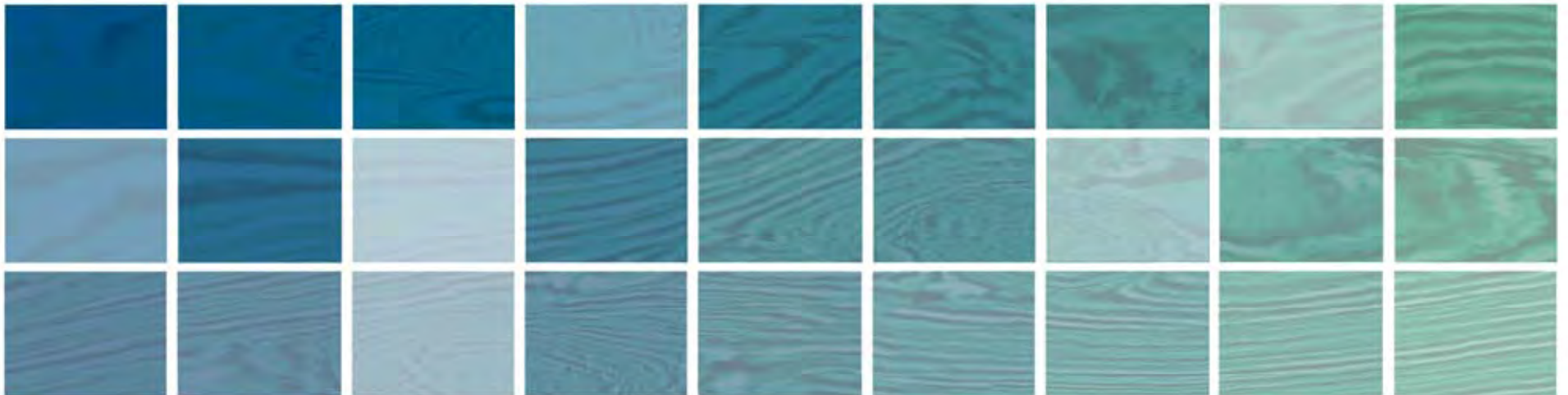




TGS Capital Markets Day

Oslo, Norway

8 June 2011





Forward-Looking Statements

All statements in this presentation other than statements of historical fact, are forward-looking statements, which are subject to a number of risks, uncertainties, and assumptions that are difficult to predict and are based upon assumptions as to future events that may not prove accurate. These factors include TGS' reliance on a cyclical industry and principal customers, TGS' ability to continue to expand markets for licensing of data, and TGS' ability to acquire and process data products at costs commensurate with profitability. Actual results may differ materially from those expected or projected in the forward-looking statements. TGS undertakes no responsibility or obligation to update or alter forward-looking statements for any reason.



Safety Briefing



Agenda

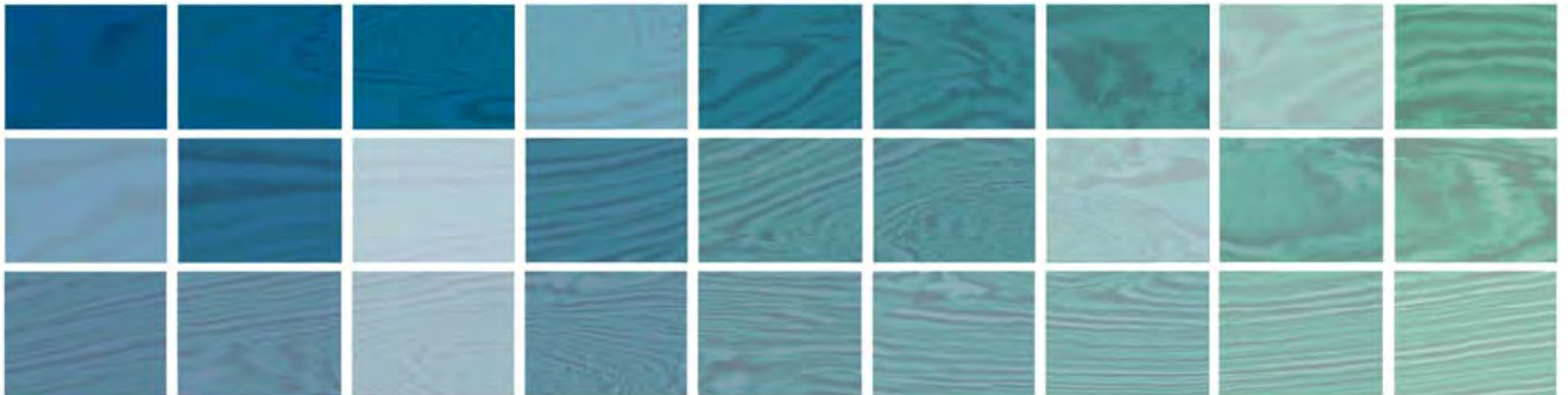
- **08:30 - 09:00 TGS' Market and a View Forward**
 - Robert Hobbs, CEO
- **09:00 - 09:30 Financial Status: The Multi-client Business Model**
 - Kristian K. Johansen, CFO
- **09:30 - 10:00 Emerging Areas: A Long Term Investment**
 - Kjell Trommestad, SVP Europe and Russia
- **10:00 - 10:15 Break**
- **10:15 - 10:45 Imaging and Reprocessing: Investing in a Clearer Picture**
 - Stein Ove Isaksen, SVP North & South America
- **10:45 - 11:10 Well Data: Evolution of Data Formats and Data Integration**
 - John Adamick, SVP Geological Products & Services
- **11:10 - 11:40 Stingray: Extending TGS' Market**
 - Martin Bett, SVP Stingray
- **11:40 - 12:00 Summary and Closing Remarks**
 - Robert Hobbs, CEO
- **12:00 - 13:30 Lunch**

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Capital Markets Day

TGS' Market and a View Forward





TGS Overview



TGS in Brief

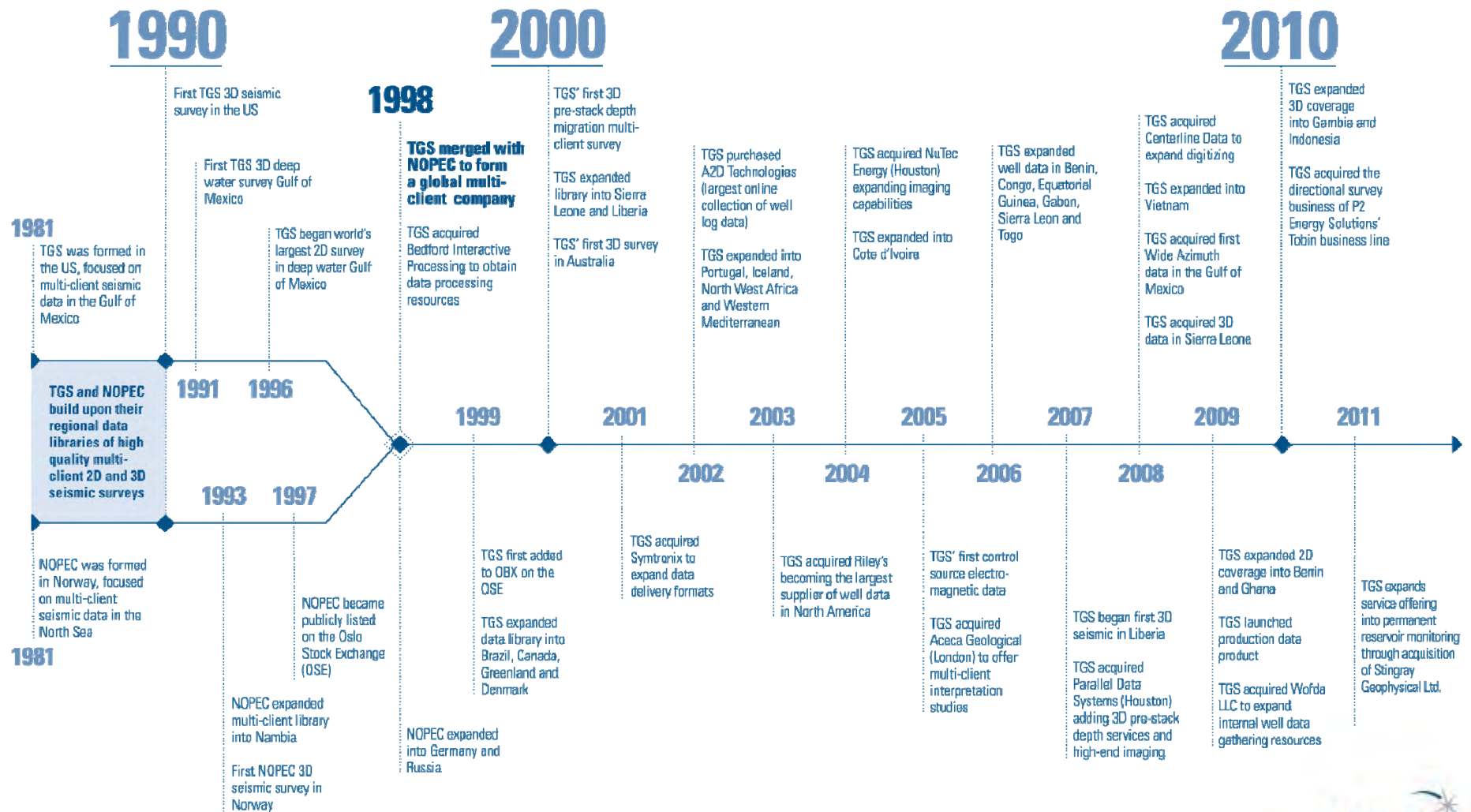


- Leading provider of multi-client seismic data and related geoscientific products to the oil & gas industry.
- Main offices: Houston and Oslo
Regional offices: London, Stavanger, Perth
- Fundamental values: Unmatched Quality and Service, Growth for Stakeholders

Leading and global provider of multi-client seismic data



Company Milestones





A Leading and Unique Player

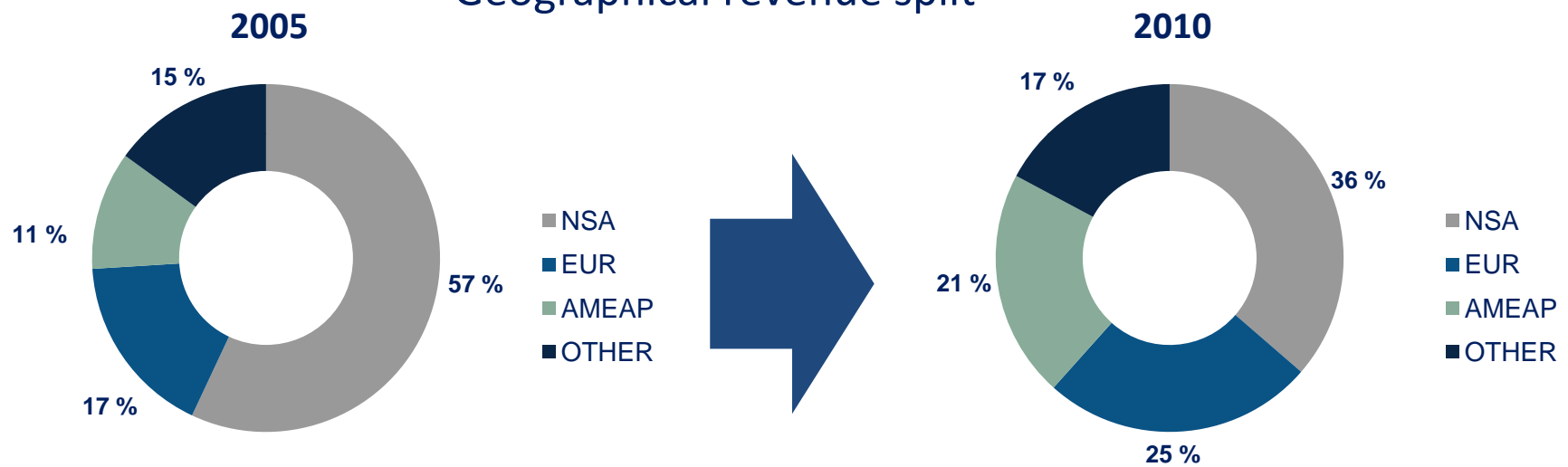
- TGS is a major player within the multi-client market with a market share of approximately 21%
- Strong balance sheet with no interest bearing debt
- Long track record of profitability
- Differentiation and value are created by controlling unique high-quality data in the right place at the right time
- Our investments include variety of seismic, well log, and integrated projects from frontier, emerging and mature markets

Different philosophy ➡ Different business model



TGS has Become More Diversified...

Geographical revenue split





...but Business Model Remains Unchanged

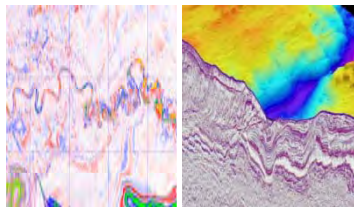
- Multi-client focus (95%)
 - Develop, manage, own and control G&G data
 - Sell licenses to data (a Product – not a Service)
 - Customers get use of the data at a fraction of the cost
 - Mitigate financial risk with pre-funding commitments prior to commencement of project
 - Higher longer-term earnings potential than selling services
- “Asset light” structure
 - Secure appropriate capacity and technology externally as needed
 - Flexible, low fixed cost base
 - Project modeling and merit drive major investment decisions
 - Perform in all cycles

A unique business model which performs in all cycles



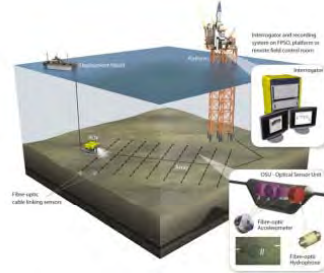
TGS Core Businesses

Geophysical Data



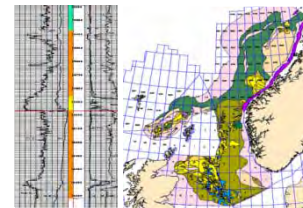
- 2D Seismic
- 3D Seismic
- Depth imaging products
- Wide Azimuth Seismic
- Aeromagnetics
- Gravity
- Electromag (CSEM)
- Multi-beam

Permanent Reservoir Monitoring (New)



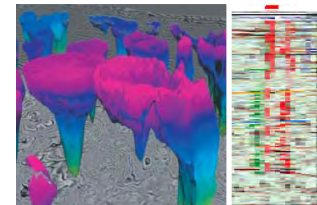
- Integrated Permanent Reservoir Monitoring solutions
- Deepwater and congested seabed solutions
- 4D seismic surveys
- 4D seismic processing
- Fracture monitoring
- Flood front monitoring
- Well integrity monitoring
- Micro-seismic monitoring

Geological



- Digital well data
- Directional Surveys
- Production data
- Regional geologic interpretation
- Facies Map Browser
- Interpretive services

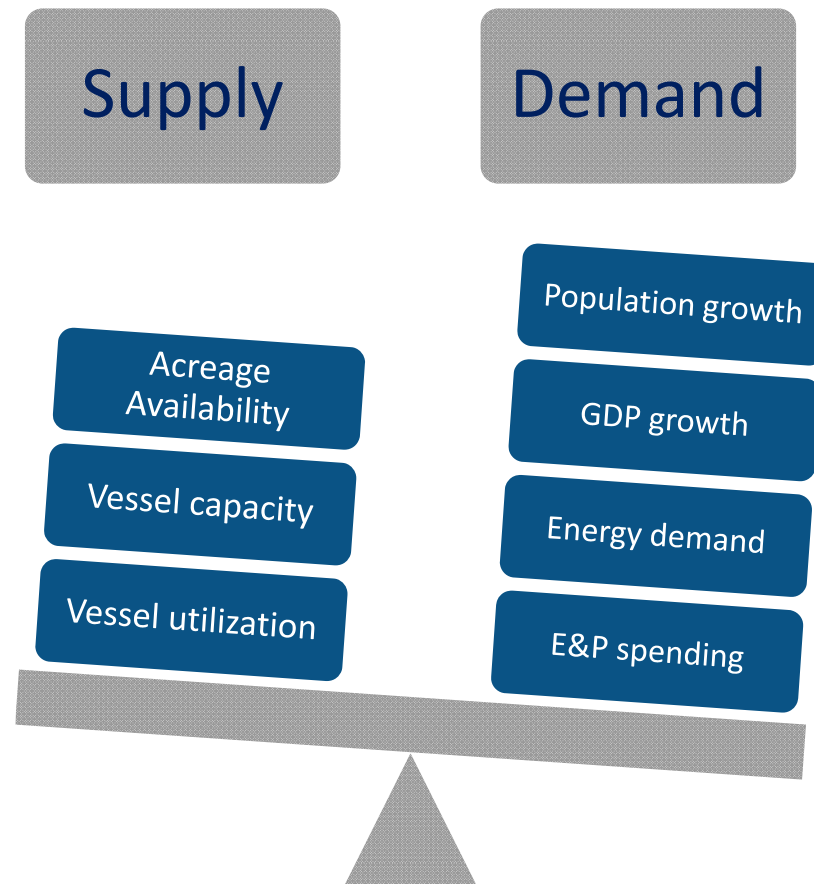
Imaging Services



- Seismic processing
- Complex depth imaging
- Proprietary technology
- Ongoing R&D investment
- Contract business model



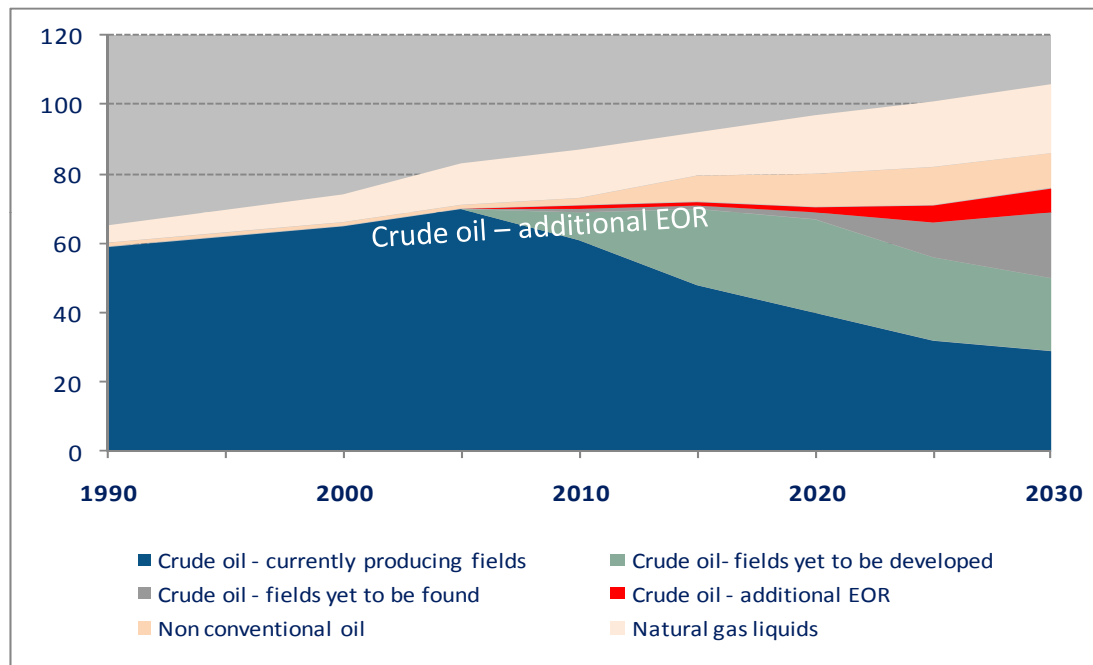
External Factors Influencing Supply and Demand





Reserves Replacement Correlate to Investment Cycles

World's Liquid Fuels Supply

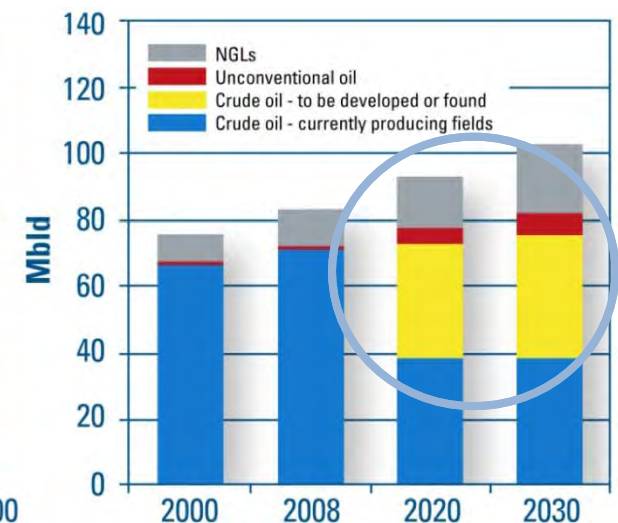
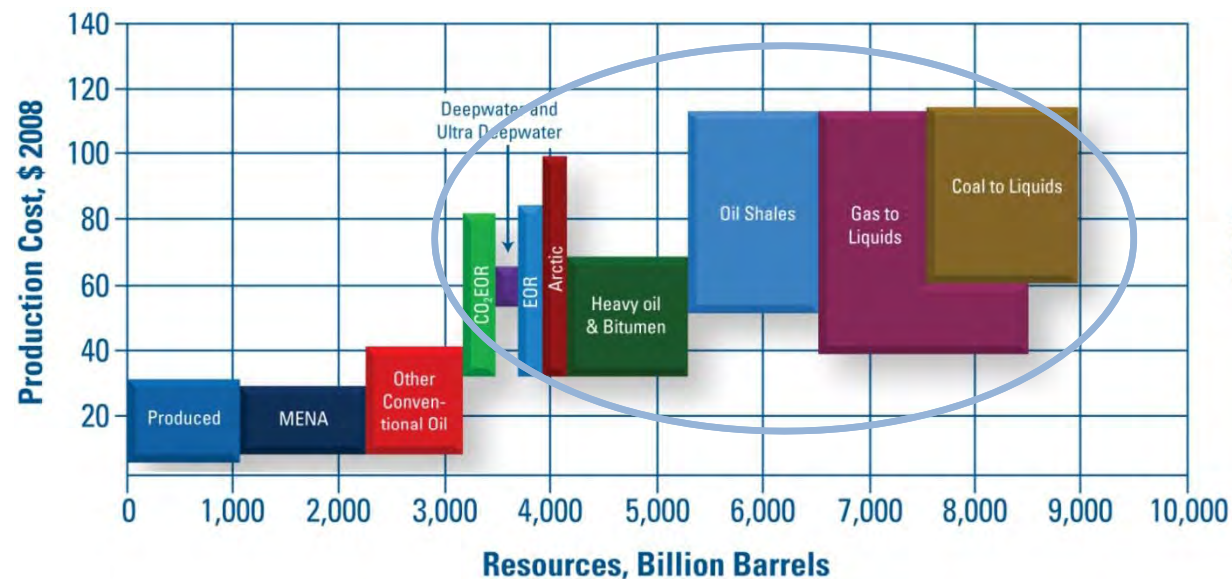


- Oil and gas reserves declined from 2003-2009 by 5.9%
- Globally we are producing more oil from existing reserves than we are discovering
- Lack of investment in 1999-2003 led to declines in RRR (Reserve Replacement Ratio) and R/P (reserves to production ratio)
- Reserve Replacement projected to increase to 112% in 2011 but additional decline is projected from 2012 forward

Increasing investments are required just to maintain reserve replacement



Long-term Oil Supply More Expensive to Produce

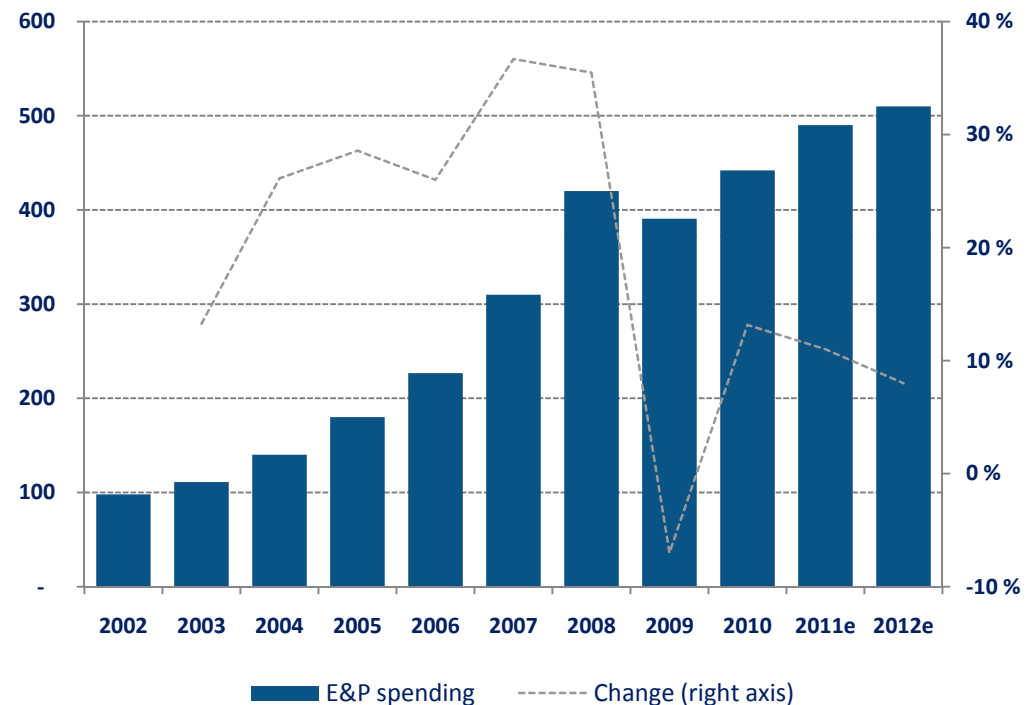


- Brazil, Kazakhstan, Azerbaijan only non-OPEC countries where significant production increases are expected
- Marginal development costs expected to rise as move forward - the easy oil has been produced
- IEA predicts 60% of production will come from new fields in 2030

The easy oil is history – long term oil supply becomes more expensive

Global E&P Spending Expectations

- According to Barclays' 2011 E&P spending survey, global E&P expenditures will increase by 11% to 490 BUSD in 2011
- The average oil price (WTI) on which companies are basing their 2011 E&P budgets is approximately 77.32 USD per barrel, while the price thresholds for reducing CapEx is 50 USD per barrel
- As E&P spending and seismic expenditures historically have been closely correlated, the 2011 E&P surveys and 2012 analyst expectations set positive expectations for the seismic industry

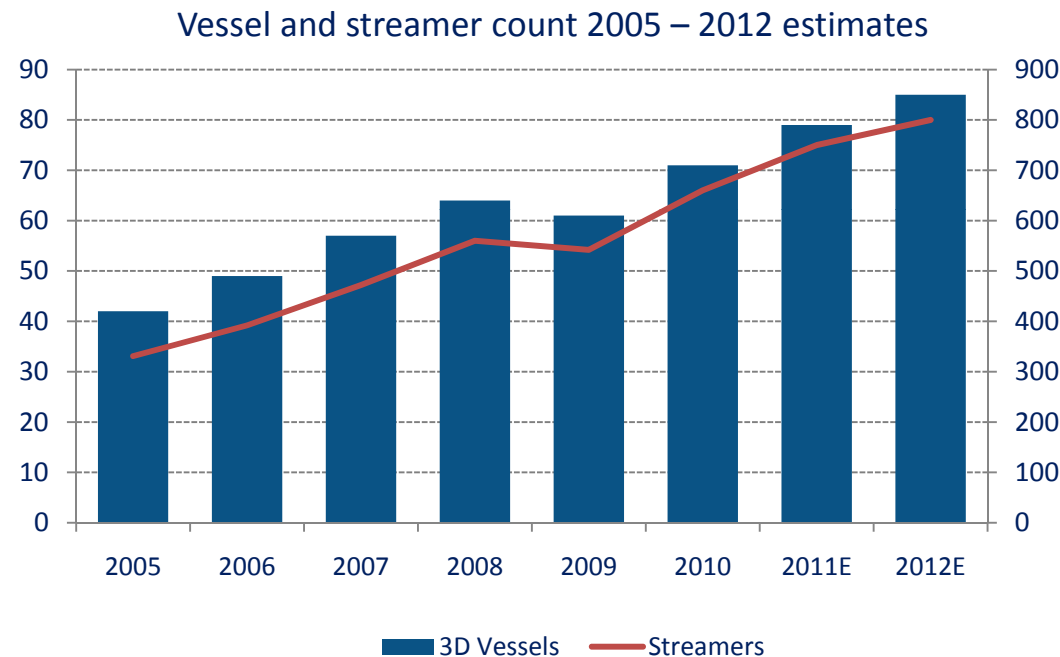


Source: 2002 - 2011 Barclays Capital.
2012 estimate Carnegie, DnBNOR and Enskilda.

E&P expenditure estimates trending upwards



Vessel Supply Growth Supports Asset Light Model



- Higher expectations for E&P and seismic expenditures facilitates for increased building activity and new entrants to the market
- No long-term vessel commitments made by TGS



Market Implications/Key Considerations for TGS

Observations/Trends

- Global GDP growth drives 40% increase in energy demand*
- Reserves replacement becomes more expensive and reservoirs become more complex
- Reserve replacement will drive increased investment
- E&P spending expected to grow by 10%-20% in 2011
 - Growth in subsequent years expected
 - Seismic spending has traditionally followed E&P spending
- Oversupply of vessels forecasted
 - 2011 78% more vessels compared to average 1998-2005
 - 2011 135% more streamers than 2005
 - Plateau in new vessel releases in 2012

TGS Positioning and Strategy

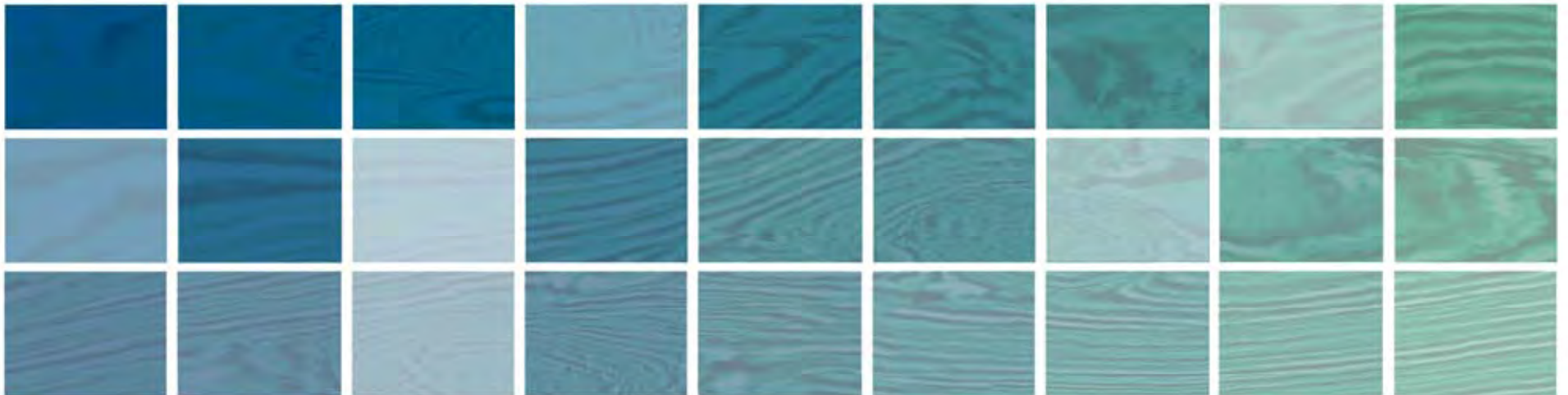
- TGS' continued subsurface emphasis positions company well for demand expansion
- Continued technology leadership critical
- Stingray acquisition positions TGS as a strong player in the production seismic market
- TGS' multi-client market focus and countercyclical investment strategy positions the company well for increased demand
- Current market allows flexibility, but must watch for market triggers

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Finance Status: The Multi-Client Business Model





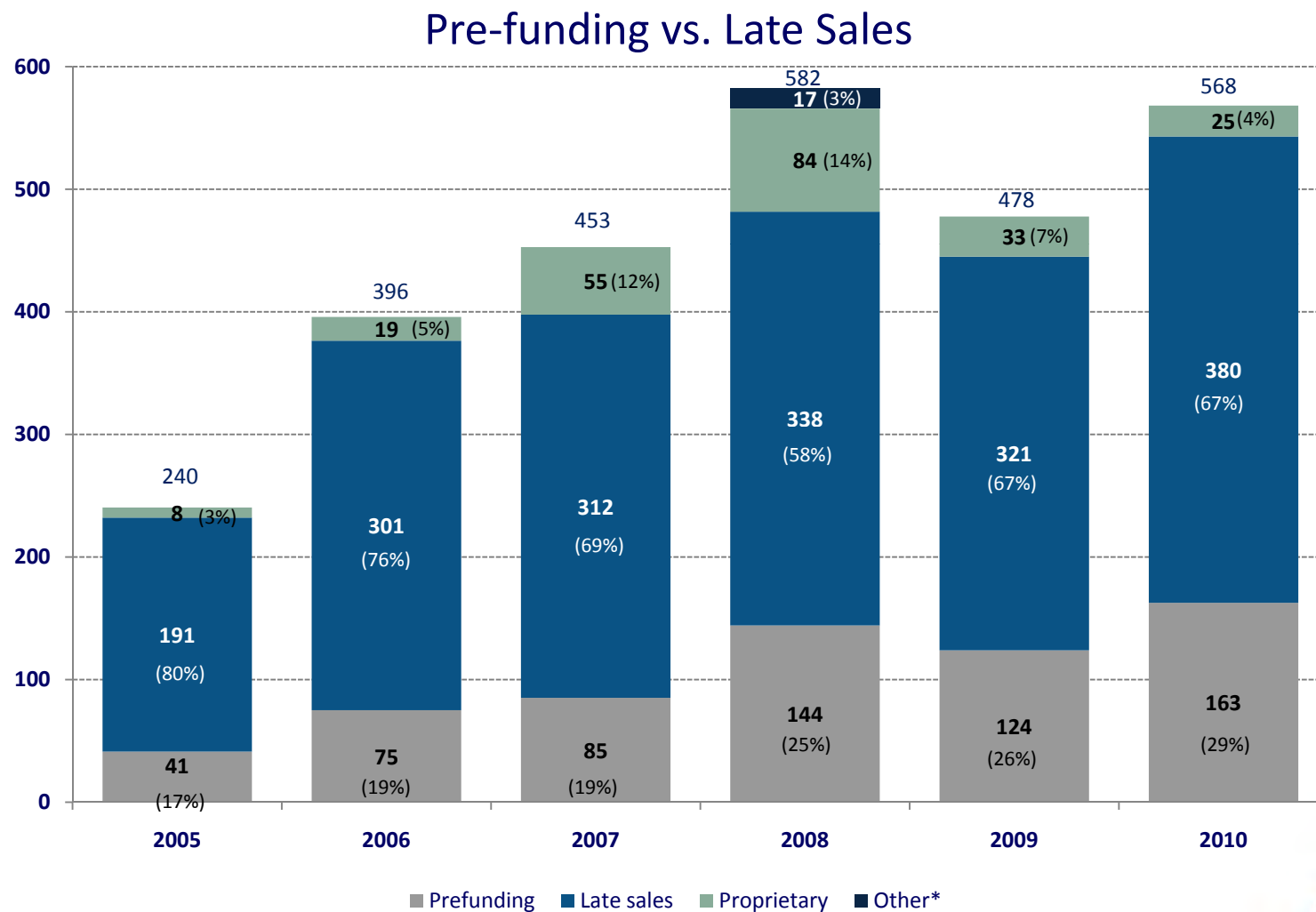
Agenda

- Financial Overview
 - P&L components – trends and descriptions
 - Cash flow (LTM)
 - Balance sheet
- Multi-client Library
 - Accounting principles
 - Vintage analysis
- Performance Through the Cycle – Success Formula
 - Diversification
 - Countercyclical investments
 - Multi-client accounting
- Summary

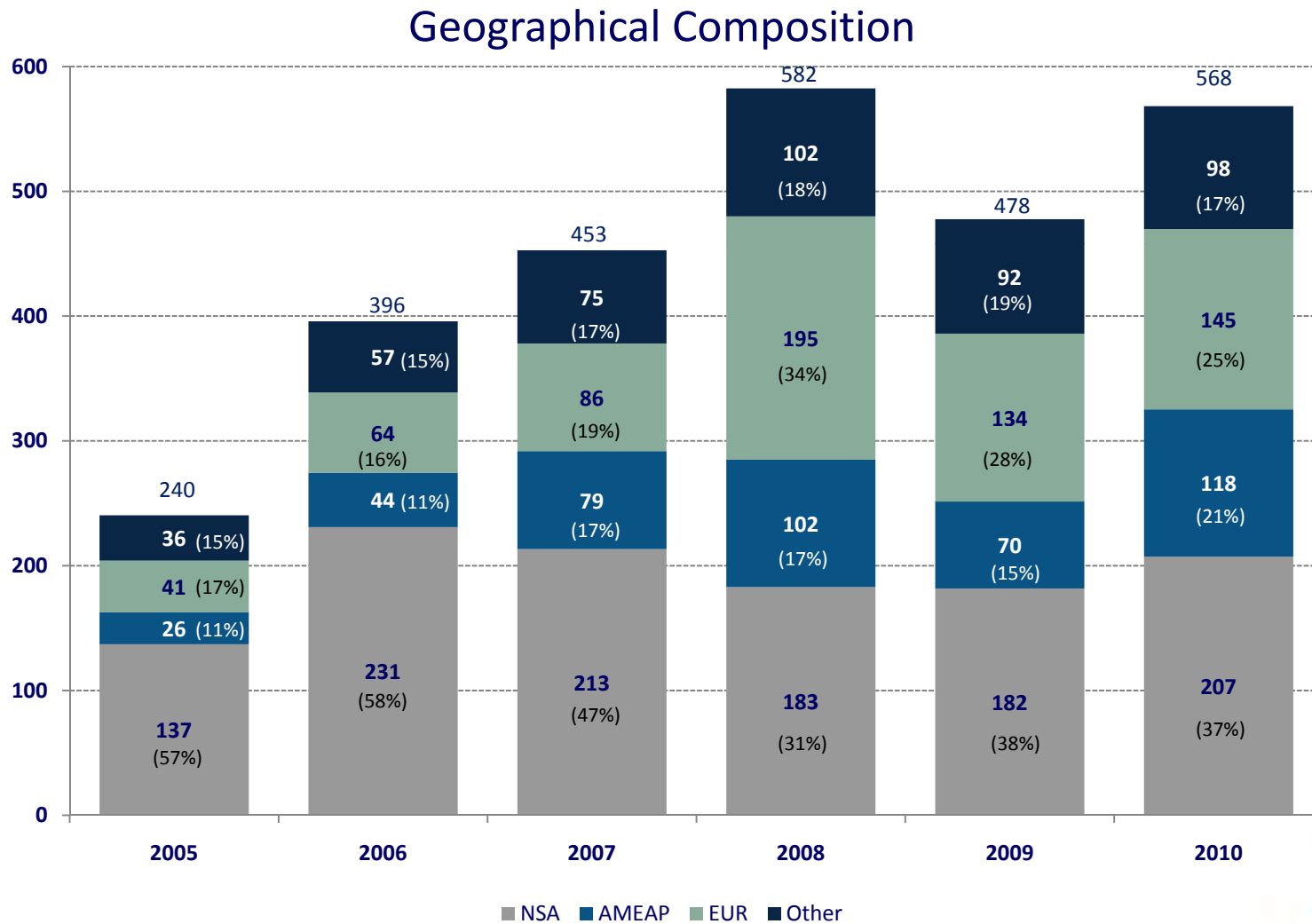
Financial Overview



Revenue Development per Year



Revenue Development per Year

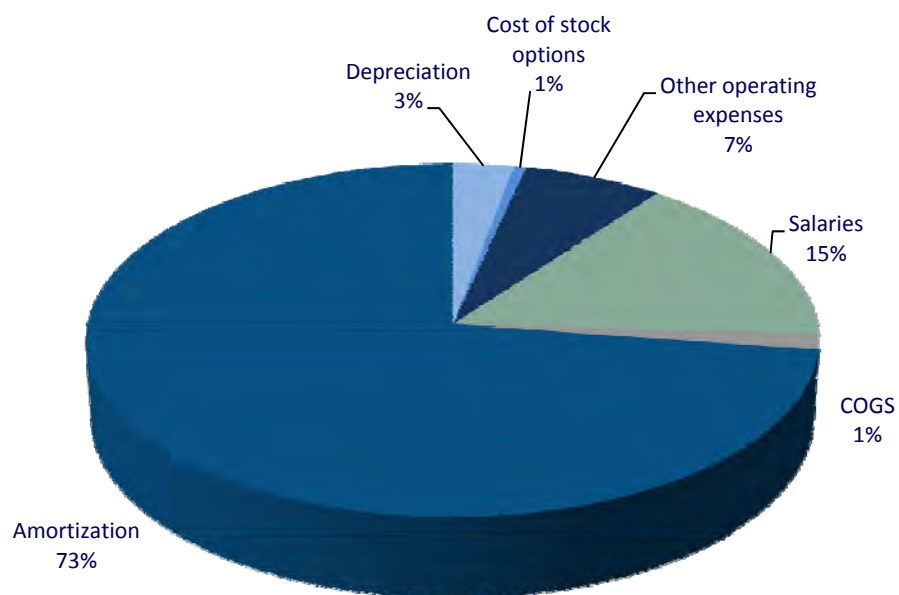


(xx%) = percent of total revenues.



