

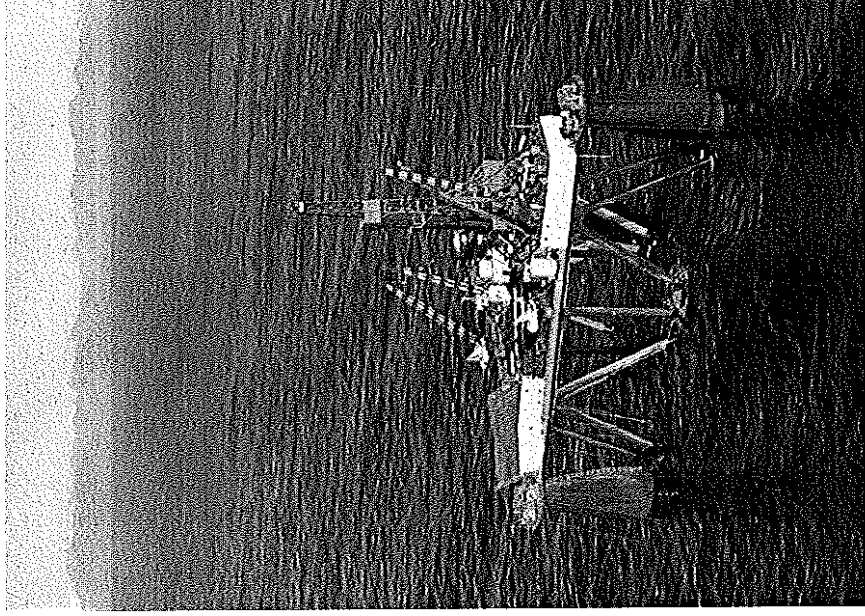
West Coast Offshore:

*What Explorers and
Producers Need to
Move Forward*

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West Coast Offshore - A Unique Opportunity

