



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

Preliminary **December 2022**

Day	Temperature						Degree-days			Precipitation			Relative Humidity		Station Pressure <i>corrected to sea level</i>	
	Max	Avg Max	Min	Avg Min	Mean	Avg Mean	Growing	Heating	Cooling	Weighing Gauge	Comments	Snow-on-Ground 0900h	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	2012-2021	°C	2012-2021	°C	2012-2021	5°C base	18°C base	18°C base	mm		cm	%	%	mbar	mbar
1	-20.7	-4.6	-27.3	-13.3	-24.0	-9.0	0.0	42.0	0.0	1.6		12	84	74	1013	1008
2	-20.5	-5.3	-30.2	-14.5	-25.4	-9.9	0.0	43.4	0.0	0.2		12	84	75	1016	1011
3	-14.5	-4.7	-27.9	-13.9	-21.2	-9.3	0.0	39.2	0.0	0.0		12	82	69	1016	1007
4	-2.4	-5.5	-16.0	-13.8	-9.2	-9.7	0.0	27.2	0.0	0.7		23	92	63	1012	1000
5	-16.0	-7.5	-27.3	-17.0	-21.7	-12.3	0.0	39.7	0.0	0.2		13	86	65	1015	1012
6	-23.3	-10.2	-36.5	-18.5	-29.9	-14.4	0.0	47.9	0.0	0.1		13	84	73	1022	1014
7	-15.2	-10.5	-37.4	-18.7	-26.3	-14.7	0.0	44.3	0.0	0.0		13	84	75	1021	1008
8	-14.5	-8.8	-19.8	-20.2	-17.2	-14.5	0.0	35.2	0.0	0.0		17	87	80	1017	1009
9	-6.6	-7.6	-20.2	-18.1	-13.4	-12.9	0.0	31.4	0.0	0.0		17	94	80	1009	1003
10	-8.1	-9.1	-15.6	-18.1	-11.9	-13.6	0.0	29.9	0.0	0.0		17	95	90	1014	1007
11	-5.0	-8.9	-10.4	-17.4	-7.7	-13.2	0.0	25.7	0.0	0.0		16	94	77	1014	1009
12	-7.0	-7.9	-12.2	-15.1	-9.6	-11.5	0.0	27.6	0.0	1.2		17	95	85	1018	1014
13	-9.9	-9.1	-12.3	-18.6	-11.1	-13.9	0.0	29.1	0.0	0.0		18	94	84	1020	1017
14	-9.1	-9.4	-14.9	-18.1	-12.0	-13.8	0.0	30.0	0.0	0.0		18	93	84	1019	1017
15	-9.8	-6.4	-16.8	-17.5	-13.3	-12.0	0.0	31.3	0.0	0.4		20	90	79	1021	1019
16	-14.6	-9.3	-20.8	-18.9	-17.7	-14.2	0.0	35.7	0.0	0.0		20	91	81	1022	1019
17	-15.5	-10.2	-21.0	-20.0	-18.3	-15.1	0.0	36.3	0.0	0.0		20	90	74	1027	1020
18	-21.0	-8.4	-27.9	-20.1	-24.5	-14.3	0.0	42.5	0.0	0.1		19	84	79	1030	1027
19	-23.6	-9.8	-29.6	-19.4	-26.6	-14.6	0.0	44.6	0.0	0.9		19	83	76	1031	1029
20	-24.5	-9.5	-30.3	-20.1	-27.4	-14.8	0.0	45.4	0.0	0.7		19	82	73	1034	1031
21	-21.8	-8.2	-29.0	-17.5	-25.4	-12.9	0.0	43.4	0.0	1.0		20	83	76	1033	1031
22	-20.8	-9.7	-29.6	-17.4	-25.2	-13.6	0.0	43.2	0.0	0.1		21	83	72	1037	1034
23	-26.8	-10.3	-37.8	-20.5	-32.3	-15.4	0.0	50.3	0.0	0.0		20	82	75	1038	1032
24	-15.5	-12.4	-34.4	-19.6	-25.0	-16.0	0.0	43.0	0.0	0.0		21	83	57	1033	1015
25	-13.6	-13.9	-17.0	-22.3	-15.3	-18.1	0.0	33.3	0.0	4.1		24	92	58	1022	1009
26	-12.3	-13.0	-15.7	-23.9	-14.0	-18.5	0.0	32.0	0.0	0.2		24	90	86	1020	995
27	-12.6	-13.2	-15.6	-25.8	-14.1	-19.5	0.0	32.1	0.0	1.2		23	92	86	996	992
28	-15.3	-14.8	-19.8	-26.6	-17.6	-20.7	0.0	35.6	0.0	3.9		23	88	81	1003	993
29	-13.9	-16.2	-21.6	-24.7	-17.8	-20.5	0.0	35.8	0.0	0.0		24	92	78	1006	1003
30	-11.4	-15.5	-21.9	-26.4	-16.7	-21.0	0.0	34.7	0.0	0.0		24	93	87	1006	998
31	-15.1	-14.9	-23.5	-24.9	-19.3	-19.9	0.0	37.3	0.0	0.0		24	93	85	1005	998
Total							0.0	1149.1	0.0	16.6						
Avg	-14.9	-9.8	-23.2	-19.4	-19.1	-14.6	<i>Monthly 2012 - 2021 Average</i>			10.3	<i>2012-2021 Average</i>					
Extreme	-2.4	7.1	-37.8	-39.9			0	1008.8	0	411.0	<i>2022 Cumulative ppt</i>		95	57	1038	992
Date	4	2014	23	2013						378.6	<i>Cumulative Average</i>		10	24	23	27

