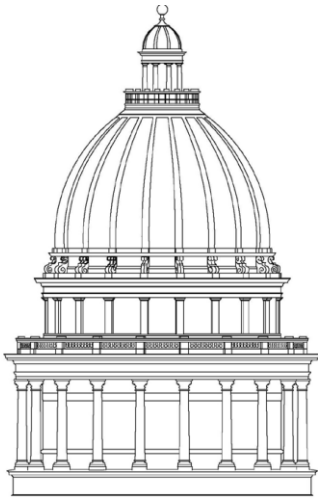
REPORT TO THE

UTAH LEGISLATURE

Number 2019-11



A Performance Audit of Utah's Oil and Gas Program

November 2019

Office of the
LEGISLATIVE AUDITOR GENERAL
State of Utah

STATE OF UTAH

Office of the Legislative Auditor General

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KADE R. MINCHEY, CIA, CFE
AUDITOR GENERAL

November 19, 2019

TO: THE UTAH STATE LEGISLATURE

Transmitted herewith is our report, **A Performance Audit of Utah's Oil and Gas Program** (Report #2019-11). A digest is found on the blue pages located at the front of the report. The objectives and scope of the audit are explained in the Introduction.

We will be happy to meet with appropriate legislative committees, individual legislators, and other state officials to discuss any item contained in the report in order to facilitate the implementation of the recommendations.

Sincerely,

Kade Minchey

Kade R. Minchey, CIA, CFE
Auditor General

Digest of
A Performance Audit of Utah's
Oil and Gas Program

The Oil and Gas Program (program) is part of the Division of Oil, Gas, and Mining (DOGM or division) within the Department of Natural Resources (DNR or department). As part of an in-depth budget review of DNR, our audit team conducted a risk assessment of the entire department. The amount of operational and environmental risk identified within DOGM, necessitated the independent release of a full-scale audit of Utah's Oil and Gas Program. The program is responsible for regulating all operations associated with the exploration and production of oil and gas within the state of Utah.

Chapter II
Oil and Gas Program Needs to
Improve Its Regulatory Responsibilities

Noncompliant Issues Are Not Resolved in A Timely Manner. As of June 2019, the Oil and Gas Program reports having 105 unresolved noncompliant issues. Of these issues, field inspections staff issued 29 notices of violation (NOVs). NOVs are essentially written warnings with no consequences other than requiring the operator to reach compliance by resolving the issue. An NOV for noncompliance can be escalated by DOGM; however, fines for industry related violations have not been issued, which is the focus of Chapter IV.

Environmental Hazards May Have Been Prevented with Increased Oversight. Environmental hazards at two separate waste disposal facilities may have been prevented with consistent follow up and enforcement. A potentially dangerous situation at 'Facility A' may have been prevented had Oil and Gas Program management prioritized noncompliant follow-up inspections. Hazardous levels of waste accumulation at 'Facility B' may have been prevented with increased enforcement and better oversight. These examples illustrate the potential risks associated with failing to prioritize noncompliance resolution. Although waste disposal facilities are commonly operated by third-party contractors, the regulation and enforcement of these facilities remains the Oil and Gas Program's responsibility.

Chapter III
Prioritization and Oversight of Inspections Needs to Improve

Inspections Do Not Follow Program Policy. The Weighted Inspection Tracking (WIT) program was implemented by the Oil and Gas Program in March 2017. Inspection types differ in the amount of time and effort they require to complete. The WIT program captures the variance between inspection types by providing each inspection with a weighted value. Additionally, the WIT program encompasses a tiered ranking system that prioritizes inspections according to risk. However, inspectors for the Oil and Gas Program have not consistently followed the WIT program and prioritized inspections according to policy.

Record Keeping Is Not Consistent with Policy. Inspectors have not been consistent in conducting follow-up inspections or recording noncompliant issues in the Oil and Gas Program's database as required by policy. A 1983 Legislative audit addressed the need for the program to regularly follow up and accurately document all inspections; however, these problems currently remain.

Chapter IV
Lack of Enforcement Has Led to Increased Risk

The Program Should Enforce Compliance in Accordance with Statute. The Oil and Gas Program has not issued a fine for industry related violations. Surrounding states such as Colorado, Montana, New Mexico, and Wyoming have made classifying violations and issuing fines a priority—each of these states has issued at least one fine within the last two years. Operators should be held accountable to statutory and *Administrative Rule* responsibilities to mitigate future risk.

Divisions, Boards, and Commissions in Surrounding States Regularly Assess Fines. In Utah, the statute addressing penalties and the Board of Oil, Gas, and Mining is generally interpreted to require monetary penalties and fines to be recovered through a court order. Four surrounding states currently do not, or soon will not, require a court order to assess fines.

Chapter V
Management Decisions Regarding Finances Have Led to Funding Reductions

Financial Reserves Were Prioritized Over Program Operations. During the industry's 2016 financial decline, the Oil and Gas Program received an ongoing General Fund appropriation of nearly $1 million. In addition to receiving these supplemental funds, management reduced program expenditures. The recent General Fund appropriation in combination with program expenditure reductions created a $4.1 million surplus over two fiscal years (2017-18) that management chose to lapse to the restricted account. Management should have established a financial target and a strategic plan for incremental savings to ensure that program operations would not suffer. However, an aggressive financial reserve approach was prioritized above program needs. Program reductions and excessive workloads were two consequences of management's financial decisions.

Management Decisions Regarding Finances Led to Legislative Action. Although statue allows the Oil and Gas Program to maintain reserves in the program's restricted account, the intent of the appropriated funding was for the administration and regulation of the program. As previously mentioned, the failure to prioritize program responsibilities as outlined in statute and *Administrative Rule* has resulted in several areas of concern. In the 2019 Legislative General Session, the Legislature reduced ongoing program appropriations by $1 million and reduced savings in the program's restricted account by $2 million to reimburse the General Fund.

Chapter VI
Program and Employee Performance Need to Improve

Oil and Gas Program Lacks Performance Metrics. The number of oil and gas well drilling inspections with no violations is the only performance metric that the Oil and Gas Program reports to the Legislature. However, this metric is ineffective and misleading. Part of the program's mission is to "Maintain sound, regulatory oversight to ensure environmentally acceptable activities." Regulatory oversight includes monitoring all aspects of the life cycle of a well from the time a permit is issued to the time a well is properly plugged and abandoned.

Oversight of Employee Performance Within DOGM Needs Improvement. DOGM has not been consistently conducting annual employee performance evaluations.

Administrative Rule R477-10-1(2) requires annual employee performance evaluations to be conducted for each state employee. However, DOGM had the lowest rate of compliance when compared to all other divisions within DNR. Over half of the employees in the Oil and Gas Program did not have the required performance evaluation.

Chapter VII
Existing Administrative Rule Regarding Bonding Should Be Updated

Current Bond Structures in *Administrative Rule* Need to Be Reviewed and Updated. *Administrative Rule* requires operators to furnish a bond to the state prior to receiving a permit to drill. Bonds are generally monetary in nature and have been instituted to ensure a good faith performance by the operator to properly plug, repair, maintain, and restore the well site. Bonds can be either forfeited to the division or returned to the operator based on operator performance and compliance. Bond amounts and bond structures for oil and gas wells were last updated 16 years ago, which is concerning given ongoing industry technological advances. Insufficient bond amounts and bond structures pose a financial risk to the state.

Existing Bond Amounts and Bond Structures Are Inadequate. Bond amounts and bond structures vary between waste disposal facilities and oil and gas wells. For example, *Administrative Rule* requires waste disposal facilities to be fully bonded while the bond amount for oil and gas wells fluctuates based on well depth (feet). An operator bonding for oil and gas wells has two options: 1) an individual well bond, or 2) a blanket bond. Individual well bond amounts range between $1,500 and $60,000 depending on individual well depth. A blanket bond is a bond that covers multiple wells and is generally used by larger operators. A blanket bond totals either $15,000 or $120,000 depending on individual well depths. Utah may want to consider the bonding options other states have incorporated to help update existing bond amounts and bond structure in *Administrative Rule*.

REPORT TO THE
UTAH LEGISLATURE

Report No. 2019-11

A Performance Audit of Utah's Oil and Gas Program

November 2019

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Chapter I
Introduction

As part of an in-depth budget review for the Department of Natural Resources (DNR or department), our audit team conducted a risk assessment of the entire department.[1] The amount of operational and environmental risk[2] identified within the Division of Oil, Gas, and Mining (DOGM or division), necessitated the independent release of a full-scale audit of Utah's Oil and Gas Program (program). The remainder of this chapter will discuss DOGM's history and mission, responsibility to provide industry regulation, budget, and employment history.

The Division of Oil, Gas, and Mining Provides Industry Regulation

DOGM was established in 1955. The division's mission is

> …to regulate the exploration and development of coal, oil, gas, and other minerals in a manner which:
>
> - encourages responsible reclamation and development;
> - protects correlative rights;
> - prevents waste; and
> - protects human health and safety, the environment, and the interests of the state and its citizens.
>
> [DOGM] regulates exploration for and [the] development of Utah's oil, gas, coal and other mineral resources. When exploration and developmental activities are completed, the division ensures that oil and gas wells are properly abandoned and [that] mining sites are satisfactorily reclaimed…

DOGM's mission encompasses all facets from exploration to regulation of coal, oil, gas, and other minerals.

[1] *An In-Depth Budget Review of the Department of Natural Resources* 2019-10

[2] Our risk assessment consists of reviewing the various programs and functions of the department to determine if the department's operations and processes are executed in a way that results in the department achieving its objectives.

DOGM consists of five programs including

- Minerals
- Coal
- Abandoned Mine Reclamation
- Oil and Gas
- Administration

The Oil and Gas Program is Part of DOGM. The remainder of this audit will focus on the Oil and Gas Program within DOGM. The program is responsible for regulating all operations associated with the exploration and production of oil and gas. The mission of the program is three-fold

The mission of the Oil and Gas Program is three-fold and includes the promotion and regulation of oil and gas resources.

- Promote the exploration, development, and conservation of oil and gas resources
- Foster a fair economic return to the general public for those resources
- Maintain sound, regulatory oversight to ensure environmentally acceptable activities

The Oil and Gas Program is Required to Strike a Fine Balance Between Promoting Business and Providing Regulation. In order to adhere to all three aspects of the mission, the Oil and Gas Program must promote the exploration and development of oil and gas resources while maintaining adequate regulatory oversight. Management reported hosting 193 unique oil and gas operators in the state during calendar year 2018. Of the 193 operators, 20 "large operators" produced 98 percent of the state's oil. The remaining two percent of the oil production total was shared among the other 173 operators. Oil and Gas Program management identified the lack of capital associated with smaller operators to be an economic and environmental risk. Our risk assessment of the Oil and Gas Program found several improvement areas – largely within the regulatory oversight aspect of the program's three-fold mission. However, we also acknowledge the importance of the other two aspects of the program's mission as contributing factors to the program's overall success.

Management reports that Utah is at a competitive disadvantage when compared with other states in the oil and gas industry. The complexities of land ownership (including state, federal, and tribal), the quality of oil produced, and the limited refinery capabilities pose some significant challenges. These challenges result in oil prices in Utah being discounted at about $12 per barrel. The program is almost entirely funded by a conservation fee based on the value and volume of oil and gas produced (i.e. price per barrel).

Utah's oil and gas industry is at a competitive disadvantage when compared to surrounding states.

The Oil and Gas Program Oversees 16,141 Active Wells and 28 Waste Disposal Facilities. At the end of calendar year 2018, Utah had 14,005 production wells and 2,136 service wells[3] for an overall well total of 16,141. Field inspections staff performed 6,859 inspections during calendar year 2018. Each well site is inspected to ensure that "…proper conservation practices are followed and that minimum ecological damage results from the location, operation, and reclamation of each site." Additionally, the Oil and Gas Program oversees 28 waste disposal facilities that accept waste generated from the exploration and production of oil and gas resources.

Oil and Gas Program Budget and Organizational Structure

The Oil and Gas Conservation Restricted Account (conservation account or restricted account) is a major restricted fund used by the division. The restricted account is the largest funding source for the Oil and Gas Program, bringing in over three-quarters of the program's revenue. The revenue in this account is generated from a fee levied on oil and gas (0.002 of the value of oil and gas at the well), penalties, and interest. Since the restricted account collects revenue through a conservation fee that is based on the value and volume of oil and gas, the balance of this fund varies according to production. In 2016, Oil and Gas Program management received supplemental funding from the Legislature due to a financial downturn of the oil and gas industry.

The Oil and Gas Program's main source of funding is a conservation fee levied on the value and volume of oil and gas produced.

The Oil and Gas Program employs 20 full-time employees (FTEs). A full program budgets for 27 FTEs; however, management made

[3] A service well is a well that is drilled for injection, saltwater disposal, or a similar purpose.

several expenditure reductions including reducing the Oil and Gas Program by five FTEs.

Oil and Gas Program Revenues Are Variable

Collected revenues dropped $3.6 million between fiscal year 2015 and fiscal year 2016.

Between 2014 and 2016, the net taxable value for oil in the state dropped 61 percent from $3.9 billion to just over $1.5 billion. Correspondingly, the overall volume of oil produced in the state fell by 10.4 million barrels (or 436 million gallons). Revenues generated by the conservation fee mirrored the declining value and volume of oil by dropping from $6.7 million in 2015 to $3.1 million in 2016 as shown in Figure 1.1.

