



**Geologic Energy Management Division**

# **Idle Well Program Legislative Report**

**An Overview of Idle and Orphaned Wells in California**

**Reporting Period: January 1, 2021 to December 31, 2021**

Prepared Pursuant to Assembly Bill 2729 (Williams, Ch. 272, Stats. of 2016)  
Senate Bill 724 (Lara, Ch. 652, Stats. of 2017)  
Senate Bill 551 (Jackson, Ch. 774, Stats. of 2019)  
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## ABOUT THE CALIFORNIA GEOLOGIC ENERGY MANAGEMENT DIVISION

The California Geologic Energy Management Division (CalGEM) prioritizes the protection of public health, safety, and the environment in its oversight of the oil, natural gas, and geothermal operations in California. To do that, CalGEM uses science and sound engineering practices to regulate the drilling, operation, maintenance, and permanent closure of energy resource wells. CalGEM also regulates certain pipelines and facilities associated with production and injection wells. These regulatory duties include conducting inspections, witnessing, and reviewing tests, and permitting and reviewing operations.

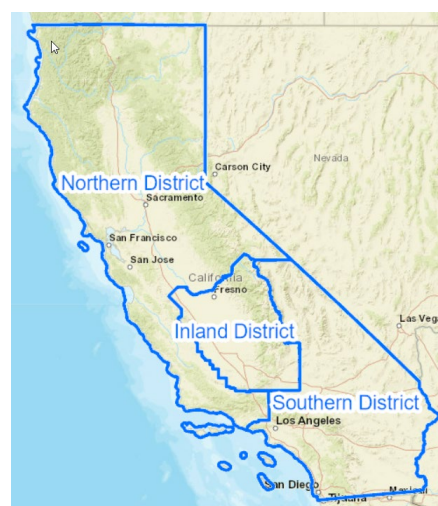
When CalGEM was established in 1915 (then known as the Division of Oil and Gas), the initial focus of regulation was the protection of oil and gas resources in the State from production practices that could harm the ultimate level of hydrocarbon recovery. Early CalGEM regulations included well spacing requirements and authority to limit production rates. However, those regulations and the focus of CalGEM have evolved and come to include the protection of public health, safety, and the environment.

CalGEM has grown significantly since it was established in 1915 and has taken major steps to ensure it will be able to handle challenges in a manner consistent with public expectations for a modern, efficient, collaborative, and science-driven regulatory agency. In 2019, the mission of CalGEM changed to include protecting public health and safety, environmental quality, and the reduction and mitigation of greenhouse gas emissions associated with the development of hydrocarbon and geothermal resources in a manner that meets the energy needs of the state.

### CalGEM Districts

Effective 2021, CalGEM operates out of three districts to best serve the needs of the State: Northern, Central (formerly Inland), and Southern. Each district has its own offices where staff are available to assist the public and stakeholders. For more information about CalGEM, visit our website at:

<https://www.conservation.ca.gov/calgem>.



## EXECUTIVE SUMMARY

California's crude oil production has declined steadily in the last few decades, increasing the number of nonproductive wells throughout California. Currently, there are over 38,000 known idle wells in California, all of which will eventually come to the end of their life. Operators are required to plug and abandon the wells and decommission associated production facilities. In addition, there are over 58,000 active wells that will eventually come to the end of their life as California moves to phase out oil extraction in the state. If not properly plugged and abandoned, these wells and facilities can contaminate waterways and soil, serve as a source of climate and air pollutants, and can present physical hazards to people and wildlife.

Because of the risk and potential liability posed by idle wells in the State, the Department of Conservation sponsored Assembly Bill 2729 (AB 2729) (Williams, Ch. 272, Statutes of 2016) to discourage operators from leaving their wells in an idle state by increasing bonding requirements, requiring operators to maintain bonds for the life of the well, increasing idle well fees, revising the parameters for the use of Idle Well Management Plans (IWMP), and directing the California Geologic Energy Management Division (CalGEM) to promulgate regulations to better protect public health, safety, natural resources, and the environment from risks associated with idle wells. More specifically, AB 2729 established new definitions for "idle well" and "long-term idle well," updated fees assessed on idle wells, revised parameters for plans for the management and elimination of long-term idle wells (LTIW), and mandated the review, evaluation, and update of CalGEM idle well regulations. AB 2729 also requires CalGEM to submit an annual report to the Legislature on the status of idle and long-term idle wells for the preceding calendar year. The reporting period addressed in this report is for January 1, 2021 to December 31, 2021.

The Requirements for Idle Well Testing and Management regulations developed by CalGEM took effect on April 1, 2019, and help ensure operators are managing their aging well infrastructure, including conducting testing of idle wells to ensure they do not pose safety or well integrity concerns, and moving to plug and abandon wells that are likely no longer viable. The regulations:

- Establish testing requirements for idle wells, including the submittal of and adherence to a Testing Compliance Work Plan which commits an operator to meeting annual testing benchmarks to get all wells that were idle as of April 1, 2019 tested before April 1, 2025;
- Allow operators to submit a Testing Waiver Plan that allows operators to forego testing of an idle well if the operator commits to plugging and abandoning the well;



- Establish the submittal of an annual idle well inventory and evaluation of idle wells;
- Require engineering analysis for idle wells that have been idle for 15 years or longer;
- Establish filing requirements for IWMPs, which, if approved, allows an operator to forgo paying idle well fees for wells identified for elimination as part of an IWMP; and
- Establish monitoring requirements for inaccessible idle wells.

Largely driven by these regulations, since 2018, operators have eliminated over 10,027 idle wells and permit applications for well abandonments have exceeded permit applications to drill new wells year over year. (Operators may eliminate idle wells either through proper plug and abandonment, or returning to use (maintained production of oil or gas or used for injection for a continuous six-month period). The vast majority of eliminations are plugging and abandonments.) Additional progress on implementing these regulations, as well as key facts related to idle wells during the 2021 calendar year, are included in this report:

- 38,759 wells met the definition of idle well and during this reporting period:
  - 17,888 of those met the definition of LTIW at some point.
  - The status of 2,703 idle wells changed from idle to plugged and abandoned.
  - The status of 568 idle wells changed from idle to active.
- As of December 31, 2021, CalGEM had received a cumulative 62 Testing Compliance Work Plans and 26 Testing Waiver Plans since 2019.
- In 2021, 57 operators submitted IWMPs and CalGEM approved 51 IWMPs.
  - Six IWMPs were not approved based on multiple factors including, but not limited to:
    - Operators rescinding their proposed IWMPs during the initial review and instead paying idle well fees.
    - An operator was ineligible to file an IWMP due to their prior year's IWMP being cancelled by CalGEM.
- 49 of the 51 operators were found to be in compliance with the terms of their approved IWMPs at the conclusion of CalGEM's annual review.
  - One operator voluntarily voided their 2021 IWMP (one LTIW) and paid annual fees.
  - CalGEM canceled one operator's IWMP (one LTIW) on June 6, 2022, due to their failure to comply with the terms of their approved IWMP.
  - This reduced the total compliance obligation for 2021 from 485 to 483 LTIWs.
- Based upon the terms of the approved IWMPs, operators' compliance obligation for 2021 was 483 LTIWs. This compliance obligation may be met by either eliminating a LTIW (e.g. returned to use or properly plugged and abandoned), or by applying previously-earned credits. (Operators may earn credits by eliminating LTIWs in



excess of the minimum elimination requirements of their IWMP. Credits may be used to meet the minimum requirements for either of the two following years.)

- To help meet this compliance obligation, operators applied 149 elimination credits earned in 2019 and 2020.
  - These operators plugged and abandoned or returned to use the remaining 334 LTIWs.
  - In addition, 14 operators eliminated 130 LTIWs above the compliance obligation, resulting in the generation of 130 credits that can be used by operators for compliance in the two following years.
  - In total for 2021, operators plugged and abandoned or returned to use 464 LTIWs.

The table below provides data for calendar years 2018 through 2021, including count of idle wells, count of LTIW, idle wells plugged and abandoned, idle wells returned to use, and LTIW eliminated on an Idle Well Management Plan (IWMP) by either plugging and abandonment or returning to use.

