

Interstate Oil & Gas Compact Commission

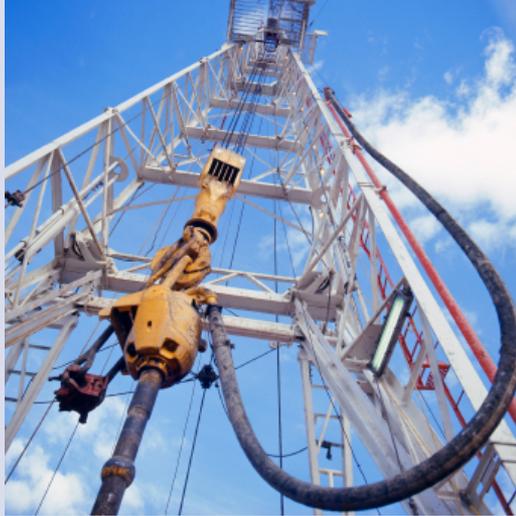
Welcome

Aging Infrastructure

International Committee

Chair: Kim Doane, Nova Scotia





International Committee

North American Considerations for Aging Infrastructure



Aging Infrastructure

- **Work Phases for Aging Infrastructure**
 - Phase I - Wells
 - Phase II - Facilities and Pipelines (compressors, dehydration, tanks, plants, pipelines, etc.)
- **Jurisdictional Reviews: Idle wells, funding sources, Transfer of wells**



Funding Sources

Common Trends

- Types of Bonds
- Submission of bonds timing
- Limitations of Use
- Who provides funds
- How collected/held
- Any tax incentives



Funding Sources

Types of Bonds

- Letter of Credits (LOC)
- Cash
- Bonds (Surety)

Covered this off in joint International & Legal and Regulatory Joint Committee Session



Funding Sources

Submission of Security

- Regulated not voluntary – all jurisdictions; by operator
- All operators (regardless of risk profile)
- Upon application to drill a well common trend with:
 - Individual well bonds or
 - Blanket bonds for multiple wells



Funding Sources

Limitations of Use

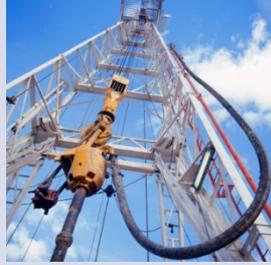
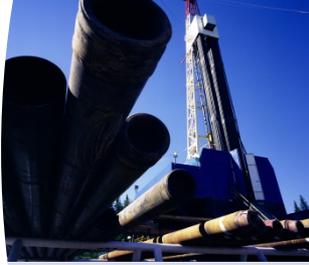
- Typically limited to well, some have flexibility to use it on lease for issues.
- Held by government regulators in specific accounts – gain interest
- Tax incentives – not really seen
 - severance tax and marginal well incentives



Funding Sources for Orphan Well Funds

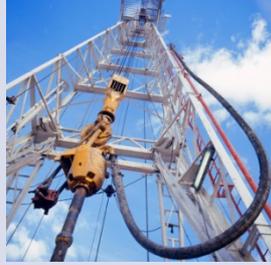
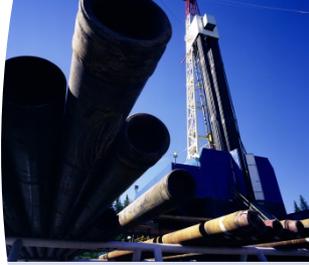
Orphan Well Funds

- **Most jurisdictions have a fund – slightly different.**
- **Those that don't – need and want one**
 - levy-based liability programs;
 - based on production
 - funded by industry – through fees, permits, penalties

