



PARLIAMENT OF TASMANIA.

THE BLUE TIER GAUGE:

REPORT BY MR. K. L. RAHBEK, M. DAN. ASSOC. C.E.

Presented to both Houses of Parliament by His Excellency's Command.

[Cost of printing and lithographing (400)—£12 11s. 6d.]

THE BLUE TIER GAUGE: REPORT BY MR. K. L. RAHBEK.

Hobart, 17th September, 1902.

SIR,

In accordance with your approval, the daily records have been taken from the Blue Tier Gauge since the 13th June, 1901. The gauge is situated about 10 chains down stream from the junction of the Sun and Moon Creeks.

In my preliminary Report on proposed water conservation in the Blue Tier District, dated 23rd September, 1901, I mention that I would judge the catchment-area which sends its water to abovenamed gauge to be, say, 1·4 square miles, and the combined direct and indirect catchment-areas for the proposed Wheal Tasman Flat Power Reservoir to be, say, 1½ square miles.

I have computed the daily records from the last 14 months, and therefrom drawn enclosed diagrams, from which the daily rainfall and quantities which have passed through the gauge may be readily learnt.

I have also computed the table below, from which it may be observed that the rainfall during the last 14 months has been 80·50 inches. The evaporation during the same time I have reckoned to be 21½ inches; and it appears, then, from the table that if the Power-Reservoir had been in operation during that period, and forwarded 13 sluice-heads per diem (day and night and Sundays included), the water-level of the reservoir would, on the 31st August, 1902, have been 5 inches higher than it was on the 1st July, 1901.

I have the honour to be,
Sir,

Your obedient Servant,

K. L. RAHBEK, M. Dan. Assoc. C.E.

To the Honourable the Minister of Lands and Works, Hobart.

PROPOSED WHEAL TASMAN FLAT POWER RESERVOIR (BLUE TIER).

Fourteen Months' Record (Quantities measured Daily through Gauge).

Monthly Quantities stated in Million Cubic Feet.

Year.	Months.	Measured Quantities through Gauge.		Assumed Monthly Evaporation.		Monthly Consumption.	Surplus.	Deficiency.
		Rainfall. (Inches.)		Inches.				
1901.....	July	3.17	9.149	1	0.363	14.025	...	5.877
	August	8.93	20.606	1	0.726	14.025	5.855	...
	September	11.41	41.640	1 1/2	1.089	13.573	26.978	...
	October	6.61	18.772	1 1/2	1.089	14.025	3.658	...
	November	1.69	5.366	2	1.452	13.573	...	9.207
	December	1.34	1.709	2	1.452	14.025	...	13.316
	January	15.08	34.642	2 1/2	1.815	14.025	18.802	...
1902.....	February	1.84	2.043	2 1/2	1.815	12.668	...	12.441
	March	4.50	8.620	2 1/2	1.815	14.025	...	7.150
	April	1.84	3.003	2	1.452	13.573	...	12.022
	May	1.36	1.966	1 1/2	1.089	14.025	...	13.145
	June	13.85	40.534	1 1/2	0.363	13.573	26.997	...
	July	4.37	10.517	1 1/2	0.363	14.025	...	3.871
	August	4.61	13.820	1	0.726	14.025	...	0.931
TOTAL.....		80.50	212.457	21 1/2	15.609	193.185	81.890	78.228

The daily consumption is reckoned at 13 sluice-heads = 452,425 cubic feet per 24 hours.

(3)
1902.

Parliament of Tasmania.

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Report By Mr. K. L. Rahbek, M.Dan.Assoc.C.E.

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(Cost of printing and lithographing(400)-£12.11.6)

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Hobart, 17th September, 1902

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Sir,

In accordance with your approval, the daily records have been taken from the Blue Tier Gauge since the 13th June, 1901. The gauge is situated about 10 chains down stream from the junction of the Sun and Moon Creeks.

In my preliminary Report on proposed water conservation in the Blue Tier District, dated 23rd September, 1901, I mention that I would judge the catchment-area which sends its water to abovenamed gauge to be, say, 1.4 square miles, and the combined direct and indirect catchment-areas for the proposed Wheal Tasman Flat Power Reservoir to be, say $1\frac{3}{4}$ square miles.

I have computed the daily records from the last 14 months, and therefrom drawn enclosed diagrams, from which the daily rainfall and quantities which have passed through the gauge may be readily learnt.

I have also computed the table below, from which it may be observed that the rainfall during the last 14 months has been 80.50 inches. The evaporation during the same time I have reckoned to be $21\frac{1}{2}$ inches; and it appears, then, from the table that if the Power-Reservoir had been in operation during that period, and forwarded 13 sluice-heads per diem (day and night and Sundays included), the water-level of the reservoir would, on the 31st August 1902, have been 5 inches higher than it was on the 1st July, 1901.

I have the honour to be,

Sir, your obedient Servant, K. L. RAHBECK, M.Dan.Assoc.

2.

Proposed Wheal Tasman Flat Power Reservoir(Blue Tier)

Fourteen Months' Record(Quantities measured Daily through Gauge).

Monthly Quantities stated in Million Cubic Feet.

Year.	Months.	Measured Quantities through Gauge.		Assumed Monthly Evaporation.		Monthly Consumption	Surplus	Deficiency
		Rainfall (Inches)		Inches.				
1901.	(July	3.17	9.149	$\frac{1}{2}$	0.363	14.025	...	5.239
	(August....	8.93	20.606	1	0.726	14.025	5.855	...
	(September.	11.41	41.640	$1\frac{1}{2}$	1.089	13.573	26.978	...
	(October...	6.61	18.772	$1\frac{1}{2}$	1.089	14.025	3.658	...
	(November..	1.69	5.366	2	1.452	13.573	...	9.7-
	(December..	1.34	1.709	2	1.452	14.025	...	13.7
	(January...	15.08	34.642	$2\frac{1}{2}$	1.815	14.025	18.802	...
1902.	(February..	1.84	2.043	$2\frac{1}{2}$	1.815	12.668	...	12.44
	(March.....	4.50	8.620	$2\frac{1}{2}$	1.815	14.025	...	7.150
	(April.....	1.84	3.003	2	1.452	13.573	...	12.022
	(May.....	1.36	1.966	$1\frac{1}{2}$	1.089	14.025	...	13.14
	(June.....	13.85	40.534	$\frac{1}{2}$	0.363	13.573	26.597	...
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	(August....	4.61	13.820	1	0.726	14.025	...	0.931
	Total....	80.50	212.457	$21\frac{1}{2}$	15.609	193.185	81.890	78.228

The daily consumption is reckoned at 13 sluice-heads = 452,425 cubic feet per 24 hours.

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THE BLUE TIER SCHEME

THE WHEAL TASMAN FLAT GAUGE

*Situate about 10 chains down Stream
from the junction of the Sun and the
Moon Creeks.*

