

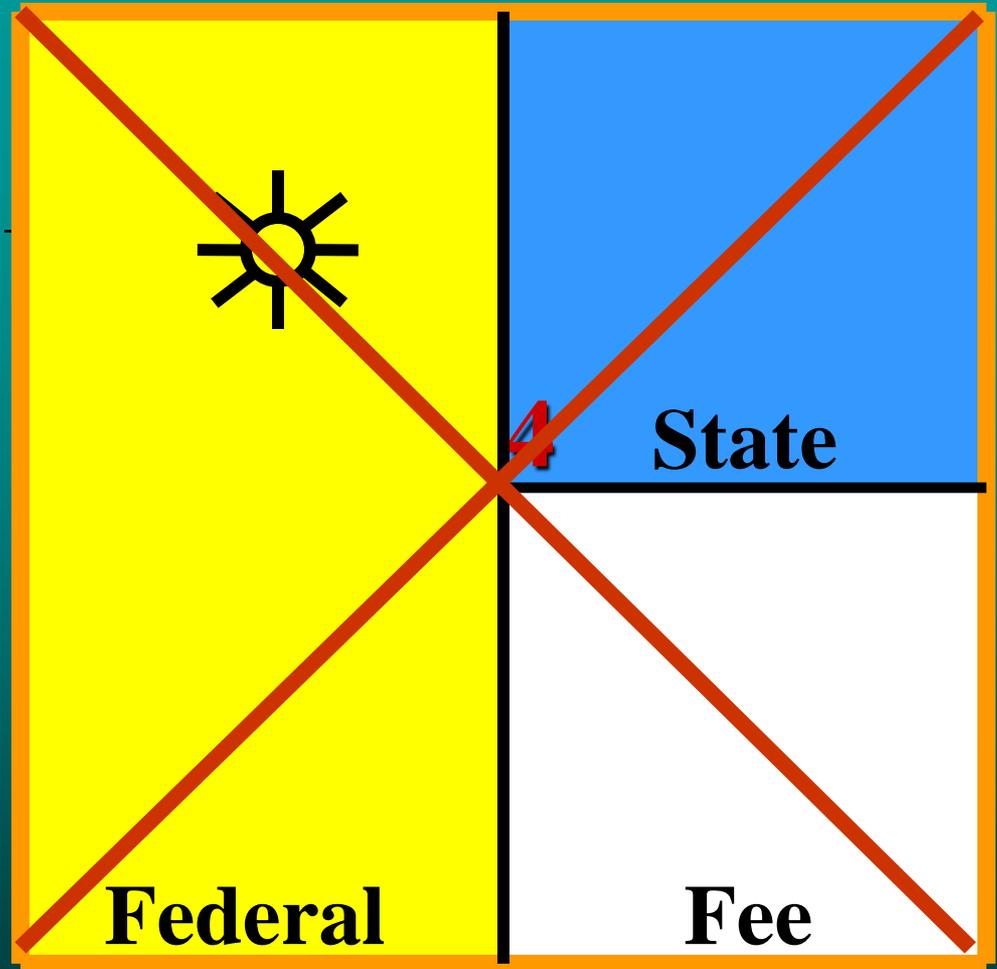
Information on Communization Agreements

Multiple CA Wells *Lease-line CAs*

Multiple C/A Wells



1 Well CA

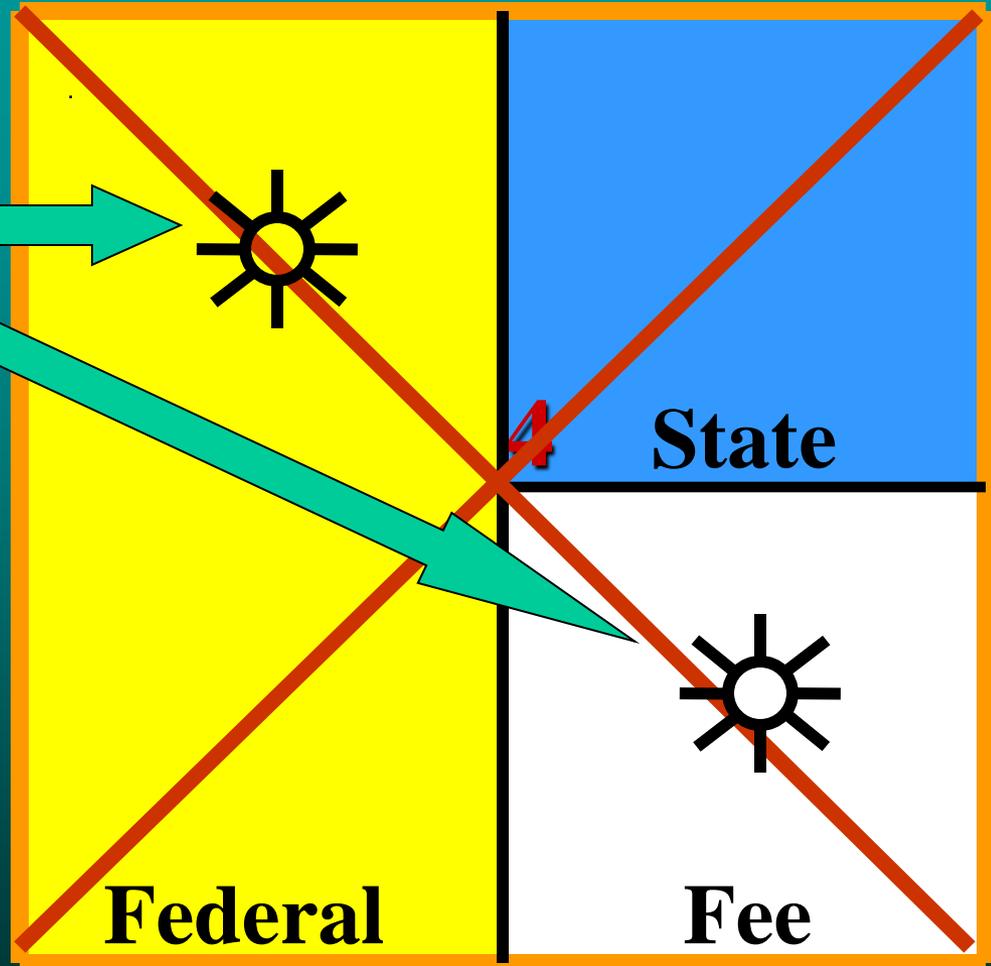


Multiple CA Wells

Multiple wells can be drilled within the spacing unit/CA

These additional wells operate under terms of the CA if completed in CA formation.

