

**Idle and Orphan  
Oil and Gas Wells  
Regulatory Solutions  
Preliminary Results**



**IOGCC Annual Conference  
August 26<sup>th</sup> Medora, ND**

**2019**

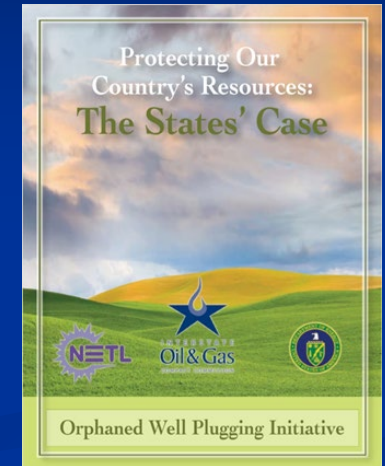
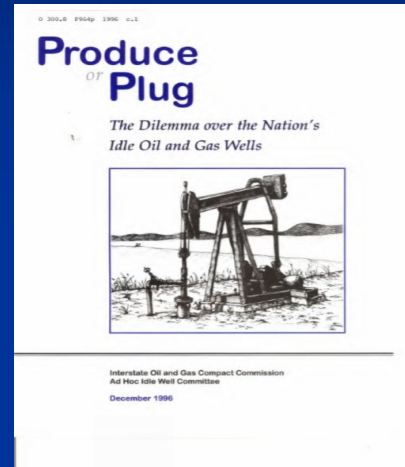
**Hal Fitch**

# **IDLE & ORPHAN WELL CHALLENGES**

- **Transfer of ownership**
- **Bonding adequacy**
- **Plugging & restoration funding**
- **Undocumented wells**

# PREVIOUS WORK

**A Study of  
Idle Oil  
and Gas Wells  
in the United  
States**



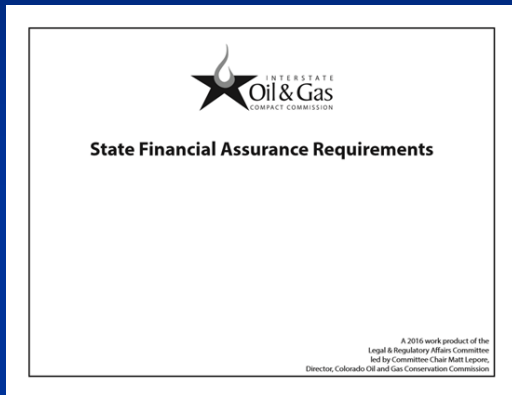
**1992**

**1996**

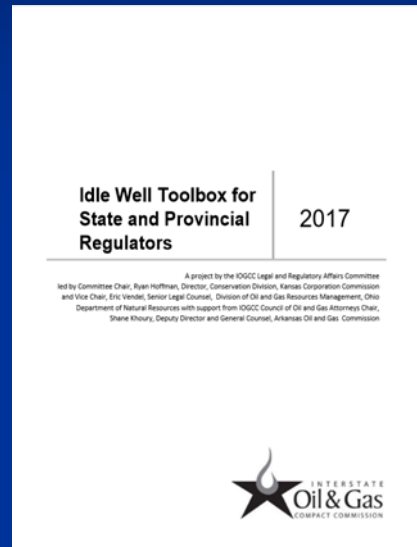
**2000**

**2008**

# LEGAL & REGULATORY AFFAIRS COMMITTEE



2016



2017



2018

# 2019 STUDY

## Survey of states & provinces

- Definitions
- Idle wells
- Orphan wells
- Plugging funds
- Financial assurance
- Incentives
- Innovations and successes

