＜Reference＞
June 16, 2016
Tokyo Electric Power Company Holdings, Inc.

Progress of Landside Impermeable Wall freezing: Phase 2 of the first stage

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○The purpose of the Landside Impermeable Wall construction lies not in freezing soil to form a underground wall but in keeping groundwater from flowing into the reactor/turbine buildings and preventing new contaminated water from being generated.
○By closing 95 percent of the landside of the Landside Impermeable Wall in Phase 2 of the first stage, it is expected that the amount of groundwater flowing into areas around the reactor/turbine buildings will be reduced. This will help keep groundwater from being contaminated during the first stage.
○Throughout the first stage, how freezing of the Landside Impermeable Wall has progressed will be evaluated by monitoring the difference in groundwater levels inside and outside of the wall and groundwater amount pumped up by the subdrain and groundwater drain systems and the well point system.

Changes in soil temperatures over time

Note
- Average Soil Temperature (AST) of medium-grained sandstone layer (blue line):
  average value of thermometer temperatures measured at 1m intervals except for the areas between ground surface and Ground Level 2m and the areas around the first muddy layer boarder.
- Average Soil Temperature (AST) of alternating strata layer (red line):
  Average value of thermometer temperatures measured at 1m intervals except for the areas around the upper and lower parts of the alternating layer boarder.

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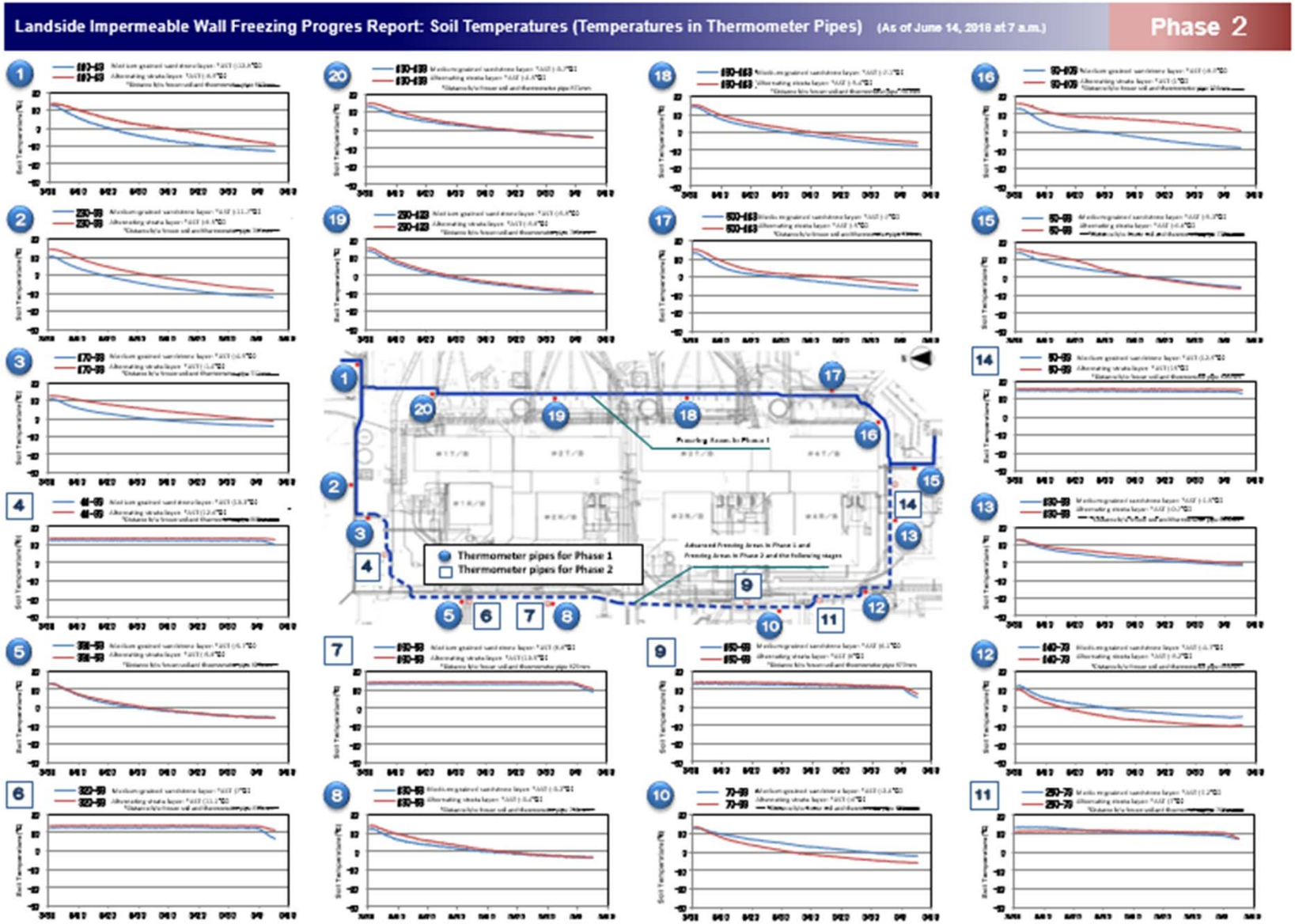
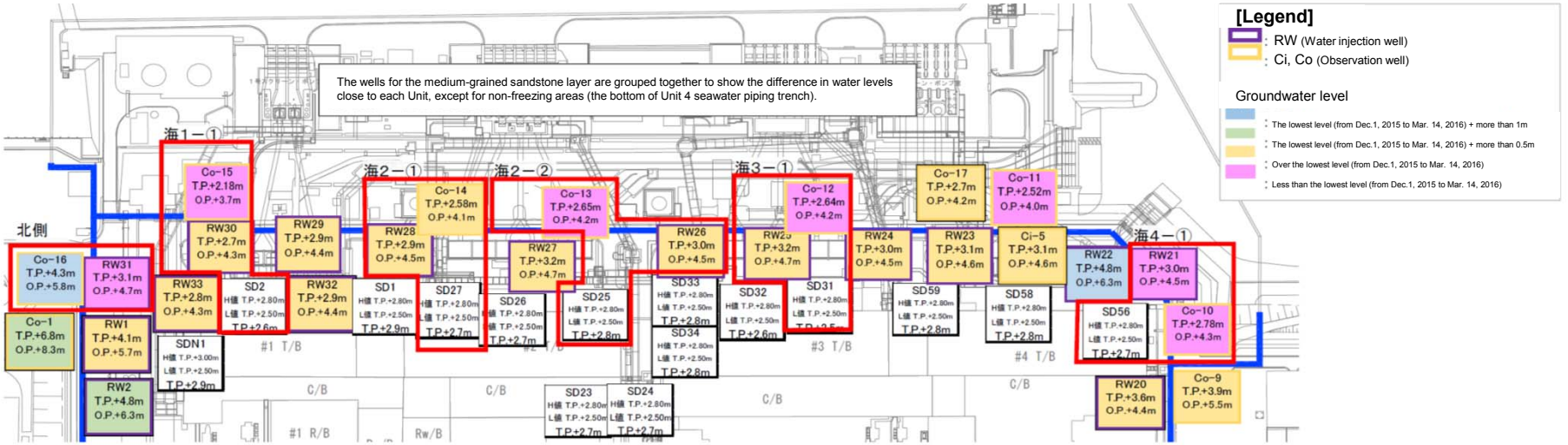
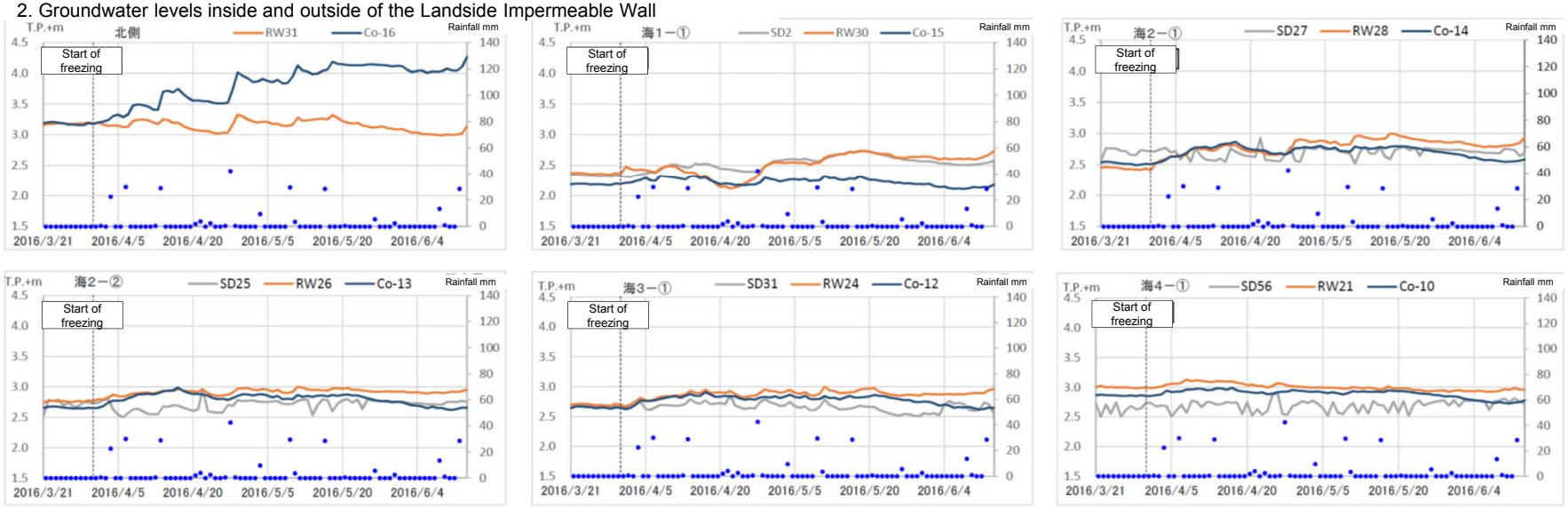


