

**STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

**IN THE MATTER OF PROPOSED
AMENDMENTS TO 19.15.2, 19.15.5,
19.15.8, 19.15.9, AND 19.15.25 NMAC**

CASE NO. 24683

INDEX TO IPANM DEMONSTRATIVE EXHIBITS

Exhibit No.	Description
1	David Mitchell Demonstrative Slides (VP of Engineering, Longfellow Energy, LP)
2	Mike Hanagan Demonstrative Slides (Owner, Manzano, LLC, Managing Partner)
3	Jerome P. McHugh Jr. Demonstrative Slides (President, San Juan Resources, Inc.)
4	George Sharpe Demonstrative Slides (Investment Manager, Merrion Oil & Gas)
5	Trevor Gilstrap Demonstrative Slides (Financial/Surety Technical Witness)
6	Samuel M. Bradley Demonstrative Slides (Owner, Impetro Nonop, LLC and Summit Energy Group; Small Operator Society, LLC)
7	Vern Andrews Demonstrative Slides (President, Epic Energy, LLC; Managing Partner, Walsh Engineering & Production, Inc.)
8	John Nabors Demonstrative Slides (Executive VP, Spur Energy Partners, LLC)
9	James Winchester Testimonial Summary Demonstrative Slides
10	Kyle Armstrong Demonstrative Slides (President, Armstrong Energy Corp.)
11	Mark Murphy Demonstrative Slides (President, Strata Production Company)
12	Jeff Harvard Demonstrative Slides (President, Harvard Petroleum Co., LLC)
13	T. Calder Ezzell Demonstrative Slides (Legal Technical Witness)
14	Robert Arscott, Ph.D. Demonstrative Slides (Economic Technical Witness)

David Mitchell



VICE PRESIDENT OF
ENGINEERING– LONGFELLOW
ENERGY, LP.

LONGFELLOW ENERGY - BACKGROUND

- Formed in 2007, based in Dallas TX.
- Focus is on exploration and development of new reserves in underdeveloped or overlooked onshore US basins.

NM project: Loco Hills, a horizontal development of the Yeso formation.
- Currently operates 100 wells in NM, planning to drill 100 more; 50 wells currently classified as stripper wells.

Longfellow Energy Concerns with Proposed Rule

- 1) Proposed \$150k bond makes NM 5-6x more expensive than TX projects; difficult to justify allocating additional investment capital to NM projects.
- 2) Encourages waste; "marginal well" definition is broad enough to include wells that economically outperform typical marginal wells.
- 3) FA requirements prematurely expedites plugging, leaving commercially producible hydrocarbons behind
EX: Hastie #2 well spud in 1949, produced for 60 years, acquired by Longfellow & since produced 900 barrels
- 4) New rule creates a de facto non-compete; penalizes new operators based on bad conduct by a prospective employee's current or former employer.

Mike Hanagan



OWNER – MANZANO, LLC;
MANAGING PARTNER.

MANZANO LLC - BACKGROUND

- B.S., Geology; Fort Lewis College

Employed in exploration and production for last 40 years

Manzano formed in 2001; specializes in drilling and producing northern end of Permian Basin

Current focus Bone Spring, Canyon Shale, and San Andres formations

Converted vertical producing well to injection well for Pressure Maintenance Project

Manzano Concerns with Purvis Testimony

- 1) Alternative uses of Marginal Wells: Mazano's San Andres pressure maintenance project has produced over 50,000 barrels, with a further 50,000 barrels expected
- 2) Permian basin remains the nationwide leader in vertical rig counts, with 80% of vertical rigs nationwide, and 50% of vertical rigs in 2025
- 3) Testimony that "Practically no such thing as a small company that drills shale wells" is false. From 2023 to current, 66 operators filed permits to drill over 1,900 wells, with 3,600 wells spud during that time.
- 4) Role of Independent Operators: we provide essential jobs and revenue to local communities long after larger companies leave, Mr. Purvis may think we won't be missed but the local and state economy will notice

Manzano Concerns with Purvis Testimony

- 5) Fulfillment of OCC duties requires diversity of business models to maintain balanced and stable markets
- 6) Ability to apply specific knowledge & experience not a “Gamble”: Harvard Petroleum project not an outlier, independent operators willing to invest time and money because market supports those profitable projects

Manzano Concerns with Wrinkle Testimony

- 1) WELC's FA proposal increases the costs of operating a well, leaving less to repair, maintain, and plug, abandon, and reclaim the well site when the time comes.
- 2) Capital expenditures are treated differently than recurring lease operating expenditures in evaluating the economics of a producing well.
- 3) Costs of wells depend on various factors, wells are highly individual of each other.

Jerome P. McHugh Jr.



PRESIDENT – SAN JUAN
RESOURCES, INC.

SAN JUAN RESOURCES, INC. – BACKGROUND

SJR Est. 1990; Operates 45-50 wells in NW New Mexico.

Focus on extending well's economic life.

All SJR wells are considered “stripper wells”, 3 would be classified as “marginal”

Because of lower operating margins, can take on additional risks to develop oil and gas.

Example: Investment and Development of 25,000 acres in McSimms Mancos Federal Exploratory Unit, for first of its kind horizontal drilling project

Most wells on federal lands, value to SJR and state in continuing federal leases

SJR Concerns with Proposed Rule

- 1) SJR does not have cash reserves for bonding it's 3 "marginal" wells.
- 2) No mechanism under JOA to compel WI owners to contribute to bonding price.
- 3) Negatively affects E&D; reduces ability of operator to make investing risk in older wells like SJR's Scott #2A well.
- 4) Requires operators to prematurely plug nearly-marginal wells; results in waste of otherwise economically producible hydrocarbons
- 5) Some stripper well operators will likely go out of business and orphan their wells, increasing orphan well count.

George Sharpe



INVESTMENT MANAGER –
MERRION OIL & GAS

MERRION OIL AND GAS - BACKGROUND

Started in 1981 in Farmington, NM; Family owned and operated for three generations.

Owns and operates older vertical gas wells ranging from 5-6,000', most purchased larger producers decades ago upon exiting San Juan Basin.

23-24 average well production = 50 mcf/day per well

Merrion has plugged 144 wells/well; currently operates 63 active wells

Merrion Concerns with Proposed Rule

- 1) Merrion would fall under the 15% marginal well threshold, requiring single-well bonds for every active well and increasing FA obligations to \$9.45 million
- 2) Surety market unavailable to smaller operators like Merrion; limited to cash bonds
- 3) Even if available, surety bond premiums at 10% mean \$945,000 annually out of pocket; compared to existing inactive well FA at \$36k per well

Merrion Concerns with Proposed Rule

- 4) Actual plugging costs in the San Juan Basin range from \$35k to \$80-85k
- 5) Proposed rule makes profitable wells uneconomic and will force operators to prematurely plug wells; resulting in
 - losses in local jobs
 - Losses in royalty income to state
 - Losses in production taxes.
- 6) If small operators with thin profit margins are forced to plug all wells immediately, many without choice but to abandon; drastically increasing the number of orphan wells

Trevor Gilstrap



SENIOR VICE PRESIDENT
NATIONAL ENERGY PRACTICE LEADER
ASSURED PARTNERS

TREVOR GILSTRAP - BACKGROUND

- Since 2011, insurance and surety producer (broker) for upstream and midstream service contractors and operators
- Leader of AssuredPartners Energy Practice, providing insurance and surety placements for dozens of E&P companies
- Energy Risk & Insurance Specialist by International Risk Management Institute
- 2021 & 2024 Insurance Business America Top Producer
- 2021 Traditional Energy Power Broker by Risk & Insurance Magazine

Proposed Rule creates unintended consequences

- \$150,000 Surety Bonds required under Proposed Rules for:
 - single active wells
 - marginal wells
 - approved TA wells

Where unavailable or prohibitively expensive, anticipate:

Bankruptcy

Orphaned Wells

Exit from New Mexico

BONDS ARE NOT INSURANCE

Bond: promise to pay upon satisfaction of certain conditions or performance

Under NMAC 19.15.8.9(A) scheme and general Surety Contracts

Operator → Principal

Company that Issues Bond → Surety

New Mexico → Obligee

Bond: Risk always remains with Principal

Insurance: Insured pays premium, Insurer absorbs Risk

HOW MUCH DO BONDS COST?

- Operator/Principal must have minimum 25%-100% working capital to qualify
- ↓ % Working Capital, then ↑ % Collateral Required of Operator
- Typical Collateral Requirements 50-100% of Face Value of Bond
- Premiums range from 2.5-3.5%, due annually for life of Bond
- With average life span of 25 years and single-well bond of \$150k, Operator pays over \$130,000 in premiums to Surety

Scenario 1



Operator with 150 wells above the 15% threshold needs \$22.5 million bond



Collateral @ 50% = \$11,250,000 to secure bond



Annual Premium @ 2.5-3.5% = \$562,500 to \$787,500 /yr

Scenario 2



Operator with 1000 wells required to single-well bond has \$150 million bond



Collateral @ 50% = \$75 million to secure bond



Annual Premium @ 2.5-3.5% = \$3.75M to \$5.25M /yr

CASH BONDS & LETTER OF CREDIT

- Operators without required capital limited to cash bonds or LOC
- Both tie up large sums of money
- Decreases available cash and capital for Operator to carry out scheduled P&A, drilling & development, maintenance & repairs

ALTERNATIVES

COLORADO: Involved in 2022 Rulemaking; Tiers tied to production, # wells, with option to contribute annual fee to state sinking fund (Orphan Wells Mitigation Enterprise)

- OWME allowed small operators to stay in business briefly, cut off ability to grow

WYOMING: state run bonding pool

OKLAHOMA: OneNexus Oklahoma Captive Corporation pools Asset Retirement Agreement

NM LFC Report Recommendation: Third Part Trust or Escrow Account

Beware Following in Colorado's Footsteps

2022 Rulemaking in Colorado increased FA levels for small and mid -size operators

- Statewide Bonding levels fallen by \$4 million
- Orphan Wells & Well sites have quadrupled (4X) since implementation

Response to WELC Testimony

- Mr. Alexander and Mr. Morgan assert that increasing FA levels will “**insure**” and “**insulate**” the State from risk.
- BUT raising FA levels without accounting for market increases risk of exit, abandonment, consolidation and reduced competition, and # orphan wells
- Surety Bond market is not a limitless insurance policy
- Increased FA requirement does not make more \$\$ immediately available to State
- Even after satisfying lengthy Surety Investigation, collecting \$\$ another hurdle
 - Cano Petro bonding of \$700,000, but just \$161,300 collected by State

Response to WELC Testimony

- Surety market undergoing significant contraction not likely to respond to supply-demand metrics
- Ability to “shop around” and obtain bond at 1% premium not reflective of current reality
- Proposed Rules structured to penalize responsible operators without targeting “high risk” or noncompliant individuals
- If Operators who benefit from productive life of well should share in costs of clean up, Proposed Rules fail to accomplish
- Circular 570 further narrows limited surety options

Samuel M. Bradley



OWNER – IMPETRO NONOP, LLC AND
SUMMIT ENERGY GROUP
SMALL OPERATOR SOCIETY, LLC.

BACKGROUND

- Petroleum Engineer, Colorado School of Mines
- Owner/Operator of Impetro NonOp LLC & Summit Energy Group
- Boardmember, Small Operator Society, LLC (SOS) & Colorado Alliance of Mineral and Royalty Owners
- Board of Directors, National Stripper Well Association
- Operates wells in Colorado, Kansas, and Nebraska

2022 Colorado FA Rulemaking

1) SOS made up of 60 small & mid-size operators of 10-250 wells

2) Colorado FA Rule targeted small operators:

- Impetro's \$150k blanket bond to \$18M
- SOS member saw FA increase to \$30M
- Larger operator received a \$10M refund

3) Result of 2022 Rule changes:

- FA decreased by \$4M immediately, with add'l \$70M to be refunded
- Orphan wells increased by 4X, now 1200 orphan wells
- Orphaned sites increased by 4X, approaching 2,000.

Concerns with Proposed Rule

- 1) Double Penalty: Operators must use capital to secure the bond, then front all plugging and reclamation costs while continuing to pay FA premiums
- 2) One-size fits None: Proposed Rule single-well bonds ignore depth, production history, well lifespan, well materials, and well maintenance history
Kansas: Uses several different funds and options, allows operators to pay an annual percentage of the total bond into the states plugging assurance fund.
- 3) Increased FA levels does not equal to more wells plugged by operators

Alternative Solutions

1) Kansas: Uses several different funds and options, allows operators to pay an annual percentage of the total bond into the state-managed plugging assurance fund.

- - plugged over 2,500 wells in 2024

2) Oklahoma: State contracts w/ 3rd party surety/insurer to provide a pool for operators to pay into as the well produces

Vern Andrews



PRESIDENT – EPIC ENERGY, LLC;
MANAGING PARTNER – WALSH
ENGINEERING & PRODUCTION, INC.