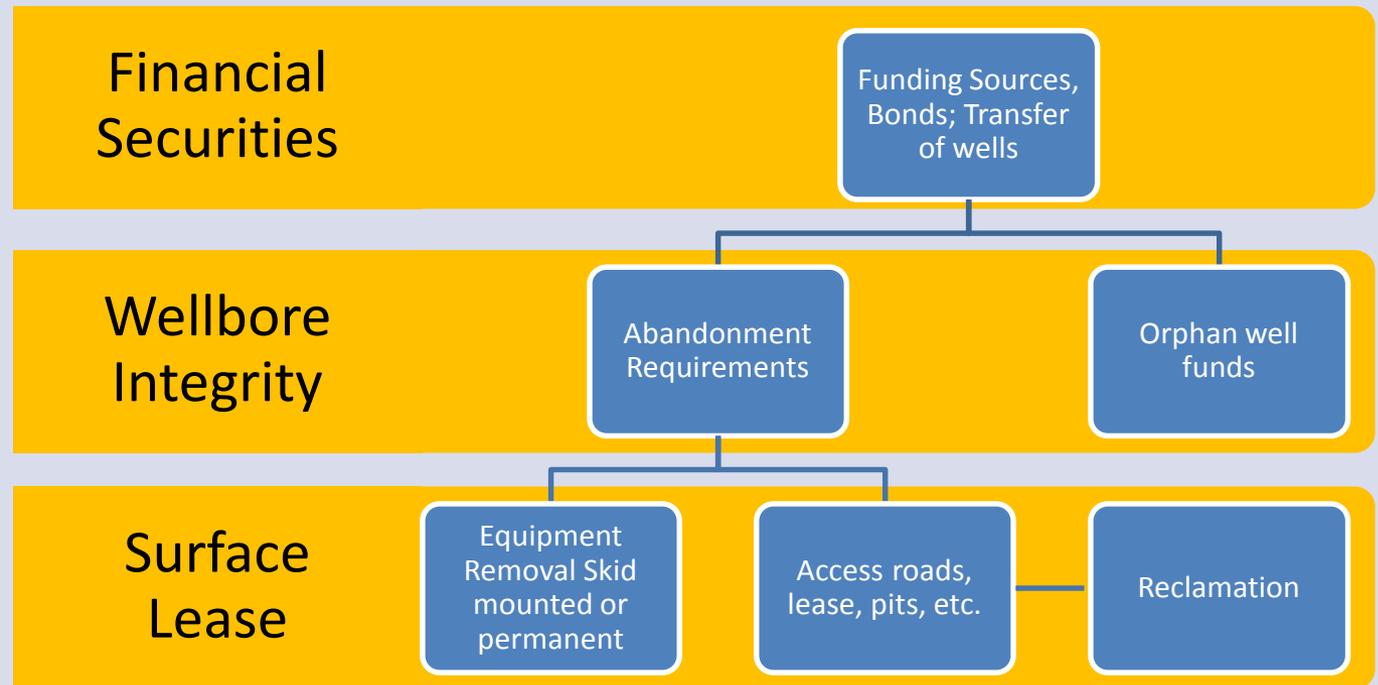


Transfer of Wells

- **Application Process - YES**
- **Criteria Checklist**
 - **Designation/Notice of Operatorship**
- **Bonds – Updated/Replaced**
 - **New operators replace old existing**
 - **Opportunity to increase size of bond held**
- **Ability to reject transfer**
 - **compliance issues, company in good standing**
 - **verify well integrity**
- **Terms & Conditions commonly added**
 - **long term plugging plans required**



Next Steps: Phase I



Regulatory Compliance for life cycle of activities



Wellbore Integrity

- Verification of zonal isolation
- Cementing requirements
- Acceptable Barriers, cement jobs, Bridge Plugs, MIT
- Flare lines
- Leakage – monitoring program
- Cut/Cap/Weld
- Timelines for completion
- CSA – New Canadian Standards*



Surface Lease

- Access roads
- Inter-field flow lines and gathering lines
- Skid mounted vs. permanent structures - facilities
- Tanks, ponds, berms, etc?
- Reclamation
- Landowner sign off ?
- Timelines for completion



Reclamation

- Regrade, reseed and re-contour
- Complete removal of any equipment, garbage
- Is there a standard for how long regulator should hold bond after work is complete?
- Is there a reclamation certificate ?
- Is there landowner sign off ?



Regulatory Compliance

Monitoring and Assessments

- **Field Inspections - Audit program**
 - focus on inactive wells; photographs, etc.
- **Ability to issue orders/notices – AMPS,**
- **Flexibility for site specific issues**
- **Gap on reporting environmental risk**
 - by wellsite
 - most awareness comes from notice by public complaints – we react and we fix



Next Steps – Actions

Development of Reference Booklet: “North American Considerations for Aging Infrastructure”

Phase I - Finish

Phase II - Facilities & Pipelines

First steps – Phase II

- Clarity of State/Provincial/Federal Roles ?
- Chart checkpoints where specific authorizations are required, authorizations change hands
- GHG, Emissions ? (do we do something here)