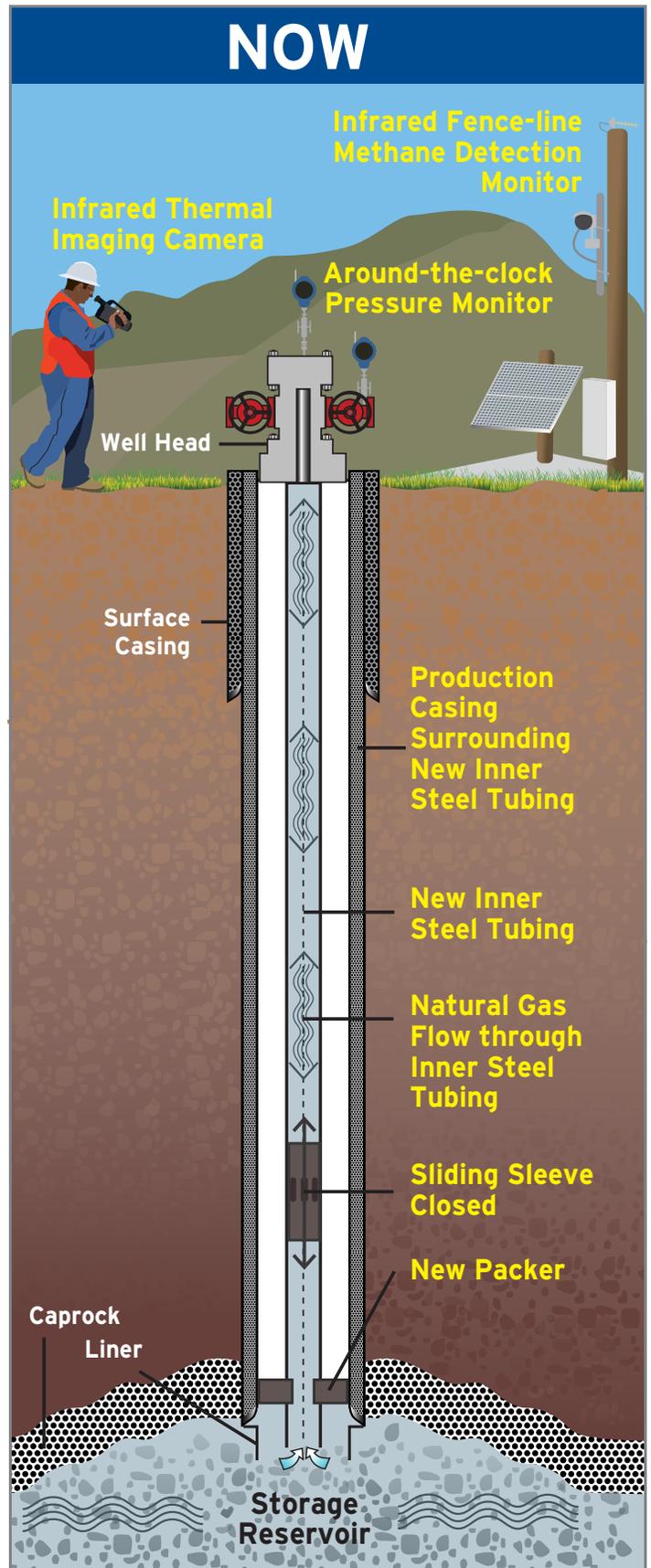
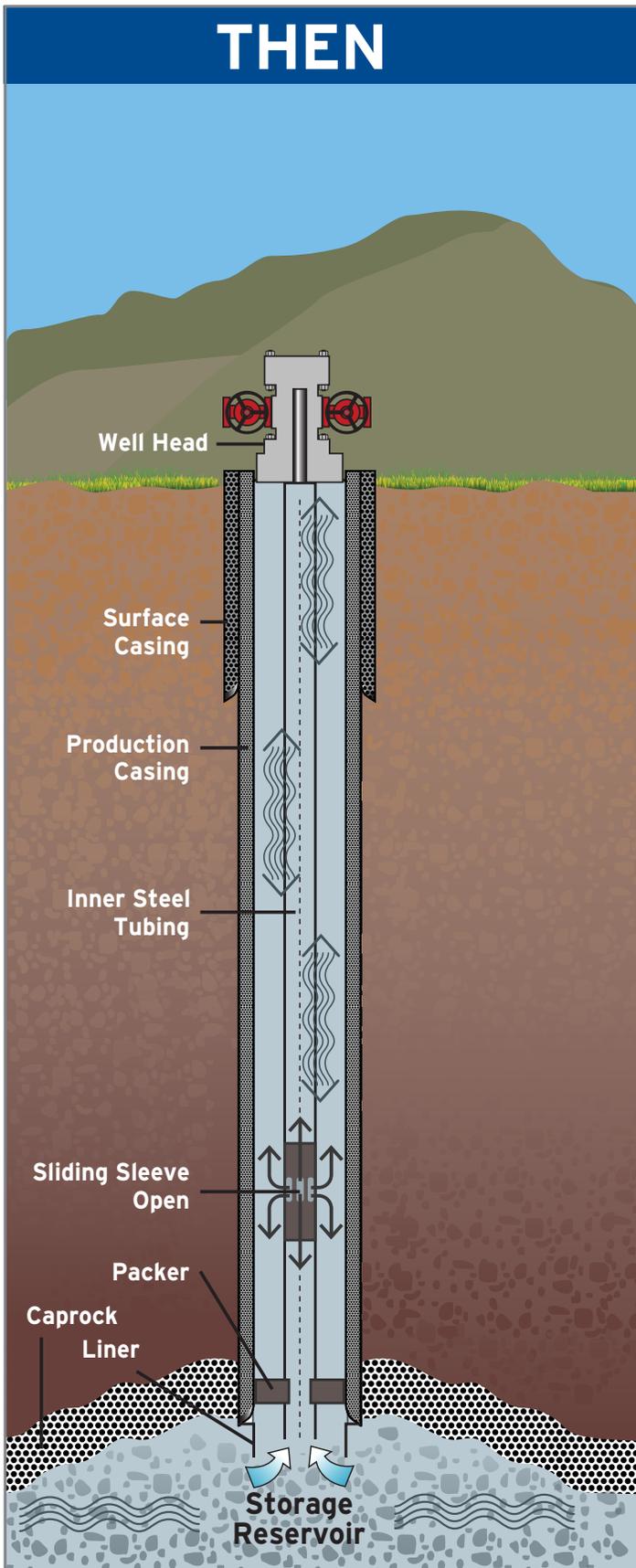


