

APPLICATION FOR ECOLOGICAL RESERVE

1. Legal description of the area (or general "Metes and bounds" description)
 - Sand dune area near Tête Jaune Cache

2. Geographical location (relate to nearest settlement, mountain, river, etc.)
 - Between Tête Jaune Cache and Valemount, and between Highway #5 and the McLennan River; Rocky Mountain Trench.

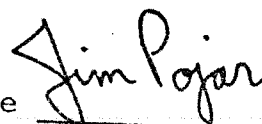
3. Indicate the biogeoclimatic zone of which the reserve is representative.
 - IDF

4. Approximate total acreage.
 - ca. 457 ha (1,130 acres)

5. Purpose of the reserve.
 - Conservation of an area of old and still active sand dunes (which are unusual in British Columbia), juxtaposed with fens and a sandy outwash terrace.
 - (a) Primary (state acreage)
 - ca. 457 ha
 - (b) Others if any (state acreage)
 -
 - (c) Buffer areas (state acreage)
 -

6. Attach a map and indicate: (a) the perimeters and acreage of the areas detailed in 5 above, and (b) indicate the species and total timber volumes in these areas.
 - Pinus contorta*
 - Populus tremuloides*
 - (Picea engelmannii)*

Signature

I.B.P. Surveyor
Jim Pojar, J.B. Foster, T. Lewis

SECTION CT: CONSERVATION OF TERRESTRIAL BIOLOGICAL COMMUNITIES

CHECK SHEET (Mark VII) FOR SURVEY OF IBP AREAS*

To be completed with reference to the GUIDE TO THE CHECK SHEET

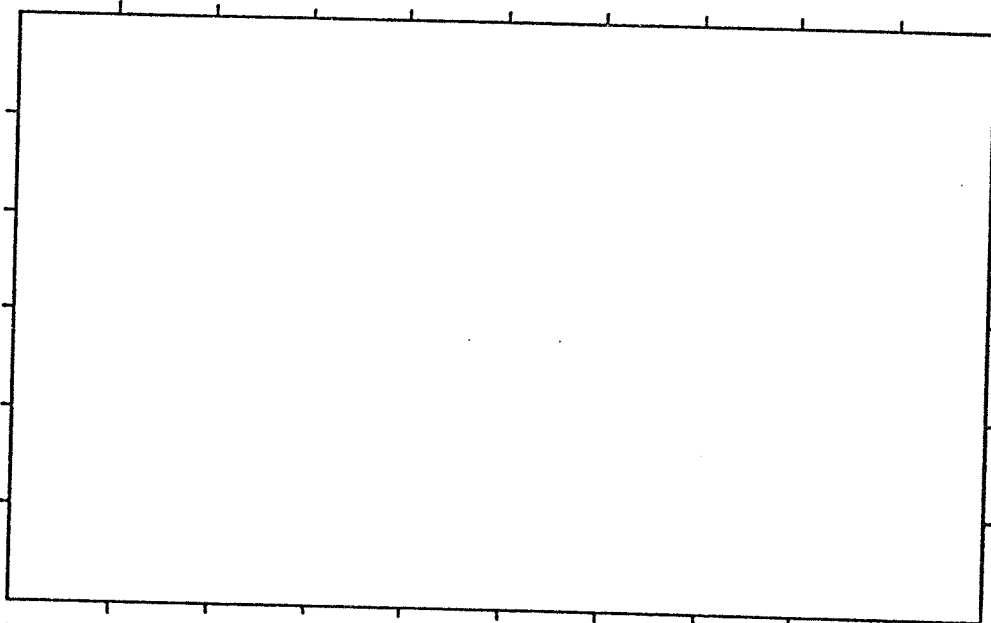
Serial Number

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For Data Centre Use only

1. 1. Name of surveyor *J.B. Foster,*J. Pojar; T. Lewis**
2. Address of surveyor * Ecological Reserves Unit, Ministry of the Environment,
Victoria, B.C. V8V 1X5
- ** c/o B.C. Land Commission, Burnaby, B.C.
3. Check Sheet completed (a) on site X (b) from records X
4. Date Check Sheet completed September, 1977

2. 1. Name of IBP Area Tête Jaune Dunes
2. Name of IBP Subdivision (or serial letter) IDF
3. Map of IBP Area* showing boundaries attached? Yes X No
4. Sketch map of IBP Area*. Please mark direction of north, the scale and grid numbers where applicable.