Incorporates Legal & Regulatory Affairs  
Committees studies

# **STATES SURVEYED AND RESPONDING**

**1996: 31 States**

**2000: 31 States**

**2006: 28 States**

**2019: 31 States + 5 Provinces**

# PRELIMINARY STUDY RESULTS

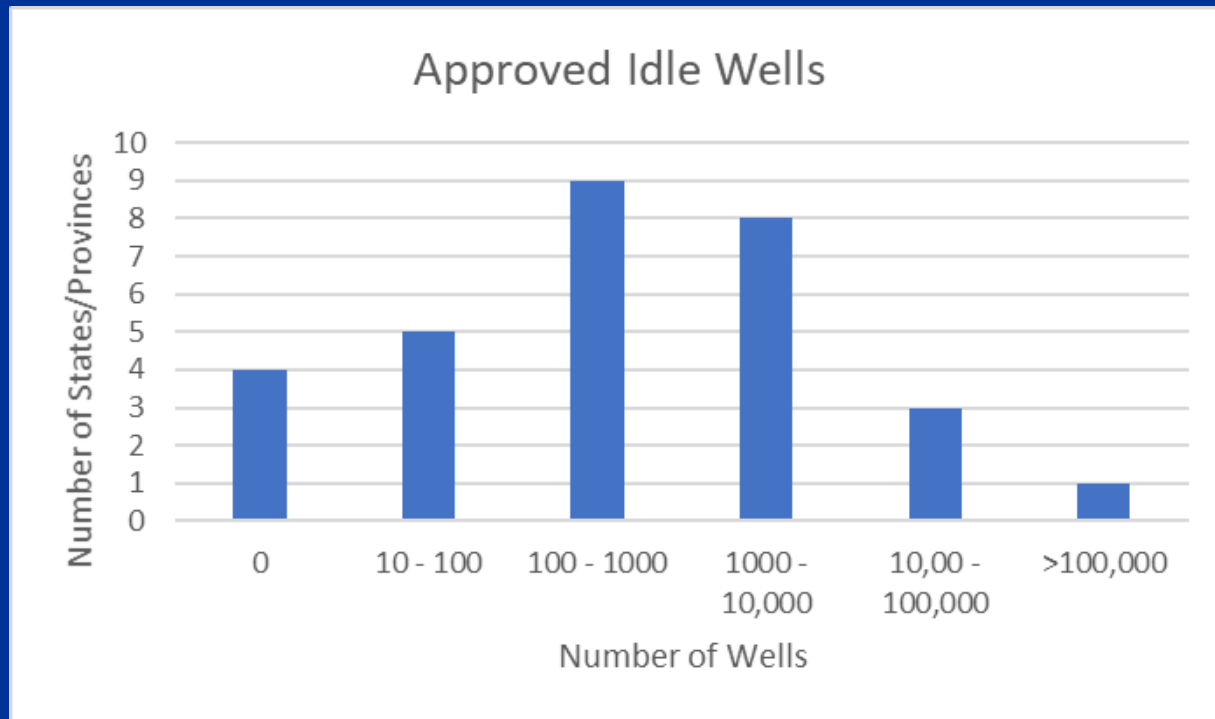
