

**UNITIZED WE STAND, DIVIDED WE FALL:  
A MEXICAN RESPONSE TO KARLA  
URDANETA’S ANALYSIS OF  
TRANSBOUNDARY PETROLEUM  
RESERVOIRS IN THE DEEP WATERS OF  
THE GULF OF MEXICO**

*Miriam Grunstein\**

I.	INTRODUCTION .....	346
II.	TRANSBOUNDARY RESERVOIRS CAN BE ADEQUATELY ADDRESSED WITHOUT OVERARCHING MEXICAN ENERGY REFORM.....	355
III.	TRANSBOUNDARY RESERVOIRS CAN BE ADEQUATELY ADDRESSED THROUGH OVERARCHING ENERGY REFORM, BUT A CONSTITUTIONAL AMENDMENT IS UNNECESSARY...	358
IV.	TRANSBOUNDARY RESERVOIRS CAN BE ADEQUATELY ADDRESSED THROUGH DIPLOMACY.....	360
V.	ONCE THE LEGAL FRAMEWORK IS READY FOR UNITIZATION, SO WILL EVERYONE AND EVERYTHING ELSE. ....	361
VI.	CONCLUSION.....	365

---

\* Miriam Grunstein is a lawyer who graduated summa cum laude from the Instituto Tecnológico Autónomo de México law school in 2003. Since then, she served as an advisor to a commissioner at the Federal Energy Regulatory Commission in Mexico as well as to the Mexican Senate. She has practiced in the area of energy in international and domestic law firms. Currently, she is a full-time professor and researcher at the Centro de Investigación y Docencia Económicas (CIDE). She gives special thanks to Professors Jacqueline Weaver and Steven Zamora for their encouragement.

## I. INTRODUCTION

Two very different energy industries exist on each side of the U.S.–Mexico border. Market diversity is imprinted on the U.S. model, but the Mexican model rests on exactly the opposite principle: monopoly.<sup>1</sup> Thus, one of the things Mexican travelers often notice in the United States is the variety of names and colors in U.S. gas stations. Some Mexicans may even be confused by the price variations between one gas service station and the next; the idea of a competitive fuel market is alien to them.<sup>2</sup> Those who have never lived outside Mexico know *Petróleos Mexicanos* (Pemex), the national oil company, as their life-long and sole hydrocarbon producer and supplier.<sup>3</sup> Pemex's green and red logo guards every well, refinery, and service station in Mexican territory.<sup>4</sup>

The dichotomy between a monopoly on one side of the Gulf of Mexico and a fully open market on the other has clearly delineated technical, commercial, and regulatory development of each national industrial setting. On the U.S. side, there has been vigorous activity.<sup>5</sup> The companies working there have founded a new world above and beneath the surface of the Gulf of Mexico.<sup>6</sup> The landscape on the U.S. side of the maritime border is awesome in the strict meaning of the word: One is

---

1. Karla Urdaneta, *Transboundary Petroleum Reservoirs: A Recommended Approach for the United States and Mexico in the Deepwaters of the Gulf of Mexico*, 32 HOUS. J. INT'L L. 333, 357 (2010); see *Becoming Pemex's Preferred Partner*, OIL & GAS INVESTOR, June 2009, at M-87 ("Pemex's domination of Mexico's oil and gas sector is so complete that an army of service companies, contractors and suppliers is required to support its quest.").

2. See Lynn Brezosky, *Border Gas Stations Losing Money to Mexico Pumps*, SAN ANTONIO EXPRESS-NEWS, June 16, 2008, at A1.

3. See *id.*; see also Luis E. Cuervo, *The Uncertain Fate of Venezuela's Black Pearl: the Petrostate and Its Ambiguous Oil and Gas Legislation*, 32 HOUS. J. INT'L L. 637, 644 n.29 (2010) (characterizing Pemex as a state monopoly of both upstream and downstream oil and gas operations).

4. See *About Pemex*, PETRÓLEOS MEXICANOS, <http://www.pemex.com/index.cfm?action=content&sectionID=123> (last visited (Nov. 21, 2010) (referring to Pemex as "the biggest enterprise in Mexico and Latin America and the highest fiscal contributor to the country").

5. See Urdaneta, *supra* note 1, at 347.

6. Edwin L. Gorham, Recent Development, *The Alien Torts Statute and the Search for Energy in Difficult Political Environments*, 29 HOUS. J. INT'L L. 289, 290 (2007).

overtaken by awe seeing the animated cities of steel floating in the middle of the ocean.<sup>7</sup>

On the contrary, from the perspective of its petroleum industry, the view of the Mexican side of the Gulf is full of unexploited potential.<sup>8</sup> This side of the Gulf is virginal, untouched as it was on the day of the continental divide.<sup>9</sup> This is the result of many complex factors. History, politics, and constitutional and legal reasoning in Mexico are often referred to when explaining why Mexico has drawn the line so clearly between its side of the Gulf and the other.<sup>10</sup>

In her article on transboundary reservoirs between the United States and Mexico, Karla Urdaneta accurately notes and intricately describes the differences between each country's hydrocarbon legal regime,<sup>11</sup> and she provides an impeccable reconstruction of the existing bilateral instruments governing the U.S.–Mexico maritime boundaries.<sup>12</sup> Urdaneta deftly describes the legal challenges that would arise if transboundary hydrocarbon reservoirs were discovered between the two countries,<sup>13</sup> and she presents a series of interesting cooperative solutions based on international law and commercial practice.<sup>14</sup>

---

7. See *id.* (noting that the U.S. side is “populated by standing and floating platforms, both manned and unmanned, all fully automated”); see also Luis E. Cuervo, *OPEC From Myth to Reality*, 30 HOUS. J. INT'L L. 433, 539 (2008) (noting the importance of the oil infrastructure on the U.S. side of the maritime boundary, including refineries near Houston).

8. See Urdaneta, *supra* note 1, at 337.

9. See Martin Miranda, *The Legal Obstacles to Foreign Direct Investment in Mexico's Oil Sector*, 33 FORDHAM INT'L L. J. 206, 208 (2009) (noting that Pemex “lacks the knowledge and expertise, and needs outside help to bring in new technology for deep-water exploration.”).