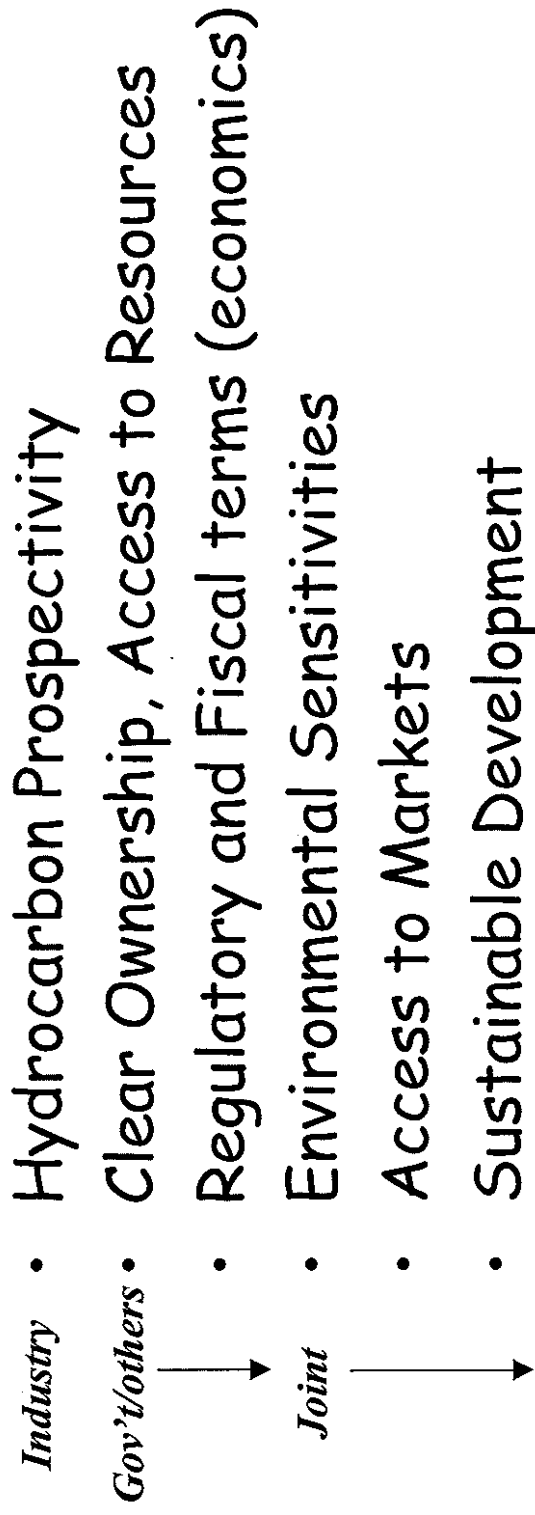


- Basins largely untouched by modern exploration techniques are globally scarce.
- All the more so when they are sitting on the doorstep of the biggest natural gas market in the world.
- However the lack of new data to evaluate prospectivity means that **uncertainty** in volume estimates is ***extremely high***



Key Issues

Who has the lead?



History of land holdings on the West Coast

Shell/Chevron

1961: Shell - 5.6 mm ha

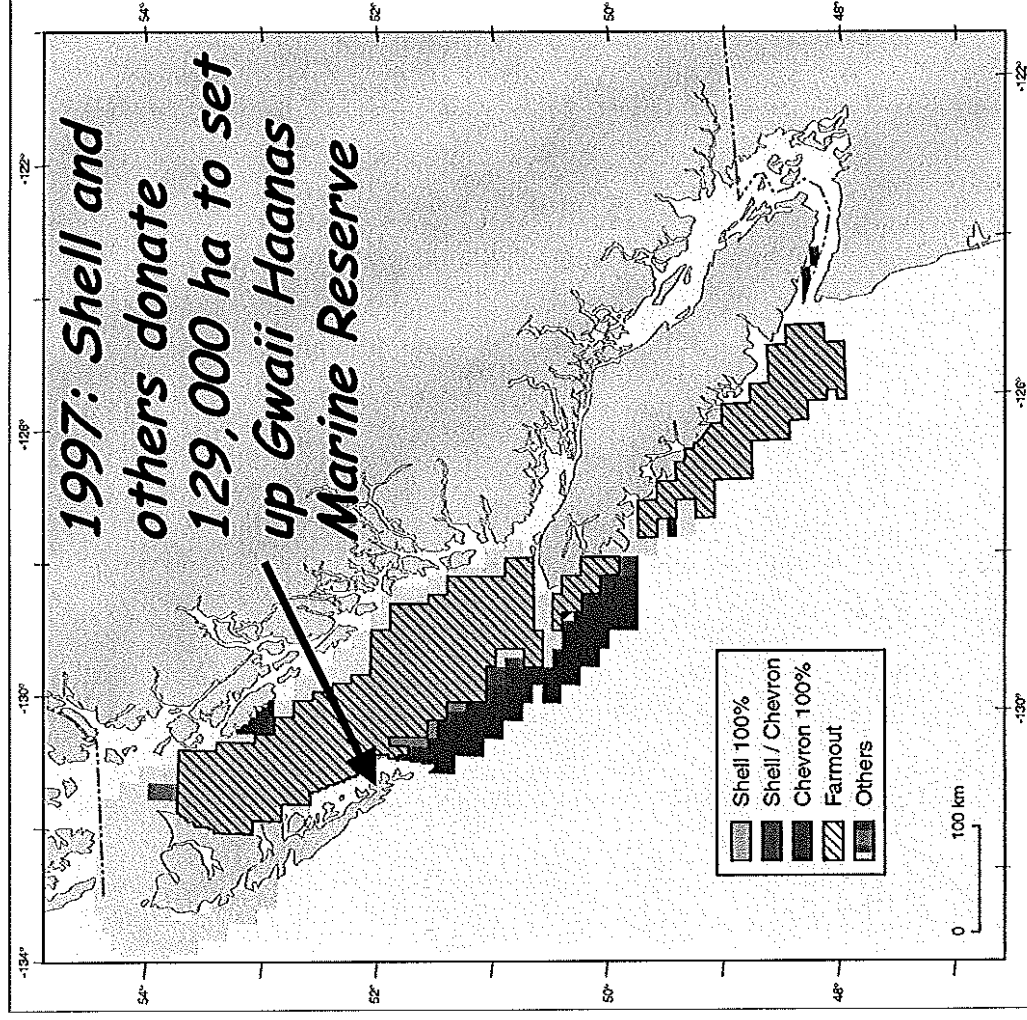
1970: Shell exploration halted

1971: farmout to Chevron
(not yet completed);
- Chevron acquires additional acreage, partial Shell backin