DIAGRAMS

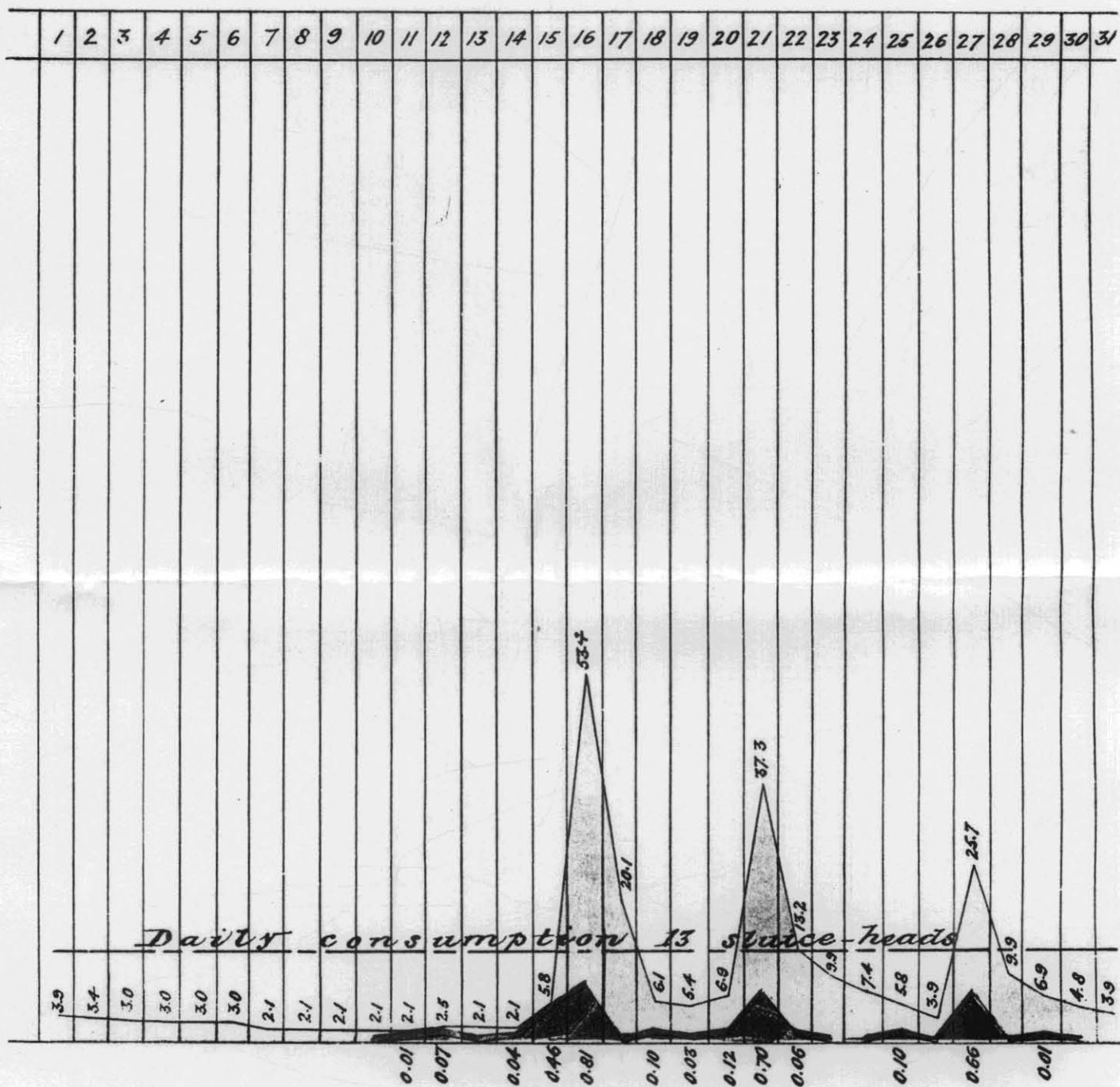
*Showing the daily rain fall and
the daily quantities of water which passed
through the Gauge from the 1st July 1901 to
the 31st August 1902.*

— Scales { 2 inches of rain fall to an inch.
20 sluice-heads to an inch.

 Rain fall.
 Sluice-heads.

*H. L. R.
14/9/1902*

July 1901.



Rain fall = 3.17 inches

262.9 sluice-heads = 8.4 sluice-heads per diem.

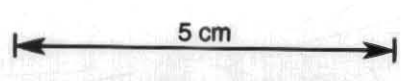
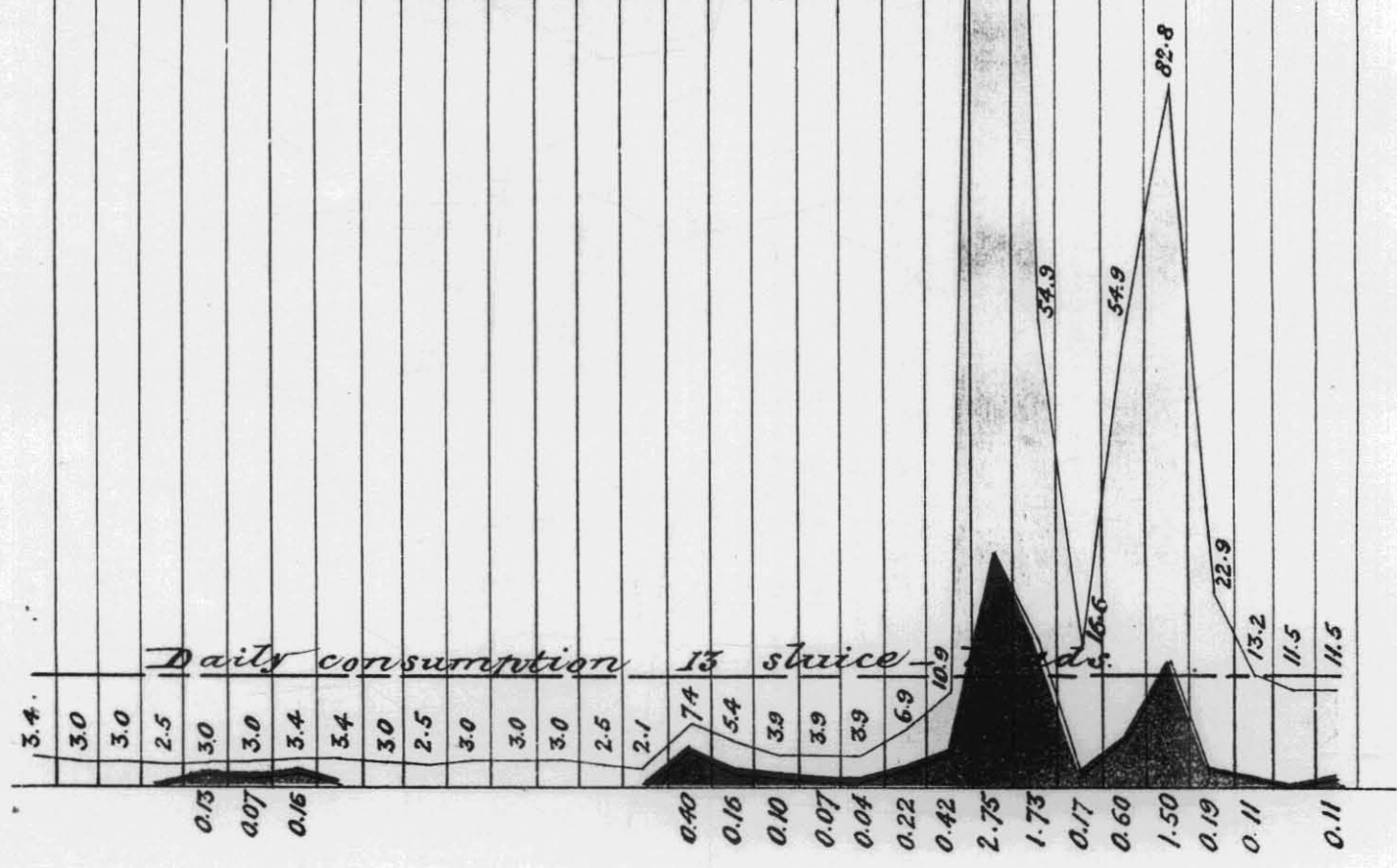
August 1901.

