

# Passes to Pollute: Regulatory Loopholes in California's Oil and Gas Rule

*A White Paper by the Central California Environmental Justice Network*

August 2025

## Introduction

Uncontrolled methane emissions from oil and gas operations threaten both our climate and the health of communities living near extraction sites, yet critical regulatory failures continue to allow dangerous leaks to persist. With a global warming potential more than 80 times greater than carbon dioxide over a 20-year period, methane is a powerful climate forcer that accelerates near-term warming. Compounding this risk, methane leaks often carry toxic and carcinogenic air pollutants—such as benzene and other volatile organic compounds (VOCs)—that contribute to ozone formation and cause serious short- and long-term health impacts for frontline residents. As a cornerstone of California's methane reduction strategy, the California Oil and Gas Rule (COGR) is meant to advance the state's climate and health goals. However, persistent gaps in the rule undermine its effectiveness, leaving communities exposed. This white paper examines these regulatory failures and shows, through real-world examples, how closing these loopholes is essential to protect people and the climate.

Immediate action is needed from the California Air Resources Board (CARB) to close regulatory gaps in the following COGR rule sections:

- **Separator and Tank System Requirements;**
- **Well Casing Requirements; and**
- **Leak Detection and Repair (LDAR) Provisions.**

## Tank and Separator Requirements

Within the oil and gas industry, separator and tank systems utilize pressure to separate and store well fluids into their constituent components (gas, oil, and water). Section 95668 of COGR requires owners and operators of these systems to install vapor collection systems to capture and process pollutant vapors that would otherwise be released into the atmosphere. Under COGR, systems that emit less than 10 metric tons (22,046 pounds) of methane per year, or receive an average of fewer than 50 barrels of crude oil per day,<sup>1</sup> are exempt from vapor control requirements.

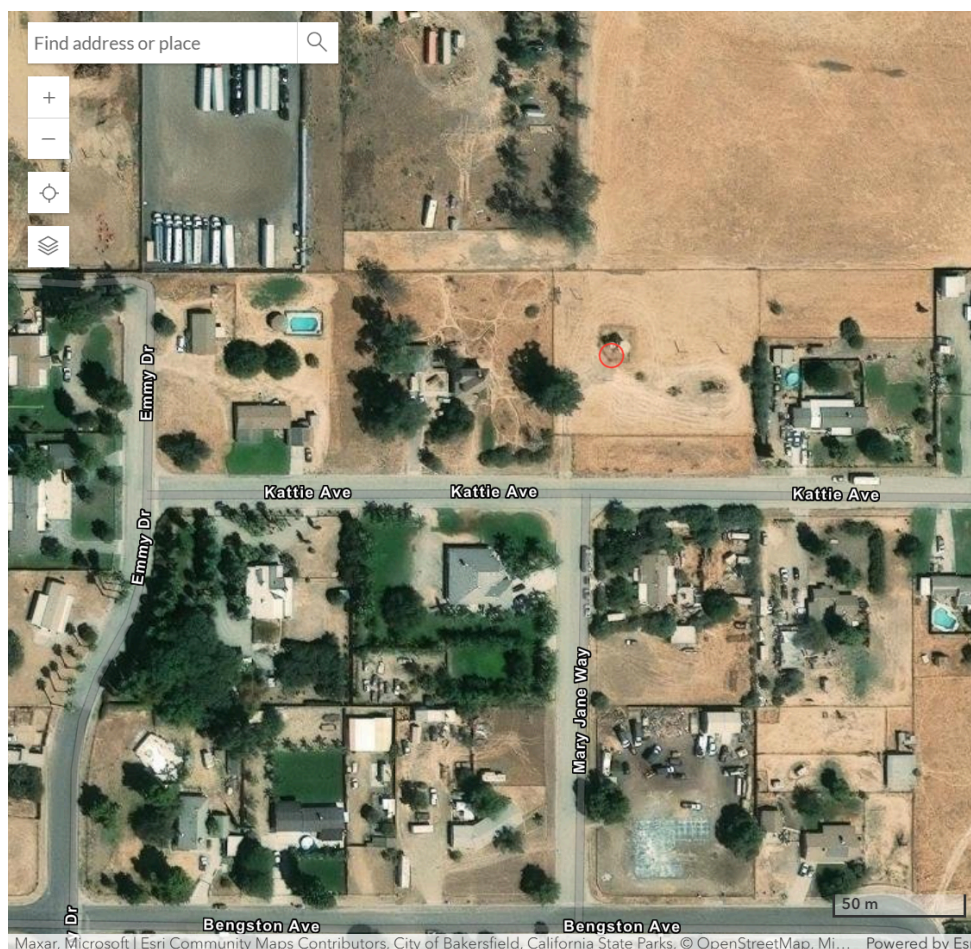
These exemptions are concerning, especially for systems fenceline to residents. For example, in a September 2024 case involving Redbank Oil Co., inspectors from the Central California Environmental Justice Network (CCEJN) discovered a gas leak from a storage tank (see inspection report [here](#)) located within a neighborhood (See Figure 1). The San Joaquin Valley