Groundwater levels and hydraulic heads
(in the medium-grained sandstone layer 1 on the seaside)

1. Landside Impermeable Wall (groundwater levels around the seaside and the operations of Subdrain pumping system)



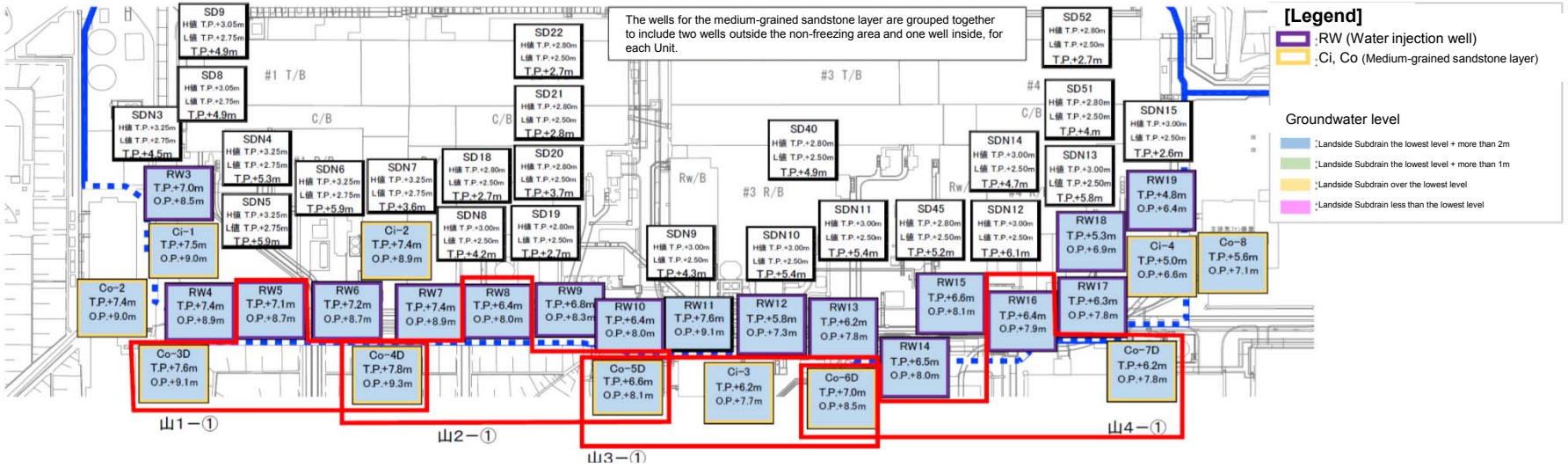
2. Groundwater levels inside and outside of the Landside Impermeable Wall



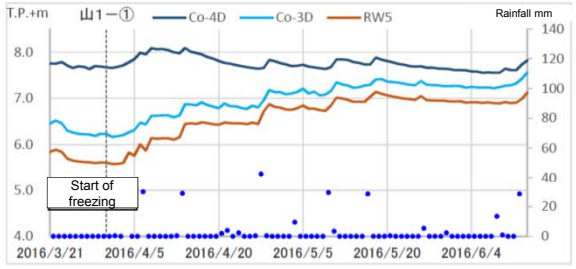
The data of groundwater levels as of 12 p.m. on June 14.

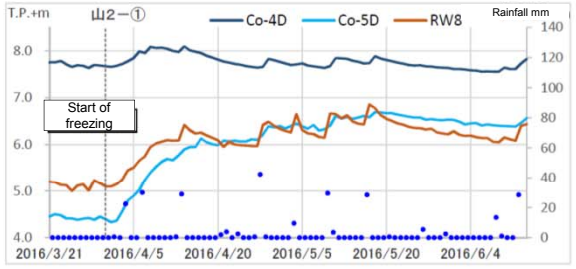
Groundwater levels and hydraulic heads
(in the medium-grained sandstone layer 2 on the landside)

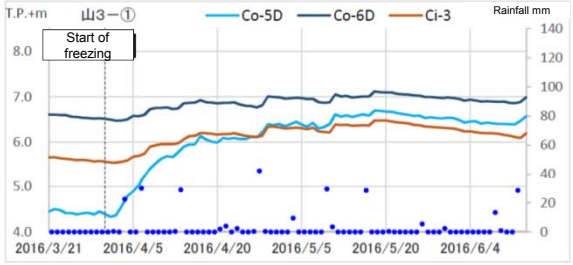
3. Landside Impermeable Wall (groundwater levels around the seaside and the operations of Subdrain pumping system)

