



## SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

# CONSERVATION LEARNING CENTRE

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

Preliminary **February 2024**

Day	Temperature (HMP155A)						Degree-days			Precipitation			Relative Humidity (HMP155A)		Station Pressure corrected to sea level	
	Max	Avg Max	Min	Avg Min	Mean	Avg Mean	Growing	Heating	Cooling	Geonor all-season ppt Gauge	Notes	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	4.5	-11.5	-8.7	-20.6	-2.1	-16.1	0.0	20.1	0.0	0.1		2	94	67	1010	1003
2	2.9	-10.5	-2.8	-20.4	0.1	-15.5	0.0	17.9	0.0	0.0		1	96	76	1004	1002
3	1.6	-13.5	-3.7	-23.1	-1.1	-18.4	0.0	19.1	0.0	0.2		1	98	92	1015	1002
4	-1.8	-13.5	-7.6	-22.8	-4.7	-18.2	0.0	22.7	0.0	1.1		1	96	87	1021	1014
5	-0.8	-12.6	-7.0	-22.7	-3.9	-17.7	0.0	21.9	0.0	2.6		2	98	88	1013	1008
6	-5.2	-14.9	-11.7	-25.6	-8.5	-20.2	0.0	26.5	0.0	0.1		3	95	91	1015	1012
7	-6.7	-14.6	-11.8	-26.3	-9.3	-20.4	0.0	27.3	0.0	2.8		3	92	90	1012	1008
8	-3.4	-14.4	-10.5	-25.1	-7.0	-19.8	0.0	25.0	0.0	0.2		7	91	79	1009	1008
9	-3.8	-13.2	-10.2	-25.1	-7.0	-19.2	0.0	25.0	0.0	0.3		6	96	75	1015	1009
10	-7.3	-13.4	-15.8	-23.3	-11.6	-18.3	0.0	29.6	0.0	0.1		6	83	61	1016	1007
11	1.8	-13.0	-14.3	-26.5	-6.3	-19.7	0.0	24.3	0.0	0.0		6	87	54	1010	1005
12	-2.4	-13.8	-18.7	-26.1	-10.6	-19.9	0.0	28.6	0.0	0.0		6	91	59	1012	1009
13	-4.5	-8.6	-18.2	-22.9	-11.4	-15.8	0.0	29.4	0.0	0.0		6	87	65	1015	1008
14	-13.3	-7.5	-23.9	-20.8	-18.6	-14.2	0.0	36.6	0.0	0.0		6	86	55	1023	1016
15	-13.5	-10.2	-27.6	-23.0	-20.6	-16.6	0.0	38.6	0.0	0.0		6	81	55	1028	1024
16	-2.4	-7.3	-18.3	-18.9	-10.4	-13.1	0.0	28.4	0.0	0.0		6	80	45	1026	1013
17	1.0	-6.7	-12.3	-19.0	-5.7	-12.9	0.0	23.7	0.0	0.0		6	61	38	1012	1010
18	-5.4	-9.0	-21.6	-24.1	-13.5	-16.6	0.0	31.5	0.0	0.0		6	85	62	1011	1007
19	-9.6	-9.1	-24.5	-22.5	-17.1	-15.8	0.0	35.1	0.0	0.0		6	88	56	1012	1009
20	-2.4	-7.8	-23.6	-19.5	-13.0	-13.7	0.0	31.0	0.0	0.0		6	84	49	1010	1009
21	4.1	-7.7	-11.1	-22.1	-3.5	-15.0	0.0	21.5	0.0	0.0		6	83	41	1009	1007
22	4.7	-5.5	-11.6	-17.9	-3.5	-11.7	0.0	21.5	0.0	0.0		6	90	55	1011	1007
23	1.9	-5.2	-16.6	-17.3	-7.4	-11.3	0.0	25.4	0.0	0.0		6	89	56	1011	997
24	0.6	-5.8	-14.6	-18.9	-7.0	-12.4	0.0	25.0	0.0	0.0		6	76	47	1004	996
25	-4.4	-8.0	-17.9	-20.8	-11.2	-14.4	0.0	29.2	0.0	0.8		6	86	64	1005	996
26	-10.6	-7.9	-25.2	-22.4	-17.9	-15.2	0.0	35.9	0.0	2.3		6	85	52	1016	995
27	-19.0	-7.4	-31.7	-22.5	-25.4	-14.9	0.0	43.4	0.0	0.0		6	76	49	1020	1016
28	-18.0	-7.0	-34.5	-21.2	-26.3	-14.1	0.0	44.3	0.0	0.0		5	76	53	1017	1008
29	-9.5	-8.1	-21.0	-21.6	-15.3	-14.9	0.0	33.3	0.0	0.0		6	80	65	1007	992
Total							0.0	821.8	0.0	10.6			Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	-4.2	-9.9	-16.4	-22.1	-10.3	-16.1	Monthly 2012 - 2021 Average			9.8	2012-2021 Average					
Extreme	4.7	6.9	-34.5	-44.9			0	964.3	0	19.7	2024 Cumulative ppt		98	38	1028	992
Date	22	2017	28	2019						27.7	Cumulative Average		3	17	15	29