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<sup>1</sup> California Air Resources Board. (2017/2018). *Title 17, § 95668(a): Standards – Separator and Tank Systems*. In *Final Regulation Orders – GHG Emission Standards for Crude Oil and Natural Gas Facilities* (eff. April 1, 2018).

Air Pollution Control District (SJVAPCD or Air District), the enforcing agency of COGR in the region,<sup>2</sup> was told by the operator's consultant that the tank had a production rate under 50 barrels per day. As a result, the tank was determined to be exempt from both COGR and local air district regulations, leading the District to close the case without conducting an inspection and with no enforcement action.

**Figure 1. Proximity of Redbank Oil Co. Tank (circled in red) to Residences**



**Recommendation:** Eliminate emissions and production thresholds for rule applicability and require vapor collector systems on all separator and tank systems for crude oil and natural gas.

### Well Casing Requirements

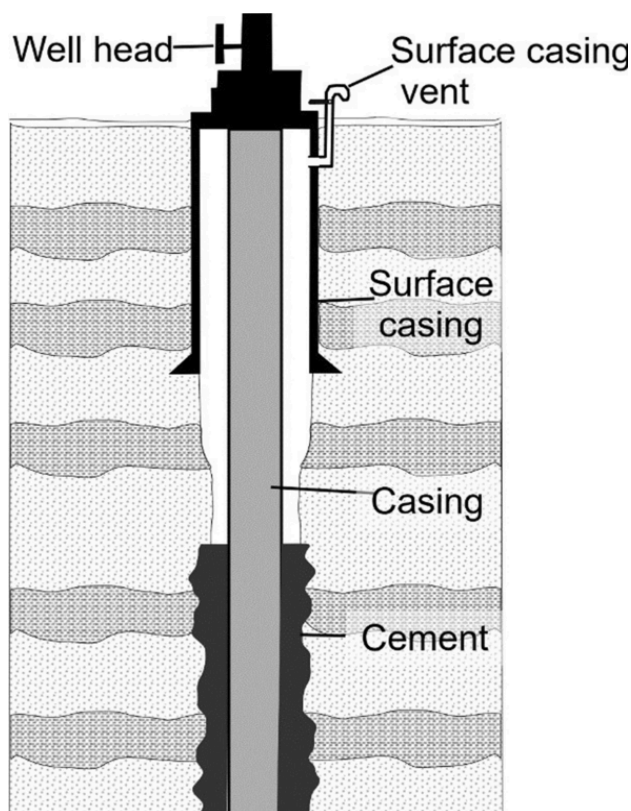
Section 95668 (g) of COGR addresses methane emissions from open well casing vents.<sup>3</sup> In oil and gas production, well casing vents, also known as surface casing vents (see Figure 2), are

<sup>2</sup> SJVAPCD Oil and Gas Reg MOA, November 2017  
[https://ww2.arb.ca.gov/sites/default/files/2020-04/san\\_joaquin\\_valley\\_moa.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-04/san_joaquin_valley_moa.pdf)