1972: moratorium

Other Industry

1982: PetroCanada acquired
3 blocks

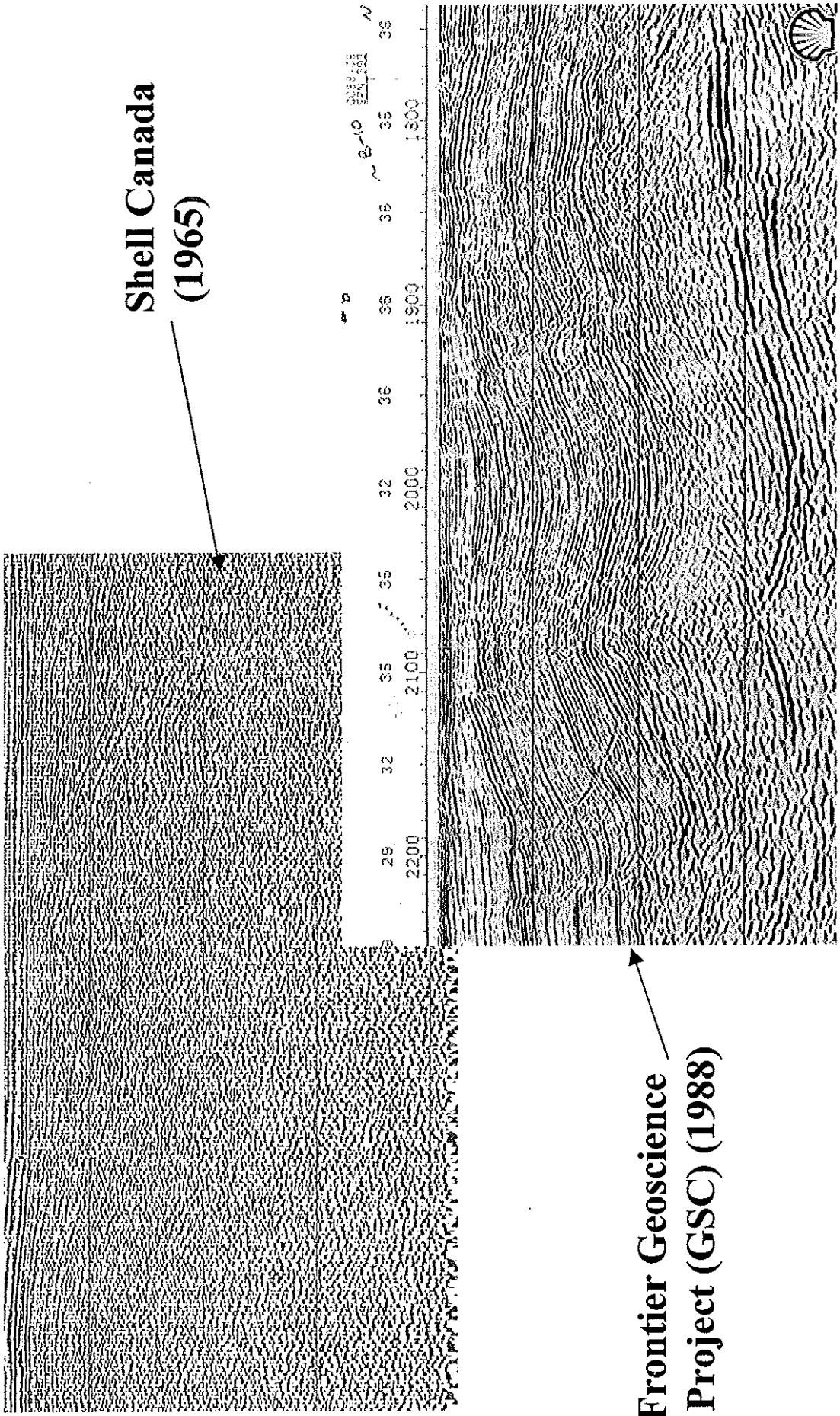


We Need: Early Seismic Coverage

- Huge uncertainty in resource potential offshore West Coast requires that we acquire a new subsurface data set
- *pre-commitment regional seismic vs post-commitment detailed seismic*
 - regional seismic surveys - "speculative" basis prior to land commitment? (open participation by industry)
 - detailed prospect surveys - done to fulfill E.L. work program commitments on a proprietary basis
- Drilling in a new area requires detailed seismic (thus, after the second seismic season)