10. See Urdaneta, *supra* note 1, at 353–55; see also Jorge A. Vargas, *Mexico's Legal Regime Over Its Marine Spaces: A Proposal for the Delimitation of the Continental Shelf in the Deepest Part of the Gulf of Mexico*, 26 U. MIAMI INTER-AM. L. REV. 189, 195–97 (1995) (explaining the interpretation of the Mexican Constitution to provide for sharp delineation of maritime boundaries).

11. Compare Urdaneta, *supra* note 1, at 353–64 (describing the legal framework for energy in Mexico), with Urdaneta, *supra*, note 1, at 364–67 (describing the legal framework for energy in the United States).

12. *Id.* at 340–45.

13. Urdaneta, *supra* note 2, at 338–40.

14. *Id.* at 383–90.

Because Urdaneta has compiled comprehensive research and provides rigorous insight on the international and domestic legal frameworks concerning U.S.–Mexico transboundary reservoirs, this response will address some complementary issues which may provide further insight about the challenges bound to be faced if hydrocarbons are indeed found in transboundary reservoirs. The existence of transboundary reservoirs would require the negotiation and execution of unitization treaties, agreements, and other related legal instruments between the countries and companies on both sides of the Gulf of Mexico.<sup>15</sup>

Upon reading Urdaneta's article, the first issue that comes to mind is the author's apparent certainty that transboundary reservoirs exist.<sup>16</sup> Commercial hydrocarbon deposits do exist near the maritime boundary on the U.S. side,<sup>17</sup> but there is no conclusive evidence that those deposits extend into Mexico's jurisdiction.<sup>18</sup> In fact, the governments of both countries recently denied any knowledge of scientific data proving the presence of transboundary deposits.<sup>19</sup> Moreover, Great White, one of the oilfields in the Perdido fold belt that had caused considerable concern in Mexico,<sup>20</sup> has been determined to be entirely within the U.S. jurisdiction.<sup>21</sup> Thus, fears that starting production in Great White could lead to the "straw effect" that would siphon

---

15. *See id.* at 390–91.

16. *Id.* at 350 (discussing the Perdido fold belt).

17. *Id.*

18. *See* Joint Press Release, Governments of Mexico and the United States, Mexico–United States Joint Press Release (June 23, 2010), *available at* [http://www.sre.gob.mx/en/index.php?option=com\\_content&view=article&id=626&catid=27&Itemid=322](http://www.sre.gob.mx/en/index.php?option=com_content&view=article&id=626&catid=27&Itemid=322) [hereinafter Joint Press Release].

19. *Id.* ("Although no entity has yet discovered a trans-boundary reservoir, we deem it important to have a bilateral regulatory regime in place should such a discovery be made in the future.")

20. Peter Millard, *As Deepwater Drilling Booms, Mexico's Oil Could Leak to U.S.*, DOW JONES NEWSWIREs, Sept. 7, 2007 ("Experts say Great White and other deepwater finds in the U.S. Gulf of Mexico could drain Mexican oil. Reservoir pressure on Mexico's undeveloped side could push oil and natural gas into Shell's wells [in Great White].").

21. Urdaneta, *supra* note 1, at 350, *see* Comunicado [Press Release], Secretaria de Energía [Energy Secretary] (April 9, 2010), *available at* <http://sener.gob.mx/webSener/portal/Default.aspx?id=927> [hereinafter Energy Secretary Press Release].

oil from Mexican reserves into U.S. territory<sup>22</sup> have been quieted, at least for now.<sup>23</sup> Mexico's current stance on transboundary reservoirs is that something must be done *in case there are some*.<sup>24</sup> This is hardly a message of urgency, much less of despair.

This is also a far cry from the position held by the Mexican government a few years ago when the energy reform discussion began:

In 2006, then[-]Pemex CEO Luis Ramirez Corzo called for a constitutional change allowing for shared equity companies to develop border reserves. "The porosity and permeability of these structures makes it possible for the oil to flow to the (U.S.) side, and we will be left with no chance of recovering those hydrocarbons," he said.<sup>25</sup>

Throughout 2007 and 2008, the administration of Mexican President Felipe Calderón raised the specter of the straw effect to build public support for broader partnerships between Pemex and the private sector.<sup>26</sup> By way of an intense media campaign,<sup>27</sup> the Calderón administration described the Gulf in much the same terms Urdaneta uses in her essay: intense activity and development on the U.S. side, emptiness on the side of the Mexican maritime boundary.<sup>28</sup>

As it promoted the 2008 energy reform, the Calderón administration attributed the markedly asymmetrical status of

---

22. See Urdaneta, *supra* note 2, at 382–83.

23. See Energy Secretary Press Release, *supra* note 21.

24. See *supra* note 19 and accompanying text.

25. See Millard, *supra* note 20.

26. Duncan Wood, *The Administration of Decline: Mexico's Looming Oil Crisis*, 16 L. & BUS. REV. AM. 855, 864 (2010) (noting that the administration's campaign "was directed towards convincing the public that Mexico's remaining oil 'treasure' or tesoro was hidden away in the deep waters of the Gulf of Mexico and that in order to reach it, Pemex would need help from the private sector").

27. *Id.* at 864 ("[T]he government coordinated a massive public relations campaign, namely enlisting respected academics, opinion leaders, and media personalities to communicate the government's message to the public.")

28. Compare Millard, *supra* note 20 (detailing several projects on the U.S. side and noting that, "Mexico's deep waters are virgin territory for oil and gas"), with Urdaneta, *supra* note 1, at 390 ("Both countries have the rights to explore and exploit hydrocarbons located in the deep-waters of the GOM, but in the case of Mexico, there are legal, financial, and technical constraints that make their development more burdensome.").

deepwater exploration and production in either side of the Gulf to the equally marked asymmetries between the two countries' hydrocarbon legal framework.<sup>29</sup> As it promoted legal reform with extreme political caution, the Mexican government underscored certain features of the U.S. model that are anathema in Mexico.<sup>30</sup> The most salient one is the array of partnerships available for companies operating within the United States.<sup>31</sup> As noted in Urdaneta's essay, such partnerships have allowed companies to exchange information, to manage geological risk, to achieve technological developments, and to distribute the impact of potential financial hazard.<sup>32</sup> Thus, while joint ventures, joint operation agreements, unitization and other cooperative arrangements are common practice in the United States, in Mexico the legal model forbids any type of arrangement that would render a horizontal, non-subordinate relationship with Pemex.<sup>33</sup> The rationale underlying Mexican hydrocarbon law and policy is that partnerships with private companies would weaken Mexico's sovereignty over its natural resources by putting Pemex on the same legal footing as those companies.<sup>34</sup> Therefore, as Urdaneta notes, the only interactions with private companies permitted under Mexican law are "service contracts,"<sup>35</sup> which place those companies in the position of subordinates *vis-à-vis* Pemex.<sup>36</sup>

---

29. See Millard, *supra* note 20.

30. See Wood, *supra* note 26, at 863.

31. *Id.* at 864.