<sup>3</sup> California Code of Regulations, Title 17, § 95668(g), *Oil and Gas Production, Processing, and Storage: Standards for Well Casing Vents*, California Air Resources Board

designed to release gases that accumulate in the space between the well's casing and the surrounding formation. When opened, these vents prevent pressure buildup, but also allow for the uncontrolled release of potentially toxic gases into communities. This section of COGR requires operators to annually measure the flow rate from any opened well casing vent. While this requirement provides a basic framework for tracking methane emissions from opened vents, it does not limit emissions. Furthermore, exemptions severely limit the rule's scope. For instance, vents opened for maintenance or testing, and wells operating under negative pressure such as vacuum systems, are exempt, even though vents can remain open and unmonitored for months, and temporary system failures could result in venting when not under vacuum.

**Figure 2. Diagram of Surface Casing Vent<sup>4</sup>**

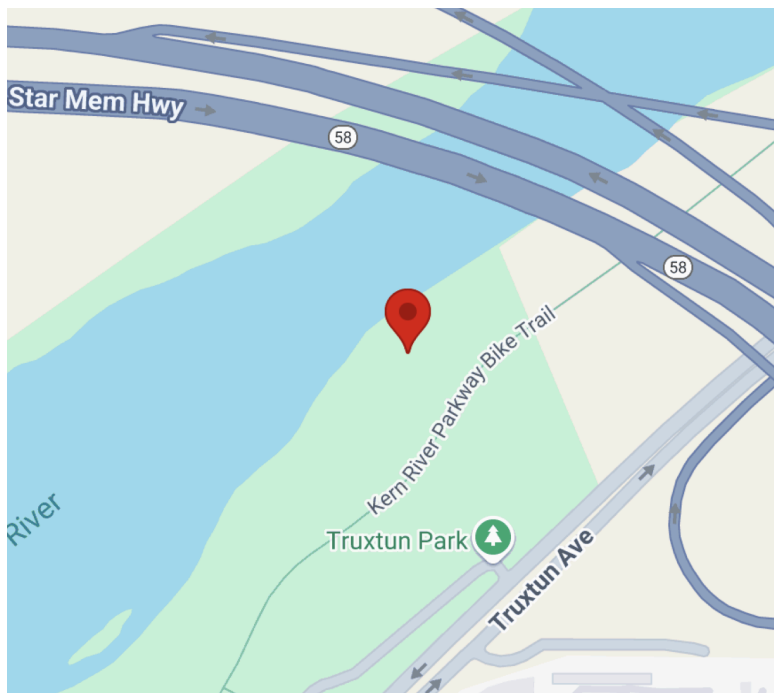


A recent incident highlights how these regulatory limitations play out in practice. In May 2024, CCEJN inspectors filed a complaint about two leaking oil wells within a public park, approximately 50 feet from a popular walking and biking trail (See Figure 3). Included in the complaint was an infrared video of gas emissions coming from an elbow joint (See Figure 4) and mobile monitoring data confirming high methane levels. However, when the Air District inspector conducted a follow-up inspection, they found that the wells were operating with open casing vents. As a result, the SJVAPCD concluded that no violation occurred - even though the leak appears to be coming from an elbow joint and not the vent - and the investigation was

<sup>4</sup> Utting, N., Osadetz, K., Darrah, T.H. *et al.* Methods and benefits of measuring non-hydrocarbon gases from surface casing vents.(2023).

