden, orchard, vineyard, nursery, or plantation, or within 100 feet of any building, dwelling-house, or other structure: Provided also that the Lessee may, with the prior consent in writing of the Commissioner, which consent may be given subject to such conditions as the Commissioner thinks fit, use any such minerals for any agricultural, pastoral, household, roadmaking, or building purpose on the said land, but not otherwise.
- (c) THAT upon the expiration by effluxion of time of the term hereby granted and thereafter at the expiration of each succeeding term to be granted to the Lessee the outgoing Lessee shall have a right to obtain, in accordance with the provisions of section 66 (3) of the Land Act, 1948, a new lease of the land hereby leased at a rent to be determined in the manner prescribed by Part VIII of the said Act for a term of thirty-three years computed from the expiration of the term hereby granted and subject to the same covenants and provisions as this lease, including the present provision for the removal thereof and all provisions ancillary or in relation thereto.



529/90

- (4) THAT the Lessee shall have no right of acquiring the fee-simple of the said land.
- (5) THAT the Lessee may, with the prior consent in writing of the Commissioner given subject to such conditions as the Commissioner may deem necessary,
  - (a) Cultivate any portion of the said land for the purpose of growing winter food for the stock depastured thereon;
  - (b) Deep such area of the said land as is sufficient for the use of himself and family and his employees;
  - (c) Plough and sow in grass any portion of the said land;
  - (d) Clear any portion of the said land by felling and burning back or scrub and sow the land so cleared in grass;
  - (e) Suffer silt to grass any portion of the said land;
 Provided that the Lessee shall, on the termination of the lease, have the whole of the area that has been ploughed or cultivated properly laid down in good permanent clovers and grasses to the satisfaction of the Commissioner.
- (6) THAT the Lessee shall exercise due care in stocking the said land and shall not overstock; and that the purpose of this clause is to ensure that the carrying capacity of the said land is not exceeded and that the stock depastured thereon is not overstocked and that the carrying capacity of the said land is not exceeded and that the stock depastured thereon is not overstocked.
- (7) THAT if the Lessee shall leave New Zealand or abandon the said land or if he cannot be found or if he shall neglect or fail or refuse to comply with the covenants and conditions herein expressed or implied to the satisfaction of the Land Settlement Board or the Commissioner, as the case may be, or make default for not less than two months in the payment of rent, water levy, or other payments due to the Lessee, then the Land Settlement Board may, subject to the provisions of section 189 of the Land Act, 1948, declare this lease to be forfeit, and that without discharging or releasing the Lessee from liability for rent due or accruing due or for any prior breach of any covenant or condition of the lease.
- (8) THAT these covenants are intended to take effect as a tenancy lease under the Land Act, 1948, and the provisions of the said Act and of the regulations made thereunder applicable to such lease shall be binding in all respects upon the parties herein in the same manner as if such provisions had been fully set out herein.

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(1) That the lessee shall be deemed not to have failed to use due care in stocking or to have overstocked so long as the stock depastured on the said land does not exceed 1100 sheep (being an increase of ten per cent on the carrying capacity on which rent hereinafter reserved). But the Commissioner may, by notice in writing, permit the lessee to depasture thereon any greater number of sheep if he deems it advisable or expedient to do so. Any permission so granted shall be subject to revocation or amendment by the Commissioner at any time and in particular in the event of a transfer. Any variation consented to by the Commissioner shall be binding on the lessee.

In witness whereof the Commissioner of Crown Lands for the Land District of Canterbury, on behalf of the Lessor, hath hereunto set his hand, and these presents have also been executed by the said Lessee.

Signed by the said Commissioner, on behalf of the Lessor, in the presence of:

Witness: [Signature]  
 Occupation: Islands Office Clerk  
 Address: [Address]

[Signature]  
 Commissioner of Crown Lands

Signed by the said IAN RODERICK COLERIDGE MURCHISON in the presence of:

Witness: [Signature]  
 Occupation: Block & Chiswick Road  
 Address: [Address]

[Signature]  
 Lessee

Signed by the said DONALD SINCLAIR MURCHISON in the presence of:

Witness: [Signature]  
 Occupation: Block & Chiswick Road  
 Address: [Address]

[Signature]

Signed by the said JAMES DEANE in the presence of:

Witness: [Signature]  
 Occupation: Block & Chiswick Road  
 Address: [Address]

[Signature]

Signed by the said ROBERT JOHN SINCLAIR MURCHISON in the presence of:

Witness: [Signature]  
 Occupation: Block & Chiswick Road  
 Address: [Address]

[Signature]

Signed by the said JOHN EGAN MURCHISON in the presence of:

Witness: [Signature]  
 Occupation: Block & Chiswick Road  
 Address: [Address]

[Signature]

Signed by the said MICHAEL RODERICK MURCHISON in the presence of:

Witness: [Signature]  
 Occupation: Block & Chiswick Road  
 Address: [Address]

[Signature]



529/90

Transfer 496772 the above proprietors to Jan Roderick Colledge, Margherita of Ashburton District, Partners as to 3/8 share, Christina MacLennan, Guthrie of Ashburton, Widow and Walter Robert MacLennan of Ashburton, Public Accountant jointly and severally as to 5/8 share, John Nolan MacLennan of Lake Colledge Shepparton as to a 3/8 share and Michael Roderick MacLennan of Lake Colledge Shepparton as to a 3/8 share as tenants in common produced 2/13/1959 at 11.55am

Transfer 536342/1 to Ryton Station Limited at Christchurch - 19.3.1985 at 10.59am.

Transmission 632721 of the interest of Jan Roderick Colledge MacLennan to John Nolan MacLennan and Michael Roderick MacLennan both of Lake Colledge Sheep Farmers as Executors - E. dated 21.8.1964 at 10.17am

Mortgage 560769/1 to Bank of New Zealand - 12.8.1985 at 9.45am

Transmission 634672 of the joint share of Walter Robert MacLennan and Christina MacLennan Guthrie to the said Christina MacLennan Guthrie as Survivor entered 15/9/1964 at 2.41pm

No. 677166/1 Land Improvement Agreement under Section 30A of the Soil Conservation and Rivers Control Act 1941 - 27.4.1987 at 11.18am

Transfer 634673 of her share Christina MacLennan Guthrie to the said Christina MacLennan Guthrie, Saw Robert Gardiner Guthrie of Dunedin Shipping Managers and Jack Brabazon Morris of Dunedin entered 15/9/1964 at 2.46pm

No. 749840/1 Renewal of within Lease for 33 years commencing on 1.7.1987 and variation of terms hereof - 5.7.1988 at 11.13am

Transfer 657498 of the share acquired by Transmission 632721 John Nolan MacLennan and Michael Roderick MacLennan to the said John Nolan MacLennan and Michael Roderick MacLennan as tenants in common in equal shares - 27.9.85 at 10.20am

Mortgage 988162/2 to Trust Bank Canterbury Limited - 13.4.1992 at 11.25am

Transmission 739598 of the share of Christina MacLennan Guthrie to Jan Robert MacLennan Guthrie and Jack Brabazon Morris both above named as Survivors - 20.5.1968 at 10.10am

Transmission 739598 of the share of Christina MacLennan Guthrie to the said Jan Robert MacLennan Guthrie and Jack Brabazon Morris both above named as Survivors - 20/4/1968 at 9.45am

Transfer 736125 of the share of Jan Robert Gardiner Guthrie and Jack Brabazon Morris to the said Jan Robert Gardiner Guthrie and Neil Sinclair MacLennan of Ashburton, Solicitor. 15.9.1969 at 1.40pm

THIS REPRODUCTION (ON A REDUCED SCALE) CERTIFIED TO BE A TRUE COPY OF THE ORIGINAL REGISTER FOR THE PURPOSES OF SECTION 215A LAND TRANSFER ACT 1952. J. Simpson A.L.R.