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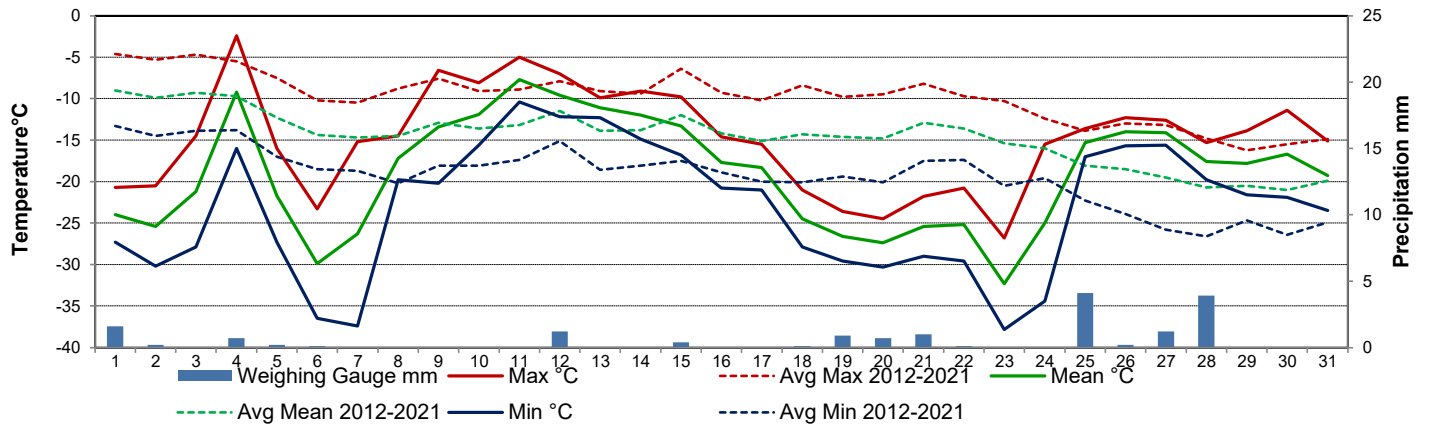