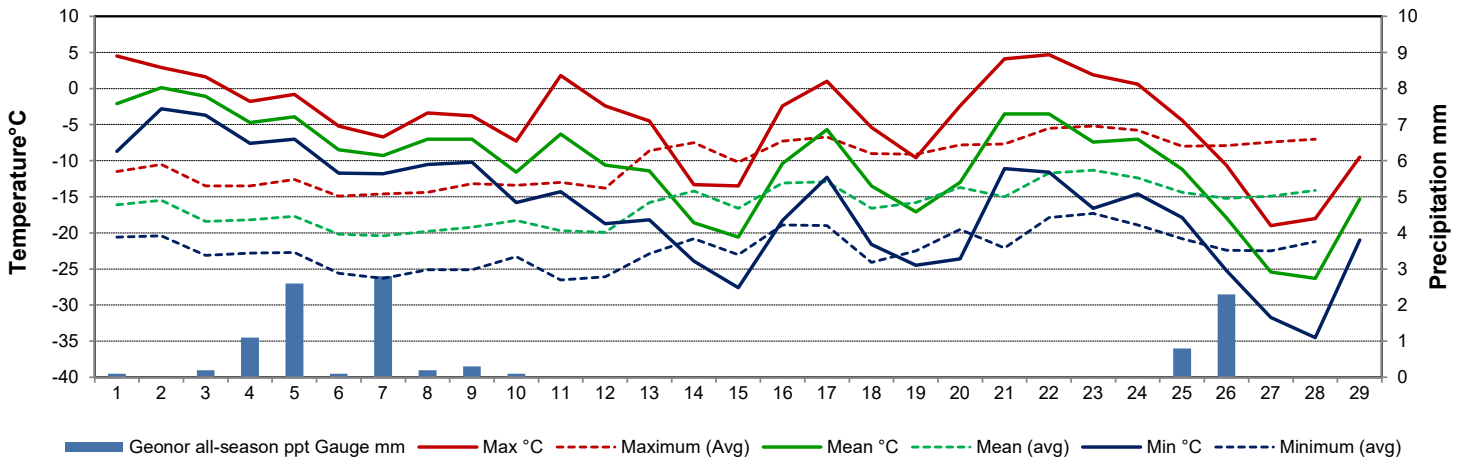
Note: Red numbers indicate manual calculation; Red cell indicate data not available

Precipitation is measured precipitation. It has not been corrected for wind speed.

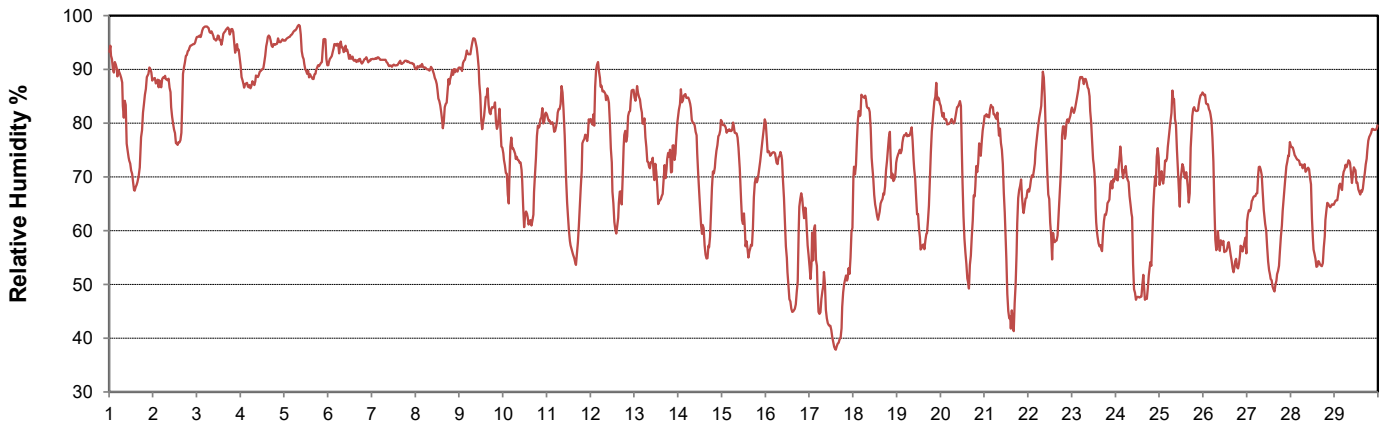
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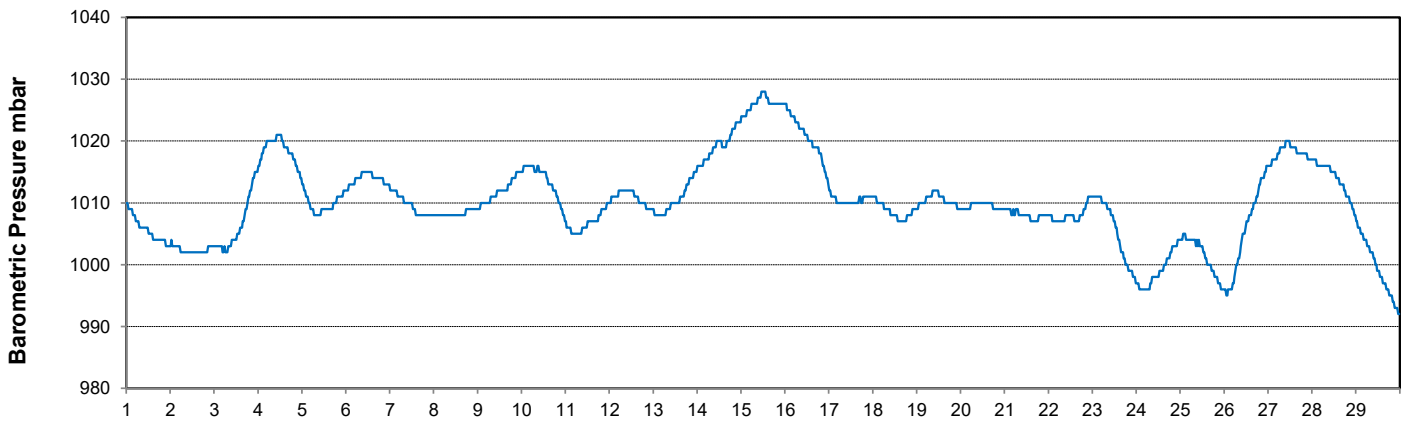
### Temperature and Precipitation for February 2024