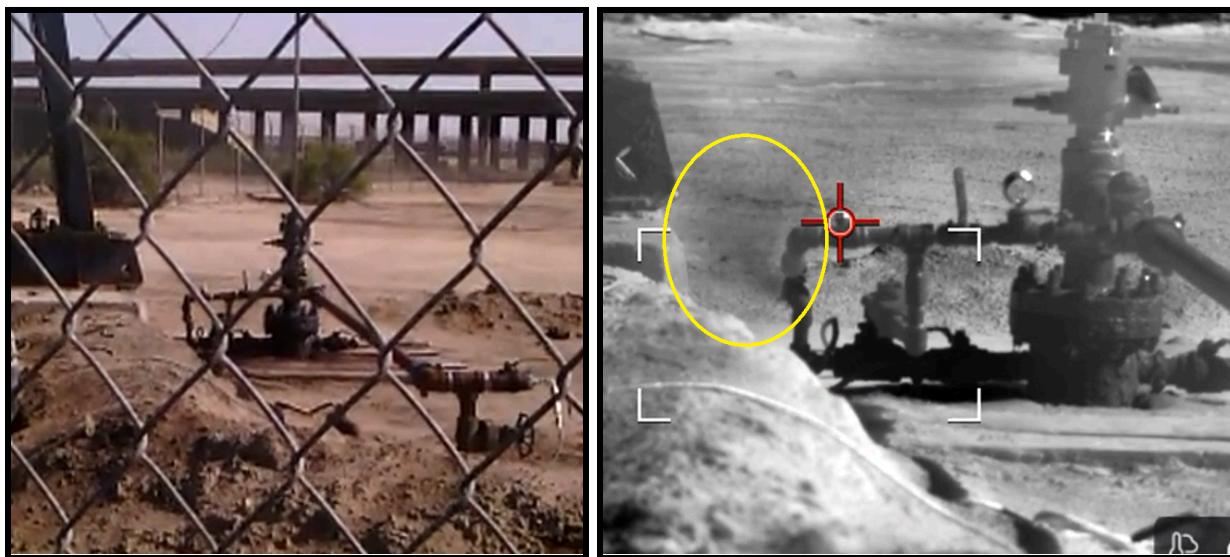
closed with no further action (See Figure 5). Notably, when CCEJN re-inspected the wells four months later, significant leaks were still present (see inspection reports [here](#) and [here](#)).

**Figure 3. Proximity of San Joaquin Facilities Management, Inc Oil Wells (red marker) to Public Park and Trail.**



**Figure 4. Visual and Infrared Comparison From May 2024 Footage**

*The left image shows what is visible to the naked eye, the right image shows emission release at well head vent in infrared spectrum*