Cost Breakdown and Description

2010 Breakdown

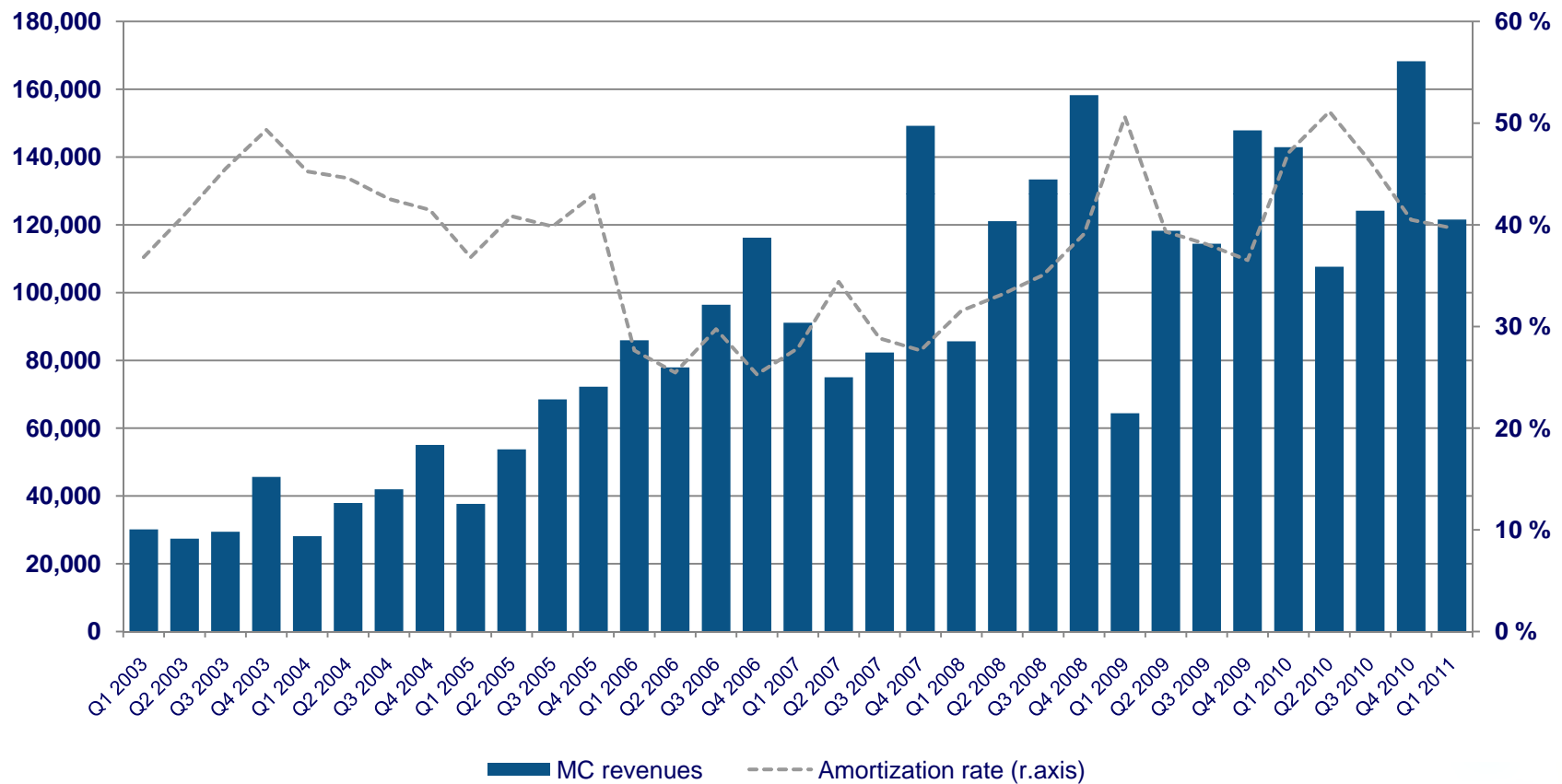


Cost Components

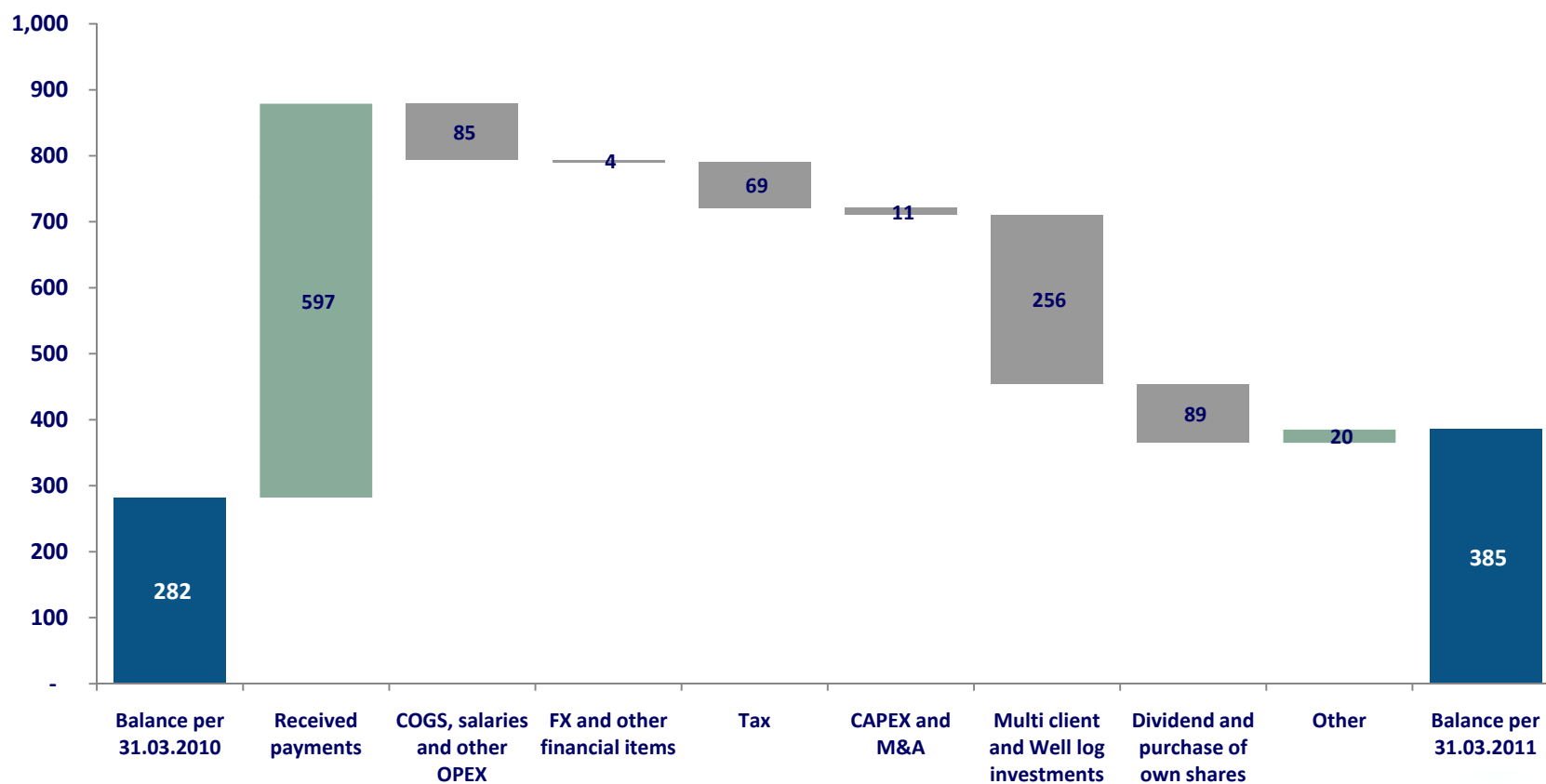
- Cost of goods sold
 - Direct cost related to proprietary contract projects
 - Corresponding revenues recognized as proprietary revenues (typically represents approx. 5% of total revenues)
- Amortization
 - Amortization of the multi-client library
 - Fluctuates from quarter to quarter depending on the sales mix
 - Percentage tends to be lower when sales are increasing
- Salaries
 - Fixed salaries, overtime, bonuses and social security taxes
 - In 2010 bonuses accounted for 35% of total salaries
- Cost of stock options
 - Cost depending on outstanding options, share price, risk free rate and volatility
- Other operating expenses
 - Third party services as auditors, consultants, lawyers, IT expenses, marketing cost, travelling etc.
- Depreciation
 - Depreciation of fixed assets and other intangible assets.



Multi-client Revenues and Amortization Rate

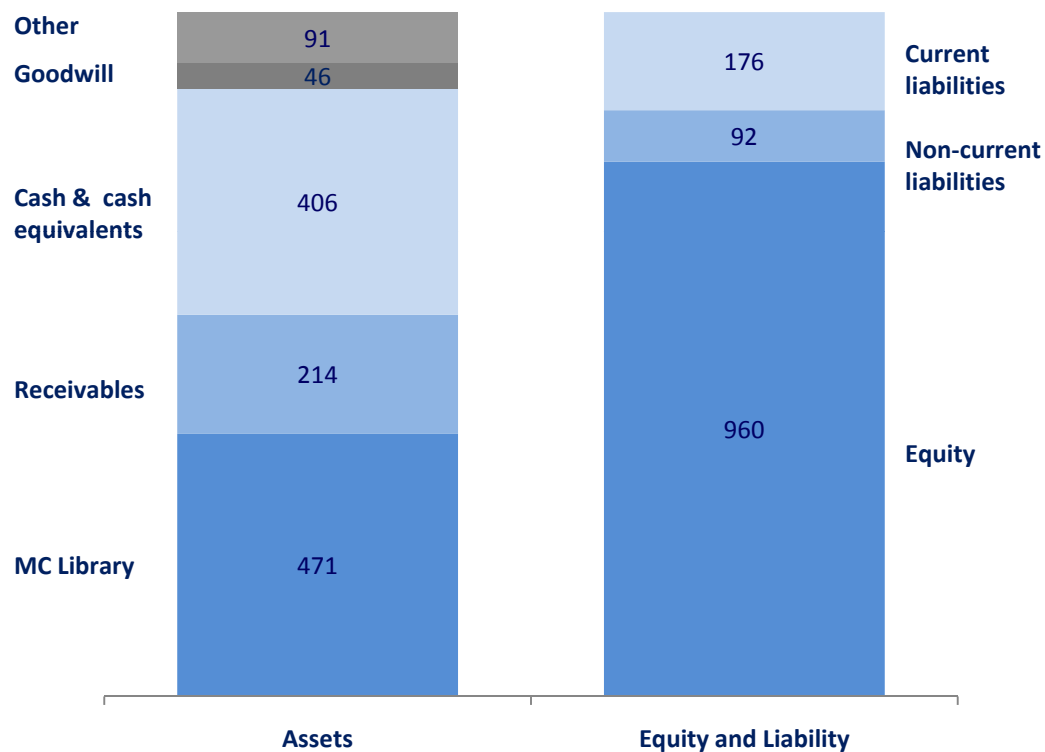


Cash Flow Development - LTM



= positive impact
 = negative impact
 = balance

Balance Sheet as of 31 March 2011



- As of 31 March 2011, TGS does not have any interest bearing debt
- Cash and cash equivalents represents USD 406 million, corresponding to ~ \$3.96 USD per share (NOK 21.8 per share)

Key Ratios	31 March 2011	31 March 2010
MC revenues* / Book Value MC Library	1.11	1.16
Return on capital employed (ROCE)	25%	31 %
Equity %	78%	75%

* Last 12 months

No interest bearing debt



Q2 2011 Updates

- Busy vessel season with four 3D vessels active during the quarter
 - Seisquest continuing to acquire 3D offshore Indonesia
 - Polar Duke started a survey in the Barents Sea in mid-May
 - Oceanic Challenger operating from early May in Moray Firth
 - WAZ-crew finishing up the remaining 7% of Justice
 - In addition, TGS has four 2D vessels in operations for an average of 2 months of the second quarter
- Stingray fully consolidated from the 2nd quarter
 - Quarterly opex of approximately 1.5 MUSD
 - Purchase Price Allocation to be completed during Q2
 - Estimated transaction cost of ~1 MUSD to be expensed in Q2
- Tax refund
 - TGS has been refunded 3.2 MUSD in taxes which will be recognized in Q2

Multi-client Library



Multi-client Accounting

- Multi-client seismic data amortized on a project to project basis as a function of sales
- Accounting standards recommend to match revenues and costs over time
- TGS capitalizes the direct costs of surveys as investments in the Balance Sheet and amortizes them over four years (after completion) as a function of expected ratio sales/investment
- Minimum amortization criteria are applied if sales do not meet expectations so each project is fully amortized within a four year period following its completion
- TGS strong track record related to sales leads to a library higher actual amortization rate than required by the minimum criteria
- As a consequence of this the library's current net book value is heavily weighted toward the newest, most modern projects

Maximum book value

- | | |
|----------------------|-------|
| ▪ Work in progress | 100 % |
| ▪ 1 year old vintage | 60 % |
| ▪ 2 year old vintage | 40 % |
| ▪ 3 year old vintage | 20 % |
| ▪ 4 year old vintage | 0 % |

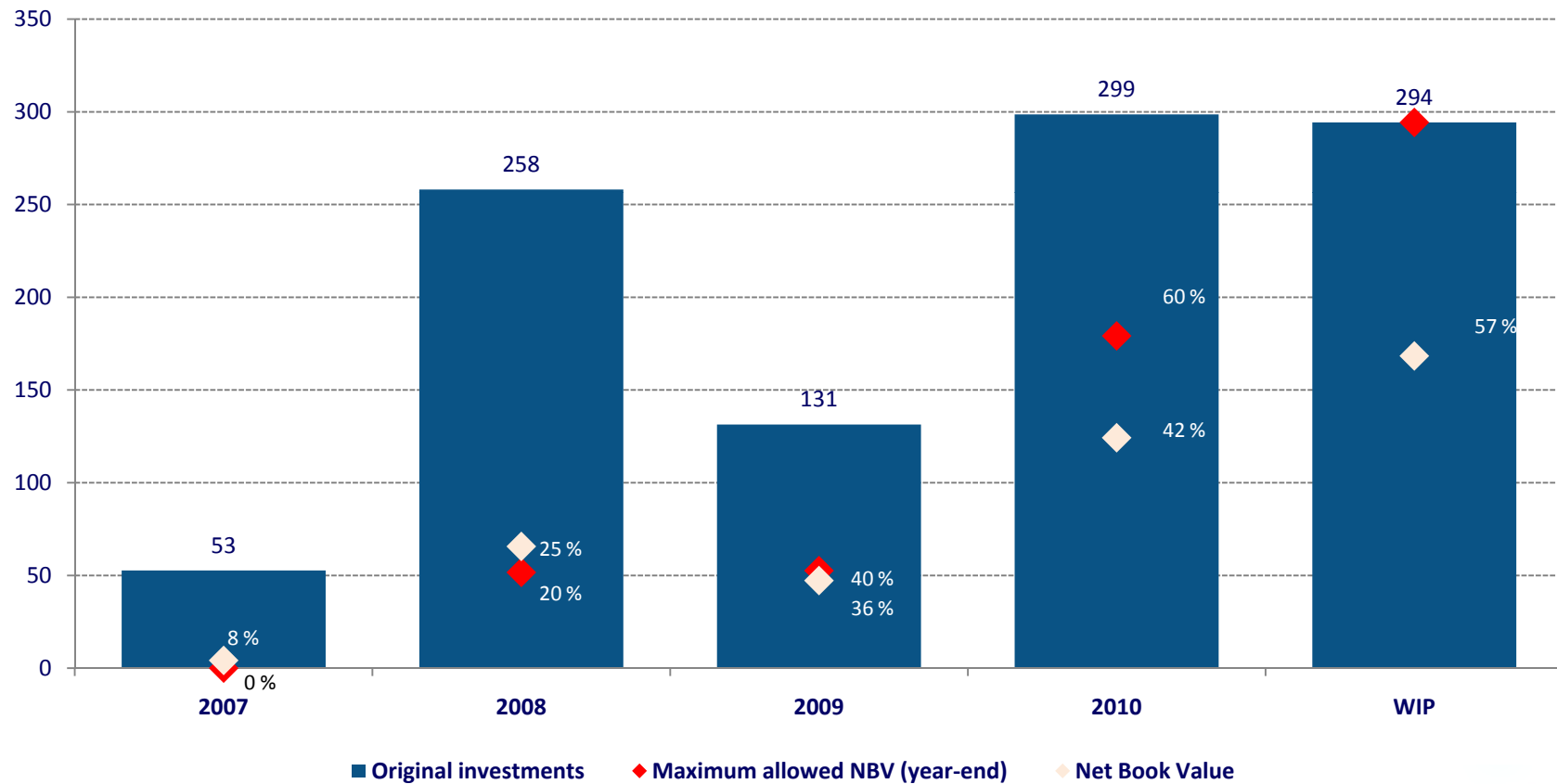
Example

- WIP projects amortized with current sales x (forecasted cost/ forecasted revenues)
- All other vintages are amortized with current sales x (net book value/ forecasted remaining revenues)



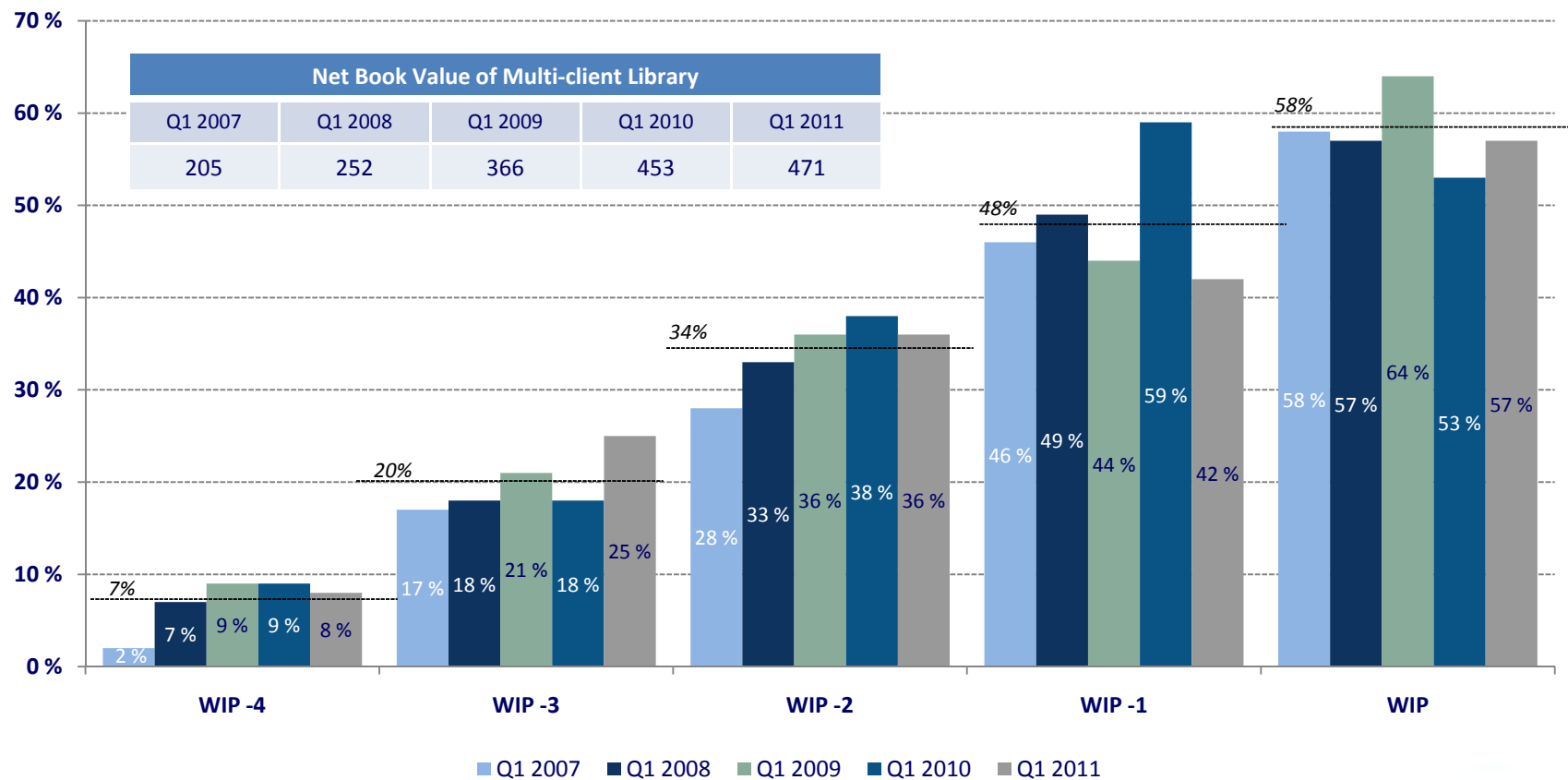
Investments per Vintage – Q1 2011

Net Book Value (NBV) in % of original investment vs. allowed maximum % (year-end)





Historical Net Book Value



xx% = average

Performance Through the Cycle – Success Formula

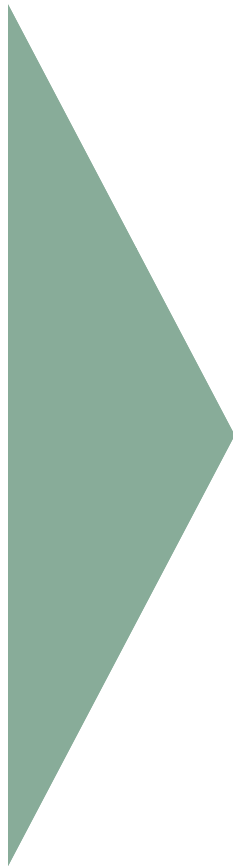


Success Formula

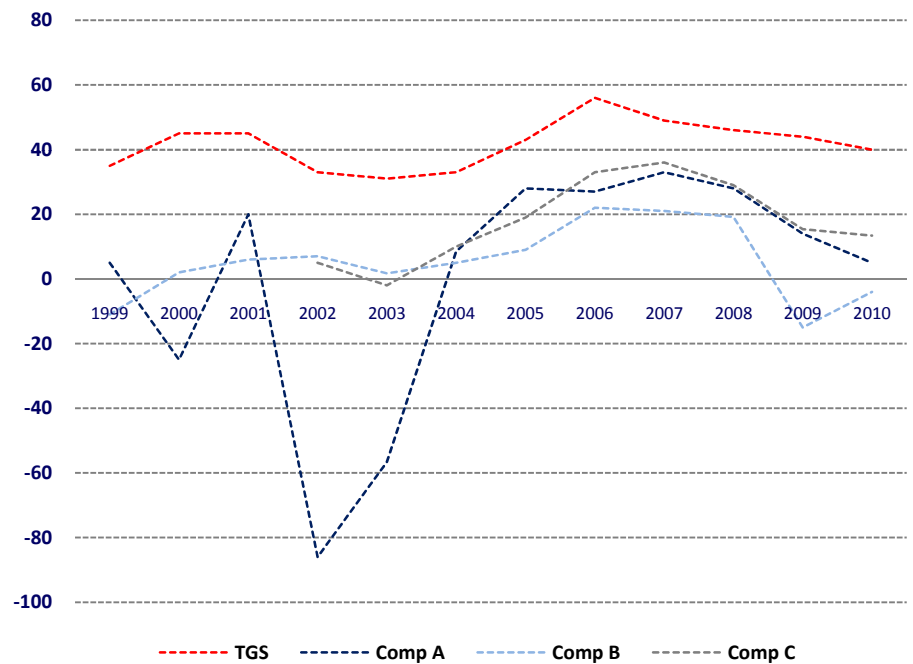
Diversified
Data Library

Countercyclical Investments

Multi-client Accounting



EBIT Margins vs. Seismic Peers



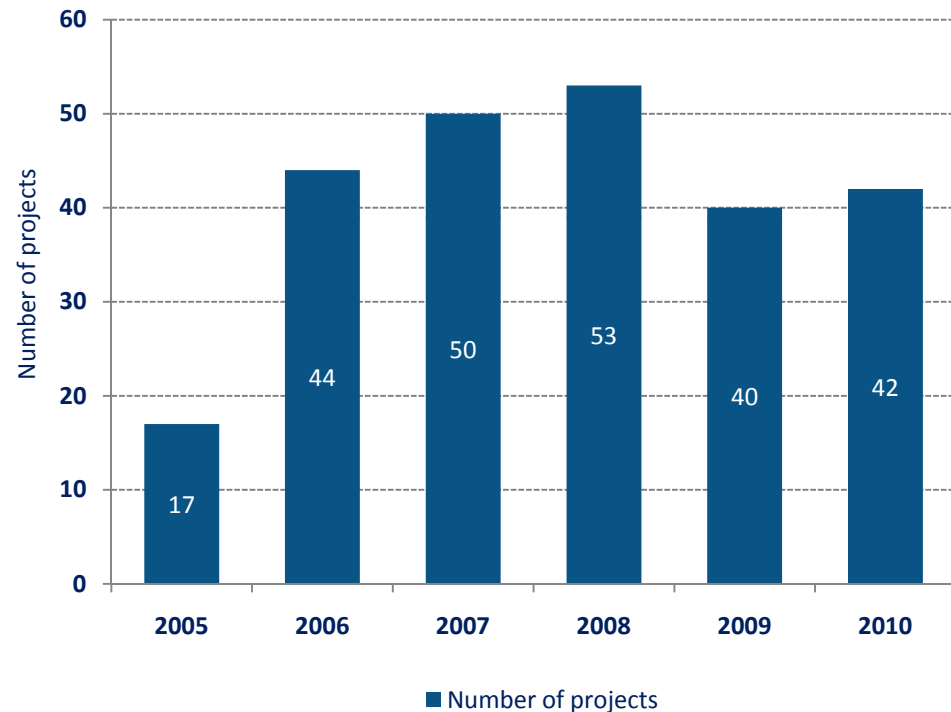


Diversified Data Library

TGS' data library consists of several hundred projects characterized by a high degree of diversification in terms of:

- Geographic region (EUR, AME, AP, NSA)
- Project size (100K USD - 100 MUSD)
- Expected return ("dogs & stars")
- Product type (2D, 3D, Well logs, etc)
- Technology (EM, OBC, WAZ, etc)

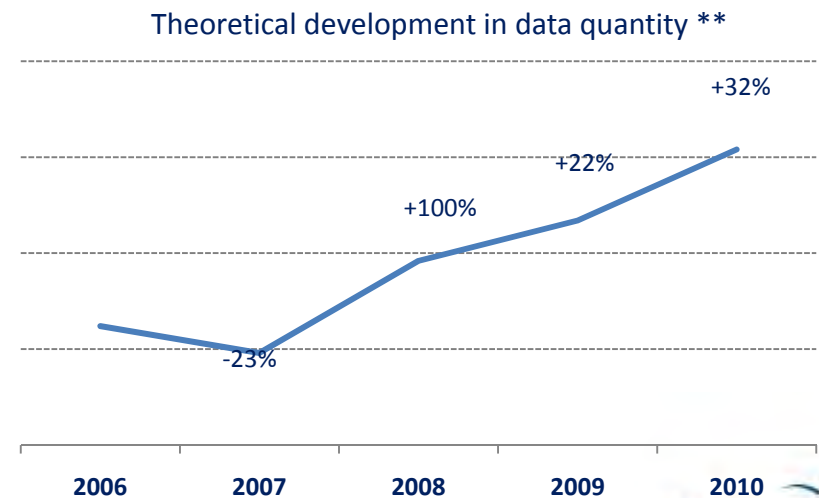
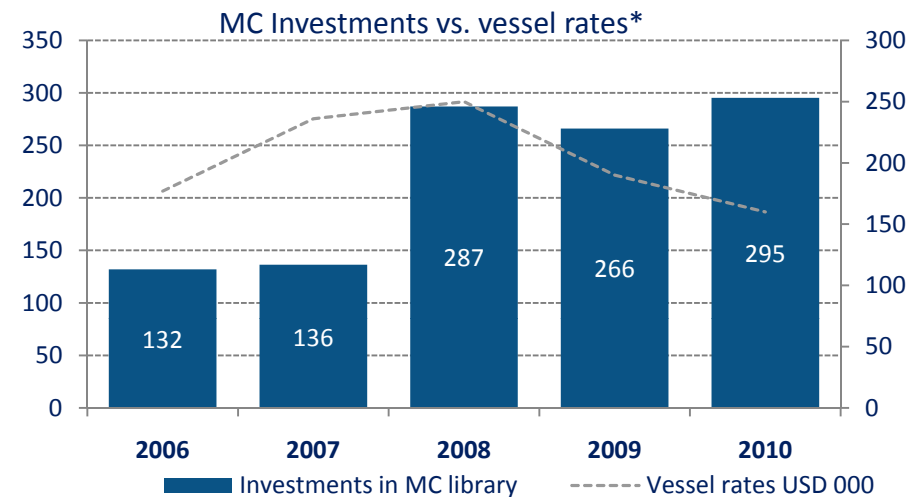
MC seismic projects completed per year





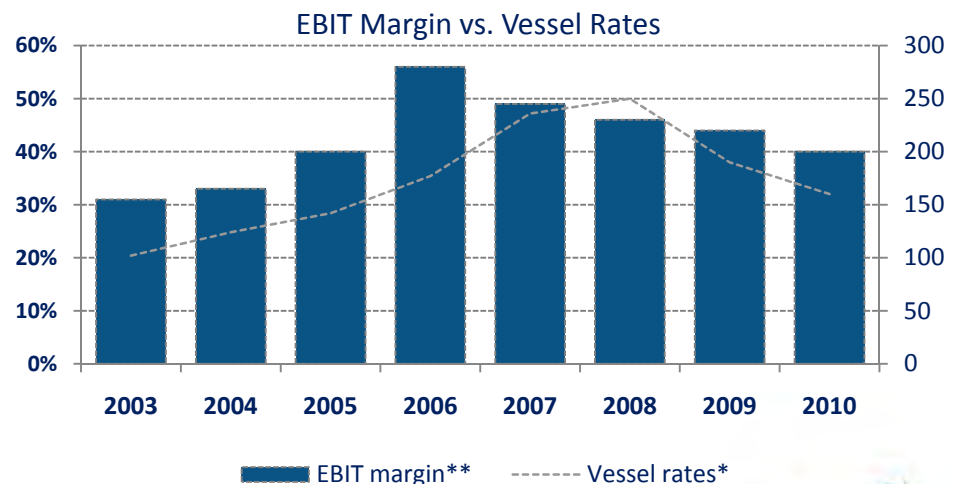
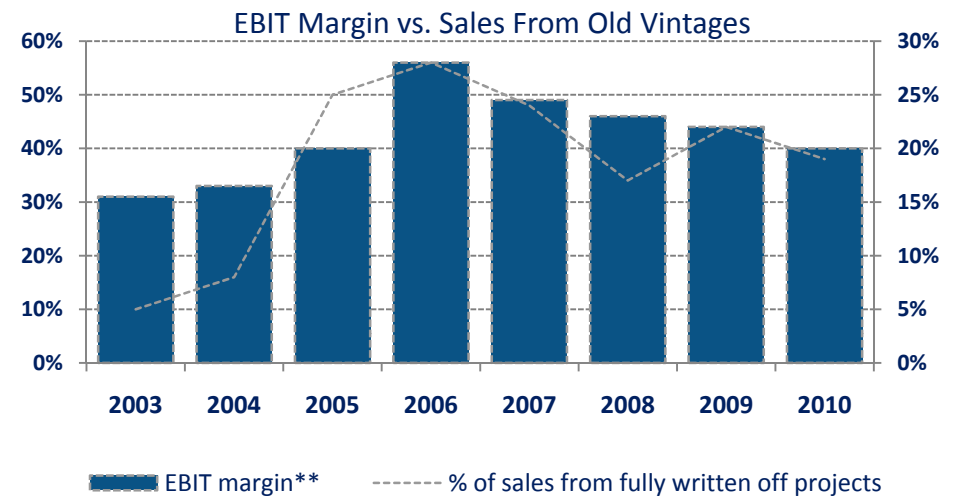
Countercyclical Investments

- TGS has increased investments significantly from the pre-2008 level and average spending over the last 3 years is 283 MUSD
- Vessel prices went down significantly from the peak in 2007/2008 and has stabilized at a low level
- The combination of stable, high USD-investments and cheaper vessel rates allowed TGS to grow its seismic data library significantly during the downturn for the industry
- Assuming that TGS were investing at market rates during the industry downturn, the company would have acquired approx. 50% more data in 2010 compared to 2008 at similar USD investment levels



Multi-client Accounting

- TGS' amortization policy requires all projects to be fully written off by the end of year four after completion – regardless of sales performance
- History shows that many projects continue to sell well after year four, and these projects have a “100%” margin
- Since 2003, 18% of annual revenues have been generated from projects with “no value”
- Strong correlation between sales from old vintages and EBIT margin
- TGS' EBIT margin tends to be highest when vessel rates are high. This is due to the following:
 - Vessel rates are driven by strong demand which has a positive effect on data sales which compensates for higher acquisition cost
 - A 10% increase in vessel rates is amortized over four years – P&L cost increase is therefore only 2.5%



* Average vessel rates per year for an 8 streamer 3D boat.

