Federal Offshore Unitization
An Overview

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Definition of Unitization

Unitization is a combination of 2 or more leases for joint exploration or development of a common hydrocarbon accumulation under terms of a Unit Agreement and a Unit Operating Agreement, i.e. acts as a single lease.
Purpose of Unitization

- Promote and expedite exploration and development
- Conserve natural resources
- Prevent physical waste of oil and/or gas
- Protect correlative rights
- Protect federal royalty interests
Unit Statistics as of 6/27/2013

- 186 Active units
- 593 Leases unitized
Impact of Unitization
Benefits of Unitization

- Allows for orderly exploration and development of multiple leases.
- Ensures the ultimate recovery of resources and promotes joint development of the common geological structure.
- Allows for the unhindered placement of production and/or injection wells.
- Aids in the development of projects owned by different companies without creating a competitive situation.
- Allows for the sharing of costs and risks, making projects more economically attractive.
- Allows leases issued from different sales to be drilled without influence of lease expiration dates.
- Provides for and protects proprietary data sharing and promotes information sharing which can result in technological advances.
Types of Unitization

Compulsory

- 30 CFR 250.1301(b)
- 30 CFR 250.1304
- Reservoir Units

Voluntary

- 30 CFR 250.1301(a)
- 30 CFR 250.1304
- Exploratory Units
- Reservoir Units
Effect on Lease Term

If a lease, or any part of a lease, is subject to a unit agreement, the entire lease remains in effect as long as there are leaseholding operations extending the unit or a unit suspension is in effect.
Exploratory Units

- Promote and expedite exploration and development (most common).

- “Logical” unit area:
  - Based upon technical information (seismic and/or well bore data) and independent G&G interpretation
  - Minimum number of leases (or portions of leases).
  - Potential hydrocarbon accumulation common to leases.
  - All of the leases have the potential to contribute to the overall benefit of the unit by the drilling of a well or wells.
Logical Exploratory Unit Areas

**Approvable**

- Logical unit area (common structure)
- Adjacent leases
- Each lease potentially supports well

**Not Approvable**

- Expiring leases
- Proposed unit outline
- Amplitude anomalies
Participating Area
&
Automatic Contraction
What is a Participating Area?

- That part of the unit area that is proven by drilling and completion of producible wells, G&G information, and engineering data to be capable of producing in paying quantities.

- Leases not put into “Participation” and given an allocation until a well on that lease commences production (1st of month)

- Participating area is modified as wells are drilled and commence production
What is an Automatic Contraction of the Unit Area?

- The unit agreement mandates a period of time allowed before the unit area contracts to just the area in “participation”.
- Without such an enforcement provision, even undrilled leases would be maintained for the life of the unit.
- Provides times for unit operator to explore and commence production from all leases in the unit.
- Diligence/Enforcement – leases that are not explored and developed are returned to inventory.

- Automatic Contraction “clock” starts when the initial participating area is established (i.e., first production).
- Experience has shown 5-year or less automatic contraction best meets BSEE goals & mission.
5-Block Proposed Exploratory Unit

- Unit Outline
- Participating Area Outline
- Reservoir Outline
- Expected Reservoir Limits
- Proposed Well Locations
4-Block Exploratory Approved Unit
Discovery Well Drilled

Diagram showing the following:
- **Unit Outline** (red)
- **Participating Area Outline** (dotted blue)
- **Reservoir Outline** (green)
- **Expected Reservoir Limits** (dashed)

Legend:
- **A**
- **B**
- **C**
- **D**

The diagram highlights the discovery well drilled within the participating area.
Appraisal Wells 2 & 3 Drilled
Production Commenced

<table>
<thead>
<tr>
<th>Lease</th>
<th>Number of Participating Acres</th>
<th>Number of Original Acre Feet Allocated</th>
<th>Percent Unit Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3,240</td>
<td>243,000</td>
<td>78.26%</td>
</tr>
<tr>
<td>B</td>
<td>900</td>
<td>67,500</td>
<td>21.74%</td>
</tr>
<tr>
<td>C</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>D</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Totals</td>
<td>4,140</td>
<td>310,500</td>
<td>100.00%</td>
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</tbody>
</table>
4th Appraisal Well Drilled
### Unit Outline

