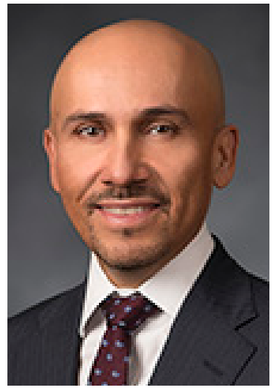
Acuña adds resources classification for some companies to consider

-- **Herman Acuña**, executive vice president



Herman Acuña

In this article, we explore the difficulties that some E&P companies face when maturing volumes from exploration to development – especially those companies trying to expedite declarations of commerciality to satisfy the demands of management, board members and stakeholders.

We all have seen the headlines proclaiming large discovery volumes, sometimes expressed as "reserves." In some cases, those announcements fall short of the stricter, higher classification standards of the SPE-PRMS (Society of Petroleum Engineers Petroleum Resources Management System).

The root of this over-optimism starts with maturation procedures that encourage exploration departments to regularly hand over opportunities to those in field development soon after the discoveries. In some cases, those exploration units limit delineation to maintain lower finding costs. That, in turn, keeps other key performance indicators (KPIs) for exploration at optimum levels.

However, curtailing delineation causes problems with the maturation of an opportunity, in part, because generally, a development department operates differently from an exploration unit.

E&P companies approve development budgets based on internal costs to evaluate their portfolios of opportunities. The premature handover of a discovery, not yet matured or in the portfolio, may result in a stopping point in the workflow.

Typically, companies do not design development budgets for further delineation and maturation. Furthermore, those in field development apply the rigor of the SPE-PRMS definitions to volumes handed over by exploration. That generally results in significant downward revisions to resources and reserves categorizations and classifications. Please see Fig. 1 on this page.

To keep those project opportunities from falling into "no-man's land," I recommend that instead of the traditional exploration-to-development handover, companies create opportunity maturation teams (OMTs) to do the following:

- **Focus on advancing the opportunity without the KPIs for exploration and/or development.**
- **Incorporate expertise from both exploration and development teams.**
- **Facilitate continuity of analysis.**
- **Designate an opportunity maturation budget.**
- **Achieve a unified handover to development and clearly define the "sponsor" responsible for the progression.**

Please see that approach schematically in Fig. 2 on the right.

Once "discovered," some exploration departments with large discoveries reclassify prospective resources to 1C, 2C and 3C contingent resources based on analyses that more closely resemble exploration practices, not those of development. Hydrocarbon volumes can be classified incorrectly, particularly when considering the SPE-PRMS requirement that without additional technical data, there should be no change in distribution of technically recoverable volumes when projects are reclassified from contingent resources to reserves.

Accordingly, volumes that qualify as 1C, 2C or 3C also progress to 1P, 2P or 3P. The SPE-PRMS provides a tool to track the progression of those opportunities during the maturation process. However, in my opinion, the PRMS is missing a classification for large discovered volumes not qualified to be classified as contingent resources.

To assist E&P companies, I have proposed an additional classification defined as "scope for recovery" to bridge this gap. This classification allows for the recognition of large discoveries without having to declare them contingent resources. It provides flexibility for wider ranges of technical uncertainty.

The proposed OMTs can also organically operate within the organization with budgets separate from exploration and development. The following graph, Fig. 3, shows a modified SPE-PRMS framework as discussed in this article.

Editor's Note: *This editorial expresses the views of Herman Acuña, executive vice president, and are not necessarily those of Ryder Scott or its professionals. We have published his commentary to stimulate further open discussion in our industry.*