### Relative Humidity for February 2024



### Barometric Pressure Corrected to Sea Level for February 2024





# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

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

Preliminary

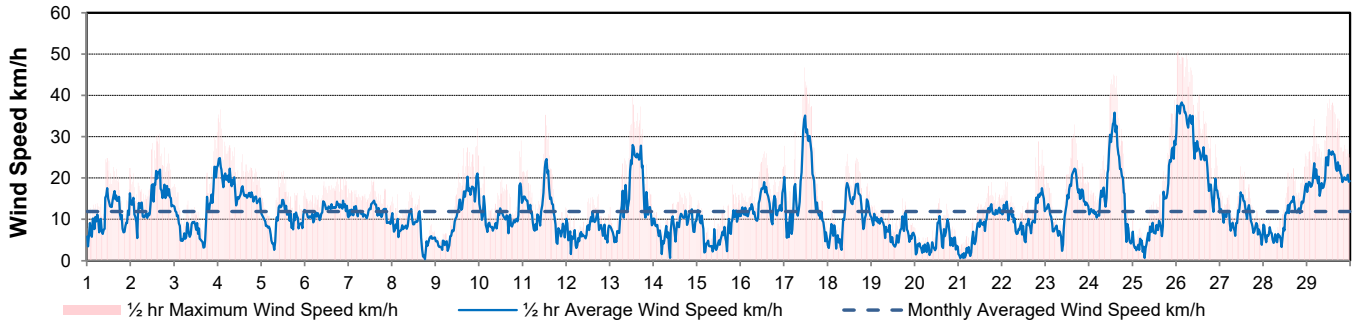
February 2024

Day	Wind Gust			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	Bright Sunshine Possible	% Possible	Global	Diffuse
	km/h			km/h	°C	°C	°C	°C	°C	°C	°C	°C	hours	hours		MJ/m <sup>2</sup>	MJ/m <sup>2</sup>
1	24.8	S	11:24	10.9	-4.5	-4.0	-4.0	-3.0	-2.5	-1.0	1.0	4.5	8.5	9.0	94.4	6.3	1.1
2	30.7	SSE	16:25	14.5	-0.5	-3.0	-3.0	-2.5	-2.5	-1.0	1.0	4.5	7.2	9.1	79.5	5.8	1.3
3	31.1	N	23:36	10.1	1.5	-1.5	-1.5	-2.0	-2.0	-1.0	1.0	4.5	0.0	9.1	0.0	1.2	1.1
4	36.6	NNE	1:43	17.4	-4.5	-1.5	-1.5	-1.5	-1.5	-1.0	1.0	4.5	0.0	9.2	0.0	1.3	1.3
5	21.7	WSW	9:47	9.7	0.0	-2.0	-2.5	-2.0	-1.5	-1.0	1.0	4.0	0.0	9.3	0.0	2.8	2.7
6	20.2	E	21:23	12.2	-5.0	-2.5	-2.5	-2.0	-1.5	-1.0	1.0	4.5	0.0	9.3	0.0	1.8	1.7
7	19.4	ENE	14:02	11.6	-8.5	-3.5	-3.5	-2.5	-1.5	-1.0	1.0	4.5	0.0	9.4	0.0	3.1	2.9
8	16.7	NNE	10:50	7.3	-6.5	-3.5	-3.5	-2.5	-1.5	-1.0	1.0	4.5	3.2	9.4	33.9	5.2	3.9
9	32.0	NW	23:21	11.0	-4.0	-3.0	-3.0	-2.5	-1.5	-0.5	1.0	4.5	1.3	9.5	13.7	3.4	3.0
10	29.1	SSW	23:26	10.6	-9.0	-3.5	-3.0	-2.5	-1.5	-0.5	1.0	4.5	2.1	9.6	22.0	4.7	3.9
11	35.3	NW	12:45	12.1	-10.0	-4.0	-4.0	-3.0	-1.5	-0.5	1.0	4.5	7.9	9.6	82.0	7.8	1.4
12	16.0	SW	17:35	7.1	-16.0	-5.0	-4.5	-3.0	-2.0	-0.5	1.0	4.5	9.0	9.7	92.9	8.4	2.7
13	39.7	NW	12:42	15.3	-6.0	-4.5	-4.0	-3.5	-2.0	-0.5	1.0	4.5	1.1	9.8	11.3	4.5	3.8
