2023

OILFIELD CLEANUP PROGRAM

ANNUAL REPORT

LEADING TEXAS ENERGY

OIL & GAS ★ COAL ★ PIPELINES

RAILROAD COMMISSION OF TEXAS

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Executive Summary

The Railroad Commission (RRC) is deeply committed to protecting the environment and natural resources of this state. One of the most important ways the RRC achieves this is through the restoration of land used in energy production to a safe, productive condition. Although most oil and gas wells that are no longer productive are plugged by responsible operators, the RRC administers Texas' Oil Field Cleanup Program to plug abandoned wells. First established in 1984, RRC's Oil Field Cleanup Program has plugged over 45,000 abandoned wells across Texas.

Section 81.069, Natural Resources Code, requires that the Railroad Commission submit to the Legislature and make available to the public this report reviewing the extent to which Oil and Gas Regulation Cleanup Fund (OGRC) dollars have enabled the Commission to better protect the environment through oil field cleanup activities. The OGRC funds the plugging and remediation activities of the Oil Field Cleanup Program. The Commission is proud to report that OGRC funds were used to better protect the environment in areas across Texas in FY 2023. Key highlights within the Commission's FY 2023 report are as follows:

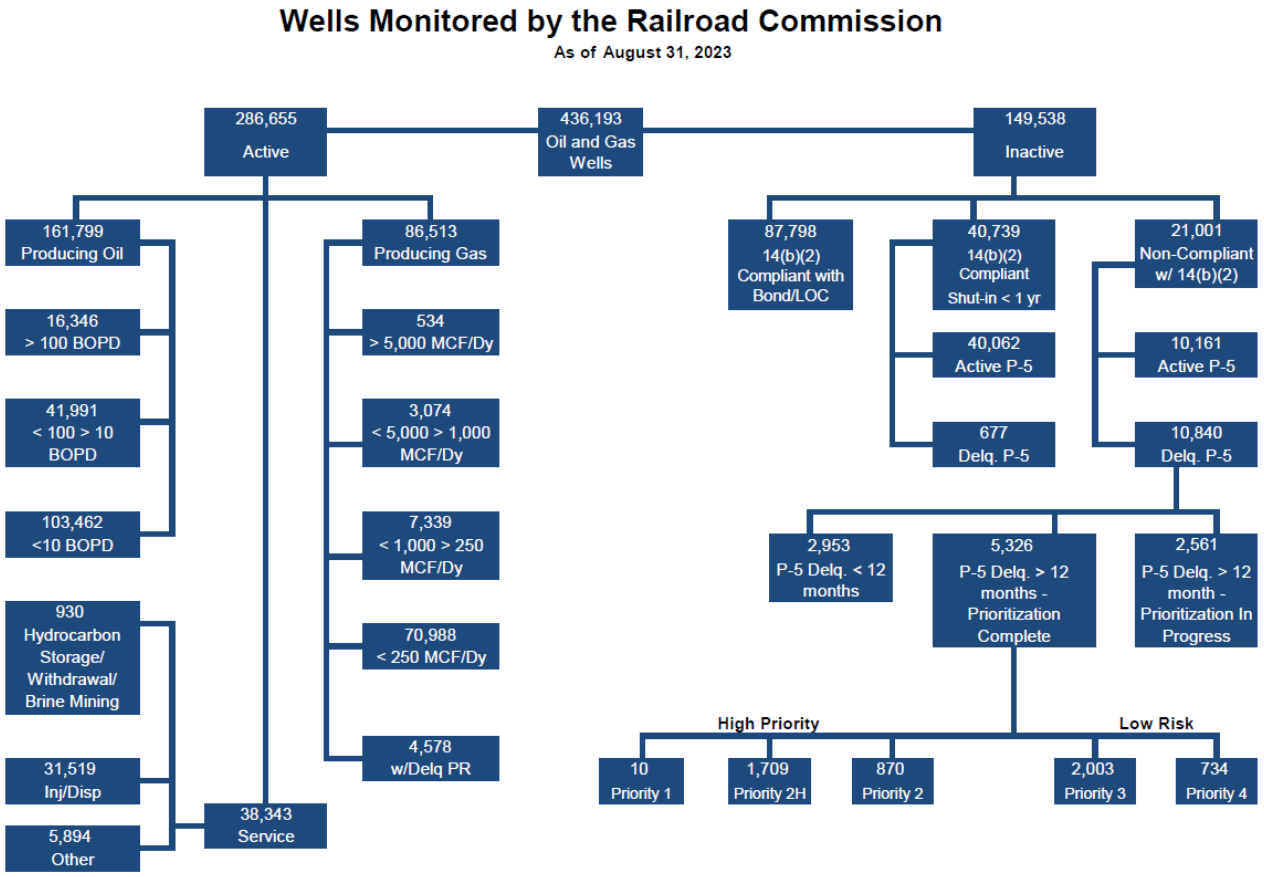
- RRC plugged 1,020 abandoned wells in FY 2023 using OGRC funds, exceeding the agency's annual performance measure by 20 wells using solely OGRC funds.
- RRC plugged an additional 730 wells using federal grant funds received from the $25 million Initial Grant funds authorized by the Infrastructure Investment and Jobs Act (2021)
- In FY 2023 RRC exceeded each of its performance goals relating to well plugging and site remediation. The agency achieved 175 percent of its target performance for well plugging, 120 percent of its target for abandoned site investigation and clean up, and 109 percent of its target for surface locations to be remediated. The RRC was able to greatly surpass the established performance metric due to federal grant funding that wasn't known about when the measures were established.
- As of August 2023, there were 7,887 abandoned, orphaned wells in Texas. This was a decrease of 73 wells in fiscal year 2023 and represents an overall decline in the total orphaned well population over the past decade.
- RRC's well plugging expenditures totaled $51.5 million for fiscal year 2023.
- The number of inactive wells not in compliance with RRC rules has decreased over the past 19 years. In fiscal year 2003, there were 24,202 non-compliant wells. By August 2023 that number was reduced to 21,001 wells, while the total number of wells in the state increased by 76,686.
- During fiscal year 2023, RRC identified 2,392 abandoned oilfield sites as candidates for state-managed remediation. RRC conducted 239 cleanup activities on those sites.

