



REGION 10  
SEATTLE, WA 98101

# Clean Air Act Partial Compliance Evaluation Inspection Report

## *Valley Landfills Inc. Coffin Butte Landfill*

2917 Coffin Butte Rd  
Corvallis, Oregon

Inspection Date: June 21, 2024

**SARA CONLEY** Digitally signed by SARA CONLEY  
Date: 2024.08.29 10:24:54 -07'00'

---

Report Author Signature

Sara Conley  
Clean Air Act Inspector  
EPA Region 10  
Enforcement and Compliance Assurance Division  
Air Enforcement Section

**Steven Rapp** Digitally signed by Steven Rapp  
Date: 2024.08.29 14:26:19 -04'00'

---

Peer Review Signature

Steve Rapp  
Environmental Engineer  
EPA Office of Enforcement and Compliance Assurance

**ELIZABETH WALTERS** Digitally signed by ELIZABETH  
WALTERS  
Date: 2024.08.29 14:34:09 -07'00'

---

Air Enforcement Section (AES) Manager Signature

Elizabeth Walters  
Air Enforcement Section Manager  
EPA Region 10

Table of Contents

- I. Basic Facility and Inspection Information..... 3
- II. Purpose of Inspection..... 5
- III. Compliance History..... 5
- IV. Pre-Inspection Observations ..... 6
- V. Facility and Process Description ..... 6
- VI. Entry and Opening Conference ..... 6
- VII. Facility Walk-Through..... 9
  - A. Morning SEM on Southwest Face of The Landfill..... 9
  - B. Afternoon SEM at Flare Station..... 9
  - C. Afternoon SEM at Eastern Face of The Landfill..... 10
  - D. Asbestos..... 10
- VIII. Closing Conference ..... 10
- IX. Post Inspection Activities..... 11
  - A. Records Review..... 11
  - B. Surface Emission Monitoring Follow-up..... 12

**Attachments**

Attachment 1 EPA Inspection Photo, Video and SEM Log

Attachment 2 EPA Surface Emission Monitoring Map

Attachment 3 IRwin Calibration

Attachment 4 TVA 2020 Calibration

Attachment 5 SEM Repair tracking

## I. Basic Facility and Inspection Information

**Facility:** Valley Landfills Inc.  
2917 Coffin Butte Rd  
Corvallis, Oregon 97330

**Mailing Address:** 2917 Coffin Butte Rd  
Corvallis, OR 97330

**AFS/FRS Number:** 110004808423

**SIC:** 4953 Refuse Systems

**NAICS:** 562212 Solid Waste Landfill

**Permit Number:** 02-5902-TV-01

**Facility Contacts:**

Ian Macnab  
Environmental Manager, Oregon  
Valley Landfills Inc.  
[ianmacnab@republicservices.com](mailto:ianmacnab@republicservices.com)

Broc Kienholz  
Operations Manager  
Coffin Butte Landfill  
Republic Services  
[bkienholz@republicservices.com](mailto:bkienholz@republicservices.com)

Phil Caruso  
Environmental Specialist  
Republic Services  
[pcaruso@republicservices.com](mailto:pcaruso@republicservices.com)

**U.S. EPA Inspectors:** Sara Conley  
Air Enforcement Section (AES)  
Enforcement and Compliance Assurance Division (ECAD)  
U.S. EPA Region 10  
1200 Sixth Ave.  
Seattle, WA 98101-3188

(206) 553-6914  
Conley.Sara@epa.gov

Alyson Skeens  
Air Enforcement Section (AES)  
Enforcement and Compliance Assurance Division (ECAD)  
U.S. EPA Region 10  
950 West Bannock Street, Suite #100  
Boise, Idaho 83702-5999(208) 378-5748  
Skeens.Alyson@epa.gov

Steve Rapp  
Air Enforcement Division (AED)  
Office of Civil Enforcement (OECA)  
U.S. EPA  
1200 Pennsylvania Avenue  
Washington, DC 20460  
(202) 250-8961  
Rapp.Steve@epa.gov

**ODEQ Representatives:**

Becka Puscas  
Interim Manager, Office of Compliance and Enforcement  
Oregon Department of Environmental Quality  
(503) 229-5058

Katie Eagleson – Air Toxics Permitting Engineer

Heather Kuoppamaki - Senior Air Quality Engineer

Alex Haulman – Air Quality Inspector, Eastern Region

Laura McWhorter – Natural Resource Specialist

**Date of Inspection:** June 21, 2024

**Inspection Start/End Times:** 9:45 – 16:30

**Inspection Notice:** This was an unannounced inspection. At approximately 9:00am on June 21, 2024 I called Ian Macnab to let him know that we would be arriving at the facility in about 45 minutes.

## II. Purpose of Inspection

This was a multi-media Clean Air Act (CAA) compliance inspection by the Environmental Protection Agency (EPA). Inspector Conley, EPA Region 10, led the inspection and was assisted by EPA inspectors Alyson Skeens, EPA Region 10, and Steve Rapp, EPA AED/OECA, (collectively, “the inspectors”). The regulatory state air agency, the Oregon Department of Environmental Quality, was made aware of the inspection beforehand and participated in the inspection.

