July 3, 2025

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 – June

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 June 2025 to implement the requirements of this AO.

Activities:

On-site activities included weekly gas probe and every other week ambient monitoring. The once per month regulatory review meeting was held on June 26, 2025. The monitoring data summary through June 2025 from Landfill Fire Control, Inc. (LFCI) is attached.

Q2 landfill gas monitoring was performed on June 4, 2025, including methane and hydrogen sulfide, with reporting to Ecology on June 6, 2025.

The Q1 groundwater report was submitted on June 30, 2025 along with the Q1 MTCA technical memorandum.

Q2B groundwater monitoring was performed during the week of June 16, 2025.

Gregory Drilling continued the drilling of MW-1S.

Deviations from Plans (if any):
None.

Deviations Description from the Scope of Work and Schedule:
Drilling has been progressing slower than plan.

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.

Address
22745 29th Dr. SE, Ste 200,
Bothell, WA 98021

Contact
425 549 3000
dtgrecycle.com

Deliverables for the Upcoming Month:
Deliverables will include:

- Weekly ambient and gas probe data
- July Progress Report
- Ecology may provide the drone assessment results
- Completion of MW-S1
- Well development of MW-1S and MW-11S
- Start thermistors

Please contact me to discuss any of the above items.

Respectfully,

Ian Sutton
Director of Engineering
DTG Recycle
isutton@dtgrecycle.com

Enclosures: LFCI Data Update – June 2025

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

July 1st, 2025 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 – June 2025

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.

Following the continued slow signs of suppression observed in the past several months and a levelling trend observed in 2025, the month of June has exhibited variable trends in temperature and gas composition. The past month has seen the rate of overall cooling decrease, with lower temperature wells increasing overall.

The increased availability O2 and the seasonal warming has likely continued the uptick in thermal activity and CO concentration, but the slight cooling trend has re-established itself while CO levels continue to vary.

The collected data has indicated that the subsurface smolder has become much less active since the soil cover was applied. Temperature and other parameters have all indicated a decrease in fire activity, but CO has increased in the past three months and June has not shown a significant increase or decrease.

Per LFCI's fire control plan, monitoring can be reduced to once every two weeks once CO levels drop below 500 ppm and the fire can be declared extinguished after CO concentration is below 200 ppm.

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 combustion of the smolder is steadily decreasing, however slowly. Based on the extinguishment target of temperature dropping below 180°F, we currently project that the fire will be declared extinguished within the year (summer 2026). However; if the temperature response continues to level off around 300 F, additional intervention may become necessary.

Based on this, 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.

Given the recent response and the reduced time line now projected to extinguishment, LFCI is of the opinion that further intervention is not warranted at this time.

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.

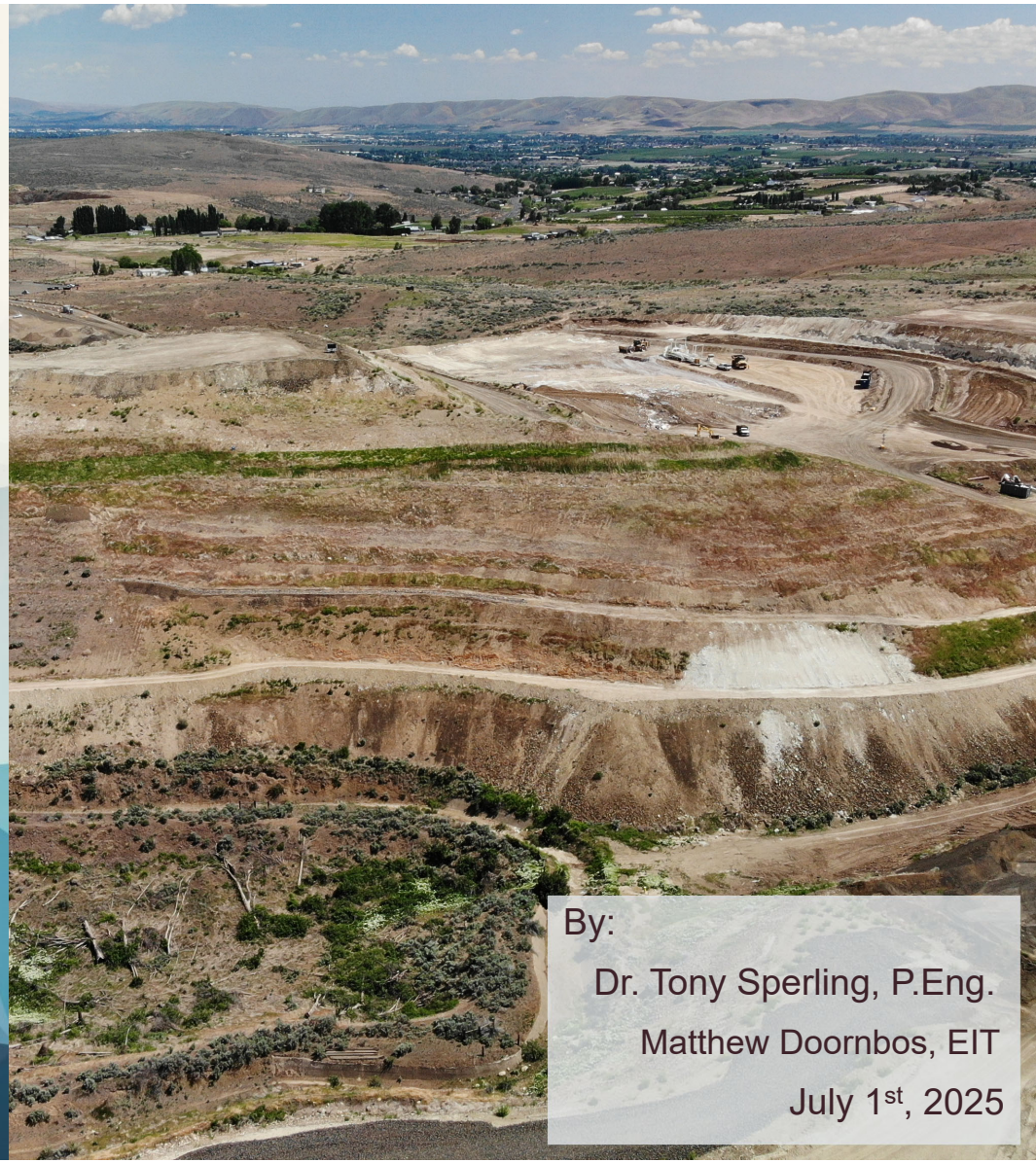
Dr. Tony Sperling, P.Eng.
President

July 1st, 2025

DTG LPL LANDFILL FIRE INVESTIGATIONS AND MITIGATION

Monthly Monitoring Data Review

June 2025



By:

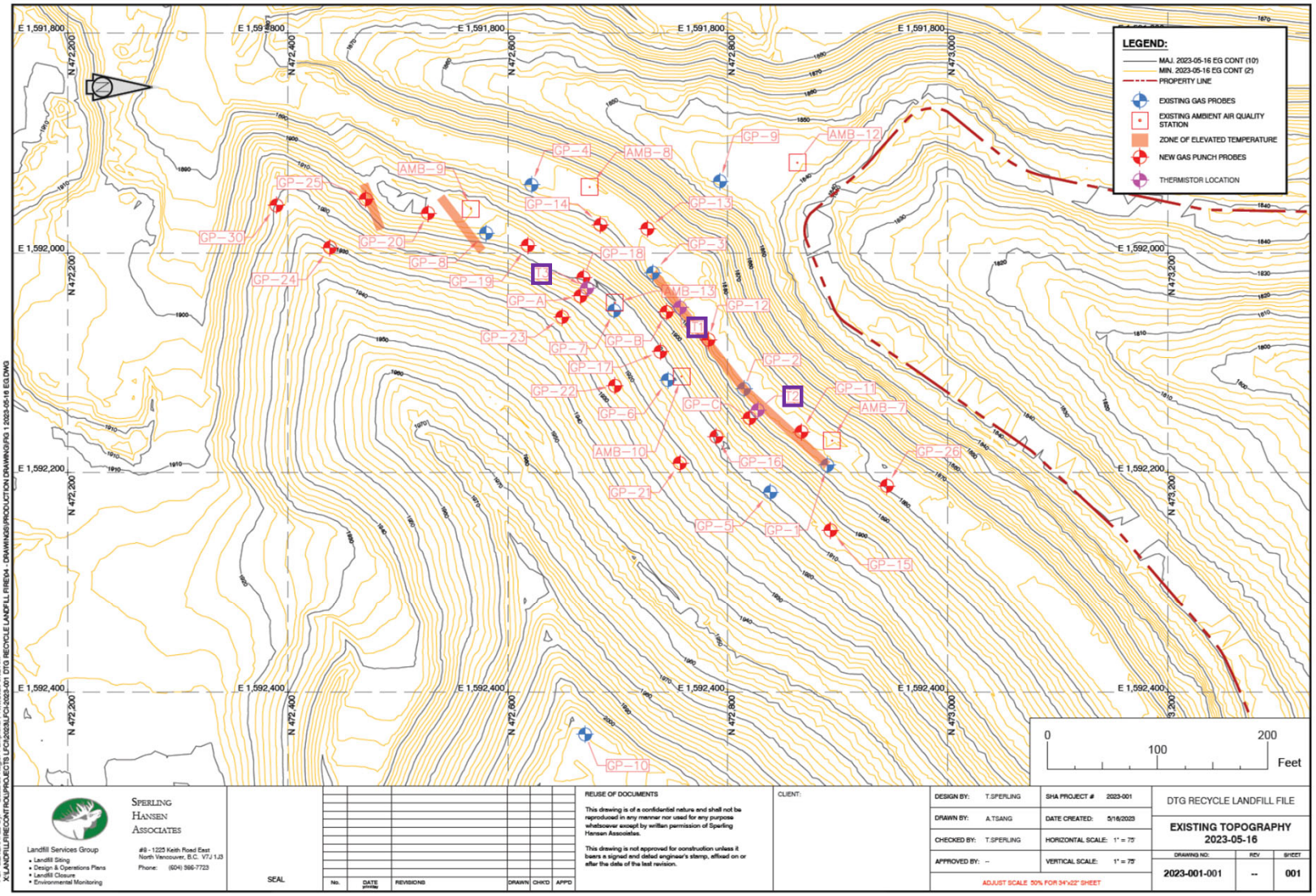
Dr. Tony Sperling, P.Eng.

