

April 7, 2026

Josh Reed
 City Superintendent
 1020 S Wood St.
 Galena, KS 66739
j.reed@galenaks.gov

RE: Galena Landfill Thermal Inspection Summary
 City of Galena Construction and Demolition Landfill
 KDHE Permit No. 738
 Galena, Cherokee County, Kansas

Dear Mr. Reed,

On behalf of the City of Galena, Compliance 1 conducted aerial mapping of the landfill on March 17, 2026, using both thermal and visual imaging. The thermal images were captured prior to sunrise when the area was cold and dark, and upon thorough review of the surface temperatures of the landfill, a list of areas of interest was compiled. Much of the landfill surface exhibited temperatures near the ambient air temperature (19°F), and Table 1 below includes the locations across the landfill that exhibited surface temperatures greater than 40°F as “areas of interest” (AOI). GPS location data of the AOIs was extracted from the thermal and visual mapping images collected with survey-grade GNSS aerial equipment.

Table 1: Landfill Thermal Areas of Interest (AOI)

AOI Map ID#	Date	Approx. Time	Ambient Air Temp (°F)	Surface Temp (°F)	Latitude	Longitude
01	3/17/26	0652	19	44	37.081008	-94.634843
02	3/17/26	0648	19	50	37.080620	-94.634239
03	3/17/26	0649	19	81	37.080873	-94.633749
04	3/17/26	0647	19	42	37.081064	-94.631703
05	3/17/26	0625	19	54	37.079789	-94.633215
06	3/17/26	0619	19	56	37.079264	-94.631725
07	3/17/26	0623	19	51	37.079739	-94.630110
08	3/17/26	0622	19	65	37.079475	-94.630041
09	3/17/26	0614	19	62	37.079093	-94.630090

The areas listed above were discussed with the City of Galena and the Kansas Department of Health and Environment on March 31, 2026, and it was determined to visually inspect these areas “on foot” and perform localized H₂S monitoring at each AOI location. Therefore, Table 2 below exhibits the localized H₂S readings (5 successive, 1-minute readings at each location) conducted on April 6, the basic weather information, and any observed odor descriptions.

Table 2: Area of Interest (AOI) H₂S Analysis Data

AOI Map ID#	Date	Time	H ₂ S Reading (PPM)*					Wind Direction	Wind Speed (MPH)	Air Temp (°F)	Sulfur Odor**
			1	2	3	4	5				
01	4/6/26	1102-1107	0.0	0.0	0.0	0.0	0.0	W	3	59	No
02	4/6/26	1110-1115	0.0	0.0	0.0	0.0	0.0	W	3	60	No
03	4/6/26	1119-1124	0.256	0.215	0.389	0.005	0.119	W	3	60	Very Strong
04	4/6/26	1127-1133	0.0	0.0	0.0	0.0	0.0	W	3	61	No
05	4/6/26	1136-1141	0.0	0.0	0.0	0.0	0.0	W	3	61	No
06	4/6/26	1145-1150	0.0	0.0	0.0	0.0	0.0	W	2	62	No
07	4/6/26	1158-1203	0.0	0.0	0.0	0.0	0.0	WNW	2	63	No
08	4/6/26	1205-1210	0.0	0.0	0.0	0.0	0.0	WNW	2	63	No
09	4/6/26	1212-1217	0.0	0.0	0.0	0.0	0.0	WNW	2	63	No

* H₂S readings less than 0.003 PPM are below the J605 instrument detection range and cannot be accurately verified.

** Sulfur odor presence is specifically describing the “rotten egg” odor indicative of hydrogen sulfide.

This thermal inspection summary is intended to provide accurate data for the City of Galena, the KDHE, and the landfill operator to review and interpret. Therefore, no recommendations will be provided here for the area around AOI 03; however, it can be recommended that additional cover soil be placed at the other 8 locations that exhibited elevated heat signatures on March 17, although no H₂S concentrations recorded during the monitoring activity on April 6.

The “regular” hydrogen sulfide air monitoring will continue every-other day with the Jerome J605 unit, per the established protocol, and continuously with the Dräger X-am 8000 unit on top of the landfill until the City of Galena communicates otherwise. The opportunity to provide these services is very much appreciated, and if you have questions, comments, or need additional information, please do not hesitate to reach out.

Sincerely,

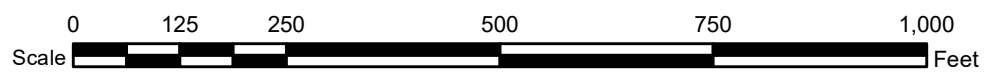


Shane McKinzie
 Project Manager
 Compliance 1
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 417-499-3481

Attached: Figure 1 - Thermal Areas of Interest



Legend:  Landfill Waste Boundary



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

FIGURE 1
THERMAL AREAS OF INTEREST
CITY OF GALENA C&D LANDFILL - #738
IMAGE FROM MARCH 17, 2026



COMPLIANCE 1
8135 STATE HWY 43
WEBB CITY, MO 64870
WWW.COMPLIANCE-1.COM
417-649-1269

Address:
1040 East Front Street
Galena, KS 66739

County: Cherokee
Lat: 37.083115
Long: -94.62861

Drafted by SCM
Date: 4/3/26
Project #26C1KS-109