LAND & DEEDS  
Noted: Christchurch  
Date: 22 MAY 1985  
Time: 1.36pm  
Folio: 119  
Registered No: 1912

No. 504624/1 Variation of the terms of the within lease - 28.8.1984 at 9.02 a.m.

J. Simpson  
for A.L.R.



MEMORANDUM OF RENEWAL

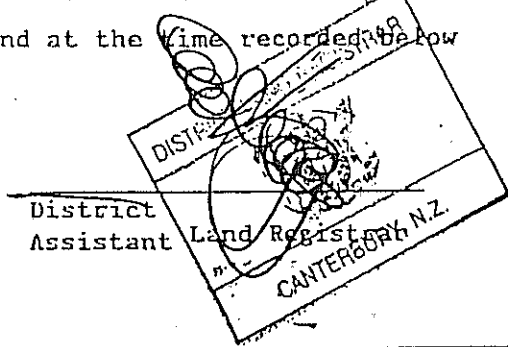
HER MAJESTY THE QUEEN

Lessor

RYTON STATION LIMITED

Lessee

Particulars entered in the Register on  
date and at the time recorded below



11.13 05.JUL 88 C 749840  
 PARTICULARS ENTERED IN REGISTER  
 LAND REGISTRY CANTERBURY  
 ASST. LAND REGISTRAR .....

IN THE MATTER of the Land Transfer Act 1952  
and the Land Act 1948

AND

IN THE MATTER of Pastoral Lease P50  
registered in Volume 529, folio 90  
Canterbury Land Registry, from  
HER MAJESTY THE QUEEN to RYTON  
STATION LIMITED at Christchurch

Pursuant to Section 170 of the Land Act 1948 the term of the abovementioned lease registered in Volume 529, folio 90, Canterbury Land Registry, is renewed for a term of 33 years commencing on the 1st day of July 1987. The Covenant to pay rent and the Rental Value contained in the lease is hereby varied by deleting the said covenant and substituting the following:

Yielding and paying therefor for the first 11 years of the said term unto Land Corporation Limited at Christchurch the annual rent of \$207.00 calculated on a Rental Value of \$13,800.00 payable without demand by equal half-yearly payments in advance on the 1st day of January and the 1st day of July in each and every year during the said period of 11 years, and for the next two successive periods of 11 years of the said term a rent determined in respect of each of those periods in the manner provided in Section 132A of the Land Act 1948.

Save as hereby expressly varied all the covenants conditions and restrictions contained or implied in the said Memorandum of Lease shall remain in full force.

IN WITNESS WHEREOF the parties have hereunto subscribed their name this  
13<sup>th</sup> day of JUNE 1988

SIGNED for and on behalf of ) LAND CORPORATION LIMITED by its  
HER MAJESTY THE QUEEN pursuant ) Attorney  
to a Deed lodged with the District )  
Land Registrar as No. 686366/1 by )  
LAND CORPORATION LIMITED by its )  
Attorney TARITA ALISON FAIFAI )  
GILMOUR in the presence of: )

Gilmour

Witness: Diane Fitzherald Jones  
Occupation: PROPERTY OFFICER  
Address: LANDCORP CHRISTCHURCH

THE COMMON SEAL of )  
RYTON STATION LIMITED )  
was hereunto affixed in the )  
presence of: )

[Signature]  
Director  
[Signature]  
Secretary



Correct for the purposes of the Land Transfer Act.  
[Signature]  
Solicitor for the Lessee



Landcorp

LAND CORPORATION LIMITED

P 50

4 July 1988

The District Land Registrar  
Lands and Deeds Registry  
Private Bag  
CHRISTCHURCH

Dear Sir,

This dealing is not prohibited by the judgement of the Court of Appeal dated 29 June 1987 in the case for judicial review made by the New Zealand Maori Council and Graham Stanley Latimer.

Yours faithfully

*T Gilmour*

Mrs T Gilmour  
Titles Officer

Christchurch Branch

Equicorp House  
76 Cashel Street  
Private Bag  
Christchurch  
New Zealand  
Telephone (03) 799-787  
Fax (03) 798-440

CERTIFICATE OF NON-REVOCATION OF POWER OF ATTORNEY

ATA ALISON FAIFAI GILMOUR of Christchurch, Property Officer

BY CERTIFY -

HAT by Deed dated the 12th day of June 1987 copies of which are deposited in the Land Registry Offices at -

AUCKLAND (North Auckland Registry) and there numbered B678573  
BLENHEIM (Marlborough Registry) and there numbered 136439  
CHRISTCHURCH (Canterbury Registry) and there numbered 686366/2  
DUNEDIN (Otago Registry) and there numbered 681189/1  
GISBORNE (Poverty Bay Registry) and there numbered 167089.2  
HAMILTON (South Auckland Registry) and there numbered H734777  
HOKITIKA (Westland Registry) and there numbered 076748  
INVERCARGILL (Southland Registry) and there numbered 141782  
NAPIER (Hawkes Bay Registry) and there numbered 478751.2  
NELSON (Nelson Registry) and there numbered 269962.1  
NEW PLYMOUTH (Taranaki Registry) and there numbered 341775  
WELLINGTON (Wellington Registry) and there numbered 860782.2

LAND CORPORATION LIMITED at Wellington carrying on the business of land management appointed me its Attorney on the terms and subject to the conditions set out in the said Deed.

2. THAT at the date hereof I was Property Officer of the said Corporation.
3. THAT at the date hereof I have not received any notice or information of the revocation of that appointment by the winding up or dissolution of the said LAND CORPORATION LIMITED or otherwise.

SIGNED at Christchurch  
this 13 day of June  
1988

)  
)  
)

Agilmour

DATED 20th January 1987

BETWEEN THE NORTH CANTERBURY  
CATCHMENT BOARD

A N D RYTON STATION LIMITED


LAND IMPROVEMENT AGREEMENT

Particulars entered in the Register at this date and at the time recorded below

DISTRICT LAND REGISTRY  
CANTERBURY N.Z.  
Assistant Land Registrar  
of the District of Canterbury

11.18 27.APR87 C 677166/1  
PARTICULARS ENTERED IN REGISTER  
LAND REGISTRY CANTERBURY  
ASST LAND REGISTRAR

27/1/87  
affels bare 55261/3

MWD\_0021013  


CHAMPION TAYLOR & CO  
SOLICITORS  
CHRISTCHURCH



LAND IMPROVEMENT AGREEMENT  
APPLICATION FOR REGISTRATION

TO: The District Land Registrar  
CANTERBURY REGISTRY.