Background

Orphan Wells in Texas

As of August 2023, the Commission tracked 436,193 active and inactive oil and gas wells across Texas. Of this total, 149,538 wells are inactive, while the other 286,655 are active. Figure 1 illustrates the categories of active and inactive wells monitored by the Railroad Commission.

Figure 1: Wells monitored by the Railroad Commission



Inactive, shut-in oil and gas wells account for 34 percent of the total well population. The majority of these inactive wells are compliant with Commission rules. Operators of record plug most of the compliant inactive wells and some of the non-compliant inactive wells as required by the Commission. Of the 149,538 inactive wells, 7,887 are defined by the Commission as orphaned wells. An orphaned well is any oil or gas well that is inactive and without an operator's financial assurance represented by an active P-5 with the Commission within the previous 12 months.

These 7,887 orphaned wells will likely require plugging by the Commission with OGRC funds or other state or federal funds. These wells are plugged through the Commission's State Managed Plugging Program.

The number of orphaned wells is a dynamic number that changes daily, as wells move into and out of compliance with Commission rules. The Commission attempts to capture this dynamic number with a monthly count of the orphaned well

population. Table 1 depicts these changes throughout fiscal year 2023. Table 2 defines each of the categories listed in Table 1. The Commission began the fiscal year with 7,960 orphaned wells, as shown in Table 1. While Commission plugging operations, operator changes, P-5 renewals, and other factors decreased the aggregate orphan well population throughout the year, other factors, principally operators with delinquent P-5s, contributed more wells to the state's orphaned well counts. The Commission ended FY 23 with 7,887 orphaned wells. This represents a decrease of 73 wells during fiscal year 2023.

Table 1: Change to orphaned well population FY 23

Month of activity	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Summary
Beginning Population (from previous month)	7,960	8,180	8,501	8,628	8,723	8,515	8,500	8,433	9,131	8,196	8,129	7,925	7,960
Plugged	(9)	(89)	(34)	(70)	(190)	(224)	(151)	(105)	(153)	(190)	(135)	(203)	(1,553)
Returned to Active Status	(7)	0	0	0	0	0	(1)	(1)	(3)	0	0	0	(12)
Operator Change	(41)	(45)	(11)	(14)	(71)	(15)	(23)	(39)	(6)	(24)	(69)	(7)	(365)
P-5 Renewal	(64)	(7)	(14)	0	(1)	(88)	0	(76)	(899)	(61)	(200)	(86)	(1,496)
Other Reasons	0	0	0	0	0	0	0	0	0	0	0	0	0
Originally Delq P5 > 12 months	(14)	0	0	0	0	(22)	(191)	(81)	(39)	0	0	0	(347)
Originally Delq P5 < 12 Months	288	88	177	145	44	205	62	114	109	43	34	28	1,337
Wells Added to Population	67	374	9	34	10	129	237	886	56	165	166	230	2,363
Ending Population	**8,180**	**8,501**	**8,628**	**8,723**	**8,515**	**8,500**	**8,433**	**9,131**	**8,196**	**8,129**	**7,925**	**7,887**	**7,887**