#### Participating Area

<table>
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<tr>
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<th>Percent Unit Allocation</th>
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</thead>
<tbody>
<tr>
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<td>3,240</td>
<td>243,000</td>
<td>54.55%</td>
</tr>
<tr>
<td>B</td>
<td>900</td>
<td>67,500</td>
<td>15.15%</td>
</tr>
<tr>
<td>C</td>
<td>1,800</td>
<td>135,000</td>
<td>30.30%</td>
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<tr>
<td>D</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>5,940</strong></td>
<td><strong>445,500</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

4th Well Placed on Production
Unit Area Contracts to Participating Outline

**Unit Outline**

**Participating Area Outline**

**Reservoir Outline**

**Expected Reservoir Limits**

A B C D
Reservoir Units

- Common & Competitive reservoir
  - Producible well on all leases
- Reservoir reasonably delineated
- Development drilling complete or nearly complete
- Unit allocation = net acre-feet

State/Federal Units

<table>
<thead>
<tr>
<th>Lease 1</th>
<th>Lease 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>20% ALLOCATION</td>
<td>80% ALLOCATION</td>
</tr>
</tbody>
</table>
Reservoir Units

- Conserve the natural resources
  - In general, means to minimize the number of wells, platforms, and facilities necessary for proper development

- Prevent waste
  - Physical waste of oil or gas
  - Dissipation of reservoir energy
  - Ensure the ultimate recovery of hydrocarbons

- Protect the correlative rights
  - The right to explore, develop, and produce from common reservoirs without waste

- Protect the federal royalty interests
Compulsory Units

18 Historically (5 appealed)

Basis was either the prevention of unnecessary wells and infrastructure or to prevent loss of reserves in rate sensitive reservoirs

Past compelled unitization decisions have prevailed under appeal and court decisions

Serves as an incentive to voluntary unitization

Long and complicated process even when not appealed
Requests for Unitization
Required Documents

- Unit operator and working interest owners sign **unit agreement** (22 Articles in model agreement):
  - Specifies effective date for unit
  - Designates a unit operator
  - Establishes method of allocation
  - Stipulates automatic contraction clause
  - Specifies unit area

- Unit operator and working interest owners sign **unit operating agreement**:
  - Describes how all costs & liabilities allocated
  - Describes how all benefits allocated
  - Complex business arrangements

- Initial unit operations plan (followed by annual after approval) - Note: not related to BOEM-type plans.
  - Ensures the proposed activities are timely, reasonable, and will prevent waste and conserve the natural resources Protect the federal royalty interests
Exhibits A, B, and C

- Exhibit A – plat identifying unit area
- Exhibit B – lists leases & ownership of each
- Exhibit C – lists participating area(s) by lease & percentage of oil & gas allocated to each lease
Supporting Data

- Justification
  - How will unit promote exploration and development?
  - Will unit conserve natural resources, prevent waste, or protect correlative rights?
- Required cost recovery fee - $11,698
- Lease History & proposed initial unit operations overview
- Discovery well summary
- Subsurface information (BSEE independent interpretation and evaluation)
  - Latest 3D seismic survey (coverage: minimum 2-blocks surrounding prospect)
  - Representative seismic lines through prospect
  - Structure & amplitude map(s)
  - Well log(s), correlations, petrophysical analyses, & engineering data
Unitization - Enforcement

- Compel/Force Units
- Direct SOP’s and/or SOO’s to prohibit Unit operations
- Require both a Unit Agreement and a Unit Operating Agreement
- Require a contraction clause and/or the Regional Supervisor can demand contraction
- Require an initial unit plan that outlines the operations to be taken to ensure diligence prior to approval of a unit
Unitization - Enforcement continued

- Require and monitor subsequent plans at least annually and terminate units as necessary
- Enforce regulations – deny when regulatory criteria for forming a unit are not met or the proper unit area size is not requested
- Set proper allocation of production to protect federal royalty interests
- Ensure conservation of resources by ensuring the unit operator is acting in a diligent manner and co competition arises within the unit
- Approve/deny SOP and/or SOO requests
  - Monitor activity schedules to ensure proper development
Thank you for your attention.