**Figure 5. SJVAPCD Complaint Inspection Report For San Joaquin Facilities Management, Inc Oil Wells**



SJVAPCD Complaints	<b>Complaint Investigation</b>	06/26/2024 10:04AM
<b>Complaint Number:</b> S-2405-008 <b>Assigned To:</b> David Born		
<b>Received By:</b> Online Submittal	<b>Date:</b> May 02, 2024	<b>Time:</b> 3:08 PM
<b>Complainant's Name:</b> *****		
<b>Address:</b> *****	<b>City:</b> *****	
<b>Complainant's Primary Phone:</b> *****		<b>Secondary Phone:</b> *****
<b>Complaint Location:</b> LIGHT OIL CENTRAL STATIONARY SOURCE		<b>Permit:</b> S-2980
<b>City:</b> _____	<b>County:</b> Kern	<b>Zip:</b> _____
<b>Property Owner:</b> SAN JOAQUIN FACILITIES MGMT		
<b>Address:</b> 5400 Rosedale Hwy	<b>City:</b> Bakersfield	<b>Zip:</b> 93308
<b>Nature of Complaint:</b> CCEJN FLIR Inspections: Two oil well leaks were found leaking at the wellhead by the same operator. Mobile fenceline methane monitoring showed results of elevated methane. Operator is San Joaquin Facilities Management Inc. API # 402908137 and #402908142		
<b>Conclusions:</b> May 16, 2024; 3:58 PM: Conclusion by David Born: Contact was made with the R/P at this time. This complaint is resolved as No Violation. The wells described in the complaint were found to be operating with open well casing vents. Such operation is allowed per the California Oil and Gas Regulation Section 95668 (g) Well Casing Vents.		
<b>Findings:</b> May 2, 2024; 3:18 PM Contact by Telephone: Finding by David Born: Reporting Inspector Dave Born, R/I, made initial contact with the complainant, R/P, at 3:18 PM via telephone. Per the R/P, visible emissions were observed from two crude oil production wells with the use of a FLIR camera. Upon review, the wells were found to belong to San Joaquin Facilities Management (S-2980-OILGAS-6-0).  May 2, 2024; 3:46 PM Contact by Field Visit: Finding by David Born: Reporting Inspector Dave Born, R/I, arrived to the complaint location at 3:46 PM. Upon arrival, the R/I noted the wind speed and direction as 0-3 MPH from the WNW. The R/I met with facility representatives on site. The wells were inspected per the requirements of the California Oil and Gas Regulation (COGR) using a hydrocarbon analyzer in accordance with EPA Method 21. FLIR video was taken at this time.  1. Red Ribbon Ranch Well 40 (API 0402908137) 2. Red Ribbon Ranch Well 45 (API 0402908142)		
Per the operations manager, the casing vents were opened to atmosphere on May 1, 2024. Additionally, facility staff stated that a modification was submitted to the District to allow such operation per COGR Section 95668 (g). The facility previously collected casing gas from the wellhead. Historic API is below 20° for the two wells. May 6, 2024; 8:08 AM Contact by No Contact: Finding by David Born: Upon review, San Joaquin Facilities Management submitted a modification to include Well Casing Vents on May 2, 2024. The modification was submitted within 30 days of beginning operations of the newly regulated equipment per COGR Section 95674 (b) (2) (A).		
<b>Resolution:</b> No Violation		
<b>Date Reporting Person Notified:</b> May 16, 2024	<b>Time:</b> 3:58 PM	<b>Method:</b> Telephone
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This incident highlights a critical regulatory gap: while operators are permitted to open vents and submit paperwork within the allowed timeframe, there is no requirement for emissions monitoring, public notification, or measures to mitigate potential impacts. This is especially concerning when infrastructure is allowed to leak in public spaces and close to sensitive receptors for months on end.

**Recommendation:** Prohibit venting through well casing vents and instead require vapor recovery units on all vents.

## Leak Detection and Repair (LDAR) Provisions

COGR Section 95669(g) requires that all well components be tested quarterly for leaks of total hydrocarbons. Inaccessible or unsafe components are only required to be inspected annually.

Leak detection must strictly adhere to EPA Method 21 protocols, prohibiting the use of photoionization detection (PID) instruments, which are considered less accurate for methane leak detection. When leaks are detected, Section 95669(d) outlines a tiered response system, with the most critical leaks requiring immediate repair (See Figure 6).

**Figure 6. Repair Time Period Table in the Oil and Gas Methane Regulation<sup>5</sup>**

Leak Threshold	Repair Time Period
1,000-9,999 ppmv	First attempt at repair within 5 calendar days and successful repair within 14 calendar days
10,000-49,999 ppmv	5 calendar days
50,000 ppmv or greater	2 calendar days
Critical Components and Critical Process Units	Next scheduled shutdown or within 12 months, whichever is sooner

While this may sound rigorous, the rule is undermined by broad exemptions under Section 95669(c), which allow entire classes of components to be exempted from leak monitoring and repair, including:

- Components used for heavy oil production;
- Well casing vents open to the atmosphere, which are subject to a separate, annual testing provision under Section 95668(g); and
- Buried components, compressed air components, and components under negative pressure

#### LDAR Exemptions for Heavy Oil Production Components

CARB's current version of COGR exempts heavy oil production, defined as oil with an API gravity below 20, from critical emissions monitoring and repair requirements. This exemption directly conflicts with the U.S. EPA's December 2023 methane emission guidelines, which apply uniformly to all oil and gas sources, including heavy oil.