32. See Urdaneta, *supra* note 1, at 355 (noting that Mexican law does not allow "concessions, production sharing agreements, or risk service contracts, methods which are very common in the petroleum industry").

33. See *id.*

34. See *id.* at 355 ("Critics even say that service contracts are unconstitutional because in utilizing them Pemex is granting permits for the exploration and production of its hydrocarbons, activities which the constitution reserves exclusively for Pemex and its subsidiaries."); see also Jorge A. Vargas, *Privacy Rights under Mexican Law: Emergence and Legal Configuration of a Panoply of New Rights*, 27 HOUS. J. INT'L L. 73, 87 (2004) ("[T]he Constitution was strongly influenced by the political and socio-economic principles and ideals advanced by the populous and nationalistic revolution initiated in Mexico in 1910.").

35. These should not be confused with "risk service contracts," which are commonplace in other Latin American countries and allow foreign companies to develop oil fields at their own risk but offer greater rewards than pure "service contracts." See

Today, Mexico is facing a sharp decline of its Gulf reserves as the Cantarell fields reach maturity,<sup>37</sup> and the policy of maintaining Pemex's upper hand through the exclusive use of service contracts has backfired.<sup>38</sup> Pemex's exclusive use of service contracts has prevented private companies from acquiring title over the Mexican hydrocarbons, but it has also annulled whatever incentives companies may have to bear financial and geological risks and to share technology jointly with Pemex.<sup>39</sup> This arrangement may have worked during peak production in the Cantarell super-giant offshore fields, which were much more comfortably situated at the unchallenging drilling depth of 180 feet.<sup>40</sup> As Pemex tiptoes towards deepwater activity, however, the company has begun to appear vulnerable, if not helpless.<sup>41</sup> In view of this, the government urged the people of Mexico to become open to partnerships for deepwater exploration and production.<sup>42</sup> The government warned that if Pemex continued being barred from partnering with other companies, it would likely lose its resources to the companies working on the other side of the maritime boundary.<sup>43</sup>

The resulting message contained a perplexing contradiction: On one hand, the Calderón administration called on Pemex to develop closer contractual relationships with companies on the U.S. side of the maritime boundary; on the other hand, it

---

Urdaneta, *supra* note 1, at 356 n.111 (citing Ernest E. Smith, *Service Contracts, Technology Transfers, and Related Issues*, in INTERNATIONAL PETROLEUM TRANSACTIONS 479, 507–08 (2d ed. 2000)).

36. See Urdaneta, *supra* note 1, at 356, 361.

37. *Id.* at 358–59; see also J. Scott Childs, *Continental Cap-and-Trade: Canada, the United States, and Climate Change Partnership in North America*, 32 HOUS. J. INT'L L. 393, 447 (2010).

38. See Urdaneta, *supra* note 1, at 337.

39. See *id.* at 386–87.

40. Jesse Bogan, *With Easy Oil Gone, Pemex Sobers Up*, FORBES.COM, May 7, 2009, <http://www.forbes.com/2009/05/07/pemex-petrobras-mexico-business-energy-oil.html>; see also Carlos J. Moreno, Comment, *Oil and Gas Exploration in the Gulf of Guinea: Can the New Gulf Be Green?*, 31 HOUS. J. INT'L L. 419, 423 (2009) (“Offshore development, especially deepwater development, requires a significant technological investment.”).

41. See *id.* (citing a Mexico City energy attorney as saying “Pemex is some 20 years away from being a contender in deep Waters”).

42. Wood, *supra* note 26, at 864.

43. See *supra* note 25 and accompanying text.

suggested that those companies would steal the nation's resources if it did not.<sup>44</sup> This is hardly a reassuring message for the Mexican people whose industry has remained hermetic for over seventy years, significantly as a result of mistrust of foreign capital.<sup>45</sup> Logically, the legislative proposal of partnering with potential plunderers did not ease the way toward collaborative—rather than service-based—contractual arrangements.<sup>46</sup>

The Western Gap Treaty<sup>47</sup> itself played a role in the Calderón administration's push for reform.<sup>48</sup> As Urdaneta points out in her article, the Western Gap Treaty was a result of several years of political negotiations.<sup>49</sup> It fully demarcated the maritime boundaries between the United States and Mexico, and it established a temporary moratorium on the exploitation of any hydrocarbons found near that maritime boundary.<sup>50</sup> This moratorium was originally scheduled to expire January 17, 2011,<sup>51</sup> but it was recently extended to prohibit oilfield development in the "buffer zone" until at least 2014.<sup>52</sup>

The original ten-year moratorium was established to allow the United States and Mexico to exchange information and prepare a robust framework for cooperative efforts should transboundary reservoirs be discovered.<sup>53</sup> However, the two

---

44. See Millard, *supra* note 20.

45. See, e.g., Sanford E. Gaines, *NAFTA as a Symbol on the Border*, 51 UCLA L. REV. 143 178 n.163 (2003) ("Mexico needs huge infusions of capital—probably foreign capital—to develop its own gas resources.").

46. Wood, *supra* note 26, at 864.

47. Treaty Between the Government of the United Mexican States and the Government of the United States of America on the Delimitation of the Continental Shelf in the Western Gulf of Mexico Beyond 200 Nautical Miles, U.S.–Mex., June 9, 2000, S. Treaty Doc. No. 106–39 [hereinafter Western Gap Treaty]; Urdaneta, *supra* note 1, at 343–44.

48. Urdaneta, *supra* note 1, at 341–42.

49. *Id.* (noting that, as early as 1997, "Mexico began pressuring the United States to ratify [treaties denoting maritime boundaries] because of concerns that deep-water drilling near the boundary threatened to drain reserves that properly belonged to Mexico").