* For "IBP Area", read IBP Area and/or IBP Subdivision.

Rider 55 m
119°30'

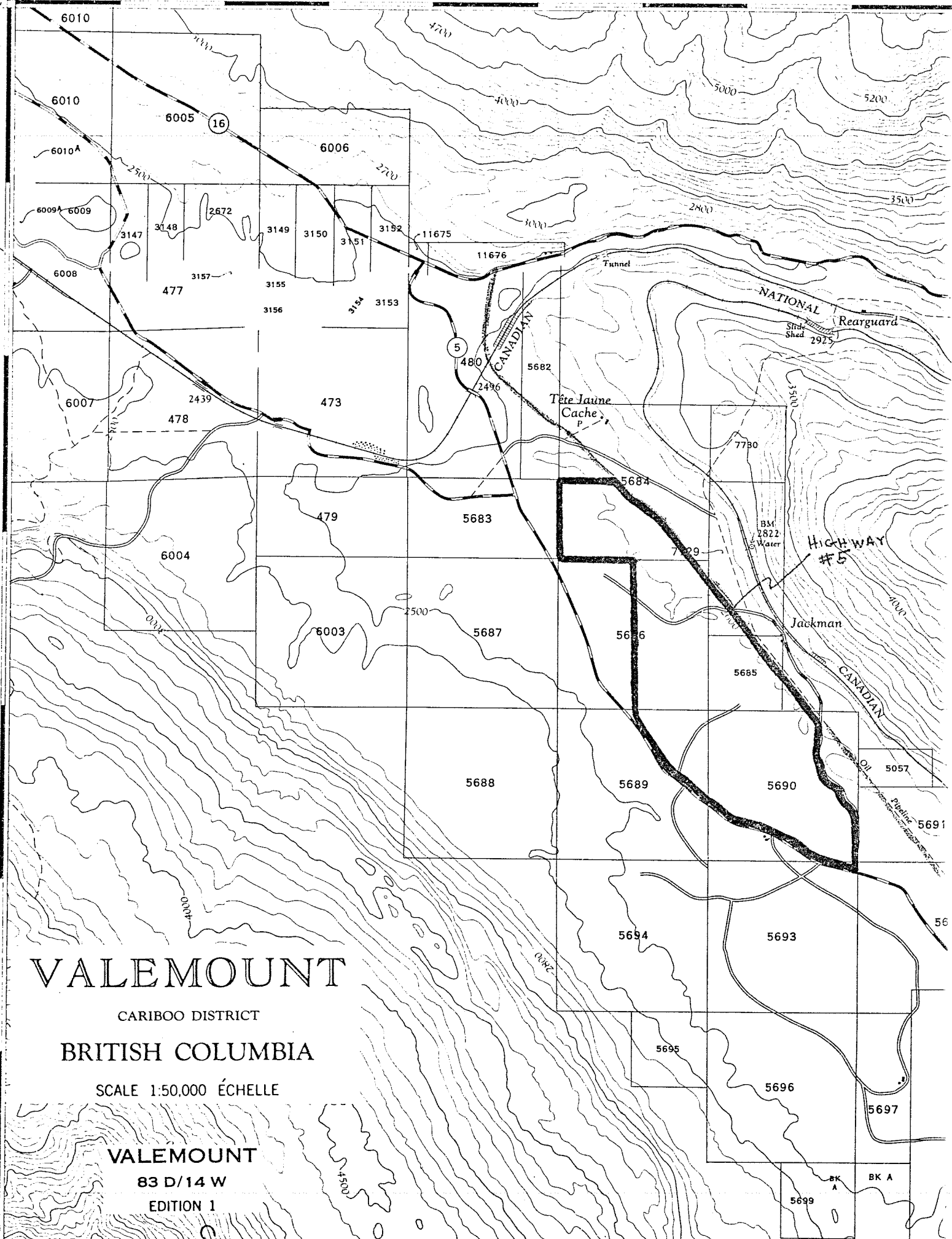
25'

