

SEC REVISED RESERVES REPORTING RULES

**As Presented to
Ohio Petroleum Section
Society of Petroleum Engineers
and the
Tuscarawas Valley
Desk & Derrick Club**

April 1, 2009

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*Celebrating Our 20th Anniversary
1988 - 2008*



SEC REVISED RESERVES REPORTING RULES

- **PURPOSE:** SEC revised oil & gas company reporting requirements to **provide investors** with more **meaningful** and **comprehensive** disclosure
- **EFFECTIVE:** **Year End 2009 filings** and beyond
- **DESIGN:** To **modernize and update** the oil & gas disclosure requirements to **align** them with **current practices** and **changes in technology**.

HIGHLIGHTS

- Modifies RESERVE DEFINITIONS to Align with Industry Standard (Petroleum Resources Management System)
- Revises Definitions of “Proved Reserves”
- Allows Inclusion of PROBABLE and POSSIBLE Reserves (Optional)
- Mandates 12 Month Average Prices (Benchmark Prices on 1st Day of Each Month)
- Requires Disclosure of Independence and Qualifications of Evaluator

MODIFIES RESERVE DEFINITIONS

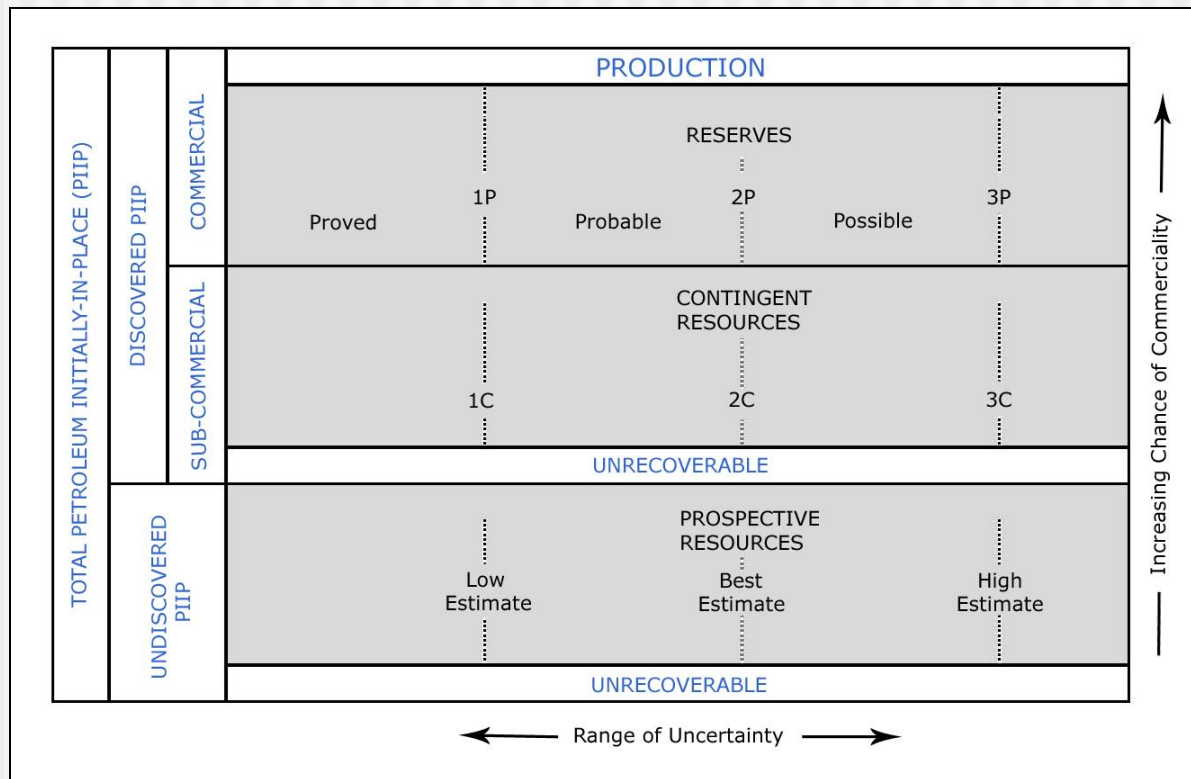
- Petroleum Resources Management System (PRMS) sponsored by:
 - Society of Petroleum Engineers (SPE)
 - American Association of Petroleum Geologists (AAPG)
 - World Petroleum Council (WPC)
 - Society of Petroleum Evaluation Engineers (SPEE)

- Basic Definitions
 - Petroleum: naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid, or solid phase

 - Resources: intended to encompass all quantities of petroleum naturally occurring on or within the Earth's crust (recoverable and unrecoverable) whether currently considered **conventional** or **unconventional**

MODIFIES RESERVE DEFINITIONS

Resources Classification Framework



REVISES DEFINITIONS OF “PROVED RESERVES”

Proved

- Old Definition: the estimated quantities of crude oil, natural gas, and natural gas liquids whose geological and engineering data demonstrates with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions
- New Definition: those quantities of oil and gas which... can be estimated with **reasonable certainty** to be **economically producible**... from a given date forward, from known reservoirs, and under existing conditions, operational methods, and government regulations...



