



Air Resources Board Enforcement Division

Inspection Report

Citadel Exploration in Kern Bluff Field 20220602

Lead Inspector Signature (Leng Mut)	Date
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Inspection Date: June 2, 2022

Purpose of Inspection

On May 17, 2022, San Joaquin Valley Air Pollution Control District (SJVAPCD) responded to a complaint in the Morningstar community, in Bakersfield, that the oil wells in Kern Bluff field near residents were leaking methane at high levels. On May 19, 2022, California Air Resources Board (CARB) enforcement staff received two emails, from community groups, informing CARB of a well leak complaint to SJVAPCD. In response to these emails, CARB staff inspected the wells on June 2, 2022.

CARB Staff Present at Inspection

- Leng Mut, Air Resources Engineer
- Ron Oineza, Air Resources Engineer

Other Agency Personnel Present at Inspection

- Jonathan Pineda (CalGEM)
- Steve Miller (SJVAPCD)

Site Information (Organization Detail)

Operator: Citadel Exploration Inc.
Agent Name: Phil McPherson
Lease Name: Needham-Bloemer
Oilfield Name: Kern Bluff
Bakersfield, CA 93306
County: Kern

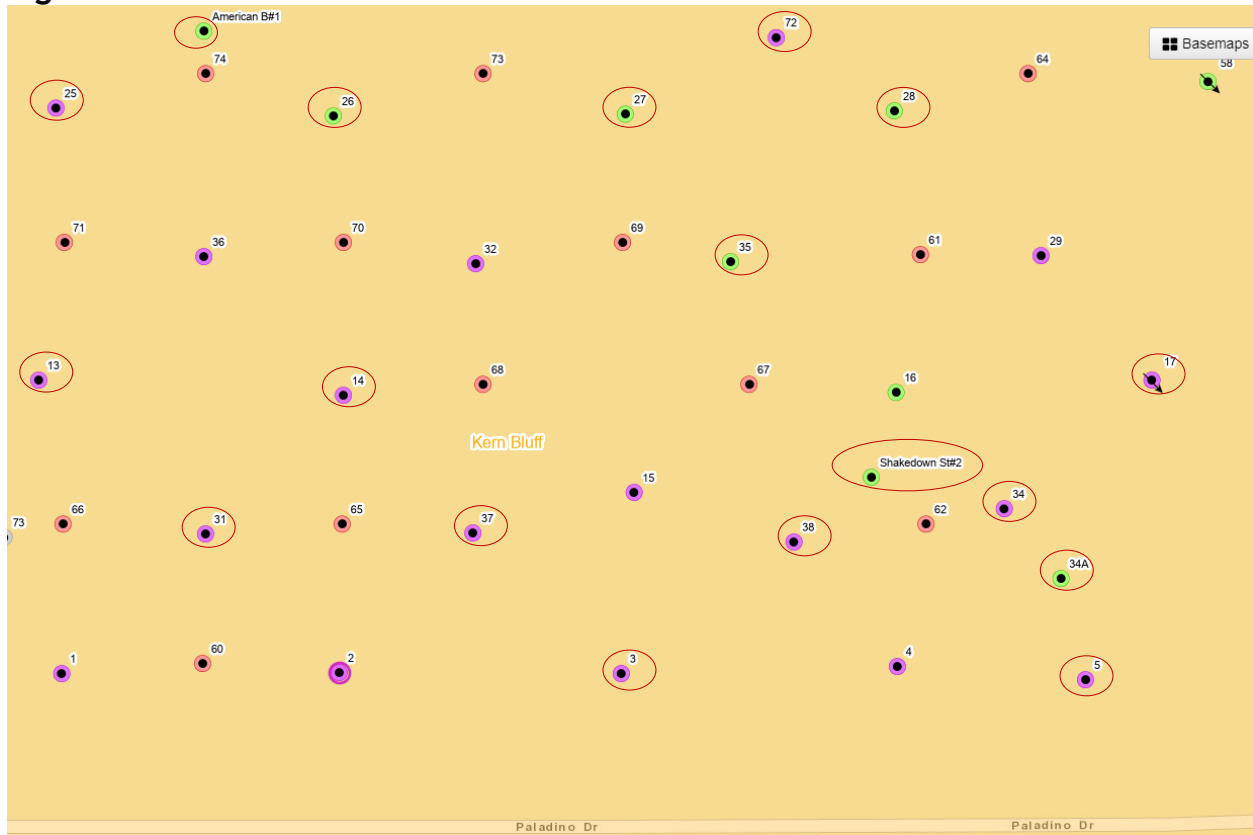
CalEnviroScreen Score: 49% (CalEnviroScreen 4.0)