14	16.6	N	14:51	8.1	-20.0	-6.0	-5.5	-4.0	-2.0	-0.5	1.0	4.0	9.3	9.8	94.7	9.6	2.4
15	18.4	SW	19:58	6.9	-22.5	-8.0	-7.0	-5.0	-2.5	-0.5	1.0	4.0	8.9	9.9	90.0	8.8	3.6
16	26.4	WNW	13:13	13.3	-12.5	-7.5	-7.5	-5.5	-3.0	-0.5	1.0	4.0	8.1	10.0	81.4	8.6	2.2
17	46.8	NW	11:12	16.3	-7.0	-7.0	-6.5	-5.0	-3.0	-1.0	1.0	4.0	9.7	10.0	96.8	9.3	1.6
18	25.8	E	11:03	11.3	-17.5	-7.5	-6.5	-5.0	-3.0	-1.0	1.0	4.0	9.7	10.1	96.1	9.9	1.6
19	15.1	S	17:24	7.5	-20.5	-8.0	-7.5	-5.5	-3.5	-1.0	1.0	4.0	9.7	10.2	95.6	9.7	1.6
20	15.1	SSW	13:52	4.8	-16.5	-9.0	-8.5	-6.5	-3.5	-1.0	1.0	4.0	6.3	10.2	61.6	8.0	2.9
21	19.0	SW	18:06	7.3	-6.5	-6.5	-6.5	-5.5	-4.0	-1.0	0.5	4.0	7.2	10.3	70.0	8.8	2.4
22	28.9	ESE	20:20	10.6	-10.0	-5.5	-5.5	-4.5	-3.5	-1.0	0.5	4.0	9.7	10.4	93.6	9.9	2.0
23	32.9	SW	16:05	13.1	-11.5	-5.5	-5.5	-4.5	-3.0	-1.0	0.5	4.0	8.8	10.4	84.4	9.7	3.4
24	45.0	NW	13:58	17.3	-2.0	-4.0	-4.0	-4.0	-3.0	-1.5	0.5	4.0	8.9	10.5	84.8	10.4	2.2
25	39.0	ENE	23:24	10.6	-13.5	-5.5	-5.0	-4.0	-2.5	-1.0	0.5	4.0	4.3	10.6	40.7	7.6	5.9
26	50.9	NE	1:01	27.0	-18.5	-6.0	-5.5	-4.0	-2.5	-1.0	0.5	4.0	0.0	10.6	0.0	5.3	5.0
27	22.8	NW	11:53	10.4	-26.5	-10.0	-9.0	-6.0	-3.0	-1.0	0.5	4.0	9.4	10.7	87.9	10.8	3.9
28	25.9	ESE	23:03	9.8	-29.5	-12.0	-11.0	-8.0	-4.0	-1.0	0.5	4.0	10.1	10.8	93.8	11.9	4.6
29	39.2	ESE	12:30	21.2	-16.0	-10.5	-10.0	-8.0	-5.0	-1.5	0.5	4.0	5.9	10.8	54.4	9.4	6.2
Total													166.3	276.2	60.2	204.0	82.3
Mean				11.6	-11.2	-5.5	-5.2	-4.1	-2.6	-0.9	0.8	4.2					
Extreme	50.9	NE	1:01														
Date	26																