Figure 1.1 Conservation Fee Revenues Dropped $3.6 Million in Fiscal Year 2016. Beginning in fiscal year 2016, revenues have consistently been $1 million short of the amount appropriated by the Legislature.

	2014	2015	2016	2017	2018
Collected Revenue*	$ 7,820,400	$ 6,727,900	$ 3,121,300	$ 3,337,900	$ 3,480,900
Appropriation Amount**	4,459,700	4,075,500	4,349,800	4,438,500	4,506,800
DIFFERENCE	**$ 3,360,700**	**$ 2,652,400**	**$ (1,228,500)**	**$ (1,100,600)**	**$ (1,025,900)**

Source: Utah Division of Oil, Gas, and Mining
**The collected revenue amount solely reflects revenues levied by the conservation fee and does not include the interest accrued on the funds annually, which was determined to be a nominal amount.*
***Each year the Oil and Gas Program receives an appropriation amount, which is distributed from the Oil and Gas Conservation Restricted Account.*

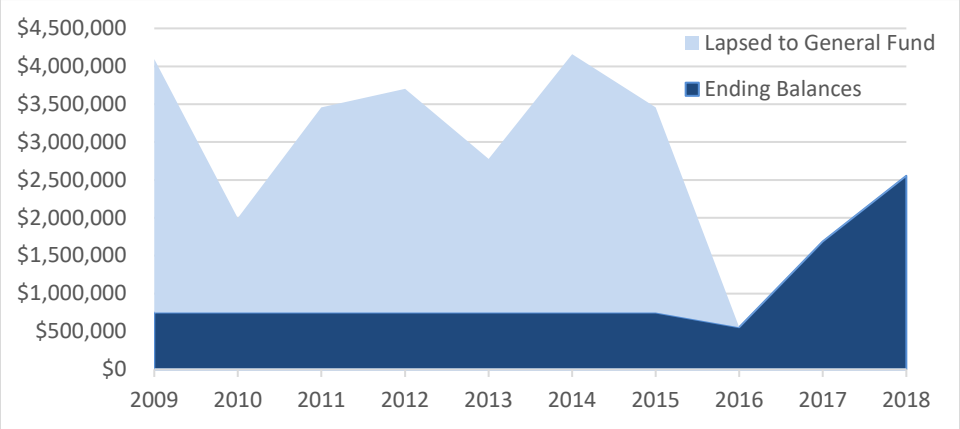
In 2016, the revenues collected from the conservation fee did not reach the amount appropriated by the Legislature, leaving a funding gap of just over $1.2 million. Even though collected revenues have recently fallen short of the appropriated amount, the Oil and Gas Program withdraws the entire appropriation from the restricted account. If the withdrawal of the appropriation creates a negative restricted account balance, the program will depend on future revenues or savings to offset the shortfall. Concerns with the financial management of these funds will be discussed in Chapter V.

18.4 Million Was Returned to the General Fund Over 10 Years

Revenues collected by the conservation fee vary from year to year. Prior to the industry's 2016 financial decline, collected revenues exceeded the appropriated amount. However, in recent years, revenue collections have fallen short of the appropriated amount. Historically, the Oil and Gas Conservation Restricted Account balance was capped at $750,000 with any surplus revenues over that amount returning to the General Fund. In 2016, statute was amended to allow the Oil and Gas Program to retain up to 100 percent of the fiscal year appropriation.[4] Figure 1.2 shows the fiscal year-end conservation account balances (dark blue) and the surplus funds lapsed back to the General Fund (light blue) over a 10-year period.

In 2016, statute was amended to allow the Oil and Gas Program to retain 100 percent of the fiscal year's appropriation.

Figure 1.2 Balances in the Oil and Gas Conservation Restricted Account Were Capped at $750,000 Until Fiscal Year 2016. Nearly $18.4 million in excess revenue was returned to the General Fund over a 10-year period from fiscal year 2009 to fiscal year 2018.



Source: Auditor generated

Since the 2016 statutory change, no funds have lapsed from the restricted account to the General Fund. Program management chose to retain a significant amount of funds in the restricted account with the intent to save for future years. The effects of this funding decision will be discussed in detail in Chapter V. Because revenues collected by the conservation fee are variable depending on industry production, it

No excess funds have lapsed to the General Fund since fiscal year 2015.

[4] ***Utah Code 40-6-14.5(6)(b)*** provides statutory regulation regarding fiscal year end balances for the Oil and Gas Conservation Restricted Account.

is important to consider how Utah's funding mechanism compares to that of surrounding states.

Compared to four surrounding states, Utah is the only state to have a fixed conservation fee.

Utah's Conservation Fee is a Fixed Rate. Utah is the only state among four surrounding states to have a fixed conservation fee supporting their program. Colorado, Montana, and Wyoming all levy fees and/or taxes using a sliding scale. New Mexico receives an annual General Fund appropriation each year as needed. Utah's conservation fee is fixed at two tenths of one percent, or 0.002 of the value and volume of oil and gas produced at the well. In fiscal year 2018, the Utah State Tax Commission reported Utah's net taxable production total of oil to be $1.8 billion.[5] In fiscal year 2017, the Legislature appropriated nearly $1 million in ongoing General Fund money to the Oil and Gas Program, which has helped reduce industry reliance. Programs in surrounding states are similarly funded by comparable fees and tax rates. Three of four surrounding states supplement their funding streams with other revenue sources.[6]

Organizational Structure of the Oil and Gas Program

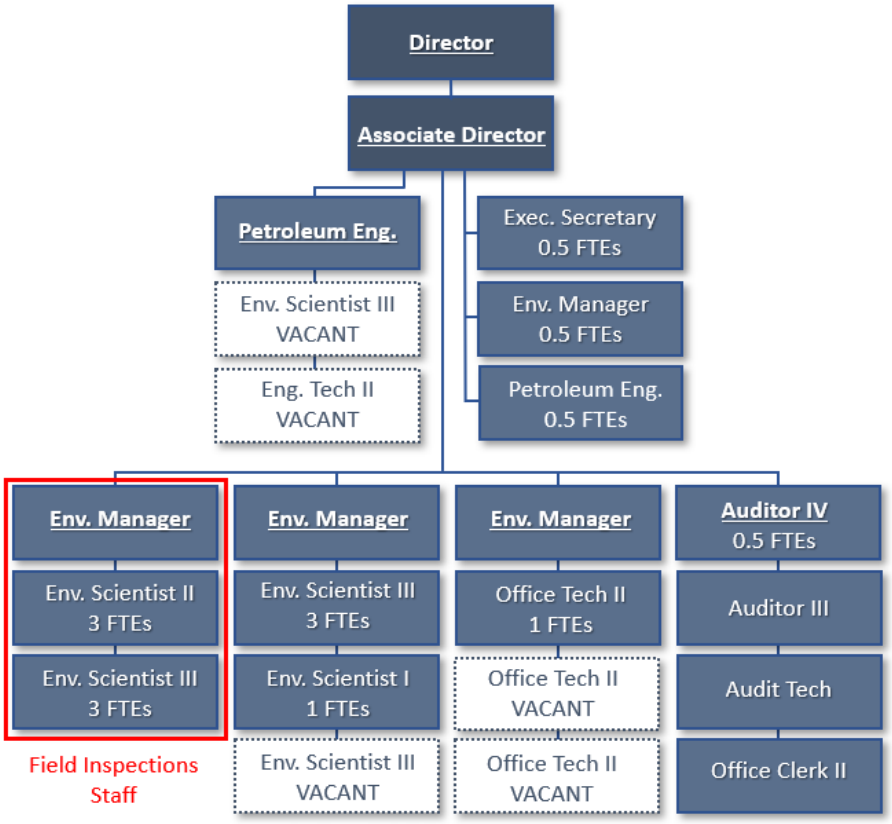
In fiscal year 2019, the Oil and Gas Program employed 20 FTEs, which included four full-time positions filled by part-time staff. Even though funding was available for Oil and Gas Program operations to continue, management elected to make several program expenditure reductions. Part of the expenditure reductions was accomplished by reducing the Oil and Gas Program by five FTEs through attrition.[7] The Oil and Gas Program would need a total of 27 FTEs to run at historically budgeted capacity. Figure 1.3 provides a current organizational overview of the program.

[5] Filing periods do not directly line up with fiscal year collections. Tax returns and payments for the Oil and Gas Conservation Fee are due three months after the end of the quarter. To align the filing periods with the fiscal year collections we added the last three quarters of the calendar year with the first quarter of the next calendar year. The result is an approximate amount for the corresponding fiscal year.

[6] Supplemental revenue sources include a portion of the severance tax, penalty revenues, administrative costs on applications for permit to drill, and administrative costs on applications for hearings.

[7] The effects of these management decisions regarding finances and FTE reductions will be discussed in detail in Chapter V.

Figure 1.3 The Oil and Gas Program Has 20 Employees Who Oversee the Regulation of the Oil and Gas Industry in Utah. In fiscal year 2019, the program had five unfilled positions and four positions staffed part-time.



Source: Auditor generated

The Oil and Gas Program has five vacant positions.

Six of the environmental scientist positions in Figure 1.3 are field inspections staff whose primary responsibility is to conduct field inspections. Field inspections staff are located throughout the state and provide oil and gas industry regulation. Because regulation is a key aspect of the program's mission, and because the Oil and Gas Program functions as the state's regulatory body for the industry, the inspection program is the primary focus of this report.

Audit Scope and Objectives

This audit reviews the financial, operational, administrative, and regulatory controls of the Oil and Gas Program. We also reviewed the Oil and Gas Program's inspection procedures, financial management practices, statutory enforcement efforts, and employee and program performance metrics. In addition, we compared Utah's Oil and Gas

Program *Administrative Rules* and operational practices to those of surrounding states. We addressed the following audit objectives:

- **Chapter II** – Determine whether the Oil and Gas Program appropriately controls and regulates the oil and gas industry.
- **Chapter III** – Determine whether the Oil and Gas Program is adequately fulfilling its regulatory responsibilities.
- **Chapter IV** – Determine whether the Oil and Gas Program's enforcement techniques are in accordance with statute.
- **Chapter V** – Determine whether the Oil and Gas Program appropriately managed its financial reserves.
- **Chapter VI** - Determine whether the Oil and Gas Program has adequate performance metrics and whether employees within the program have appropriate employee metrics, action plans, and evaluations.
- **Chapter VII** - Determine whether the existing bond amounts and bond structures in *Administrative Rule* are adequate.

Chapter II
Oil and Gas Program Needs to Improve Its Regulatory Responsibilities

The Oil and Gas Program (program) in the Division of Oil, Gas and Mining (DOGM or division) needs to improve its oversight of Utah's oil and gas industry. According to the program's three-fold mission discussed in Chapter I, the Oil and Gas Program is responsible for promoting business and providing regulation. A preliminary risk assessment revealed concerns regarding oversight and regulation; therefore, the inspection program is the primary focus of this audit report.

The program is significantly behind in its regulatory work. For example, there are 105 noncompliant wells for which violations have not been resolved. With an average compliance resolution timeline of 842 days, field inspections staff should be more diligent in following up with noncompliant behavior. Less than one third (29 of 105) of these outstanding noncompliant items were issued notices of violation (NOV).[8] Regulation of the oil and gas industry is a vital service provided to the state by the Oil and Gas Program. Failure to fulfill this responsibility may have long-term impacts on health, safety, and the environment. Two such cases contributed to environmental hazards that may have been prevented with consistent inspections, follow up, and enforcement.

The Oil and Gas Program has 105 outstanding noncompliant issues. These noncompliant issues have remained unresolved for over two years (842 days).

Program Management Needs to Improve to Adequately Address Audit Report Issues

The main issue addressed in this chapter is the failure of the Oil and Gas Program to resolve significant noncompliant issues. The remainder of this report will address why these issues have occurred.

- Chapter III: An inspection prioritization program was developed and implemented by the Oil and Gas Program in 2017; however, inspections have not been prioritized according to policy and the oversight of inspections needs to improve.

[8] A notice of violation (NOV) is a written warning with no consequences other than requiring the operator to resolve the issue, unless the violation is escalated by DOGM to the Board of Oil, Gas, and Mining.

- Chapter IV: The Oil and Gas Program has not issued a fine for industry related violations.
- Chapter V: Management chose to save $4.1 million over two years (2017-18) to reserve funding for future years rather than fulfill statutory and *Administrative Rule* responsibilities.
- Chapter VI: The program lacks adequate performance metrics and does not consistently assess employee performance.
- Chapter VII: *Administrative Rule* regarding bonding is outdated and needs to be reviewed and updated.

It is apparent that management guidance and direction within the program needs to improve. A 1983 Legislative Audit of the program had similar findings with recommendations addressing the need for regular follow-up inspections and the implementation of a written strategy to guide inspection efforts.[9] Best practices that should have been occurring for the past 36 years remain a problem.

Noncompliant Issues Are Not Resolved in a Timely Manner

The Oil and Gas Program reports having 105 unresolved noncompliant issues as of June 2019. Of these issues, field inspections staff issued 29 NOVs addressing noncompliance. NOVs are written warnings that have no consequences other than requiring the operator to resolve the issue, unless the violation is escalated by DOGM. However, fines for industry related violations have not been issued, which will be discussed in detail in Chapter IV.

Notices of violation (NOVs) that are not escalated by division should be resolved within 30 days. The average length of time that 29 unresolved NOVs have remained outstanding is nearly three years (1,055 days).