** TGS historical EBIT margins excluding one off items.

Source: ODS Petrodata, company data





Summary

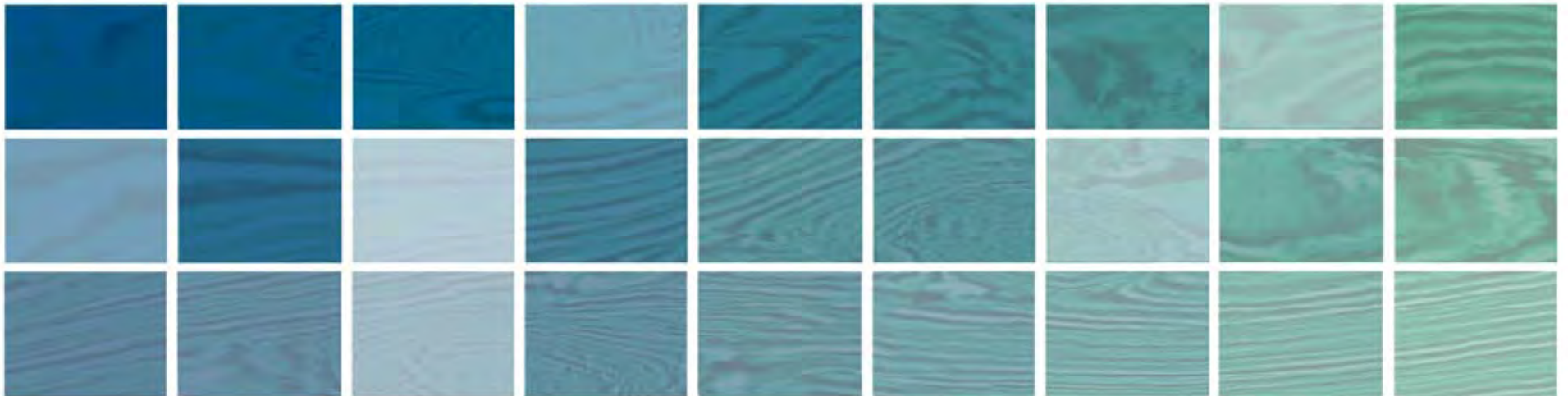
- TGS has become a more diversified company and revenues are equally spread between many different regions
- Amortization cost represents almost $\frac{3}{4}$ of total cost
 - Higher revenues = Lower amortization %
- Despite the increased investments in the library, vintages are already amortized to a BV lower than requirements
- TGS maintained investments at a stable, high level during the industry downturn – data library has grown significantly due to lower vessel rates
- Almost 20% of sales has historically been generated from fully written off projects

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Emerging Areas: A Long Term Investment



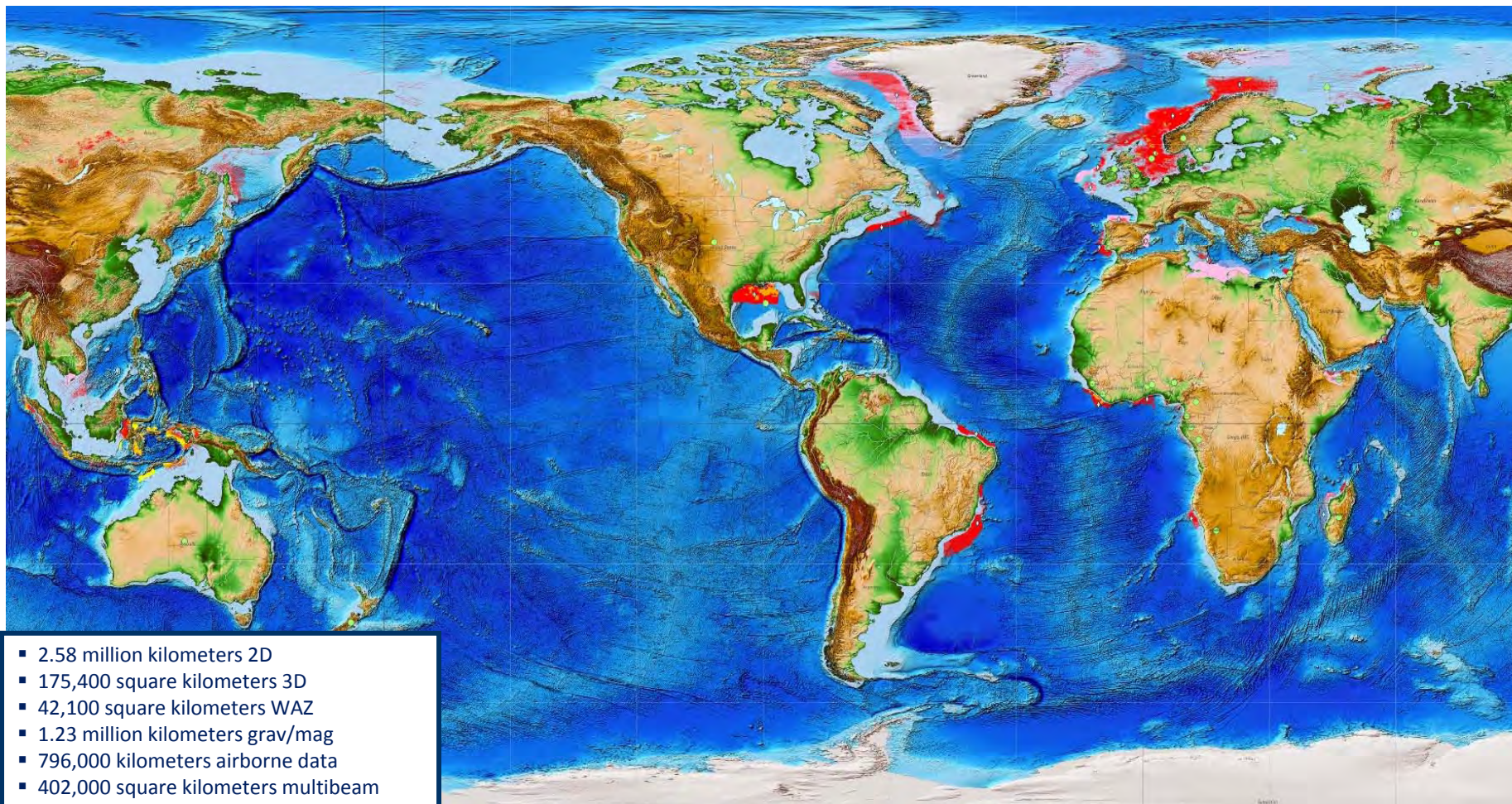


Agenda

- Introduction
 - TGS global multi-client seismic database
 - The TGS multi-client way
- Case Study - Greenland
 - Historical development
 - Local terms and database build up
 - Investment and performance profile
- Case Study - Atlantic Margin
 - History and the revival
 - TGS database build up
 - Investment and performance profile
- Areas for the Future
- Summary



TGS Worldwide Data Coverage



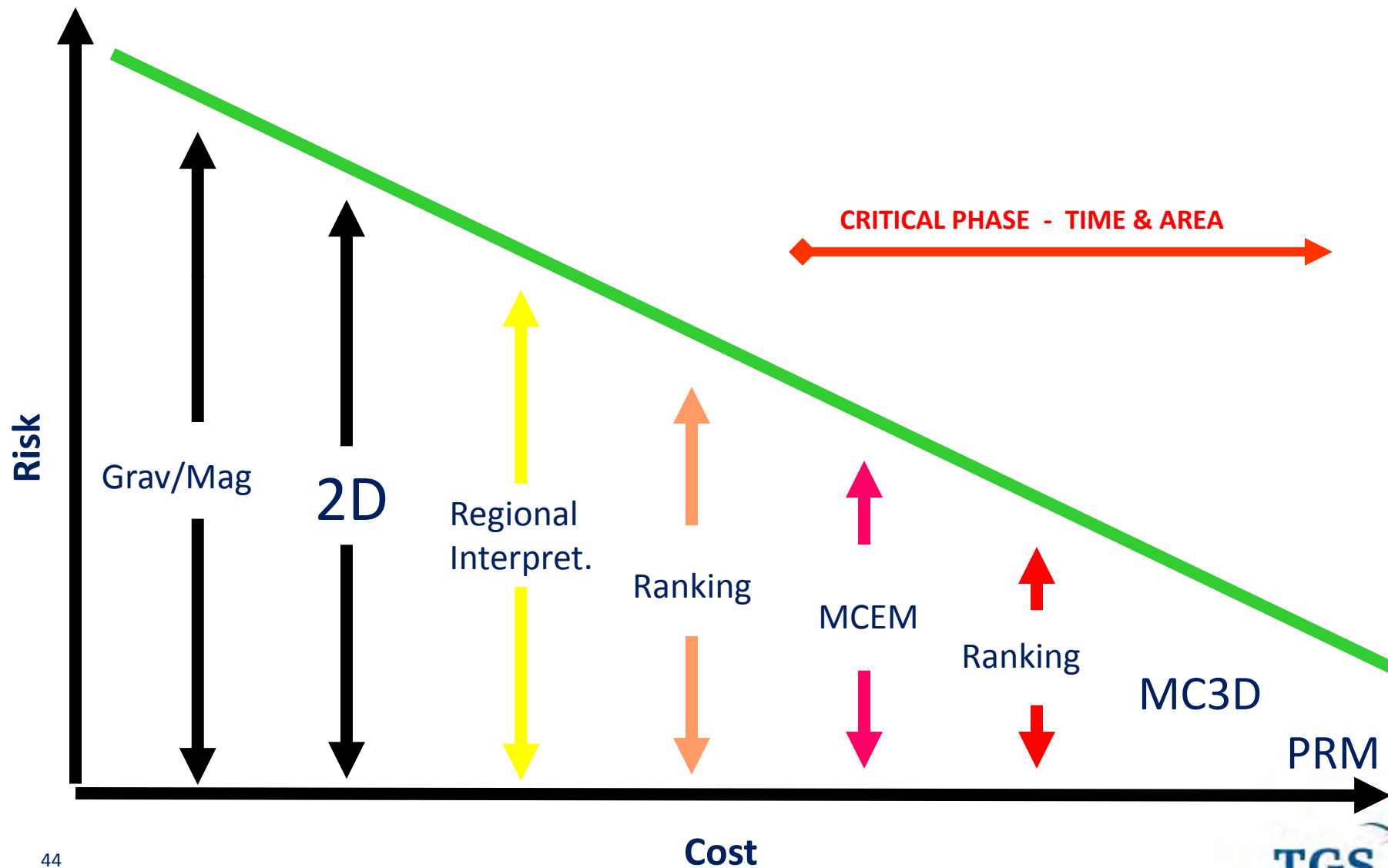


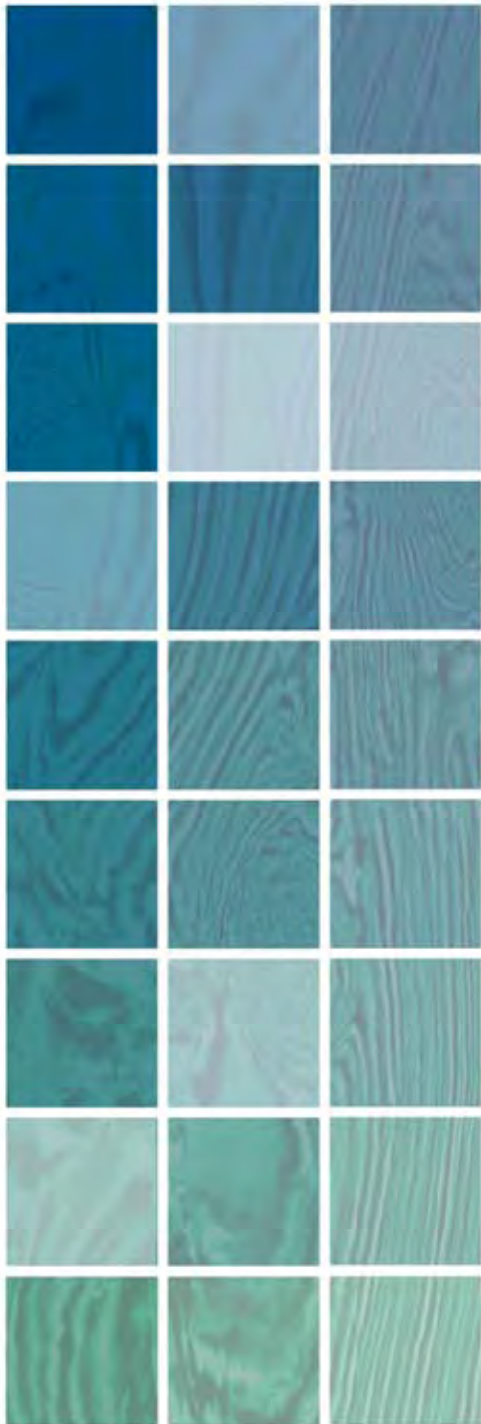
TGS Project Cycle





TGS Data and Risk Mitigation





Greenland

A Case Study



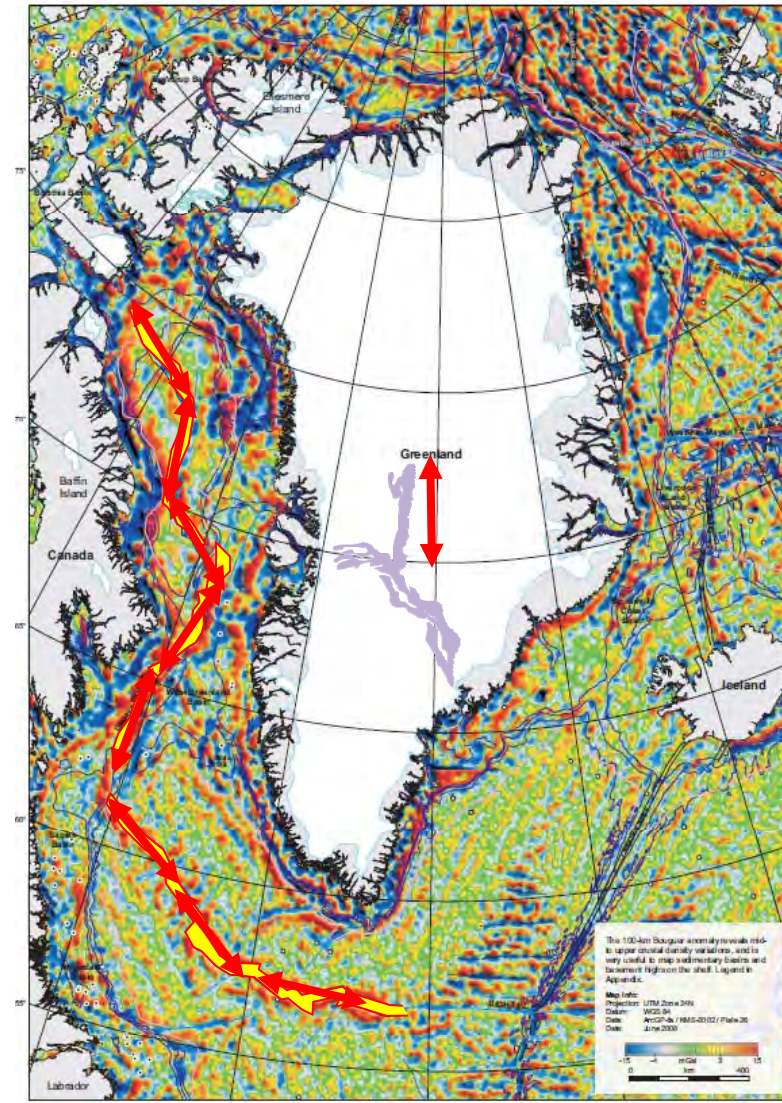
Greenland - A Key Emerging Province

- Local support for exploration
- Fiscal terms seen as reasonably attractive with ~45-55% State take at \$75/bbl
- West Greenland is three times the size of the North Sea
- Favorable access to Atlantic markets
- World class resource potential, but vastly underexplored
- Industry's view of Greenland's potential
- Existing well data available for re-evaluation



Greenland

- TGS began discussions with BMP to promote exploration in 1997
- Evaluation of existing data; wells, seismic (Nunoil and Geus) data circa 1997/98
- Hydrocarbon potential is strong and land offering large (>8 times the Viking Graben in the North Sea)
- TGS uses the existing data base to refine and define future program
- Testing the ideas in the market and start acquisition of new data in 1999





West Greenland Petroleum System Works



TGS sponsored field trips to Greenland to capture interest

- Oil seeps exist onshore
- Hydrocarbon can be found in the rocks
- Provides encouragement for further exploration



TGS Long-term Commitment to Develop Greenland

TGS acquires 2D data

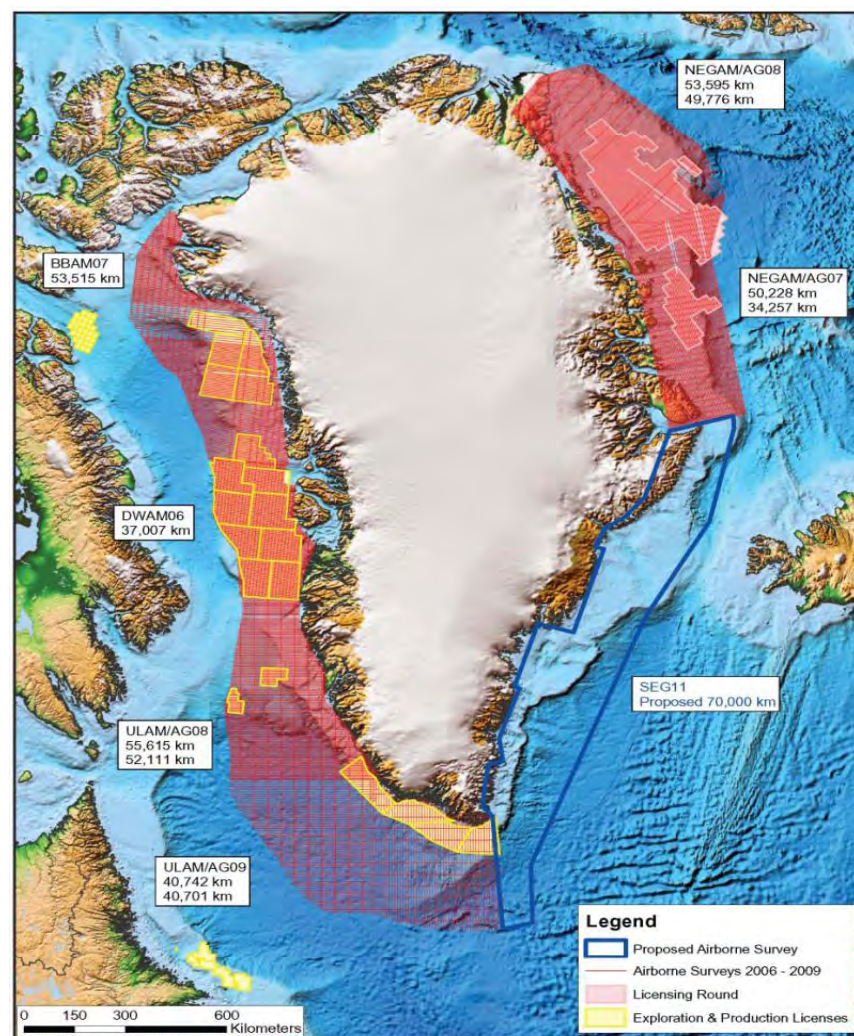
- 1999 - 4,900 km
- 2000 - 6,200 km
- 2001 - 1,000 km
- 2002 - 6,731 km
- 2003 - 7,200 km
- 2005 - 5,600 km
- 2007 - 6,800 km
- 2008 - 9,000 km
- 2009 - 15,700 km
- 2010 - 19,600 km





Greenland Potential Fields Data

- TGS acquires aeromagnetics and aerogravity
 - 2006 - 37,000 km
 - 2007 - 10,400 km
 - 2008 – 108,800 km
 - 2009 – 41,300 km
 - 2010 – 72,000 km
- TGS creates geoscientific atlases
 - 2002
 - 2004
 - 2008
 - 2009
- Multi-client sea bottom samplings
- TGS sponsored field trips

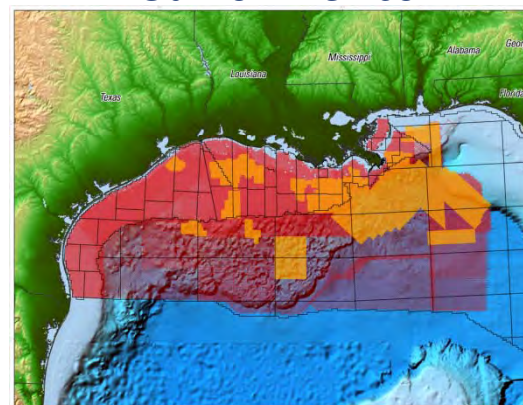




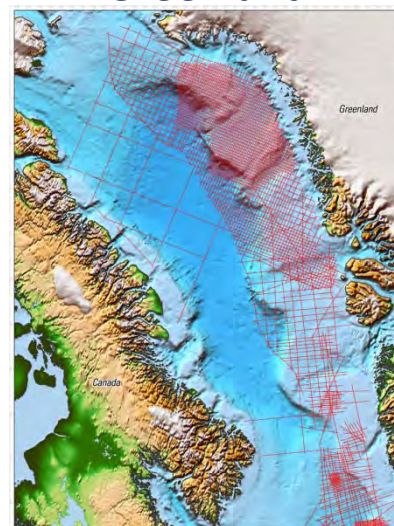
Greenland Additional Potential

- Compare 2D data coverage in Baffin Bay to very mature basins around the world
- Density of data coverage in Baffin Bay is significantly reduced
- In the Gulf of Mexico; TGS has >900% more 2D data coverage per km²
- In the North Sea; TGS has >400% more 2D data coverage per km²
- TGS has significant 3D in both mature markets and there currently is no existing 3D multi-client data in the Baffin Bay

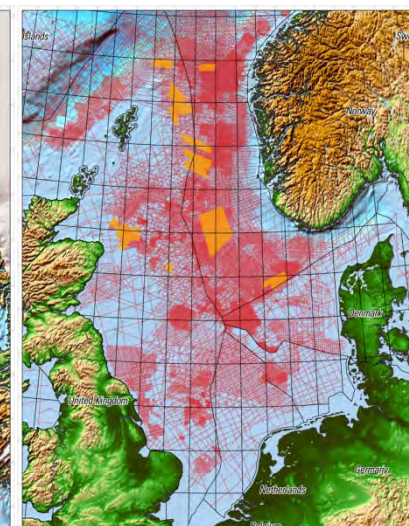
Gulf of Mexico



Greenland



North Sea



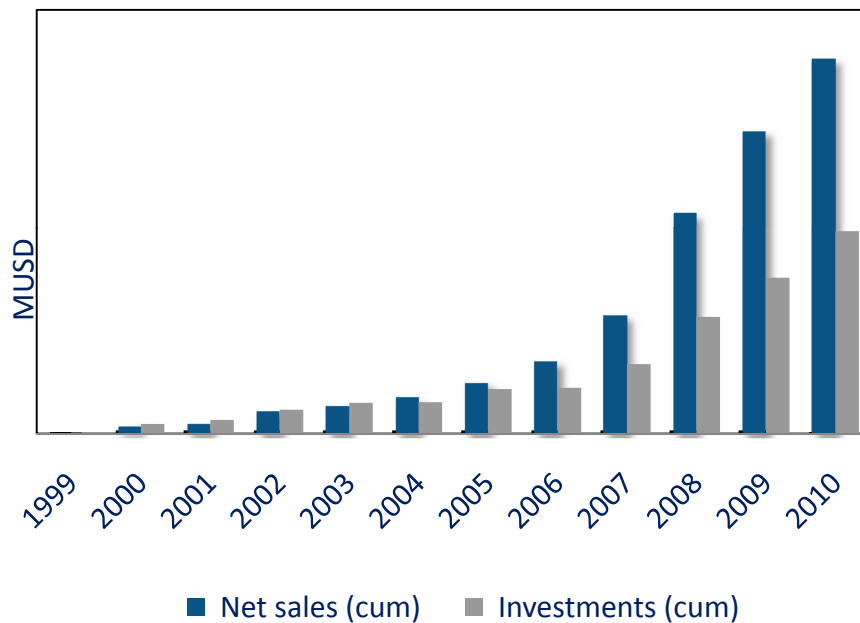
Scale 1:2,500,00

	Baffin Bay	North Sea	Gulf of Mexico
Area	689,000 km ²	750,000 km ²	671,289 km ²
TGS 2D	66,488 km	322,242 km	615,412 km
2D Density	0.096 km/ km ²	0.43 km/ km ²	0.92 km/ km ²



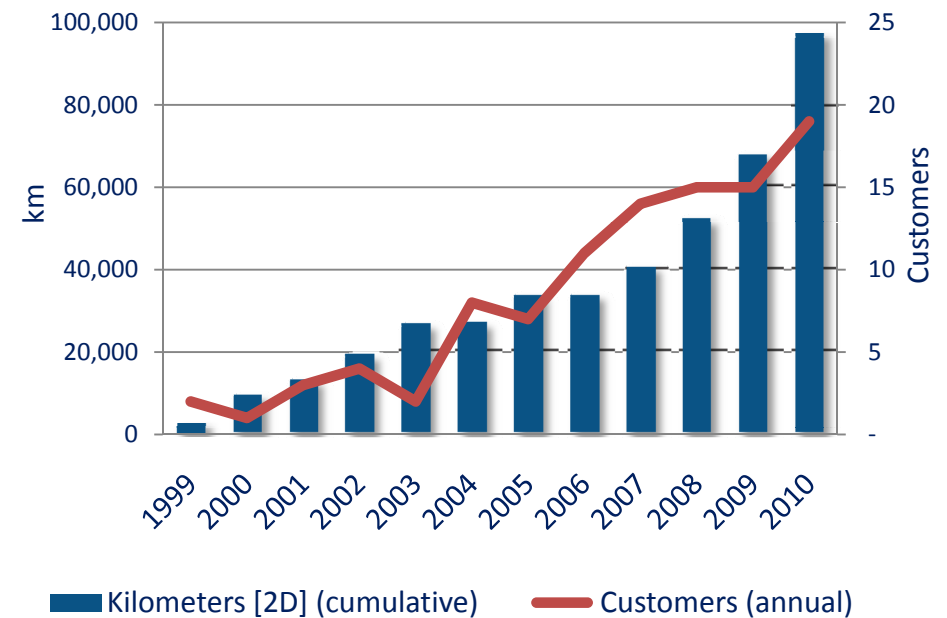
Investment Development Greenland

Sales vs. investments (cum)



Net sales/investments grow as investments grow

Library size and customer development

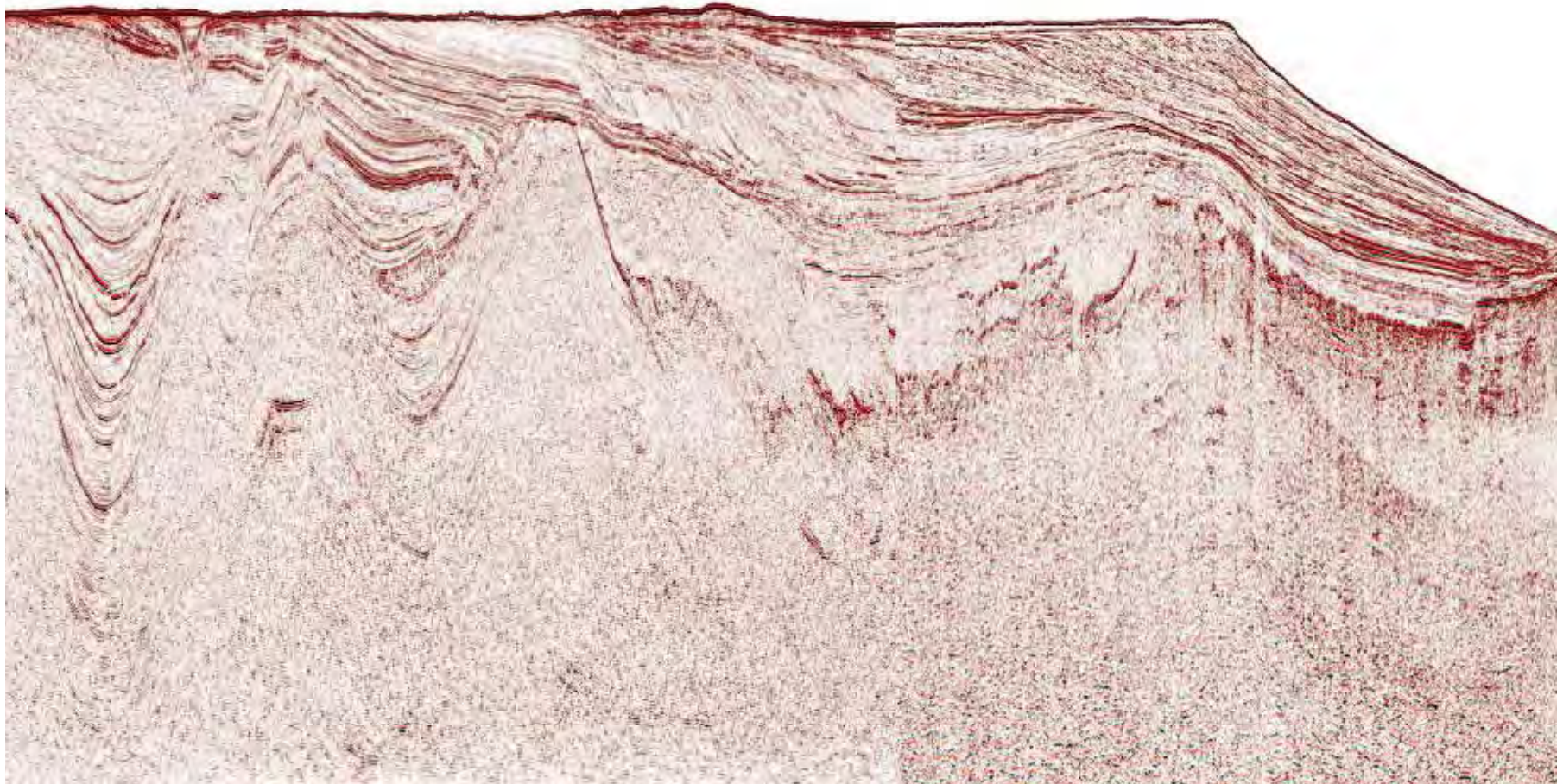


Number of clients grow as more data is available



North East Greenland

The Mirror Image of Norwegian Sea Geology





Greenland Summary

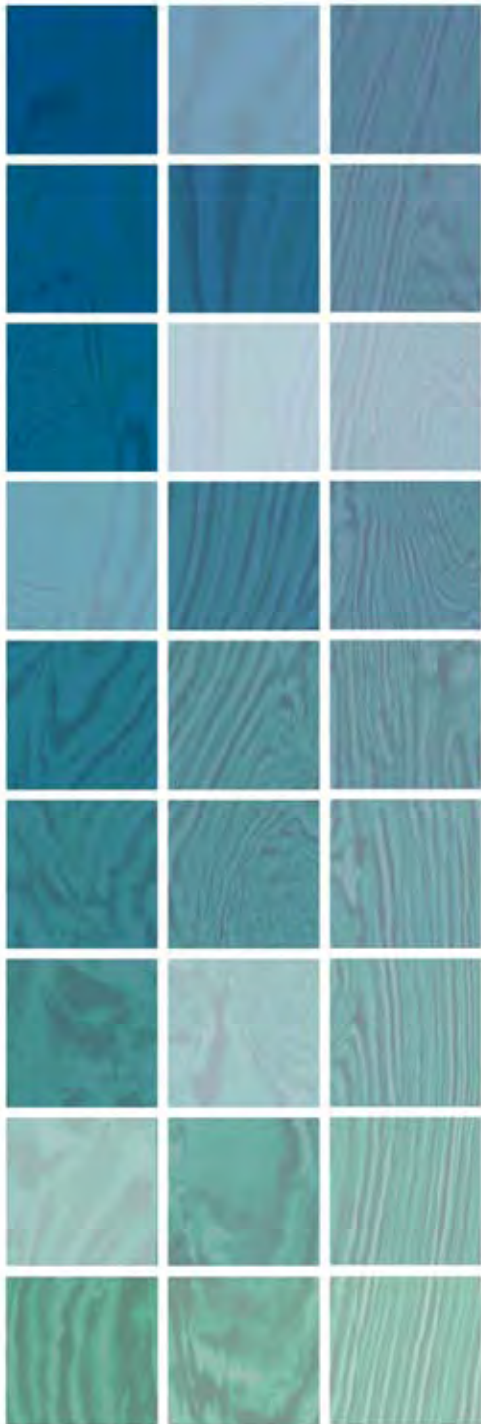
- Seasonal Acquisition
- First survey 1999
- Limited early investment
- Confidence in market
- Steady database build up
- Client base growing prior to new licencing round
- Margin grows as investment grows
- Poised for more data
- Multi-client model is robust





NW Europe Atlantic Margin Revival

A Case Study





NW Europe Atlantic Margin

- Well known and attractive exploration and license regime
- Extensive client base
- Low risk political environment
- Data relinquishment terms
- Seasonal limitations



NW Europe 2003

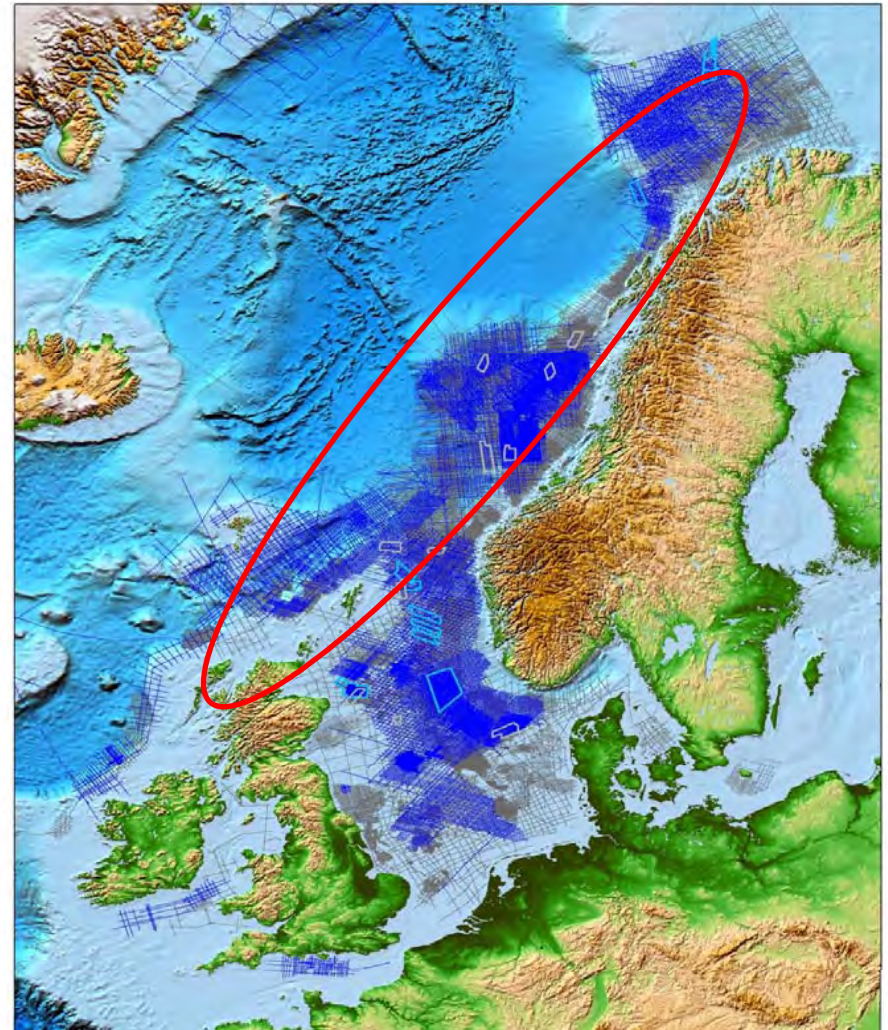
- "Mature" region
- TGS has >500,000 km historic multi-client 2D data
- Area dominated by shallow exploration models
- Emerging trend is for long offset/deep targets
- Pilot Project: 3,300 km long offset
- Applying specialized imaging technology





NW Europe Re-emerges

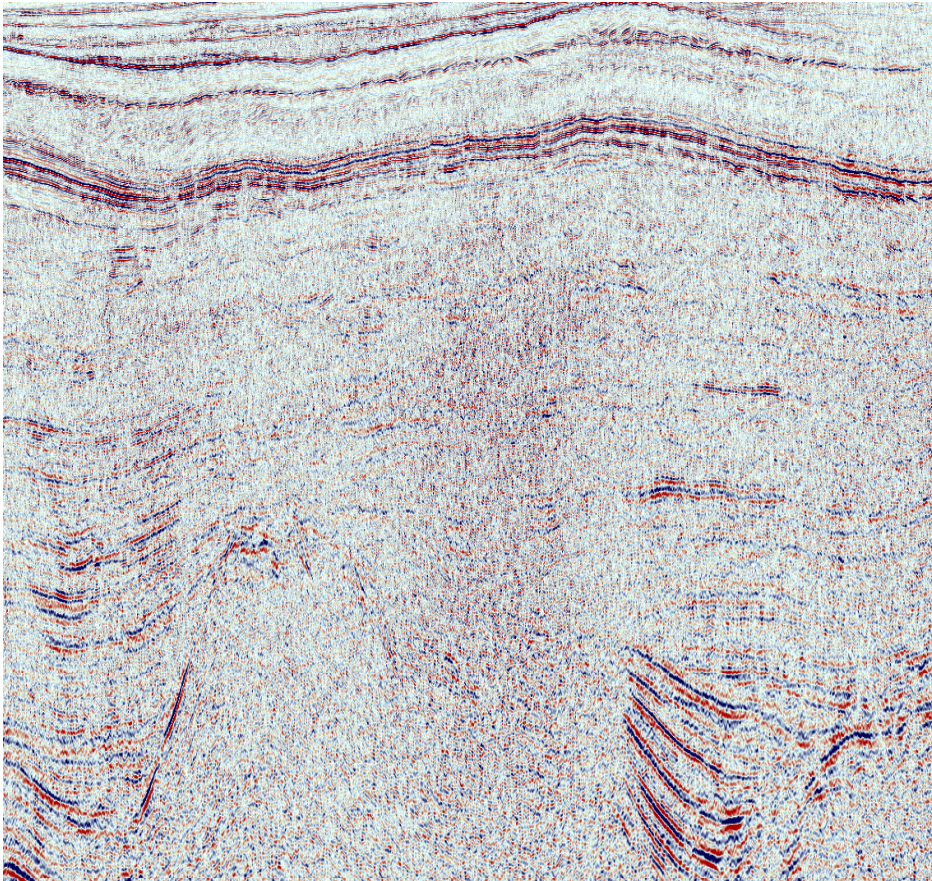
- After pilot project: 270,000 km new long offset multi-client 2D data acquired
- Special imaging project group achievement during processing of new data
- New exploration models
- New look at old data
- A new emerging area - Atlantic margin revival is born



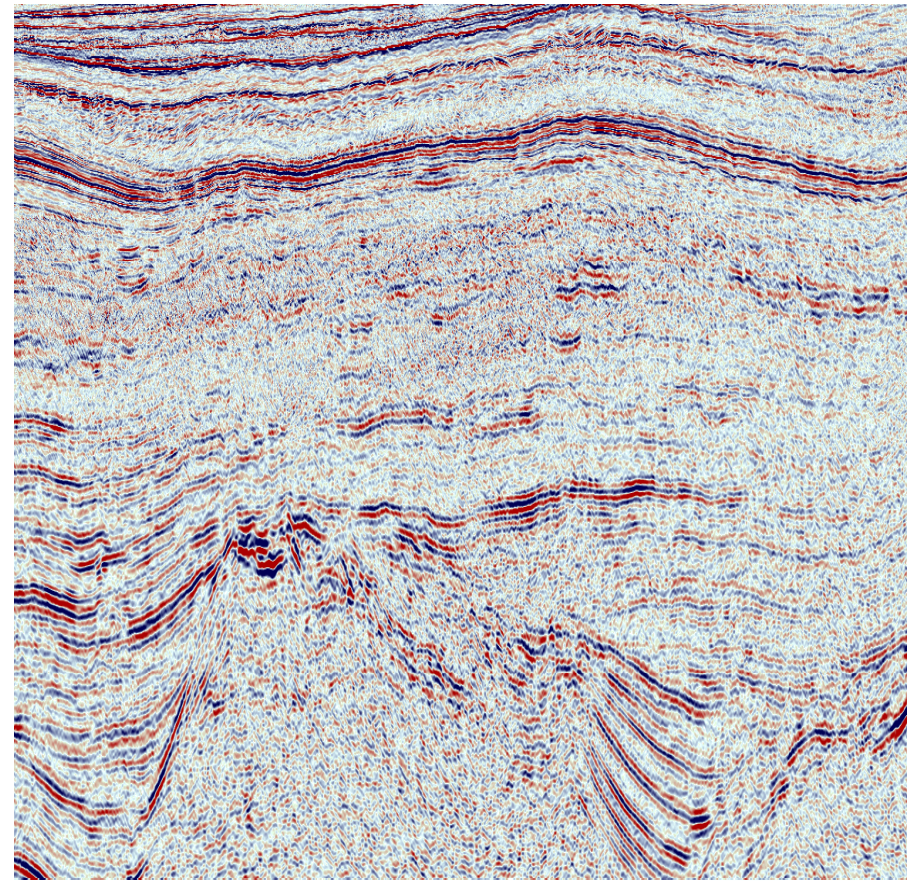


Outer Norwegian Sea

Original



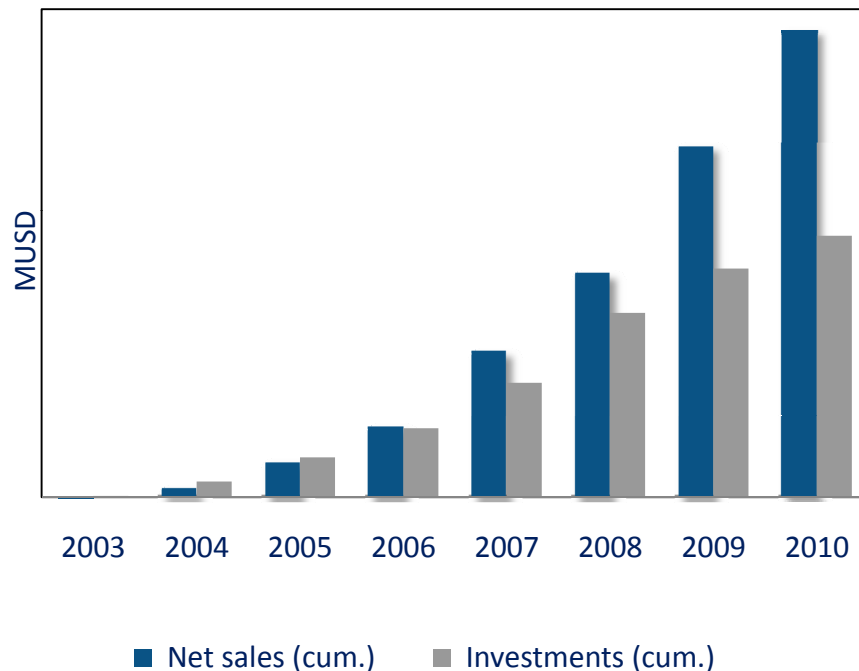
New processing





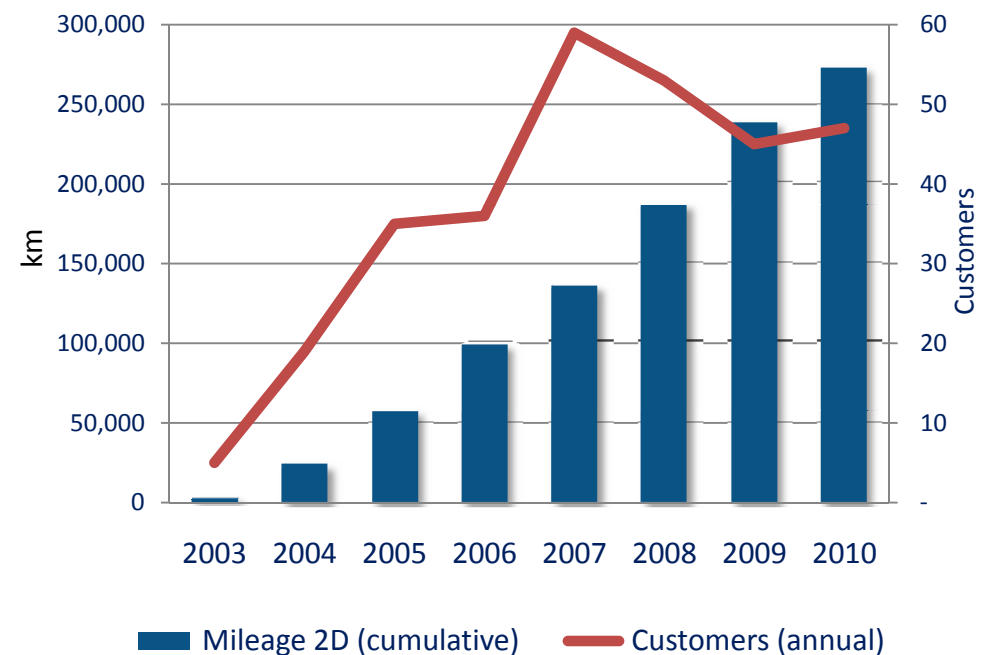
Development Atlantic Margin Revival

Sales vs. Investment (Cum)



