





# Allocation Wells

## *What are they and how are royalties and interests calculated?*

**We are often asked what allocation wells are and how royalty is calculated in one for division order purposes. This article answers these questions and more.**

### **What is an allocation well?**

An allocation well is a type of horizontal well that allows a lessee with a 100% working interest in two or more adjacent tracts to drill a well that traverses — and produces from — each tract. For a lessee, one benefit of an allocation well is that no pooling authority is required even though each tract may be owned by different lessors or mineral owners.

### **What's the difference between an allocation well and a production sharing agreement well?**

First, it's important to recognize that attorneys may use the term allocation well to refer to both allocation wells and PSA wells, but there are distinct differences. Second, both the allocation well and the PSA well are designations of the Texas Railroad Commission, the administrative body in Texas tasked with regulating railroads and other transportation carriers like pipelines, and thus oil and gas. A PSA is an agreement between the parties that specifies how production is to be allocated. The RRC requires 65% of all interest owners to agree to a PSA before it will approve a permit for a PSA well. Often, this is difficult or impossible to attain.

The RRC granted the first allocation well permit in 2010 to Devon Energy. Devon attempted to secure a PSA from its interest owners but lacked the requisite 65% approval. Nevertheless, Devon still applied for the permit but labeled the well as an allocation well, and the RRC approved the permit. With that was born the allocation well, which required no approval — as in zero — from interest owners. So, in an allocation well, there is no PSA and no requirement of approval by the interest owners.

### **How are royalties calculated in an allocation well?**

First, let's look at how royalty is calculated in traditional pooling to fully comprehend the distinction between the two formulas. In a pooled unit, royalty payments are calculated based on a Tract Participation Factor. The TPF formula is the number of the lessor's lease acres included in the unit as the numerator and the total number of acres in the unit as the denominator:



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### Pooling Royalty Calculation

**Number of lessor's lease acres included in the unit**

Total number of acres in the unit

Instead of a TPF, in an allocation well, royalty payments are calculated based on an allocation factor. That is, a formula is used that purports to quantify what production is attributable to each tract. Typically, that formula is productive lateral length of the horizontal wellbore traversing lessor's tract(s) as the numerator and the total horizontal wellbore length as the denominator.

### Allocation Royalty Calculation

**Lateral length of horizontal well bore on lessor's tract**

Total horizontal wellbore length

### Why isn't pooling required if each tract has different ownership?

According to the RRC, the reason pooling is not required in an allocation well is that a horizontal well is treated as a vertical well for purposes of the oil and gas lease. In other words, under the terms of a typical lease, a lessee has the option to drill a vertical well on any tracts he's leased, even if the tracts are adjacent to one another. A horizontal well is managed as if it's a vertical well so that, even though it can traverse lease lines, each tract is treated as if it holds a single vertical well.

### How are interests calculated in an allocation well?

Now we can apply the allocation tract factor and do an actual calculation based on a hypothetical.

Let's assume that there are four distinct mineral owners who own in four distinct and adjacent tracts. Each owner owns 100% mineral interest in their respective tract and leases their interests to four separate oil and gas companies. A horizontal well is drilled that traverses all four tracts with a total lateral length of **10,130 feet**.

Tract 1 has 320 acres and **2,310 feet** of horizontal wellbore. Owner A signed a lease with a 3/16 royalty.

Tract 2 has 80 acres and **2,640 feet** of horizontal wellbore. Owner B signed a lease with a 1/8 royalty.

Tract 3 has 320 acres and **2,640 feet** of horizontal wellbore. Owner C signed a lease with a 1/4 royalty.

Tract 4 has 80 acres and **2,540 feet** of horizontal wellbore. Owner D signed a lease with a 3/16 royalty.

