November 10, 2026

Luke LeMond
Site Manager
Solid Waste Program
State of Washington Dept. of Ecology
Central Regional Office
1250 West Alder St.
Union Gap, WA 98903-0009

Re: DTG Yakima – Agreed Order No. DE 21624 – Monthly Progress Letter – October

Dear Mr. LeMond:

In accordance with Section 7.3 of Agreed Order (AO) No. DE 21624, the following is a description of the actions taken during October 2026 to implement the requirements of this AO.

Activities:
On-site activities included weekly gas probe and every other week ambient monitoring. The monitoring data summary through October 2026 from Landfill Fire Control, Inc. (LFCI) is attached.

Interim Action Work Plan (IAWP) approval was received by Ecology on October 12, 2026.

A regulatory meeting was held on October 22, 2026 to review the IAWP.

The Q2 groundwater monitoring report was submitted on October 27, 2026.

Parametrix continued to develop the Q3 groundwater report.

Deviations from Plans (if any):
None.

Deviations Description from the Scope of Work and Schedule:
None.

All Data Received or Collected:
Ambient and gas probe data for gases and temperature were emailed, separately, to Ecology weekly after measurements were taken. Gas probe data was entered into the tracking spreadsheets and assessed by LFCI. The summary of the data has been included as an attachment.

Deliverables for the Upcoming Month:
Deliverables will include:

- Weekly ambient and gas probe data
- Q3 Groundwater Report
- November Progress Report

Please contact me to discuss any of the above items.

Respectfully,

Ian Sutton
Sr. Director of Engineering
DTG Recycling
isutton@dtgrecycle.com

Enclosures to follow: LFCI Data Update – October 2026

cc: mbrady@parametrix.com
steven.newchurch@co.yakima.wa.us

November 9th, 2026 LFCIPRJ-2023-001

Mr. Ian Sutton, Director of Engineering
DTG Recycle
P.O. Box 14302 Mill Creek, WA 98082

By email: isutton@dtgrecycle.com

Re: Monthly Data Assessment Report DTG Yakima Landfill Fire Incident – Sept. 2026

Dear Mr. Sutton,

LFCI has prepared a monthly review and update of gas and temperature monitoring data that is being collected at the DTG Recycle Landfill Fire in Yakima, Washington. The update includes maps showing the spatial distribution of temperature, carbon monoxide, and oxygen within the monitoring area and presents the data collected, highlighting trends and interpreting the results.

Data continues to support overall cooling of the landfill with temperatures trending downward in all wells. The rate of cooling is becoming slower over time, which is typical of landfill fires on account of the strong insulating properties of C&D waste.

In October, CO values have been on a downward trend, except at T-7S which has been on a noisy downward trend. Spatial plots indicate that the most active smolder has now shifted to the south, with activity centered on T-6 and CO concentrations in the lower slopes have dropped noticeably.

Temperatures in all wells have continued trending downward, but the rate of cooling is becoming very slow in the warmest wells which are all now converging on 212F, the temperature at which water starts to boil, and conversely, water vapour converts to liquid on cooling. This phase change releases a lot of heat and as a result, cooling below 212F takes a long time.

Plotting the temperature data in plan view clearly shows that the area affected by fire has markedly decreased over time. As stated in previous monthly updates, LFCI believes that the data shows a small smolder continues to be active near GP-3, and that the rate of smolder activity in this area is steadily decreasing, however slowly. Based on the extinguishment target of temperature dropping below 180°F, on account of the flattening of the temperature curves of the hottest wells, we are now projecting that the fire will be declared extinguished late 2027 if no further intervention is taken to inhibit air entry.

Overall, O_2 levels in the upper zone of waste have been declining since July, 2025. In October, O2 has recovered downward to 7% from a large uptick to 15% in Sept.

Based on this assessment, LFCI recommends that monitoring continue on a weekly basis until it can be shown that CO levels in all locations have decreased to below 500ppm, once

corrected for cross sensitivity effects. At that time, monitoring can be decreased for prevention purposes.

We continue to be concerned about the decreasing effectiveness of the soil cover that has been placed at this site. We suspect that on account of desiccation of the soil cover, it is allowing more air to enter the subsurface. As a result, the goal oxygen levels of less than 5% are not being reached. We believe that the landfill phase would benefit from final progressive closure with a geomembrane cap, which would inhibit further oxygen intrusion.

We trust that this report provides the information you require, and should you need anything else please don't hesitate to contact the undersigned.

Sincerely,

LANDFILL FIRE CONTROL INC.

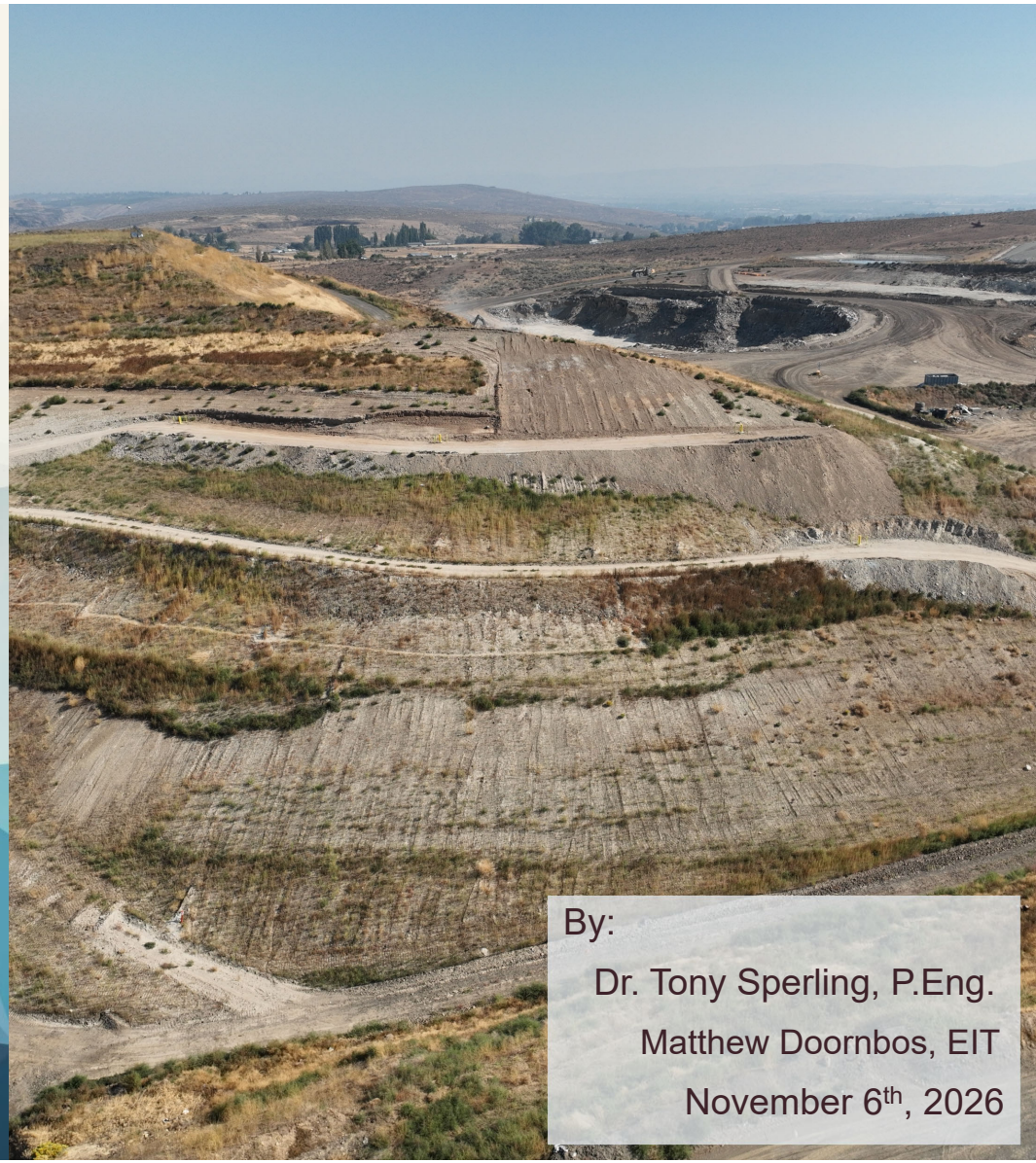
Dr. Tony Sperling, P.Eng.
President

November 9th, 2026

DTG LPL LANDFILL FIRE INVESTIGATIONS AND MITIGATION

Monthly Monitoring Data Review

October 2026



By:

Dr. Tony Sperling, P.Eng.

Matthew Doornbos, EIT

November 6th, 2026

Introduction

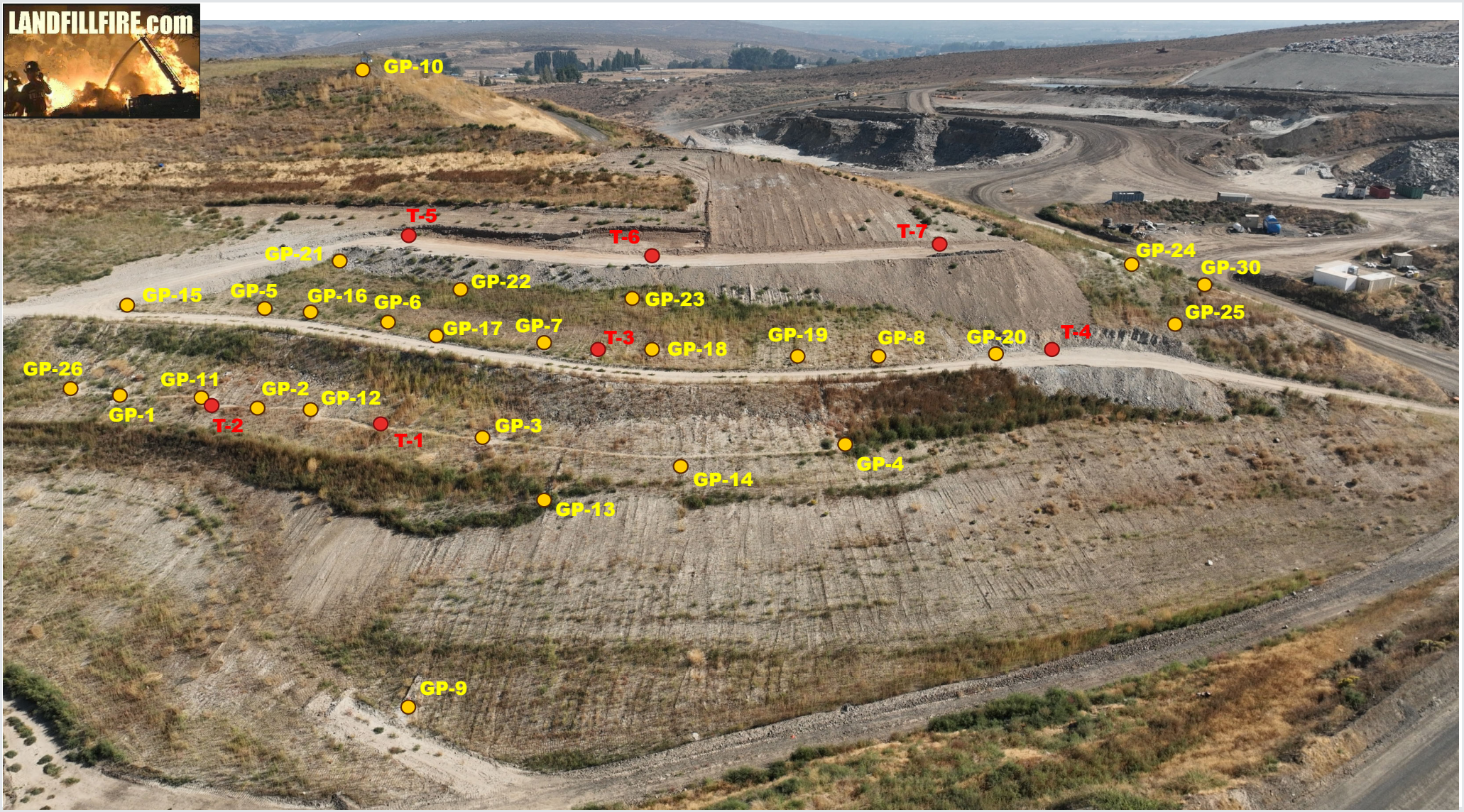
BHP Locations

- There have been 31 Ground Probes installed, 3 of which are no longer monitored. 26 probes are monitored weekly, and 2 are monitored on a bi-weekly basis.
- Three additional thermistor wells were installed in mid-2023, which are monitored at varying depths to better determine the location of the hotspot.
- Four more thermistor wells were installed in mid-2025 to better determine the extent of the area with elevated temperatures as the fire comes closer to extinguishment.

Monitoring Data Review

- The monitoring locations are measured for levels of gas that would indicate a fire or increased thermal activity, including Carbon Monoxide, Oxygen, VOCs, Hydrogen, Hydrogen Sulfide, and Methane.
- In addition to gas levels, the temperature in each well is recorded.