I, BRIAN JAMES MAIRS, Secretary to the NORTH CANTERBURY CATCHMENT BOARD, HEREBY CERTIFY that the within is a true duplicate of a Land Improvement Agreement affecting an estate in fee simple/of leasehold in the land described in the Schedule SUBJECT to the encumbrances therein set out

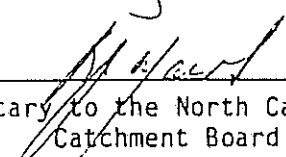
SCHEDULE

AREA (hectares)	LOT AND DEPOSITED PLAN (or other sufficient description where land not described in terms of complete lots on a deposited plan)	ENCUMBRANCES	TITLE REFERENCE (and lease or licence number where applicable)	
			REGISTER	FOLIO
5058.5705	Run 179, Blocks X, XI, XIV, XV Harper, II, III, VI, VII Coleridge S.D.'s	Mortgage 560769/1	529	90 (Lease P50)
9087.6455	Part R1578	As above	(27F)	(63) (Lease 555261/3)
193.6142	R.S. 35294, Block XVI Wilberforce, XIII Harper, IV Oakden, I Coleridge S.D.'s	As above	620	51

of which RYTON STATION LIMITED, a duly incorporated company having its registered office at Christchurch is registered as proprietor AND I HEREBY APPLY to have said Agreement registered against the said land pursuant to Section 30A of the Soil Conservation and Rivers Control Act 1941. I FURTHER CERTIFY that the Agreement is one that may be registered against the land under Section 30A of the Soil Conservation and Rivers Control Act 1941.

DATED at Christchurch this

20<sup>th</sup> day of January 19 87

  
 Secretary to the North Canterbury  
Catchment Board

NORTH CANTERBURY CATCHMENT BOARD

LAND IMPROVEMENT DEED

(Under Section 30(3) of the Soil Conservation and Rivers Control Act 1941)

THIS DEED made the 20th day of January 1987, BETWEEN the NORTH CANTERBURY CATCHMENT BOARD duly constituted under the Soil Conservation and Rivers Control Act 1941 (hereinafter called "the Board") of the one part and RYTON STATION LIMITED a duly incorporated company having its registered office at Christchurch (hereinafter called "the Company") of the other part.

20/07 0759H CPT 3 S.I.H.  
NEW ZEALAND STAMP DUTY CHU

WHEREAS:

1. THE Company is the registered proprietor of the land hereinafter called "the said land") described in paragraph 2.2 of the Soil and Water Conservation Plan attached hereto (hereinafter called "the Soil and Water Conservation Plan").
2. IT was and is considered necessary in the interests of soil and water conservation to destock that part of the said land edged and cross-hatched in blue on the plan attached hereto (hereinafter called "the first retired land").
3. BY an agreement dated the 18th day of November 1965 certain grants (hereinafter called "the said grants") amounting to \$28,580 were made by the Board to the predecessor in title of the Company in respect of works to achieve destocking of the first retired land.
4. IT is considered necessary in the interests of soil and water conservation to destock that part of the said land edged and cross-hatched in black on the plan attached hereto (hereinafter called "the second retired land").

NOW THIS DEED WITNESSETH THAT:

1. SIN consideration of the said grants and agreements hereinafter contained on the part of the Board the Company agrees that from the date of execution of this agreement, until the expiry of the period referred to in Clause 2 hereof it will:
  - (a) Continue to refrain from grazing stock on the first retired land;
  - (b) Continue to refrain from carrying out any other uses of the first retired land that may be detrimental to the interests of soil and water conservation such interests to be assessed by the Board on the basis of accepted and prudent soil and water conservation practice in the district.

2. IN consideration of the agreements hereinafter contained on the part of the Board the Company agrees that during the period of ninety-nine (99) years from the completion of the proposed works referred to in the Soil and Water Conservation Plan it will:

- (a) refrain from grazing stock on the second retired land;
- (b) refrain from carrying out any other uses of the second retired land that may be detrimental to the interests of soil and water conservation such interests to be assessed by the Board on the basis of accepted and prudent soil and water conservation practice in the district.

3. FURTHER in consideration of the agreements hereinafter contained on the part of the Board the Company agrees that from the date of execution of this agreement and until the expiry of the period of ninety-nine (99) years referred to in Clause 2 hereof it will operate manage and control and carry out such management practices methods programmes and systems of work on the said land as shall be necessary for the purpose of achieving the objectives of the Soil and Water Conservation Plan.

4. IN consideration of the agreements and covenants by the Company hereinbefore and hereinafter appearing and conditional upon the carrying out of the proposed works referred to in the Soil and Water Conservation Plan and the due observance performance and fulfilment of the conditions hereinafter appearing the Board will make certain grants to the Company in respect of the proposed works to be carried out by the Company at the rates and in the manner in which grants are provided for in the Soil and Water Conservation Plan and the Soil and Water Conservation Plan shall be subject to the following conditions:

- (a) The Company will during the period of five (5) years from the date of execution of this agreement carry out the proposed works referred to in the Soil and Water Conservation Plan in accordance with the Soil and Water Conservation Plan and the programme there set forth and will during such period so manage the land as to enable the proposed works referred to in the Soil and Water Conservation Plan to be carried out in such a period.
- (b) The Soil and Water Conservation Plan and these conditions may be modified only by agreement in writing between the Board and the Company.
- (c) As and when any part of the work qualifying for a grant is completed the Company may notify the Board and the Company shall in any case upon completion of the programme of work for any one year as set out in the Soil and Water Conservation Plan notify the Board of such completion and the Board may inspect the same to satisfy itself that the work has been done as required by the Soil and Water Conservation Plan. The Company will in any case supply the Board with such

- further information relating to such work and provide such vouchers or receipts as the Board may require. If the work shall have been done in accordance with the Soil and Water Conservation Plan and the expenditures there referred to have been made by the Company the Board will pay the grant therefor to the Company.
- (d) The Company will from the commencement by it of the proposed works referred to in the Soil and Water Conservation Plan and for a period of thirty (30) years from the completion of all such works referred to in the Soil and Water Conservation Plan keep and maintain all such works at its own cost and expense to the satisfaction of the Board PROVIDED THAT the retirement fences referred to in paragraph 3.2 and Appendix 2 of the Soil and Water Conservation Plan (hereinafter called "the retirement fences") shall not be subject to the provisions of this condition but rather shall be subject to the provisions of Clause 5 hereof.
- (e) Where any of the proposed works referred to in the Soil and Water Conservation Plan consist of tree planting the Company agrees that it will not during the period referred to in paragraph (d) of these conditions cut down or top such trees without the written consent of the Board provided that the trimming of lateral branches may be carried out without consent.
- (f) Where any of the proposed works referred to in the Soil and Water Conservation Plan consist of tree planting for wind erosion control the Company will carry out the following practices on the land protected by such tree planting works:
- (i) the line of cultivation shall be across the direction of the principal eroding wind;
  - (ii) surface cultivation shall be practised to a suitable depth using such types of implement as chisel ploughs, discs and cultivators;
  - (iii) the soil shall not be worked to too fine a condition of tilth but a sufficient roughness of surface shall be retained to reduce the hazard of wind erosion;
  - (iv) after a crop or pasture is sown the soil shall be left with an uneven surface by the use of light harrows as the final operation;
  - (v) crop residue shall be returned to the soil and not burned;
  - (vi) The soil shall be bared or vegetation for a minimum of time between crops or the renewal of pastures;
  - (vii) The rotation of crops and pastures shall be designed to maintain and improve the soil structure.
- (g) The Company will during the term of this agreement:
- (i) When required by the Board supply to the Board all information and data necessary to enable the Board to compile grazing production and other records as a means of evaluation of the effect of the Soil and Water Conservation Plan;

- (ii) Advise the Board in writing if it intends to sell, transfer, lease or otherwise alienate its interest in the said land or change of use thereof;
  - (iii) Permit the agents and servants of the Board on official duties to enter and inspect the said land at all reasonable times.
- (h) If at any time during the term of this agreement the Company fails to carry out faithfully the provisions of the Soil and Water Conservation Plan or breaches any of the covenants herein expressed or implied and on the part of the Company to be observed performed or fulfilled and such failure shall continue for a period of fourteen (14) days after written notice has been posted by the Board to the Company requiring it to remedy any such failure or breach then the Company will upon demand restore to the Board in full (but without interest) all grants made by the Board for the purpose of the works referred to in the Soil and Water Conservation Plan and the grants referred to in Clause 1 hereof.