Both wells contribute in the CA allocation.

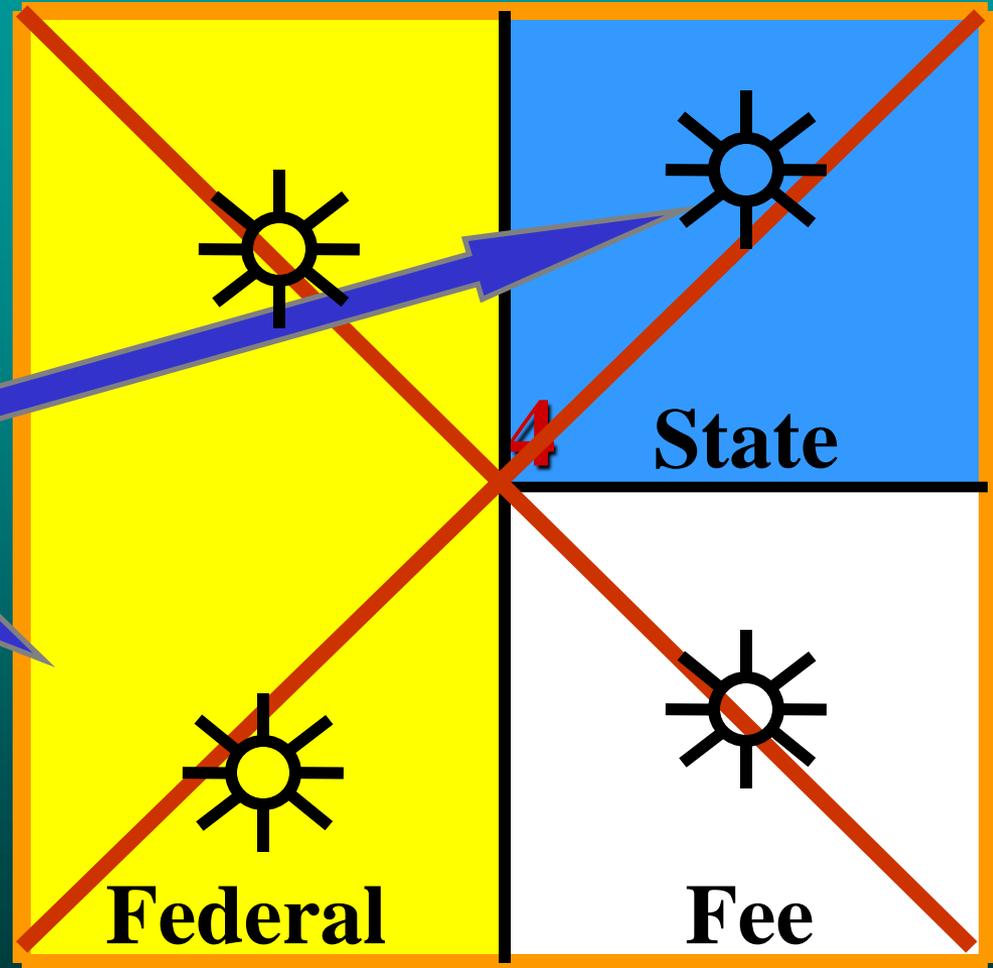


2 - CA Wells

Multiple CA Wells

Additional Wells can even be drilled on the State and Federal lease.

All wells completed in the CA formation operate under the terms of the CA and contribute to the CA allocation.



