

# Norwegian Athletic Federation

Ullevaal stadion  
Sognsveien 75 J, 0840 Oslo, NORWAY  
E-mail: [friidrett@friidrett.no](mailto:friidrett@friidrett.no)  
Phone: +47 94 83 33 26

10 km  
Egersund, Norway  
02.March 2024

## COURSE MEASUREMENT REPORT

### - REPORT FOR INTERNATIONAL CERTIFIED COURSE –

| INFORMATION ABOUT EVENT AND COURSE  |
|---|
| <b>Event:</b> Egersund Half Marathon  |
| <b>Technical Organiser:</b> Egersund Idrettsklubb Friidrettsavdeling  |
| <b>City/Place:</b> Egersund, Norway   |
| <b>Date of Arrangement:</b> 02.March 2024   |
| <b>Date and time for measurement:</b> 31.Oct 2023, 1 pm – final adjustment 06.Nov, 10:30 am   |
| <b>Measured distance(s):</b> 10 km (part of 21 km race course)  |
| <b>Length of calibration course:</b> 300,0 m  |
| <b>Terrain:</b> Flat <input type="checkbox"/> Slightly hilly <input type="checkbox"/> Hilly <input checked="" type="checkbox"/> Terrain <input type="checkbox"/>                    |
| <b>Type of course route:</b> Closed loop <input type="checkbox"/> Back and forth <input checked="" type="checkbox"/> A to B <input type="checkbox"/> Other <input type="checkbox"/> |
| <b>Race surface:</b> Asphalt  |
| <b>Elevation Start - Finish:</b> Zero (same start/finish)   |
| <b>Description of start:</b> Espeland Hallen, outside, permanent mark on ground   |
| <b>Description of finish:</b> Same as start   |
| <b>Distance, in a straight line, between start &amp; finish:</b> Zero   |
| <b>Start and Finish marked:</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>   |
| <b>Km-markings:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 5 km turning point  |
| <b>Measurement direction:</b> Running direction <input checked="" type="checkbox"/> Opposite running direction <input type="checkbox"/>   |
| <b>National record can be approved:</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>   |

| CONTACT INFORMATION    |                        |                      |
|------------------------|------------------------|----------------------|
|                        | <b>Measured by:</b>    | <b>Organizer:</b>    |
| <b>Contact person:</b> | Erling Hiorth          | Gunnar Kvassheim     |
| <b>Phone:</b>          | +47 91337338           | +47 46808961         |
| <b>Email:</b>          | Erling.hiorth@lyse.net | gkvassheim@gmail.com |

It is hereby confirmed that the course has been measured by an A- or B certified international certified course measurer from Norwegian Athletics. The course is measured in accordance with AIMS and Norwegian athletics regulations, and the distance(s) has the minimum reported length(s). The survey is valid for 5 years, except if the route is changed.

10.november 2023 *Erling Hiorth*

|      |                              |      |                   |
|------|------------------------------|------|-------------------|
| Date | Signature by Course measurer | Date | Signature by AIMS |
|------|------------------------------|------|-------------------|

# Norwegian Athletic Federation

Ullevaal stadion  
Sognsveien 75 J, 0840 Oslo, NORWAY  
E-mail: [friidrett@friidrett.no](mailto:friidrett@friidrett.no)  
Phone: +47 94 83 33 26

10 km  
Egersund, Norway  
02.March 2024

| CALIBRATION COURSE AND PROCEDURE  |                             |
|---|-----------------------------|
| Length of measuring tape (steel measuring tape only)                                | 50 m                        |
| Length of calibration course 1st measurement  | 300,00 m                    |
| Length of calibration course 2nd measurement  | 300,01 m                    |
| Possible 3rd measure (max. 1 cm diff per 100m 1 <sup>st</sup> and 2 <sup>nd</sup> ) | No                          |
| Average of measurements before adjustments  | 300,005 m                   |
| Temperature (road or measuring tape)  | 5 degree                    |
| Adjustment cf. $D-(D*(1+(temp-20)*0,0000115))$                                      | - 0,052 m temp              |
| Measured calibration distance after adjustment                                      | 300,003 m (+5 cm on ground) |
| Distance from start/finish to calibration distance                                  | 1,1 km                      |