Net sales/investments grow as investments grow

Library size and customer development



Number of clients grow as more data is available



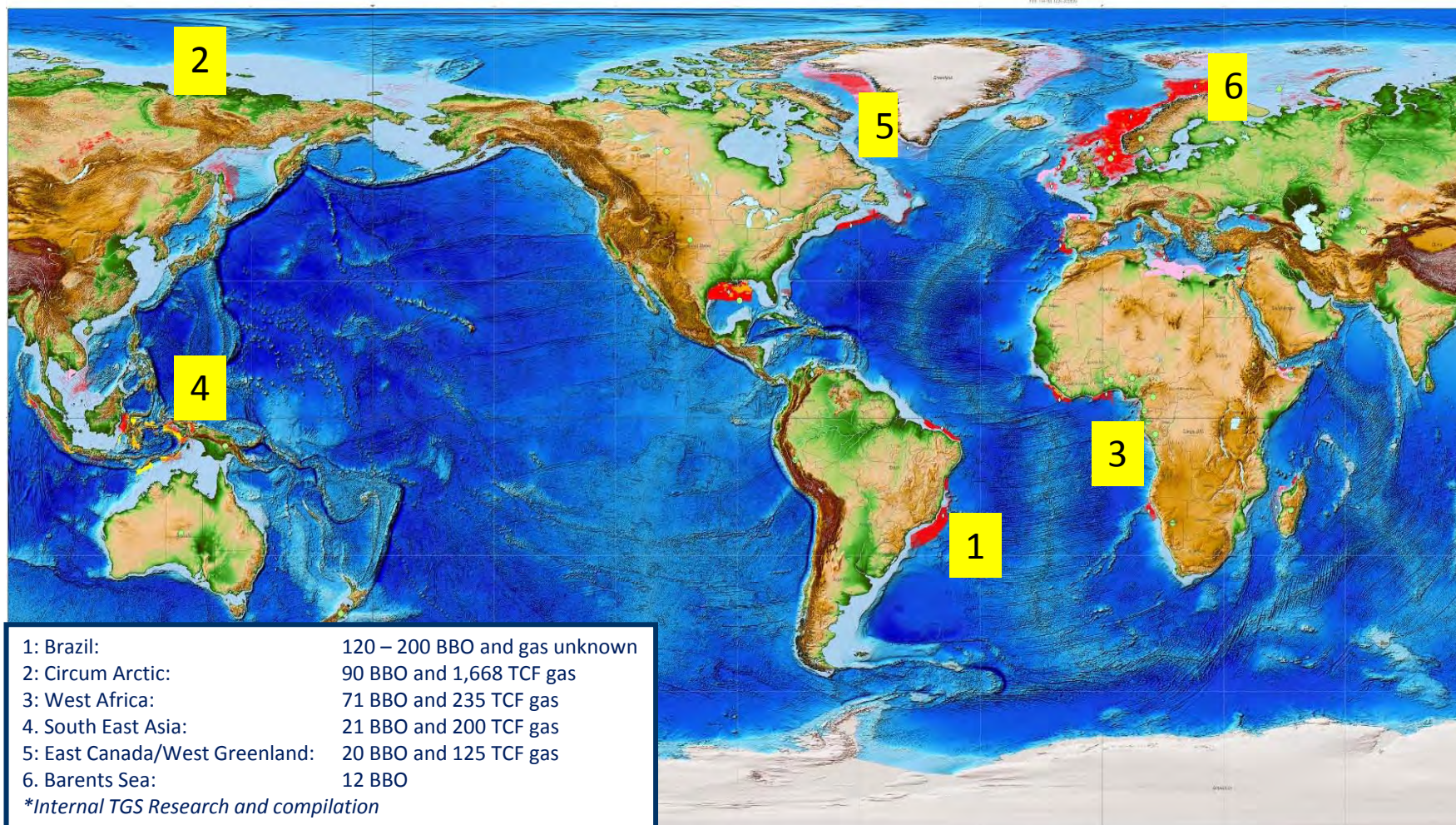
Atlantic Margin Revival Summary

- Application of geologic knowledge and technology
- Processing of new data improves our knowledge of how to revitalize old data
- Corresponding market and mileage build up
- Return on investment grows as investment grows
- Multi-client model is robust

Areas for the Future



Undiscovered Resources



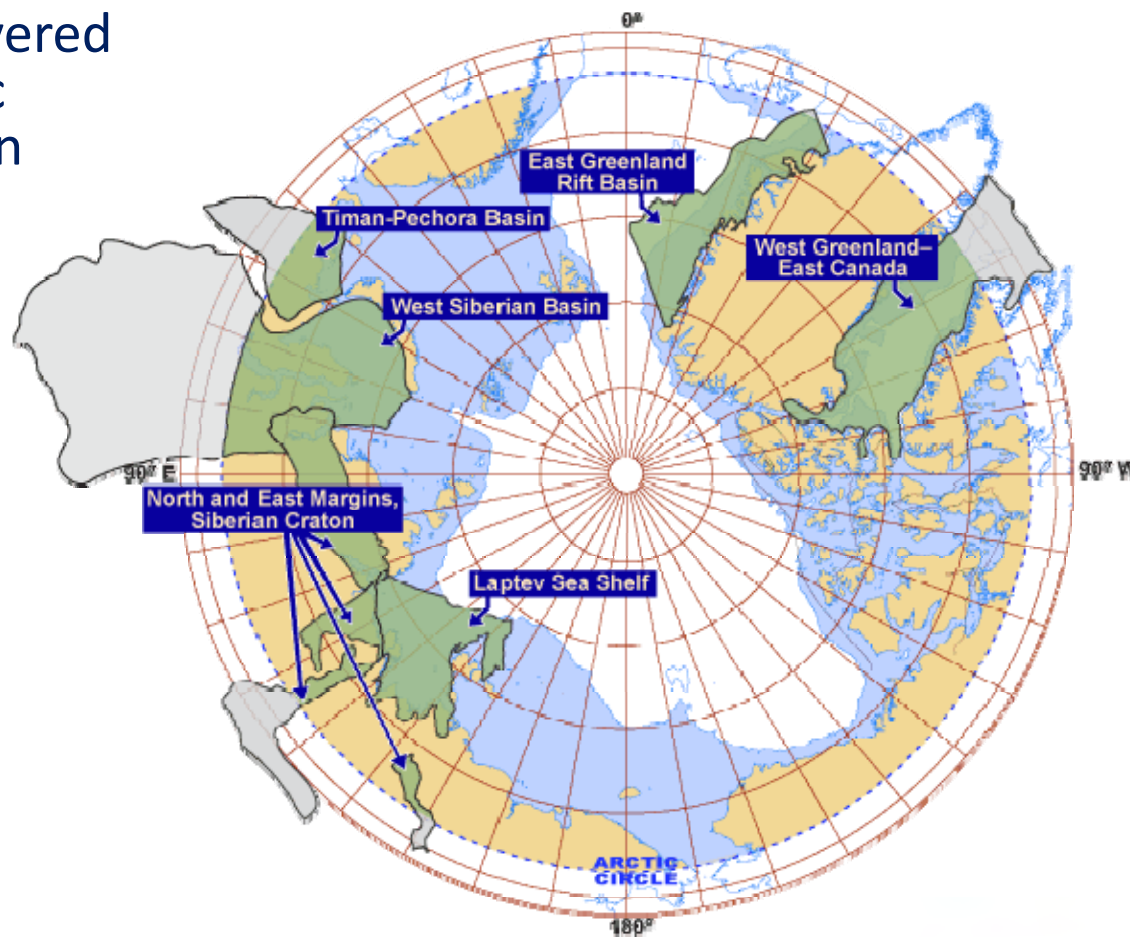


USGS Assessment of Areas North of the Arctic Circle

>70 % of the mean undiscovered resources north of the Arctic Circle is estimated to occur in five provinces:

- Arctic Alaska
- East Arctic Russia
- West Siberian Basin
- East Greenland Basins
- West Greenland

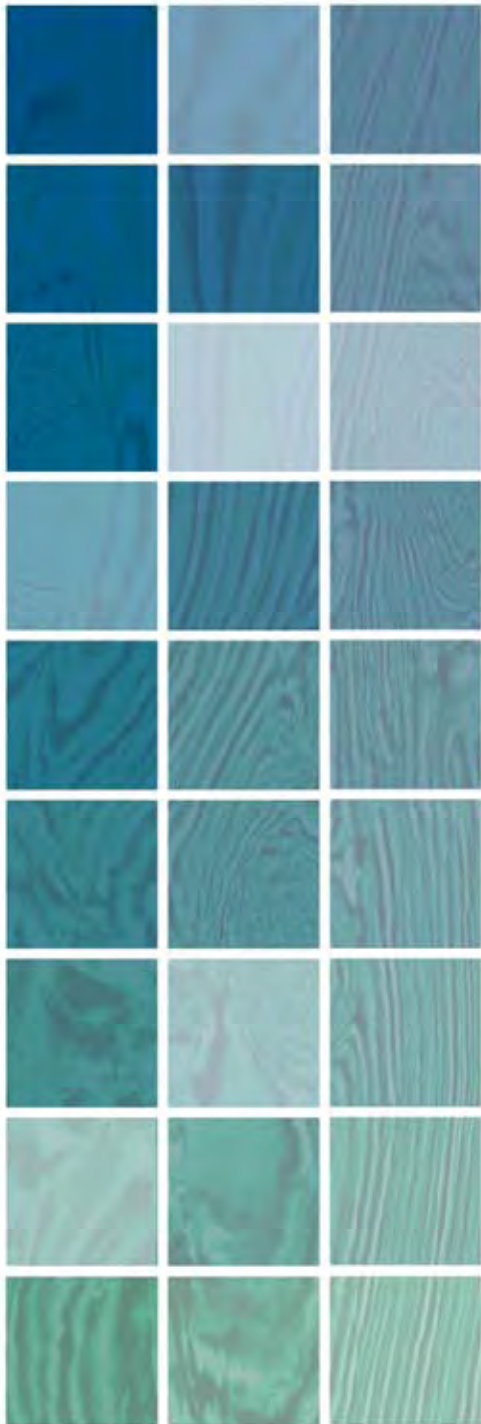
TGS is already there!





Summary

- The multi-client model has proven successful
- Geologic control and the application of proper technology are critical
- Tight relationship between data base build up and client base
- All data types will be important
- Margin has grown in line with investments
- Building a foundation for higher effort data acquisition including multi-client 2D, multi-client 3D and WAZ with advanced imaging



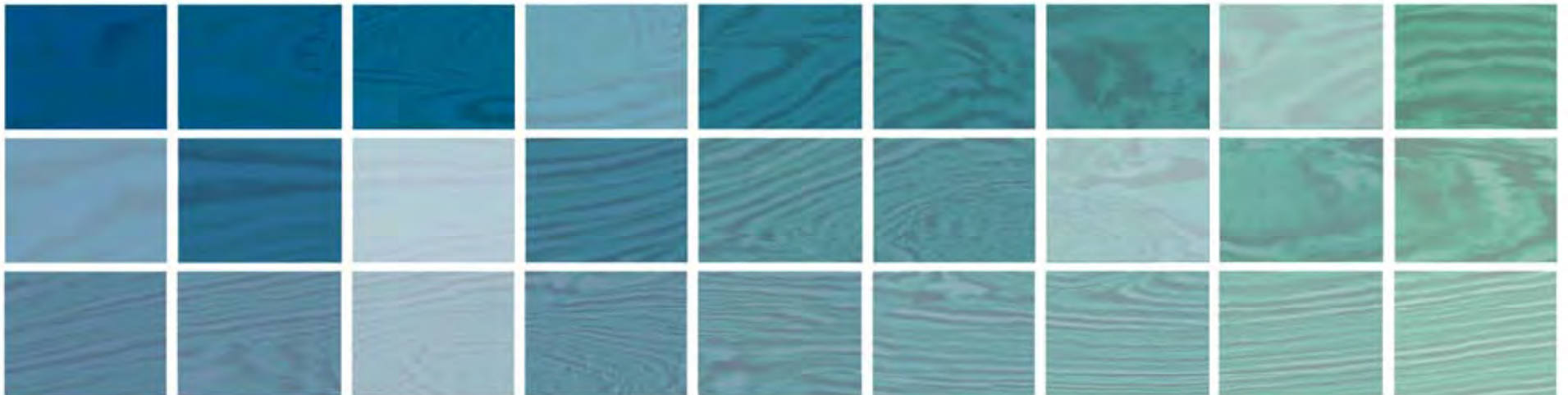
Break

8 June 2011



Capital Markets Day

Investing In a Clearer Picture





Agenda

- TGS' investment in proprietary processing technology
- Evolution of imaging techniques
- The story of Mississippi Canyon 3D
 - Timeline of acquisition and processing
 - Data examples of improvement
 - Financial return
- Update on total reprocessed data in the TGS library
- Recreating the success around the world



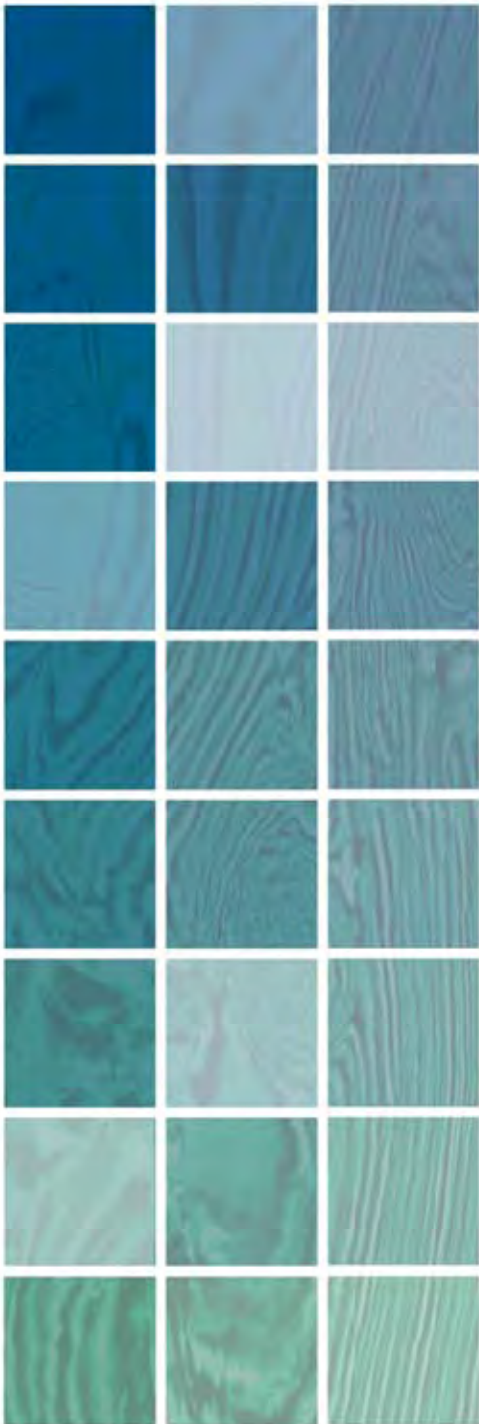
TGS' Investment in Proprietary Processing Technology



TGS Invests in Proprietary Imaging

- Strategy to add value to multi-client library
- BIPS Acquisition in October 1998
- Nutec Acquisition in July 2004
- PDS Acquisition in May 2007
- Growing R&D investment and continual creation of new processing algorithms
- TGS considered top tier in quality processing
- Worldwide onshore and offshore experience including depth imaging and WAZ
- Continuously working for oil companies on a contract basis as well as on our own library

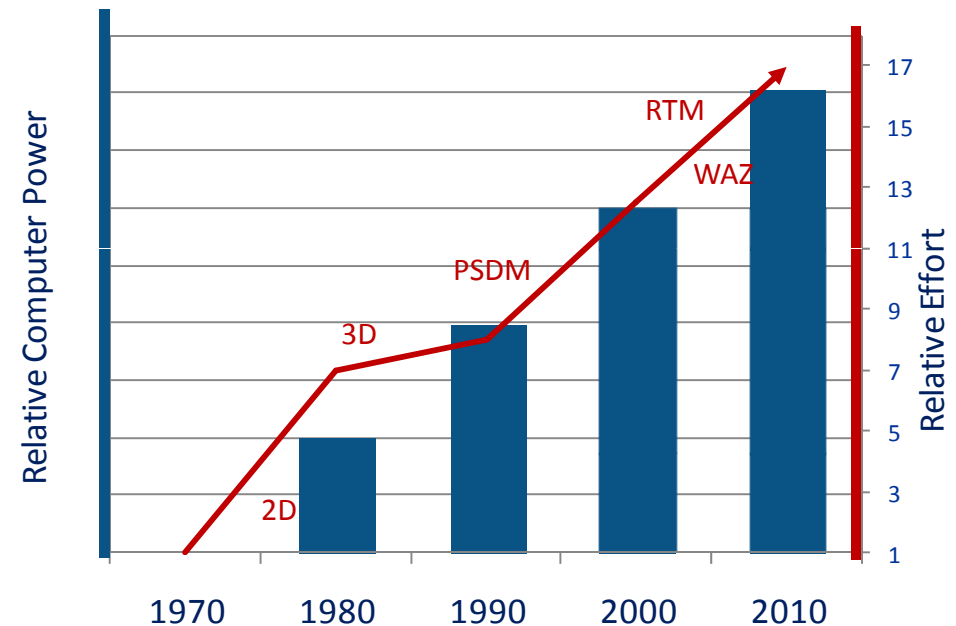
Evolution of Imaging Techniques





Computer Power and Cost Comparison

- The increase in computer power and capacity over time allowed geophysical theory to be applied in practice
- The introduction of 3D imaging techniques, pre-stack depth migration (PSDM) and reverse time migration (RTM) has reduced the risk of drilling for the oil companies
- Value of reprocessing is enormous relative to the cost of drilling and new data acquisition



TGS ranks among the top 50 most powerful computer systems in the world

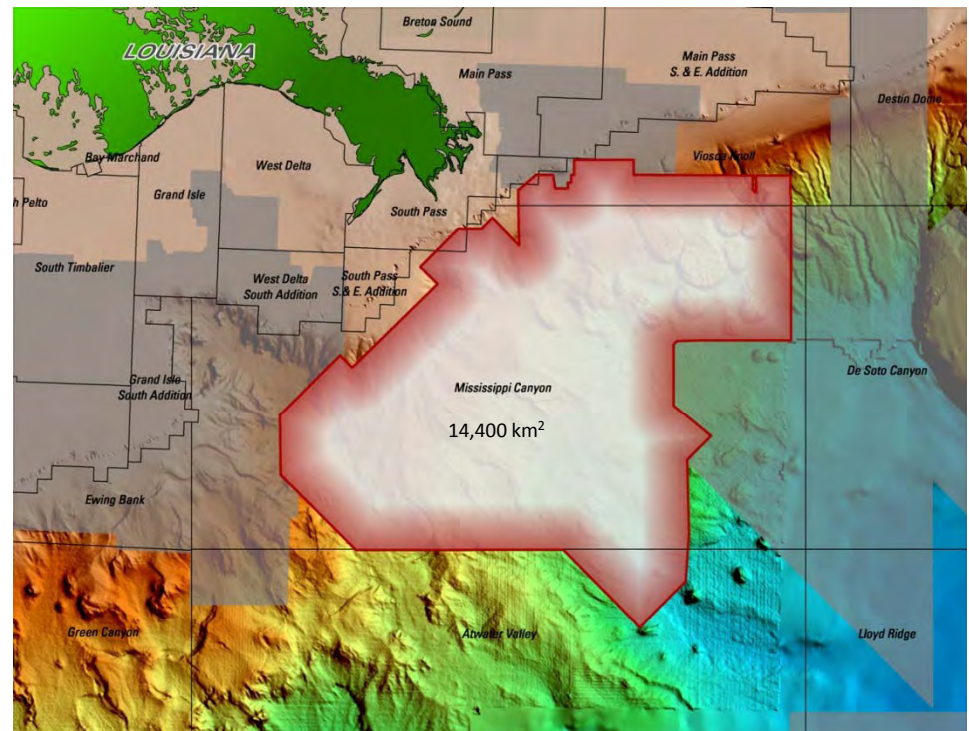


The Story of Mississippi Canyon 3D



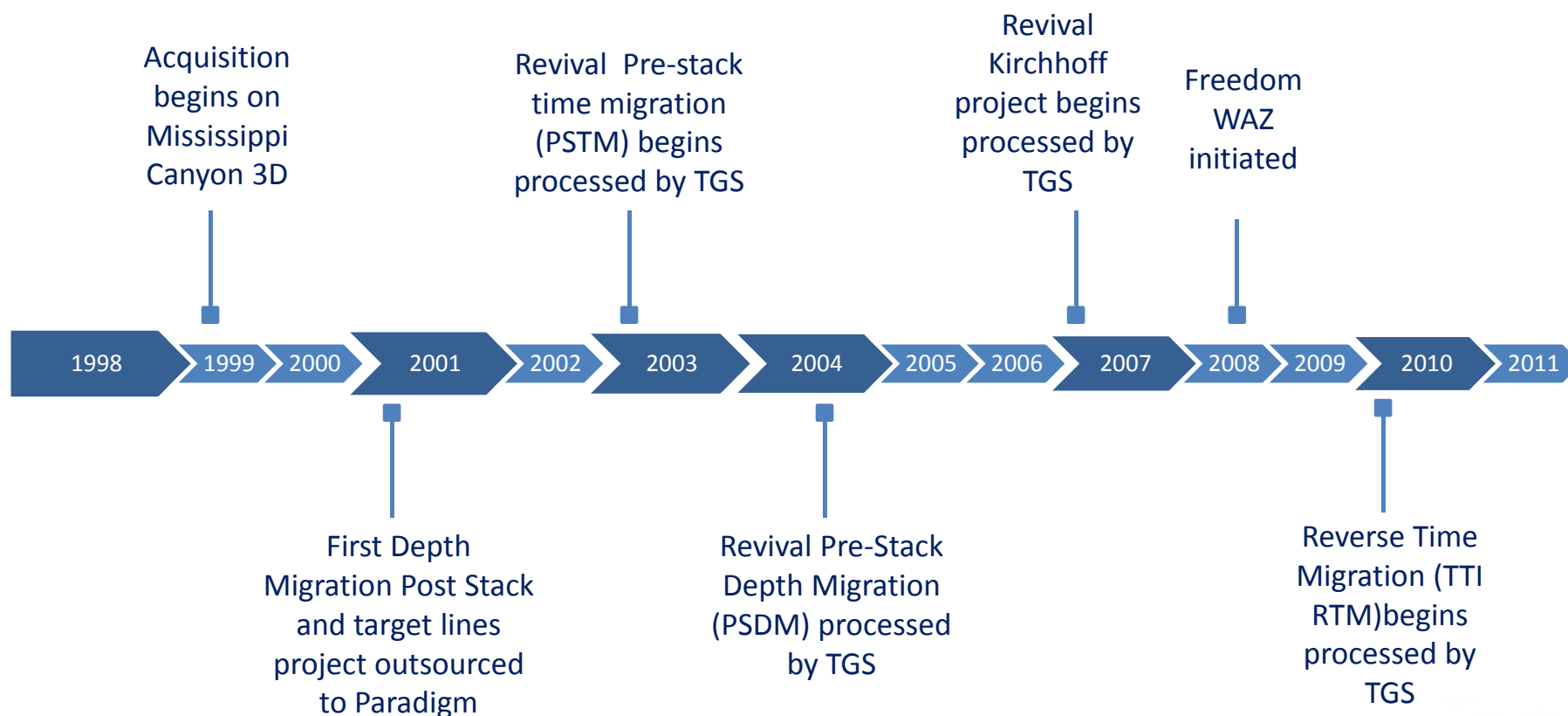
Mississippi Canyon - A Reprocessing Success Story

- Originally acquired in 1999 – 2000
- Five separate reprocessing projects
- The most prolific area of deep water GoM
- Continued demand for new products
- Clients use multiple versions of the data in their analysis