237.7

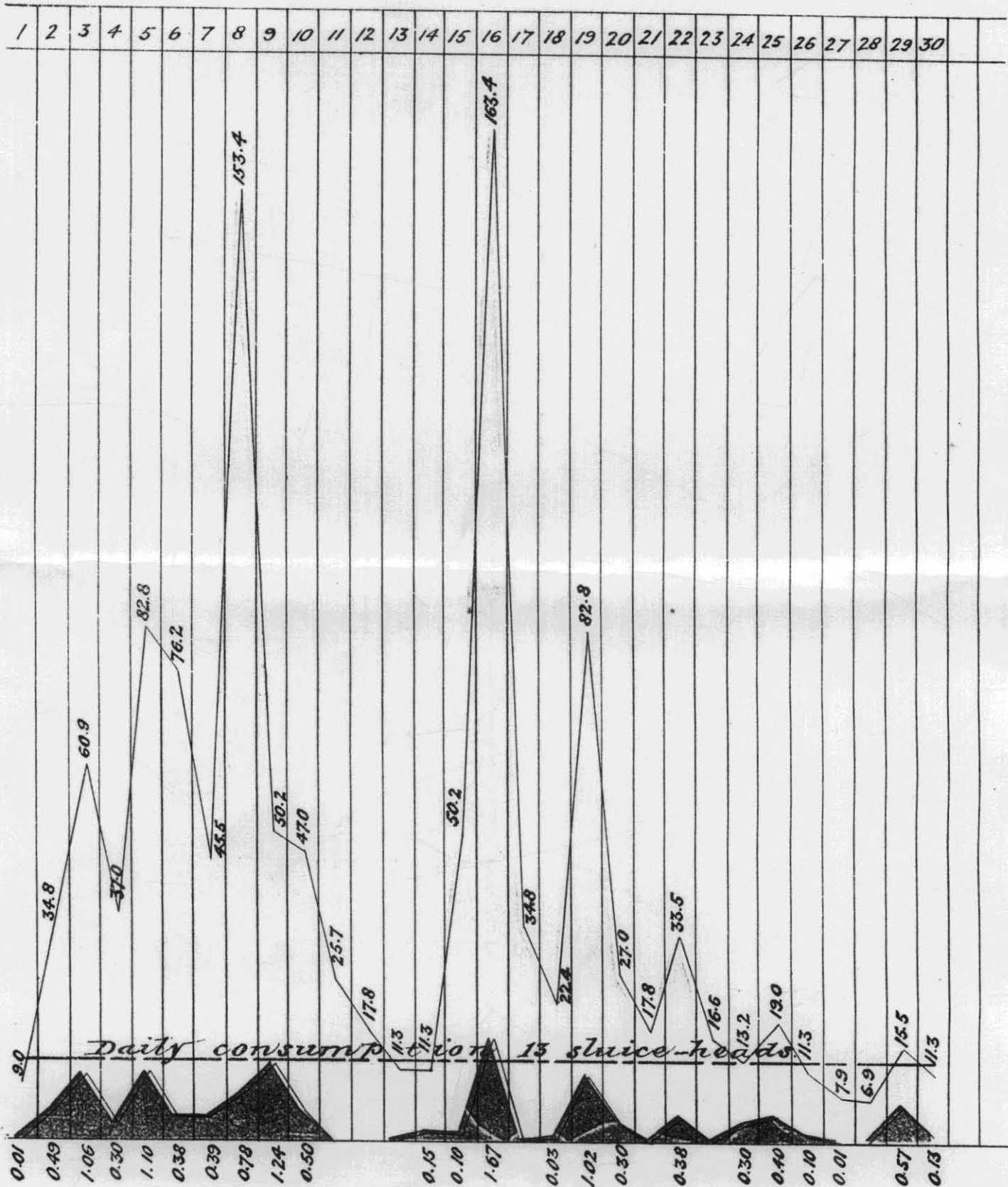
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Rain fall = 8.93 inches

592.1 sluice heads = 19.1 sluice heads per diem.



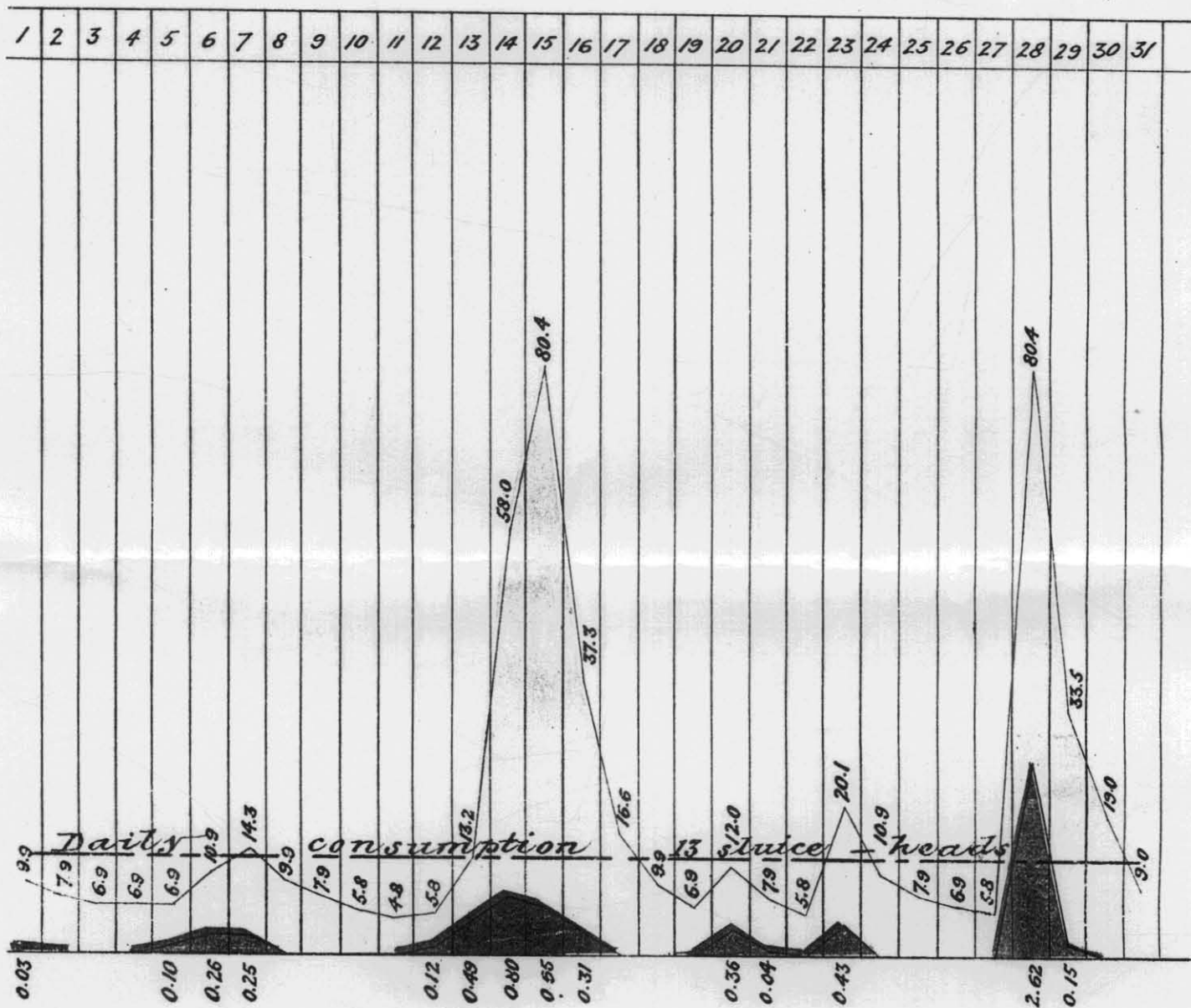
September 1901.



Rain fall = 11.41 inches

1196.5 sluice-heads = 39.9 sluice heads per diem.

October 1901.