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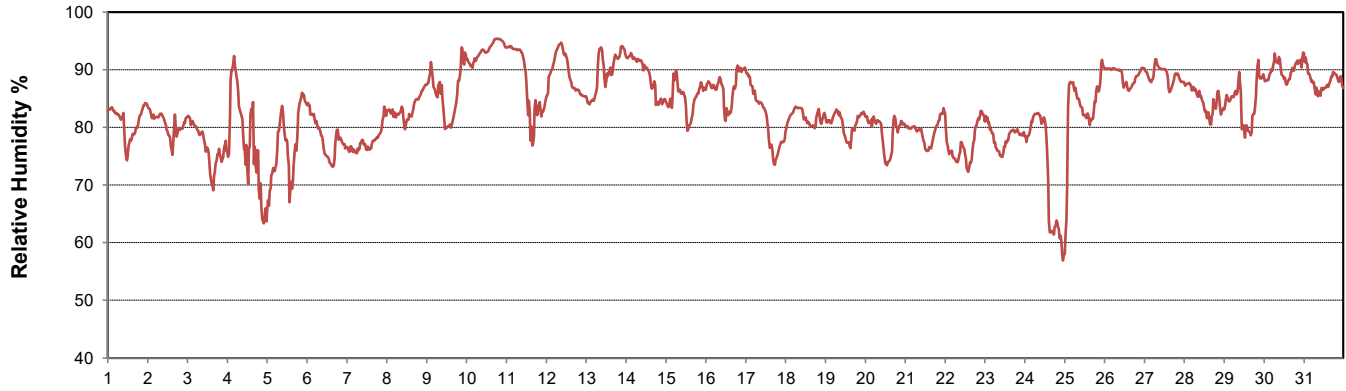
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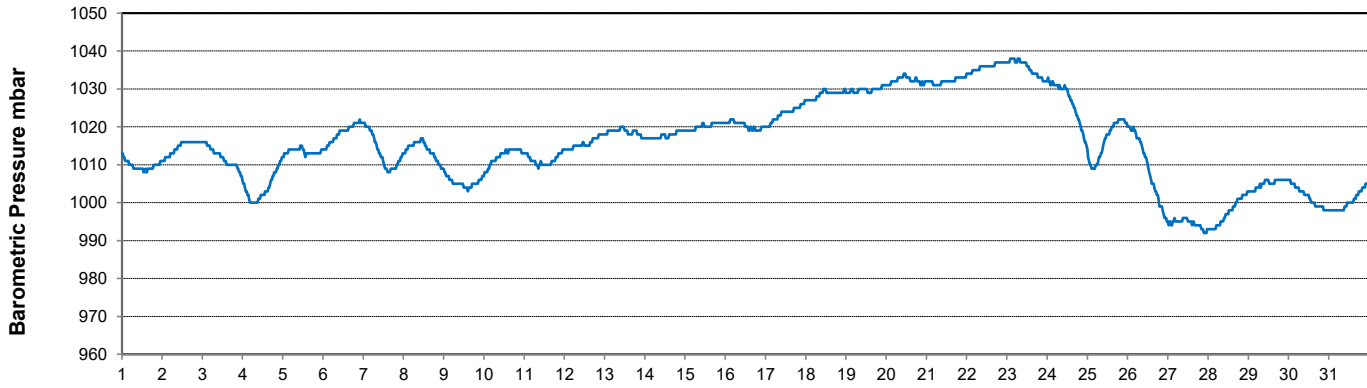
### Temperature and Precipitation for December 2022



### Relative Humidity for December 2022



### Barometric Pressure Corrected to Sea Level for December 2022





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## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