*Seismic data quality has a big impact
on prospect identification...*



Shell Canada
(1965)

Frontier Geoscience
Project (GSC) (1988)

We Need: Early Designation of Protected Areas

- Early initiation of environmental and baseline studies.
- Early stakeholder engagement and identification of protected areas.
- Examination and refinement of seismic and drilling buffer zones reflecting possible prospectivity and modern technology.



We Need: Resolution on rights ownership

- Haida writ of claim needs clarification (some reason for hope elsewhere in Canada - Voisey's Bay, northern Quebec/Nunavut)
- Provincial vs Federal issues
- Acquisition of preliminary regional seismic may be possible prior to closure on ownership issues, if progress is evident...
 - ... however, industry would not commit to major exploration expenditures (eg drilling of a well) in the face of unresolved ownership.



We Need: An Effective Regulatory Framework...

- Establishment of an effective regulatory agency
- Simple but effective rulebook ("Regulatory Roadmap")
- a "one-stop" window for regulatory approvals (minimize jurisdictional overlap)
- Smooth transition from Permits to E.L.'s. for existing landholders
- Key lessons available from East Coast experience (CAPP)
- appointment of a dedicated provincial offshore oil and gas team to "work the issues" is a crucial first step in this... (but will require cooperation from the government of Canada)



... and Reasonable Fiscal Terms

- Terms need to be competitive with other jurisdictions and reflect the risk/reward profile of the offshore (eg progressive royalty scale in East Coast / Northern Canada)
 - will still be a challenge relative to earlier frontier exploration rounds which included significant exploration incentives (PIPs, ~~*~~ Super Depletion Allowance, etc) to offset some of the risk
- Allow adequate full cycle rate of return on investment in case of success



We need: market access

- Economically viable pipeline routes
 - Duke line into interior BC - volumes an issue...
 - alternative route: down through Vancouver Is. (??)
 - alternative technology: LNG?
- Commercial transactions between willing buyers and sellers, without market constraints
- Producers will need to balance risk/reward, with a view on overall market outlook, so a healthy market is key to the region's success



We need: sustainable development

- Using Shell Canada's policy as an example:
 - no harm to PEOPLE - skills of West Coast work force (risk phase vs project development phase)
 - protect the ENVIRONMENT and pursue the goal of prevention of pollution
 - use material and ENERGY efficiently to provide our products and services
 - DEVELOP energy resources in line with the above aims



...Sustainable Development (2)

...sustainable development continued

- engage in stakeholder CONSULTATION
- play a leading role in PROMOTING best practice in our industry
- manage health, safety and SUSTAINABLE development as any other critical business activity
- promote a CULTURE in which all Shell employees share this commitment