1 a

53°00'

To Prince George

55'



VALEMOUNT

CARIBOO DISTRICT

BRITISH COLUMBIA

SCALE 1:50,000 ÉCHELLE

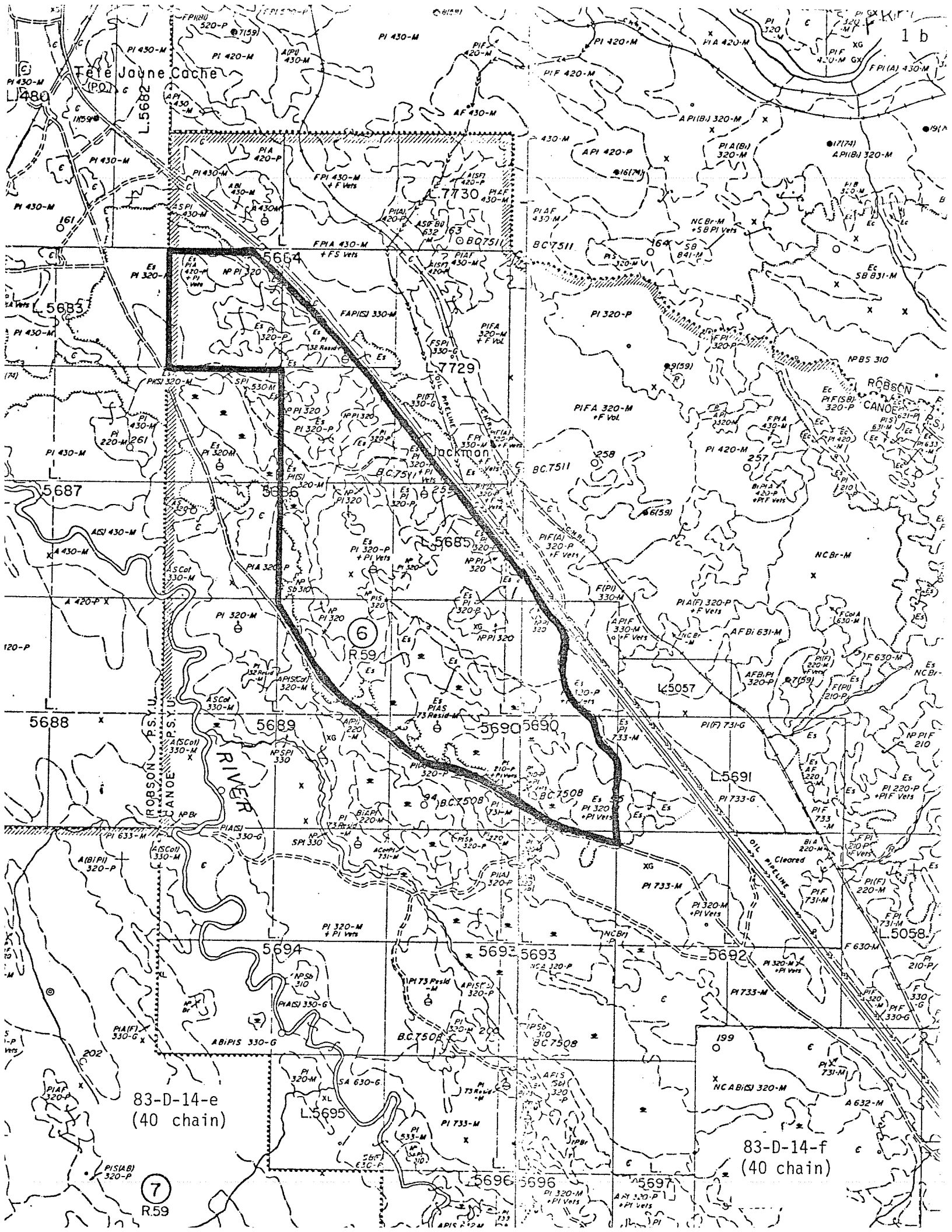
VALEMOUNT

83 D/14 W

EDITION 1

BK A BK A

5699



83-D-14-e
(40 chain)