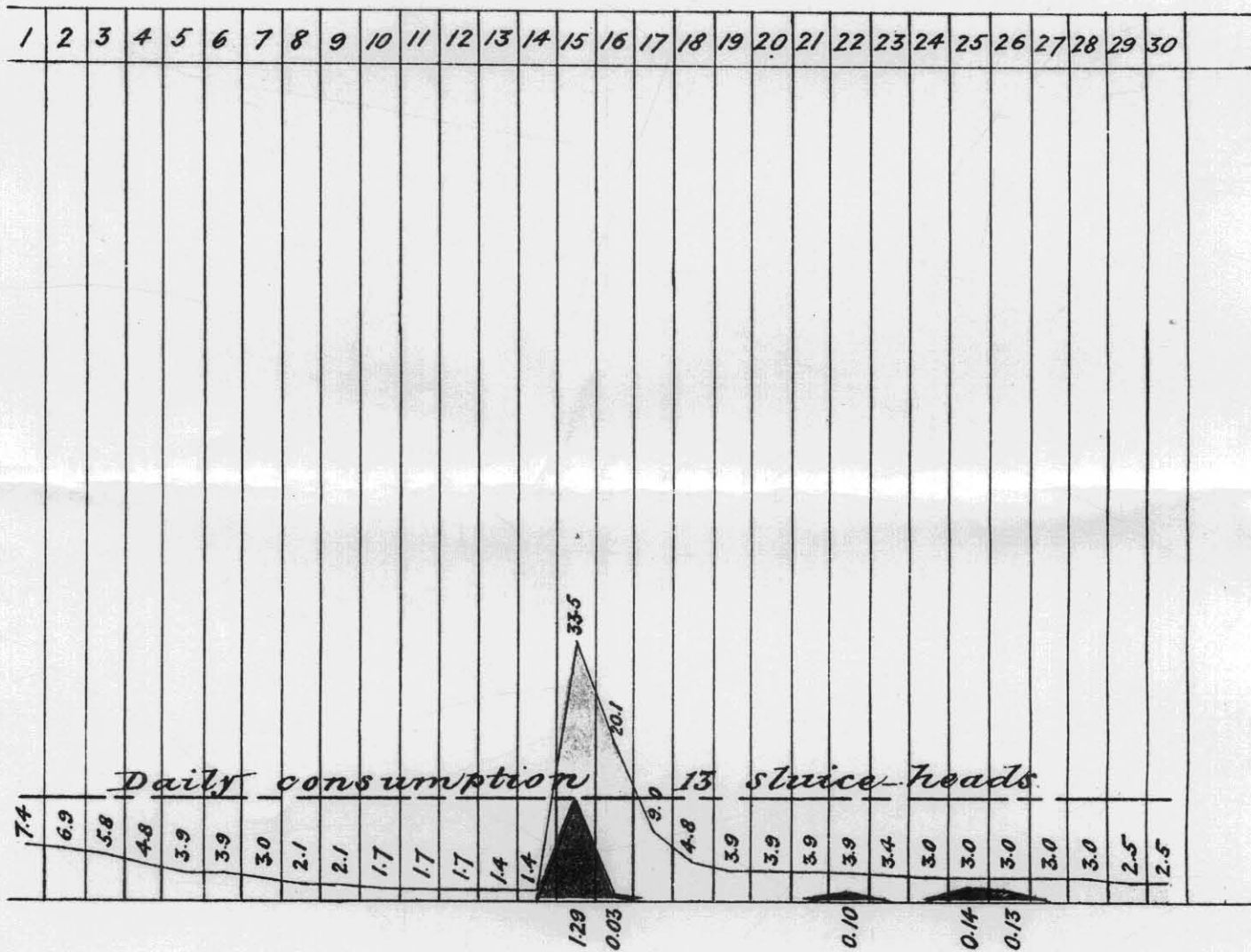


Rain fall = 6.61 inches

539.4 sluice-heads = 17.4 sluice-heads per diem.

5 cm

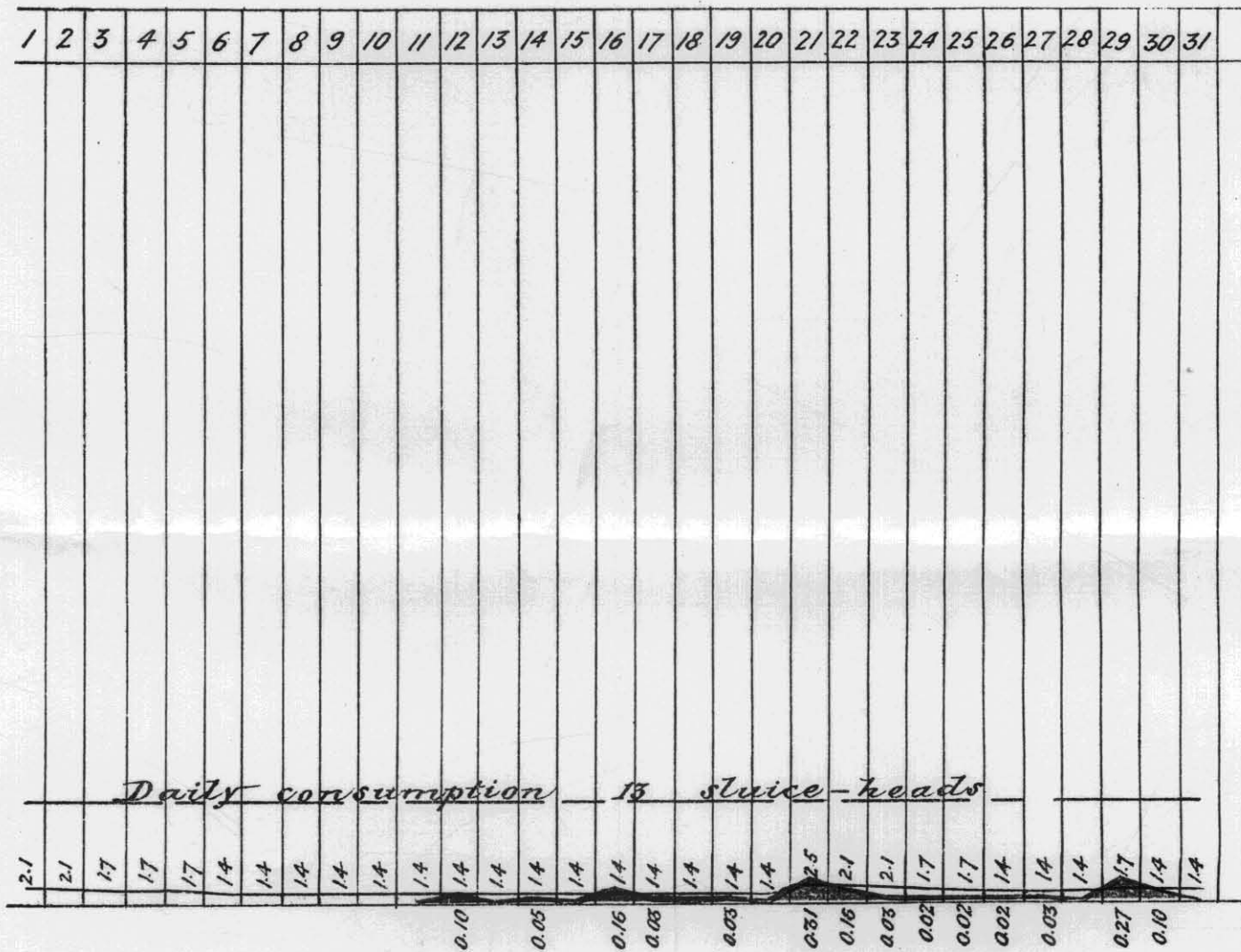
November 1901.



Rain fall = 1.69 inches

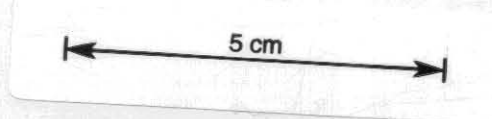
154.2 sluice heads = 5.1 sluice-heads per diem.