BACKGROUND

- Civil Engineer, specialization in Environmental Engineering, NMSU
- Epic Energy formed out of two engineering groups in 2018, with assets in San Juan Basin operated since in 1998 in New Mexico and Colorado
- Operates over 460 wells in Northwest NM; 110 employees
- PDP Reserve Value of \$29.5M; PUD Reserve of \$30M

EPIC Energy Concerns with Proposed Rule

- 1) Proposed Rule would increase EPIC's FA to \$70 million
- 2) \$150k bond far exceeds operator cost of plugging wells in the San Juan Basin; last 2 Epic wells cost \$50k each to plug, abandon, and reclaim.
- 3) 1st Outcome: Waste; P&A marginal well more economic than bonding, so wells plugged sooner, leaving recoverable hydrocarbons in the ground.
- 4) 2nd Outcome: Economic Losses; EPIC contributes \$700,000 per month San Juan, Rio Arriba, and Sandoval counties & provides 110 high paying jobs
 - \$70M in bonding forces Epic out of operating existing wells or drilling new wells

John Nabors



EXECUTIVE VICE PRESIDENT
SPUR ENERGY PARTNERS, LLC

SPUR ENERGY PARTNERS LLC - BACKGROUND

- Operator of 2,700 wells in New Mexico
- Operates both older vertical wells acquired from others and horizontal wells drilled by Spur
- Focus is drilling and completion of horizontal wells in areas with productive horizons in undeveloped formations, which requires continued operation of older, vertical wells for future horizontal development

Concerns with Garcia Testimony

1) Mr. Garcia's testimony highlights potential for inconsistent interpretation and application of the Proposed Rule's Marginal Well definition

Proposed Rule, NMAC 19.15.2.7(M)(2): Marginal Well is a well that produces less than 180 days and less than 1,000 BOE over 12 consecutive months

Spur operates the Electra Federal 22 Well (API 30-015-36317)

In 2024, Electra 22 produced over 300 days

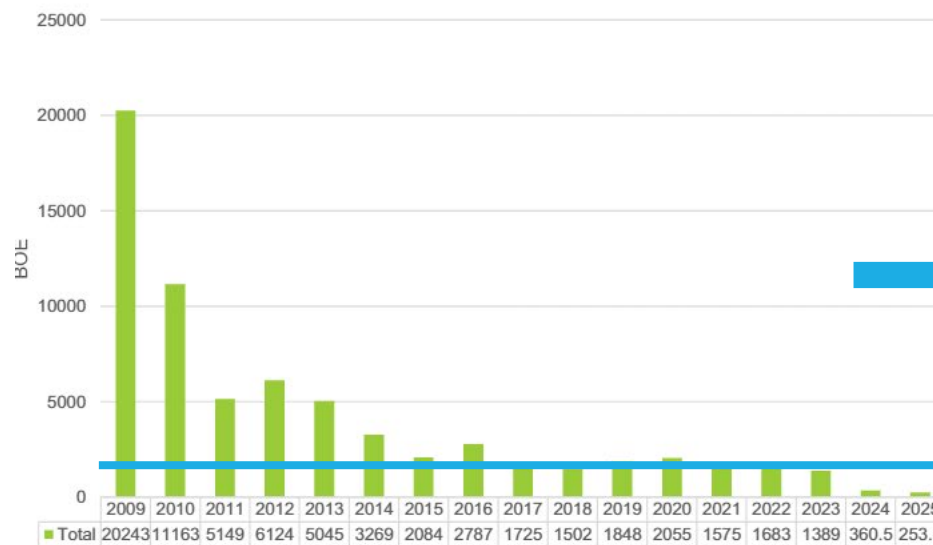
In 2024, Electra 22 produced 361 BOE

2) Mr. Garcia deems the Electra 22 a "Marginal Well under the Petition"

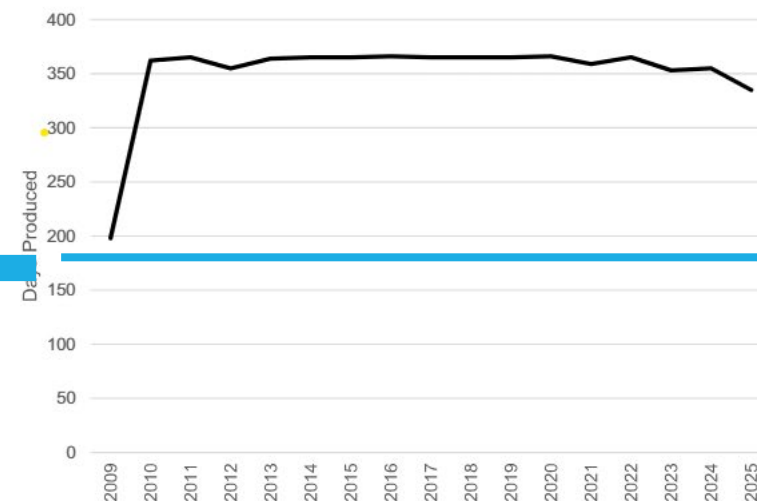
OCD Exhibit 3 – Page 5

Electra Federal #022 (API: 30-015-36317)

Total BOE vs Fiscal year



Days Operator Reported They Produced vs Fiscal Year



Concerns with Garcia Testimony

3) Arbitrary Production Thresholds are ill-fitting; the Proposed Rule's One-Size Fits All approach is misguided:

- In late 2023, Electra 22 tubing failure + increased gathering line pressure
- Electra 22 currently produced through casing annulus, resulting in lower volumes
- Gathering company anticipates increased capacity, reduced pressures Q4-2025

4) 12-month determination of marginal status does not reflect the realities faced by operators- Wells should be evaluated over a longer period of time.

5) Additional bonding may tip balance between operator decision to repair vs plug

Concerns with Purvis Testimony

- 1) Mr. Purvis belief that every marginal well at material risk of being orphaned is at odds with my experience & ignores responsible operators.

- 2) Spur's business model plans for P&A of wells at end-of-life;
 - 2025 budget for 100 wells
 - as of date of testimony, Spur plugged 57 wells it operated
 - PLUS another 4 wells at request of State

Testimonial Summary



JAMES WINCHESTER

Our members plug wells.

INDUSTRY PLUGS 95% OF WELLS PLUGGED. NUMEROUS MEMBERS TESTIFIED ABOUT PLUGGING PROGRAMS.

The Death Penalty Proposal

RULE 19.15.5.9(A)(4) PROPOSAL (APPS. EX. 72-B, P. 964)

Adds to List of Things Mandated of Operator for Good Standing.

To be in good standing, the operator needs to meet the waste prevention requirements of 19.14.25.8 (plugging) and 19.15.27.8.A (venting & flaring prohibited) NMAC

One violation means operator cannot operate any of its wells.

- Danger to environment
- Waste?

Civil Penalties Rulemaking—added to the OCD’s “toolbox” of “enforcement tools”

- Why limit to the tools to the death penalty
- Leave out and let OCD decide how to proceed and preserve Operator’s right to challenge

Despite being “prohibited” in 8.A, flaring and venting are permitted in certain circumstances in 8.B

- Lose operator status even if in 8.B exception?

In a rulemaking supposedly designed to prevent orphan wells, why propose a “death penalty” rule that will orphan all an operator’s well for a single violation?

OCD DISCRETION TO PURSUE IS APPROPRIATE.
AUTOMATIC REVOCATION OF STATUS BAD POLICY

Evidence Shows Bonding Ineffective

INFORMATION OCD REPORTS, OCD EX. 17 (MASTER ORPHAN SPREADSHEET) & EX. 29 (FINANCIAL ASSURANCE REPORT)

Bond Collections Rarely Occur

From 7 Most Recent OCD Annual Reclamation Fund Reports

WELLS PLUGGED	COST	BONDS RECOVERED
39	\$976,278.20	\$88,472
25	\$790,090	\$0
49	\$2,359,698	\$0
27	\$1,788,940	\$161,250
13	\$2,235,242	\$0
46	\$6,798,045.50	\$0
37	\$4,003,625.06	\$0
193		\$249,722
\$1,294 in recovered bonds per Well		
1.67% of total P&A costs		

OPERATOR	# of Wells on Ex.17	% of Total
Cano Petro of New Mexico Inc.	329 wells	18.13%
Ridgeway Arizona Oil Corp	299 wells	16.47%
Canyon E&P Company	235 wells	12.95%
LLJ Ventures LLC DBA Marker Oil & Gas	149 wells	8.21%
Northern Pacific Oil and Gas Inc	83 wells	4.57%
Xeric Oil and Gas Corp	69 wells	3.8%
Marks and Garner Production Ltd Co	64 wells	3.53%
Remnant Oil Operating LLC	52 wells	2.87%
Energy Acumen LLC	50 wells	2.75%
Blue Sky NM Inc.	41 wells	2.26%
TOTAL	1,371 wells	74.54%

The Population of Ex. 17 is
Concentrated in a Few Operators

Cano Petroleum

Isolated all Cano Petroleum which are
“Plugged, Site Released” Ex. 17

Isolated all Cano Petroleum bonds on OCD
Ex. 29

Cano Plugged Orphans #1 (29 wells)

Cato SA Unit #033 through Cato SA Unit #052 from OCD Ex. 17

10-005-20006	CATO SAN ANDRES UNIT #033	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20098	CATO SAN ANDRES UNIT #039	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20054	CATO SAN ANDRES UNIT #067	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20067	CATO SAN ANDRES UNIT #016	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20224	CATO SAN ANDRES UNIT #178	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20100	CATO SAN ANDRES UNIT #164	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20101	CATO SAN ANDRES UNIT #163	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20133	CATO SAN ANDRES UNIT #170	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20529	CATO SAN ANDRES UNIT #200	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20556	CATO SAN ANDRES UNIT #204	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-041-20585	CONE FEDERAL #031Y	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20482	CATO SAN ANDRES UNIT #193	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20243	CATO SAN ANDRES UNIT #184	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20127	CATO SAN ANDRES UNIT #012	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20117	CATO SAN ANDRES UNIT #137	Plugged, site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20180	CATO SAN ANDRES UNIT #162	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-041-20496	CONE FEDERAL #015	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20179	CATO SAN ANDRES UNIT #177	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20599	CATO SAN ANDRES UNIT #198	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20144	CATO SAN ANDRES UNIT #083	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20186	CATO SAN ANDRES UNIT #185	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20273	CATO SAN ANDRES UNIT #188	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-27969	CATO SAN ANDRES UNIT #404	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-27970	CATO SAN ANDRES UNIT #407	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20073	CATO SAN ANDRES UNIT #037	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20087	CATO SAN ANDRES UNIT #140	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20217	CATO SAN ANDRES UNIT #186	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20596	CATO SAN ANDRES UNIT #187	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20947	SIETE FEDERAL #004	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
10-005-20009	CATO SAN ANDRES UNIT #052	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,

Cano Plugged #2 (25 new wells)

Cato SA Unit #052 through Cato SA Unit #160 from OCD Ex. 17 (Cato SA Unit #52 not counted on this slide)

30-005-20009	CATO SAN ANDRES UNIT #052	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20191	CATO SAN ANDRES UNIT #145	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20193	CATO SAN ANDRES UNIT #147	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20172	CATO SAN ANDRES UNIT #154	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20187	CATO SAN ANDRES UNIT #156	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20008	CATO SAN ANDRES UNIT #107	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20015	CATO SAN ANDRES UNIT #110	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20192	CATO SAN ANDRES UNIT #146	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20167	CATO SAN ANDRES UNIT #153	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20182	CATO SAN ANDRES UNIT #155	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20094	CATO SAN ANDRES UNIT #117	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20095	CATO SAN ANDRES UNIT #043	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20056	CATO SAN ANDRES UNIT #106	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20038	CATO SAN ANDRES UNIT #062	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20146	CATO SAN ANDRES UNIT #125	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20137	CATO SAN ANDRES UNIT #120	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20096	CATO SAN ANDRES UNIT #134	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20116	CATO SAN ANDRES UNIT #129	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20292	CATO SAN ANDRES UNIT #114	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20045	CATO SAN ANDRES UNIT #128	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20058	CATO SAN ANDRES UNIT #130	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20031	CATO SAN ANDRES UNIT #116	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20115	CATO SAN ANDRES UNIT #111	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20016	CATO SAN ANDRES UNIT #112	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20129	CATO SAN ANDRES UNIT #132	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20151	CATO SAN ANDRES UNIT #160	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,

Cato Plugged #3 (19 new wells)

Cato SA Unit #160 to Cato SA Unit #202 from OCD Ex. 17 (Cato SA Unit #160 not counted here)

30-005-20151	CATO SAN ANDRES UNIT #160	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20297	CATO SAN ANDRES UNIT #131	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20211	CATO SAN ANDRES UNIT #113	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-10525	CATO SAN ANDRES UNIT #082	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20152	CATO SAN ANDRES UNIT #159	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-10473	CATO SAN ANDRES UNIT #029	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20153	CATO SAN ANDRES UNIT #158	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-10483	CATO SAN ANDRES UNIT #030	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20610	AMOCO FEDERAL #002	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20588	AMOCO FEDERAL #001	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20002	CATO SAN ANDRES UNIT #096	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20492	PAYE FEDERAL #004	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20494	PAYE FEDERAL #006	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20500	PAYE FEDERAL #008	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20493	PAYE FEDERAL #005	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20501	PAYE FEDERAL #009	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20502	PAYE FEDERAL #010	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20605	INGRAM FEDERAL #006	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20639	INGRAM FEDERAL #007	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,
30-005-20524	CATO SAN ANDRES UNIT #202	Plugged, Site Released	Yes	[248802] CANO PETRO OF NEW MEXICO,