According to the program's compliance schedule, NOVs issued for minor violations should be resolved within a maximum of 30 days. That means the 29 noncompliant issues that were issued NOVs should have been resolved within a maximum of 30 days.[10] The average

[9] *A Performance Audit of the Division of Oil, Gas, and Mining's Oil and Gas Regulation Program, June 1983*

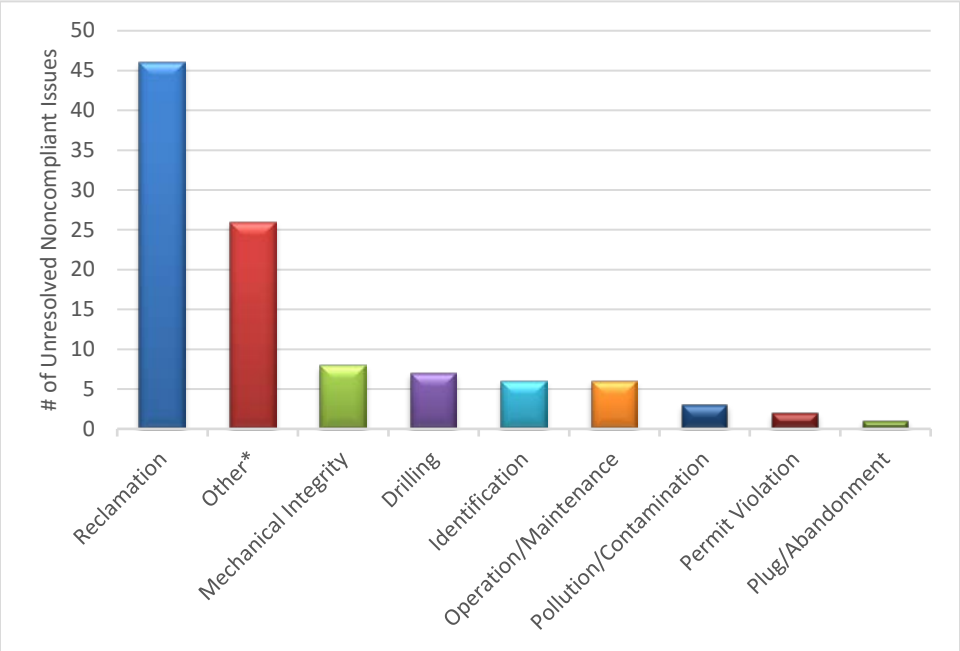
[10] Violations can be escalated, which involves a division meeting, division order, or informal adjudicative proceeding that should occur no more than 90 days from the time the first NOV is issued.

length of time these violations have remained outstanding is nearly three years (1,055 days).

The remaining 76 violations with no NOVs issued have also not been resolved in a timely manner. The average length of time these noncompliant issues have remained outstanding is more than two years (762 days). Management has not been diligent in ensuring that noncompliant issues have been prioritized and resolved in a timely manner. Furthermore, of the 105 unresolved noncompliant items, 15 were missing recorded dates by which compliance was required. The 105 unresolved noncompliant issues are detailed by violation type in Figure 2.1.

Violations with no NOVs issued have remained outstanding for more than two years (762 days).

Figure 2.1 As of June 2019, There Are 105 Unresolved Noncompliant Wells. On average, noncompliant issues have remained outstanding for more than 842 days. For example, an operation/maintenance violation citing a possible wellhead leak was recorded in August 2017; however, there is no evidence that the leak was resolved or that compliance was ever achieved.



Source: Auditor generated
**Violations in this category are largely access violations where the inspector was not able to gain access to the inspection site. These include violations such as no surface access, no surface casing access, and buried cellars.*

Close to half of the unresolved noncompliant items in Figure 2.1 are classified under the "Reclamation" violation type (44 percent). To reclaim a well or a disposal facility is to properly plug and abandon the well or facility, restoring the land to its natural state. Several violations

in this category consist of operators failing to reclaim their well sites within one year as required by *Administrative Rule* R649-3-34(4). According to management, the reason the Oil and Gas Program has trouble persuading operators to properly plug and abandon wells is inadequate bond (Chapter VII) and fine amounts (Chapter IV).

The 105 outstanding noncompliant issues were shared between 35 unique operators. One operator had 15 unresolved noncompliant issues, which was the largest number for one operator. Of the 35 operators with outstanding noncompliant issues, 10 operators (or roughly one third) qualified as large operators.[11] Furthermore, large operators were responsible for 43 percent (45) of the 105 unresolved noncompliant issues.

The Oil and Gas Program's regulatory services are essential to the protection of health, safety, and the environment. Had management prioritized noncompliant follow-up inspections and noncompliance resolution, two examples of environmental hazards may have been prevented.

Environmental Hazards May Have Been Prevented with Increased Oversight

Two environmental hazards may have been prevented with better enforcement and oversight by the Oil and Gas Program.

Environmental hazards at two separate waste disposal facilities[12] may have been prevented with consistent follow-up and enforcement. A potentially dangerous situation at 'Facility A' may have been prevented had Oil and Gas Program management prioritized noncompliant follow-up inspections. Hazardous levels of waste accumulation at 'Facility B' may have been prevented with increased enforcement and better oversight. These examples illustrate potential risks associated with failing to prioritize noncompliance resolution. Although waste disposal facilities are commonly operated by third-

[11] The term "large operator" refers to the top 20 oil and gas operators in the state with the highest production totals (calendar year 2018 production totals were used).

[12] Water waste is one type of waste that is generated from the exploration and production of crude oil and natural gas. Waste facilities differ in the types of waste that they are approved to accept. Facilities designated to accept only produced water waste discharge the water waste in evaporation ponds and/or disposal wells.

party contractors, the regulation and enforcement of these facilities remains the Oil and Gas Program's responsibility.[13]

A Known Violation Occurred at Facility A

Administrative Rule R649-9-4(7) requires all synthetic liners in evaporation ponds to be "… installed according to the manufacturer's instructions."

- In **May 2016**, program staff mandated that all evaporation ponds at Facility A be relined according to manufacturer specifications or be reclaimed. Many of the facility's liners were past the manufacturer recommended life of 25 years.
- In a response letter, the facility operator agreed to reline all ponds before **July 1, 2018**. However, the operator failed to reline the ponds within the timeline outlined and the program failed to follow up and enforce *Administrative Rule*.
- A spill at Facility A was discovered on **April 25, 2019** during a routine inspection. The spill occurred in a pond with an aging liner; however, management reported that the liner had not exceeded the 25-year life span.
- On **May 2, 2019** an NOV was issued to the operator for "Failure to report [an] incident" and for "Pollution to [a] natural drainage [system]."

Due to the recent nature of this incident, DOGM and the Department of Environmental Quality (DEQ), in connection with the Environmental Protection Agency, are involved in ongoing investigations. Any potential liabilities and environmental effects remain in question and are not addressed in this audit report. Figure 2.2 shows pictures depicting the recent events at Facility A.

[13] ***Utah Code 40-6-5(3)(d)*** states that the Board of Oil, Gas, and Mining has the authority to regulate the disposal of saltwater and oil-field wastes.

Figure 2.2 Lack of Follow Up May Have Contributed to A Potentially Dangerous Situation at Facility A. Investigators at Facility A are examining whether the spill has been occurring long enough to kill vegetation in the area.

Picture #1 shows evidence of exploration and production water waste leaking from an evaporation Pond, which should never happen.

Picture #2 depicts a patch that was used to fix a hole in the liner of an evaporation pond where leaking occurred.

Source: Auditor generated

DEQ reports that they need to continue to search for evidence of offsite migration and possible groundwater contamination. It appears that the incident has been occurring over a long time period due to the state of dead vegetation in the area. Program management should have appropriately prioritized and staffed these potential hazards and safety concerns. The next section discusses the potential hazards associated with waste accumulation on an evaporation pond.

Waste Accumulation at Facility B Grew to a Potentially Hazardous Level

Because evaporation ponds are used to dispose of and treat oil and gas exploration and production water wastes, waste disposal facilities pose a risk to migratory birds and other wildlife that may come into contact with them. *Administrative Rule* R649-9-4(9.1) addresses environmental concerns related to hazardous accumulation on pond surfaces and requires the accumulation to be removed within a 24-hour time period.

A routine inspection was conducted at Facility B, a waste disposal facility, in March 2018. During the inspection, the inspector noted

> …solids and hydrocarbons are spilling over into the evaporation pond. Significant volume of hydrocarbons observed on the fluids surface, estimate 30 percent of the pond surface covered in hydrocarbons.

Field inspections staff failed to follow up and enforce *Administrative Rule* when hazardous oil accumulations were discovered.

As previously mentioned, *Administrative Rule* requires hydrocarbon (oil) accumulation to be removed within 24 hours; however, the program failed to follow up on this violation for four months. A follow-up inspection was conducted in August 2018. The field inspection report included commentary on two different evaporation ponds located within the same facility. "[Pond A] surface is covered by hydrocarbons. [Pond B] remains covered over the entirety with hydrocarbons."

An NOV for accumulation on one of these evaporation ponds was issued during an August 2018 inspection. Figure 2.3 shows the oil accumulation on one of the aforementioned evaporation ponds, as well as the compromised condition of the facility's sludge pond.

Figure 2.3 Inadequate Regulatory Oversight Contributed to an Environmental Hazard. *Administrative Rule* requires oil accumulation on an evaporation pond to be removed within 24 hours. The pictures below represent several months of accumulation.

Picture #1 depicts an evaporation pond, which should only contain water waste, with several months of hydrocarbon accumulation.

Picture #2 depicts hazardous accumulation on a sludge pond. Sludge ponds are designed to separate oil from produced water waster prior to discharge into a pond; however, this sludge pond appears to be overrun with oil accumulation.

Source: Utah Division of Oil, Gas, and Mining

Oil accumulation is an acute problem with a 24-hour removal timeline. The failure to prioritize incidents according to severity and enforce *Administrative Rule* may have contributed to a preventable environmental hazard. When questioned, management cited staff

availability and workload as the reason for the four-month interlude between inspections on Facility B. However, they also acknowledge that the regulatory oversight on this facility was clearly inadequate.

The Oil and Gas Program's failure to follow up with the oil accumulation at Facility B has contributed to ongoing cleanup efforts for the past year. These cleanup efforts may not have been necessary with increased oversight. As of June 20, 2019, the operator of Facility B reports that 40 percent of hydrocarbons have been removed.

Two environmental hazards may have been prevented had management prioritized these incidents based on severity.

The incidents at Facilities A and B may have been prevented with increased follow up and enforcement. Had management prioritized these incidents based on severity, these two environmental hazards may have been prevented.

The Oil and Gas Program has not adequately fulfilled their responsibilities as outlined in statute and *Administrative Rule*. Over one hundred noncompliant issues remain unresolved and *Administrative Rule* has not been consistently enforced. With the risk of long-term impacts to health, safety, and the environment, it is alarming that the Oil and Gas Program has not more diligently fulfilled its regulatory responsibilities.

Recommendations

1. We recommend that the Oil and Gas Program continue to resolve all outstanding noncompliant issues.

2. We recommend that the Oil and Gas Program review timelines for noncompliance and include appropriate steps toward achieving compliance resolution in program policy.

3. We recommend that the Oil and Gas Program require strict compliance to *Administrative Rule*.

Chapter III
Prioritization and Oversight of Inspections Needs to Improve

In 2017 Oil and Gas Program management implemented a prioritized inspection program to ensure that the highest priority inspections are completed first. However, management was unaware that field inspections staff were not adhering to the program and spending a disproportionate amount of time on lower priority inspections. Additionally, recommendations from a 1983 Legislative audit addressing routine follow-up inspections and documentation practices have not been fully implemented. Management reports that inspectors have not been consistent in recording or documenting observations made while conducting inspections.

Inspections Do Not Follow Program Policy

The Weighted Inspection Tracking (WIT) program was implemented by the Oil and Gas Program in March 2017. Inspection types differ in the amount of time and effort they require to complete. The WIT program captures the variance between inspection types by providing each inspection with a weighted value. Additionally, the WIT program encompasses a tiered ranking system that prioritizes inspections according to risk. However, inspectors for the Oil and Gas Program have not consistently followed the WIT program by prioritizing inspections according to policy.[14] Lower priority inspections are being conducted and completed before higher priority inspections. While the WIT program addresses risk associated with inspection types, the Oil and Gas Program has no policy in place for how often these inspections should be conducted. When creating the inspection frequency policy, safety concerns such as well location, soil

[14] For the purposes of this audit report, policy refers to the Oil and Gas Program's Standard Operating Procedures (SOPs). SOPs provide guidelines and standards for field inspections staff to follow while performing work related tasks and require signatures from the author of the policy, the Field Operations Manager, and the Associate Director prior to implementation.

permeability, drainage systems, wildlife, floodplain, and ground water should be considered.