-December 1901.-



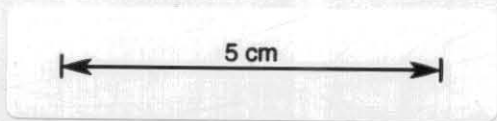
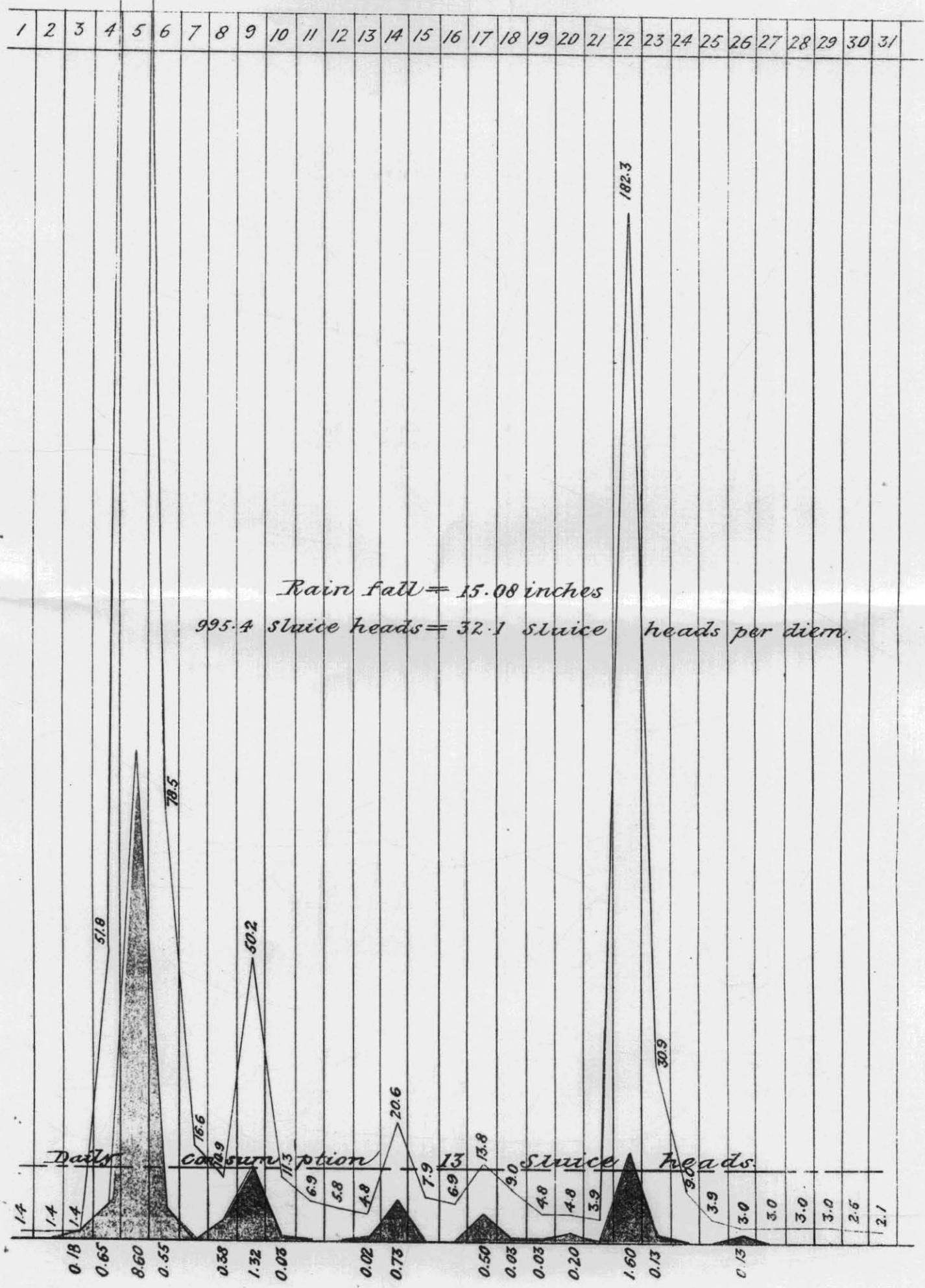
Rain fall = 1.34 inches

49.1 sluice-heads = 1.58 sluice-heads per diem.

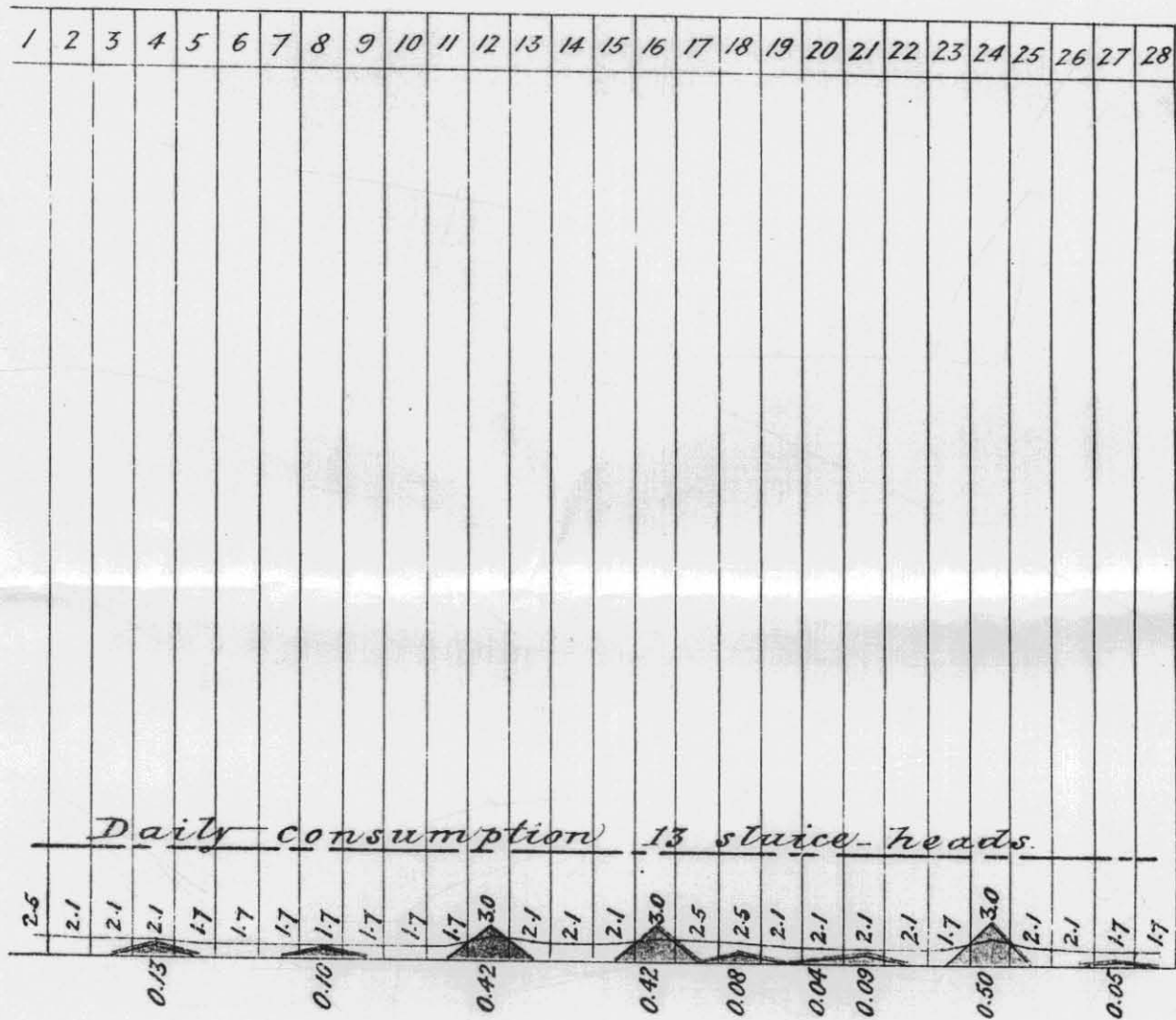


440.0

January 1902.




February 1902.

