## COURSE MEASUREMENT REPORT

## - REPORT FOR NATIONAL CERTIFIED COURSE -



| CONTACT INFORMATION |  |  |
| :--- | :--- | :--- |
|  | Measured by: | Organizer: |
| Contact person: | Samuel Hafsahl | Simen Wifstad |
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| Email: | samuel.hafsahl@gmail.com | simen.wifstad@bul.no |

It is hereby confirmed that the course has been measured by a nationally certified course measurer from Norwegian Athletics. The course is measured in accordance with Norwegian athletics regulations, and the distance(s) has the correct length(s). The survey is valid for 5 years, except if the route is changed.

## Norwegian Athletic Federation

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| 12.04.2023 | Samuel Hafsahl |  |  |
| :--- | :--- | :--- | :--- |
| Date | Signature by Course measurer | Date | Signature by NFIF |


| CALIBRATION COURSE AND PROCEDURE |  |
| :--- | :--- |
| Length of measuring tape (steel measuring tape only) | 50 m |
| Length of calibration course 1st measurement | 300 m |
| Length of calibration course 2nd measurement | 300 m |
| Possible 3rd measure (max. 1 cm diff per 100m 1 ${ }^{\text {st }}$ and 2 |  |
| nd $)$ |  |
| Date and time for measurement | $11.04 .202216: 00$ |
| Average of measurements before adjustments | 300 m |
| Temperature (road or measuring tape) | 7 |
| Adjustment cf. D-(D*(1+(temp-20)*0,0000115) | 0,9998505 |
| Measured calibration distance after adjustment | $299,955 \mathrm{~m}$ |
| Distance from start/finish to calibration distance | 500 m |


| CALIBRATION INFORMATION - (max 8 counts difference of 1000 m between 4 measurements, ie 2 counts of 300 m and 3 count of 400 m ) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pre-measurement: |  |  | Post measurement: |  |  |
|  | Date and Time: 11.04.2023 17:30 |  |  | Date and Time: 11.04.2023 18:30 |  |  |
|  | Start | End | Diff. | Start | End | Diff. |
| 1st measure | 51362 | 54900 | 3538 | 65944 | 69481 | 3537 |
| 2nd measure | 54900 | 58439 | 3539 | 69481 | 73017 | 3536 |
| 3rd measure | 58439 | 61978 | 3539 | 73017 | 76554 | 3537 |
| 4th measure | 61978 | 65516 | 3538 | 76554 | 80091 | 3537 |

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|  | Pre <br> measurement | Post <br> measurement |  |
| :--- | :--- | :--- | :--- |
| Average <br> $\mathbf{( 1 + 2 + 3 + 4 ) / \mathbf { 4 }}$ | 3538,5 | 3536,8 | Today's constant. Either <br> highest or average of before <br> and after measurement |
| Working constant 1 km | $\mathbf{1 1 7 9 7 , 3}$ | $\mathbf{1 1 7 9 1 , 5}$ |  |
| Addn. +1\%o | $\mathbf{1 1 , 8}$ | $\mathbf{1 1 , 8}$ |  |
| Measurement constant <br> (rounded) | $\mathbf{1 1 8 0 9}$ | $\mathbf{1 1 8 0 3}$ | 11806 |


| MEASUREMENT PROCEDURE |  |  |
| :---: | :---: | :---: |
| Measurement constant | 11806 |  |
| Measured Distance | Counter | Description of place |
| Om | 77 957,0 | Start, Karl Johans gate (at the lamp post) |
| 10 015,8m | 196 203,0 | Finish, Karl Johans gate (at the lamp post) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| 10 015,8 | 118 246,0 | Total measured without adjustments |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| 15,8m |  | Total measured adjustments |
|  |  |  |
| 10 000m |  | Total measured corrected trail |

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## CONCLUSION OF MEASUREMENT

1. Measurement method

Cook-Jones counter mounted on bicycle wheel
2. Measurement procedure

Stopp counter - Start counter= total counts
196 203-77 957 = 118246

Total counts / measurement constant * $1000=$ total distance in meter $118246 / 11806$ * $1000=10015,8$ meter

Race total length : 10000 meter
Race is 15,8 meter to long.

## 3. Course adjustment

Start is moved 15,8 meters after first lamppost where the race start was measured from. Measured by measuring tape

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CALIBRATION COURSE MAP


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## COURSE MAP \& DESCRIPTION


https://www.google.com/maps/d/edit?mid=1MG-GWkwT8KxAWjo4D9HQddhapC9UqU\&usp=sharing

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Start
Karl Johans Gate. 15,8 meter after this first lamp post after Universitetsgata


Finish
Karl Johans gate, at the last lamp post before Rosenkranz gate, at Grand Hostel/Café