#### **IDLE WELL COUNTS, BY YEAR**

Calendar Year	Idle wells	Long-term idle wells	Idle wells changed to plugged	Idle wells changed to active	IWMP wells eliminated*
2018	29,292	17,576	1,346	107	988
2019	37,095	17,560	1,927	690	543
2020	37,612	17,786	2,154	532	558
2021	38,759	17,888	2,703	568	464

\* These numbers include LTIWs that were plugged and abandoned or returned to use that year. These may be applied to the current year compliance obligation or result in credits generated to be used to meet future year compliance obligations.

The 7,803 well increase reported between calendar years 2018 and 2019 may be attributed to better accounting through the use of WellSTAR. With the introduction of WellSTAR as CalGEM's system of record, wells that became idle after 24 consecutive months of no report production or injection were easier to identify. Additionally, idle wells that were not previously accounted for were identified upon data conversion.

The annual idle well count increases seen year over year between 2019 and 2021 corresponds with a worldwide decline in oil and gas demand. The total number of wells that changed from idle to plugged and abandoned each year increased while the wells that changed from idle to active in 2020 and 2021 decreased as compared to 2019.

In 2021, CalGEM collected \$4,968,175 in idle well fees for wells that met the definition of





an idle well in the preceding calendar year. Idle well fees are deposited into the Hazardous Idle Deserted Well Abatement Fund (HIDWAF). The balance of the HIDWAF on December 31, 2021 was \$8,122,586.55. The HIDWAF is an important fund as it is one of two funding sources available for CalGEM to use to cover the cost of state abandonments.

Additionally, through implementation of the State's idle well management regulations, CalGEM has made important progress in identifying the number of orphan and potentially orphan wells and facilities in the State. Potentially orphan wells are those wells that likely have no solvent responsible operator. As of December 31, 2021, CalGEM has identified over 5,300 wells as orphan or potentially orphan. CalGEM is refining this inventory and is developing a methodology for prioritizing orphan and potentially orphan wells for State abandonment. Once a well is determined to be likely orphan, CalGEM undergoes a process by which it establishes evidence of desertion, issues an Order to Plug and Abandon the well, and undergoes a process to determine that the current operator does not have the financial resources to perform part or all of the abandonment. This process is outlined in "Section 3: Orphan Wells" of this report.

The costs associated with abandonment and decommissioning of orphan wells and facilities are highly variable depending on well and facility condition, size, location, and other factors. As of December 31, 2021, CalGEM has plugged and abandoned 117 wells (and some attendant facilities) across the state at a total cost of over \$14.67 million since 2011. In the submission to the Department of the Interior for federal funding, CalGEM calculated the plug and abandonment cost for Northern District is \$98,400 per well, Inland District is \$87,000 per well, Southern District is \$923,200 per well (higher due to its highly urban environment and associated costs for operation in these spaces), and State Land Commission (SLC) legacy wells at \$1,300,000 per well (higher still due to their location offshore).

Not reflecting well-specific cost drivers, the average cost to the State to plug and abandon wells since 2011 has been about \$95,000 per well. While the cost of plugging and abandonment is highly variable and dependent on many factors, if this average well cost is extrapolated across orphan, deserted, and potentially deserted wells identified in this report and accounting for rising costs and prevailing wage, the potential liability to the state for plugging and abandoning these 5,300 wells is estimated at approximately \$974 million. (Based on methodology reported in the 2021 Notice of Intent to Apply for Formula Grant Funding and 2021 State Abandonment Analysis Report.)

While operators are plugging and abandoning LTIWs at a significantly higher rate to comply with their IWMPs, there were roughly 17,888 idle wells in 2021 that met the definition



of a LTIW, suggesting that at the current rate, and with no changes to regulations or to the rate at which operators submit IWMPs in lieu of idle well fees, the timeframe for operators to plug and abandon their LTIWs in California could take decades. Similarly, while the recent increase in federal and state funding available to support state abandonment provides an important down payment on addressing California's orphan well problem, abandoning and decommissioning the full inventory of orphan and potentially orphan wells and facilities in California could take decades.

As demonstrated in this report, CalGEM has continued to make significant progress in identifying idle wells and working with operators to reduce the inventory of idle wells. In an effort to maximize the benefits from CalGEM's state abandonment program, CalGEM is working to refine its approach to prioritize wells and facilities for abandonment and decommissioning, to minimize the risk this infrastructure poses to people and the environment.



## INTRODUCTION

### Objective and Scope of the Report

This idle well report provides a comprehensive accounting of the idle well population to the California Legislature and the public in accordance with Public Resources Code section 3206.3 from January 1, 2021 through December 31, 2021.

Public Resources Code section 3206.3 requires that this report address the following:

1. A list of all idle and long-term idle wells (LTIWs) in the State by American Petroleum Institute identification number, operator, field, and pool.
2. A list of all wells whose idle or long-term idle status changed in the preceding year by American Petroleum Institute identification number with the disposition and current status of each well.
3. A list of orphan wells remaining, the estimated costs to abandon those orphan wells, and a timeline for future orphan well abandonment with a specific schedule of goals. Idle and LTIWs that have become orphan wells shall be identified in the list. For the purposes of this report, an orphan well is a well that has no party responsible for it, leaving the State to plug and abandon it.
4. A list of all operators with plans filed with the State Oil and Gas Supervisor (Supervisor) for the management and elimination of all LTIWs and the status of those plans.
5. Any additional relevant information as determined by the Supervisor.
6. Information summarizing violations and pertinent findings from inspections of production facilities attendant to LTIWs.
7. Identify idle wells by the American Petroleum Institute identification number that are registered to an operator and that have met the definition of an idle well for three years where neither the required annual fee has been paid nor is the well part of a valid Idle Well Management Plan (IWMP) on file with the Supervisor.

In addition, this report provides a comprehensive reporting of the number of hazardous wells and idle-deserted wells in accordance with Public Resources Code section 3258, subdivision (e). This report also provides the process the Supervisor has established to determine that the current operator or previous operator do not have the financial resources to fully cover the cost of plugging and abandoning a well or the decommissioning of production facilities, in accordance with Public Resources Code section 3237(c)6 (see section 3, Orphan Wells).



Idle well information is drawn from operator records submitted to CalGEM. These records include monthly volumetric reporting, IWMPs, and well histories required for permits to abandon wells.

The table below lists data for calendar years 2018 through 2021, including count of idle wells, count of LTIWs, idle wells plugged and abandoned, idle wells returned to use, and LTIWs eliminated on an IWMP by either plugging and abandonment or returning to use.

### **IDLE WELL COUNTS, BY YEAR**

Calendar Year	Idle wells	Long-term idle wells	Idle wells changed to plugged	Idle wells changed to active	IWMP wells eliminated
2018	29,292	17,576	1,346	107	988
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2021	38,759	17,888	2,703	568	464

### **Definitions**

CalGEM is required to report on the number of various well types, including orphan wells, hazardous wells, idle-deserted wells, deserted facilities and hazardous facilities. These reporting requirements are overlapping, and as such all relevant definitions are defined below.

#### **Hazardous well and Idle-deserted well**

A “hazardous well” is defined as “an oil and gas well determined by the supervisor to be a potential danger to life, health, or natural resources and for which there is no operator determined by the supervisor to be responsible for its plugging and abandonment under [Public Resources Code] [s]ection 3237.” (Public Resources Code, § 3251, subdivision. (d).) An “idle-deserted well” is defined as “an oil and gas well determined by the supervisor to be deserted under [Public Resources Code] [s]ection 3237 and for which there is no operator responsible for its plugging and abandonment under [Public Resources Code] [s]ection 3237.” (Pub. Resources Code, § 3251, subd. (e).)

Foundational to both of these definitions is the requirement to report the number of wells for which there is no solvent operator responsible for plugging and abandonment. While CalGEM is refining its process for identifying orphan wells and delineating “hazardous wells” from “idle-deserted wells,” for purposes of this report, CalGEM has provided an evaluation of wells that are either “orphan” or that appear likely to be “orphan” based



on various considerations. Three categories comprise this landscape of wells that are orphan or potentially orphan: orphan, deserted, and potentially deserted wells.

### **Orphan Wells**

“Orphan” wells are those wells that have been determined to be deserted as demonstrated through a final plugging and abandonment order, consistent with Public Resources Code section 3237, and also have been determined by CalGEM to have no legally responsible current or prior operator with sufficient financial resources to fully cover the costs of plugging and abandonment, as described in Public Resources Code section 3237, subdivision (c). These wells fit the statutory definition of “idle-deserted” and may also fit the definition of “hazardous,” as presented in Public Resources Code section 3251. For purposes of this report, wells in this group are described as “Orphan,” and are listed in Appendix A-6.