This was a partial compliance evaluation by the U.S. Environmental Protection Agency Region 10. The purpose was to identify potential compliance concerns with CAA regulations, specifically the National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills, 40 CFR Part 63 Subpart AAAA and 40 CFR Part 61 Subpart M—National Emission Standard for Asbestos. The facility operates under a Title V Air Operating Permit (302-9502-TV-01). The facility is also subject to the federally enforceable Oregon State Plan for existing municipal solid waste landfills. The facility is regulated under the Oregon Administrative Rules at Chapter 340, Division 236 (OAR 340-236-0500) entitled “Solid Waste Landfills: Emission Standards for Municipal Solid Waste Landfills.”

### Disclaimer

This report is a summary of observations and information gathered from the facility at the time of the inspection and from a subsequent records review. The information provided does not constitute a final decision on compliance with CAA regulations or applicable permits, nor is it meant to be a comprehensive summary of all activities and processes conducted at the facility.

## III. Compliance History

EPA’s Enforcement and Compliance History Online, ECHO<sup>1</sup>, lists four on-site CAA inspections since 2022.

CAA	PCE On-Site	EPA	06/21/2024
CAA	FCE On-Site	State	07/11/2022
CAA	PCE On-Site	State	07/07/2022
CAA	PCE On-Site Monitoring/Sampling	EPA	06/23/2022

---

<sup>1</sup> See <https://echo.epa.gov/>

The ECHO database does not list formal or informal enforcement actions in the last three years for the CAA or other statutes.

#### **IV. Pre-Inspection Observations**

We went directly to the facility. No observations were made prior to the scheduled inspection.

#### **V. Facility and Process Description**

The following facility description is based on information provided by a facility representative in the opening conference as well as documents submitted by the facility to ODEQ.

The Valley Landfills Inc. facility (“the landfill,” “the facility,” or “Coffin Butte”) is located in Benton County Oregon. The landfill began accepting waste in 1978 and has a design capacity of approximately 39.7 tons. In 2021 there were 312 active vertical wells and a landfill gas control capacity equal to 5000 standard cubic feet per minute (scfm). Approximately 110 acres of the landfill have been constructed. The landfill directs landfill gas to an electrical generation plant owned and operated by the Pacific Northwest Generating Cooperative (PNGC). PNGC has a total of five engines capable of combusting 1915 standard cubic feet per minute (scfm). The PNGC facility has two backup flares with a combined capacity of 3,000 scfm.

The landfill uses interim cover consisting of temporary plastic covers. Temporary plastic cover is 12-mil lightweight plastic or 45-mil ethylene propylene diene monomer (EPDM) rubber. The cover material is anchored to the surface of the landfill. Sheet seams are sewn together, taped, or made to overlap with sandbags. Interim soil cover is typically 12 inches thick. Interim soil and plastic cover are placed to control landfill gas prior to final cover placement.

According to the facility, final cover will be installed once areas have settled. The final cover will consist of an under-drainage layer, 24” of soil, geomembrane and a drainage layer.

#### **VI. Entry and Opening Conference**

Inspectors Rapp, Skeens and I arrived at 9:40am along with representatives from ODEQ. The opening conference began at 9:45am.

Opening conference attendees included:

ODEQ:

- Becka Puscas
- Katie Egelston
- Heather Kuoppamaki
- Alex Haulman
- Laura McWhorter

Valley Landfills Inc.

- Ian Macnab
- Broc Kienholz
- Phil Caruso

Inspectors Rapp, Skeens and I presented our credentials to Mr. Macnab. I explained the purpose of the inspection was to evaluate compliance with the Clean Air Act and that we would be primarily focused on conducting surface emission monitoring (SEM). I explained that we had three instruments with us, the two TVA 2020s<sup>2</sup> and an Inficon IRwin SX<sup>3</sup>, which can be used to measure surface concentrations of methane. I explained that we would calibrate each instrument following the opening conference. We also notified the facility that we planned to take photos with a digital camera<sup>4</sup> and that we brought a Forward Looking Infrared (FLIR) Camera<sup>5</sup> capable of visually monitoring methane. I explained that all measurements, photos, video, and other information collected during the inspection would be included in the inspection report. I also described the timeline of the inspection and set expectations that we would be asking questions of the facility staff as we conducted the inspection.

I asked about the age of the landfill and about the cells in the landfill that are subject to the gas collection and control and surface emission monitoring (SEM) requirements under the federal CAA regulations for Municipal Solid Waste (MSW) Landfills. The facility representatives explained that the landfill first accepted waste in the 1970s. There is waste older than 5 years in every cell of the landfill. Inspector Rapp asked if there are any areas of the landfill that are currently excluded from gas collection and control. The facility representatives said that long ago there were areas but not now. At this landfill there is a cell of asbestos monofil as well as a small area that has asbestos buried in-place. Most asbestos is in the designated asbestos cell.

Mr. Kienholz explained how waste shipments are accepted at the facility. Trucks with municipal solid waste are weighed at the scale house. Mr. Kienholz stated that the commercial trucks have an account with Republic Services and if they bring in special wastes that information is recorded at the scale house. New waste is placed in active fill areas onsite. There is a new cell under construction at the landfill which will be located near the asbestos cell.

