

GLENCORE

Ravensworth Complex

Monthly Pollution Monitoring Report

November 2019

Note: This report will be edited and re-uploaded onto the internet within 14 days of obtaining any data that has not been included in this report.

A map of EPL 2652 monitoring locations can be found at

<http://www.ravensworthoperations.com.au/en/publications/Pages/environmental-monitoring-maps.aspx>

DNR = Data Not Received.

License Holder: Ravensworth Operations Pty Ltd

Site Address: Ravensworth Mining Complex, off Lemington Road, Ravensworth, NSW, 2333

EPL Number: 2652

DEFINITIONS

Abbreviation	Explanation
mm/s	Millimetres per second
db	Decibels
g/m ² /month	Grams per metre square per month
µg/m ³	Micrograms per Cubic Meter of Air
µS/cm	Microsiemens Per Centimeter
pH	A measure of the acidity or alkalinity of a solution
mg/L	Milligrams per litre
NTU	Nephelometric turbidity units
ML/day	Megalitres per day
KL/day	Kilolitres per day
PM10	Particulate Matter of 10 Microns in diameter or smaller
HVAS	High Volume Air Sampler
TSP	Total suspended particles
TSS	Total suspended solids

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BLAST

November 2019

Sampled: Every Blast Event
 Obtained: As per date of blast
 Published: 31/01/2020