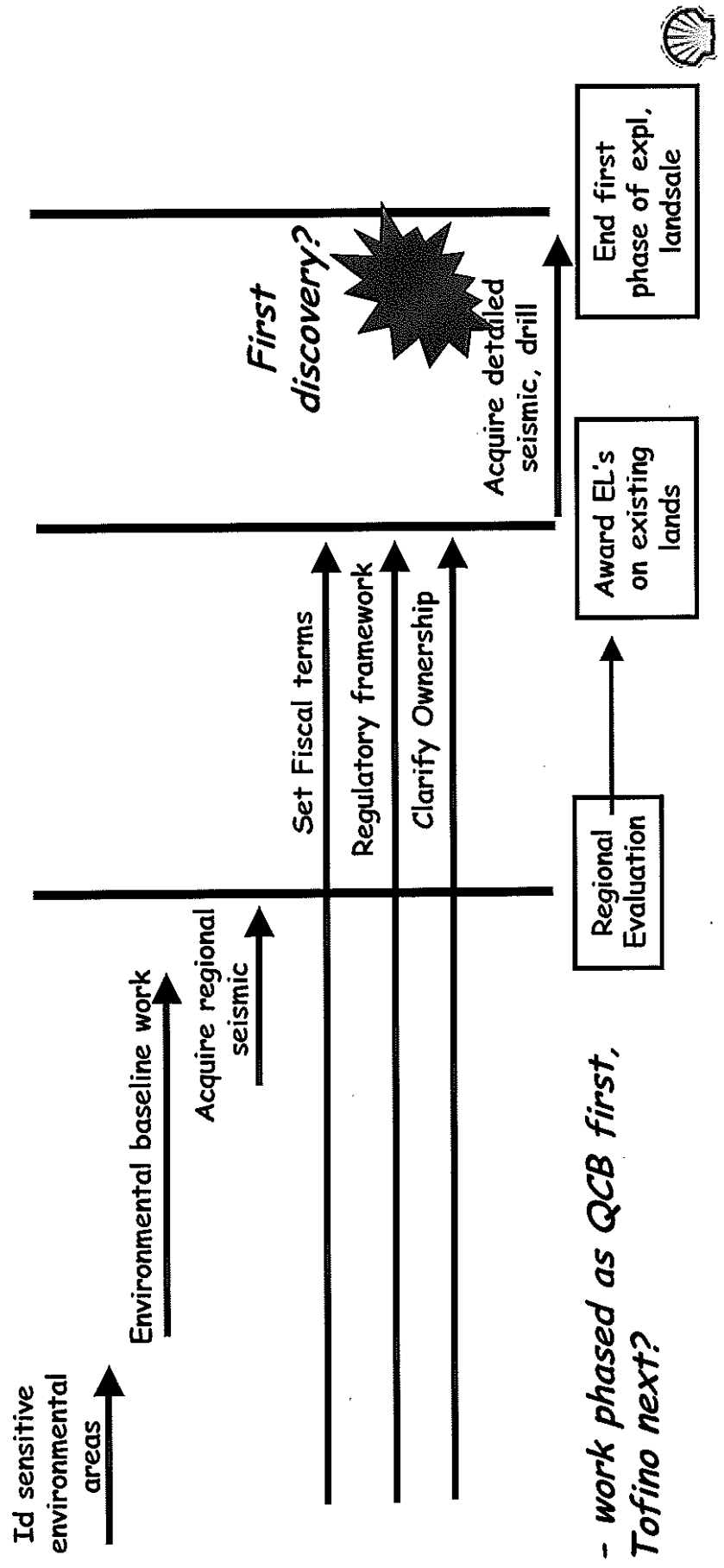


Concurrent or Consecutive?

- many major pieces to the puzzle - regulatory, fiscal, environmental, technical, political and aboriginal.
 - If we wait for each to be concluded before the other starts we will be extend the timeline significantly (and it's already long!)
- At this early stage, let's do things in parallel where possible - land use and environmentally-based zoning, early seismic, land claims negotiations and regulatory/fiscal framework.
- This way, when a clear green light is given, the industry will be ready to move forward.



Proposed Initial steps to Facilitate West Coast Activity (concurrent "fastrack" model)



Some Specific Suggestions

- Ensure a fair transition from Exploration Permits to EL's
- allow early regional seismic, for a modern evaluation which will provide a solid basis for investment decisions.
- consider a phased area-based lifting of the moratorium - QCB first, Tofino later?
- develop a **scientific** understanding of the implications of modern seismic and drilling on activity restrictions.
 - This is fairly well understood; what **SPECIFICALLY** needs to be done in light of the findings of the Strong Report?
- Let's think about how the government-stakeholder working relationship can be most efficiently coordinated.



Key Issues

- Scorecard

Who has the lead?

Present status

Industry • Hydrocarbon Prospectivity ?