50. *Id.* at 343–44.

51. *Id.* at 344.

52. Joint Press Release, *supra* note 18.

53. See Urdaneta, *supra* note 1, at 343–44.

countries have communicated only sporadically,<sup>54</sup> and Mexico is far from having an adequate framework for executing the required unitization treaties and agreements.<sup>55</sup> Superficial amendments to the Regulatory Law of Article 27 of the Constitution in the Petroleum Sector (the Regulatory Law)<sup>56</sup> do not constitute significant progress toward the creation of this framework.<sup>57</sup>

More than twenty years after the United States and Mexico began to define their shared boundaries in the Gulf of Mexico,<sup>58</sup> the Western Gap Treaty offers narrow legal protection to a relatively small area.<sup>59</sup> This delay and limited scope has led critics to note that the U.S. Senate ratified the Western Gap Treaty only upon being certain that U.S. economic interests would not be harmed as a result.<sup>60</sup> In the same vein, U.S. authorities were skeptical of Mexico's ability to implement significant changes in its hydrocarbon industry, and they viewed

---

54. Nick Snow, *Forum: US, Mexico Must Solve Gulf Boundary Dispute*, OIL & GAS J., May 5, 2008, at 37, 37 (noting that, as of mid-2008, there had been no discussions between the two governments regarding transboundary reservoirs).

55. *See id.* (“[D]iscussions between the two countries could be severely limited unless Mexico finds a way to make the transboundary resource question a binding international matter separate from oil’s place in the national constitution.”).

56. Ley Reglamentaria del Artículo 27 Constitucional en el Ramo del Petróleo [Regulatory Law of Article 27 of the Constitution in the Petroleum Sector] Diario Oficial de la Federación [D.O.], 29 de Noviembre de 1958 (Mex.) [hereinafter Regulatory Law].

57. *See* Decreto por el que se Reforman y Adicionan Diversas Disposiciones de la Ley Reglamentaria del Artículo 27 Constitucional en el Ramo del Petróleo [Decree Amending and Adding Various Provisions of the Regulatory Law of Article 27 of the Constitution in the Petroleum Sector], D.O., 28 de noviembre de 2008. Article 1 now defines transboundary reservoirs, and Article 2 provides that transboundary reservoirs are governed by the treaties Mexico has signed and ratified. *See* Javier H. Estrada Estrada, *Reservoirs that Cross Country Lines Need Special Agreements*, OFFSHORE, July 2009, at 39, 44 [hereinafter *Special Agreements*].

58. Urdaneta, *supra* note 1, at 334–35 (noting the 1978 signing of the Treaty on Maritime Boundaries); *see* Treaty on Maritime Boundaries, U.S.–Mex., May 4, 1978, 17 I.L.M. 1073.

59. Urdaneta, *supra* note 1, at 343–44 (noting that the buffer zone subject to the moratorium extends a mere “1.4 nautical miles on each side of the [U.S.–Mexico maritime] boundary”).

60. Urdaneta, *supra* note 2, at 335; *see generally* Lourdes Melgar “¿Negociando lo imposible? La diplomacia como respuesta a los retos de seguridad energética y soberanía de México,” in CRUZANDO LÍMITES. MÉXICO ANTE EL DESAFÍO DE SUS YACIMIENTOS FRONTERIZOS (David Enriquez et al, eds. 2007).

the moratorium as little more than a tool to appease Mexican politicians and facilitate Mexico's quick ratification of the treaty.<sup>61</sup> Thus, the treaty is more a political courtesy than a serious move toward collaboration; it poses very little political, legal, and economic risk to U.S. interests.

On the other side of the gulf, however, the Mexican government was well aware of the significant risks it would face if the moratorium were to end before Pemex underwent substantial reform.<sup>62</sup> Without coordinating with international companies, Pemex cannot prevent Mexican oil near the maritime boundary from flowing to U.S. territory and being exploited by the international companies operating there.<sup>63</sup> Mexico was thus stuck with a tough decision: It could either cooperate with the outside world or be ransacked of its riches.<sup>64</sup> The Calderón administration argued that cooperation was the better choice.<sup>65</sup>

Despite the foreboding implications of "business as usual,"<sup>66</sup> none of Mexico's three major political parties has sponsored legislation addressing transboundary reservoirs.<sup>67</sup> Each proposal has contained only a sliver of a legal and regulatory basis for addressing such a complex issue.<sup>68</sup> This legislative skimpiness could signal that the issue of transboundary reservoirs is not important enough for legislators to address, or

---

61. *Gulf of Mexico Western Gap Division Agreed, Exploration Pending*, OIL & GAS J., July 10, 2000, at 30, 32 ("[T]he buffer zone was created mainly to allay Mexican nervousness.") (citing an unnamed U.S. State Department official involved in the negotiations).

62. See *supra* notes 25–28 and accompanying text.

63. See *id.*

64. *Id.*

65. See *supra* notes 26–28 and accompanying text.

66. See Urdaneta, *supra* note 1, at 358.

67. See Alma Hernández, *Consideran Limitada Reforma de Pemex [Pemex Reform Seen as Limited]*, REFORMA, Oct. 30, 2008 at 10 (criticizing reform legislation in 2008 for failing to address the issue); see also Robert Campbell, *Oil Firms Gloomy Over Mexico's Reform Prospects*, Reuters, Oct. 3, 2008 ("Energy companies had hoped to gain a toehold in Mexico's unexplored but potentially prolific deepwater territory in the Gulf of Mexico by partnering with state oil company Pemex but congressional hearings on the reform package point to a more modest overhaul of energy legislation.").

68. See, e.g., Clifford Krauss & Elizabeth Malkin, *Mexico Oil Politics Keep Riches Just Out of Reach*, N.Y. TIMES, March 9, 2010, at B1.

it could signal the opposite—that legislators consider the issue too complex to resolve. Either way, the result is the same: Pemex continues to be hampered by a constitutional straitjacket that prevents it from partnering with foreign companies to develop oilfields in the deepest parts of the Gulf of Mexico.<sup>69</sup> In this regard, Urdaneta’s assessment is accurate: “Mexican constitutional constraints limit the flexibility required for the most efficient development of joint resources.”<sup>70</sup>

The following paragraphs summarize the main arguments expressed by Mexico’s dominant political groups during the reform process and help to explain why Mexico has thus far failed to effectively address this issue.

