

June 10, 2026
Revised July 7, 2026
File No. 01204123.21-13

Mr. Baitong Chen
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Subject: Revised Monthly Reaction Mitigation Area Boundary Determination
Chiquita Canyon Landfill – Castaic, California

Dear Mr. Chen:

In accordance with Condition Nos. 9(a) and 9(b) of the Modified Stipulated Order for Abatement (SOFA) pertaining to the Chiquita Canyon Landfill (Landfill or Facility) (Case No. 6177-4), as last modified on June 3, 2026, SCS Engineers (SCS), on behalf of Chiquita Canyon, LLC (Chiquita), has prepared this revised data-determined Reaction Mitigation Area boundary determination for May 2026.

This revised Reaction Mitigation Area boundary determination has been developed following further review and analysis of available data and is intended to supersede the boundary determination that was submitted on June 10, 2026. This revision reflects SCS's updated evaluation of the relevant site conditions for May 2026, provides additional discussion regarding the basis for the determination, and incorporates the following criteria:

- Vertical landfill gas (LFG) wellhead temperatures (greater than 160 degrees Fahrenheit).
- Temperature monitoring probe (TMP) measurements (greater than 170 degrees Fahrenheit for more than 3-weeks at any depth).
- Landfill gas quality and methane to CO₂ ratio (CH₄:CO₂) (methane concentrations of less than 30 percent in conjunction with CH₄:CO₂ ratios less than 1.0).
- Landfill gas concentration of carbon monoxide (CO) (greater than 1,500 ppm) to the extent measured.
- Landfill gas concentration of hydrogen (H₂) (greater than 2 percent by volume), to the extent measured.
- Landfill settlement (18 inches or greater within a 60-day period).
- Pressurized leachate releases.

These parameters have been subjected to a cumulative evaluation within each individual landfill surface grid within the Main Canyon (i.e., excluding grids 1 through 29 as well as grids 105 through 144), including all landfill gas wells, temperature probes, and other characteristics within that grid's area. Under the recently modified Condition No. 9(b), for each individual landfill grid that is



contiguous to the prior month's Reaction Mitigation Area, where any three or more parameters listed above are present at the time of evaluation, including any combination of wells, temperature probes, or areas within the grid, the Reaction Mitigation Area boundary depicted on the Reaction Mitigation Area map (**Attachment A**) will include such landfill grid(s). Because this is the first month of the Reaction Mitigation Area determination under the recently modified Condition No. 9(b), we compared the evaluated grids to last month's data-driven Reaction Area boundary determination.

For each individual landfill grid that is not contiguous to the prior month's Reaction Mitigation Area, if the three parameters present include a temperature parameter (the first or second parameter listed above), then the grid will be added to the Reaction Mitigation Area. For each individual landfill grid that is not contiguous to the prior month's Reaction Mitigation Area, if the three parameters present do not include a temperature parameter, then Chiquita will conduct field testing for CO using colorimetric tubes and for H₂ using field instrumentation. If field testing confirms the presence of either CO or H₂ at concentrations in excess of the values noted above, then a sample of the LFG will be obtained from the wellhead and subjected to lab analytical testing using U.S. EPA Method ALT-144 for CO and ASTM Method D-1946 for H₂. If the lab testing confirms the concentrations exceed the values listed above, then the grid will be added to the Reaction Mitigation Area. The field testing and sampling requirements are not applicable for this evaluation of the relevant site data for May 2026, and will be instituted during the monthly evaluation of the June 2026 site data.

In addition to the parameters listed above, the following factors were also considered in determining the Reaction Mitigation Area boundary, applying the same individual landfill grid-based methodology described above:

- Leachate seeps;
- Odor characteristics;
- Wellheads experiencing conditions which would be expected to result in a PLR (e.g. elevated pressure, elevated temperature, liquid flow through wellhead); and
- Waste cuttings according to borehole drilling logs.

Supporting evidence, including documentation of which parameters were met or exceeded for each individual landfill grid, field testing and laboratory results (if applicable), explanation for the determination, Reaction Mitigation Area boundary, Reaction Mitigation Area map (if applicable), isothermal gradient range map consisting of wellhead temperature measurements, wellhead carbon monoxide range map, wellhead hydrogen range map, wellhead CH₄:CO₂ ratio range map, monthly landfill settlement isopach maps and 60-day isopach map, wellhead and temperature probe map with surface grids displayed, and vertical temperature profiles for temperature probes is being hereby submitted to the South Coast Air Quality Management District.

Attachment A presents the Drawing, titled "Reaction Mitigation Area Map", which depicts the Reaction Mitigation Area boundary as prescribed in Condition No. 9(a), which corresponds to the limits of Cells 1/2A, 2B/3, 4, and Module 2B/3/4 P2, as a solid black line. The Drawing also depicts the Condition No. 9(b) data-determined Reaction Mitigation Area as a dashed magenta line.

REACTION MITIGATION AREA BOUNDARY

Based on the parameters and considerations above, the Reaction Mitigation Area boundary includes grids corresponding to the area encompassed by last month's data-driven Reaction Area boundary determination. Last month's data-driven Reaction Area boundary did not follow grid lines. In accordance with the modified language of Condition No. 9(b), where a portion of a surface grid was previously incorporated into the data-driven Reaction Area boundary, the entire surface grid was incorporated into the Reaction Mitigation Area. As a result, Grid Nos. 145-149 are included within the Reaction Mitigation Area. The Reaction Mitigation Area also includes Grid Nos. 41, 53, 76, 77, and 82.

Based on input from Chiquita, the change in landfill surface elevations in the 43 grids positioned south and east of Cells 1/2A, 2B/3, 4, and Module 2B/3/4 P2 was affiliated not only with settlement, but also with stripping of mulch as intermediate cover in preparation of ethylene vinyl alcohol (EVOH) geomembrane cover deployment. Accordingly, the landfill surface elevation change in these grids was not considered to exhibit the settlement criteria during this monthly exercise.

Parameters in Contiguous Grids

- Grid No. 53 is positioned immediately east of and adjacent to Grid No. 148, which contains wells and TMPs included in last month's Reaction Area boundary. Accordingly, Grid No. 53 is being incorporated in the Reaction Mitigation Area boundary for this month as a contiguous surface grid based on the TMP temperature at TP-31 and poor LFG quality at wells CV-2319 and CV-2559.
- Grid No. 76 is positioned immediately east of and adjacent to Grid No. 146, which contains wells and TMPs included in last month's Reaction Area boundary. Accordingly, Grid No. 76 is being incorporated in the Reaction Mitigation Area boundary for this month as a contiguous surface grid based on the TMP temperature at TP-19; poor LFG quality at wells CV-2008, CV-24134, and CV-24135; and CO concentration at well CV-24134.
- Grid No. 77 is positioned immediately east of and adjacent to Grid No. 145, which contains wells and TMPs included in last month's Reaction Area boundary. Accordingly, Grid No. 77 is being incorporated in the Reaction Mitigation Area boundary for this month as a contiguous surface grid based on the poor LFG quality at wells CV-113, CV-2334, CV-24121, and CV-24145.
- Grid No. 82 is positioned immediately east of and adjacent to Grid No. 149, which contains wells and TMPs included in last month's Reaction Area boundary. Accordingly, Grid No. 82 is being incorporated in the Reaction Mitigation Area boundary for this month as a contiguous surface grid based on the poor LFG quality at wells CV-2321 and CV-2548, H₂ concentration at well CV-2321, and CO concentration at CV-2321.

Parameters in Non-Contiguous Grids

- Grid No. 38 is not adjacent to any surface grid that was included in last month's Reaction Area boundary; therefore, it is a non-contiguous grid. Although the grid contains three wells that exhibited the poor LFG quality criterium (CV-56, CV-1701, and CV-24118), it did not

exceed either temperature parameter. Since the requirement to initiate field testing and subsequent laboratory sampling was not applicable for the May 2026 data review exercise and no such field testing or laboratory sampling was available, Grid No. 38 is not being incorporated in the Reaction Mitigation Area boundary for this month as a non-contiguous surface grid.

- Grid No. 41 is not adjacent to any surface grid that was included in last month's Reaction Area boundary; therefore, it is a non-contiguous grid. Although the grid contains two wells that exhibited the poor LFG quality criterium (CV-55R and CV-2011A), it did not exceed either temperature parameter. Although the requirement to initiate field testing and subsequent laboratory sampling was not applicable for the May 2026 data review exercise, H₂ laboratory analytical data was available for both well CV-55A and well CV-2011A, and both wells exhibited the H₂ criterium. Accordingly, Grid No. 41 is being incorporated in the Reaction Mitigation Area boundary for this month as a non-contiguous surface grid.

CONCLUSION

As presented on the Drawing included as **Attachment A**, and for the reasons described above, the extent of the data-determined Reaction Mitigation Area (dashed magenta line) includes Cells 1/2A, 2B/3, 4, and Module 2B/3/4 P2 as decreed in the SOFA (solid black line), and Grid Nos. 41, 53, 76, 77, 82, and 145 through 149.

The maximum temperature measurements recorded at the 40 in-situ waste temperature monitoring probes (both 7-Day and 30-Day values) during May 2026 are presented in **Attachment B** in graphical format. The LFG wellhead temperatures recorded at the extraction wells for the entire Landfill footprint are reflected on the isothermal gradient range map presented as **Attachment C**. The CH₄:CO₂ ratios measured at the LFG wellheads in the vicinity of the data-driven Reaction Mitigation Area boundary are depicted on the range map presented as **Attachment D**. The H₂ concentrations measured at the LFG wellheads in the vicinity of the data-driven Reaction Mitigation Area boundary are depicted on the range map presented as **Attachment E**. The CO concentrations measured at the LFG wellheads in the vicinity of the data-driven Reaction Mitigation Area boundary are depicted on the range map presented as **Attachment F**. The landfill surface settlement isopach values measured on a monthly basis and 60-day basis in the vicinity of the data-driven Reaction Mitigation Area boundary are depicted on the range map presented as **Attachment G**.

Please contact either of the undersigned if you have questions or require additional information.

Sincerely,



Robert E. Dick, PE, BCEE
Senior Vice President
SCS Engineers



Patrick S. Sullivan, BCES, CCP
Senior Vice President
SCS Engineers

Mr. Baitong Chen
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RED/PSS

cc: Nathaniel Dickel, SCAQMD
Christina Ojeda, SCAQMD

Enclosures:

- Attachment A – Reaction Mitigation Area Map
- Attachment B – In-Situ Waste Temperature Monitoring Probe Data
- Attachment C – Isothermal Gradient Range Map
- Attachment D – Wellhead Methane-to-Carbon Dioxide Ratio Range Map
- Attachment E – Wellhead Hydrogen Range Map
- Attachment F – Wellhead Carbon Monoxide Range Map
- Attachment G – Settlement Isopach Range Maps

Attachment A

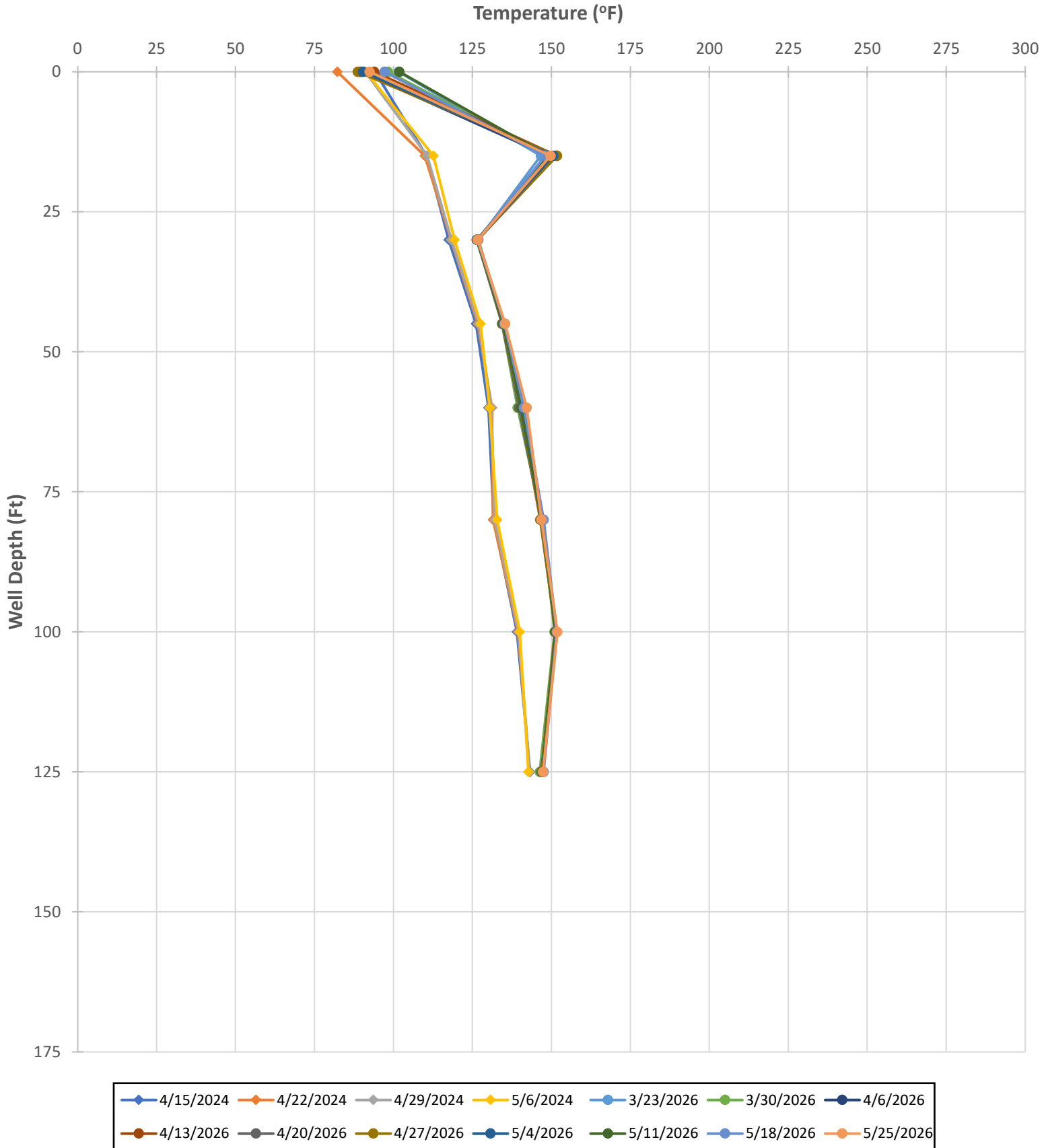
Reaction Mitigation Area Map

Attachment B

In-Situ Waste Temperature Monitoring Probe Data

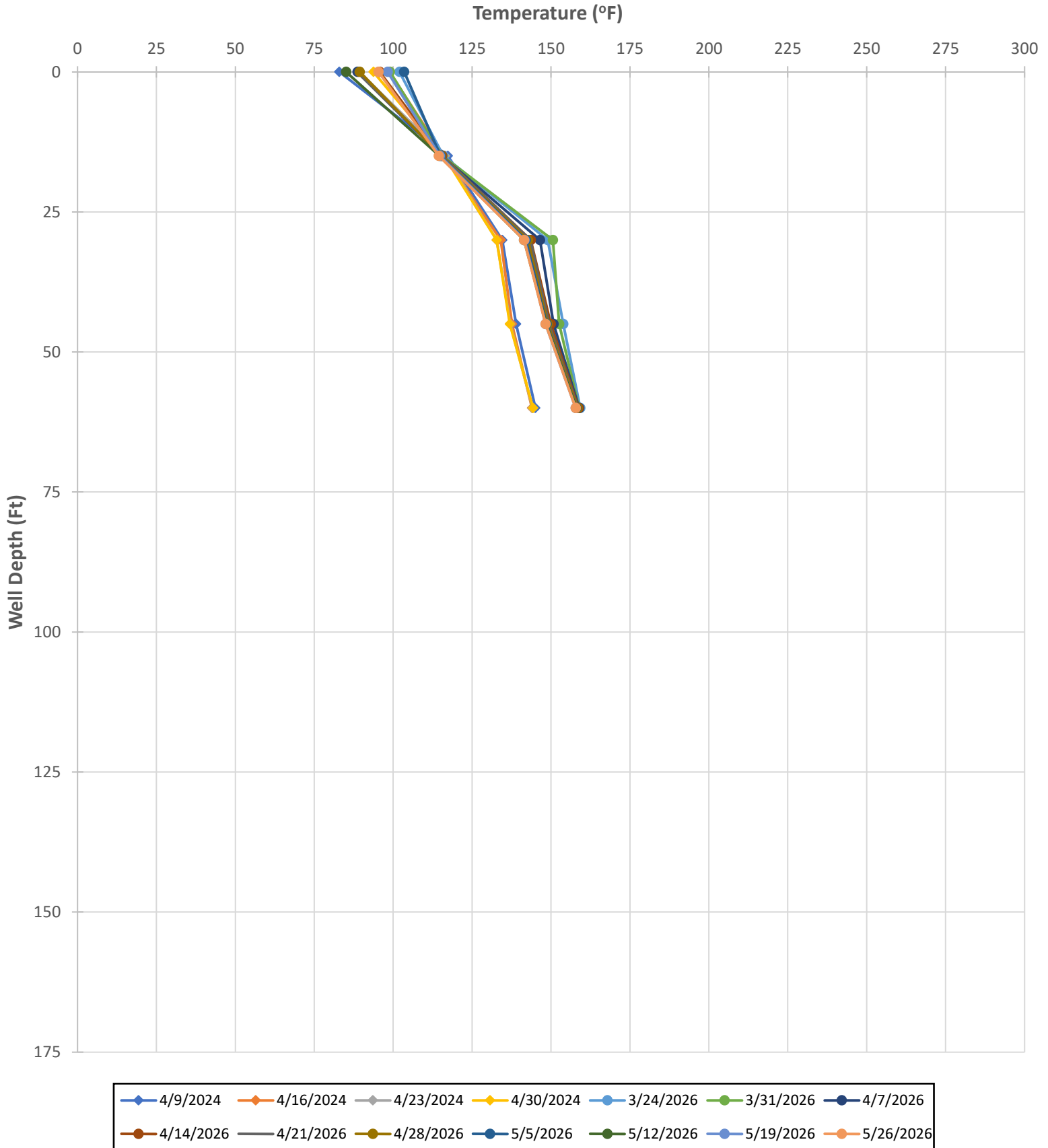
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-01

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



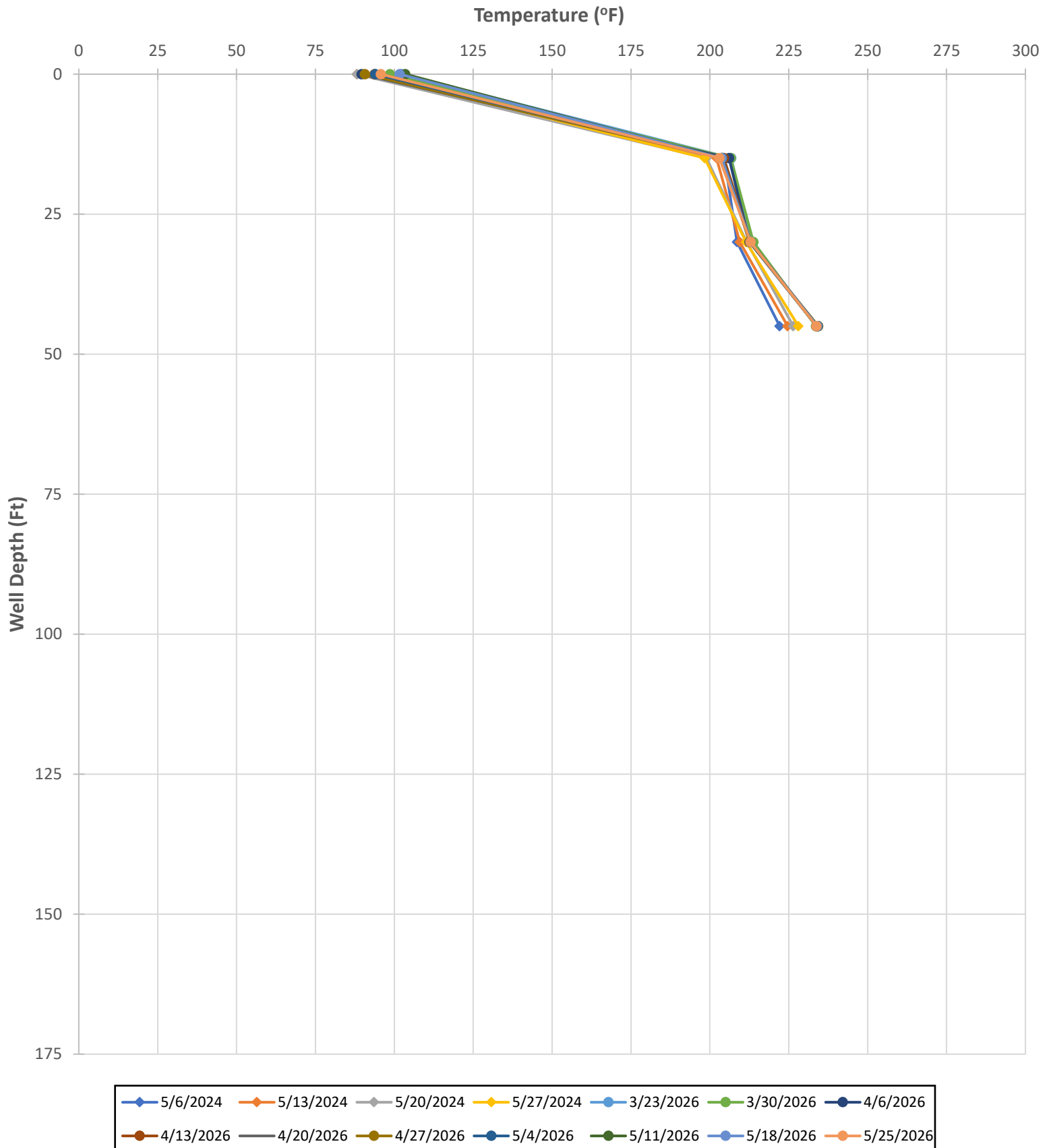
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-02