Table 2: Well Categories

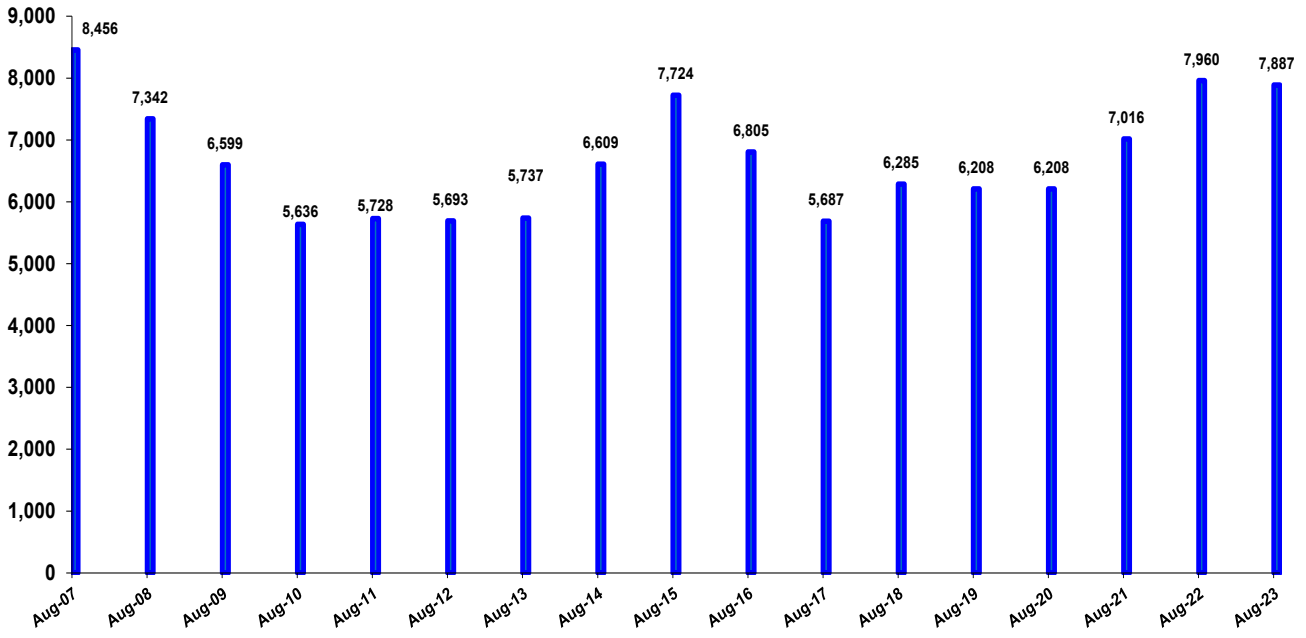
Plugged	Plugged and abandoned
Returned to Active Status	Active producing or service well
Operator Change	P-4 Operator Change was filed and approved. An operator change will not be approved unless the new operator has sufficient bond amount on file to cover the new wells and has an active P-5.
P-5 Renewal	The operator of record renews their P-5.
Other Reasons	Supporting documentation filed to correct shut-in date, well activity, etc.
Originally a Delq P5 > 12 Months	The P-5 for the operator of these wells had originally been shown delinquent for more than 12 months but data now reflects the delinquent date is less than 12 months. (The last P-5 filed date was revised and is now delinquent less than 12 months.)
Originally Delq P5 < 12 Months	The P-5 for the operator of these wells had originally been shown delinquent for less than 12 months but data now reflects the delinquent date is greater than 12 months
Wells Added to Population	Wells not considered orphaned at the end of the previous month but are considered orphaned at the close of this month.

Table 3 highlights the changes in the state's orphaned well population from September 1, 2007 through August 31, 2023 (FY 2008 to FY 2023). Since fiscal year 2008, 29,012 orphaned wells were removed from the inventory, while 28,443 new orphaned wells were added to the inventory. One of the Commission's regulatory goals is to eliminate the threat of pollution posed by orphaned unplugged wells and to minimize the number of orphaned wells requiring plugging with OGRC funds, or other state and federal funds. Figure 2 illustrates that despite the Commission's effort towards reducing the number of abandoned wells in Texas a persistent influx of wells to the orphan population the overall decline is only 569 from the start of fiscal year 2008 to the end of FY 2023 in August, decreasing from 8,456 to 7,887. The population increased substantially during the COVID-19 pandemic with 1,700 wells added to the population during fiscal years 2021 and 2022. At the end of fiscal year 2020, there were 6,208 wells in the population, which experienced a 28 percent increase as the delayed impacts of the pandemic affected the oil and gas industry.

Table 3: Change to orphaned well population FY 08–FY 23

Fiscal year	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
Beginning Population (from previous FY)	8,456	7,342	6,599	5,636	5,728	5,693	5,737	6,609	7,724	6,805	5,687	6,285	6,208	6,208	7,016	7,960	8,456
Plugged	(1,085)	(1,278)	(1,139)	(317)	(878)	(197)	(200)	(287)	(1,957)	(2,417)	(1,254)	(1,698)	(1,361)	(1,279)	(1,137)	(1,553)	(18,037)
Returned to Active Status	(13)	(6)	(5)	(3)	(1)	(7)	(3)	(93)	(12)	(9)	(8)	(5)	(4)	(40)	(7)	(12)	(228)
Operator Change	(360)	(359)	(214)	(114)	(183)	(230)	(169)	(229)	(188)	(310)	(273)	(1,118)	(326)	(354)	(407)	(365)	(5,199)
P-5 Renewal	(33)	(42)	(84)	(56)	(395)	(59)	(8)	(43)	(162)	(101)	(77)	(43)	(185)	(347)	(65)	(1,496)	(3,196)
Other Reasons	(6)	(2)	(6)	(13)	0	(1)	0	(73)	(1)	(5)	0	(1)	(1)	0	0	0	(109)
Originally Delq P5 > 12 months	0	0	0	(1)	(14)	0	(1)	0	(1,213)	(5)	0	(1)	(33)	(3)	(625)	(347)	(2,243)
Originally Delq P5 < 12 months	318	902	443	501	1,030	494	1,177	1,715	2,472	1,601	1,987	2,614	1,640	2,201	2,740	1,337	23,172
Wells Added to Population	65	42	42	95	406	44	76	125	142	128	223	175	270	630	445	2,363	5,271
Ending Population	7,342	6,599	5,636	5,728	5,693	5,737	6,609	7,724	6,805	5,687	6,285	6,208	6,208	7,016	7,960	7,887	7,887

Figure 2: Orphaned well population August 2007–August 2023



State Managed Cleanup Program

In addition to plugging orphaned wells, the Commission administers a state-managed cleanup program. This program is also funded with OGRC dollars. The program is responsible for the assessment and cleanup of oil field wastes and pollution at abandoned oil and gas sites. The majority of cleanups typically involve removing waste from surface equipment (tank batteries, separator, etc.) and remediating affected soils at abandoned well sites. Cleanup activities often follow well plugging activities. Funds are also used to cleanup abandoned pits, reclamation facilities and other types of sites such as abandoned natural gas processing plants, leaking pipelines, unidentified/illegal dumping of waste, and emergency cleanups.