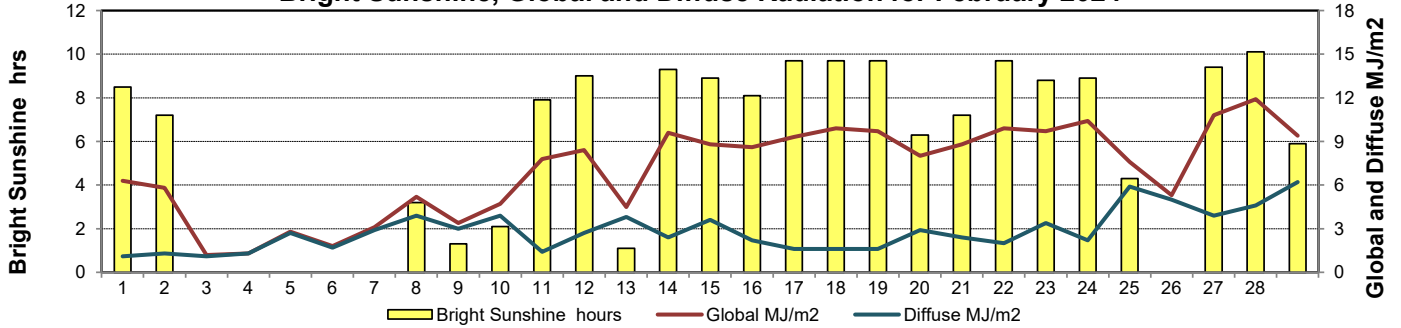
### GLOSSARY OF TERMS

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

### Wind Speed for February 2024

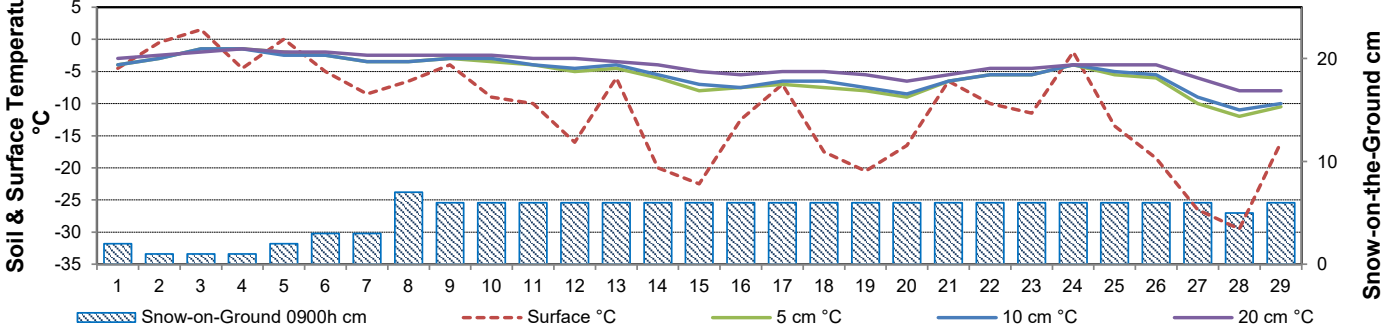


### Bright Sunshine, Global and Diffuse Radiation for February 2024



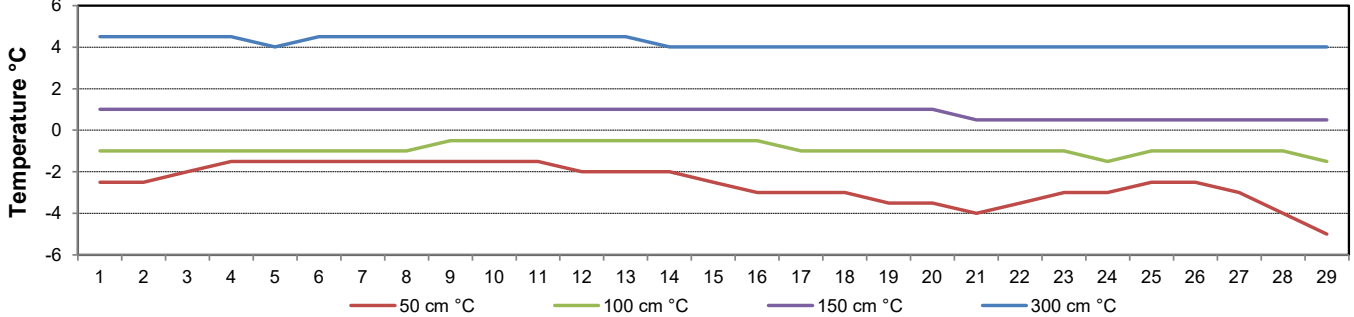
### Soil Temperatures for February 2024

Surface - 20cm Level



### Soil Temperatures for February 2024

50 - 300cm Level





# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT CONSERVATION LEARNING CENTRE

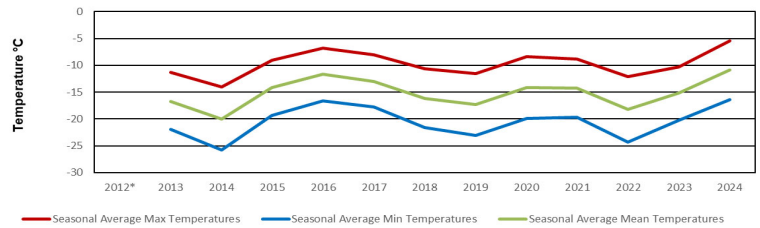
Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