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



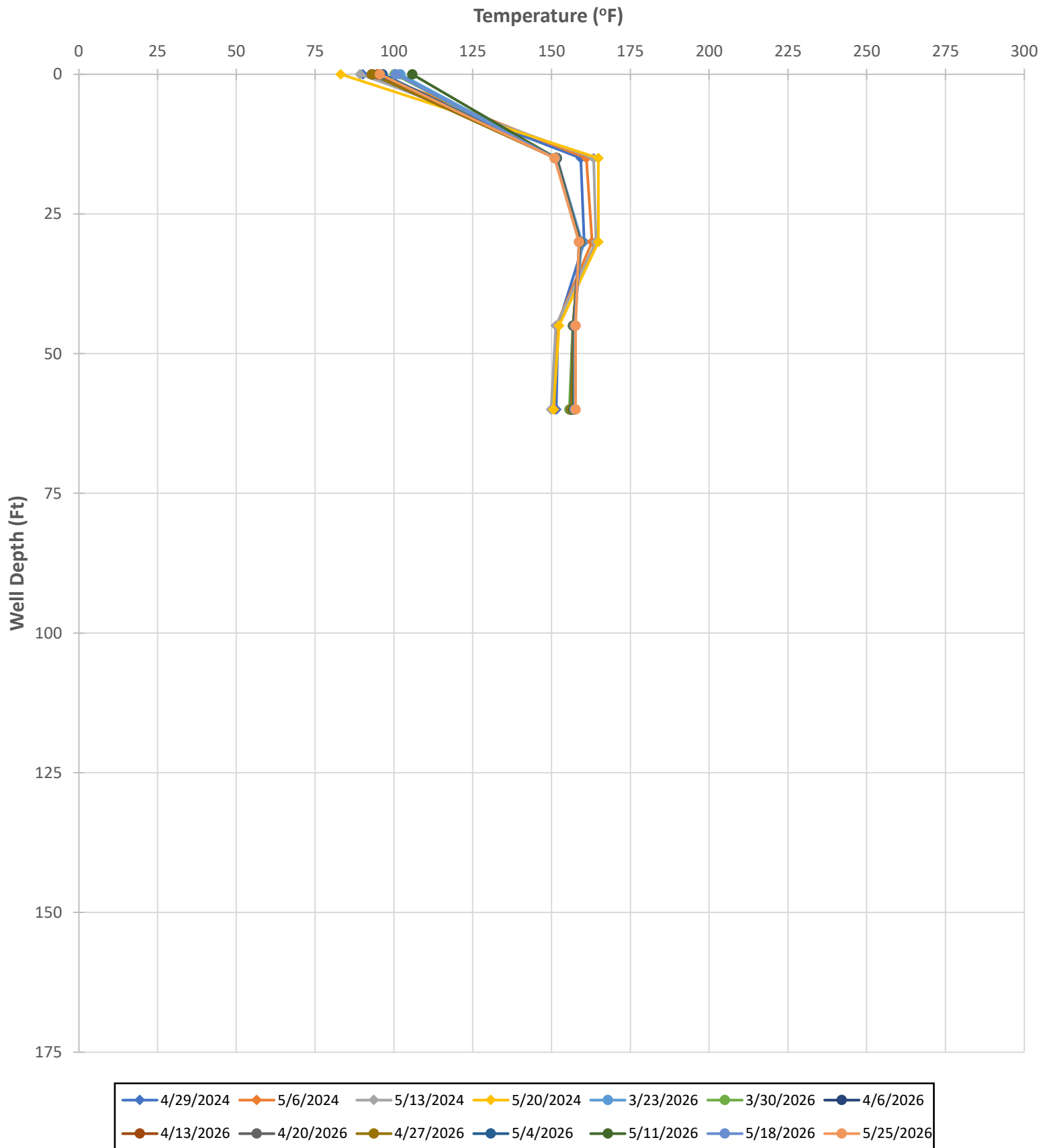
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-03

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data
ending May 2026



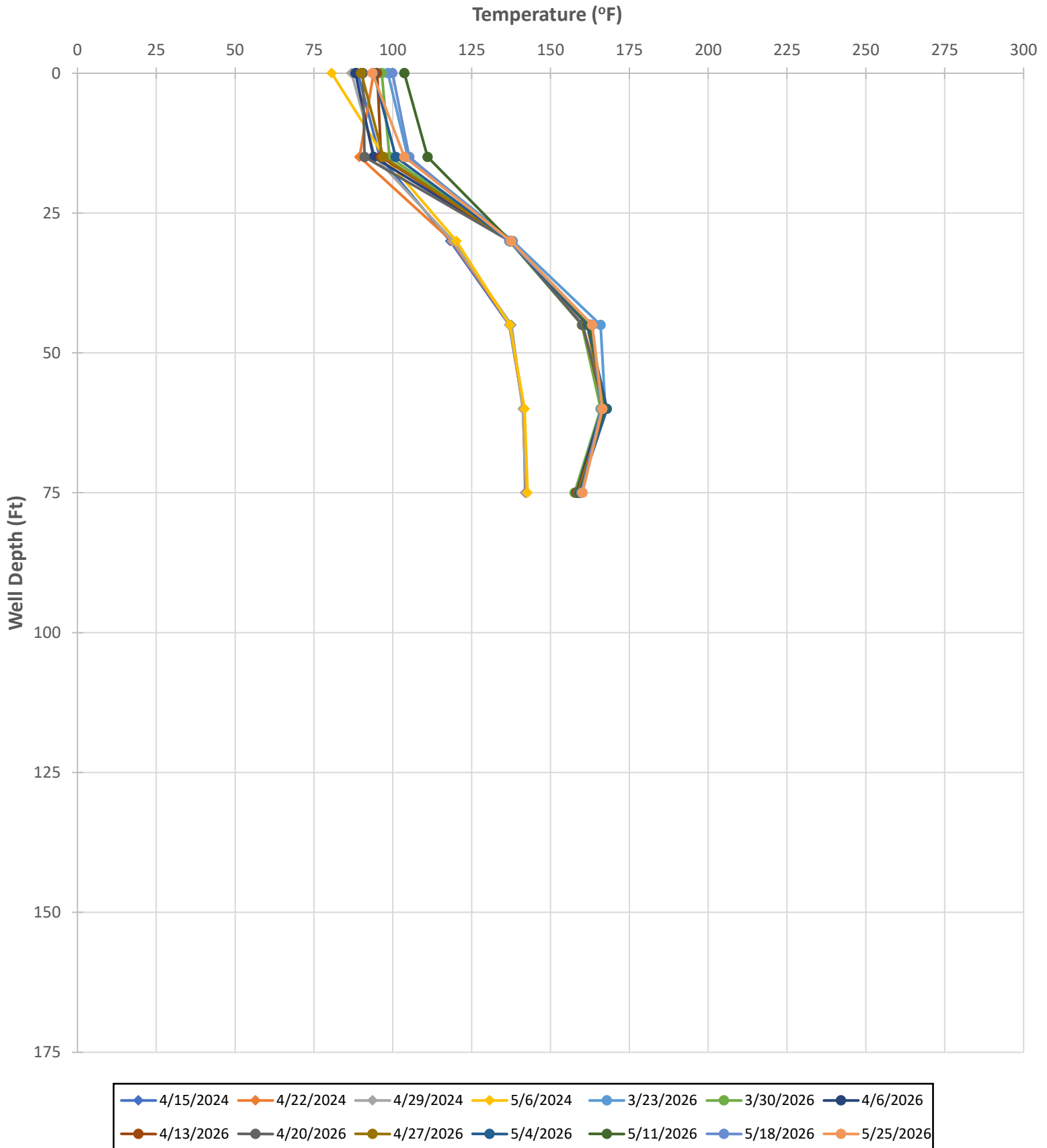
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-04

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



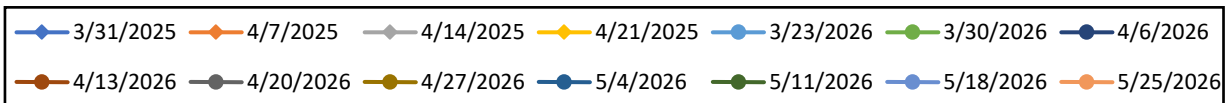
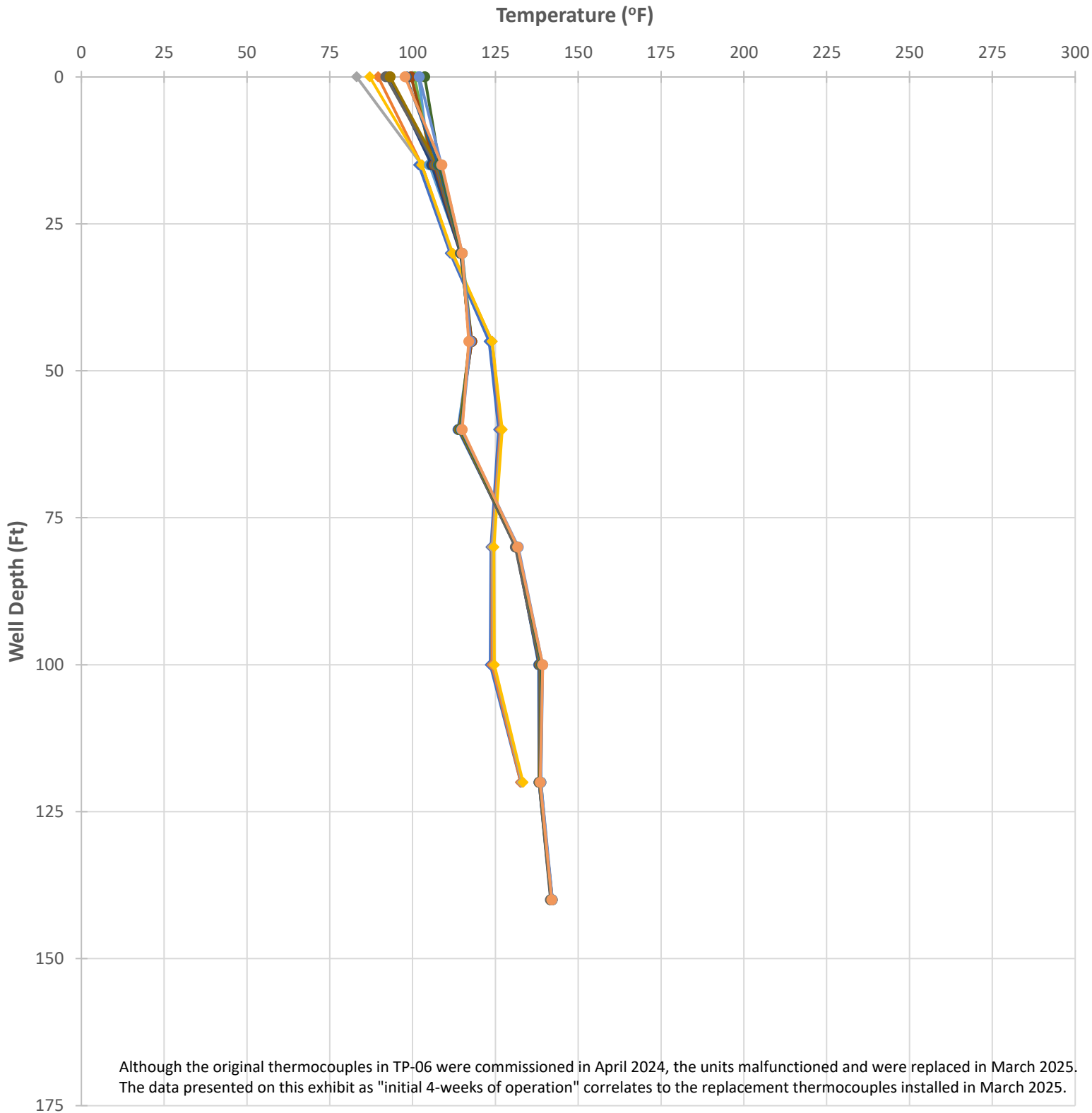
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-05

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



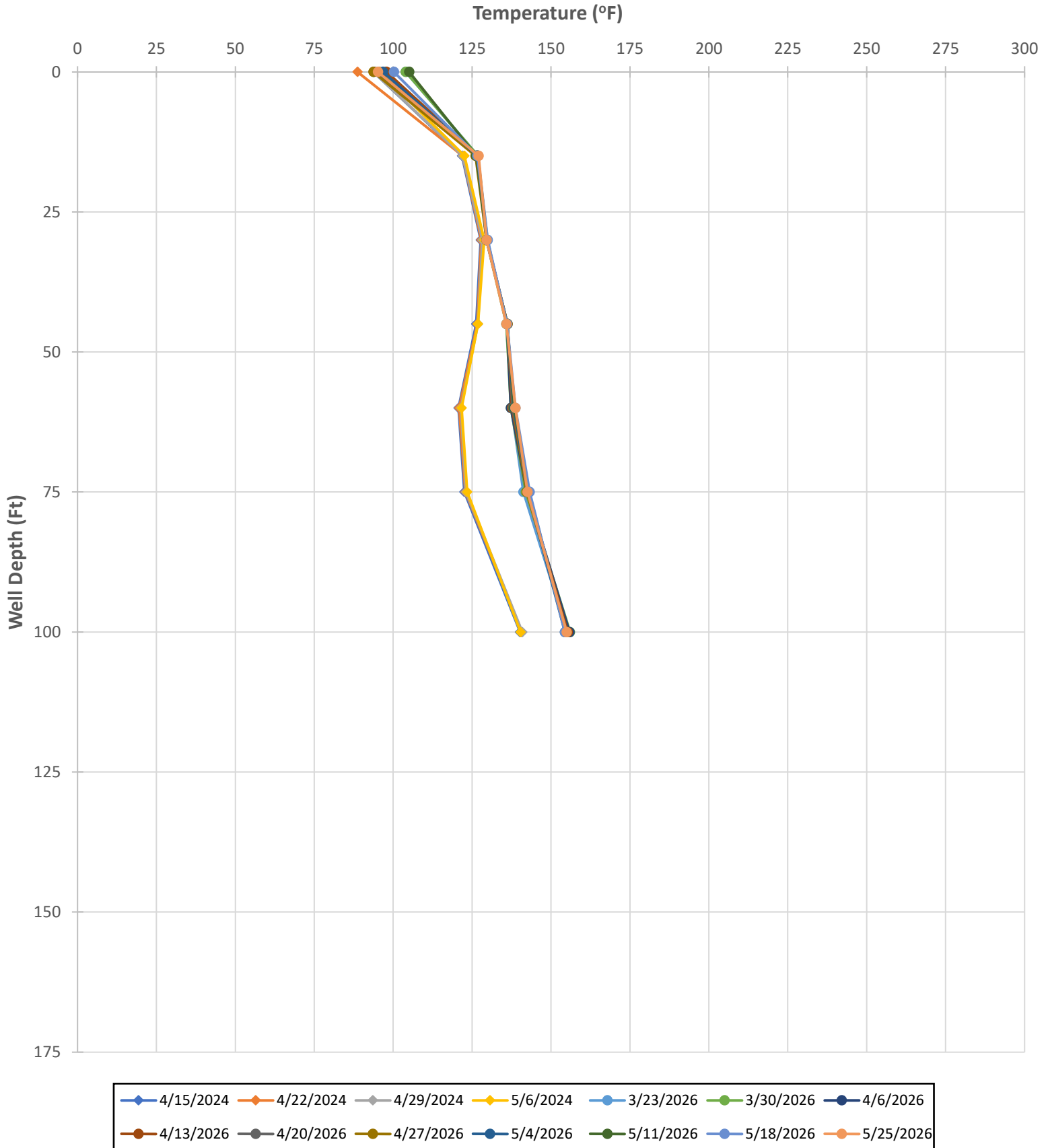
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-06

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



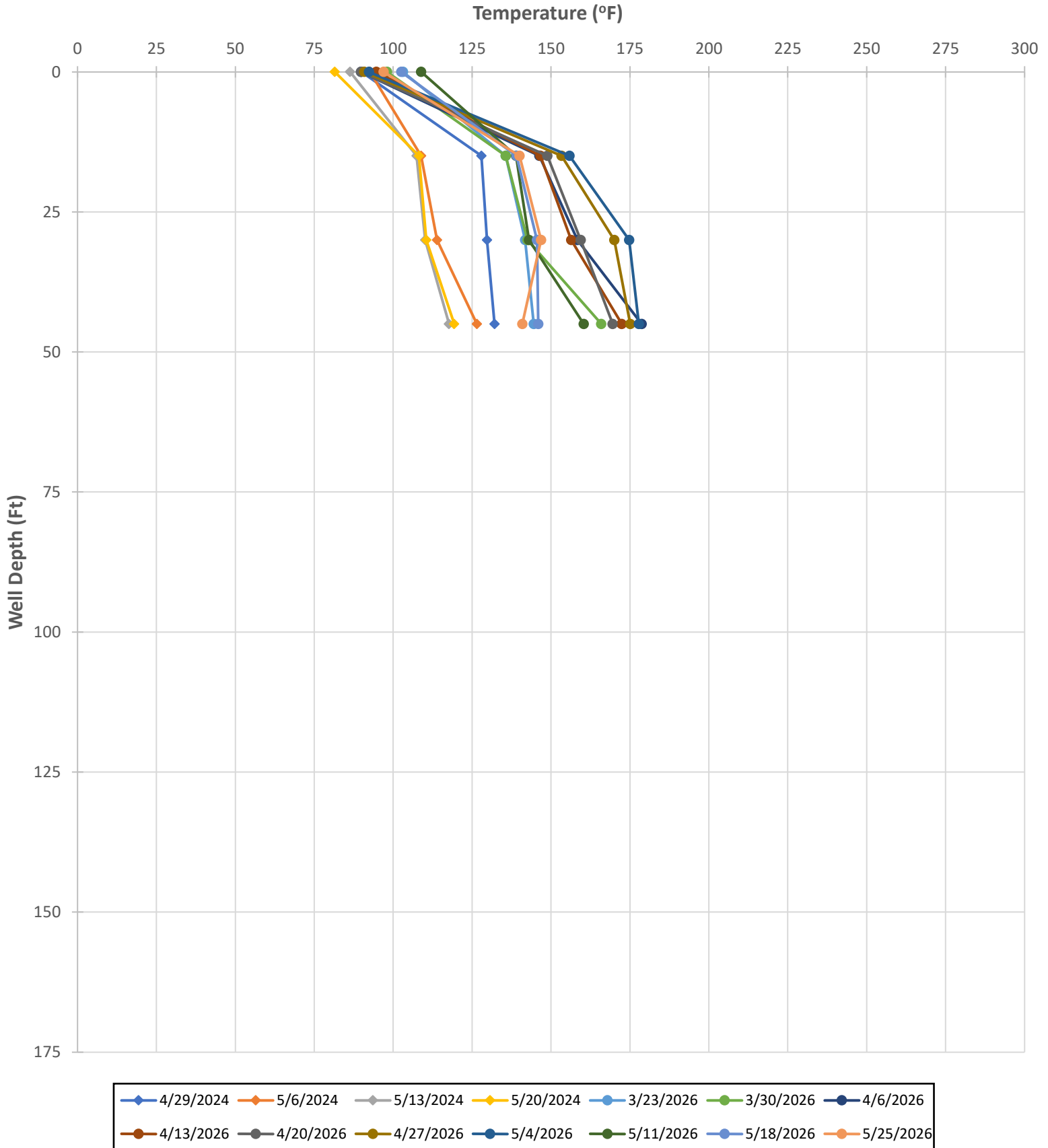
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-07

