



## **Unitization**

### **What's the Interest?**

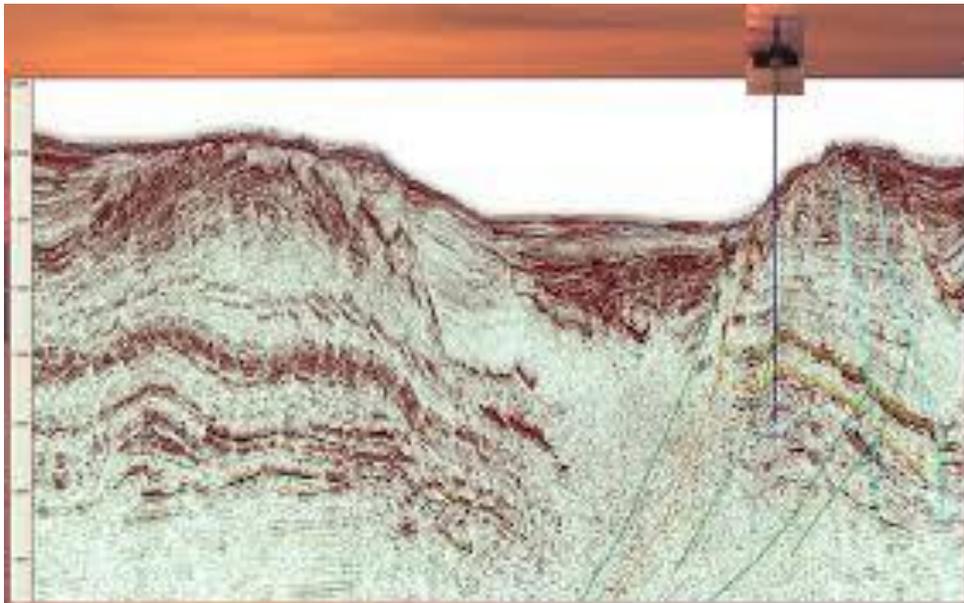
#### **1. Introduction**

The good news – you’ve made a discovery. The bad news – your discovery straddles another licence block. How do you go about developing such hydrocarbon discovery (field)? One options, namely: drilling it up and producing the hydrocarbons as fast as possible from under your licence (the “rule of capture”) is now mostly prohibited, so you’re going to have to develop the field jointly with the holder of the other licence (Licensee<sup>1</sup>). This will necessarily see you engage in the process of unitization.

Unitizing a field requires the Licensees to agree two key issues: allocation of the field (hydrocarbons) between the separate licences and deciding how to operate the field. Those issues can however either be agreed between the Licensees directly (unitization based on Tract Participations) or alternatively among all the individual companies that hold the interests in the licences (unitization based on Unit Interests). This article will examine the difference, and explain the crucial unitization terms, Tract, Tract Participation and Unit Interests.

#### **2. Determination of Tract and Tract Participation**

Hydrocarbons are found in reservoir rocks beneath the earth’s surface. Determining a hydrocarbon discovery’ volume and distribution requires the interpretation of reservoir data that is gathered both remotely at the surface (e.g. seismic data) and from the subsurface itself through the well bore (e.g. logs and other well data). The less data, the more uncertain the models (subsurface pictures) of the field will be.



Unitization of a field starts with building this subsurface picture: describing the reservoir that makes-up the field (the Unit) and determining the portion of the Unit that is located under each licence. The

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<sup>1</sup> A Licensee is the holder of a licence, the Licensee may comprise a single company or a number of companies jointly

portion of the Unit under each specific licence is known as a Tract. Agreement then has to be reached on the contribution each Tract will make to the development and production of the field. This contribution, when expressed as a percentage is known as the Tract Participation. Tract Participations can be calculated on several bases, e.g. the volume of hydrocarbons expected to be produced from each Tract, or the volume of hydrocarbons estimated to be initially in place in each Tract, or even, most simply, the surface area of each Tract.

This phase of the unitization, the determination<sup>2</sup> of the Tracts and Tract Participations, may take many months to years<sup>3</sup> and is primarily carried-out by subsurface specialists.