Cano Bonds #1 from OCD Ex. 29

(1 BB & 24 SWBs Ins. 8133-8158)

8124	WESTERN REFINING COMPANY, L.P.	3963 FIDELITY & DEPOSIT CO OF MARYLAND	8973637	SWB	32440	0
8133	CANO PETRO OF NEW MEXICO, INC.	3877 U.S. SPECIALTY INSURANCE COMPANY	B003422	BB	50000	0
8134	CANO PETRO OF NEW MEXICO, INC.	3944 U.S. SPECIALTY INSURANCE COMPANY	B003482	SWB	9390	0
8135	CANO PETRO OF NEW MEXICO, INC.	5512 U.S. SPECIALTY INSURANCE COMPANY	B004246	SWB	8500	0
8136	CANO PETRO OF NEW MEXICO, INC.	3938 U.S. SPECIALTY INSURANCE COMPANY	B003480	SWB	8450	0
8137	CANO PETRO OF NEW MEXICO, INC.	8987 U.S. SPECIALTY INSURANCE COMPANY	B010527	SWB	8960	0
8138	CANO PETRO OF NEW MEXICO, INC.	8008 U.S. SPECIALTY INSURANCE COMPANY	B007817	SWB	8410	0
8139	CANO PETRO OF NEW MEXICO, INC.	3891 U.S. SPECIALTY INSURANCE COMPANY	B003487	SWB	8600	0
8140	CANO PETRO OF NEW MEXICO, INC.	3897 U.S. SPECIALTY INSURANCE COMPANY	B003491	SWB	8492	0
8141	CANO PETRO OF NEW MEXICO, INC.	6324 U.S. SPECIALTY INSURANCE COMPANY	B004899	SWB	8480	0
8142	CANO PETRO OF NEW MEXICO, INC.	3928 U.S. SPECIALTY INSURANCE COMPANY	B003511	SWB	8642	0
8143	CANO PETRO OF NEW MEXICO, INC.	3931 U.S. SPECIALTY INSURANCE COMPANY	B003473	SWB	8360	0
8144	CANO PETRO OF NEW MEXICO, INC.	3886 U.S. SPECIALTY INSURANCE COMPANY	B003484	SWB	8515	0
8145	CANO PETRO OF NEW MEXICO, INC.	3937 U.S. SPECIALTY INSURANCE COMPANY	B003514	SWB	8850	0
8146	CANO PETRO OF NEW MEXICO, INC.	5508 U.S. SPECIALTY INSURANCE COMPANY	B004242	SWB	8600	0
8147	CANO PETRO OF NEW MEXICO, INC.	8909 U.S. SPECIALTY INSURANCE COMPANY	B010044	SWB	8863	0
8148	CANO PETRO OF NEW MEXICO, INC.	3906 U.S. SPECIALTY INSURANCE COMPANY	B003496	SWB	8450	0
8149	CANO PETRO OF NEW MEXICO, INC.	3894 U.S. SPECIALTY INSURANCE COMPANY	B003488	SWB	8600	0
8150	CANO PETRO OF NEW MEXICO, INC.	3932 U.S. SPECIALTY INSURANCE COMPANY	B003474	SWB	8860	0
8151	CANO PETRO OF NEW MEXICO, INC.	4067 U.S. SPECIALTY INSURANCE COMPANY	B003775	SWB	8505	0
8152	CANO PETRO OF NEW MEXICO, INC.	3908 U.S. SPECIALTY INSURANCE COMPANY	B003498	SWB	8450	0
8153	CANO PETRO OF NEW MEXICO, INC.	3910 U.S. SPECIALTY INSURANCE COMPANY	B003500	SWB	8540	0
8154	CANO PETRO OF NEW MEXICO, INC.	6323 U.S. SPECIALTY INSURANCE COMPANY	B004897	SWB	8350	0
8155	CANO PETRO OF NEW MEXICO, INC.	3911 U.S. SPECIALTY INSURANCE COMPANY	B003501	SWB	8497	0
8156	CANO PETRO OF NEW MEXICO, INC.	1114 U.S. SPECIALTY INSURANCE COMPANY	B010041	SWB	8450	0
8157	CANO PETRO OF NEW MEXICO, INC.	3917 U.S. SPECIALTY INSURANCE COMPANY	B003466	SWB	8700	0
8158	CANO PETRO OF NEW MEXICO, INC.	8988 U.S. SPECIALTY INSURANCE COMPANY	B010523	SWB	8650	0

Cano Bonds #2 from OCD Ex. 29

(27 SWBs Ins. 8159-8185)

8159	CANO PETRO OF NEW MEXICO, INC.	3923 U.S. SPECIALTY INSURANCE COMPANY	B003468	SWB	8507	0
8160	CANO PETRO OF NEW MEXICO, INC.	3925 U.S. SPECIALTY INSURANCE COMPANY	B003470	SWB	8480	0
8161	CANO PETRO OF NEW MEXICO, INC.	5510 U.S. SPECIALTY INSURANCE COMPANY	B004244	SWB	8560	0
8162	CANO PETRO OF NEW MEXICO, INC.	8911 U.S. SPECIALTY INSURANCE COMPANY	B010039	SWB	8480	0
8163	CANO PETRO OF NEW MEXICO, INC.	3924 U.S. SPECIALTY INSURANCE COMPANY	B003469	SWB	8413	0
8164	CANO PETRO OF NEW MEXICO, INC.	3946 U.S. SPECIALTY INSURANCE COMPANY	B003476	SWB	8415	0
8165	CANO PETRO OF NEW MEXICO, INC.	3885 U.S. SPECIALTY INSURANCE COMPANY	B003483	SWB	8562	0
8166	CANO PETRO OF NEW MEXICO, INC.	8913 U.S. SPECIALTY INSURANCE COMPANY	B010042	SWB	8488	0
8167	CANO PETRO OF NEW MEXICO, INC.	8908 U.S. SPECIALTY INSURANCE COMPANY	B010038	SWB	8403	0
8168	CANO PETRO OF NEW MEXICO, INC.	9087 U.S. SPECIALTY INSURANCE COMPANY	B010524	SWB	8598	0
8169	CANO PETRO OF NEW MEXICO, INC.	3935 U.S. SPECIALTY INSURANCE COMPANY	B003478	SWB	8778	0
8170	CANO PETRO OF NEW MEXICO, INC.	3926 U.S. SPECIALTY INSURANCE COMPANY	B003471	SWB	8329	0
8171	CANO PETRO OF NEW MEXICO, INC.	3918 U.S. SPECIALTY INSURANCE COMPANY	B003467	SWB	8650	0
8172	CANO PETRO OF NEW MEXICO, INC.	8912 U.S. SPECIALTY INSURANCE COMPANY	B010040	SWB	8714	0
8173	CANO PETRO OF NEW MEXICO, INC.	3943 U.S. SPECIALTY INSURANCE COMPANY	B003518	SWB	9405	0
8174	CANO PETRO OF NEW MEXICO, INC.	3883 U.S. SPECIALTY INSURANCE COMPANY	B003454	SWB	8682	0
8175	CANO PETRO OF NEW MEXICO, INC.	8009 U.S. SPECIALTY INSURANCE COMPANY	B007818	SWB	8484	0
8176	CANO PETRO OF NEW MEXICO, INC.	3915 U.S. SPECIALTY INSURANCE COMPANY	B003505	SWB	8500	0
8177	CANO PETRO OF NEW MEXICO, INC.	3904 U.S. SPECIALTY INSURANCE COMPANY	B003494	SWB	8598	0
8178	CANO PETRO OF NEW MEXICO, INC.	3896 U.S. SPECIALTY INSURANCE COMPANY	B003490	SWB	8600	0
8179	CANO PETRO OF NEW MEXICO, INC.	9088 U.S. SPECIALTY INSURANCE COMPANY	B010522	SWB	8498	0
8180	CANO PETRO OF NEW MEXICO, INC.	3920 U.S. SPECIALTY INSURANCE COMPANY	B003507	SWB	8650	0
8181	CANO PETRO OF NEW MEXICO, INC.	3927 U.S. SPECIALTY INSURANCE COMPANY	B003510	SWB	8665	0
8182	CANO PETRO OF NEW MEXICO, INC.	3941 U.S. SPECIALTY INSURANCE COMPANY	B003516	SWB	8907	0
8183	CANO PETRO OF NEW MEXICO, INC.	3905 U.S. SPECIALTY INSURANCE COMPANY	B003495	SWB	8500	0
8184	CANO PETRO OF NEW MEXICO, INC.	3909 U.S. SPECIALTY INSURANCE COMPANY	B003499	SWB	8510	0
8185	CANO PETRO OF NEW MEXICO, INC.	3942 U.S. SPECIALTY INSURANCE COMPANY	B003517	SWB	8445	0

Cano Bonds #3 from OCD Ex. 29

(25 SWBs Ins. 8186-8211)

8186	CANO PETRO OF NEW MEXICO, INC.	6124 U.S. SPECIALTY INSURANCE COMPANY	B004586	SWB	8644	0
8187	CANO PETRO OF NEW MEXICO, INC.	3895 U.S. SPECIALTY INSURANCE COMPANY	B003489	SWB	8600	0
8188	CANO PETRO OF NEW MEXICO, INC.	3907 U.S. SPECIALTY INSURANCE COMPANY	B003497	SWB	8450	0
8189	CANO PETRO OF NEW MEXICO, INC.	3914 U.S. SPECIALTY INSURANCE COMPANY	B003504	SWB	8520	0
8190	CANO PETRO OF NEW MEXICO, INC.	8007 U.S. SPECIALTY INSURANCE COMPANY	B007816	SWB	8453	0
8191	CANO PETRO OF NEW MEXICO, INC.	1112 U.S. SPECIALTY INSURANCE COMPANY	B010045	SWB	9500	0
8192	CANO PETRO OF NEW MEXICO, INC.	9086 U.S. SPECIALTY INSURANCE COMPANY	B010525	SWB	8956	0
8193	CANO PETRO OF NEW MEXICO, INC.	3940 U.S. SPECIALTY INSURANCE COMPANY	B003515	SWB	8873	0
8194	CANO PETRO OF NEW MEXICO, INC.	3913 U.S. SPECIALTY INSURANCE COMPANY	B003503	SWB	8540	0
8195	CANO PETRO OF NEW MEXICO, INC.	3939 U.S. SPECIALTY INSURANCE COMPANY	B003481	SWB	8450	0
8196	CANO PETRO OF NEW MEXICO, INC.	3930 U.S. SPECIALTY INSURANCE COMPANY	B003472	SWB	8364	0
8197	CANO PETRO OF NEW MEXICO, INC.	3934 U.S. SPECIALTY INSURANCE COMPANY	B003513	SWB	8810	0
8198	CANO PETRO OF NEW MEXICO, INC.	5511 U.S. SPECIALTY INSURANCE COMPANY	B004245	SWB	8550	0
8199	CANO PETRO OF NEW MEXICO, INC.	8986 U.S. SPECIALTY INSURANCE COMPANY	B010528	SWB	9000	0
8200	CANO PETRO OF NEW MEXICO, INC.	5509 U.S. SPECIALTY INSURANCE COMPANY	B004243	SWB	8506	0
8201	CANO PETRO OF NEW MEXICO, INC.	8006 U.S. SPECIALTY INSURANCE COMPANY	B007815	SWB	8420	0
8202	CANO PETRO OF NEW MEXICO, INC.	9085 U.S. SPECIALTY INSURANCE COMPANY	B010526	SWB	8960	0
8203	CANO PETRO OF NEW MEXICO, INC.	1113 U.S. SPECIALTY INSURANCE COMPANY	B010037	SWB	8540	0
8204	CANO PETRO OF NEW MEXICO, INC.	3936 U.S. SPECIALTY INSURANCE COMPANY	B003479	SWB	8860	0
8205	CANO PETRO OF NEW MEXICO, INC.	3889 U.S. SPECIALTY INSURANCE COMPANY	B003457	SWB	8600	0
8206	CANO PETRO OF NEW MEXICO, INC.	3912 U.S. SPECIALTY INSURANCE COMPANY	B003502	SWB	8500	0
8207	CANO PETRO OF NEW MEXICO, INC.	1201 U.S. SPECIALTY INSURANCE COMPANY	B010521	SWB	8492	0
8208	CANO PETRO OF NEW MEXICO, INC.	3929 U.S. SPECIALTY INSURANCE COMPANY	B003512	SWB	8374	0
8209	CANO PETRO OF NEW MEXICO, INC.	3933 U.S. SPECIALTY INSURANCE COMPANY	B003477	SWB	8370	0
8210	CANO PETRO OF NEW MEXICO, INC.	3898 U.S. SPECIALTY INSURANCE COMPANY	B003461	SWB	8680	0
8211	CANO PETRO OF NEW MEXICO, INC.	8910 U.S. SPECIALTY INSURANCE COMPANY	B010043	SWB	8700	0

Cano Bonds #4 from OCD Ex. 29

(2 SWBs Ins. 8212-8213) TOTAL = 1 Blanket Bond & 78 Single Well Bonds

8212	CANO PETRO OF NEW MEXICO, INC.	3947 U.S. SPECIALTY INSURANCE COMPANY	B003475	SWB	8475	0
8213	CANO PETRO OF NEW MEXICO, INC.	3922 U.S. SPECIALTY INSURANCE COMPANY	B003509	SWB	8445	0
8233	CAZA OPERATING, LLC	3881 RLI INSURANCE COMPANY	RLB0010287	BB	125000	0

Cato San Andres Unit #052

API #30-05-20009

OCD EX.17

Appears on line 189 of Master Orphan Well List

Cell C189 "Plugged, Site Released"

Cells E189 & G189 (Past & Current Owner) are Cano Petroleum of New Mexico, Inc.