4 - CA Wells

Lease-line CAs

Lease-line CAs

 **640 acre Section**

 *Now we are
looking at
160 acre spacing.*

**160 acre
Spacing
Unit**

**160 acre
Spacing
Unit**

**160 acre
Spacing
Unit**

**160 acre
Spacing
Unit**

Lease-line CAs

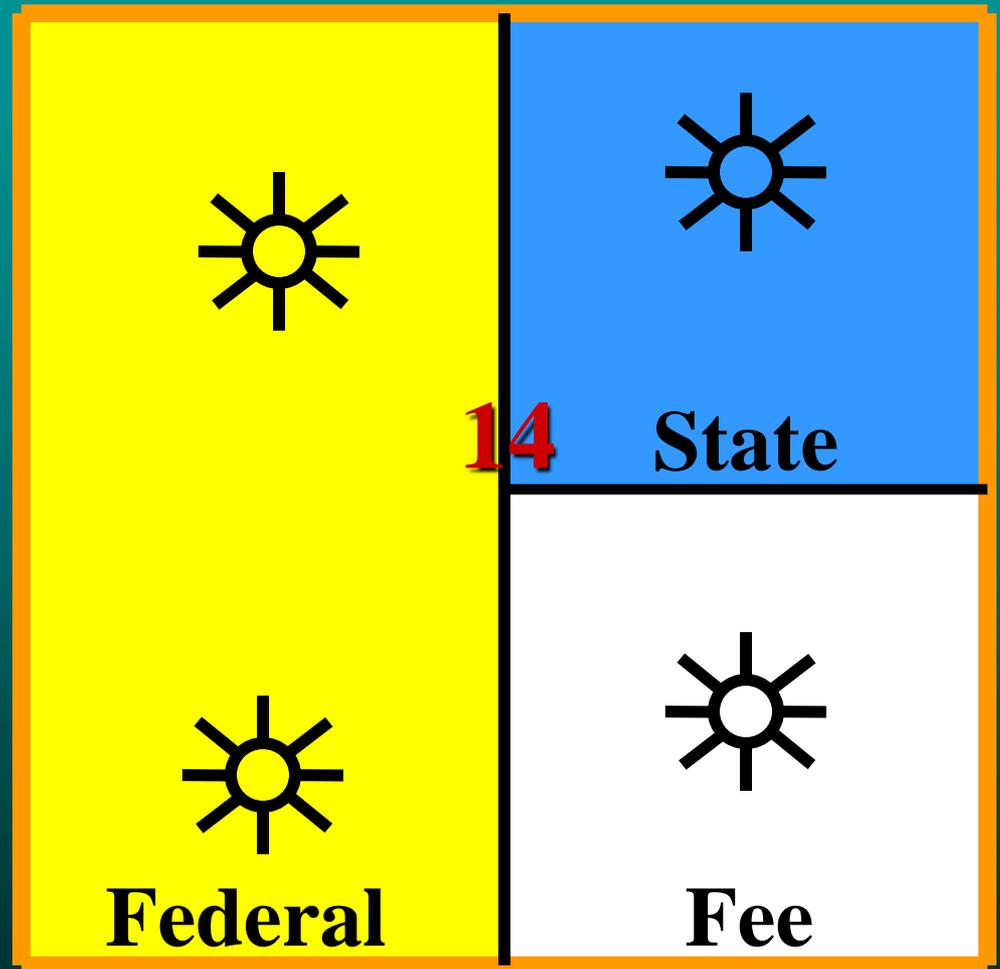
 **640 acre Section**

 **160 acre spacing**

 **1 Well in each spacing unit**

 **All is well**

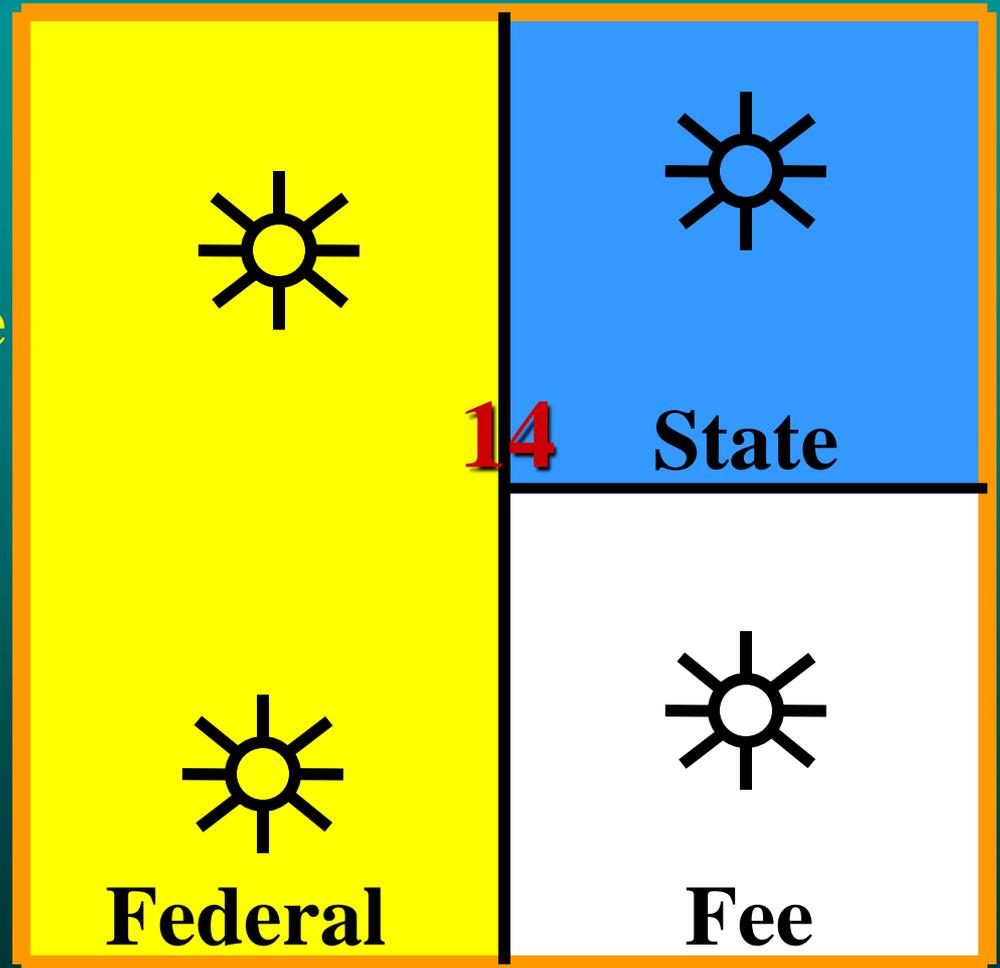
 **No CA required**



Lease-line CAs

 What happens if wells don't recover all reserves from the 160 acre spacing units?

