



Lillehammer Energy Claims Conference

Wording implications for Decommissioning and Plugged and Abandoned

An analysis of issues that may need to be addressed in
respect of mature fields that are close to being
decommissioned

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The Potential

- North Sea
 - over 500 fixed installations still operating
 - even greater number of sub-sea installations
 - 284 installations from 144 fields expected to be decommissioned in next decade
- Gulf of Mexico
 - 3,480 platforms still active in water depths up to 200 metres
 - estimated that between 84 and 196 structures per year will be decommissioned
 - between 204 and 556 wells will be permanently abandoned



That's a lot of structures where decisions need to be made on coverage for the period leading up to abandonment

That's also a lot of opportunity for inappropriate coverage to be put in place !



Valuation

- What is replacement scenario
- Sub- Sea facility plus tie-in to owned platform?
- Usage of host platform
- No replacement



Problems with low insured values

- Relatively minor damage can exceed Agreed Value
- More vulnerability to CTL
- Insufficient additional cover for Sue and Labour and Removal of Debris (based on 25% add-on)
- Market premium rating !!!



Can a Dual-Valuation basis overcome this ?

- Dual Valuation is (or was) a basis used in the Marine Hull market
- Example:
 - Higher value (for GA/Salvage/ RDC/ Sand L)
say USD10,000,000
 - Lower Value (for PD claims and T/L)
say USD 5,000,000
 - Premium calculated on higher value
- Application to Offshore energy units ?



No Replacement

- Agreed Value could represent maximum anticipated cost of repair to keep installation going
- More pronounced problems with low valuation
- Covering Removal of Wreck on Stand alone basis



LSPF 2009 Endorsement JR 2009/003D Wreckage or Debris Removal Costs or Expenses

- Cover for scheduled amount
- Broad-form basis
- Must be peril insured by LSPF
- Deemed Insured Value (to determine whether unit is an Actual or Constructive Total Loss)



What alternatives exist for Removal of Wreck ?

- Corporate Liability Policy
- Supplementary exclusions will exclude Removal of Wreck
- May be able to buy-back for third party removal
- Deletion of an exclusion ???



Case Study- Mature Field Facilities

- Fixed platform damaged by extreme windstorm
- Jacket, topsides, well conductors and risers substantially damaged
- Potential flows from well(s)
- May need to make other wells safe
- Access to wells
- Plugging and abandonment
- Removal of wreck/debris