Overall Interpretation


LANDFILLFIRE.com
GP-10
T-5
T-6
T-7
GP-21
GP-22
GP-23
GP-24
GP-30
GP-15
GP-5
GP-16
GP-6
GP-17
GP-7
T-3
GP-18
GP-19
GP-8
GP-20
T-4
GP-25
GP-26
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GP-1
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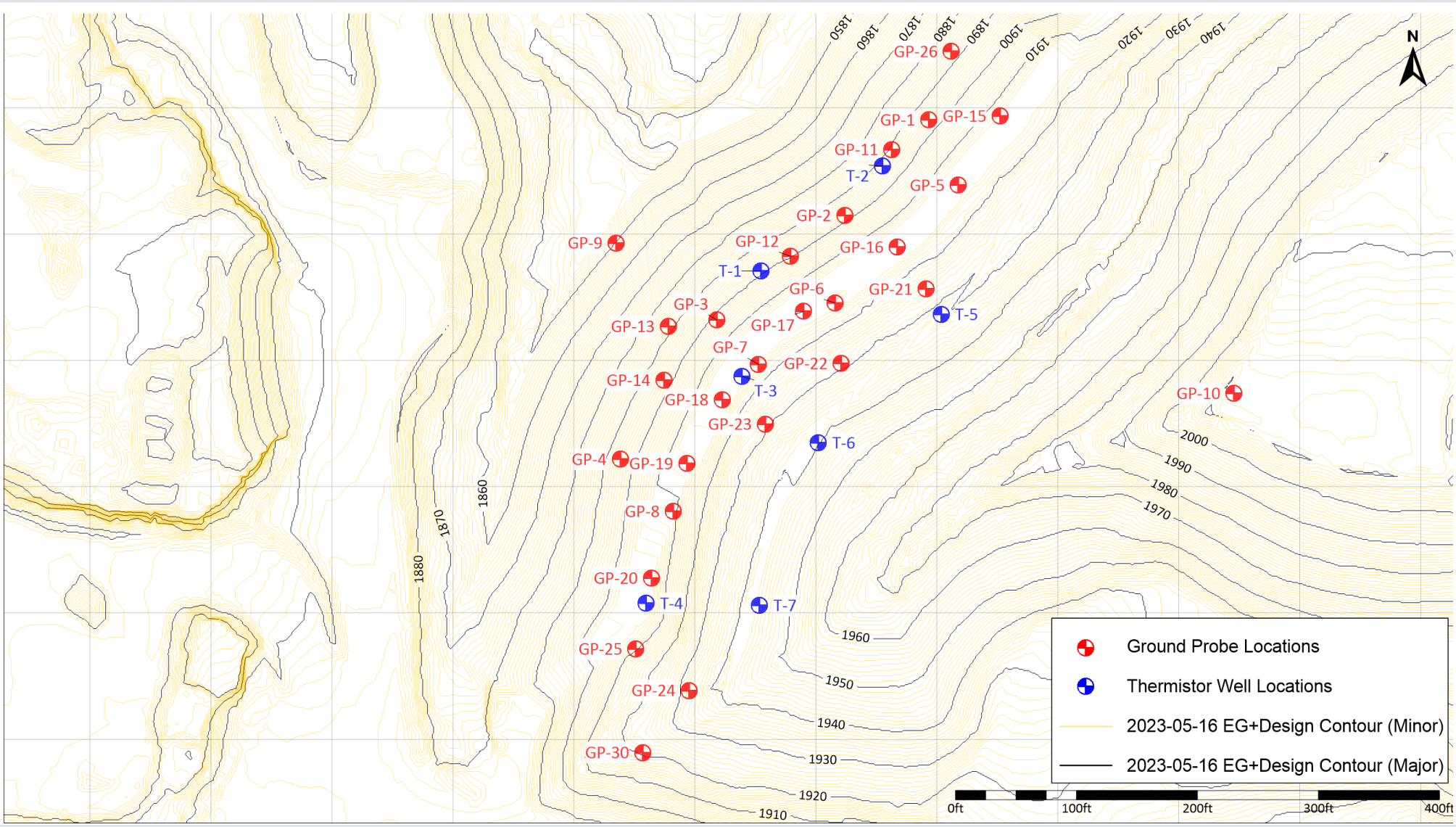
GP-3
GP-4
GP-14
GP-13
GP-9



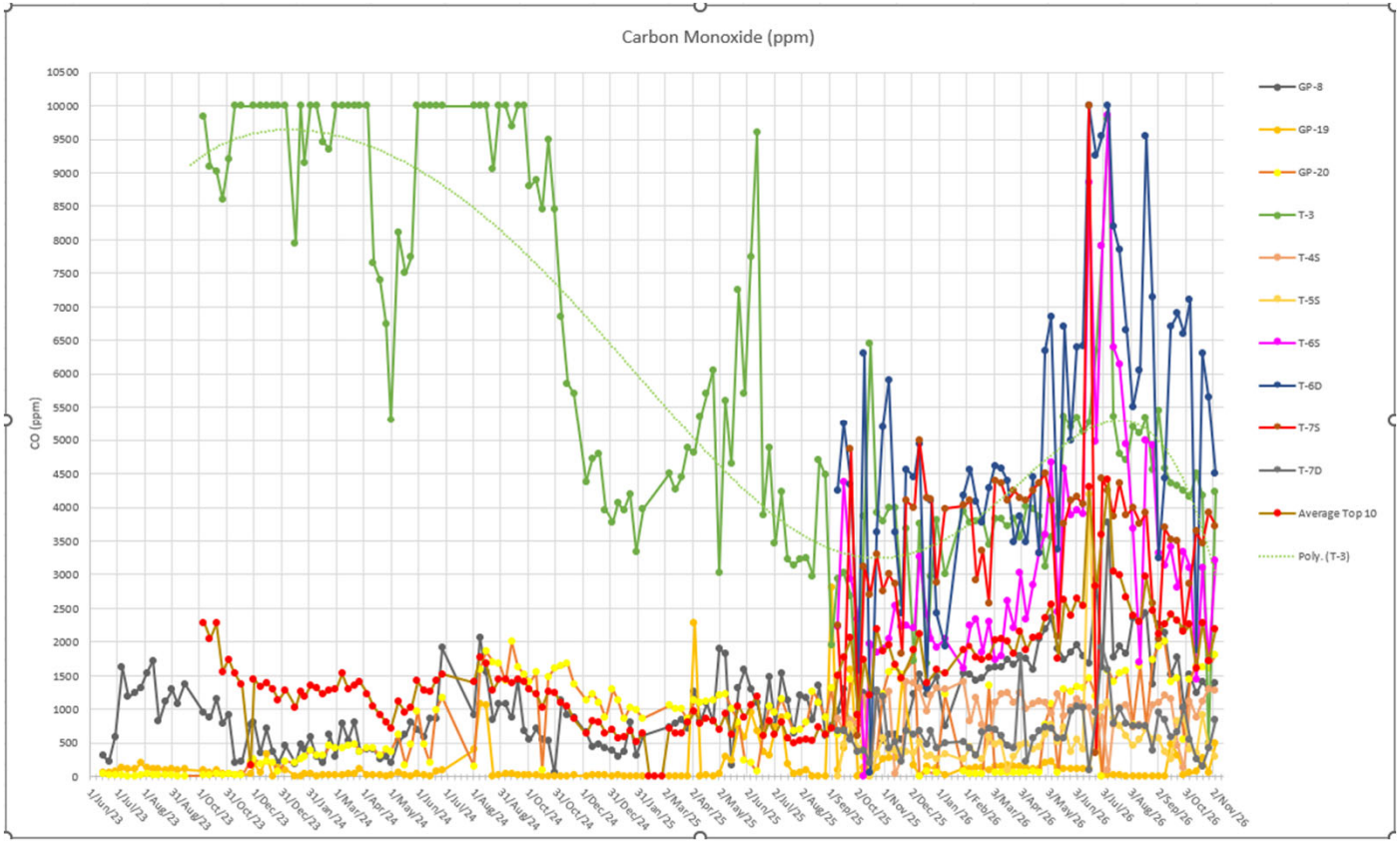
N
GP-26
GP-1
GP-15
GP-11
T-2
GP-5
GP-2
GP-9
GP-12
GP-16
T-1
GP-6
GP-21
GP-3
T-5
GP-13
GP-17
GP-7
GP-22
GP-14
T-3
GP-18
GP-10
GP-23
T-6
GP-4
GP-19
GP-8
GP-20
T-4
T-7
GP-25
GP-24
GP-30
1850
1860
1870
1880
1890
1900
1910
1920
1930
1940
1960
1950
1940
1930
1920
1910
2000
1990
1980
1970
1860
1870
1880
Ground Probe Locations
Thermistor Well Locations
2023-05-16 EG+Design Contour (Minor)
2023-05-16 EG+Design Contour (Major)
0ft
100ft
200ft
300ft
400ft

Carbon Monoxide

Overall, the high CO observed in some of the monitoring wells has shown a decrease over the past month. Some spikes in CO levels will continue to be monitored to ensure they do not persist as a consistent measurement.

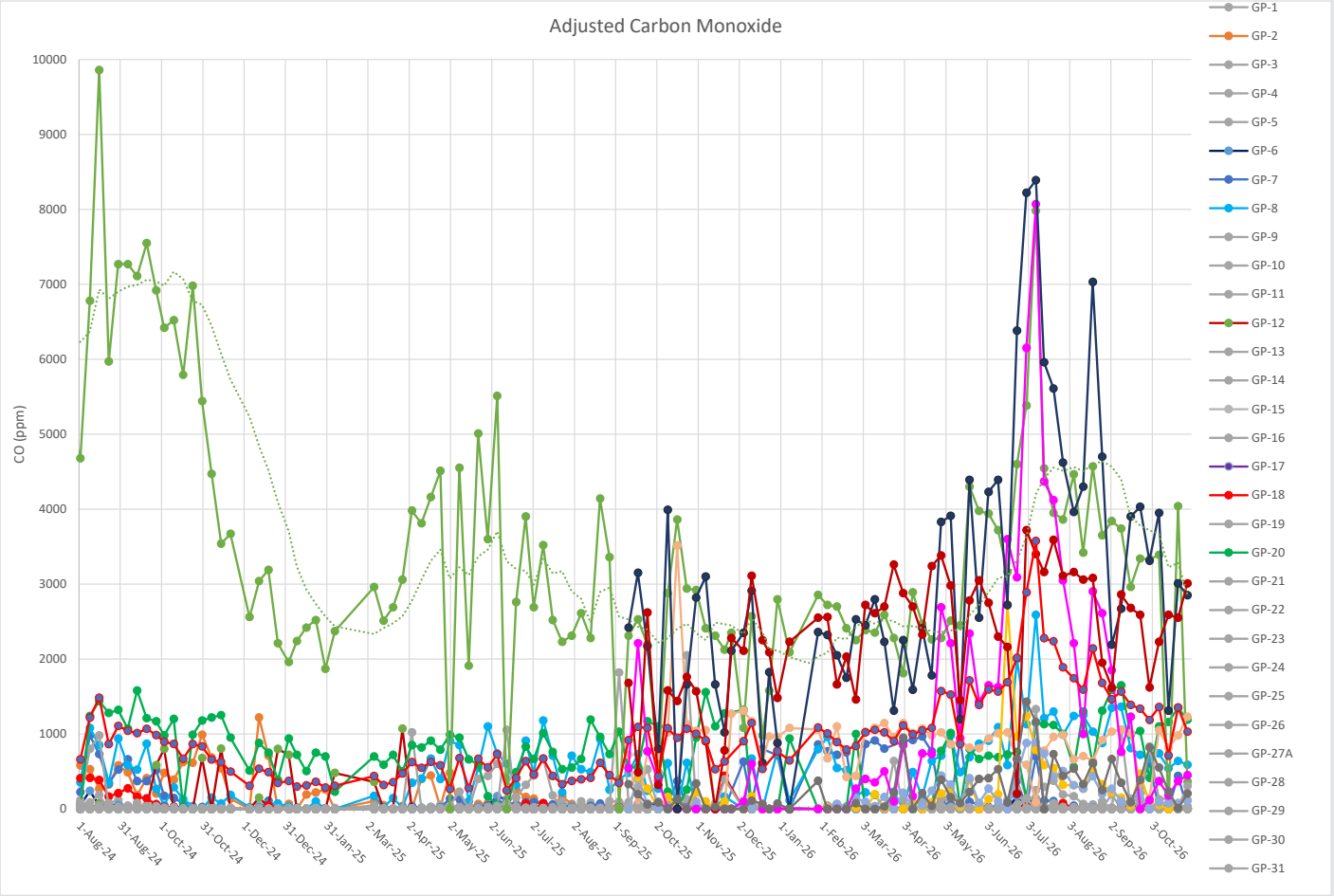
The highest readings are currently being observed at T-6D, T-3, T-7S and T-6S. Readings in T-6S, T-6D, and T-3 continued to trend downwards in October but the readings in T-7S have increased somewhat to levels seen in July and August of 2026.

In the spatial plan, the green zone downslope has shrunk significantly in the last week, indicating reduced expansion of the CO impact zone and a less active smolder.