Idle and Orphan  
Oil and Gas Wells  

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Regulatory Solutions

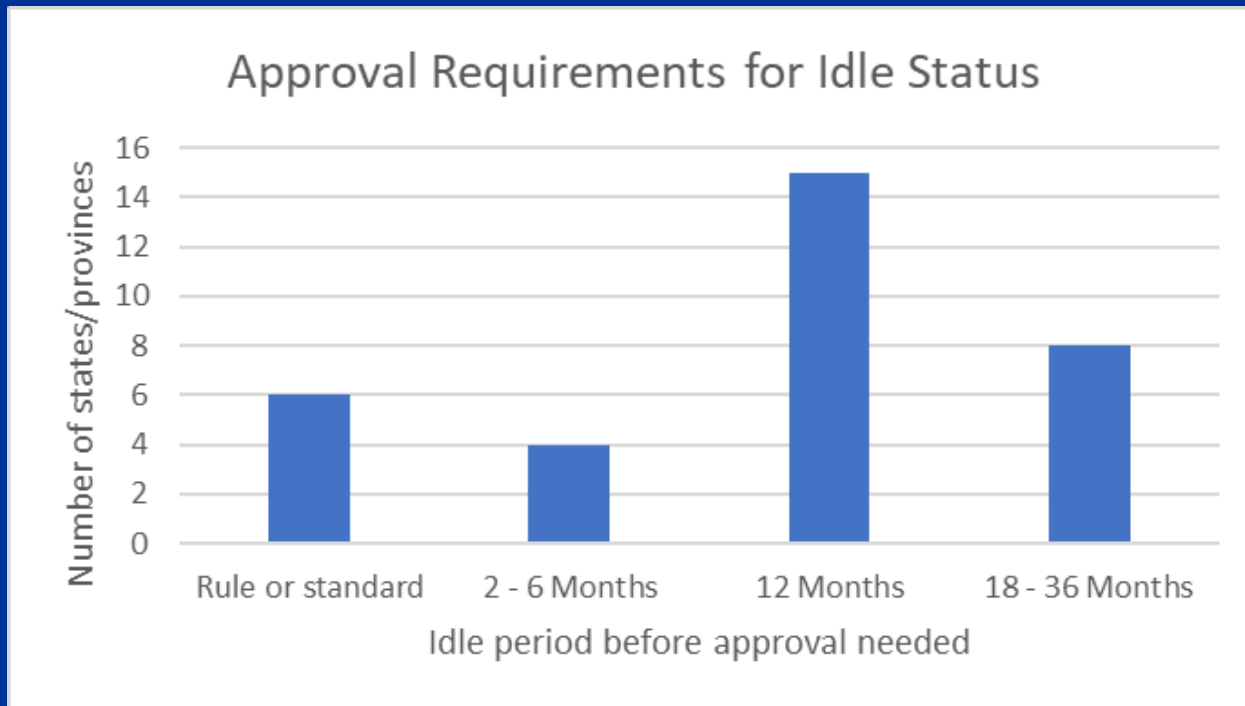
# IDLE WELLS

- **Total approved idle wells: 290,422**
- **May be approved by rule or specific written approval**