Inspector Skeens asked what the approximate volume of asbestos containing waste (ACW) Coffin Butte received and the customer breakdown between public and commercial. Mr. Macnab stated that Coffin Butte receives approximately 5,000 to 10,000 tons of ACW per year.

---

<sup>2</sup> Thermo Fisher Scientific Model TVA 2020, Serial Number 202023127089 and Thermo Fisher Scientific Model TVA 2020, Serial Number 202017092713

<sup>3</sup> Inficon IRwin SX device, using the Elkins Earthworks software, held by EPA OECA/AED, Serial #: 580-01092006439

<sup>4</sup> Olympus Tough TG-6, Serial Number BJ5B27623

<sup>5</sup> FLIR Gx620 1060080

Macnab stated that Coffin Butte does not typically receive ACW from the public and most shipments are from commercial contractors. Mr. Macnab stated that Coffin Butte will see loads coming from Coast from Portland to Eugene up to Willamette. Coffin Butte rarely receives waste from out of state but if they do it would most likely be from Washington.

Inspector Skeens asked if Coffin Butte has turned ACW loads away for discrepancies. Mr. Macnab stated that they have turned loads away before. The load is inspected when dropped off and workers will require bags to be taped if there are rips or tears. Inspector Skeens ask if they could see the asbestos cell during the inspection. Mr. Macnab states that the asbestos cell was downhill from the construction site and advised against going there for safety concerns. Inspector Skeens asked if Coffin Butte had plans to layer over the asbestos cell with MSW. Mr. Macnab stated that there are plans but he was not sure when that would take place.

Inspectors Rapp and I asked about how the facility monitors surface emissions and the landfill gas collection system. The facility representatives explained that their consultant, SCS, provides a SEM route map and performs the SEM monitoring on foot. The facility representatives stated that the most recent surface emissions monitoring was performed a few months ago. The facility representatives do not observe the surface emission monitoring conducted by SCS. According to the facility representatives, if SCS identifies surface emission exceedances, SCS reports the exceedances to Republic Services and Republic Services will make the repairs. Inspector Rapp asked if there are any areas of the landfill that are not monitored for surface emissions. The facility representatives said that they do not monitor dangerous areas such as where there active filling is occurring.

I asked who conducts the well parameter monitoring and the facility told me that PNGC Power monitors the wells. PNGC Power operates the landfill gas to energy facility. I asked about interior well installations and the facility representatives told me that wells will be installed beginning in July. The facility has a combination of vertical and horizontal interior wells installed and the facility representatives explained that the active fill area is managed with horizontal wells. The facility reported that cover integrity monitoring is conducted by in-house staff.

Inspector Rapp asked if the flares were operating that day. The facility representatives indicated that the landfill was producing approximately 1800 scfm of which approximately 1000 scfm was being routed to the engines and the remainder to flares. The inspectors indicated that they would like to visit the flare station later during the facility walkthrough.

I asked the facility for a printed map of the landfill and we discussed where we planned to conduct the monitoring with Mr. Macnab. I explained that we would not be conducting a full surface emission monitoring survey over the entire landfill and that our inspection would be limited to an area before lunch and one after lunch. I decided to start with the area closest to the facility's office for the morning and then to visit the flare station and northeastern area in the afternoon. The opening conference concluded at approximately 10:50. Immediately following the opening conference we calibrated the two TVA 2020s and the Irwin.



## VII. Facility Walk-Through

The table of surface emissions exceedances and digital image log is included as Attachment 1 to this report. A map of the Surface Emissions Monitoring (SEM) path walked by Inspector Rapp with the EPA IRwin is included in Attachment 2.

### A. Morning SEM on Southwest Face of The Landfill

The walkthrough began at about 11:00. The inspection team was escorted by Mr. Macnab and Mr. Caruso. We began the monitoring with one TVA 2020 operated by inspector Skeens, another TVA 2020 operated by Mr. Haulman of ODEQ, and the EPA IRwin operated by Inspector Rapp.

Mr. Macnab estimated that we were over Cell 3 of the landfill. The lower side of the slope was vegetated, and Mr. Macnab stated that they were in the process of getting the vegetated surface of the landfill mowed. We did not measure any exceedances on the lower-vegetated section of the landfill slope. As we moved up the slope of the landfill we began to walk on the 45-mil ethylene propylene diene monomer (EPDM) rubber covered area. The 45-mil EPDM cover is considered interim cover. Mr. Macnab explained that this area would remain covered with 45-mil EPDM until there was either more waste placed in this cell or the area is placed under final cover. The EPDM material is weighed down with sandbags and straps it is also bolted to the surface in places.