ALISO CANYON STORAGE FACILITY INFRASTRUCTURE, TECHNOLOGY, & SAFETY ENHANCEMENTS



On October 23, 2015, a leak was detected at one of the wells at SoCalGas' Aliso Canyon Natural Gas Storage Facility (Aliso Canyon), located in the northern part of the San Fernando Valley in Los Angeles County. On [February 18, 2016](#), the California Geologic Energy Management Division (CalGEM, formerly known as the Division of Oil, Gas and Geothermal Resources or DOGGR) certified that the well was permanently sealed.

On [May 17, 2019](#), Blade Energy Partners (Blade) published a report detailing its investigation and analysis of the leak. The investigation was conducted at the direction of the California Public Utilities Commission (CPUC) and CalGEM. The report concluded that a rupture in the outer casing of the well occurred on the morning of October 23, 2015, followed hours later by a complete separation of the casing.

As noted in [Sempra's 10-Q](#), Blade's report concluded that the leak was caused by a failure of the production casing of the well due to corrosion and that attempts to stop the leak were not effectively conducted, but did not identify any instances of non-compliance by SoCalGas. Blade concluded that SoCalGas' compliance activities conducted prior to the leak did not find indications of a casing integrity issue. The report also identified well safety practices and regulations that have since been adopted by CalGEM and implemented by SoCalGas, which address most of the root cause of the leak identified during Blade's investigation.