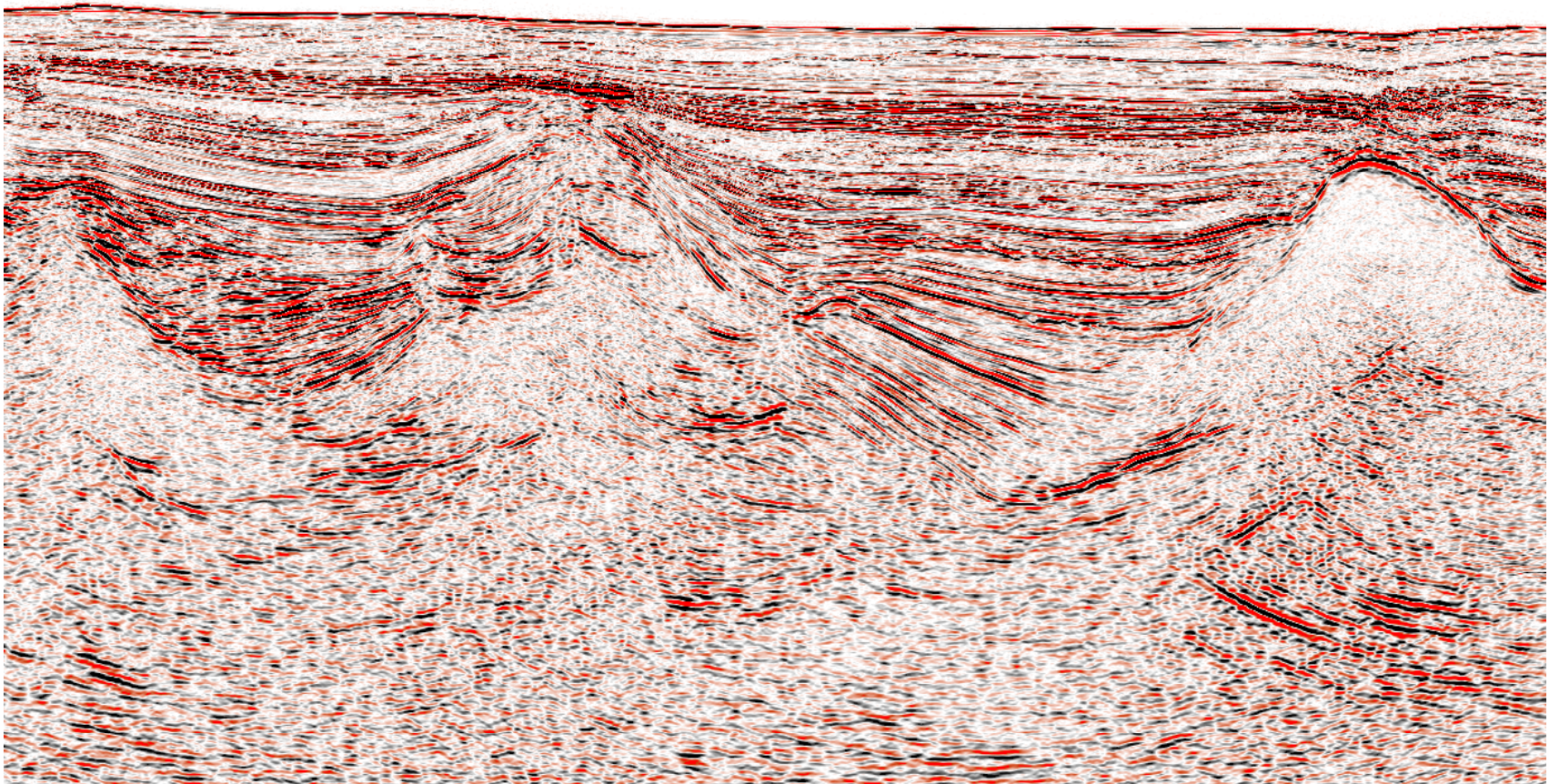


Life Cycle Mississippi Canyon 3D



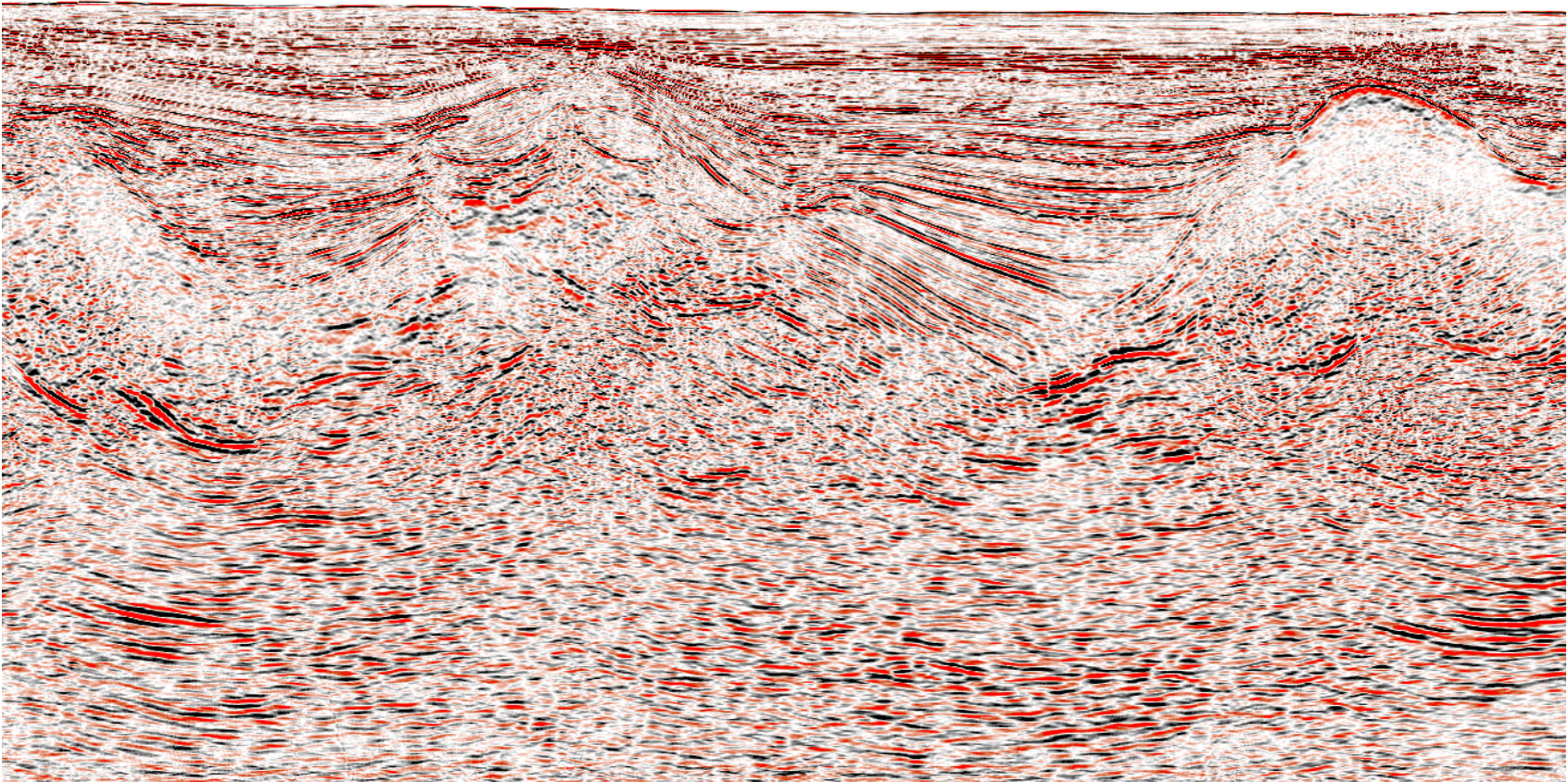


Original Processing – Year 2000



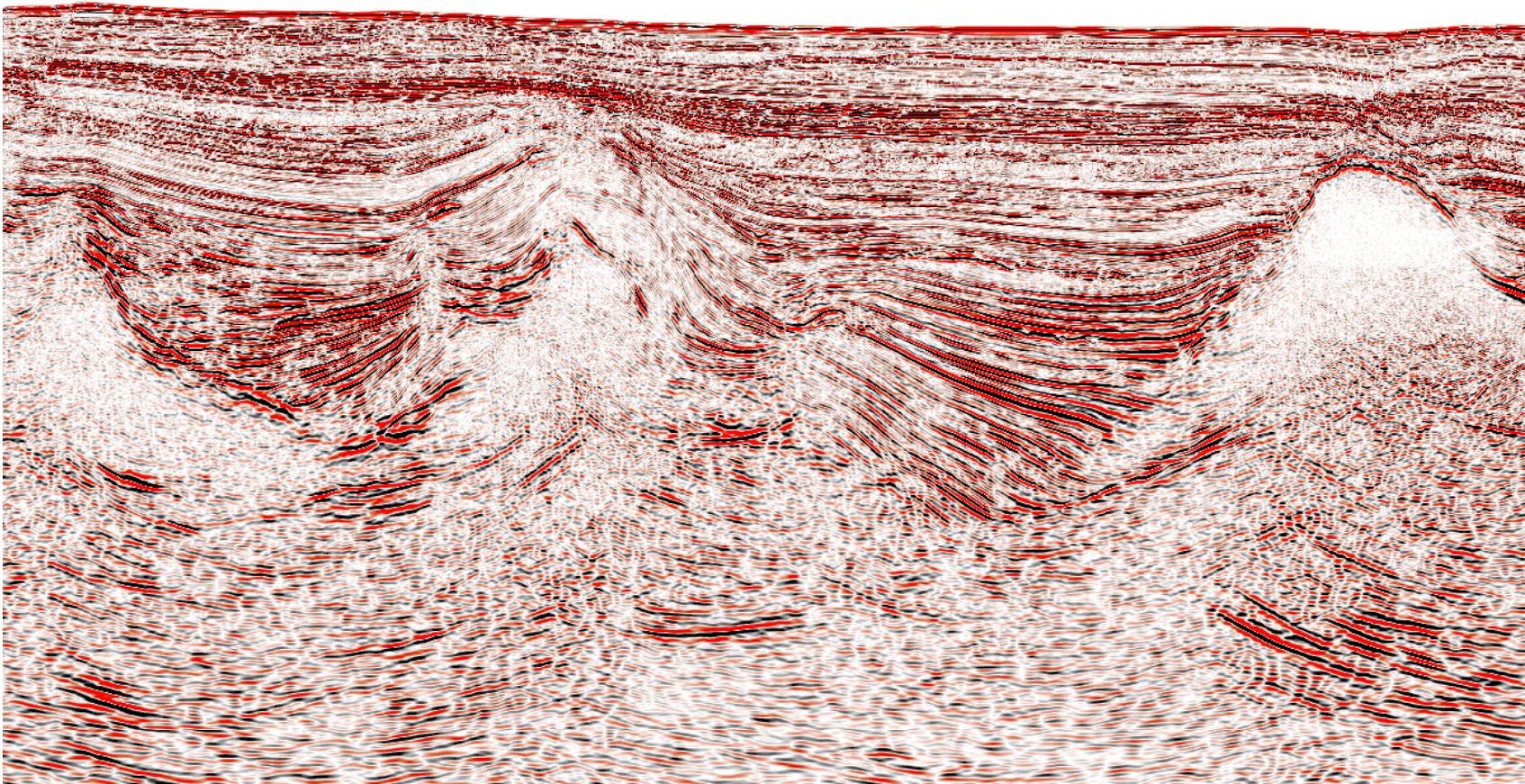


Reprocessing 1 - 2001



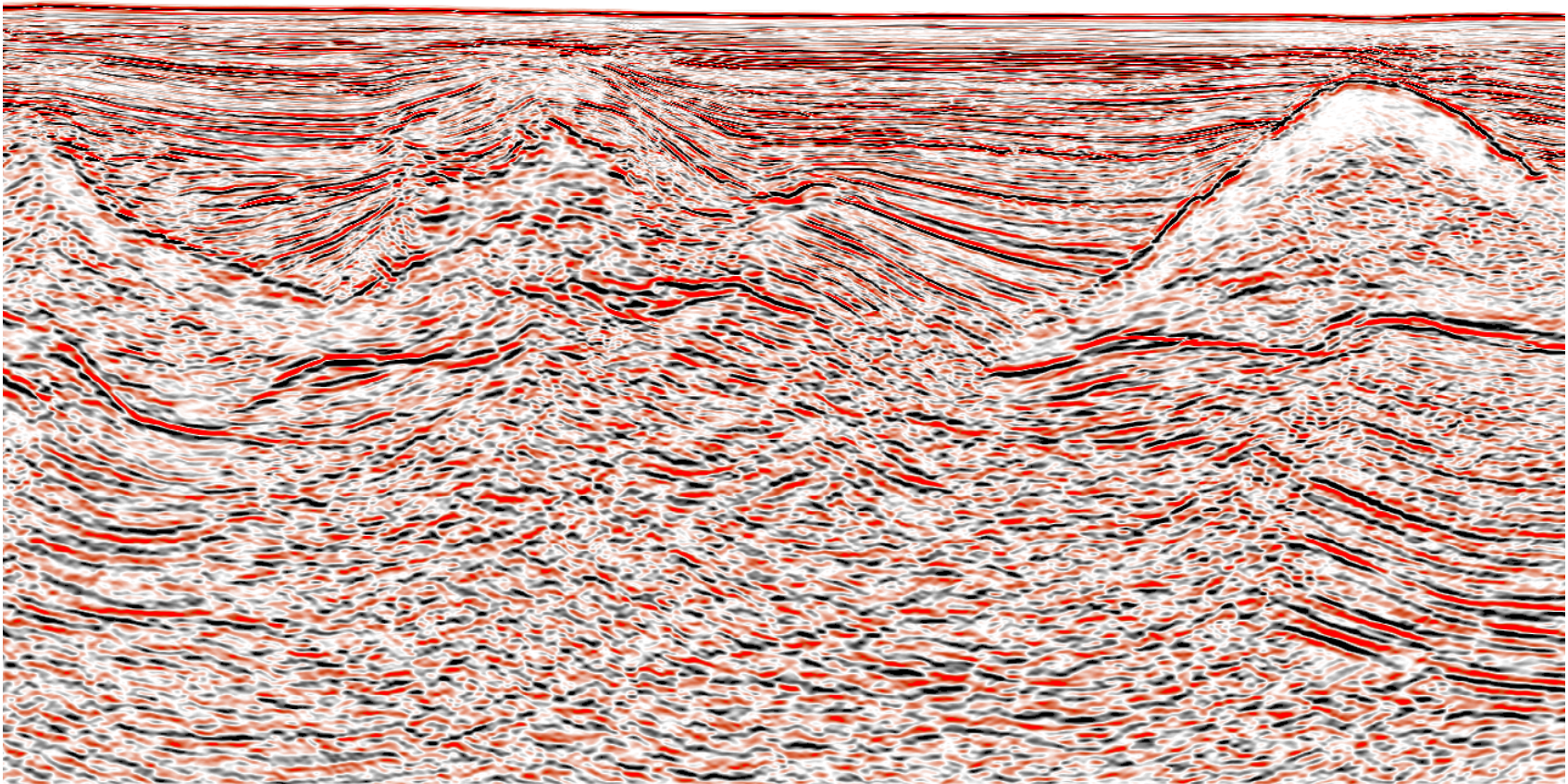


Reprocessing 2 - 2003



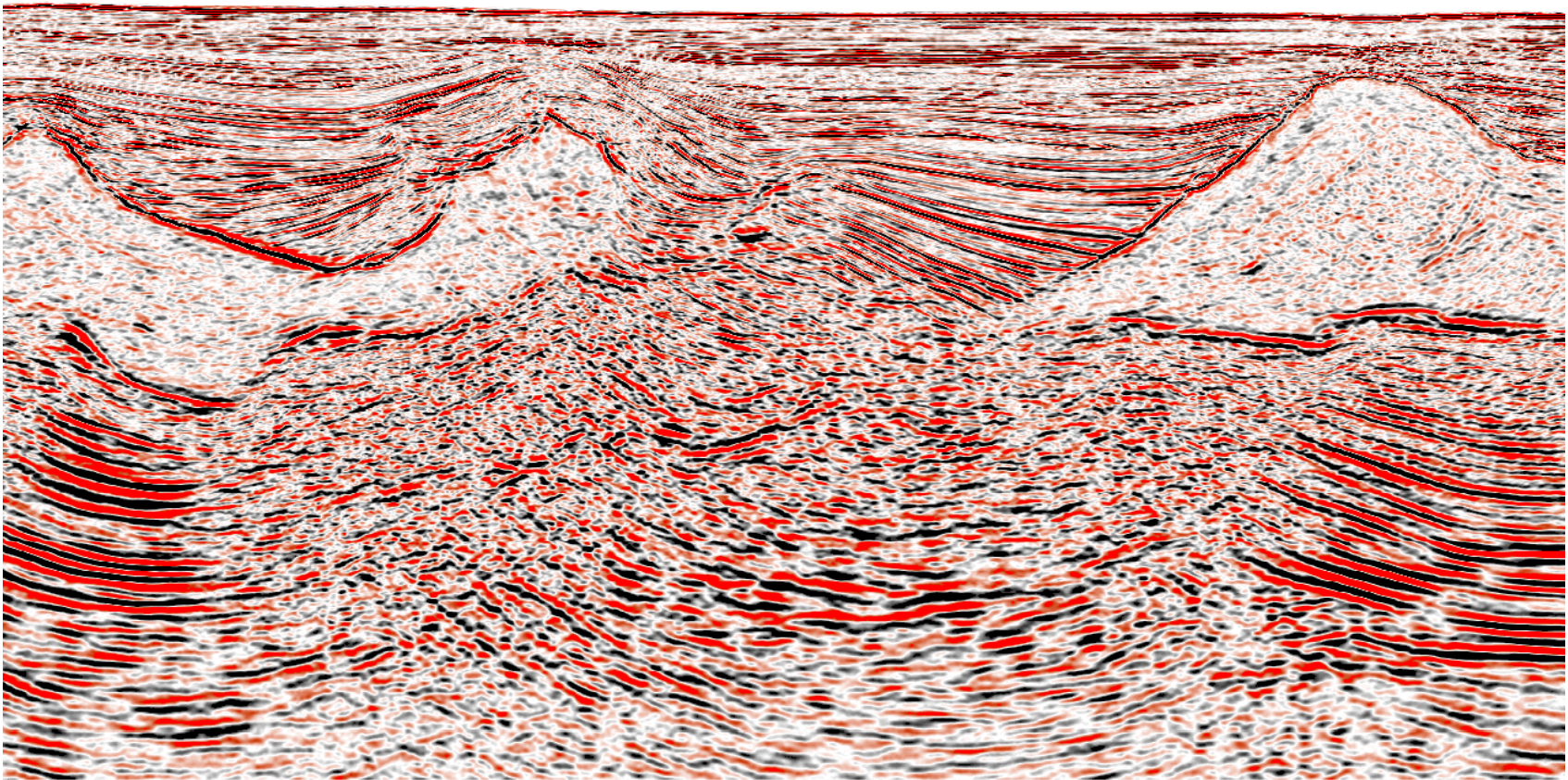


Reprocessing 3 - 2005





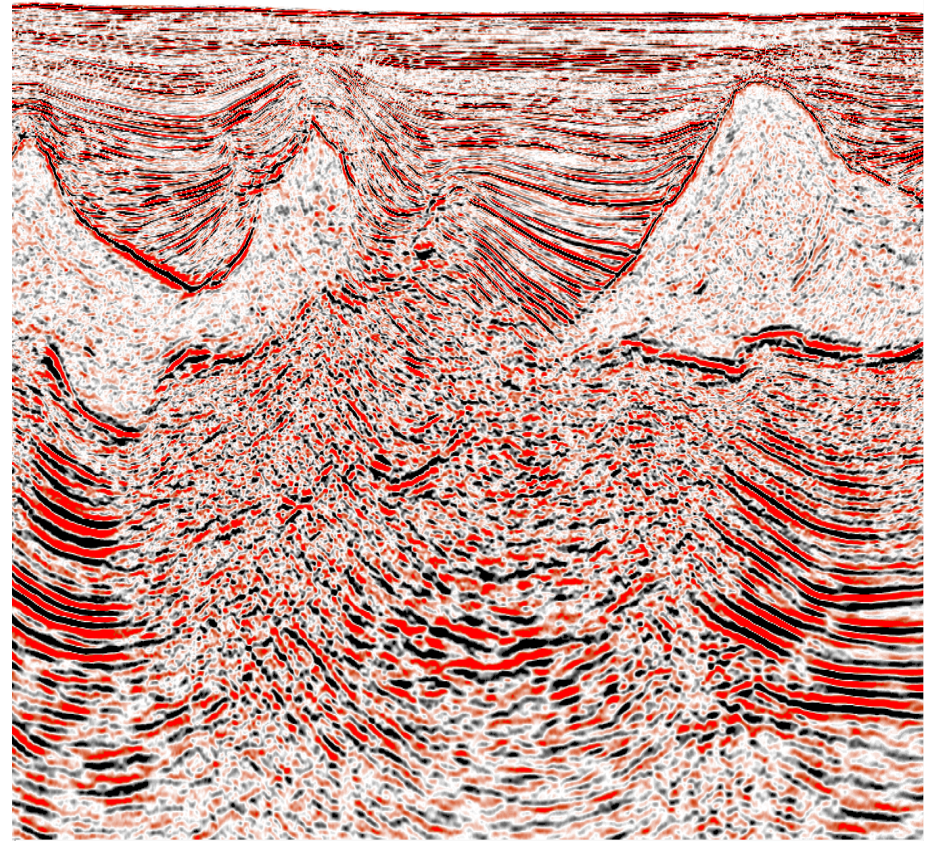
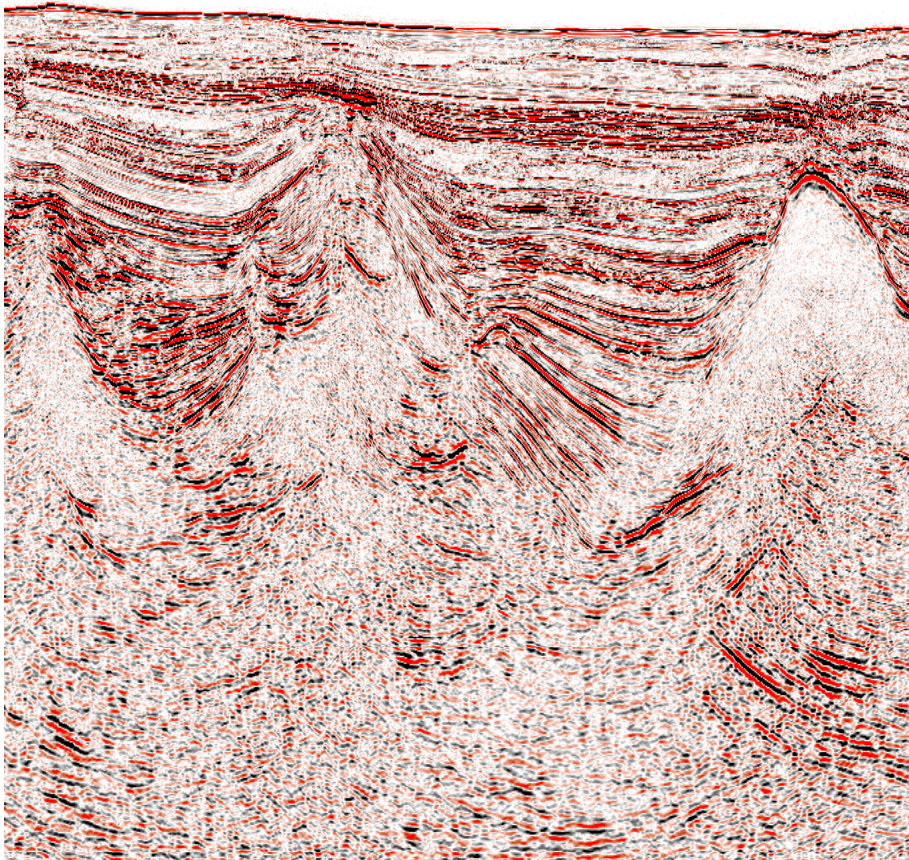
Reprocessing 4 - 2007





Original

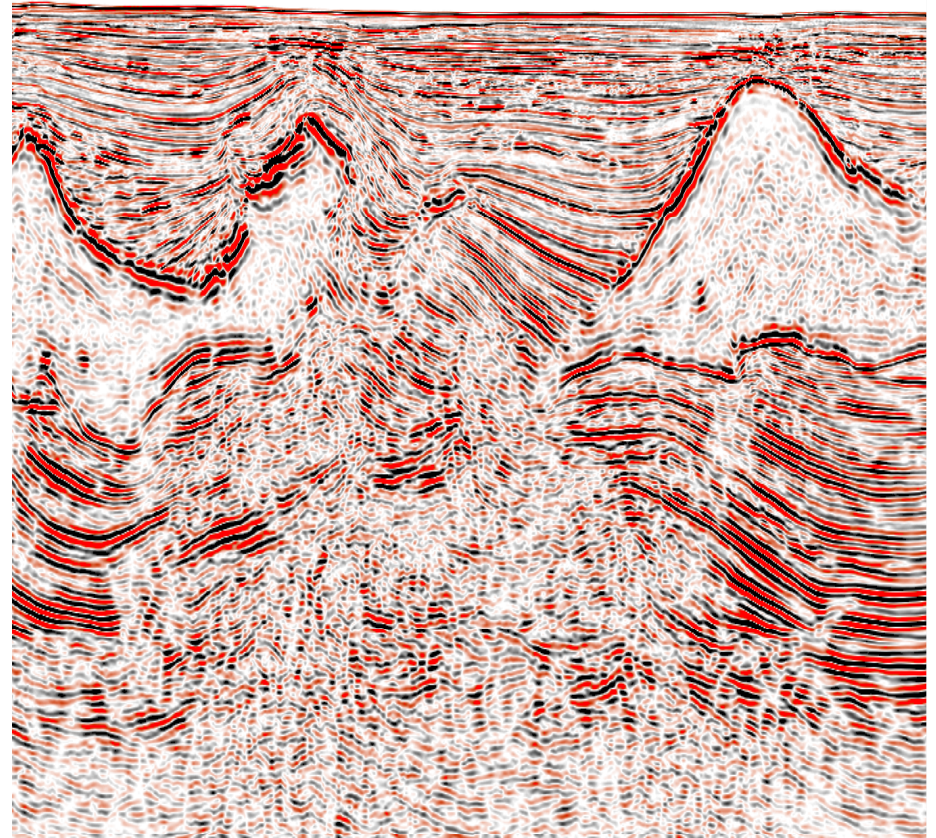
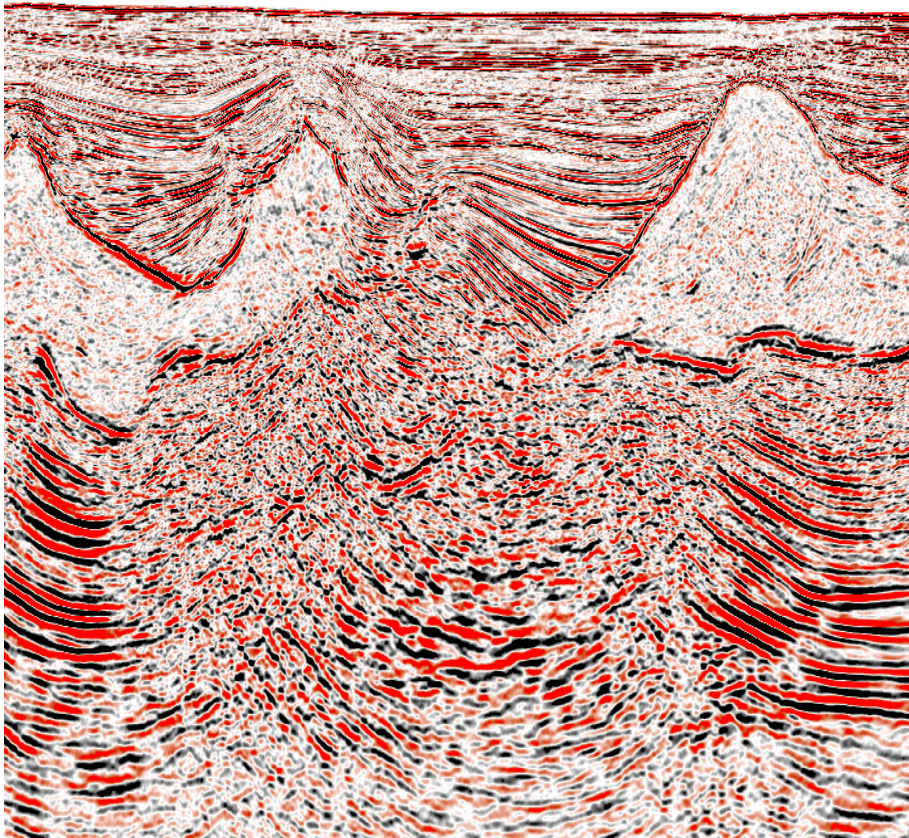
Kirchhoff





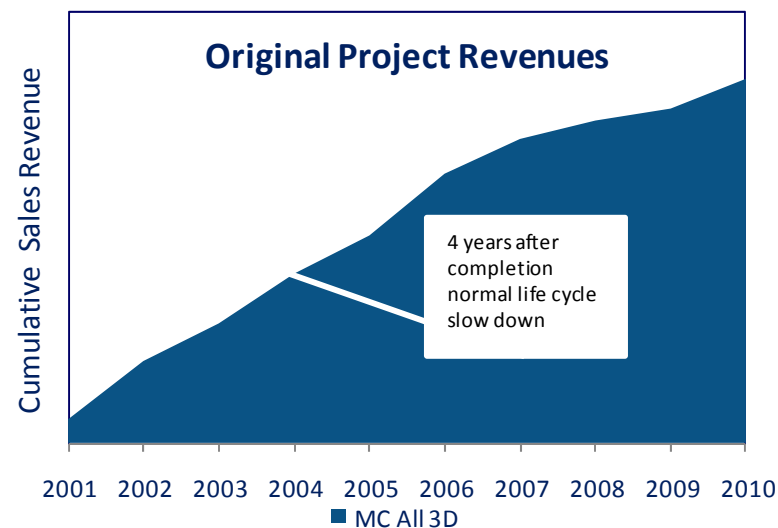
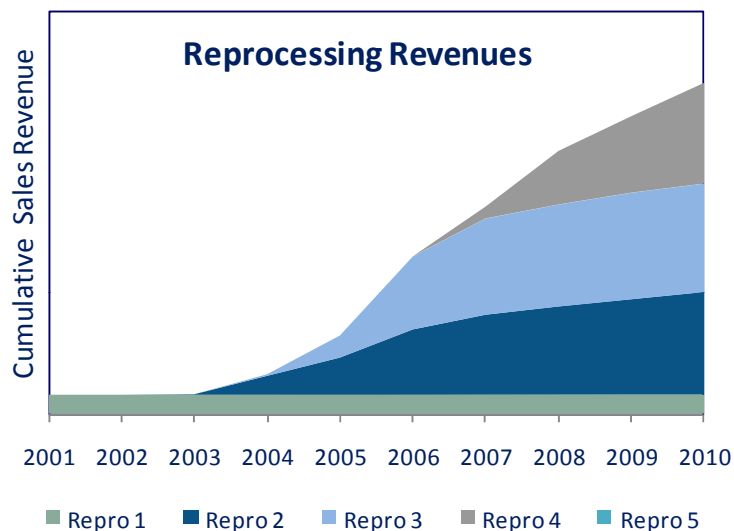
Kirchhoff

WAZ





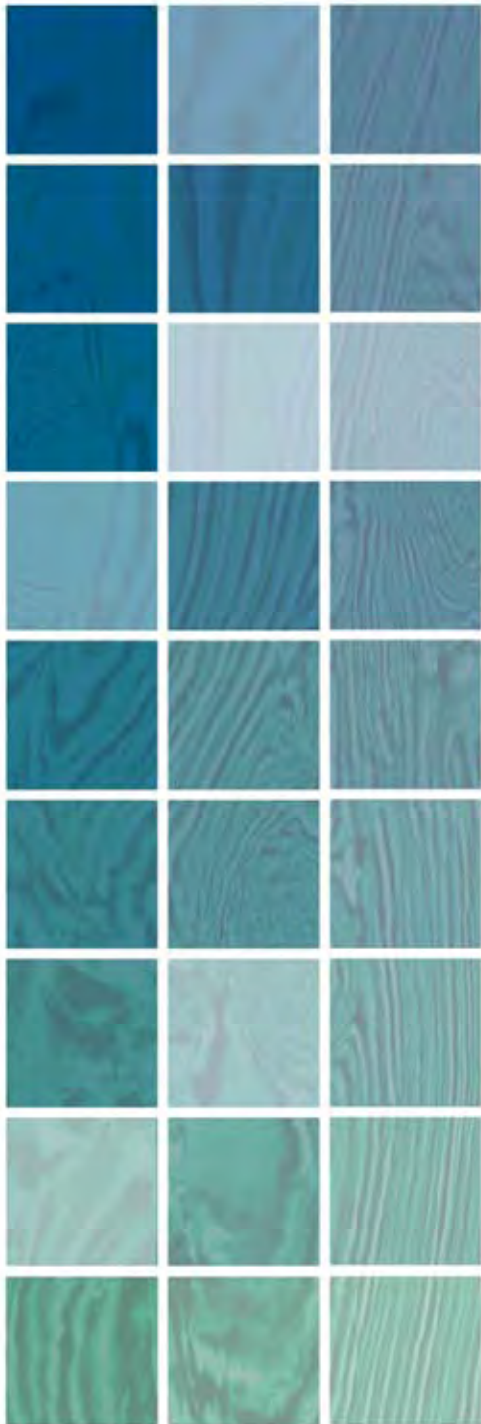
Revenues from Value Added Processing



- Reprocessing generating significant revenue
- Fifth project currently underway
- Multiple reprocessing projects continue to generate revenue
- Majority of revenue realized in first three years

- Original data continues to generate revenue past the normal
- Reprocessing projects add new sales life to the project
- Considered the “must have survey in the area”

Reprocessing and additional data products generate good returns and extend the return on the underlying data



Taking Reprocessing Success Around the World

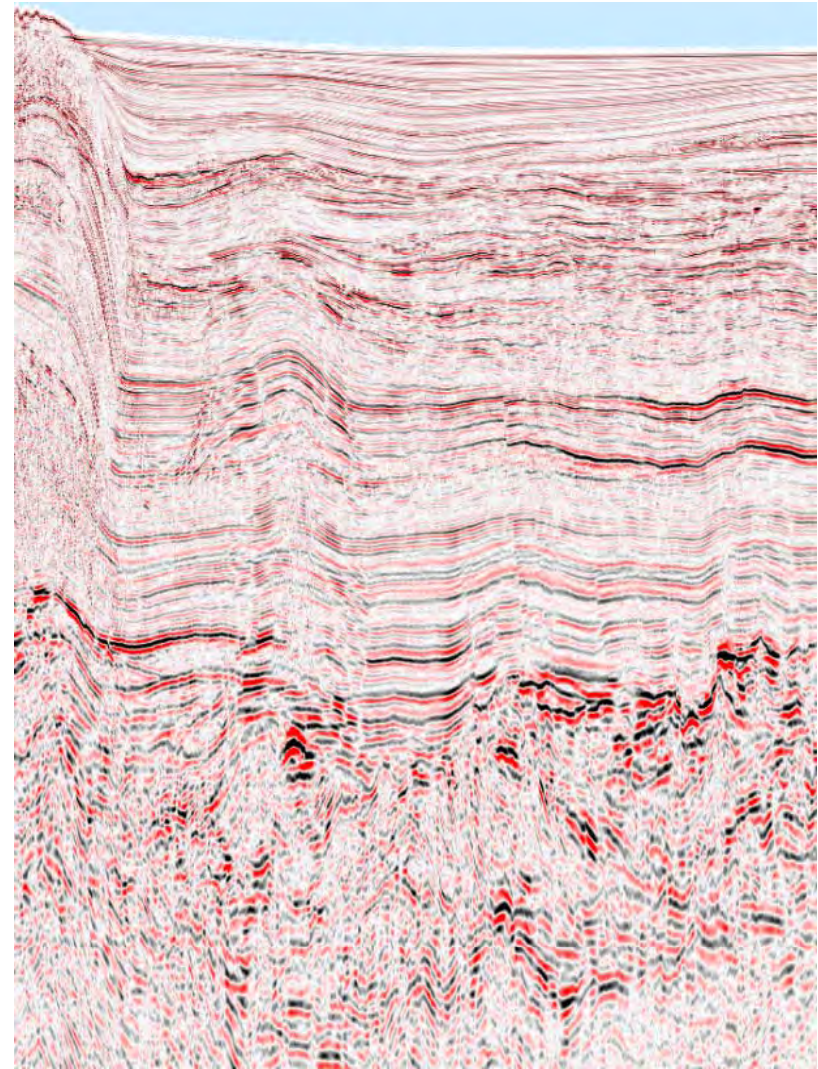
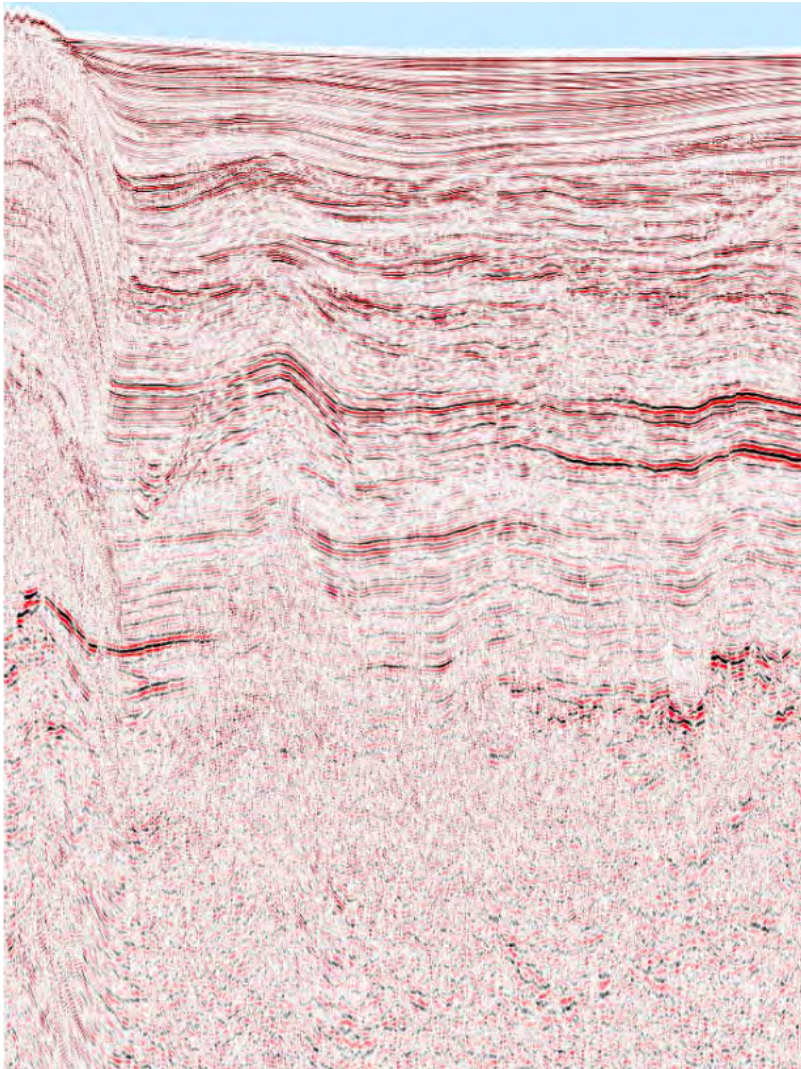


TGS Worldwide Library

- More than 1,230,000 km of reprocessed 2D data in the TGS library
- More than 117,500 km² of reprocessed 3D data in the TGS library
- Total library reprocessed is roughly 50% of the total library acquired
- Currently 10 active reprocessing projects around the world

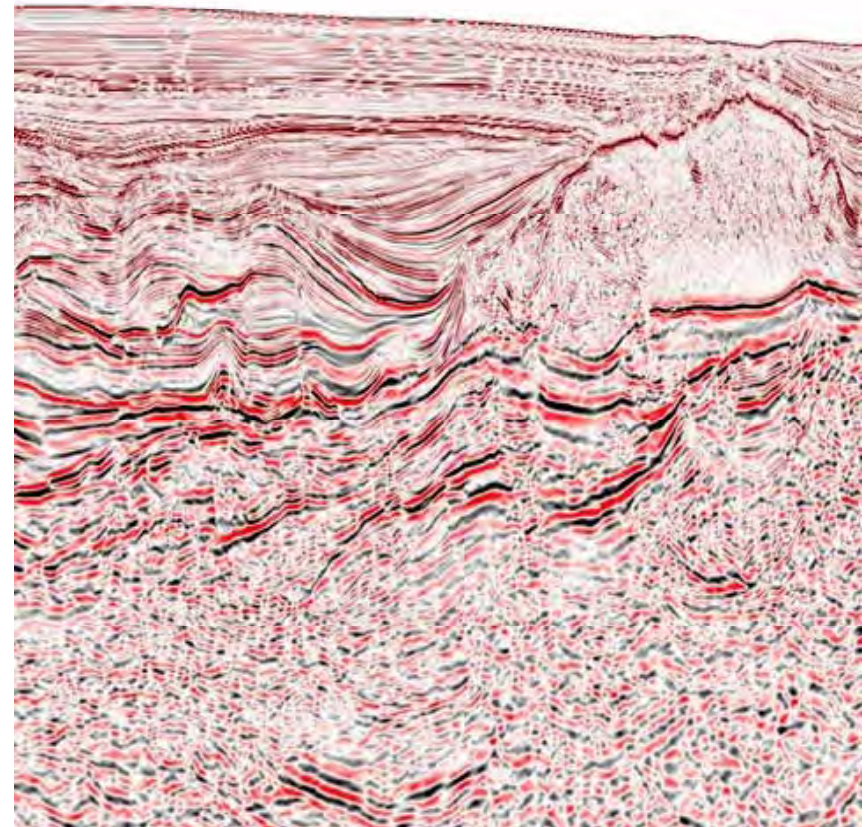
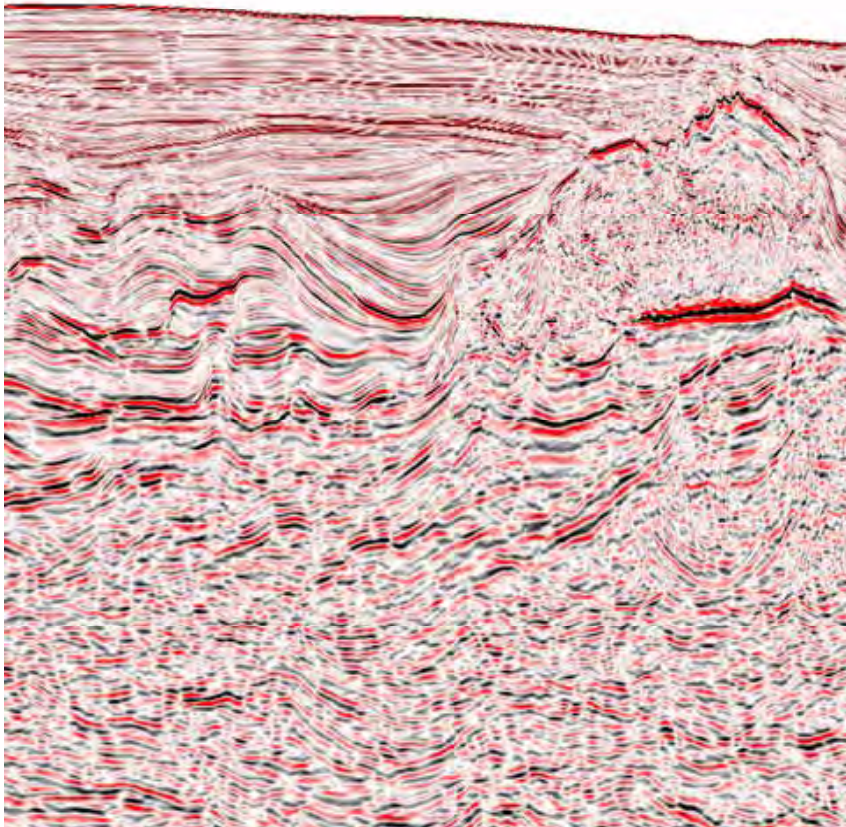


Indonesia Reprocessing



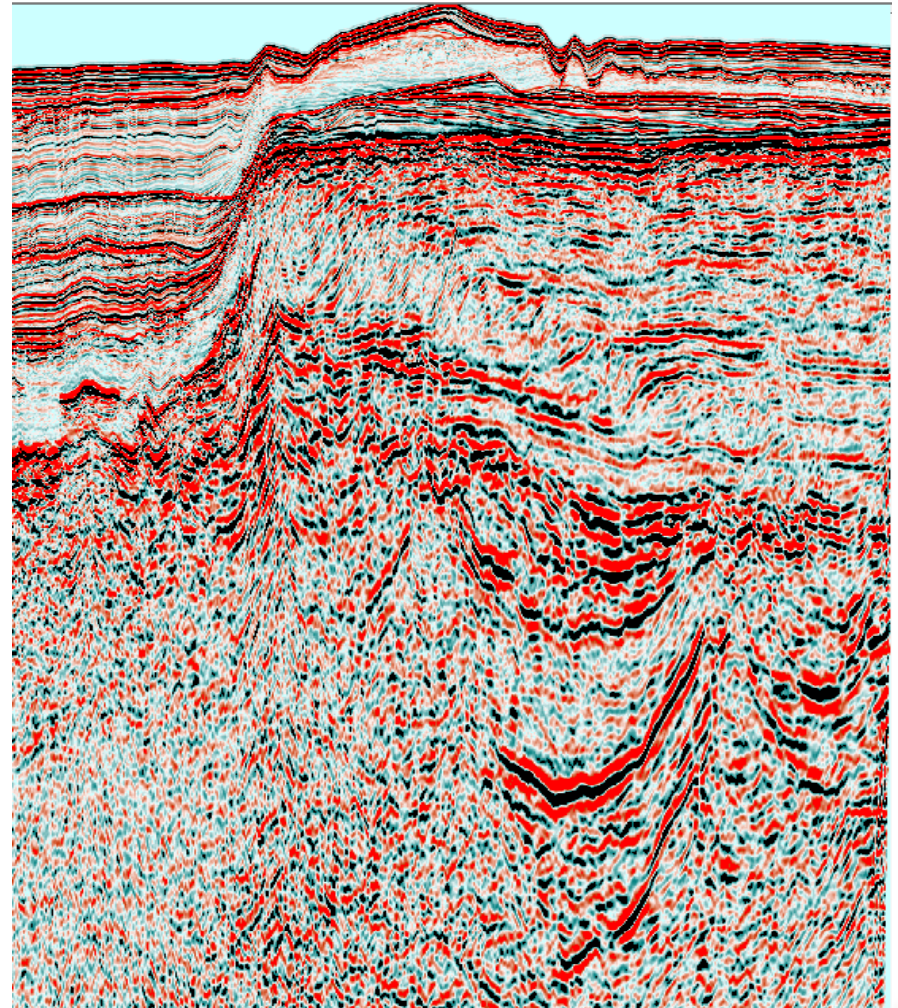
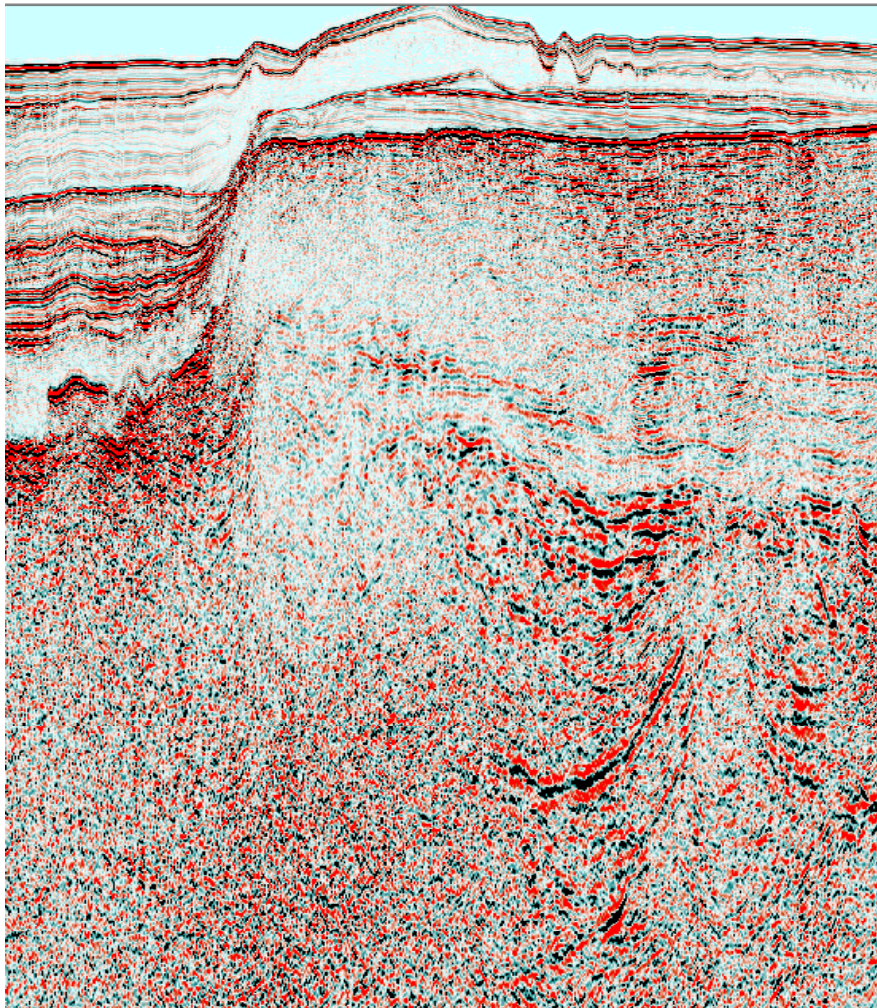


Brazil Reprocessing



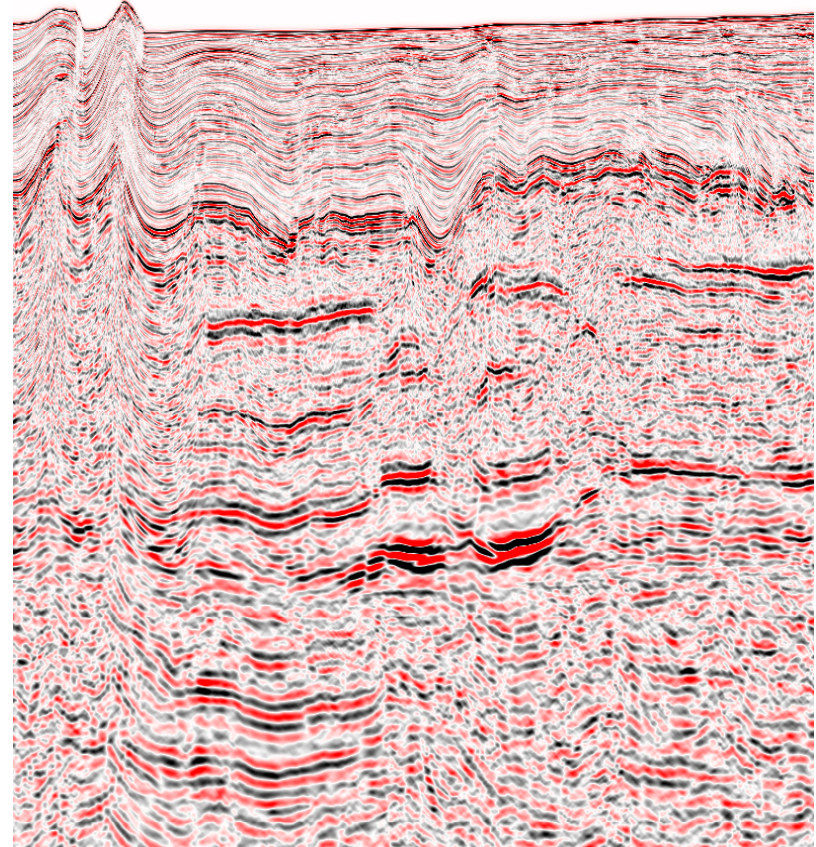
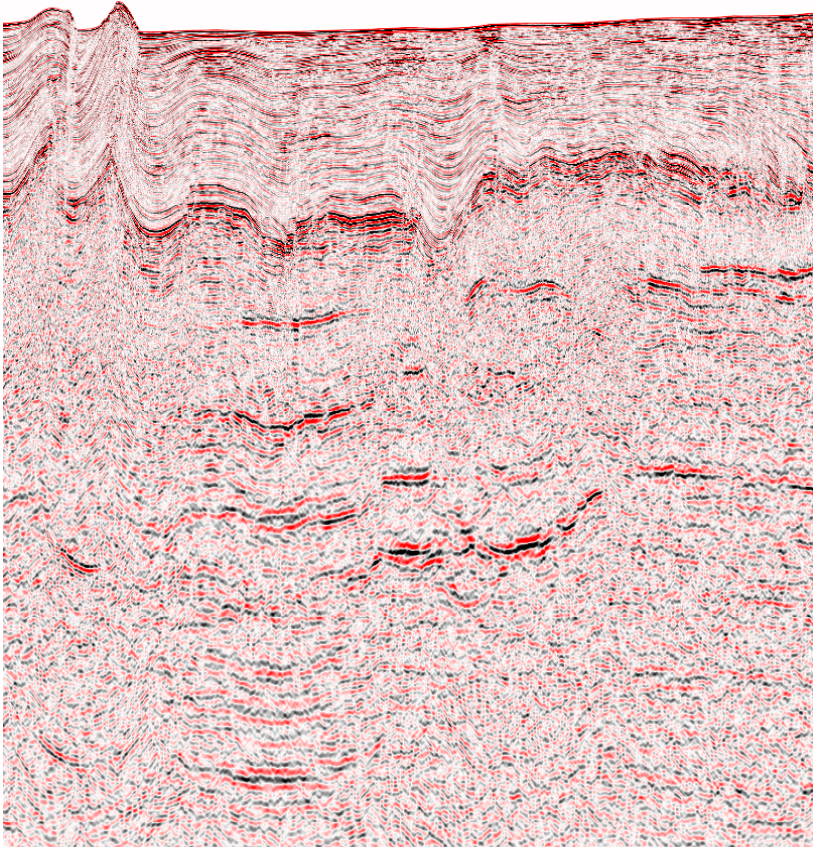