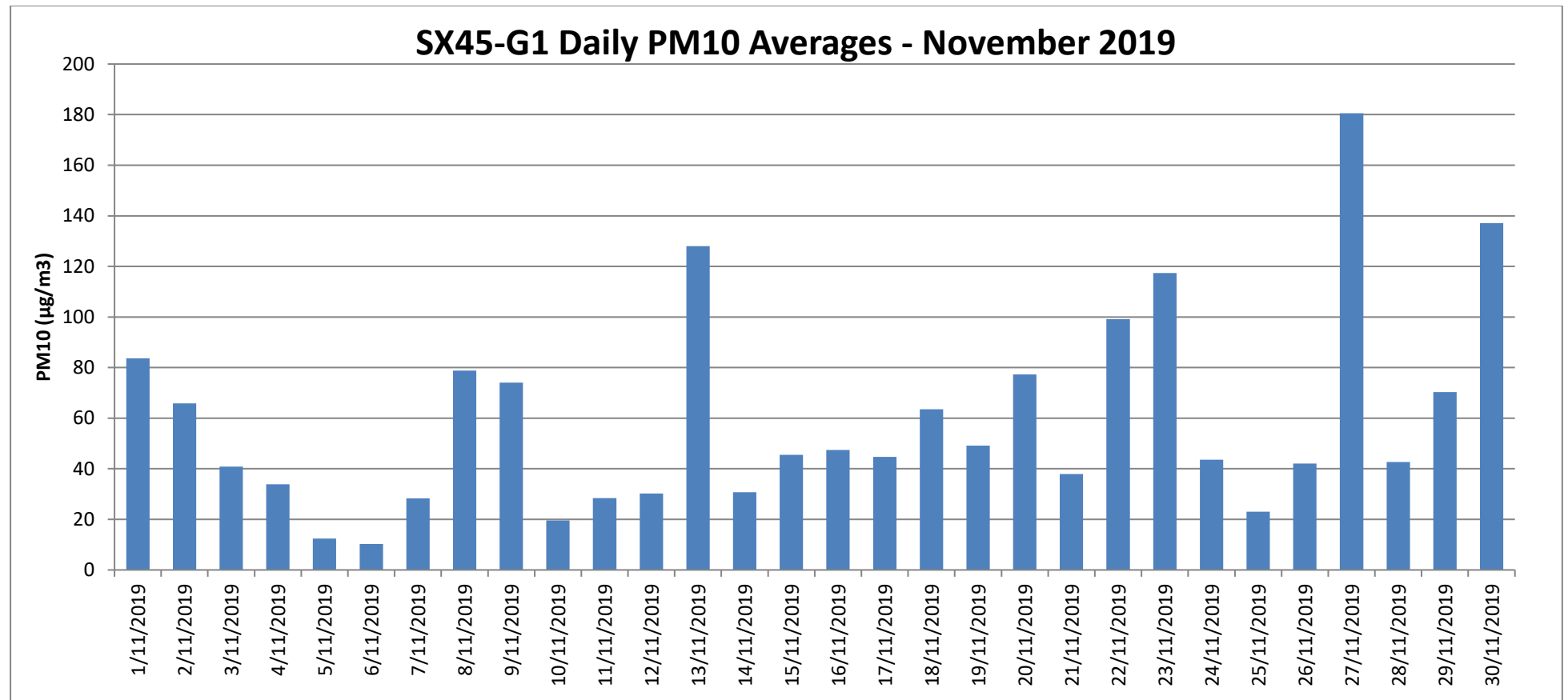
Date/Time	Overpressure (dB)					Vibration (mm/s)				
	BWM - Bowman Residence EPL Point 8	CWL - Camberwell Village EPL Point 7	Allowable Exceedance of 5% of total blasts over 12 month period	Limit	Identified Exceedances (Yes/No)	BWM - Bowman Residence EPL Point 8	CWL - Camberwell Village EPL Point 7	Allowable Exceedance of 5% of total blasts over 12 month period	Limit	Identified Exceedances (Yes/No)
8/11/2019	104.3	101	115	120	N	0.2	0.12	5	10	N
13/11/2019	88.8	100	115	120	N	0.06	0.07	5	10	N
13/11/2019	91.4	93.9	115	120	N	0.06	0.04	5	10	N
13/11/2019	96.8	99.9	115	120	N	0.16	0.1	5	10	N
13/11/2019	101.8	98	115	120	N	0.02	0.03	5	10	N
14/11/2019	99.7	95.8	115	120	N	0.03	0.05	5	10	N
14/11/2019	90.6	88.1	115	120	N	0.07	0.04	5	10	N
14/11/2019	97.8	94.5	115	120	N	0.05	0.04	5	10	N
19/11/2019	95.8	87.9	115	120	N	0.36	0.19	5	10	N
19/11/2019	99.1	100.3	115	120	N	0.16	0.09	5	10	N
25/11/2019	103.2	96.3	115	120	N	0.01	0.03	5	10	N
25/11/2019	103.2	96.3	115	120	N	0.01	0.03	5	10	N
25/11/2019	99.2	97.4	115	120	N	0.22	0.14	5	10	N
28/11/2019	84.1	84.7	115	120	N	0.08	0.05	5	10	N
28/11/2019	89.2	90.9	115	120	N	0.14	0.09	5	10	N
28/11/2019	87.9	83.7	115	120	N	0.17	0.15	5	10	N
29/11/2019	100.5	100.9	115	120	N	0.19	0.11	5	10	N
29/11/2019	98.7	104.5	115	120	N	0.41	0.24	5	10	N