Matthew Doornbos, EIT

July 1st, 2025

Contents


LANDFILLFIRE.com
Existing GPs
New GPs
GP-21
GP-22
GP-23
GP-24
GP-15
5
GP-16
6
GP-17
7
T3
GP-18
GP-19
8
GP-20
GP-25
1
GP-11
2
T2
GP-12
T1
3
GP-14
4
GP-13



PDF GENERATED by: Eduardo Kugler Pamplona \ 10/3/2023 6:02 AM
X:\LANDFILL\RECON\ROJPROJECTS\JPO\2023\LPO-2023-001 DTG RECYCLE LANDFILL FIRE\04 - DRAWINGS\PRODUCTION DRAWINGS\FIG 1 2023-05-16 EG.DWG

SPERLING HANSEN ASSOCIATES

Landfill Services Group
- Landfill Siting
- Design & Operations Plans
- Landfill Closure
- Environmental Monitoring

#8 - 1225 Keith Road East
North Vancouver, B.C. V7J 1J3
Phone: (604) 986-7723

SEAL

No.	DATE (m/d/y)	REVISIONS	DRAWN	CHKD	APP'D

CLIENT:

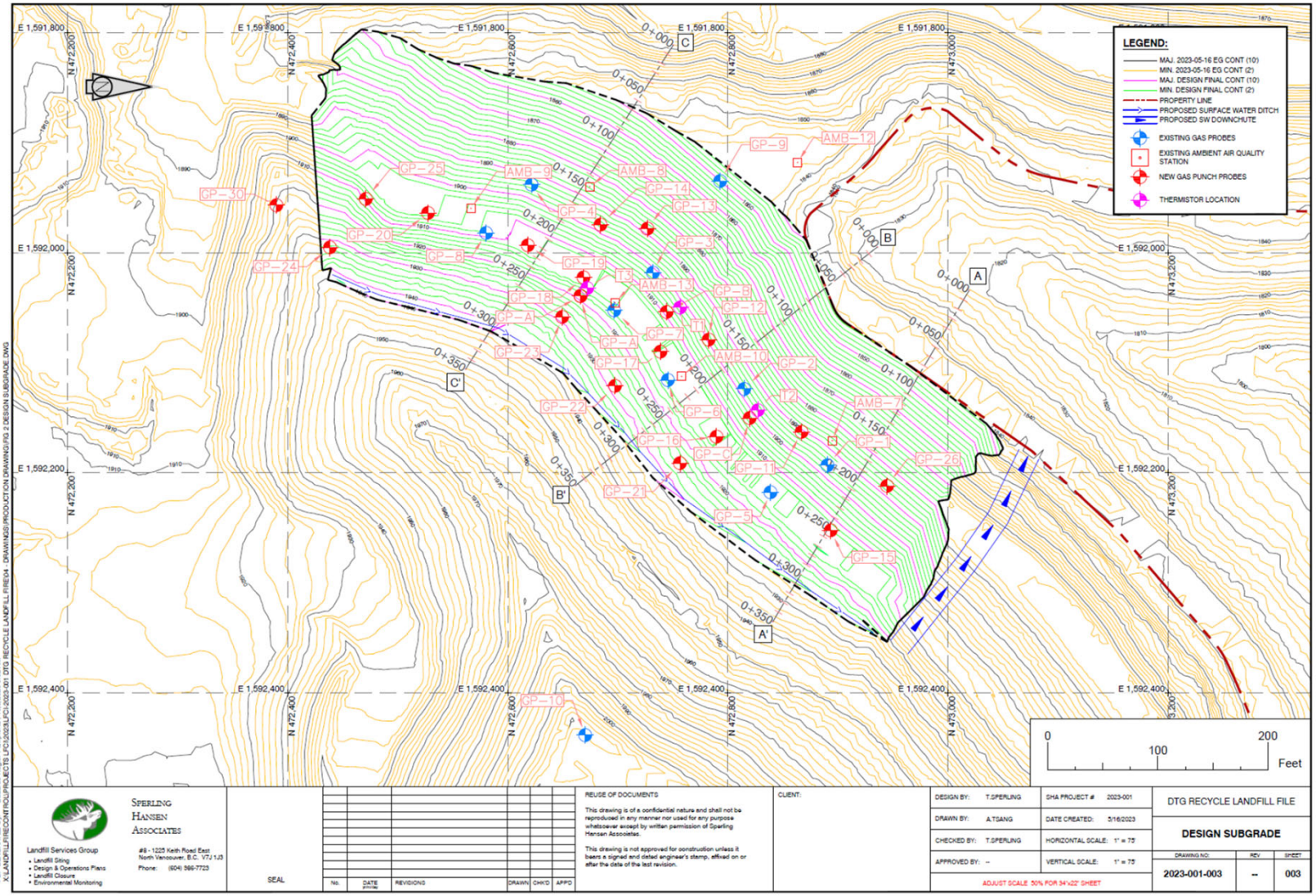
DESIGN BY:	T.SPERLING	SHA PROJECT #	2023-001
DRAWN BY:	A.TSANG	DATE CREATED:	5/16/2023
CHECKED BY:	T.SPERLING	HORIZONTAL SCALE:	1" = 75'
APPROVED BY:	--	VERTICAL SCALE:	1" = 75'

ADJUST SCALE 30% FOR 34"x22" SHEET

DTG RECYCLE LANDFILL FILE

EXISTING TOPOGRAPHY 2023-05-16

DRAWING NO:	REV	SHEET
2023-001-001	--	001



PDF GENERATED by: Eduardo Kugler Pamplona | 10/2/2023 6:02 AM
X:\LANDFILL\RECONTROL\PROJECTS UPC\2023\UPC\2023-001 DTG RECYCLE LANDFILL R.RE\04 - DRAWINGS\PRODUCTION DRAWING\FIG 2 DESIGN SUBGRADE.DWG

SPERLING HANSEN ASSOCIATES

Landfill Services Group
- Landfill Siting
- Design & Operations Plans
- Landfill Closure
- Environmental Monitoring

#8 - 1225 Keith Road East
North Vancouver, B.C. V7J 1J3
Phone: (604) 986-7725

SEAL

No.	DATE (mm/dd)	REVISIONS	DRAWN	CHK'D	APP'D

REUSE OF DOCUMENTS

This drawing is of a confidential nature and shall not be reproduced in any manner nor used for any purpose whatsoever except by written permission of Sperling Hansen Associates.

This drawing is not approved for construction unless it bears a signed and dated engineer's stamp, affixed on or after the date of the last revision.

CLIENT:

DESIGN BY:	T.SPERLING	SHA PROJECT #	2023-001
DRAWN BY:	A.TSANG	DATE CREATED:	5/16/2023
CHECKED BY:	T.SPERLING	HORIZONTAL SCALE:	1" = 75'
APPROVED BY:	--	VERTICAL SCALE:	1" = 75'

ADJUST SCALE 50% FOR 34"x22" SHEET

DTG RECYCLE LANDFILL FILE

DESIGN SUBGRADE

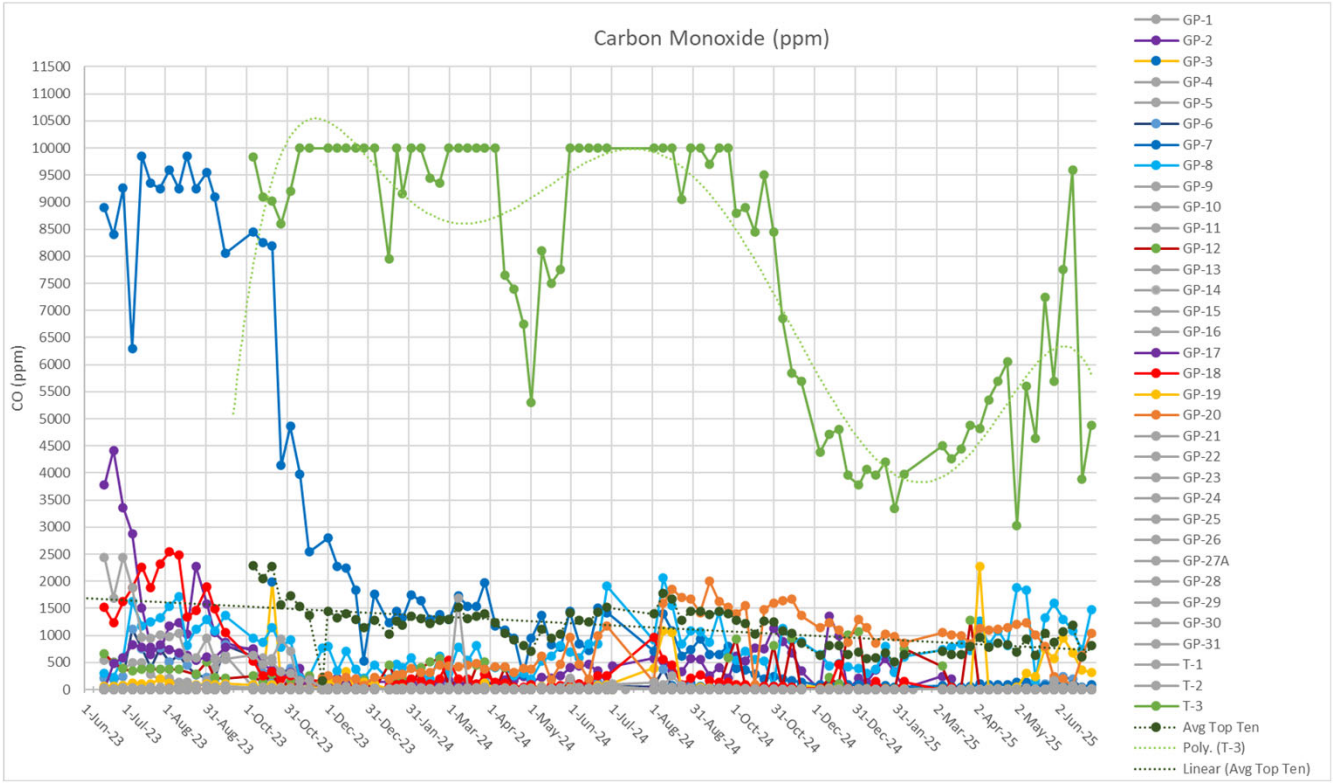
DRAWING NO:	REV	SHEET
2023-001-003	--	003

Carbon Monoxide

The month of June saw varying changes in CO levels, with T-3 climbing rapidly to nearly 10,000 ppm and then dropping back down to around 4,500 ppm. This is interpreted as a brief increase in smoulder activity and particularly in generation of H2 gas which also impacts the CO sensor.

Part of the recent (last 2 events) drop in CO levels is attributable to the lower levels of hydrogen measured in the same event.

The average CO across the top 10 wells has been decreasing steadily since soil application commenced, with a slight increase since January 2025, correlating with increased pressure oscillations that push more atmospheric air into the landfill. The recent unsteady measurements also follow pressure swings over the past month.