## II. TRANSBOUNDARY RESERVOIRS CAN BE ADEQUATELY ADDRESSED WITHOUT OVERARCHING MEXICAN ENERGY REFORM.

Comprehensive energy reform in Mexico will be a slow and difficult process,<sup>71</sup> and political negotiations can be derailed by even the slightest implication of allowing foreign influence into Pemex.<sup>72</sup> So far, deeply ingrained political divisions on broad energy policy issues have impeded efforts to address transboundary reservoirs despite a general consensus that they must be addressed.<sup>73</sup> Some observers argue that this delay is unnecessary because Mexico can adequately address transboundary reservoirs without relying on (or needing to reform) its domestic energy laws.<sup>74</sup> Instead, international law—

---

69. *See id.*

70. Urdaneta, *supra* note 1, at 363.

71. *See* Miranda, *supra* note 9, at 242; Snow, *supra* note 54, at 37.

72. *See* Wood, *supra* note 26, at 864 (“Though the government repeatedly reassured the public that privatization was not an option [during the 2008 reforms], the left-wing media openly accused Calderón of attempting to bring in a greater role for the private sector and of wanting to sell the national treasure.”).

73. Snow, *supra* note 54, at 40; Javier H. Estrada Estrada, Trans-Boundary Oil and Gas Fields Between Mexico and the USA, paper presented at the 27th U.S. Association for Energy Economics/International Association for Energy Economics North American Conference 23–24 (Sept. 18, 2007), available at <http://www.usaee.org/usaee2007/submissions/OnlineProceedings/Javier%20Estrada.pdf> [hereinafter Transboundary Oil & Gas Fields].

74. *Special Agreements*, *supra* note 57, at 44 (“[T]he solutions to the trans-

expressly recognized as binding authority governing transboundary reservoirs<sup>75</sup>—could serve as the general framework within which the United States and Mexico can clearly define the rights and obligations related to any transboundary reservoirs they share.<sup>76</sup> In similar situations, other countries have successfully developed “joint production agreements” of varying complexities to govern the use of shared resources.<sup>77</sup> For this to work in Mexico, lawmakers must make it clear that transboundary reservoirs are unique—the exception, not the rule—and that the international law principles used to govern them are fundamentally different from the principles driving domestic energy regulation.<sup>78</sup> This caveat is a vital part of the argument that broad energy reform is unnecessary, but it also undermines the effectiveness of any resulting agreements governing transboundary reservoirs.<sup>79</sup>

Two significant challenges must be resolved before exploration in Mexico’s deep waters is possible; establishing a legal framework that allows for flexible relationships between Pemex and private companies is only one of them.<sup>80</sup> The other is realigning Mexican oil industry practices in accordance with international standards.<sup>81</sup> This is not a trivial task. Pemex has been largely isolated from the international oil industry since 1938; some of the things taken for granted in the international

---

boundary reservoirs need to be separated from the monopolistic structure of the petroleum industry.”); Snow, *supra* note 54, at 37 (“International law is the only vehicle that can effectively deal with this issue.”) (quoting Mexican lawyer David Enriquez).

75. See *supra* note 57 and accompanying text.

76. See Snow, *supra* note 54, at 37, 40.

77. *Special Agreements*, *supra* note 57, at 3, 43 (listing several successful agreements “range[ing] from simple schemes of cooperation to highly complex and structured systems of jurisdiction and revenue sharing”); see *Transboundary Oil & Gas Fields*, *supra* note 73, at 23–24.

78. See *Transboundary Oil & Gas Fields*, *supra* note 73, at 25 (explaining that Mexico could either allow “special treatment” to the transboundary reservoirs or “accept[] a mix of public ownership and private development in energy production”).

79. See Snow, *supra* note 54 at 37.

80. See Snow, *supra* note 54 at 37.

81. *Id.*; *Transboundary Oil & Gas Fields*, *supra* note 73, at 26; see Geri Smith, *Mexico’s Pemex Appoints New CEO*, BUSINESSWEEK, Sept. 8, 2009, [http://www.businessweek.com/bwdaily/dnflash/content/sep2009/db2009098\\_719017.htm](http://www.businessweek.com/bwdaily/dnflash/content/sep2009/db2009098_719017.htm).

oil industry are completely foreign to Mexico.<sup>82</sup> This puts Mexico at a disadvantage that even an excellent legal regime cannot completely overcome.

The development of transboundary oil reservoirs contains a unique set of challenges that emphasize the value of cooperation, perhaps more so than any other exploration and production activity.<sup>83</sup> Under a unitization agreement, parties work closely together to minimize the costs for all parties<sup>84</sup> and maximize the benefits for all parties.<sup>85</sup> This focus on the collective good is evidenced by the free exchange of information and expertise among parties<sup>86</sup> and has resulted in a general consensus that a unitization agreement is “the best method of producing oil and gas efficiently and fairly.”<sup>87</sup> This approach diverges sharply from Pemex’s longstanding policy of intellectual isolation,<sup>88</sup> and its implementation would be especially difficult if it were only applied to Pemex’s deepwater operations while the service contract was the only tool available to the rest of Mexico’s oil industry.<sup>89</sup> To tackle the challenge of

---

82. See Urdaneta, *supra* note 1, at 355 (describing contractual relationships).

83. See *id.* at 376 (noting that “states are compelled, for practical and economical reasons, to cooperate in the exploration and exploitation of [transboundary reservoirs]”); see also Statement of Rolf Einar Fife, U.N. GAOR, 63d Sess., 16th mtg. at 6–7, U.N. Doc. A/C.6/63/SR.16 (Nov. 10, 2008) (describing the unique commercial interests at play).

84. Christopher F. Richardson, Note, *The Influence of Offshore Leasing Regimes on Commercial Oil Activity: An Empirical Analysis of Property Rights in the Gulf of Mexico and the North Sea*, 17 GEO. INT’L ENVTL. L. REV. 97, 124 (2004).

85. *Id.*; see Chiawen C. Kiew, Comment, *Contracts, Combinations, Conspiracies, and Conservation: Antitrust in Oil Unitization and the Intertemporal Problem*, 99 NW. U. L. REV. 931, 941 (2005).