Safety Enhancements

After the leak, SoCalGas and regulators, who worked in consultation with recognized independent experts from the Lawrence Livermore, Lawrence Berkeley, and Sandia National Laboratories, conducted a comprehensive safety review of Aliso Canyon. Based on that review, the CPUC and CalGEM found that Aliso Canyon is safe to operate, risks of failure had been identified and addressed, and well integrity had been verified.

SoCalGas has [implemented numerous safety measures](#) to enhance well safety:

- Withdrawing and injecting natural gas only through the inner steel tubing;
- Replacing the inner steel tubing of every approved well;
- Using the casing around the new inner steel tubing—tested to ensure integrity under pressure—to provide a physical, secondary barrier of protection against potential leaks;
- Operating the facility at reduced pressure, as directed by CalGEM, and a reduced inventory, as directed by the CPUC; and
- Implementing a suite of well integrity validation practices, including pressure tests, noise and temperature surveys, multi-arm caliper, magnetic flux leakage, ultrasonic logs, and cement bond logs.

SoCalGas has also introduced advanced leak-detection technologies and practices that allow for early detection of leaks and help to quickly identify anomalies:

- An infrared [fence-line methane detection system](#) with eight pairs of infrared methane monitors;
- Around-the-clock monitoring of the pressure in wells from SoCalGas's 24-hour operations center;
- Daily patrols to visually examine every well;
- Instrumented scanning of wells to detect leaks;
- Real-time wellhead LEL monitors for leak detection;
- Upwind/downwind ambient monitoring and meteorological stations; and
- Enhanced training for employees and contractors.

Community Efforts

As of June 30, 2020, SoCalGas' estimated costs related to the leak were [\\$1.411 billion](#). A significant portion of these costs are related to measures to address the concerns of the community.

- Air purification systems;
- Weatherization services;
- Interior and exterior residence cleaning;
- Car cleaning;
- Neighborhood security; and
- Relocation costs including lodging, meals, and incidentals (e.g., laundry, mileage, moving expenses, parking, pet boarding, school transportation, and utilities).

After the leak, SoCalGas donated residual air filtration systems.

During the leak, SoCalGas' CEO [wrote](#) to the community to apologize and to commit to ensure that the leak situation would be handled in an effective and efficient manner as possible and in coordination with all of SoCalGas' key stakeholders and governing agencies. SoCalGas also operated a [dedicated Community Resource Center](#) during the leak to answer questions and provide information to the community, and provided daily updates on its website.

To strengthen communications with the Porter Ranch community, SoCalGas formed an Aliso Canyon Community Advisory Council (CAC) that consists of residents, business owners, and community leaders from various constituencies from faith-based organizations, the Los Angeles Police Department, the Los Angeles Fire Department, and other stakeholders. SoCalGas proactively updates the Aliso Canyon CAC members on relevant information regarding the facility.

SoCalGas also [instituted a community notification system](#) for Aliso Canyon where individuals can sign up to be notified of Air Quality and/or Community Notifications.

GHG Mitigation

Even before the leak was sealed, SoCalGas's CEO wrote a [letter](#) to the Governor stating SoCalGas' intention to mitigate the environmental impact of the natural gas released from the leak. SoCalGas has been delivering on that commitment.

On February 25, 2019, the Los Angeles Superior Court approved a [settlement agreement](#) with the Los Angeles City Attorney's Office, the County of Los Angeles, the California Office of the Attorney General, and the California Air Resources Board (ARB) to resolve all outstanding claims by those government bodies against the company related to the leak.

Under that [settlement](#), SoCalGas has contributed \$34.1 million to establish the Aliso Canyon Methane Emissions Mitigation Fund to support a portfolio of projects that capture methane from dairy farms and convert that energy into renewable gas for use in transportation, sufficient to mitigate methane emissions from the leak.

More Information

Additional information on the Aliso Canyon natural gas storage facility can be found at [socialgas.com](#).