Sites may enter the program as orphaned wells are identified, through a referral from the Operator Cleanup Program or State Funded Plugging Program, or as complaints from members of the public. When a new site enters the program, District Office Cleanup Coordinators perform a Site Assessment, detailing what pollution threats exist at each site. After the assessment phase, the SMCU team along with its contractors develop a work plan and a work order is issued to the contractor to complete the work under the oversight of the District Office Cleanup Coordinator (DOCC). The program also utilizes contracts with professional engineering firms to provide engineering design services and complex environmental investigations.

Oil and Gas Regulation Cleanup Fund (OGRC)

OGRC Fund revenue is derived primarily from regulatory and permitting fees paid by the oil and gas industry. The Fund also includes revenue from certain enforcement penalties, reimbursements, and proceeds from the sale of equipment and hydrocarbons salvaged from well plugging and site remediation operations. Additionally, the Commission seeks other funding sources from state and federal agencies to supplement the activities of the Oil Field Cleanup Program. Although the OGRC Fund finances most of the Oil Field Cleanup Program activities, several site remediations documented in this report were funded with federal monies under Subtitle C of Brownfields Revitalization Act and Section 319 of the Clean Water Act Non-Point Source grant.

Oil Field Cleanup Activities Data

The following information on the Oil Field Cleanup Program is reported annually as required by §81.069, Natural Resources Code.

1. Performance Goals for the Oil and Gas Regulation and Cleanup Fund.

Through the legislative appropriations request process, the Commission established performance goals for fiscal year 2023 as detailed in Table 4. In FY 2023 the Commission exceeded each performance goal relating to well plugging and site remediation.

Table 4: Fiscal Year 2023 Performance Goals

Measure	Performance Target	Actual Performance	Percent of Target Achieved
Number of orphaned wells to be plugged with state-managed funds	1,000	1,750	175%
Number of abandoned sites investigated, assessed, or cleaned up with state funds	200	239	119%
Number of surface locations to be remediated	2,200	2,392	109%

2. Number of Orphaned Wells Plugged with State-Managed Funds, by District:

In fiscal year 2023, the Commission plugged and closed files on 1,750 wells with OGRC funds and federal grant funds. The total number of wells plugged represents those wells that were physically plugged, invoiced by the plugging contractor, and approved for payment through August 31, 2023. A total of 1,754 wells were physically plugged during fiscal year 2023 with 1,750 invoiced and paid during fiscal year 2023.

The Commission plugged wells in every agency district in FY 2023. Figure 3 identifies the boundaries of all agency districts. Figure 4 details the numbers of wells plugged by district during fiscal year 2023.