OCD EX. 29

\$50,000 blanket bond appears on line 8133

- Column H (SumOfRedemption) shows \$0 on line 8133 (cell H8133)

SWB of \$8,714 single well bond appears on line 8172

- Column H (Cell H8172) shows \$0

“The juice is not worth the squeeze.”

Secretary Shelton’s answer to a question as to why Division not pursuing bonds at June LFC Meeting

Cano is one example.

Don’t doubt Secretary Shelton.

In fact, aligns with IPANM’s belief that increased FA, especially at these levels, does not afford State meaningful protection but is a huge burden on industry.

Comparisons of OCD Exhibits 17 & 23

EXHIBIT 23 IS A
PDF OF THE
INACTIVE WELL
LIST COMBINED
WITH THE TA
WELLS—A PROXY
FOR POTENTIAL
ORPHAN WELLS?

Caveat: Unlike Ex. 17, Ex. 23 is not in native format so there may be some errors.

For some of my testimony, we converted Ex. 23 to text to get information. That process is not foolproof in my experience.

For some of my testimony, we performed manual counts from sequential portions of the Exhibit. I strived for accuracy but obtaining a count in native format may result in differences (which I think, if existing, should be small).

Top 10 Operators on OCD Exhibit 23

WITH SOME NOTES, POSITIVE OR NEGATIVE

OPERATOR	#Wells on Ex. 23	Extra Bond	Notes
Ridgeway Arizona	287	\$43,050,000	Subject to ACOI--OCD will P&A 304 wells and Ridgeway pays \$2/bbl. sold, \$30,000/month minimum. ¹ 299 Wells on OCD Ex. 17 ten.
Acacia Operating	231	\$34,650,000	One well on OCD Ex. 17
LLJ Ventures (Marker)	134	\$20,100,000	149 wells on OCD Ex. 17.
LH Operating	131	\$19,650,000	Acquired by EON Resources, Inc. 11/2023. Waterfloods planned. ²
Dominion Production	124	\$18,600,000	Three Agreed Compliance Orders with two regarding financial assurances violations. ³
Cano Petro	118	\$17,700,000	Filed bankruptcy in March 2012. Abandoned its NM wells. 329 wells on OCD Ex. 17. Order R-14795-A. ⁴
Hilcorp Energy	102	\$15,300,000	Active plugging and reworking programs. Not on OCD Ex.17
OLEUM Energy	92	\$13,800,000	At least 2 wells on OCD Ex. 17
Empire NM LLC	80	\$12,000,000	Not on OCD Ex. 17; \$1M blanket TA Bond in place 8/3/2022 on all 80 TA wells.
Maverick Permian	76	\$11,400,000	Not on OCD Ex.17; \$1M blanket TA Bond in place 4/15/2024 on all 76 TA wells. ACOI-201959. ⁵
Northern Pacific	65	\$9,750,000	83 wells on OCD Ex. 17
Total	1440	\$216,000,000	39.41% of Exhibit 23 Wells

¹ IPANM Ex. 46.² <https://www.morningstar.com/news/accesswire/1056003msn/eon-resources-inc-announces-funding-design-for-the-settlement-of-the-seller-agreement-and-debt-payoff-and-the-grayburg-jackson-field-development>³ ACOI-266 (IPANM Ex. 47); ACOI-285 (IPANM Ex. 48); and ACOI-2016-312 (IPANM Ex. 49).⁴ IPANM Ex. 53.⁵ IPANM Ex. 52.

Summary of Top 10

I do not know these 9 of these companies. The one I know, Hilcorp, has an active plugging program & no wells on Ex. 17.

LH Operating issued a press release indicating it was going use at least some of these wells for a secondary recovery (waterflood) project.

Two of operators, Empire NM & Maverick, have posted \$1,000,000 blanket TA bonds per OCD Ex. 29, and do not have a well on Ex. 17.

Cano &, perhaps, Ridgeway are not bonding any more.

The other 4 have known information that makes their capacity to bond questionable.

There are other operators on Exhibit 23 who are on Exhibit 17

AND/OR THERE IS INFORMATION PUBLICLY AVAILABLE THAT
MAY SUGGEST LACK OF ADDITIONAL BONDING ABILITY.

Operator	# of Ex. 23 wells	Extra Bond	Notes
Northern Pacific	65 wells	\$9,750,000	83 wells on OCD Ex. 17
Sellers & Fulton	36 wells	\$5,400,000	36 wells on OCD Ex. 17
Canyon E&P Co.	36 wells	\$5,400,000	235 wells on OCD Ex. 17
M&M Production	34 wells	\$5,100,000	Owner plead guilty to federal fraud charges. ⁷ 9 wells on OCD Ex. 17.
CFM Oil	25 wells	\$3,750,000	Two Stipulated Final Orders resolving no financial assurances: ACOI-344 3/26/18; and ACOI-201946 1/27/22. ⁸ 2 wells on OCD Ex. 17.
Energy Acumen	20 wells	\$3,000,000	50 wells on OCD Ex. 17.
G&G Operating	6 wells	\$900,000	Filed Ch. 7 Bankruptcy 8/6/25 in Bankr. D.N.M. Case No. 25-10975-j7
Marks & Garner Prod. Ltd. Co.	4 wells	\$600,000	64 wells on OCD Ex. 17
Blue Sky NM Inc.	1 well	\$150,000	41 wells on OCD. Ex. 17
Total	227 wells	\$34,050,000	6.21% of wells on Ex. 23

Summary of Comparisons of Ex. 17 & 23

Don't have a crystal ball and not here to throw stones at any company.

However, the 19 companies on the two tables would apparently need to post about \$250MM in marginal well bonds under the rulemaking proposal if Ex. 23 is, at it appears, wells that need to be bonded or plugged.

There is information available to all parties and the Commission that ought to call into question at least a very material portion of these 19 operators having little to no bonding capacity.

Member Survey about Wrinkle's Lease Operating Costs Testimony

AFTER REVIEWING MR. WRINKLE'S WELL COSTS
TESTIMONY, WE ASKED FOR MEMBER COMMENTS.

What our members told me

Expenditures at time for first production. Not recurring, unlikely incurred again except repair.

- tanks
- meters
- piping
- shut-off valves
- SCADA and remote monitoring equipment
- flare stacks
- infrastructure costs

Ongoing Lease Operating Expenses for Older Wells (some** are not monthly and/or not universal)**

- **Compression**
- **Road/access costs**
- Field Operator (Pumper)
- **Hot oil/treatments**
- **Energy costs**
 - Common for oil wells only
- Marketing
- **Water removal**
 - 1 of 3 categories common for oil

What members said about specific expenses that may be incurred on a recurring basis

Compression—becomes less prevalent the lower the producing capacity of well

Road/access—most just blade roads every 1-2 years, spread among multiple wells & (sometimes) operators. Nobody had ever heard of anything like Mr. Wrinkle's high figure.

Field Operator—every well. Use contractors and cost is 1/3 or less than that Mr. Wrinkle experienced at Marathon. They have their own 4 gas monitors.

Hot oil & chem treatments—no more than once per year, often less or none.

Marketing—taken out of price paid. Runs about 2%. Marketer getting better prices than operator. New meters are rare.

Water removal—common for oil wells only. A well would only use one way (pipe or truck)

Conclusions about Lease Operating Expenses

When capital expenditures are eliminated from Mr. Wrinkle's testimony, his cost figures are in the range of \$1,925/month

Our members report marginal well LOEs falling in a range of \$600 - \$1,300/month

Maybe a difference between Mr. Wrinkle's big company experience and our members who testify that they can operate wells more efficiently than big companies.

Even if you accept Mr. Wrinkle's figure, at a price of \$65.00/bbl. less a \$1.35 marketing fee, a 1.01 bbl./day is at a breakeven point $\$63.65 \times 1.01 \times 30 = \$1,928.60$

IPANM's Position on Financial Assurances

Ineffective & Expensive

Evidence from Division and its past results show bonding can be in place but not pursued.

Surety industry seems to make it tough to recover --“not worth the squeeze.”

Most of the problems with orphan wells are concentrated in a discrete subset of operators.

Wish I knew the “warning signs” to assist Division

IPANM is pursuing legislation to get the Conservation Tax to be used for its original purpose—enforce Oil & Gas Act including properly funding the Reclamation Fund.

If Commission Believes It Can & Should Adopt a FA Bond Rule, It Should Wait

COMMISSIONER/SLO JUST ANNOUNCED A RULEMAKING
TO SUBSTANTIALLY INCREASE STATE BONDS.

Allegations of Bad Faith

Not true

Don't want to engage on a rulemaking where the primary objects are outside Commission's authority

Don't want to engage on a rulemaking where the primary objects are so bad for our membership—probably existential for some

HB 133 Experience

Kyle Armstrong



PRESIDENT – ARMSTRONG
ENERGY CORP.

Armstrong Energy Corporation - Background

- Based in Roswell, founded in 1976
- Currently operates 75 wells in Southeast New Mexico
- Acquire older, low-volume vertical wells from larger operators in packages and rework to increase production and extend life.
- Since 2019, P&A'd 16 wells in New Mexico; last 4 wells averaged \$120k per well including reclamation

Armstrong Concerns with Proposed Rule

- 1) Reworked “marginal” wells still long-term producers which generate income & employment at local, state & federal levels;
- 2) Surety companies not likely to offer individual well bonds at levels proposed, anticipate costs and premiums much higher to do so;
- 3) Permanent bond de-incentivizes investment to improve production of older wells; capital deployed to cover bonds means cash no longer available for development
- 4) If Armstrong were to reach 15% threshold, cost of bonding would exceed economics of operation and force exit from New Mexico.
- 5) No flexibility in Marginal definition for take-away issues or Operator development

Mark Murphy



PRESIDENT

STRATA PRODUCTION COMPANY

STRATA PRODUCTION COMPANY - BACKGROUND

- Independent, family-owned oil and gas producer; 23 employees
- Formed and headquartered in Southeast New Mexico since 1991; started by acquiring & operating stripper wells
- Made 11 field discoveries; over 15,000 acres in Eddy County, NM
- Drilled first well permitted as long-reach lateral in 2001
- Currently operates 72 wells in Permian Basin

Experience in New Mexico

- Fourth-generation in oil & gas industry
- 40 years experience in operations, geological, management, acquisition, E&D
- Boardmember & Officer in IPANM, NMOGA, Industry Advisor to NM Tech Petroleum Recovery Research Center
- Responsible for plugging 38 wells in New Mexico
- Led Strata for past 34 years
- Previously testified before U.S. House Committee & Subcommittee on oil & gas issues

Strata Concerns with Proposed Rules

- Proposed Rules ignore that Industry plugs 95% of wells
- Single-well bonding at \$150k per well limits operators with little to no benefit to the State
- OCD ill-suited to plug wells: no manpower to pursue bonds, take longer to plug wells, costs more to plug wells, using NW crews to plug Permian Basin wells
- Legislature sets upper limits of FA and circumstances of single-well bonding
- Bonds do not plug wells, Operators do

Importance of Stripper Wells in NM

- After primary production, 60-70% h-carbons remain in place
- 2021: 27,000 stripper wells, 10% oil & 20% gas production
- 2023: \$890 million in revenue generated by stripper wells
- Stripper wells support over 3,000 local jobs across the state

Role of the Independent Operator in NM

- Industry continues to consolidate, 60% production in 2024 by 8 companies
- Smaller, Independents responsible for exploration of new plays, new technologies – Proposed Rules will have chilling effect
- Independent Operators maintain domestic energy infrastructure during down cycles

O&G Conservation Tax & Reclamation Fund

- Currently \$66M in Reclamation Fund, none of the funds are “taxpayer” all from industry
- 80-90% of Conservation Tax funneled to General Fund
- Since 2019, \$360M collected via Conservation Tax; averages between \$100-137M/yr
- Altogether effective tax rate of 8.15% gas and 9% on gas
- If bi-partisan legislative reforms adopted, State would see over \$1B in Reclamation Fund in a decade
 - At \$150,000 Proposed Rule estimate, could P&A 6,660 wells

Orphan Wells in New Mexico

- Distinguish between inactive wells and abandoned wells
- OCD reports about 1700 orphan wells; 2% of total wells statewide
- Of 1700, only 349 on state or fee wells
- At Proposed Rules \$150,000, need \$52 million to plug those 349 wells
 - Compare to the \$66M currently in the Reclamation Fund, or the \$100M+ collected annually by Conservation Tax

Jeff Harvard



PRESIDENT – HARVARD
PETROLEUM CO, LLC.