### **Deserted Wells**

As part of developing a process for identifying orphan wells, CalGEM has identified the current population of “deserted” wells. Deserted wells are those wells that have been determined to be deserted as demonstrated through a final plugging and abandonment order, consistent with Public Resources Code section 3237, but have not yet been definitively determined to be orphan because a determination of financial resources held by legally responsible current or prior operators has not yet been completed. For purposes of this report, wells in this group are described as “Deserted,” and listed in Appendix A-7.

### **Potentially Deserted Wells**

Similarly, CalGEM has also identified the current population of “potentially deserted” wells. Potentially deserted wells are those wells that have not yet been determined to be “deserted,” but for which other evidence suggests the wells likely have no responsible operator. These are wells for which CalGEM has not yet taken action to memorialize an official desertion determination but for which CalGEM is nonetheless aware of evidence that appears to support a desertion determination. This evidence includes failure to pay idle well fees, the operational history of the well, the lack of response from the operator, and other evidence, as allowed under Public Resources Code section 3237. Based on this evidence, CalGEM anticipates that in many cases, after completing its review, these wells will likely be found to have no legally responsible current or prior operator with financial resources sufficient to cover the costs of plugging and abandonment – and as such are also potentially orphan wells. For purposes of this report, wells in this group are described as “Potentially Deserted,” and listed in Appendix A-7.



**Deserted and Hazardous Facilities**

A “deserted facility” is defined as a “production facility determined by the supervisor to be deserted under [Public Resources Code] [s]ection 3237 and for which there is no operator responsible for its decommissioning under [Public Resources Code] [s]ection 3237.” (Pub. Resources Code, §3251, subd. (a).)” A “hazardous facility” is defined as “a production facility determined by the supervisor to be a potential danger to life, health, or natural resources and for which there is no operator determined by the supervisor to be responsible for its decommissioning under [Public Resources Code] [s]ection 3237.” (Pub. Resources Code, § 3251, subd. (c).) Foundational to both these definitions is that the facility has no operator responsible for its decommissioning. An update on the number of deserted and hazardous facilities is not provided as part of this report.

**Potentially Orphan Facilities**

For the purposes of this report, potentially orphaned facilities are defined as facilities that inspections have concluded are idle or out of service. Facilities include tanks, pressure vessels, secondary containment vessels, and above and beyond ground pipelines. An update on the number of potentially orphan facilities is not provided as part of this report.



## Contact Information

For more information about the Idle Well Program, visit the program webpage:  
[https://www.conservation.ca.gov/calgem/idle\\_well](https://www.conservation.ca.gov/calgem/idle_well)

For questions regarding the content of this report, contact the Department of Conservation's Public Affairs Office at [pao@conservation.ca.gov](mailto:pao@conservation.ca.gov).

## Acronyms

TERM	DESCRIPTION
API	American Petroleum Institute
CalGEM	California Geologic Energy Management Division
IWMP	Idle Well Management Plan
LTIW	Long-term idle well
WellSTAR	Well Statewide Tracking and Reporting



## CALIFORNIA'S IDLE AND ORPHAN WELL PROBLEM

While California's crude oil production has declined steadily in the last few decades, the state remains one of the nation's top crude oil producers, accounting for about 3% of U.S. production in 2021. (U.S. EIA, Crude Oil Production, Annual, Thousand Barrels, 2021.) There are over 38,000 known idle wells, wells that have not produced for at least 24 months and have not been plugged and abandoned, in California. All these wells will eventually come to their end of life, and operators will be required to plug and abandon the wells and decommission the associated production facilities. California also currently has over 58,000 active wells, which will also eventually come to the end of their life—a transition that is potentially accelerated by California's move toward phasing out oil extraction in the State by 2045. (<https://www.gov.ca.gov/2021/04/23/governor-newsom-takes-action-to-phase-out-oil-extraction-in-california/>)

While it is the responsibility of operators to properly plug and abandon their wells and decommission attendant facilities, many operators in California may not have the financial health required to support the costs of doing this work, leaving the responsibility and costs of plugging and abandonment, decommissioning, and environmental remediation to the State.

Operators are required to file indemnity bonds when drilling, reworking, or acquiring a well, to support the cost of plugging a well should it be deserted. (Pub. Resources Code, §§ 3204, 3205.) However, the minimum bond amounts required by statute are generally insufficient to fully cover the costs of plugging and abandonment of the well and decommissioning the associated facilities. Recognizing this may increase the potential state liability associated with orphan and potentially orphan wells and associated facilities, Assembly Bill 1057 (Ch. 771, Stats. 2019) was enacted in 2019, authorizing CalGEM to evaluate the risk of the operator deserting its well or wells and the potential threats the operator's well or wells pose to life, health, property, and natural resources, and based on that evaluation, to undertake a process to require additional financial security if deemed necessary. (Pub. Resources Code § 3205.3.) The additional security required by CalGEM must be based on CalGEM's estimation of the reasonable costs of properly plugging and abandoning all the operator's wells and decommissioning any attendant production facilities in accordance with Public Resources Code section 3208, not to exceed thirty million dollars (\$30,000,000). CalGEM has begun to develop its process for evaluating risks and its method for estimating costs.





## **IDLE AND LONG-TERM IDLE WELLS IN CALIFORNIA**

In accordance with statute, this report provides key statistics and information regarding California's inventory of idle wells and long-term idle wells (LTIW). All statistics and data required by Public Resources Code section 3206.3 can be found in the following appendixes:

See Appendix A-1 for the list of all wells that met the definition of idle well and LTIW at any point in the 2021 calendar year by American Petroleum Institute (API) identification number and indicating the operator field, and pool.

See Appendix A-2 for the list of all wells that had a status change from idle well to LTIW for the first time in the 2021 reporting period.

See Appendix A-3 for the list of all wells that had a status change from idle well to plugged in the 2021 calendar year.

See Appendix A-4 for the list of wells that had a status change from idle well to active in the 2021 calendar year.

See Appendix A-5 for the list of operators with 2021 IWMPs and the status of those IWMPs.

See Appendix A-8 for a list of violations issued to operators for violations at production facilities attendant to LTIW in the 2021 calendar year.

See Appendix A-9 for a list of idle wells that have been idle for three years where the required annual fee has not been paid and the well is not part of a valid IWMP on file with the State Oil and Gas Supervisor (Supervisor).

### **1. Idle and Long-Term Idle Wells in the State**

#### **1.1 Idle and Long-Term Idle Wells in 2021**

38,759 wells met the definition of idle well at some point during the 2021 calendar year. Of the total idle well population, 17,888 idle wells have been idle for eight or more years and thus meet the statutory definition of LTIW.

#### **1.2 Idle and Long-Term Idle Wells That Changed Status in 2021**

A total of 1,311 idle wells changed status from idle wells to LTIW during the 2021 calendar year.



During the 2021 reporting period a total of 3,271 wells no longer met the definition of an idle well. Of those 3,271 wells, 2,703 wells changed status from idle to plugged, as they were plugged in accordance with Public Resources Code section 3208. The other 568 wells changed status from idle to active by maintaining production of oil or natural gas, maintaining production of water used in production stimulation, or being used for enhanced oil recovery, reservoir pressure management, or injection for six continuous months. (Pub. Resources Code, § 3008, subd. (d).)

## 2. Plans for the Management and Elimination of Long-Term Idle Wells

### 2.1 Idle Well Management Plan Requirements and Status

Under Public Resources Code section 3206, subdivision (a)(2), in lieu of paying annual idle well fees, operators may file an IWMP that provides for the management and elimination of all the operator's LTIWs. An operator may eliminate a LTIW by either properly plugging and abandoning the well in accordance with the requirements of Public Resources Code section 3208 or demonstrating to CalGEM's satisfaction that the well has maintained production of oil or gas or been used for injection for a continuous six-month period. (Pub. Resources Code, § 3206, subd. (a)(2)(A).)