### How are the interests of the parties calculated?

**Step 1:** First, let's calculate each owner's Allocation Factor:

Tract 1: 2,310 feet of wellbore on lessor's tract divided by 10,130 Total Horizontal Wellbore Length = 0.22803554

Tract 2: 2,640 feet divided by 10,130 feet = 0.26061204

Tract 3: 2,640 feet divided by 10,130 feet = 0.26061204

Tract 4: 2,540 feet divided by 10,130 feet = 0.25074038

**Step 2:** Now, let's include the owner's royalty interest into the calculation:

Tract 1:  $0.1875 \times 0.22803554 = 0.04275666$  (Owner A's Net Revenue Interest)

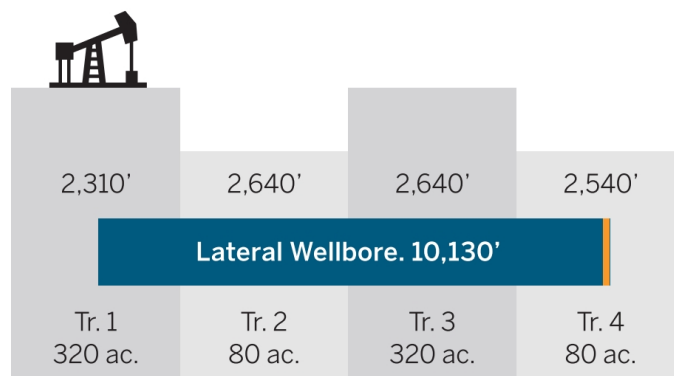
Tract 2:  $0.125 \times 0.26061204 = 0.0325765$  (Owner B's NRI)

Tract 3:  $0.25 \times 0.26061204 = 0.06515301$  (Owner C's NRI)

Tract 4:  $0.1875 \times 0.25074038 = 0.04701382$  (Owner D's NRI)

**Question No. 1:** Why didn't we include the *surface acres* in the owner's tract in the calculation?

**Answer:** Because the horizontal wellbore may not traverse the entire tract. So, even if it's a 320-acre tract of land, the wellbore may only traverse a part of the 320 acres. For our hypothetical example, this is what it would look like:



**Question No. 2:** Why do tracts 1 and 4 have less of the lateral wellbore than tracts 2 and 3?



**Answer:** Tract 1 has fewer lateral feet of wellbore because the well was drilled on that tract and measurements for the horizontal length don't begin until the first "take point." The take point is where the horizontal wellbore begins. This is the part that is going to be perforated for fracking. Tract 4 has fewer lateral feet because, under Texas law, a wellbore can be no closer than 467 feet from a lease or property line. This is also known as the last take point.

### Which is more profitable for the mineral owner — a horizontal well or a vertical well?

Now let's examine the difference to the mineral owner in terms of which is better for them — an allocation well or a single well.

Let's assume we have a mineral owner with a 100% interest in a 320-acre tract of land and he leases to an oil and gas company for a ¼ royalty. If the tract is pooled, assume 100% of the tract is included in the unit and the total unit is 1,200 acres.

The calculation is  $0.25 \text{ RI} \times 320 \text{ lease acres} / 1,200 \text{ total unit acres} = 0.0666667$

Now, assume the same facts, but this time it's a horizontal well and 2,300 feet of lateral is on the tract and the total lateral wellbore is 10,050 feet.

The calculation is  $0.25 \times 2,300 / 10,050 = 0.05721393$

Of course, the numbers vary based on the length of lateral, but at first glance, it would appear that the mineral owner is better off with the pooled NRI than the allocation NRI. But looks can be deceiving.

According to Certified Mineral Manager Jimmy Wright, CPL, that's because a horizontal well can produce exponentially more oil than a vertical well can. So even though the NRI of a vertical well may be larger, in actuality, the mineral owner is likely to have more production, and therefore more revenue, from a horizontal/allocation well than from a vertical well in a pooled unit.

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Think about it this way: If you have a vertical well with 100 feet of pay zone, you will be able to retrieve oil from 100 feet. If, on the other hand, you have a 2-mile horizontal well, you will be able to retrieve oil from 2 miles, instead of just 100 feet.

The fracking technology we have today is vastly better at producing more oil than a single vertical well. In the end, an allocation well is typically a far better return for the mineral owner. ▲

### REFERENCE SOURCES AND SUGGESTED READING

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