Figure 3: Regional map of Railroad Commission district offices

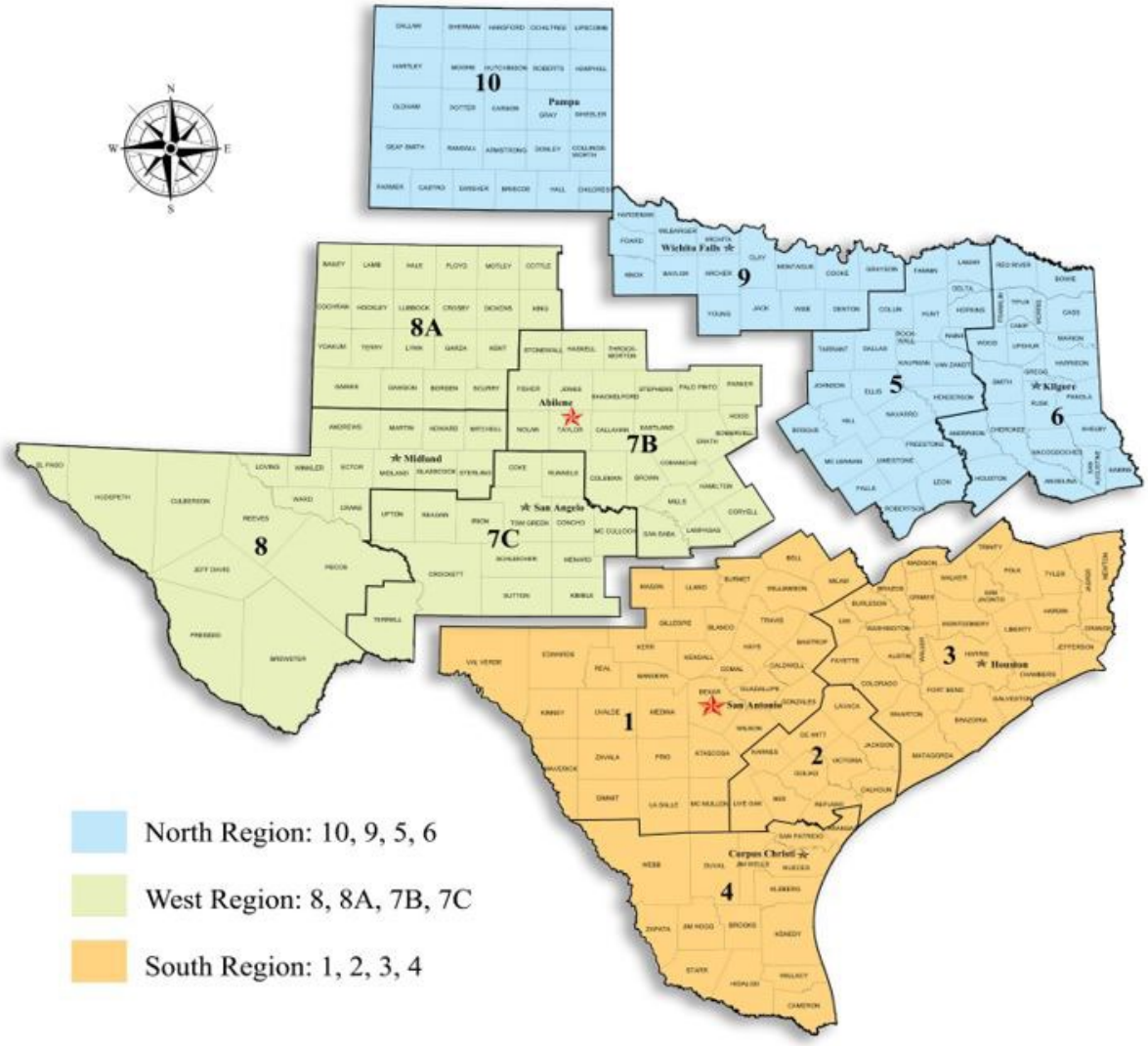
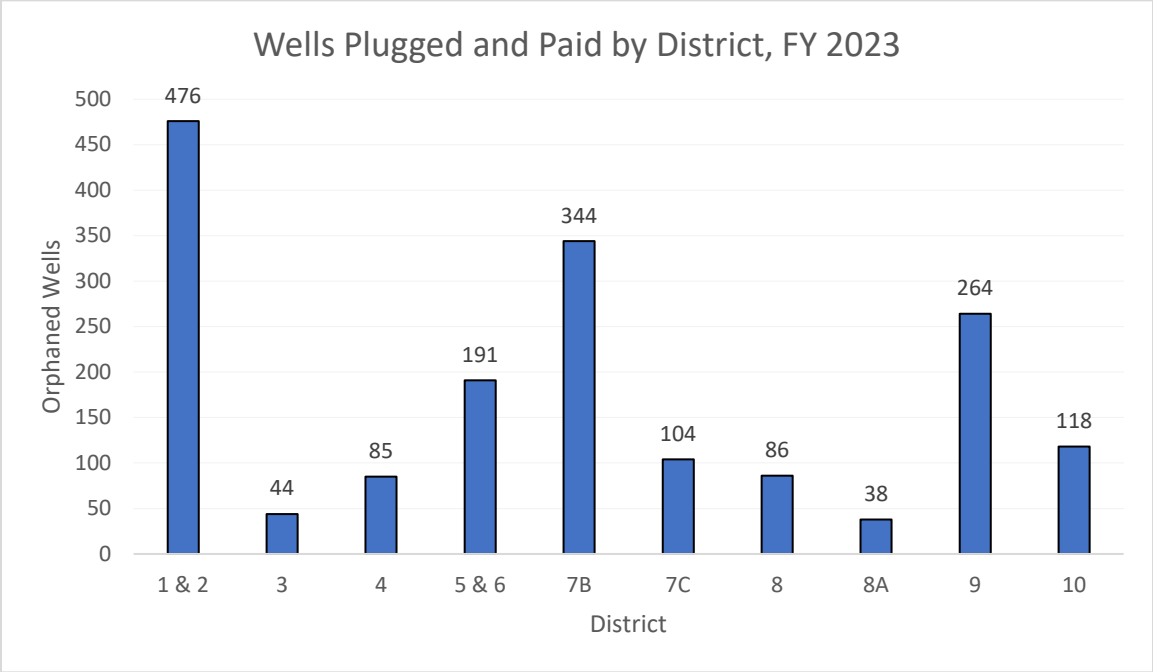


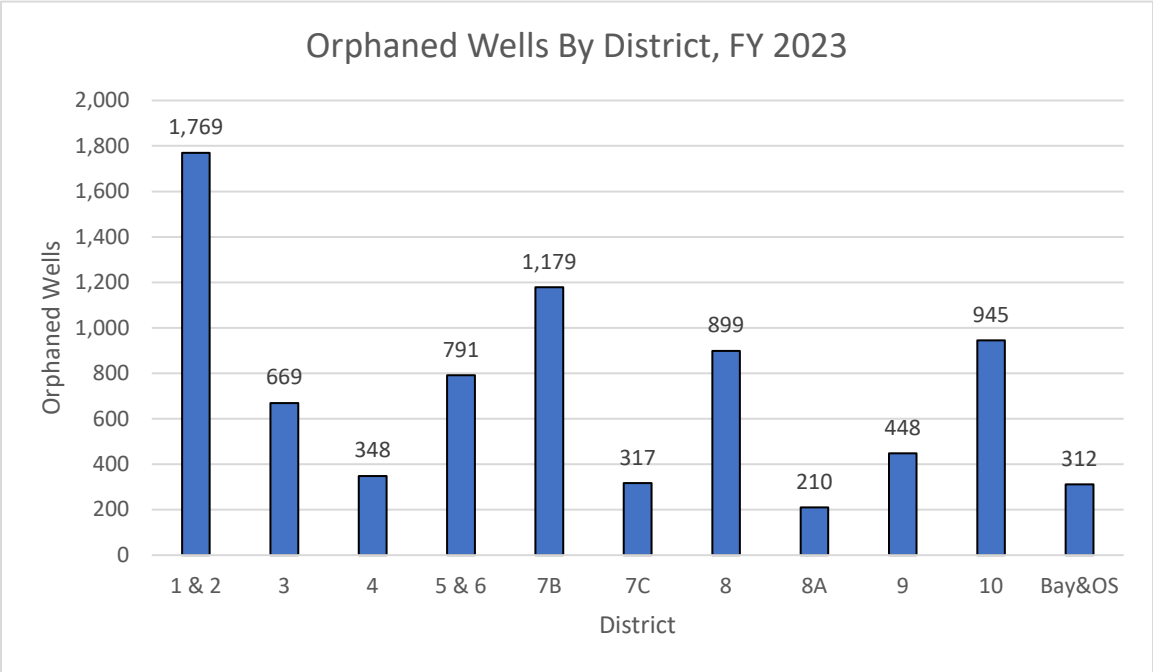
Figure 4: Wells plugged and paid by RRC district FY 2023