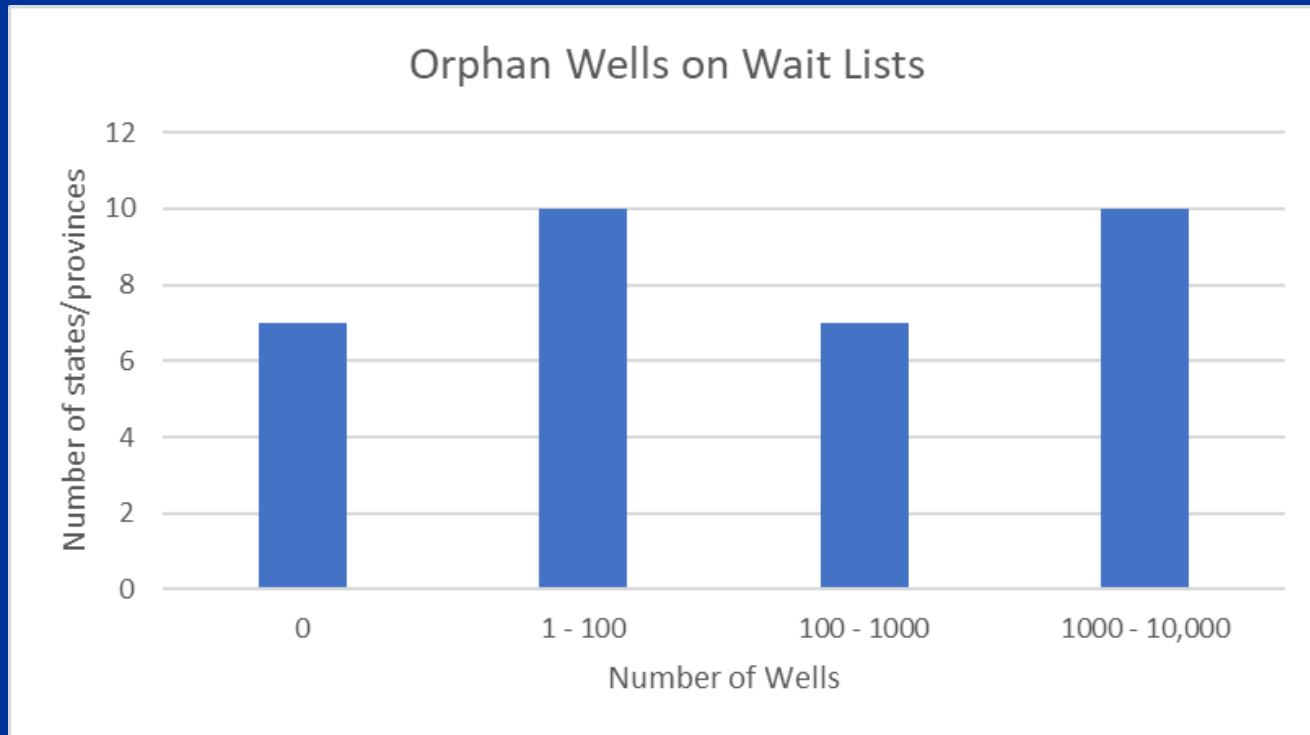


# PERIOD A WELL MAY REMAIN IDLE BEFORE APPROVAL IS REQUIRED

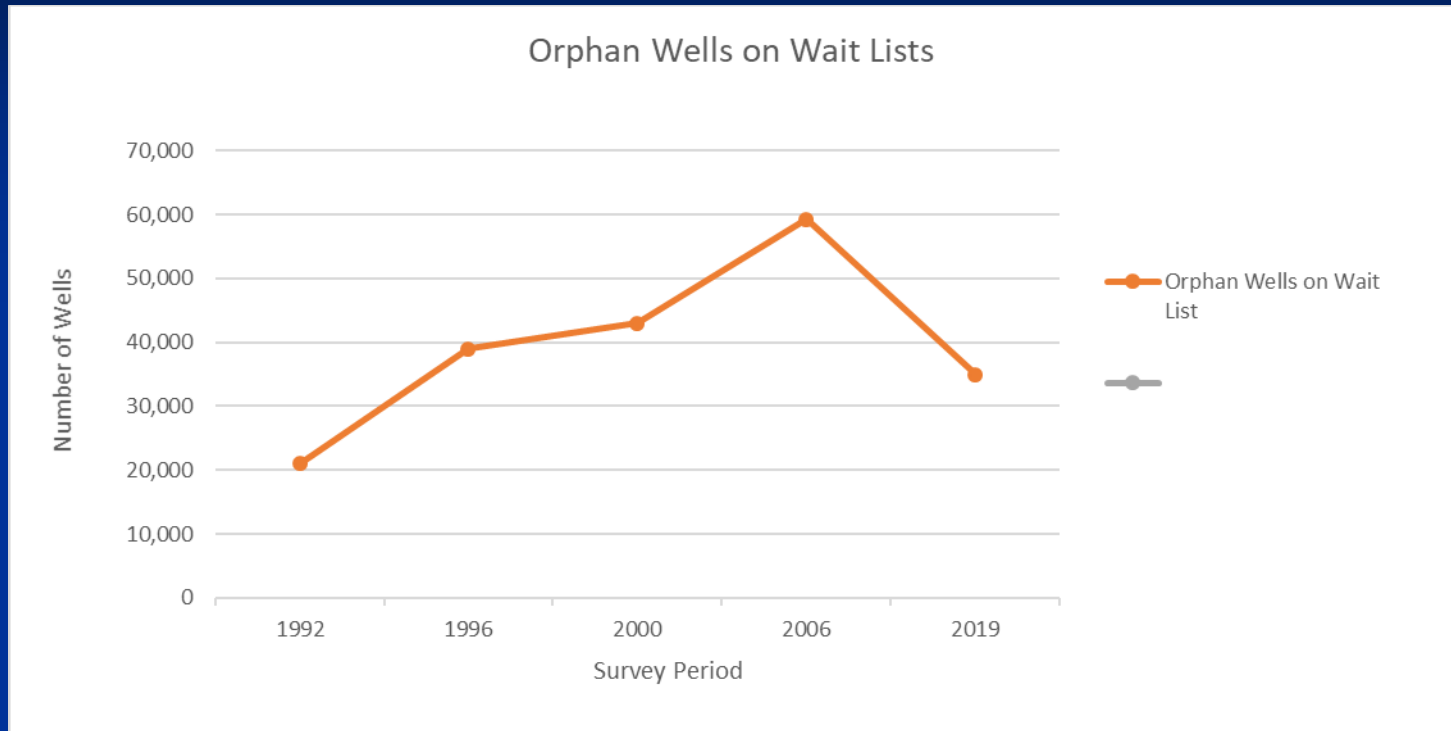


# ORPHAN WELLS

- **29 states: 36,353 orphan wells on wait lists**