83-D-14-f
(40 chain)

(7)
R.59

3. Location of IBP Area*

1. Latitude 52° 55-57.3' N Longitude 119° 21.9-24.8' W
2. Country Canada
- State or Province British Columbia County Valemount
- (State or Province County)

4. Administration

- National 1. Official category Crown Land; Canoe P.S.Y.U.
2. Address of administration Land Management Branch, Ministry of the Environment,
and
Ministry of Forests,
Parliament Buildings, Victoria, B.C. V8V 1X5

International Class

3.

Included in U.N. List	Rejected from U.N. List	Area with formal conservation status	No formal cons. status
(A)	(B)	(C)	(D) X

5. Characteristics of IBP Area*

1. Surface area (state units of measurement) ca. 457 ha (1,130 acres)
2. Altitude (state units of measurement) Maximum ~805 m (2,650')
- Minimum ~775 m (2,550')

6. Climate

Nearest climatological station :

1. Name Valemount
2. Climatological station on IBP Area*? Yes No X
3. If (2) not, distance from edge of IBP Area* (state units) 15 km
4. Direction from IBP Area* SE
5. Additional data sheet attached? Yes X No

ELEMENT and STATION
 BRITISH COLUMBIA

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	YEAR
<p>000 VALENMOUNT</p> <p>LATITUDE 52 49 N LONGITUDE 119 15 W ELEVATION 2615 FT ASL</p>													
MEAN DAILY TEMPERATURE (DEG F)	13.0	22.7	29.6	39.9	49.9	56.0	60.7	58.2	50.5	40.4	27.1	18.1	38.8
MEAN DAILY MAXIMUM TEMPERATURE	20.9	31.8	40.1	52.1	64.4	70.1	75.8	72.9	63.8	49.4	33.5	24.5	49.9
MEAN DAILY MINIMUM TEMPERATURE	5.1	13.6	19.0	28.0	35.3	41.8	45.5	43.4	37.1	31.3	20.7	11.6	27.7
EXTREME MAXIMUM TEMPERATURE	51	54	73	87	95	96	105	99	92	79	57	55	105
NO. OF YEARS OF RECORD	56	56	55	52	52	54	55	56	54	54	54	55	55
EXTREME MINIMUM TEMPERATURE	-56	-52	-42	-12	14	19	25	20	9	-15	-36	-60	-60
NO. OF YEARS OF RECORD	56	56	55	52	53	53	54	56	54	54	54	55	55
NO. OF DAYS WITH FROST	30	27	28	22	11	2	*	2	9	17	27	30	205
MEAN RAINFALL (INCHES)	0.15	0.33	0.29	0.82	1.21	1.75	1.85	1.86	1.75	1.83	0.76	0.32	12.92
MEAN SNOWFALL	14.6	10.8	5.7	3.4	0.4	0.0	0.0	0.0	0.0	2.2	9.9	14.2	61.2
MEAN TOTAL PRECIPITATION	1.61	1.41	0.85	1.16	1.25	1.75	1.85	1.86	1.75	2.05	1.76	1.74	19.04
GREATEST RAINFALL IN 24 HRS	0.72	0.87	0.57	0.93	1.91	1.23	1.23	1.28	2.43	1.22	1.50	1.62	2.43
NO. OF YEARS OF RECORD	34	35	53	51	48	50	52	53	52	51	54	54	54
GREATEST SNOWFALL IN 24 HRS	17.0	14.8	9.0	12.0	2.2	1	0.0	0.0	5.0	8.0	17.2	29.0	29.0
NO. OF YEARS OF RECORD	53	54	52	51	52	55	54	56	53	53	52	52	52
GREATEST PRECIPITATION IN 24 HRS	1.70	1.48	0.90	1.20	1.91	1.23	1.23	1.28	2.43	1.22	1.72	2.90	2.90
NO. OF YEARS OF RECORD	53	55	53	52	49	50	52	53	52	50	52	53	53
NO. OF DAYS WITH MEASURABLE RAIN	1	1	2	5	8	11	12	12	10	11	5	2	80
NO. OF DAYS WITH MEASURABLE SNOW	9	7	5	2	*	0	0	0	0	1	6	9	39
NO. OF DAYS WITH M. PRECIPITATION	11	8	7	8	8	11	12	12	10	12	10	11	120