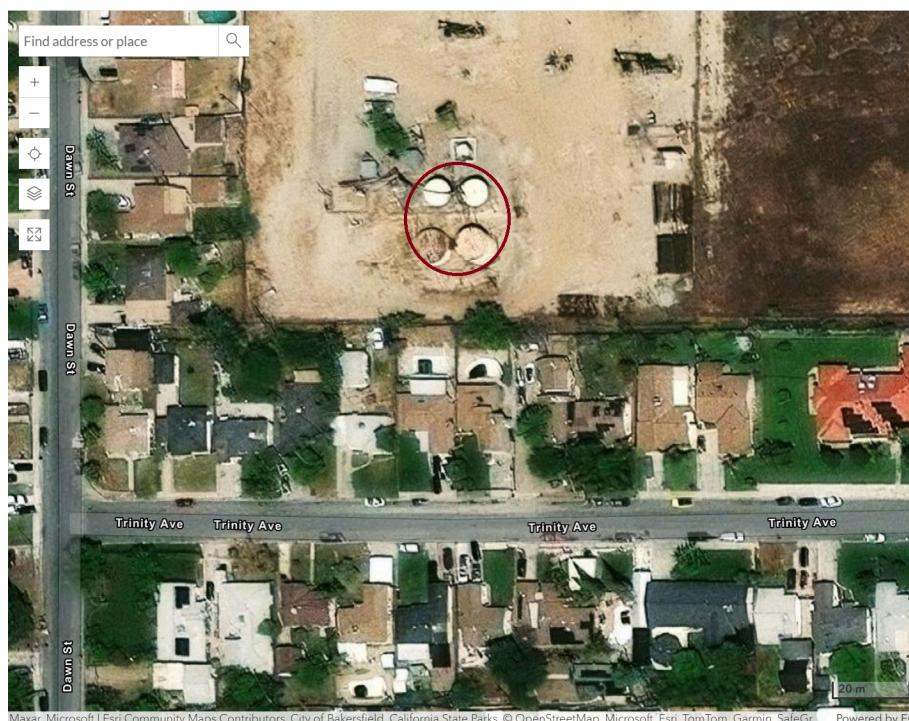
In practice, this exemption significantly weakens regulatory enforcement. For instance, on February 10, 2024, CCEJN received a [report](#) through their Identifying Violations Affecting Neighborhoods (IVAN) Network of hissing coming from one of the tanks behind a neighborhood in South East Bakersfield (See Figure 5). The SJVAPCD couldn't confirm any leaks at the site, but inspectors from the California Geologic Energy Management Division (CalGEM) detected methane leaks on multiple tanks. Nonetheless, the Air District found no enforceable violations due to the oil's low API gravity, and the case was soon closed on their end. Notably, CALGEM continued monitoring the site and found that leaks continued for months, often triggered by pressure changes after repairs. Ultimately, CALGEM closed the case one year later in April 2025 with a determination that the remaining leaks were from permitted parts of the tank system

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<sup>5</sup> <https://ww2.arb.ca.gov/sites/default/files/2024-05/2024OilandGasRegulationunofficial.pdf>

and no further enforcement action was taken. It could be assumed that the tank system is still leaking into the neighborhood.

**Figure 6. Proximity of Trio Petroleum LLC Tanks (circled in red) to Residences**



**Recommendation:** Eliminate exemptions for heavy oil components from LDAR requirements.

#### LDAR Exemptions for Opened Well Casing Vents

Under current regulations, Section 95668(g) requires operators to measure methane emissions from open well casing vents on an annual basis, rather than including them within the more frequent LDAR framework under section 95669. This annual-only mandate introduces a significant vulnerability; operators are allowed to open well casing vents for maintenance, testing, or operational needs, without triggering immediate LDAR inspections or public notifications. These openings may continue unmonitored for months, as long as paperwork is submitted on schedule.

Due to the rule not requiring monitoring or notification during venting, methane and potentially other harmful hydrocarbons can escape unchecked. As CARB considers updating the well casing standard, it is crucial to avoid re-creating or expanding these exemptions. A robust regulation should presume that all well casing events are subject to LDAR monitoring and repair, whether it's scheduled or event-triggered.