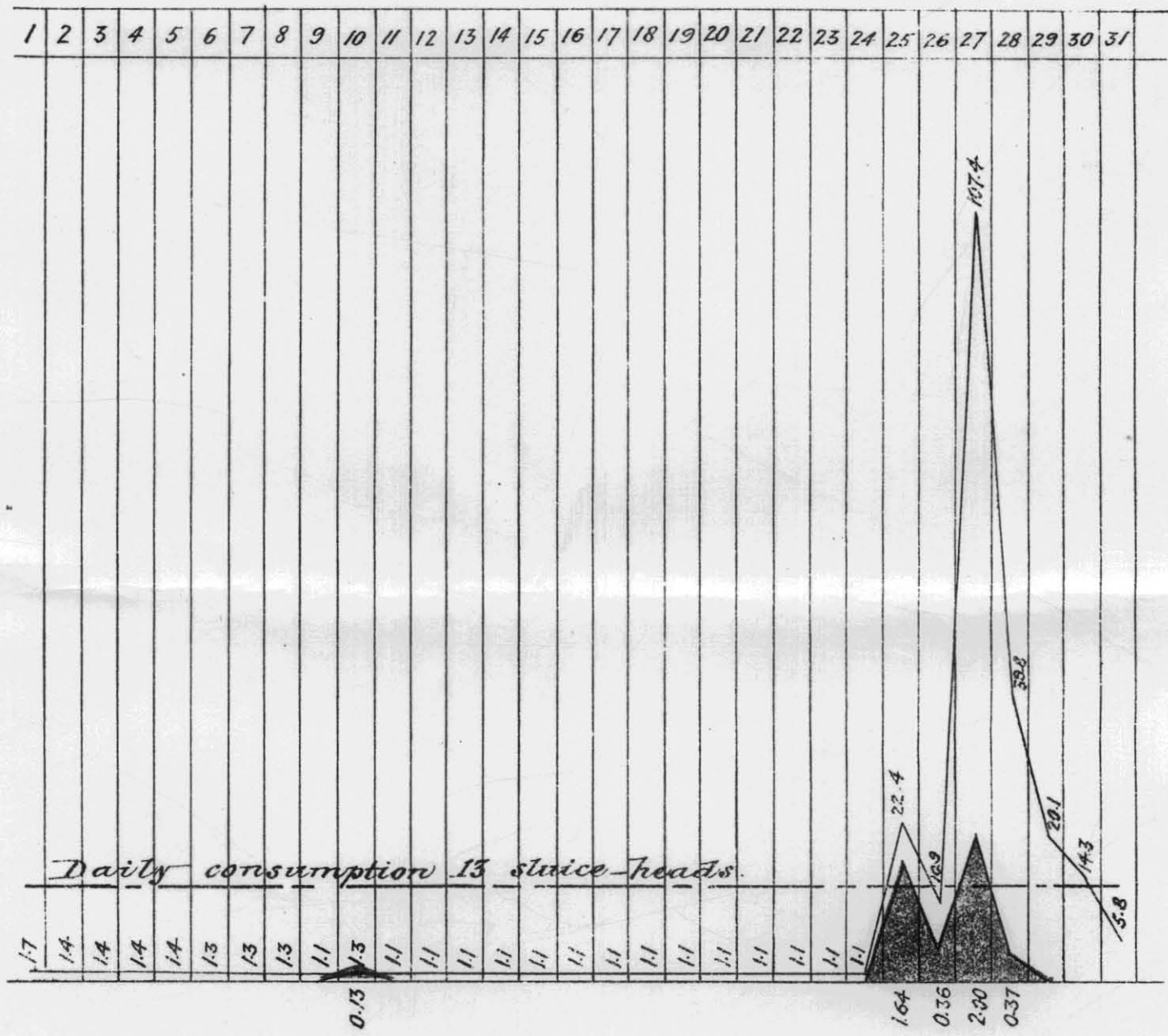


Rain fall = 1.84 inches

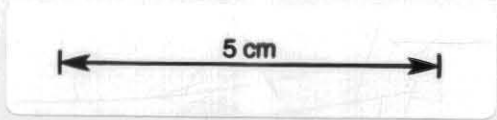
58.7 sluice-heads = 2.1 sluice-heads per diem.



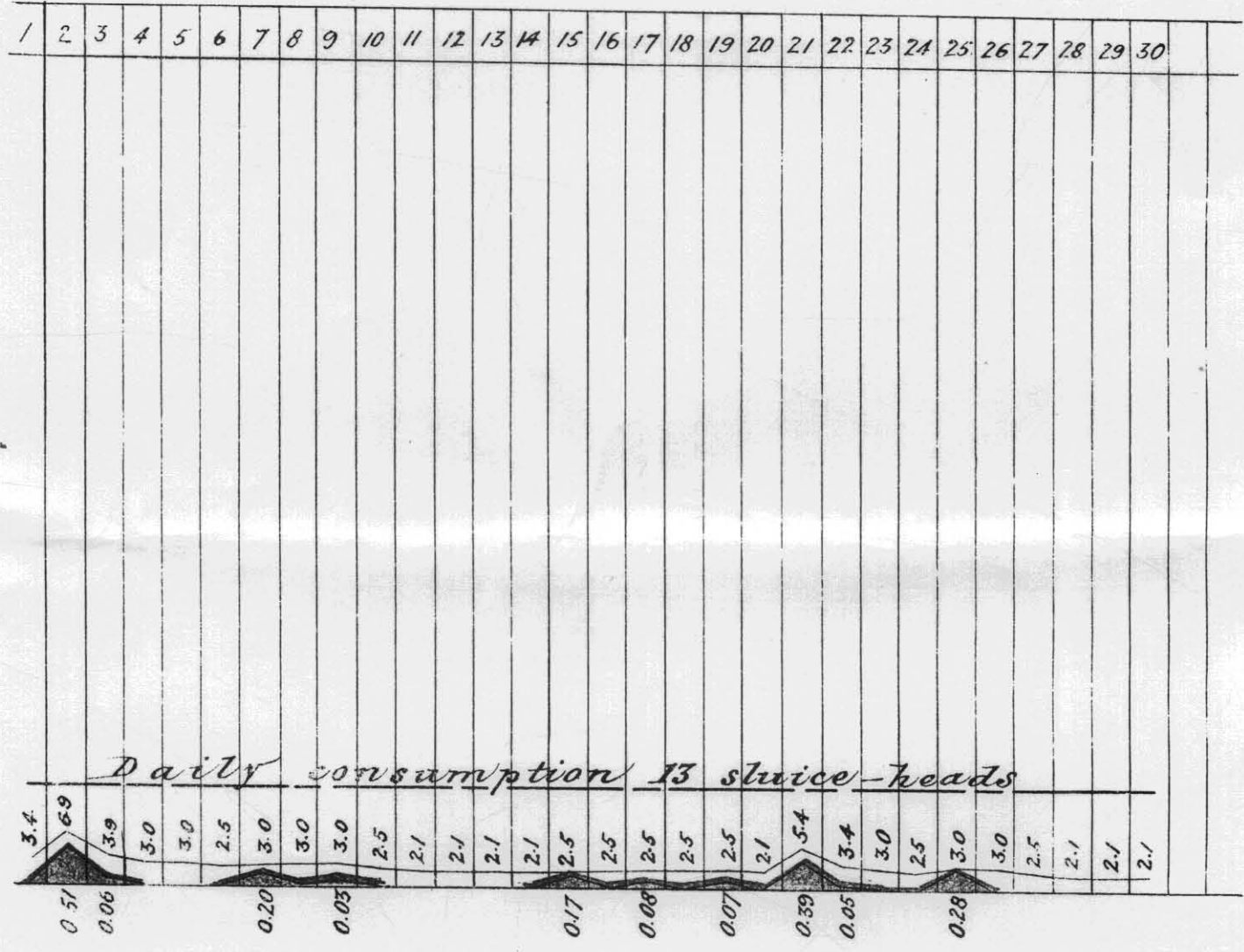
March 1902.



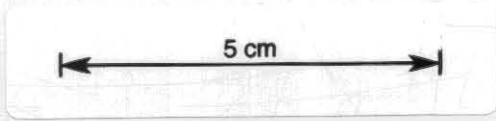
Rain fall = 4.50 inches
249.7 sluice-heads = 8 sluice-heads per diem.