7. Vegetation and Soil

1 Vegetation

Community Reference Number	Vegetation Code					Plant communities (give usual name using full Latin names of a species where applicable)	Area (state units)
	Primary Structural Group	Class	Group	Formation	Sub-Formation		
1	2	A	1	4	a	<i>Pinus contorta</i> - <i>Arctostaphylos uva-ursi</i> - lichen community ("parkland" on stabilized dunes)	
2	3	C	1	3		<i>Juniperus communis</i> - <i>Stereocaulon</i> spp. blowout community	
3	1	A	1	7	a	<i>Pinus</i> - <i>Populus tremuloides</i> - <i>Shepherdia canadensis</i> - <i>Linnaea borealis</i> - <i>Oryzopsis asperifolia</i> (outwash terrace)	
4	1	A	1	7	a	<i>Pinus</i> - <i>Shepherdia</i> - <i>Vaccinium myrtilloides</i> - <i>Pleurozium schreberi</i> (outwash terrace)	
5	1	F	1	2		(<i>Pinus</i>) - <i>Ledum groenlandicum</i> - <i>Vaccinium vitis-idaea</i> - <i>Pleurozium schreberi</i> (transitional bog)	
6	1	G	2	1		<i>Betula glandulosa</i> - <i>Carex (aquatilis, rostrata)</i> - <i>Tomenthypnum nitens</i> (fen)	
7							
8							
9							
10							

1. *Pinus - Arctostaphylos - lichen* (lodgepole pine - lichen "parkland" on stabilized sand dunes):
 - trees: *Pinus contorta* (of mixed age classes, including seedlings and saplings; mature trees no >15 m tall and 20-25 cm d.b.h.)
 - shrubs: *Shepherdia canadensis* (*Amelanchier alnifolia*)
(Prunus pensylvanica)
 - dwarf shrub/herb layer: *Arctostaphylos uva-ursi*
Juniperus communis *Vaccinium vitis-idaea, V. myrtilloides*
Artemisia campestris *Arabis holboellii*
Festuca saximontana *Equisetum laevigatum, E. hyemale*
Carex umbellata *Oryzopsis pungens*
Solidago decumbens
 - cryptogamic layer: *Cladonia gracilis, C. uncialis, C. furcata, C. cornuta, C. pyxidata,*
C. chlorophaea, C. coccifera
Cladina mitis *Peltigera canina*
Stereocaulon tomentosum, S. alpinum
Lecidea spp. *Rhacomitrium canescens, R. lanuginosum*
Polytrichum spp. *Ceratodon purpureus*
 - epiphytes: *Cetraria canadensis, C. pinastri* *Letharia vulpina*
Alectoria jubata *Parmeliopsis ambigua*
2. *Juniperus - Stereocaulon spp.* (around active dunes and blowout areas):
 - Juniperus communis* *Stereocaulon alpinum, S. tomentosum*
 - Ceratodon purpureus* *Polytrichum piliferum*
 - Rhacomitrium canescens, R. lanuginosum*
3. *Pinus - Populus - Shepherdia - Linnaea - Oryzopsis* (on sandy outwash terraces):
 - trees: *Pinus contorta* *Populus tremuloides*
 - shrubs: *Shepherdia canadensis* *Rosa woodsii*
Amelanchier alnifolia (*Alnus sinuata*)
 - herb layer: *Linnaea borealis* *Oryzopsis asperifolia*
Maianthemum canadense *Fragaria virginiana*
Lathyrus ochroleucus *Achillea millefolium*
Equisetum arvense, (E. scirpoides)
Lycopodium complanatum *Galium boreale*
Pyrola secunda, P. asarifolia, P. picta
Cornus canadensis *Lilium philadelphicum*
Calypso bulbosa *Melampyrum lineare*
Habenaria orbiculata *Elymus glaucus*
Goodyera oblongifolia *Aster ciliolatus*
Epilobium angustifolium *Gentiana amarella*
Viola adunca