IT IS HEREBY AGREED AND DECLARED THAT.

5. FROM the date of commencement of the construction of the retirement fences until the expiry of the period of ninety-nine (99) years referred to in Clause 2 hereof the Company will at its own cost and expense and to the satisfaction of the Board:

- (i) keep and maintain the retirement fences in good order and condition;
- (ii) execute and carry out all such works and do all such things as may reasonably be necessary to ensure that the retirement fences perform the function of a stockproof barrier between the retired lands and the balance of the said land.

PROVIDED THAT the provision of this Clause shall in relation to the existing retirement fence come into effect at the date of execution of this agreement.

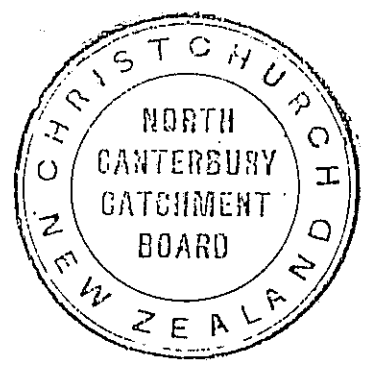
6. THE expression "maintain" in respect of the retirement fence shall mean carry out normal maintenance as is customary in the district and shall not include the repair of damage caused by any naturally occurring catastrophic event or disaster and in the event of any dispute arising as to whether or not any damage to the retirement fence has been caused by a naturally occurring catastrophic event or disaster any decision as to the causation of such damage shall be referred to a committee of two persons comprising -

- (i) a representative of the Company
- (ii) a representative of the Board.

7. ANY disputes and questions whatsoever which may during the term hereof arise between the parties shall be referred to the National water and Soil Conservation Authority the opinion of which body shall be accepted by the parties particularly as to any definition implementation or interpretation of soil and water conservation practice and management.
8. NOTWITHSTANDING the provisions of Clause 4 hereof on application made by the Company to the Board prior to the carrying out of maintenance works on the retirement fence the Board may approve a grant at the rate of 50% on the cost of such maintenance works and in the event of the Board approving such a grant the provisions of paragraph (c) of the conditions referred to in Clause 4 hereof shall apply to such maintenance works as if such works were detailed in the Soil and Water Conservation Plan PROVIDED THAT the Board shall be entitled to deduct from the grant payable to the Company a portion of the service charge referred to in Clause 9 hereof or such other charge as the Board may from time to time adopt in substitution therefor.
9. THE Company shall be properly chargeable by the Board with a service charge of 25% on job costs as approved by the Board for grant purposes. The service charge attracts the same rate of grant as the job costs approved. The Company shall bear the difference between the service charge and the grant calculated thereon and the difference will be deducted from the grant otherwise payable to the Company.
10. THIS Deed may be presented for registration in the Canterbury Land Registry against the Land Transfer documents relating to the said land.
11. THE parties hereto shall each be responsible for their own costs as to the preparation of this Deed and the Board shall be responsible for all registration costs and any stamp duty which may be assessed on this Deed.

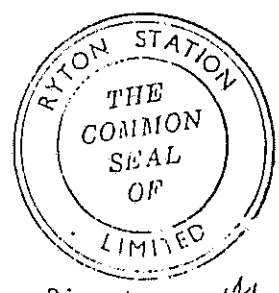
IN WITNESS WHEREOF these presents have been executed the day and year first hereinbefore written.

THE COMMON SEAL of the NORTH CANTERBURY CATCHMENT BOARD was hereto affixed pursuant to a resolution of the said Board in the presence of:



[Signature] Member  
[Signature] Member  
[Signature] Secretary

THE COMMON SEAL of RYTON STATION LIMITED was hereto affixed in the presence of:



[Signature] Director M. S. MARRAS  
[Signature] Director R. T. BRYANT  
[Signature] Secretary Karen M. Meaves

NORTH CANTERBURY CATCHMENT BOARD  
AND REGIONAL WATER BOARD

SOIL AND WATER CONSERVATION PLAN NO. 703250

Ryton Station Limited,  
c/- Messrs R.T. Bryant and M.S. Meares,  
~~"Seatwood"~~,  
DARFIELD, R.D. 2.

Page No.

CONTENTS:

1.	<u>INTRODUCTION</u>	1
2.	<u>PHYSICAL DESCRIPTION</u>	1
	2.1 Location and Access	1
	2.2 Area, Tenure, Legal Description, Air Photos	1
	2.3 Climate, Topography, Soils and Vegetation	2
	2.4 Erosion	6
	2.5 Land Capability Classification	6
	2.6 Water Resources	8
	2.7 Wildlife	11
	2.8 Management	14
3.	<u>THE SOIL AND WATER CONSERVATION PLAN</u>	14
	3.1 Aims and Objectives	14
	3.2 Conservation Problems and Proposals	14
	3.3 Future Management	19
	3.4 Environmental Impacts	20
	3.5 Economic Aspects	20
4.	<u>SPECIFICATIONS AND COSTS</u>	20
	4.1 Fencing	20
	4.2 Oversowing and Topdressing	21
	4.3 Windbreaking Treeplanting	21
5.	<u>APPENDICES</u>	
	Appendix 1 - Detailed Works Programme	
	Appendix 2 - Previous Work	
	Appendix 3 - Land Inventory and Land Capability Classification - Programme of Work	
	Appendix 4 - Detailed Economic Report	

Conservation Planning: F.J. McGuigan (1984)  
Recommended: J.H. Stone



NORTH CANTERBURY CATCHMENT BOARD  
AND REGIONAL WATER BOARD

SOIL AND WATER CONSERVATION PLAN NO. 703250

Ryton Station Limited,  
c/- Messrs R.T. Bryant and M.S. Meares,  
"Scotswood",  
DARFIELD, R.D. 2.

1. INTRODUCTION

Ryton Station is located in the Rakaia river valley of Canterbury. It was formally known as the 'Cotton's block' of Lake Coleridge Station. The property, comprising freehold land, University of Canterbury leasehold and Crown Pastoral lease contains steep mountainous land, numerous fans, low hills and minor flats as well as several lakes and associated wetlands.

This report records the physical description of the property's resources and an evaluation of the long-term capability of the land resource the purpose of which is to provide a basis upon which sound soil and water conservation measures can be implemented.