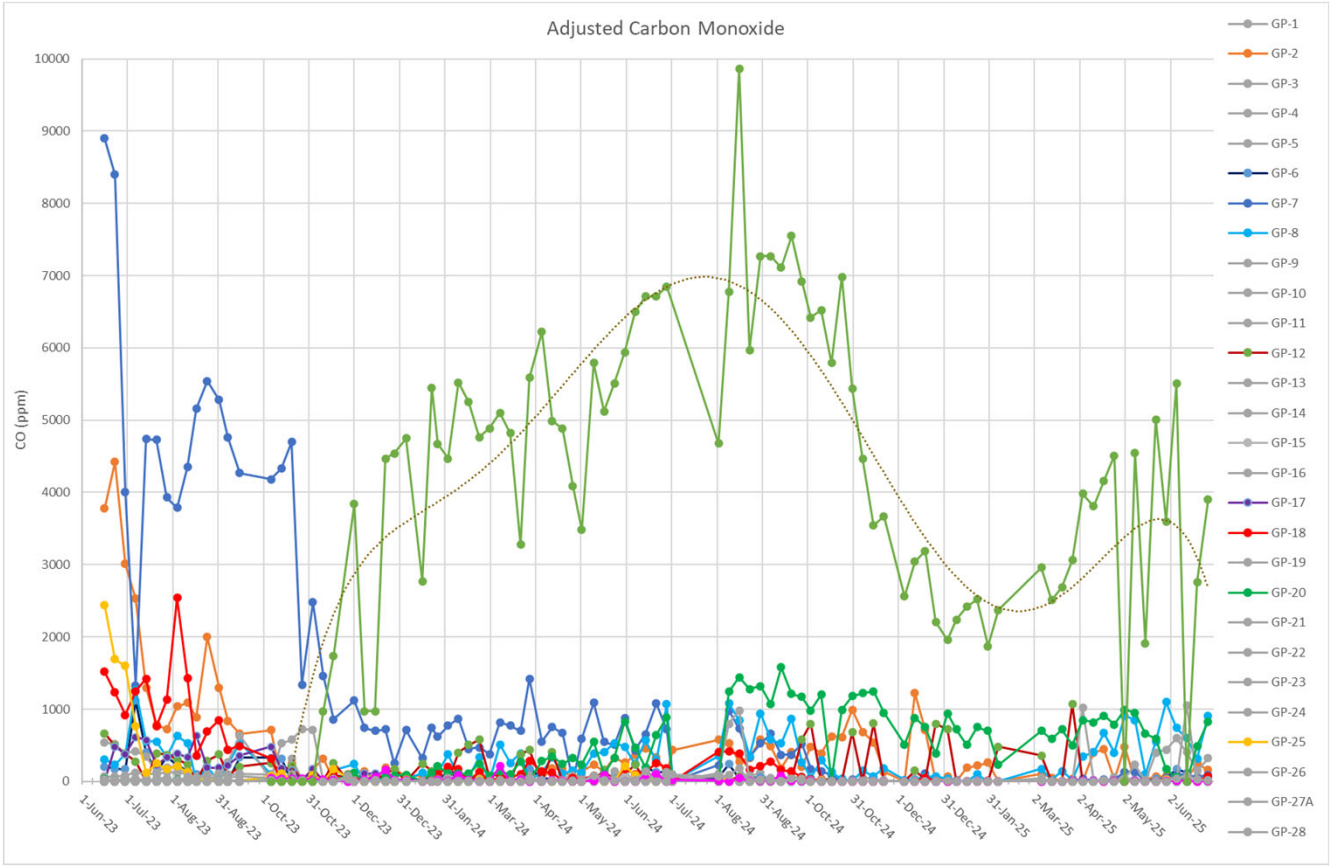


CO Adjusted for H2 Gas

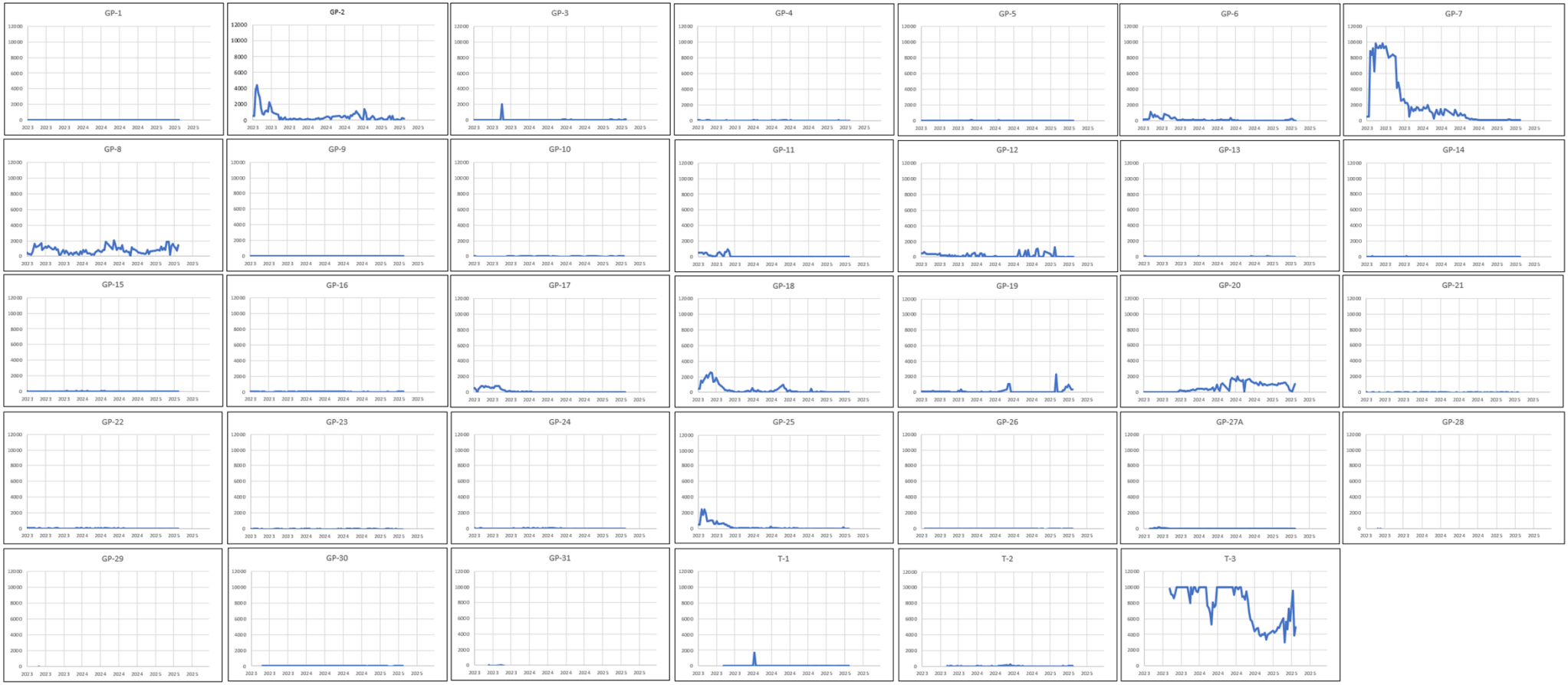
Adjusted CO measurements have also shown somewhat increased but varying levels of carbon monoxide between January, 2025 and early June, 2025.

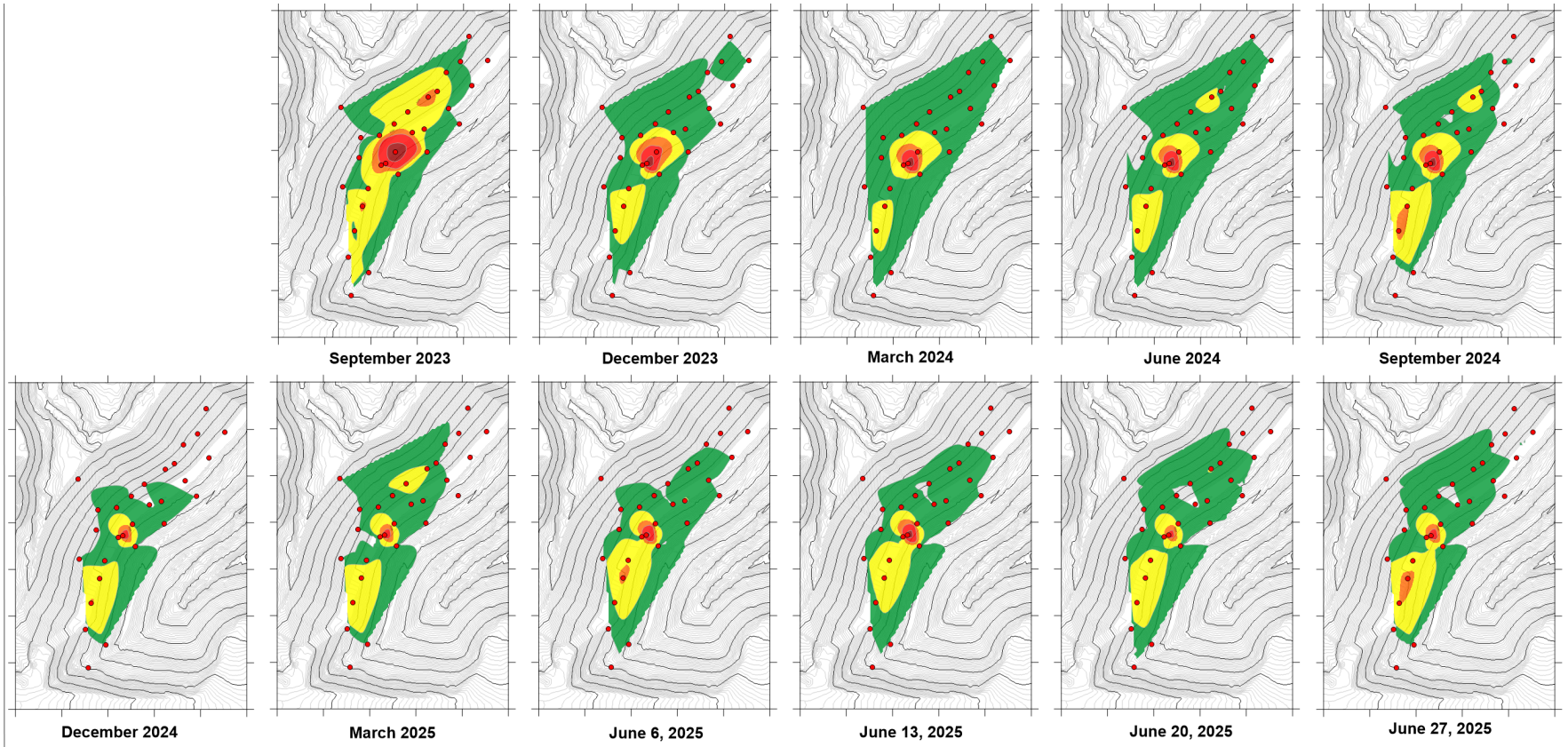
Since early June, CO concentrations have been dropping, but highly variable, probably on account of atmospheric air intrusions that dilute the subsurface gas concentrations.

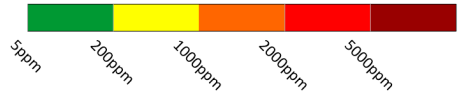
SHA will continue to monitor closely as data is collected to ensure no clear increasing trends appear.



CO Levels by Individual Wells







- 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

No.	DATE yr/m/day	REVISIONS	DRAWN	CHK'D	APP'D

DESIGN BY:	T. SPERLING
DRAWN BY:	M. DOORNBOS
DATE CREATED:	2025/07/01
SHA PROJECT #	LFCI-2023-001

DTG RECYCLE LANDFILL FIRE

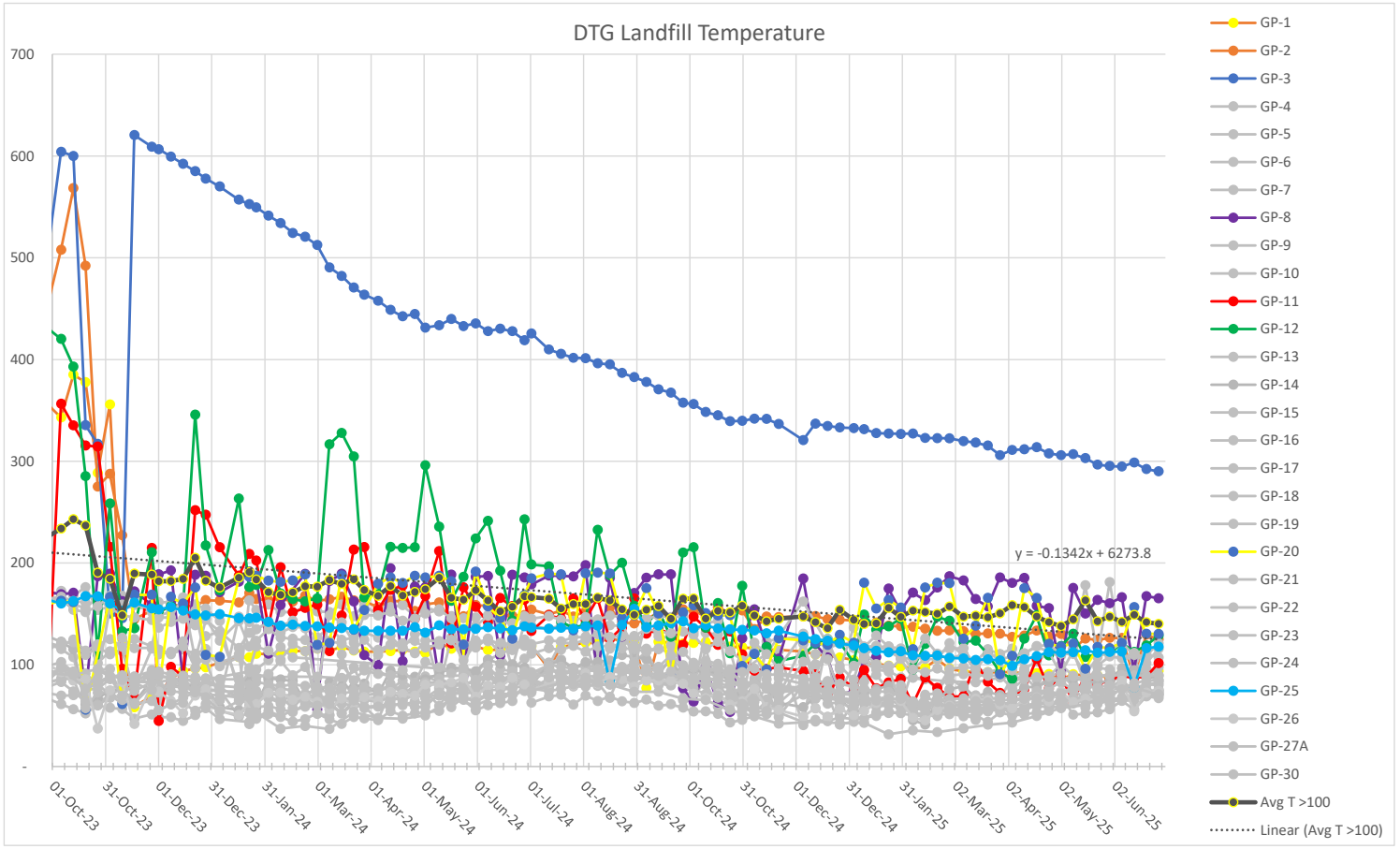
MONTHLY MONITORING SUMMARY SPATIAL MAPS - CO

DRAWING NO.	REV	SHEET
LFCI-2023-001-06-CO	1	1

Temperature (F)

June saw continued decreasing temperatures in GP-3, the hottest well, with temperatures continuing to fall below 300F.