We traversed a section of the southwest side of the landfill moving from one penetration to another and monitoring surface emissions along the way. I noticed that when the wind was blowing from the west there was an odor that smelled like landfill gas. There were a number of exceedances, readings of 500 ppm methane or larger, coming from holes or tears in the cover material. I noted that there were a number of plants growing out of the cover material at the top of the western side of the landfill in the area along the edge of Cell 3 and Cell 5. Some of the plants were between 1.5 to 3 feet tall. We did not monitor at the plant locations because of filling activity immediately uphill from that location. We made our way down the landfill slope and continued to take surface emission measurements with the TVAs and the Irwin. We took a break for lunch at approximately 13:00. The Irwin, operated by Inspector Rapp, detected 31 locations where methane emissions were 500 ppm or greater in this section of the landfill. See Attachment 1.

### B. Afternoon SEM at Flare Station

We returned to the facility at 14:30 and performed a calibration bump check on the TVAs and the Irwin which both units passed. See Attachment 3. Mr. Macnab informed us that SCS would be coming the week of June 24th to conduct penetration monitoring. We followed Mr. Macnab in our vehicle to the flare station, the ODEQ representatives joined us for this portion of the afternoon. At the time of our visit, a new enclosed flare was onsite but construction of the flare was not complete and the flare was not operational. I operated the FLIR camera and recorded a

video, FLIR0093, of a leaking flange/blank plate at the flare station. The Irwin measured emissions above 500 ppm at the flange (photo 1734). See Attachment 1. The ODEQ team departed the flare station at approximately 15:00.

### **C. Afternoon SEM at Eastern Face of The Landfill**

We followed Mr. Macnab in our vehicle to a pull-off at the northeastern face of the landfill. There was a noticeable landfill gas odor at the base of the slope. The Irwin measured methane greater than 500ppm at a liquid separation pipe for a horizontal collector. Inspectors Rapp and Skeens monitored surface emissions while we walked up the eastern slope of the landfill. We made our way up the slope walking from one wells or other penetrations to another and monitored surface emissions along the way. We also stopped at areas where visual inspection indicated possible surface emissions such as holes in the cover material. We identified 9 locations with emissions over 500ppm methane along our path. See Attachment 1. The walkthrough ended at approximately 16:00.

### **D. Asbestos**

The inspectors did not observe the asbestos cell due to safety concerns Mr. Macnab expressed during the opening conference.

## **VIII. Closing Conference**

At 16:00, our group returned to the facility conference room to discuss the inspection and conduct the closing conference. I led the closing conference and summarized the parts of the facility we had visited during the inspection and our observations related to CAA. I went through my inspection notes and described potential compliance concerns from the inspection. The following were identified as potential compliance concerns during the closing conference:

1. EPA monitored only a portion of the landfill surface and found numerous methane emissions at 500 ppm and higher, including at holes in the cover material. We identified many of the approximately 40 exceedances at locations where the cover material was damaged. Inspectors had noticed some plants growing out of the cover material near the areas where we monitored for emissions.
2. EPA monitored a flange at the flare station had methane emissions over 500ppm. The facility indicated that they were repairing this flange while we were in the opening conference.
3. One of the wellheads EPA monitored to was open to the atmosphere and the IRwin measured emissions over 500ppm.

Inspector Rapp and I discussed EPA's follow-up from the surface emission monitoring EPA conducted during the inspection. We explained that we would send the locations of the

exceedances and the readings within a week. We explained the 10-day re-monitoring would be due within 10 days following the facility's receipt of the list of exceedances.

I listed the records I needed to further evaluate the facility to Mr. Macnab. I explained that the inspection would not be complete until I have reviewed all the records that the facility submitted, reviewed my notes, and written an inspection report. Inspector Rapp, Skeens, and I thanked the facility representatives for their time and assistance and departed the facility at 16:30.

## IX. Post Inspection Activities

### A. Records Review

The facility provided a response to our information request on August 16, 2023.

**Table 1: Records Review**

#### Records Requested

<b>Electronic copy of a map or maps:</b> <ul style="list-style-type: none"><li>• Including the locations of all wells and an indication of the well type.</li><li>• Indicating the cell outlines on the landfill.</li><li>• Indicating the boundaries of each phase of the landfill.</li><li>• Indicating the most recent planned path for surface emission monitoring, including areas excluded from monitoring.</li></ul>
<b>Response:</b> The facility provided all of the requested maps in an electronic format.
<b>The most recent two quarters of gas migration/perimeter probe readings.</b>
<b>Response:</b> The facility provided monthly readings from January 2024 through July 2024. The permitter probe readings recorded for the last two quarters were all 0.0% methane.
<b>Electronic copy of the most recent design plan.</b>
<b>Response:</b> The facility provided the requested record.

<b>10 most recent ASM-4 for commercial loads.</b>
<b>Response:</b> The facility provided 10 ASN-4 forms.
<b>Last 6 months of landfill cover monitoring records.</b>
<b>Response:</b> The facility provided records for each month from January 2024 through June 2024.
<b>Last three months of all well readings, including all parameters measured. Please provide in an excel readable file type.</b>
<b>Response:</b> The facility provided the requested data.
<b>Odor complaints received in the last 6 months.</b>
<b>Response:</b> The facility provided records covering December 2023 through June 2024, all months had a complaint about odor.
<b>Electronic copy of the two most recent semi-annual (or annual) reports.</b>
<b>Response:</b> The facility provided the two most recent semi-annual reports. One dated February 13, 2024 covering the reporting period of July 1, 2023 through December 31, 2023 and one dated July 16, 2024 covering the reporting period of January 1, 2024 through June 30, 2024.
<b>2 most recent quarterly surface emission monitoring surveys</b>
<b>Response:</b> Facility provided both of the reports we requested.