Description of Inspection

From 8:30 am to 11:00 am on June 2, 2022, CARB, along with the California Geologic Energy Management (CalGEM) and SJVAPCD, conducted an onsite inspection of 18

active and idle wells. The 18 idle (in purple) and active (in green) wells circled on the map in Figure 1, below, show the wells CARB inspected on June 2 (Well Finder).

Figure 1



During the inspection, CARB inspectors measured methane leak concentrations from the wells using Method 21 - (Method 21 - Volatile Organic Compound Leaks) approved equipment: a Detecto-Pak Infrared (DP-IR) and a Toxic Vapor Analyzer (TVA). CARB staff used a DP-IR to measure leak concentrations, and SJVAPCD staff verified the leaks with a TVA. This testing showed that of the 18 wells inspected, 6 wells were leaking above 50,000 ppm (>50,000 ppm).

Table 1 gives the following information about the 18 wells that CARB inspected on June 2: the American Petroleum Institute (API) number; the well number; the methane leak concentration of each well in parts per million, as measured by CARB and SJVAPCD; the number of years each well has been idle, based on information from Well Detail; and the location of each well (lease name).

Table 1: Citadel Wells Inspection Results - June 2, 2022

API Number	Well Number	Leak (ppm)	Status	Years Idle (years)
403062149	American B#1	-	Active	-
402904174	Shakedown St#2	>50,000	Active	-
402908760	3	-	Idle	19
402900816	5	-	Idle	19
402908762	13	-	Idle	19
402908763	14	>50,000	Idle	18
402908766	17	-	Idle	15
402908770	25	>50,000	Idle	11
402908771	26	2,000	Idle	9
402908772	27	11,000	Idle	6
402908773	28	200	Idle	6
402908776	31	>50,000	Idle	14
402900981	34	-	Idle	2
402908779	35	>50,000	Idle	6
402951893	37	-	Idle	19
402957338	38	>50,000	Idle	11
402988951	72	300	Idle	19
402977208	34A	-	Idle	10

On June 7, 2022, CalGEM staff inspected an additional 20 wells and found that two more wells were leaking (“Update on Bakersfield Idle Wells”).

Works Cited

- "CalEnviroScreen 4.0." *California Office of Environmental Health Hazard Assessment*, 20 Oct. 2021, <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>.
- "Method 21 - Volatile Organic Compound Leaks." *U.S. Environmental Protection Agency*, 4 Oct. 2021, <https://www.epa.gov/emc/method-21-volatile-organic-compound-leaks>.
- "Organization Detail." *WellSTAR, CalGEM*, 2022, <https://wellstar-public.conservation.ca.gov/Entity/Organization/Detail/1038>.
- "Update on Bakersfield Idle Wells." *CalGEM*, 16 Jun. 2022, <https://www.conservation.ca.gov/index/Pages/News/State-Oil-and-Gas-Supervisor-Issues-Statement-on-Two-Bakersfield-Long-Term-Idle-Wells.aspx>.
- "Well Detail." *WellSTAR, CalGEM*, 2022, <https://wellstar-public.conservation.ca.gov/Well/Well/Detail?api=0402904174#>.
- "Well Finder" *CalGEM*, n.d., <https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-118.91216/35.41346/18>. Accessed 21 Jun. 2022.