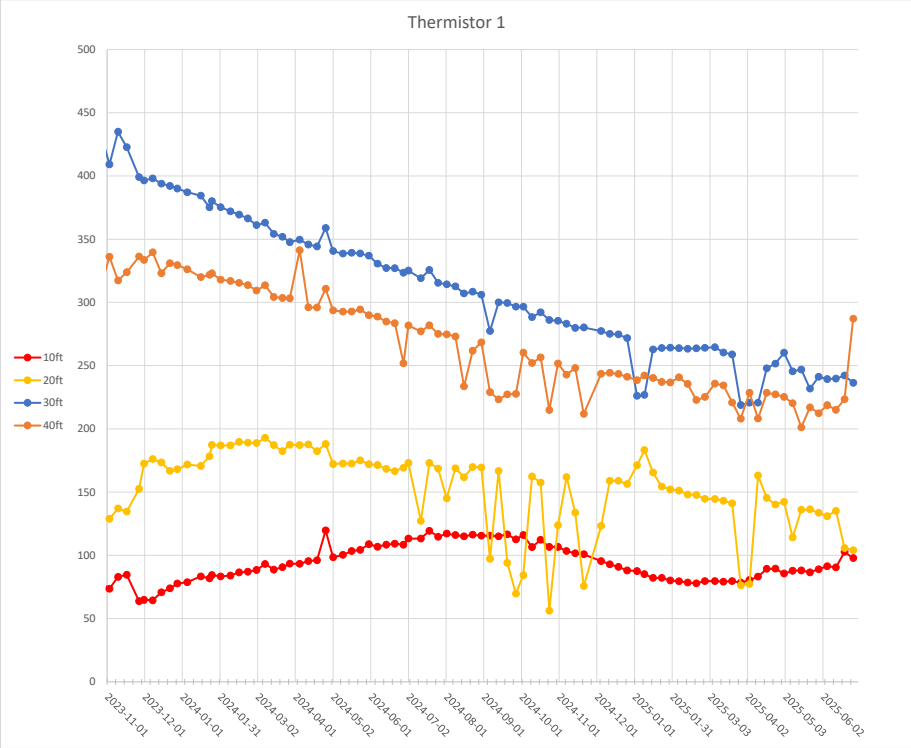
The trend line continues to show gradual cooling, with the wells reading above 100F showing some variation but seeming to be generally stable over the past month.

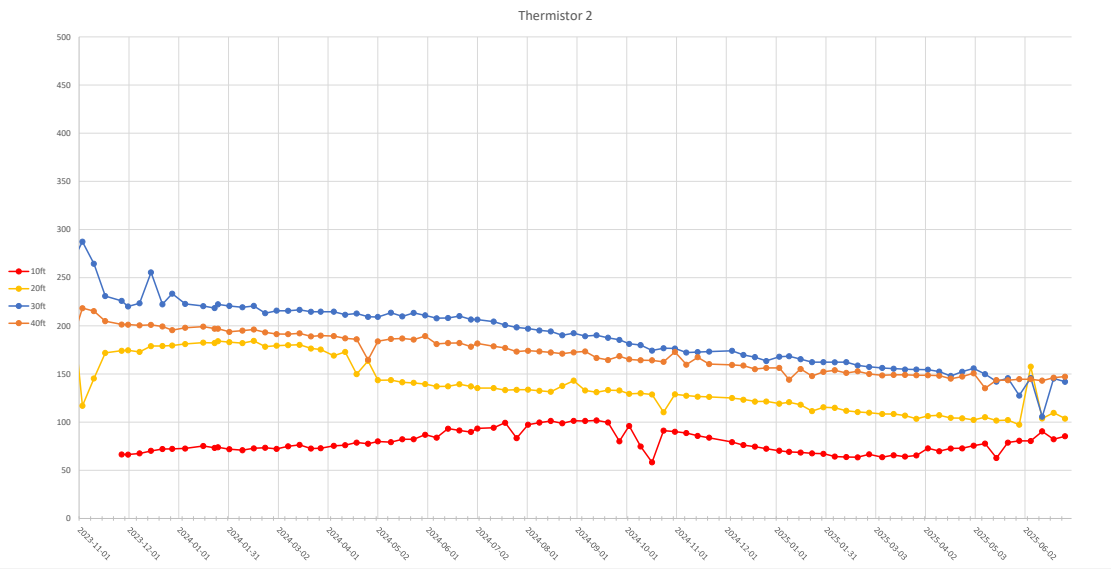


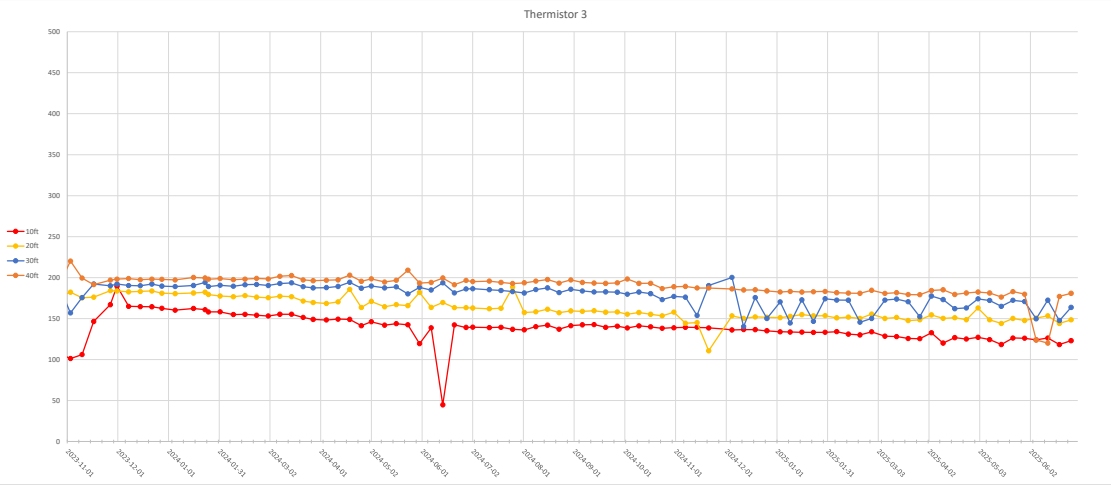
Thermistor Temperatures

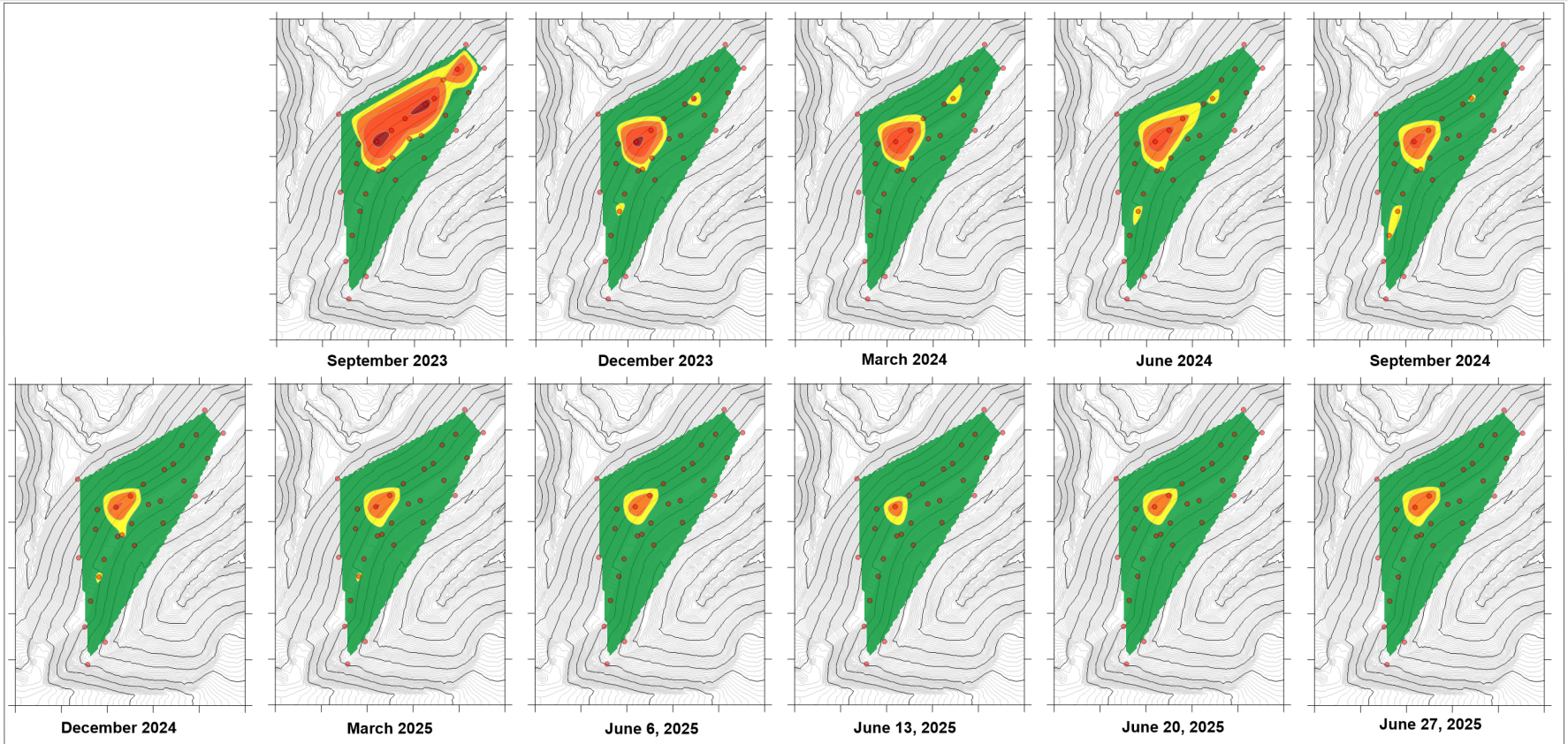
Thermistor temperatures are mostly stable, with a slight downward trend in T-1, T-2 and T-3, however; the rate of cooling is decreasing, especially in T-1. Consideration should be given to installing a dedicated thermistor on T-1 at 20 ft, as the oscillations seen at depths of 20 and 30ft feet indicate there may be issues with the measurements.

The rapid spike up outlier data point for the 40ft depth in T-1 is noted, and SHA will monitor this as data is received to determine if this is a point of concern.