**B. Surface Emission Monitoring Follow-up**

The facility submitted the following documents on August 23, 2024

SEM Repair tracking – listed repairs but not the date of the repair, see Attachment 5.

Second Quarter Emission Monitoring - June 11, 16, 18, 24, 26, and July 6, 16, and 26, 2024, OAR landfill surface emissions monitoring (SEM) performed by SCS Field Services (SCS) at the Coffin Butte Landfill.

EPA's surface emissions results, received by the facility on June 26, 2024, indicated that forty-one (41) locations exceeded the 500 ppmv maximum concentration. The required first and second 10-day (Oregon Administrative Rule) follow-up monitoring performed by SCS on July 6, and 16, 2024, indicated that not all locations returned below compliance limits as required, following system adjustments and remediation by site personnel. Based on these monitoring results, and in accordance with the Oregon State Regulations, the site is required to perform a system expansion within 120 days of the third detected exceedance or November 13, 2024.

**Attachment 1: EPA Inspection Photo, Video and SEM Log**

**Attachment 1 – EPA Inspection Photo, Video and SEM Log  
Valley Landfills Inc CAA Inspection 06/21/2024**

PENETRATION ID	TIMESTAMP (EST)	Corrected time (Pacific time)	LAT WGS84	LON WGS84	MAX DETECTOR CONCENTRATION CH4 (ppmv)	CONFIRMATION TVA 2020 (EPA)CH4 (ppmv)	PHOTO OR VIDEO NUMBER	DESCRIPTION
A1	6/21/2024 14:11	6/21/2024 11:11	44.69752	-123.233986	4900	1000	P6210151, P6210152	Exceedance at well
--							P6210153	Photo showing the side of the landfill looking east.
--							P6210154	Photo of a well with cover gathered around the base
A2	6/21/2024 14:21	6/21/2024 11:21	44.697938	-123.234216	10011	3%	n/a	
A3	6/21/2024 14:23	6/21/2024 11:23	44.698045	-123.234395	1271	3700	n/a	
A4	6/21/2024 14:29	6/21/2024 11:29	44.698033	-123.234661	1622	1000	P6210155, P6210156	Exceedance measured at base of well
A5	6/21/2024 14:30	6/21/2024 11:30	44.697969	-123.234744	1459	1600	P6210157	Exceedance at opening in cover
							P6210158	Penetration in cover
A6	6/21/2024 14:33	6/21/2024 11:33	44.698005	-123.235072	14097	>1000	P6210159, P6210160, P6210161	Exceedance located at support on left
A7	6/21/2024 14:35	6/21/2024 11:35	44.698088	-123.235163	16501	20000	P6210163	Exceedance at tear in cover
A8	6/21/2024 14:37	6/21/2024 11:37	44.698123	-123.235294	1118	800	P6210164	Exceedance at vegetation growing out of cover
A9	6/21/2024 14:40	6/21/2024 11:40	44.698127	-123.235513	2719	1.30%	P6210165	Exceedance at tear in cover
A10	6/21/2024 14:41	6/21/2024 11:41	44.698197	-123.23546	4762	1.00%	P6210166, P6210167	Exceedance at tear in cover, at worn patch
A11	6/21/2024 14:42	6/21/2024 11:42	44.698206	-123.23543	8350	20000	P6210167	Exceedance at tear in cover at a rock in background of 167