3. Number of Wells Orphaned, by District:

As of August 2023, the Commission's count of abandoned, orphaned wells equaled 7,887. Figure 5 illustrates the number of orphaned wells by agency district at the end of August 2023.

Figure 5: Orphaned wells by district, FY 2023

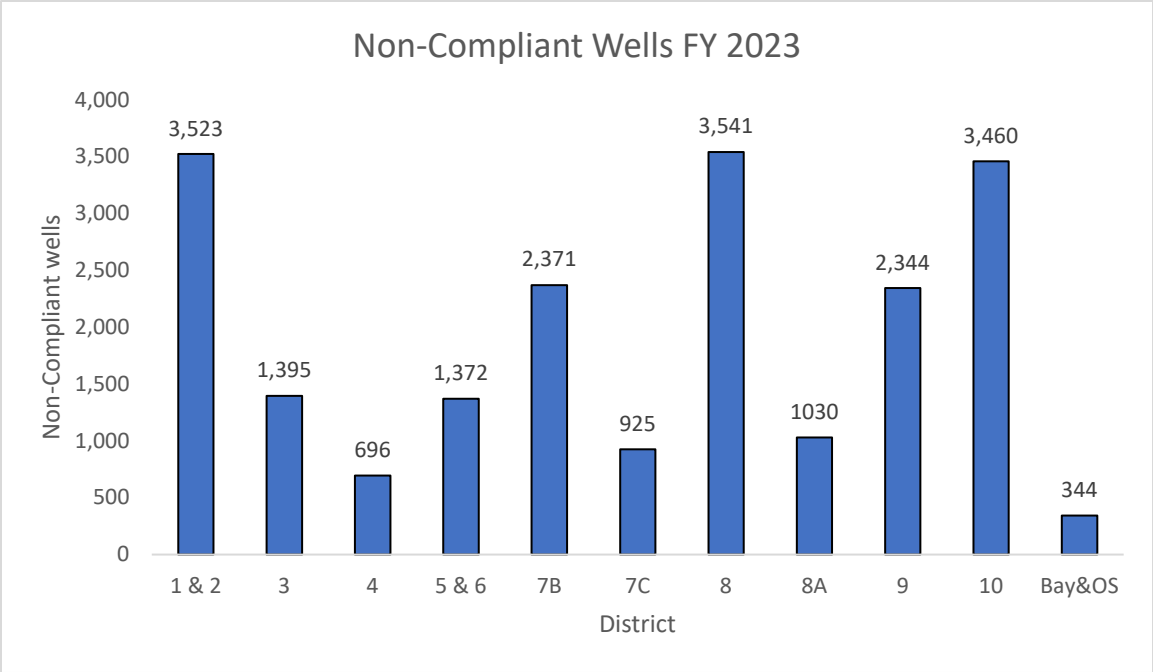


In addition to the 7,887 orphaned wells, there are also an unknown number of undocumented wells in Texas that were not recorded with the Commission. These include antiquated wells that were dug in the decades following Spindletop. As these wells are located, the Commission initiates plugging operations in accordance with the well plugging priority system, which is based on the threat the well poses to the environment and public safety. In fiscal year 2023, 85 previously undocumented abandoned wells were plugged, 11 of which were using federal funds. These unidentified wells accounted for 4.8 percent of all wells plugged by the Commission for that fiscal year.

4. Number of Inactive Wells Not Currently in Compliance with Commission Rules, by District:

The number of known inactive wells not in compliance with Commission rules as of August 2023 totals 21,001. The number represents wells that remain shut-in beyond the initial 12-month shut-in period authorized by Commission 16 Texas Administrative Code §3.14(b)(2) [Statewide Rule 14(b)(2)] and do not have a plugging extension, regardless of whether the operator's Organization Report is active or delinquent. Figure 6 shows the number of non-compliant wells by district at the end of August 2023.

Figure 6: Non-compliant wells FY 2023



5. Status of Enforcement Proceedings for Wells in Violation of Commission Rules, by District:

In fiscal year 2023, the Commission referred a total of 361 non-compliant wells to the Office of the Attorney General (OAG) for collection. Table 5 depicts the number of wells, by district, in violation of the Commission's plugging rule that have been referred to the Office of General Counsel—Legal Enforcement Section for enforcement and/or the OAG for collection. The wells referenced here are in various stages of enforcement/collection.