The presentation of this document will enable others to become conversant with the property and in particular come to appreciate its soil and water values.

The total cost is \$259287 with a Council share of \$167317 over five years.

2. PHYSICAL DESCRIPTION

2.1 Location and Access

Ryton Station is located 120 kilometres west of Christchurch in the Rakaia River catchment. On the north west the Harper River forms the boundary and on the eastern side the summit of the Craigieburn Range where it joins Castle Hill run. On the west and southwest the shores of Lake Coleridge form the boundary and to the south Lake Coleridge Station. Road access to the property is via the Rakaia gorge and Harper Road, which is sealed to within 10 kilometres of the property's south eastern boundary.

2.2 Area, Tenure, Legal Description, Air Photos

2.2.1 Area

Ryton Station comprises:

Crown Leasehold Mt Olympus run	5058.5705 ha
University of Canterbury leasehold	9087.6495 ha
Freehold	443.3693 ha
	<hr/>
	14589.5893 ha

2.2.2 Tenure

Crown leasehold: Mt Olympus run. Lease expires 1/7/1987  
University of Canterbury Leasehold.  
Freehold.

2.2.3 Legal Description

Crown Leasehold: Run 179 Mt Olympus situated in Blocks II, III, VI and VII Coleridge S.D. and Blocks X, XI, XIV and XV Harper S.D. contained in C.T. 529/90.

University Leasehold: Part of Res 1578 situated in Blocks IV & VIII Oakden S.D. Blocks XIII and XIV Wilberforce S.D. and Blocks I, II, V and VI Coleridge S.D. contained in part of C.T. ~~100/1000~~ 27F/63.

Freehold: 193.6142 hectares situated in Block IV Oakden S.D. being R.S. 35294 contained in C.T. 620/51. 249.7551 hectares situated in Blocks V, VI, IX and X Coleridge S.D.

2.2.4 Air Photos

Present - Rakaia Gorge

Series	Survey No.	Photo No.	Date
S.M.	5060	G7,8, H7,8,9,10	14/2/77
S.M.	5688	A7, 8	8/2/50

Previous - Arthurs Pass, North Loburn Survey No. 1063

Flight No.	Photo No.	Date
2743	29	22/2/60
2744	26 - 28	22/2/60
2745	26 - 30	22/2/60
2746	24 - 30	22/2/60
2757	34 - 37	31/10/59
2758	37 - 39	31/10/59
2759	39 - 44	1/11/59

2.3 Climate, Topography, Soils and Vegetation

2.3.1 Climate

The precipitation decreases from west to east. At Hut Creek flowing from Mt Cheeseman into the Harper River the rainfall exceeds 1750 mm per annum and drops to 1150 mm at the Harper Diversion on the northern boundary. On the southern boundary of the property rainfall is estimated to be around 950 mm per annum. The rainfall comes principally from the northwest.

Snow-falls can occur from early April to October. On the higher mountain slopes and in the basins the snow lies for about four months. On the flats and low hills heavy snow-falls may lie for some weeks but generally snow melts on sunny aspects in a few days.

Frosts during the winter halt vegetative growth from May till mid-September.

Wind is a particularly important element in the climate of the region. Strong dry nor-west winds during the spring create adverse conditions for plant growth during the summer.

2.3.2 Topography

The property lies along the western flank of the Craigieburn range and extends westwards as far as Lake Coleridge. Beginning at over 2100 metres along the Craigieburn Range the property descends rapidly to the low hills of the Clay range (840 m a.s.l.) and onto the valley floors occasionally interrupted by a singular mountain before rising to 1477 metres a.s.l. on Cottons Sheep range and descending very steeply into Lake Coleridge.

Altitude ranges from 518 metres a.s.l. at Lake Coleridge to 2194 metres a.s.l. at the highest point Mt Enys.

2.3.3 Soils

Four soil sets were recorded when the property was surveyed.

Sets Mapped

A. Soils of the Fans, River Flats and Swamps

- Tasman
- Grasmere
- Dobson

B. Soils of the Terraces

- Mesopotamia fine sandy loam
- Craigieburn

C. Soils of the Rolling Country and Hill Land

- Tekapo
- Tekapo hill soils
- Cass soils

D. Related Steepland Soils

- Tekoa steepland soils
- Lewis steepland soils
- Kaikoura steepland soils
- Alpine steepland soils

These fall into five major soil groups.

1. Recent Soils

99 Tasman (Tm) The Tasman soils on the river flats are mostly light and stony. The soil has developed from greywacke alluvium under fescue tussock grassland with matagouri scrub. These soils are subject to stream bank erosion and deposition of coarse detritus in places.

90d Dobson (Db) A soil of flat low-lying land. On the property this soil type is found near Lake Henrietta and near Mossburn Stream. The soil has developed from greywacke alluvium under a swamp vegetation of rushes and sedges. It is poorly or imperfectly drained as indicated by strong mottling and gleying throughout the profile. The soil has a medium natural fertility.

## 2. Upland and High Country Yellow - Brown Earths

52b Mesopotamia (Mp) Soil is formed from greywacke loess over gravels. The soil profile is approximately 60 cm of silt and sand over fine gravels. The vegetative cover is fescue tussock grassland and widespread patches of matagouri scrub. It is found on flat to easy rolling terraces or old moraines. On this property this soil borders the Harper River. It is liable to wind erosion.

52 Craigieburn (Cb) Silt and sandy loam soils are found on the higher terraces of the property. They have developed from greywacke loess under a fescue tussock grassland and matagouri scrub. Dense thickets of manuka and kanuka scrub feature on slopes between one terrace and another. These soils, like the other terrace soils, are very porous and subject to drying out in north-west conditions. When exposed to frost action the soil suffers severe wind erosion. Topsoil has been stripped from between the islands of vegetation. Characteristic nests of stones are found on the surface of these eroded soils. Natural fertility is low.

50 Tekapo (T2) and Tekapo Hill (T2H) are formed from greywacke morainic detritus with a veneer of loess under a fescue tussock grassland with a wide dispersion of matagouri scrub and patches of mixed manuka and kanuka. The porous nature of these soils render them liable to dry conditions for plant growth and prone to wind erosion. Where severe wind erosion has occurred most frequent plants are Coprosma petriei, Raoulia subsericia and Cyathodites fraseri.

53H Cass Hill (CsH) Soils are fine sandy loams and stony loams derived from greywacke loess over gravels and glacial till, under snow tussock and fescue tussock grassland. They are found on the morainic downlands and low hills of the Clay range where the rainfall is higher than on the areas of Tekapo soils. Today the Cass soils support mainly fescue tussock grassland with some snow tussock (Chionochloa rigida and C. flavescens) and widely scattered patches of matagouri and manuka scrub. Where the soils appear to be less porous and wetter red tussock (C. rubra) is present. These soils have a low natural fertility and are subject to severe sheet erosion.

57a Tekoa Steepland (Tks) Soils are found on steep slopes on the Craigieburn range and on Mt Ida upto about 1100 metres. These soils are derived mainly from greywacke detritus. The vegetation is snow tussock (C. flavescens and C. rigida) grassland although fescue tussock is widely dispersed throughout and there are remnants of beech forest. The soils are stony silt loams, with numerous rock outcrops.

The soil has a low natural fertility and is subject to sheet, wind, scree and gully erosion.