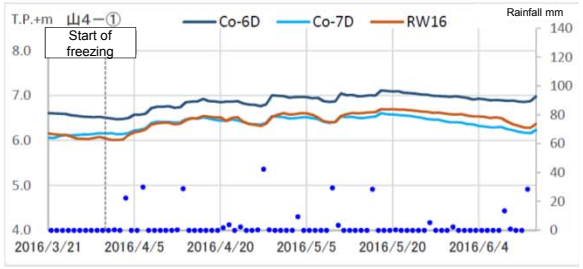


4. Groundwater levels inside and outside of the Landside Impermeable Wall





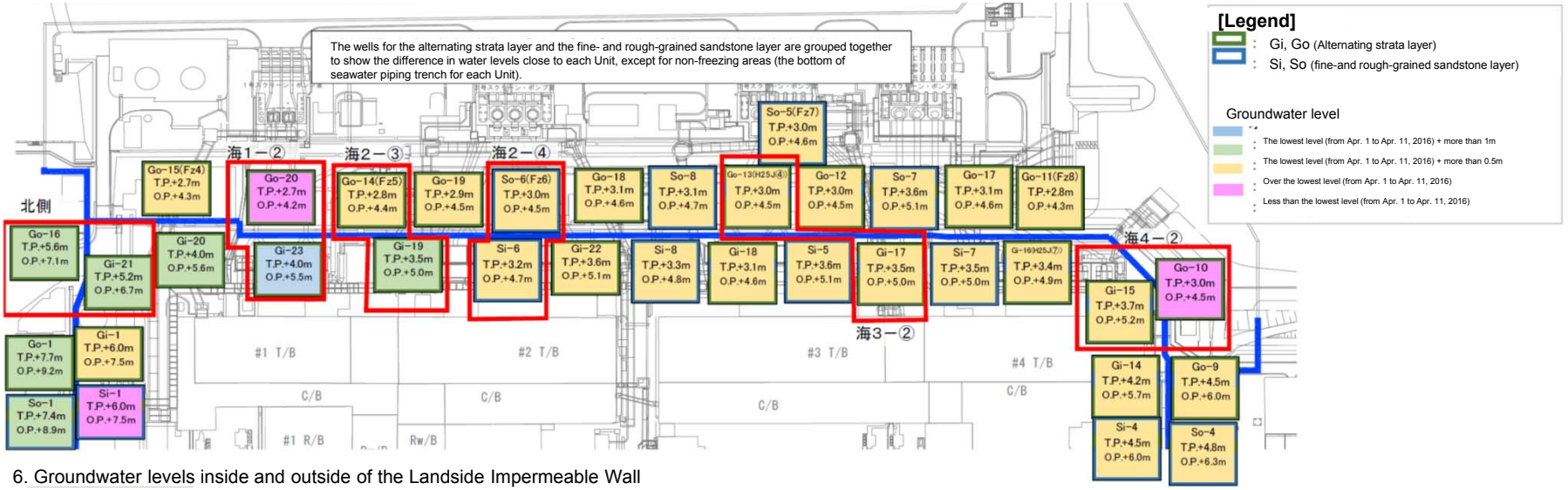




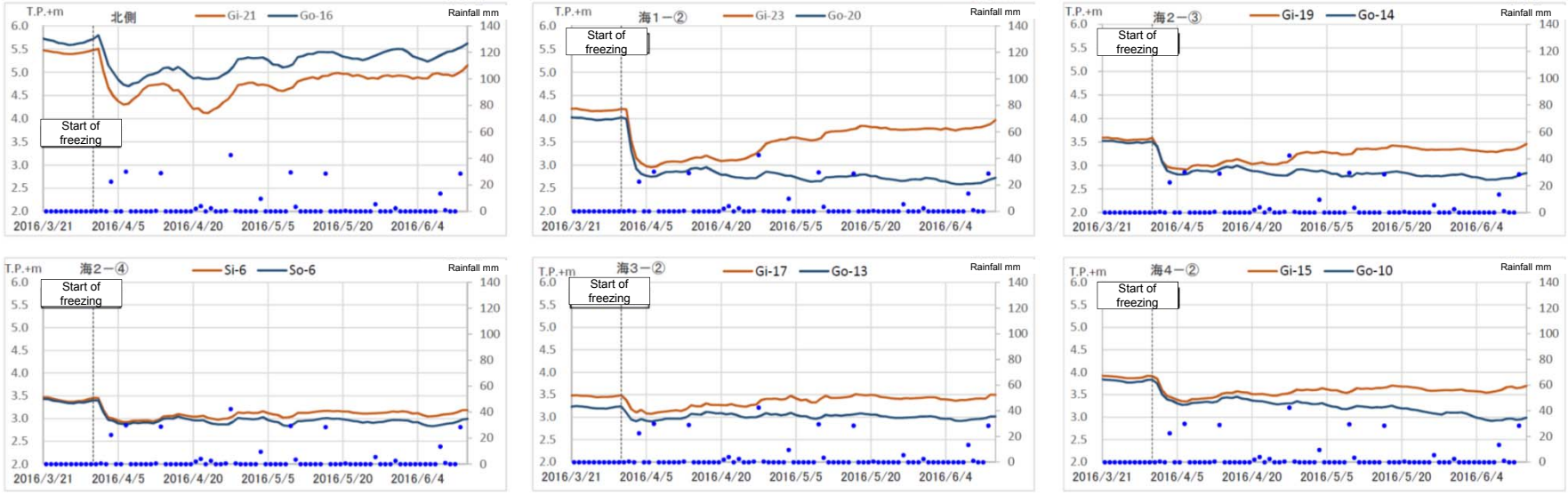
The data of groundwater levels as of 12 p.m. on June 14.

Groundwater levels and hydraulic heads
(in the alternating strata layer and the fine- and rough-grained sandstone layer 1 on the seaside)

5. Landside Impermeable Wall (groundwater levels around the seaside and the operations of Subdrain pumping system)



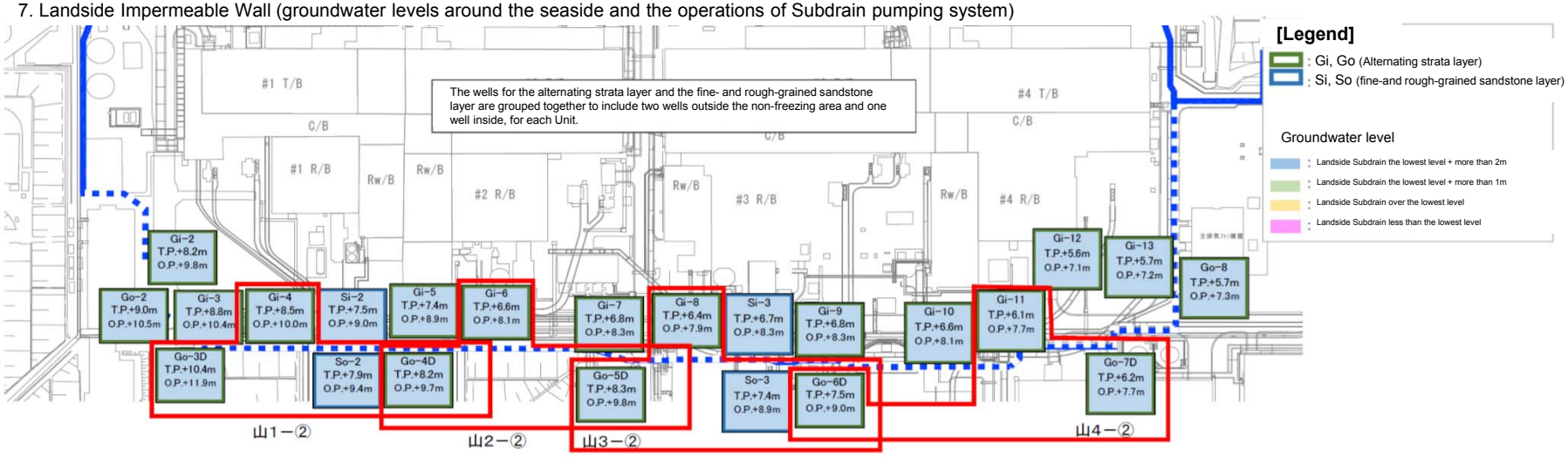
6. Groundwater levels inside and outside of the Landside Impermeable Wall