86. See Urdaneta, *supra* note 1, at 380; see also Jacqueline Lang Weaver & David F. Asmus, *Unitizing Oil and Gas Fields Around the World: A Comparative Analysis of National Laws and Private Contracts*, 28 HOUS. J. INT’L L. 3, 12 (2006).

87. Weaver & Asmus, *supra* note 86, at 11–12 (explaining the reasons behind the consensus); see Urdaneta, *supra* note 1, at 380.

88. Urdaneta, *supra* note 1, at 360; see also Peter Eigen, *Fighting Corruption in a Global Economy: Transparency Initiatives in the Oil and Gas Industry*, 29 HOUS. J. INT’L L. 327, 346–47 (2007) (noting that Mexico has not yet acceded to the Extractive Industries Transparency Initiative).

89. See *id.*; see also Ana E. Bastida et al., *Cross Corder Unitization and Joint Development Agreements: An International Law Perspective*, 29 HOUS. J. INT’L L. 355, 357 (2007) (noting that, even for practitioners familiar with domestic unitization agreements, “the development of common deposits straddling international boundaries

the joint development of transboundary reservoirs, Mexico and Pemex must begin by studying the most basic tools of the international oil industry. It would make little sense to allow Pemex to negotiate the complexities of a unitization agreement before granting it the power to negotiate a far-less-complicated joint operating agreement.<sup>90</sup>

Under different circumstances, Pemex could be well suited to negotiate intricate agreements and cooperate with sophisticated international oil companies,<sup>91</sup> but it currently lacks two important tools: (1) the proper legal framework and (2) firsthand experience with international oil industry practices. To best prepare for the complexities of cross-border unitization, Pemex should familiarize itself with a wide array of international agreements and feel comfortable with various degrees of international cooperation. Without further energy reform, however, Pemex will not be permitted to engage with the international oil industry to get this necessary experience.

### III. TRANSBOUNDARY RESERVOIRS CAN BE ADEQUATELY ADDRESSED THROUGH OVERARCHING ENERGY REFORM, BUT A CONSTITUTIONAL AMENDMENT IS UNNECESSARY.

Some have argued that significant legal reforms—but not a constitutional amendment—are necessary to allow the common development of whatever transboundary reservoirs may exist.<sup>92</sup> Rather than the will to find an adequate and thorough solution for such reservoirs, beneath this posture rests the fear of the probable political costs of amending the constitution.<sup>93</sup>

---

raises complex and far-reaching issues”).

90. See Urdaneta, *supra* note 1, at 382; Weaver & Asmus, *supra* note 86, at 22 (referring to a unitization agreement as a “super Joint Operating Agreement”); see also John Burritt McArthur, *The Restatement (First) of the Oilfield Operator’s Fiduciary Duty*, 45 Nat. Resources J. 587, 590 (2005) referring to “the ubiquitous Joint Operating Agreement”).

91. See ROSSANA FUENTES BERAIN, OIL IN MEXICO: POZO DE PASIONES 9, <http://www.wilsoncenter.org/topics/pubs/Oil%20in%20Mexico.%20Pozo%20de%20Pasione%20s.pdf> (“None of the national or international actors doubt the capabilities of Mexican engineers.”).

92. Wood, *supra* note 26, at 870.

93. See Miranda, *supra* note 9, at 224 (noting the political difficulties of constitutional amendment).

When it was first drafted by the Mexican revolutionary government in 1917, Article 27 of the Constitution did not foresee transboundary reservoirs in Mexico's hydrocarbon picture, much less the possibility of drilling for such resources in ultra deep waters in the Gulf of Mexico.<sup>94</sup> The current text of Article 27 corresponds to a rather regional, isolated map of Mexico.<sup>95</sup> The resources that are referred to by such article are either clearly located within Mexican territory or within territories that are under Mexican jurisdiction.<sup>96</sup> The complex reality of resources trespassing maritime or territorial boundaries is not even contemplated by the Mexican Constitution and, therefore, there is no constitutional foundation for the treatment of such reservoirs.<sup>97</sup>

On the other hand, the Mexican Constitution does set forth a generic prohibition concerning the execution of contracts that may entail the exploitation of such resources by any other company other than the state oil company, which, pursuant to the Regulatory Law, is Pemex.<sup>98</sup> This prohibition clearly bans the contracts that would permit joint development or unitization agreements with a third party, be it private or public.<sup>99</sup>

To this effect, noted oil and gas expert Bernard Taverne has pointed out that a unitization agreement is really a joint operating agreement with a number of added features that make it more complex.<sup>100</sup> Hence, it would seem obvious that if Article 27 of the Constitution can be interpreted in the sense that it forbids cooperative schemes, such as joint operating agreements, this prohibition can all the more be extended to a unitization and/or other similar agreements.<sup>101</sup>

---

94. See Urdaneta, *supra* note 1, at 340–41 and 354.

95. See Constitución Política de los Estados Unidos Mexicanos [C.P.] art. 27, *as amended*, Diario Oficial de la Federación [DO], 5 de Febrero de 1917 (Mex.).

96. *Id.*

97. *See id.*

98. *Id.*

99. *See id.*

100. BERNARD TRAVERNE, PETROLEUM INDUSTRY AND GOVERNMENTS: AN INTRODUCTION TO PETROLEUM REGULATION, ECONOMICS AND GOVERNMENT POLICIES 385 (1999).

101. *Id.*

Therefore, a constitutional amendment in Mexico is necessary as the legal foundation for such negotiations and cooperative instruments.<sup>102</sup> Otherwise, the already difficult process of negotiating and performing joint development agreements would be made more difficult by legal uncertainty.<sup>103</sup> Political convenience should not be the criteria for creating the legal framework for transboundary development. A framework filled with gaps and loopholes may condemn such projects to joint litigation instead of cooperation, and all would parties suffer greatly as a result.