Harvard Petroleum - Background

- Petroleum Engineer, with field experience
- Founded in 1970 in Roswell, has been involved in drilling and operating wells in Southeast NM and West TX since 1980
- Largest effort involves purchase of 220 NM well package from publicly traded operator in 2021, mostly stripper wells and 100 shut in wells
- Spent \$15 million in successful workover efforts on 200 wells, which now produce 5 barrels/day on average.

Harvard Petroleum Concerns with Proposed Rule

- 1) No commercial market available to an oil and gas operator to support 20x increase of current bonding, except to the largest operators.
- 2) Proposed Rule is a Deal Killer: Harvard's 2021 purchase would incur \$27M in additional bonding; High bonding costs would have prevented Harvard from bidding, removing \$15M investment and 600 workover jobs
- 3) No provision for return of bond when production restored above marginal levels until P&A
- 4) Proposed Rule will put smaller operators out of business right away, interfering with correlative rights.

Summary of Testimony



T. CALDER EZZELL, JR.

Summary of Qualifications of Calder Ezzell

Washington & Lee (BA 1974, JD 1977)

Licensed NM Attorney concentrating on representing upstream industry for almost 50 years

- Title Opinions
- Contract Advice
- Other transactional & regulatory advice
- OCD Practice

Active oil and gas investor for over 40 years

Operated some wells in the 1980s

Actively handled all land & legal matters from one NM oil and gas operator for ~20 years

The Commission's Lack of Authority to Adopt This Proposal for Single Well Bonding

The Commission's Powers Generally

“The Oil Conservation Commission is a creature of statute, expressly defined, limited and empowered by the laws creating it.”

- *Continental Oil Co. v. Oil Conservation Comm'n*, 1962-NMSC-062, ¶ 11

Commission Authority to Adopt The Rulemaking Concerning \$150,000 bonds

For single well bonding Section 70-2-14 provides: “In establishing categories of financial assurance, the oil conservation division **shall** consider

- the depth of the well involved,
- the length of time since the well was produced,
- the cost of plugging similar wells,
- and such other factors as the oil conservation division deems relevant.”

What Applicants Considered in Setting Single Well Bond Amounts for “Marginal Wells”

Proposed Amendments to 19.15.2.7(M)(2) & 19.1.8.9(D) have two considerations:

- Volume of BOE produced in trailing 12 months
- # of Production Days in trailing 12 months

Applicants' testimony says the following considered:

- Average of cost to OCD of plugging orphan wells
- Vertex 2021 Study
- Fed Cost to Plug and Remediate
- IOGC Data on Plugging costs
 - Peltz Direct at 39-41 & Applicants Ex. 39

Applicants Failed to Consider the Mandatory Statutory Considerations for Single Well Bonds

1. Depth

- Common Permian formations vary from San Andres which is less than 1,000' in some places to Morrow which is below 13,000' in some places.

2. Length of time well produced

- Mechanical failures more common in older wells. Newer wells subject to stricter requirements for casing integrity.

3. Cost of plugging similar wells

- All Applicants' referenced studies are "all wells" plugged
- The OCD data most heavily relied upon is likely "biased towards the most expensive wells". Peltz Direct at 41, In. 16

Applicants may ignore
statutory mandates.
The Commission cannot.

Single Well Bonding Conflicts with the Commission's Duties to Prevent Waste & Protect Correlative Rights.

“THE BASIS OF [THE OCC’S] POWERS IS FOUNDED ON THE DUTY TO PREVENT WASTE AND TO PROTECT CORRELATIVE RIGHTS...ACTUALLY, THE PREVENTION OF WASTE IS THE PARAMOUNT POWER, INASMUCH AS THIS TERM IS AN INTEGRAL PART OF THE DEFINITION OF CORRELATIVE RIGHTS.”

CONTINENTAL OIL, 1962-NMSC-062, ¶ 11

Waste includes “underground waste” which occurs when “operating or producing, of any well or wells in a manner to reduce or tend to reduce the total quantity of crude petroleum oil or natural gas ultimately recovered from any pool...”

SECTION 70-2-3(A)

Single well bonding of \$150k will render wells uneconomic more quickly

Many small operators post cash bonds.

Even assuming that money can be raised by owners in the well, immediate heavy “thumb” on the economic scale.

As Applicants seem to acknowledge, wells will be plugged earlier in their life leaving otherwise recoverable oil and gas in the ground.

Surety market probably available to most big operators and perhaps some smaller.

Single well bonds for so-called marginal wells will be expensive.

Assuming operator can pass on cost, still skewing costs to make well uneconomic faster leading to waste.

Large scale single well bonding does NOT work with standard industry contracts.

STARTING POINT: OPERATOR OWNS AS LITTLE AS NONE OF THE WELL, AS MUCH AS ALL, AND OFTEN A %.

Joint Operating Agreements (JOAs)

If >1 WI Owners in a well, relationship governed by AAPL Form 610 Joint Operating Agreement.

The JOA attaches accounting procedures (COPAS) defining rights & obligations of the parties regarding billing for and paying certain expenses.

- Certain expenses, expressly described, can be billed ratably among the owners each month
- Operator is also entitled to ratably bill owners for a **fixed overhead or administrative charge** which covers all other expenses

JOA and COPAS forms can be amended by Parties, but unusual to see changes to expense & overhead provisions

Forms of JOAs & COPAS

AAPL drafts JOA form; 1956, 1977, 1981, 1989 & two 2016 versions (IPANM Exs. 14-19)

- Old forms continue to be used for new wells after new forms created.
- 1977 form most prevalent
- Most common JOA form for potentially “marginal” wells are 1977 and 1989 versions

COPAS drafts COPAS forms; 1962, 1974, 1984, 1995, 2005, and 2022 versions (IPANM Exs. 20-25)

- Older forms (esp. 1974) continued to be used after new forms issued.

JOAs & Bonding

Form JOAs typically allow Operator to bill in advance for certain large cost outlays including P&A work.

Bond is not P&A work. Under Oil & Gas Act, bond not released until Division approves, P&A and reclamation.

Opinion: Absent unique language or a new agreement, the standard JOA provides no basis for an Operator to bill Non-op working interest owners for single-well bond.

COPAS & Bonding

1974 COPAS most used in my experience

1962, 1974, and 1984 COPAS (near identical): only 1 or 2 provisions for types of direct charge that might be grounds for an argument that bonding costs billed to Non-Ops.

- But fixed overhead charge includes “matters before or involving governmental agencies” — therefore any increases in bonding are for the operator to bear because non-ops overhead charges fixed

1995 COPAS : “self-insurance” for direct charge might allow operator posting a cash bond to pass on bonding costs, but overhead still stronger argument against.

2005 and 2022 COPAS: new “other” expenses that directly benefit the joint property and are “necessary and proper” to operations may allow operator to pass bond on as direct charge.

Why talk about these contracts in this rulemaking?

Few Operators own 100% of the working, cost-bearing interest in a well.

Cost of single-well bonding “marginal” wells will manifest in JOA disputes and, unless 2005/2022 COPAS in place, Operator cannot pass bonding cost on to Non-ops.

The lower an Operator’s WI in a well, the more quickly single-well bonds will motivate operators to P&A and/or.

If P&A –waste created because owners are abandoning recoverable hydrocarbons to avoid bonding costs

If Resign, state risks acquiring new generation of inexperienced replacement operators. That may not be a policy the Commission wants to encourage even inadvertently.

PROPOSED DEFINITIONS OF BENEFICIAL USE, BENEFICIAL PURPOSE & MARGINAL WELL

CREATE WASTE

LACK NECESSARY FLEXIBILITY

Proposed Definition “Beneficial Use/Purpose” at 19.15.2(B)(7)

- Requires the well being “used” for “production, injection or monitoring” and “does not include use of the well for speculative purposes”
- The entire business of owning and operating oil and gas wells can be characterized as “speculative.”
- No definition of “speculative purposes” to give Operators or Division guidance or certainty

Effect of Definitions in Proposed Rules

Proposed NMAC 19.15.25.9 adds administrative determination of “No Beneficial use” based on production or injection volumes/days over consecutive 12 month period:

- oil or gas well: < 90 days, < 90 BOE
- injection well: < 90 days, < 100 bbls

Operator can rebut presumption with evidence of projection to produce in paying quantities, ability to meet financial obligations, and other “relevant evidence requested by the division”

Proposed Marginal Well Definition 19.15.2.7.M.2

THREE PARTS: Produced less than 180 days, and

Produced less than 1,000 BOE

In any trailing 12-month period

Incorporated at 19.15.8.9.D to require single-well \$150,000 FA and, if operator has more than 15% marginal wells, required to bond every well.

5 Industry Issues where Proposed Rules Inadequate

1. Formation of Secondary Recovery Units
2. Gas wells
3. Efficient use of workovers & recompletions
4. Held by production
5. Displacing common law

Formation of Secondary Recovery Units

(Tertiary Recovery Units Usually Formed from Secondary Units)

Waterfloods—significant source of NM's historic production

Forming & approval is extensive and time consuming (not all sequential)

Geologic work to determine feasibility and desirable acreage to include in unit

Engineering work to estimate costs, injection patterns, potential for productivity, future return, etc.

Land work to ID , negotiate with owners & operators to form unit

Locate & source produced water for injection

Obtain Government approvals.

Construction of unit infrastructure.

Project timing for injections to increase productivity.

Facts About Secondary Recovery Units

- IMMENSE up-front capital requirements
- Very expensive before inject first barrel of brine water
- Each injector is purely a cost center—cost of water + cost to operate;
- More injectors > Producers
- Most logical time to form SRU as primary production techniques (i.e., artificial lift) place wells close to the end of economic life
- But once plugged, a well is valueless in SRU
- NM's Statutory Unitization Act clear policy in support of SRUs

Effect of Proposed Rules on SRUs

- Many wells that will be used in SRU likely marginal prior to formation; some wells in SRU below beneficial use definition or inactive
- Adding per well FA requirements to those wells will materially increase up front costs to develop SRU
- Until unit is governmentally approved, unit operator does not exist so there are all sorts of operators involved, not just a capitalized proposed unit operator

Gas Well Issues under Proposed Rules

Oil and gas leases typically allow gas wells to be “shut in” or unproductive for extended periods of time (newer leases sometimes cap the time period, older leases do not)

Rationales:

- Virtually all gas wells are easy to turn on and off with no adverse effect to productivity
- Gas prices vary
- Rarely more than one pipeline option where production can flow from wellhead to transmission pipeline (e.g., only one gathering system)

Complication: once posted, FA bond cannot be released until OCD approved plugging and abandoning. §70-2-14(A), NMAC 19.5.8.12

Gas Prices & Productivity of Well

- Historically gas prices fluctuate seasonally—highest in winter, lowest in summer
- As US moved from coal production to gas, variability diminished but other issues led to a ~5 year period of low & even negative prices in NM Permian Basin
- Rational operators and owners shut in gas wells during periods of low production to save the resource for better days.
- Benefits everyone including State (~9% severance taxes on gas, plus royalty from State minerals)

Effect of Proposed Rules on Rational Gas Well Operation

For gas wells, days produced and volumes over months may not have any relationship to well's ability to produce.

Importance of production days and volumes over 12-month period give operators artificial incentive to produce more during low price environments to avoid FA costs.

If produce to avoid bonding:

- Everyone, including State, gets less revenue over life of well
- Operator is exposed to liability from royalty owners for placing operator's interests above those of royalty owners

Takeaway & Productivity of Gas Wells

All gas wells connected to gathering systems that aggregate production, transport, & treat gas for mainline transportation to distant markets

To produce, gas well's production pressure must be higher than gathering line pressure (can't "buck")

Mainlines and Gathering Systems have limited capacity; to limit volumes:

↓ compression, ↑ line pressures, ↓ productivity of connected well

- Typically happens during low demand periods

Maintenance on any part of the transportation system shuts in everyone.

- Usually longer for legacy systems

Recent Permian Constrained Takeaway

Permian Basin experienced lengthy period (most of ~5 years) ending in late 2023 of limited takeaway capacity

Horizontal oil wells produce casinghead gas with oil

- Oil was the target; gas was nowhere near as significant

Insufficient mainline gas pipeline capacity to take all the gas to distant markets

Gas prices were historically low and even negative (paid people to take your gas)

Gas well operators were severely squeezed and many shut in for extended periods

- Because of high pressures, some of the shut ins were not voluntary

New mainlines opened and prices recovered with better access to interstate markets

Proposed Rules & Takeaway Issues

- Productivity of gas wells over months (and recently years) variable for reasons that are not indicative of the well's productive capacity or ability
- Active Wells in normal circumstances are rendered "marginal" based on factors out of the operator's control and unrelated to the well capacity
- Potential for waste much higher where gas well operators face diminished revenues from low market prices and additional FA costs under Proposed Rules, leading to premature plugging.

Reworking & Recompletion Issues

Mature oil and gas wells on a single lease or group of nearby leases usually are operated by smaller operators & produce from the same formation

- Multiple owners & governed by JOAs

Reworking jobs on similar wells more efficiently done sequentially on multiple wells.

- Ability to get contractors on site based on volume of work

Recompletions to a shallower formation usually done sequentially at same time for same reasons.