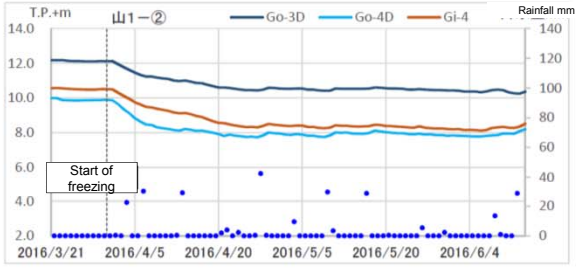
The data of groundwater levels as of 12 p.m. on June 14.

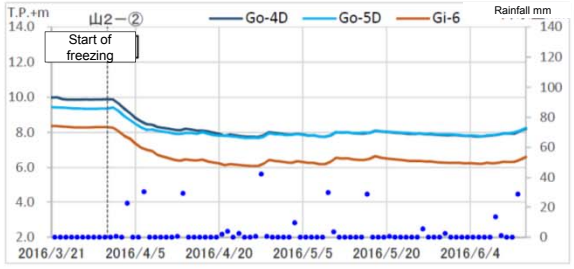
Groundwater levels and hydraulic heads
(in the alternating strata layer and the fine- and rough-grained sandstone layer 2 on the landside)

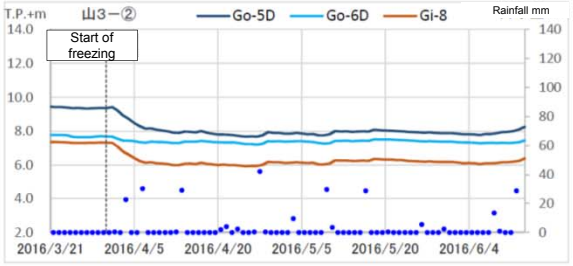
7. Landside Impermeable Wall (groundwater levels around the seaside and the operations of Subdrain pumping system)

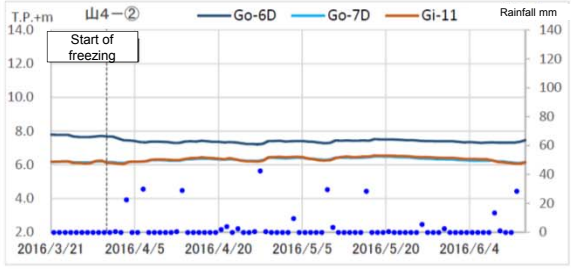


8. Groundwater levels inside and outside of the Landside Impermeable Wall



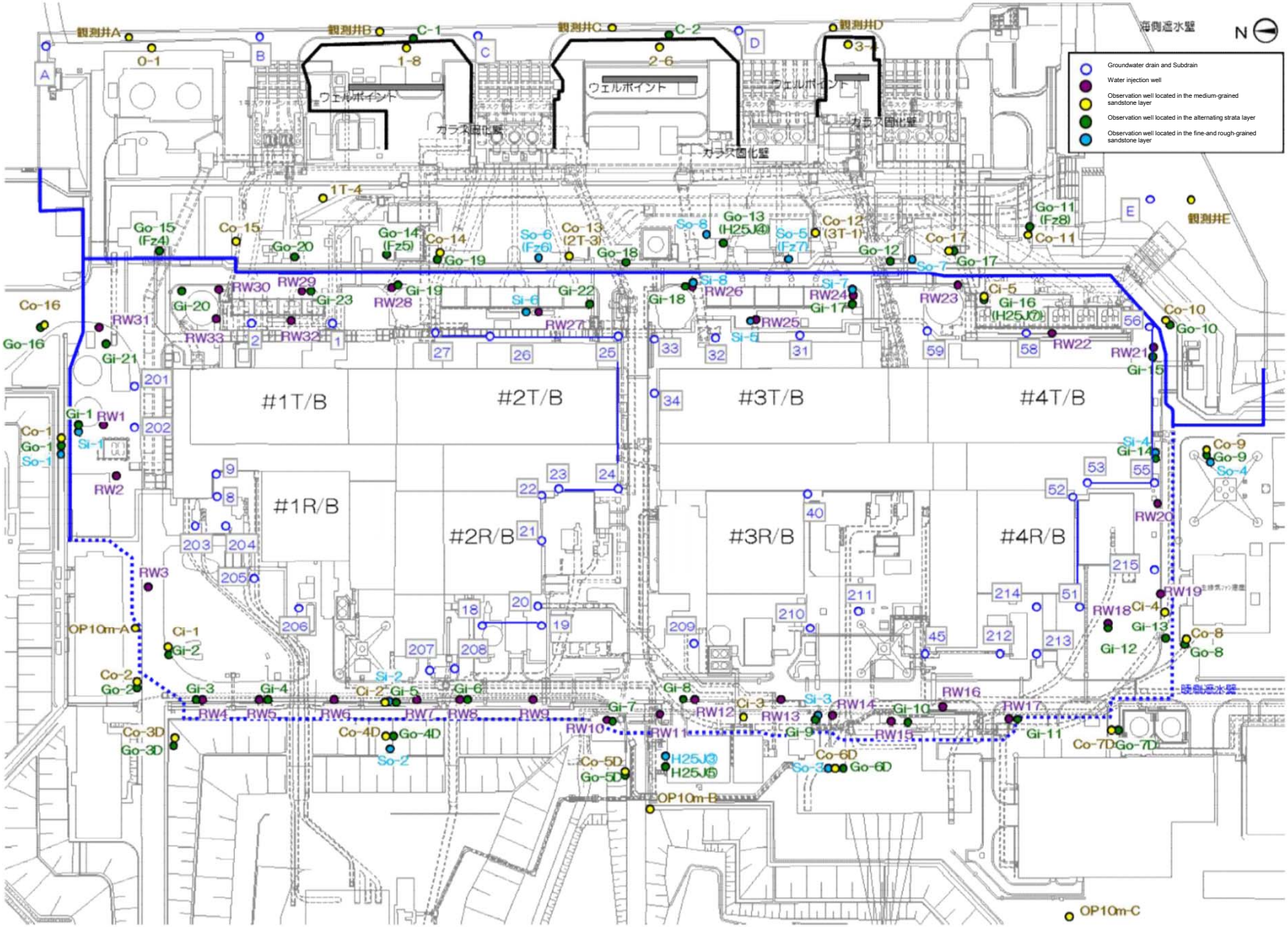






The data of groundwater levels as of 12 p.m. on June 14.