In filing an IWMP, an operator commits to eliminating a minimum percentage of their LTIWs each calendar year. The required rate of elimination of LTIWs is based on the total number of statewide idle wells in the operator's possession on January 1 of each year. Unless and until the operator has no LTIWs, the operator must eliminate the required rate of wells annually. The required elimination rates are as follows:

- Operators with 250 or fewer idle wells must eliminate at least 4% of their LTIWs annually.
- Operators with 251 to 1,250 idle wells must eliminate at least 5% of their LTIWs annually.
- Operators with more than 1,250 idle wells must eliminate at least 6% of their LTIWs annually.

Public Resources Code section 3206, subdivision (a)(2)(B)(iii) affords operators the opportunity to receive credits for eliminating greater than the minimum required number of LTIWs. These credits may be applied to future minimum elimination requirements in the operator's IWMP but expire after two years.

In this reporting period, CalGEM received 57 IWMPs from 51 oil and gas operators and approved 51 of those IWMPs. Six of the IWMPs were not approved based on multiple



factors including, but not limited to, operators rescinding their proposed IWMPs and instead paying fees and an operator submitting IWMPs who was not eligible to submit an IWMP.

Based upon the terms of the approved IWMPs, operators were expected to eliminate a minimum of 485 LTIWs. Operators eliminated 464 LTIWs. Operators also applied 149 credits earned in prior years for LTIW eliminated in excess of the requirements of their IWMP. 14 operators eliminated more LTIWs than required by their approved IWMPs, earning 130 elimination credits in the year 2021 that can be used for elimination credits on the operator's IWMP for up to two years. On January 1, 2022, the Supervisor conducted an annual review of each approved 2021 IWMP which yielded the following results:

- 49 operators were found to be compliant with the terms of their approved IWMPs.
- In total, 613 LTIWs were effectively eliminated in 2021.
  - 464 LTIWs were eliminated in 2021 as part of an approved IWMP.
  - The remaining 149 LTIWs were elimination credits earned in prior years (2019 and 2020) and applied in 2021.
- One operator voluntarily voided their 2021 IWMP and paid an annual fee for every well idle at any point in 2020.
- One operator's IWMPs were cancelled by CalGEM due to their failure to comply with the terms of their approved IWMP. The operator will be required to immediately pay an annual idle well fee for each of their wells idle in 2020 upon either their failure to appeal CalGEM's decision or the Director of the Department of Conservation upholding CalGEM's decision on appeal. Failure to pay within 30 days of the final decision cancellation will result in the operator being assessed a 10% penalty and 1.5% interest per month until paid in full. CalGEM may also pursue additional enforcement action against this operator if they remain out of compliance.

## **2.2 Non-Compliant Idle Well Management Plans**

If an operator fails to comply with their approved IWMP, then the IWMP for that operator is revoked, and the operator is not eligible to propose a new IWMP for the next five years. However, the operator may appeal to the Director of the Department of Conservation regarding the Supervisor's determination of non-compliance and revocation of their IWMP. If the Supervisor's determination that the operator failed to comply with the IWMP is not timely appealed, or if the Director upholds the Supervisor's determination upon appeal, then the operator is required to immediately file the idle well fees due for each year that the operator failed to comply with the IWMP. Failure of an operator to file the idle well fee due for any well is conclusive evidence of desertion, permitting the Supervisor to order the well abandoned pursuant to Public Resources Code section 3237.



CalGEM issued a Notice of Cancellation on June 6, 2022, to one operator, Land Mark Development, LLC., Operator Code 10468, for failing to comply with the requirements of their IWMP submitted in 2021. (Pub. Resources Code, § 3206, subd. (a)(2)(B)(v).) This operator is required to immediately pay an annual fee for each well that was idle at any point in 2020. Failure to pay will result in CalGEM pursuing enforcement action against this operator.

Effective January 1, 2022, if an operator fails to pay an annual fee within 30 days of CalGEM's final decision, the fee becomes immediately delinquent. Upon the fee becoming delinquent, an additional 10% penalty and 1.5% interest per month is assessed pursuant to Public Resources Code section 3420.

### 3. Orphan Wells

CalGEM is actively working to identify wells that have been deserted and for which there is no solvent responsible party and can therefore be considered orphaned. Before declaring a well orphan, CalGEM researches the financial solvency of all potentially responsible parties to determine whether there is a responsible party with the financial resources to fully cover the cost to plug and abandon the well. (See Pub. Resources Code, §§ 3237, subd. (c) & 3206.3, subd. (a)(1)(C).)

#### **Operator Financial Determination**

In accordance with Public Resources Code section 3237, subdivision (c)(6), this report provides the basis of CalGEM's financial solvency test process.

The financial solvency test is a factual inquiry into the solvency of the current operator and other parties that may be legally responsible for plugging and abandoning the well or decommissioning the facilities under Public Resources Code section 3237. CalGEM identifies and analyzes evidence that the well has been deserted, reviews the transfer history of the well, and investigates the financial solvency of potentially legally responsible operator entities. This process requires a sustained effort from multiple programs coordinated across CalGEM.

If CalGEM determines the current operator does not have the financial resources to fully cover the cost to plug and abandon the well and decommission the facilities, previous operators that operated the well after January 1, 1996, may be held responsible for the cost to plug and abandon the well or decommission the facilities. (Pub. Resources Code,



§ 3237, subds. (c)(1) and (c)(2).) The statute does not allow CalGEM to hold a mineral interest owner responsible to plug and abandon the well and decommission attendant production facilities unless the mineral interest owner retained a right to control the well operations that exceeds the scope of an interest customarily reserved in the lease. (Pub. Resources Code, § 3237, subd. (c)(3).)

The process CalGEM undertakes includes:

1. Obtain sufficient evidence to declare a well deserted;
2. Issue a plugging and abandonment order to the operator of the well(s) based on evidence of desertion;
3. If the order stands after administrative due process has concluded, conduct a financial review of potentially liable operators; and
4. If no viable operator is identified, the Supervisor declares that the well is Presumed Orphan.

These steps are discussed further below.

### **Step 1: Evidence of Desertion and Confirmation of Operator Status**

Deserted wells are those wells that have been determined to be deserted as demonstrated through a final plugging and abandonment order, consistent with Public Resources Code section 3237, but have not yet been definitively determined to be orphan because a determination of financial resources held by legally responsible current or prior operators has not yet been completed. CalGEM staff have developed an inventory of wells for which there is evidence of desertion. From this list, staff have prioritized these wells for the issuance of plug and abandonment orders. Issuing a plug and abandonment order requires confirmation and documentation establishing evidence of desertion and confirmation and documentation that the operator on file is in fact the operator. To do this, CalGEM staff review the well file history; confirm all transfers are on file; perform a search on the California Secretary of State website; and conduct a LexisNexis review in order to verify if an identified operator still exists as a business in the state, and to identify any alternate agents or addresses. In addition, CalGEM conducts a review of its own files to confirm that there are not any mineral rights owners that ever exercised a control of the operation of the well that exceeds the scope of an interest customarily reserved in a lease or other conveyance.

### **Step 2: Issuance of Plug and Abandonment Order**

Once the operator and its status are confirmed, and evidence of desertion sufficiently documented, CalGEM issues a plug and abandonment order to the operator, including



meeting mandated post and publish requirements. A person or entity who is subject to a plugging and abandonment order has the right to appeal the order, and must do so timely, and in writing. An appropriate appeal entitles the appellant to a hearing in front of a neutral party. If the operator does not appeal the order or if the operator appeals the order but does not prevail, the order becomes final and becomes a finding of desertion.

### **Step 3: Financial Review and Presumption of Orphan**

Once a well is declared deserted, a financial review is conducted to identify whether the current operator has the financial resources to fully cover the cost of plugging and abandoning the well or the decommissioning of deserted production facilities. This financial review includes a search of the County Assessor's Office Hall of Records to identify if the operator has any assets. It is also used to identify if any other operators exist that could be held liable. To facilitate the financial review process in the future, CalGEM will be seeking a third-party contractor to perform a title search and ownership review for all potentially responsible parties identified in CalGEM records.

Based on this review, a memorandum from the Supervisor documenting evidence of desertion and the result of the financial review is memorialized in a memorandum signed by the Supervisor declaring the well(s) as a nuisance pursuant to Public Resources Code section 3250, presumed orphan, and appropriate for consideration of state abandonment.