- Some wells may be “played out” in current formation while others still produce.

Both reworkings & recompletions require some sort of majority of interest under JOA to approve (typical is simple majority)

Proposed Rulemaking: Reworking/Recompletions

- Similar concerns
- Lack of flexibility in definitions would mean economic waste—higher costs and/or waste of oil and gas in place
- Operators and interest owners will be forced into taking actions in noneconomic ways
- Reworkings and, more so, recompletions are all to some degree “speculative”

Held by Production Issues

Operators have limited capital

There is high demand for drilling rigs and related contractors in Permian

Typical for operators to prioritize drilling decisions by geologic potential and lease expiration deadlines

Most oil and gas leases last so long as production in paying quantities, so maintaining “marginal” well allows operator to plan for development and investment in new projects where rig and contractor availability limited

Proposed Rules place heavy thumb on scale of Prudent Operator decisionmaking

Common Law & Rulemaking

NM and many other states follow the Texas Supreme Court's *Clifton v. Koontz* test for whether well is producing in paying quantities

- Over a “reasonable period of time” of at least 12 months (“reasonable” can be longer, even much longer), well produces more income than operating costs
- Not being held for “purely speculative” purposes

Rulemaking largely displaces common law with fixed production volumes rather than P&L, potentially adding cost to the “L” side of the ledger

- It remains to be seen how courts will treat bonding costs under JOA/COPAS or as operating cost under PPQ analysis

Bad Faith Accusations

Why no alternate proposals?

- Don't think Commission has this power
- Single well bonding bad policy for many reasons
- HB 133 experience of "with industry input"

What Commission should do if it disagrees on power & authority

Remaining Issues

Concerns about 19.15.9.8 & 19.5.9.9

Applicants' Ex. 72 resolves some of my vagueness and arbitrariness concerns

Still provides for certification about “unresolved adjudicated orders and unresolved settlements for any state or federal violations”

Do we know what constitutes “adjudicated” in other states?

What does “unresolved” mean in this context?

- What if an agreement calls for performance for a period of time and operator is in good standing but still performing?

“Any” violations still raises the same concerns about relative seriousness of “violation”

Comments on Temporary Abandonment

Bonding before Acquiring

Proposed Amendment to Rule 19.15.8.9(A) says that operator “shall not proceed with any proposed...acquisition” until FA in place

Multiple problems

- May be attempting to regulate activity occurring wholly outside NM
- Auctions—multiple potential purchasers
- Why would rational acquirer get FA before acquisition especially since FA not refundable
- Rest of rule deals, appropriately, with operator who “has acquired”
- No new operators will seek to come to NM if has to bond just to negotiate acquisition

Robert Arscott, PhD

TESTIMONY ON BEHALF OF THE INDEPENDENT PETROLEUM
ASSOCIATION OF NEW MEXICO

IN THE MATTER OF PROPOSED AMENDMENTS TO 19.15.2,
19.15.5, 19.15.8, 19.15.9, AND 19.15.25 NMAC

I am an economic consultant

Experience

Economic Consultant, Applied Econ. (2023 -)

Asst. Professor of Finance, Syracuse U. (2018-2023)

Private Equity/Banking



Education

U. Rochester, PhD (Finance), MSBA (Applied Econ.)

U. Oxford, MBA

Concordia U., BBA (Finance)



Applied Economics and I regularly consult on matters related to oil and gas

Valuation, real options, netback pricing, royalty payments, cost of service models, and various other economic matters.

Our clients



What is the *right* amount of financial assurance?

The *Judgment-proof problem*

Want to avoid public paying industry's liabilities

Tension: economic growth vs public protection

Financial assurance just one of many deterrents to default...

Imposition of \$150,000/well is economically unjustified in many cases

OCD's plugging costs do not reflect typical well

- c. 10-15% higher than industry; exceptional cases

Significant variation in expected P&A costs

- Raimi et al. (2021) : \$8,000 to \$1.1 million
- Texas RRC (2024): \$5.96- \$46.48 per vertical foot
- NM LFC (2025): \$31,000 to \$778,000

Median cost > half of population

- Average cost not much better

Otherwise economically viable reserves are lost

There are other resources available to address orphaned wells

OCD Reclamation Fund

- 0.19% - 0.24% on hydrocarbons severed
- 19.7% of tax revenue is directed to the reclamation fund when oil prices are higher than \$70, and 10.5% otherwise
- NM LFC (2025): \$60 million as of fiscal year-end 2024.

Federal grants

- \$55.5 million to date
- eligible for a further \$111.8 million

The proposed rules will lower the incentives to produce oil and gas in New Mexico

Effects will vary by operator

One-size-fits-all financial assurance ignores differences in

- Default likelihood
- Cost in default

In some cases, FA cost will be extreme

- Cash bonds
- Proposed 15% Threshold

The 15% Threshold will introduce extreme cost increases and distort incentives

Example (1/2)

Operator A has 10 wells

- 8 highly productive
- 1 low production
- 1 inactive

1 of 10 wells (10%) marginal/inactive

- Threat of marginal status pushing > 15%

FA under proposed rules

- \$150,000 for 1 inactive
- \$250,000 blanket coverage for other 9 wells
- \$400,000
- If low producer becomes marginal
 - Breach of 15% threshold
 - \$150,000 x 10 = \$1.5 million
- Incentive to immediately plug under proposed rules

The 15% Threshold will introduce extreme cost increases and distort incentives

Example (2/2)

Operator B has 10 wells

- 5 highly productive
- 5 marginal production

5 of 10 wells (50%) marginal

FA under existing rules

- \$50,000 blanket

FA under proposed rules

- \$150,000 x 10 = \$1.5 million
- Same FA as Operator A despite very different profile
- Incentive to plug immediately

How should we expect operators to respond to the 15% Threshold?

Extreme increase in FA costs when >15% of wells are marginal/inactive

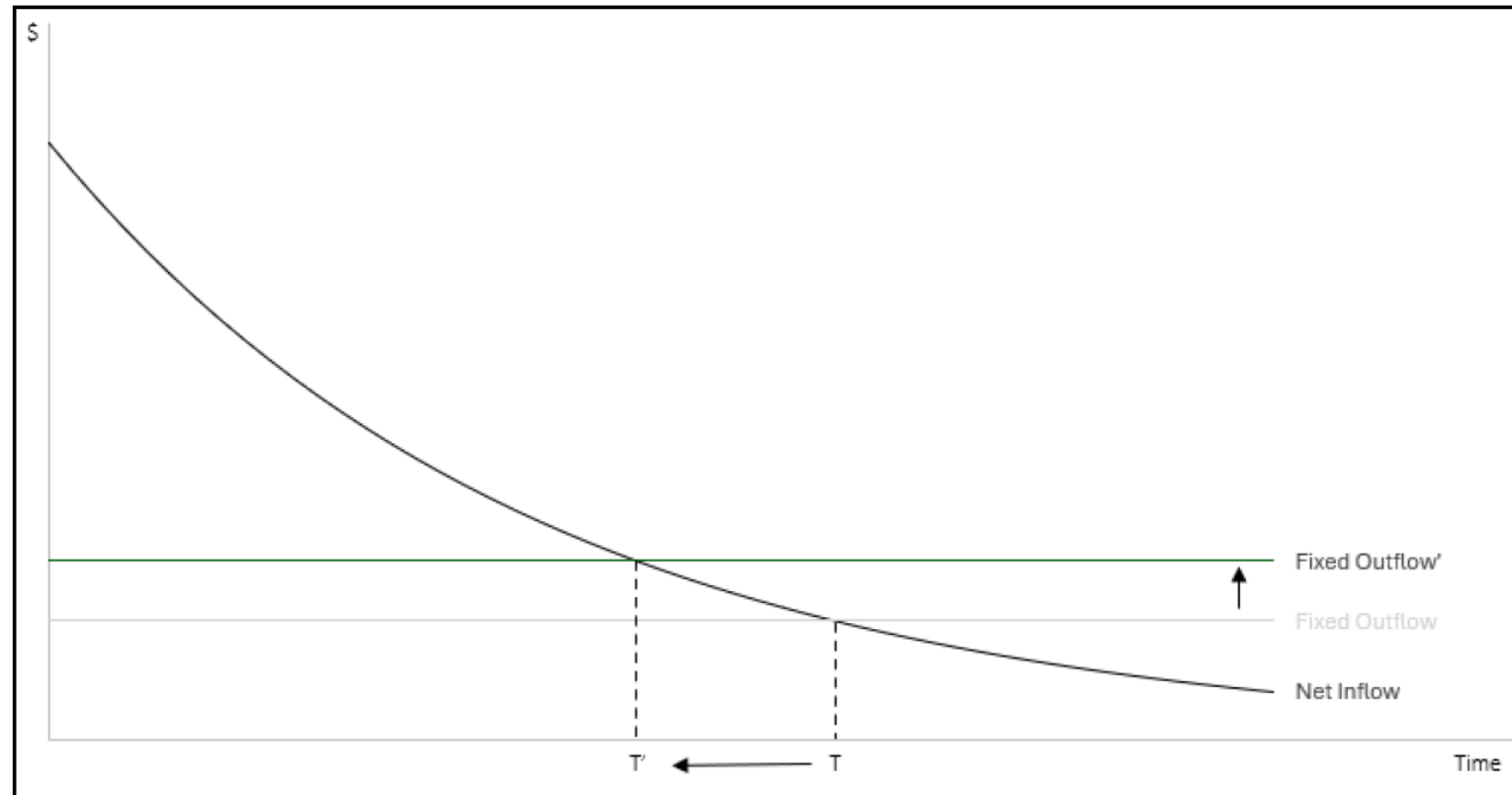
Sell marginal and inactive wells

- Who would buy?
- Wells become unmarketable

Premature plugging

Proposed Financial Assurance will reduce the economic lives of O&G wells

IPANM Exhibit 2



Marginal wells can and do produce meaningful production volumes

What if the proposed rules had been implemented in June 2017?*

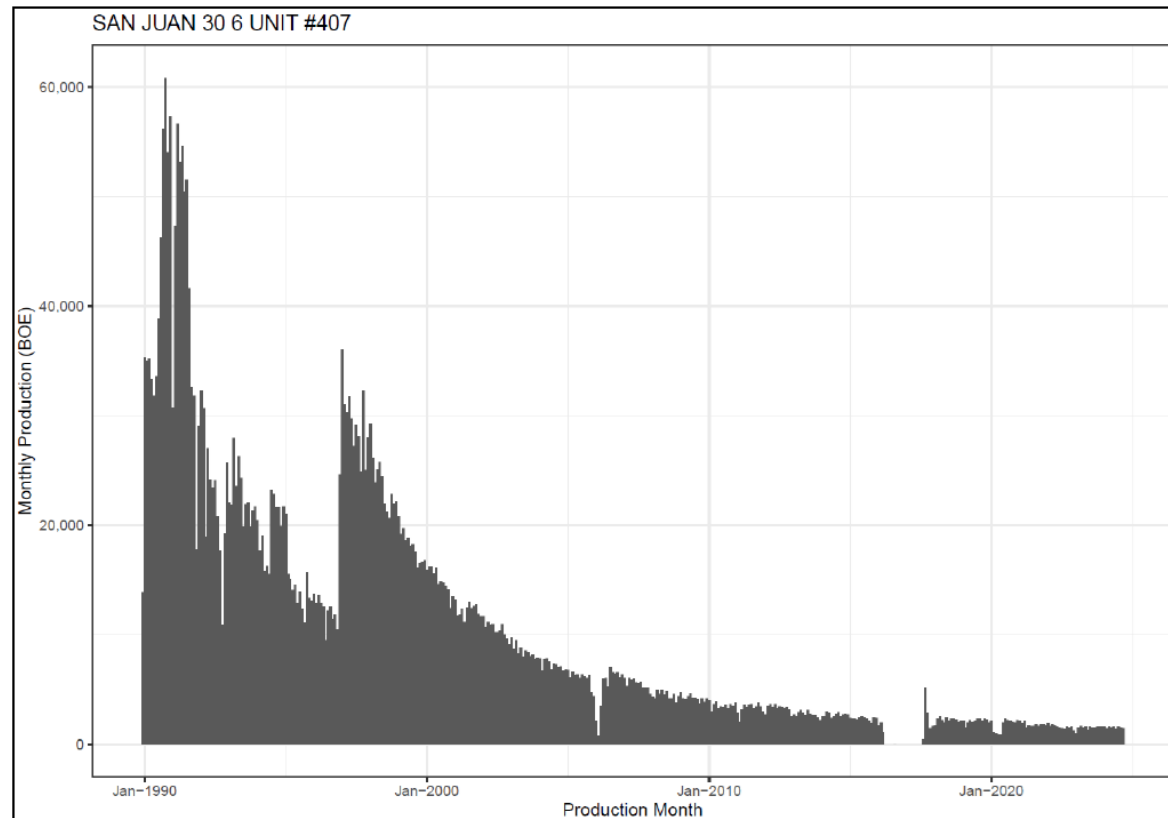
IPANM Exhibit 3

BOE Production per Well	Total BOE Jul-17 to Nov-24	Number of Wells	Plugged and Abandoned	Temp. Abandoned	Inactive	Active
0 to 999	418,584	6,260	2,561	146	1,264	2,287
1,000 to 4,999	2,296,674	892	147	5	133	607
5,000 to 9,999	2,564,045	356	30	1	22	303
10,000 to 49,999	5,818,957	309	7	-	15	287
50,000 to 99,999	1,418,270	21	1	-	-	20
>100,000	1,098,463	6	-	-	1	5
Total	13,614,993	7,844	2,746	152	1,435	3,509

