

APPLICATION FOR ECOLOGICAL RESERVE

1. Legal description of the area (or general "Metes and bounds" description)

2. Geographical location (relate to nearest settlement, mountain, river, etc.)

Extinct volcano, caldera (?) lakes and lava beds,  
Crater Creek basin nr. Aiyansh, Nass River area

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

CWHa

4. Approximate total acreage.

1635 acres

5. Purpose of the reserve.

To preserve fragile nature of lava beds, extinct volcano crater and caldera (?) lakes.

(a) Primary (state acreage)

ca. 1220 acres (lava beds, scrub forest and extinct volcano crater)

(b) Others if any (state acreage)

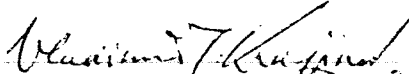
340 acres of merchantable forest and 75 acres of lakes

(c) Buffer areas (state acreage)

nil

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.

Most of the "merchantable" forest (300 acres) lies in the fire-break area which should not be logged anyhow.

  
Signature V.J. Krajina & K. Kliska  
I.B.P. Surveyor

INTERNATIONAL BIOLOGICAL PROGRAMME

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

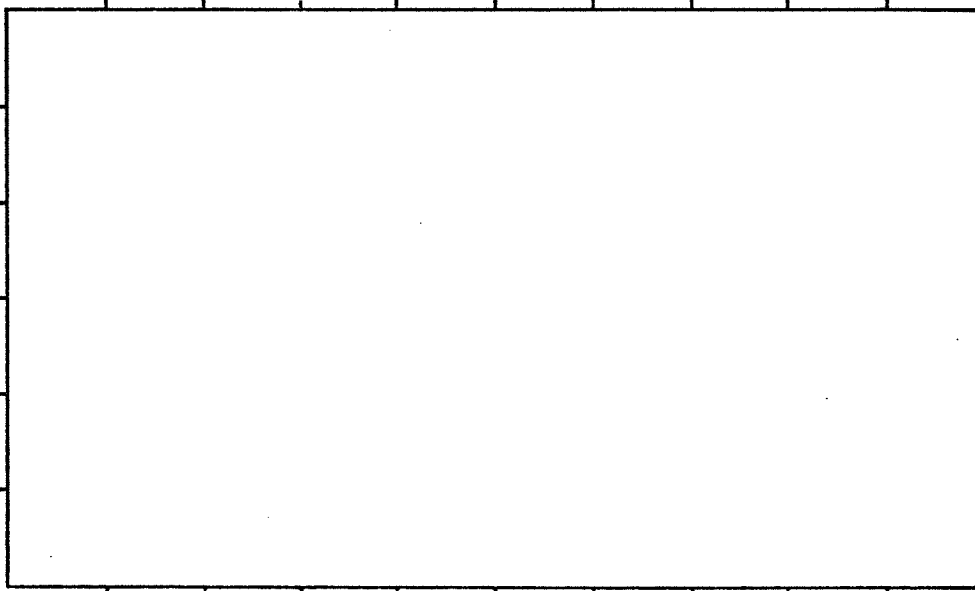
Serial Number

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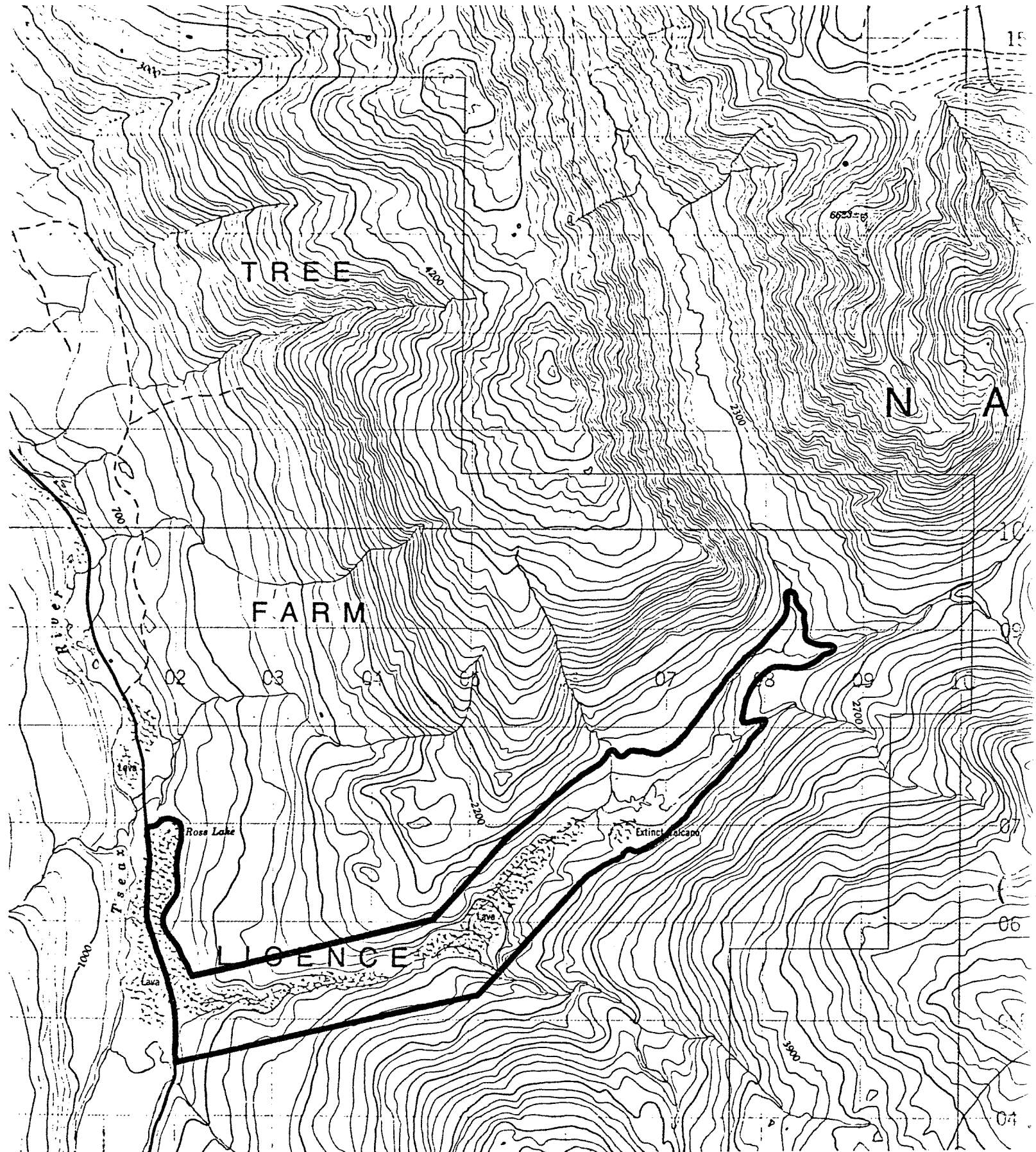
For Data Centre Use only

1. 1. Name of surveyor V.J.Krajina\*), K.Klinka, J.B.Foster, R.G.McMinn, R.M.Annas, M.Feller and V.P.J.Krajina
2. Address of surveyor \*)Department of Botany, U.B.C. Vancouver 8, B.C., Canada
3. Check Sheet completed (a) on site X (b) from records
4. Date Check Sheet completed July 8, 1973

2. 1. Name of IBP Area Extinct volcano, caldera (?) lakes and lava beds, Crater Creek basin, nr. Aiyansh, Nass River area
2. Name of IBP Subdivision (or serial letter) CWHa
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.



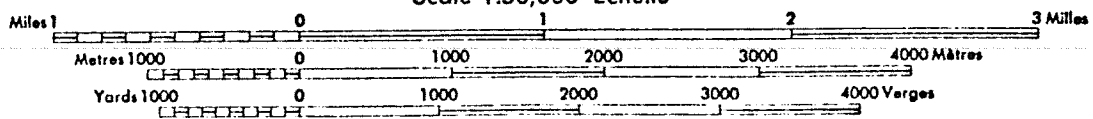
\* For "IBP Area", read IBP Area and/or IBP Subdivision.



# LAVA LAKE

## BRITISH COLUMBIA

Scale 1:50,000 Échelle



3.