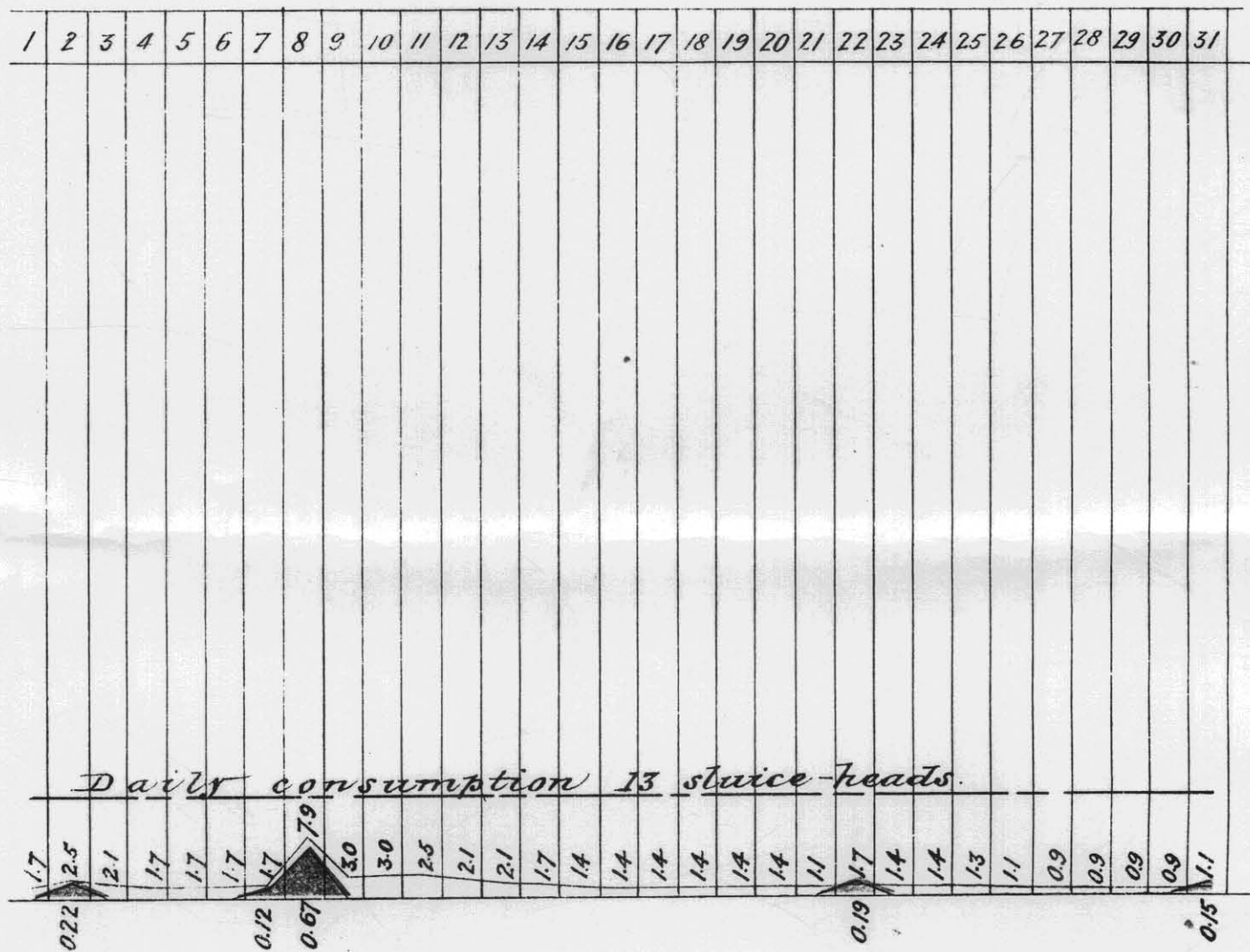
April 1902.



Rain fall = 1.84 inches
86.3 sluice-heads = 2.8 sluice-heads per diem.



May 1902.

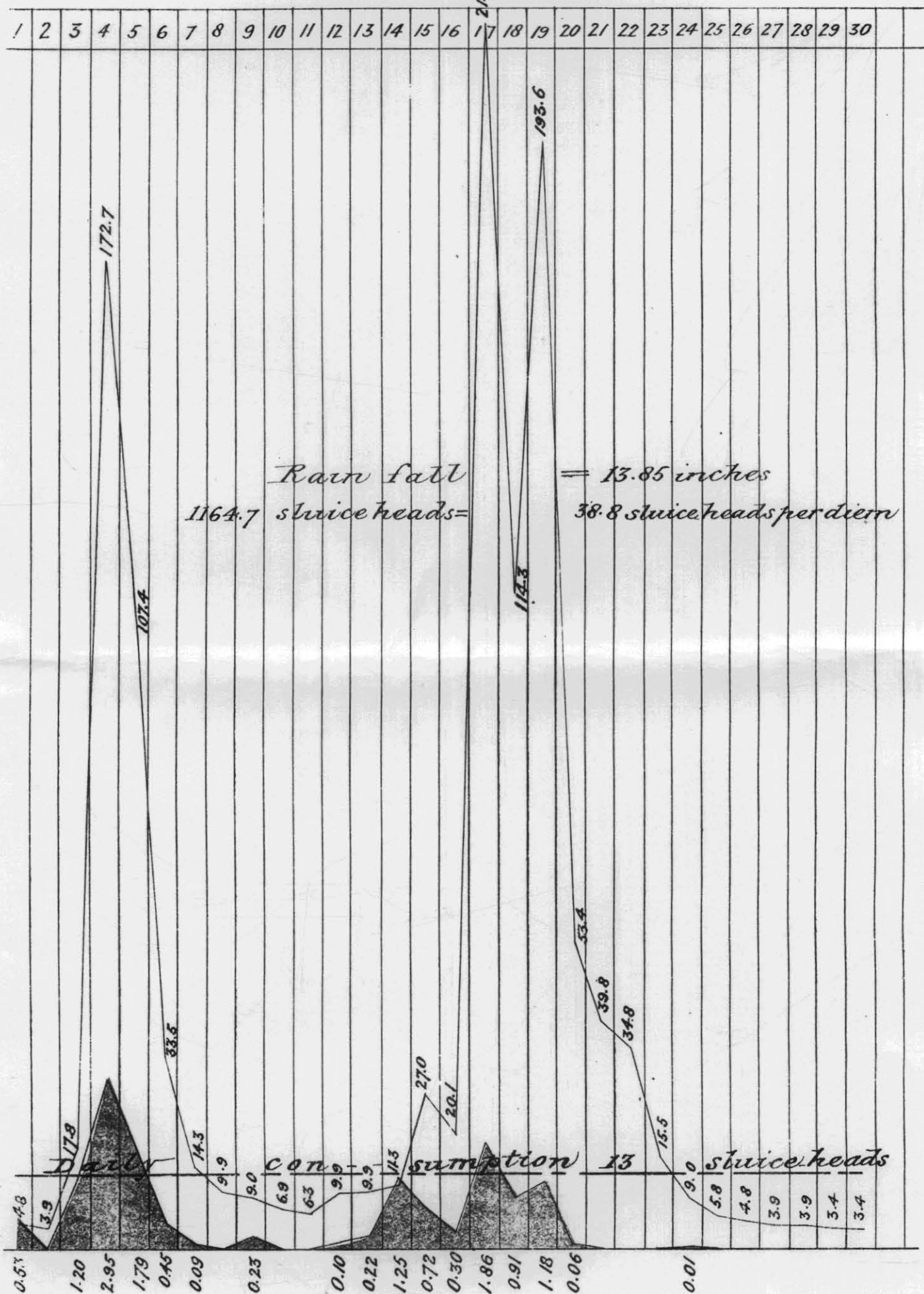


Rain fall = 1.36 inches

56.5 sluice-heads = 1.8 sluice-heads per diem.