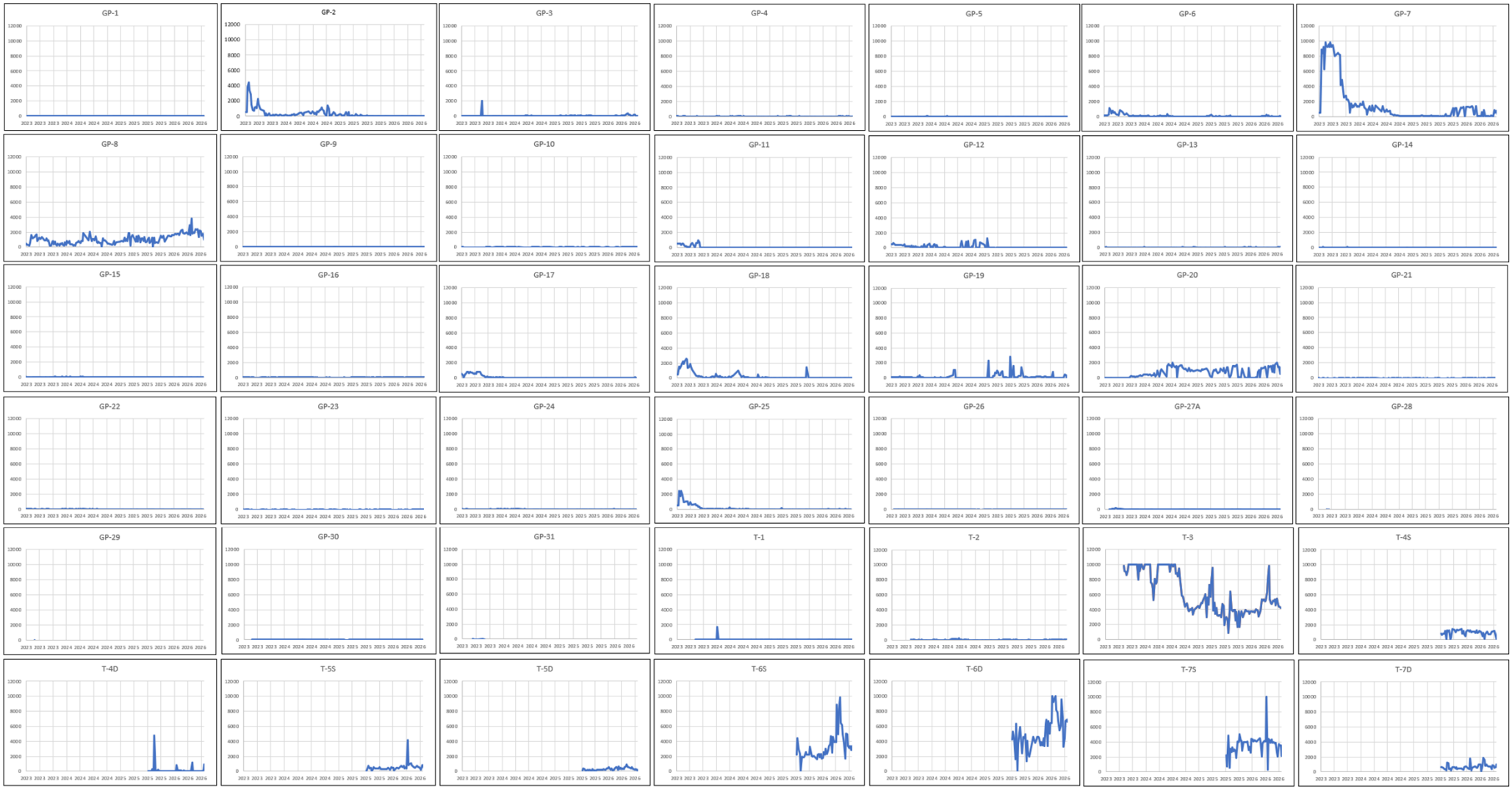


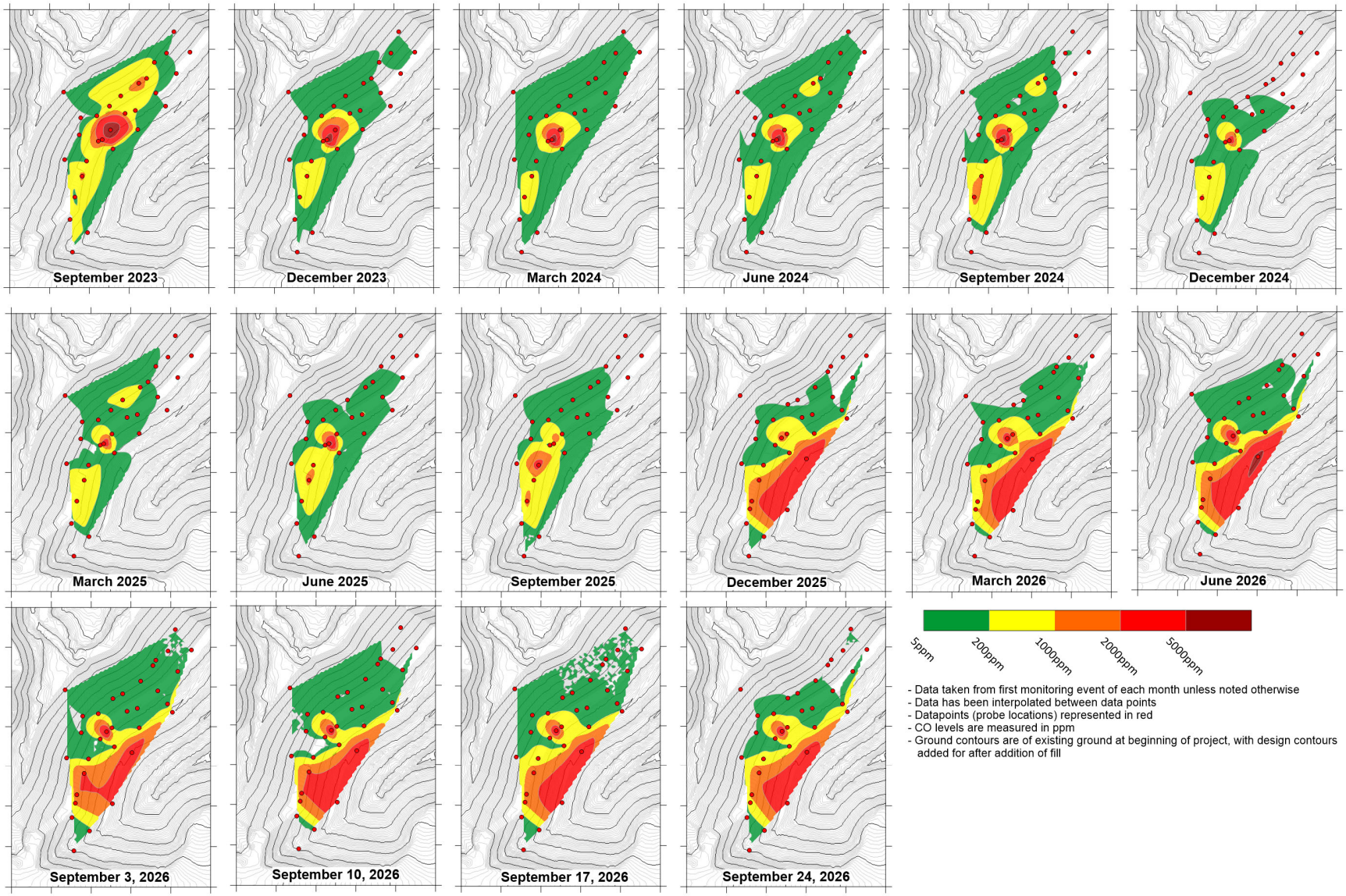
CO Adjusted for H2 Gas

Adjusted CO measurements are trending in a similar pattern to unadjusted CO, with a general decrease over the past few months.



CO Levels by Individual Wells




September 2023
December 2023
March 2024
June 2024
September 2024
December 2024
March 2025
June 2025
September 2025
December 2025
March 2026
June 2026
September 3, 2026
September 10, 2026
September 17, 2026
September 24, 2026
5ppm
200ppm
1000ppm
2000ppm
5000ppm
- Data taken from first monitoring event of each month unless noted otherwise
- Data has been interpolated between data points
- Datapoints (probe locations) represented in red
- CO levels are measured in ppm
- Ground contours are of existing ground at beginning of project, with design contours added for after addition of fill

LFCI Temperature Scale

LFCI uses this temperature scale to evaluate subsurface temperature data.

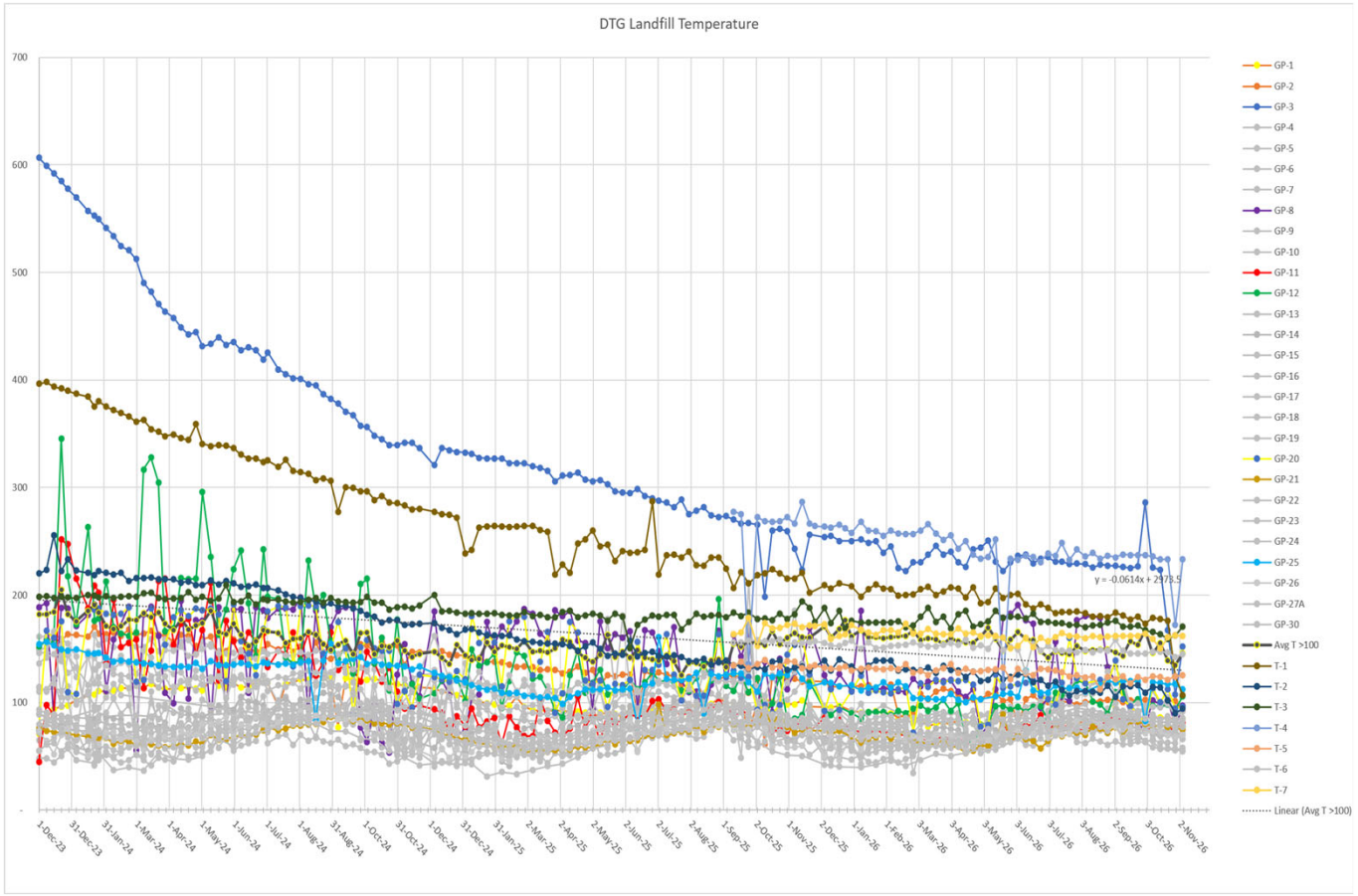
Currently, the highest recorded temperature at the site is 237.3F, at T-4 which is at the low range of the “Suspected Subsurface Exothermic Reaction in MSW”, indicative of a very gradual smolder.

This well continues on a steady cooling trend, with temperatures decreasing from a high of 286F in November of 2025.