[Reference] Location map of groundwater level observation wells (as of April 2016)

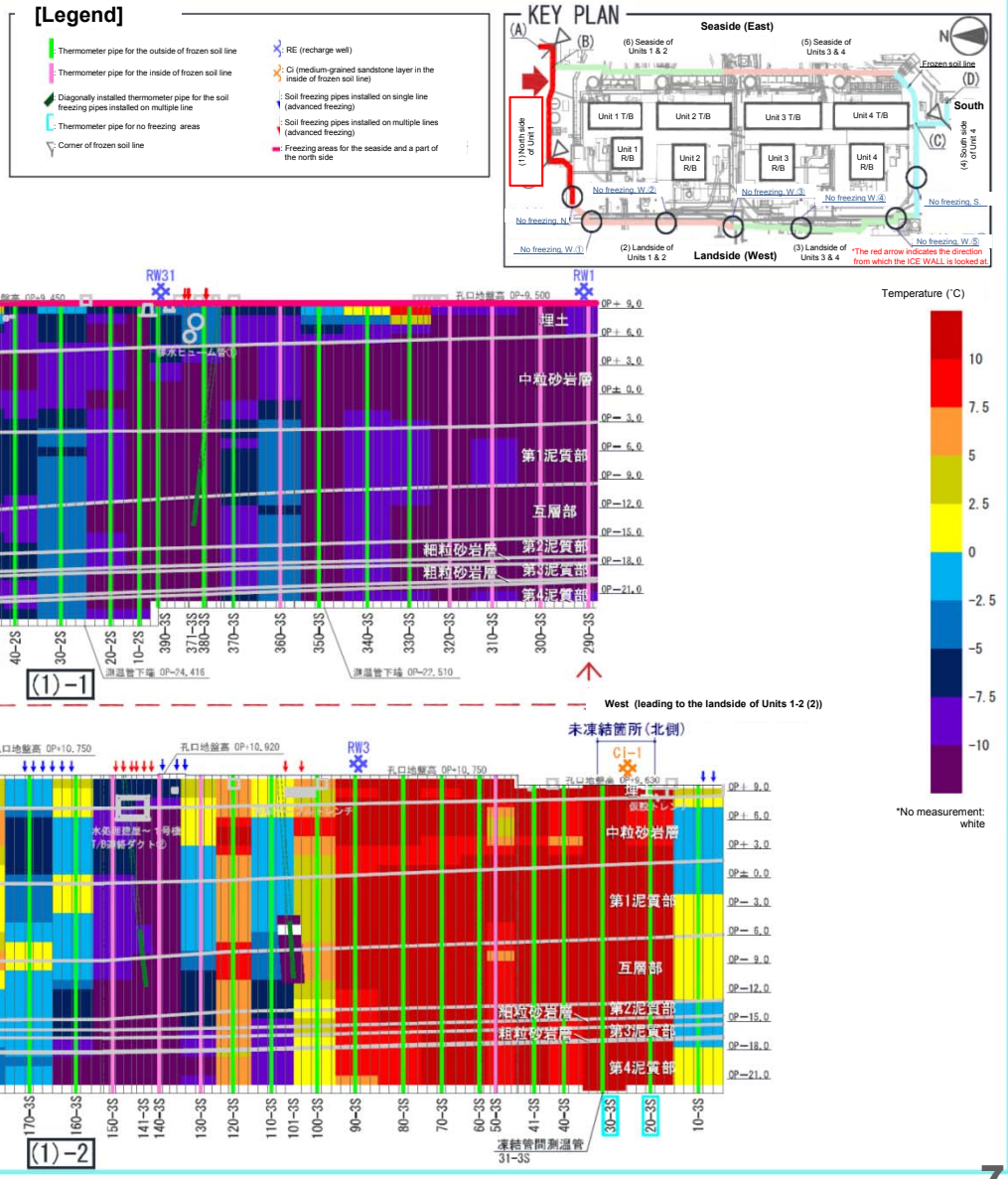


[Reference] Distribution map of soil temperatures (north side of Unit 1)

■ Distribution map of soil temperatures

(1) North side of Unit 1 (a view from the north side)

(The temperature data as of 7 a.m. on June 14.)



The distribution maps on pages 7-12 are for reference to check soil temperature fluctuations of the depth direction which are measured by the thermometer pipes installed around the Landside Impermeable Wall.

[Reference] Distribution map of soil temperatures (west side of Units 1-2)

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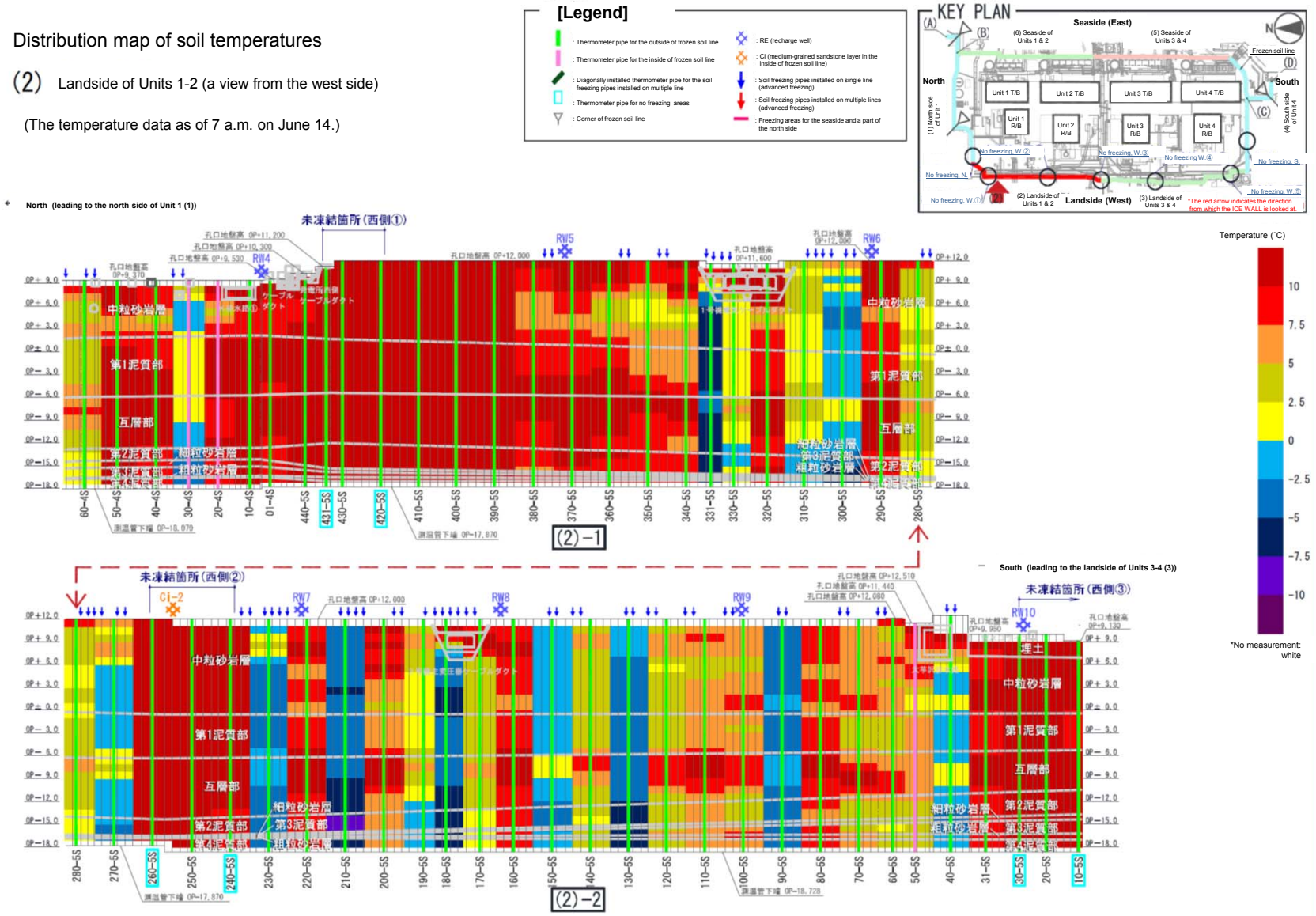
■ Distribution map of soil temperatures

(2) Landside of Units 1-2 (a view from the west side)

(The temperature data as of 7 a.m. on June 14.)