### **Step 4: "Presumed Orphan" Declaration**

If CalGEM determines that a well is deserted and that no entity legally responsible for the abandonment or decommissioning has sufficient financial resources to cover the cost of the work fully, then the well is added to the orphan well list for the Supervisor's consideration of undertaking plugging and abandonment of the well or decommissioning of the attendant deserted production facilities. However, the Supervisor is not prohibited from appointing agents to complete the work to plug and abandon a deserted well without the financial solvency test being complete if the Supervisor has ordered the plugging and abandonment of a well and the work is not commenced in good faith and continued to completion. (Pub. Resources Code, § 3226.) In such situations, CalGEM will conduct a financial solvency test in tandem with or after the work has been completed to determine if there is a solvent entity legally responsible for the work. If CalGEM identifies real or personal property belonging to a responsible entity, then CalGEM will work with the State Controller's Office to secure a lien against those assets in pursuit of reimbursement for the work performed.



## State Abandonment Funds

The costs associated with the state-funded plugging and abandonment of an orphan well and decommissioning the attendant facilities falls to three funds established by statutes, managed by CalGEM, and funded through the payment of assessments and idle well fees. These funds are described below:

1. **Oil, Gas, and Geothermal Administrative (OGGA) Fund:** Senate Bill (SB) 47 (Limon, Ch. 238, Statutes of 2021) increased CalGEM's expenditure authority to plug deserted wells and decommission deserted facilities from this fund from \$1 million to \$5 million annually beginning in fiscal year 2022-2023. Any unspent funds as of the current fiscal year and going forward will roll over to the Oil and Gas Environmental Remediation Fund and can be used for the same purpose. Through fiscal year 2021/22 CalGEM was appropriated \$15 million for the purposes noted above. As of December 31, 2021, CalGEM has spent or encumbered approximately \$12.17 million of this. Approximately \$1.53 million was unspent that was the result of contracts that were canceled during this time period. These expenditures covered the abandonment of 109 wells and attendant facilities. (Pub. Resources Code, § 3261, subd. (a) & (b).)
2. **Hazardous and Idle-Deserted Well Abatement Fund (HIDWAF):** This fund receives revenue from idle well fees to plug wells and decommission facilities deserted by operators subject to idle well fees. Existing law continuously appropriates this fund without regard to the fiscal year to mitigate a hazardous or potentially hazardous condition by well plugging and abandonment, decommissioning the production facilities, or both. As of December 31, 2021, the balance of the HIDWAF was \$8,122,586.55.
3. **Oil and Gas Environmental Remediation (OGER) Account:** The OGER Account, established in the OGGA Fund, receives funding from civil penalties associated with enforcement actions. Upon appropriation, CalGEM may use money in the OGER Account to plug wells, decommission attendant facilities, or otherwise remediate sites that pose a danger to life, health, water quality, wildlife, or natural resources. The Legislature set the appropriation for the OGER Account at \$54,000 in 2018 and 2019. As of December 31, 2021, the balance of the OGER account was \$1,442,534.77. (Pub. Resources Code, § 3261, subds. (a) & (b).)

These three funds help to pay down the State's potential liability from orphan wells and





facilities. CalGEM spends these funds to plug and abandon orphan wells through contracts that are put out to bid.

### **3.1. Inventory of Orphan, Deserted, and Potentially Deserted Wells**

In accordance with Public Resources Code section 3206.3, this report also provides key statistics and information regarding California's inventory of remaining orphan wells, the estimated costs of abandoning those orphan wells, and a timeline for future orphan well abandonment with a specific schedule of goals. In summary, CalGEM estimates that, as of December 31, 2021, there are approximately 5,265 deserted or potentially deserted wells and 55 orphan wells.

See Appendix A-6 for the list of idle wells declared orphan.

See Appendix A-7 for the list of wells that are deserted or potentially deserted.

Potentially deserted wells are those wells that have not yet been determined to be “deserted” but for which other evidence suggests the wells likely have no responsible operator. These are wells for which CalGEM has not yet taken action to memorialize an official desertion determination but for which CalGEM is nonetheless aware of evidence that appears to support a desertion determination. This evidence includes failure to pay idle well fees, failure to comply with idle well regulations, the operational history of the well, the lack of response from the operator, and other evidence as allowed under Public Resources Code section 3237. (See also Pub. Resources Code, §§ 3206, subd. (c); 3206.1, subd. (e).) For a full version of Public Resources Code sections 3206, 3206.1, and 3237, please see Appendices B-1 and B-2. CalGEM anticipates that in many cases, after completing its review, these wells will likely be found to have no legally responsible current or prior operator with financial resources sufficient to cover the costs of plugging and abandonment.

It is worth noting that failure to pay idle well fees is not the only evidence of desertion that CalGEM may rely upon in ordering a well plugged and abandoned. Failure to comply with the idle well regulations is also conclusive evidence of desertion. (Pub. Resources Code, § 3206.1, subd. (e).) Additionally, under Public Resources Code section 3237, credible evidence of desertion may also include, but is not limited to: the operational history of the well or production facility; the response or lack of response of the operator to inquiries and requests from CalGEM; the extent of compliance by the operator with the requirements; and other actions. Similarly, a rebuttable presumption of desertion arises if: a well has not been completed to production or injection and the drilling machinery has





been removed from the well site for at least six months; the well's production or injection equipment has been removed from the well site for at least two years, no matter the condition or relative completion of the well; the operator has failed to comply with an order of the Supervisor within the time provided by an order or has failed to comply with an order on a timely basis; an operator fails to designate an agent; an operator acquiring a well or production facility fails to comply with transfer requirements; or an operator fails to maintain the access road to a well or production facility. As such, the list of wells provided in Appendix A-7 may under-report the number of deserted and potentially deserted wells.

CalGEM estimates that as of December 31, 2021, there are approximately 5,265 wells associated with 1,102 operators that are potentially deserted. CalGEM staff are making progress issuing plug and abandonment orders for these wells, and as of June 2022 plug and abandonment orders had been issued for 449. These wells most likely have no legally responsible current or prior operator with resources sufficient to cover the costs of plugging and abandonment. Wells meeting this definition are also potentially orphan wells.

### **3.2 Costs of Abandonment**

The costs of plugging and abandoning orphan wells are highly variable and, in many cases, difficult to predict. When an operator plugs and abandons one of their wells, they are generally aware of the conditions of the well, including problems with obstructions that they may encounter. When CalGEM plugs and abandons an orphan well, it may lack critical information about the condition of the well. For example, the well could have been drilled 100 years ago, and CalGEM may not know if the previous operator attempted to plug and abandon the well in the past; the well may contain undocumented oil field and household refuse; the well may have been damaged, collapsed, or have a severed casing; or other information that is critical to understanding potential cost drivers in a plugging and abandonment project. Costs can range from as low as \$11/foot in a rural oilfield with no wellbore damage to over \$200/foot in an urbanized area with high ancillary costs, such as temporarily moving utility lines, higher staging and mobilization costs, and/or the presence of refuse, mentioned above, which may obstruct downhole operations leading to delays and cost overruns.

Since 2011, CalGEM has plugged and abandoned 117 wells (and some attendant facilities) across the state with a total cost of over \$14.67 million. CalGEM has estimated that the plug and abandonment cost for Northern District is \$98,400 per well, Inland District is \$87,000 per well, Southern District is \$923,200 per well (higher due to its highly urban environment and associated costs for operation in these spaces), and State Land



Commission (SLC) legacy wells at \$1,300,000 per well (higher still due to their location offshore). The total potential liability to the state for plugging and abandoning these wells would be approximately \$974 million. (Based on methodology reported in the 2021 Notice of Intent to Apply for Formula Grant Funding and 2021 State Abandonment Analysis Report.)

### **3.3 Factors for Future Abandonment and Decommissioning of Prioritization**

CalGEM finalized a methodology to prioritize orphan wells to be plugged and abandoned in 2023, following public comments and community meetings. With thousands of wells to plug, and finite resources to do it, CalGEM's methodology aims to ensure monies expended for state abandonment maximize benefits to California communities. This includes reflecting climate benefits, equity, environmental protection, community perspective, public health and safety, and ensuring industry responsibility and the efficient use of limited resources.

CalGEM takes a two-phased approach to prioritize wells for state plugging and abandonment that may pose the greatest risk to public health, safety, and the environment, while also taking into consideration the concerns of the local jurisdictions and communities, and economic efficiencies associated with the ordering of well abandonments.