Preliminary

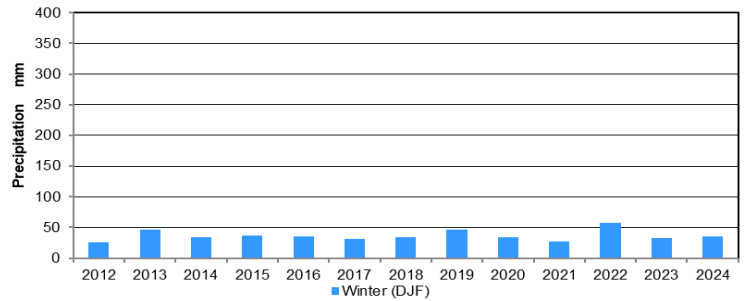
February 2024

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	6.0	12.5	19.3	14.5	16.0	25.0
2	10.0	16.2	23.9	14.0	16.0	25.5
3	6.0	18.2	26.0	16.0	17.0	25.5
4	14.0	18.7	26.4	17.0	17.5	26.0
5	8.0	12.4	17.6	16.0	17.0	26.0
6	11.0	12.5	18.5	16.0	17.5	26.0
7	11.0	14.0	20.2	15.0	16.5	26.0
8	7.0	11.5	16.4	15.0	16.5	26.0
9	9.0	16.6	26.0	15.5	16.5	26.0
10	9.0	14.9	23.1	15.5	17.0	26.0
11	8.0	18.9	26.8	15.0	16.0	26.0
12	2.0	10.0	13.9	14.5	16.5	26.0
13	11.0	21.0	29.8	14.5	16.0	26.0
14	5.0	9.0	14.5	14.0	16.0	26.0
15	5.0	10.4	14.5	13.5	15.5	26.0
16	11.0	14.4	21.2	13.0	15.0	25.5
17	12.0	26.1	33.9	13.0	15.0	25.0
18	8.0	15.8	21.0	13.0	15.0	24.5
19	4.0	8.3	12.8	13.0	15.0	24.5
20	1.0	9.9	12.8	13.0	14.5	24.5
21	5.0	10.8	14.3	13.0	14.5	24.5
22	8.0	14.2	22.2	13.5	15.0	24.0
23	10.0	18.0	25.4	13.5	15.0	24.5
24	13.0	26.8	34.4	13.5	15.5	24.5
25	7.0	22.3	30.2	14.0	15.5	24.5
26	20.0	28.6	42.5	13.5	15.5	24.5
27	6.0	13.7	19.3	12.0	14.5	24.5
28	5.0	14.4	21.2	11.5	13.5	24.5
29	16.0	19.1	32.0	12.0	13.5	24.0
Total						
Mean				14	16	25.2
Extreme	20.0	28.6	42.5	17	17.5	26
Date	0	0	0	0	0	0

Winter (DJF) Temperature trends (2013 to 2024)

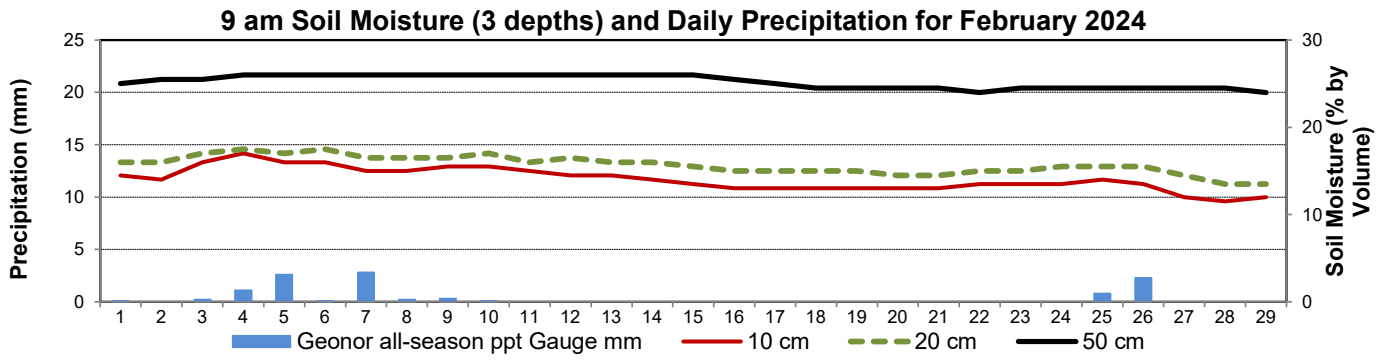


Winter (DJF) Precipitation trends (2012 to 2024)

