



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W Estab. 2011

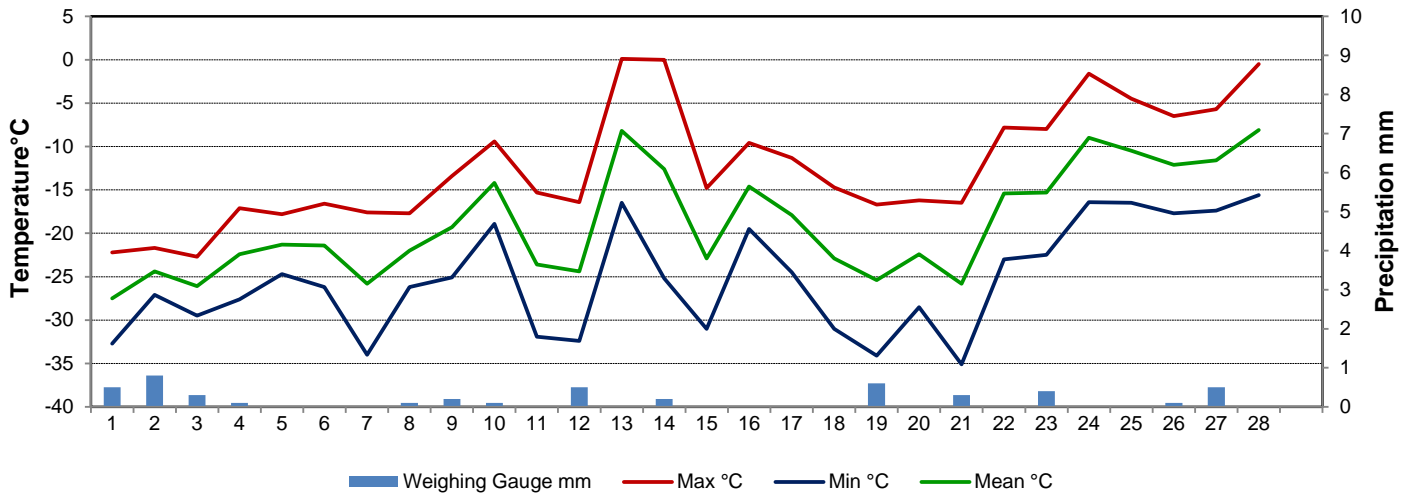
Preliminary **February 2018**

Day	Temperature			Degree-days			Precipitation			Relative Humidity		Station Pressure <i>corrected to sea level</i>	
	Max	Min	Mean	Growing	Heating	Cooling	Weighing Gauge	Notes	Snow-on-Ground 0900h	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	°C	°C	5°C base	18°C base	18°C base	mm		cm	%	%	mbar	mbar
1	-22.2	-32.7	-27.5	0.0	45.5	0.0	0.5		21	78	69	1028	1023
2	-21.7	-27.1	-24.4	0.0	42.4	0.0	0.8		22	79	58	1024	1021
3	-22.7	-29.5	-26.1	0.0	44.1	0.0	0.3		23	75	59	1025	1021
4	-17.1	-27.6	-22.4	0.0	40.4	0.0	0.1		25	74	52	1021	1010
5	-17.8	-24.7	-21.3	0.0	39.3	0.0	0.0		24	79	51	1021	1014
6	-16.6	-26.2	-21.4	0.0	39.4	0.0	0.0		24	79	62	1022	1015
7	-17.6	-34.0	-25.8	0.0	43.8	0.0	0.0		24	79	58	1025	1020
8	-17.7	-26.2	-22.0	0.0	40.0	0.0	0.1		24	77	60	1030	1025
9	-13.4	-25.1	-19.3	0.0	37.3	0.0	0.2		25	76	51	1029	1016
10	-9.4	-18.9	-14.2	0.0	32.2	0.0	0.1		25	82	60	1016	1005
11	-15.3	-31.9	-23.6	0.0	41.6	0.0	0.0		24	78	53	1030	1011
12	-16.4	-32.4	-24.4	0.0	42.4	0.0	0.5		24	71	58	1030	1005
13	0.1	-16.5	-8.2	0.0	26.2	0.0	0.0		20	77	61	1004	995
14	0.0	-25.2	-12.6	0.0	30.6	0.0	0.2		20	90	65	1020	994
15	-14.8	-31.0	-22.9	0.0	40.9	0.0	0.0		19	76	51	1022	1012
16	-9.6	-19.5	-14.6	0.0	32.6	0.0	0.0		20	80	64	1012	1004
17	-11.3	-24.5	-17.9	0.0	35.9	0.0	0.0		20	80	49	1011	1007
18	-14.7	-31.0	-22.9	0.0	40.9	0.0	0.0		19	80	50	1020	1011
19	-16.7	-34.1	-25.4	0.0	43.4	0.0	0.6		19	77	58	1019	1014
20	-16.2	-28.5	-22.4	0.0	40.4	0.0	0.0		20	79	49	1020	1012
21	-16.5	-35.1	-25.8	0.0	43.8	0.0	0.3		19	81	58	1021	1018
22	-7.8	-23.0	-15.4	0.0	33.4	0.0	0.0		19	83	54	1020	1016
23	-8.0	-22.5	-15.3	0.0	33.3	0.0	0.4		19	82	64	1020	1001
24	-1.6	-16.4	-9.0	0.0	27.0	0.0	0.0		19	80	54	1001	997
25	-4.5	-16.5	-10.5	0.0	28.5	0.0	0.0		19	86	63	1000	994
26	-6.5	-17.7	-12.1	0.0	30.1	0.0	0.1		19	88	62	1008	995
27	-5.7	-17.4	-11.6	0.0	29.6	0.0	0.5		19	87	63	1008	1000
28	-0.5	-15.6	-8.1	0.0	26.1	0.0	0.0		18	88	60	1011	1000
Total				0.0	1031.1	0.0	4.7						
Avg	<b>-12.2</b>	<b>-25.4</b>	<b>-18.8</b>				24.8	Cumulative ppt					
Extreme	0.1	-35.1					0.8		25	90	49	1030	994
Date	13	21					2		4	14	17	8	14