| CALIBRATION INFORMATION - (max 8 counts difference of 1000 m between 4 measurements, ie 2 counts of 300m and 3 count of 400m) |                             |       |       |                             |       |       |
|---|-----------------------------|-------|-------|-----------------------------|-------|-------|
|   | Pre-measurement:            |       |       | Post measurement:           |       |       |
|   | Date and Time: 31.Oct 13:20 |       |       | Date and Time: 31.Oct 15:30 |       |       |
|   | Start                       | End   | Diff. | Start                       | End   | Diff. |
| 1st measure   | 11400                       | 14861 | 3461  | 12600                       | 16063 | 3463  |
| 2nd measure   | 14861                       | 18323 | 3462  | 16063                       | 19527 | 3464  |
| 3rd measure   | 18323                       | 21786 | 3463  | 19527                       | 22990 | 3463  |
| 4th measure   | 21786                       | 25248 | 3462  | 22990                       | 26454 | 3464  |

|                                   | Pre measurement | Post measurement |   |
|-----------------------------------|-----------------|------------------|---|
| Average<br>(1+2+3+4) / 4          | 3462,0          | 3463,5           | Today's constant. Either highest or average of before and after measurement |
| Constant 1 km                     | 11539,875       | 11554,875        |   |
| Addn. +1‰                         | 11,54           | 11,54            |   |
| Measurement constant<br>(rounded) | 11551,415       | 11556,42         | 11554   |

# Norwegian Athletic Federation

Ullevaal stadion  
Sognsveien 75 J, 0840 Oslo, NORWAY  
E-mail: [friidrett@friidrett.no](mailto:friidrett@friidrett.no)  
Phone: +47 94 83 33 26

10 km  
Egersund, Norway  
02.March 2024

| MEASUREMENT PROCEDURE |                |   |
|-----------------------|----------------|---|
| Measurement constant  | 11554          |   |
| Measured Distance     | Counter        | Description of place                          |
|                       | 50000          | Start outside Espeland Hallen                 |
| 178,6                 | 52063          | Intermediate mark 1a – corner (see note 1)    |
| 4.820,6               | 107760         | 5 km – turning point 10 km race               |
|                       | 171016         | Turning point 21 km                           |
|                       | 234300         | 5 km – turning point 10 km race               |
| 4.815,8               | 289942         | Intermediate mark 1b – corner                 |
| 181,7                 | 292041         | Finish – same as start (see note 1)           |
|                       |                |   |
| 9.996,7 m             |                | Total measured without adjustments            |
|                       |                |   |
| 3,1                   | -178,6m+181,7m | Note 1 – Return, changed crossing over road   |
| -48                   | Steel tape     | Turning point half way moved                  |
| -48                   | Steel tape     | Turning point half way moved (back and forth) |
| 50                    | Steel tape     | Adjusted start line                           |
| 50                    | Steel tape     | Adjusted finish line (back and forth)         |
|                       |                |   |
| 7,1 m                 |                | Total measured adjustments                    |
|                       |                |   |
| 10.003,8              |                | Total measured course                         |

# Norwegian Athletic Federation

Ullevaal stadion  
Sognsveien 75 J, 0840 Oslo, NORWAY  
E-mail: [friidrett@friidrett.no](mailto:friidrett@friidrett.no)  
Phone: +47 94 83 33 26