[Reference] Distribution map of soil temperatures (west side of Units 3-4)

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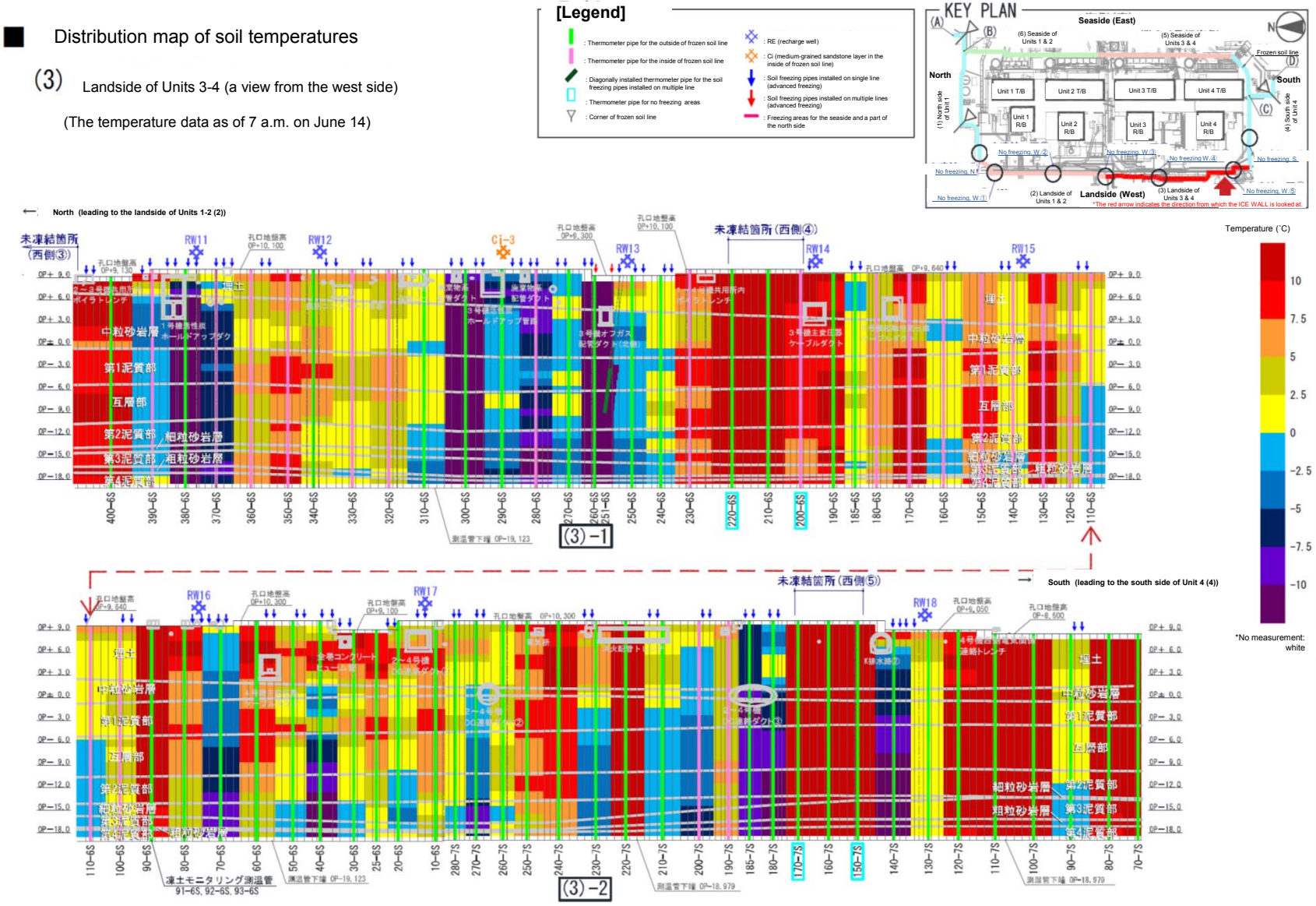
■ Distribution map of soil temperatures

(3) Landside of Units 3-4 (a view from the west side)

(The temperature data as of 7 a.m. on June 14)