Gov't/others • Clear Ownership, Access to Resources X

• Regulatory and Fiscal terms (economics) X

Joint • Environmental Sensitivities ✓ in part

• Access to Markets

✓ market health
✓ price/future
? route

• Sustainable Development (www.shell.ca)

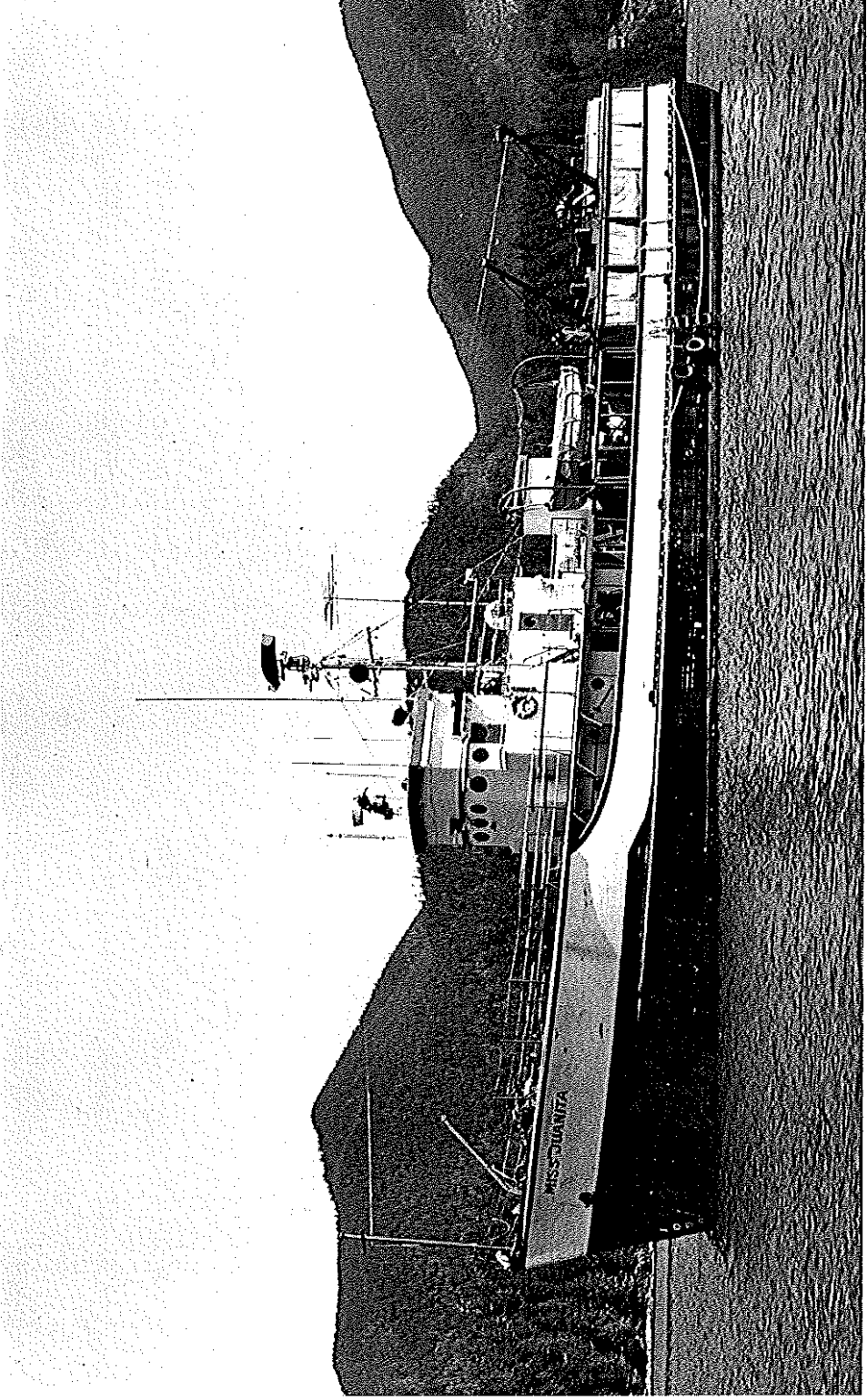
✓ ✓ ✓


Key messages to take away

- West Coast offshore is a potential opportunity for new basin natural gas (and perhaps oil?) exploration and development
 - but the degree of uncertainty re: resources is very high
- the issues/challenges are reasonably well understood; resolution of some issues may be more difficult
- stakeholders need to understand the process by which this opportunity will be moved forward
- the establishment of a dedicated offshore oil and gas team is a crucial element of success, but will require some cooperation from the government of Canada to deliver
- Shell is the largest offshore landholder... and therefore a key stakeholder; will actively engage in the process once it is established