Fahrenteit Deg F	Celcius Deg C			
1,832	1,000	Fire		Fire
1,382	750			
932	500			
608	320		Upper Limit of Torrefaction (low temp. Pyrolysis)	
601	316		Wood ignites spontaneously	
500	260	Exothermic Deay of Wood		Exothermic Pyrolysis
400	204			
392	200			
392	200		Minimum temperature for Industrial Water Gas Shift Reaction (fast)	
324	162		Melting point of EVOH Resin	
300	149			
290	143	Suspected Subsurface Exothermic Reaction in MSW		Possible Exothermic Reactions
280	138			
270	132		Melting point of HDPE Liner (125 to 130C)	
260	127			
250	121			
240	116			
230	110			
220	104		Trigger Temperature for Exothermic Chemical Activity (104C)	
212	100		Boiling Point of Water	
210	99	Heat Transfer and Exothermic Metal Oxidation		Chemical Heating Up
200	93			
190	88			
180	82			
176	80		Maximum Biological Temperature per LFCI experience	
175	79		Trigger for Elevated Temperatures in Gas Extraction Wells	
170	77			
167	75	Aerobic Biological Decomposition	Upper Limit of Aerobic Biologic Decomposition Temps.	Aerobic Warm
165	74		Maximum temperature for methanogenesis	
160	71			
150	66			
145	63		Temperature to which vaiance issued for running hot wells	
140	60			
131	55	Anaerobic Biological Decomposition	NSPS standard for maximum temperature in well	Anaerobic Normal
130	54			
120	49			
110	43			
100	38			
90	32			
80	27			
70	21			
60	16			

Temperature (F)

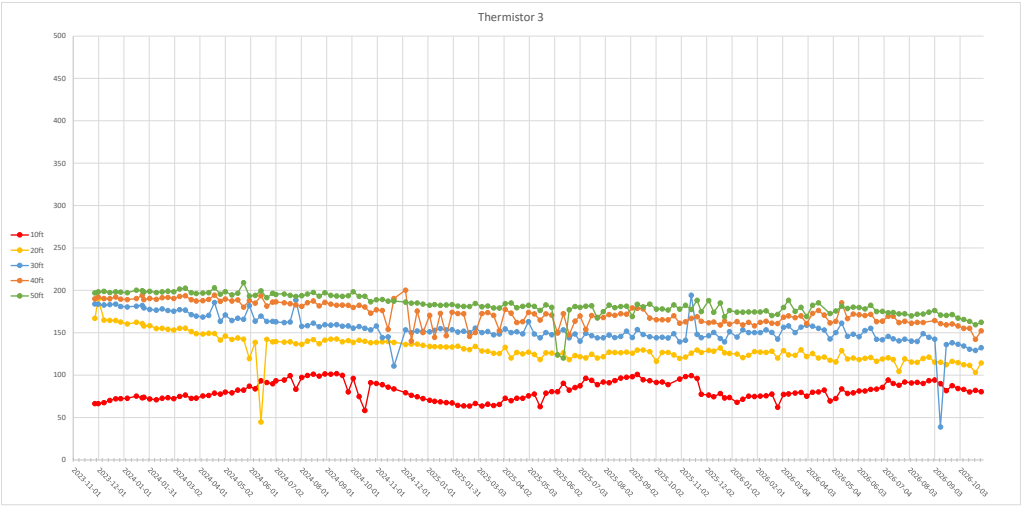
October monitoring saw the continued leveling off of the cooling trend around 220F, except for the last monitoring event of the month which saw a sharp dip in all high temperature wells. It is suspected that these are outlier readings as readings jumped back up in the first week of November.

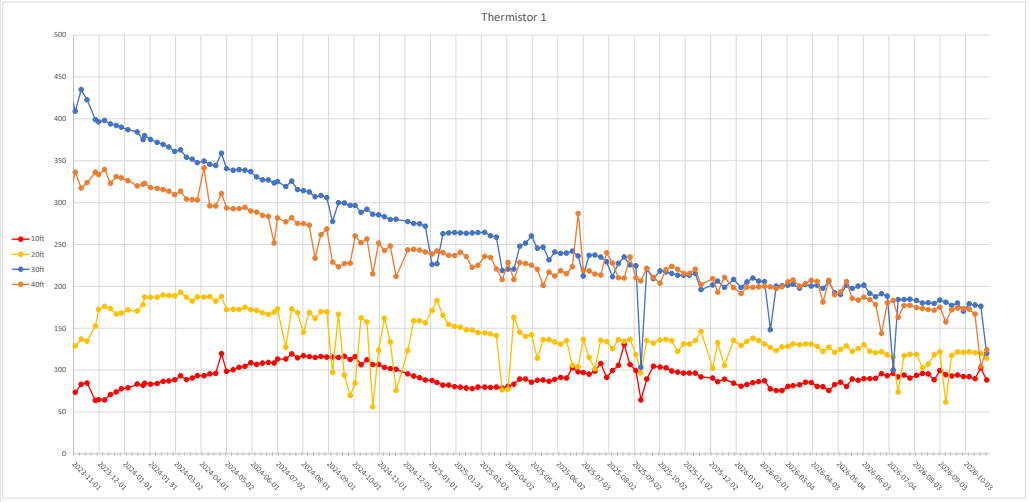


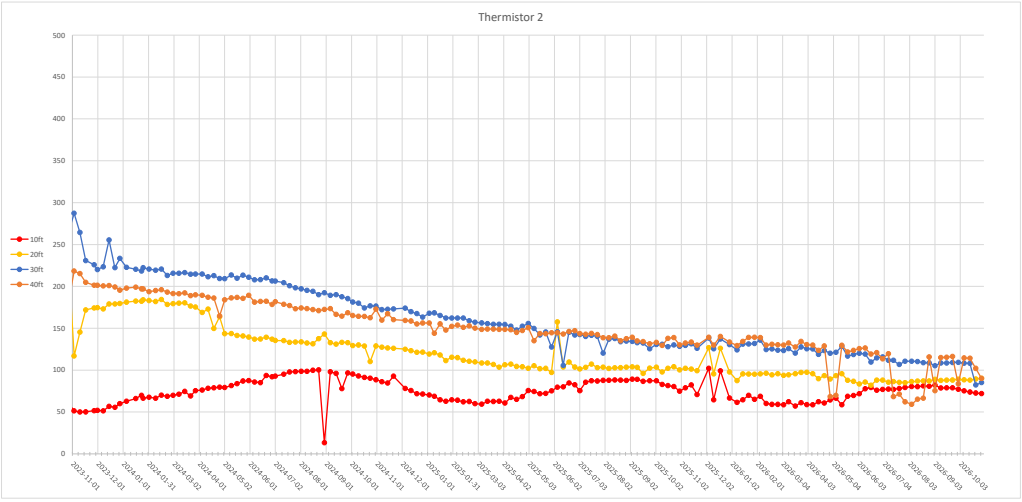
Thermistor Temperatures (T1-T3)

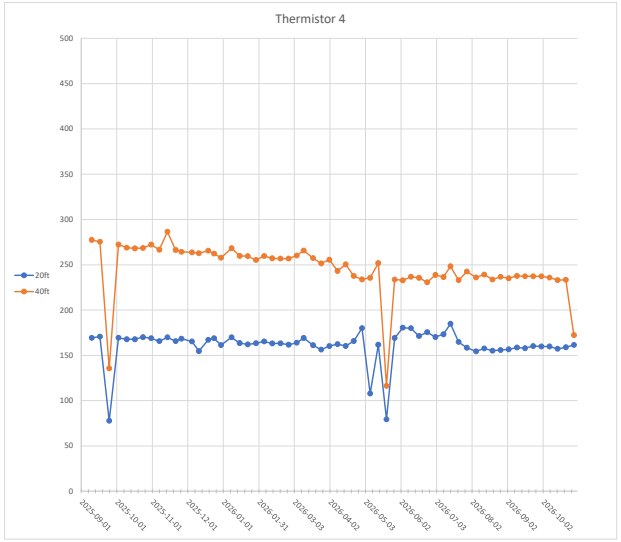
Thermistor temperatures are generally trending downward, but the rate of cooling continues to slow in T-1, which was historically the hottest well. T-2 and T-3 temperatures are all trending downward as well. Shallow locations in all three thermistor wells continue to show seasonal warming and cooling trends. With all temperatures in the thermistors dropping below 200F, temperatures are now below the boiling point of water, and in the chemical heating up zone, no longer indicative of exothermic activity.

T-1 and T-2 saw sharp decreases in temperature during the last two monitoring events, LFCI will monitor to see if these are outliers or a trend.







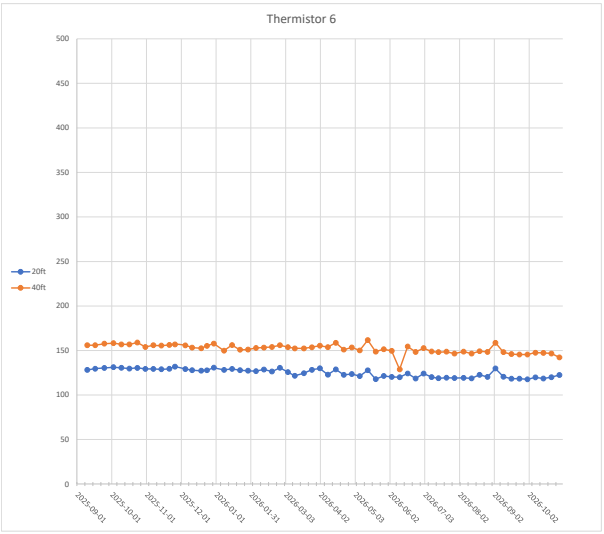


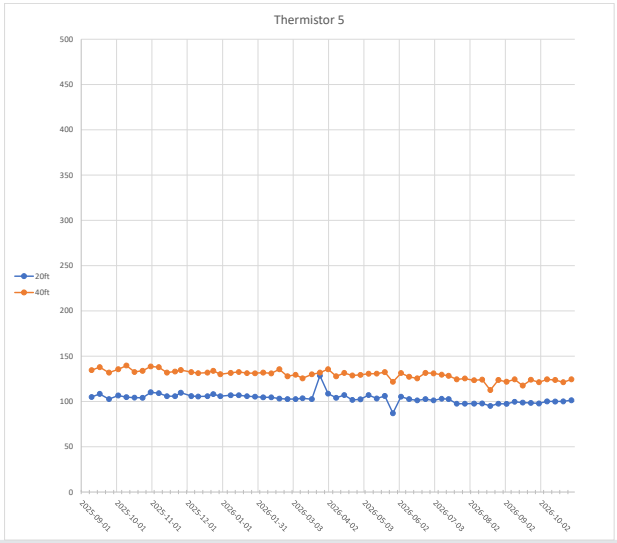
Thermistor Temperatures (T4-T7)

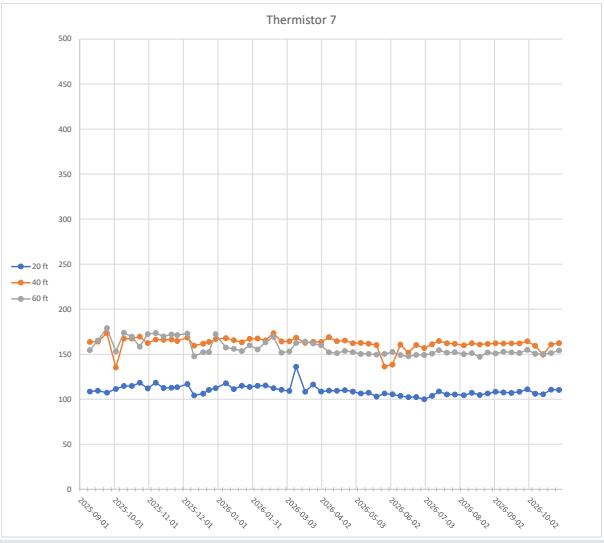
The thermistors installed in 2025 exhibit mostly stable trends, with little fluctuation in temperature seen over the year of monitoring. T-4 has shown a gradual decrease in temperature over time, while other wells remain at the same level (but at cooler temperatures) throughout the monitoring period.

The observed temperatures in the wells of 100 to 150F are normal temperatures of aerobically active landfills and at the low end of temperatures seen across the site. However, T-4 is exhibiting elevated temperatures similar to that seen at the hotspot in GP-3, indicative of nearby smoldering activity.

As described earlier, the latest monitoring event has shown a significant decrease in T-4 temperature, LFCI believes this is an outlier but will continue to monitor.