- 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
- Temperatures are measured in degrees Farenheit
- Ground contours are of existing ground at beginning of project, with design contours added for after addition of fill

No.	DATE yr/m/day	REVISIONS	DRAWN	CHK'D	APP'D

DESIGN BY:	T. SPERLING
DRAWN BY:	M. DOORNBOS
DATE CREATED:	2025/07/01
SHA PROJECT #	LFCI-2023-001

DTG RECYCLE LANDFILL FIRE

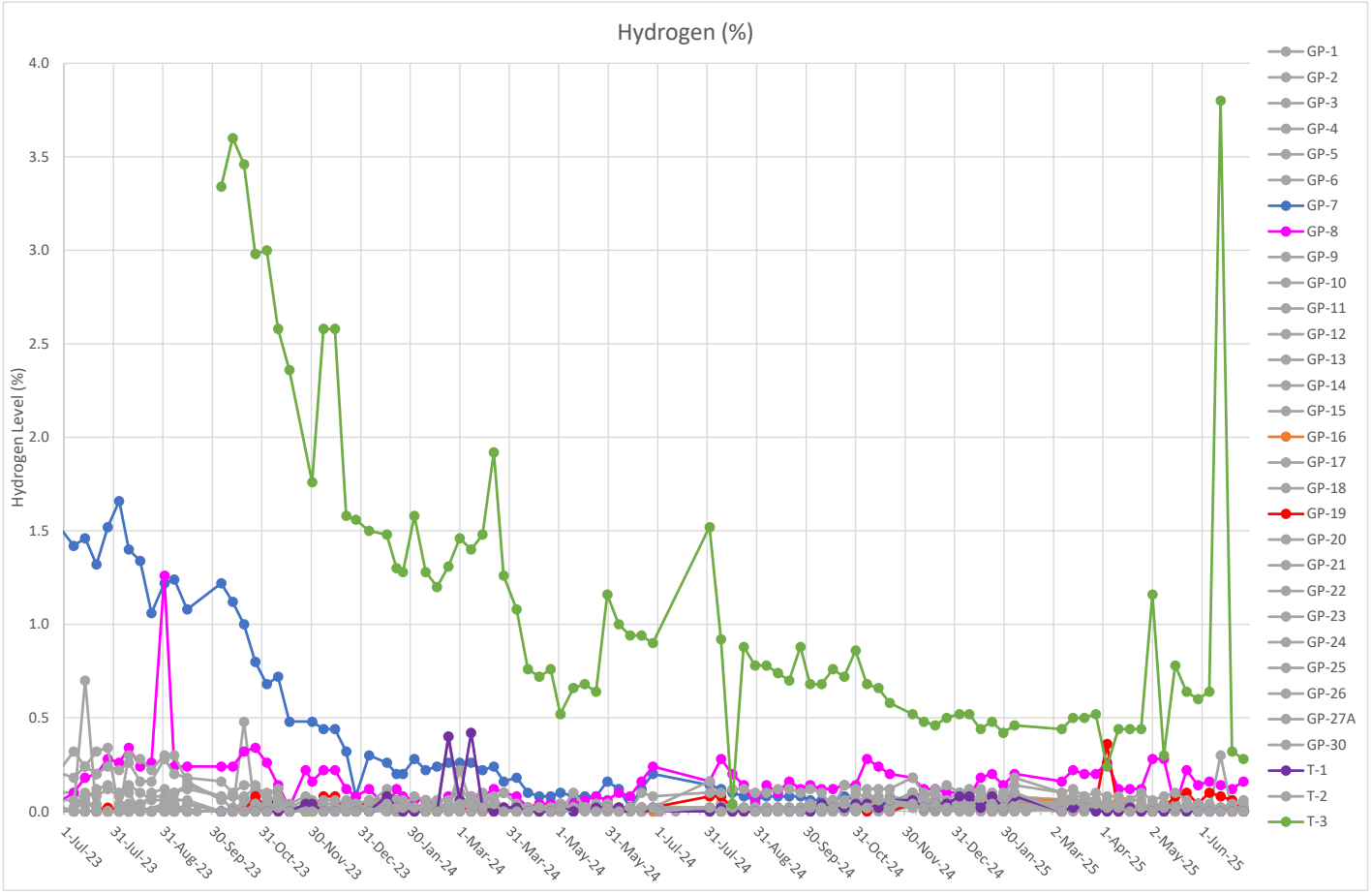
MONTHLY MONITORING SUMMARY SPATIAL MAPS - TEMPERATURE

DRAWING NO.	REV	SHEET
LFCI-2023-001-06-TEMP	1	1

Hydrogen

The hydrogen measurements reported one anomaly in June which showed a reading of around 3.8%, but in the last two monitoring events levels have decreased to around 0.3%.

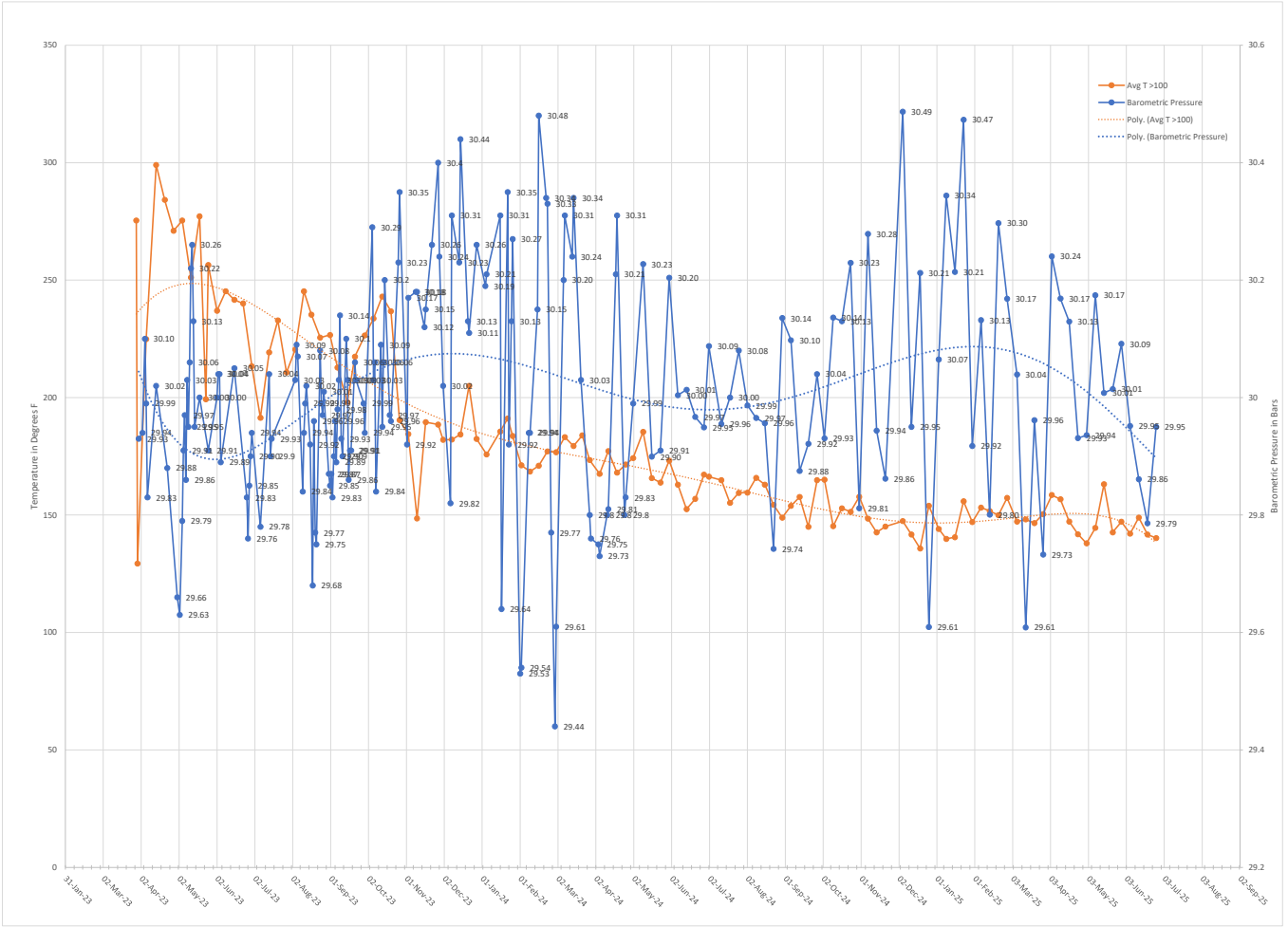
Hydrogen remains very low in all other wells. Production of H_2 is often observed with smoldering waste. LFCI believes that the level of H_2 dropping continues to indicate that the fire is less active.



Barometric Pressure

The site observed decreasing atmospheric pressure in June, but the latest event saw a 0.15 bar increase in atmospheric pressure.

Based on past pressure trends, we anticipate a low pressure environment from April through to September, which should result in less oxygen availability. This should translate to less oxygen available to feed the smoulder.