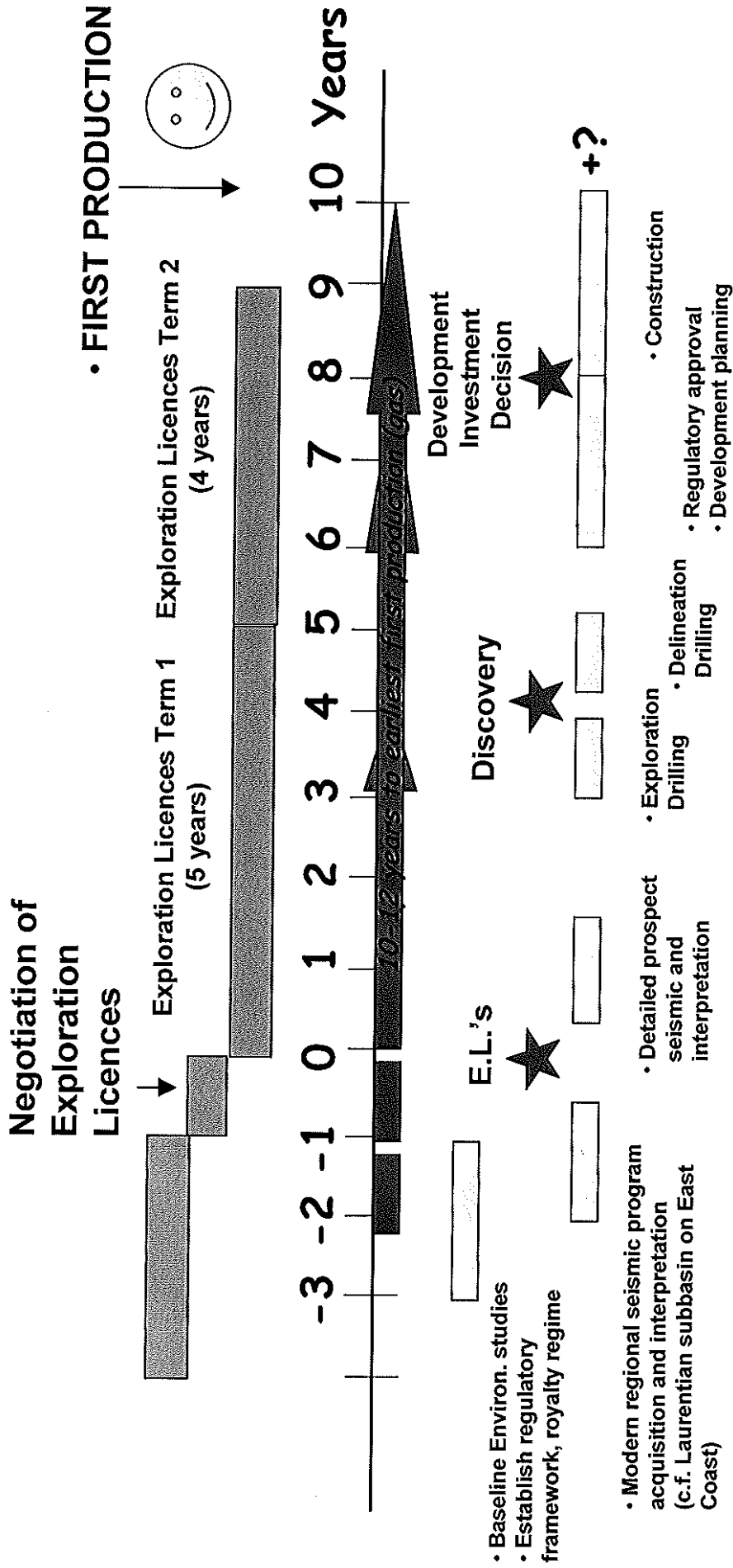
We're All in this Boat Together
- So Let's Do It Right



Backup Slides



Notional Timeline to First Production



Note: does not account for possible delays in regulatory, land claim, environmental disputes