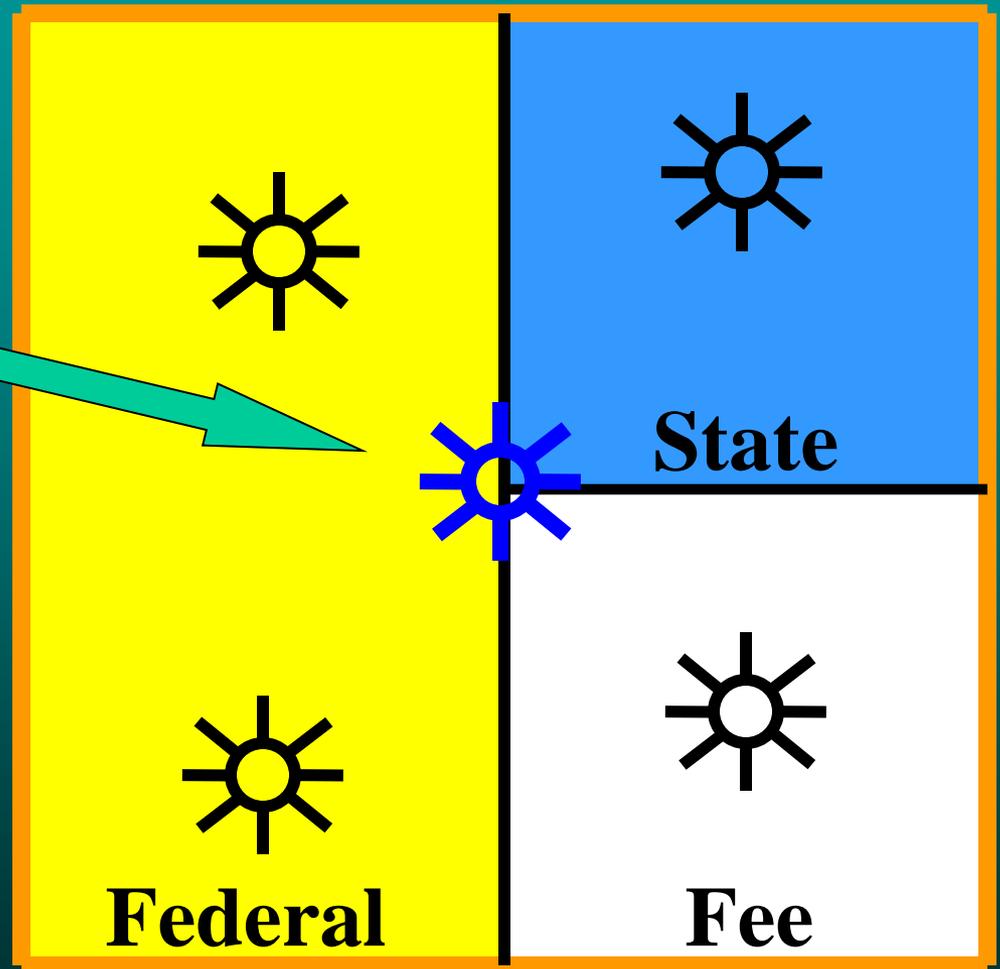
Where would you drill an additional well?



Lease-line CAs

How about drilling a well in the middle of the section?

How do we allocate production and costs among the spacing units and leases?



Lease-line CAs

160 acre lease-line CA formed to allocate between all the leases/spacing units.

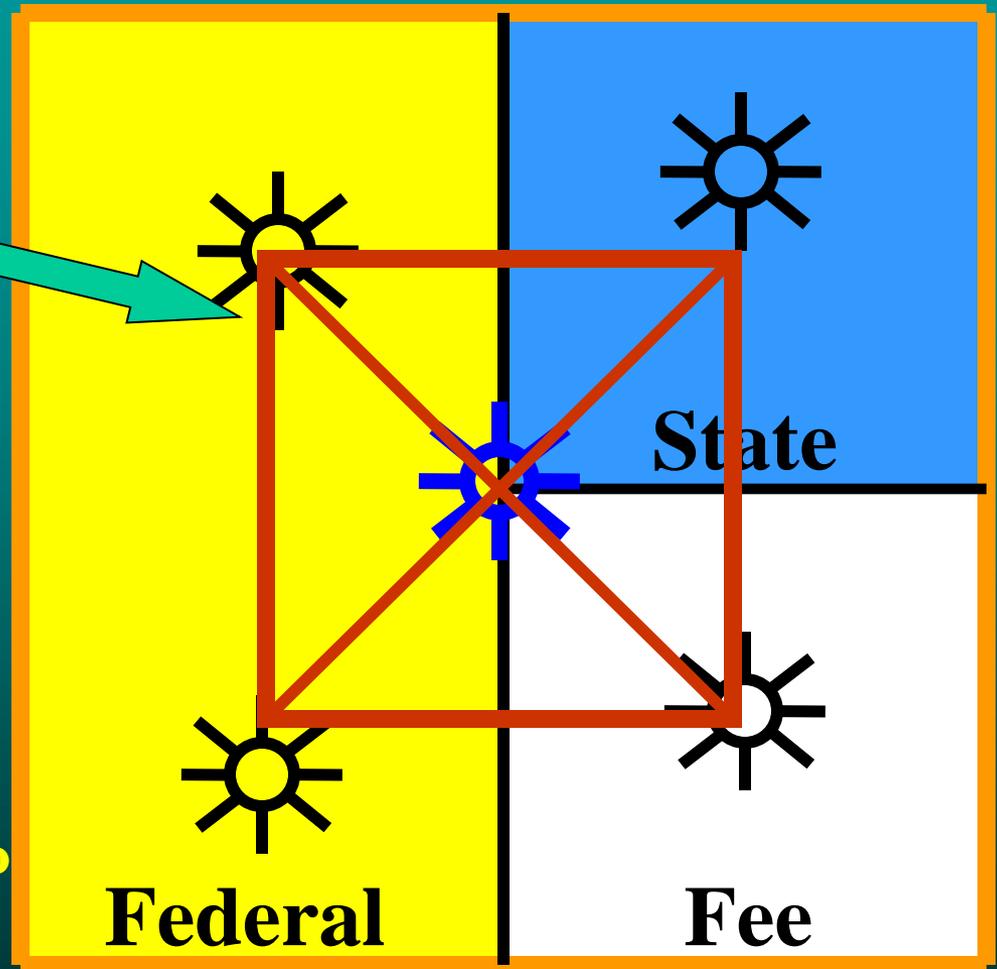
4 original wells are omitted from new lease-line CA.