#### IV. TRANSBOUNDARY RESERVOIRS CAN BE ADEQUATELY ADDRESSED THROUGH DIPLOMACY.

The debate concerning transboundary reservoirs is improperly centered on the steps and measures that are to be taken by the nation-states with disregard to the actions that will ultimately need to be taken by the companies involved in the joint cooperation efforts.<sup>104</sup> Certainly, government action must be taken, but only in preparation for future negotiations among oil companies.<sup>105</sup>

Thus, when referring to transboundary reservoirs that may exist between the United States and Mexico, it is important to distinguish between two levels of negotiation: One level concerns the nation-states, while another, rather important level, rests on oil companies themselves.<sup>106</sup> In this sense, the current debate in Mexico is colored by a state-oriented bias, as the people addressing the transboundary issues have omitted the fact that, on the U.S. side of the border, the state can only go so far in

---

102. See Snow, *supra* note 54, at 38–39.

103. See *id.*

104. See Urdaneta, *supra* note 1, at 362 (asking whether “Mexico [could] negotiate a cross-border unitization agreement with the United States, which, for example, [would] provide that a common operator (not necessarily Pemex) [might] exploit the resources shared by both countries”) (internal citation omitted).

105. *Id.* at 383.

106. See *id.* (“Cross-border unitization agreements are the best way to develop common oil and gas deposits that underlie a boundary line between countries. However, their success will depend on the intent and the legal framework of the countries involved.”).

providing a solution for such issues.<sup>107</sup> On the U.S. side of the Gulf there is not one single national oil company with rights, as is the case of Mexico, but a wide array of companies operating in compliance with U.S. and international law.<sup>108</sup> Therefore, inasmuch as those companies comply with U.S. and international law, they have enforceable mineral rights that should not be infringed by the United States or Mexico as a result of a treaty concerning transboundary reservoirs.<sup>109</sup>

This is not to say that diplomatic steps are not needed, but a diplomatic step is only the first towards the achievement of a solution.<sup>110</sup> Bilateral or multilateral treaties are indeed necessary, but only as a point of entry towards the negotiations and agreements among the companies.<sup>111</sup> Therefore, a treaty that would hinder the interests of the private companies operating on the U.S. side of maritime boundary or those of Pemex on the Mexican side would likely result in an increase of problems rather than viable solutions.<sup>112</sup> If the interests of all the companies involved are not well accounted for from the onset of diplomatic negotiations, those negotiations could be fruitless in the best of cases and counterproductive in the worst.

V. ONCE THE LEGAL FRAMEWORK IS READY FOR UNITIZATION, SO WILL EVERYONE AND EVERYTHING ELSE.

A sound legal apparatus is essential to addressing transboundary reservoirs, but transboundary reservoirs present unique challenges not necessarily related to legal questions.<sup>113</sup> There are other issues that strain the relationship among the relevant nations and companies, such as the determination of the reserves, the agreement on the participation formula applicable to such reserves, the designation of the single operator, and the design of the management committee for the

---

107. *Id.* at 348; Richardson, *supra* note 84, at 101.

108. *See* Richardson, *supra* note 84, at 100.

109. *See id.* at 125 (“Proper governmental stewardship of the resources demands an appropriate property rights regime . . .”).

110. Bastida, et al., *supra* note 89, at 14.

111. *Id.*

112. *See* Richardson, *supra* note 84, at 100.

113. *See* Urdaneta, *supra* note 1, at 380–81.

unit.<sup>114</sup> These are commercial and operational decisions on which the domestic legal frameworks, or national policy, may have a varied degree of influence. However, it is safe to say that such negotiations will certainly benefit if the law of the countries involved provides a firm basis for such negotiations.<sup>115</sup>

As Urdaneta points out, cross-border unitization has developed to prevent resource waste and to increase efficiency in hydrocarbon extraction.<sup>116</sup> Cross-border unitization is, or at least should be, primarily a technical and commercial alternative chosen by countries and companies sufficiently certain that there are transboundary reserves that are worthy of commercial exploitation.<sup>117</sup> The questions that should inform decisions to unitize are simple:

Are there transboundary reservoirs?<sup>118</sup>

Are they worth developing?<sup>119</sup>

If so, should operations be unitized?<sup>120</sup>

In the case at hand, it would be helpful for the parties in charge of such negotiations to reflect on how many of these questions they are prepared to answer today.<sup>121</sup> Their readiness to answer such questions would be an adequate indicator of their degree of preparation to negotiate and find a solution concerning such reservoirs.<sup>122</sup>

Even when unitization is the preferred solution in many cases, it should not be undertaken without prior in-depth cost-benefit analysis on the behalf of the host countries and, particularly, of the companies.<sup>123</sup> In the case of the United States and Mexico, the situation may be complicated by the unevenness of the stages of development between one side of the

---

114. *Id.*

115. Urdaneta, *supra* note 1, at 383.

116. *Id.* at 380.

117. *See id.* at 379.

118. Transboundary Oil & Gas Fields, *supra* note 73, at 3.

119. *Id.*

120. *Id.*

121. *See id.*

122. *Id.*

123. Urdaneta, *supra* note 1, at 380–81.

border and the other.<sup>124</sup> Let us recall the landscape of the deep waters of the Gulf of Mexico: floating cities of steel vs. virginal paradise.<sup>125</sup> From the perspective of the unitization negotiator, the masters of the cities of steel have a competitive advantage that cannot be ignored.<sup>126</sup> They have a precious asset that goes beyond the rigs and the pipelines: information about the assets in the subsoil; that information gives them better bargaining power.<sup>127</sup>

Accordingly, if Pemex were to enter into a unitization agreement, or any similar form of joint development, it would do so with the hard data at hand.<sup>128</sup> Mexico needs to address the flaws and insufficiencies in its general exploration and production framework in order to facilitate and accelerate the acquisition of such data.<sup>129</sup> Transboundary reservoirs cannot be divorced from Mexico's overall policy. As stands today, Mexico may not be ready to gather and consequently exchange all the information necessary for the negotiations involving the transboundary reservoirs as a result of its restrictive constitutional and legal framework.<sup>130</sup>

In sum, the above are some of the misconceptions that have prevailed in the Mexican policy debate concerning transboundary reservoirs, and the same which have prevented the authorities to commit to an in-depth analysis of the steps beyond the merely diplomatic venue. That is, Mexico should take heed to the preexisting rights of the companies in the U.S. side of the maritime boundary. With regard to the Perdido Foldbelt, accurately described by Urdaneta as one of the most hydrocarbon-rich—and therefore one of the most active—areas in the Gulf,<sup>131</sup> the companies operating therein have not reported the existence of transboundary reservoirs.<sup>132</sup> If this were

---

124. *Id.* at 345.

125. *See supra* notes 7–9 and accompanying text.

126. Urdaneta, *supra* note 1, at 345.

127. *See id.* at 390.