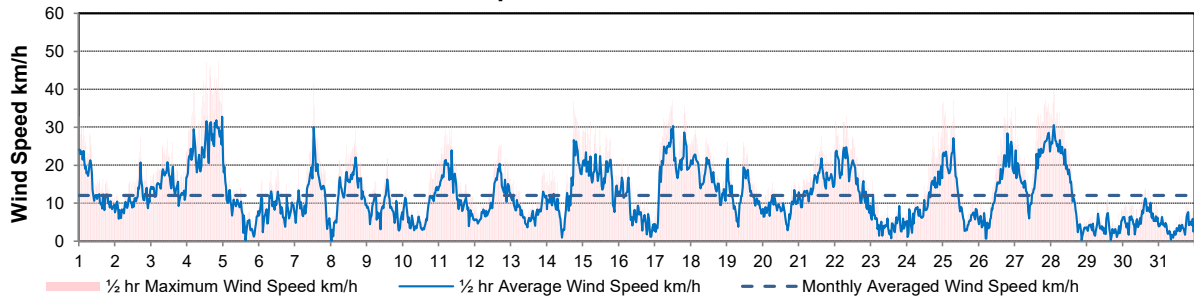
Preliminary **December 2022**

Day	Wind Gust (10 meter)			Wind Speed (10 meters) Daily Average	Soil Temperatures at 0900hrs								Radiation				
	Max	Direction	Time		Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm	Bright Sunshine	Possible	% Possible	Global	Diffuse
	km/h				°C	°C	°C	°C	°C	°C	°C	°C	hours	hours		MJ/m <sup>2</sup>	MJ/m <sup>2</sup>
1	32.8	ENE	0:38	14.5	-18.5	-1.5	-1.0	0.5	1.5	4.0	5.5	7.5	3.5	7.9	44.1	3.0	1.7
2	27.3	SW	17:27	10.7	-20.5	-2.0	-1.5	0.0	1.5	3.5	5.5	7.5	4.0	7.9	50.6	3.6	2.0
3	26.8	SW	11:14	15.0	-21.5	-2.5	-2.0	0.0	1.0	3.5	5.5	7.5	5.2	7.9	66.1	3.6	1.9
4	47.3	N	21:18	25.4	-5.5	-2.0	-2.0	-0.5	1.0	3.5	5.0	7.0	2.1	7.8	26.8	2.9	2.2
5	31.2	NNW	0:01	7.9	-20.5	-1.5	-1.5	-0.5	1.0	3.5	5.0	7.5	5.3	7.8	67.9	3.8	1.6
6	19.5	NW	12:54	8.6	-22.5	-2.0	-1.5	-0.5	1.0	3.5	5.0	7.0	7.0	7.8	90.0	5.2	1.1
7	41.3	SSW	12:38	12.6	-24.5	-2.5	-2.0	-0.5	0.5	3.5	5.0	7.0	1.1	7.8	14.2	2.5	2.1
8	29.0	E	16:56	13.0	-12.5	-2.5	-2.0	-0.5	0.5	3.0	5.0	7.0	6.7	7.7	86.8	3.7	1.1
9	21.8	S	14:09	8.3	-10.0	-2.0	-2.0	-1.0	0.5	3.0	5.0	7.0	0.0	7.7	0.0	1.8	1.8
10	21.2	E	22:49	7.4	-8.5	-2.0	-1.5	-1.0	0.5	3.0	4.5	7.0	0.0	7.7	0.0	1.8	1.7
11	30.9	E	8:47	13.0	-8.0	-1.5	-1.5	-1.0	0.5	3.0	4.5	7.0	3.1	7.7	40.5	2.5	1.6
12	25.4	NW	17:31	11.1	-6.0	-1.5	-1.5	-0.5	0.5	3.0	4.5	7.0	0.0	7.6	0.0	1.9	1.8
13	19.1	SSW	21:35	8.0	-9.5	-1.5	-1.5	-0.5	0.5	3.0	4.5	7.0	0.0	7.6	0.0	2.0	1.9
14	36.7	N	18:24	12.3	-11.5	-1.5	-1.5	-0.5	0.5	2.5	4.5	7.0	0.4	7.6	5.3	2.2	2.1
15	31.2	NNW	5:09	17.7	-10.5	-1.5	-1.5	-0.5	0.5	2.5	4.5	7.0	4.8	7.6	63.2	3.0	1.2
16	21.8	NW	2:42	7.8	-13.5	-1.5	-1.5	-0.5	0.5	2.5	4.5	7.0	3.6	7.6	47.5	3.7	1.6
17	37.0	ENE	12:13	20.0	-12.0	-2.0	-1.5	-0.5	0.5	2.5	4.5	7.0	2.0	7.6	26.4	3.2	2.1
18	29.2	ENE	3:26	16.7	-17.5	-2.0	-2.0	-1.0	0.0	2.5	4.0	6.5	3.9	7.6	51.5	3.4	2.6
19	26.1	E	11:23	12.2	-19.0	-2.5	-2.0	-1.0	0.0	2.5	4.0	6.5	0.0	7.6	0.0	2.1	2.0
20	15.7	N	21:24	8.7	-17.5	-3.0	-2.5	-1.0	0.0	2.5	4.0	6.5	6.6	7.6	87.3	3.8	1.3
21	27.7	NW	15:25	15.0	-18.0	-3.0	-3.0	-1.5	0.0	2.5	4.0	6.5	2.8	7.6	37.0	3.0	2.5
22	32.9	NNW	8:12	16.9	-22.5	-3.5	-3.0	-1.5	0.0	2.5	4.0	6.5	5.4	7.6	71.4	2.8	1.3
23	16.0	WNW	1:51	4.6	-23.0	-3.5	-3.0	-1.5	0.0	2.5	4.0	6.5	4.8	7.6	63.5	3.5	1.9
24	29.0	SSE	21:16	10.2	-17.5	-4.0	-3.5	-2.0	-0.5	2.0	4.0	6.5	0.6	7.6	7.9	2.3	2.1
25	37.1	ENE	7:08	12.5	-12.5	-3.5	-3.5	-2.0	-0.5	2.0	4.0	6.5	0.1	7.6	1.3	2.3	2.3
26	39.1	E	19:07	13.1	-10.5	-3.0	-3.0	-2.0	-0.5	2.0	4.0	6.5	0.0	7.6	0.0	1.7	1.6
27	37.4	ENE	20:53	18.8	-9.0	-2.5	-2.5	-1.5	-0.5	2.0	3.5	6.5	0.0	7.6	0.0	1.8	1.7
28	39.5	ENE	2:12	15.7	-12.0	-2.0	-2.0	-1.5	-0.5	2.0	3.5	6.5	0.0	7.6	0.0	2.0	1.9
29	11.1	WNW	14:00	3.5	-11.0	-2.0	-2.0	-1.5	-0.5	2.0	3.5	6.5	1.3	7.6	17.1	2.4	2.0
30	14.0	E	15:37	6.2	-10.0	-2.0	-2.0	-1.5	-0.5	2.0	3.5	6.0	5.6	7.6	73.3	4.2	1.3
31	10.0	W	19:33	3.5	-14.0	-2.0	-2.0	-1.5	-0.5	2.0	3.5	6.0	3.1	7.7	40.5	3.1	1.8
Total													83.0	237.5	35.0	88.8	55.8
Mean				12.0	-14.5	-2.3	-2.0	-0.9	0.3	2.7	4.4	6.8					
Extreme	47.3	N	21:18														
Date	4																