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DUST TEOMs

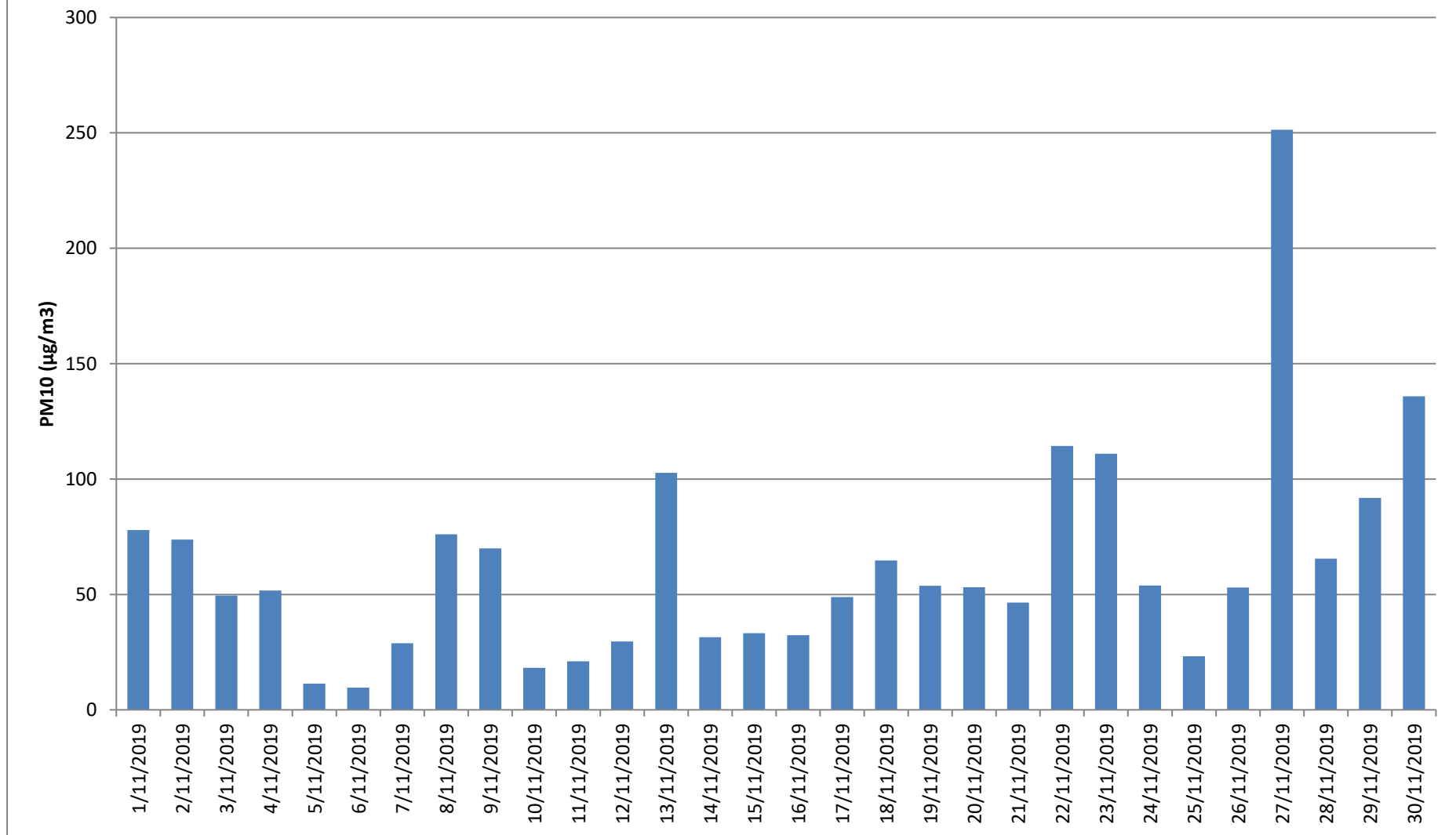
November 2019

Sampled: Continuous
Obtained: 1/12/2019
Published: 31/01/2020



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SX45-G2 Daily PM10 Averages - November 2019



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DISCHARGE MONITORING

November 2019

No discharge events occurred during November.

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 EPL Number: 2652

NOISE MONITORING

November 2019

Sampled: As Specified
 Obtained: 17/01/2020
 Published: 31/01/2020

Monitoring Location	Receiver Location	Date and Time	dB(A), Leq	Ravensworth Mine Complex Contribution dB(A), Leq	Criterion dB(A) Leq	dB(A), L1 (1min) ¹	Criterion dB(A), L1 (1min) ¹	Stability Class	Wind speed (m/s)	Wind direction (°)	Compliant
Site 2	R2	11/11/19 9:14 pm	39	<20	35	<20	45	E	2.6	357	Yes
Site 3	R3	11/11/19 10:11 pm	44	<20	35	<20	45	F	1.9	182	Yes
Site 5	R3	11/11/19 10:33 pm	58	<20	35	<20	45	E	2.1	167	Yes
Site 6	R4	11/11/19 10:55 pm	54	<20	35	<20	45	E	2.2	189	Yes