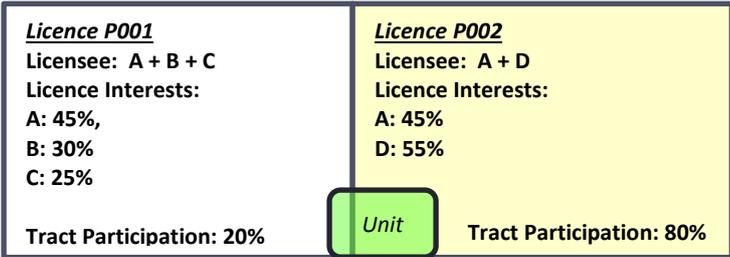
**3. Calculation of Unit Interest**

Tract Participations are the outcome of the (re)determination process and divide the Unit between the licences. Unit Interests, on the other hand, are the result of a further step, a calculation that subdivides the Unit among the various individual companies holding interests in the licences.

The Unit Interest of a company is the total interest that a company holds in the field. It is calculated as the sum of a company’s interest in each licence multiplied by the Tract Participation for that licence.

**4. Tract, Tract Participation and Unit Interest – an example**

Tract, Tract Participation and Unit Interests are schematically shown below.



Party	licence interest		interest in Tract		Unit Interest
	P001	P002	P001	P002	
A	45%	45%	9%	36%	45%
B	30%	-	6%	-	6%
C	25%	-	5%	-	5%
D	-	55%	-	44%	44%
	100%	100%	20%	80%	100%

The example above will be used throughout this article.

**5. Unitization based on Tract Participations or Unit Interests – the difference**

Tract Participations split the Unit between the relevant licences. Unitization based on Tract Participations is therefore a unitization strictly between Licensees. In our example, it would be between A, B and C jointly (hereinafter A/B/C), on one side, and A and D jointly (hereinafter A/D), on the other side, i.e. there are only two parties to the unitization.

Unit Interests, however, divide the Unit among all the companies that hold interests in one or more of the licences. Unitization based on Unit Interests would, in our example, be a unitization among A, B, C and D individually, i.e. it would involve four parties.

<sup>2</sup> Or redetermination, if a new determination is carried out once more data about the field becomes available  
<sup>3</sup> In the case of small fields where a determination would be too costly the Tract Participations may also be the result of negotiations

The essential difference between unitization based on Tract Participations and unitization based on Unit Interests is the relationship created among the companies. In case of unitization based on Tract Participations, the relationship among the companies within a particular licence remains, to the extent not superseded by the unitization/unit operating agreement, governed by the applicable joint operating agreement. Each company therefore holds its interest in the Unit indirectly through a licence interest. Unitization based on Unit Interests, on the other hand, sees the companies become holders of an interest in the Unit directly. Here the relationship among the companies, concerning the Unit, will be governed largely by the unitization/unit operating agreement.

We can see the significance of choosing between Tract Participations or Unit Interests unitization by looking again at the example given above. Some of the more striking results are shown in red.

		unitization based solely on	
		Tract Participations	Unit Interests
parties		A/B/C and A/D	A, B, C and D
decision making	number of votes	2	4
	voting rights	A/B/C: 20% (pre-Unit voting under P001 JOA: A 45%, B 30% and C 25%) <b>A/D: 80%</b> (pre-Unit voting under P002 JOA: A 45% and <b>D 55%</b> )	A: 45% B: 6% C: 5% <b>D: 44%</b>
default	if A defaults liability of:	B and C joint and several: each 9% (under JOA resulting in B: 4.9% and <b>C: 4.1%</b> ) D: 36%	B: 4.9% <b>C: 4.1%</b> D: 36.0%
	if B defaults liability of	A and C joint and several: each 6% (under JOA resulting in A: 3.9% and C: 2.1%) <b>D: 0%</b>	A: 2.9% C: 0.3% <b>D: 2.8%</b>
	if C defaults liability of	A and B joint and several: each 5% (under JOA resulting in A: 3.0% and <b>B: 2.0%</b> ) D: 0%	A: 2.4% <b>B: 0.3%</b> D: 2.3%
	if D defaults liability of	B and C: 0% <b>A: 44%</b>	<b>A: 35.4%</b> B: 4.7% C: 3.9%

The table shows, for example, that D, assuming simple majority voting applies, has a controlling vote if the unitization would be based on Tract Participations, but it would not have this control if the unitization were based on Unit Interests. The table also shows that D, in the case of a unitization based on Unit Interests, would be liable for the default of B whereas, in the case of a unitization based on Tract Participations, B’s default would be the problem of B’s co-licence holders, namely A and C.

**6. Conclusion – What will be the Interest?**

It pays to think very carefully about the basis of a unitization, Tract Participation or Unit Interest? Depending on the voting regime under the applicable JOA it could significantly change a company’s voting power under the unitization/unit operating agreement. Depending on the composition of the Licensees, it may also make a substantial difference to a company’s liability regime.

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