Lower Priority Inspections Are Being Completed Before Higher Priority Inspections

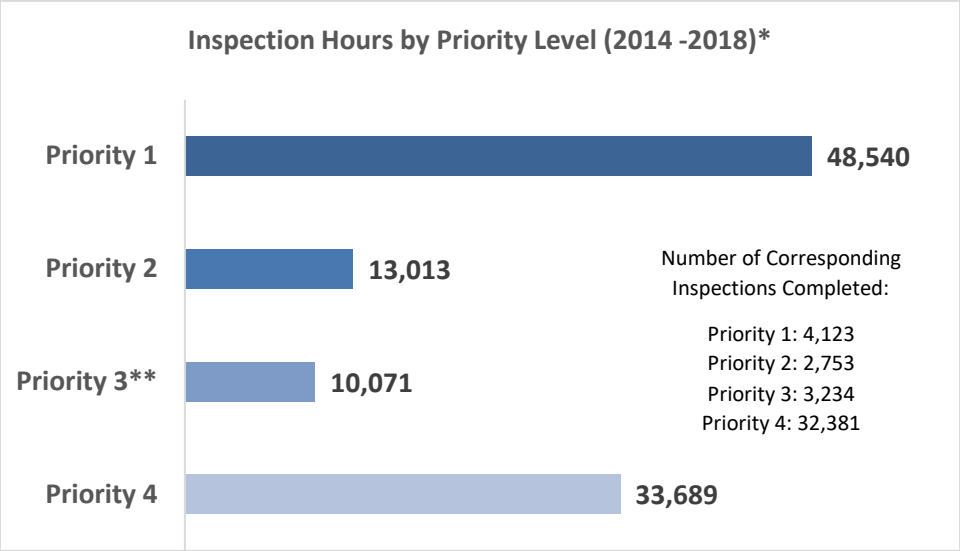
The WIT program categorizes inspections into four priority levels.

In the WIT program, inspection types are prioritized and weighted into four different priority groups. Priority 1 inspections represent the highest priority inspections and are considered time sensitive with the greatest potential for significant long-term impacts to health, safety, and the environment. Priority 4 inspections represent the lowest priority inspections and consist of inspections that should be conducted only as inspectors' schedules allow.

Because of the way the WIT program is structured, inspectors have little to no control over the timing and number of Priority 1 or Priority 2 inspections in their caseload. Inspections in these two categories are either emergent or responsive in nature (triggered by an event) and cannot be easily planned or scheduled ahead of time.

However, the WIT program expectation that Priority 3 inspections are being completed before Priority 4 inspections should still be met because inspectors are largely able to control inspections listed within these two priority levels. Figure 3.1 illustrates the number of inspector hours spent within each priority level.

Figure 3.1 The Oil and Gas Program Is Not Prioritizing Inspections According to Policy. Noncompliant wells are listed as a Priority 3 inspection; however, routine Priority 4 inspections are conducted at more than triple the rate of Priority 3 inspections.



Source: Auditor generated
**Only inspection types that have clearly defined priority levels are included in this analysis. Inspection hours were calculated by multiplying the number of inspections conducted by the weighted value of the inspection. Additional planning, preparation, travel, and documentation were not a factor in the calculation.*
***As of June 2019, the Oil and Gas Program has 105 unresolved noncompliant issues.*

Routine inspections (Priority 4) are being completed before noncompliant follow-up inspections (Priority 3).

Figure 3.1 demonstrates the amount of inspector time and effort that was spent at each priority level from calendar year 2014 to 2018. Roughly one third of completed Priority 3 inspections were categorized as noncompliant follow-up inspections (1,134 of 3,234). However, there are 105 noncompliant issues for which violations have not been resolved indicating that the program is not fully prioritizing inspections according to policy and that it is significantly behind in its regulatory work. Chapter II discusses the potential impacts of unresolved noncompliant issues. Furthermore, routine inspections (Priority 4) were conducted at more than triple the rate of noncompliant follow-up inspections (Priority 3).

Audit work found that roughly 13 percent of Priority 1 inspector hours were spent handling emergency responses, management requests, and spills/incidents. The remaining 87 percent of Priority 1 inspector hours were spent attending high priority inspections such as well plugging inspections. Overall, Priority 1 inspections account for more than 46 percent of total inspection hours, which shows that nearly half of an inspector's time is spent responding to incidents or attending high priority scheduled inspections.

The second highest number of inspector hours were spent on Priority 4 inspections. Approximately 80 percent of Priority 4 inspector hours were spent conducting routine inspections. This is alarming given that noncompliant follow-up inspections are listed as Priority 3 inspections. Completing routine inspections (Priority 4) before noncompliant follow-up inspections (Priority 3) has led to increased risk. With 105 unresolved noncompliant items,[15] including outstanding pollution and contamination violations, the Oil and Gas Program should be prioritizing inspections according to WIT program policy.

Management was unaware of the total number of inspector hours spent in each priority level.

Although the Oil and Gas Program has been tracking inspector hours by inspection type, data analysis performed during the audit revealed that inspections are not prioritized according to policy. It is concerning that management was unaware of the amount of inspector hours spent in each priority level since policy regarding inspection prioritization (WIT) was implemented in 2017.

Inspections Should Be Conducted More Frequently

The Oil and Gas Program lacks policy on how often inspections should be completed.

The Oil and Gas Program provides an invaluable service to the state by enforcing compliance; however, the program has no policy in place detailing the frequency with which inspections should be conducted. The Oil and Gas Conservation Commission in Colorado was directed in statute to use a risk-based strategy to inspect oil and gas facilities.[16] It is concerning that the Utah Oil and Gas Program does not have a plan in place to regularly inspect all well types. Figure 3.2 details the average length of time between inspections.

[15] Unresolved noncompliant issues are discussed in detail in Chapter II of this report.

[16] Colorado's Oil and Gas Conservation Commission's risk-based strategy plan prioritizes the phases of oil and gas operations that are most likely to experience spills, excess emissions, and other types of violations for inspections to improve the frequency and timing of inspections.

Figure 3.2 The Average Length of Time Between Inspections Varies by Well Status (Phase) with a Range of 246 Days to 835 Days. The Oil and Gas Program sets an internal goal to annually inspect all oil and gas wells. However, two currently producing wells have not been inspected since 2013.

Active Well Status*	Number of Wells	Average Length of Time Between Inspections (Days)
Drilling	47	246
Producing	3,073	403
Drilling Operations Suspended	27	476
Shut-In	453	539
Temporarily Abandoned	11	835
Overall	**3,611**	**500**

Source: Utah Division of Oil, Gas, and Mining
**Data does not include federal wells, tribal wells, salt-water disposal wells, enhanced recovery wells, or waste disposal facility inspections.*

The Oil and Gas Program sets an internal goal to annually inspect all oil and gas wells.

Figure 3.2 shows that most inspected wells are in the production phase and are inspected every 403 days on average. Because shut-in wells and temporarily abandoned wells are not actively producing, the wells are at a greater risk for deterioration and corrosion. Shut-in and temporarily abandoned wells are also at a greater risk of abandonment and increased costs to the state. Due to the increased risk, management stated that ideally, shut-in and temporarily abandoned wells would meet the annual inspection threshold, but they do not. Well types and other associated risk factors should be studied for the program to develop an evidence-based approach for inspection timelines. Management reports that a risk-based inspection program to help field inspectors identify wells that need more immediate and/or frequent inspections is in the process of being developed.

Shut-in and temporarily abandoned wells should be inspected more frequently.

Management is in the process of developing a risk-based inspection program that will help field inspectors identify wells that need more immediate and/or more frequent inspections.

Of the 105 unresolved noncompliant issues discussed in Chapter II, 46 were outstanding reclamation violations that largely pertain to shut-in and temporarily abandoned wells. Reclamation violations involving operators that failed to reclaim their well sites within one year as required by *Administrative Rule*, had the highest occurrence of any other violation type. Furthermore, management reports that inspectors have not been consistently or accurately documenting violations for noncompliant wells.

Record Keeping Is Not Consistent with Policy

Inspectors have not been consistent in conducting follow-up inspections or recording noncompliant issues in the Oil and Gas Program's database as required by policy. A 1983 Legislative audit addressed the need for the program to regularly follow up and accurately document all inspections; however, these problems currently remain. Poor recordkeeping practices are concerning because noncompliant issues found by inspectors are not receiving follow-up inspections and are not being properly resolved.

Recommendations to Improve the Inspection Process Have Not Been Fully Implemented

The need for timely, routine follow-up inspections and poor record keeping were issues previously identified in a 1983 Legislative audit; however, both remain a problem.

Two recommendations presented in a 1983 Legislative audit remain relevant. The first recommendation addressed the need for timely, routine follow-up inspections. The second recommendation addressed the need to accurately document all inspections using a standardized form.

Regarding the first recommendation, the 1983 Legislative audit stated, "Without follow-up, the inspection program relies only on the voluntary cooperation of the operator to correct infractions." As discussed in Chapter II, the average length of time the Oil and Gas Program's 105 noncompliant issues have remained outstanding is more than two years. The two-year resolution timeline demonstrates continued concerns regarding the lack of follow-up inspections.

Secondly, management reports that standardized inspection forms were developed and implemented as a result of the 1983 audit; however, outdated technology has resulted in varied data collection practices and extended timelines. Field inspectors report that limitations associated with outdated technology have largely prevented inspectors from using the program's standardized form in the field. Inspection reports are completed and submitted from the office (rather than on location) as inspectors' schedules allow. For example, one inspector reports being one month behind on documenting inspection observations and completing inspection reports.

The program has not yet finalized or implemented policy regarding compliance management which would formalize the requirement of properly documenting the inspection process. A working copy of the

program's compliance management policy addresses the importance of proper documentation regarding noncompliant observations. A draft of the policy states

> Proper documentation of the initial noncompliance observation is essential in order to set up a well-documented case should the matter elevate to a Board hearing. Documentation is essential for the Compliance Manager to chronologically build the case against the Responsible Party.

Even though a compliance schedule for issuing NOVs has been developed and implemented, program policy for compliance management has not yet been finalized. It is concerning that there is currently no compliance management policy. Field inspections staff should have a standardized method and a clear policy for documenting and recording industry regulation efforts and issuing NOVs. A clear policy would allow management the opportunity to review NOV issuance data for anomalies and training opportunities. Compliance management is essential to regulation because it includes best practices for record keeping, regular assessments, and management of noncompliant items. The Oil and Gas Program should finalize and implement policy regarding compliance management to ensure consistency in program regulation.

Poor Record Keeping Increases Risk to State

The Oil and Gas Program's database of well inspections was found to be outdated and incomplete.

The Oil and Gas Program reports having 105 unresolved noncompliant issues as of June 2019. A preliminary database query to determine the number of unresolved noncompliant issues initially produced 464 results.[17] Of the 464 results

- Approximately 200 items were miscoded and entered as noncompliant issues when the entered items were really follow-up reminders, informal items, or items that have been resolved and not appropriately updated.
- 196 items qualified as compliance items; however, staff were initially "unsure" of each item's compliance status.

[17] The results of the unresolved noncompliance report are discussed in detail in Chapter II and were used to generate Figure 2.1.

- After reviewing and updating the data, the final compliance report contained 105 unresolved items. Identifying the need to track noncompliant issues and the timely resolution of noncompliant issues came as a result of this audit.

The Oil and Gas Program should consistently update their database and regularly prioritize noncompliant issues. The failure to do so has resulted in 105 unresolved compliance items, which could lead to increased future risks and costs to the state.

Recommendations

1. We recommend that the Oil and Gas Program ensure that inspectors are following the Weighted Inspection Tracking Program as outlined in program policy.

2. We recommend that the Oil and Gas Program continue to develop an evidence-based approach for inspection timelines ensuring that inspections are occurring regularly.

3. We recommend that the Oil and Gas Program finalize and implement program policy addressing compliance management.

4. We recommend that the Oil and Gas Program accurately document all observations for every inspection type in the program's database according to program policy.

Chapter IV
Lack of Enforcement Has Led to Increased Risk

The Oil and Gas Program (program) acts as the regulatory body for the oil and gas industry in the state of Utah. Statute authorizes penalties and fines to be recovered in a civil proceeding. Because of court involvement and lengthy timelines, the program has not used fines to enforce compliance. Management could not provide any documentation of a civil penalty or fine being issued in the history of the program. The Oil and Gas Program should consider working with the Legislature to determine the best way to address noncompliance resolution. Information on how other states assess penalties is provided for comparison.

Civil penalties for oil and gas industry related violations have not been issued.

The Program Should Enforce Compliance in Accordance with Statute

The Oil and Gas Program has not issued a fine for industry related violations. Surrounding states such as Colorado, Montana, New Mexico, and Wyoming have made classifying violations and issuing fines a priority—each of these states has issued at least one fine within the last two years. Operators should be held accountable to statutory and *Administrative Rule* responsibilities to mitigate future risk. For example, six problem operators are expected to cost taxpayers nearly $1 million in remediation, plugging, and reclamation costs.

Four surrounding states have issued fines for industry violations within the last two years.

Fines Have Not Been Issued For Oil and Gas Violations

Management was unable to present any documentation proving that a fine was issued over the past 24-year history of the program. The last adjudicative proceeding held by the Utah Board of Oil, Gas, and Mining (Board)[18] for the purpose of assessing and collecting civil penalties dates back to March 27, 1995. During that hearing, it was

[18] The seven-member quasi-judicial Board of Oil, Gas and Mining is responsible for policy development and for considering appeals of division actions, specific regulatory policy determinations and rulemaking functions.

determined that an oil and gas operator within the state violated *Administrative Rule* in two ways

- The operator failed to file monthly oil and gas production and disposition reports
- The operator held an invalid bond and failed to provide alternative bond coverage

Both deficiencies were violations of *Administrative Rule* at the time of the hearing. Documentation of the hearing is evidence that the Board was willing to issue a fine and seek civil enforcement in District Court; however, management could not provide any evidence that either a fine or a civil enforcement action was ever finalized. Four surrounding states have all issued fines within the last two years, whereas Utah could not provide documentation of a fine ever being issued. Figure 4.1 illustrates the fine issuance timeline for surrounding states and the language included in the states' statute.

Figure 4.1 Statutory Fines for Oil and Gas Operations Have Not Been Issued in Utah. Surrounding states have all issued fines within the last two years.