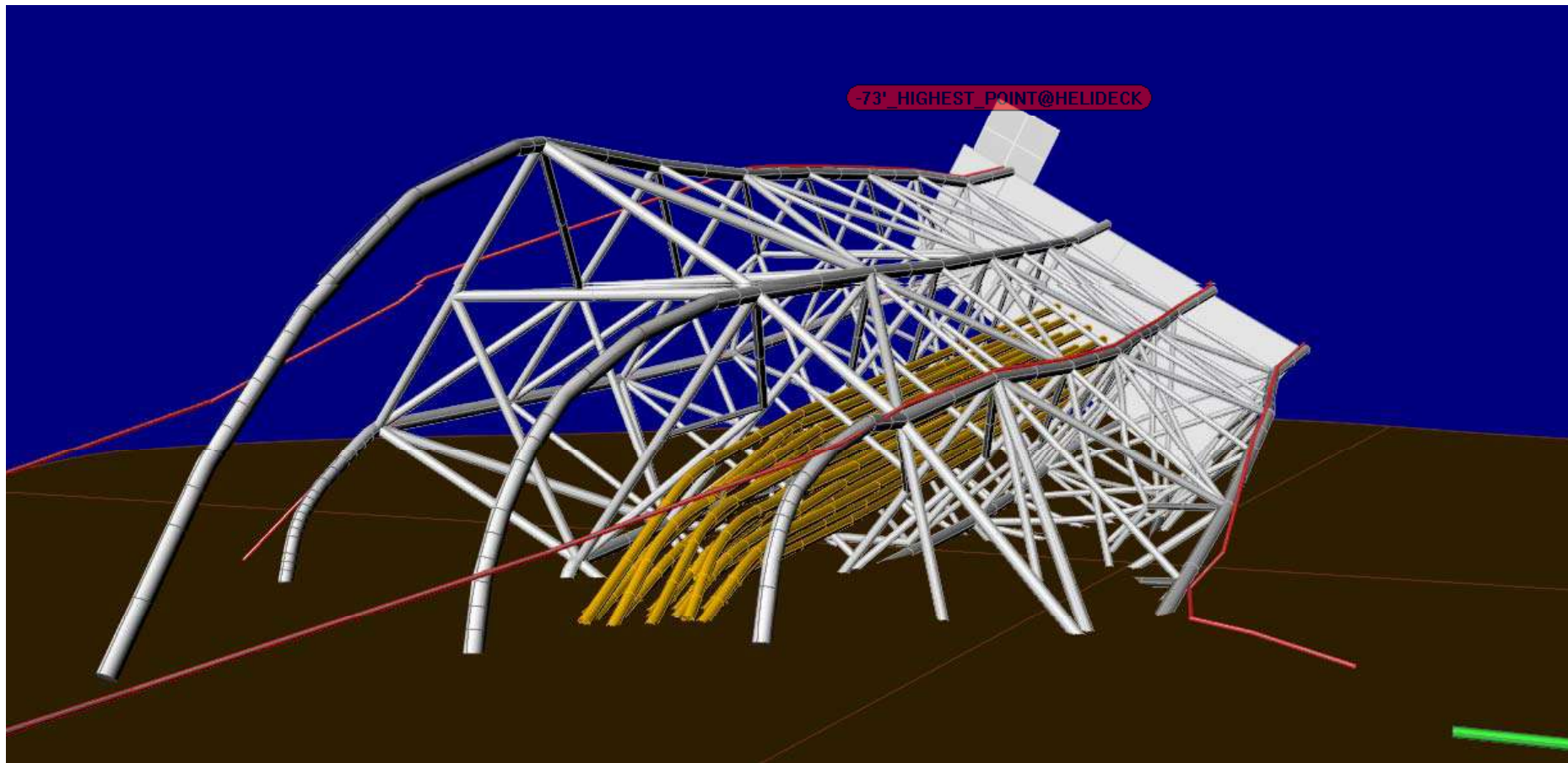


Hurricane Katrina damage



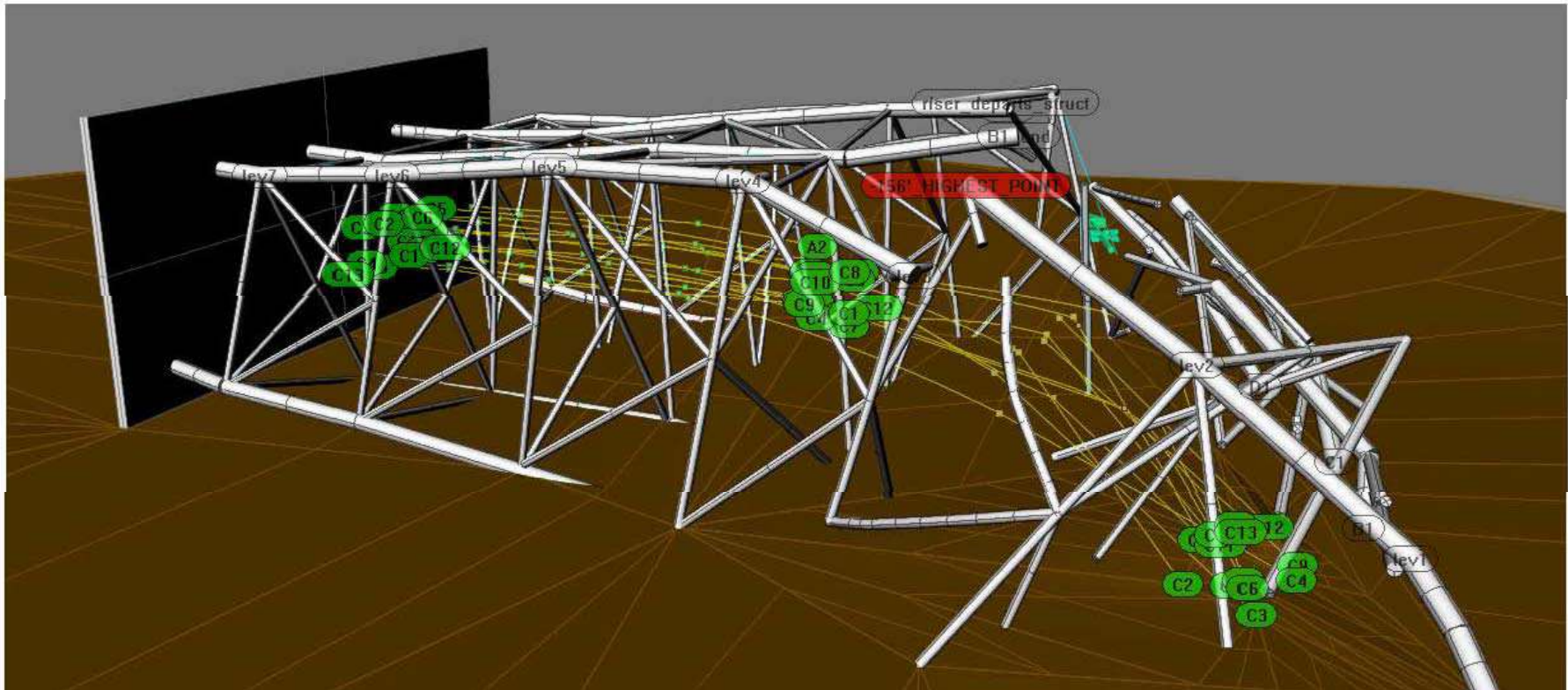


Schematic of damaged structure





Another schematic





Issues

- Platform damage – Actual total loss
- Immediate need to ensure wells under control
- Monitoring to ensure no pollution
- Concern to ensure all wells safe (prior to removal / rectification)
- Costs in respect of access and re-entry into wells
- Costs of removal of debris



What if ?

- Old wells - producing via gas lift or water injection
- There is possible leakage – say gas bubbles from wells
- Oil pollution – is this from wells or fuel tanks ?
- Wreck – is the removal of property preventing access to wells :
 - an integral part of repair cost
 - a necessary part of well control (if well(s) out of control is proven)
 - a necessary part of making other wells safe
- or just removal of wreck/debris



What if ?

- The assured wants to plug and abandon wells, pursuant to a total abandonment of the field (which is most economic option).
- Where does coverage stack up in relation to the OEE policy



Control of well definition – OEE policy

- ... an unintended flow from the wells of drilling fluid, oil, gas or water which cannot be promptly stopped by:
 - use of equipment on site
 - increasing weight by volume of drilling fluid
 - safely diverted into production
 - or, where flow is declared out of control by regulatory authority
- Also need to consider in relation to the well brought under control definition



Well brought under control definition

- Well deemed to be brought under control when:
 - the flow giving rise to a claim is stopped, or can safely be stopped
 - the drilling etc. operation taking place prior to the occurrence is resumed or can be resumed
 - the wells can be returned to the same producing etc status as existed prior to the occurrence
 - the flow giving rise to claim can safely be diverted into production
 - or unless Regulatory Authority continues to designate that well is out of control



What about the wells that are not out of control ?

- **Making Wells Safe Endorsement:**