**Analysis limited to vertical wells only*

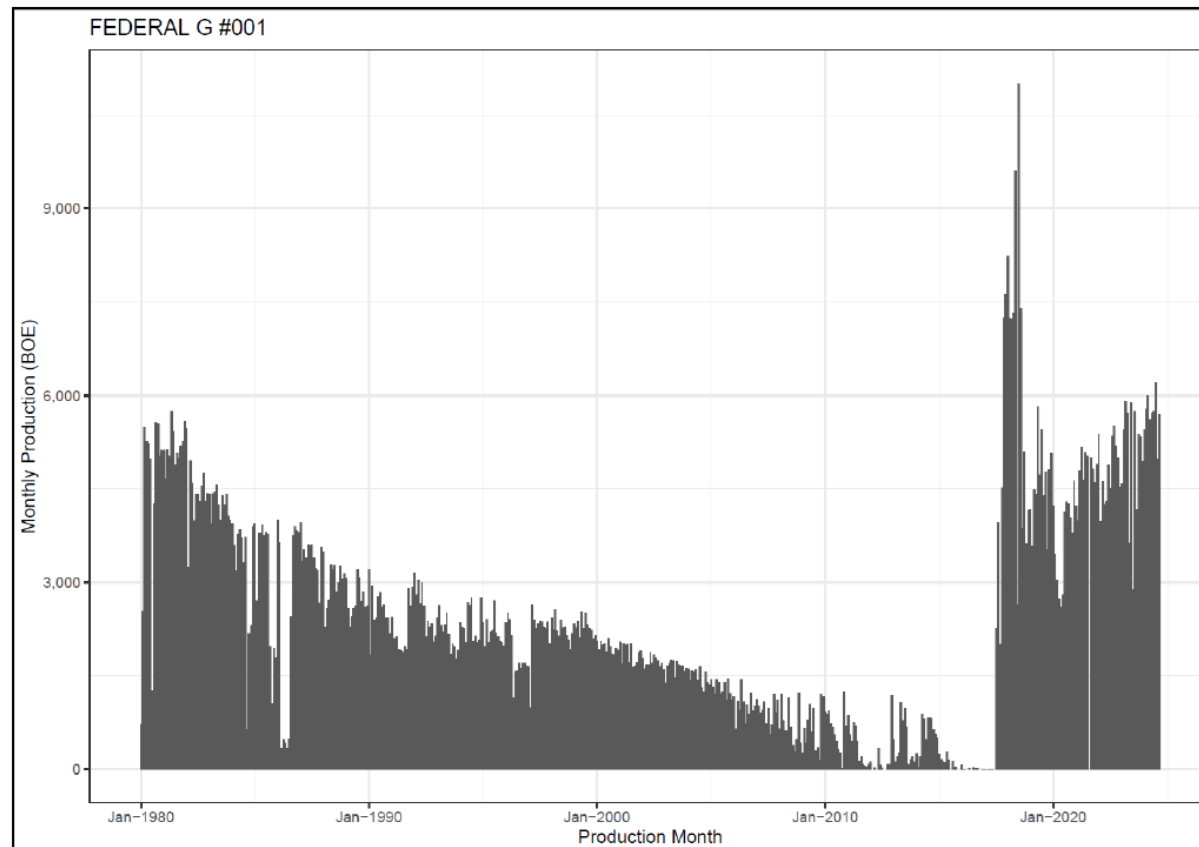
Marginal Well: Example (1/4)

IPANM Exhibit 4



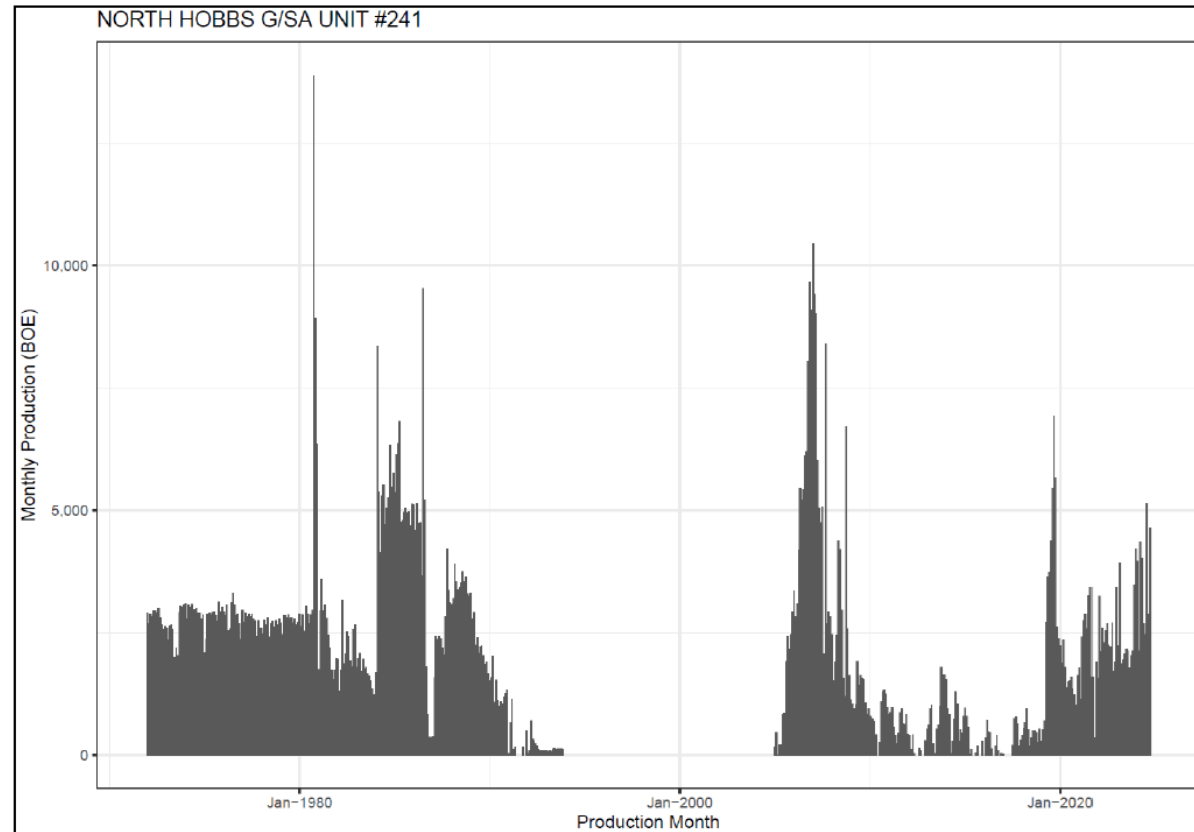
Marginal Well: Example (2/4)

IPANM Exhibit 5



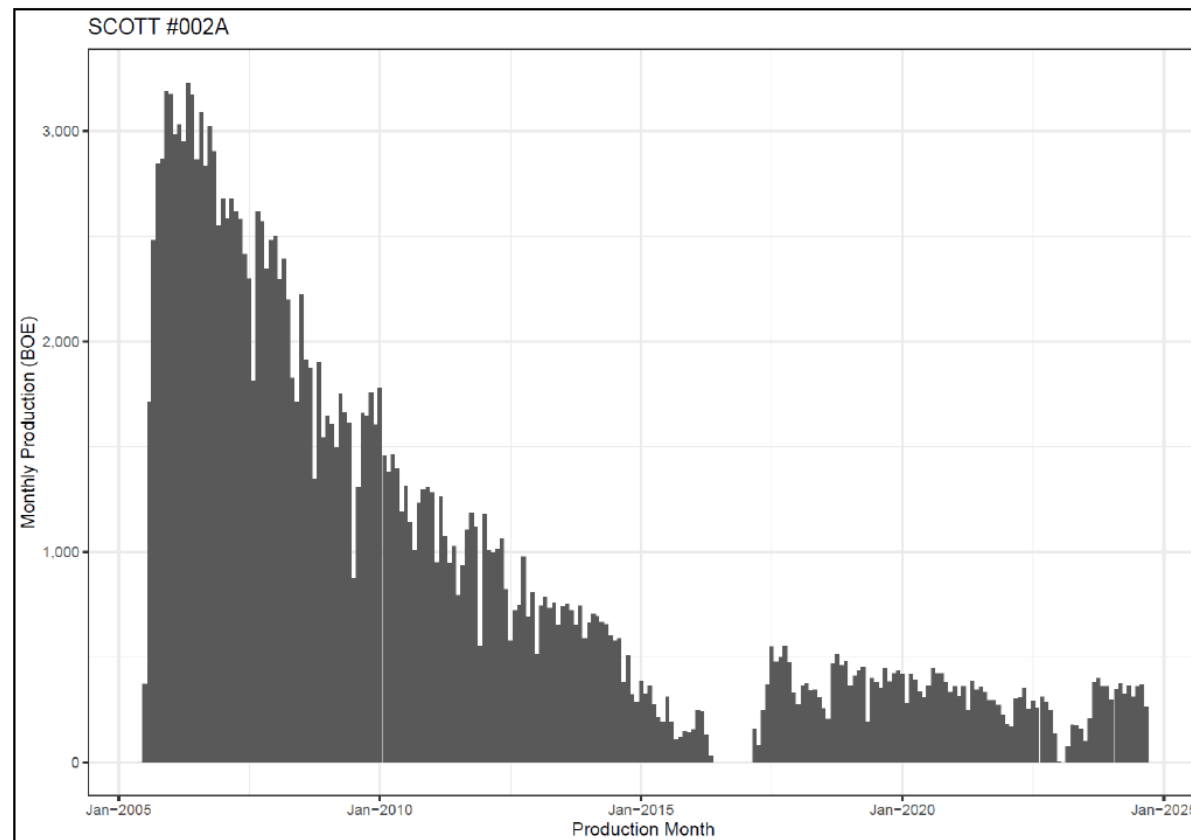
Marginal Well: Example (3/4)

IPANM Exhibit 6



Marginal Well: Example (4/4)

IPANM Exhibit 7



Proposed Rules disproportionately affect small operators

Of the 376 operators operating at least one vertical well on state or private fee lands during November 2024...

IPANM Exhibit 8

Number of Wells per Operator	Number of Operators	Average Number of Wells per Operator	Average Bond per Well (Existing Rules)	Average Bond per Well (Proposed Rules)
1	61	1	\$39,117	\$150,000
2 to 10	130	5	\$27,836	\$101,163
11 to 50	94	26	\$10,653	\$63,899
51 to 100	32	70	\$5,120	\$51,145
101 to 500	43	228	\$3,092	\$51,965
>500	16	1,730	\$900	\$38,402

Bonding expense particularly burdensome for some operators

IPANM Exhibit 9

Increase in Average Bond Amount per Well	Assumed Bond Req'd Rate of Return	Increase in Bond Cost per Month	% Increase Assuming LOE of \$1,500	% Increase Assuming LOE of \$2,500	% Increase Assuming LOE of \$5,000
\$110,000	10%	\$917	61%	37%	18%
\$110,000	9%	\$825	55%	33%	17%
\$110,000	8%	\$733	49%	29%	15%
\$110,000	7%	\$642	43%	26%	13%
\$110,000	6%	\$550	37%	22%	11%
\$110,000	5%	\$458	31%	18%	9%
\$110,000	4%	\$367	24%	15%	7%
\$110,000	3%	\$275	18%	11%	6%
\$110,000	2%	\$183	12%	7%	4%
\$110,000	1%	\$92	6%	4%	2%

Financially constrained operators among those most affected by the proposed rules

Most affected operators:

- Fixed costs of operation are large in relation to the net revenue generated from continued production.
- Smaller, financially constrained

Bankruptcy risk

- No accommodation for financially constrained operators in short-run
- Responsible operators may be rendered insolvent because of the increased liquidity demands resulting from the proposed rules
- Potential reduction in private funds for plugging