Table 5: Enforcement proceedings by district

ENFORCEMENT PROCEEDINGS	1/2	3	4	5/6	7B	7C	8/8A	9	10	Total
STATUS										
1. Awaiting RRC review	***35***	***16***	***3***	***0***	***10***	***9***	***21***	***74***	***0***	***168***
2. Awaiting Hearing	***21***	***17***	***0***	***9***	***18***	***20***	***12***	***60***	***0***	***157***
3. Awaiting Final Order	***119***	***40***	***3***	***0***	***79***	***14***	***25***	***47***	***0***	***327***
4. Wells Referred to AG	***52***	***40***	***0***	***27***	***58***	***16***	***19***	***50***	***99***	***361***
Total Wells Still in Violation	***227***	***113***	***6***	***36***	***165***	***59***	***77***	***231***	***99***	***1013***
TIME PERIOD										
5. In Enforcement < 2yrs	***160***	***67***	***6***	***7***	***97***	***41***	***32***	***166***	***0***	***576***
6. In Enforcement > 2yrs & < 5yrs	***15***	***6***	***0***	***2***	***10***	***2***	***26***	***15***	***0***	***76***
7. In Enforcement > 5yrs	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Total Wells Still in Enforcement	***175***	***73***	***6***	***9***	***107***	***43***	***58***	***181***	***0***	***652***

6. Number of Surface Locations Remediated, by District:

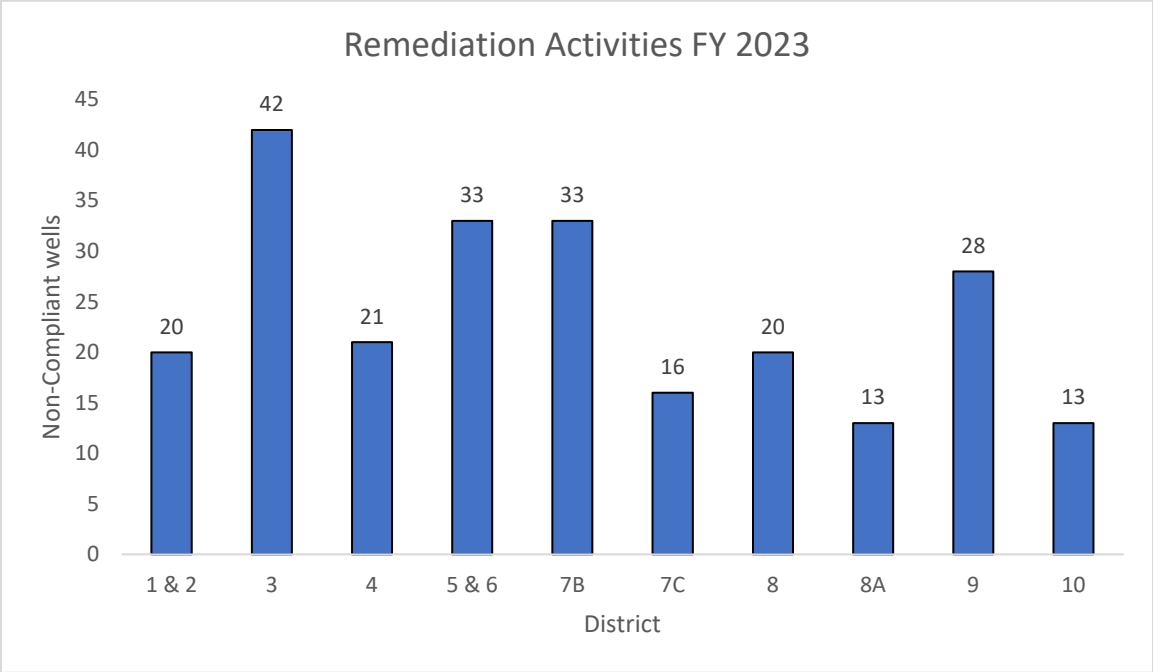
During fiscal year 2023, the Commission conducted 239 cleanup activities through the State Managed Cleanup Program. This includes all remediation activities invoiced by contractors that were approved and processed by the Commission before August 31, 2023. State-managed remediation activities included the following:

221 routine & emergency remediation operations and

18 site assessment investigations.

Figure 7 depicts these 239 activities by district for fiscal year 2023.

Figure 7: Remediation Activities FY 2023



7. Oil and Gas Regulation and Cleanup Fund Expenditures for Oil Field Cleanup Activities:

The Commission spent $47,879,541.05 from the Oil and Gas Regulation and Cleanup Fund (OGRC) on oilfield cleanup activities in FY 2023. These included expenditures for abandoned well plugging through the State Managed Plugging Program, and for site remediation activities through the State Managed Cleanup Program. In addition to these expenditures, $122,848.93 of OGRC funds were encumbered for cleanup activities in FY 2023. Table 6 provides a line-item description for OGRC expenditures and encumbrances for FY 2023.

*Table 6: FY 2023 OGRC Expenditures for Oil Field Cleanup Activities**

Category	Expenditures	Encumbrances	Total
Salaries and Wages	$5,941,967.30	$-	$5,941,967.30
Payroll - Related Benefits	$1,714,648.46	$-	$1,714,648.46
Professional Services	$1,207,715.06	$-	$1,207,715.06
Travel	$72,656.33	$-	$72,656.33
Training	$41,074.28	$959.60	$42,033.88
Motor Vehicle	$221,068.94	$43.38	$221,112.32
Other Operating Costs	$486,241.75	$12,136.66	$498,378.41
Well Plugging / Site Remediation Contracts	$38,194,168.93	$109,709.29	$38,303,878.22
Capital Equipment	$-	$-	$-
Grand Total	$47,879,541.05	$122,848.93	$48,002,389.98

*All FY 2023 OGRC expenditures for Well Plugging and Site Remediation strategy excludes indirect costs.