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



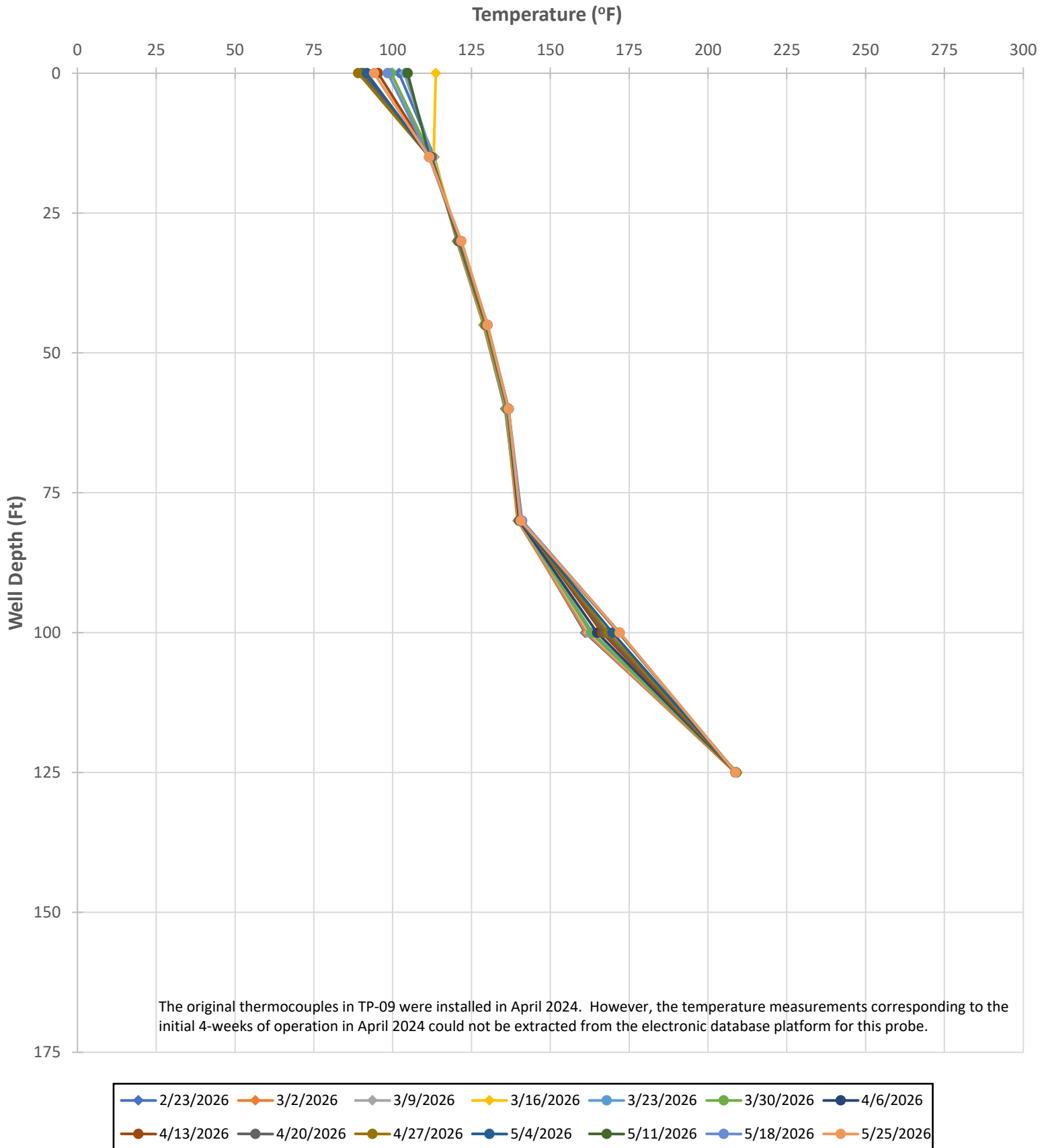
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-08

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data
ending May 2026



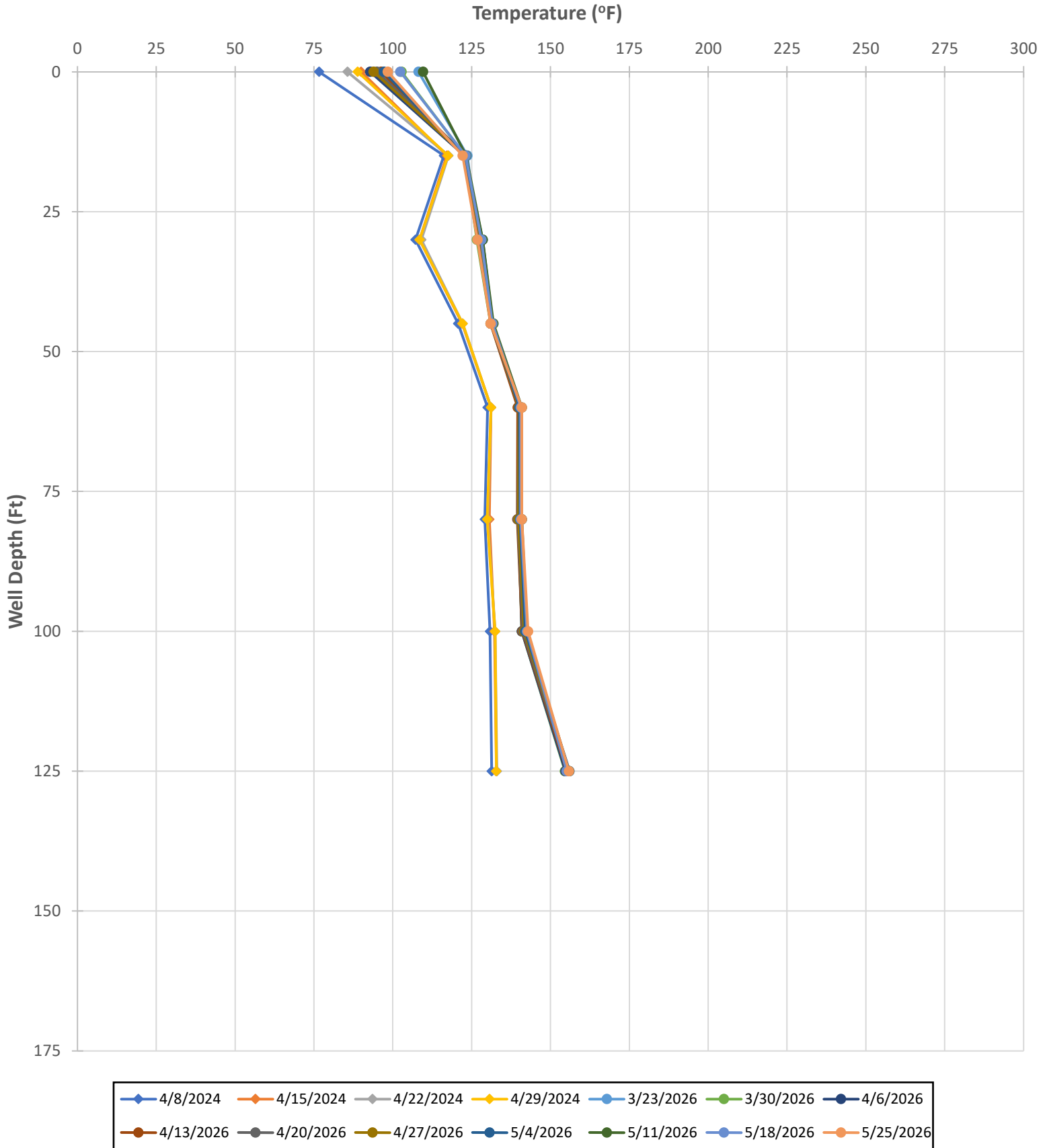
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-09

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



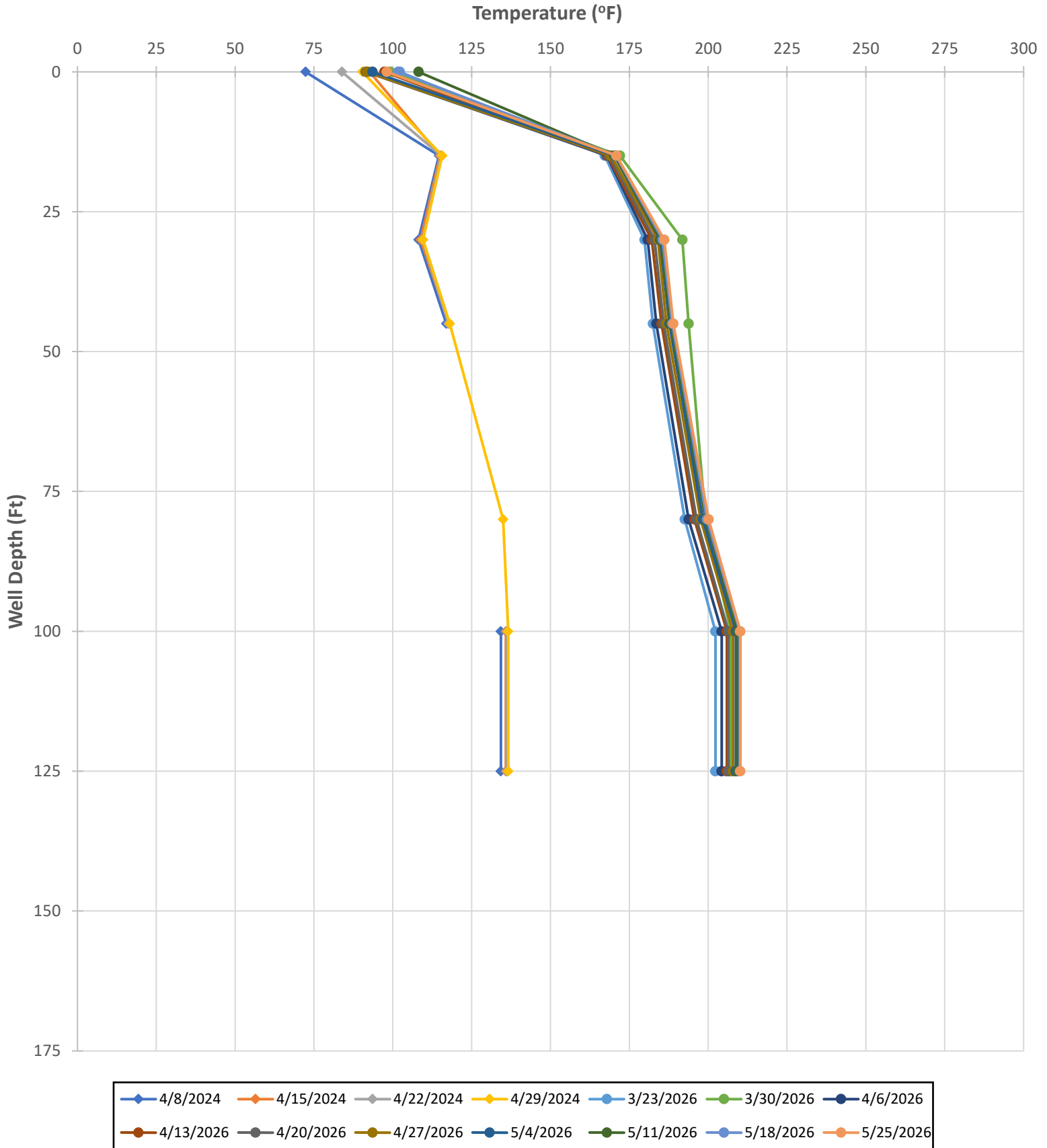
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-10

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



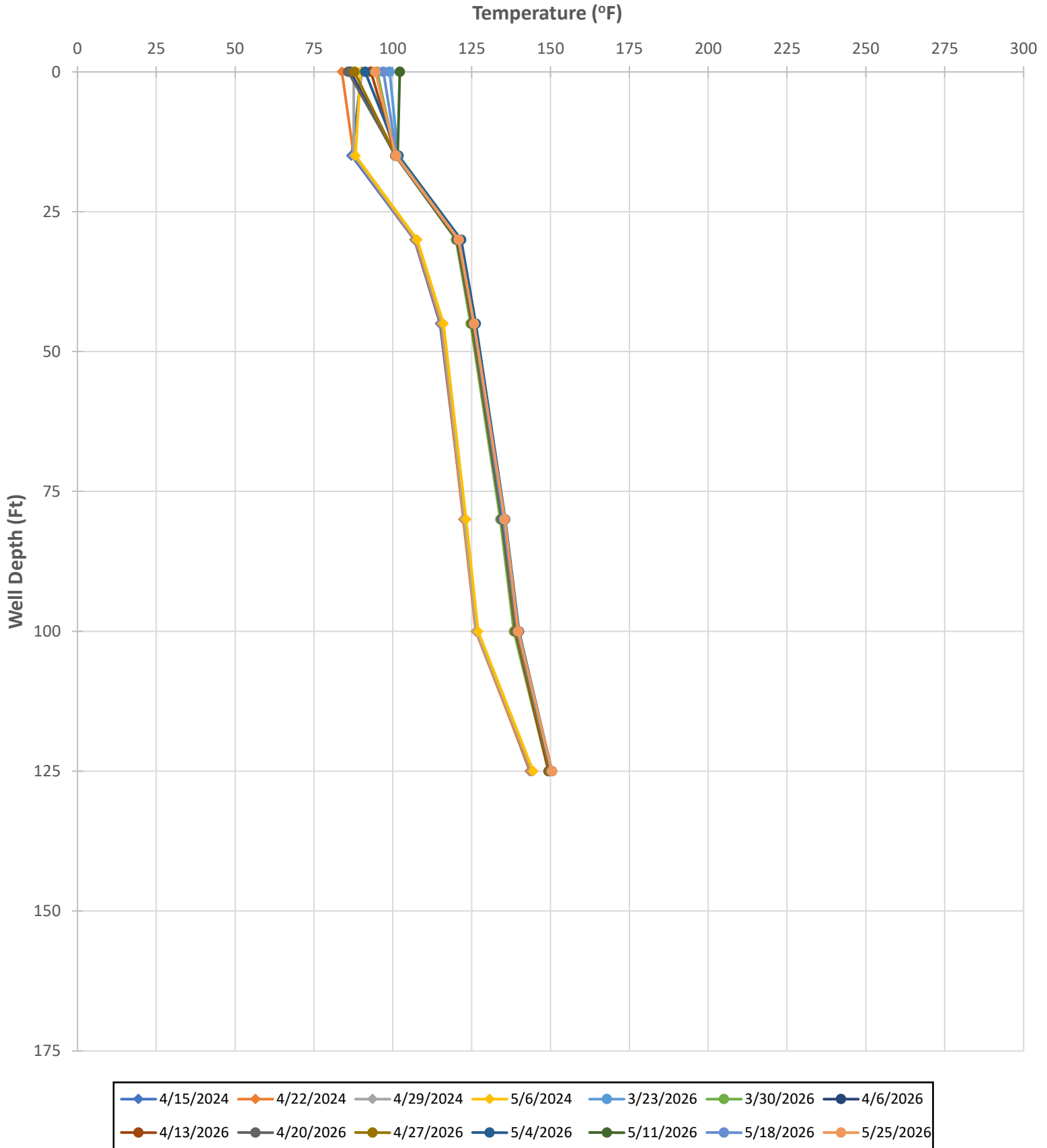
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-11

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



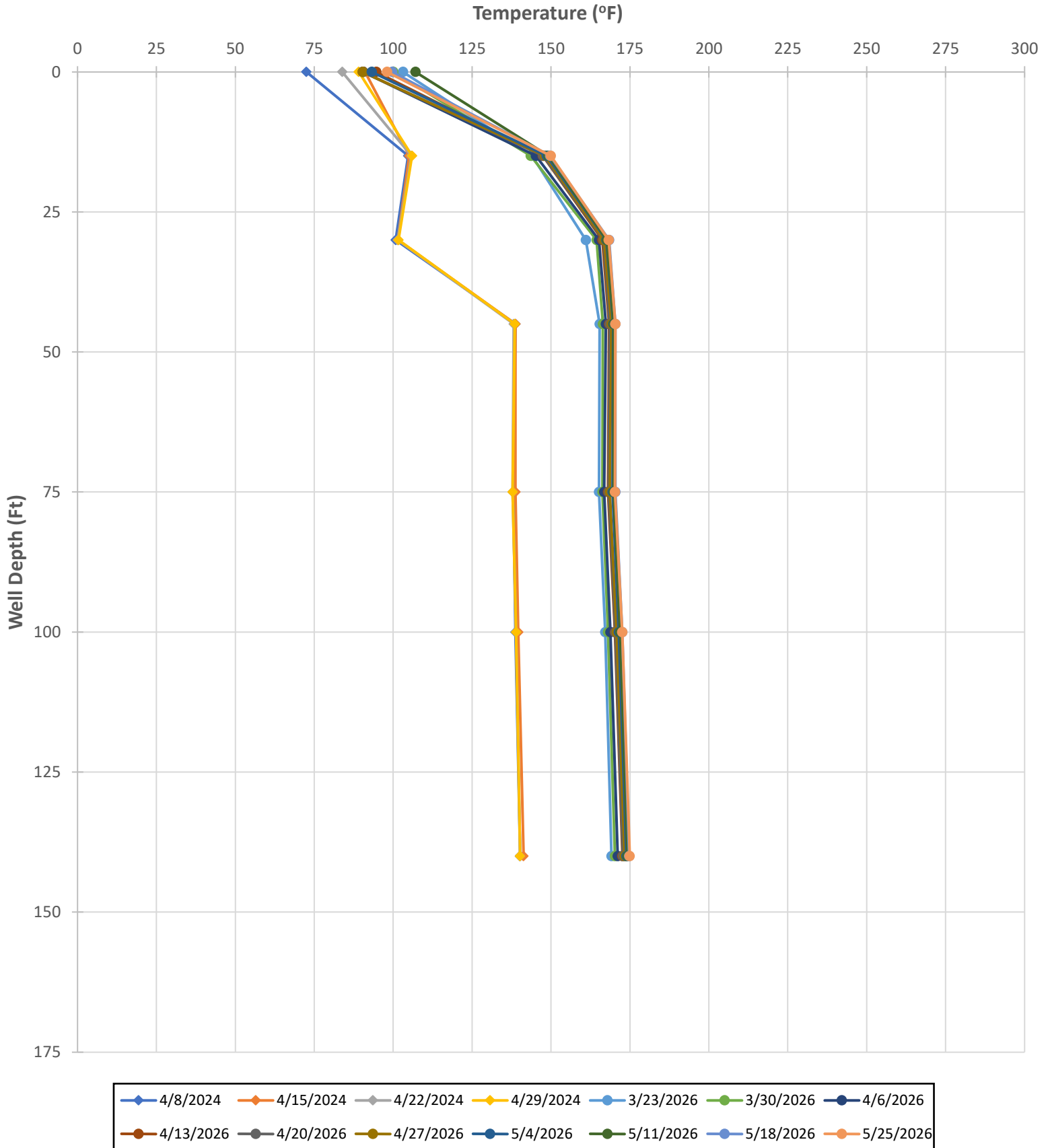
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-12

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



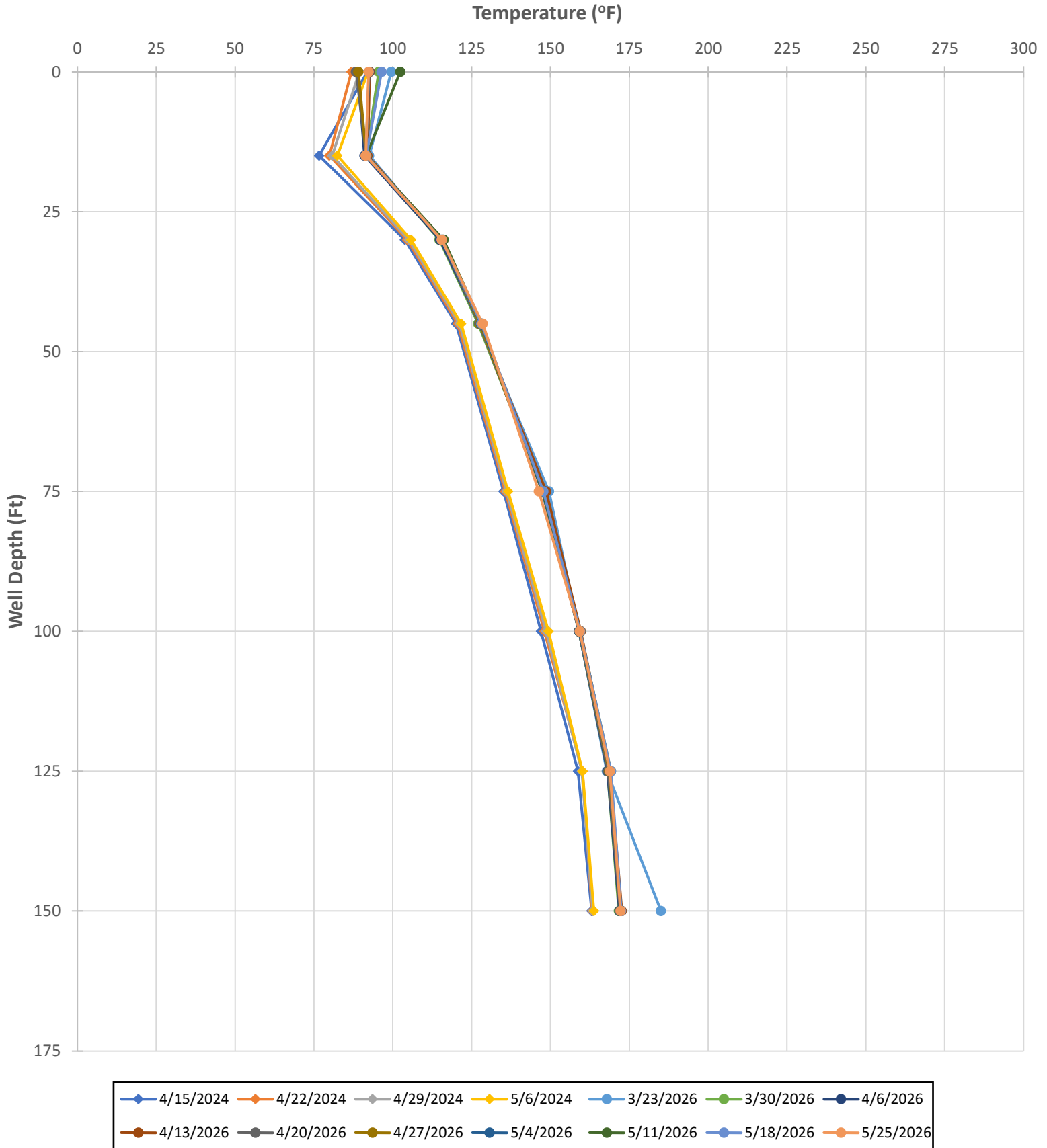
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-13