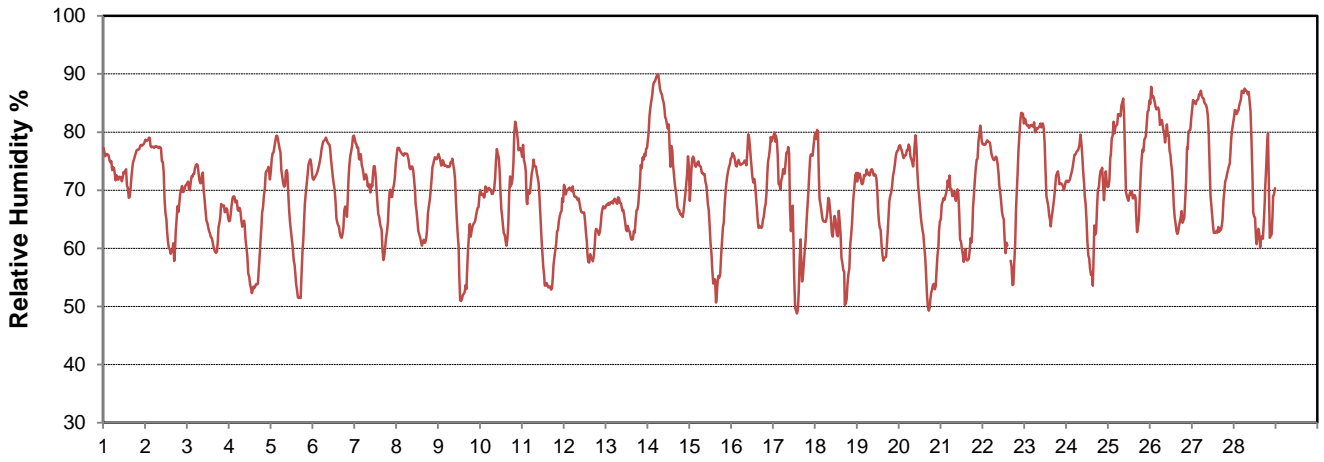
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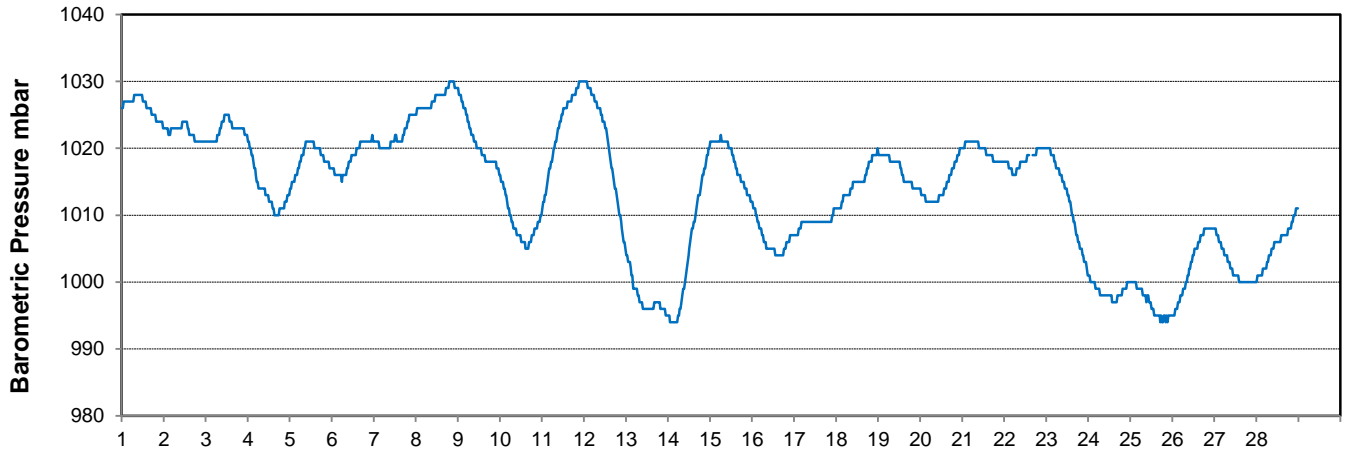
### Temperature and Precipitation for February 2018