- **5 provinces: 3,610 orphan wells on wait lists**



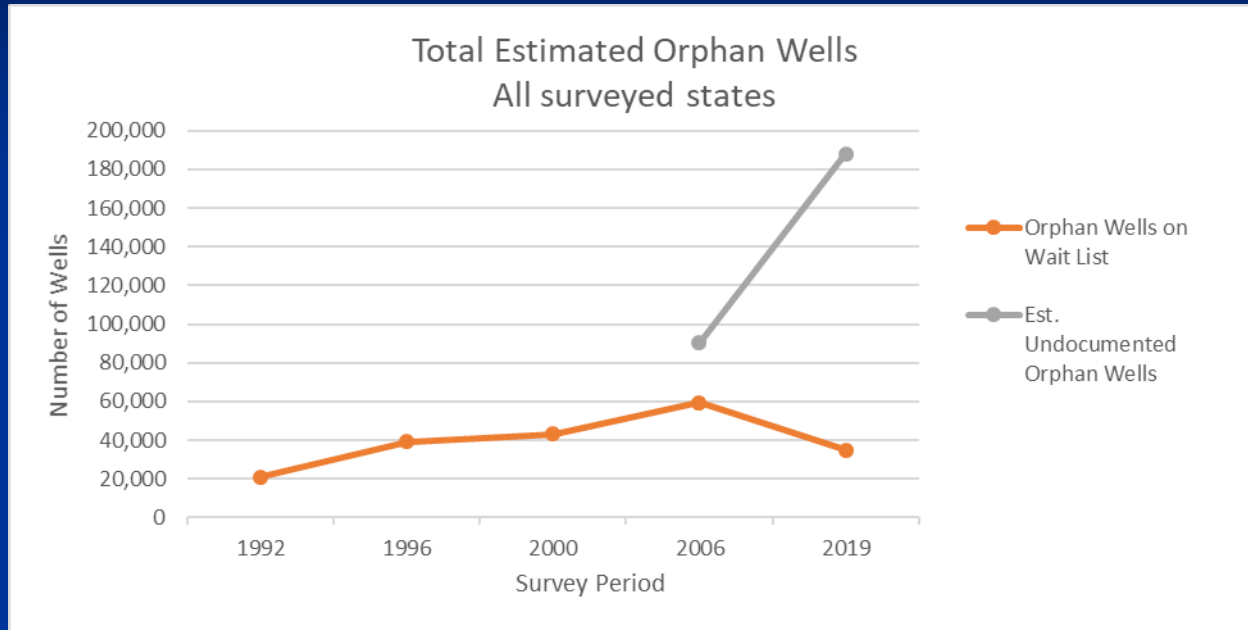
# ORPHAN WELL TRENDS



- States have made progress in reducing orphans
- Chart does not include provinces (no numbers < 2019)