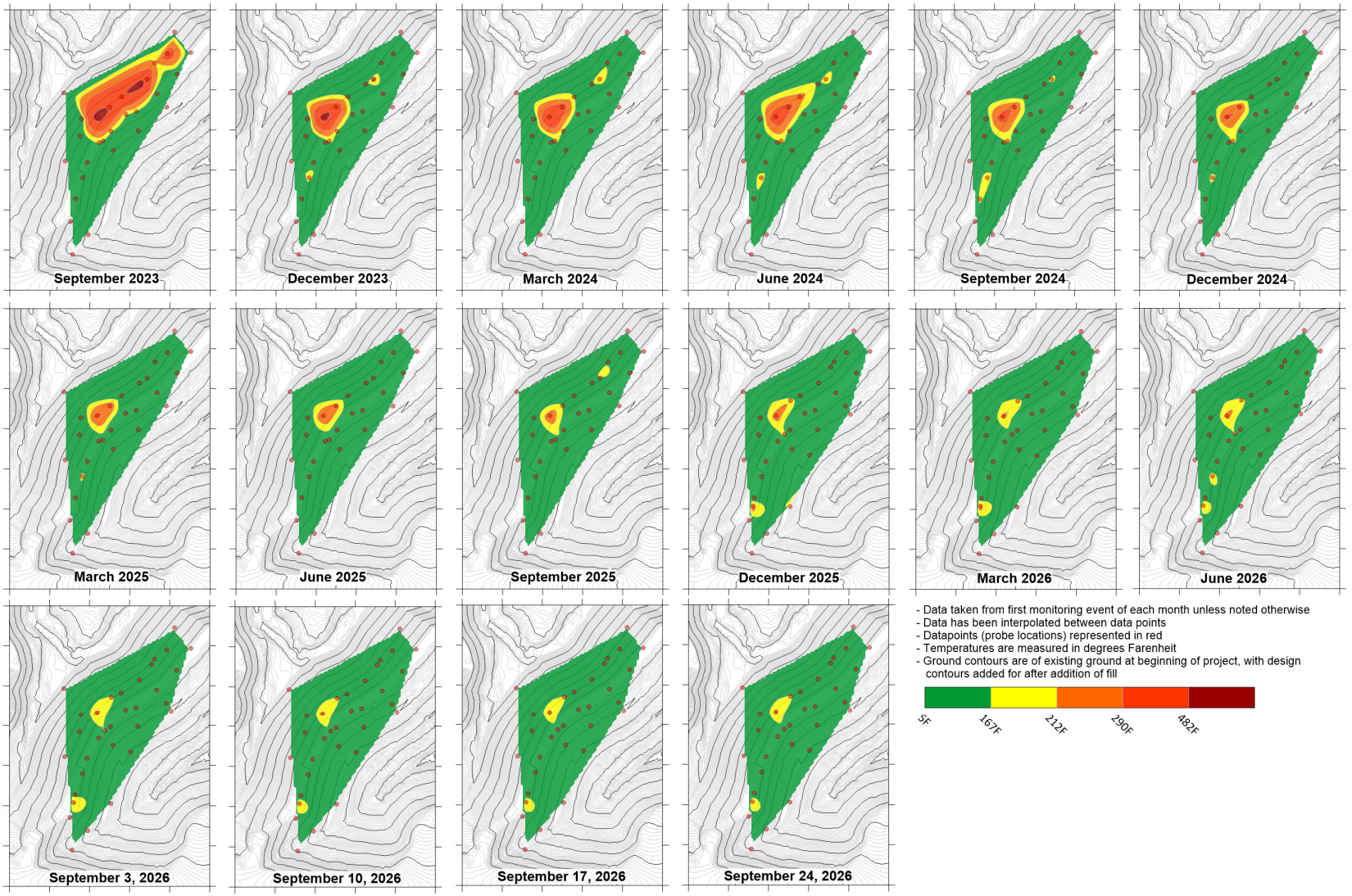


Heat Map Interpretation

The heat map continues to show that the main fire zone has been cooling over time and that the smolder is being effectively contained. However, a new hot zone was identified in the southern portion of the site around T-4 and GP-20 since late 2025. During LFCI's initial site inspection active smoke and elevated temperatures were noted in that area, and this area was covered with soil as part of the initial fire response. Additional soil cover was placed following a road cut excavation for drill rig access. Since the soil was placed, the wells have been on a slow and steady cooling trend with the size of the elevated temperature zones steadily shrinking over time.

Temperature Mapping

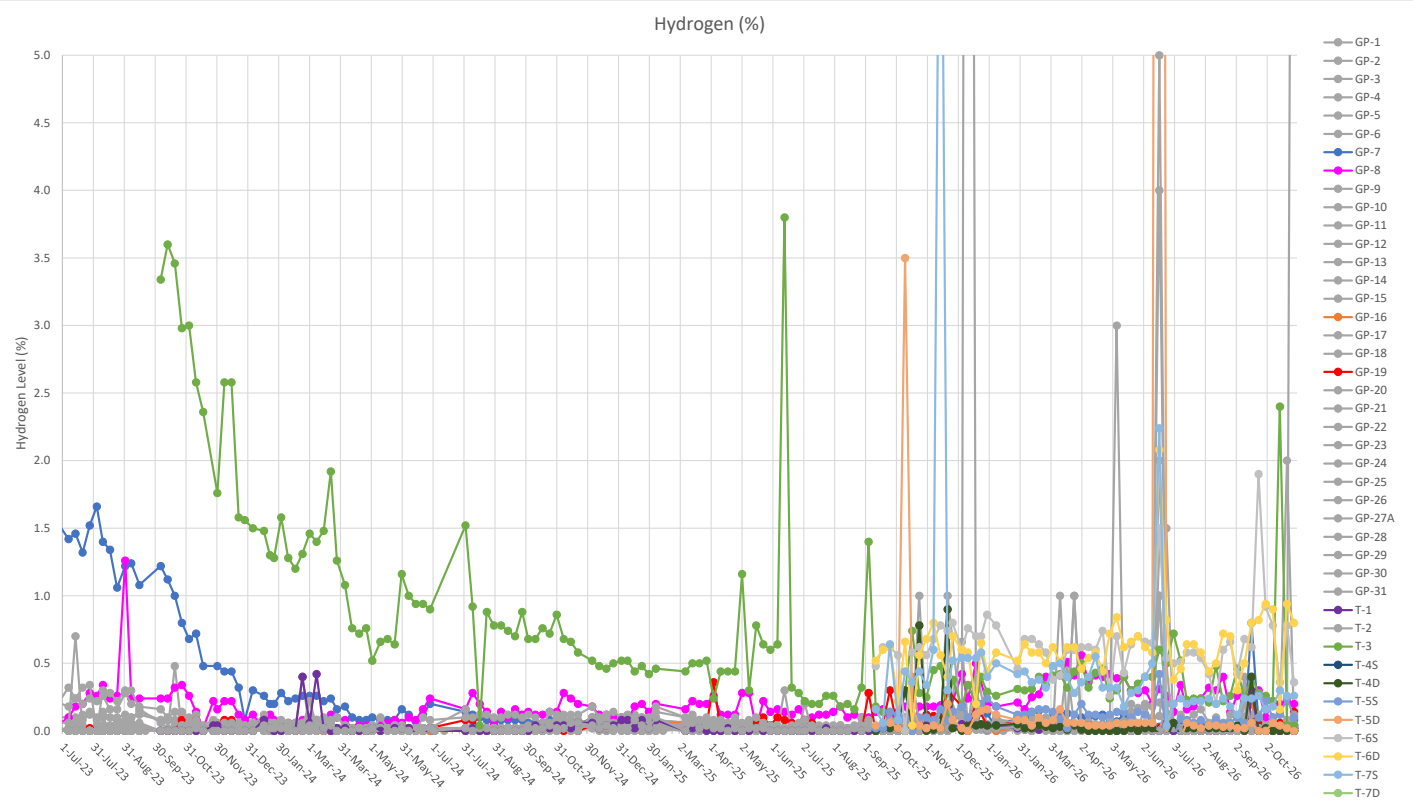
- Central fire zone temps have been steadily decreasing.
- Southern zone flared up in Dec. 2025. Has been cooling slowly since covered with soil



Hydrogen

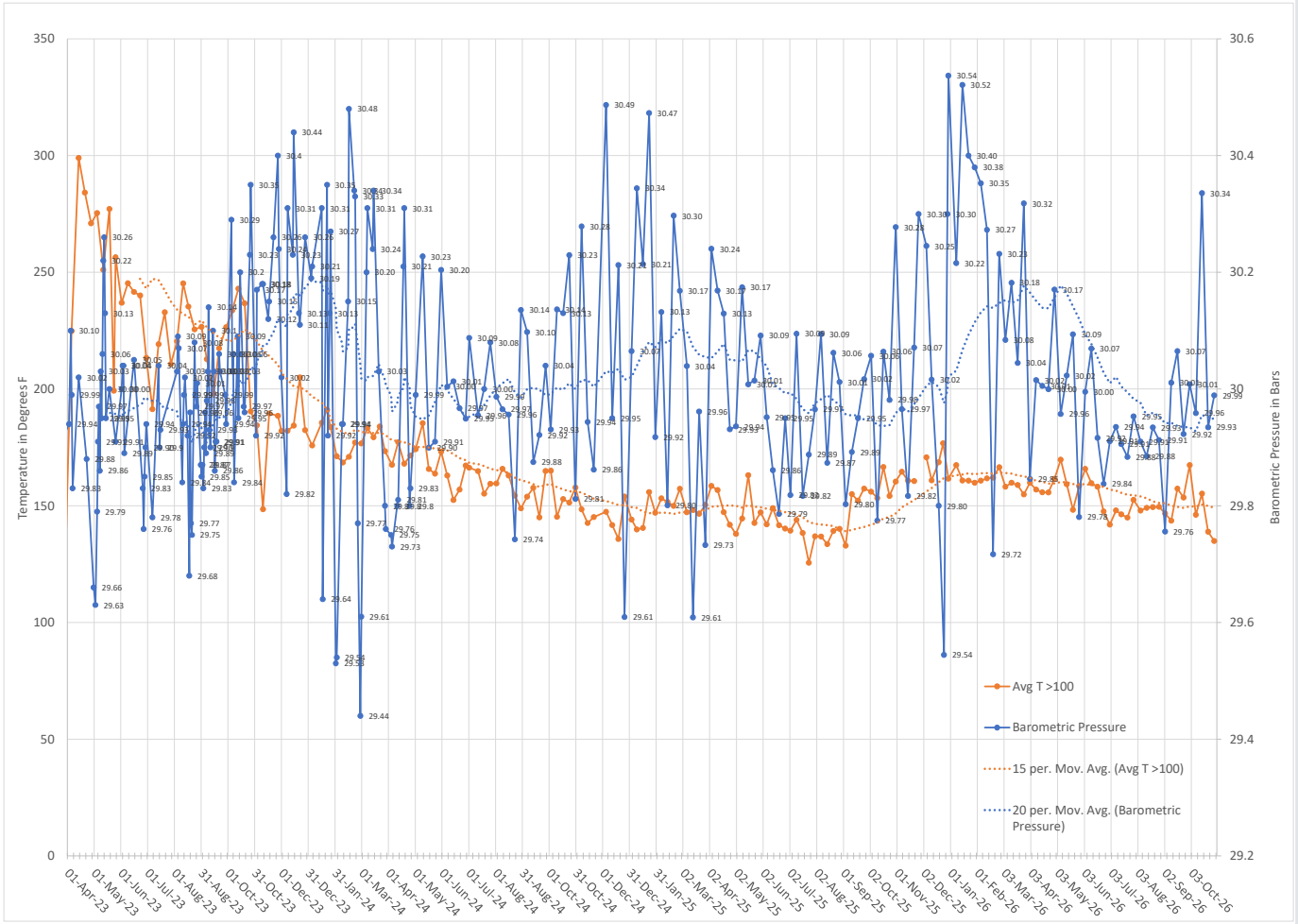
The hydrogen measurements in October did not exhibit any major trends except for generally higher readings in T-6D throughout the month.

Hydrogen gas is one of the products of smolder activity, with the data indicating that a low level smolder continues to be active in the area. The spikes in some measurements seem to be outliers and are not indicative of a high trend.



Barometric Pressure

LFCI expects that over the next winter months the ambient pressure at the site will increase once again and potentially increase the oxygen intrusion in the landfill. This may trigger an uptick in smolder activity and some increases in CO and well temperature.

