

Kacy Murillo (adpce.ad)

Subject: RE: Spring 2023 Explosive Gas Monitoring

AFIN: 03-00051

PMT#: 0249-S1-R2

Received

By Kacy Murillo at 3:23 pm, May 9, 2023

DOC ID#: 83972

TO: MM>FILE <KM

From: Tom Huetter [<mailto:thuetter@harborenv.com>]

Sent: Monday, May 8, 2023 3:22 PM

To: Clay McDaniel (adpce.ad) <Clay.McDaniel@adeq.state.ar.us>

Cc: Leslie Davis <ldavis@harborenv.com>; Lisa Rotenberry <lisa.rotenberry@harborenv.com>; Caleb Gourley <cgourley@harborenv.com>

Subject: Spring 2023 Explosive Gas Monitoring

Clay-

Attached is the spring 2023 semi-annual explosive gas monitoring memo report. Let me know if you have any questions or comments.

Thanks,

-Tom

Thomas A. Huetter, PG, RG, *Associate Director of Natural Resources*

HARBOR · C 501-205-9569 · thuetter@harborenv.com

Harbor Environmental | Safety | Engineering

5800 Evergreen Dr.
Little Rock, AR 72205
P 501.663.8800 | F 501.588.0123
www.harborenv.com



DATE: May 8, 2023

TO: Clay McDaniel, *Engineer, Division of Environmental Quality*
Office of Land Resources, Assessment and Remediation, Technical Branch

FROM: Thomas Huetter, PG, *Harbor Senior Project Manager*

RE: Explosive Gas Monitoring
 NABORS Landfill
 Mountain Home, AR
Harbor Project No: ADEQ-22515

Harbor conducted explosive gas (methane) monitoring of the existing site perimeter gas probes at the NABORS landfill site. An RKI Eagle 2 multi-gas monitor was utilized to methane (CH₄) in percent lower explosive limit (% LEL) from 0 – 100%, (or percent CH₄ if greater than 100% LEL), oxygen (O₂) in percent volume, carbon monoxide (CO) in parts per million (ppm), and hydrogen sulfide (H₂S) in ppm. Results of the explosive gas monitoring are summarized in the table below.

NABORS Landfill	
Semi-Annual Explosive Gas Monitoring – October 2022	
Weather Conditions:	Overcast, light breeze, mid 60s

Sample Point	Date	Time	CH ₄ (% LEL)	% CH ₄	% O ₂	CO	H ₂ S
GP-1	5/4/23	1220	0	—	5.1	0	0.0
GP-2	5/4/23	1249	0	—	20.9	0	0.0
GP-3	5/4/23	1245	0	—	16.4	0	0.0
GP-4	5/4/23	1254	0	—	20.9	0	0.0
GP-5	5/4/23	1300	0	—	11.2	0	0.0
GP-6	5/4/23	1305	0	—	16.8	0	0.0
GP-7	5/4/23	1309	0	—	16.7	0	0.0
GP-8	5/4/23	1311	0	—	15.2	0	0.0
GP-9	5/4/23	1315	0	—	19.3	0	0.0
GP-10	5/4/23	1319	0	—	10.7	0	0.0
GP-11	5/4/23	1332	0	—	15.3	0	0.0
GP-12	5/4/23	1340	0	—	11.3	0	0.0
GP-13	5/4/23	1344	>100	5	0.0	0	0.0
GP-14	5/4/23	1357	>100	5	2.0	0	0.0
GP-14R	5/4/23	1352	0	—	17.3	0	0.0
GP-15	5/4/23	1113	0	—	9.8	0	0.0

Sample Point	Date	Time	CH ₄ (% LEL)	% CH ₄	% O ₂	CO	H ₂ S
GP-16	5/4/23	1148	>100	5	0.2	0	0.0
GP-16R	5/4/23	1106	0	—	18.3	0	0.0
GP-17	5/4/23	1207	0	—	11.7	0	0.0
GP-18	5/4/23	1215	>100	5	3.5	0	0.0
GP-18R	5/4/23	1212	0	—	13.1	0	0.0
Main Office Area	5/4/23	1328	0	—	20.9	0	0.0
Second Office	5/4/23	1328	0	—	20.9	0	0.0
Restroom/Storage	5/4/23	1328	0	—	20.9	0	0.0
Scale House	5/4/23	1124	0	—	20.9	0	0.0