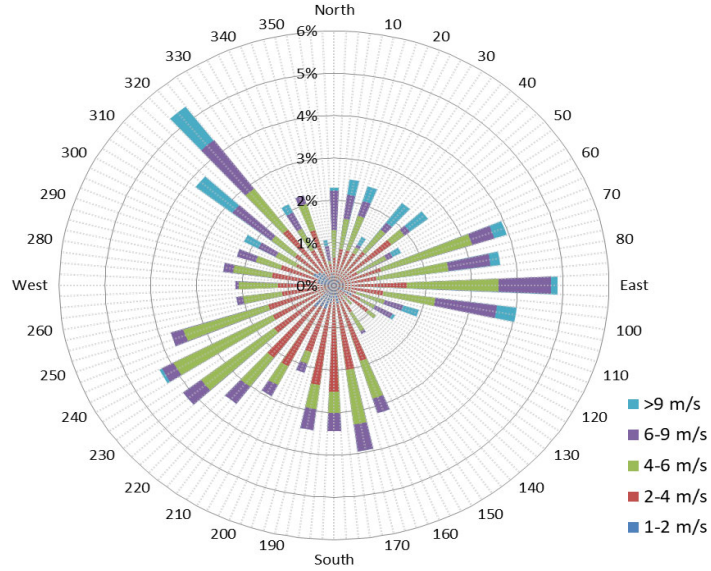


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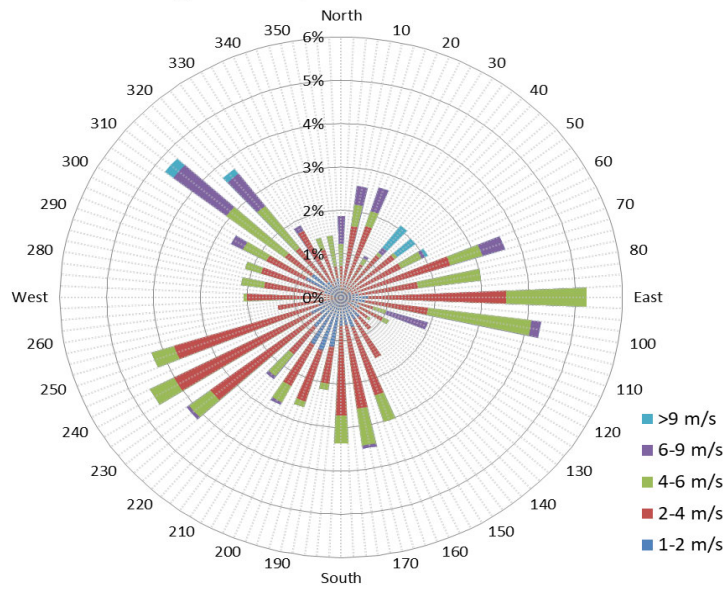




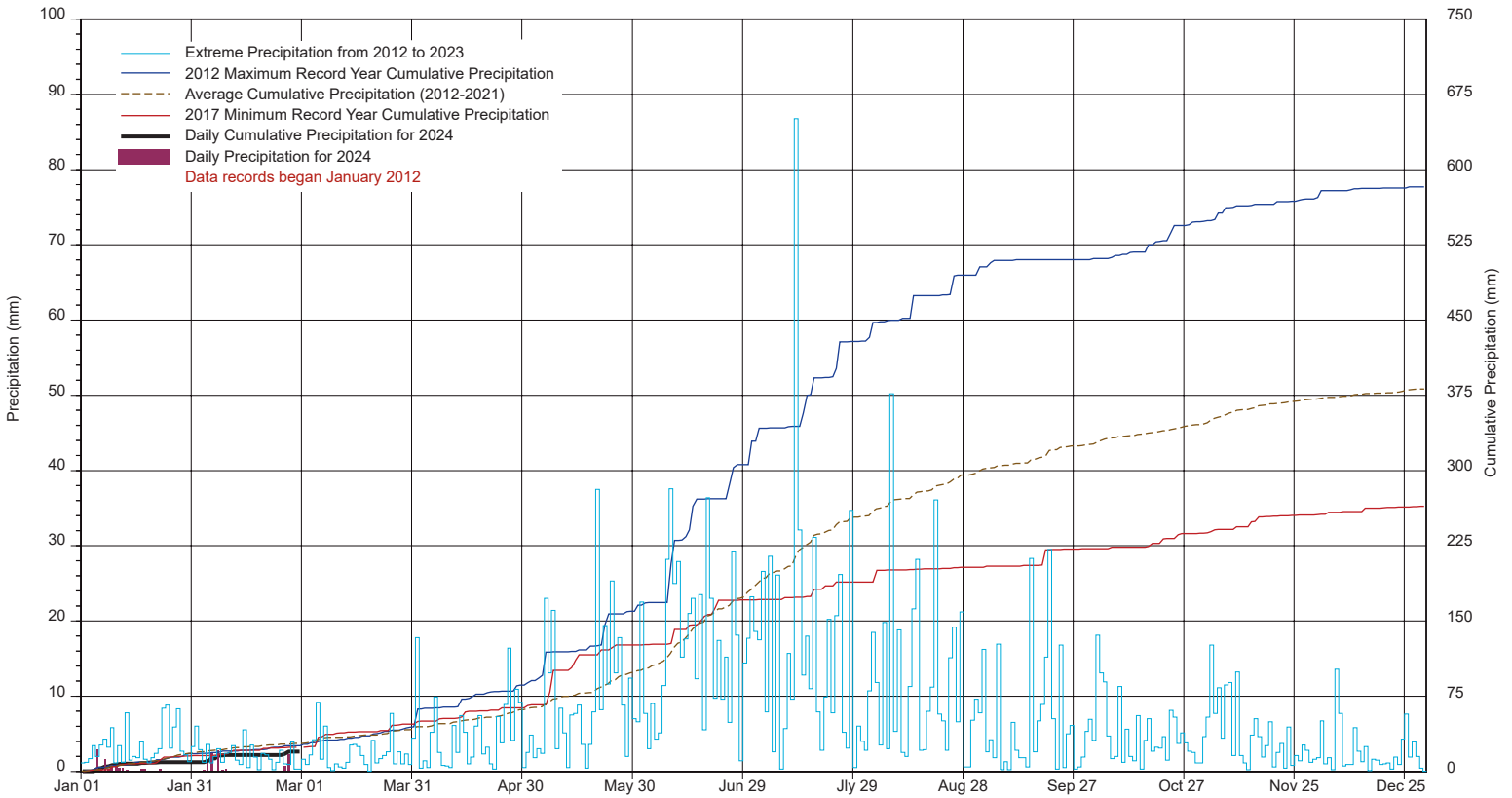
1/2 hr Maximum Wind Speed and Direction CLC Feb 2024