Additional information can be found on CalGEM's website at:

<https://www.conservation.ca.gov/calgem/Pages/Orphan-Well-Screening-Methodology.aspx>

### **3.4 Timeline for Future Abandonment and Decommissioning of Orphan Wells**

Based on current funding levels supporting the plugging and abandonment of wells and that there are over 5,300 orphan or potentially orphan wells in California, the current levels of state funding are insufficient to address the full scope of this issue in a timely manner.

However, with the release of the Federal Infrastructure Investment and Jobs Act, providing \$4.7 billion in grants for Orphaned Oil and Gas Wells, California has the opportunity to apply for grants which will accelerate the plugging and abandonment of orphaned oil and gas wells. The Department of the Interior has released final guidance to states on how to apply for the first \$775 million in initial grant funding available for plugging orphaned oil and gas wells under President Biden's Infrastructure Investment and Jobs Act.

The bill provides grant funding for States and Tribes to address orphaned oil and gas wells. There are three types of grants for states: Initial, Formula, and Performance. The Bill



provides broad authority to use the money for various relevant uses including, but not limited to: plugging and abandonments; site remediation; identifying, screening, and prioritizing wells; and data transparency.

CalGEM has applied and submitted the application for the Initial Grant Funding; California has been allotted \$25 million. CalGEM has also submitted a Notice of Intent to Apply for Formula Grant and California has the potential to be allocated an additional \$140 million as part of the Phase 1 funding. CalGEM intends to apply for all available monies.

## 4. Production Facilities Attendant to Long-Term Idle Wells

### 4.1 Violations Issued to Operators for Production Facilities Attendant to Long-Term Idle Wells

For the purpose of this report, a production facility attendant to a LTIW includes any setting, tank, vessel, sump, or pipeline. While the statutory definition of production facility found in Public Resources Code section 3010 includes a 'wellhead' as a type of production facility, the operational definition used in this report omits violations observed directly related to the wellhead.

See Appendix A-8 for the list of violations issued for production facilities attendant to LTIW.

As of June 1, 2022

Violation Status	Count of Violations
<b>Active</b>	<b>295</b>
<b>Resolved</b>	<b>326</b>
<b>Total Violations Issued</b>	<b>621</b>

Subject Type	Count of Violations
<b>Pipeline</b>	<b>54</b>
<b>Sump</b>	<b>3</b>
<b>Setting</b>	<b>116</b>
<b>Tank</b>	<b>400</b>
<b>Vessel</b>	<b>46</b>



<b>CALGEM DISTRICT</b>	<b>Count of Violations</b>
<b>Northern</b>	<b>72</b>
<b>Inland</b>	<b>312</b>
<b>Southern</b>	<b>237</b>



## APPENDIX A

### A-1 2021 Calendar Year Idle Well Inventory

List of all wells that met the definition of an idle well at any point in the 2021 reporting period. The list includes the API number and designation of the well, well type, operator, field, district, county, pool, and LTIW status identified for each well.

### A-2 Idle Wells That Changed Status from Idle to Long-Term Idle Well

List of all idle wells that met the definition of LTIW for the first time in the 2021 reporting period. The list includes the API number and designation of the well, well type, operator, field, district, county, and pool.

### A-3 Idle Wells That Changed Status from Idle to Plugged

List of all idle wells that changed status to plugged in the 2021 reporting period. The list includes the API number and designation of the well, well type, operator, field, district, county, pool, and LTIW status identified for each well.

### A-4 Idle Wells That Changed Status from Idle to Active

List of all idle wells that changed status to active in the 2021 reporting period. The list includes the API number and designation of the well, well type, operator, field, district, county, pool, and LTIW status identified for each well.

### A-5 Operators with 2021 IWMPs & Current Status

List of all operators with IWMPs submitted in 2021 and the status of each IWMP as of the annual review, including the minimum number of LTIWs required to be eliminated, the effective number of LTIWs eliminated, credits applied, and credits earned for LTIWs eliminated in excess of the minimum requirement.

### A-6 Idle Wells Declared Orphan

List of all idle wells that are presumed to be or have been determined to be orphaned. The list includes the API number, well type, last known operator name and code, field, district, county, status, pool, order number, and date declared orphan for each well.

### A-7 Idle Wells Potentially Deserted or Determined to be Deserted

List of all idle wells that have not yet been determined to be “deserted,” but for which the operator failed to pay idle well fees for the years 2019, 2020 and 2021 suggesting the wells likely have no responsible operator. Additionally, the list includes idle wells which have



been determined to be deserted as demonstrated through a final plugging and abandonment order, consistent with Public Resources Code section 3237. The list includes the API number, and the operator name and code.

### **A-8 Production Facility Violations Attendant to Long-Term Idle Wells**

List of violations issued to operators in 2021 for violations at production facilities attendant to LTIWs including: settings, tanks, vessels, sumps, and pipelines. While the statutory definition of production facility found in Public Resources Code section 3010 includes a 'wellhead' as a type of production facility, the operational definition used in this report omits violations observed directly related to the wellhead. This list includes the violation identification number, operator code, facility ID, facility type, observation date, remedy due date, resolved date (if violation remediated), section of the Public Resources Code or California Code of Regulations violated, and violation status as of May 24, 2022.

### **A-9 Wells idle for three years for which the idle well fees have not been paid and the well is not on an approved IWMP**

A list of idle wells that have been idle for three years where the required annual fee has not been paid and the well is part of a valid IWMP on file with the Supervisor. The list includes the API number, well type, operator name, and code, field, district, county, status, and pool.



## APPENDIX B – PUBLIC RESOURCES CODE SECTIONS

### B-1 Public Resources Code section 3206

#### **Public Resources Code section 3206**

- (a) The operator of any idle well shall do either of the following:
- (1) No later than May 1 of each year, for each idle well that was an idle well at any time in the last calendar year, file with the supervisor an annual fee equal to the sum of the following amounts:
    - (A) One hundred fifty dollars (\$150) for each idle well that has been an idle well for three years or longer, but less than eight years.
    - (B) Three hundred dollars (\$300) for each idle well that has been an idle well for eight years or longer, but less than 15 years.
    - (C) Seven hundred fifty dollars (\$750) for each idle well that has been an idle well for 15 years or longer, but less than 20 years.
    - (D) One thousand five hundred dollars (\$1,500) for each idle well that has been an idle well for 20 years or longer.
  - (2) File a plan with the supervisor to provide for the management and elimination of all long-term idle wells
    - (A) For the purposes of the plan required by this paragraph, elimination of an idle well shall be accomplished when the well has been properly abandoned in accordance with Section 3208, or it has been shown to the division's satisfaction that, since the well became an idle well, the well has maintained production of oil or gas or been used for injection for a continuous six-month period.
    - (B) A plan filed pursuant to this paragraph shall meet all of the following requirements and conditions:
      - (i) The plan shall specify the time period that it covers. The plan and any renewal of the plan shall cover a time period of no more than five years and shall be subject to approval by the supervisor who may prioritize the order in which idle wells are addressed.
      - (ii) The plan shall be reviewed for performance annually by the supervisor, and be subject to amendment by the supervisor, or by the operator with the approval of the supervisor.
      - (iii) The required rate of long-term idle well elimination shall be based upon the number of idle wells under the control of an operator on January 1 of each year, as specified in clause (iv). If the operator has eliminated more wells than required in the prior two years, the supervisor may deduct from the new requirement the net total of long-term idle wells eliminated in excess of those previously required. In addition, the



supervisor may require additional well testing requirements as part of the plan.