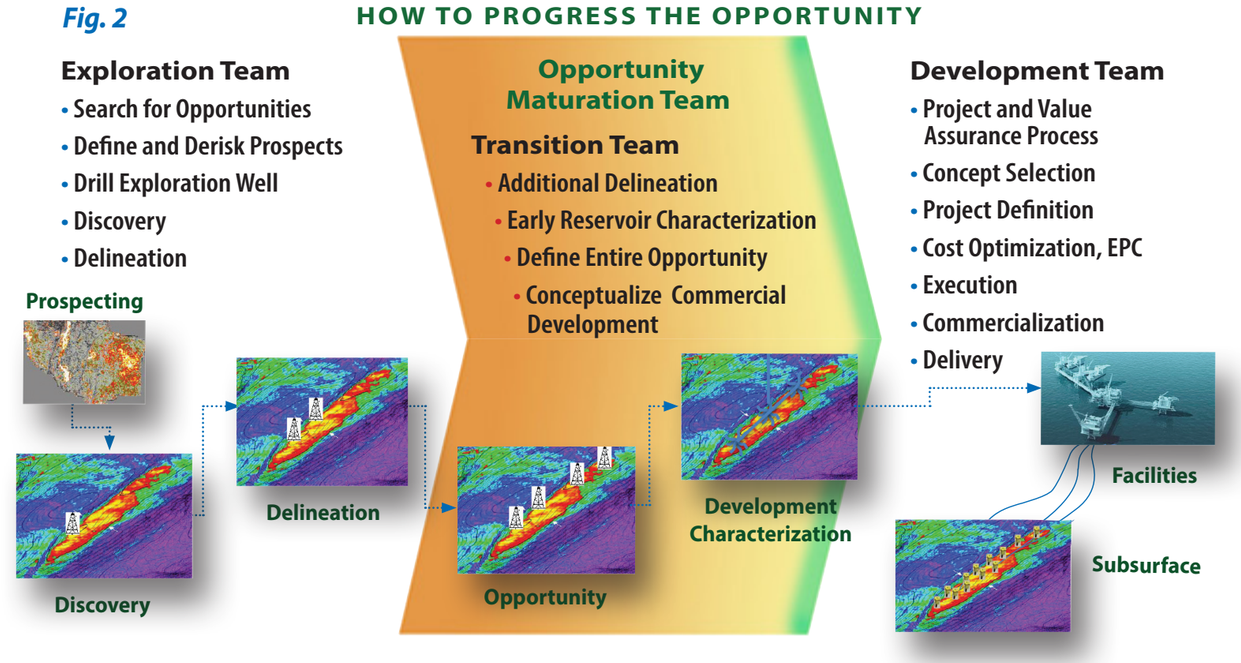
This editorial is based on a presentation from Acuña at the Ryder Scott Mexico Conference in Cancun, Mexico, in mid-May. The conference was the first one held by Ryder Scott outside of the U.S. and Canada. Attendees hailed from nine countries: Argentina, Brazil, Colombia, Ecuador, Italy, Mexico, Nigeria, Paraguay and the U.S. Over two days, 15 speakers made presentations. The audience enjoyed live simultaneous translations from English to Spanish and vice versa. Ryder Scott plans to hold a conference in Canada next year and further plans call for a conference outside North America in 2021.

THE BUSINESS PRESSURES — *Fig. 1*

CAUSE	EFFECT
Exploration	**Exploration**
• Needs to hunt "Elephants" to justify exploration expenses	• Overoptimism in volume promise & underestimation of derisking activities
• Needs to keep volumes high & finding costs down	• Premature handover of opportunity to development
Development	**Development**
• Needs to incorporate reserves and meet reserves replacement targets	• Adjusts (generally reduces) volumes to compliant classification & categorization
• Needs to develop commercial projects	• Projects may not meet commercial KPIs as handed over

Opportunities may fall in no-man's land and progression stops

Fig. 2



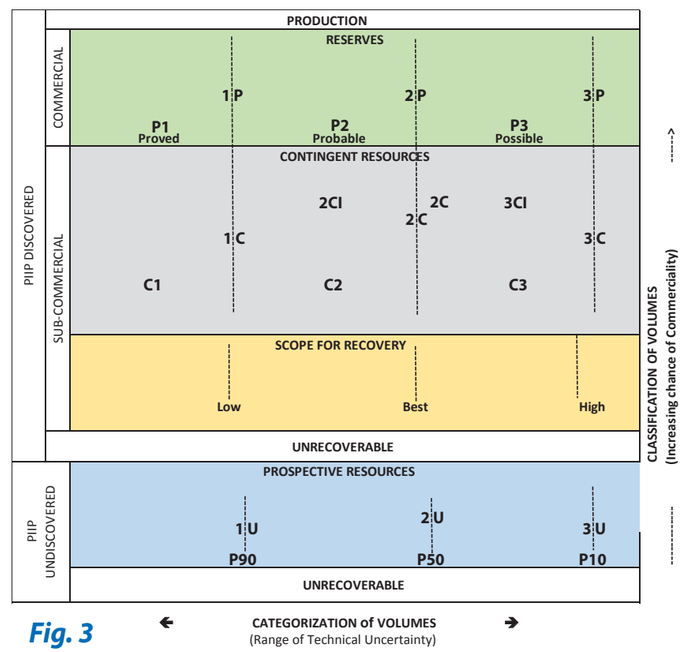


Fig. 3

SPE-PRMS offers flexibility to industry

-- **Dan Olds**, managing senior vice president and incoming SPE-OGRC chairman

The SPE-PRMS preamble notes that the guidelines "allow flexibility for entities, governments and regulators to tailor applications for their particular needs." Perhaps the most common example is where oil and gas companies customize the PRMS matrix.

They often add new subclasses for detail and closer alignment with internal decision-making processes. Additional detail can be useful in transitioning from potential to contingent resources.

In theory, the transition should be straightforward. In practice, it may take several wells over an extended period to determine the extent of the discovery. During that time, each new well can cause large swings in resources estimates.

The introduction of an intermediate class between prospective and contingent resources is an example of a customization that provides clarity during the process of maturing a discovery to contingent resources.