**Recommendation:** Require comprehensive LDAR coverage for all wellhead infrastructure, including well casing vents and stuffing box.

#### LDAR Exemptions for Buried, Compressed Air, and Negative Pressure Components

One of the lesser-known but significant gaps in the LDAR requirements is the exemption of buried components, compressed air systems, and equipment operating under negative pressure. Under Section 95669(c) of COGR, these components are not subject to routine hydrocarbon leak inspections, largely due to perceived inaccessibility or lower risk of emissions. However, in practice, these exemptions create blind spots in emissions monitoring. Buried pipelines and valves, for example, may be shielded from visual detection and more prone to corrosion, leading to undetected leaks.

On April 3rd, 2024, residents of the Creekside Apartments in Bakersfield began submitting [reports](#) to CCEJN's IVAN Kern Network, describing gas smells on their street that had been present for weeks. Other resident [reports](#) described feeling brain fog and having trouble concentrating. A complaint to the SJVAPCD was also made by the Governor's Office of Emergency Services (Cal OES) after a routine inspection discovered gas coming out of the grass and sprinkler systems. In their complaint, CalOES stated, "vehicles are driving through a cloud of gas and this is happening approximately 50 feet from an apartment complex" (See Figure 6). Upon investigation, the SJVAPCD found gas readings ranging from 200 ppm to 180,000 ppm near the ground around the well. For reference, normal background methane levels are typically around 2 ppm and methane's Lower Explosive Limit is around 44,000 ppm. The SJVAPCD concluded that these leaks were exempt from COGR LDAR requirements due to emissions coming from buried components and therefore not "actionable." No violations were levied (See Figure 6).

#### Figure 7. SJVAPCD Complaint Investigation Report In Response to Cal OES



SJVAPCD Complaints	<b>Complaint Investigation</b>	6/12/2024 10:04AM
Complaint Number: <u>S-2404-007</u> Assigned To: <u>Lawrence Torres</u>		
Received By: <u>Bailey Chavez</u> Date: <u>April 03, 2024</u> Time: <u>3:22 PM</u>		
Complainant's Name: <u>*****</u>		
Address: <u>*****</u> City: <u>*****</u>		
Complainant's Primary Phone: <u>*****</u> Secondary Phone: <u>*****</u>		
Complaint Location: <u>1000 Mohawk St</u> Permit: <u>                    </u>		
City: <u>Bakerfield</u> County: <u>Kern</u> Zip: <u>                    </u>		
Property Owner: <u>                    </u> Telephone: <u>*****</u>		
Address: <u>                    </u> City: <u>                    </u> Zip: <u>                    </u>		
Nature of Complaint: <u>                    </u>		

Cal OES CNTRL #: <u>24-2004</u> DESCRIPTION: <u>Per reporting party: During routine inspections at about 1100 hours, it was notice a release of an unknown amount of Methane gas coming from underground. The gas appears to be coming up from random spots in the ground, including the grass, and sprinkler systems. It is visible that vehicles are driving through a cloud of gas and this is happening approximately 50 feet from an apartment complex. No waterways have been impacted.</u>	
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However, any measurements taken from locations with buried components would be exempt from COGR and would not be considered as an actionable gas leak. According to California Code of Regulations (CCR) Title 17, Division 3, Chapter 1, Subchapter 10 Climate Change, Article 4, Subarticle 13: 95669 (b) 3. Leak Detection and Repair requirements do not apply to components that are buried below ground. Therefore, it was determined that no violations occurred.	
The RP was notified via telephone.	
The RP was notified via telephone.	
<b>Findings:</b> April 3, 2024; 3:30 PM Contact by Inspection: Finding by Lawrence Torres: Reporting Inspector (RI), Lawrence Torres, made initial contact with the Reporting Person (RP) at approximately 3:30 pm while RI was onsite. The RP informed the District that methane leaks were found around a well belonging to Griffin Resources. The leaks were found during a routine inspection that was performed by the RP.	
The RI responded to location provided by the RP. The RI noted wind speed and direction as 8 MPH from the WSW. The RI used a Optical Gas Imaging (OGI) camera and a calibrated Toxic Vapor Analyzer (TVA) to check for leaks at the location	