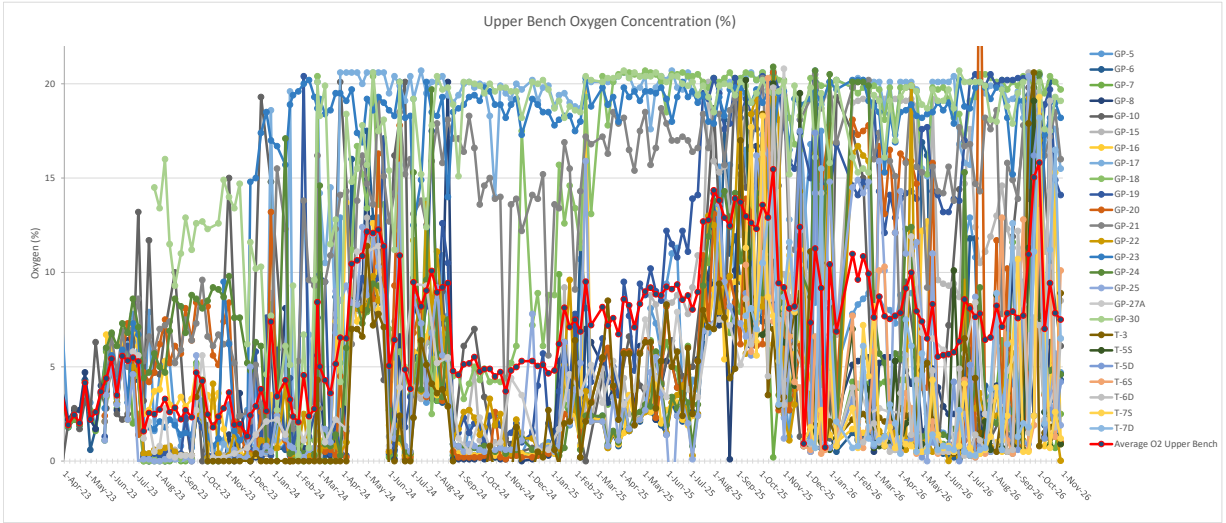


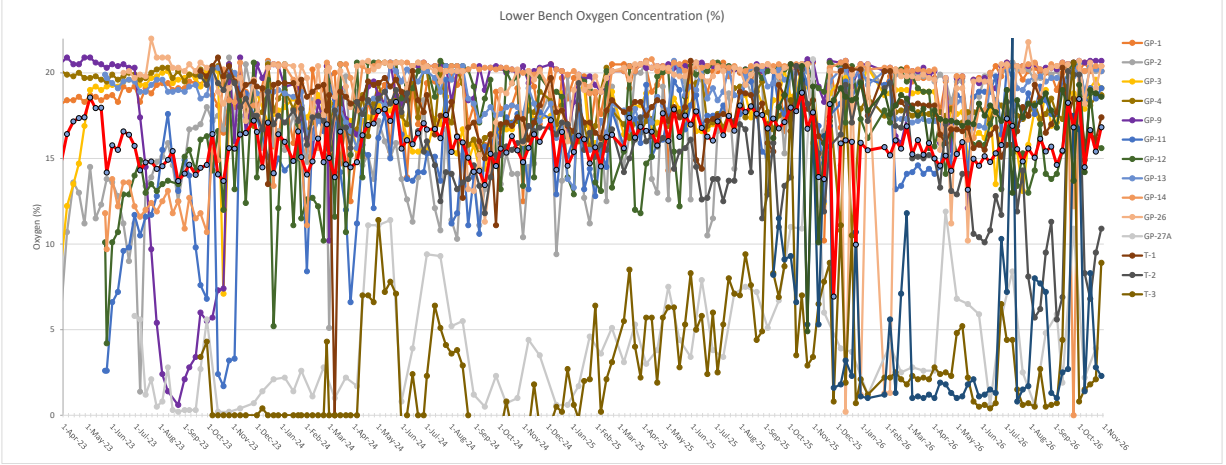
Oxygen

The oldest portion of the landfill is relatively inert and biologically inactive, producing very little methane. As a result, the pore space is full of atmospheric air leading to the generally high oxygen concentrations. The time series plots are difficult to read due to large swings in some of the wells, however in plan view, oxygen levels appear to be on a downward trend since August of 2025.

The red line with black markers represents average O2 concentrations in the Upper Bench. Although there is a seasonal oscillation with higher O2 levels in May through August each year, the general seasonal trend has been downward, with August highs in 2024 being 12%, in 2025 being 14% and in 2026 being 7%.

LFCI continues to be of the opinion that the landfill would benefit from additional capping of the landfill surface which would completely inhibit oxygen entry during pressure swing cycles.



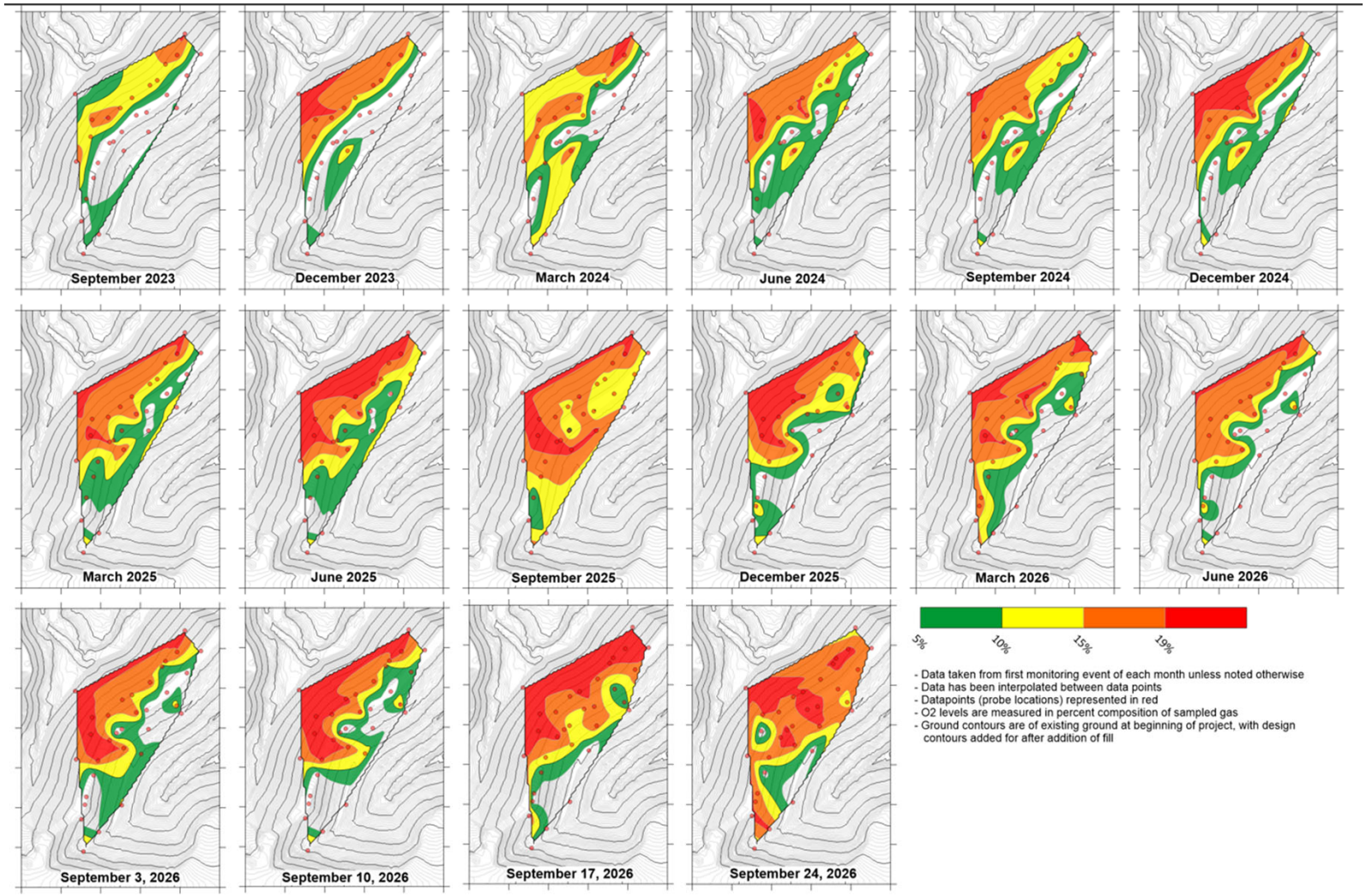


Oxygen Mapping

Oxygen levels in the lower slope slope have decreased in October, 2026.

O2 levels in upper slopes have increased slightly, with the clear zone shrinking, and the green and yellow zones moving up slope.

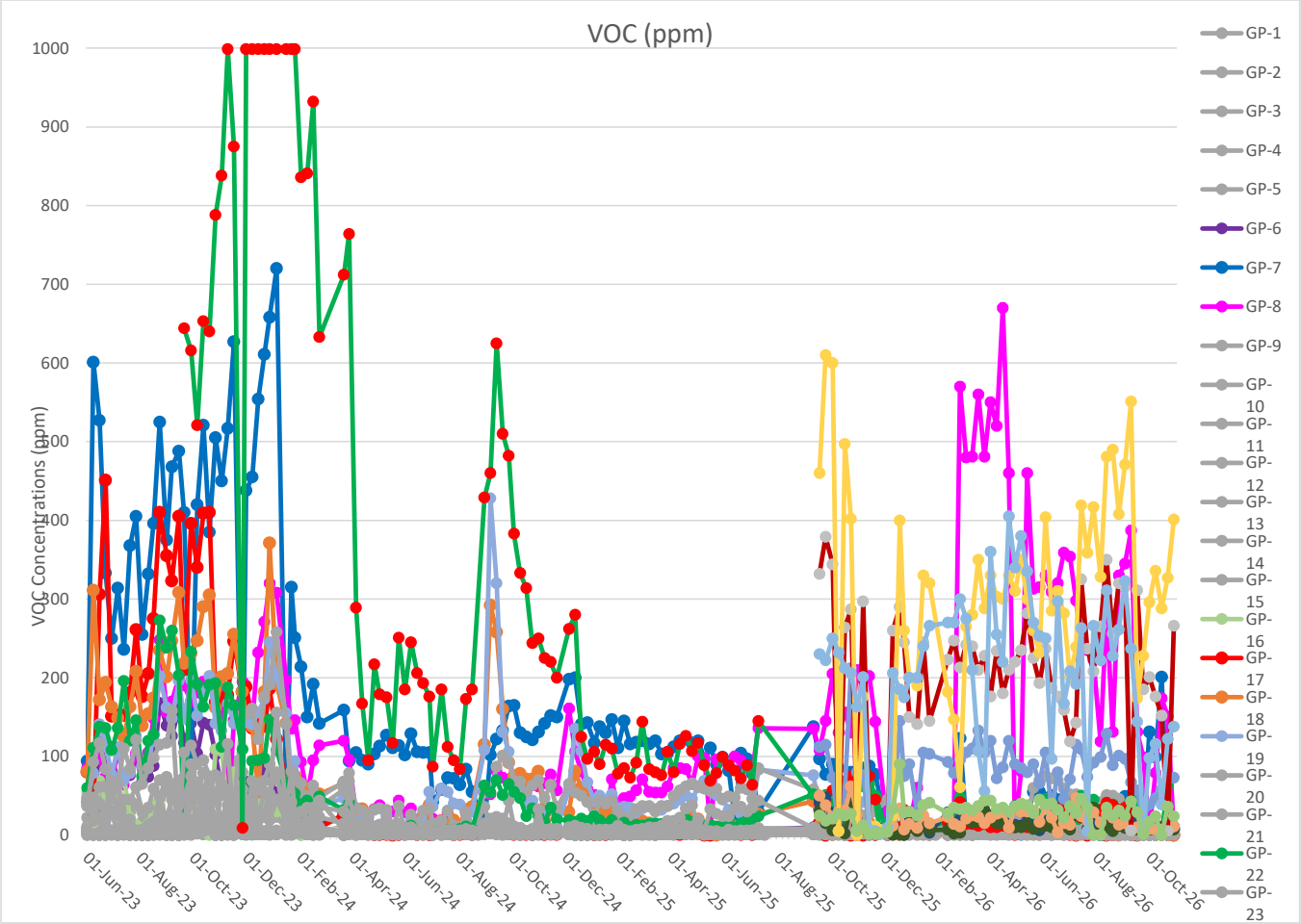
Goal is to get oxygen down to less than 5%. Current cover is not achieving this objective.



Volatile Organic Compounds

T-6 is the location showing the highest VOC levels in both the shallow and deeper locations through October, with a general increase over the month.

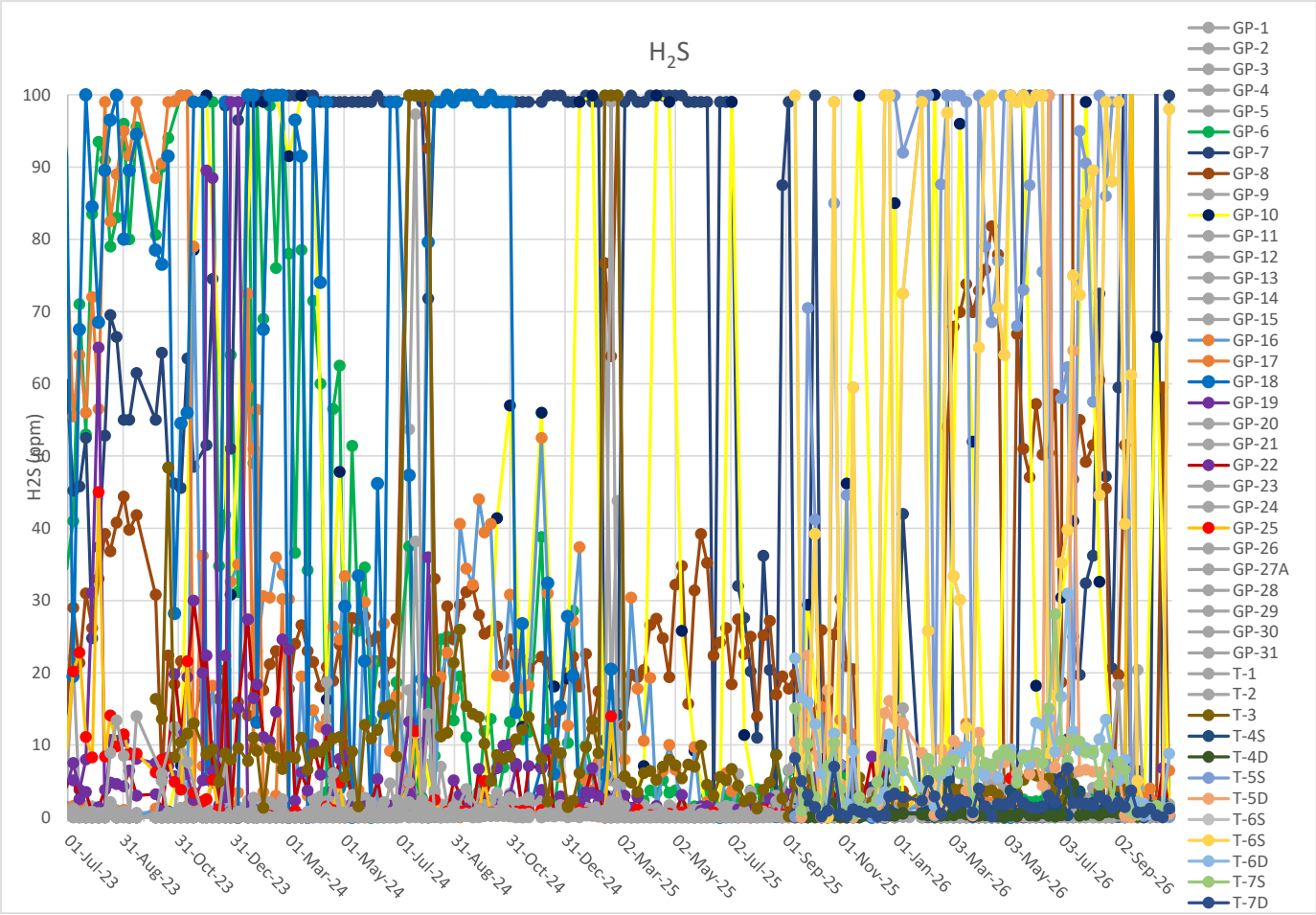
As the deeper portions of T-6 are deep in the landfill, they are less impacted by dilution effects of atmospheric air cycling in and out of the landfill during pressure swings. Consistently higher VOC concentrations are being observed at T6D.