 - *triggered by named perils to the infrastructure, resulting in:*
 - cost to prevent a well becoming out of control
 - only when in accordance with all regulations... and normal and customary practices in the industry
 - it is necessary to re-enter the wells in order to continue operations, or restore production from or plug and abandon such wells
 - *payable up to :*
 - operations can be safely resumed
 - well is or can be safely plugged and abandoned



What has been the industry experience on plugging wells in these situations ?

- Much more costly than if platform is in place
- Lack of available suitable equipment may impact price
- Difficulties in accessing wells



Plug and Abandonment Endorsement

- Requirements

- P and A is required by regulatory authority
- may be triggered by (1) well out of control; or (2) well out of control plus damage to infrastructure caused by named perils
- Routine P and A expenses shall be deducted*
- Named windstorm exclusion (unless well is scheduled), or well was being drilled or worked over immediately prior to the incident

* Routine P and A is cost that would have been incurred if loss had not occurred (not book value but adjuster's estimate)



Host Platform / Dependent Wells Insurance LSPF – JR 2009/003

- Pays costs of reconstruction of a host platform that has become an actual or constructive total loss
- Criteria:
 - cause of loss is recoverable under LSPF
 - owner elects not to replace
 - reconstruction is necessary for continued production
- No recovery if assured elects to discontinue production
- Measure of recovery is the lesser of the agreed insured amount or the actual cost of reconstruction or rerouting pipelines

*Presupposes there is agreement existing between host platform owners and dependent well owners to allow for take-over
Query position of BOEMR*



Summary

- Determine appropriate insured value at each renewal
- Consider increasing OEE limit for:
 - extended redrilling
 - control of well / making wells safe
- Consider limit required for Removal of Wreck
- Purchase Resultant Plugged and Abandonment expenses