<b>Conclusions:</b> April 4, 2024; 9:00 AM: Conclusion by Lawrence Torres: The RI measured gas readings coming out of the ground around the well ranging from 200 ppm to 180,000 ppm. However, any measurements taken from locations with buried components would be exempt from COGR and would not be considered as an actionable gas leak. According to California Code of Regulations (CCR) Title 17, Division 3, Chapter 1, Subchapter 10 Climate Change, Article 4, Subarticle 13: 95669 (b) 3. Leak Detection and Repair requirements do not apply to components that are buried below ground. Therefore, it was determined that no violations occurred.	
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Resolution: <u>No Violation</u>	
Date Reporting Person Notified: <u>April 04, 2024</u> Time: <u>9:00 AM</u> Method: <u>Telephone</u>	

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**Recommendation:** Apply LDAR requirements for components that are shielded from visual detection such as pipelines and valves.

A similar case on March 4th, 2024, involved strong smells of crude oil and gas near the Kern Energy Refinery. Residents [reported](#) prolonged nausea and vomiting, eye irritation, and throat discomfort. When inspected, the SJVAPCD determined SoCalGas was repairing a natural gas distribution line, but since the line was not owned by the crude oil producer, the leak was not covered under COGR. SoCal admitted the leak was discovered roughly six months earlier and classified it as a Grade 3 leak (the lowest hazard level under the Pipeline and Hazardous Materials Safety Administration (PHMSA) scale). No air monitoring was conducted, and no

violation was issued. However, despite being considered low risk, Grade 3 leaks can still involve significant emissions, as evidenced by fenceline residents' severe symptoms.

**Recommendation:** Establish interagency protocols requiring immediate air quality monitoring and community notification when a Grade 3 or higher leak is discovered near oil and gas infrastructure, regardless of ownership.

### Inspection Frequency

Section 95669(g) currently mandates quarterly LDAR inspections via EPA Method 21 (calibrated for methane). While this offers a baseline level of oversight, it fails to effectively detect and repair leaks from components with high emission potential, especially given that many significant methane releases occur in short, intermittent bursts that quarterly monitoring often misses. According to CARB's own LDAR Annual Summaries, quarterly monitoring has consistently shown that operators identify and repair only a fraction of high-emission leaks each year.<sup>6</sup> CARB must strengthen these provisions to include weekly or continuous monitoring for high-emission components and close exemptions that allow facilities to avoid detection entirely.

**Recommendation 1:** Update Section 95669(g) to require weekly LDAR inspections for all equipment located within the SB 1137-defined Health Protection Zones (HPZ) and mandate real-time continuous monitoring for operators with a documented history of significant violations.

**Recommendation 2:** Develop and implement policies to identify and address repeat violators. These policies should include mechanisms to restrict continued oil and gas operations with a documented pattern of repeated violations, particularly near vulnerable communities.

### **Conclusion**

Although California is known for strong environmental leadership, its oil and gas leak detection and emissions controls lag behind that reputation. This white paper has outlined serious regulatory gaps, including broad exemptions from LDAR requirements, inadequate oversight of separator and tank systems, and inconsistent treatment of emissions from heavy oil operations and well casing vents. Real-world incidents demonstrate how these loopholes allow dangerous emissions to persist in communities already burdened by pollution, undermining both public health protections and California's climate commitments. The loopholes also ignore the cumulative impact of leaks over prolonged periods and multiple leaks across a region or air basin. California must take timely action to safeguard both the health of communities and the state's long-term climate and justice priorities by updating COGR and closing dangerous loopholes now.

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<sup>6</sup> California Air Resources Board. (n.d.). *CARB's Oil and Gas Methane Regulation Annual LDAR Summaries*. Retrieved July 2, 2025, from <https://ww2.arb.ca.gov/resources/documents/carbs-oil-and-gas-methane-regulation-annual-lidar-summaries>