**Attachment 1 – EPA Inspection Photo, Video and SEM Log  
Valley Landfills Inc CAA Inspection 06/21/2024**

PENETRATION ID	TIMESTAMP (EST)	Corrected time (Pacific time)	LAT WGS84	LON WGS84	MAX DETECTOR CONCENTRATION CH4 (ppmv)	CONFIRMATION TVA 2020 (EPA)CH4 (ppmv)	PHOTO OR VIDEO NUMBER	DESCRIPTION
A12	6/21/2024 14:45:00	6/21/2024 11:45	44.69817	-123.235601	1597	2300	camera battery died	
A13	6/21/2024 14:48	6/21/2024 11:48	44.698197	-123.235671	1839	1000		Exceedance at tear in cover
A14	6/21/2024 14:49	6/21/2024 11:49	44.698184	-123.235675	1182	2000		Exceedance at tear in cover
A15	6/21/2024 14:51	6/21/2024 11:51	44.698257	-123.235666	4253	4255		Exceedance at patched area with new hole in cover
A16	6/21/2024 14:52	6/21/2024 11:52	44.6983	-123.235524	9694	TVA flame out		flame out is generally when > 20000
A17	6/21/2024 14:57	6/21/2024 11:57	44.698489	-123.235238	2967	not taken		Exceedance at tarp hole
A18	6/21/2024 15:00	6/21/2024 12:00	44.698836	-123.235078	2900	2200		Exceedance at wellhead cluster
A19	6/21/2024 15:02	6/21/2024 12:02	44.698871	-123.23504	4436	1300		Exceedance at flange
A20	6/21/2024 15:06	6/21/2024 12:06	44.699096	-123.234886	118265	TVA flame out		The cap is off of this well, exceedance at the top.
A21	6/21/2024 15:09	6/21/2024 12:09	44.699247	-123.235311	51151	13000		
A22	6/21/2024 15:11	6/21/2024 12:11	44.699114	-123.23529	1412	1200		
A23	6/21/2024 15:13	6/21/2024 12:13	44.698985	-123.235414	8110	1100		
A24	6/21/2024 15:18	6/21/2024 12:18	44.698458	-123.234777	7443	1200		Exceedance at penetration
A25	6/21/2024 15:21	6/21/2024 12:21	44.698393	-123.234706	8054	12000		Exceedance at BV92
A26	6/21/2024 15:23	6/21/2024 12:23	44.698392	-123.234575	4502	4600		Exceedance at hole in tarp
A27	6/21/2024 15:25	6/21/2024 12:25	44.698351	-123.234173	12969	1.30%		Exceedance at 3V93
A28	6/21/2024 15:28	6/21/2024 12:28	44.698182	-123.23397	4339	2400		Exceedance at hole in tarp, 3V83
A29	6/21/2024 15:31	6/21/2024 12:31	44.698236	-123.233457	55729	>2%		Exceedance at tear at boot where horizontal pipe is coming out of the cover
A30	6/21/2024 15:33	6/21/2024 12:33	44.698186	-123.233425	2368	1800		Exceedance at liquid separation
A31	6/21/2024 15:48	6/21/2024 12:48	44.696522	-123.233878	16740	1.50%		Exceedance at Cell 1 sump, outside of the landfill footprint.
--							FLIR0091	Accidental video
--							FLIR0092	Accidental video



**Attachment 1 – EPA Inspection Photo, Video and SEM Log  
Valley Landfills Inc CAA Inspection 06/21/2024**

PENETRATION ID	TIMESTAMP (EST)	Corrected time (Pacific time)	LAT WGS84	LON WGS84	MAX DETECTOR CONCENTRATION CH4 (ppmv)	CONFIRMATION TVA 2020 (EPA)CH4 (ppmv)	PHOTO OR VIDEO NUMBER	DESCRIPTION
A32	6/21/2024 17:49	6/21/2024 14:49	44.6974	-123.224024	7700	not taken	FLIR0093	Exceedance at Flare Station flange, in video the flange on the right side
--							FLIR0094	Accidental video
--							FLIR0095	Accidental video
A33	6/21/2024 18:14	6/21/2024 15:14	44.701817	-123.22582	6393	2000+	DSCN1734	Exceedance at liquid separation for horizontal
A34	6/21/2024 18:21	6/21/2024 15:21	44.701431	-123.226183	7110	1200	DSCN1735	Exceedance at tear in the material at the base of 5V22
A35	6/21/2024 18:24	6/21/2024 15:24	44.701263	-123.226236	12247	1.30%		
A36	6/21/2024 18:31	6/21/2024 15:31	44.700978	-123.227052	654	10000	DSCN1736	
A37	6/21/2024 18:35	6/21/2024 15:35	44.700853	-123.227144	24738	1.30%		Exceedance at hole in cover
A38	6/21/2024 18:42	6/21/2024 15:42	44.701694	-123.227427	1707	1%		Exceedance at hole in cover
A39	6/21/2024 18:44	6/21/2024 15:44	44.701818	-123.227413	14956	1.15%		Exceedance at 5H26
A40	6/21/2024 18:47	6/21/2024 15:47	44.701819	-123.2274	2675	1.15%	DSCN1737	Exceedance at hole in cover
A41	6/21/2024 18:51	6/21/2024 15:51	44.702381	-123.227485	1057	4000	DSCN1738	Exceedance at tag FD12

**Attachment 2: EPA Surface Emission Monitoring Map**

June 21, 2024

Clean Air Act inspection  
Valley Landfills Inc

**Legend**

- EPA Readings >500ppm Methane
- 📍 Surface Emission Monitoring Path



Republic Services Coffin Butte Landfill

Knife River - Coffin Butte Quarry

Valley Landfills

99W

Google Earth

Image © 2024 Airbus

1000 ft



**Attachment 3: IRwin Calibration**

AED IRWin SX 580-010 92006439

<b>Date:</b>	6/20/2024
<b>Calibration Performed By:</b>	Steve Rapp
<b>Warm-Up Time:</b>	Approx. 15 mins.
<b>Detector Calibrated:</b>	AED IRWin SX 580-010 92006439

Calibration Gas: Methane (CH4)				
Calibration Gas	Calibration Gas Supplier	Calibration Gas Expiration	Lot #	Cylinder #:
Zero gas (0 ppmv CH4)	Pine Environmental Services	6/29/2027	304-402786171-1	UN10021121719481
500 ppmv CH4	Pine Environmental Services	6/29/2027	304-402785850-1	UN19561121719481