- (iv) Unless and until the operator has no long-term idle wells, the plan shall require that operators with 250 or fewer idle wells eliminate at least 4 percent of their long-term idle wells each year, and, in no case, less than one long-term idle well; operators with 251 to 1,250, inclusive, idle wells eliminate at least 5 percent of their long-term idle wells each year, and, in no case, less than one long-term idle well; and operators with more than 1,250 idle wells eliminate at least 6 percent of their long-term idle wells each year, and, in no case, less than one long-term idle well.
- (v) An operator who fails to comply with the plan, as determined by the supervisor after the annual performance review, is not eligible to use the requirements of this paragraph, for purposes of compliance with this section, for any of its idle wells. That operator may not propose a new idle well plan for the next five years. An operator may appeal to the director pursuant to Article 6 (commencing with Section 3350) regarding the supervisor's rejection of a plan and plan amendments and the supervisor's determination of the operator's failure to comply with a plan. If the supervisor's determination that the operator failed to comply with the plan is not timely appealed, or if the director upholds the supervisor's determination upon appeal, then the operator shall immediately file the fees required under paragraph (1) for each year that the operator failed to comply with the plan.
- (b) All fees received under this section shall be deposited in the Hazardous and Idle Deserted Well Abatement Fund, which is hereby created in the State Treasury. Notwithstanding Section 13340 of the Government Code, the moneys in the Hazardous and Idle-Deserted Well Abatement Fund are hereby continuously appropriated to the department for expenditure without regard to fiscal year, to mitigate a hazardous or potentially hazardous condition, by well plugging and abandonment, decommissioning the production facilities, or both, at a well of an operator subject to the requirements of this section.
- (c) Failure to file, for any well, the fee required under this section shall be conclusive evidence of desertion of the well, permitting the supervisor to order the well abandoned pursuant to Section 3237.
- (d) Nothing in this section prohibits a local agency from collecting a fee for regulation of wells.
- (e) This section shall become operative on January 1, 2018.

(Amended by Stats. 2018, Ch. 742, Sec. 3. (SB 1493) Effective January 1, 2019.)





**Public Resources Code section 3206.1**

- (a) By June 1, 2018, the division shall review, evaluate, and update its regulations pertaining to idle wells. The update shall include idle well testing and management requirements that, at a minimum, include all of the following:
- (1) Appropriate testing, as determined by the supervisor, to determine whether the fluid level is above the base of an underground source of drinking water.
  - (2) Appropriate testing, as determined by the supervisor, to verify the mechanical integrity of the well.
  - (3) Appropriate remediation, as determined by the supervisor, of idle wells if there is an indication of a lack of mechanical integrity.
  - (4) For a well that has been an idle well for 15 years or more, an engineering analysis demonstrating to the division's satisfaction that it is viable to return the idle well to operation in the future.
- (b) If the operator demonstrates to the division's satisfaction that the well is not within one half mile of an underground source of drinking water, testing required under the regulations implementing this section shall not be required until at least two years after the well becomes an idle well. This subdivision shall not be construed to prohibit or limit any other testing required under this chapter.
- (c) At the discretion of the supervisor, the regulations implementing this section may provide an option for temporary or partial well abandonment in lieu of compliance with the requirements of the regulations implementing this section.
- (d) If the operator does not remediate an idle well as required by the regulations implementing this section, or the operator does not demonstrate that an idle well is economically viable as required by the regulations implementing this section, then the operator shall plug and abandon the idle well in accordance with Section 3208.
- (e) Failure to file to comply with the requirements of the regulations implementing this section shall be conclusive evidence of desertion of the well, permitting the supervisor to order the well abandoned pursuant to Section 3237.
- (f) For purposes of this section, an "underground source of drinking water" has the same meaning as in the federal Safe Drinking Water Act (42 U.S.C. Sec. 300f).

(Added by Stats. 2016, Ch. 272, Sec. 11. Effective January 1, 2017.)



**Public Resources Code section 3206.3**

- (a) (1) Notwithstanding Section 10231.5 of the Government Code, on or before July 1, 2019, and annually thereafter until July 1, 2026, the supervisor shall, in compliance with Section 9795 of the Government Code, prepare and transmit to the Legislature a comprehensive report on the status of idle and long-term idle wells for the preceding calendar year. The report shall include all of the following:
- (A) A list of all idle and long-term idle wells in the state by American Petroleum Institute identification number and indicating the operator, field, and pool.
  - (B) A list of all wells whose idle or long-term idle status changed in the preceding year by American Petroleum Institute identification number with the disposition and current status of each well.
  - (C) A list of orphan wells remaining, the estimated costs of abandoning those orphan wells, and a timeline for future orphan well abandonment with a specific schedule of goals. Idle and long-term idle wells that have become orphan wells shall be identified in the list. For the purposes of this report, an orphan well is a well that has no party responsible for it, leaving the state to plug and abandon it.
  - (D) A list of all operators with plans filed with the supervisor for the management and elimination of all long-term idle wells and the status of those plans.
  - (E) Any additional relevant information as determined by the supervisor.
- (2) The report shall be made publicly available and an electronic version shall be available on the division's internet website.
- (b) For the report due on or before July 1, 2021, and each report thereafter, the division shall do both the following:
- (1) Conduct inspections of production facilities attendant to long-term idle wells to ensure compliance with the requirements of this chapter. Information summarizing violations and pertinent findings in these inspections shall be included in the applicable report required to be prepared and transmitted pursuant to subdivision (a).
  - (2) Identify idle wells by the American Petroleum Institute identification number that are registered to an operator and that have met the definition of an idle well for three years where neither the required annual fee has been paid or the well is part of a valid idle well management plan on file with the supervisor pursuant to subdivision (a) of Section 3206.
- (c) For the report due on or before July 1, 2023, and each report thereafter, the division shall provide a description of activities undertaken by the division's collections unit established



pursuant to Section 3243. This description shall include the number of operators and amounts of idle well fees collected by the collections unit in the preceding year, the criteria, including timelines, used by the collections unit to determine a well or attendant facility is deserted, and the amount of costs recovered from operators or responsible parties for work ordered by the supervisor or undertaken by the division. Information related to the division's use of liens, including, but not limited to, the number of wells and facilities eligible to be subject to a lien, the number of liens placed by the supervisor, and the number of liens released by the supervisor, shall also be provided.

- (d) Information on how to access the plans described in subparagraph (D) of paragraph (1) of subdivision (a) shall be on the division's internet website.
- (e) After July 1, 2026, the division shall continue to regularly provide updated information describing idle and long-term idle wells on the division's internet website.

(Amended by Stats. of 2021, Ch. 758, Sec. 2.5, SB 84)

## **B-2 Public Resources Code section 3237**

- (a) (1) The supervisor or district deputy may order the plugging and abandonment of a well or the decommissioning of a production facility that has been deserted whether or not any damage is occurring or threatened by reason of that deserted well or production facility. The supervisor or district deputy shall determine from credible evidence whether a well or production facility is deserted.
  - (2) For purposes of paragraph (1), "credible evidence" includes, but is not limited to, the operational history of the well or production facility, the response or lack of response of the operator to inquiries and requests from the supervisor or district deputy, the extent of compliance by the operator with the requirements of this chapter, and other actions of the operator with regard to the well or production facility.
  - (3) A rebuttable presumption of desertion arises in any of the following situations: (A) If a well has not been completed to production or injection and drilling machinery have been removed from the well site for at least six months. (B) If a well's production facilities or injection equipment has been removed from the well site for at least two years. (C) If an operator has failed to comply with an order of the supervisor within the time provided by the order or has failed to challenge the order on a timely basis. (D) If an operator fails to designate an agent as required by Section 3200. (E) If a person who is to acquire a well or production facility that is subject to a purchase, transfer, assignment, conveyance, exchange, or other disposition fails to comply with Section 3202. (F) If an operator has failed to maintain the access road to a well or production facility site passable to oilfield



and emergency vehicles.

- (4) The operator may rebut the presumptions of desertion set forth in paragraph (3) by demonstrating with credible evidence compliance with this division and that the well or production facility has the potential for commercial production, including specific and detailed plans for future operations, and by providing a reasonable timetable for putting those plans into effect. The operator may rebut the presumption set forth in subparagraph (F) of paragraph (3) by repairing the access road.
- (b) An order to plug and abandon a deserted well or to decommission a production facility may be appealed to the director pursuant to the procedures specified in Article 6 (commencing with Section 3350).
- (c) (1) The current operator, as determined by the records of the supervisor, of a deserted well that produced oil, gas, or other hydrocarbons or was used for injection is responsible for the proper plugging and abandonment of the well or the decommissioning of deserted production facilities. If the supervisor determines that the current operator does not have the financial resources to fully cover the cost of plugging and abandoning the well or the decommissioning of deserted production facilities, the immediately preceding operator shall be responsible for the cost of plugging and abandoning the well or the decommissioning of deserted production facilities.
- (2) The supervisor may continue to look seriatim to previous operators until an operator is found that the supervisor determines has the financial resources to cover the cost of plugging and abandoning the well or decommissioning deserted production facilities. However, the supervisor may not hold an operator responsible that made a valid transfer of ownership of the well prior to January 1, 1996.
- (3) For purposes of this subdivision, "operator" includes a mineral interest owner who shall be held jointly liable for the well and attendant production facilities if the mineral interest owner has or had leased or otherwise conveyed the working interest in the well to another person, if in the lease or other conveyance, the mineral interest owner retained a right to control the well operations that exceeds the scope of an interest customarily reserved in a lease or other conveyance in the event of a default.
- (4) No prior operator is liable for any of the costs of plugging and abandoning a well or decommissioning deserted production facilities by a subsequent operator if those costs are necessitated by the subsequent operator's illegal operation of a well or production facility.
- (5) If the supervisor is unable to determine that an operator who acquired ownership of a well after January 1, 1996, has the financial resources to fully cover the costs of plugging



and abandonment of the well or decommissioning deserted production facilities, the supervisor may undertake plugging and abandonment of the well or decommissioning deserted production facilities pursuant to Article 4.2 (commencing with Section 3250).