Unlike Utah, other states are proactive in issuing fines in order to enforce compliance.

State	Statute	Date Last Fine Issued*
Colorado	… Not more than fifteen thousand dollars for each act of violation per day.	May 2019
Montana	… $75 and not more than $10,000 a day for each violation.	May 2019
New Mexico	… May not exceed two thousand five hundred dollars ($2,500) per day of noncompliance for each violation…**	2017***
Utah	... Not exceeding $5,000 per day for each day of violation.**	-
Wyoming	… Not more than five thousand dollars ($5,000.00) for each act of violation, and for each day.**	March 2019

Source: Auditor generated
**As of May, 2019*
***If the violation is determined to be willful, a risk to either health or safety, or continues beyond a specified timeline, that person (operator) may be fined not more than $10,000 for each day of violation.*
****New Mexico reports that the state's last fine was granted by a District Court in either 2017 or 2018.*

Figure 4.1 shows that classifying violations, issuing monetary fines, and ensuring compliance is a priority in other states. In May 2019, Montana assessed five fines for delinquent reporting. Colorado assessed four fines for pollution, failure to control storm water runoff, a spill/release, and violations of the soil removal and segregation rule.

In March 2019, Wyoming issued a fine for an operator failing to obtain an application to drill.

In calendar year 2018, Utah field inspections staff documented a total of five notices of violation (NOVs).[19] Violations included

- Failure to report the process of beginning to drill a well
- Failure to contact the division regarding changes or deviations to the drilling plan
- Failure to notify the division of required testing activities
- Other violations associated with drilling reports

At least two of the above violations documented in 2018 represent violations for which other states are issuing fines. Over the past 15 years (2004-18), a total of 554 NOVs have been issued in Utah; however, the absence of other enforcement mechanisms such as civil penalties and monetary fines, has decreased accountability. Management agrees that in order to adequately address potential risks and noncompliant operators, the Oil and Gas Program needs to utilize the Board more on these matters.

Noncompliant Operators Are a Risk to the State

Oil and Gas Program management identified six problem operators that are expected to cost taxpayers nearly $1 million. This liability amount includes the cost to the state of properly plugging and reclaiming a number of wells that the six financially unstable operators will likely abandon.

Six problem operators are expected to cost taxpayers nearly $1 million.

Problem operators need to be held accountable to mitigate potential risks and to alleviate the financial burden placed on the state. The Division of Oil, Gas, and Mining's (DOGM or division) legal counsel[20] has not initiated or filed a notice of agency action with the Board to request or pursue a civil penalty for oil and gas industry violations. For example, the Oil and Gas Program reports issuing four NOVs to 'Operator A.' The NOVs were issued for failure to report production, failure to submit well completion reports, and failure to submit drilling reports as required by *Administrative Rule*.

[19] Notices of violation (NOVs) in relation to unresolved noncompliant issues are discussed in Chapter II.

[20] The Oil and Gas Program uses DOGM's legal counsel for any legal matters, including pursuing civil penalties.

Management reports that Operator A has blatantly disregarded the NOVs, more than likely realizing that there is no consequence for doing so. Furthermore, Operator A submitted multiple applications for new permits with the intent of drilling new wells after the NOVs were issued.

Operators are aware that notices of violation (NOVs) lack consequences and have used negligence to their advantage.

Management confirmed that some industry operators are aware of the lack of consequence associated with NOVs and have used negligence to their advantage. Receiving an NOV, or several NOVs, with no consequences may become a competitive advantage for noncompliant operators who cut corners. Failing to enforce penalties as outlined in statute has fostered a culture of noncompliance. Noncompliant operators are anticipated to cost taxpayers approximately $1 million. To offset the financial burden, the program should work with the Legislature to determine the best way to address noncompliance resolution. Possible solutions include removing the District Court's involvement and reducing lengthy timelines. The next section focuses on how penalties in surrounding states are assessed.

Divisions, Boards, and Commissions in Surrounding States Regularly Assess Fines

Four surrounding states allow their respective divisions to issue fines instead of going through District Court for enforcement.

In Utah, the statute addressing penalties and the Board of Oil, Gas, and Mining is generally interpreted to require monetary penalties and fines to be recovered through a court order. Four surrounding states currently do not, or soon will not, require a court order to assess fines.

- **Colorado**: Primarily resolves violations through an agreement negotiated between the operator and the division director. Policy requires that in almost all circumstances, issued violations seek the assessment of a monetary penalty. If the division director and the operator do not reach an agreement regarding the resolution of a violation, appropriate corrective action, penalties, fines, or any other matter, the enforcement action is then scheduled for a hearing before the Commission.

- **Montana**: Penalties and fines are assessed by the Montana Board of Oil and Gas.

- **Wyoming**: The Wyoming Oil and Gas Conservation Commission has administrative authority to approve penalties and fines for both major and minor violations.

- **New Mexico:** This state is currently operating under a fine structure that is similar to Utah's (fines are recovered by a civil suit filed in a District Court). However, recent amendments to statute will take effect in January 2020 allowing fines and penalties to be assessed directly by the division.

Utah Oil and Gas Program management reports the lengthy process to pursue a minimal return as one of the reasons for circumventing statute and not assessing civil penalties or fines. New Mexico's current process also involves District Courts and, as Figure 4.1 shows, they have still issued a fine within the last two years.

As of January 2020, Utah will become the only state (of the four surrounding states) to continue to assess penalties and fines through a civil proceeding in a District Court. Recently amended statute in New Mexico will allow fines and penalties to be assessed directly by the division.

Field inspections staff in Utah utilize professional judgement when resolving violations to protect public health, safety, the environment, and other state/citizen interests. If a formal matter is scheduled before the Board, DOGM's legal council should work with Oil and Gas Program staff to achieve compliance. Discussion with the division's legal counsel revealed that a notice of agency action for the purpose of pursuing or assessing a civil penalty has not been filed for the past 18 years.

A notice of agency action for the purpose of pursuing or assessing a civil penalty has not been filed.

Recommendation

1. We recommend that the Oil and Gas Program use its statutory authority to ensure compliance with ***Utah Code*** and *Administrative Rule*.

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Chapter V
Management Decisions Regarding Finances Have Led to Funding Reductions

Regulatory oversight of the oil and gas industry in Utah may also be lacking due to the Oil and Gas Program's (program) financial management decisions. After the financial downturn of the oil and gas industry in fiscal year 2016, the Legislature appropriated nearly $1 million in ongoing General Fund money to help offset the program's revenue shortfall. During the same time, the Legislature also raised the cap of the Oil and Gas Conservation Restricted Account (conservation account or restricted account)[21] from $750,000 to 100 percent of the program's fiscal year appropriation ($4.3 million in fiscal year 2016).

Furthermore, management allowed a reduction of program personnel and other program expenditures to aggressively save money for future years. These management decisions regarding finances resulted in $4.1 million of surplus funds being lapsed to the program's restricted account over two years. Rather than lapsing large amounts of funds to the restricted account short-term, program management should have developed a sustainable plan for building financial reserves over time. Because of these decisions, individual workloads on existing staff have increased and a backlog of work has been created. While we would always recommend efficiency where possible, our concern is that an aggressive approach to saving for future years was prioritized over current program needs and requirements.

Management chose to save large amounts of funds over a two-year period to the detriment of the Oil and Gas Program.

Financial Reserves Were Prioritized Over Program Operations

During the industry's 2016 financial decline, the Oil and Gas Program received an ongoing General Fund appropriation of nearly $1 million. In addition to receiving these supplemental funds, management chose to reduce program expenditures. The recent General Fund appropriation in combination with program

[21] Details for this account, as well as how the Oil and Gas Program is funded, are discussed in Chapter I.

expenditure reductions created a large surplus that was lapsed to the program's restricted account. Management should have established a financial target and a strategic plan for incremental savings to ensure that program operations would not suffer. However, an aggressive financial reserve approach was prioritized above program needs. Program reductions and excessive workloads were two consequences of management's financial decisions.

Management Should Have Established a Target and Strategy for Building Reserves

As discussed in Chapter I, revenues collected by the conservation fee vary from year to year. Historically, the restricted account balance was capped at $750,000. Excess funds above this amount were returned to the General Fund. In 2016, statute changed to allow the Oil and Gas Program to retain up to 100 percent of the fiscal year appropriation in the restricted account at fiscal year-end.

In 2016, statute was changed to allow the Oil and Gas Program to retain up to 100 percent of their fiscal year appropriation.

The statutory change came at the same time the industry experienced a financial downturn and the program received a supplemental appropriation from the Legislature. Rather than identifying adequate levels of reserves and developing a responsible long-term strategy to obtain the investment goal, management chose to save (lapse) large amounts of funds over a two-year period. These management decisions regarding finances came at the cost of not fully funding the program. While efficiency is generally recommended where possible, management should have established a financial target and developed a strategy to build reserves while still adequately funding Oil and Gas Program operations. A more responsible approach would have been to incrementally lapse smaller amounts of funds while consistently prioritizing program operations.

Oil and Gas Program Reduced Expenses By $1 Million

In 2016, revenues collected from the conservation fee drastically declined. Collected revenues dropped from $6.7 million in 2015 to $3.1 million in 2016. Because of this revenue shortfall, program management sought supplemental funding from the Legislature. In fiscal year 2017, the program was appropriated nearly $1 million ongoing to help offset the revenue shortfall. The appropriation increased program revenues; however, despite the additional funding, management elected to not spend its entire budget, which resulted in a

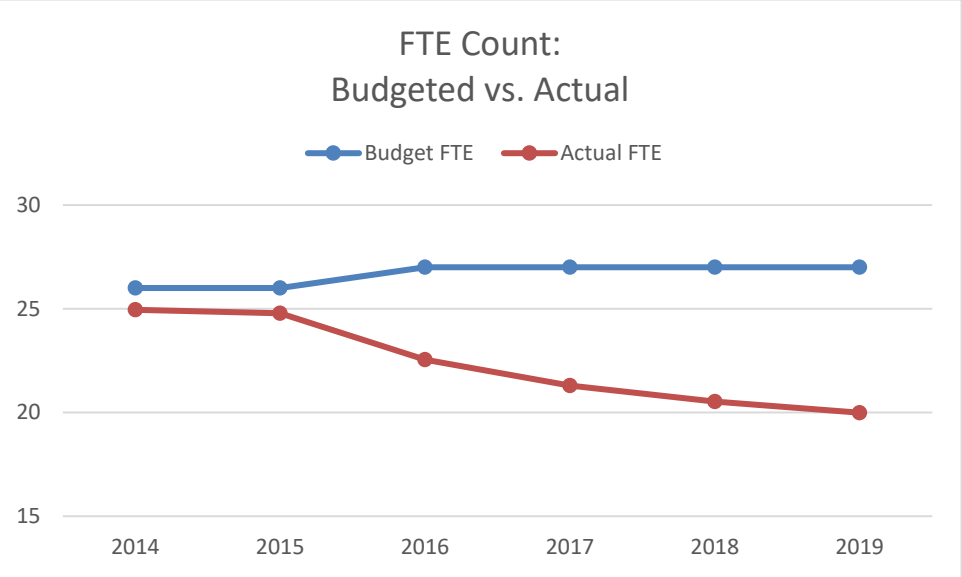
Even with supplemental funding, management elected not to spend its entire budget resulting in a large surplus.

large surplus. Management decisions regarding finances dropped program expenditures from $3.5 million in fiscal year 2014 to just under $2.5 million in fiscal year 2018.

Field inspections staff report that the effects of an industry related financial downturn, such as the one in 2016, are felt not only by the program but also by oil and gas operators. Staff report that a lack of capital may entice some operators to cut corners, which proves that industry regulation may be more necessary during times of hardship.

In fiscal year 2019, the Oil and Gas Program budgeted for 27 FTEs while actually employing about 20 FTEs. Figure 5.1 illustrates the contrast between the program's budgeted FTE count and actual FTE count over the past five years (2014-18).

Figure 5.1 Program Full-Time Employee (FTE) Count Is Decreasing. The Oil and Gas Program had 25 employees in fiscal year 2014 compared to 20 employees in fiscal year 2019.



Source: Utah Division of Oil, Gas, and Mining

In fiscal year 2019, the Oil and Gas Program budgeted for 27 FTEs while actually employing just under 20 FTEs.