CA Allocation:

Federal lease: 50%

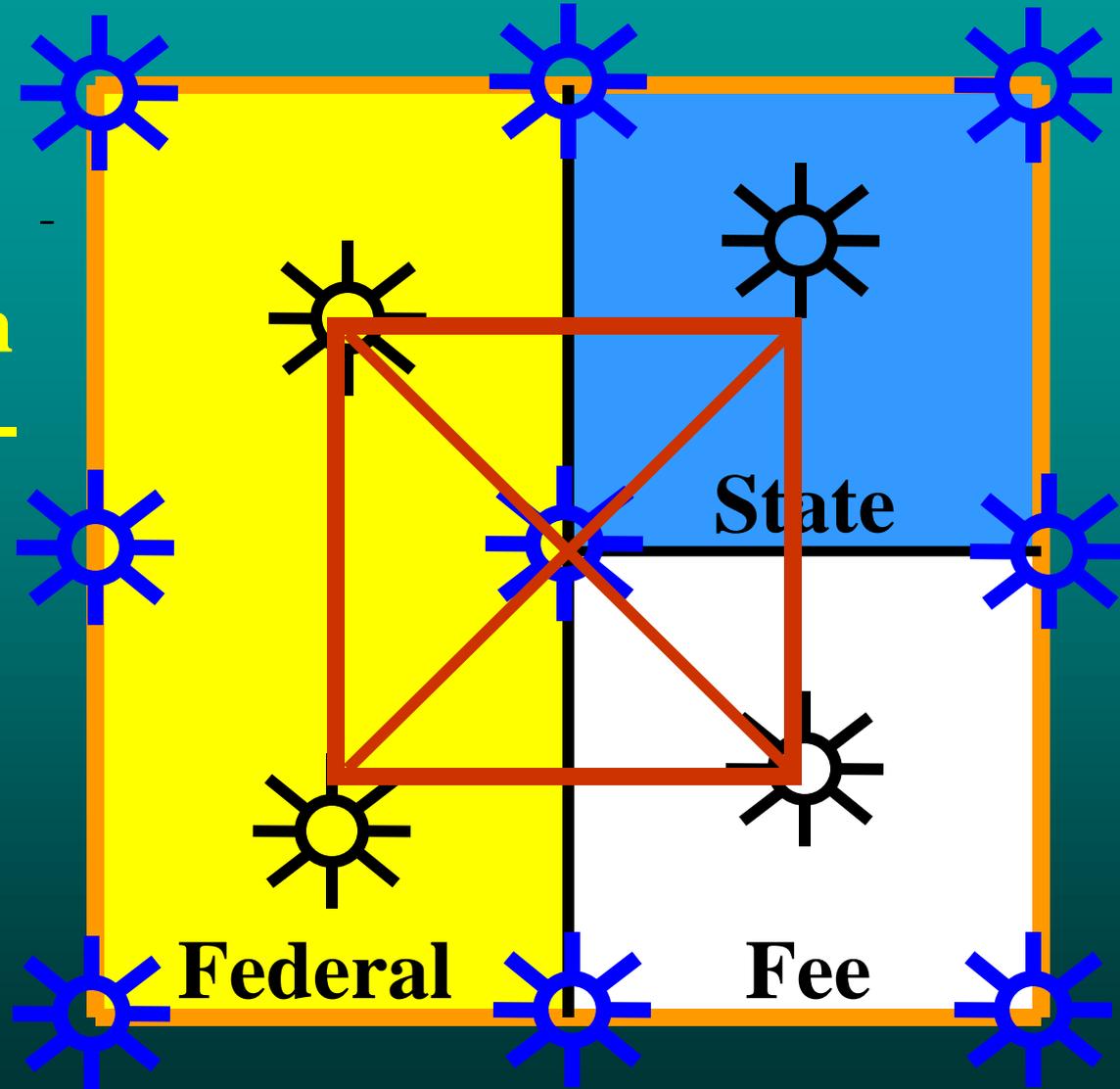
State lease: 25%

Fee lease: 25%

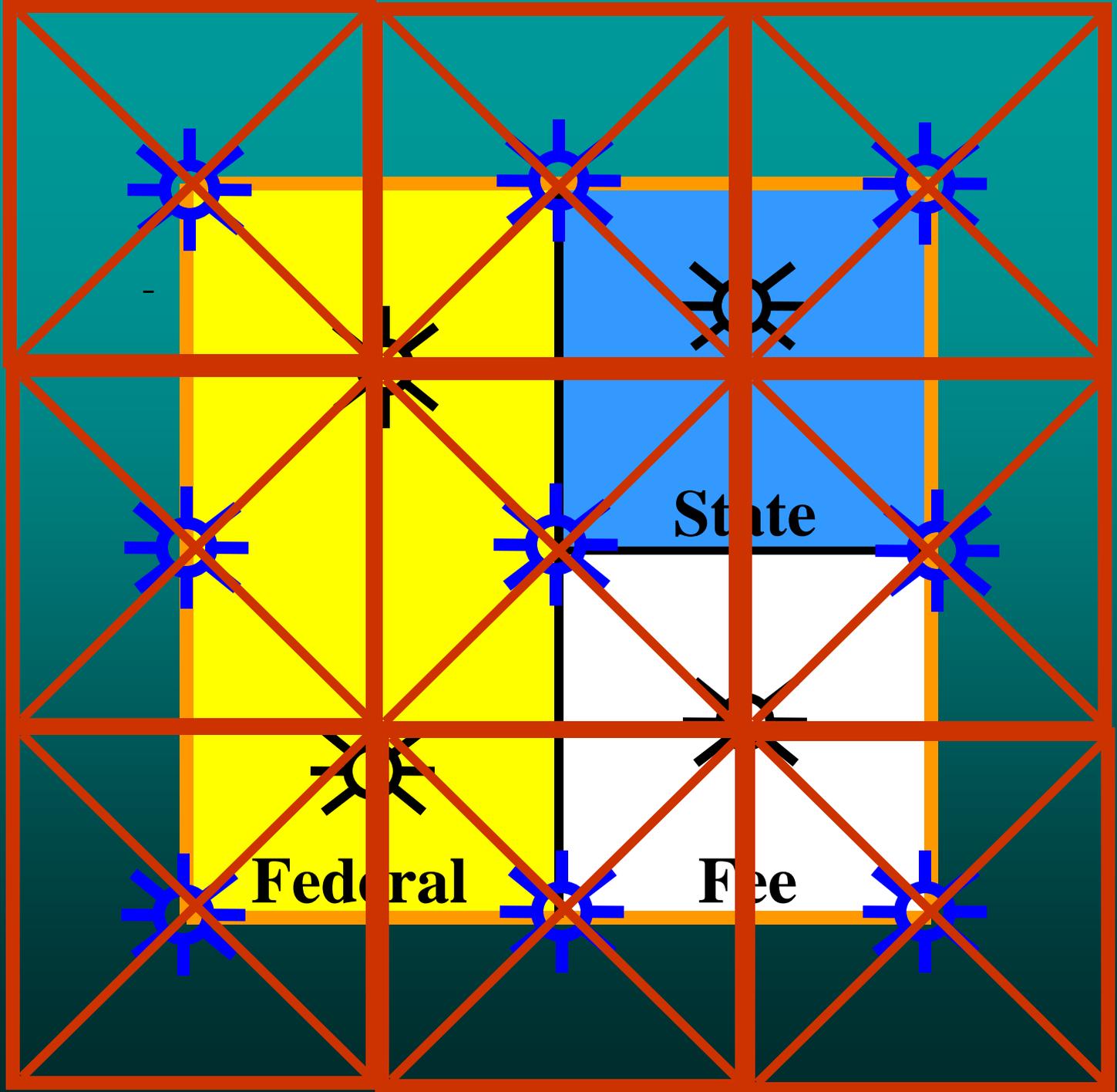


Lease-line CAs

Additional possible well locations which would require lease-line CAs



**A
R
G
H
!**



Confusing?

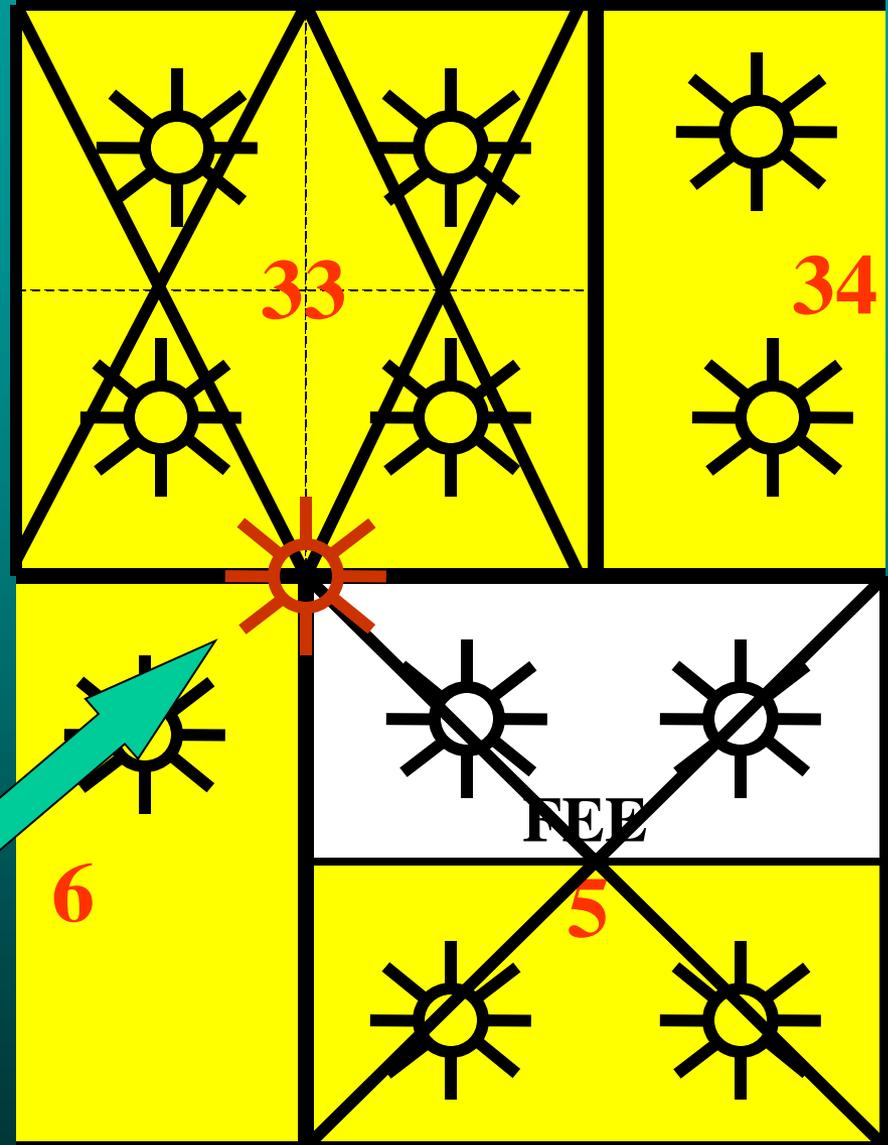
 **Sec. 5: 640 acre CA with multiple wells - Bakken Formation**

 **Sec. 33: 2 - 320 acre stand-up CAs with multiple wells – Bakken Formation**

 **Sec. 34: Federal lease**

 **Sec. 6: Federal lease**

Where do you think they drilled an additional well to the Bakken Formation?