57 Kaikoura Steepland (Krs) Soils are found on the steep and very steep slopes at altitudes in excess of 1000 metres. The soil is derived from greywacke detritus under a discontinuous cover of snow tussock grassland and sub-alpine scrub. Fertility is extremely low.

They are subject to severe erosion due to movement by frost and snow, wind, sheet and gully erosion. These soils occur on the higher slopes of the Craigieburn range, Mt Ida and Mt Cotton blocks of this property.

### 3. Upland and High Country Podzolised Yellow - Brown Earths

65 Lewis (LwS) Soils are found on steep and very steep slopes at high altitudes. The soil is derived from greywacke detritus under sub-alpine scrub and beech forest. Fertility is extremely low. They are subject to severe sheet and gully erosion.

### 4. Alpine Steepland Soils

100 Alpine Steepland (ApS) soils refer to the rocky outcrops and scree slopes on the higher reaches of the mountains which are mostly bare ground with some scattered alpine herbs and grass. They are subject to active geological erosion.

References: Soils of the South island. Soil Bureau Bulletin No. 27,  
D.S.I.R. Conservation run plan No. 35. Lake Coleridge Run,  
N.C.C.B., 1965.

### 2.3.4 Vegetation

Little attempt has been made to introduce improved species into the tussock grasslands of this property. That part of the property known as the Peninsula was oversown and topdressed in 1974.

Below 1000 metres the vegetation is dominantly fescue tussock grassland with a wide dispersion of matagouri scrub and several patches of mixed manuka and kanuka scrub. The principal associated grass species include browntop, sweet vernal, yorkshire fog, blue tussock and silver tussock where soils are deeper. Where wind erosion has been severe most plants, particularly Coprosma petriei and Raoulia subsericia, are prevalent. On the less porous and wetter soils red tussock (C. rubra) and swamp vegetation are present.

Above 1000 metres altitude the vegetation is principally snow tussock (C. flavescens and C. rigida) grassland although fescue tussock is widely dispersed throughout. Scrub-land is found often in the vicinity of rock outcrops and scree slopes where species of Coprosma, Corokia, Drachophyllum and Cassinia grow. There are pockets of beech forest. Often a feature of this area is the shingle scree which gravitate down from the Alpine zone presenting a landscape of islands of vegetation of irregular outline with an eroding perimeter. Within the Alpine zone much of the area is bareground with some scattered alpine herbs and grasses.

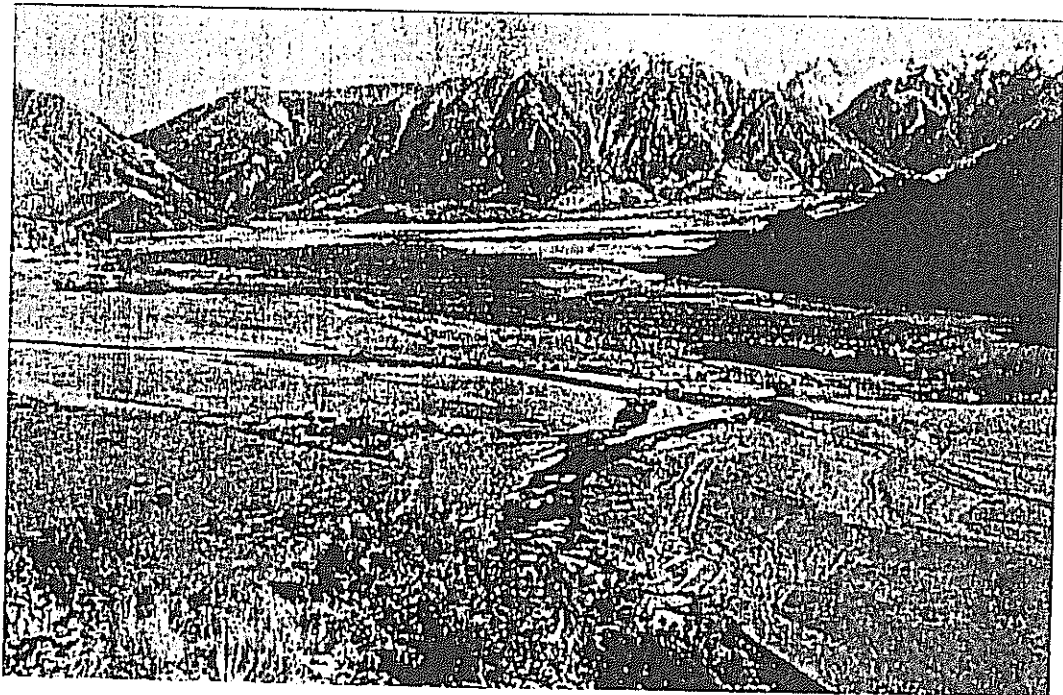
Both gorse (Ulex europaeus) and broom (Cystus scoparius) are found on this property. Gorse is found on the 'Peninsula' and around Moncks Hut at Lake Catherine while the broom is confined to an area along the Ryton River between the road and Lake Coleridge where sweet briar (Rosa rubiginosa) is also present. Both species show little signs of spreading any great distance from where they established originally.

## 2.4 Erosion

Under the prevailing climatic conditions exposed soils erode readily. Geological erosion of an extreme nature is active on the highest slopes. The mid slopes have moderate sheet, wind and some scree creep erosion. The terraces and moraines are wind eroded in many places.

Frost lift is the major cause of pulverising the weakly structured soils and facilitates the removal of soil particles by wind and water and for this reason the maintenance of a vigorous plant cover is essential.

Stream bank erosion is occurring along a section of the north-western boundary adjacent to the Harper River. Previous works for lateral bank erosion have been carried out on the Ryton River.



### PROTECTION WORKS ALONG HARPER RIVER

A large 'active' fan extending from the Cottons Range is contributing detritus to Lake Evelyn and will eventually fill the lake. Elsewhere on the property the streams are relatively stable and non eroding.

## 2.5 Land Capability Classification

### 2.5.1 Capability Class Areas

Class	Area Hectare (by planimeter)	% of Total
IVe1, e2	159)	2
IVw	36)	
IV2	69)	
Vw	138	1
VIe1-e3	2003)	22
VI s	1296)	
VIIe1-e3	2873	20
VIIIe1-e4	8016	55

2.5.2 Class Standards

Land Suitable for Arable Use

Class IV - On this class of land, while cropping is feasible, the limitations as defined by the following subclasses severely curtail many options.

- e<sub>1</sub> Mesopotamia fine sandy loams of flat to gently undulating (A - B) slopes with slight sheet and wind erosion. These soils are subject to a severe sheet and wind erosion hazard.
- e<sub>2</sub> Cass silt loam on undulating to rolling (B + C) slopes and Craigieburn silt loam on flat to undulating (A + B) sites with slight sheet and wind erosion. These soils are subject to a severe wind erosion potential when cultivated.
- w Dobson soils on flat (A) slopes. A residual wetness persists which drainage can alleviate to some extent.
- s Tasman shallow silt loams on flat (A + B) slopes with up to 10% of the area bared of vegetation.

Land Not Suitable for Arable Use

Class V - This land is unsuitable for arable use because the degree of physical limitation, as defined by the following sub-class, severely curtails many options.