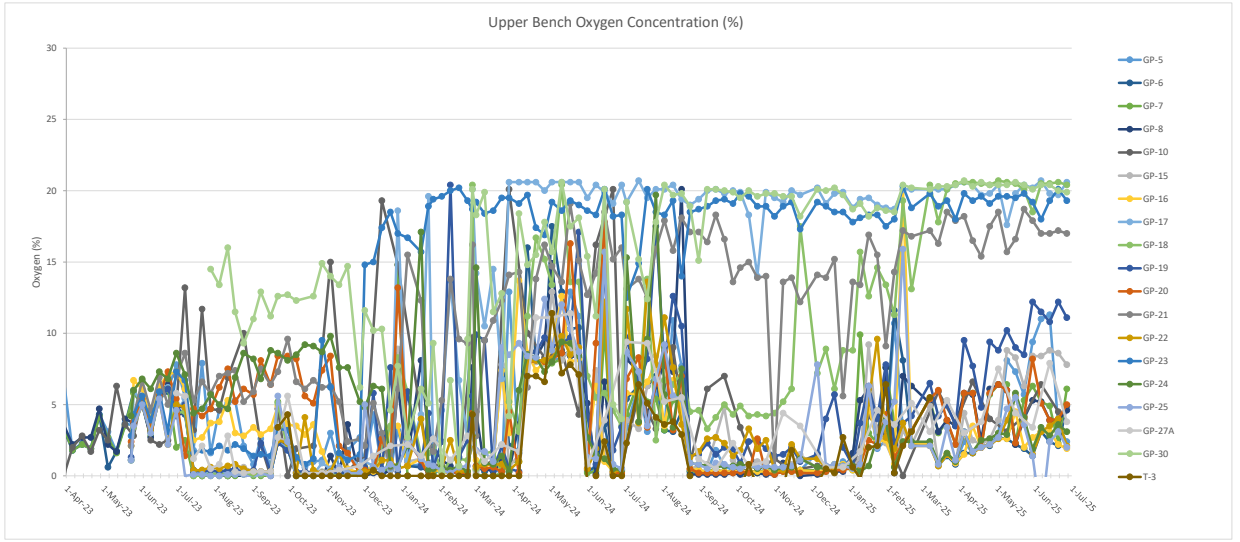


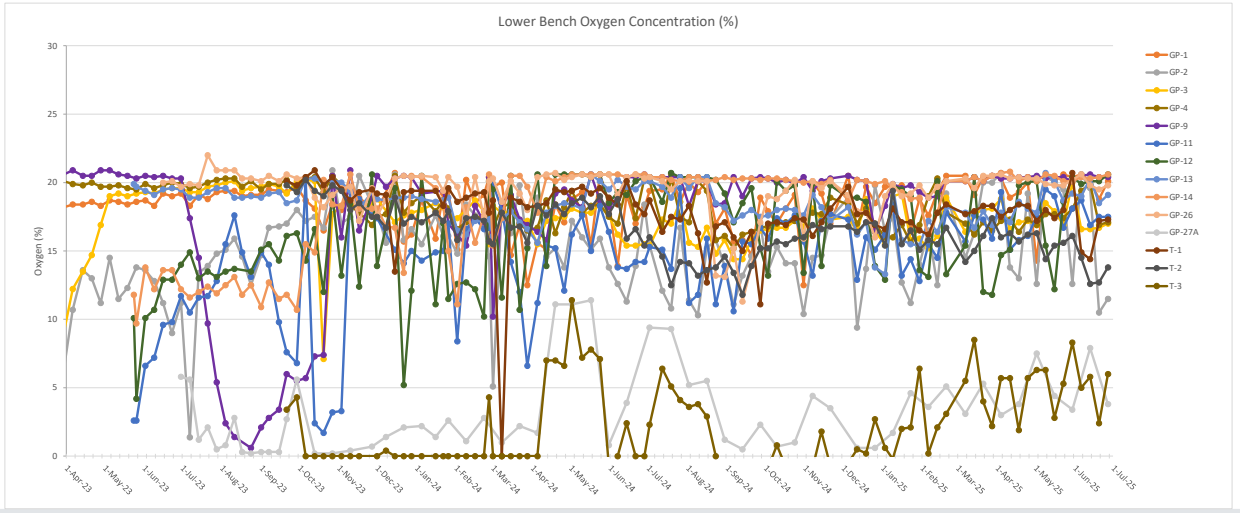
Oxygen

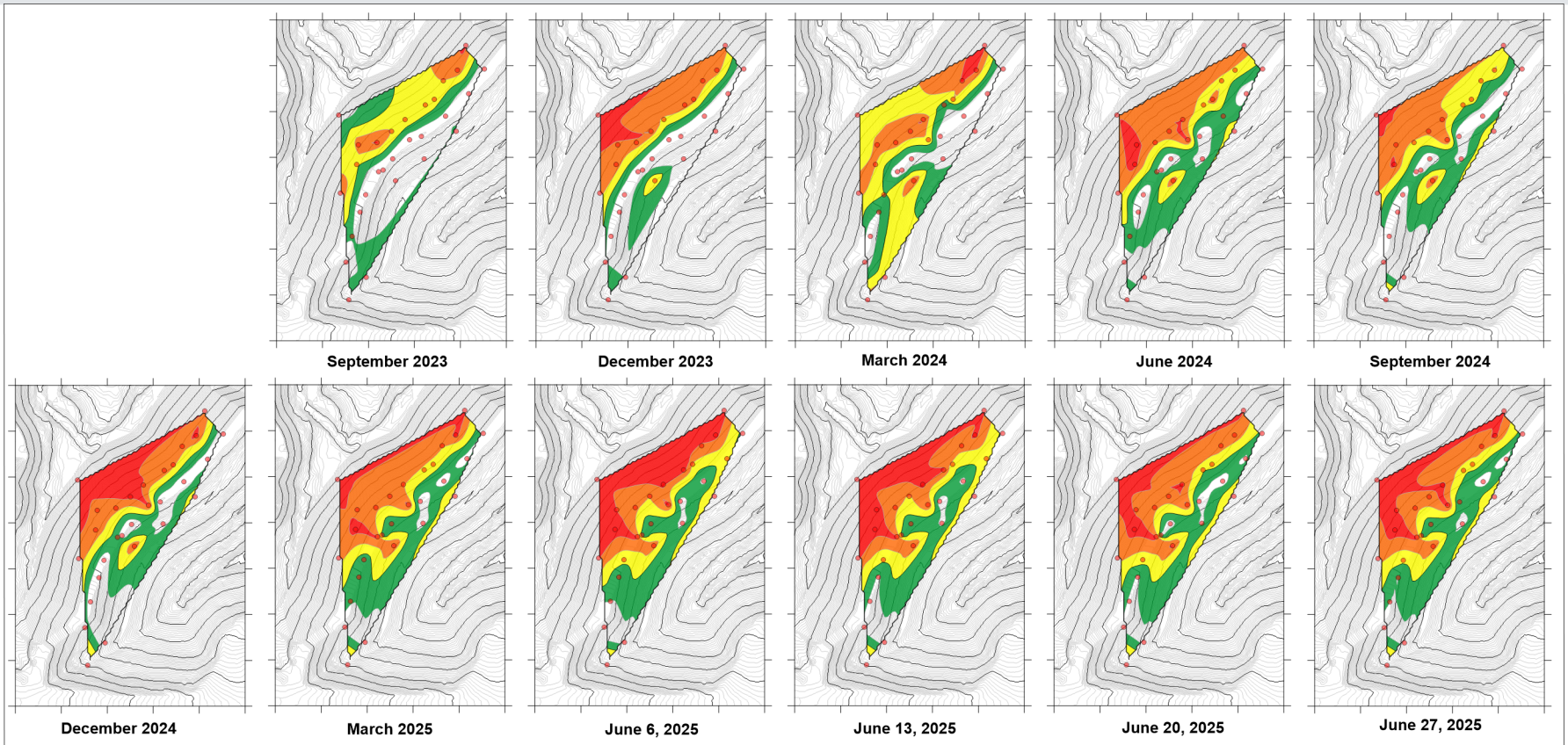
The oldest portion of the landfill is likely relatively inert and biologically inactive, producing very little methane. As a result, the pore space is full of atmospheric air, leading to the generally high oxygen concentrations. In plan view, oxygen levels have been increasing since January of 2025.

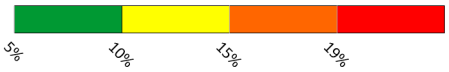
Some GPs likely susceptible to swings in pressure – LFCI believes this is causing the spikes.

Noted that higher levels of oxygen in GP-9 at landfill toe (>20%) are causing the spatial maps to be somewhat skewed, indicating air intrusion throughout the toe of the landfill. This is likely not a true portrayal of O2 levels within the fill; however, there has been an increase in concentrations throughout the monitored area over the past few months, most likely due to the very high atmospheric pressure and significant pressure swings









- 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
- O2 levels are measured in percent composition of sampled gas
- Ground contours are of existing ground at beginning of project, with design contours added for after addition of fill

No.	DATE yr/m/day	REVISIONS	DRAWN	CHK'D	APP'D

DTG Recycle

DESIGN BY:	T. SPERLING
DRAWN BY:	M. DOORNBOS
DATE CREATED:	2025/07/01
SHA PROJECT #	LFCI-2023-001

DTG RECYCLE LANDFILL FIRE

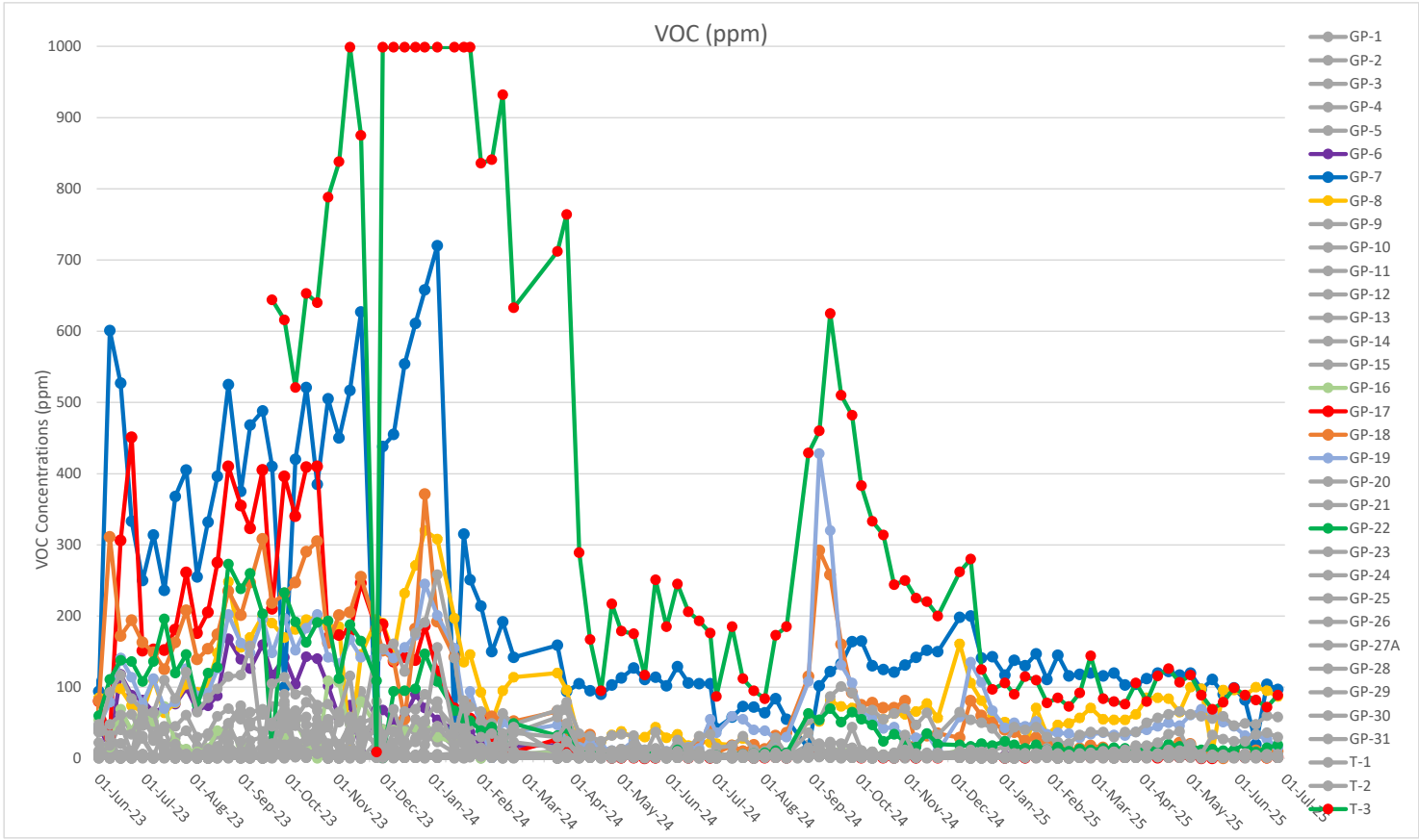
MONTHLY MONITORING SUMMARY SPATIAL MAPS - O2

DRAWING NO.	REV	SHEET
LFCI-2023-001-06-O2	1	1

Volatile Organic Compounds

Through June, VOC levels have continued a modest declining trend with the highest concentrations in several wells around 100ppm.

VOC emissions are often related to subsurface landfill fires. The fact that VOC emissions have declined and stayed low for the past several months are a strong indication that the fire is inactive.

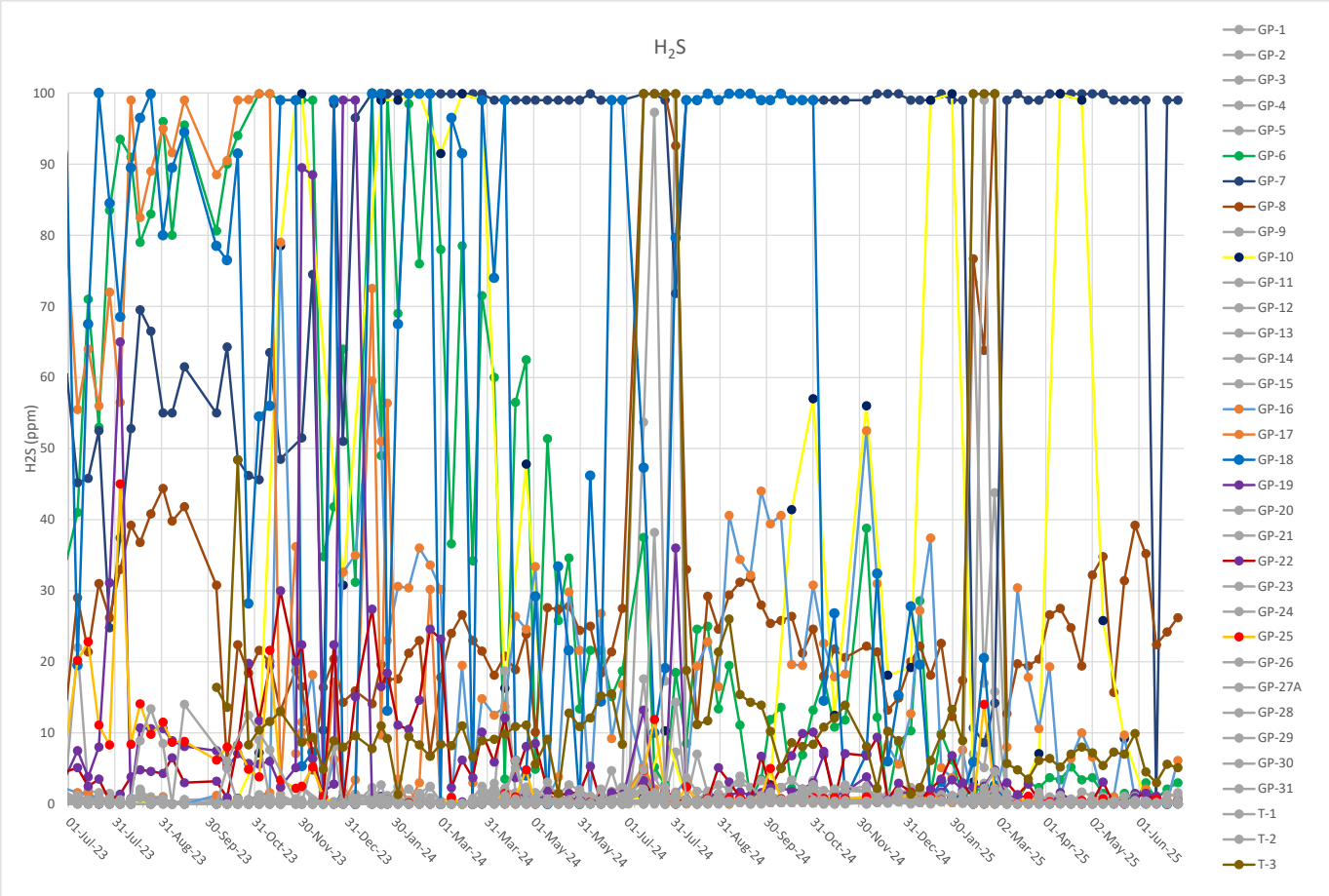


Hydrogen Sulfide

H_2S data continues to be noisy, likely affected by atmospheric pressure fluctuation.