An understaffed program, as shown in Figure 5.1, is another byproduct of poor management decisions. Prioritizing future funding streams over programmatic needs has resulted in increased risks and costs to the state as discussed throughout this report. Management should have ensured that all Oil and Gas Program requirements were fulfilled according to statute and *Administrative Rule* prior to accumulating savings. The failure to do so has resulted in expenditure and funding reductions, increased individual workload, and other areas

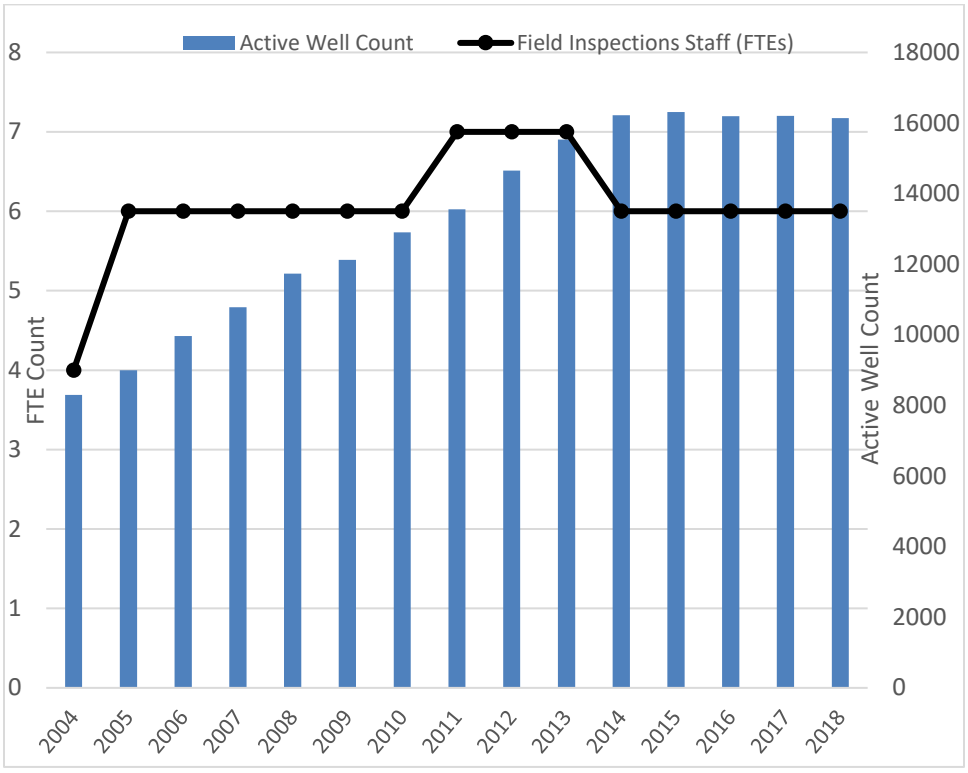
of concern such as outstanding noncompliant issues (Chapter II) and lack of enforcement (Chapter IV).

Individual Workload in Utah Has Significantly Increased

Over the past 15 years, the active well count has nearly doubled while the number of FTEs has remained relatively stable.

In calendar year 2018, the Oil and Gas Program employed six field inspections staff whose primary responsibility was to conduct field inspections. Additionally, the program employed one Operations Manager (tasked with supervisory oversight of the inspection program) for a total of seven field inspections staff. Over the last 15 years, well count has nearly doubled from 8,300 to 16,100—increasing by a total of 7,800 wells. Conversely, in the same time period, the inspection program has increased by only two FTEs from four in 2004 to six in 2018. Figure 5.2 displays both the well count and field inspections staff trends.

Figure 5.2 The Oil and Gas Program Has Had a Shortage of Field Inspections Staff for the Last Five Years. On average, well count for individual inspectors has increased by 146 wells per year for the last 15 years.



Source: Auditor generated
**Note: The Field Inspections Staff metric in this figure include only those employees whose primary responsibility it is to conduct field inspections. Although the Operations Manager does conduct inspections as time allows, conducting inspections is not this position's primary responsibility.*

Figure 5.2 shows that, on average, the well count for individual inspectors has increased by 146 wells per year for the last 15 years (2004-18) for an average total increase of 2,200 wells per inspector. Increasing overall workload without increasing inspector FTE count risks job burnout and diminished performance. All six field inspections staff members report a need for additional personnel.

On average, the well count for individual inspectors has increased by 146 wells per year for 15 years.

Inspection types differ in the amount of time and effort they require to complete. For example, field inspections staff estimate that, on average, a routine inspection requires a half an hour to complete whereas a well plugging inspection averages ten hours to complete. Therefore, focusing solely on the number of inspections conducted and completed without differentiating between inspection types may be somewhat misleading. To more accurately measure the amount of time and effort various inspection types require to complete, Utah developed a Weighted Inspection Tracking (WIT) program.[22] Without an in depth and complex analysis, no other metric exists to compare Utah's individual inspector workload to that of surrounding states.

Distance and drive time also have a substantial impact on the number of inspections an inspector can complete per year. For example, New Mexico reported that each inspector completed an average total of 4,200 inspections in calendar year 2018 compared to Utah's 1,100 inspections per inspector total. The high density of well locations was cited as the reason inspectors in New Mexico were able to conduct significantly higher rates of inspections. In Utah, some inspectors are expected to travel significant distances to conduct inspections.

Comparing inspection rates with other states is a challenge because inspections greatly differ in the time and effort they take to complete.

Inspectors in Colorado and Montana conducted an average of 600 and 800 inspections per inspector during calendar year 2018–both amounts falling below Utah's total count of 1,100 inspections per inspector. Using Colorado as the baseline, Utah would have to hire five more inspectors to reach Colorado's 600 inspections per inspector threshold. Wyoming has not historically tracked the number of inspections conducted and completed; however, it is in the process of adopting a new electronic inspection application that will track inspections beginning January 2020.

[22] The WIT program is discussed in detail in Chapter III of this report.

As previously mentioned, additional funding was available for program use; however, management chose to save the money for future years rather than prioritizing current program needs. Oil and Gas Program needs such as increased workload should have been prioritized over saving for future years.

Management Decisions Regarding Finances Led to Legislative Action

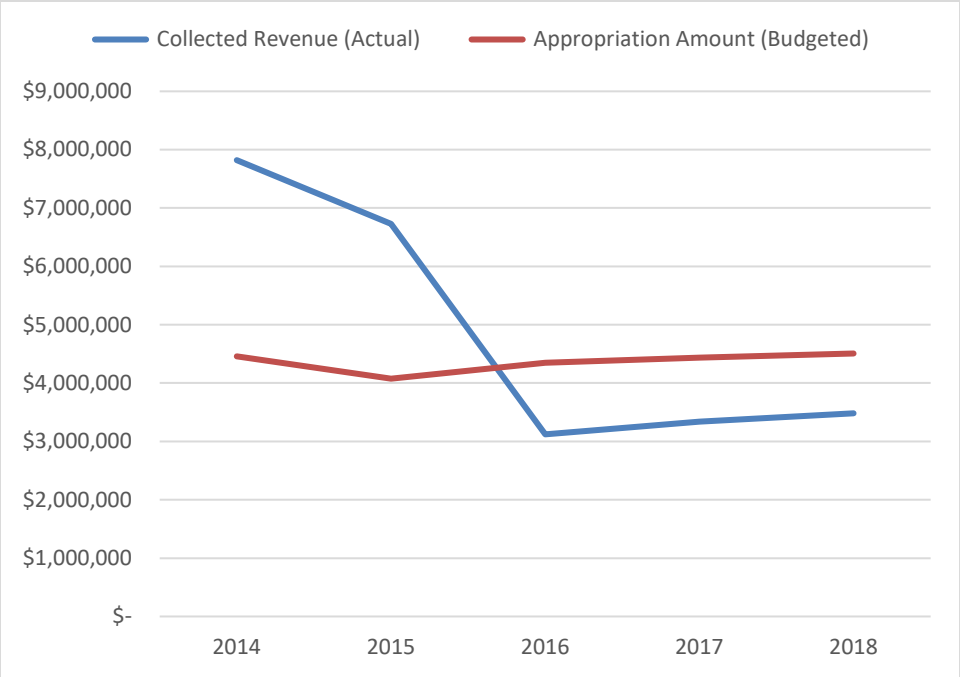
During the 2019 Legislative General Session, the Oil and Gas Program's budget was reduced by $1 million. Additionally, $2 million was taken from the program's restricted account to reimburse the General Fund.

Although statue allows the program to maintain reserves in the program's restricted account, the intent of the appropriated funding was for the administration and regulation of the program. As previously mentioned, the failure to prioritize program responsibilities as outlined in statute and *Administrative Rule* has resulted in several areas of concern. In the 2019 Legislative General Session, the Legislature reduced ongoing program appropriations by $1 million and reduced savings in the program's restricted account by $2 million to reimburse the General Fund.

The Oil and Gas Program Faces An Ongoing $1 Million Appropriation Cut

Beginning in fiscal year 2020, the Oil and Gas Program will face an ongoing $1 million appropriation reduction. The lack of revenue over the past three fiscal years has created a significant gap between the appropriated (budgeted) amount and actual collected revenues. Figure 5.3 illustrates the funding gap between collected revenues and appropriated amounts.

Figure 5.3 There Is a Funding Gap Between Revenues Levied by the Conservation Fee and Appropriated Amounts. However, despite lower than expected revenues, the appropriated (budgeted) amount has continued to marginally increase over time.



Source: Auditor generated

The $1 million appropriation reduction will close the gap between the collected revenue amount and the appropriated amount.

It is anticipated that the $1 million appropriation reduction will have no immediate effect on the Oil and Gas Program. Rather, the reduction will merely close the gap between the collected revenue amount (blue line) and the appropriation amount (red line). If the collected revenue amount (blue line) were ever to exceed the amount appropriated by the Legislature (red line), the excess funds would lapse to the General Fund at fiscal yearend. Therefore, at fiscal yearend, any excess funds above the appropriated amount would not be available for use by the Oil and Gas Program.

Financial Reserves in the Restricted Account Were Reduced by $2 Million

During the 2019 Legislative General Session, the program's restricted account savings were reduced by almost $2 million. The financial reserves taken from the restricted account were used to reimburse the General Fund.

Between fiscal years 2016 and 2018, Oil and Gas Program management lapsed $4.1 million to the program's restricted account.

Management reported that they lapsed a two-year total of $4.1 million back to the program's restricted account to build up a reserve that could be used in future years. The volatility of the oil and gas industry was the reason cited by management for needing additional reserves; however, funds from the reserve account have only been accessed once over the past 10 years. The stability of the program's appropriated funding stream over the past five fiscal years can be seen in the Oil and Gas Program "Appropriation" line item of Figure 5.4.

Figure 5.4 Overall Revenue Has Increased Nearly $1 Million Over the Last Five Fiscal Years. Appropriated revenues generated by the conservation fee have remained relatively stable.

Revenues	2014	2015	2016	2017	2018
Appropriation* (levied by fee)	$ 3,266,500	$ 3,393,200	$3,585,200**	$ 3,526,700	$ 3,279,600
Dedicated Credits	100	200	180	700	0
Federal Funds	13,500	33,200	24,300	15,200	35,100
General Fund	0	0	0	974,500	927,700
TOTAL	**$ 3,280,100**	**$ 3,426,600**	**$ 3,609,700**	**$ 4,517,100**	**$ 4,242,400**

Source: Utah Division of Oil, Gas, and Mining
**The appropriation line item in Figure 5.4 does not equal the appropriation amount in Figures 1.1 and 5.3 because the appropriation amount in Figure 5.4 applies solely to the Oil and Gas Program. The appropriation amount in Figures 1.1 and 5.3 includes Oil and Gas Program appropriations as well as the administrative portion of the appropriation.*
***Appropriation amount was supplemented one-time with $600,000 of reserves from the program's restricted account.*

When the value and volume of oil and gas production fell in 2016, the program used $600,000 of their reserve funds (one-time) to supplement their budget due to the effects of the industry related financial decline. Additionally, the Legislature appropriated nearly $1 million in ongoing General Fund money to help offset the revenue shortfall. The General Fund appropriations, in conjunction with excess funds from internal expense reductions, resulted in a $4.1 million surplus over two years that was lapsed to the program's restricted account. Figure 5.5 details the Oil and Gas Program's operating income, revenues, and expenditures for the past five fiscal years.

Figure 5.5 Operating Income for Fiscal Year 2018 Totaled $1.8 Million. Increasing revenues and decreasing expenditures created a $3.6 million surplus over the last two fiscal years (2017-18).

	2014	2015	2016	2017	2018
Revenues	$ 3,280,100	$ 3,426,600	$ 3,609,700	$ 4,517,100	$ 4,242,400
Expenditures	3,522,200	3,044,600	2,863,900	2,692,800	2,480,200
Operating Income	**$ (242,100)**	**$ 382,000**	**$ 745,800**	**$ 1,824,300**	**$ 1,762,200**

Source: Utah Division of Oil, Gas, and Mining

The combination of reducing expenditures and receiving a $1 million ongoing supplemental appropriation has resulted in a two-year net operating income of $3.6 million (fiscal years 2017-18). The $3.6 million surplus constituted the majority portion of the $4.1 million lapsing amount.

Recommendations

1. We recommend that the Oil and Gas Program develop a sustainable plan for building up program reserves over time.

2. We recommend that Oil and Gas Program management prioritize statute and *Administrative Rule* requirements over savings and ensure that all program requirements are fulfilled.