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data
ending May 2026



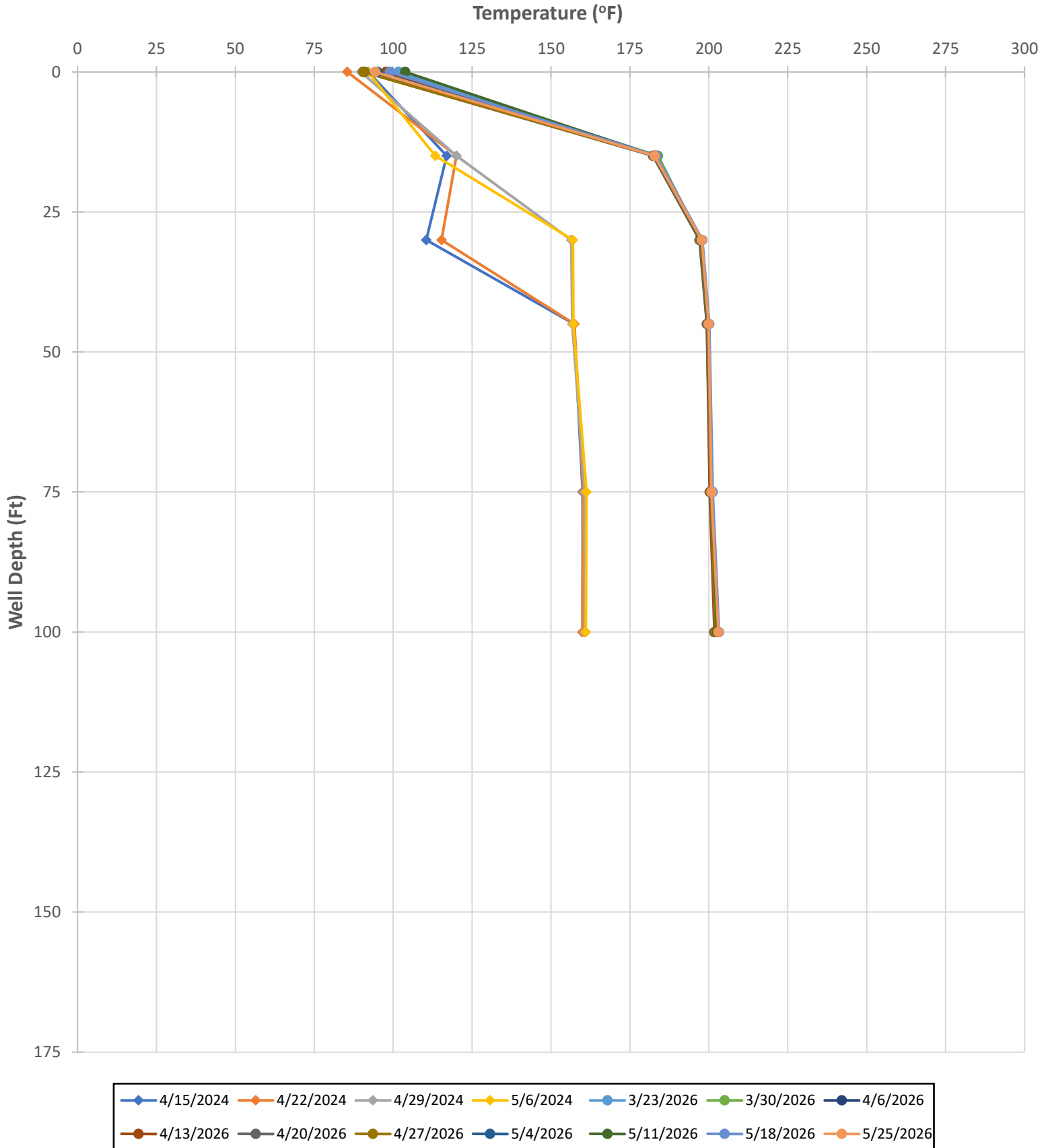
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-14

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



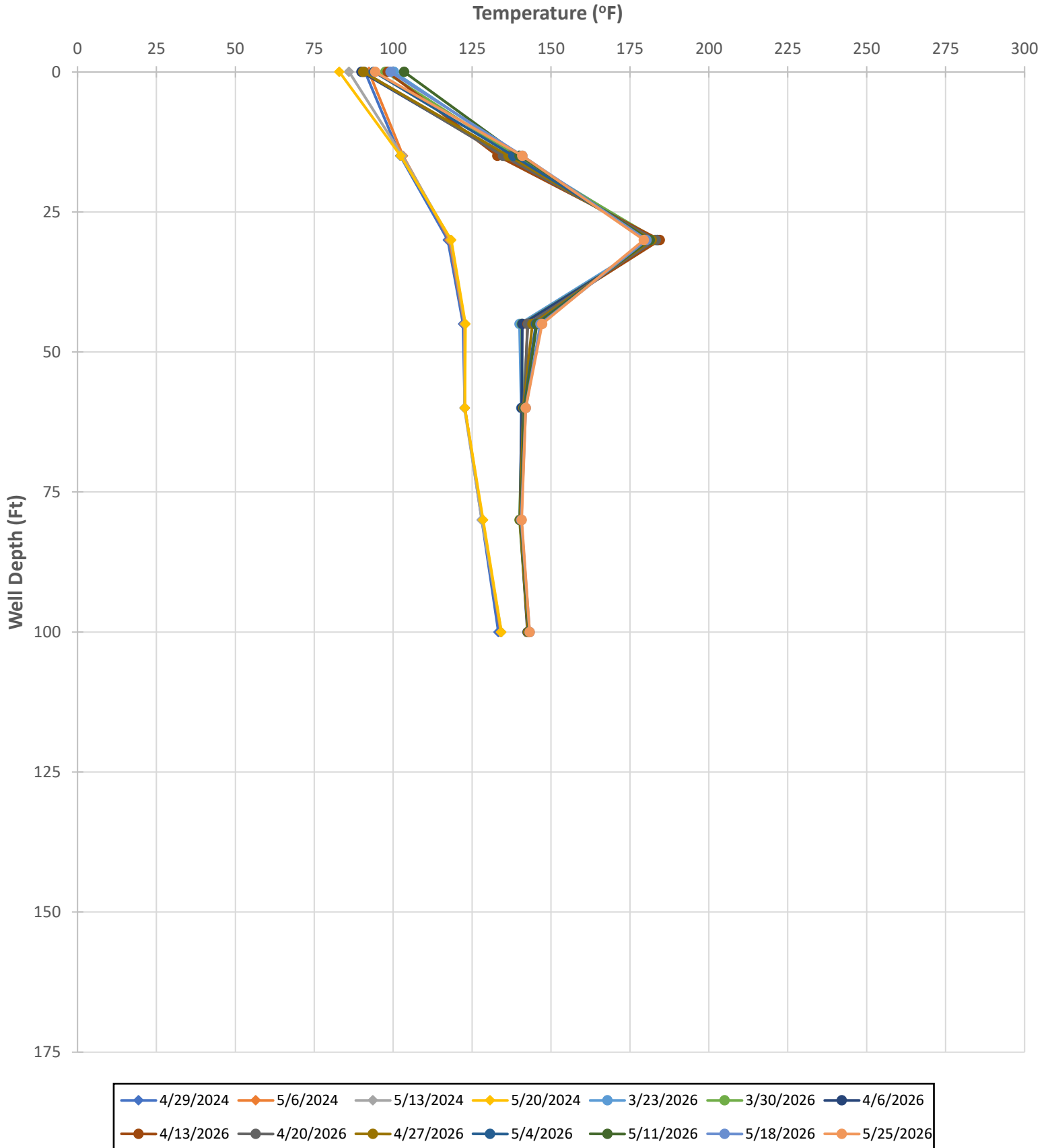
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-15

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



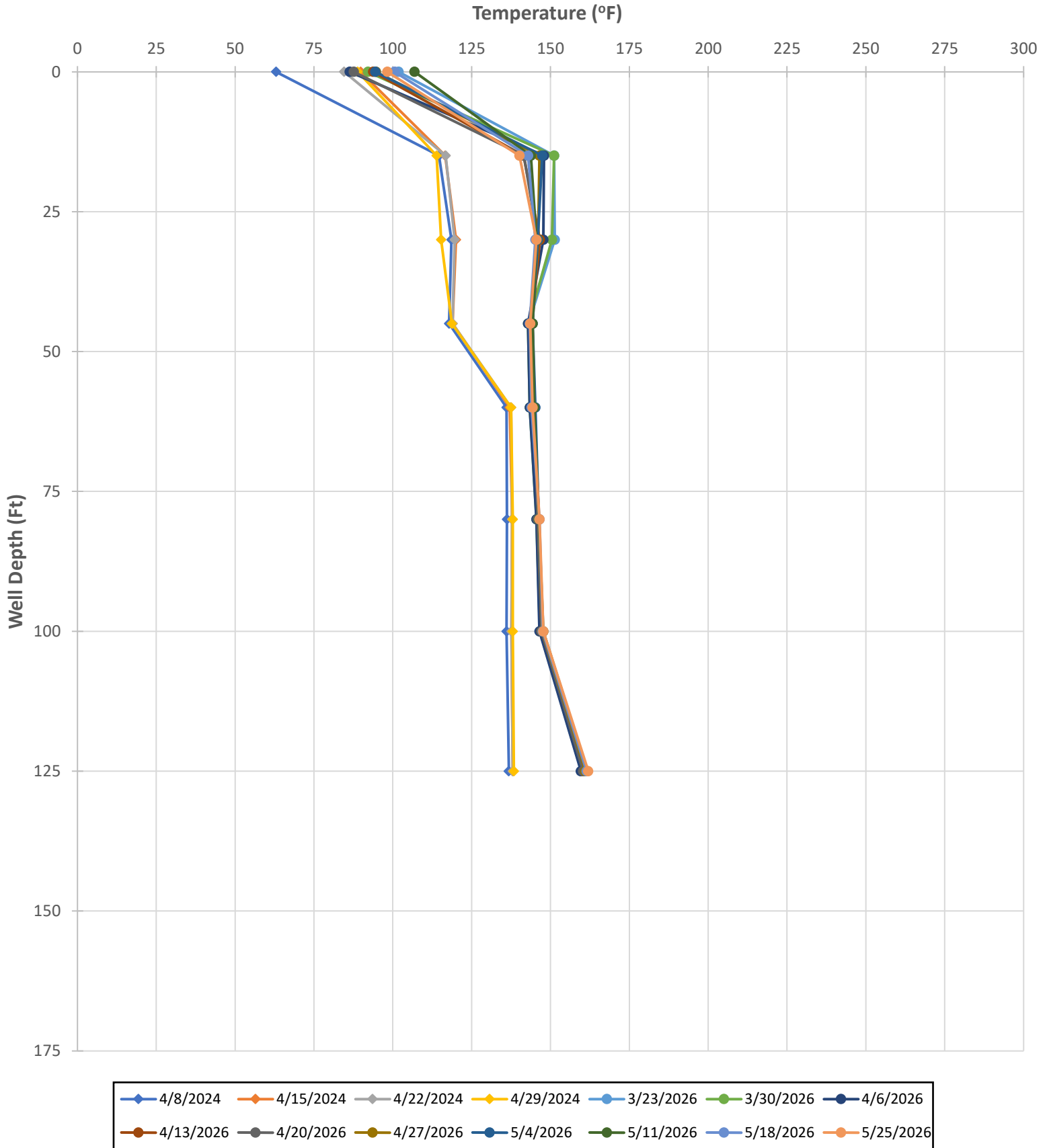
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-16

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



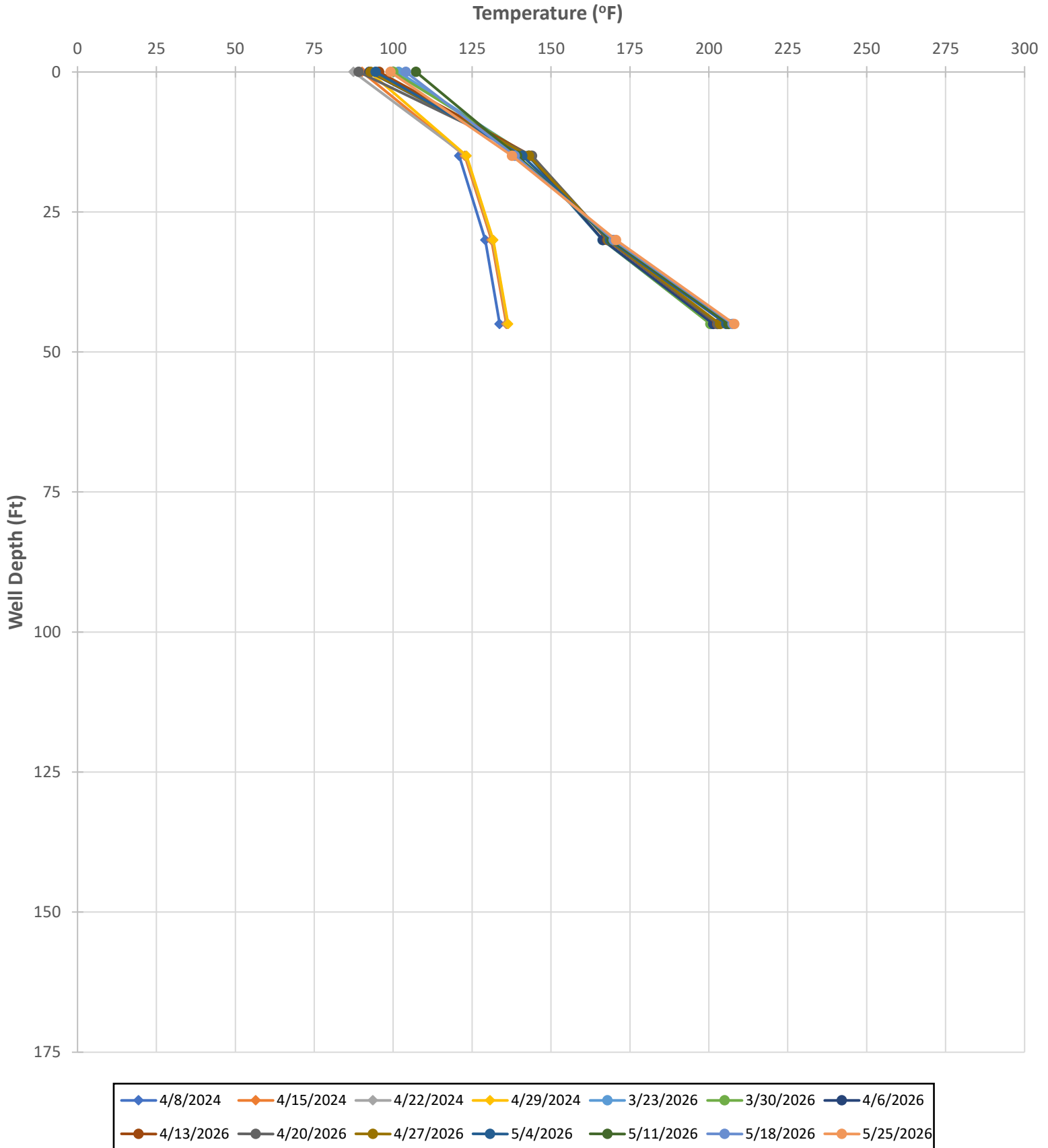
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-17

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



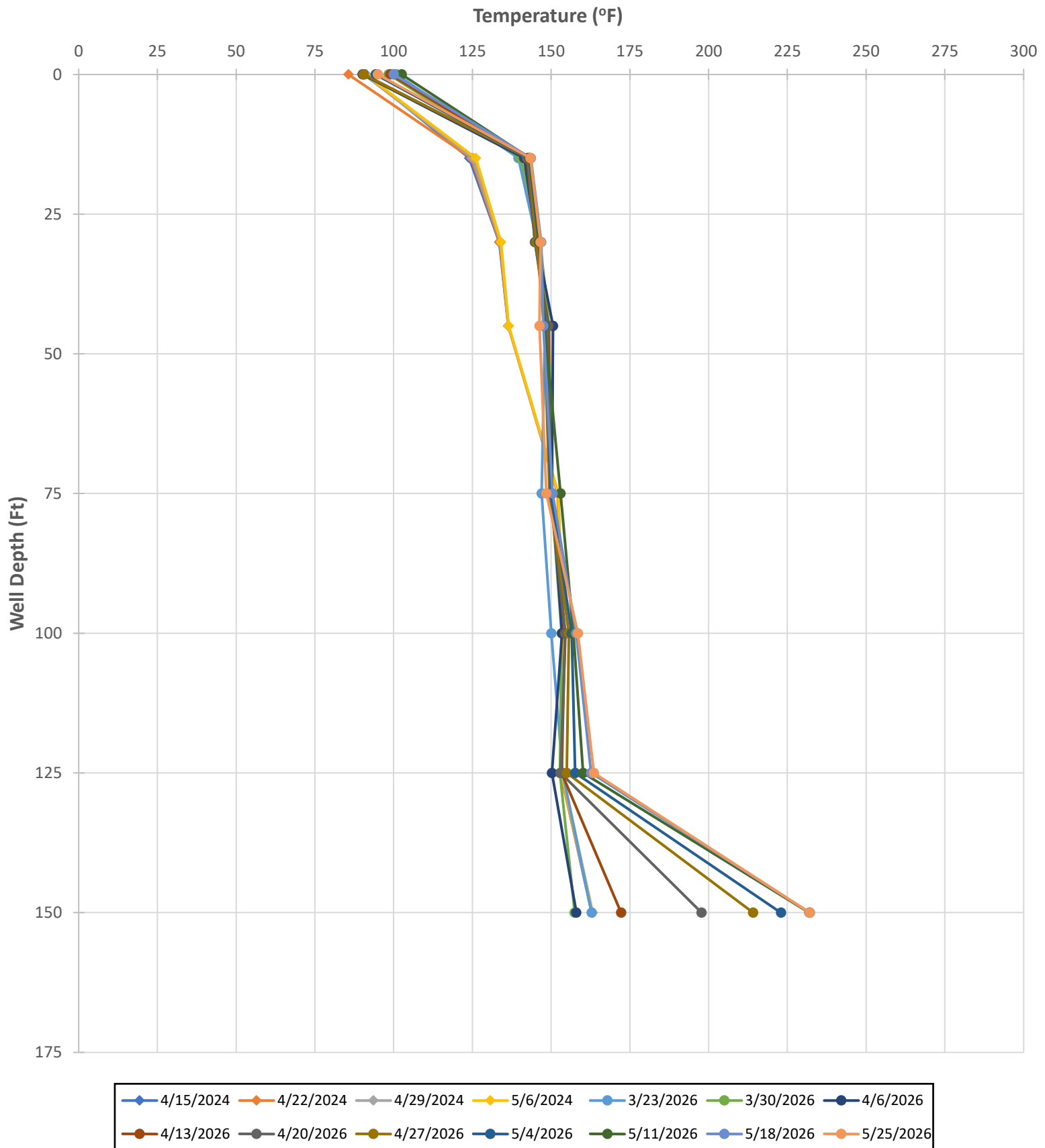
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-18

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



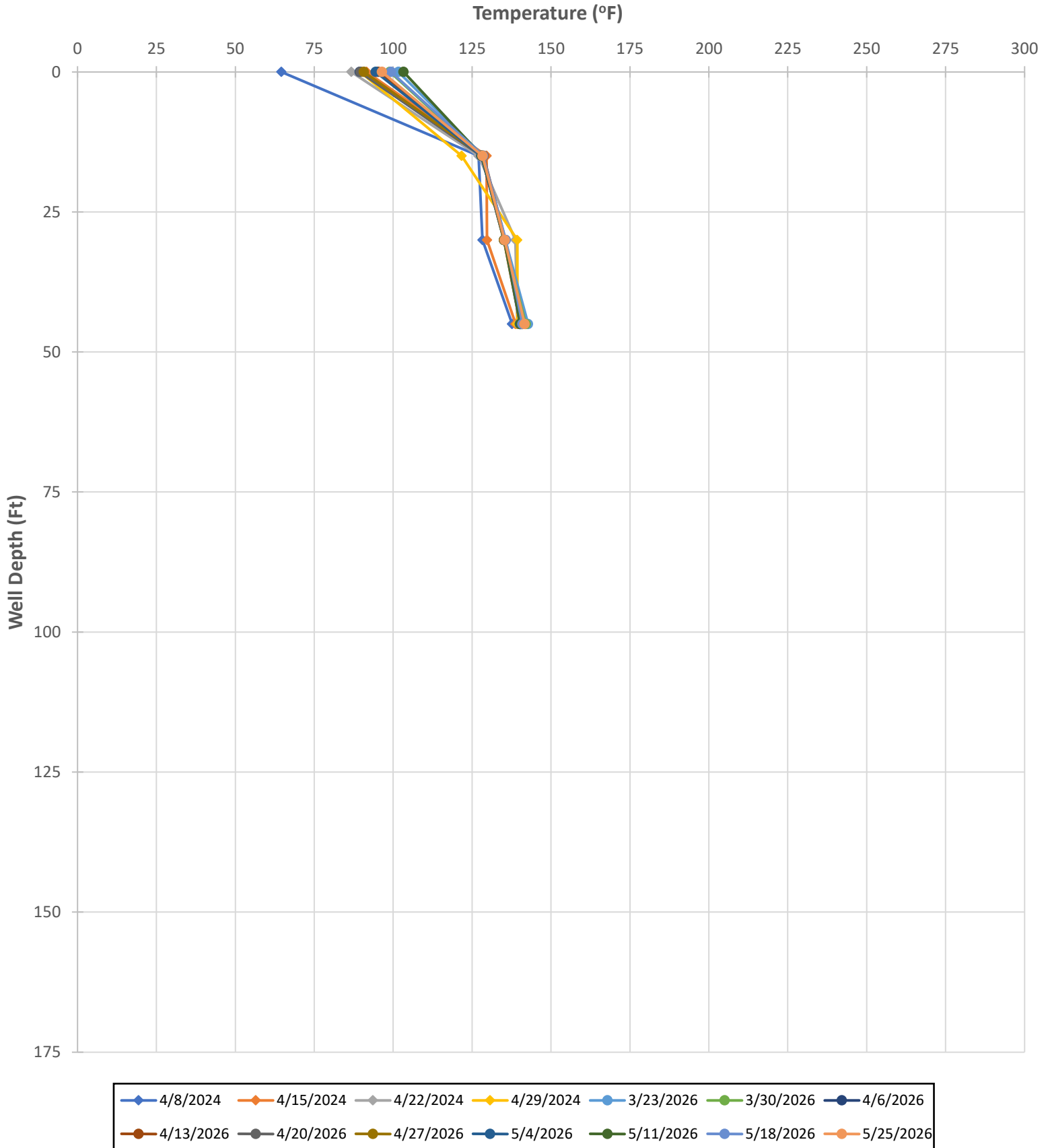
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-19