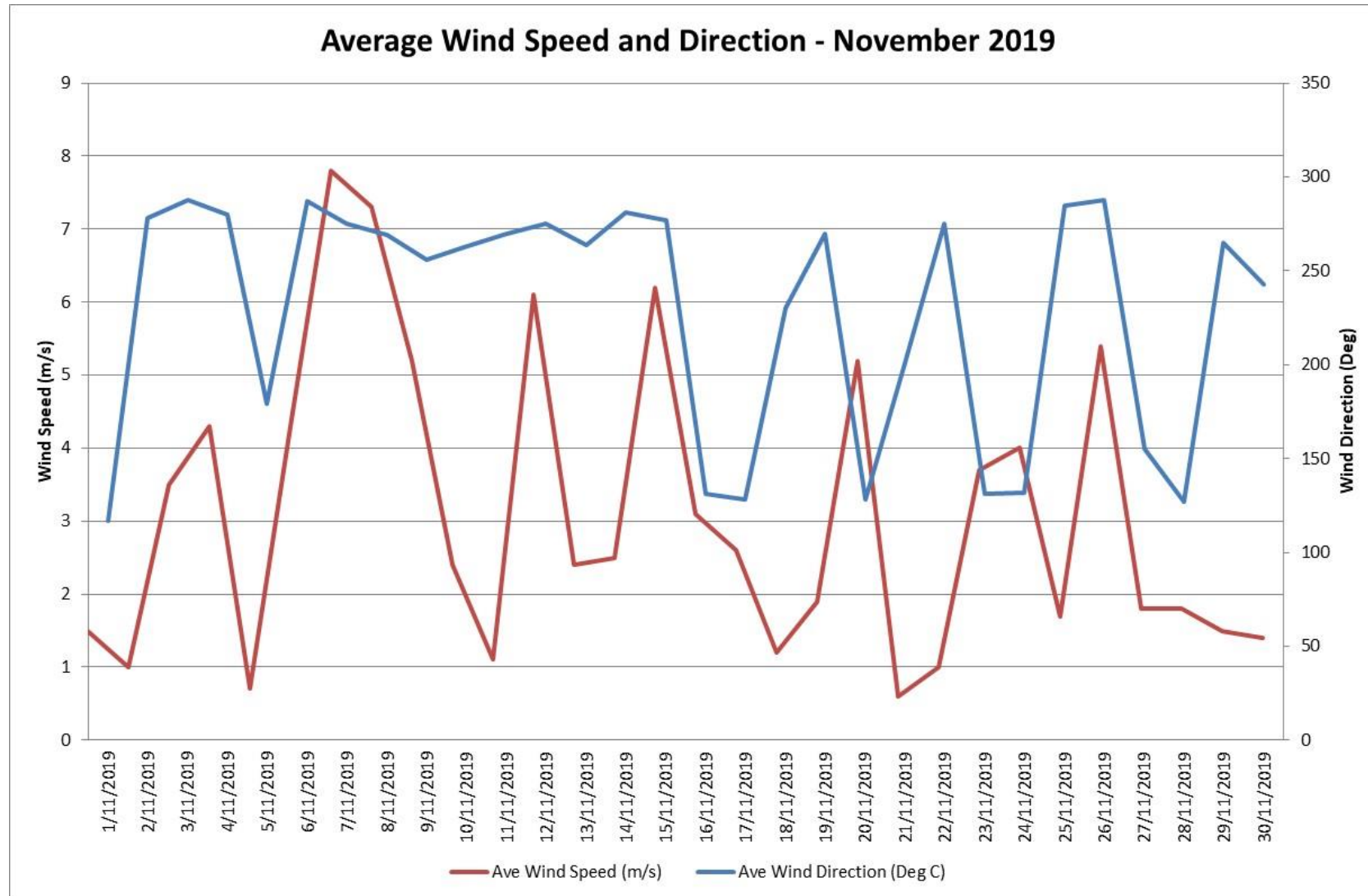
Monitoring Location	Receiver Location	Date and Time	dB(A), Leq	Ravensworth Mine Complex Contribution dB(A), Leq	Criterion dB(A) Leq	dB(A), L1 (1min) ¹	Criterion dB(A), L1 (1min) ¹	Stability Class	Wind speed (m/s)	Wind direction (°)	Compliant
Site 2	R2	13/11/19 9:15 pm	38	<20	35	<20	45	D	6.5	304	Yes
Site 3	R3	13/11/19 9:54 pm	38	<20	35	<20	45	E	4.4	173	Yes
Site 5	R3	13/11/19 10:13 pm	50	<20	35	<20	45	E	3.7	160	Yes
Site 6	R4	13/11/19 10:32 pm	50	<20	35	<20	45	E	2.7	184	Yes