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Chapter VI
Program and Employee Performance Need to Improve

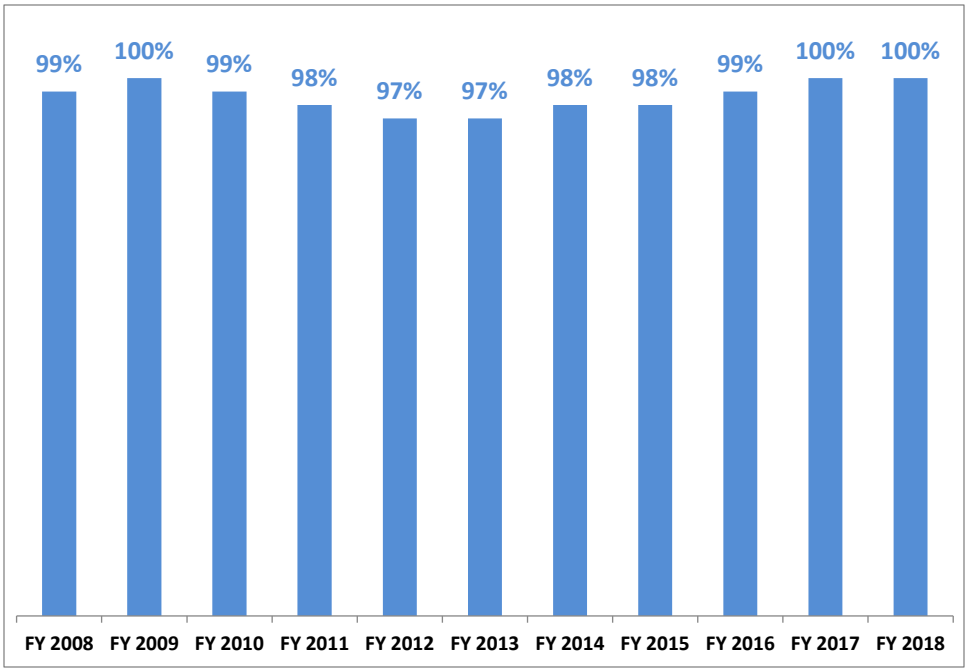
Each year the Division of Oil, Gas, and Mining (DOGM or division) reports three performance metrics to the Legislature: 1) the timeliness of coal permits 2) customer satisfaction, and 3) oil and gas well drilling inspections with no violations. Customer satisfaction is a division-wide shared metric. The Oil and Gas Program (program) reports only one metric, oil and gas well drilling inspections with no violations. However, this metric is narrowly applied, ineffective, and misleading. Management acknowledge that the Oil and Gas Program has no other performance metrics. Furthermore, DOGM needs to improve its oversight of employee performance. From 2014 to 2018, DOGM had the lowest overall annual employee performance plan compliance rate of all seven divisions within the Department of Natural Resources (DNR). Looking solely at the Oil and Gas Program, over half of the employees in that program did not receive an employee evaluation in fiscal year 2019.

The Oil and Gas Program reports only one metric to the Legislature.

Oil and Gas Program Lacks Performance Metrics

The number of oil and gas well drilling inspections with no violations is the only performance metric that the Oil and Gas Program reports to the Legislature. However, this metric is ineffective and misleading. Part of the program's mission is to "Maintain sound, regulatory oversight to ensure environmentally acceptable activities." Regulatory oversight includes monitoring all aspects of the life cycle of a well from the time a permit is issued to the time a well is properly plugged and abandoned. The metric of drilling inspections with no violations applies exclusively to inspections during the drilling phase of a well. Isolating inspections to exclusively fit this metric is misleading and appears to be inconsistent with the program's mission. Figure 6.1 illustrates the information that the program has been reporting to the Legislature each year.

Figure 6.1 The Oil and Gas Program Reports the Number of Drilling Inspections with No Violations to the Legislature. However, the reported metric is misleading because it only measures wells that are actively drilling while ignoring all other phases of a well's life cycle.



Source: Utah Legislative Fiscal Analyst

The Oil and Gas Program needs to create meaningful performance metrics that will drive performance.

The performance metric in Figure 6.1 reflects the percent of time that no violations were issued during an inspection of the drilling phase of an oil or gas well. This metric applies solely to drilling activities that Oil and Gas Program field inspections staff were aware of and attended. In calendar year 2018, drilling inspections accounted for roughly three percent of the total inspections conducted that year (173 of 6,859). Consequently, the metric does not account for drilling activities by noncompliant operators that failed to inform the program of required testing activities. For example, one notice of violation (NOV) issued in April 2018 was given to an operator for failing to contact the program regarding changes to the drilling plan and for failing to inform the program of required testing activities.

Program management acknowledged that measuring performance has been a weak point of the program.

Additionally, Oil and Gas Program management had no knowledge that the metric was being tracked or submitted to the Legislature. Management stated that the program has no other performance metrics and that measuring performance has been a weak point of the program. Alternatively, Colorado reports key metrics such as

- Percent of high-priority wells inspected each year
- Percent of citizen complaints resolved or subject to enforcement action within 30 days
- Percent of corrective actions for high priority wells that were resolved or turned over to enforcement within 30 days
- The number of known abandoned well sites at the start of the fiscal year
- The number of wells plugged annually
- Percent of hearing application processes automated
- Average wait time for processing report activities

It is concerning that the Oil and Gas Program lacks adequate performance metrics. The creation and implementation of program goals and expectations will increase performance and lead to a more effective program.

Oversight of Employee Performance Within DOGM Needs Improvement

DOGM has not been consistently conducting annual employee performance evaluations.[23] *Administrative Rule* R477-10-1(2) requires annual employee performance evaluations to be conducted for each state employee. However, DOGM had the lowest rate of compliance when compared to all other divisions within DNR. Over half of the employees in the Oil and Gas Program did not have the required performance evaluation.

DOGM has not been consistently conducting annual employee performance evaluations and had the lowest compliance rate of all other divisions within DNR.

Employee Evaluation Procedures Violate Administrative Rule

According to *Administrative Rule* "Each fiscal year a state employee shall receive a performance evaluation." On average, DOGM has conducted a total of 16 (out of 65) employee evaluations per year. The division's average five-year compliance rate (2014-18) was just under 25 percent. Fiscal year 2016 was DOGM's lowest rate of compliance with only three of the division's 65 employees[24] receiving an employee

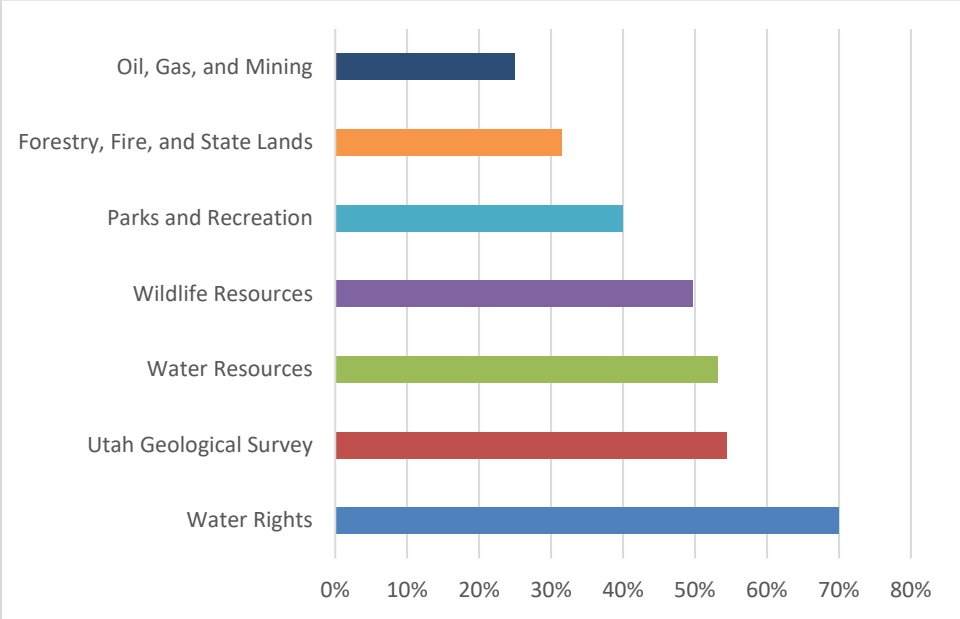
***Administrative Rule* requires all employees to receive annual performance evaluations.**

[23] While this audit report has focused on the Oil and Gas Program, our initial review of employee performance encompassed the entire division.

[24] Due to limited database functionality, total employee counts for fiscal year 2019 for each division were applied retroactively to prior years.

evaluation. Figure 6.2 ranks all seven of DNR's divisions in order of compliance.

Figure 6.2 Four of DNR's Seven Divisions Conducted Less than 50 Percent of the Required Annual Employee Evaluations from Fiscal Year 2014 to 2018. The Division of Oil, Gas, and Mining had the lowest overall compliance rate at 25 percent.



Source: Division of Human Resource Management
**The Division of Human Resource Management reports that the data used in this figure generally does not include seasonal employees.*

DOGM's annual employee evaluation deficiency is concerning given the current state of the Oil and Gas Program and the program's lack of adherence to program policy.[25] The data for Figure 6.2 was obtained from the Utah Division of Human Resource Management (DHRM). A performance audit[26] conducted by the Office of the State Auditor using data from 2016, found data limitations with DHRM's data warehouse such as employment timelines. The audit also addressed issues involving user errors stating that unfinalized evaluations lacked corresponding performance evaluation data. Despite challenges, DNR management agree that there is a need for improvement.

DNR management agree that there is a need for improvement.

[25] The inspection program and the Oil and Gas Program's lack of adherence to program policy are discussed in Chapter III.

[26] *A Performance Audit of State Agency and Board of Education Compliance with Performance Evaluation Requirements 17-01*

Without employee performance plans, employees remain unaware of individual and organizational goals and expectations. The failure to set goals results in the inability to measure performance and employee productivity.

52 Percent of Oil and Gas Program Employees Were Not Evaluated

In fiscal year 2019, over half of the employees in the Oil and Gas Program did not receive their annual employee performance evaluations. Additionally, one third of Oil and Gas Program employees had no performance plan. Ideally, employee performance plans are written at the beginning of the fiscal year and are adjusted throughout the year as needed. At the end of the fiscal year, employee performance is evaluated based on the goals and expectations listed in the employee's performance plan. Regularly implementing this practice allows supervisors to annually track employee progress. Figure 6.3 illustrates the need for additional performance tracking and evaluation.

Over half of the employees in the Oil and Gas Program did not receive an annual employee performance evaluation.

Figure 6.3 One Third of Employees in the Oil and Gas Program Had No Performance Plan and More Than Half Did Not Receive an Employee Evaluation. The Oil and Gas Program is 57 percent compliant with creating annual employee performance plans and 48 percent compliant with conducting annual employee evaluations.

	# Employees*	# Performance Plans*	Percent	# Evaluations*	Percent
Supervisor 1	7	4	57%	1	14%
Supervisor 2	2	2	100	1	50
Supervisor 3	3	1	33	3	100
Supervisor 4	1	0	0	1	100
Supervisor 5	8	5	63	4	50
Total	**21**	**12**	**57%**	**10**	**48%**

Source: Division of Human Resource Management
**Fiscal year 2019 data*

Three employees in the Oil and Gas Program were evaluated even though they did not have an employee performance plan. For example, Figure 6.3 shows that Supervisor 3 had one employee performance plan yet completed three employee evaluations. Likewise, Supervisor 4 had zero employee performance plans yet completed one employee evaluation. The ability of a supervisor to evaluate an employee with no expected outcomes remains in question.

Recommendations

1. We recommend that the Division of Oil, Gas, and Mining create and implement adequate performance metrics for the Oil and Gas Program.

2. We recommend that all divisions within the Department of Natural Resources create annual employee action plans and conduct annual employee evaluations to comply with *Administrative Rule* R477-10-1.

Chapter VII
Existing Administrative Rule Regarding Bonding Should Be Updated

The Division of Oil, Gas, and Mining (DOGM or division) requires oil and gas industry operators to furnish a bond for financial security; however, bond amounts and bond structures pertaining to the oil and gas industry have not been updated for 16 years. Looking at the past five fiscal years (2014-18), taxpayers have spent $235,000 in remediation, reclamation, and well plugging costs. Current Utah *Administrative Rule* regarding bond amounts and bond structures is inadequate and should be regularly reviewed to better address financial risks.

***Administrative Rule* regarding bonding has not been updated for 16 years.**

Current Bond Structures in Administrative Rule Need to Be Reviewed and Updated

Administrative Rule requires operators to furnish a bond to the state prior to receiving a permit to drill. Bonds are generally monetary in nature and have been instituted to ensure a good faith performance by the operator to properly plug, repair, maintain, and restore the well site. Bonds can be either forfeited to the division or returned to the operator based on operator performance and compliance. Insufficient bond amounts and bond structures pose a financial risk to the state.

Bonds ensure a good faith performance by the operator to properly plug, repair, maintain, and restore the well site.

Insufficient Bonding Poses a Financial Risk to the State

The Oil and Gas Program (program) forecasts plugging a total of 33[27] abandoned wells at a cost of $1.1 million over the next two years (2019-20). After potential bond forfeitures, the remaining liability transferred to the state is estimated to be $450,000. The Oil and Gas Program largely operates using royalties collected from the value and volume of oil and gas produced. As such, the program has limited funds for any additional expenditures such as well plugging.

The Oil and Gas Program forecasts plugging 33 abandoned wells at a cost of $1.1 million over the next two years.

[27] Of the 33 abandoned wells, 20 have been classified as 'legacy wells.' Wells drilled before 2002 (legacy wells) were not required to be bonded. Legacy wells remain an issue for the division. The lack of bonding places plugging, remediation, and reclamation costs entirely on the division and, by extension, the state.

Waste disposal facilities are under bonded by $3.32 million as of July 2019.

Furthermore, the Oil and Gas Program estimates waste disposal facilities to be under bonded by $3.32 million. Although *Administrative Rule* allows for variances from the requirement of a full bond for a waste disposal facility, variances and deviations from the bonding rule increase the financial risk to the state. *Administrative Rule* requires responsible third-party contractors to submit reclamation and post closure bond cost estimates to the program for approval. Program engineers and auditors then review the bond estimates for accuracy and completeness. Occasionally, the program will contact the third-party contractor to make corrections or amend the estimate prior to granting a permit to operate.