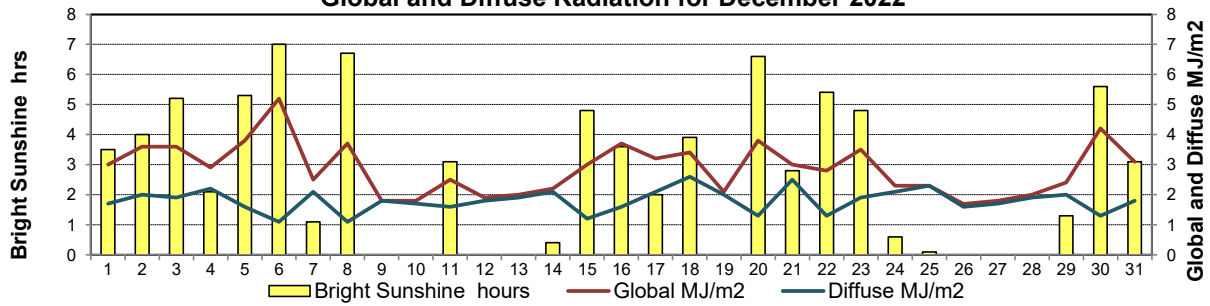
### GLOSSARY OF TERMS

Degree-days	Radiation
<b>T<sub>m</sub></b> Mean Temperature	<b>Bright Sunshine</b> 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	<b>Diffuse</b> is radiation reaching the earth's surface after having been scattered from the direct solar beam
<b>T</b> Trace of Precipitation	<b>Global</b> is the sum of the direct solar and diffuse radiation
<b>SOG</b> Depth of snow-on-the-ground	<b>Relative Humidity</b> The ratio of the air's water vapour content of its water vapour capacity which changes with temperature.
<b>Red Cell</b> no data available	<b>Air Pressure</b> The force exerted by the weight of a column of air above a given point
Red Number manual calculation	<b>Wind Gust</b> The daily highest instantaneous value recorded irrespective of direction and/or duration

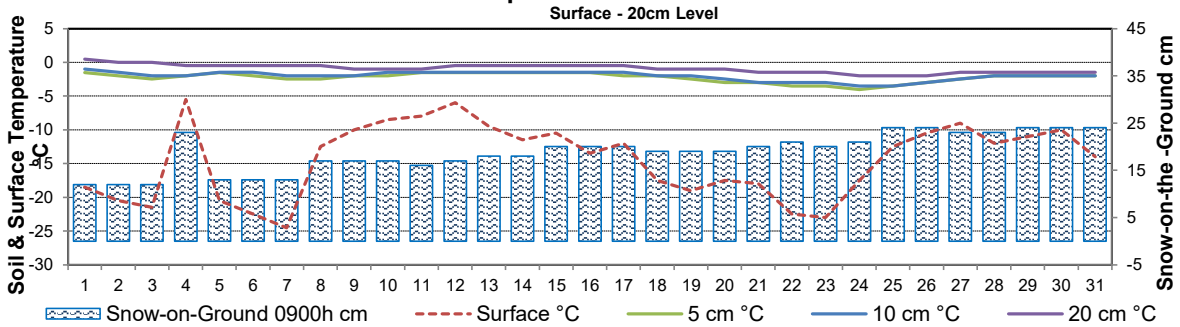
**Wind Speed for December 2022**



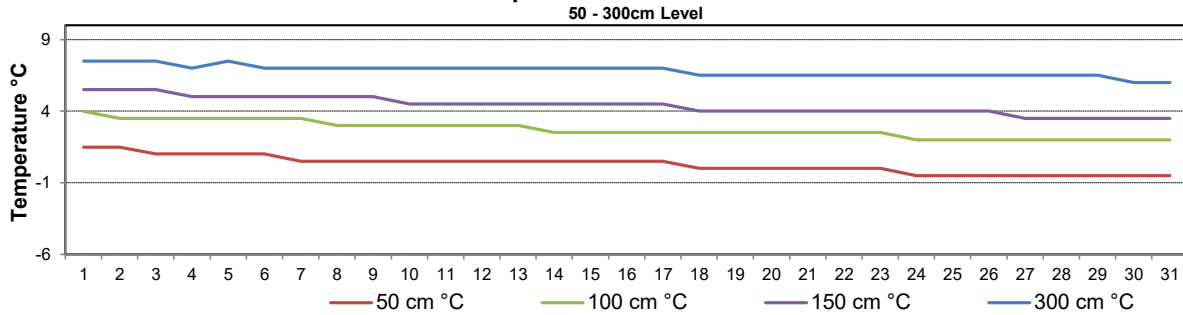
**Global and Diffuse Radiation for December 2022**