Hydrogen Sulfide

H_2S data continues to be noisy, likely affected by atmospheric pressure fluctuation. Most locations are low, but some locations such as T-5S and T-6S continue to fluctuate wildly.

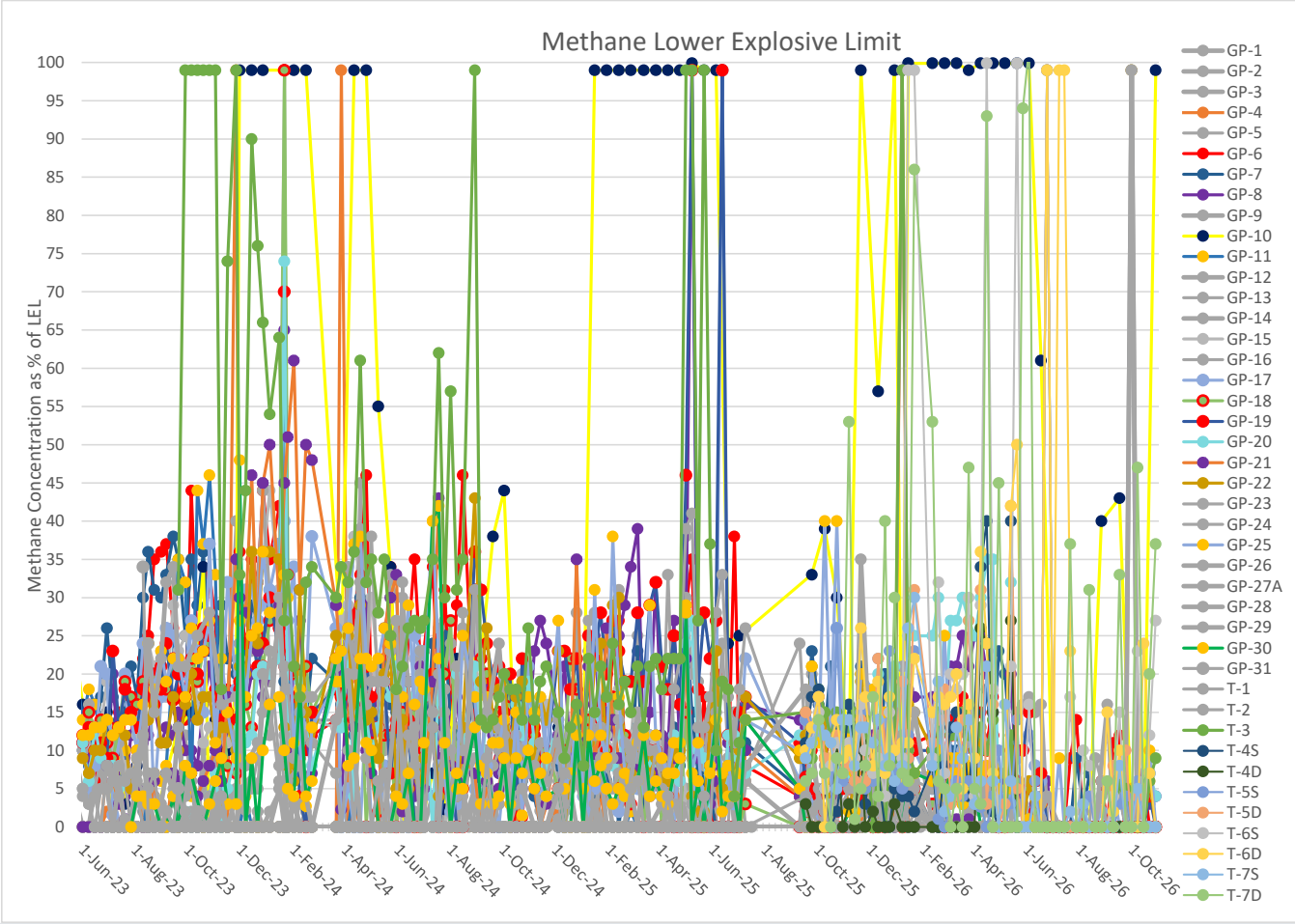
As mentioned previously, it is possible that the H_2S sensors are being impacted by CO cross interference. This seems to be confirmed as overall CO concentrations are decreasing, and the reported H2S concentrations are dropping as well.



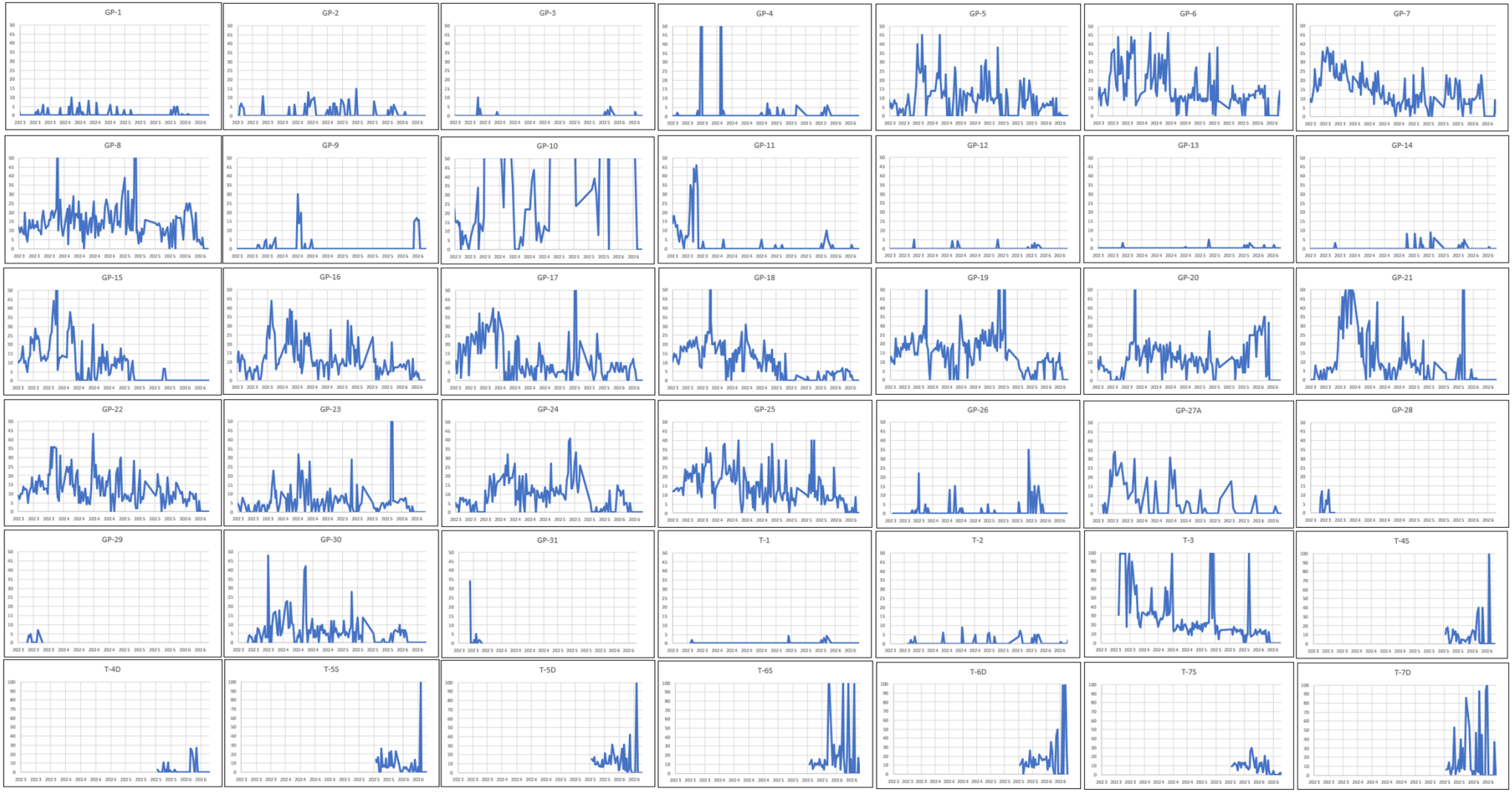
Lower Explosive Limit

Several data points are fluctuating wildly – the direct methane composition is a better indicator of levels within the landfill. Most monitoring points are reporting below 20% of the LEL.

There appears to be a general downward trend in LEL, suggesting that the landfill is becoming biologically inactive (dry tomb).