An example of an allowed variance to *Administrative Rule* includes incremental bonding. If a waste disposal facility operator is not able to immediately bond for the entire amount, the Board of Oil, Gas, and Mining (Board) may grant a variance allowing the operator to pay the total cost of the bond in increments. Facility A, discussed in Chapter II, is an example of an operator that was granted an incremental bonding variance. The operator still owed $250,000 on the bond (as of July 2019) when a known violation at Facility A contributed to polluting a natural drainage system. Moreover, the total bond amount for this facility does not include coverage for potential damages or environmental effects that remain under investigation.

Bond structures for waste disposal facilities and oil and gas wells varies.

Because the bond structure between waste disposal facilities and oil and gas wells varies, the amount of risk between disposal facilities and wells also varies. Waste disposal facilities in the state are under bonded by $3.32 million, with no funding source available for remediation or reclamation should an operator default. Although no facilities have historically been orphaned to the state, under bonding poses a potential financial risk—as shown by Facility A.

Conversely, oil and gas well bond amounts for state fee[28] wells are required to be posted prior to permit approval. Over the past five years, eight oil and gas wells have been abandoned and orphaned to the state, costing taxpayers $235,000 to plug and reclaim. Problem operators are estimated to soon add another $1 million as discussed

[28] A state fee well is a term used to identify wells with specified primary mineral ownership types. There are four primary mineral ownership types 1) federal ownership 2) tribal ownership 3) state ownership (including both school trust lands and sovereign lands) and 4) fee or private land ownership. A state fee well refers to a to a well with two well ownership types, state ownership and fee ownership.

previously.[29] Although the Oil and Gas Program maintains a well plugging fund, this fund is limited. [30] At the beginning of fiscal year 2018, the balance of this fund was just over $1.4 million. Recall that future liabilities to the state are estimated to be $450,000. Additionally, the program budgeted to reduce expenditures by suspending contributions to this fund; however, annual contributions were still made. Management recognizes a need for modifications to *Administrative Rule* regarding bonding.

Administrative Rule Regarding Bonding Has Not Been Updated for 16 Years

Bond amounts and bond structures for oil and gas wells were last updated 16 years ago, which is concerning given ongoing industry technological advances. In the past five fiscal years (2014-18), operators abandoned eight wells, thus transferring the financial responsibility and liability of properly plugging the abandoned wells to the state. It cost a total of $505,000 to plug all eight abandoned wells; however, bond forfeitures constituted about $270,000 of the $505,000 total. The state assumed the remaining 47 percent of the financial liability, or $235,000.

Over five fiscal years (2014-18), the state has paid $235,000 in remediation, plugging, and reclamation costs.

Ideally, bond amounts should be calculated to allow the Oil and Gas Program adequate funds for remediation while not overestimating the financial burden on the industry. However, antiquated bond structures combined with insufficient bond amounts has transferred some of the financial liability to the state. The Oil and Gas Program recognizes the need for modifications to *Administrative Rule* and the need to protect the state from any liability associated with inadequate bonding.

Existing Bond Amounts and Bond Structures Are Inadequate

Bond amounts and bond structures vary between waste disposal facilities and oil and gas wells. For example, *Administrative Rule*

[29] The financial risks associated with noncompliant operators are discussed in Chapter IV.

[30] The Oil and Gas conservation account has a non-lapsing line item that, according to ***Utah Code 40-6-14.5***, can be used to pay for the plugging and reclamation of abandoned oil or gas wells.

requires waste disposal facilities to be fully bonded[31] while the bond amount for oil and gas wells fluctuates based on well depth (feet). An operator bonding for oil and gas wells has two options: 1) an individual well bond, or 2) a blanket bond. Individual well bond amounts range between $1,500 and $60,000 depending on individual well depth. A blanket bond is a bond that covers multiple wells and is generally used by larger operators. A blanket bond totals either $15,000 or $120,000 depending on individual well depths.

Utah may want to consider bonding options implemented by surrounding states for possible solutions.

Utah may want to consider the bonding options other states have incorporated to help update its bond amounts and bond structures in *Administrative Rule*. For example, New Mexico recently adjusted their bond structure for oil and gas wells to incorporate well activity, well depth, and well count. An individual bond for an active oil or gas well in the state of New Mexico amounts to $25,000 plus $2 per foot of the projected depth. Blanket bond amounts for active wells in New Mexico total:

- $50,000 for 1 to 10 wells
- $75,000 for 11 to 50 wells
- $125,000 for 51 to 100 wells
- $250,000 for more than 100 wells

Due to increased risk of abandonment, bond amounts for inactive wells, such as shut-in or temporarily abandoned wells, are much higher in New Mexico reaching a ceiling of $1 million (for more than 25 inactive wells). Although Utah has a provision requiring full bond amounts for shut-in and temporarily abandoned wells, the full bond amount applies only when the well is in violation of *Administrative Rule*.

Wyoming also has a provision in place for idle or inactive wells. Wells that are not producing, injecting, or disposing may be subject to an increased bond amount of up to $10 per foot of each idle well. Individual well bond amounts in Wyoming are also adjusted every

[31] *Administrative Rule* R649-9-8(2.1) requires disposal facility operators to bond in the total amount of an approved third-party reclamation estimate, or $25,000, whichever is greatest. As required by *Administrative Rule* R649-9-8(1), a full bond amount ensures that all clean-up and reclamation costs will be completely covered if needed.

three years based on the consumer price index and/or actual plugging costs.

While we are not suggesting that the Oil and Gas Program adopt New Mexico's or Wyoming's bond amounts or bond structures, we do recommend that the Oil and Gas Program review and update *Administrative Rule* to reflect current industry and bond practices. Furthermore, we recommend that the Oil and Gas Program consider implementing a regular bond review schedule. Other than the five-year permit renewal process for waste disposal facilities, there is no bond review schedule.

The Oil and Gas Program does not have a process in place to regularly review bond amounts and bond structures for oil and gas wells.

Recommendations

1. We recommend that the Oil and Gas Program review and update *Administrative Rule's* current bonding requirements.

2. We recommend that the Oil and Gas Program consider implementing a regular bond review schedule.

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Agency Response

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GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
BRIAN C. STEED
Executive Director

November 7, 2019

Kade Minchey
Legislative Auditor General
W315 House Building, State Capitol Complex
Salt Lake City, UT 84114

Dear Mr. Minchey,

The Utah Division of Oil, Gas and Mining is grateful for the time and effort the Legislative Auditor's Office put into identifying opportunities for improvement within our Oil and Gas Program.

This program is tasked with ensuring access to essential natural resources in an environmentally responsible manner. Consistent regulatory presence by our program benefits Utah's environment, economy and quality of life. We take these responsibilities seriously and recognize the audit's important role in helping us accomplish program objectives more effectively.

In order to address the recommendations outlined in the audit, we are taking steps to improve leadership, culture and expectations.

Leadership
Leadership is vital as we ensure each audit recommendation is addressed and surpassed. We want to go beyond the recommendations in this audit to create sustainable and responsive change. The program is evolving, requiring accountability and commitment at all levels.

Bolster Our Culture of Compliance
The audit clearly highlights the need to bolster our culture of compliance within the Oil and Gas Program. Our division is making program, database and protocol improvements that will accomplish this objective. For example, we have already decreased our non-compliance backlog from 105 to 33 unresolved items and will continue to show improvement in all areas. We will aggressively pursue this culture enhancement by building upon recent progress. We believe that possibly the most impactful proposed action by the division is to work with the legislature to give the Utah Board of Oil, Gas and Mining direct authority to recover fines from non-compliant operators.

Increased Expectations
It isn't enough to say we recognize the need to improve. We are committed to adopting program and employee action metrics to produce and sustain measurable results. The following pages show the initial action plan we will implement to address the audit recommendations through a combination of improvements to processes, technology and resources.

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UTAH DNR NATURAL RESOURCES

Our Commitment to You

Our division and program actions will speak louder than words. We will improve our leadership. We will bolster our culture of compliance. We have and will continue to increase our program expectations. We will do the hard work necessary to positively evolve by building and improving our processes, technology and resources. **Appendix A: Proposed Actions** and **Appendix B: Actions applied to audit recommendations** illustrate how we will pursue progress.

Sincerely,

Brian Steed
Executive Director
Department of Natural Resources

John Baza
Director
Division of Oil, Gas and Mining

Enclosures (2)
Appendix A: Proposed Actions
Appendix B: Actions applied to audit recommendations

Appendix A: Proposed Actions

Processes	
Reduce backlog	Build upon backlog reduction progress, currently reduced from 105 to 33 unresolved items, and better prioritize backlog management.
Board recovers fines directly	Legislature gives the Utah Board of Oil, Gas and Mining authority to recover fines directly.
Streamline compliance	Work with the Attorney General's office to streamline processes, remove barriers and improve accountability.
WIT Metric	Expectation of 2,000 annual Weighted Inspection Tracking (WIT) inspection points per inspector.
Employee metrics	Identify core competencies for the three inspector levels, Environmental Scientist 1, 2 and 3, and build those competencies into employee action plans that are updated regularly.
Combine WIT and inspection prioritization	Combine Weighted Inspection Tracking (WIT) and Risk Assessment Inspection Prioritization to gain database prioritization and metrics efficiencies.
Regular bonding updates	Updated bonding review will be finalized in January 2020 and reviewed every five years at a minimum. Operator-specific bonding updates will be prioritized according to our new risk assessment inspection prioritization system.
20/80 strategy	20% of the funds remaining in the restricted account at the end of the fiscal year will be put into the division reserve fund, returning 80% to the general fund. This will support statutory compliance by prioritizing a fully staffed oil and gas team.
Technology	
Database upgrades	Identify and fix flaws in the database management system.
Inspection prioritization	Use new risk assessment process, targeting the highest risk sites for inspection.
Use drone technology	Utilize drones for certain site evaluations to maximize high-priority inspection time.
Advanced database categorization	Expand program database tracking beyond compliance and non-compliance to include: Non-compliance notification letter; Letter - Operator Contacted; Letter- Cooperative agreement; Notice of Violation (NOV); NOV - Cooperative Agreement; Informal Agreement; Division Order; AGs Assessment; Board Presentation; Civil Court Filing; Fine assessed; and Fine collected.
Expand reporting	Expand what is reported to the legislature to include: Compliance backlog; Fines assessed; Inspections completed; Number of NOVs issued; Number of NOVs resolved; Ratio of program level shut in/temporarily abandoned wells; Number of risk level reductions; Length of time between issue identification and inspection; Number of Priority 1 wells within our risk assessment system; and Hours spent on different priority levels.
In field tools	Develop in field inspection tools to empower consistent and accurate inspection documentation
Resources	
Fill vacancies	Hire all vacant program positions to ensure that we are applying our resources to address core program responsibilities.
Operator education	Create easy-to-understand compliance tutorials to educate new operators prior to beginning operations.

Appendix B: Actions applied to audit recommendations

1. We will continue to resolve all outstanding non-compliant issues.

   applying these actions: Leadership changes, reducing backlog, filling vacancies, board recovers fines directly, streamline compliance, operator education, inspection prioritization, use of drone technology, in field tools

2. We will review timelines for non-compliance and include appropriate steps toward achieving compliance resolution in the program policy.

   applying these actions: Inspection prioritization, combining WIT and inspection prioritization

3. We will require strict compliance to Administrative Rule.

   applying these actions: Leadership changes, reduce backlog, fill vacancies, board recovers fines directly, streamline compliance, operator education, in field tools

4. We will ensure that inspectors are following the Weighted Inspection Tracking Program as outlined in program policy.

   applying these actions: WIT metric, combine WIT and inspection prioritization

5. We will continue to develop an evidence-based approach for inspection timelines ensuring that inspections are occurring regularly.

   applying these actions: Inspection prioritization, WIT metric, use drone technology, employee metrics

6. We will finalize and implement a program policy addressing compliance management.

   applying these actions: WIT metric, combine WIT and inspection prioritization, streamline compliance, board recovers fines directly, in field tools

7. We will accurately document all observations for every inspection type in the program's database according to program policy.

   applying these actions: WIT metric, employee metrics, combine WIT and inspection prioritization, database upgrades, inspection prioritization, use drone technology, advanced database categorization, expand reporting, in field tools

8. The Oil and Gas Program will use its statutory authority and tools to ensure compliance with Utah Code and Administrative Rule

   applying these actions: Reduce backlog, board recovers fines directly, streamline compliance, WIT metric, employee metrics, combine WIT and inspection prioritization, fill vacancies, operator education, database upgrades, inspection prioritization, use drone technology, advanced database categorization, expand reporting, 20/80 strategy, in field tools

Appendix B: Actions applied to audit recommendations *continued*

9. We will develop a sustainable plan for building up program reserves over time.

applying these actions: 20/80 strategy

10. Oil and gas program management will prioritize statute and Administrative Rule requirements over savings and ensure that all program requirements are fulfilled.

applying these actions: Reduce backlog, board recovers fines directly, streamline compliance, WIT metric, employee metrics, combine WIT and inspection prioritization, fill vacancies, operator education, database upgrades, inspection prioritization, use drone technology, advanced database categorization, expand reporting, 20/80 strategy, in field tools

11. We will create and implement adequate performance metrics for the Oil and Gas Program.

applying these actions: WIT Metric, employee metrics, inspection prioritization, combine WIT and inspection prioritization

12. We will create annual employee action plans and conduct annual employee evaluations to comply with administrative rule R-477-10-1

applying these actions: Leadership changes, WIT metric, employee metrics

13. We will review and update Administrative Rule's current bonding requirements.

applying these actions: Regular bonding updates

14. We will pursue implementing a regular bond review schedule.

applying these actions: Regular bonding updates