- w (40 ha) - Dobson sandy clay loam in low-lying wet areas contains swamp vegetation. The major limitation is soil wetness, unable to be improved significantly through land drainage.

Class VI - This class of land is well suited for pastoral or forestry production. The limitations are defined by the following subclasses:

- e<sub>1</sub> Cass silt loam soils on flat to strongly rolling (A + D) moraines and fans with sheet and wind erosion affecting 1 - 20% of the area and Cass Hill soils on moderately steep (E) slopes with 1 - 20% of the area eroded.
- e<sub>2</sub> Craigieburn silt loam soils on flat and rolling (A + C) slopes. Erosion in the form of sheet and wind affects up to 20% of the area.
- e<sub>3</sub> Tekoa Hill and Steepland soils on moderately steep (25°) slopes, with sheet erosion affecting 1 - 20% of the area.
- s Tasman shallow stony and very stony shallow soils of flat (A + B) slopes with upto 20% of the area bared of vegetation and soil depth a limiting factor.

Class VII - This class of land has limitations or hazards that severely restrict the use for pastoral production. Forest production may still be sustainable though with severe limitations.

- e<sub>1</sub> Cass silt loam soils (strongly leached) and Cass Hill and Craigieburn soils on strongly rolling (D) to steep (F) slopes with 21 - 40% of the surface area, sheet and wind eroded and a significant loss in profile depth.
- e<sub>2</sub> Tekoa Hill and Tekoa steepland soils on steep (F) slopes with 21 - 40% of the area covered either in scree debris or sheet, wind and gully eroded.
- e<sub>3</sub> Kaikoura steepland Lewis steepland soils on steep slopes with up to 40% of the area covered in scree debris.

Class VIII - This is land with such extreme limitations or hazards that its use is restricted to water-shed protection.

- e<sub>1</sub> Tekoa steepland soils on steep (F) slopes mostly above 850 metres and 40 - 60% either covered in scree debris or sheet, wind and gully eroded.
- e<sub>2</sub> Kaikoura steepland, soils on steep to very steep F - G slopes (35° or more) and generally above 1000 metres in altitude with more than 60% of the area sheet wind and gully eroded.
- e<sub>3</sub> Lewis steepland soils on very steep slopes (G) on lower slopes of Mt Cheesman with 40 - 60% of the area in scree.
- e<sub>4</sub> Alpine steepland soils on very steep (F - G) slopes with extreme erosion in the form of talus scree.
- e<sub>4</sub> Skeltal soils have little or no top soil on very steep slopes with over 60% of the area eroded by sheet and wind.

Abbreviations:

- e = erosion
- s = soils
- c = climate
- w = wetness

2.6 Water Resources

Ryton Station occupies much of the land in the natural catchment of Lake Coleridge. Its water resources are diverse and include two rivers, several streams and a number of lakes and associated wetlands. The property lies in an area of relatively low runoff. The average annual water resources (Isolyd) over the property range from 20 lsec<sup>-1</sup>km<sup>2</sup> to 45 lsec<sup>-1</sup>km<sup>2</sup> which is low in relation to other properties in the area.

2.6.1 Rivers

(a) Harper

The Harper River forms the north-western boundary of the property. It flows from the largely forested area of the Harper - Avoca State Forest and in its upper reaches is quite stable. In the lower reaches where the river is a braided channel re-alignment is often necessary to maintain the flow in the Harper Diversion after spring floods.

(b) Ryton

The Ryton River practically bisects the property. From its source on Mt Cheesman in the Craigieburn Range it flows to Lake Coleridge. In the upper reaches the river is joined by the Goldney and in this area both rivers are flanked by spectacular scree slopes. In the lower reaches the river is more braided and some channel training works have had to be carried out.

2.6.2 Lakes

(a) Lake Evelyn

Lake Evelyn is a small (0.15 km<sup>2</sup>) elongate lake surrounded by an extensive raupo wetland. Maximum depth of 3 metres. There is no distinct inflow and the outlet is to the Hennah Stream which flows to Lake Coleridge via the Ryton River. The lake is



considered near oligotrophic which means it is of low fertility for a lake. It is important that lake water quality be maintained at a reasonably high level in order to protect water quality in the Hennah Stream.

(b) Lake Ida - Little Lake Ida

Lake Ida is a small lake that lies in the shaded valley between Little Ida and Mt Ida. The surrounding land is scrub and tussock grassland with small pockets of beech forest on the lower slopes of Mt Ida. This forest comes to the lake edge on the northern side of the lake. Inflows to the lake are from intermittent watercourses draining the adjacent hill country and the outlet is at the eastern end where it flows into the Idaburn Stream.

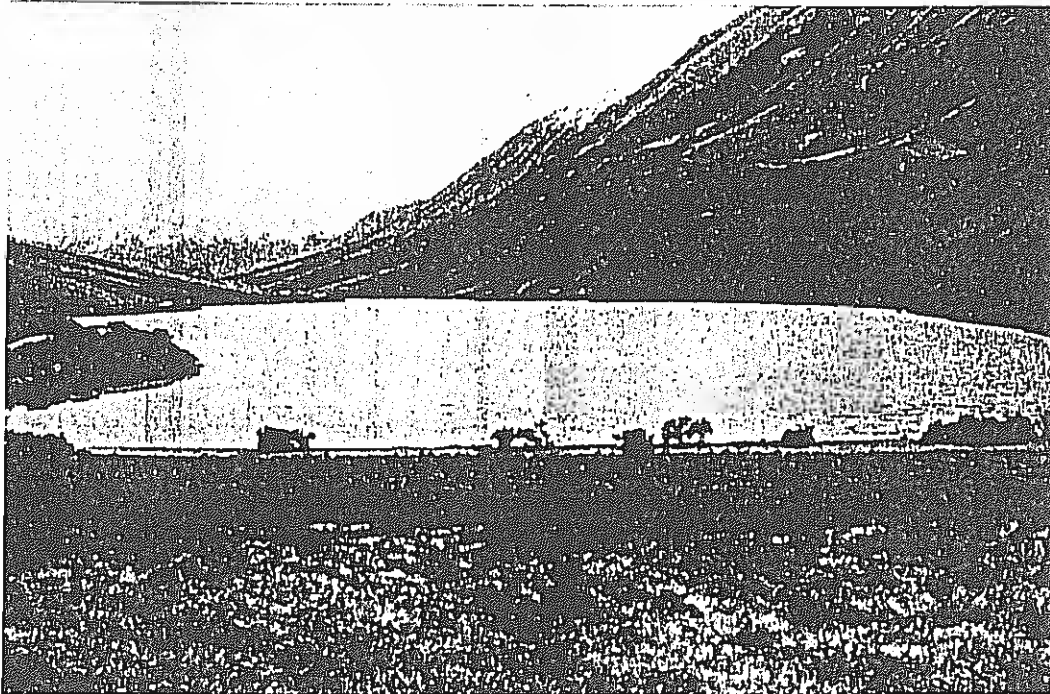
Maximum lake depth is 9 metres. Lake Ida is the only lake in this area which freezes in most winters. The lake is of medium fertility. Lake Ida, with its predominantly shingle beaches, is of low wildlife habitat and fisheries value.

Little Lake Ida is a small lake separated from Lake Ida by a shingle fan originating from Mt Ida. The outflow from this small lake drains into the western end of Lake Ida.