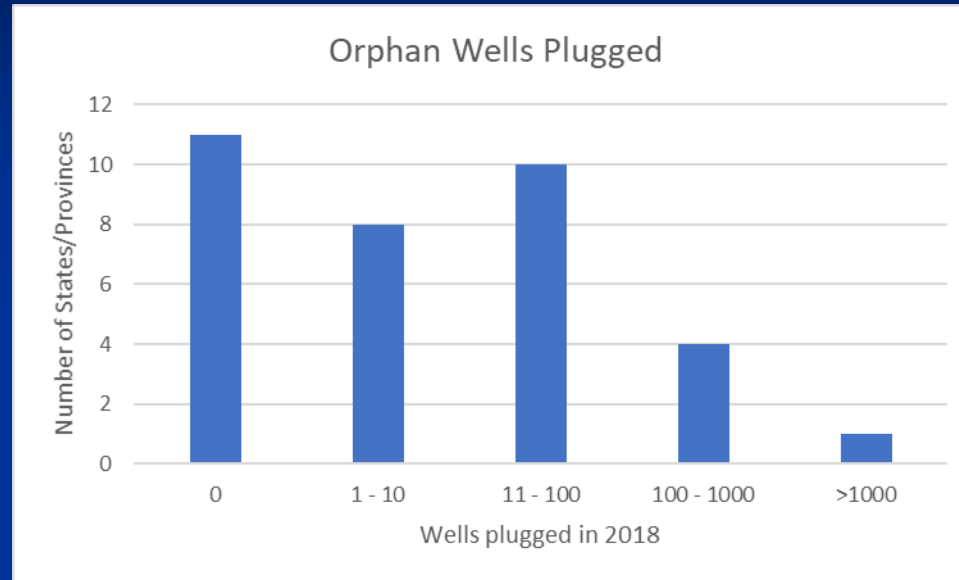
# ORPHAN WELL TRENDS

## Including Estimated Undocumented Wells



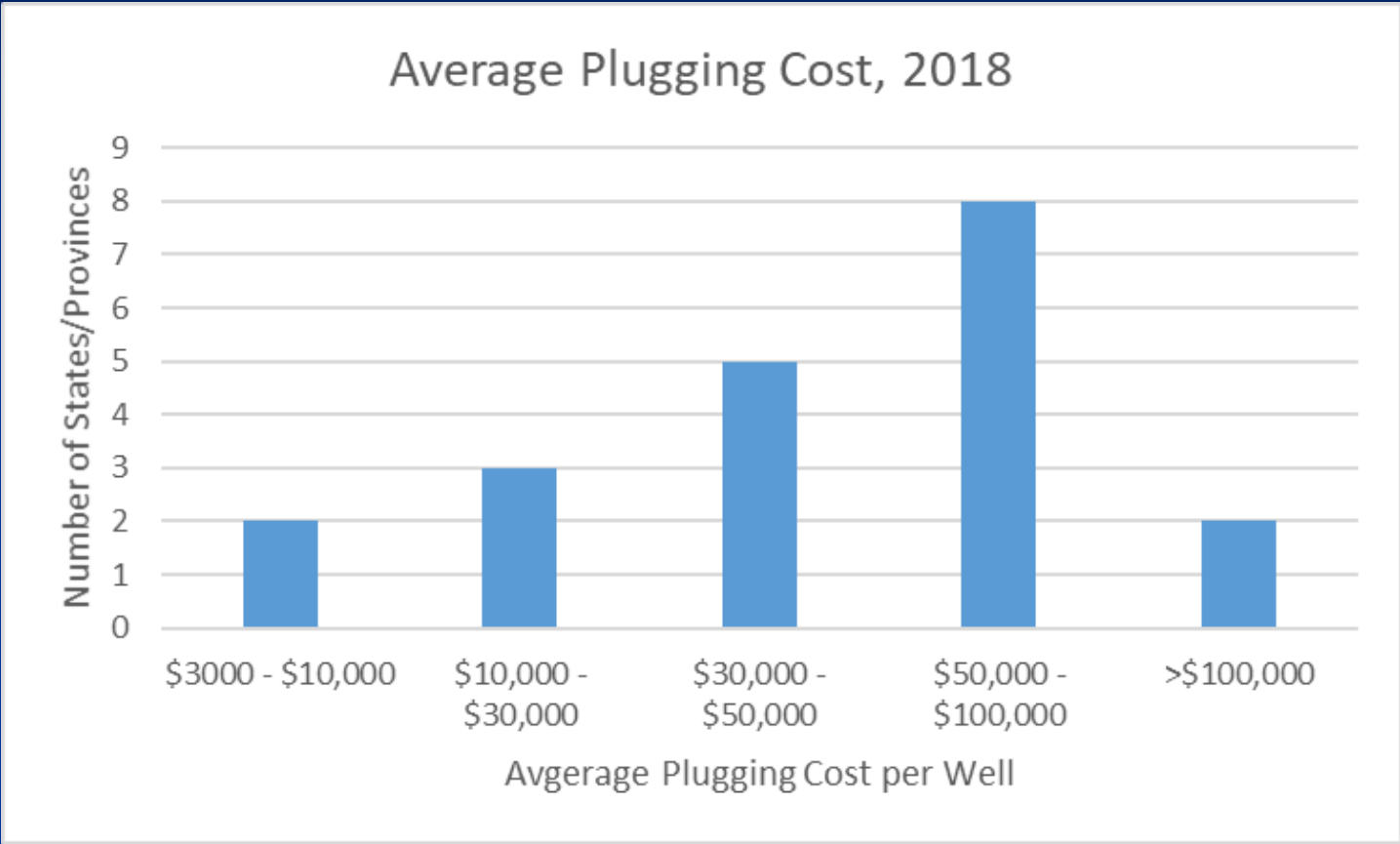
- Total undocumented wells: 188,000 (minimum)
- 11 states provided estimates of undocumented wells
- 11 states may have undocumented orphan wells but no estimate
- 7 states & 5 provinces: no undocumented orphan wells