Monitoring Location	Receiver Location	Date and Time	dB(A), Leq	Ravensworth Mine Complex Contribution dB(A), Leq	Criterion dB(A) Leq	dB(A), L1 (1min) ¹	Criterion dB(A), L1 (1min) ¹	Stability Class	Wind speed (m/s)	Wind direction (°)	Compliant
Site 2	R2	14/11/19 9:18 pm	36	<20	35	<20	45	E	2.4	338	Yes
Site 3	R3	14/11/19 10:02 pm	37	<20	35	<20	45	E	3.6	316	Yes
Site 5	R3	14/11/19 10:47 pm	37	25	35	27	45	D	4.0	324	Yes
Site 6	R4	14/11/19 11:05 pm	56	<20	35	<20	45	E	3.6	328	Yes

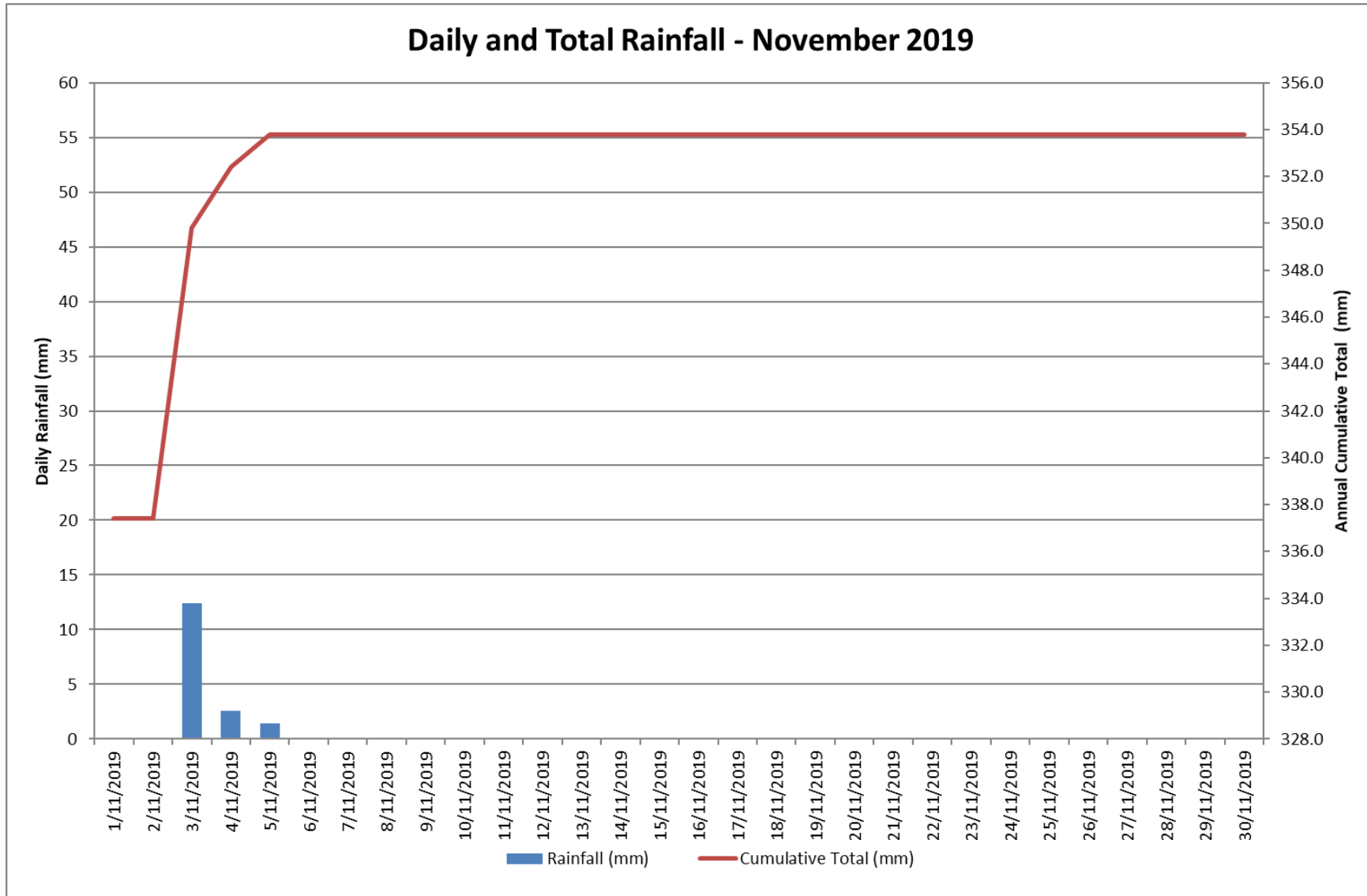
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Meteorological Data