Time	Location of Calibration		Notes:	
Approx. 10:45:00 AM	Coffin Butte landfill office building, Carvallis, OR.			
<b>Initial Accuracy Test</b>				
<b>Expected Reading (ppmv CH4)</b>		<b>Zero</b>	<b>500</b>	<b>Notes:</b> Used demand regulators.
Span Reading		0	500	Accepted/pass
<b>Calibration/Concentration Check</b>				
<b>Expected Reading (ppmv CH4)</b>		<b>Zero</b>	<b>500</b>	
Instrument Reading		0	500	Accepted/pass
<b>Bump Check</b>				
Date: 6/21/2024	Time: 14:28			
<b>Expected Reading (ppmv CH4)</b>			<b>500</b>	
Instrument Reading			470	Accepted/pass
<b>Bump Check</b>				
Date: 6/21/2024	Time: 16:10			
<b>Expected Reading (ppmv CH4)</b>			<b>500</b>	
Instrument Reading			460	Accepted/pass

Background concentrations (ppmv CH4):		Location:	Time:
<b>Upwind:</b>	0	Measured on road by portable toilets in northeast corner of LF	16:00
<b>Downwind:</b>	0	Measured in parking lot of office building	11:00

**Comments/Notes:** The instrument was calibrated and checked for response time and precision on 6/20/24 at approx. 7:30 am using the 0 air and 500 ppm CH4 from the same cylinders identified above. All readings are within 10% of the known calibration value. Response times are approximately 7.1 seconds, under the maximum of 30 seconds. The gas cylinders identified above were used for the daily calibration and bump checks.

**Precision and Response Time Checks:**

<b>Date:</b>	<b>Time:</b>	<b>Location:</b>
6/20/2024	7:25 AM	Residence Inn, Portland, OR

**AED IRWin SX 580-010 92006439**

Cal Gas (zero) 0 ppmv		Notes:
Reading	Time	Demand regulator used.
Trial 1	0	
Trial 2	0	
Trial 3	0	
Average	0	

**AED IRWin SX 580-010 92006439**

Cal Gas (mid): 500 ppmv CH4		Notes:
Reading	Time	Demand regulator used.
Trial 1	500	6.78
Trial 2	500	6.92
Trial 3	500	7.59
Average	500	7.1
All readings within 10%. All times within 30 seconds.		

**Calibration gas information:**

Gas Concentration (ppmv CH4)	Calibration Gas	Lot #	Cylinder #	Expiration Date	Notes:
0	Pine Environmental Services	304-402786171-1	UN10021121719481	6/29/2027	Pressure = 300 psi. THC < 0.1 ppm, O2 = 20-22%
500	Pine Environmental Services	304-402785850-1	UN19561121719481	6/29/2027	Pressure = 400 psi. 500 ppmv CH4. Air 20.9% O2 in N2.


**Attachment 4: TVA 2020 Calibration**

# EPA Method 21 Quarterly Precision/Daily Calibration Form

*Alyson Skeen*

US EPA, Region 10	Monitor: <i>Sara Conley</i>	Date: <i>6/21/24</i>
Mfg: Thermo Fisher Scientific	Model No: TVA 2020	Instrument SN: <i>6020231270</i> 89
Facility: <i>WPH</i>	City/State:	ICIS No.

Calibration Gas Information					
	Gas Type	ppm	+/- %*	Lot No:	Expiration Date: (M-D-Y)
Calibration Gas 1	0-Air	0	2		
Calibration Gas 2	<i>CH4</i>	<i>500</i>	2		
Calibration Gas 3	<i>CH4</i>	<i>10,000</i>	2		

\* % that gas is certified to be w/in of the std concentration. (Method-21, Cylinder gas to be certified within ± 2% of std.)

Calibration Standard Test No. 1: <u>0</u> PPM <u>Zero Air</u> Gas						
Test	Test reading	Drift	Total	Avg.	-----	Comments
1	<i>0.1</i>	<i>0.1</i>	<i>0.2</i>	<i>0.1</i>	<u>NA</u>	
2	<i>0.0</i>	<i>0</i>				
3	<i>-0.1</i>	<i>+0.1</i>				
Calibration Standard Test No. 2 <u>500</u> PPM <u>500</u> Gas						
Test	Test reading	Drift	Total	Avg.	*Avg diff w/in ± 10% std = Pass	Comments
1	<i>499</i>	<i>1</i>	<i>7</i>	<i>2.3</i>	<i>0.5</i> %	Pass / Fail (circle one)
2	<i>497</i>	<i>3</i>				
3	<i>497</i>	<i>3</i>				
Calibration Standard Test No. 3 <u>10,000</u> PPM <u>10,000</u> Gas						
Test	Reading	Drift	Total	Avg.	*Avg diff w/in ± 10% std = Pass	Comments
1	<i>1.02</i>	<i>200</i>	<i>900</i>	<i>300</i>	<i>3</i> %	Pass / Fail (circle one)
2	<i>1.03</i>	<i>300</i>				
3	<i>1.04</i>	<i>400</i>				

\* Avg difference ÷ cal gas std x 100 = \_\_\_\_\_ %, Unit warm up time ≥ 30 min:  Yes,  No