REVISES DEFINITIONS OF “PROVED RESERVES”

Reserves

- Old Definition: previously undefined
- New Definition: the estimated remaining quantities of oil and gas and related substances anticipated to be **economically producible**, as of a given date, by application of development projects to known accumulations. Additionally, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production of oil and gas, **installed** means of delivering oil and gas or related substance to market, and all permits and financing requirements to implement the project.

REVISES DEFINITIONS OF “PROVED RESERVES”

Developed

- Expands the definition to include using technologies other than production through wells and include reserves if the cost of any required equipment is relatively minor compared to the cost of a new well

Undeveloped

- Replaces the requirement that productivity be “**certain**” for areas beyond the immediate area of known proved reserves with a “**reasonable certainty**” requirement and permits inclusion of quantities of oil and gas that can be recovered through improved recovery projects
- Allows PUDs beyond 1 offset from producing well
- Sets out **five years** as a reasonable timeframe of development
 - A **plan** and **intent** to drill must exist
 - Only exception based on “**specific (not necessarily unusual) circumstances**”



REVISES DEFINITIONS OF “PROVED RESERVES”

Reasonable Certainty – (not previously defined)

New rule provides guidance as to meaning:

- High degree of confidence
- “Much more likely to be achieved than not”
- Estimated Ultimate Recovery (EUR) is much more likely to increase than to either decrease or remain constant over time (Deterministic methods)
- There is at least a 90% probability that the quantities actually recovered will equal or exceed the stated volume (Probabilistic methods)

ALLOWS INCLUSION OF PROBABLE AND POSSIBLE RESERVES (OPTIONAL)

Unproved Reserves

- **PROBABLE** Additional reserves that are less certain to be recovered than proved reserves but which, in sum with proved reserves, are as likely as not to be recovered

Deterministic Methods - It is **likely** that actual quantities will equal or exceed the sum of Proved + Probable

Probabilistic Methods - There must be at least a 50% probability that actual quantities recovered will equal or exceed the sum of Proved + Probable

- **POSSIBLE** Less certain than probable

Deterministic Methods - Total quantities actually recovered have a **low probability** to exceed Proved + Probable + Possible

Probabilistic Methods - At least 10% probability the recovery will equal or exceed Proved + Probable + Possible

SEC PERMITS THE USE OF NEW TECHNOLOGIES

Reliable Technology

- **Current:** Company must use “**actual**” production or flow tests to meet “reasonable certainty” standard
- **New:** Adds the defined term “**reliable technology**” to clarify the types of technology used to establish “reasonable certainty”
- **Definition:** Technology (including computation methods) that, when applied using high-quality geoscience and engineering data, has been **field tested** and has demonstrated **consistency** and **repeatability** in the formation being evaluated or in an **analogous formation**. In probabilistic terms, reliable technology has been proved empirically to lead to correct conclusions in 90 percent or more of its applications.

MANDATES 12 MONTH AVERAGE PRICES

Pricing Mechanism for Determining the Economic Producibility of Reserves

- 12-month Average Price
 - 1st day of each calendar month
 - Arithmetic average
 - If used in 2008 = \$101.96/bbl and \$8.905/MmBtu
 - Current through March 2009 = \$43.68/bbl and \$4.84/MmBtu
- "Economic Producibility"
 - Existing economic conditions – positive cash flow
 - Commerciality (PRMS) definition – defined investment criteria of management
- Alternative Pricing Schemes (Optional)
 - Management decisions
 - Futures pricing
 - Rate of return thresholds

REQUIRES DISCLOSURE OF INDEPENDENCE AND QUALIFICATIONS OF EVALUATOR

- Requires Disclosure of Independence and Qualifications of Evaluator
 - Internal Guidelines
 - Controls to assure **objectivity**
 - **Qualifications** of the technical person primarily responsible
 - Employee or third-party
- Requires **Filing** of Existing Third-party Report or Audit Letter
- Expanded Disclosure
 - Purpose
 - Effective Date
 - New definition of “geographical area”
 - Containing 15% or more of total proved reserves
 - Reserves Tables

EXPANDED DISCLOSURE OF UNDEVELOPED RESERVES

Undeveloped Reserves

Requires a company to use a **narrative** to disclose the following:

- Total quantity of PUDs at year-end
- **Material change** in PUDs during the year, including PUDs converted into proved developed reserves
- **Investments** and progress made during the year to convert PUDs into proved developed oil and gas reserves
- An **explanation** of the reason that material concentrations of PUDs in individual fields have remained undeveloped for **five years** or more after disclosure as PUDs
- **"Specific"** circumstances that warrant their inclusion
- Provide additional disclosure regarding **aging** of PUDs

QUESTIONS AND COMMENTS

THANK
YOU!

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