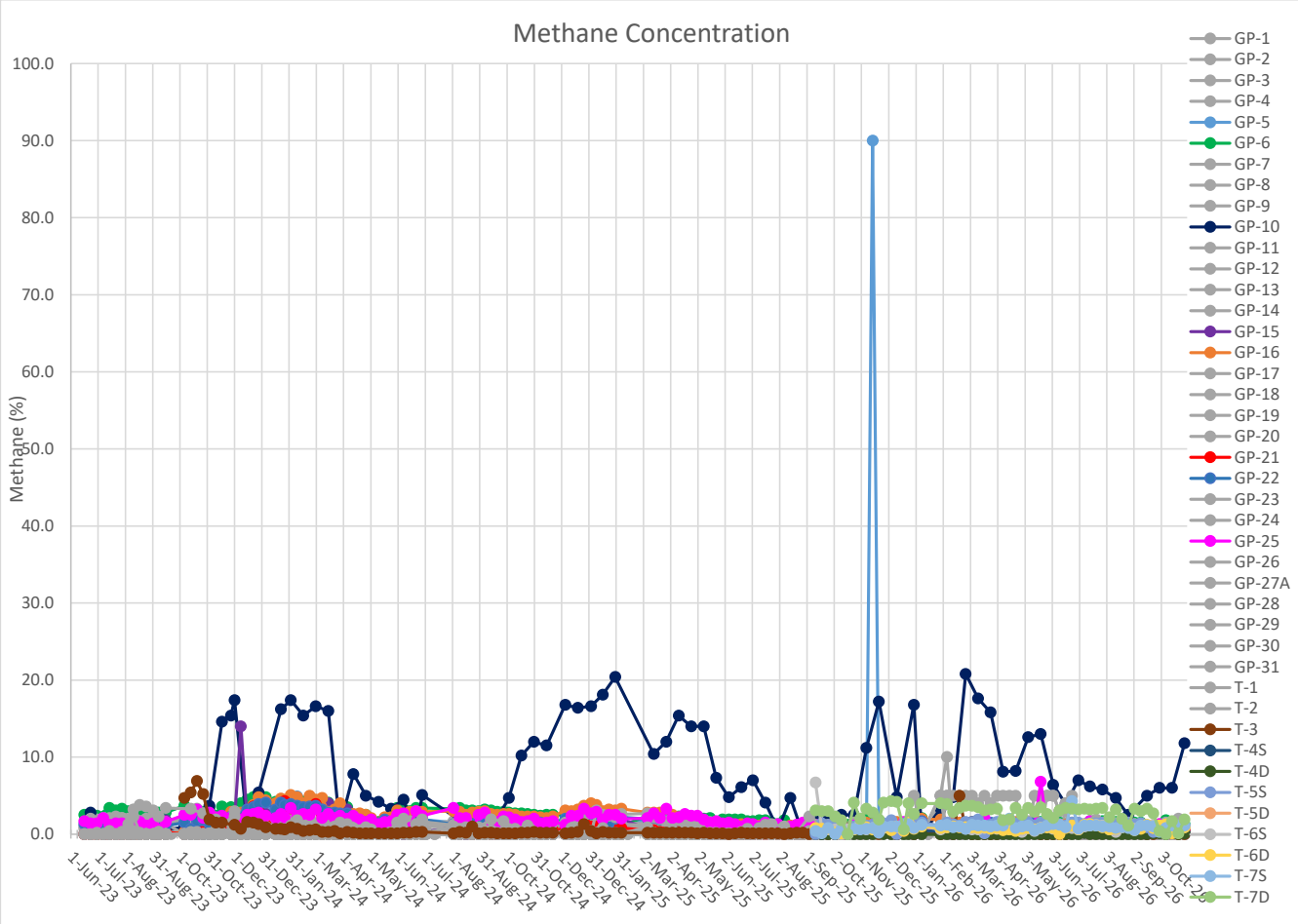
LEL for individual GP

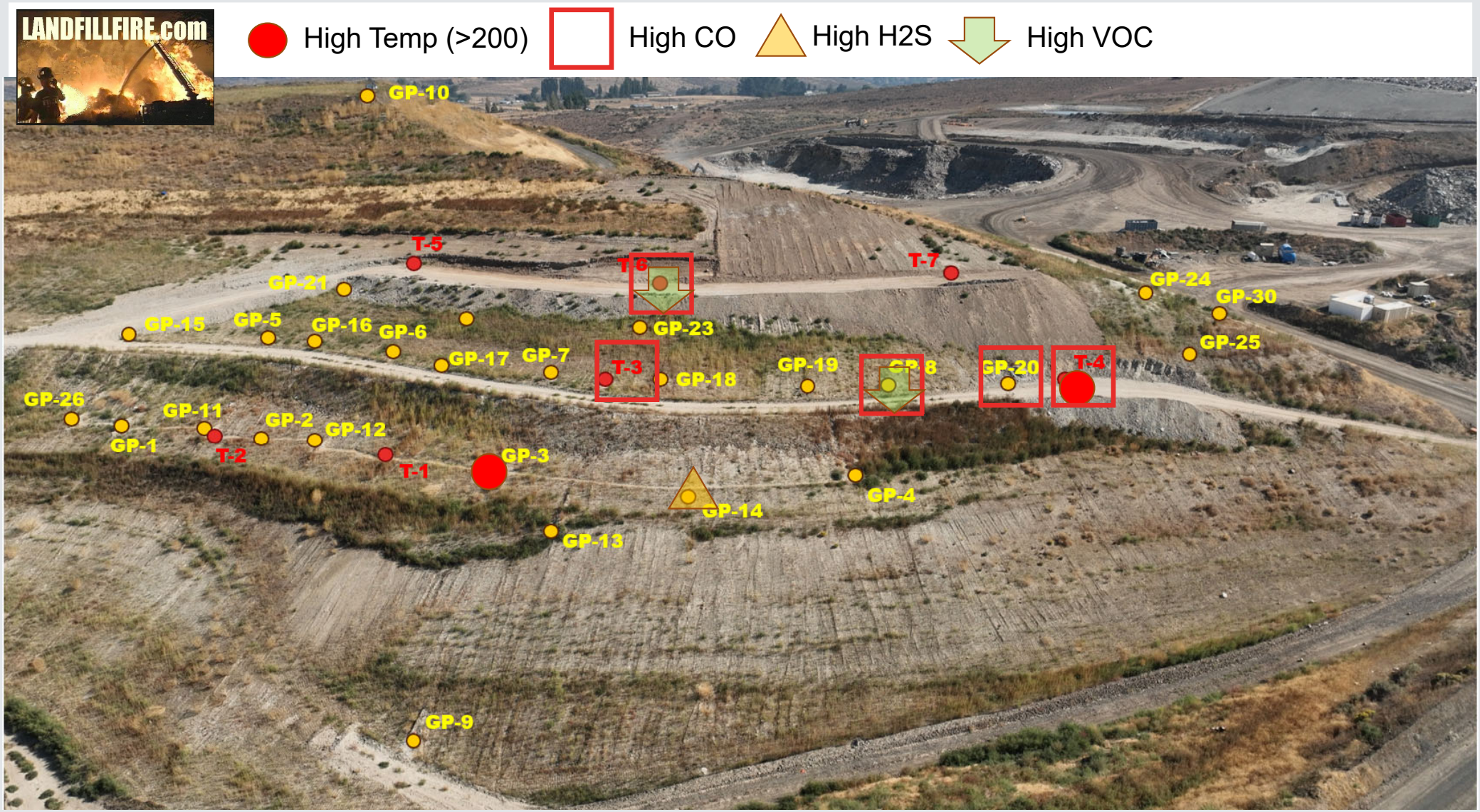


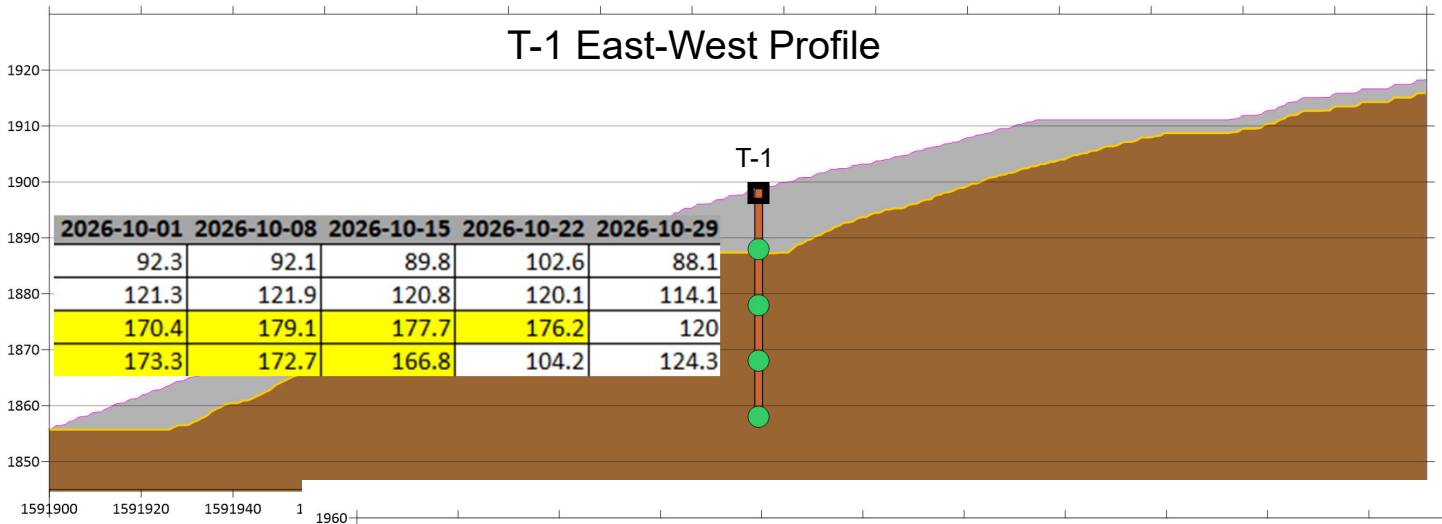
Methane

Methane levels for most wells are converging between 0 and 2.5% indicating that landfill is not biologically active. Only well GP-10 has been indicating consistently higher methane concentrations.

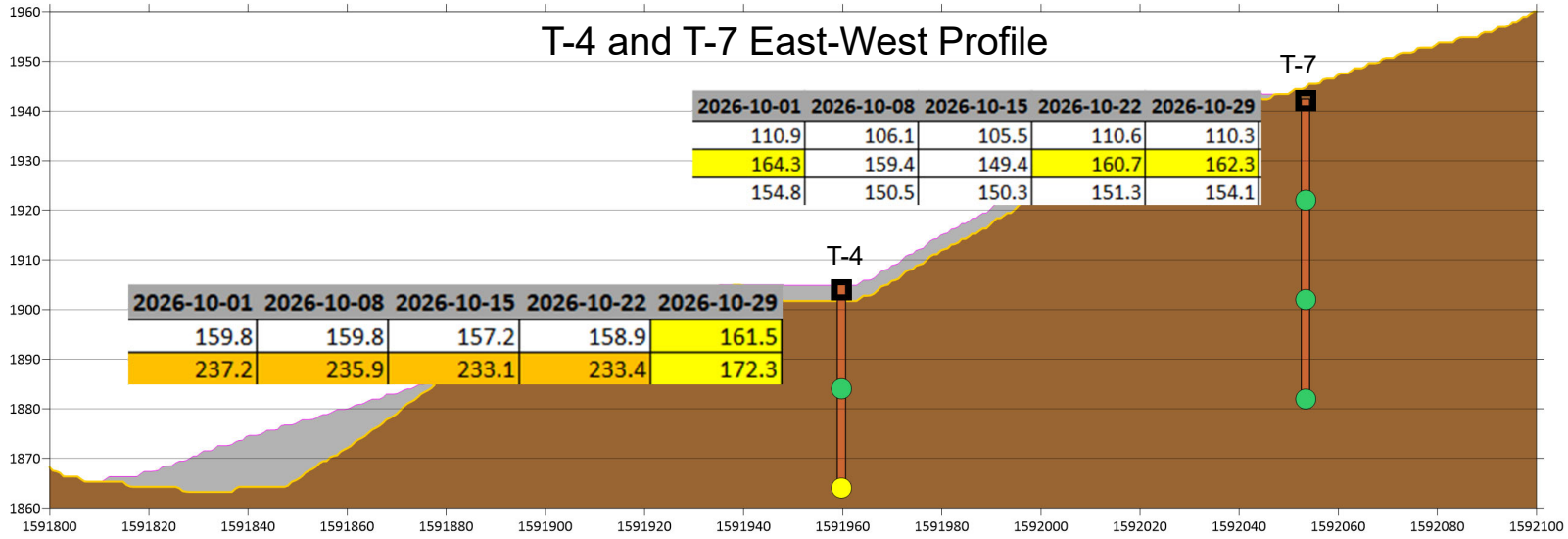
There appears to be a seasonal fluctuation with high methane levels occurring in Jan of each year in crest monitor GP-10. The cause is unclear, but LFCI believes this is possibly due to freezing or snowpack on the landfill surface preventing methane from escaping. This pattern has appeared again over 2026, and it is expected that the methane concentration in this well will start to climb over the winter months, as it has begun to do in October.




LANDFILLFIRE.com
High Temp (>200)
High CO
High H2S
High VOC
GP-10
T-5
T-6
T-7
GP-21
GP-24
GP-30
GP-15
GP-5
GP-16
GP-6
GP-23
GP-25
GP-17
GP-7
T-3
GP-18
GP-19
GP-20
T-4
GP-26
GP-11
GP-2
GP-12
GP-1
T-2
T-1
GP-3
GP-14
GP-4
GP-13
GP-9



2026-10-01	2026-10-08	2026-10-15	2026-10-22	2026-10-29
92.3	92.1	89.8	102.6	88.1
121.3	121.9	120.8	120.1	114.1
170.4	179.1	177.7	176.2	120
173.3	172.7	166.8	104.2	124.3



2026-10-01	2026-10-08	2026-10-15	2026-10-22	2026-10-29
110.9	106.1	105.5	110.6	110.3
164.3	159.4	149.4	160.7	162.3
154.8	150.5	150.3	151.3	154.1

2026-10-01	2026-10-08	2026-10-15	2026-10-22	2026-10-29
159.8	159.8	157.2	158.9	161.5
237.2	235.9	233.1	233.4	172.3

Data Interpretation

LFCI believes that suppression efforts continue to work, but slowly after the initial decrease in smolder activity. CO levels and temperatures have decreased dramatically since cover fill was placed. Temperatures initially decreased, but have levelled off to a slower cooling trend since December 2024, as have most gas concentrations with the temperature graphs indicating that the cooling is following a trend similar to an exponential decay model.

In LFCI's experience, CO has been the best indicator of suppression at other landfill sites and is effective at indicating subsurface smolder activity at this site as well. Currently, the highest CO levels are at T-6D, these spiked up in June-July to 8,000 ppm in both T-6D and T-6S, but are now on a strong downward trend at 4,500 ppm. T-3 also experienced the same spike, suggesting that the gas observed in all three wells was likely originating in from the same hotpsot. LFCI uses a concentration of 1,000 ppm as the primary indicator of active smolder activity. At this time, T-6D, T-7S, T-6S are all elevated above 3,000 ppm, but are currently exhibiting a strong downward trend.

Elevated VOC levels in T-6D, T-6S, T-7S and GP-8 are consistent with elevated CO readings, indicating that that the smolder is most active in the southern area at this time.

Temperature tracking is indicating that the subsurface is cooling over time and size of the hot spots is consistently shrinking, indicating that the smolder is becoming less active over time. There has been a very significant drop in temperature during the last monitoring round in October, but the drop appears to be an outlier, as tempertures recovered to a much more gradual decline in the following week.

High O2 continues to fluctuate seasonally, but appears to be on a seasonal decreasing trend, with August high O2 levels decreasing year on year. There has been a large O2 incursion in mid Sept. which could trigger an increase in CO and temps.

Based on temperature, CO and VOC readings, LFCI believes that the main smolder around T-1 and GP-3 is less and less active, and main smolder activity is now in the southern quadrant around T-4.