10 km  
Egersund, Norway  
02.March 2024

## CONCLUSION OF MEASUREMENT

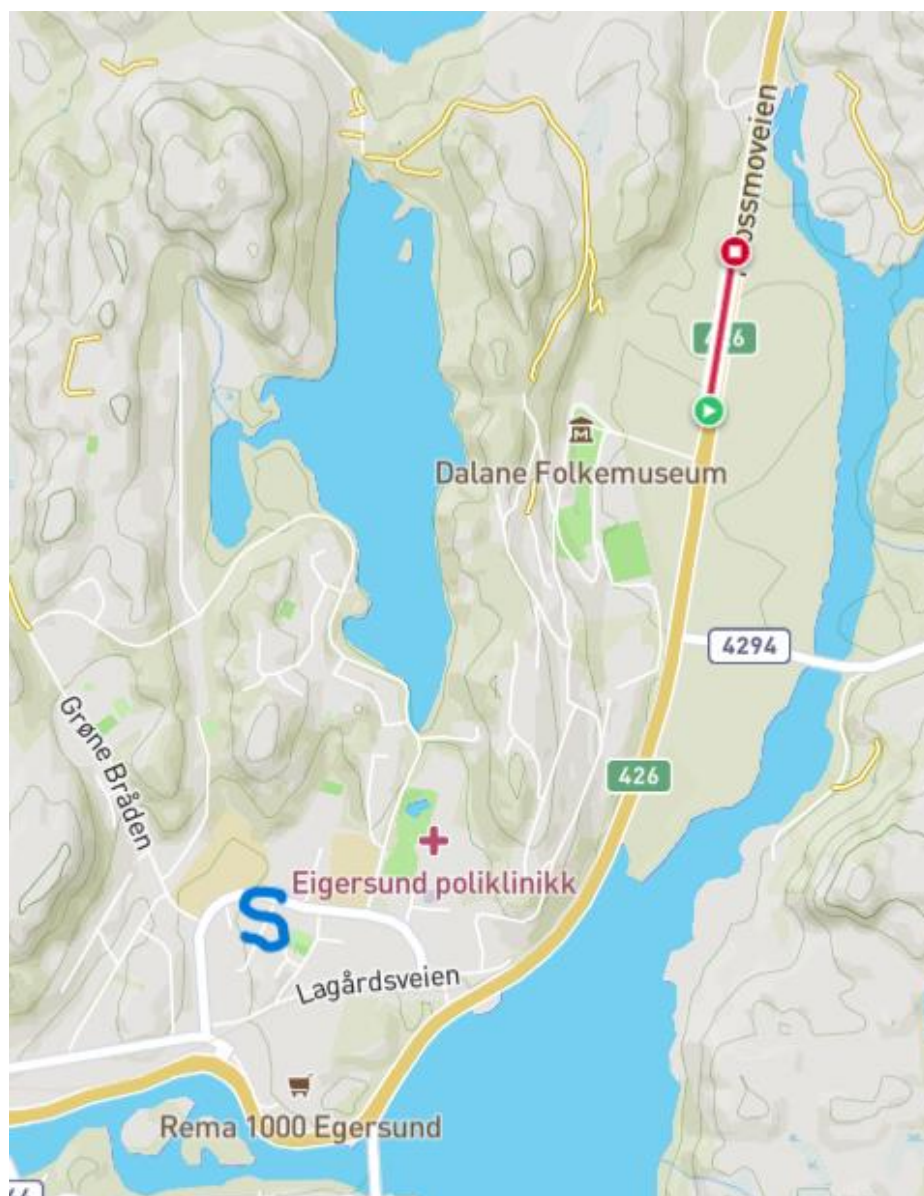
1. General information about race course and start/finish
  - Main measurement 31.Oct. with reqd. adjustments 06.Nov.
  - The course has turning point half way and is part of the 21 km race
  - Number of participants in 2023 was 200 runners
2. Measurement of calibration course
  - 1,1 km in straight line from start/finish, straight/flat cycle path on asphalt
  - Measured in accordance with procedure, 2 persons
  - Marked at both ends, adjusted for temperature and adjusted +5cm on ground
3. Calibration of bicycle
  - Calibrated in accordance with procedure, 4 measures, deviation 2 count ok
4. Measurement of the course
  - Started from pre-set start to turning point 5 km half way, continued towards turning point for 21 km and passed 5 km turning point on return to start=finish
  - Measurement of the course is sum of back and forth between 5 km and start
5. Post calibration of bicycle
  - Same procedure, 4 measures, deviation 1 count ok
6. Course adjustments
  - Crossing of road 100 m after start, straight over to walking path, +3,1m x1
  - Turning point 5 km adjusted by -48 m, reducing 96 m to the course
  - Start/finish line adjusted by +50m, adding 100 m to the course
7. Overall length of the course
  - The course is not shorter than 10.000 m
8. Additional info
  - The organizer will set up fences 1<sup>st</sup> 150 m to walking path
  - Pedestrian crossing to be used after 500 m
  - Cycle path to be used 1<sup>st</sup> 3,1 km
  - From 3,1 km to turning point at 5 km, the course is to follow left side of main road, same side of road both ways. Measurement is done 0,3 m from white side line / edge of road both ways.
  - Guards and cones are to be placed at 3,1 km, 4,5 km and turning after 5 km to ensure no road crossing nor short cuts are taken.