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



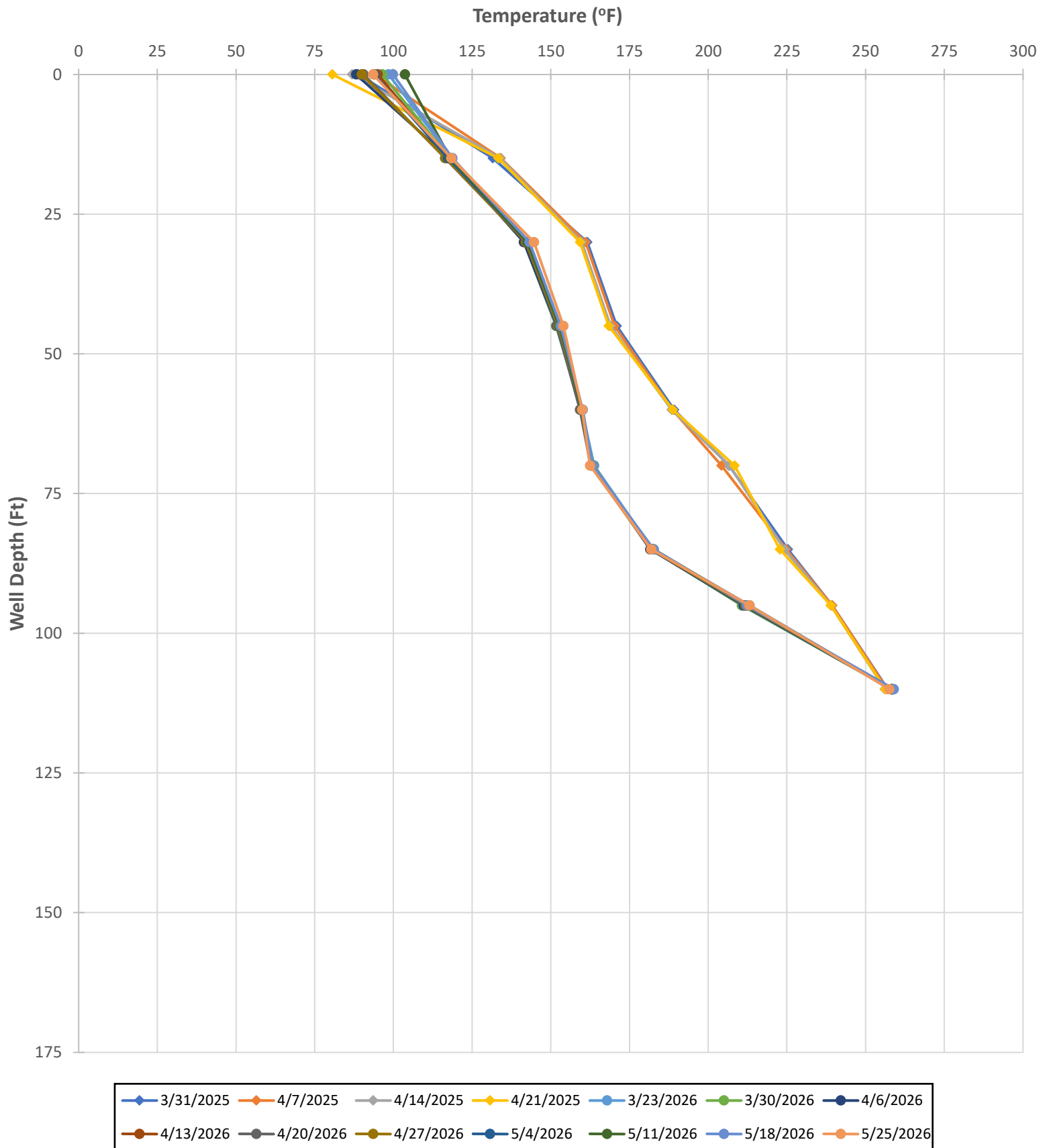
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-20

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



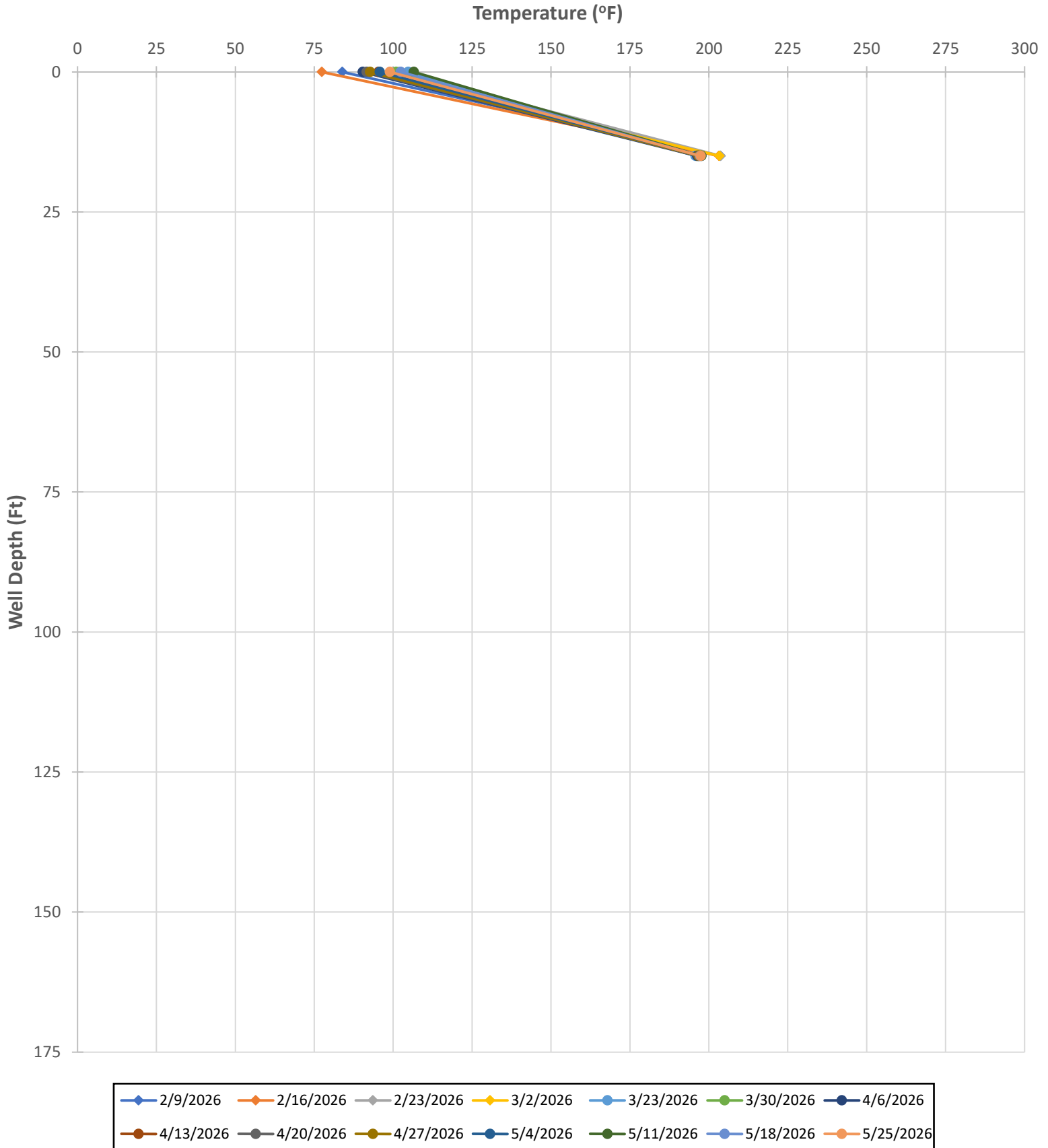
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-21

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data
ending May 2026



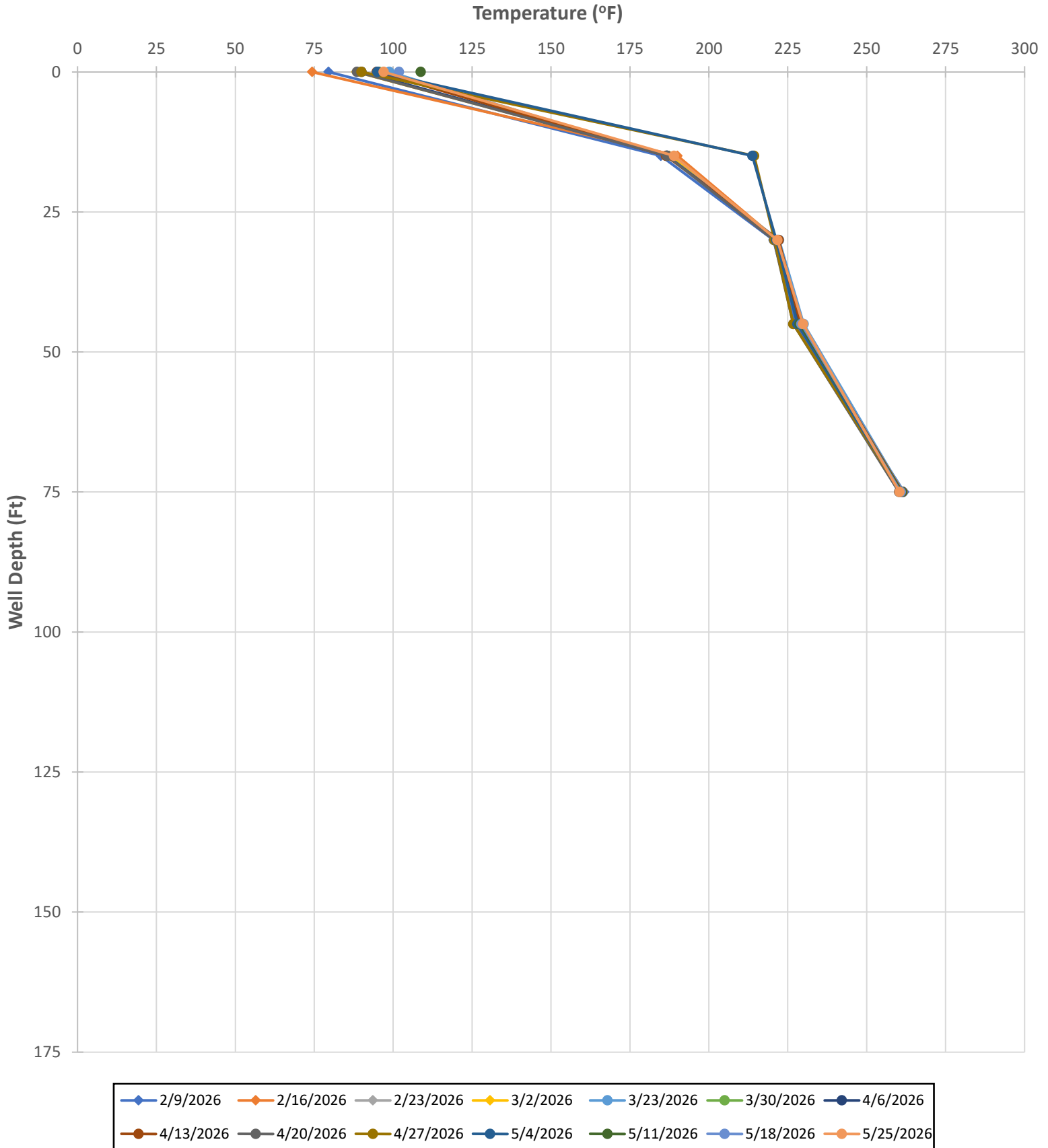
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-22

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data
ending May 2026



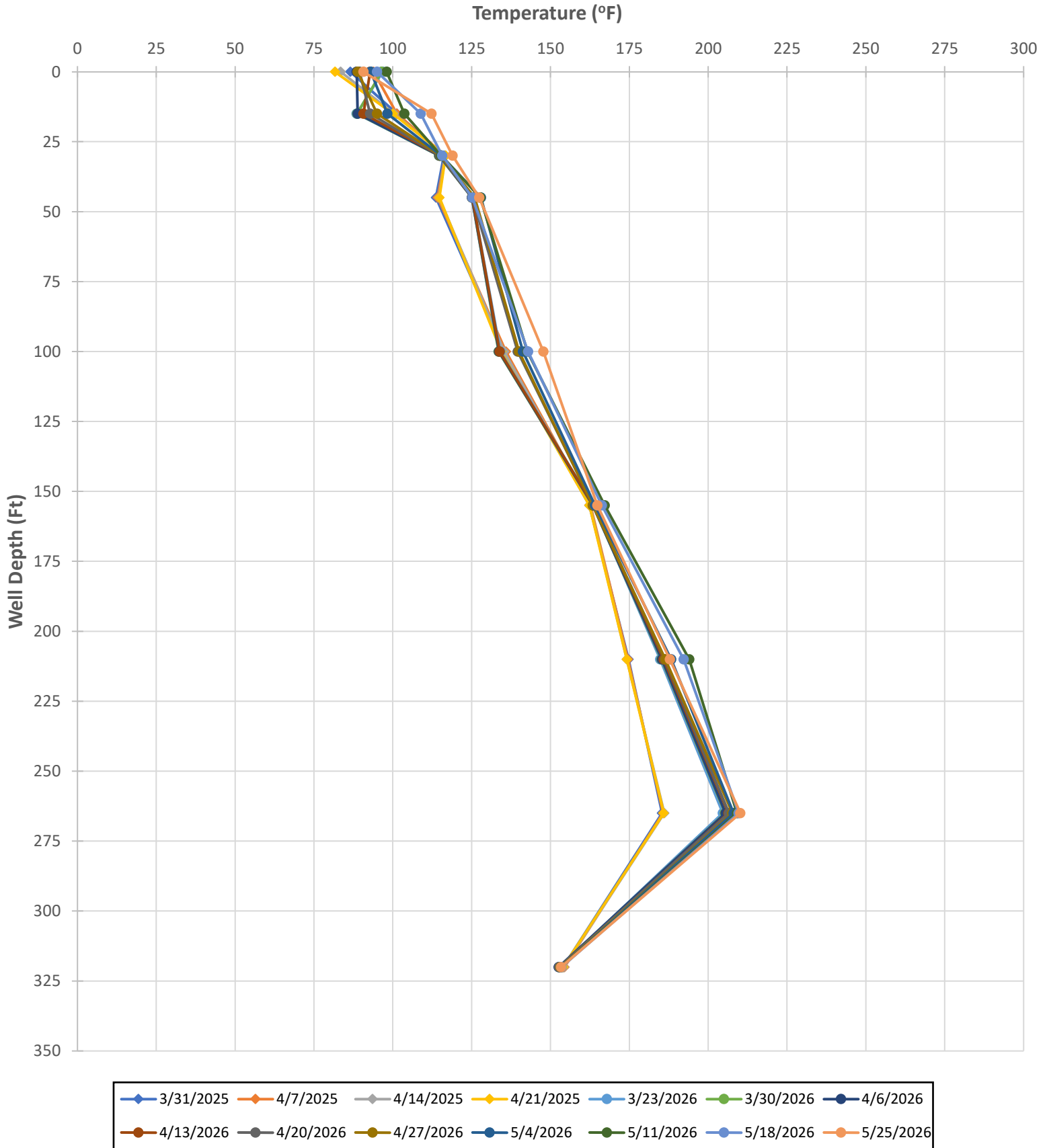
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-23

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



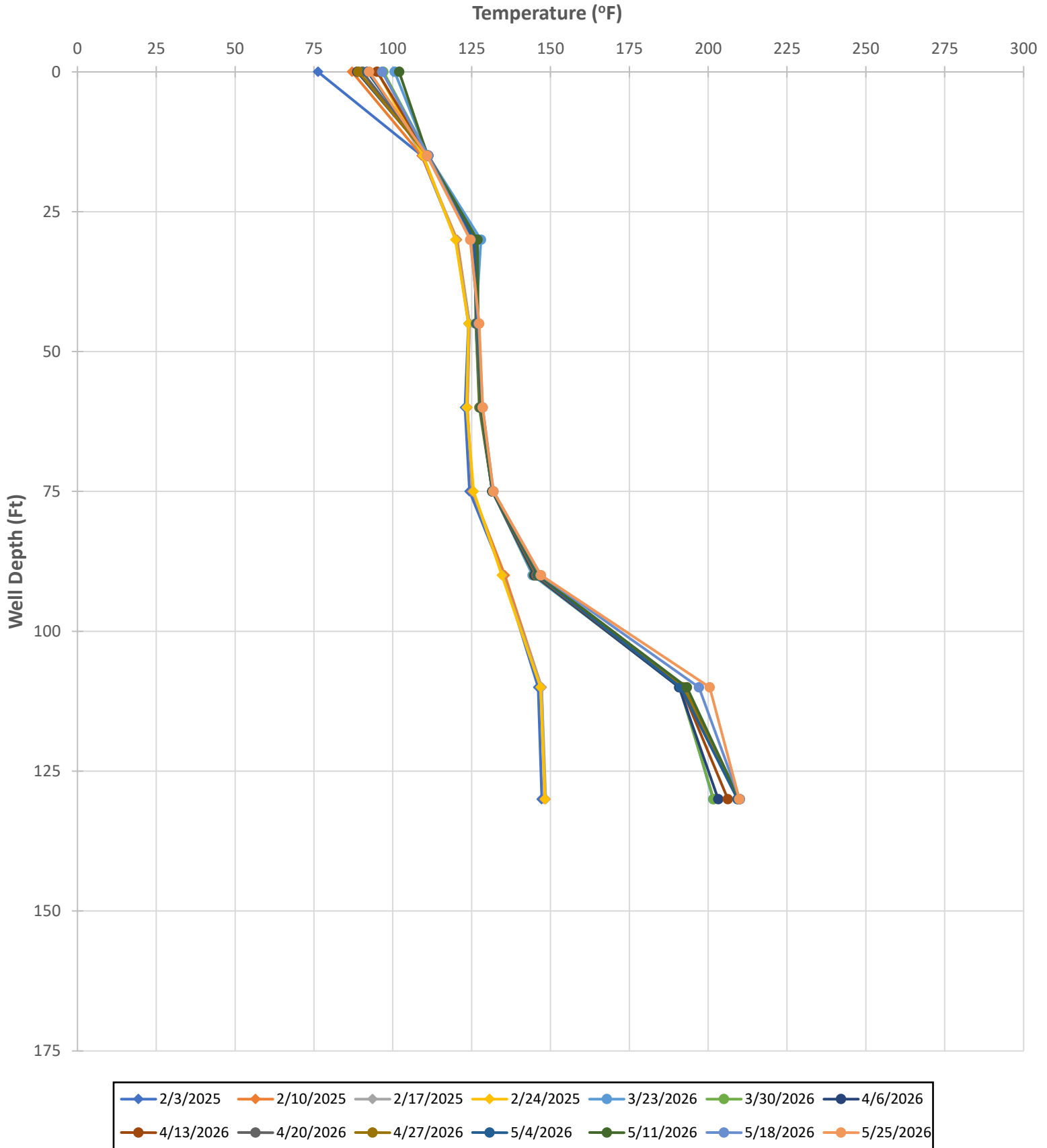
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-24

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



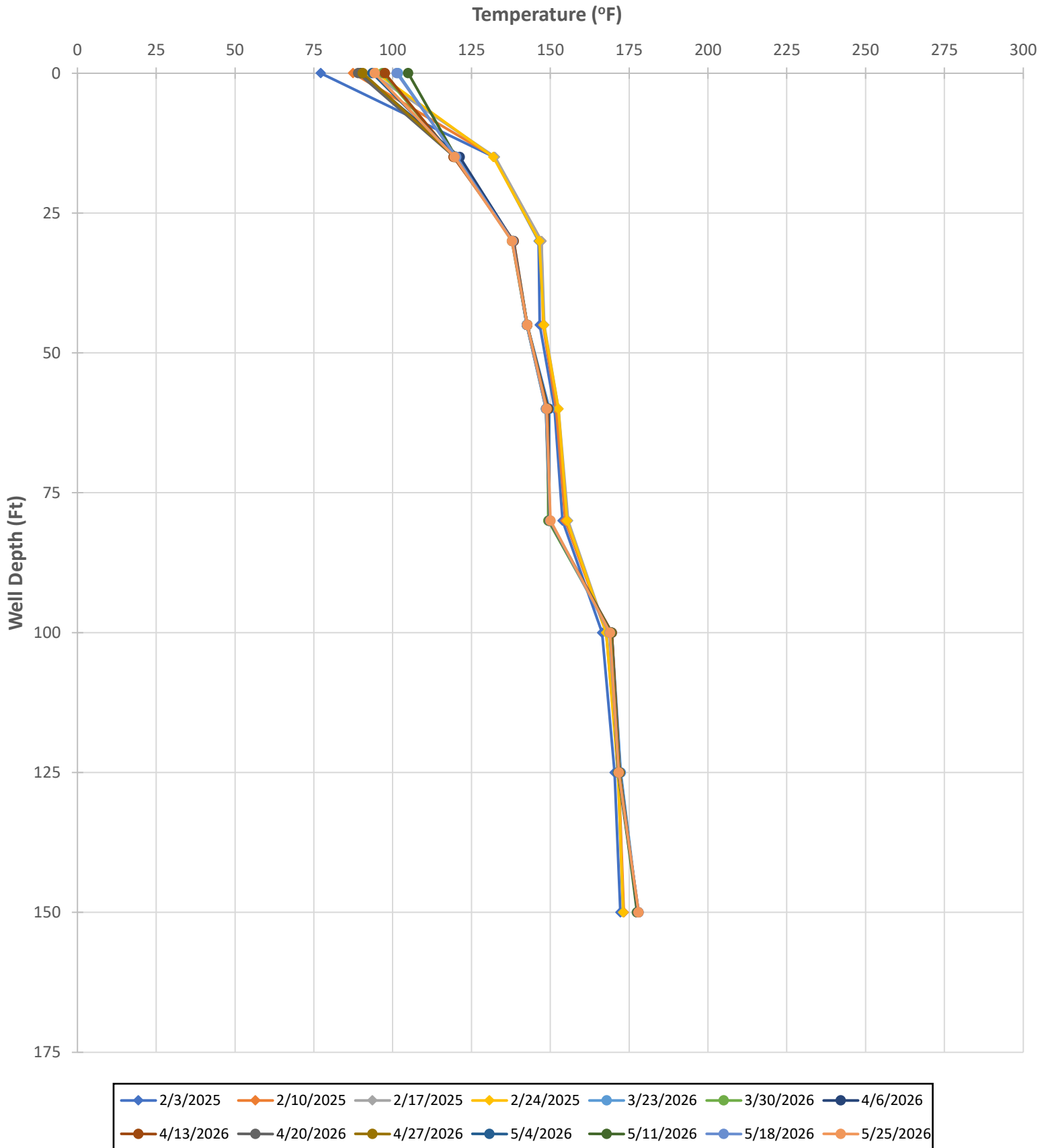
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-25