(E.R.P. No. 282 - Tête Jaune Dunes):

5. (*Pinus*) - *Ledum* - *Vaccinium* - *Pleurozium* (transitional bog/fen and bog forest, between the forest and the open fen proper):

trees (scattered):	<i>Pinus contorta</i>	<i>Picea engelmannii</i>
shrubs:	<i>Ledum groenlandicum</i>	<i>Betula glandulosa</i>
	<i>Lonicera involucrata</i>	<i>Vaccinium myrtilloides</i>
dwarf shrub/herb layer:		<i>Vaccinium vitis-idaea</i>
	<i>Linnaea borealis</i>	<i>Equisetum scirpoides</i>
	<i>Habenaria hyperborea</i>	<i>Petasites palmatus</i>
	<i>Lycopodium complanatum</i>	<i>Rubus arcticus, R. pubescens</i>

6. *Betula* - *Carex* - *Tomenthypnum* fen:

shrubs:	<i>Betula glandulosa</i>	<i>Salix hastata</i>
herb layer:	<i>Carex aquatilis, C. ? rostrata</i>	<i>Calamagrostis canadensis</i>
	<i>Rubus arcticus</i>	
moss layer:	<i>Tomenthypnum nitens</i>	<i>Drepanocladus</i> spp.
	<i>Calliergon</i> spp.	

7.
(cont.)

2

Soil

Community Reference Number	Soil type	Other notes
1	I ₂	sandy regosol
2	I ₂	sandy regosol
3	F ₃ /F ₄	eutric brunisol
4	F ₄	brunisol
5	0	organic
6	P ₁ /0	calcareous humic gleysol
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

9. Landscape

1. General Landscape (give brief description) flat valley bottom (of Rocky Mountain Trench) with old sand dunes (some still active) and outwash terraces

2. Relief Type

	Flat	Undulating (0)-200 m.	Hilly 200-1000 m.	Mountainous > 1000 m.	%
Sharply dissected					
Gently dissected			100		100
Incised					
Skeletonised					
%			100		100%

3. Special landscape features (list) sand dunes

10. Coastline of IBP Area* NONE

1. Protected bays and/or inlets Many Few None

2. Substratum. % of coast

Rock	Boulder Beach	Shingle Beach	Sand Beach	Shell Beach	Mud	Coral	Ice
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Physiography. % of coast

Cliffed	Sloping	Flat
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Special Coastal Features (list)

5. Tide. Maximum range (state units of measurement)

6. Total length of coastline :

Less than 1 km. 1-10 km. Above 10 km.

11. Freshwater within IBP Area*

1.

	Permanent	Intermittent
General		
Standing	X	X
Running		

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps	X	X		X
Ponds				
Lakes				

3. Running Water

	Permanent	Intermittent
Springs, cold		
Springs, hot		
Streams		
Rivers		

4. Special freshwater features
 fens and transitional fen-bog

12. Salt and Brackish Water within IBP Area* NONE

Salt Lakes	<input type="checkbox"/>	Lagoon	<input type="checkbox"/>	<input type="checkbox"/>
Estuaries	<input type="checkbox"/>	Salt pools	<input type="checkbox"/>	<input type="checkbox"/>