### Relative Humidity for February 2018



### Barometric Pressure Corrected to Sea Level for February 2018





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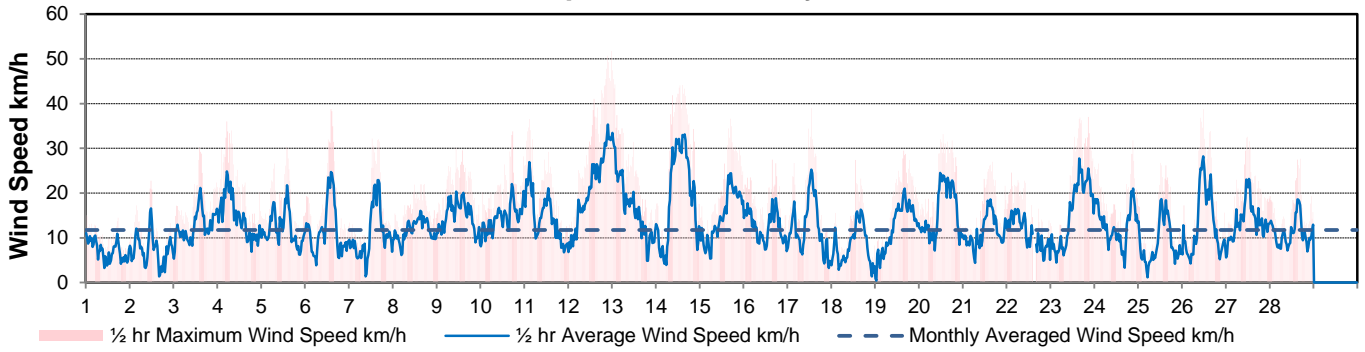
Preliminary **February 2018**