(c) Lake Selfe

Lake Selfe which lies in a valley to the southwest of Mt Ida and Little Mt Ida is 2.1 kilometres long, has a maximum width of 0.5 kilometre and a maximum depth of 30 metres. The lake is retained behind shingle fans from both Mt Cotton and Mt Ida. Inflows are from several small streams draining the adjacent hill country along with intermittent surface runoff from the catchment. The outlet from the lake is at the northwestern end, where the stream is channelled across the bottom of the converging shingle fan, before dispersing into Lake Henrietta, from there into the Mossburn wetlands and Harper River. Lake Selfe is considered mesotrophic, i.e. of medium fertility for a lake. The shaded slopes of Little Mt Ida on the northeast side of the lake have little potential for any agricultural development. The slopes contain beech forest, pepperwood stands, scree and tussock grassland and are scenically attractive. The lower slopes of the Cotton range to the south west of the lake have potential for development for grazing which could be enhanced by oversowing and topdressing.

To ensure lake water quality remains at its present level the owners agree not to topdress that portion of the Lake Selfe catchment shaded on the programme of work map at least for the duration of the proposed programme (5 years). This will enable Board staff time to monitor and assess the likely results of development upon this important lake. Lake Selfe is of little value as a wildlife habitat and the only recreational developments to date in the catchment are the informal camp site at the south east end of the lake.



LAKE SELFE

(d) Lake Catherine

Lake Catherine, also known as Lake Monck, lies to the east of Mt Ida. The lake is 0.15 km<sup>2</sup> in area, with a maximum length of 0.9 km, and maximum width of 0.3 km. The maximum depth is about 10 metres. The main inflow is the Monkburn Stream which drains the Clay Range to the east and which is near the outflow which drains south through a small wetland to the Ryton River. Lake water quality is presently satisfactory and it can be characterised as oligotrophic - mesotrophic. Lake Catherine and its environs offer good wildlife habitat and recreational value.

(e) Lake Henrietta

Lake Henrietta is located to the west of Lake Selfe from which it derives its inflow. It is a shallow lake (2 metres) and is surrounded by a substantial raupo dominated wetland area. It drains to the Harper River via the Moss Burn wetland. Lake Henrietta shows very similar chemical features to Lake Selfe and is considered to be near mesotrophic. The lake and its associated wetlands are considered to offer considerable habitat potential for wildlife. The water quality of Lake Henrietta is influenced by what happens to Lake Selfe.

2.6.3 Wetlands

The wetland areas on Ryton Station are formed in depressions among glacial moraines.

The term 'wetlands' is a general term for a wide range of habitats, including marshes, swamps, ponds, bogs and lagoons. The ecology of the wetlands on Ryton Station are little studied.

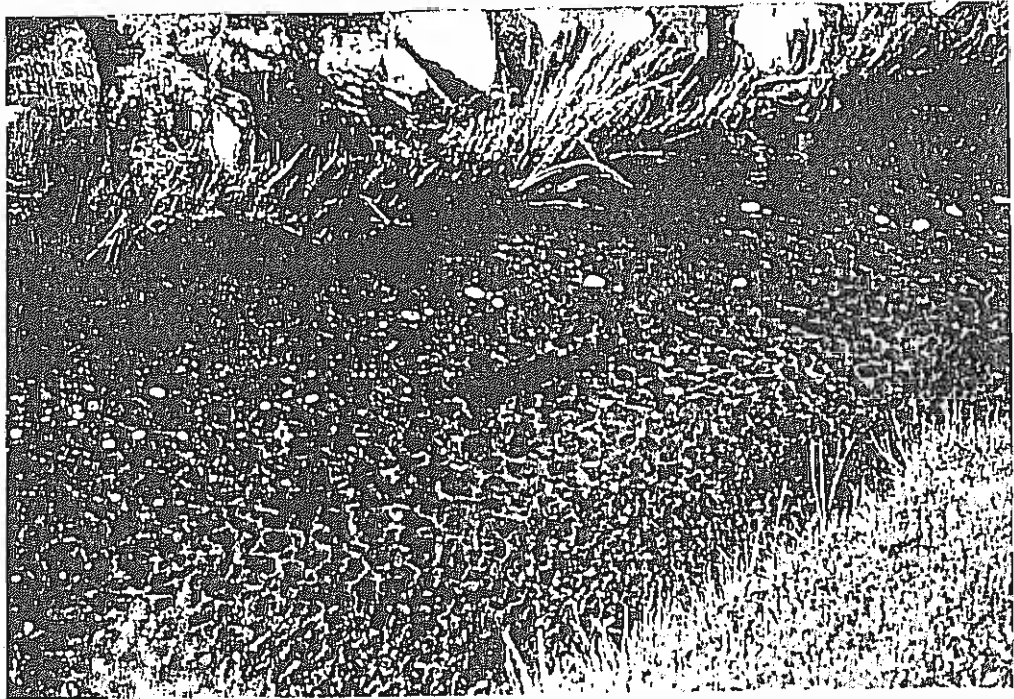
The owners are aware that topdressing, if carried out in the catchments of lakes should be so done as to avoid direct inputs of fertiliser into the lakes and particularly around Lake Selfe, consideration should be given to the concept of grazing only without inputs of fertiliser.

## 2.7 Wildlife

### 2.7.1 Fisheries

The sports fishery in the lakes and streams of Ryton Station is based upon three introduced salmonid species.

- (a) Land-locked quinnat salmon are the most heavily exploited fish species in Lake Coleridge. Streams in the Ryton system, particularly the Hennah Stream, are amongst the most important spawning waters for this population. Like their sea-run counterparts most land-locked quinnat spawn at 3 years of age at which time fresh-run fish average about 1 kg (cf. fresh 3 year sea-run fish average about 7 kg). Most spawning occurs during April and May, after which the fish die. Quinnat salmon are also known to be present in low densities in Lake Catherine, but there are few records of these fish in Lakes Ida and Evelyn, to which Lake Coleridge fish also have access.



QUINNAT SALMON - HENNAH STREAM

- (b) Brown trout are present in all the lakes on Ryton Station and in Lake Coleridge itself. Spawning occurs in streams of the Ryton System, the Lake Catherine and Lake Henrietta inlet streams (Monckburn and the Selfe outlet stream respectively) and probably around the gravel margins of most of the lakes. Spawning typically commences in about mid-May and peaks in June or early July. Fish start spawning at about 3 years and repetitive

spawning occurs, with fish as large as 6.5 kg (14 lb) and perhaps 10 - 11 years in age having been captured in the Ryton fish trap operated by the Acclimatisation Society. Where present, brown trout provide challenging angling for skilled fly fishermen.



BROWN TROUT - HENNAH STREAM

- (c) Rainbow trout are common in Lake Coleridge and many spawn in waters of the Ryton Station. Small populations are also known to be present in Lakes Catherine and Ida. Rainbow trout spawn latest of these three species, with the peak of the run typically being mid July - Mid August. They are a popular sports fish.

Native fish recorded from lakes or streams on Ryton Station include land-locked Koaro (one of the whitebait species) and the upland bully. Other native fish known to be present in Lake Coleridge are the longfinned eel and the common bully, species which are very probably present in the Ryton Stream and also perhaps in some or all of the lakes. It is important to have an overhanging vegetation along the stream margins to provide cover for the fish during spawning.