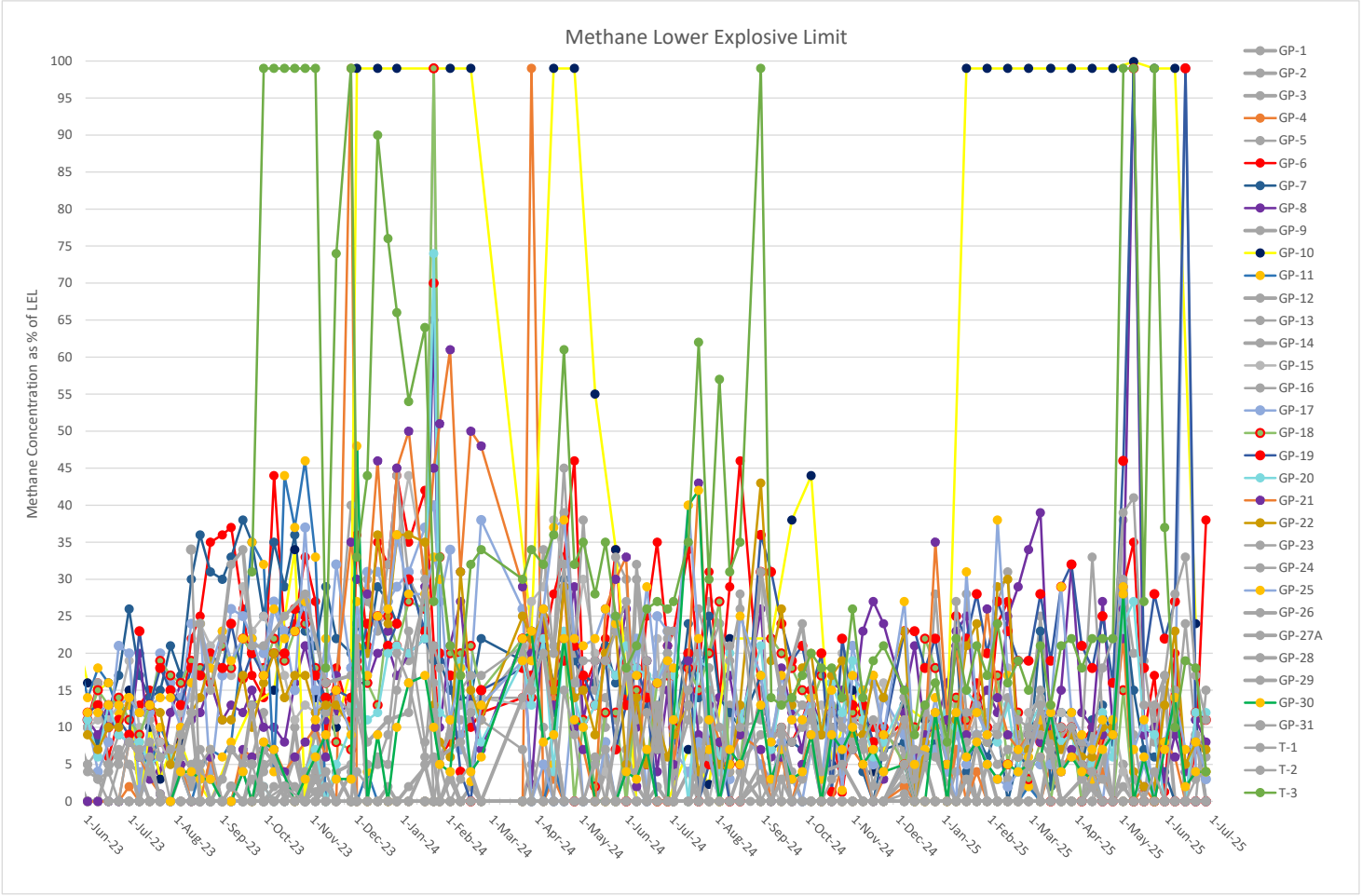
Most locations are low, but GP-7 remains high as it has historically.

As mentioned previously, it is possible that the H_2S sensor is being impacted by CO cross interference. With CO concentration decreasing, reported H2S concentration is dropping as well.

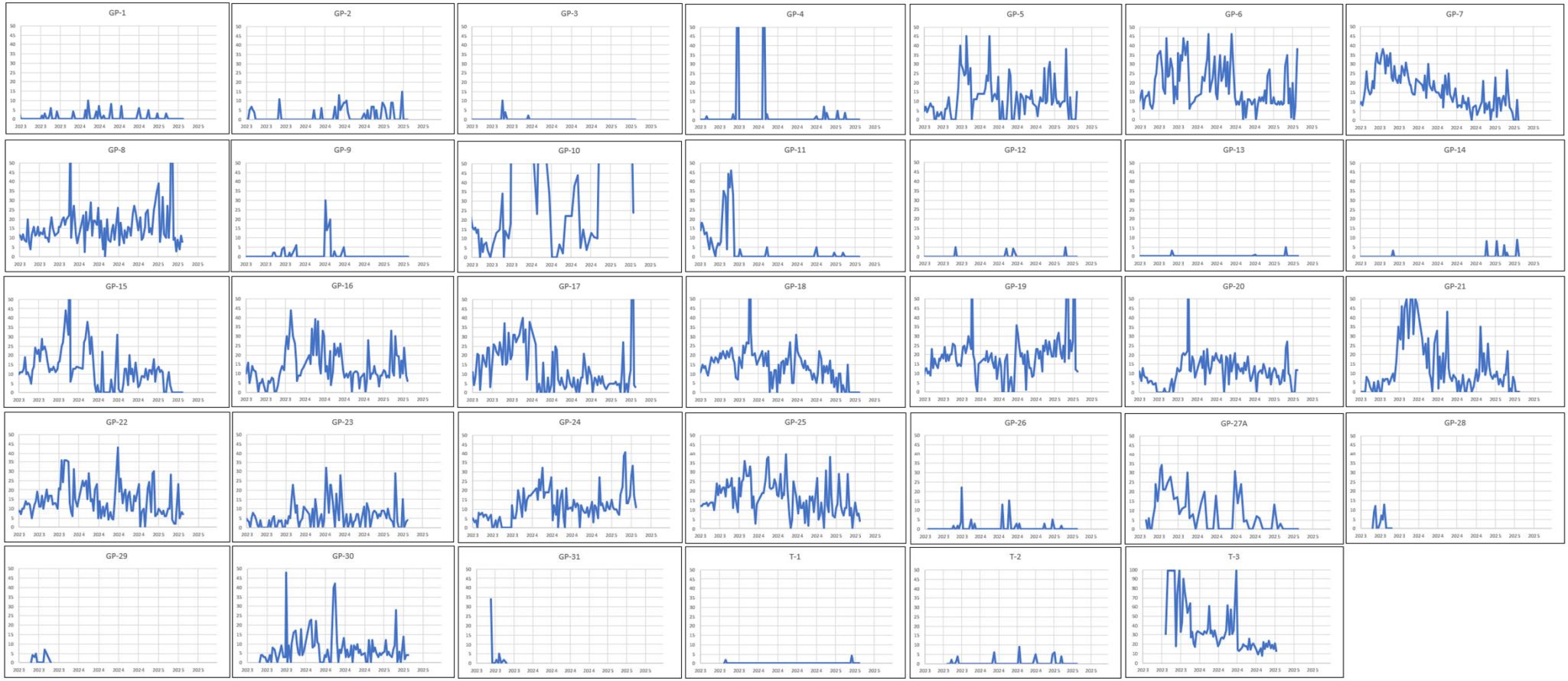


Lower Explosive Limit

Many data points fluctuating wildly – methane composition is a better indicator of levels within the landfill.