**Soil Temperatures for December 2022**



**Soil Temperatures for December 2022**





# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

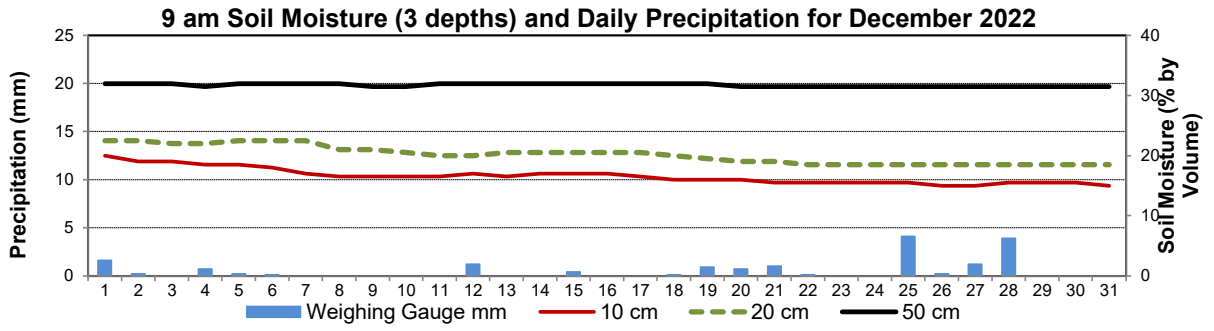
Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

Preliminary **December 2022**

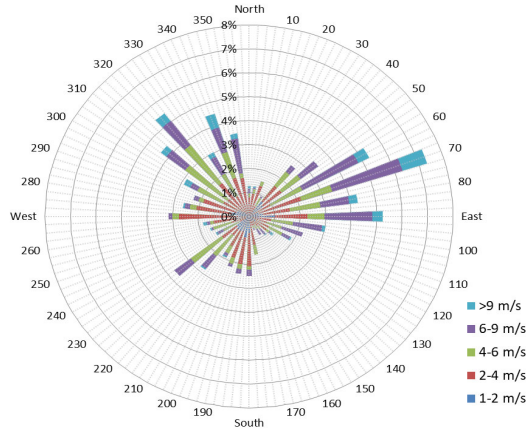
Day	2 meter Wind Speed			Soil Moisture at 0900 hrs (rounded to the 0.5%)																		
	Daily Average	Max ½ hr Avg	½ hr Extreme Max	10 cm	20 cm	50 cm																
	km/h	km/h	km/h	% by volume (soil type is Clay Loam)																		
1	12.0	20.9	29.5	20.0	22.5	32.0																
2	9.0	18.2	24.8	19.0	22.5	32.0																
3	13.0	18.5	22.9	19.0	22.0	32.0																
4	20.0	25.2	40.6	18.5	22.0	31.5																
5	6.0	16.2	24.1	18.5	22.5	32.0																
6	6.0	10.9	15.6	18.0	22.5	32.0																
7	11.0	25.7	34.8	17.0	22.5	32.0																
8	11.0	19.2	25.6	16.5	21.0	32.0																
9	5.0	14.4	18.7	16.5	21.0	31.5																
10	5.0	9.3	12.6	16.5	20.5	31.5																
11	9.0	15.4	20.6	16.5	20.0	32.0																
12	9.0	16.6	21.4	17.0	20.0	32.0																
13	7.0	11.6	17.4	16.5	20.5	32.0																
14	10.0	21.4	29.3	17.0	20.5	32.0																
15	14.0	19.1	24.5	17.0	20.5	32.0																
16	6.0	13.2	17.6	17.0	20.5	32.0																
17	17.0	25.9	33.1	16.5	20.5	32.0																
18	14.0	20.1	26.0	16.0	20.0	32.0																
19	10.0	17.9	24.1	16.0	19.5	32.0																
20	7.0	10.0	13.1	16.0	19.0	31.5																
21	12.0	17.3	22.2	15.5	19.0	31.5																
22	14.0	19.8	26.8	15.5	18.5	31.5																
23	2.0	7.9	10.3	15.5	18.5	31.5																
24	8.0	13.6	25.0	15.5	18.5	31.5																
25	11.0	23.4	31.0	15.5	18.5	31.5																
26	11.0	23.9	34.6	15.0	18.5	31.5																
27	17.0	24.6	32.0	15.0	18.5	31.5																
28	14.0	26.2	34.8	15.5	18.5	31.5																
29	2.0	7.2	11.0	15.5	18.5	31.5																
30	5.0	9.5	12.2	15.5	18.5	31.5																
31	0.0	4.0	7.0	15.0	18.5	31.5																
Total																						
Mean				17	20	31.8																
Extreme	20.0	26.2	40.6	20	22.5	32																
Date	-0.5	-1.5	-0.5	0.5	0.5	0.5																