Mr. Purvis's notion of "Holdback" is flawed and should not be relied upon

Not a recognized method

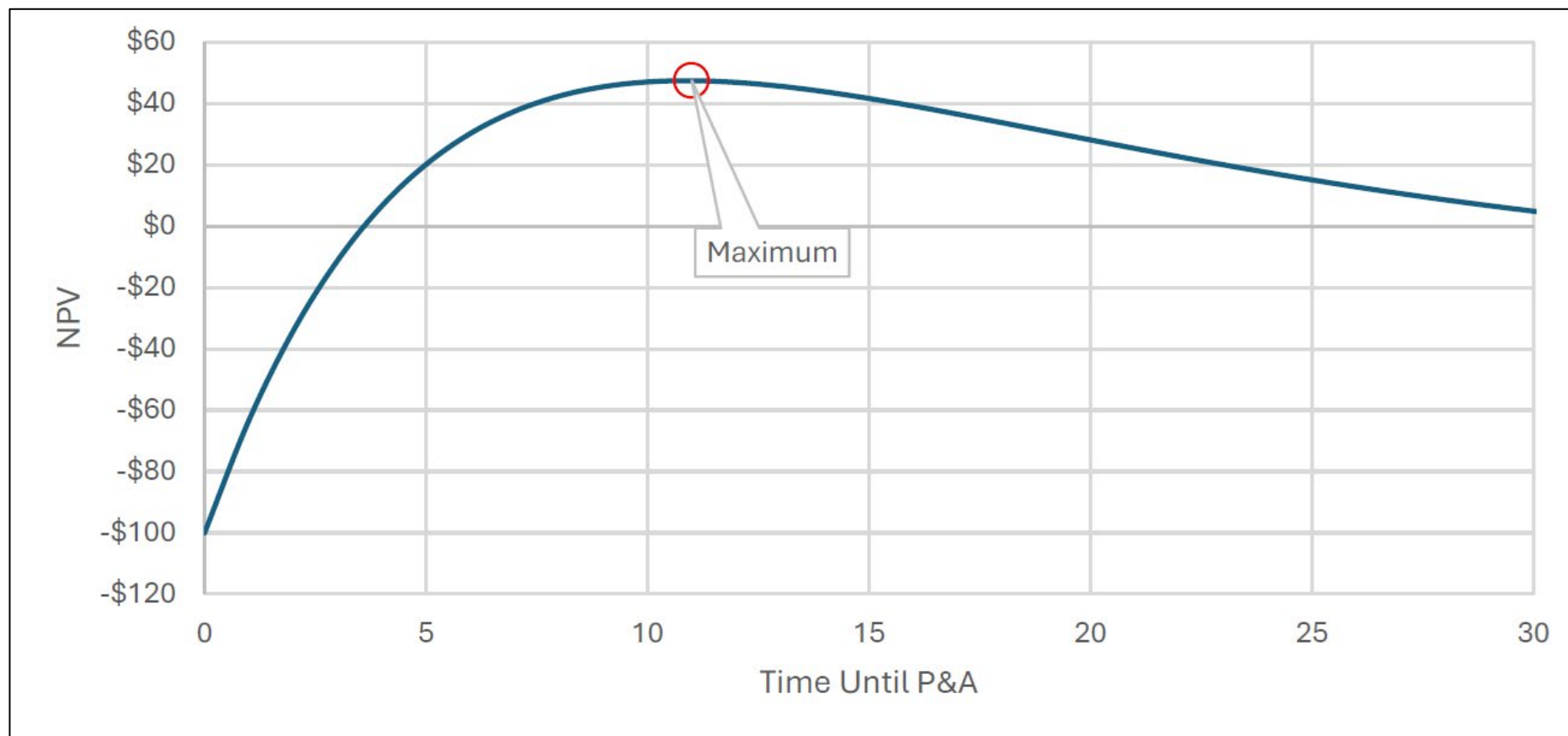
Fundamental economic principle

- Time value of money
 - A dollar tomorrow is worth *less* than a dollar today

"Holdback" ignores the time value of money

- Misleading indicator of value

The Net Present Value (NPV) is the *rightway* to evaluate plugging decisions



A well in “holdback” is not strictly a liability

Example:

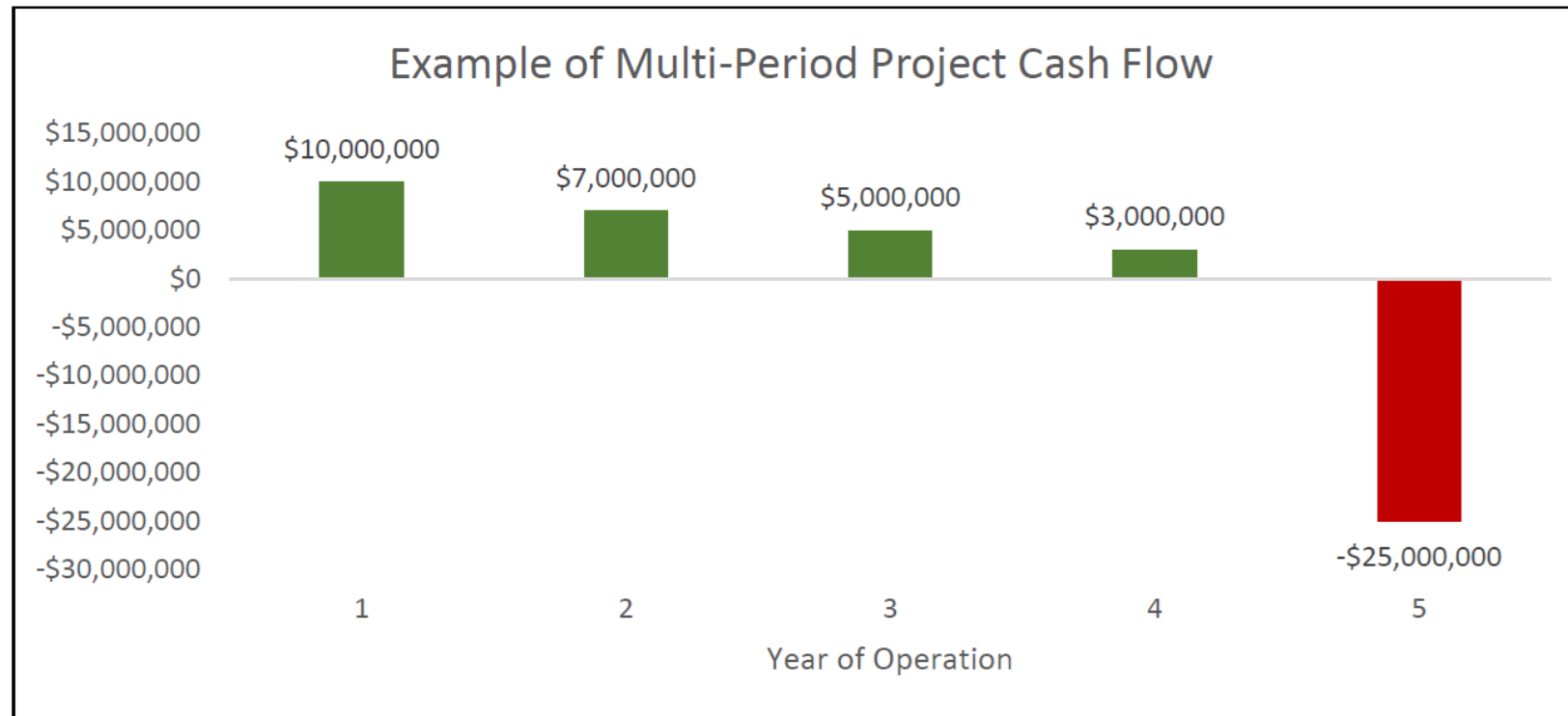
- +\$25 million
- -\$25 million liability in one year
- Return on savings = 10%

Well is in “holdback” ($\$25 - \$25 = \$0$), but...

- Invest \$25 million today
- Grows to \$27.5 million after year
- Pay off -\$25 million in one year
- Remainder in one year = \$2.5 million!

Another example of a well in “holdback”

IPANM Supplemental Exhibit 29



Depositing positive cash flows along the way leads to surplus when the well is Plugged

IPANM Supplemental Exhibit 30

Year	Beginning Balance	Growth in Savings	Investment or Withdrawal	Ending Balance
1	\$0	\$0	\$10,000,000	\$10,000,000
2	\$10,000,000	\$1,000,000	\$7,000,000	\$18,000,000
3	\$18,000,000	\$1,800,000	\$5,000,000	\$24,800,000
4	\$24,800,000	\$2,480,000	\$3,000,000	\$30,280,000
5	\$30,280,000	\$3,028,000	-\$25,000,000	\$8,308,000

Savings rate = 10%

The NPV tells us the value of surplus today...

IPANM Supplemental Exhibit 31

Year	Beginning Balance	Growth in Savings	Investment or Withdrawal	Ending Balance
1	\$5,158,614	\$515,861	\$0	\$5,674,476
2	\$5,674,476	\$567,448	\$0	\$6,241,923
3	\$6,241,923	\$624,192	\$0	\$6,866,116
4	\$6,866,116	\$686,612	\$0	\$7,552,727
5	\$7,552,727	\$755,273	\$0	\$8,308,000

Depositing the **NPV = \$5,158,614** today at a 10% rate of return will result in the same surplus.

Depositing c. \$15.5 million today can cover end of life liability

IPANM Supplemental Exhibit 32

Year	Beginning Balance	Growth in Savings	Investment or Withdrawal	Ending Balance
1	\$15,523,033	\$1,552,303	\$0	\$17,075,336
2	\$17,075,336	\$1,707,534	\$0	\$18,782,870
3	\$18,782,870	\$1,878,287	\$0	\$20,661,157
4	\$20,661,157	\$2,066,116	\$0	\$22,727,273
5	\$22,727,273	\$2,272,727	\$0	\$25,000,000

Savings rate = 10%

Depositing c. \$20.5 million today can cover end of life liability *risk-free*

IPANM Supplemental Exhibit 33

Year	Beginning Balance	Growth in Savings	Investment or Withdrawal	Ending Balance
1	\$20,548,178	\$821,927	\$0	\$21,370,105
2	\$21,370,105	\$854,804	\$0	\$22,224,909
3	\$22,224,909	\$888,996	\$0	\$23,113,905
4	\$23,113,905	\$924,556	\$0	\$24,038,462
5	\$24,038,462	\$961,538	\$0	\$25,000,000

Savings rate = 4%

Self-funding the liability, *risk-free*, generates end-of-life surplus

IPANM Supplemental Exhibit 34

Year	Beginning Balance	Growth in Savings	Investment or Withdrawal	Ending Balance
1	\$0	\$0	\$10,000,000	\$10,000,000
2	\$10,000,000	\$400,000	\$7,000,000	\$17,400,000
3	\$17,400,000	\$696,000	\$5,000,000	\$23,096,000
4	\$23,096,000	\$923,840	\$3,000,000	\$27,019,840
5	\$27,019,840	\$1,080,794	-\$25,000,000	\$3,100,634

Savings rate = 4%

“Holdback” ignores these surplus values

There are practical limitations to avoiding the proposed 15% threshold

Mr. Purvis has testified that over 52% of operators in New Mexico are already in breach of the 15 percent threshold

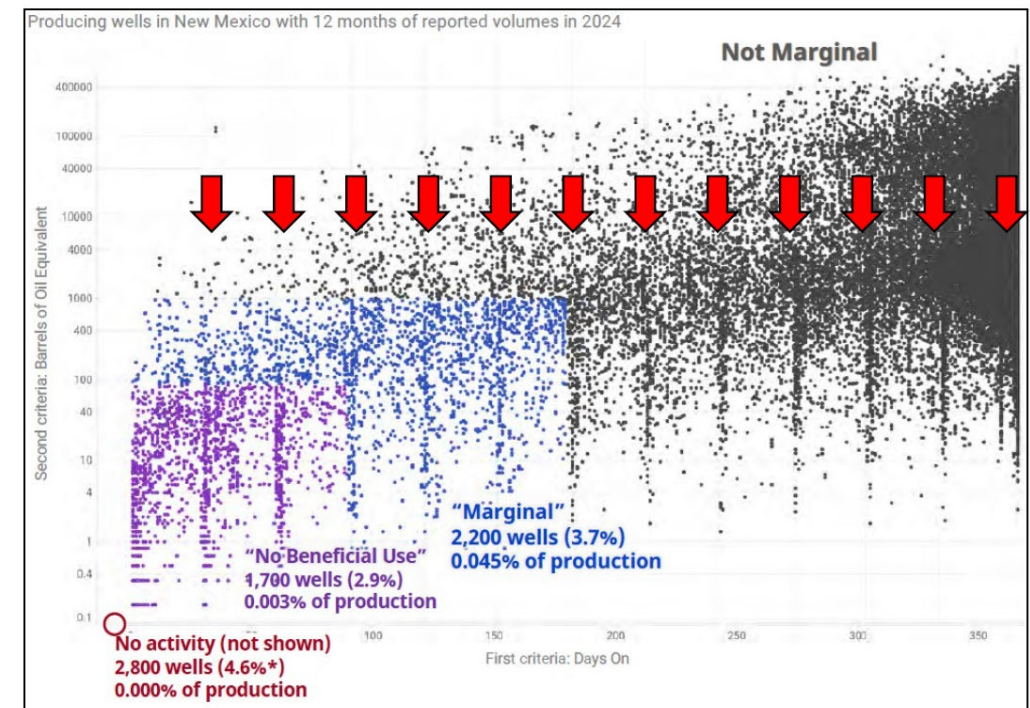
Permitting process, availability of plugging services likely limit the number of wells that can be plugged in short order

Administratively burdensome

Proposed rules penalize responsible operators while promoting waste

- Incentive to produce during poor market conditions
- Economically inefficient production is waste
- Bad Actors may simply report in error or falsify days or volumes
- May weed out honest, responsible operators while failing to catch bad actors

IPANM Supplemental Exhibit 35



Recent trend in documented orphaned wells is likely policy-induced

IPANM Supplemental Exhibit 36

Figure 35. Trend in IOGCC published documented orphaned wells.