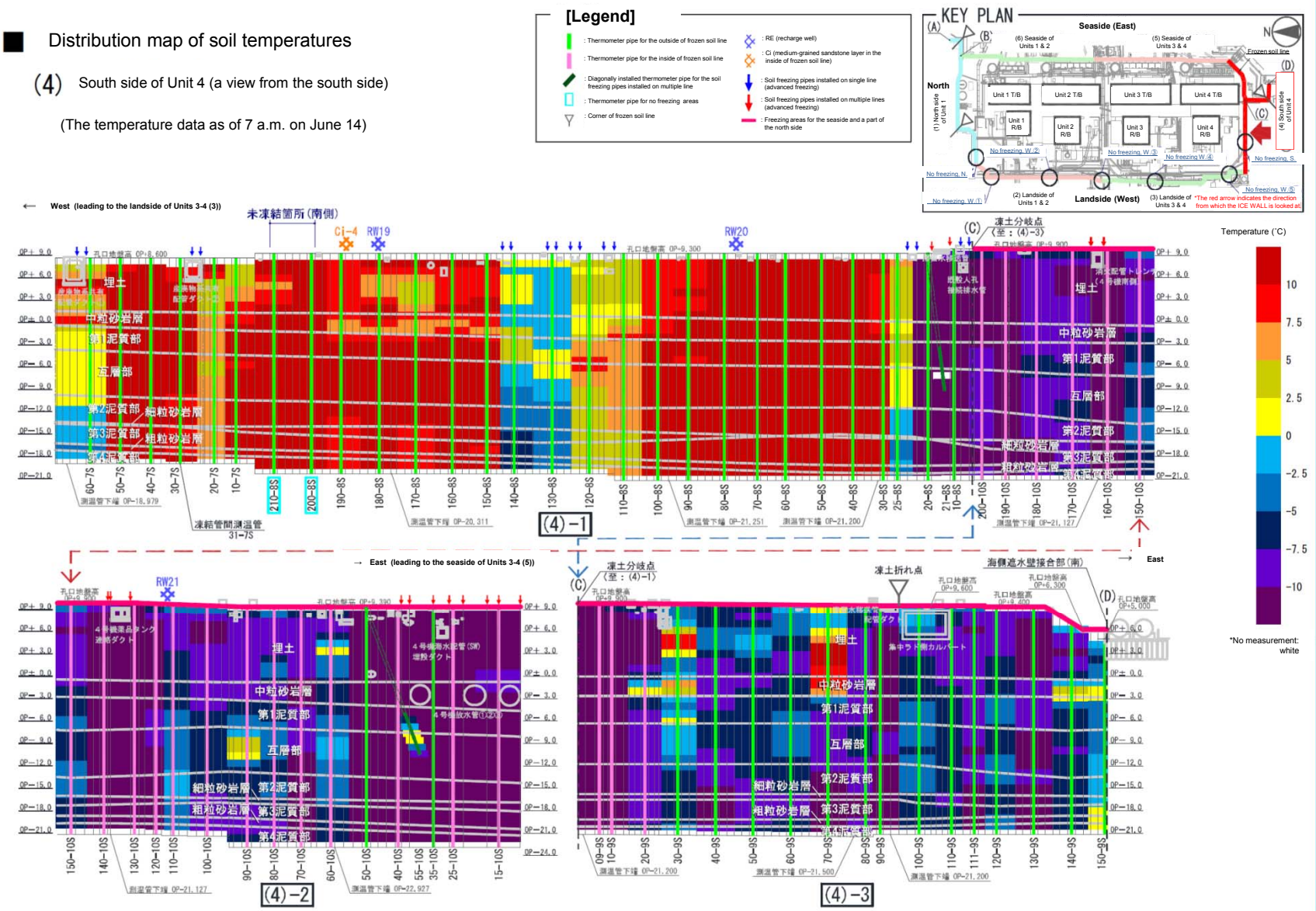


[Reference] Distribution map of soil temperatures (south side of Unit 4)

■ Distribution map of soil temperatures

(4) South side of Unit 4 (a view from the south side)

(The temperature data as of 7 a.m. on June 14)



[Reference] Distribution map of soil temperatures (east side of Units 3-4)

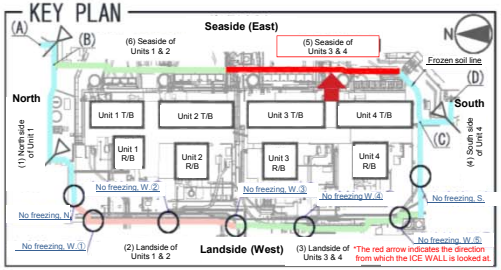
■ Distribution map of soil temperatures

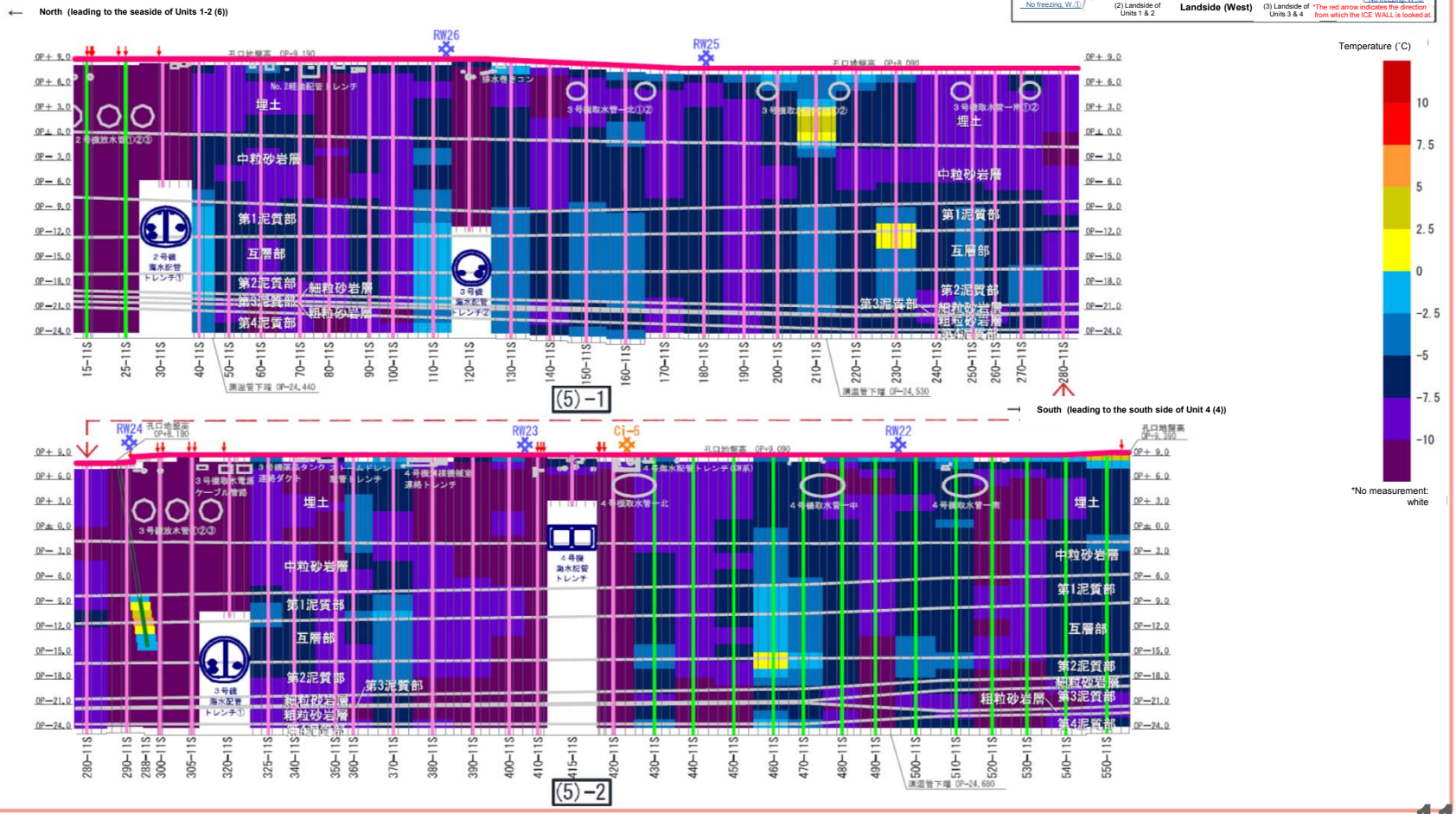
(5) Seaside of Units 3-4
(west side: a view from the inside of frozen soil)

(The temperature data as of 7 a.m. on June 14)

[Legend]

- : Thermometer pipe for the outside of frozen soil line
- : Thermometer pipe for the inside of frozen soil line
- : Diagonally installed thermometer pipe for the soil freezing pipes installed on multiple line
- : Thermometer pipe for no freezing areas
- : Corner of frozen soil line
- : RE (recharge well)
- : Ci (medium-grained sandstone layer in the inside of frozen soil line)
- : Soil freezing pipes installed on single line (advanced freezing)
- : Soil freezing pipes installed on multiple lines (advanced freezing)
- : Freezing areas for the seaside and a part of the north side