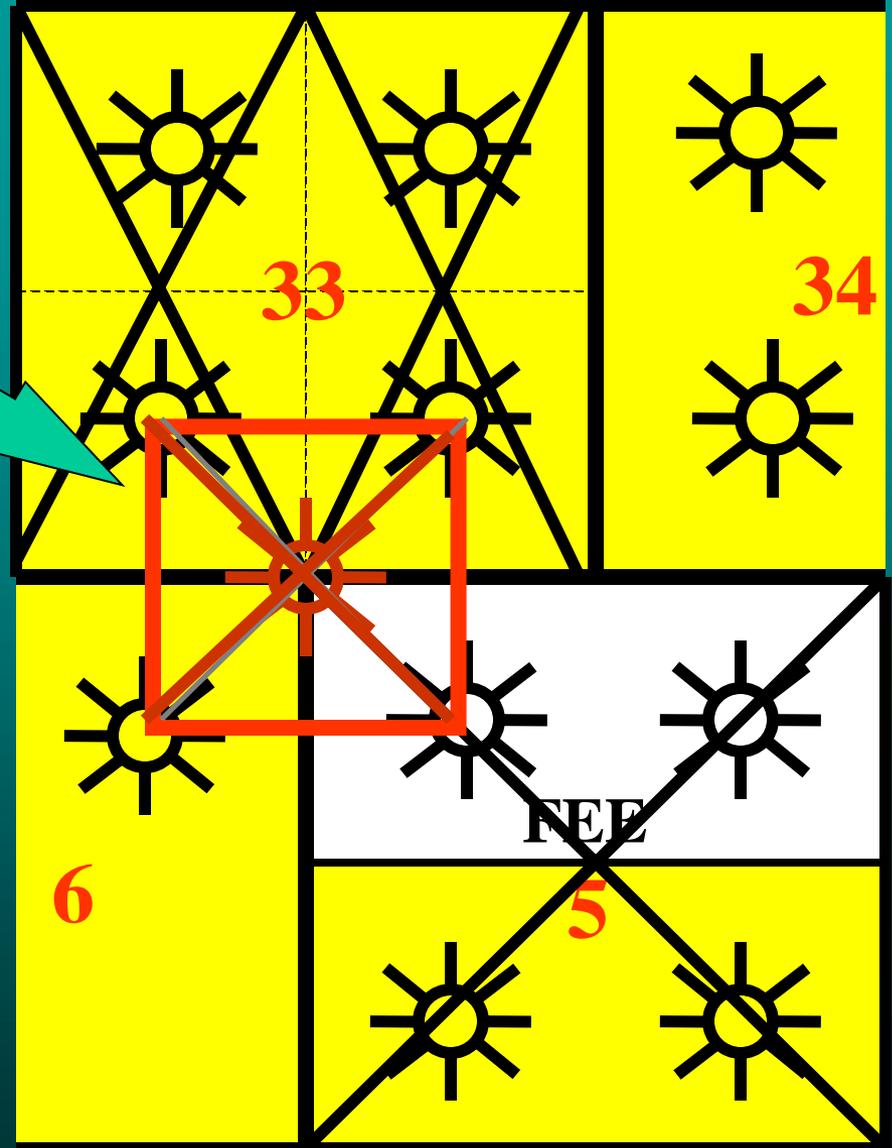


Confusing?

160 acre lease-line
CA formed:

CA Allocation:

-  25% - CA in E/2 Sec. 33
-  25% - CA in W/2 Sec. 33
-  25% - CA in Sec. 5
-  25% - lease in Sec. 6