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



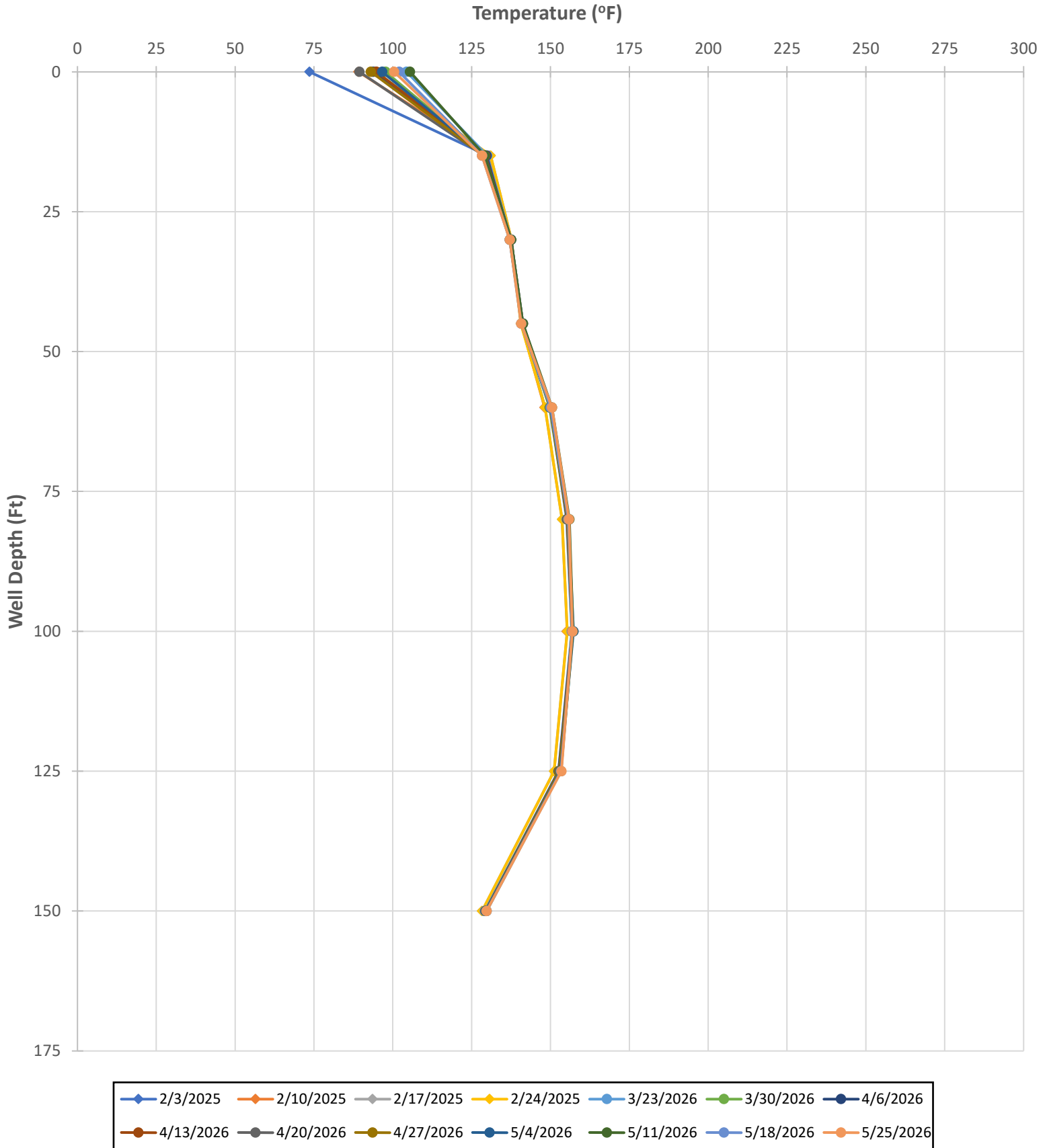
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-26

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



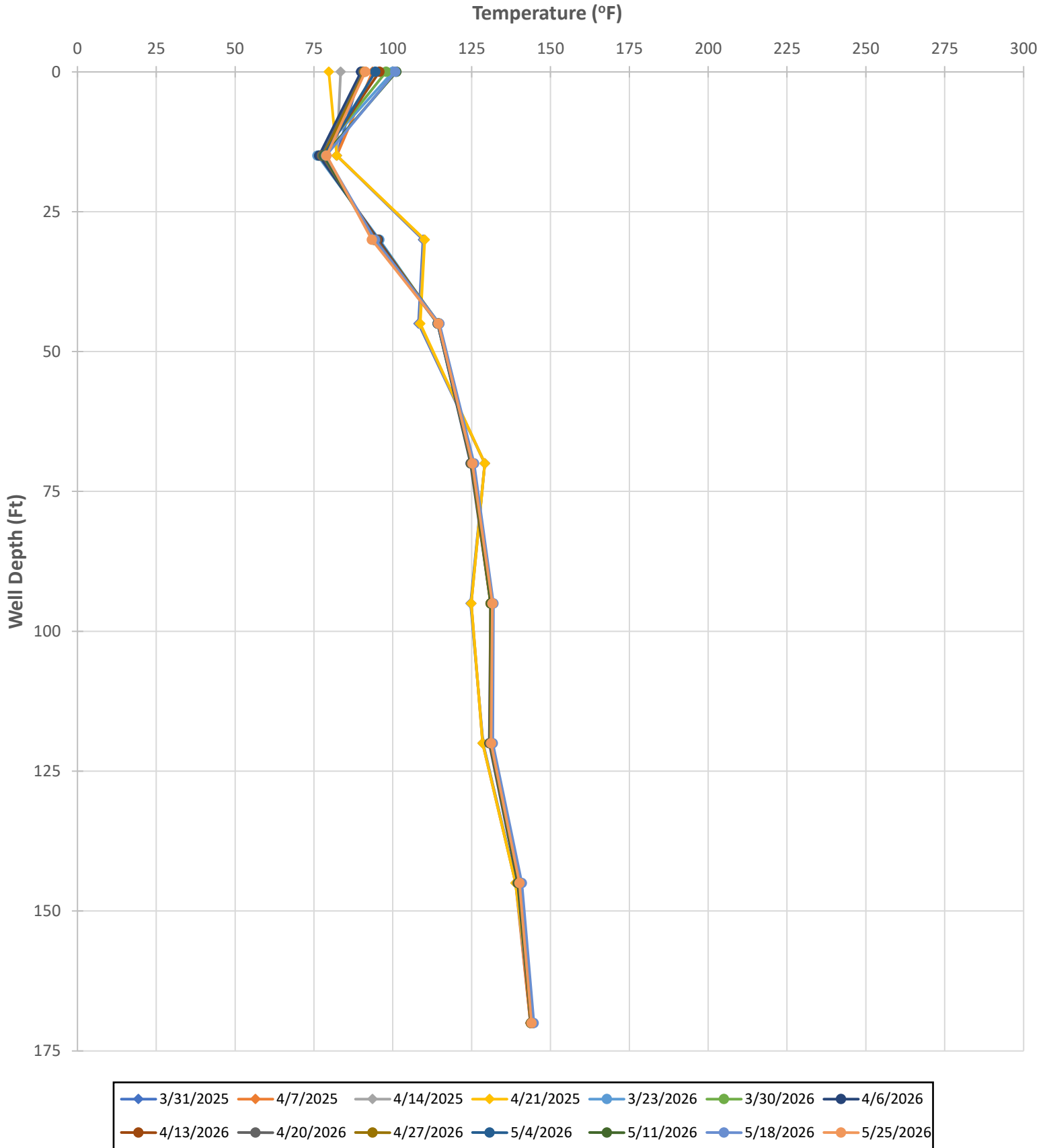
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-27

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



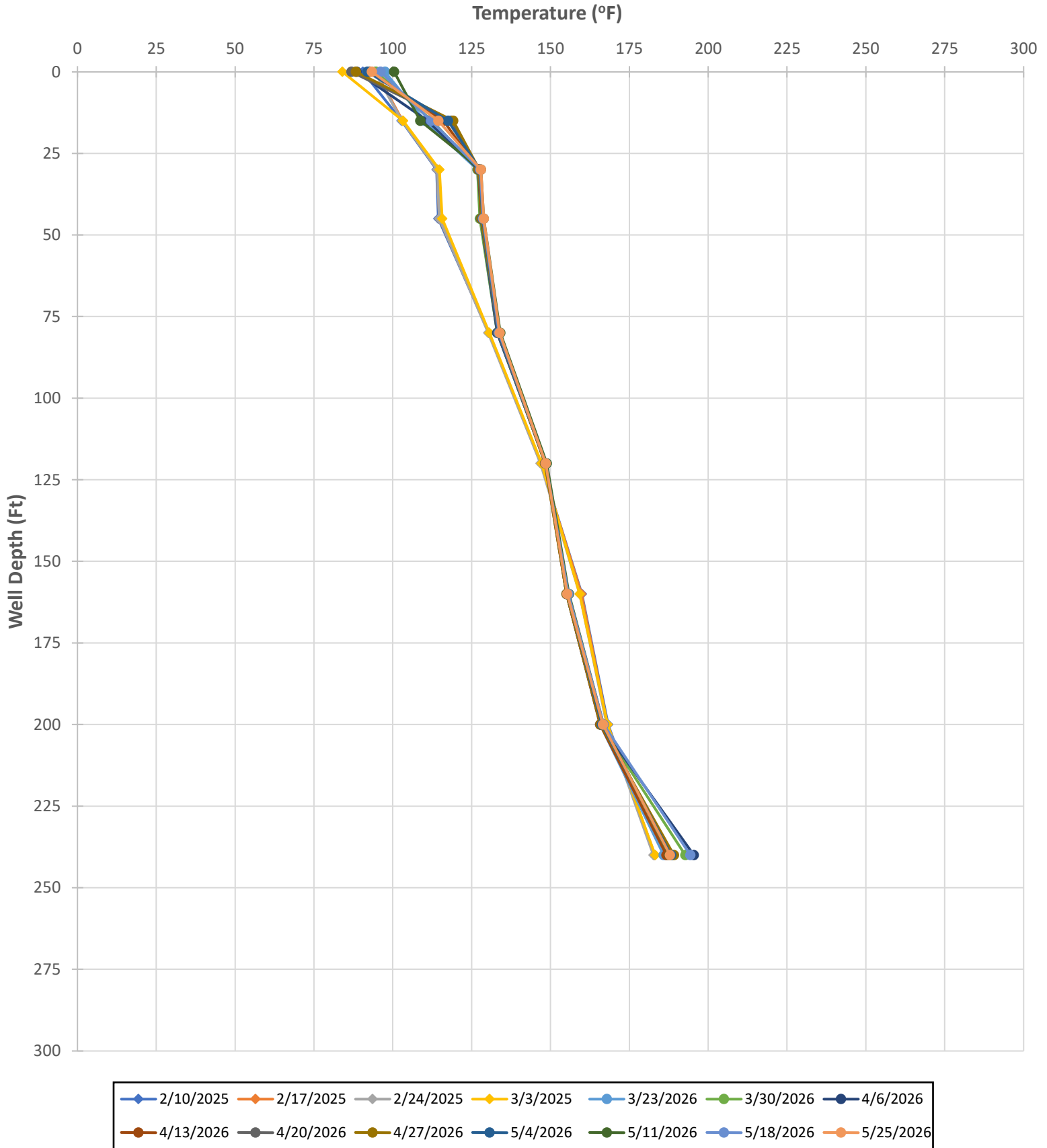
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-28

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



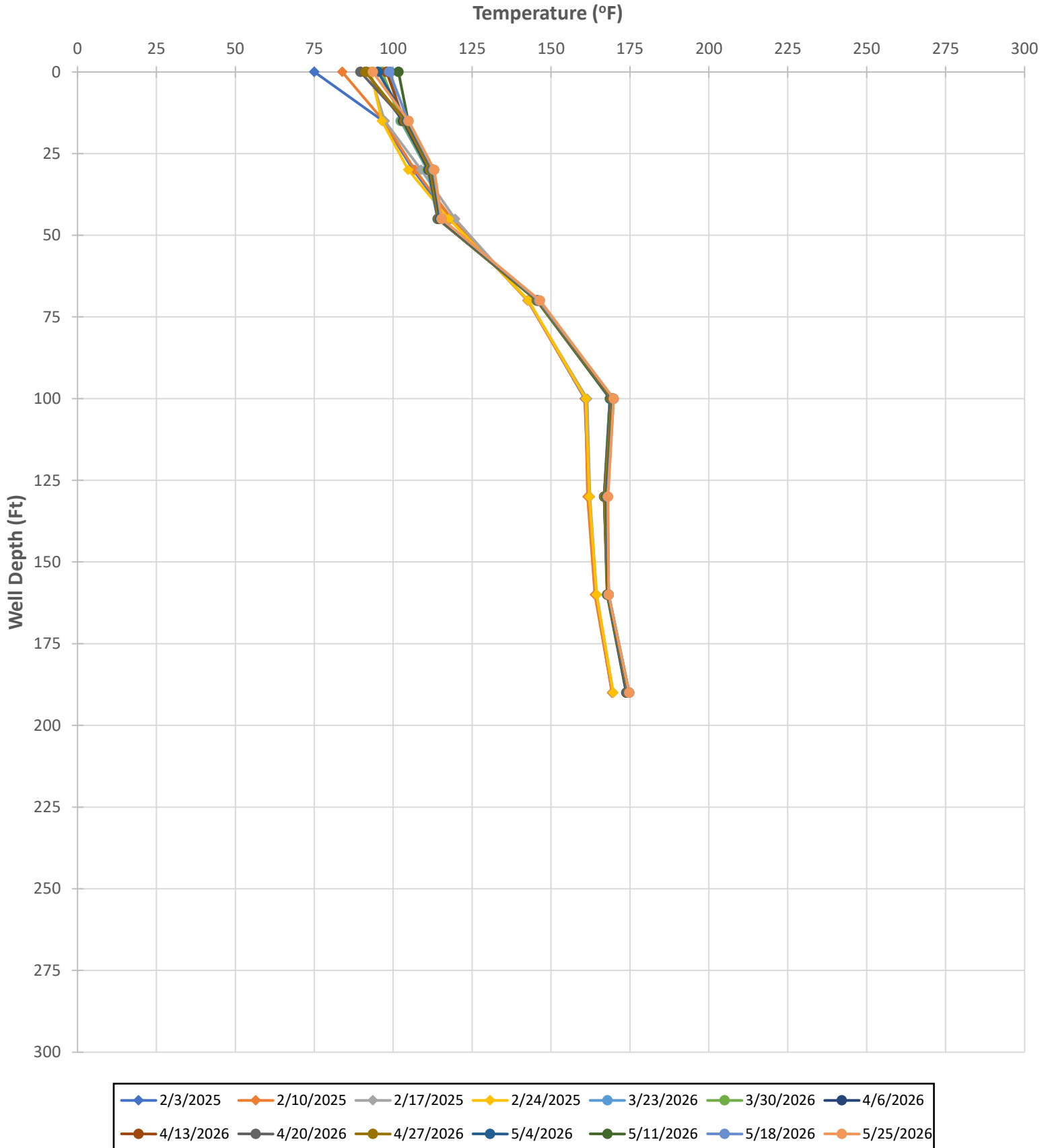
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-29

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



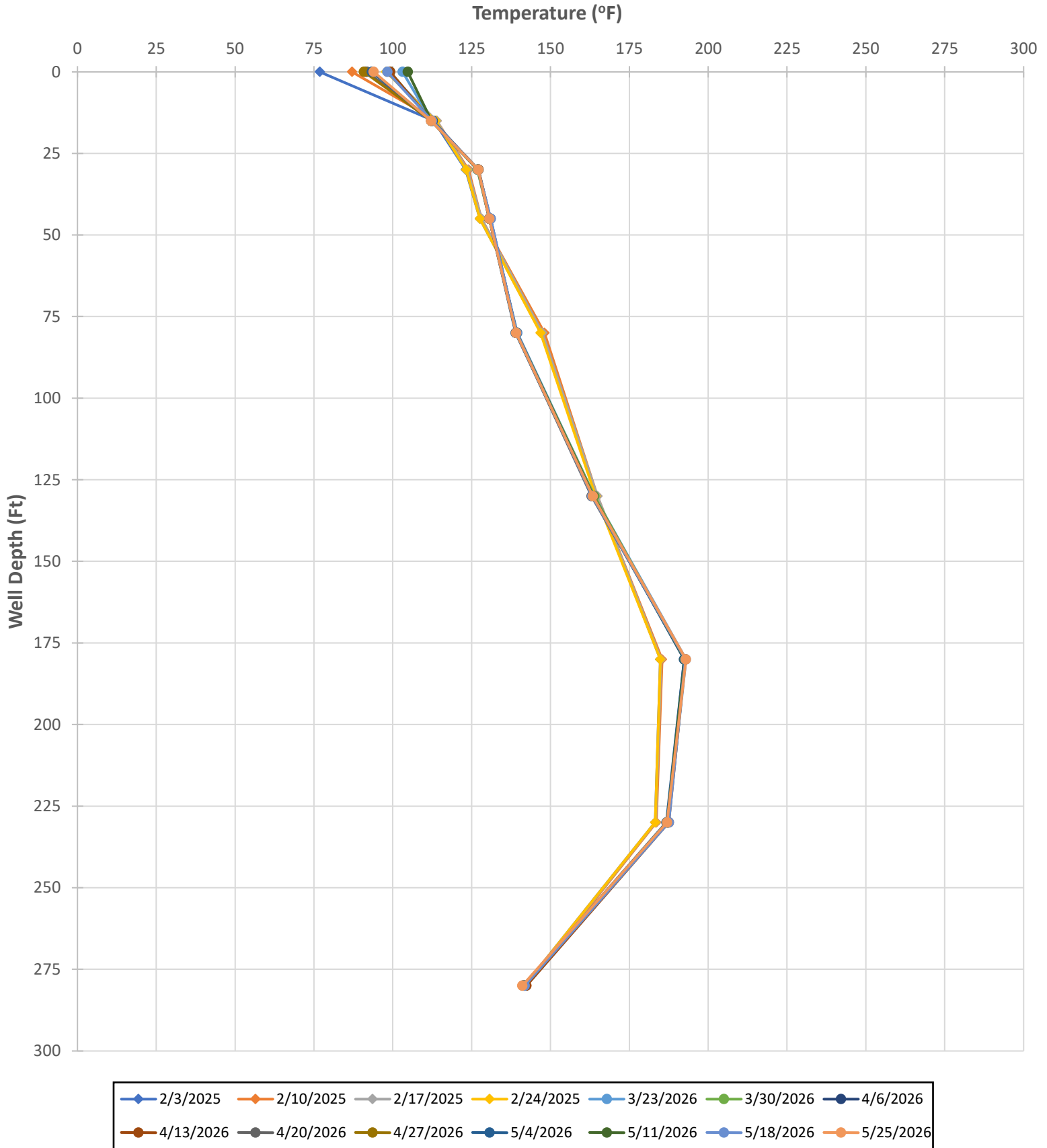
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-30