Location of IBP Area\*

1. Latitude..... 55° 05.6-08' N Longitude..... 128° 53-57.5' W

2. Country Canada

State or Province British Columbia County Terrace

(State or Province ..... County .....)

4.

Administration

National 1. Official category Crown lands (Tree Farm License No. 1)

2. Address of administration B.C. Department of Lands, Forests, and Water Resources

Victoria, B.C., Canada

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) 1630 acres (mostly lava beds)

2. Altitude (state units of measurement) Maximum 2000 ft. (600 m)

Minimum 600 ft. (180 m)

6.

Climate

Nearest climatological station : Aiyansh

1. Name .....

2. Climatological station on IBP Area\*? Yes ..... No .....

3. If (2) not, distance from edge of IBP Area\* (state units) 10 miles

4. Direction from IBP Area\* SE

5. Additional data sheet attached? Yes ..... No X

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	1	0	2	2		<i>Cladonia tenuis</i> - <i>Rhacomitrium lanuginosum</i>	
2	1	0	1	2		<i>Cryptogramma crispa</i> - <i>Dryopteris filix-mas</i>	
3	1	0	1	2		<i>Rhacomitrium lanuginosum</i> - <i>Saxifraga tricuspidata</i>	
4	1	0	1	2		<i>Rhytidiadelphus triquetrus</i> - <i>Picea sitchensis</i>	
5	2	B	1	3		<i>Ribes glandulosum</i> - <i>Alnus sinuata</i> - <i>Picea sitchensis</i>	
6	1	A	1	7	a	<i>Arctostaphylos uva-ursi</i> - <i>Pinus contorta</i>	
7	1	A	1	7	a	<i>Vaccinium caespitosum</i> - <i>Vaccinium membranaceum</i> - <i>Tsuga heterophylla</i>	
8	1	B	2	2	a	<i>Tellima grandiflora</i> - <i>Urtica lyallii</i> - <i>Rubus spectabilis</i> - <i>Alnus sinuata</i> - <i>Thuja plicata</i>	
9	1	A	1	7	a	<i>Oplopanax horridus</i> - <i>Picea sitchensis</i> - <i>Thuja plicata</i>	
10	1	0	2	2		<i>Stereocaulon tomentosum</i>	
11	1	A	1	7	a	<i>Polystichum andersonii</i> - <i>Picea sitchensis</i> - <i>Thuja plicata</i>	
12	1	A	1	7	a	<i>Rhytidiadelphus triquetrus</i> - <i>Polystichum lonchitis</i> - <i>Picea sitchensis</i>	
13	1	A	1	7	a	<i>Pachystima myrsinites</i> - <i>Tsuga heterophylla</i> - <i>Tsuga mertensiana</i>	
14	1	A	2	1		<i>Rubus parviflorus</i> - <i>R. spectabilis</i> - <i>Alnus sinuata</i> - <i>Populus trichocarpa</i> - <i>Thuja plicata</i>	
15							
16							
17							
18							
19							
20							

Please give information about further communities on a separate sheet.

7.  
(cont.)

2

Soil

Community Reference Number	Soil type	Other notes
1	AC I <sub>2</sub> /F <sub>3</sub>	Brown ranker - Raw soil
2	AC I <sub>2</sub> /F <sub>3</sub>	Brown ranker - Raw soil
3	AC I <sub>2</sub> /F <sub>3</sub>	Brown ranker - Raw soil
4	AC I <sub>2</sub> /F <sub>3</sub>	Brown ranker
5	AC F <sub>3</sub>	Brown ranker
6	AC F <sub>3</sub> /F <sub>5</sub>	Brown soil - Podzolic
7	AGC P <sub>2</sub>	noncalcareous (?) gleyed brunisol
8	AGC P <sub>2</sub>	Gleysol
9	AGC P <sub>2</sub>	Gleysol
10	AC I <sub>2</sub>	Raw soil
11	ABGC F <sub>5</sub> /P <sub>2</sub>	Gleyed Brunisol
12	AC F <sub>3</sub>	Brown ranker (calcareous)
13	ABC F <sub>5</sub>	Podzol
14	AGC I <sub>2</sub> /P <sub>2</sub>	Gleyed Regosol
15		
16		
17		
18		
19		
20		