# ORPHAN WELL PLUGGING



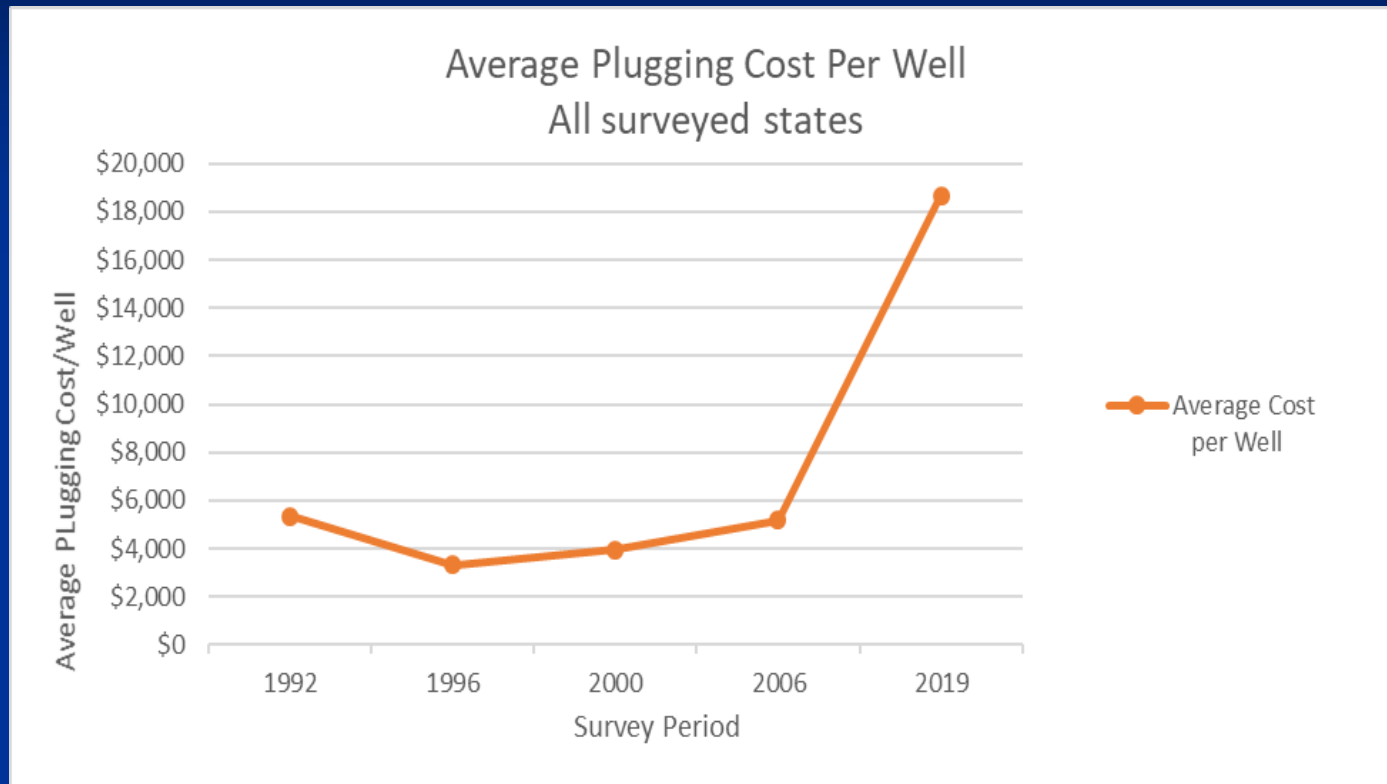
- **> 90% of states & provinces have orphan well plugging funds**
- **23 states and provinces plugged total of 3,334 orphan wells in 2018**