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



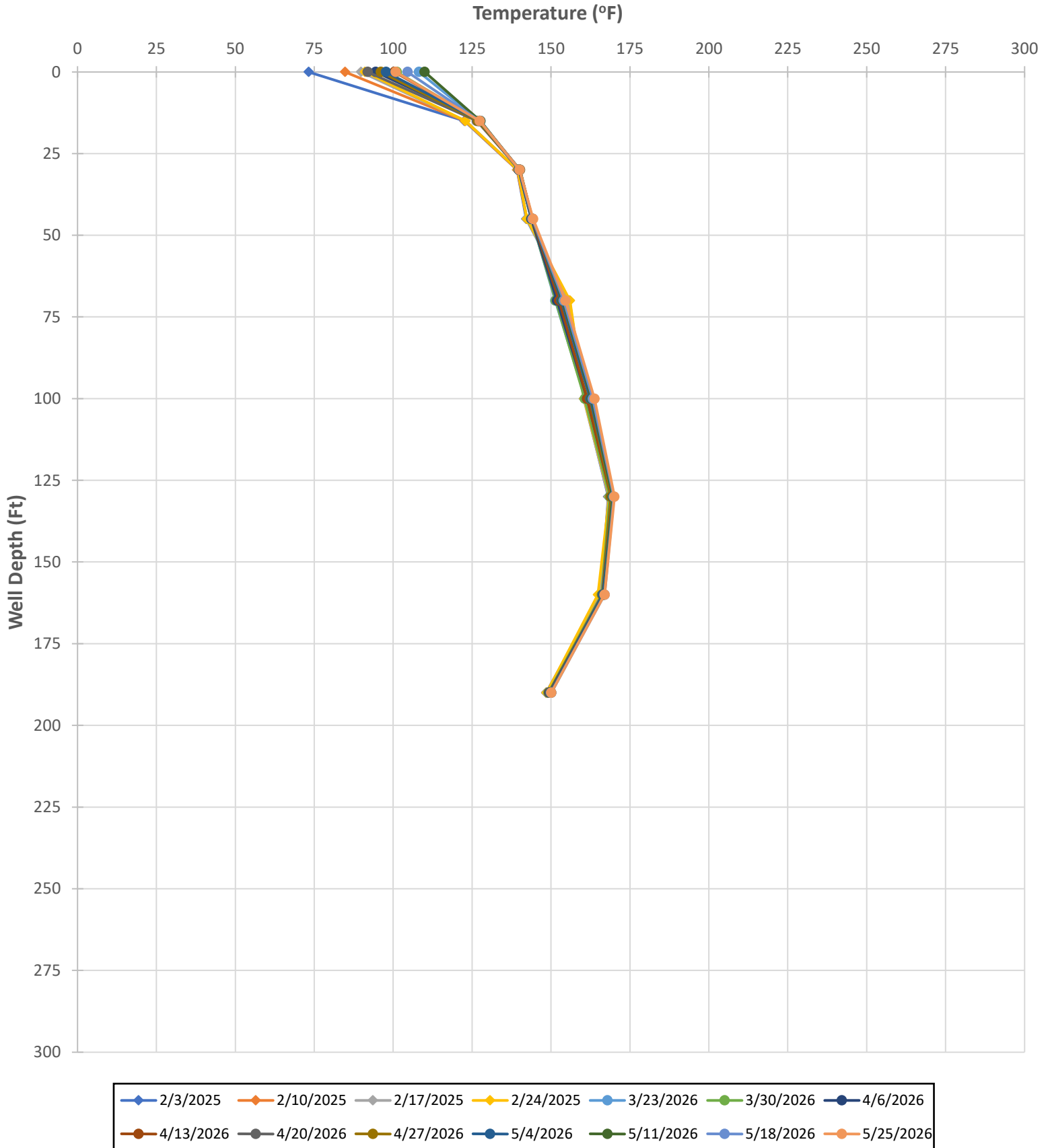
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-31

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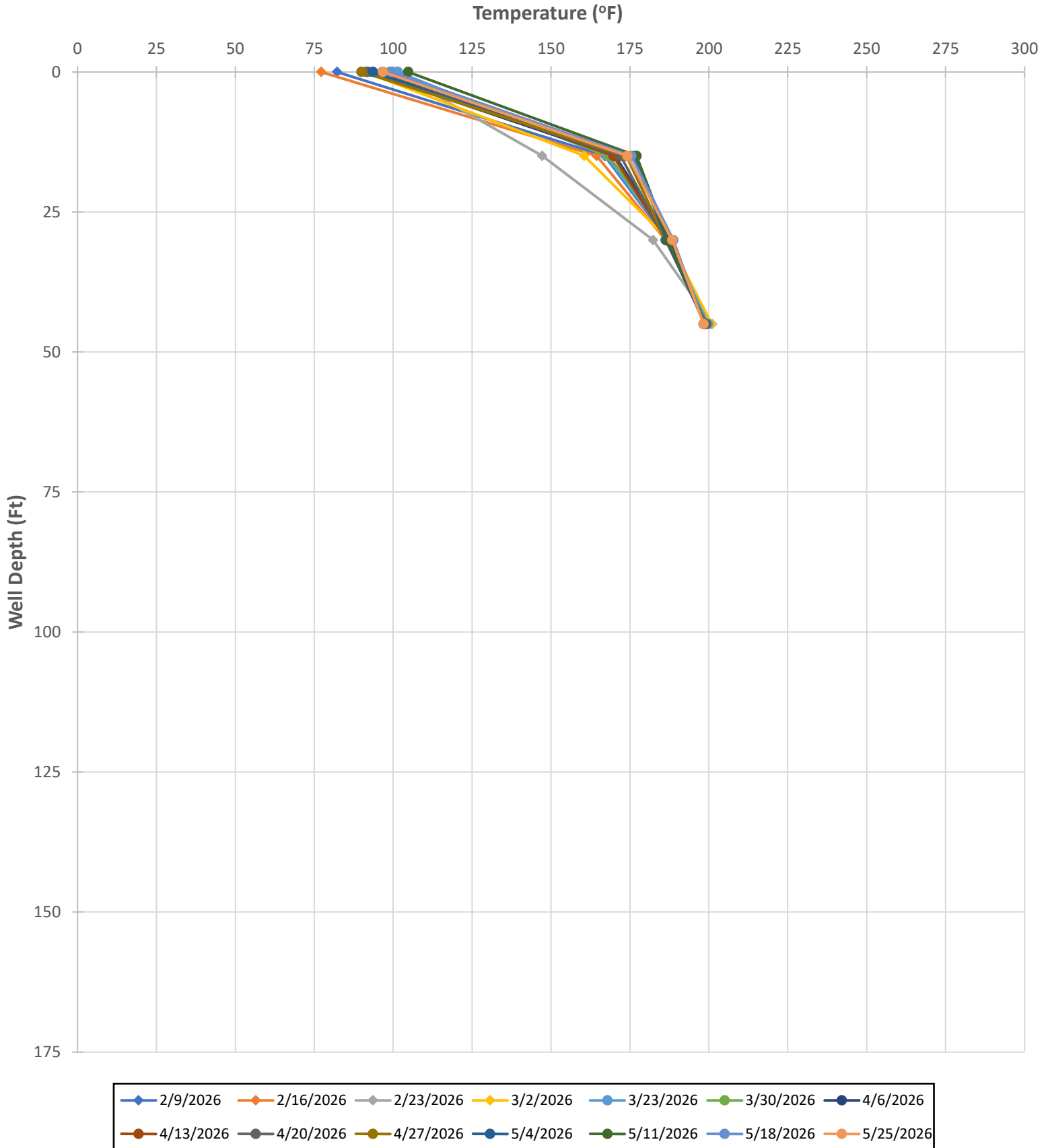
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-32

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



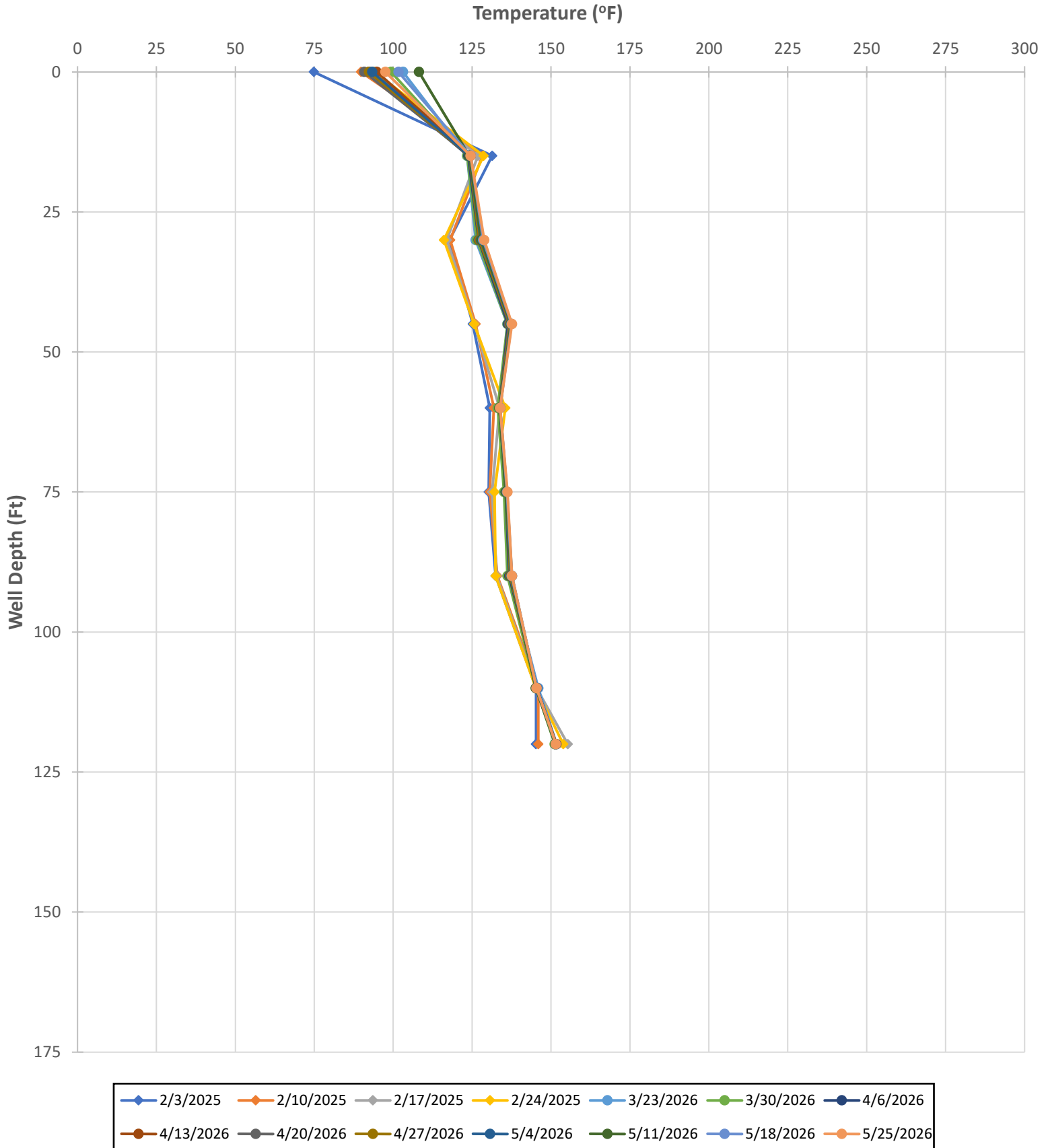
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-33

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



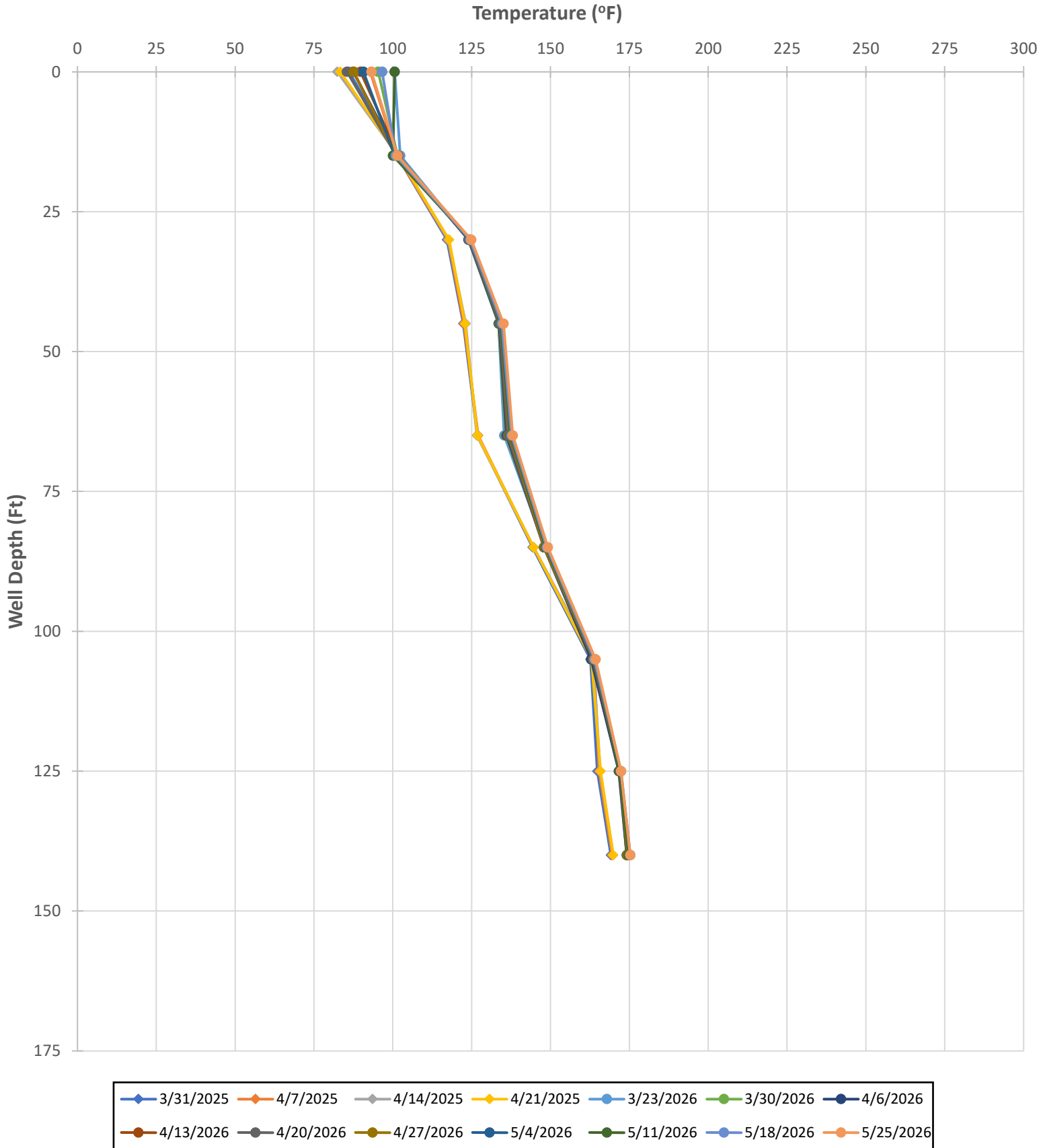
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-34

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



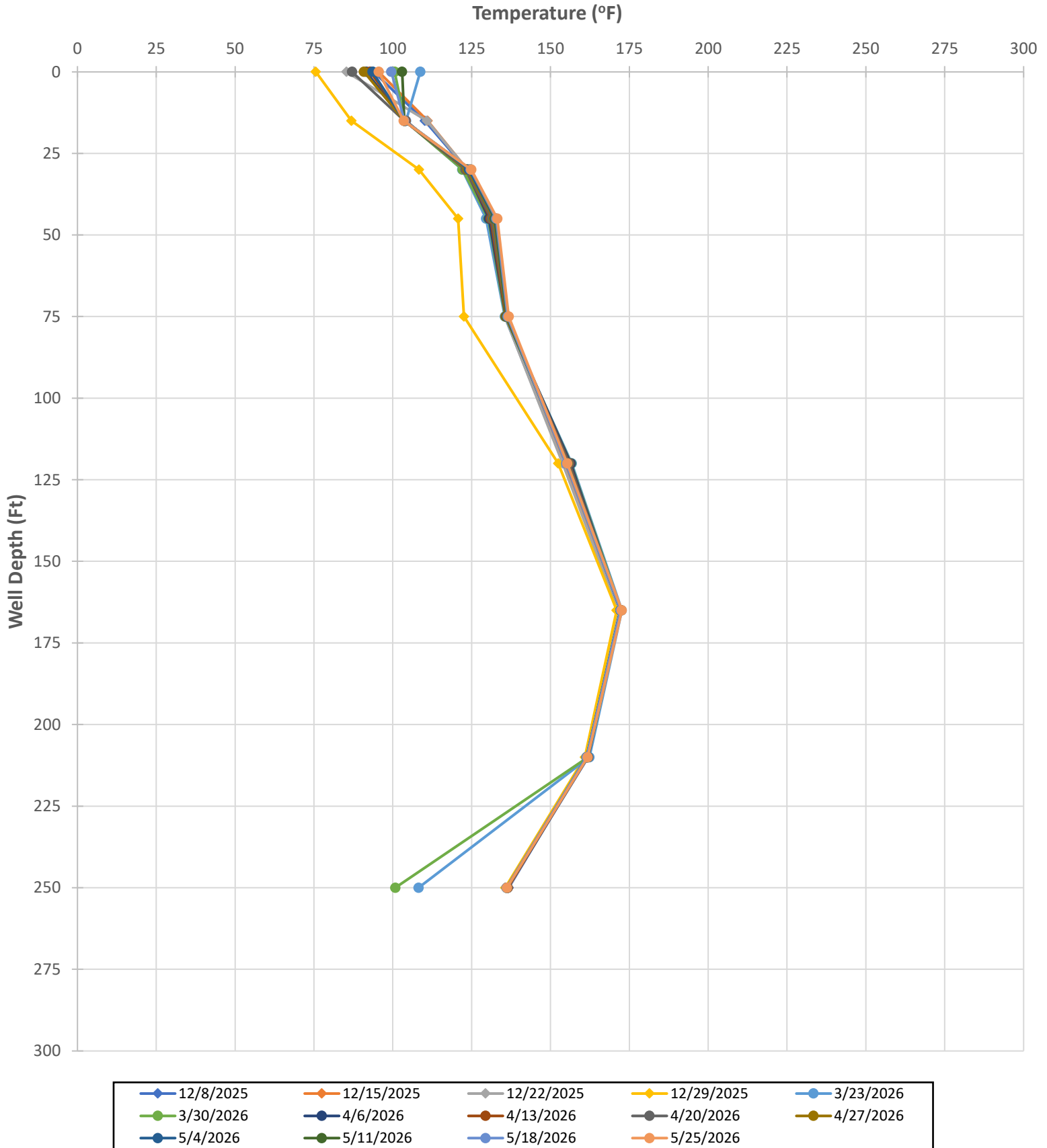
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-35

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data
ending May 2026



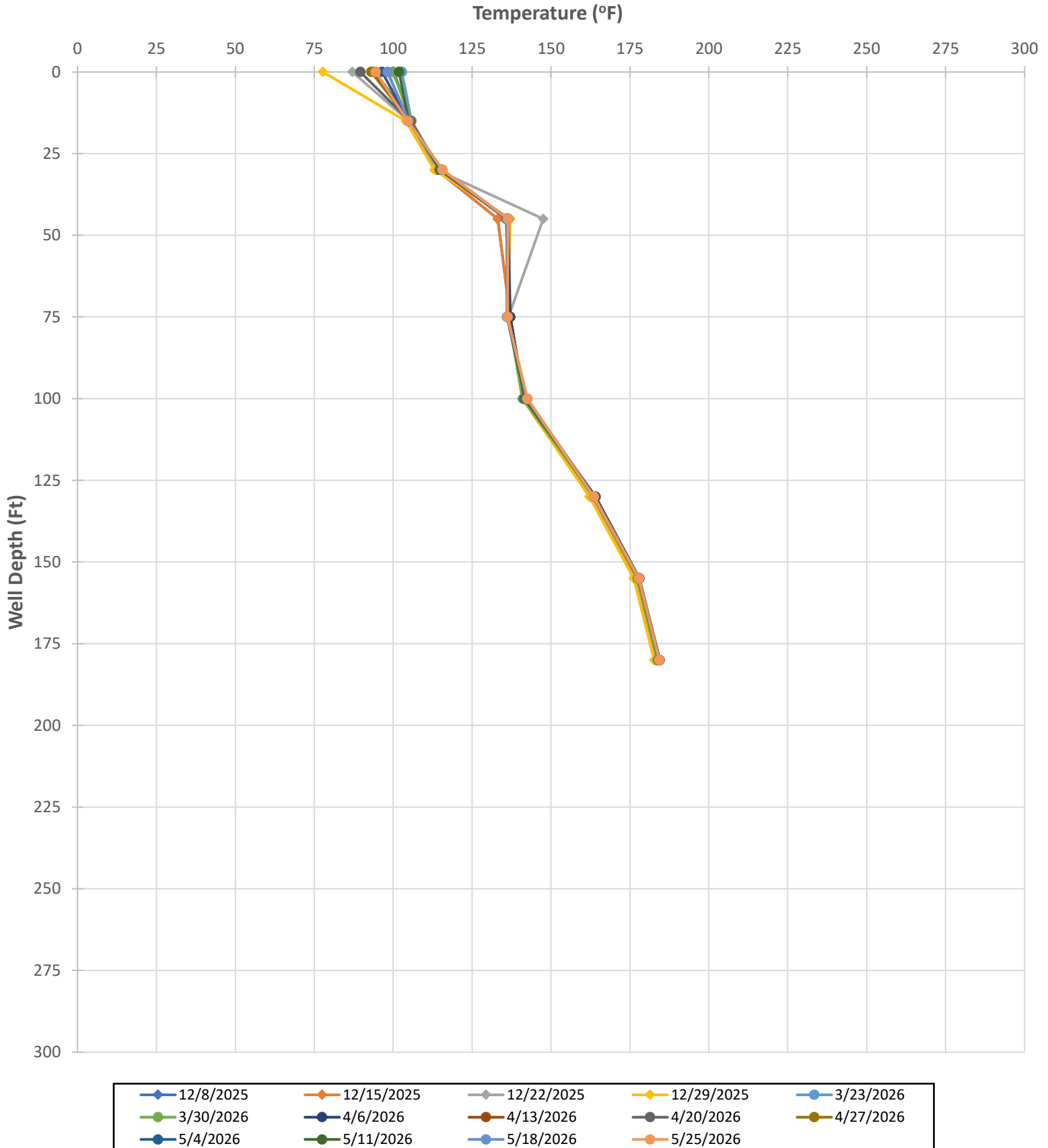
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-36