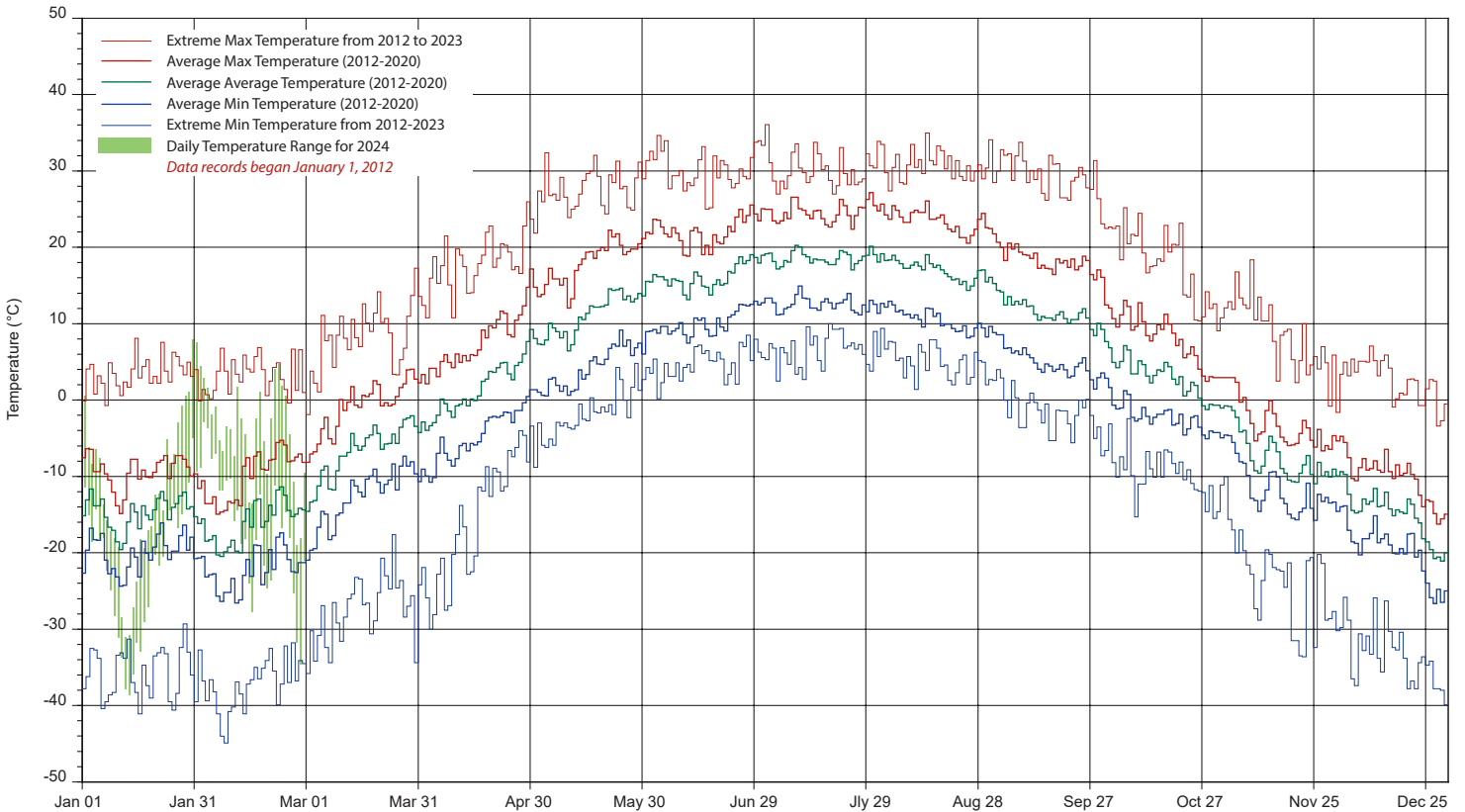
10 minute Average Wind Speed and Direction CLC Feb 2024



# SRC's CLIMATE REFERENCE STATION at the Conservation Learning Centre 2024 PRECIPITATION AND AVERAGE



## 2024 TEMPERATURES AND AVERAGES



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