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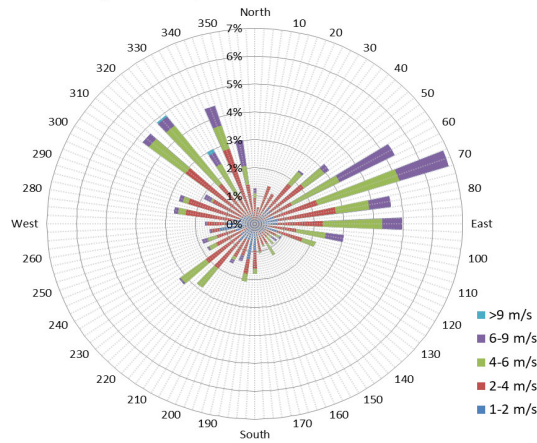




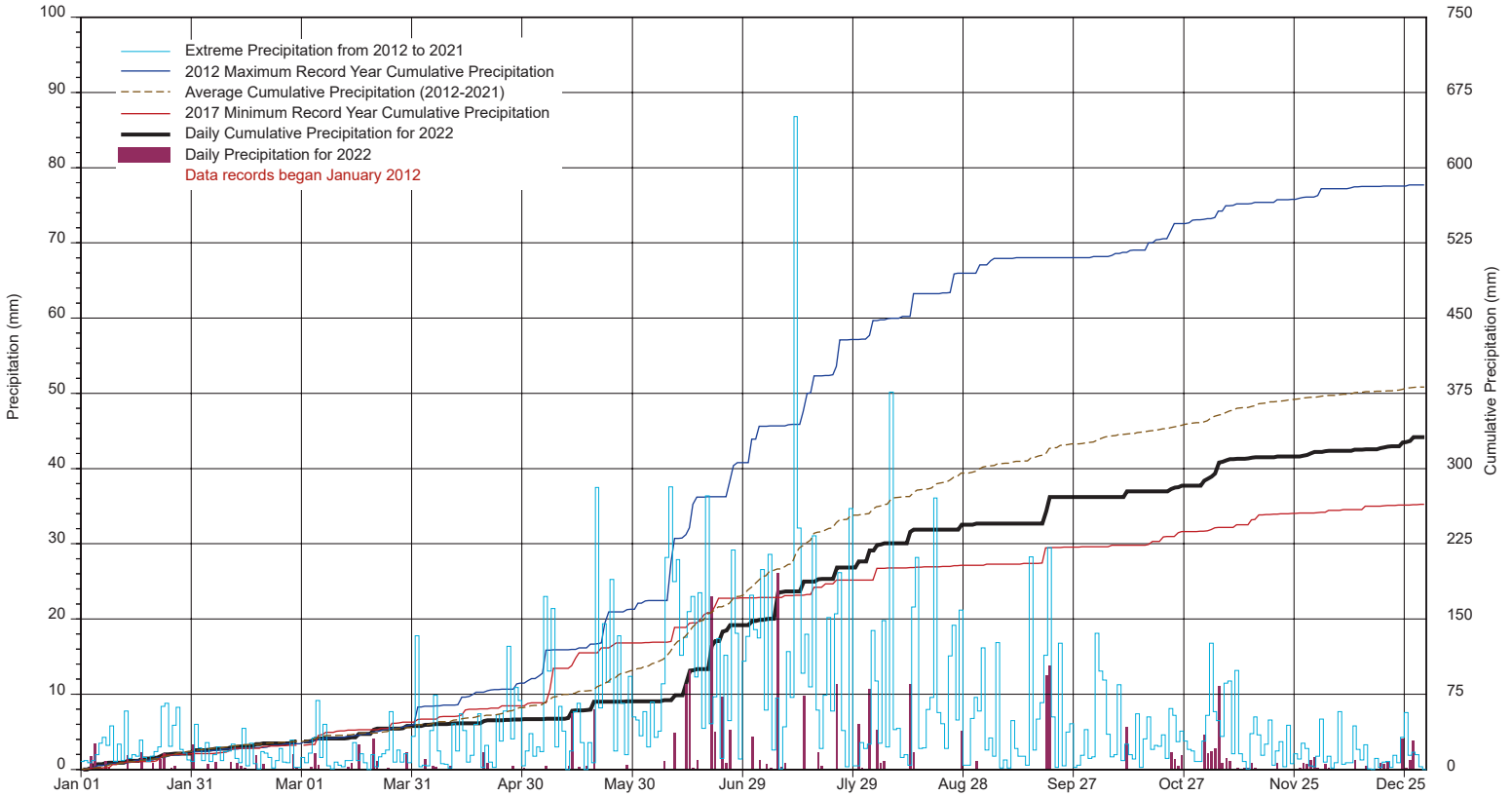
1/2 hr Maximum Wind Speed and Direction CLC December 2022