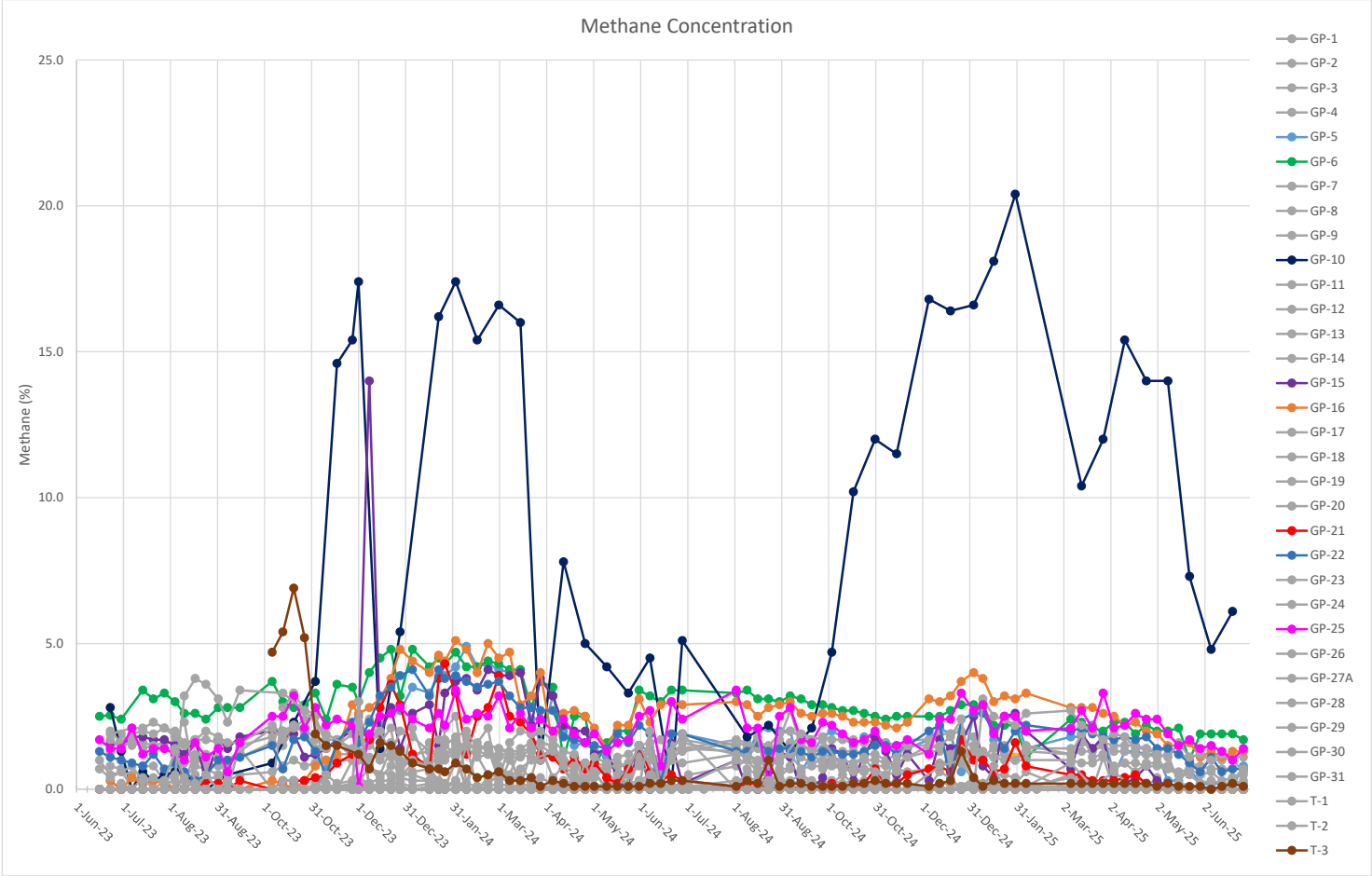
LEL for individual GP



Methane

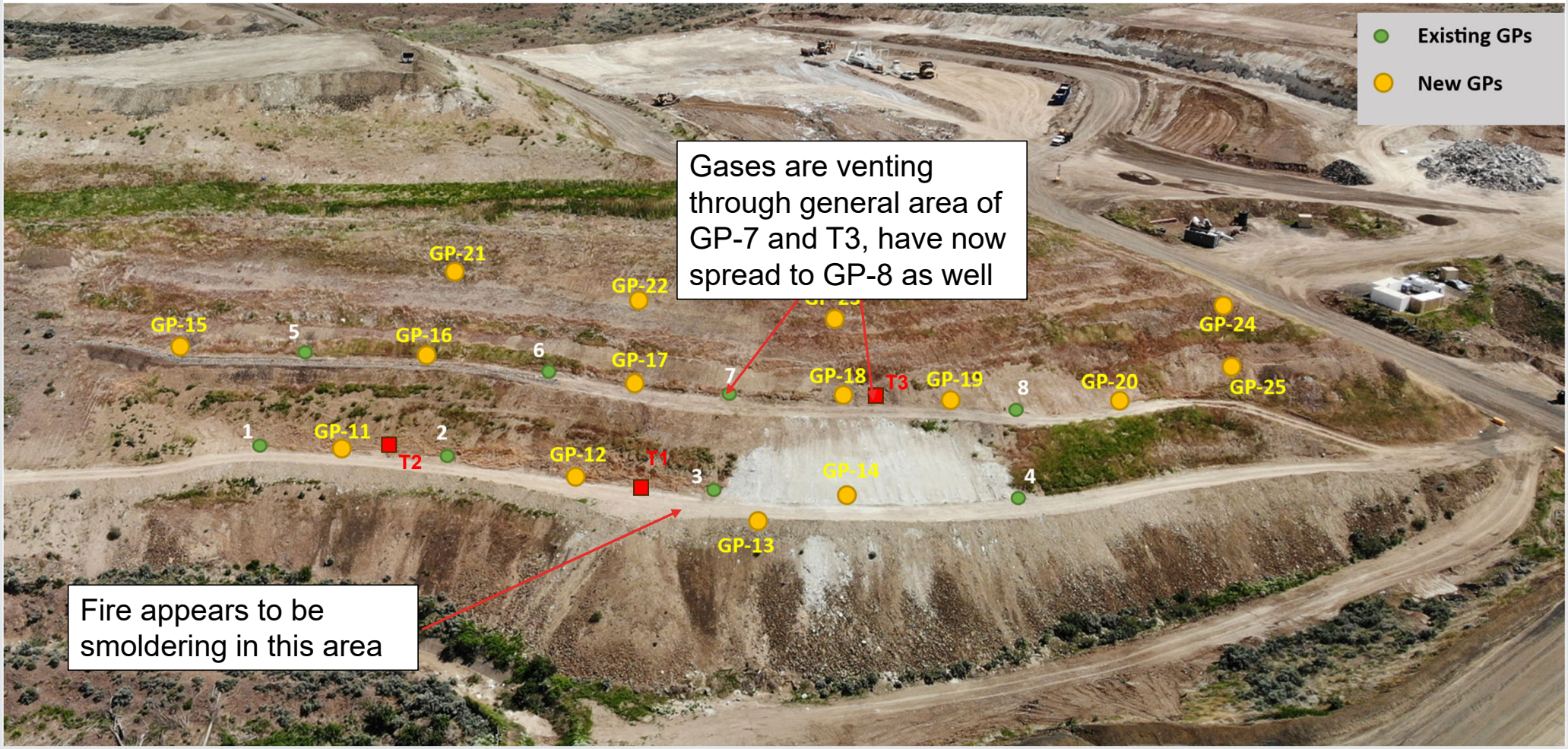
Methane levels for most wells are converging between 0 and 2.5% indicating that landfill is not biologically active.

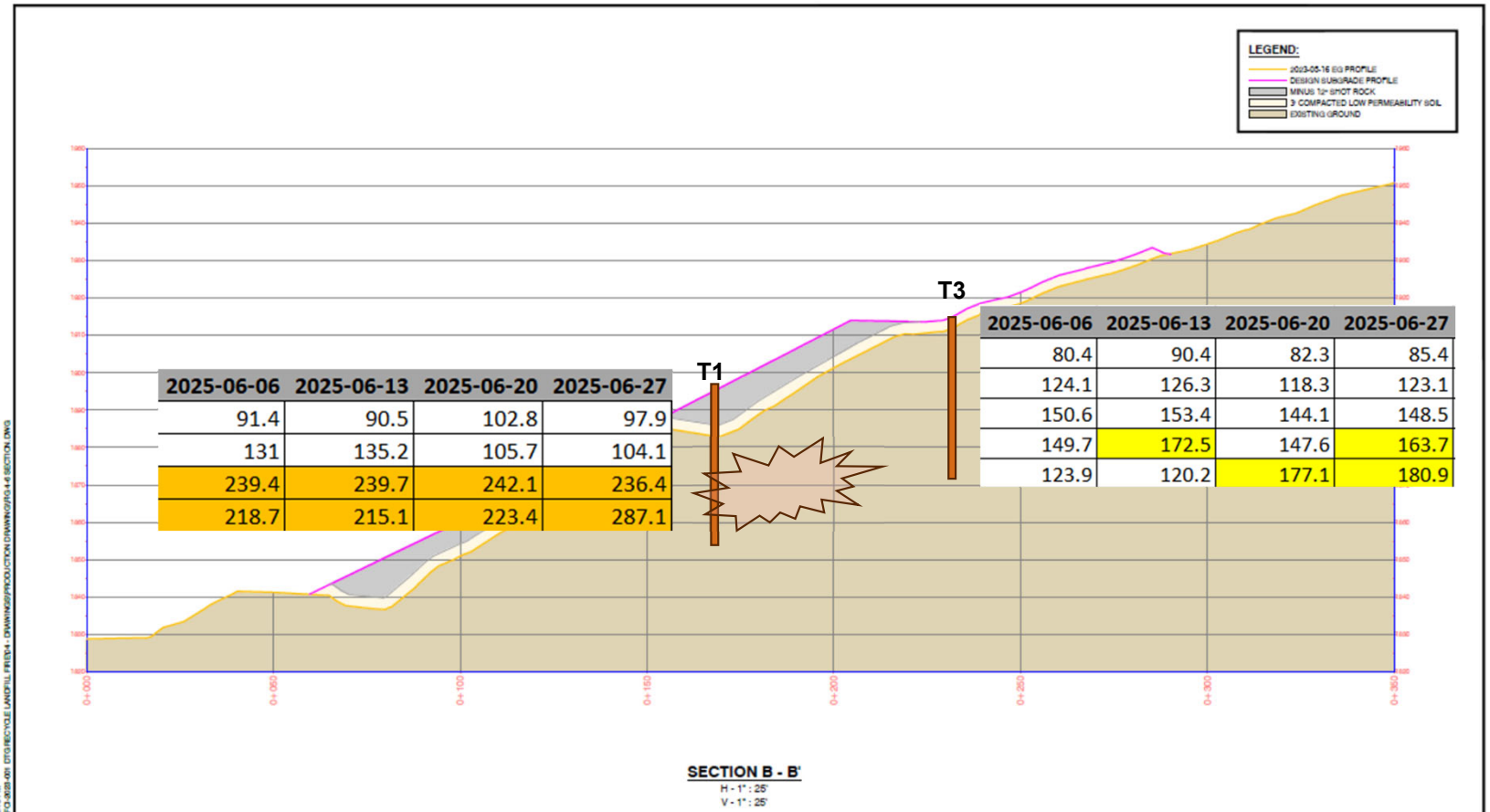
Only well GP-10 is indicating higher methane - high concentrations are typically observed at this well as it is affected by more recently placed waste that is still in process of decomposition.




LANDFILLFIRE.com
GP-10
GP-21
GP-22
GP-23
GP-24
GP-15
5
GP-16
6
GP-17
7
T3
GP-18
GP-19
8
GP-20
GP-25
1
GP-11
2
T2
GP-12
T1
3
GP-14
4
GP-13
Existing GPs
New GPs

Fire Path


Existing GPs
New GPs
Gases are venting through general area of GP-7 and T3, have now spread to GP-8 as well
Fire appears to be smoldering in this area
GP-21
GP-22
GP-15
5
GP-16
6
GP-17
7
GP-18
T3
GP-19
8
GP-20
GP-24
GP-25
1
GP-11
T2
2
GP-12
T1
3
GP-14
4
GP-13



2025-06-06	2025-06-13	2025-06-20	2025-06-27
91.4	90.5	102.8	97.9
131	135.2	105.7	104.1
239.4	239.7	242.1	236.4
218.7	215.1	223.4	287.1

2025-06-06	2025-06-13	2025-06-20	2025-06-27
80.4	90.4	82.3	85.4
124.1	126.3	118.3	123.1
150.6	153.4	144.1	148.5
149.7	172.5	147.6	163.7
123.9	120.2	177.1	180.9

SECTION B - B'

H - 1" : 25'

V - 1" : 25'

PDF GENERATED BY: Angie Tseng | 5/19/2025 10:15 PM

X:\LANDFILL\RECONTROL\PROJECTS\LFC\2023\LFC-2023-001 DTG RECYCLE LANDFILL FILE\24 - DRAWINGS\PRODUCTION DRAWINGS\2023-001-005 SECTION.DWG

SPERLING HANSEN ASSOCIATES

Landfill Services Group
- Landfill Siting
- Design & Operations Plans
- Landfill Closure
- Environmental Monitoring

#9 - 1205 Keith Road East
North Vancouver, B.C. V7J 1J3
Phone: (604) 986-7720

SEAL

No.	DATE (yy/mm/dd)	REVISIONS	DRAWN	CHKD	APP'D

REUSE OF DOCUMENTS

This drawing is of a confidential nature and shall not be reproduced in any manner nor used for any purpose whatsoever except by written permission of Sperling Hansen Associates.

This drawing is not approved for construction unless it bears a signed and dated engineer's stamp, affixed on or after the date of the last revision.

CLIENT:

DESIGN BY:	T.SPERLING	SHA PROJECT #	2023-001
DRAWN BY:	A.TSANG	DATE CREATED:	5/16/2023
CHECKED BY:	T.SPERLING	HORIZONTAL SCALE:	1" = 25'
APPROVED BY:	–	VERTICAL SCALE:	1" = 25'

ADJUST SCALE 50% FOR 34"x22" SHEET

DTG RECYCLE LANDFILL FILE

SECTION B-B'

DRAWING NO.	REV	SHEET
2023-001-005	–	005

Data Interpretation

LFCI believes that suppression efforts continue to work, but slowly. 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. Current seasonal warming may be contributing to slowing the cooling trend, as seen in the lower temperature wells over the summer of 2024.

Temperatures have dropped significantly all around to Dec. 2024 when the trend has shifted to a steady condition, with minimal changes occurring. In June, temperatures of the hottest well (GP-3) have continued to decrease at a slow but steady rate. There has been a large increase in temp. of thermistor T1 at 40' in most recent readings. The plan view mapping shows cooling trend across the entire area, and the rate of cooling is decreasing. The average rate over the past month was actually an increase of 0.3 degrees F per day.

In LFCI experience, CO has been best indicator of suppression at other landfill sites. CO in T-3 has risen between Jan and May 2025 since it's dramatic decrease in November-December of 2024. In June, CO levels have once again started trending downward, in part due to reduced H2 levels which also influence CO sensor.

VOC levels have been steadily declining, indicating less smolder activity.

High O2 continues to fluctuate - this is likely due to large atmospheric pressure swings and pervious waste mass allowing entry of ambient air.

LFCI believes that the waste continues to smolder underneath GP-3 and T-1 (elevated temperature) but the rate of smolder is steadily decreasing. Also, a 'chimney' effect is occurring, causing higher levels of indicator gases at T-3 and GP-8 and GP-20.