- Includes expenditures for Site Remediation, architectural and other contracted services.

- Financial Information current as of December 12, 2023.

8. Orphaned Well Plugging Prioritization Methodology:

The Commission uses a priority methodology to rank wells for plugging to ensure that those wells posing the greatest threat to public safety and the environment are plugged first. The priority system includes four factors relating to the threat a wellbore poses to public safety and the environment:

1. Well Completion;
2. Wellbore Conditions;
3. Well Location with respect to sensitive areas; and
4. Unique Environmental, Safety, or Economic Concern.

Table 7 lists the factors used in this prioritization system. The sum of all factors provides a total weight, which determines a well's plugging priority. Wells receive a priority of 1, 2H, 2, 3, or 4, where 1 is the highest priority Plugging priority 1 and 2H can also be dictated based upon definition; listed below.

Definitions:

Leaking well: is defined as a well that is leaking oil, gas or salt water in an amount that poses an immediate, or imminent threat to public safety or the environment.

Higher risk well: applies to wells where usable quality water is not protected and the fluid at the surface (bradenhead) is not of usable quality, or when an H2S well impacts a public area as defined by Statewide Rule 36

Table 7: Well Plugging Priority System

	FACTOR	Weight
1	**Well Completion**	
A	Unknown (no well records	15
B	No surface casing or set above base of deepest usable quality water	10
C	Additional casing string not adequately cemented to isolate usable quality water	5
D	Injection or Disposal Well	10
E.	Well penetrates salt/corrosive water bearing formation or abnormally pressured formation	5
F.	Well in H2S Field	5
G	Age: Well drilled ≥ 25 years ago	5
	Total: (40 points max)	
2	**Wellbore Conditions**	
A	Well is pressured up at the surface (tubing or prod casing)	10
B	Bradenhead pressure exists *	5
	Auto 2H if UQW not protected and fluid at BH is not UQW	
C	Measured fluid level	
D	Fluid level at or above the base of deepest usable quality water.	50
E.	Fluid level less than 250' below base of deepest usable quality water (NA if 2D applies)	15
F.	MIT Failure	5
G	H-15 (MIT) never performed or test > 5 years old (NA if F applies)	3
H	Inadequate wellhead control/integrity	5
	Total: (75 points max)	
3	**Well location with respect to sensitive areas:**	
A	H2S well with Public area ROE** **Automatic Priority 2H**	
B	In Marine Environment	10
C	Within 100' or river, lake, creek, or domestic use fresh water well (NA if B applies)	5
D	Between 100' and 1/4 mile of river, lake, creek, or domestic use fresh water well (NA if C applies)	3
E.	Located within agricultural area.	2
F.	Well located in known sensitive wildlife area.	3
G	Well located within city or town site limits.	10
	Total (20 points max)	
4	**Unique environmental, Safety, or Economic Concern**	
A	Adjacent to active water flood or disposal well at or above completion interval.	5
B	Logistics (poor roads, encroaching public, etc.)	5
C	Well contains junk.	5
D	P-5 Delinquent > 5 years	5
E.	Other (attach explanation)	1-20
	Total: (20 points max)	
		Total Weight

Priority 1 = Leaking Well [based upon definition]
Priority 2H = Higher Risk well [based on definition and/or total weight of 75+]
Priority 2 = Total Weight of 50-75
Priority 3 = Total Weight of 25-49
Priority 4 = Total Weight < 25

*BH pressure is sustained.

**2H if public areas could be impacted based on16 Texas Administrative Code §3.36 [Statewide Rule 36] definition. Undetected/continuous leak possible.

Table 8 shows the number of wells plugged by priority during fiscal year 2023 and between fiscal years 1992 and 2023. In September 2001, the Commission implemented the High Risk Well Testing Program, established by SB 310 (77th Legislature, 2001) and began concentrating its well plugging efforts on priority 1 and 2 wells. This continued through fiscal year 2022.

Table 8: Number of wells plugged by priority

	Fiscal Year 2023	Fiscal Years 1992 – 2023
Priority 1	39	3,650
Priority 2H	729	7,689
Priority 2	453	12,823
Priority 3	527	10,080
Priority 4	2	4,065
Priority 5*	0	1,651
Total	1,750	38,307

*No longer used (Priority 5 category eliminated in fiscal year 2001)

9. Projection of the amount of money needed for the next biennium for plugging orphaned wells, investigating, assessing, and cleaning up abandoned sites, and remediating surface locations.

Senate Bill 1, the General Appropriations Act, provided $55.95M for fiscal year 2022 and $56.15M for fiscal year 2023 to plug 1,000 wells per year and remediate 200 sites per year.

The Commission was awarded federal grant funding through the Infrastructure Investment and Jobs Act. Texas received $25,000,000 in Initial Grant funds in August 2022 and received $79,673,757 in the first allocation of Formula Grant funds in January 2024

10. Number of Sites Successfully Remediated Under the Voluntary Cleanup Program, by District:

During fiscal year 2023, the Commission issued Certificates of Completion for three (3) sites in the Voluntary Cleanup Program. The number of sites completed by Commission district are as follows:

- District 2: 1
- District 3: 1
- District 4: 1