13. Adjacent Water Bodies (not within IBP Area*)

1. Fresh Lake River Stream
 McLennan River

2. Salt and Brackish

Estuary	Salt lake	Salt pool	Lagoon	Ocean		

14. Outstanding Floral and Faunal Features

1. None

2. Fauna

	Species diversity	Abundance of individuals	Superabundance of individuals	Rare species	Threatened/Relict species	Spp. of biogeographical interest	Exceptional Associations	Breeding or Nesting Populations	Migrating Populations	Wintering Populations		
Mammalia		X						X	X	X		
Aves		X						X	X	X		
Reptilia												
Amphibia		X						X				
Pisces												
Insecta		X						X				

3. Names of main threatened, endemic, relict and rare species
needs further investigation
.....

Vertebrates observed in subject area in one morning:

Birds: greater yellowlegs snipe yellow rumped warbler
.....Canada geese.....black capped warbler.....
night hawk orange crowned warbler
.....kestrel.....fox sparrow.....
red tailed hawk song sparrow
.....marsh hawk.....hermit thrush.....
ruby crown kinglet robin
.....golden crown kinglet.....
brown creeper

Mammals: white tailed deer (*Odocoileus virginianus*)
 deer mouse (*Peromyscus maniculatus*)
 red squirrel (*Tamiasciurus hudsonicus*)

4. Flora

	Species diversity	Abundance of particular species	Rare species	Threatened/relict species	Spp. of biogeographical interest	Exceptional associations	Outstanding specimens				
Angiospermae :											
trees		X									
shrubs		X									
herbs		X			X						
grass		X			X						
Gymnospermae		X									
Pteridophyta											
Bryophyta		X			X						
Lichens and Algae		X			X	X	X				

5. Names of main threatened, endemic, relict and rare species

- needs further investigation

- rich in lichens

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15. Exceptional Interest of IBP Area*

Unusual sand dune area, with instructive juxtaposition of dry and wet sites. Pinus contorta - lichen parkland.

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16. Significant Human Impact

1. General : None in entire IBP Area*
 None in part of IBP Area*
 Impact on entire IBP Area* X

2. Particular

	Past impact	Present impact	Trend			
			Increasing	Decreasing	No change	No information
Cultivation						
Drainage						
Other soil disturbance	X	X	X			
Grazing	?			X		
Selective flora disturbance	X	X	X			
Logging	X			X		
Plantation						
Hunting	X	?		?		
Removal of predators	X	X				
Pesticides						
Introductions — plants	X	X	X			
Introductions — animals						
Fire	X	X		X		
Permanent habitation		X				
Recreation and tourism	X	X	?			
Research						

- primarily due to dirt road and motor vehicles

- trampling

- selective poaching

- nearby

- the area is threatened by all-terrain vehicles

3. Additional details on each type of impact attached?

Yes No X

17. Conservation Status (required):

	Protection			Utilisation			Conservation Management			Permitted Research		
	none	partial	total	none	controlled	uncontrolled	none	to alter status	to maintain status	experimental	observational	prohibited
Flora			X	X			X			X	X	
Fauna			X	X			X			X	X	
Non-living			X	X			X			?	X	

18. References

1. List major biological/geographical references for the IBP Area.

Sheet attached? Yes No ^X

2. List main maps available for the IBP Area.

83 D/14W (Valemount) (1:50,000)
B.C. Forest Cover 83-D-14-e,f

List attached? Yes No ^X

3. Aerial photographs for the IBP Area available? B.C. 7511:162; 259-260;
^X 7508:94-95

For whole area For part of area None

19. Other Relevant Information

The dunes have until now been little disturbed, except for one dirt road and some ATV travel. The old and new Highway #5 skirt the dunes, as will the presently proposed C.R.P. rail connection. However, these fragile dune ecosystems are in imminent danger of serious damage from the irresponsible and increasing activities of all-terrain vehicles (ATV's).

Signed 

(Surveyor)

J.B. Foster, Jim Pojar, T. Lewis