Day	Wind Gust			Soil Temperatures at 0900hrs								Soil Moisture	Radiation		
	Max	Direction	Time	Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm	0900hrs	Bright Sunshine	Global	Diffuse
	km/h			°C	°C	°C	°C	°C	°C	°C	°C	%	hours	MJ/m <sup>2</sup>	MJ/m <sup>2</sup>
1	15.1	NW	0:21	-24.5	-4.0	-3.5	-2.5	-0.5	0.5	2.0	5.0	12	4.3	6.2	4.2
2	22.7	N	11:43	-20.0	-4.0	-4.0	-2.5	-0.5	0.5	2.0	5.0	11	7.9	5.4	3.5
3	30.1	WNW	14:27	-23.0	-4.0	-4.0	-3.0	-1.0	0.5	2.0	5.0	11	8.6	7.8	2.3
4	36.0	WSW	5:22	-23.0	-4.5	-4.5	-3.0	-1.0	0.5	2.0	5.0	11	8.1	7.1	1.9
5	30.3	WNW	13:59	-22.5	-4.5	-4.5	-3.0	-1.0	0.5	2.0	5.0	11	8.6	8.6	3.6
6	38.7	NW	14:29	-22.5	-5.0	-4.5	-3.0	-1.0	0.5	2.0	4.5	11	8.9	8.7	3.7
7	32.2	NW	12:48	-22.0	-5.0	-4.5	-3.5	-1.0	0.5	2.0	4.5	11	8.9	9.1	5.0
8	22.0	NW	17:21	-19.0	-5.0	-5.0	-3.5	-1.0	0.5	2.0	4.5	11	8.4	8.6	4.5
9	30.1	W	10:47	-23.5	-5.0	-5.0	-3.5	-1.0	0.5	2.0	4.5	11	5.4	7.2	6.4
10	33.8	NW	17:35	-15.5	-5.0	-4.5	-3.5	-1.0	0.5	2.0	4.5	11	4.7	7.4	4.9
11	36.5	NNE	2:40	-18.5	-4.5	-4.0	-3.0	-1.0	0.5	2.0	4.5	11	9.2	9.4	6.0
12	51.7	SSW	23:56	-28.5	-5.0	-4.5	-3.5	-1.0	0.5	2.0	4.5	11	9.3	9.9	7.0
13	47.4	SW	0:18	-13.5	-5.0	-5.0	-3.5	-1.0	0.5	2.0	4.5	11	1.3	5.9	5.3
14	44.2	NNE	14:42	-2.5	-4.0	-4.0	-3.5	-1.5	0.5	1.5	4.5	11	0.0	3.7	3.5
15	36.6	WSW	16:57	-28.0	-3.5	-3.5	-3.0	-1.0	0.5	1.5	4.5	11	9.3	10.6	4.5
16	27.4	NW	15:39	-15.5	-4.0	-4.0	-3.0	-1.0	0.5	1.5	4.5	11	1.4	6.7	6.1
17	39.0	NW	13:15	-15.0	-4.0	-4.0	-3.0	-1.0	0.5	1.5	4.5	11	2.7	7.8	6.6
18	27.4	WNW	13:19	-18.0	-4.0	-3.5	-3.0	-1.0	0.5	1.5	4.5	11	7.5	8.8	5.8
19	29.5	SW	15:52	-29.0	-4.5	-4.0	-3.0	-1.0	0.5	1.5	4.5	11	9.8	11.0	6.9
20	33.2	NW	13:21	-18.5	-5.0	-4.5	-3.5	-1.0	0.5	1.5	4.5	11	6.3	8.9	6.0
21	27.0	SSW	16:26	-30.5	-4.5	-4.5	-3.5	-1.0	0.5	1.5	4.5	11	9.3	11.8	5.6
22	24.6	SW	2:54	-22.5	-5.0	-5.0	-3.5	-1.0	0.5	1.5	4.5	11	8.3	10.0	2.1
23	37.0	SSW	20:50	-21.0	-5.0	-4.5	-3.5	-1.5	0.5	1.5	4.5	11	10.0	12.7	2.4
24	31.8	NNW	21:19	-15.0	-4.5	-4.5	-3.5	-1.5	0.5	1.5	4.0	11	6.7	9.7	3.8
25	26.7	SSE	12:05	-15.5	-4.0	-4.0	-3.0	-1.5	0.5	1.5	4.0	11	8.5	10.6	5.7
26	38.7	NW	11:41	-11.0	-4.0	-3.5	-3.0	-1.0	0.5	1.5	4.0	11	2.3	7.9	6.1
27	32.6	SW	11:43	-14.5	-3.5	-3.5	-3.0	-1.0	0.5	1.5	4.0	11	5.4	9.7	5.8
28	27.7	SW	16:32	-15.0	-3.5	-3.5	-2.5	-1.0	0.0	1.5	4.0	11	8.2	12.6	3.5
Total													189.3	243.8	132.7
Mean				-19.6	-4.4	-4.2	-3.2	-1.0	0.5	1.7	4.5	11.0	Feb 22 Program change for diffuse ring QA/QC parameter (missing all measured data for all instruments between 14:30 and 16:30)		
Extreme	51.7	SSW	23:56												
Date	12														