November 2019

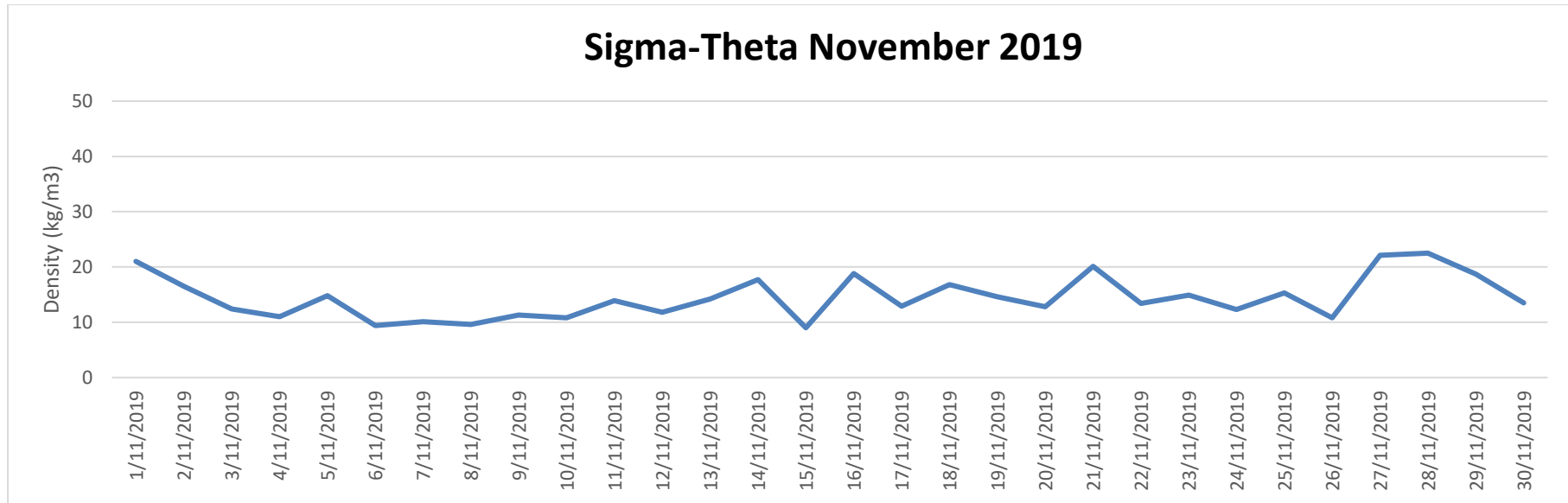


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Sigma-Theta November 2019



Average Humidity November 2019