9. Landscape

1. General Landscape (give brief description) Lava bed with an extinct volcano (two craters) and two lakes (caldera?) surrounded by forest developed also along the Crater Creek

2. Relief Type

	Flat	Undulating (0)-200 m.	Hilly 200-1000 m.	Mountainous > 1000 m.	%
Sharply dissected					
Gently dissected			95		95
Incised			5		5
Skeletonised					
%			100		100%

3. Special landscape features (list) Solidified lava flow (mainly pahoehoe lava, less aa lava) and two lakes (caldera?)

10. Coastline of IBP Area\*

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	
Running	X	

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps				
Ponds				
Lakes			X	

3. Running Water

	Permanent	Intermittent
Springs, cold		
Springs, hot		
Streams	X	X
Rivers	X	

4. Special freshwater features ..... (caldera?) lakes .....  
 .....

12. Salt and Brackish Water within IBP Area\*

nil

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   
 Lava Lake Tseax River

2. Salt and Brackish nil

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						
Aves	X					X						
Reptilia												
Amphibia												
Pisces												
Insecta	X											

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

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4. Flora

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

5. Names of main threatened, endemic, relict and rare species *Lycopodium sitchense*, *Dryopteris filix-mas*, *Polypodium hesperium*, *Herberta sp.*, *Cladonia tenuis*, *Nephroma arcticum*, *Polystichum lonchitis*, *Epilobium behringianum* (new to B.C.), *Polystichum andersonii*, *Woodsia scopulina*, *Phyllodoce glanduliflora* (in the elevation of 600 m a.s.), *Salix arctica ssp. crassijulis*, *S. barclayi*

15.

Exceptional interest of IBP Area\*

A relatively more recent volcanic activity (probably during the last 1000 years). Outstanding lichen and moss plant communities on lava beds which are very brittle and fragile, especially in dry weather, and easily peel off when wet.

16.

**Significant Human Impact**

1. General : None in entire IBP Area\* ..... almost nil, however, increasing  
 None in part of IBP Area\* .....  
 Impact on entire IBP Area\* .....

2. Particular

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

3. Additional details on each type of impact attached?

Yes ..... No  .....

There is an increased danger from the growing tourism which might destroy the beauties of fragile plant communities.

17.

Conservation Status (future) should be established rather strictly, however, a certain path for tourists should be specially built,

well maintained and used by tourists.

	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	
Fauna		X		X					X		X	
Non-living		X		X					X		X	
		X		X					X		X	

18.

References

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

Sheet attached? Yes .....<sup>X</sup>..... No .....

2. List main maps available for the IBP Area.

List attached? Yes ..... No .....

3. Aerial photographs for the IBP Area available?

For whole area .....<sup>X</sup>..... For part of area ..... None .....

19.

Other Relevant Information

Most of the area belongs to the fire-break area. This area should be well protected and used by tourists only in a prescribed and limited form. For this purpose only a specially established path should be applied. No overnight camping should be permitted. The lakes are beautiful and should not be desecrated by people who might wish to camp there. Lava beds are too fragile to be used by walking people.

*V. J. Krajina & K. Klínka*  
Signed .....  
(Surveyor)



STEWART 55°57'N, 129°59'W, 15' ASL. Record: 25-56 years.

Months above 50°F: 4, below 32°F: 3, A.M.T.P. 51.31", A.M.S.F. 209.5", snow % A.M.T.P.: 40.84, days with frost, yearly: 73.

E.MAX.T.	56	56	70	75	89	94	92	90	82	69	58	48
M.D.MAX.T.	28.1	33.5	40.6	49.6	60.8	66.7	68.7	67.1	58.8	46.6	36.1	30.4
M.D.T.	23.2	28.0	33.4	40.4	49.5	55.2	57.8	56.8	50.1	41.4	32.0	26.0
M.D.MIN.T.	18.2	22.5	26.1	31.2	38.3	43.7	47.0	46.4	41.6	36.2	27.6	21.7
E.MIN.T.	-22	-19	-10	7	22	27	32	32	25	9	-5	-15