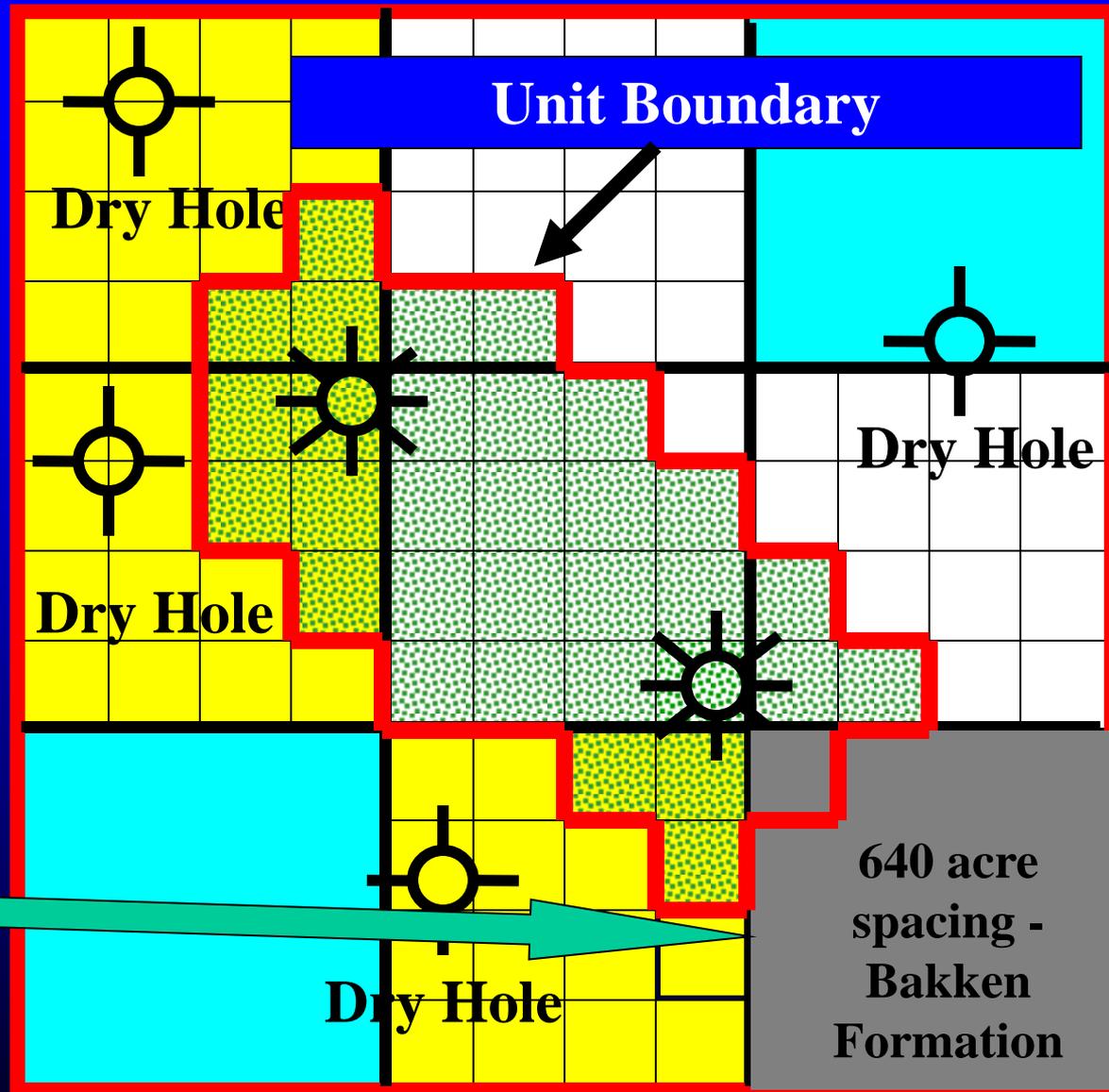
CAs Overlapping Units

HOW? WHY?

PA is for Bakken Formation

What if:

NDIC spacing for Bakken Formation in this section outside the unit is 640 acres

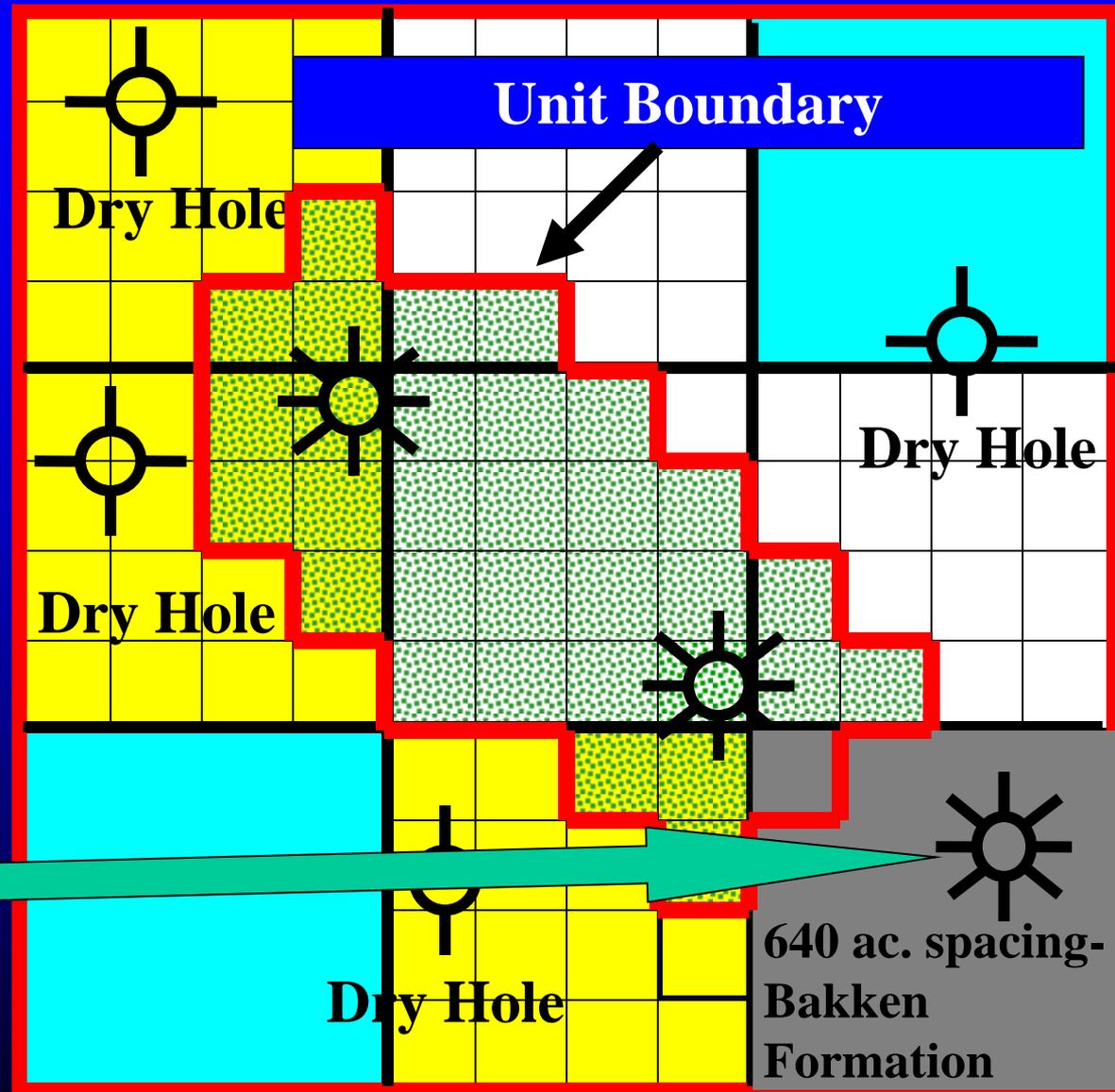


640 acre spacing - Bakken Formation

PA is for Bakken Formation

What if:

 well is drilled to Bakken Formation in this spacing unit



PA is for Bakken Formation

 **Form 640 acre CA overlapping the Unit**

CA Well Allocation:

 **1/16 prod. allocated to the Unit**

 **15/16 prod. allocated to Federal lease drilled on.**