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



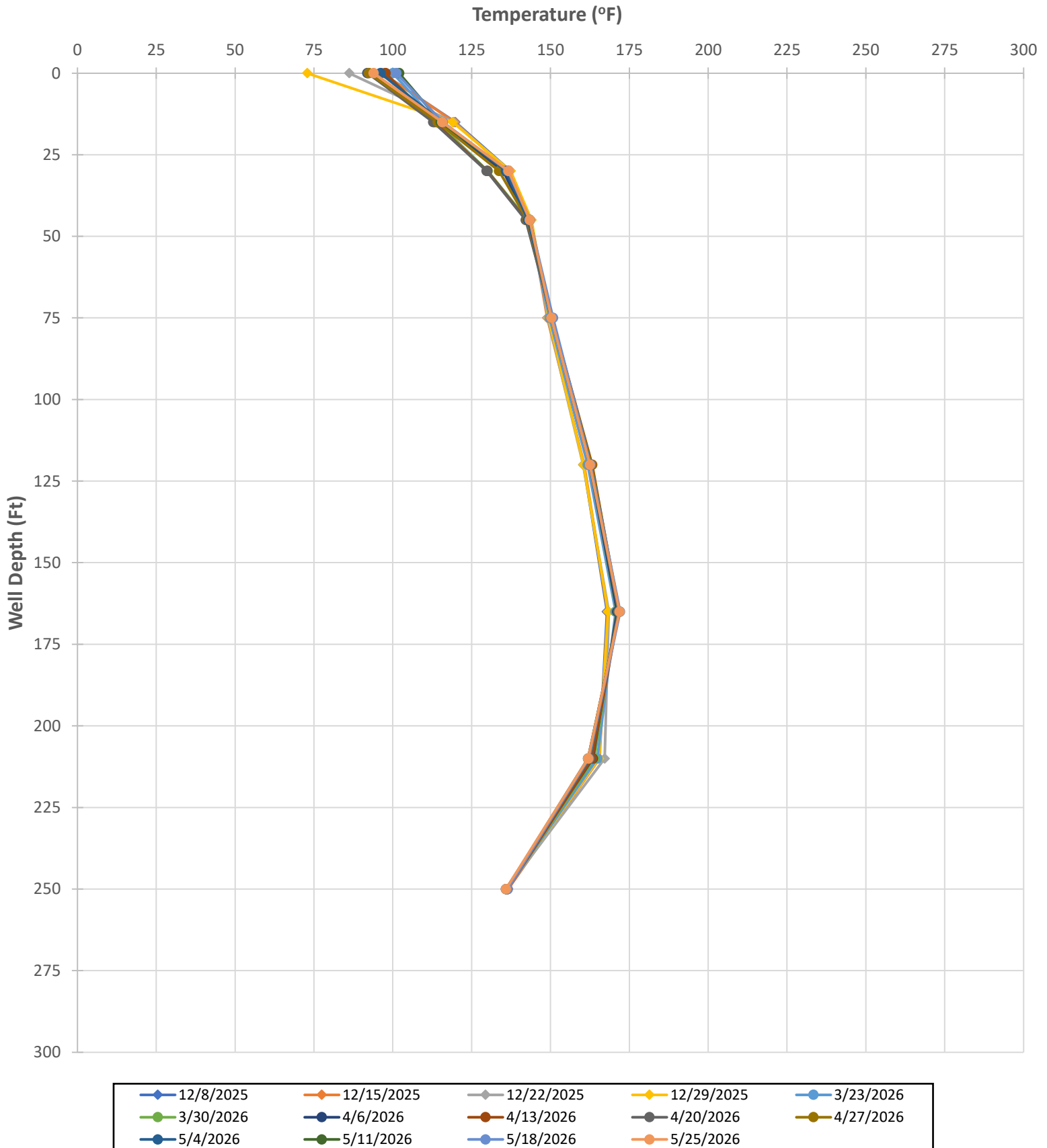
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-37

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



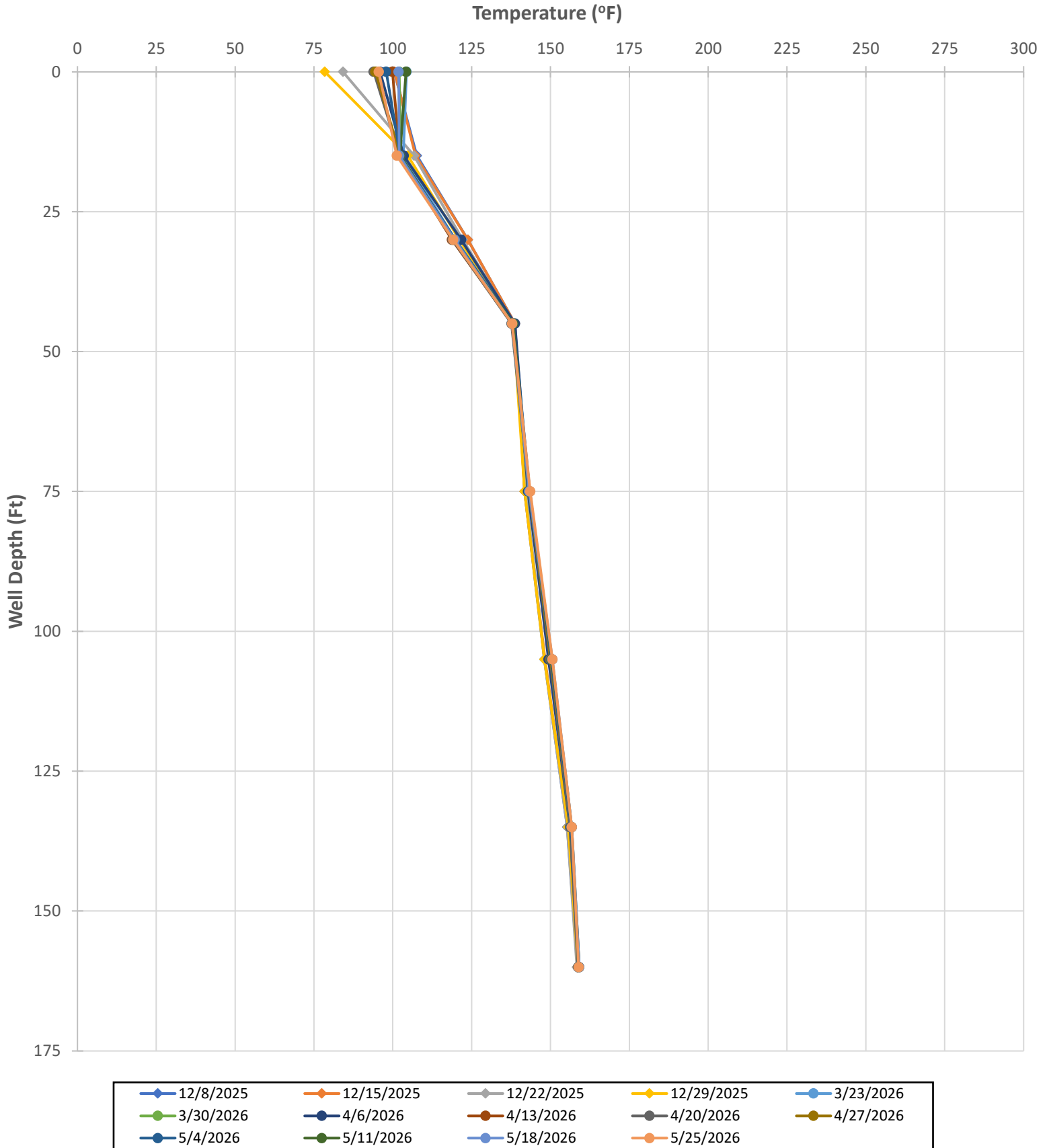
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-38

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



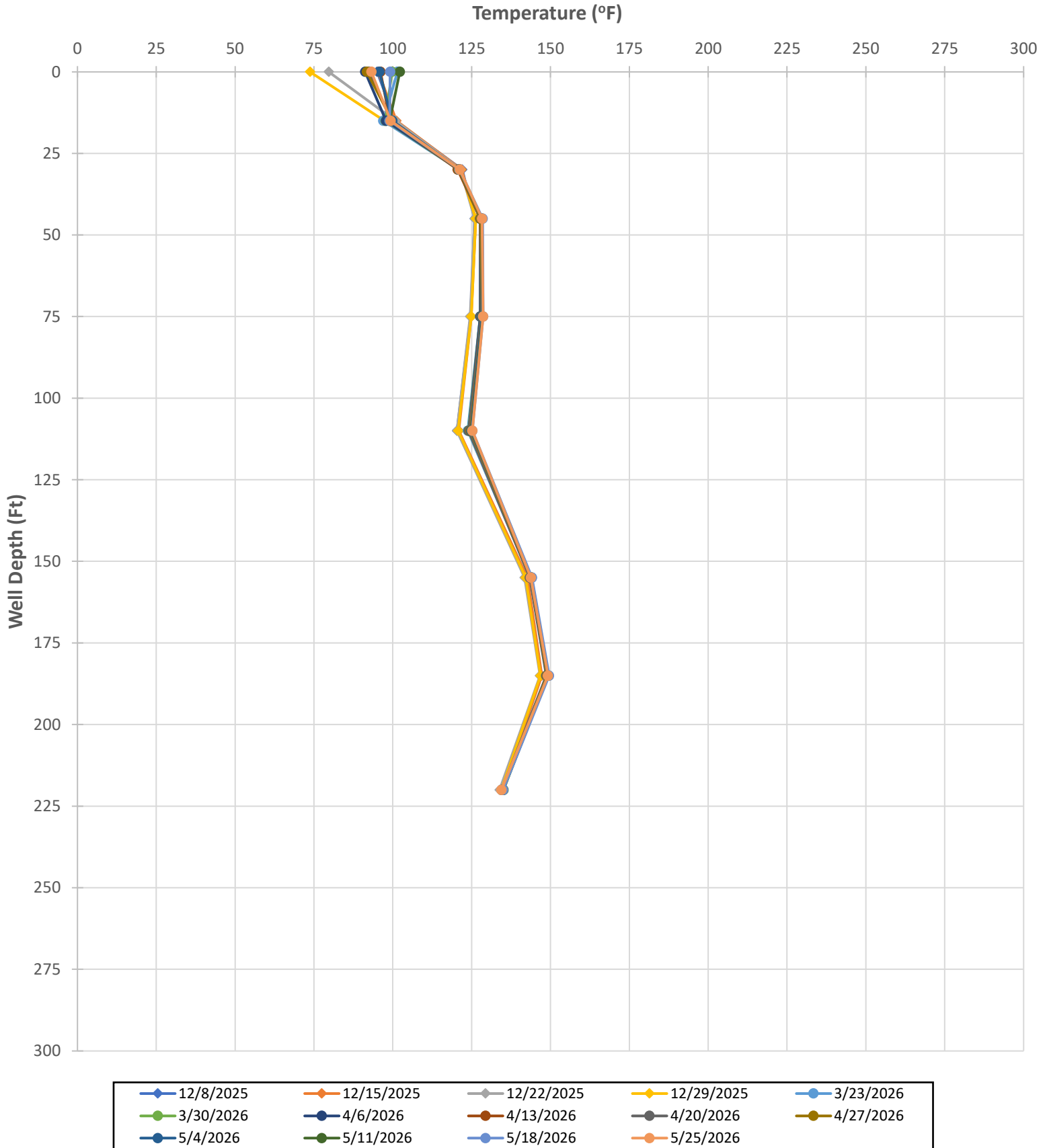
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-39

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data
ending May 2026



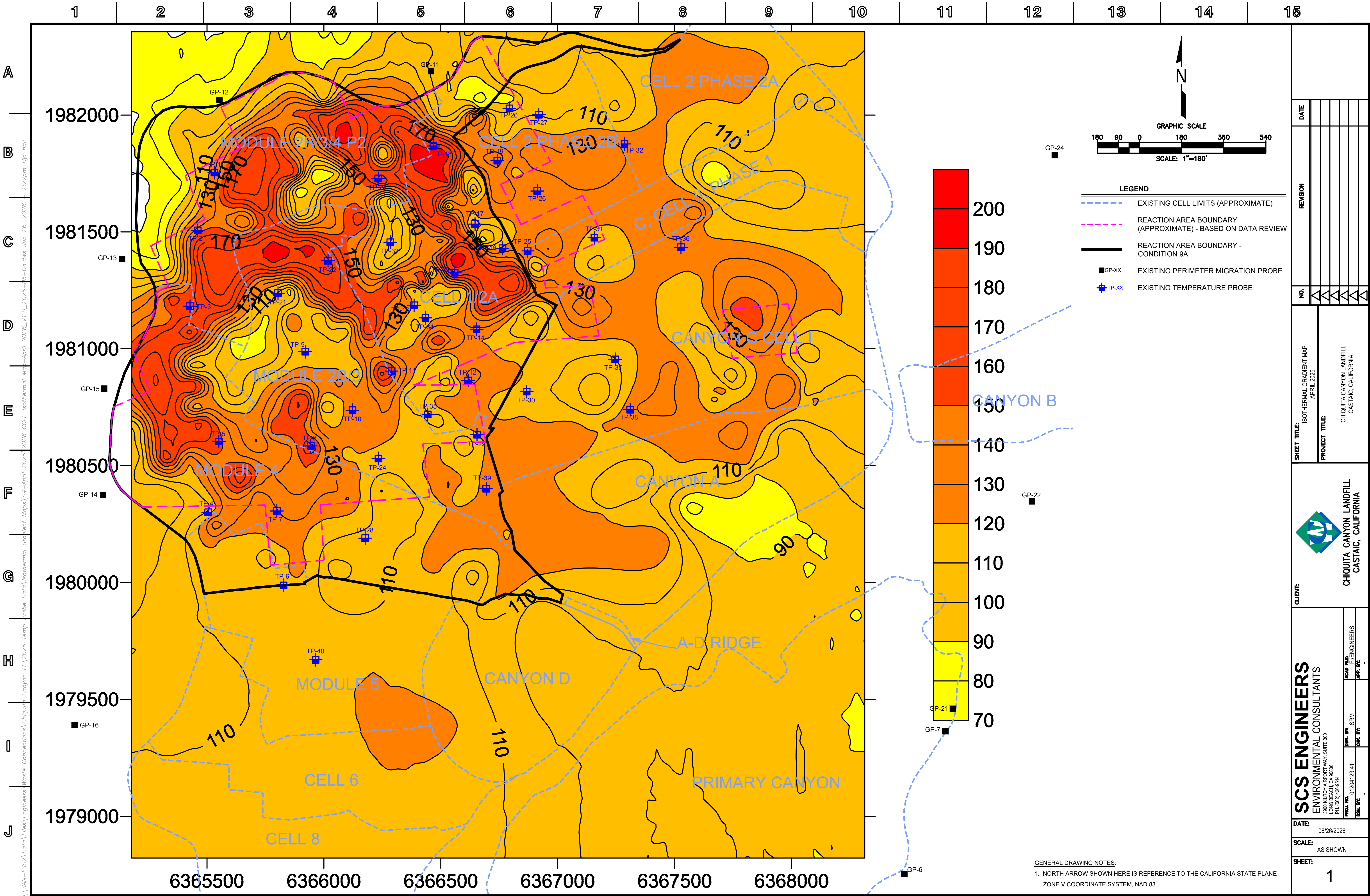
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-40

Maximum weekly data for initial 4-weeks of operation compared to the latest 10-weeks of data ending May 2026



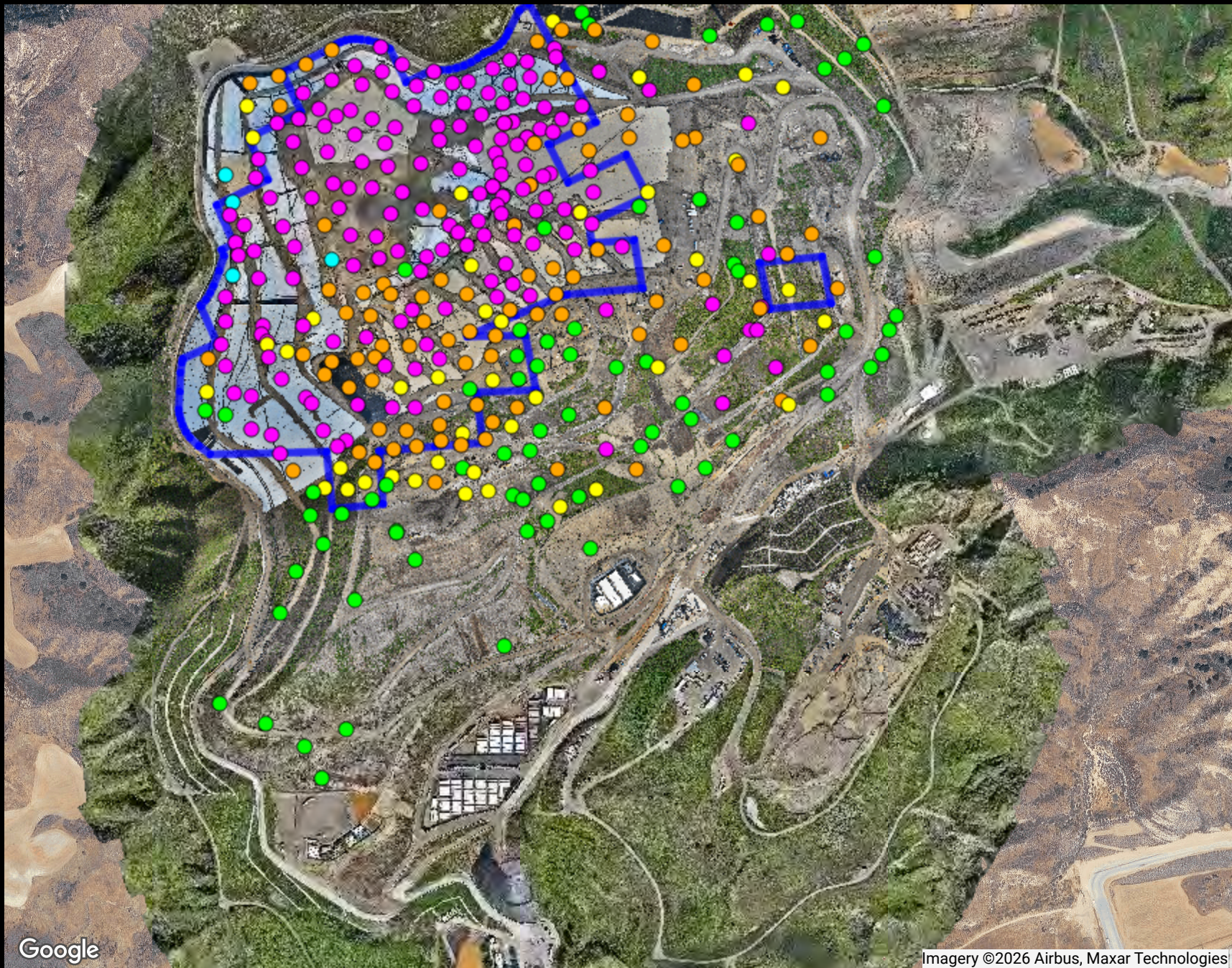
Attachment C

Isothermal Gradient Range Map



Attachment D

Wellhead Methane-to-Carbon Dioxide Ratio Range Map



Ranges Mapped			# Points
	>= 0	and < 0.5	168
	>= 0.5	and < 0.9	90
	>= 0.9	and < 1.1	41
	>= 1.1	and < 1.5	75
	>= 1.5	and < 101	4

Point Type Legend

- ▽ calibration record
- ◇ flare-engine-ghg
- △ monitoring probe
- sample port
- well

Chiquita Canyon Landfill
Range Map
Parameter: CH4/CO2 Ratio (high range)
Analysis Method: MostRecent
Date Range: 05/01/2026 - 05/31/2026
Map generation date : 06/26/2026



Attachment E

Wellhead Hydrogen Range Map



Ranges Mapped

			# Points
	>= 0	and < 20000	13
	>= 20000	and < 50000	7
	>= 50000	and < 100000	20
	>= 100000	and < 999999	66

The range values noted above are in units of parts per million (ppm). Divide by 10,000 to convert these values to units of percent by volume.

Point Type Legend

- ▽ calibration record
- ◇ flare-engine-ghg
- △ monitoring probe
- sample port
- well

Chiquita Canyon Landfill
Range Map
Parameter: H2 (mid range)
Analysis Method: MostRecent

Date Range: 05/01/2026 - 05/31/2026

Map generation date : 06/26/2026



Attachment F

Wellhead Carbon Monoxide Range Map



Ranges Mapped

			# Points
	>= 0	and < 500	20
	>= 500	and < 1000	22
	>= 1000	and < 1500	10
	>= 1500	and < 2000	14
	>= 2000	and < 5000	41
	>= 5000	and < 100000	1

Point Type Legend

- ▽ calibration record
- ◇ flare-engine-ghg
- △ monitoring probe
- sample port
- well

Chiquita Canyon Landfill
Range Map
Parameter: CO LAB (mid range)
Analysis Method: MostRecent

Date Range: 05/01/2026 - 05/31/2026

Map generation date : 06/26/2026





Attachment G

Settlement Isopach Range Maps

April 30, 2026 vs
June 2, 2026



April 1, 2026
vs June 2, 2026