# ORPHAN WELL PLUGGING COSTS



**Most states & provinces spent \$30,000 - \$50,000/well**

# ORPHAN WELL PLUGGING COSTS



**Cost/well increased >300% since 2006**

# FINANCIAL ASSURANCE

Type of financial assurance	Percent of states and provinces w/ type
Surety or performance bonds	85%
Cash deposit	74%
CD	68%
Letter of credit, irrevocable	68%
Financial statements	18%
Security interest	6%
Certificate of insurance	3%
Escrow account	3%
Liens	3%



# FINANCIAL ASSURANCE

- **Most states & provinces: single-well & blanket securities**
- **Set amount or multi-tier**
- **Single-well: \$1,500 - \$400,000/well  
\$2 - \$12/foot**
- **Blanket: \$15,000 - \$30,000,000**

# **SIX STATES HAVE INCENTIVES TO PLUG ORPHAN WELLS**

- **Grants & reimbursements**
- **Exemptions to bonding**
- **Liability relief**

# **EIGHT STATES HAVE INCENTIVES TO REACTIVATE IDLE WELLS**

- **Tax or fee reductions**
- **Reduction of bonding**
- **Temporary test permit**
- **Transfer of ownership with conditions & new bond**

# **15 STATES REPORTED INNOVATIONS & SUCCESSES**

- **Outreach**
- **Program efficiencies**
- **Tax structure**
- **GIS & drone technologies**
- **Creative bonding solutions**
- **Landowner assistance**

# STATE AND PROVINCE SUMMARIES

## STATE/PROVINCE

### Regulatory Agency

### Statutory or Regulatory Authority

### Definitions

Idle Well:

Orphan Well:

Site restoration:

### Idle Wells

Classification:

Inactive period without approval:

Inactive period after approval:

Requirements for approval:

Provisions for exceptions:

### Orphan wells

Orphan wells on wait list:

Estimated undocumented orphan wells:

Actions to address undocumented orphan wells:

### Plugging Funds

Description:

Sources of funding:

Annual authorized expenditure target:

Funds for emergency remedial actions:

Funds for site restoration:

Process for prioritizing orphan wells for plugging:

### Financial Assurance

Types of Financial Assurance Allowed

Single Well Securities

Amount	Criteria
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Minimum:

Maximum:

Blanket Securities

Amount	Criteria
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Minimum:

Maximum:

# QUESTIONS?

## Idle and Orphan Oil and Gas Wells --- Regulatory Solutions Preliminary Results



2019