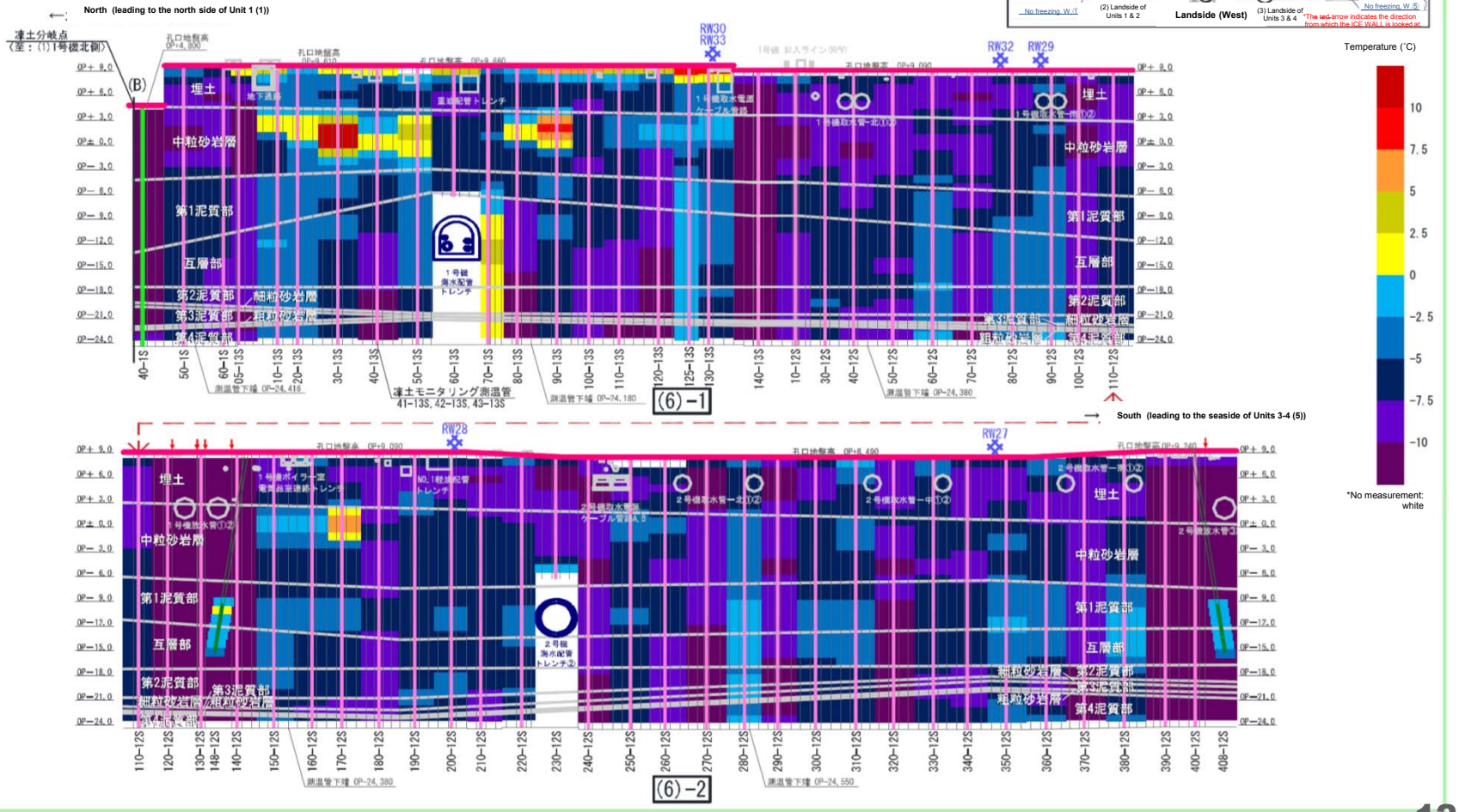


[Reference] Distribution map of soil temperatures (east side of Units 1-2)

■ Distribution map of soil temperatures

(6) Seaside of Units 1-2
(west side: a view from the inside of frozen soil)

(The temperature data as of 7 a.m. on June 14)



【Reference】Change in accumulated water level of Unit 1 sea water piping trench

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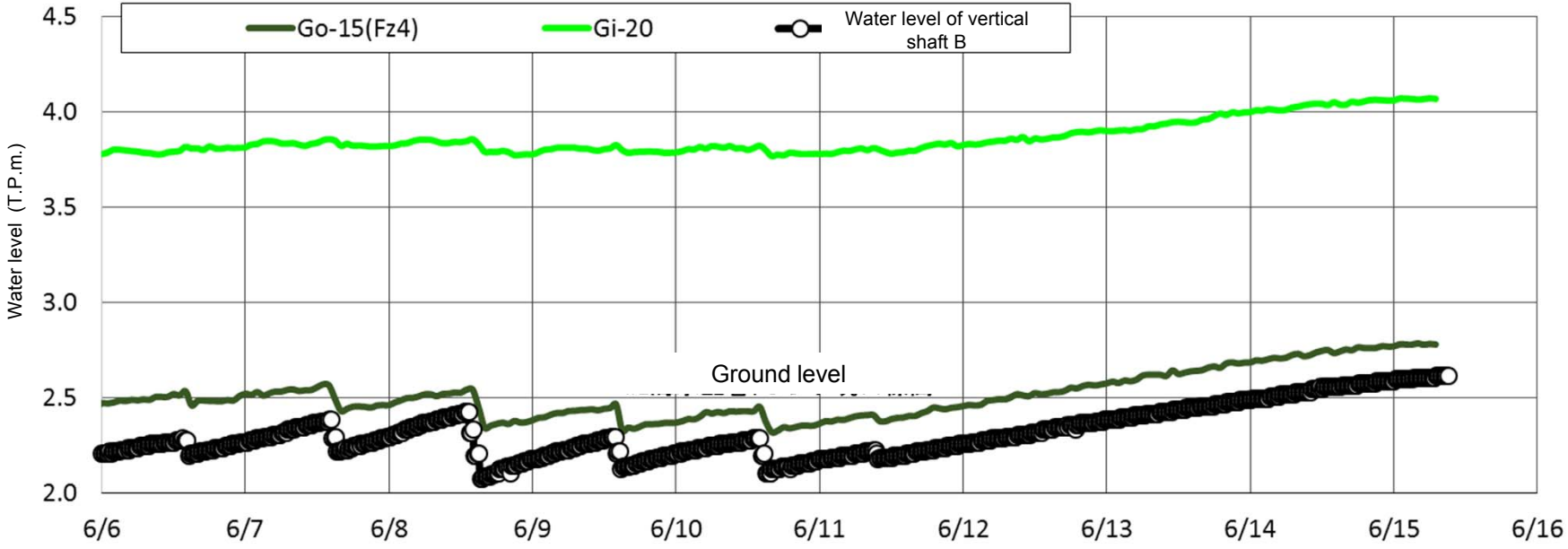
- The vertical shaft B of the Unit 1 sea water piping trench maintained a stable water level at around T.P. -9.5 m after measurement of the water level began in February 2012. However, the measurement results show that the water level has been rising since freezing of the ground around the reactor and turbine buildings began.
- Transfer of accumulated water began through the vertical shaft B door on April 30, and recently 3 to 15 m^3 of water per day has been transferred. As a result, Go-15 keeps the same water level as that of the vertical shaft B, while that of Gi-20 remains higher.
- Since sealing of the doors of the vertical shafts A and B was completed on June 9, the water transfer has been suspended since June 12, allowing the water level to rise, to understand how the water level of the vertical shaft B increases.



Changes in the water level of the Unit 1 sea water piping trench and the hydraulic head of the alternating strata layer around the trench