Norway Reprocessing



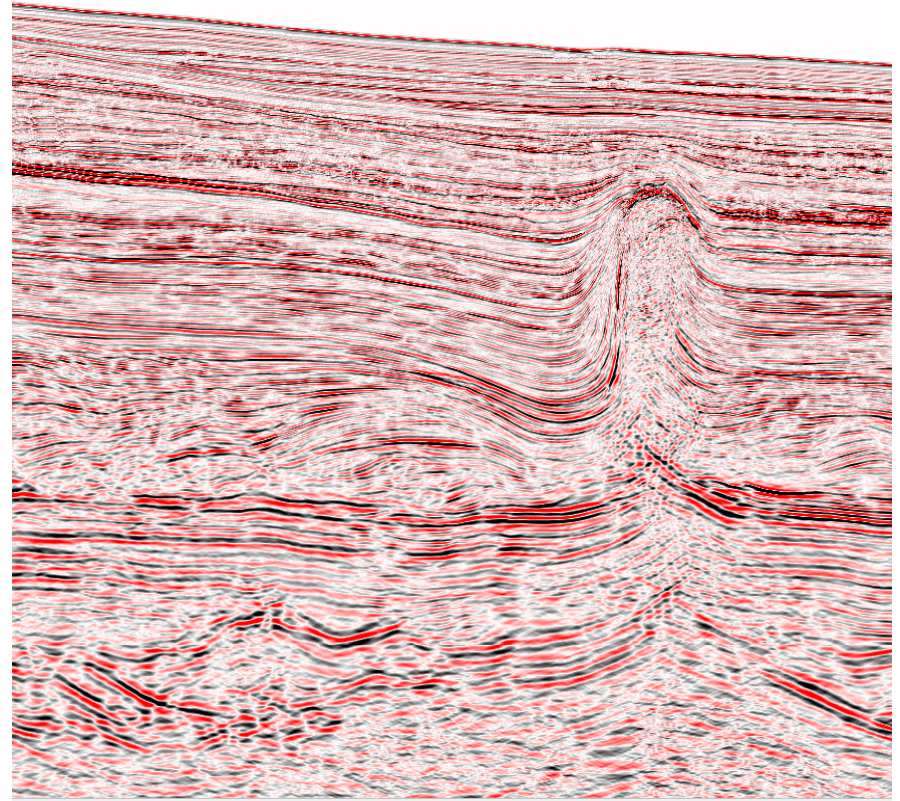
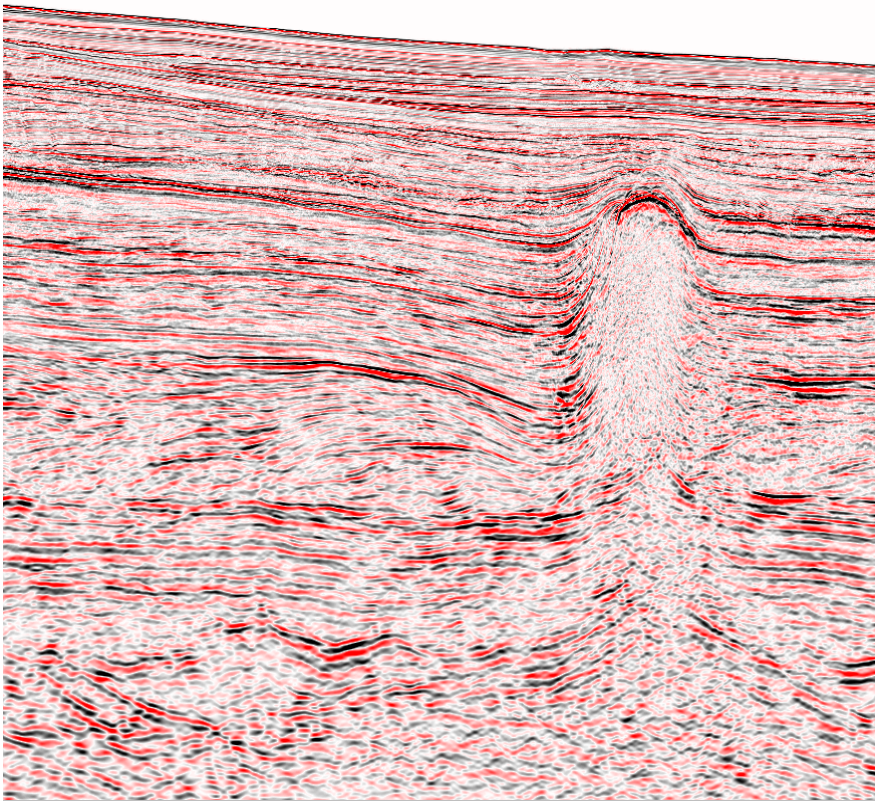


Egypt Reprocessing



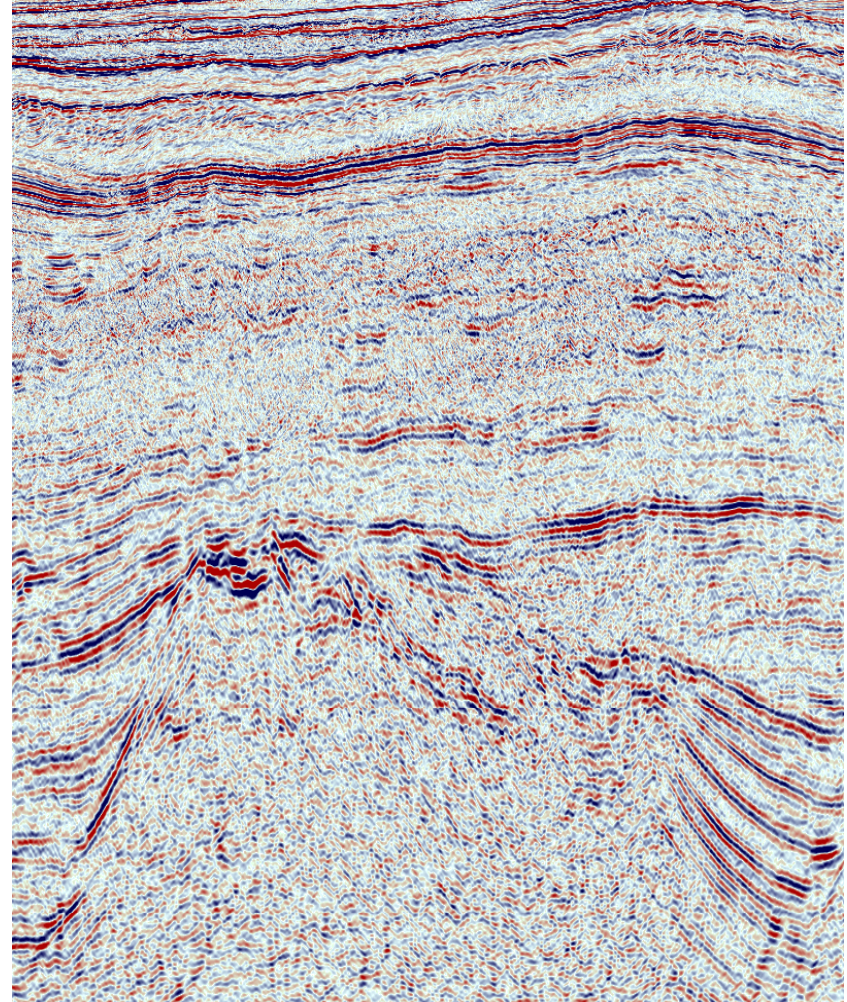
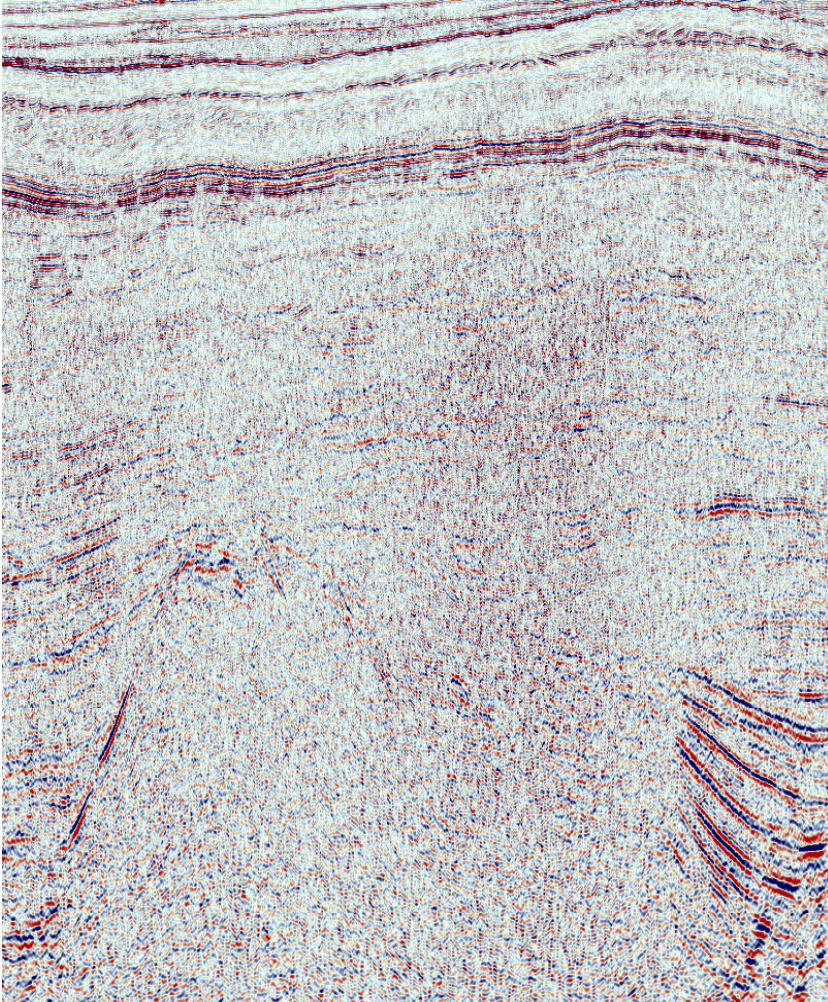


Canada Reprocessing



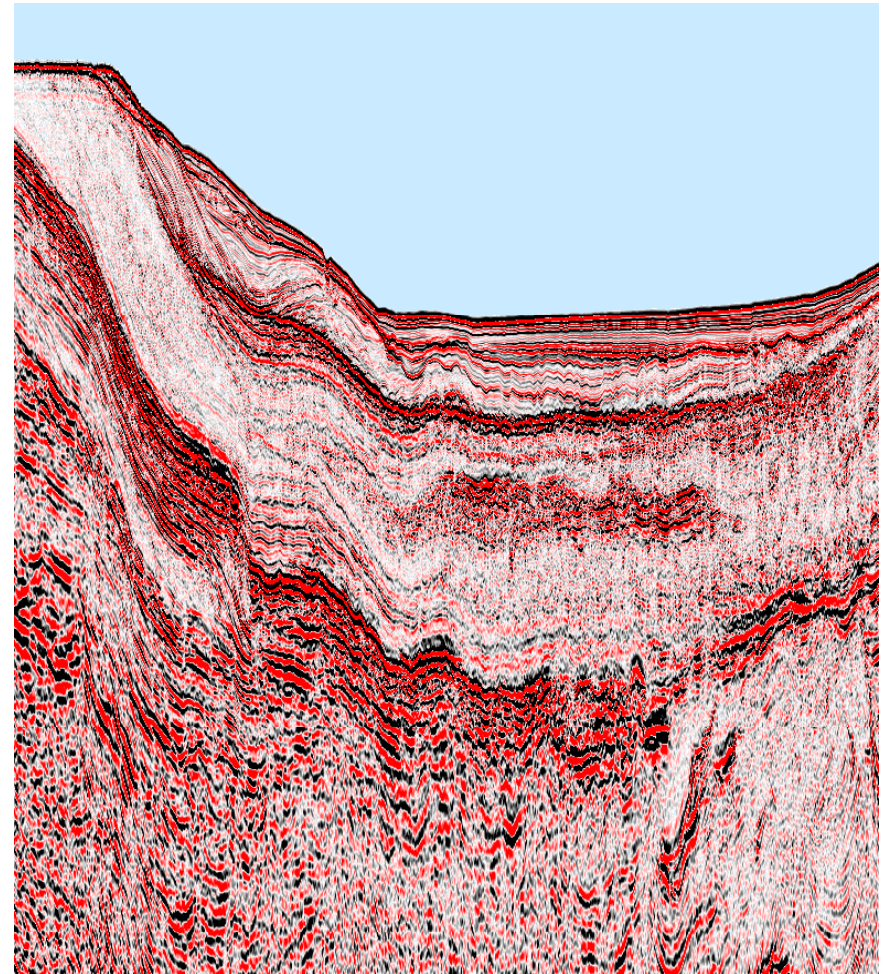
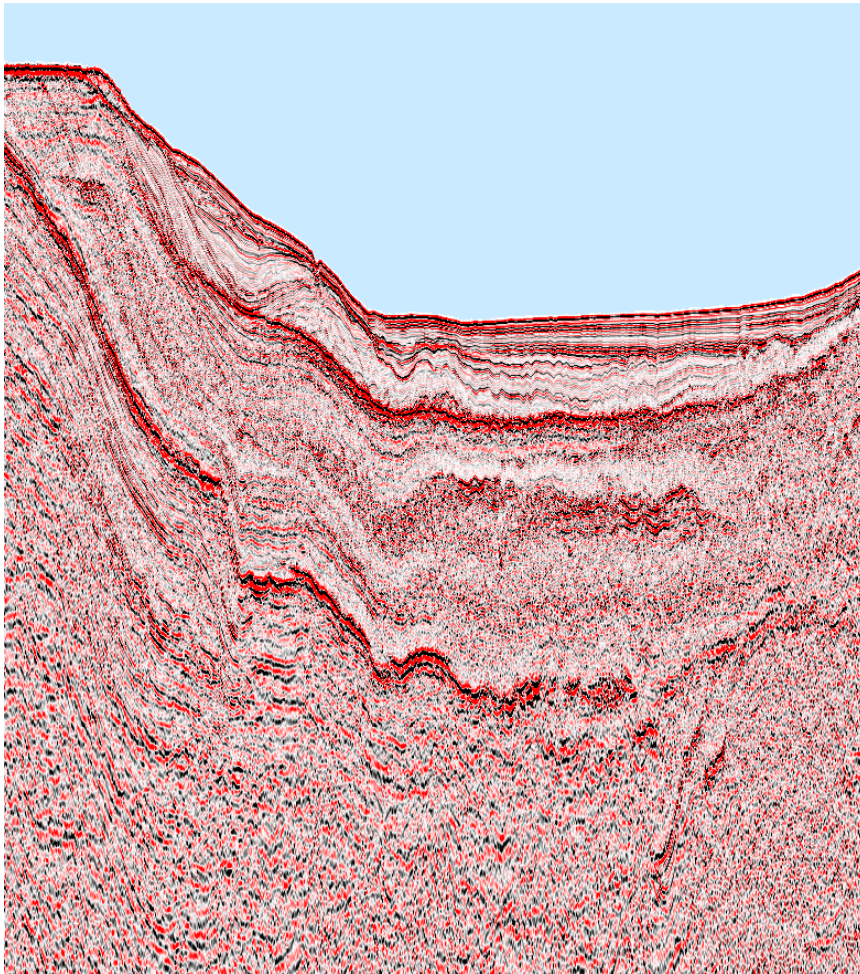


Atlantic Margin Reprocessing



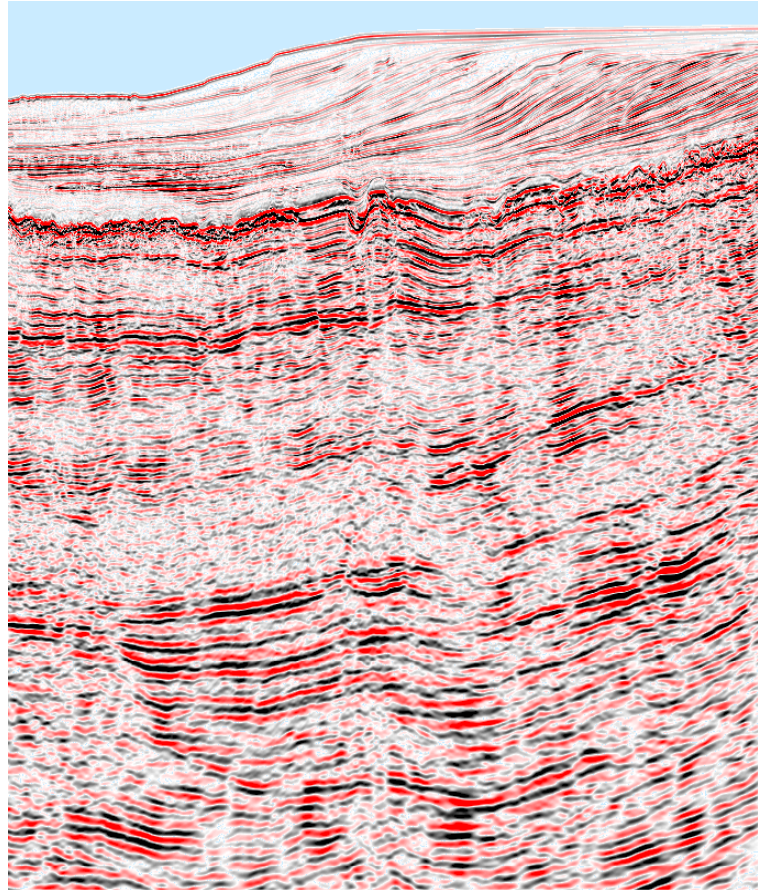
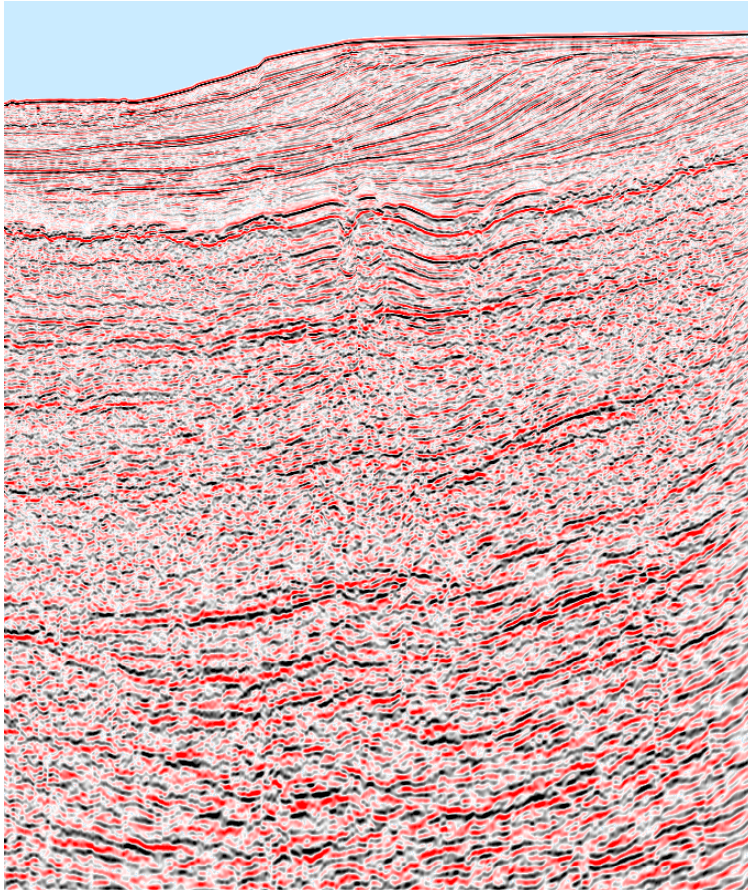


Faroe Shetland Basin Reprocessing





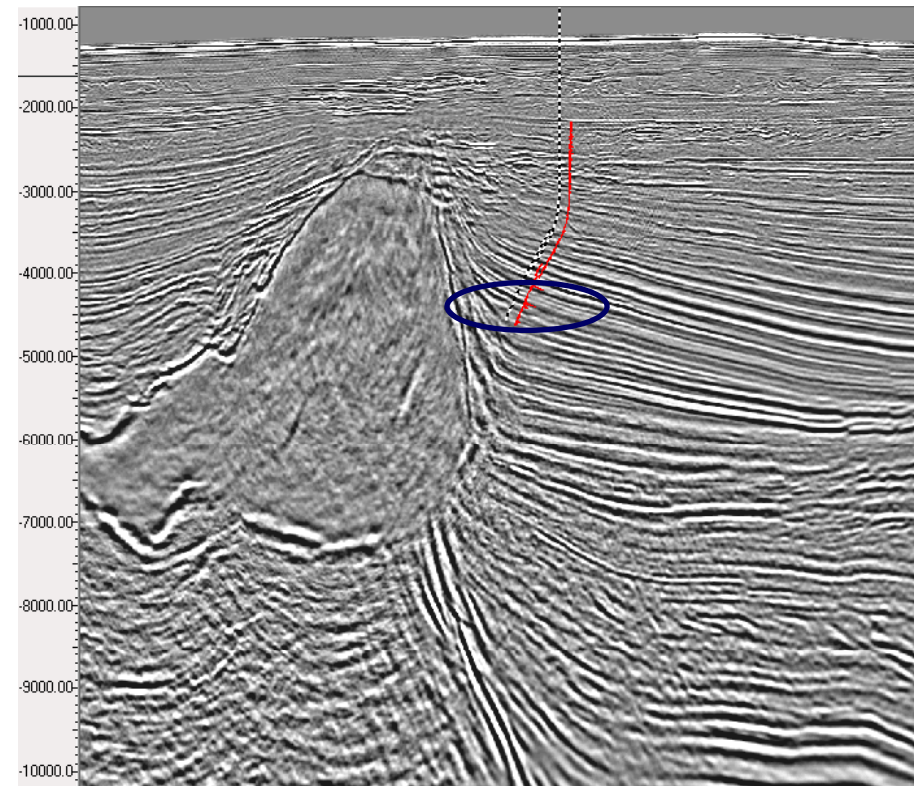
Malta Reprocessing





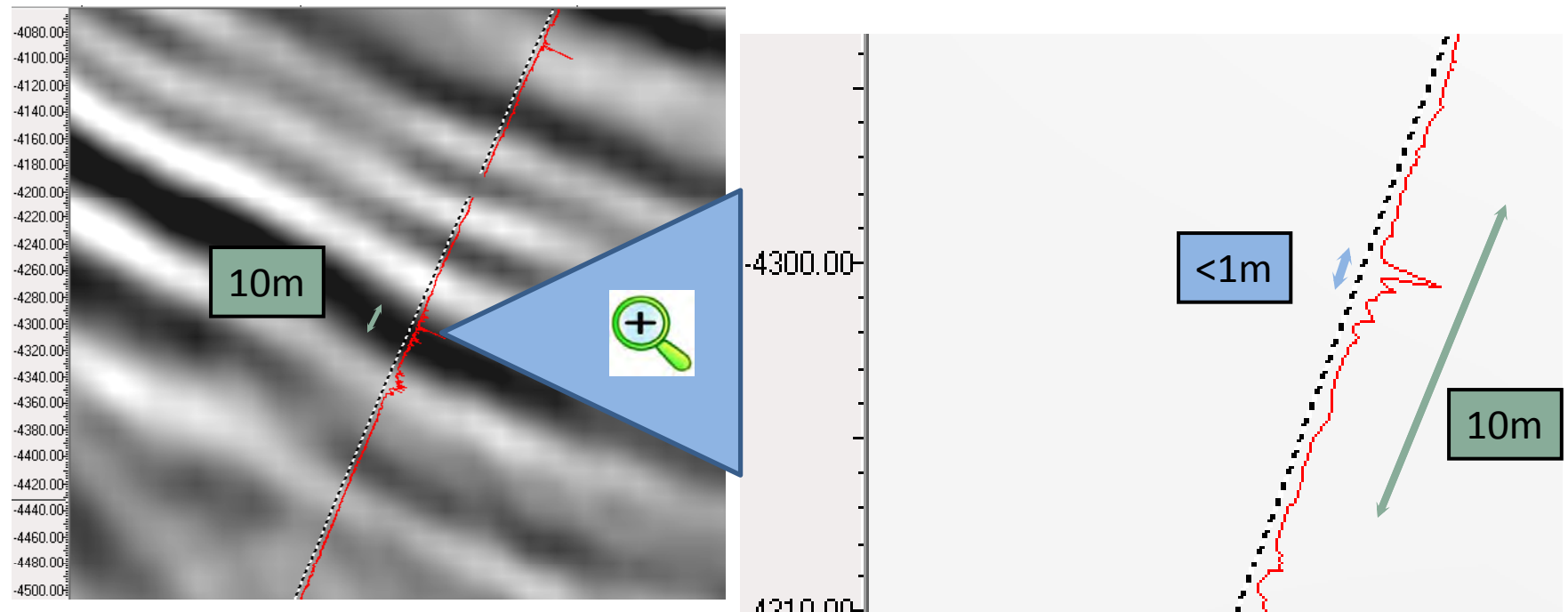
Closing the Gap - Seismic vs. Well Data Resolution

- Seismic data has strong horizontal resolution
- Well data provides strong vertical resolution
- Seismic reprocessing is designed to improve the image and close the gap in resolution





Seismic Resolution vs. Well Log Resolution



Resolution in well data 30 times better than seismic vertically



Summary

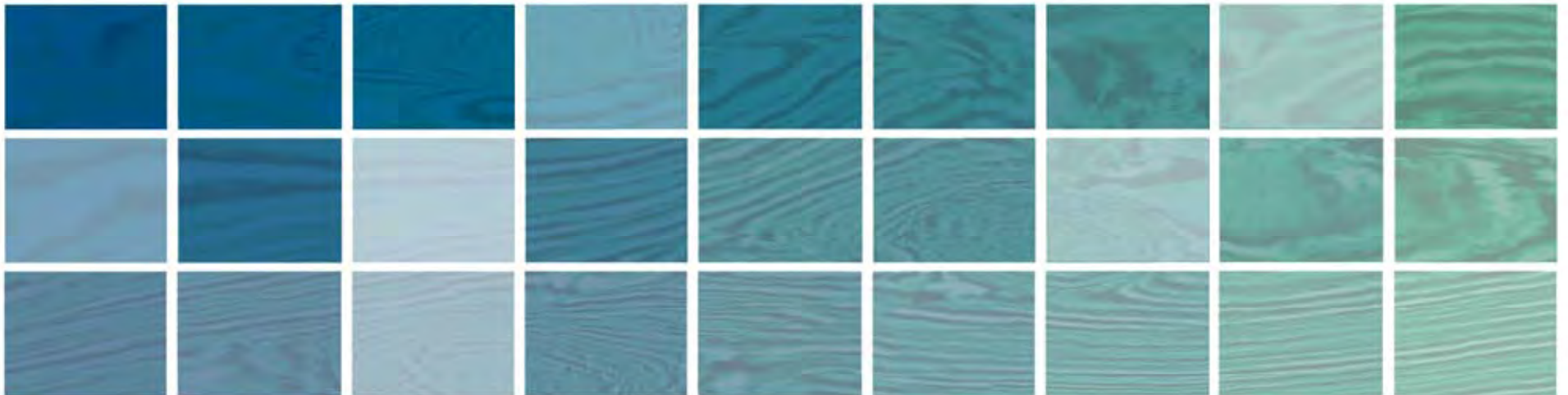
- Processing technology changes more rapidly than acquisition technology
- By owning the data, value can be generated from processing improvements
- Reprocessing of existing data extends the revenue generating life of the original data
- Profitability of reprocessing projects is in line with or better than traditional TGS projects
- Reprocessing works in every market
- Proprietary processing drives technology improvements which can be applied to the multi-client library

8 June 2011



Capital Markets Day

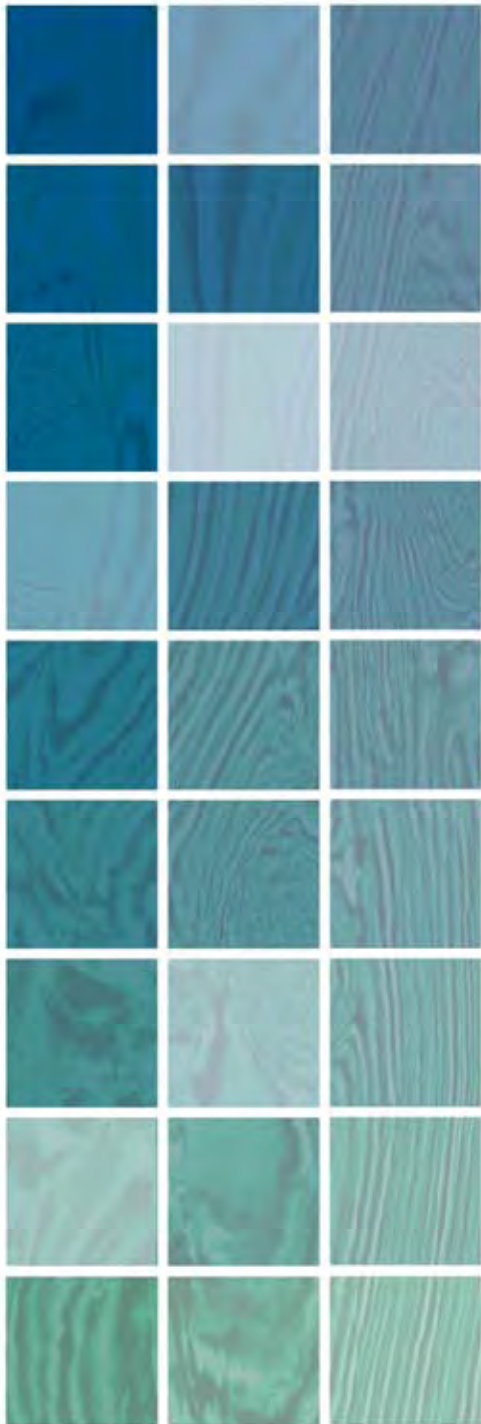
Well Data: Evolution of Data Formats and Data Integration





Agenda

- TGS Geologic Products – An Introduction
- What is Well Data and Why is it Important?
- Data Formats and TGS Investment - A Case Study
- Data Integration Opportunities

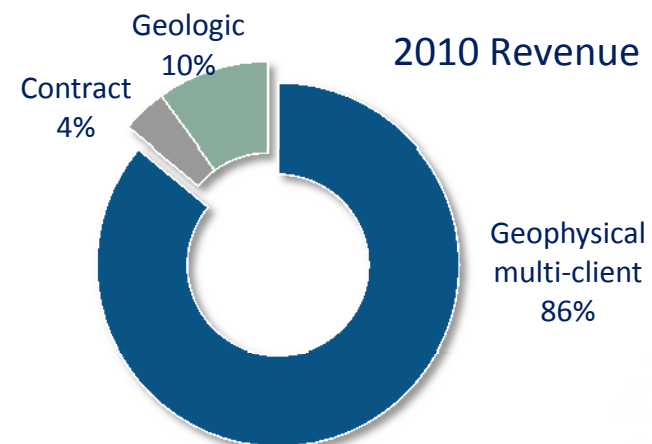
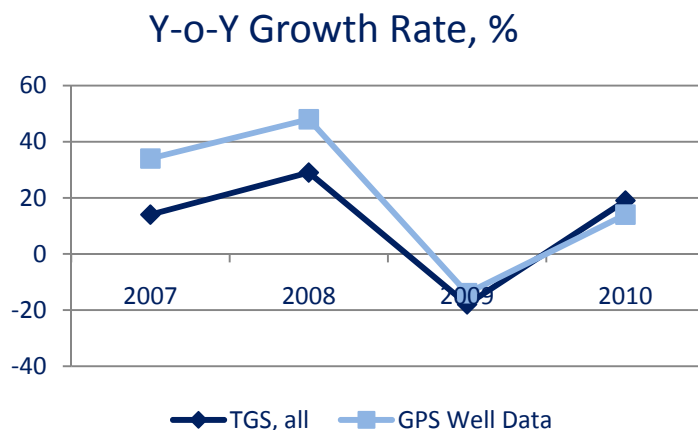


TGS Geologic Products – An Introduction



Geologic Products

- Formed in 2007 from A2D (well data) and Aceca (interpretation) entities
- ~320 employees
- 10-15% of total TGS revenue
- Substantial backlog
- Similar growth rate and EBIT margin to main seismic business
- Well Data group based in Houston*, Denver, Oklahoma City, New Orleans, London
- Interpretation group based in London*, Stavanger, Houston



100

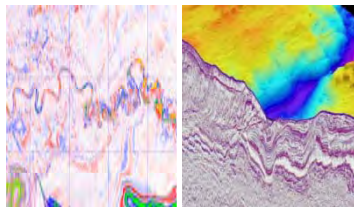
* Main offices





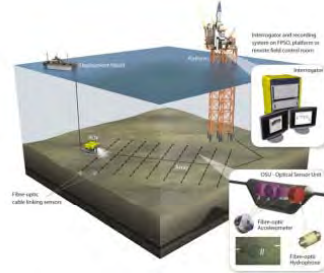
TGS Core Businesses

Geophysical Data



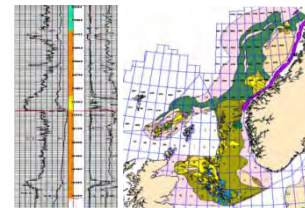
- 2D Seismic
- 3D Seismic
- Depth imaging products
- Wide Azimuth Seismic
- Aeromagnetics
- Gravity
- Electromag (CSEM)
- Multi-beam

Permanent Reservoir Monitoring (New)



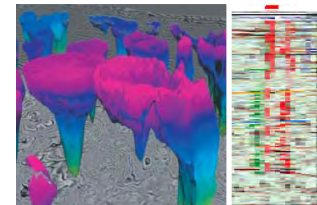
- Integrated Permanent Reservoir Monitoring solutions
- Deepwater and congested seabed solutions
- 4D seismic surveys
- 4D seismic processing
- Fracture monitoring
- Flood front monitoring
- Well integrity monitoring
- Micro-seismic monitoring

Geological



- Digital well data
- Directional Surveys
- Production data
- Regional geologic interpretation
- Facies Map Browser
- Interpretive services

Imaging Services



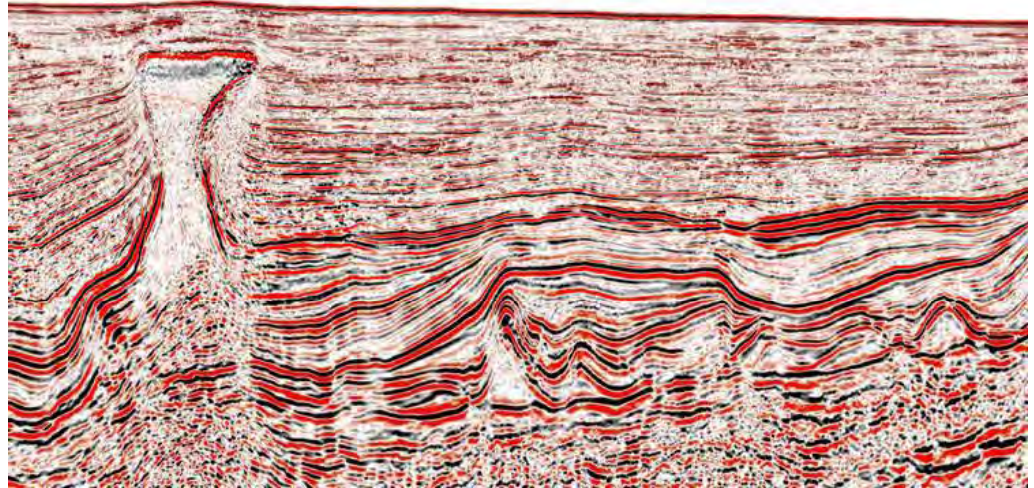
- Seismic processing
- Complex depth imaging
- Proprietary technology
- Ongoing R&D investment
- Contract business model



Key Business Differentiators

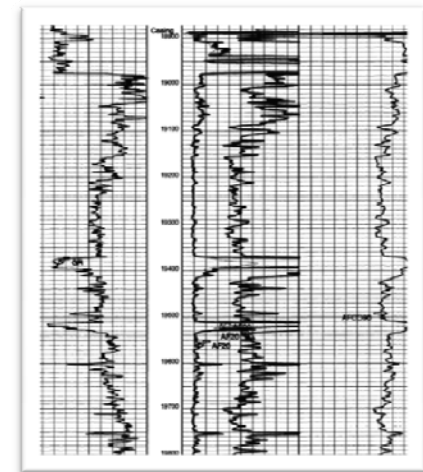
■ Seismic business

- Data is **created** by TGS
- Mostly multi-client
- Extensive database
- Perpetual license model
- Worldwide range



■ Well Data business

- Raw data is **sourced**
- Success attributes: quality processing, scale, data management/integration
- Mostly multi-client
- Industry's largest digital well log database
- Perpetual **and subscription** license model
- Worldwide, but heavy focus in N. America
- Long-life assets

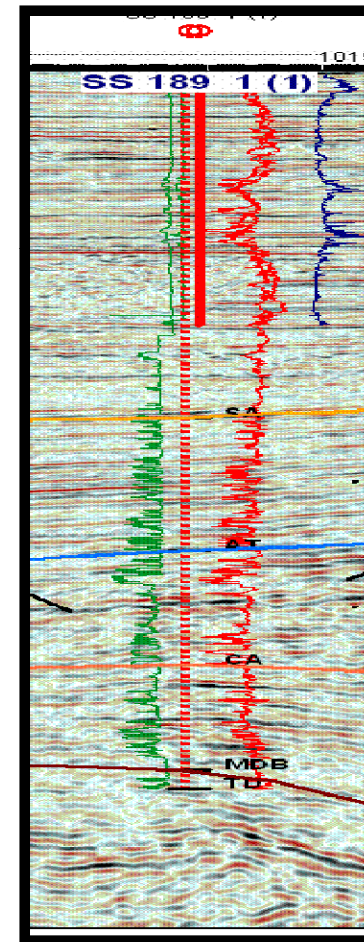


What is Well Data and Why is it Important?