# Norwegian Athletic Federation

Ullevaal stadion  
Sognsveien 75 J, 0840 Oslo, NORWAY  
E-mail: [friidrett@friidrett.no](mailto:friidrett@friidrett.no)  
Phone: +47 94 83 33 26

10 km  
Egersund, Norway  
02.March 2024

## CALIBRATION COURSE MAP



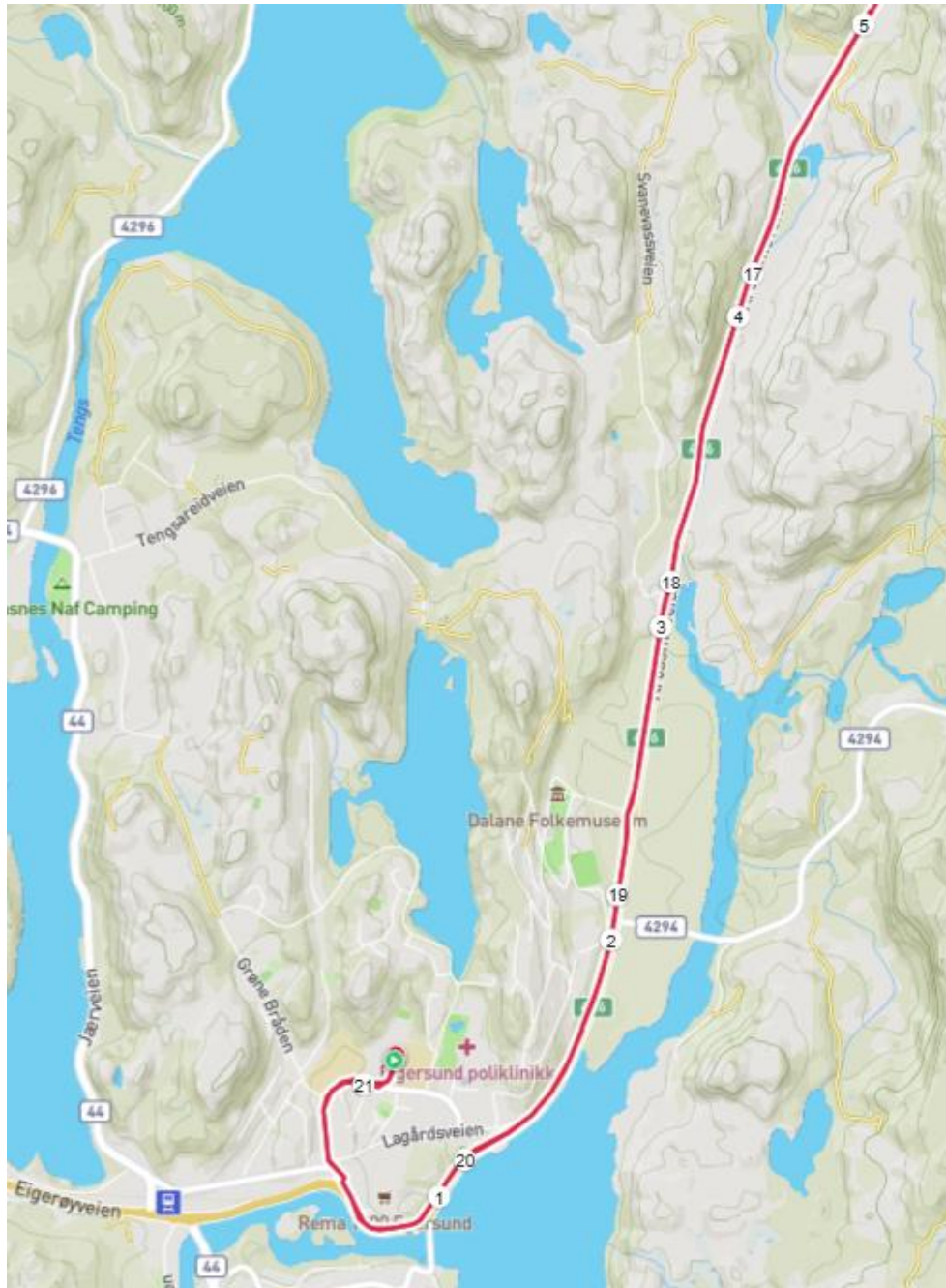
# Norwegian Athletic Federation

Ullevaal stadion  
Sognsveien 75 J, 0840 Oslo, NORWAY  
E-mail: [friidrett@friidrett.no](mailto:friidrett@friidrett.no)  
Phone: +47 94 83 33 26

10 km  
Egersund, Norway  
02.March 2024

## COURSE MAP & DESCRIPTION

After 3,1 km on cycle path, all runners shall keep the left side of the road towards the turning point, and stay on the same side on return. This is for safety precaution due to open traffic and in accordance with measured course.