Subpart VVa Drift – Mid Day Reading				Subpart VVa Drift – End of Day Reading			
Cal Gas	Concentration	Reading	*Pass/Fail	Cal Gas	Concentration	Reading	*Pass/Fail
1	<i>0</i>	<i>-0.6</i>	<i>P</i>	1	<i>0</i>	<i>-2.5</i>	
2	<i>500</i>	<i>513</i>	<i>P</i>	2	<i>500</i>	<i>504</i>	
3	<i>10,000</i>	<i>10,800</i>	<i>P</i>	3	<i>10,000</i>	<i>10,400</i>	

\*Negative drift > 10% = Fail per 40 CFR 60, Subpart VVa. Fail = monitored data is void. Pass = ≤ 10% drift.

Response Time W/ extension <input type="radio"/> W/O extension <input type="radio"/>										
Test No.	Cal Std	Response Time	Total Time	Avg. Time	pass/fail ≤30 sec	Cal Std.	Response Time	Total Time	Avg. Time	pass/fail ≤30 sec
1										
2			____ sec	____ sec	Pass / Fail			____ sec	____ sec	Pass / Fail
3										

Notes: \_\_\_\_\_

Monitor's Signature \_\_\_\_\_

Date: *6/21/24*



**Attachment 5: SEM Repair tracking**

PENETRATION ID	TIMESTAMP	LAT WGS84	LON WGS84	Action
A1	6/21/2024 12:11	44.69752	-123.233986	Damaged well repaired; new kanaflex, added dirt.
A2	6/21/2024 12:21	44.697938	-123.234216	EPDM patch
A3	6/21/2024 12:23	44.698045	-123.234395	EPDM patch
A4	6/21/2024 12:29	44.698033	-123.234661	EPDM patch
A5	6/21/2024 12:30	44.697969	-123.234744	EPDM patch
A6	6/21/2024 12:33	44.698005	-123.235072	EPDM patch
A7	6/21/2024 12:35	44.698088	-123.235163	EPDM patch
A8	6/21/2024 12:37	44.698123	-123.235294	Tarp removed for waste placement
A9	6/21/2024 12:40	44.698127	-123.235513	Tarp removed for waste placement
A10	6/21/2024 12:41	44.698197	-123.23546	Tarp removed for waste placement
A11	6/21/2024 12:42	44.698206	-123.23543	Tarp removed for waste placement
A12	6/21/2024 12:45	44.69817	-123.235601	Tarp removed for waste placement
A13	6/21/2024 12:48	44.698197	-123.235671	Tarp removed for waste placement
A14	6/21/2024 12:49	44.698184	-123.235675	Tarp removed for waste placement
A15	6/21/2024 12:51	44.698257	-123.235666	Tarp removed for waste placement
A16	6/21/2024 12:52	44.6983	-123.235524	Tarp removed for waste placement
A17	6/21/2024 12:57	44.698489	-123.235238	Tarp removed for waste placement
A18	6/21/2024 13:00	44.698836	-123.235078	Tarp removed for waste placement
A19	6/21/2024 13:02	44.698871	-123.23504	Tarp removed for waste placement
A20	6/21/2024 13:06	44.699096	-123.234886	Tarp removed for waste placement
A21	6/21/2024 13:09	44.699247	-123.235311	Tarp removed for waste placement
A22	6/21/2024 13:11	44.699114	-123.23529	Tarp removed for waste placement
A23	6/21/2024 13:13	44.698985	-123.235414	Tarp removed for waste placement
A24	6/21/2024 13:18	44.698458	-123.234777	Tarp removed for waste placement
A25	6/21/2024 13:21	44.698393	-123.234706	EPDM sheet added around and booted
A26	6/21/2024 13:23	44.698392	-123.234575	EPDM boot repaired.
A27	6/21/2024 13:25	44.698351	-123.234173	EPDM patch
A28	6/21/2024 13:28	44.698182	-123.23397	EPDM patch
A29	6/21/2024 13:31	44.698236	-123.233457	EPDM patch
A30	6/21/2024 13:33	44.698186	-123.233425	EPDM patch
A31	6/21/2024 13:48	44.696522	-123.233878	Bolts added/tightened lid on Cell 1 sump
A32	6/21/2024 15:49	44.6974	-123.224024	Blind flange bolts added and tightened
A33	6/21/2024 16:14	44.701817	-123.22582	Soil added
A34	6/21/2024 16:21	44.701431	-123.226183	EPDM patch
A35	6/21/2024 16:24	44.701263	-123.226236	EPDM patch
A36	6/21/2024 16:31	44.700978	-123.227052	EPDM patch
A37	6/21/2024 16:35	44.700853	-123.227144	EPDM patch
A38	6/21/2024 16:42	44.701694	-123.227427	EPDM patch
A39	6/21/2024 16:44	44.701818	-123.227413	EPDM patch
A40	6/21/2024 16:47	44.701819	-123.2274	EPDM patch
A41	6/21/2024 16:51	44.702381	-123.227485	EPDM patch

Please see 2nd Quarter SEM report for remonitoring