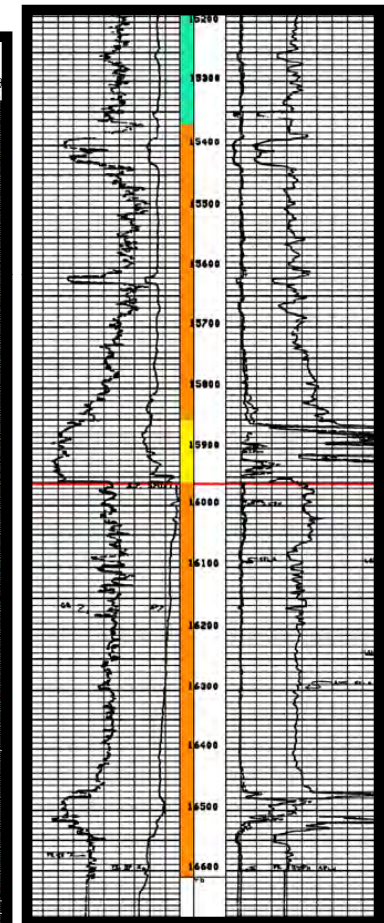


Why is Well Data Important?

- Well data records critical borehole data and touches every aspect of exploration and production
- Well data has an infinite shelf-life
- Well data provides essential data about rock properties (“ground- truth”) and provide a framework for interpreting seismic
- An estimated 10+ million well logs exist worldwide but a large percentage remain in non-digital formats
- Well data provides excellent vertical resolution while seismic provides good horizontal resolution which is an ideal combination for successful exploration of hydrocarbons
- TGS provides both types of data through bundles or derivative products to provide more value to customers



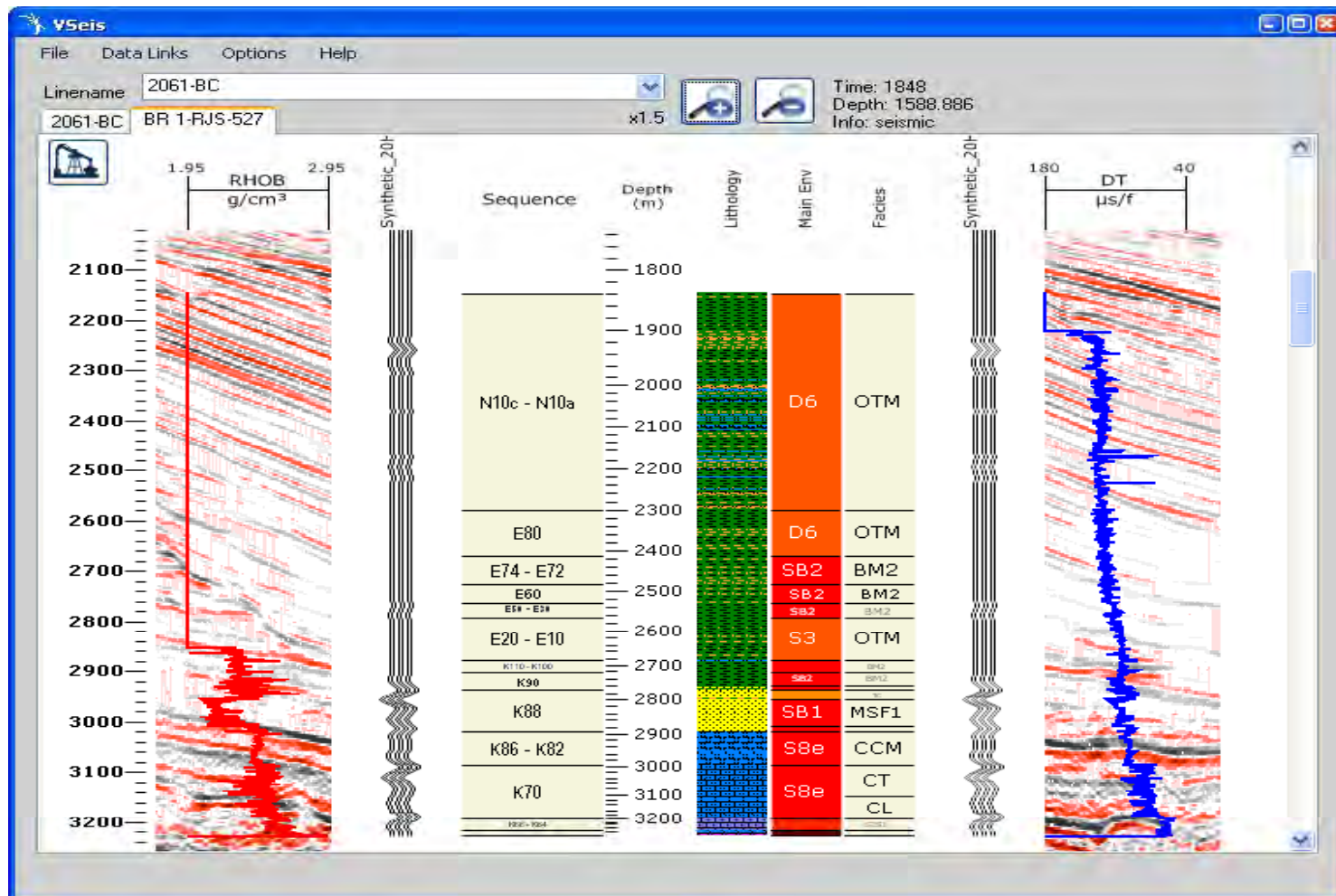
Well Log-Seismic Calibration



Well Log

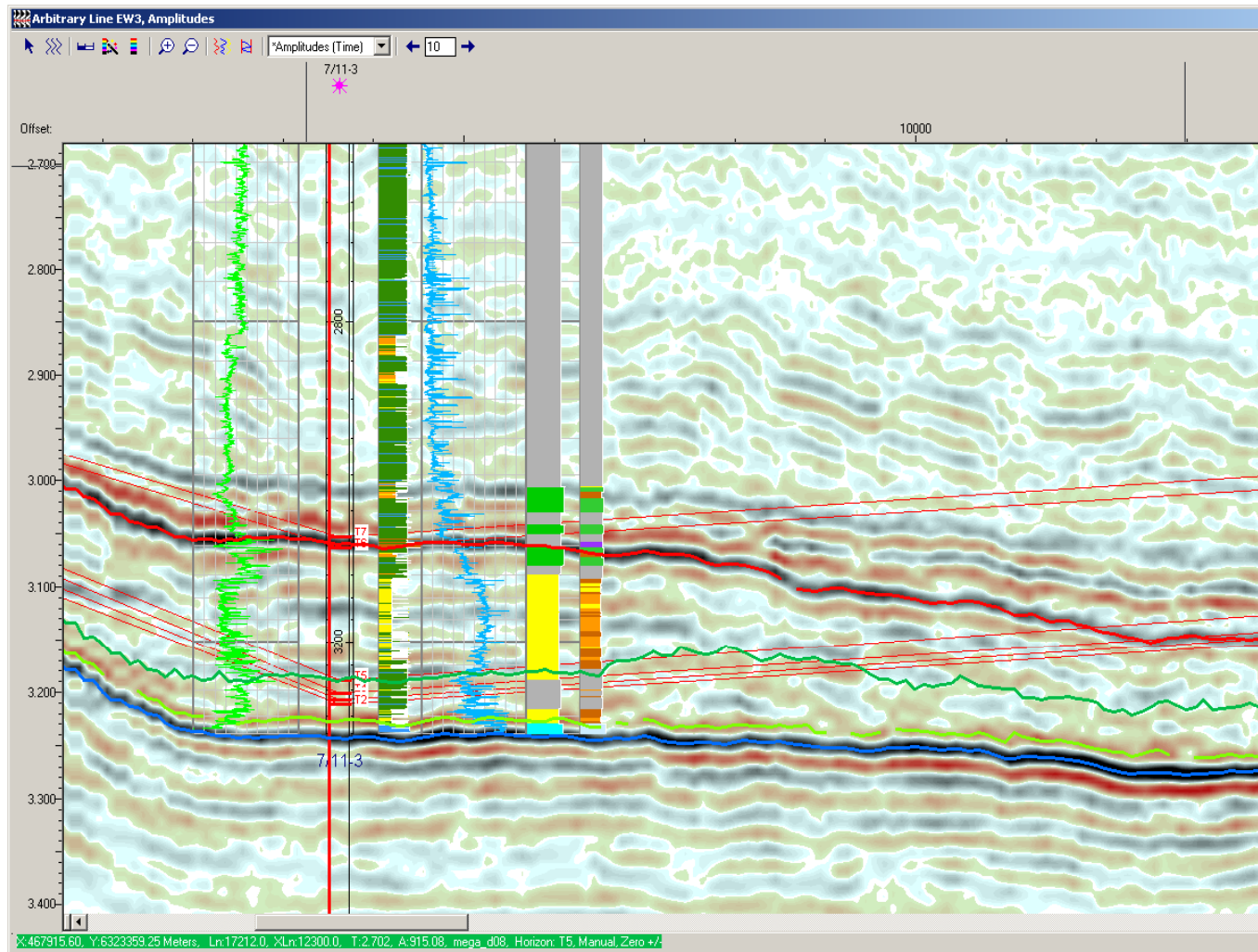


Why is Well Data Important? Integration is the Key!



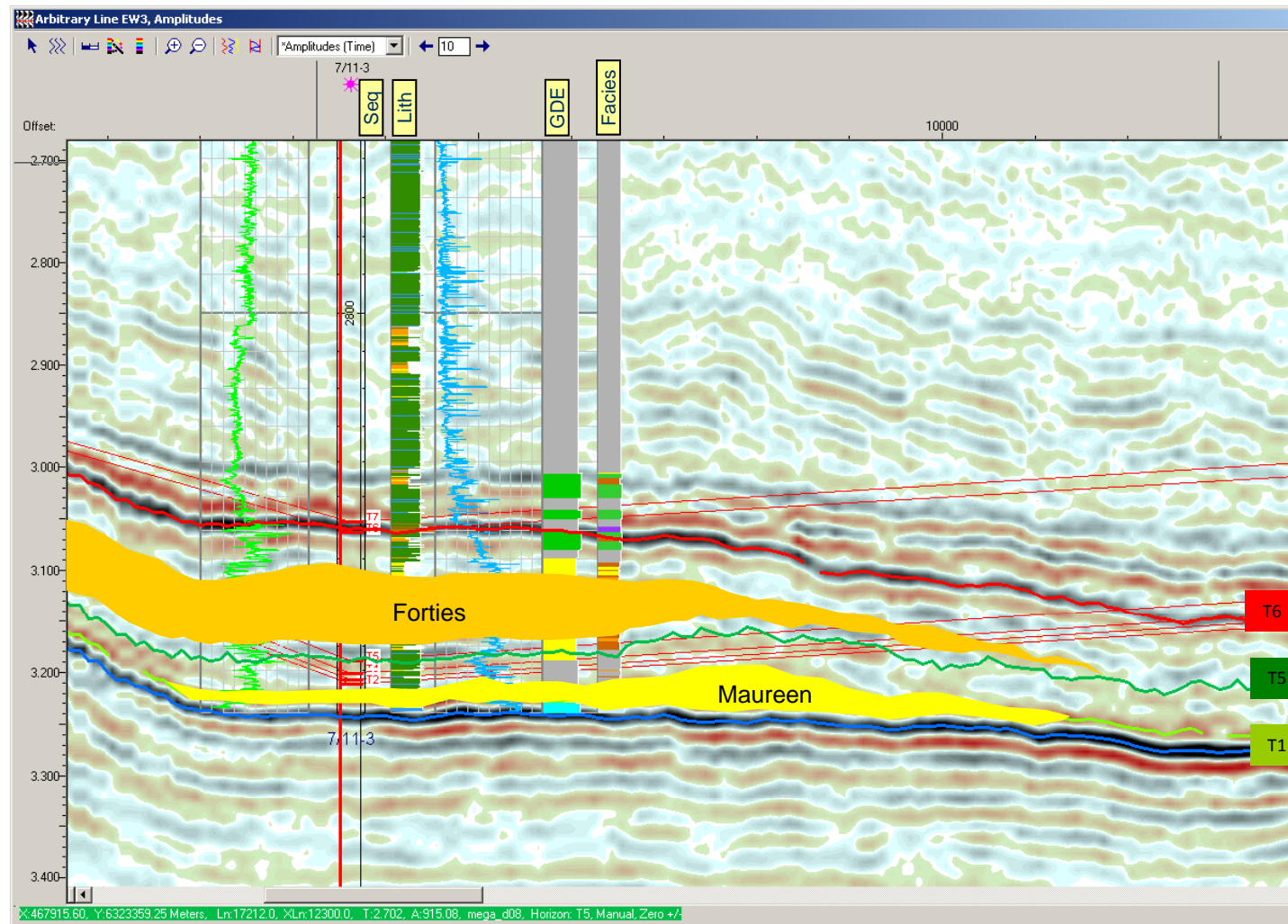


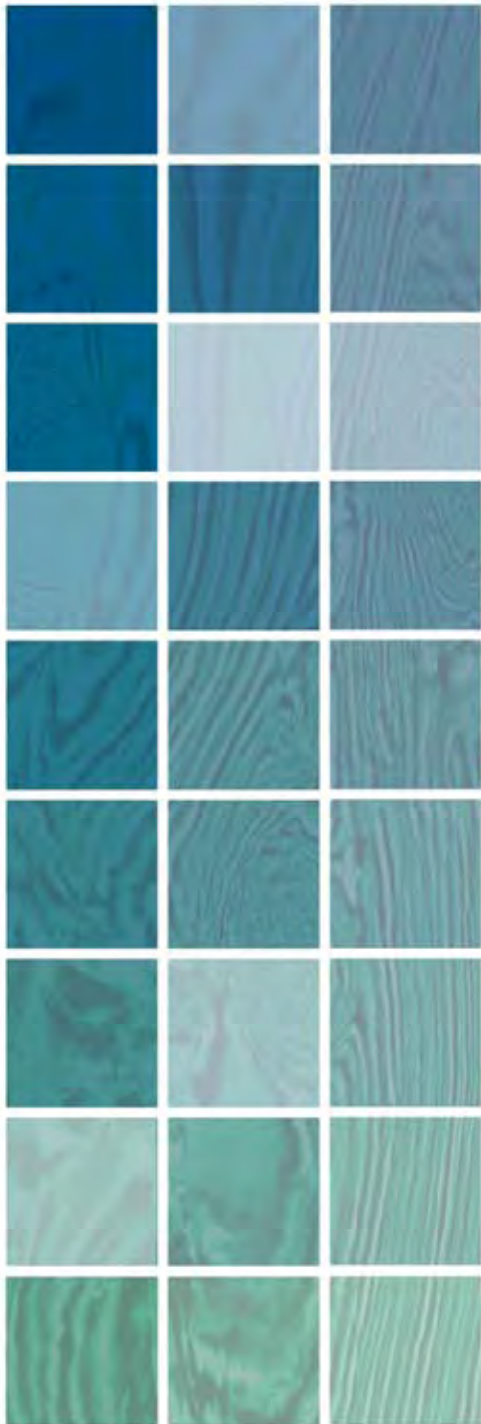
Data Integration – An Example





Data Integration – An Example





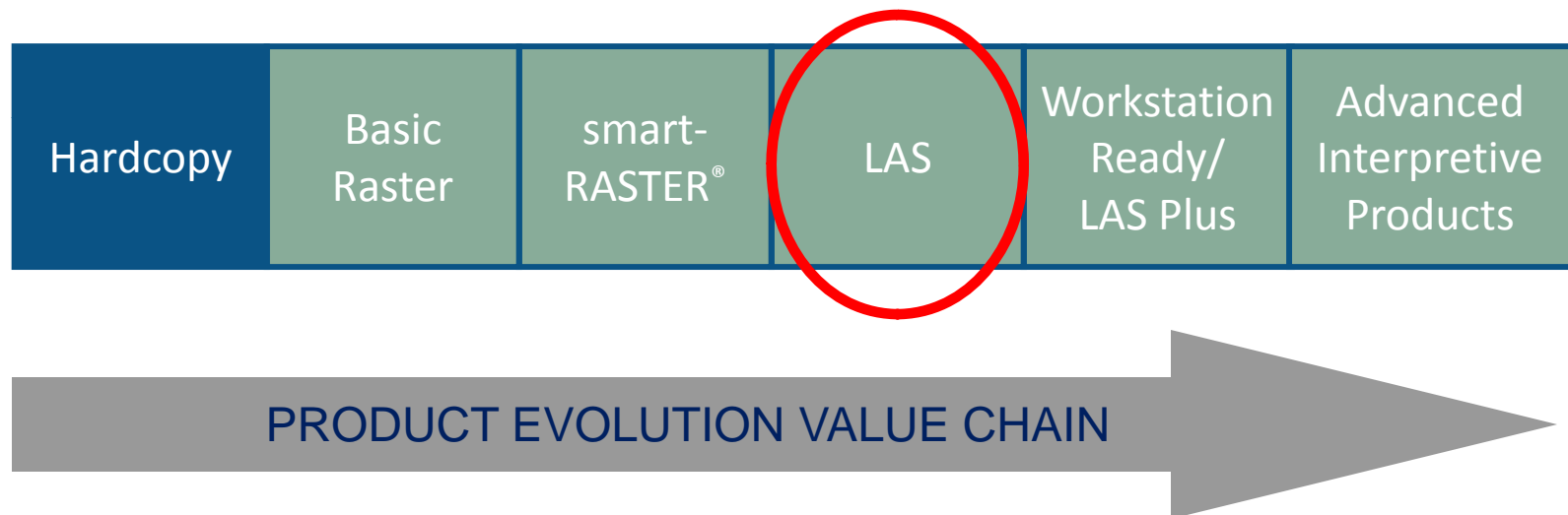
Data Formats and TGS Investment

A Case Study



The Well Log Value Chain

- Well Log Data Formats

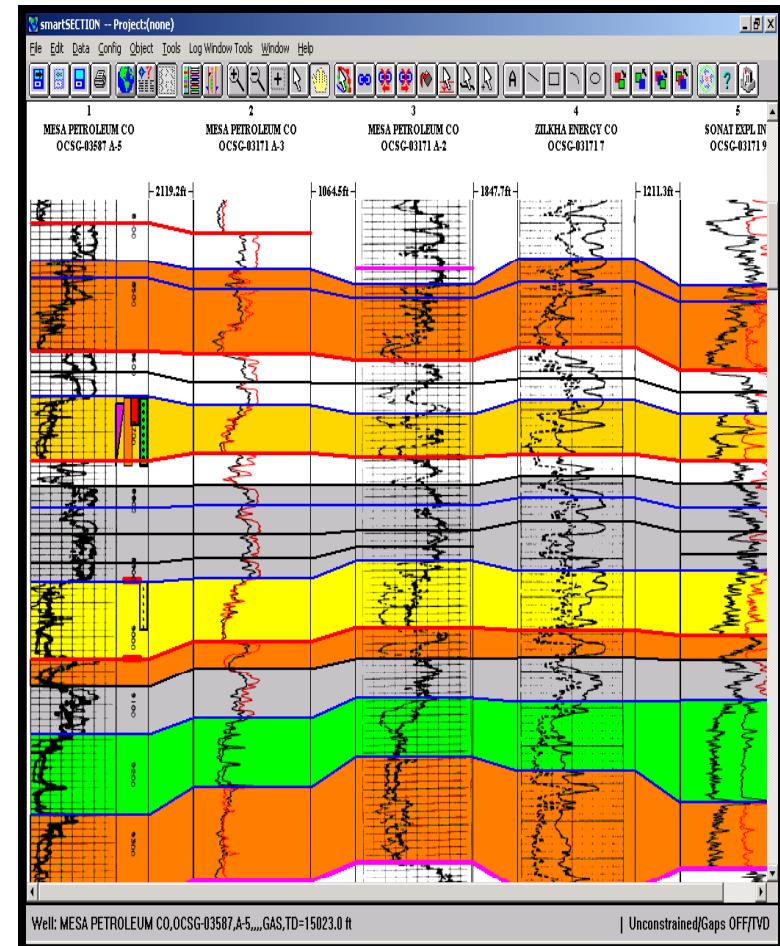
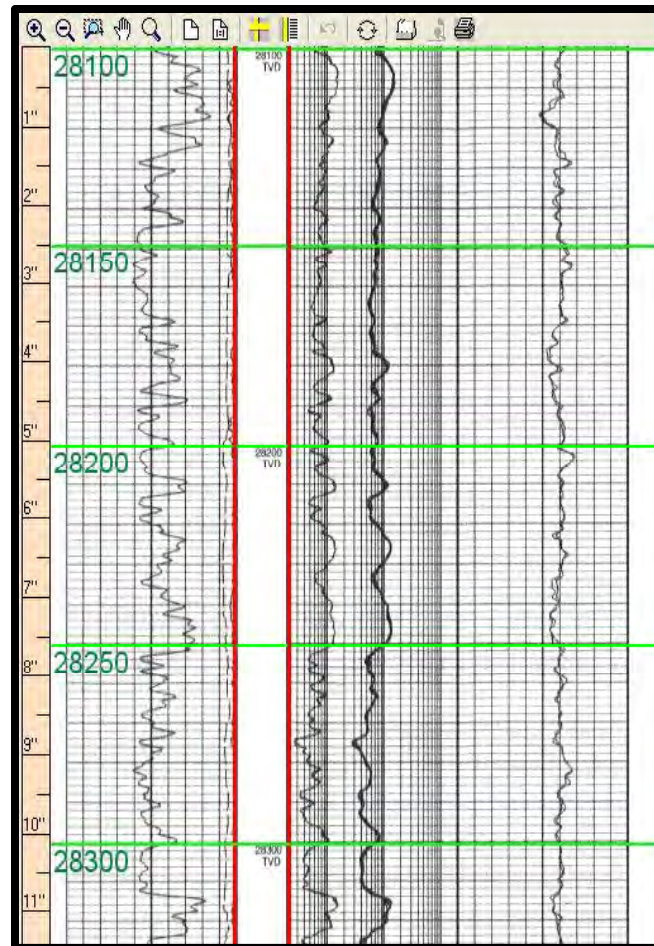