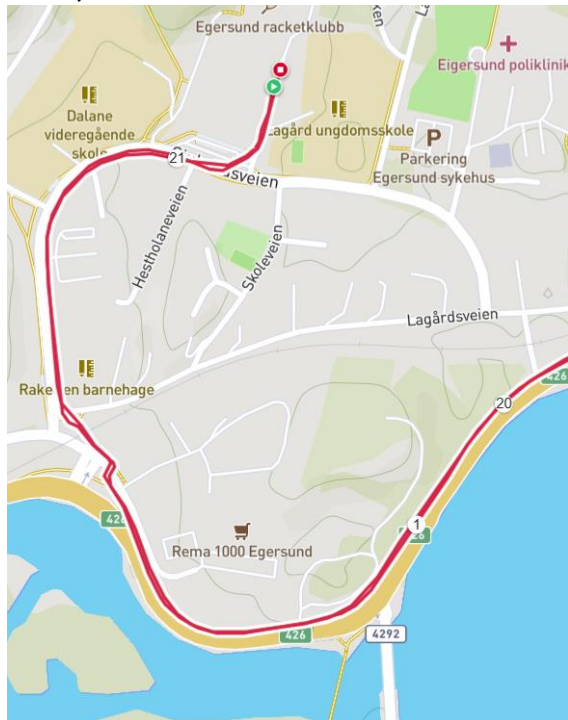


# Norwegian Athletic Federation

Ullevaal stadion  
Sognsveien 75 J, 0840 Oslo, NORWAY  
E-mail: [friidrett@friidrett.no](mailto:friidrett@friidrett.no)  
Phone: +47 94 83 33 26

10 km  
Egersund, Norway  
02.March 2024

## Start / finish area



## Start / finish – marked on ground



## Turning point 100 m from start/finish



# Norwegian Athletic Federation

Ullevaal stadion  
Sognsveien 75 J, 0840 Oslo, NORWAY  
E-mail: [friidrett@friidrett.no](mailto:friidrett@friidrett.no)  
Phone: +47 94 83 33 26

10 km  
Egersund, Norway  
02.March 2024

Turning point after 5 km