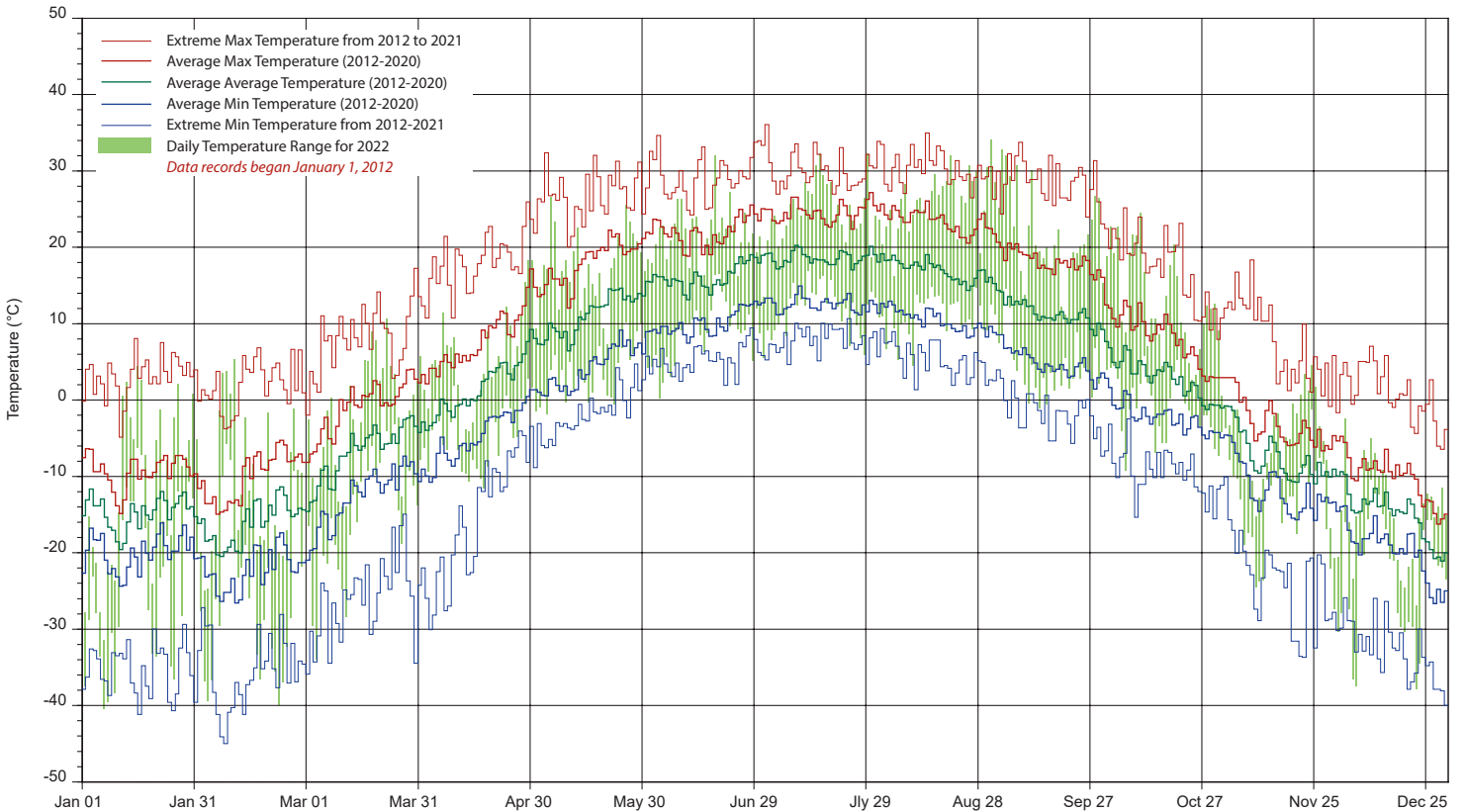
10 minute Average Wind Speed and Direction CLC December 2022



# SRC's CLIMATE REFERENCE STATION at the Conservation Learning Centre 2022 PRECIPITATION AND AVERAGE



## 2022 TEMPERATURES AND AVERAGES



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