128. *See id.*

129. *See* Wood, *supra* note 26, at 868.

130. Urdaneta, *supra* note 1, at 390.

131. *Id.* at 349.

132. *Id.* at 382–83.

to happen in the near future, there would be considerable complications for both countries and for the companies involved; it is likely that the latter would resist embarking on a negotiated solution with Pemex as this could cost significant time and money.<sup>133</sup> It is likely that the lessors on the U.S. side would rather apply the rule of capture on Mexico than to engage in a long and complicated negotiation for the equitable solution for such reservoirs.<sup>134</sup> Presumably, the lessors in the U.S. side of the Gulf have neither the patience nor the desire to begin a collaborative venture with a company with no significant deep water expertise, insufficient seismic and geophysical data, and a complex and inadequately inflexible constitutional and legal framework to provide fruitful negotiations.<sup>135</sup>

With regard to the rule of capture, Urdaneta's otherwise thorough article lacks any mention of the gas transboundary reservoirs that, albeit unofficially acknowledged, are known to exist in the mainland of each country, along the border between South Texas and the State of Tamaulipas.<sup>136</sup> In that particular area, officers of Pemex and the companies on the U.S. side have admitted,<sup>137</sup> albeit informally, to having applied the rule of capture on one another, which seems preferable to having to seek an international agreement between countries as well as the related legal agreements between and among companies.<sup>138</sup> In this sense, it could be argued that the rule of capture is to an extent common practice in the relationship between Mexico and the United States, although there are substantial differences between the economic value of a shared gas reservoir in the mainland and that of a transboundary oil reservoir in the ultra deep waters of the Gulf.<sup>139</sup> In this particular case both parties

---

133. *See id.* at 382–83.

134. *Id.* at 389.

135. *See id.* at 390.

136. Christopher D. Henry, *Trans-Boundary Geothermal Resources of Texas and Mexico*, 22 NAT. RESOURCES J. 973 (1982).

137. In personal interviews with the author, these transboundary reservoirs were mentioned by several officers from Pemex, the Secretary of Energy, and the International Oil Company on condition of anonymity.

138. Ross L. Shipman, *Energy on the U.S.–Mexico Border*, 26 NAT. RESOURCES J. 711, 712 (1936).

139. *Id.*

appear to have concluded that the transaction costs of a lengthy negotiation exceed its benefits. Could this become the case for the deepwater transboundary reservoirs in the Gulf of Mexico?

## VI. CONCLUSION

This response is not intended to cast a shadow of doubt on Urdaneta's impeccably logical presentation of the available legal alternatives for the treatment of possible transboundary reservoirs between the United States and Mexico. Rather, it is intended to provide further insights as to the legal, informational and political conditions that could jeopardize Urdaneta's cooperative approach. In an optimal legal and political context, Urdaneta's proposed path of collaboration would certainly be the one to be taken. As she points out in her essay, many other nations as diverse as Australia and East Timor, Venezuela, Trinidad and Tobago, Malaysia, and Brunei have chosen this path and have successfully engaged in joint development of shared hydrocarbon reservoirs.<sup>140</sup>

The current Mexican situation, however, is not optimal to embark on such a negotiation, as at this point there are many pending items that would need to be addressed before collaborative schemes become a feasible approach:

Mexico would need to overhaul its constitutional and legal framework. And, as mentioned, a constitutional reform is still taboo in the agenda of all political parties in Mexico, regardless of their ideological inclination.

Once the constitutional and legal framework is adjusted to give room to joint operation, joint venture, production sharing and unitization agreements, Pemex may begin to explore new contractual and partnership experiences until it finds an adequate "fit" for different projects. Finding a fitting partnership will likely require a long period of trial and error.

With the new constitutional, legal and contractual basis in place, seismic, geophysical and other exploratory studies and works will have to be performed by Mexico in order to ascertain the existence of commercial reserves that may be shared by the United States. Such data is indispensable for Mexico in order to

---

140. Urdaneta, *supra* note 1, at 378.

determine its share of the reserves in the transboundary reservoir.

Only by following all of these steps may there be a chance to sit at the bargaining table with the United States and the companies. It is noteworthy that unitization agreements usually take years and require significant expertise to be reached. Unlike to the United States, which has some of the most skilled experts in negotiating and performing unitization agreements, Mexico has no specialized training in this field. Hence, it is likely that even if supported by international consultants during such a negotiation, there will be severe internal trepidations in the legal, political and social arenas that may impede negotiations to proceed smoothly until successful results are achieved.

Following a much talked about, and yet relatively limited energy reform in 2008, years have gone by and Mexico is still trying to implement what was achieved by way of those legal changes.<sup>141</sup> After all this time, and maybe against its better interests, Mexico is still undergoing a process of internal adjustment and introspection rather than a strong push to crack open and to seek new frontiers. Transboundary reservoirs have already been used to no avail in political discourse to shake Mexico's oil industry out of its dormant state.<sup>142</sup>

At this moment, the United States and Mexico have chosen the slow path to address the issues concerning possible transboundary reservoirs. A joint press release issued June 23, 2010, merely expresses the intent of negotiating and entering into whatever treaties and instruments may be needed for the "equitable and efficient" exploitation of possible transboundary reservoirs, while it has also announced an extension to the moratorium.<sup>143</sup> The fact is that both governments need time before they can be understood. After the Macondo accident, the United States may want to clean its own mess before it invites

---

141. *Id.* at 361.

142. *See supra* note 26–28 and accompanying text.

143. Joint Press Release, *supra* note 18.

2011]

*TRANSBOUNDARY PETROLEUM*

367

Mexico to visit.<sup>144</sup> With regard to Mexico, there is much to be done internally before speaking *seriously* about unitization. The hard question to be asked here is whether the people of both countries can wait for their governments at a time where energy security issues should be at the very top of the policy agenda.

---

144. See Paula Dittrick, *Analyst says Macondo Incident 'Not Terminal' to Gulf Drilling*, PENNENERGY (July 23, 2007), [http://www.pennenergy.com/index/petroleum/display/2057219932/articles/pennenergy/oil-spill-gulf-of-mexico-2010/analystsays\\_macondo.html](http://www.pennenergy.com/index/petroleum/display/2057219932/articles/pennenergy/oil-spill-gulf-of-mexico-2010/analystsays_macondo.html).