5 cm

June 1902

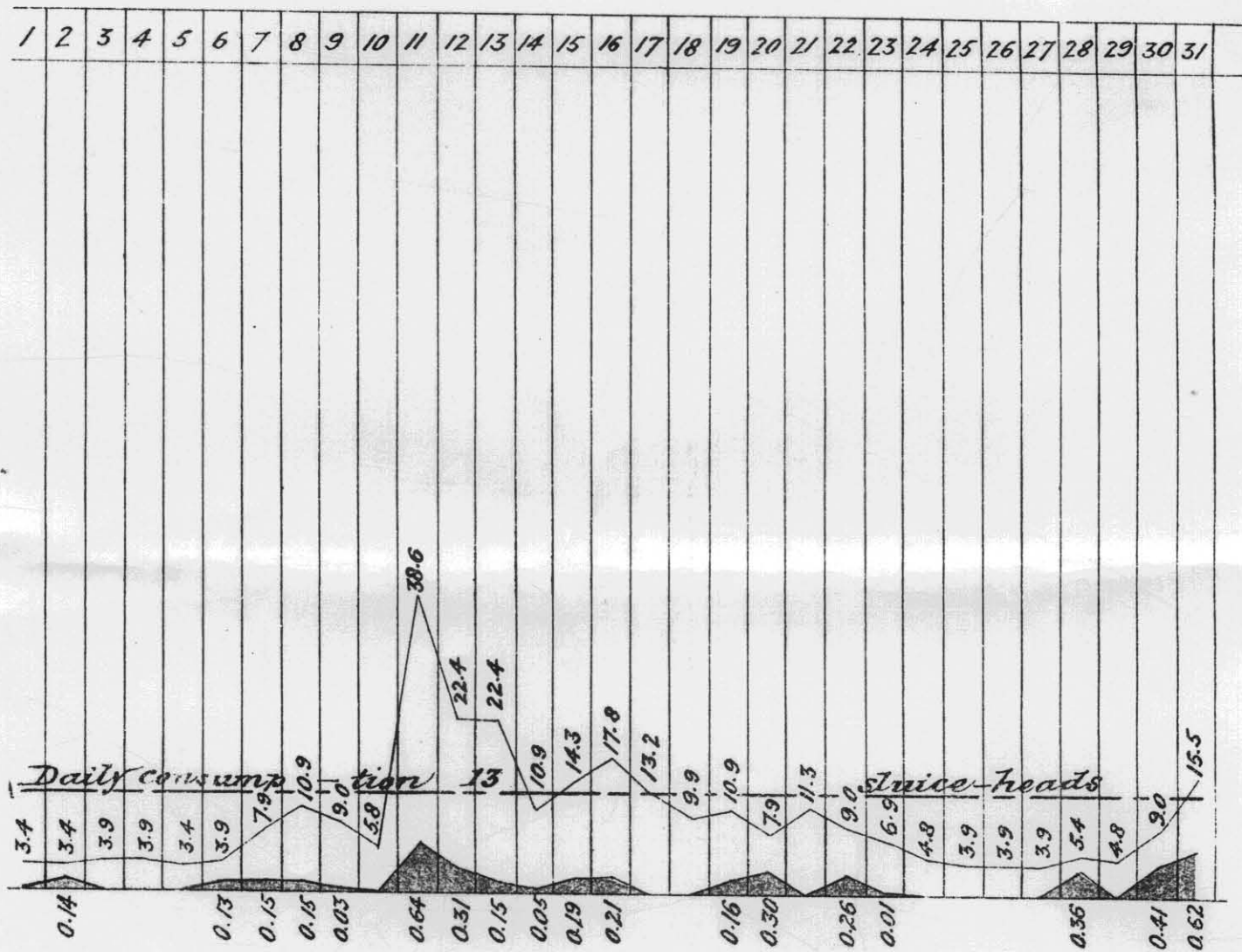


Rain fall
1164.7 sluice heads =

= 13.85 inches
38.8 sluice heads per diem

5 cm

July 1902.

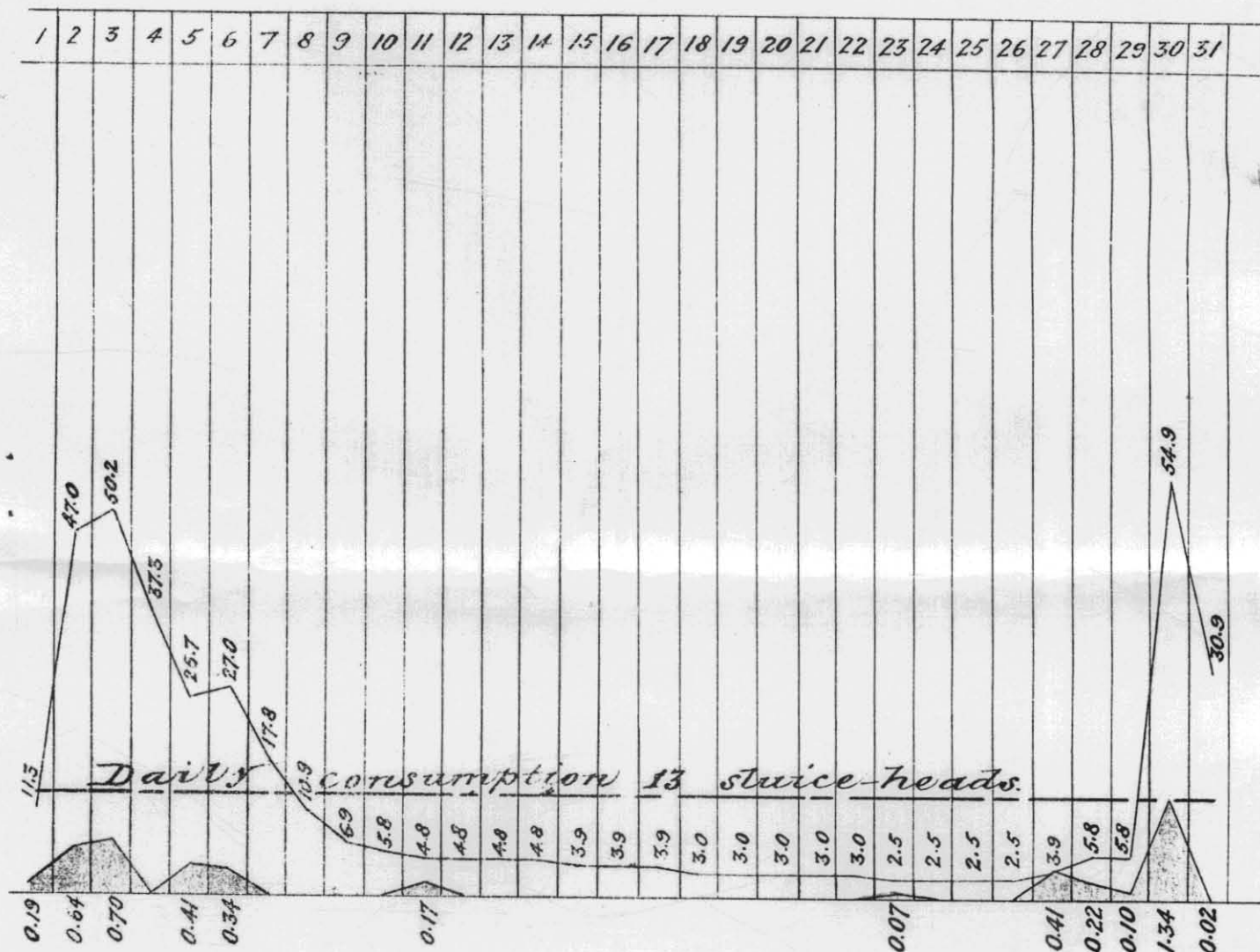


Rain fall = 4.27 inches

302.2 sluice-heads = 9.7 sluice-heads per diem.

5 cm

August 1902.



Rain fall = 4.61 inches

397.1 sluice heads = 12.8 sluice-heads per diem.

5 cm