(6) By July 1, 2022, the supervisor shall provide to the Senate Committee on Natural Resources and Water and the Assembly Committee on Natural Resources the process the supervisor has established to determine that the current operator does not have the financial resources to fully cover the cost of plugging and abandoning the well or the decommissioning of deserted production facilities pursuant to paragraph (1), or for a previous operator pursuant to paragraphs (1) and (2). The supervisor shall, in a timely manner, post the materials provided to the legislative committees pursuant to this paragraph on a public portion of the division's internet website.

(d) (1) Notwithstanding any other provision of this chapter, the supervisor or district deputy, at his or her sole discretion, may determine that a well that has been idle for 25 years or more and that fails to meet either of the following conditions is conclusive evidence of desertion, and may order the well abandoned:

(A) The operator is operating in compliance with a valid Idle Well Management Plan that is on file with the supervisor pursuant to paragraph (2) of subdivision (a) of Section 3206 or is covered by an indemnity bond provided under Section 3204, subdivision (a) of Section 3205, or subdivision (a) of Section 3205.2.

(B) The well meets the relevant testing standards for idle wells required under the regulations implementing this chapter.

(2) The supervisor or district deputy shall provide the operator a 90-day notice of warning once a determination has been reached pursuant to this subdivision that a well has been deserted. An operator may rebut the determination, made pursuant to paragraph (1), of the supervisor or district deputy by demonstrating compliance with subparagraphs (A) and (B) of paragraph (1).

(3) An order to plug and abandon a deserted well under this section due to the supervisor's or district deputy's determination of an operator's noncompliance with either subparagraph (A) or (B) of paragraph (1) may be appealed to the director pursuant to the procedures specified in Article 6 (commencing with Section 3350).

(Amended by Stats. 2021, Ch. 758, Sec. 3. (SB 84) Effective January 1, 2022.)

### **B-3 Public Resources Code section 3251**

For the purposes of this article, the following definitions apply:

(a) "Deserted facility" means a production facility determined by the supervisor to be



deserted under Section 3237 and for which there is no operator responsible for its decommissioning under Section 3237.

- (b) “Decommission” has the same meaning and requirements, as applicable, as the definition established in Section 1760 of Title 14 of the California Code of Regulations.
- (c) “Hazardous facility” means a production facility determined by the supervisor to be a potential danger to life, health, or natural resources and for which there is no operator determined by the supervisor to be responsible for its decommissioning under Section 3237.
- (d) “Hazardous well” means an oil and gas well determined by the supervisor to be a potential danger to life, health, or natural resources and for which there is no operator determined by the supervisor to be responsible for its plugging and abandonment under Section 3237.
- (e) “Idle-deserted well” means an oil and gas well determined by the supervisor to be deserted under Section 3237 and for which there is no operator responsible for its plugging and abandonment under Section 3237.

(Repealed and added by Stats. 2017, Ch. 652, Sec. 8. (SB 724) Effective January 1, 2018.)

#### **Public Resources Code section 3251.5**

- (a) Notwithstanding Section 3251, a well shall be deemed a hazardous well if it has been determined by the supervisor to pose a present danger to life, health, or natural resources and has been abandoned in accordance with the requirements of the division in effect at the time of the abandonment 15 or more years before the date of the supervisor’s determination that it poses such a danger.
- (b) Re-abandonment initiated by the supervisor shall not be affected by the timeline established in this section.

(Added by Stats. 1987, Ch. 1322, Sec. 2.)

#### **B-4 Public Resources Code section 3258**

- (a) The division shall not make expenditures from the Oil, Gas, and Geothermal Administrative Fund pursuant to this article that exceed in any one fiscal year:
  - (1) Three million dollars (\$3,000,000), commencing on July 1, 2018, for the 2018–19 fiscal year, and continuing for three fiscal years thereafter.
  - (2) Five million dollars (\$5,000,000), commencing with the 2022–23 fiscal year, and continuing thereafter.



- (b) The expenditure limits of subdivision (a) also apply to expenditures by the division from the Oil, Gas, and Geothermal Administrative Fund pursuant to Section 3226, unless the division obtains a lien against real or personal property of the operator. If the division obtains a lien against real or personal property of greater value than the amount of the expenditure, then the amount of the expenditure shall not count against the expenditure limit of subdivision (a). If the division obtains a lien against real or personal property of lesser value than the amount of the expenditure, then only the difference between the amount of the expenditure and the value of the property counts against the expenditure limit of subdivision (a).
- (c) Moneys expended pursuant to this article shall be used exclusively for plugging and abandoning hazardous or idle-deserted wells, decommissioning hazardous or deserted facilities, or otherwise remediating well sites of hazardous or idle-deserted wells.
- (d) The division shall develop criteria for determining the priority of plugging and abandoning hazardous or idle-deserted wells and decommissioning hazardous or deserted facilities to be remediated pursuant to this article and performing work pursuant to Section 3226. The criteria shall consider the information required to be reported pursuant to subdivision (d). The Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code) does not apply to the development of criteria by the division pursuant to this subdivision.
- (e) (1) (A) On April 1, 2021, the department shall report to the Legislature on the number of hazardous wells, idle-deserted wells, deserted facilities, and hazardous facilities remaining, the estimated costs of abandoning and decommissioning those wells and facilities, and a timeline for future abandonment and decommissioning of those wells and facilities with a specific schedule of goals. By April 1, 2022, the department shall report to the Legislature the location of the applicable wells and facilities, including the county in which they are located, if the information is not otherwise included in the April 1, 2021, report described in this paragraph.
- (B) As part of the report required in subparagraph (A), the department shall provide recommendations to the Legislature for improving and optimizing the involvement of local agencies in the process of plugging and abandoning wells and decommissioning facilities. In drafting these recommendations, the department shall consider factors unique to each of the division's districts, and shall consult with local agencies in developing recommendations.
- (C) In collecting the information for the report required in subparagraph (A), the division shall conduct field inspections of hazardous wells, idle-deserted wells, deserted facilities, and hazardous facilities and include information in the report





from the field inspections that can be used to prioritize those wells and facilities in the specific schedule of goals.

- (2) On October 1, 2023, and annually thereafter, the department shall provide to the Legislature an update on the report required in paragraph (1) that describes the total costs, average costs per well and facility, the number of wells plugged and abandoned, the number of facilities decommissioned, the total number of projects completed, and any additional wells and facilities identified by the department requiring abandonment or decommissioning. The update shall include the location, including the county, of applicable wells, facilities, and projects identified in the report.
- (3) The report and update to the report required to be submitted under this subdivision shall be submitted in compliance with Section 9795 of the Government Code.

(Amended by Stats. 2021, Ch. 758, Sec. 4.5. (SB 84) Effective January 1, 2022.)





## APPENDIX C – REFERENCES & DATA SOURCES

The following were used as references for this report:

- California Public Resources Code
- Title 14 of the California Code of Regulations
- Notice to Operators 2018-03: WellSTAR Release 2.0 – New and updated forms, e-permitting, and electronic reporting (CalGEM, March 7, 2018).
- Contract Management Analysis of Plugging & Abandonment Well Costs: (CalGEM, Division of Administration / Performance Review Unit).
- Facilities Project Monitoring Costs of Various Oil Fields in California (CalGEM Cost Estimate).
- U.S. Methane Emissions Reduction Action Plan (U.S. Department of the Interior)

The following were used as data sources for this report:

- IWMP documents submitted by operators.
- WellSTAR: an electronic database used to maintain, monitor, and track well information.



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