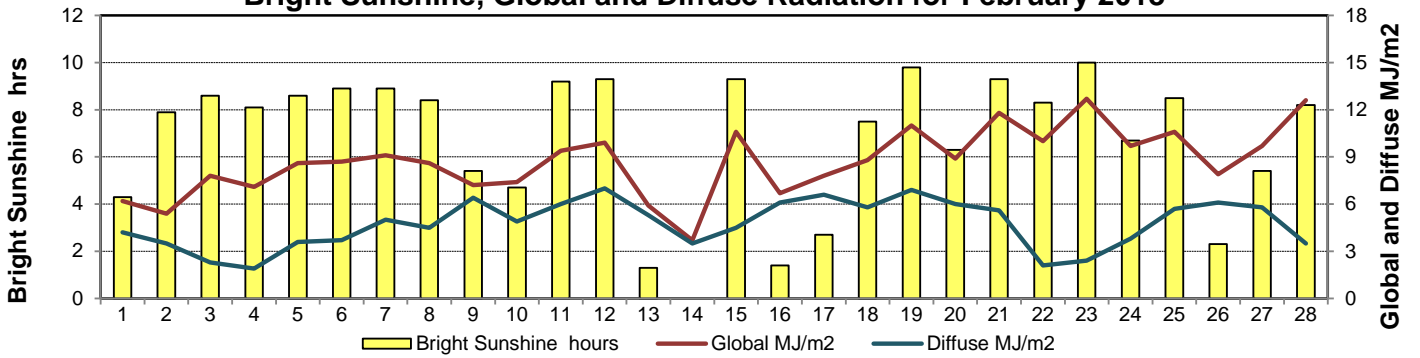
### GLOSSARY OF TERMS

<b>Degree-days</b>	<b>Radiation</b>
T <sub>m</sub> Mean Temperature	Bright Sunshine is the unobstructed direct radiation from the sun, as opposed to the shading of a location by clouds or by other atmospheric obstructions.
Growing (T <sub>m</sub> -5°C); if T <sub>m</sub> ≤ 5°C then GDD = 0	
Heating (18°C-T <sub>m</sub> ); if T <sub>m</sub> ≥ 18°C then HDD = 0	
Cooling (T <sub>m</sub> -18°C); if T <sub>m</sub> ≤ 18°C then CDD = 0	Diffuse is radiation reaching the earth's surface after having been scattered from the direct solar beam
T Trace of Precipitation	Global is the sum of the direct solar and diffuse radiation
<b>SOG</b> Depth of snow-on-the-ground	
<b>Red Cell</b> no data available	<b>Relative Humidity</b> The ratio of the air's water vapour content to its water vapour capacity which changes with temperature.
<b>Red Number</b> manual calculation	<b>Air Pressure</b> The force exerted by the weight of a column of air above a given point
	<b>Wind Gust</b> The daily highest instantaneous value recorded irrespective of direction and/or duration

### Wind Speed for February 2018

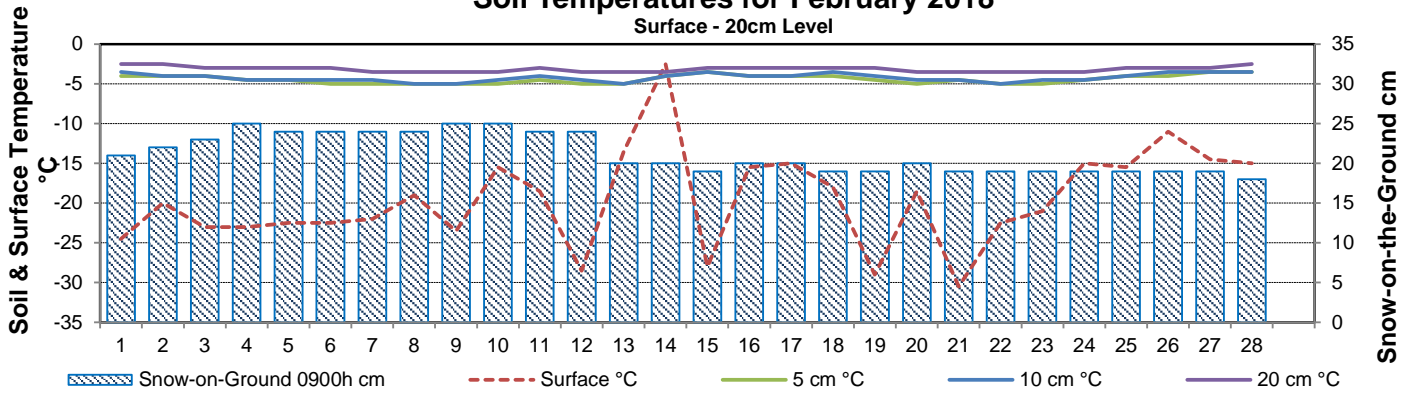


### Bright Sunshine, Global and Diffuse Radiation for February 2018



### Soil Temperatures for February 2018

Surface - 20cm Level



### Soil Temperatures for February 2018

50 - 300cm Level