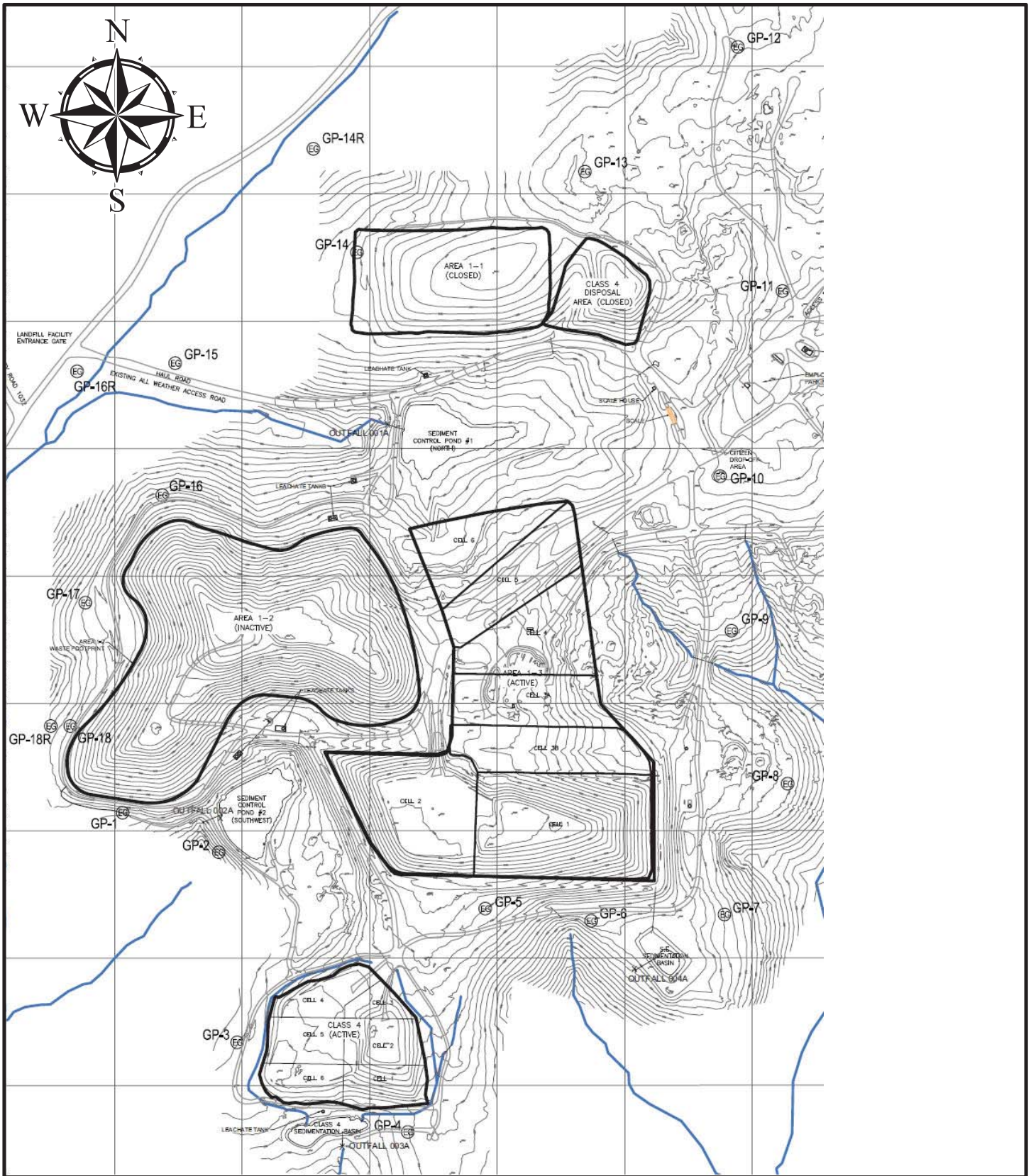
Methane exceeded 100% LEL in GP-13, GP-14, GP-16 and GP-18 and was measured at concentrations of 5 percent. No CO or H₂S was detected in any of the gas probes. Other than normal levels of O₂, no gas detections were measured in the scale house or office building. It should be noted that historically, no gas detections have occurred in the office building.

Attachments:

Attachment A – Sample Point Location Map

Attachment B – Instrument Calibration Record

Attachment A
Sample Point Location Map



Harbor
 5800 Evergreen Drive, Little Rock, AR 72205
 501-663-8800
 www.harborenv.com

GAS MONITORING POINTS
 NABORS Landfill
 Mountain Home
 Baxter County, Arkansas

DRAWN BY: TH
CHECKED BY: LR
DATE: 5/8/2023
FIGURE NO:

PROJECT NUMBER:
ADEQ-22515



1

Attachment B

Instrument Calibration Record



FIELD ENVIRONMENTAL INSTRUMENTS, INC.

www.fieldenvironmental.com

301 Brushton Ave
Suite A
Pittsburgh, PA 15221
Toll Free (800) 393-4009
Local (412) 436-2600
Fax (412) 436-2616

RKI Multi-Gas Detector Calibration Certificate

Cal Gas	Lot #	Expiration	Reading %	Acceptable Range
Oxygen	21-8149	08/26/23	18.0	(17.5% - 18.5%) ▼
Cal Gas	Lot #	Expiration	Reading ppm	Acceptable Range
H2S	21-8149	08/26/23	10	(9 - 11) ▼
Cal Gas	Lot #	Expiration	Reading ppm	Acceptable Range
CO	21-8149	08/26/23	50	(48 - 52) ▼
Cal Gas	Lot #	Expiration	Reading %	Acceptable Range
Ch4 % LEL	21-8149	08/26/23	50	(48 - 52)
Cal Gas	Lot #	Expiration	Reading %	Acceptable Range
Ch4 % Vol	21-8149	08/26/23	15	(13.5% - 16.5%) ▼
Cal Gas	Lot #	Expiration	Reading % / ppm	Acceptable Range
CO2 ▼	20-7457	06/29/24	15	(13.5% - 16.5%) ▼

Model

S/N

Barcode

Order #

Pump Flow

Calibrated By

Date of Calibration

All calibrations performed by FEI conform to manufacturer's specifications. Please report any issues within 24 hours of receiving equipment.

All calibration gas used is traceable to NIST. Additional documentation is available upon request.