Raster and smartRASTER® Log Data

Basic
Raster

smart-
RASTER®



Digital LAS

LAS

```

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WRAP.      YES:  MULTIPLE LINES PER DEPTH STEP

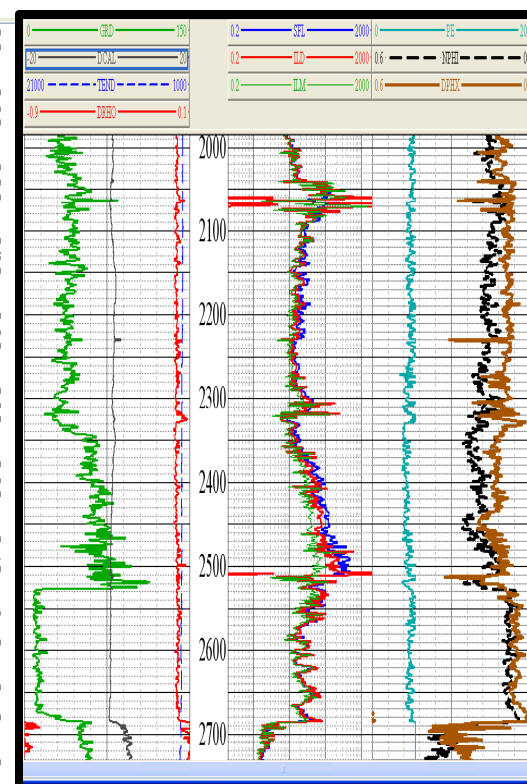
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LOC.      BLK 915:    LOCATION
CNTY.      VIOSCA KNOLL:    COUNTY
STAT.      N. GULF OF MEXICO:  STATE
CTRY.      UNITED STATES OF AMERICA:  COUNTRY
SRVC.      SCHLUMBERGER:  SERVICE COMPANY
DATE.      05-MAY-1993:  LOGDATE
API.      608164018100:  API NUMBER

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SP. MV      07 010 01 00:  SPONTANEOUS POTENTIAL
ILM. OHMM   07 120 44 00:
ILD. OHMM   07 120 46 00:  DEEP INDUCTION RESISTIVITY
SFL. OHMM   07 220 01 00:  SPHERICAL FOCUSED RESISTIVITY
DCAL. IN    07 280 30 00:  DIFFERENTIAL CALIPER
DTRP. US/F  60 520 00 00:
DT2R. US/F  60 520 00 00:
CALI. IN    60 280 50 00:  CALIPER
GR. GAPI    60 310 01 00:
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DTSH. US/F  60 520 00 00:  DELTA SHEAR
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QLS. NONE   45 354 01 00:
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PEF. B/E    45 358 01 00:  PHOTOELECTRIC
DRHO. G/C3  45 356 01 00:  BULK DENSITY CORRECTION
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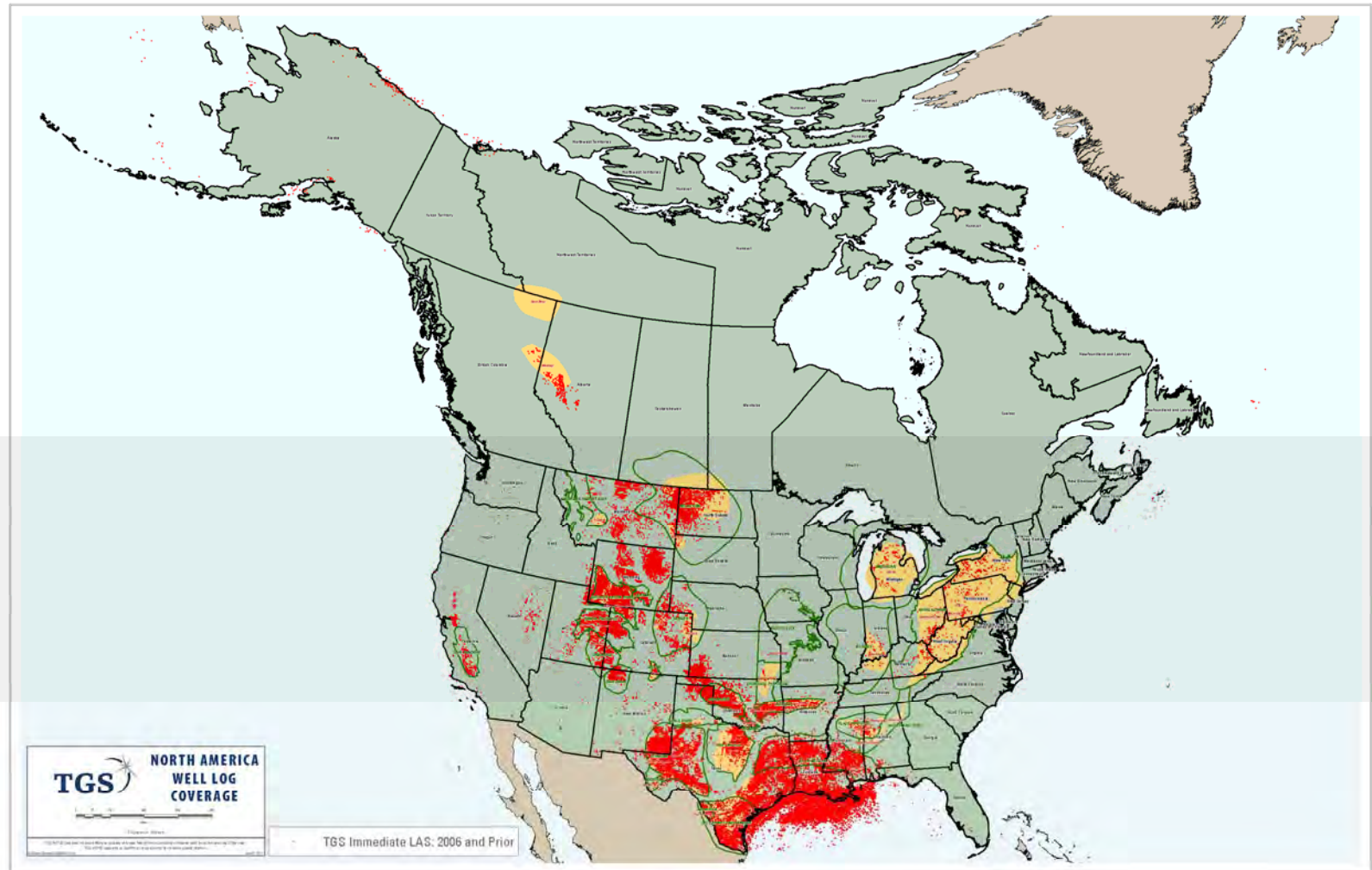
Well Data Strategic Plan (circa 2007)

- Historical market mainly for raster/smartrasters
- Nascent client demand for LAS in emerging shale plays
- Convert clients from low value raster to high value LAS
- Massive ramp up to become “the” LAS supplier
- Obtain client prefunding to support program



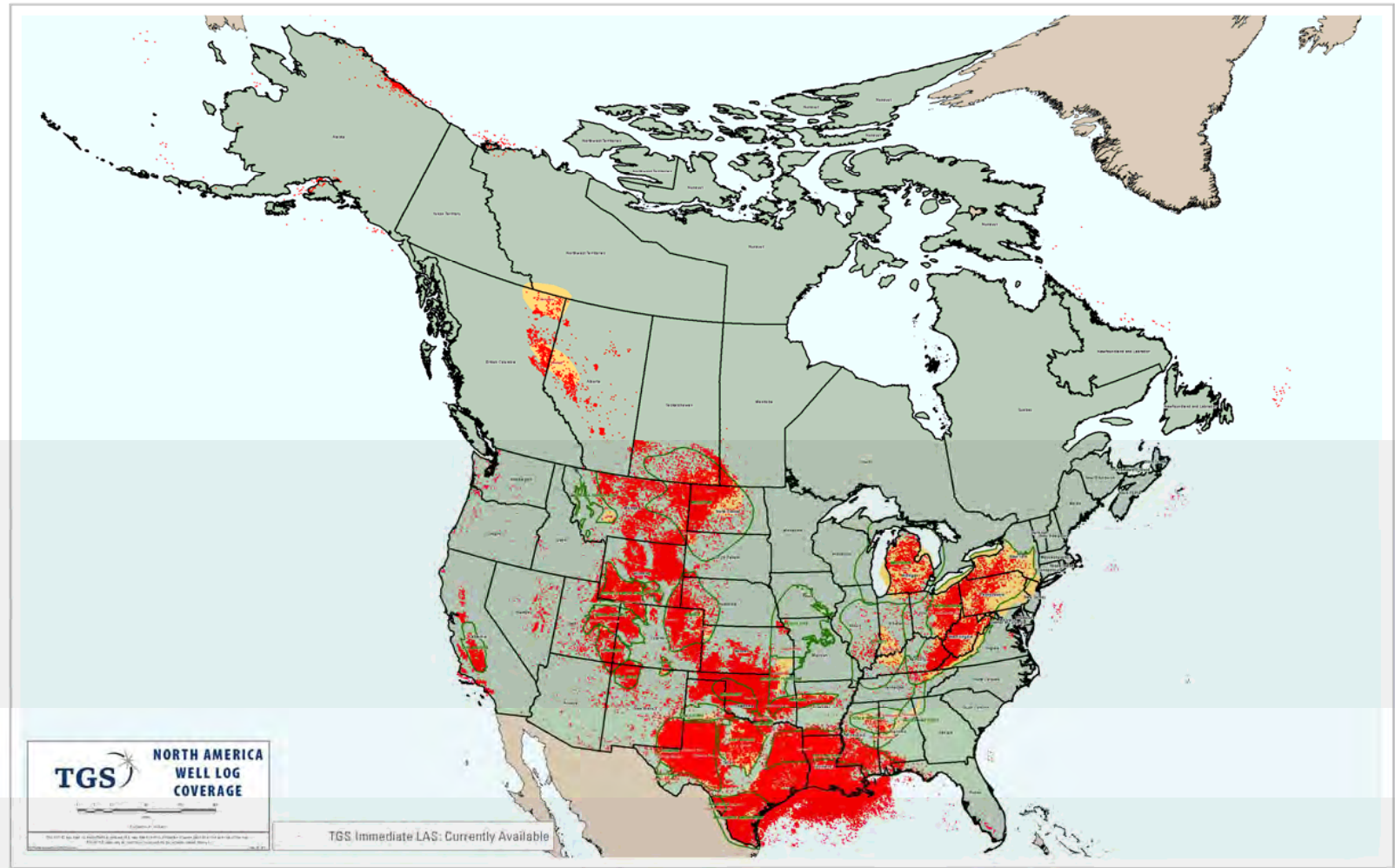


LAS Footprint - 2006

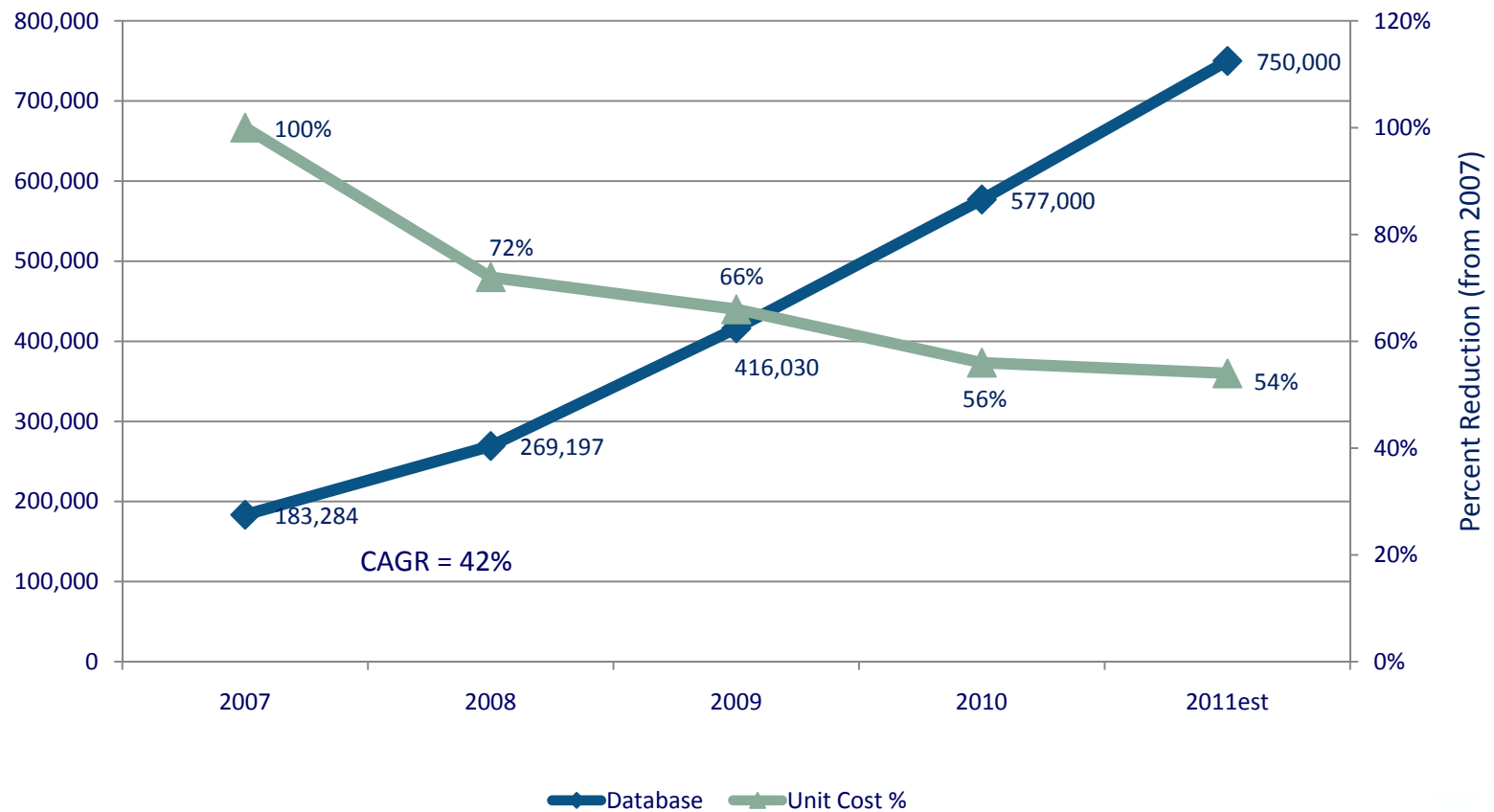




LAS Footprint - 2011

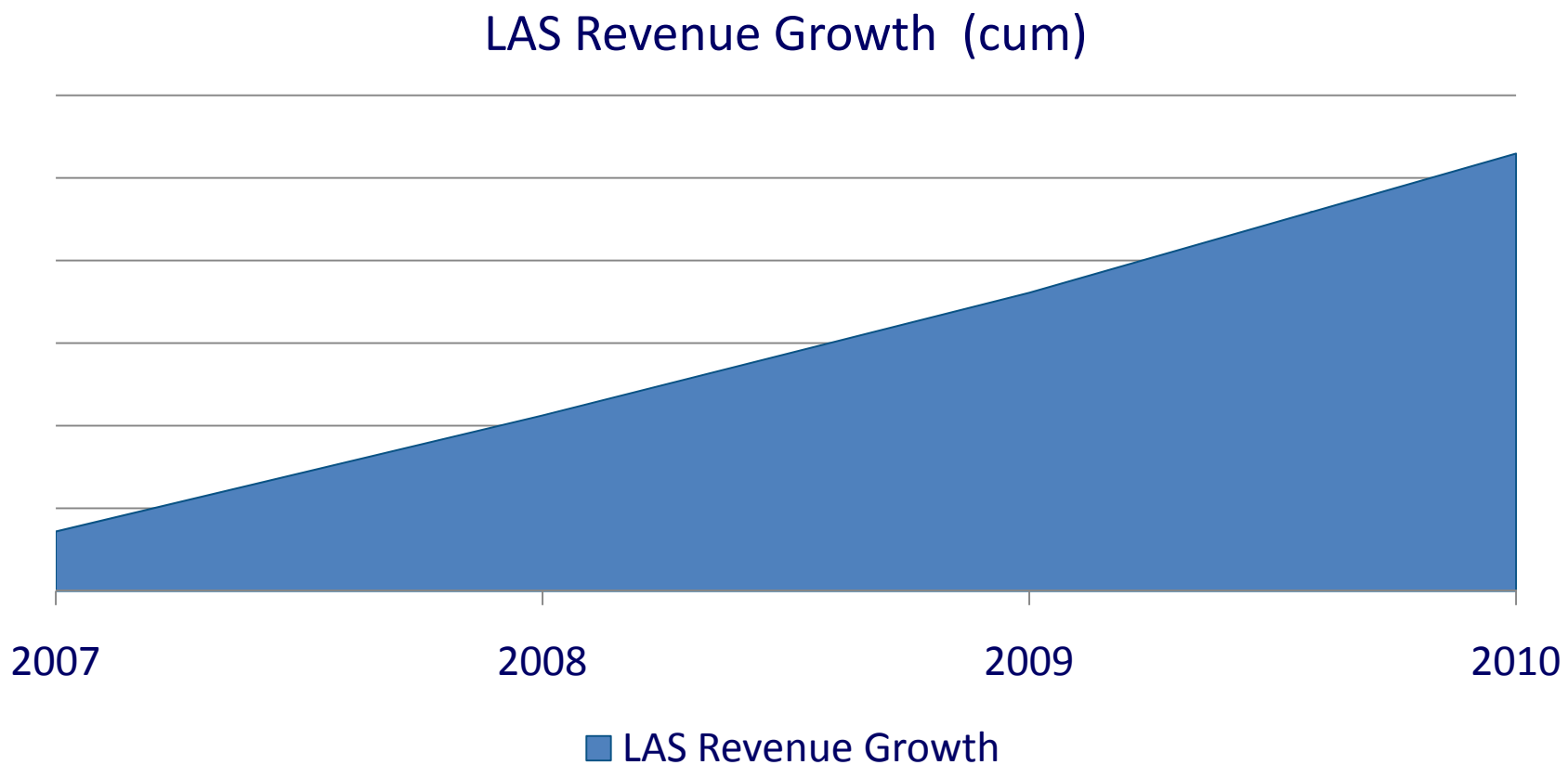


LAS Production Growth vs. Cost/Unit



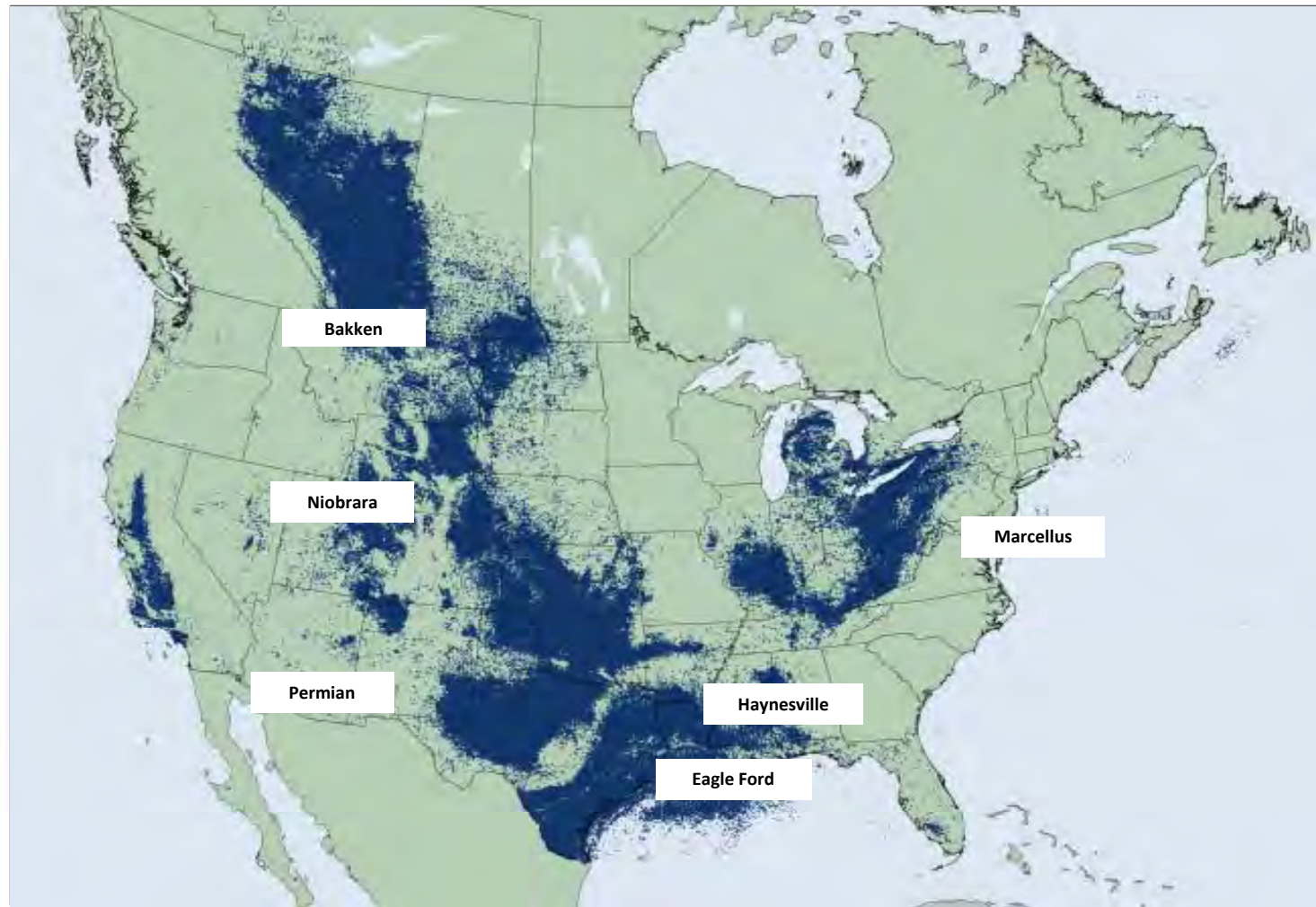


Financial Results

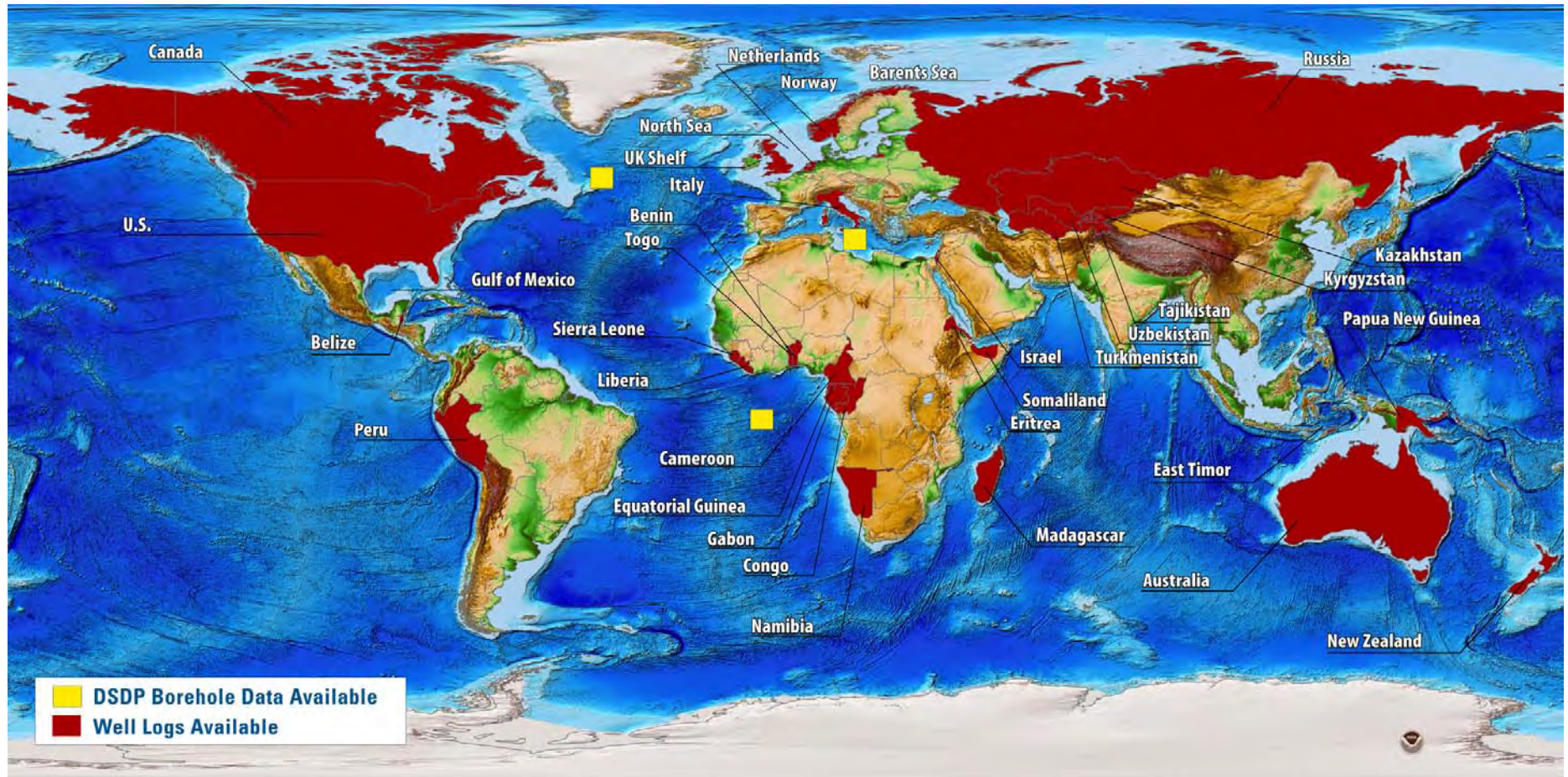




TGS Well Logs and Shale Plays in N. America



International Well Log Coverage

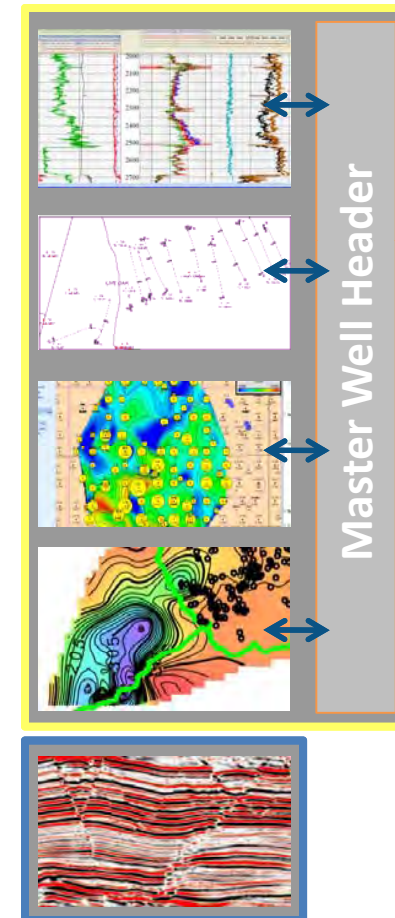


Data Integration Opportunities



Geoscience Data Integration

- Digital Well Logs
- Directional Surveys
- Production and Scout Data
- Interpretive Products
- Seismic Data and Imaging





Instant Access via LOG-LINE Plus!®

- First ever online access to well log data
- Created in 1998
- Industry-accepted tool for well data access
 - 4,500+ companies / ~10,000 users
 - Average 600 orders per day

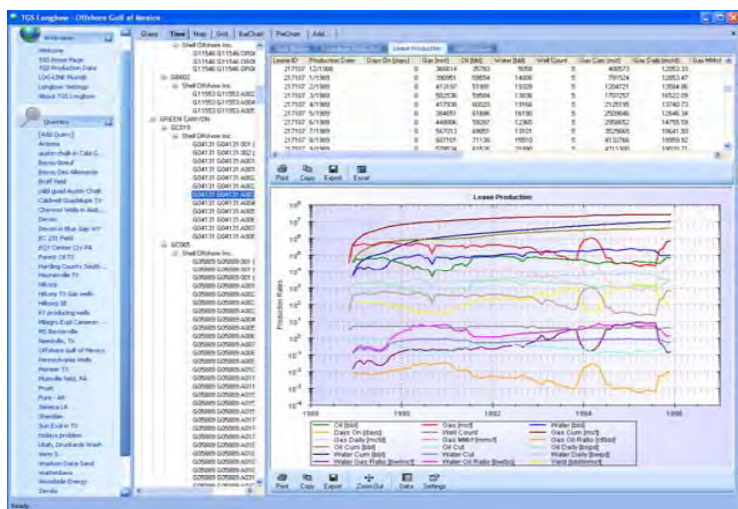


- Internet access
- Simple to use
- Advanced query
- Integrated GIS
- Immediate & Non-immediate orders
- Secure, entitlement management



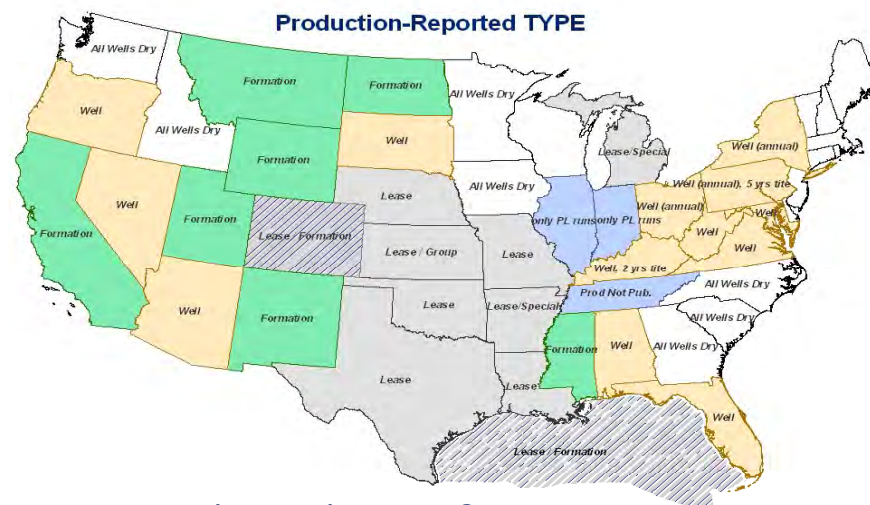
Longbow Software

- Integrates TGS data sets
- Visualization & analysis
- Supports perpetual & subscription based products

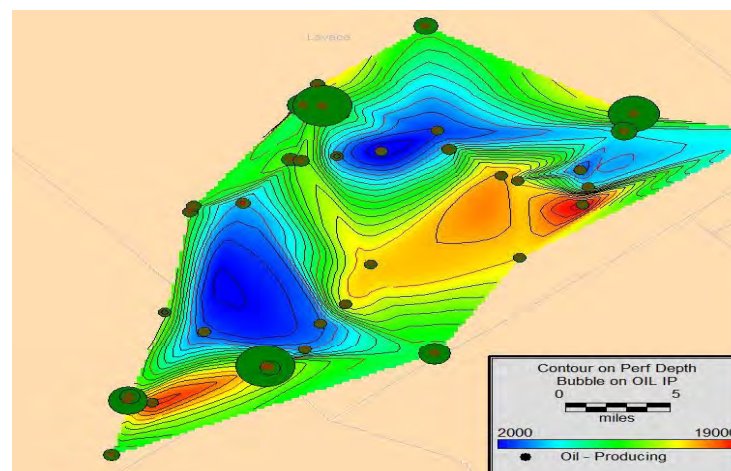


Production Ratios Plot

124



Nationwide Production & Scout Data



Eagleford Perf/Bubble Map





Summary

- Geologic Products is 10-15% of overall TGS business and has similar growth rates and profit
- TGS has aggressively invested to create a unique LAS database in the US shale plays and been rewarded for that investment.
- Additional opportunities internationally
- TGS has recently expanded its investment into other types of well data
- There are lots of opportunities to integrate these data sets and to continue growing this business

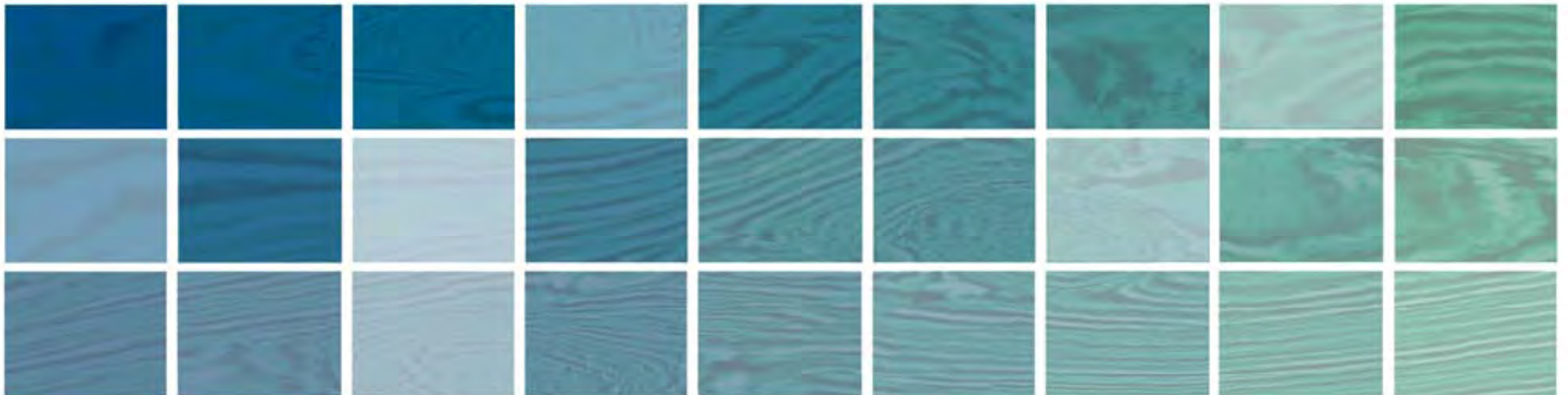
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Capital Markets Day

Permanent Reservoir Monitoring

Listening with light[®]





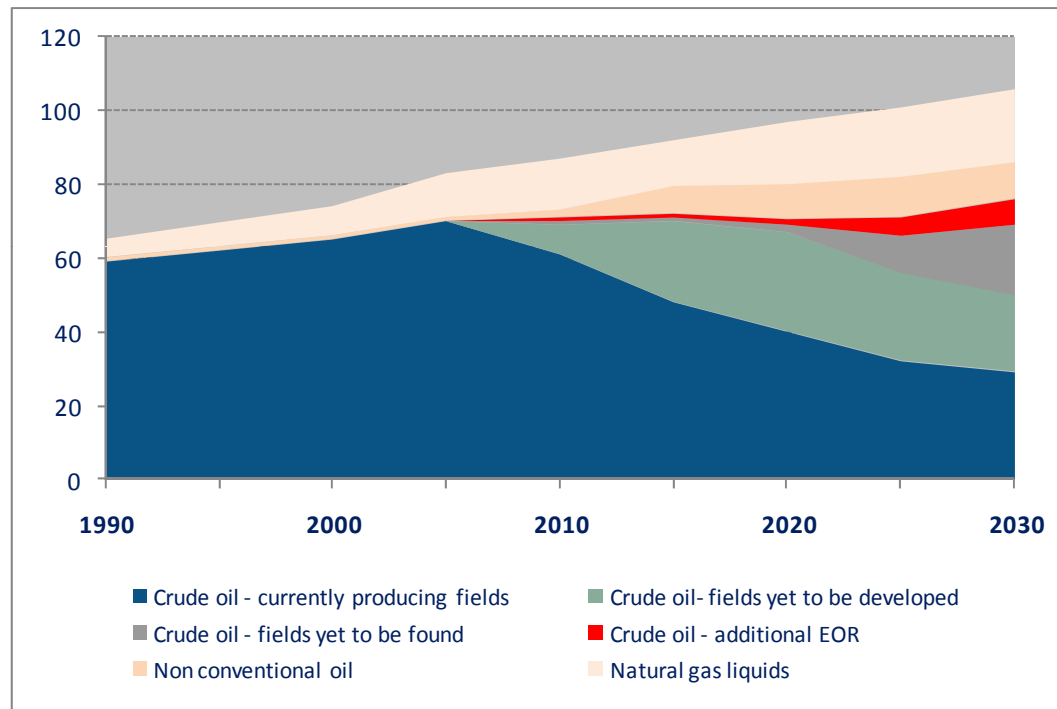
Permanent Reservoir Monitoring

- What is reservoir monitoring?
 - Why do oil companies need to do it?
 - What are the options for reservoir monitoring?
- The Stingray advantage
 - Listening with light®
 - Integrated solutions
- The TGS advantage
 - Contract size and duration
 - Synergies

What is Reservoir Monitoring?



Production and Recovery Factors



- Crude oil from currently producing fields expected to decline significantly
- Strong need to mitigate fall in production by
 - Increasing investments in enhanced oil recovery (EOR)
 - Focusing on new technologies to raise the average recovery factor for mature fields
 - Investing in reservoir monitoring, including PRM, which will become even more important in the future maximization of total recovery from producing fields

Global average recovery factors are approximately 30%



Reservoir Management

- Largely implemented through models rather than measurement
- Laws of reservoir heterogeneity
 - All reservoirs are heterogeneous
 - The degree of reservoir heterogeneity increases as the reservoir is produced
 - All reservoirs are more heterogeneous than at first thought
- The only truism about the reservoir model is that it is wrong!
- Rich information from around the wells (sometimes)
- Reservoir seismic provides the ability to move from models to data

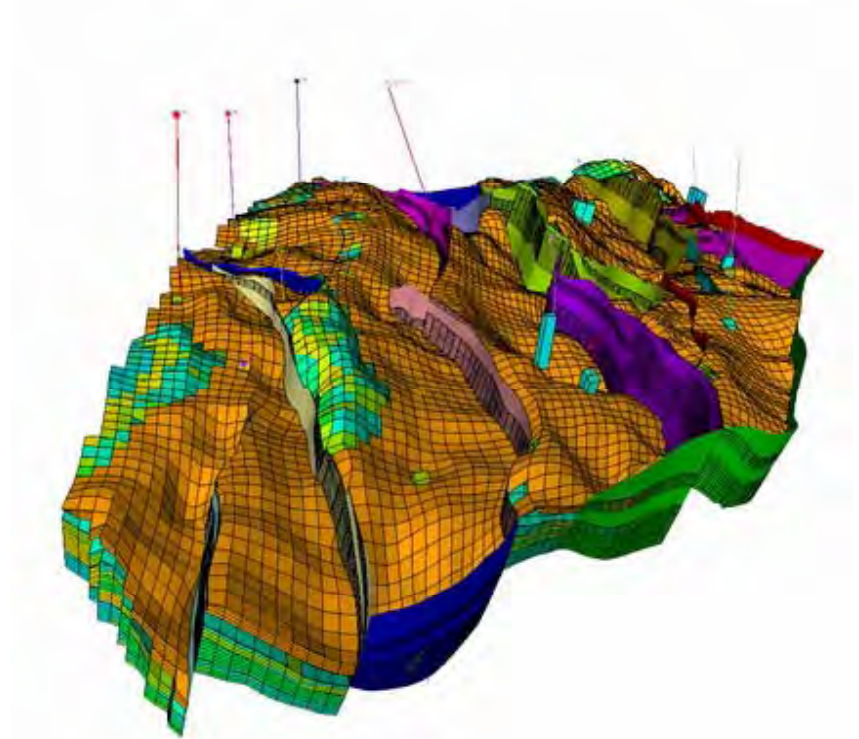
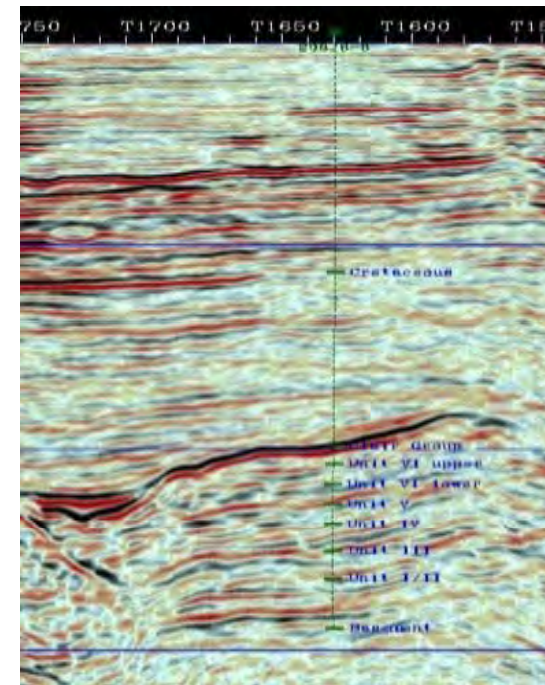
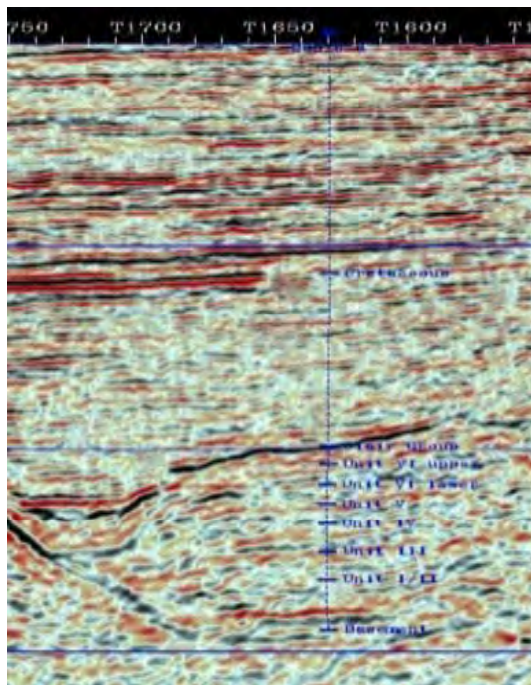


Image from Heriot Watt University



Improved Reservoir Management = Higher Recovery Factors





Improved Reservoir Management = Higher Recovery Factors



More frequently

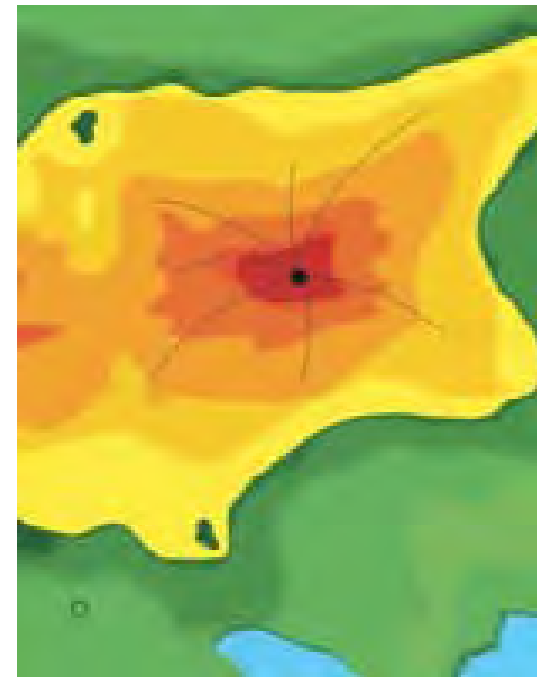




Improved Reservoir Management = Higher Recovery Factors

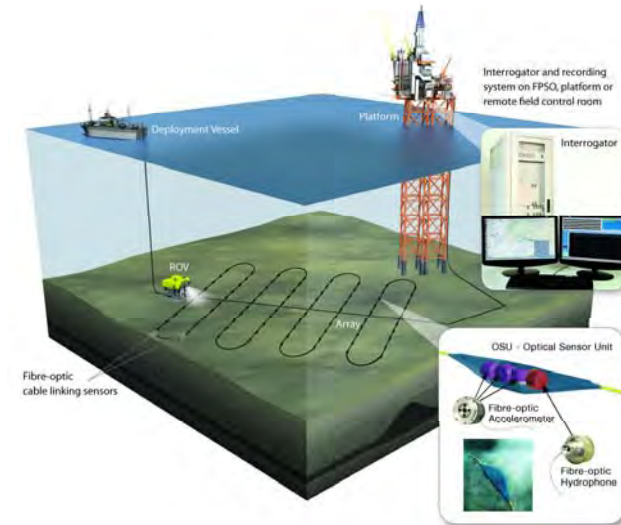
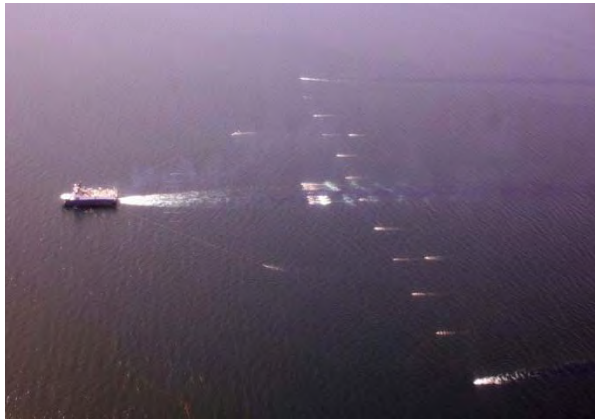


Over the entire
reservoir





Options for Reservoir Monitoring



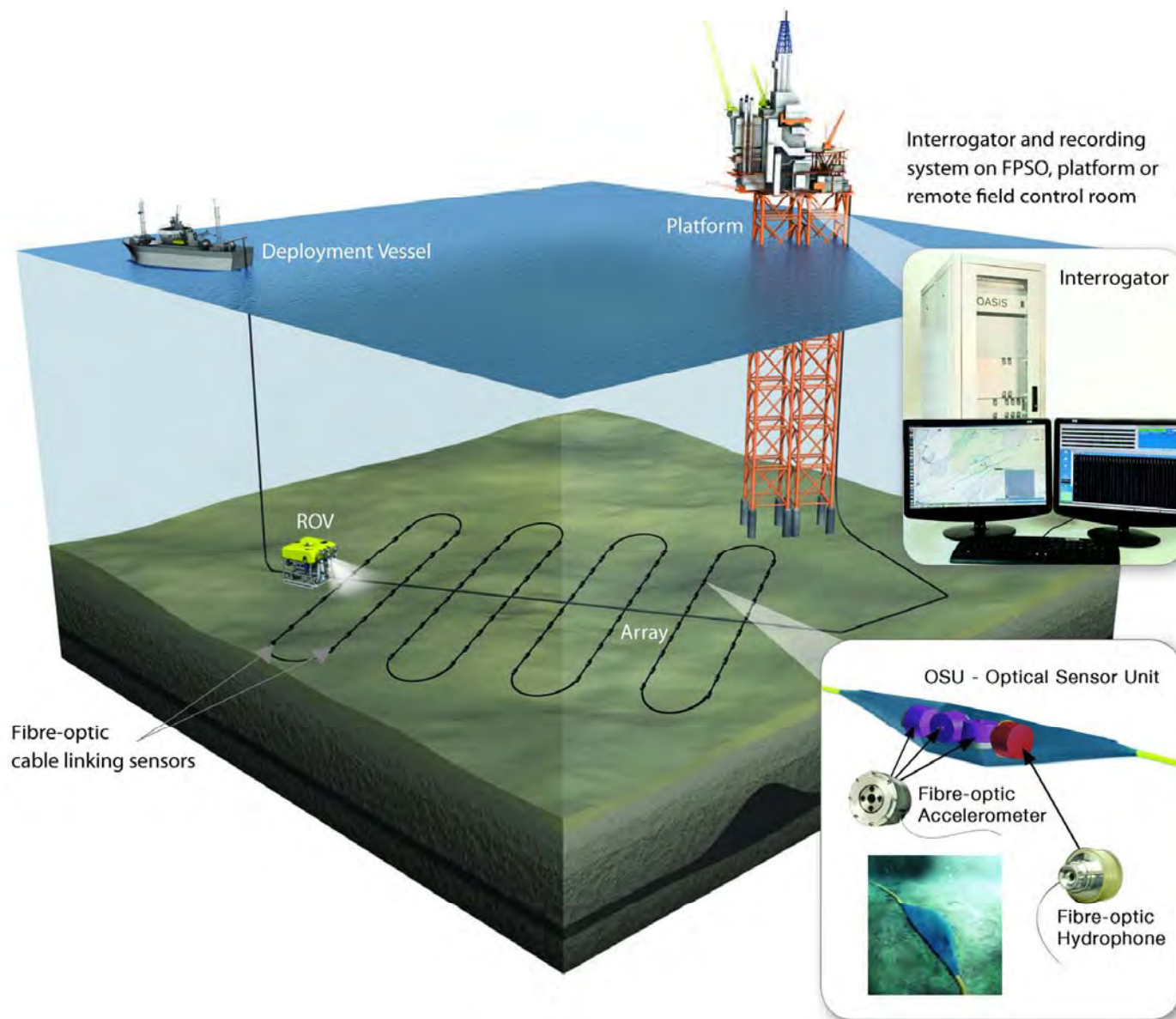


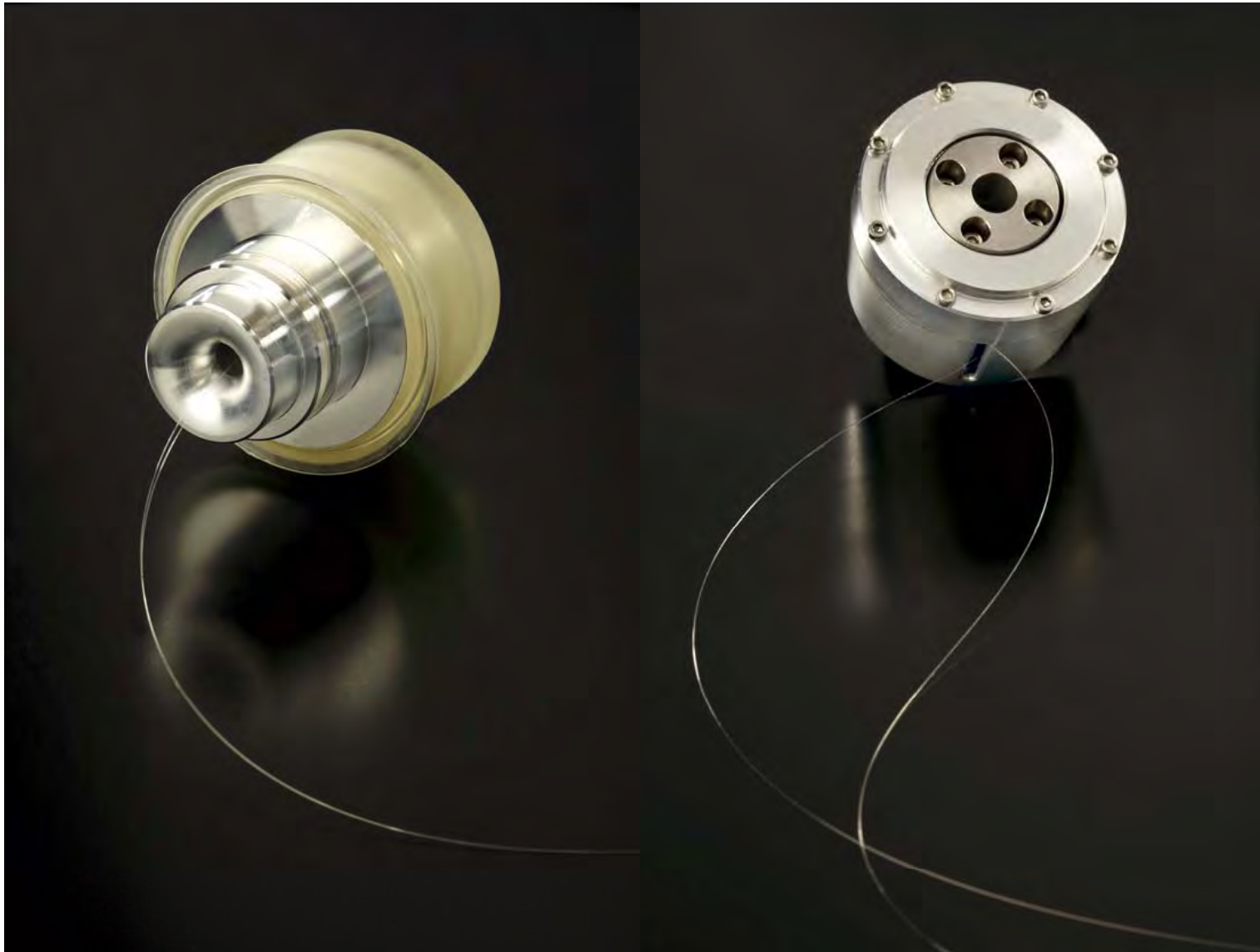
Comparison of Reservoir Monitoring Options

Parameter	Streamer	OBC	Nodes	PRM
4-Component	Poor	Good	Good	Good
Passive seismic	Poor	Poor	Poor	Good
Repeatability	Poor	Poor	Poor	Good
Low noise	Poor	Medium	Medium	Good
On-demand	Poor	Poor	Poor	Good
Obstructed areas	Poor	Poor	Good	Good
Deep water/reservoirs	Medium	Medium	Good	Good
Lifetime cost	Medium	Poor	Poor	Good



The Stingray Advantage

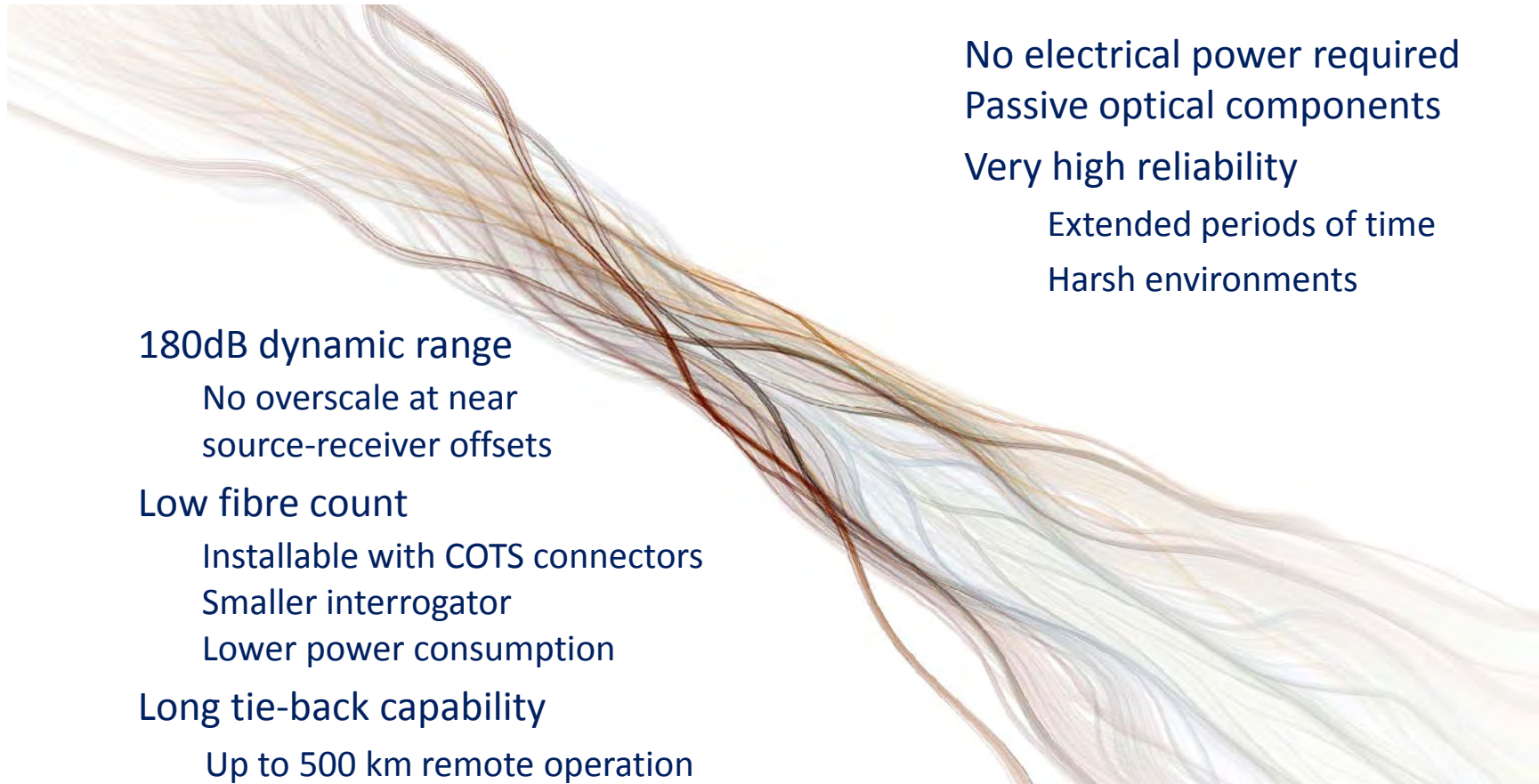








Listening with Light



No electrical power required
Passive optical components
Very high reliability
Extended periods of time
Harsh environments

180dB dynamic range

No overscale at near
source-receiver offsets

Low fibre count

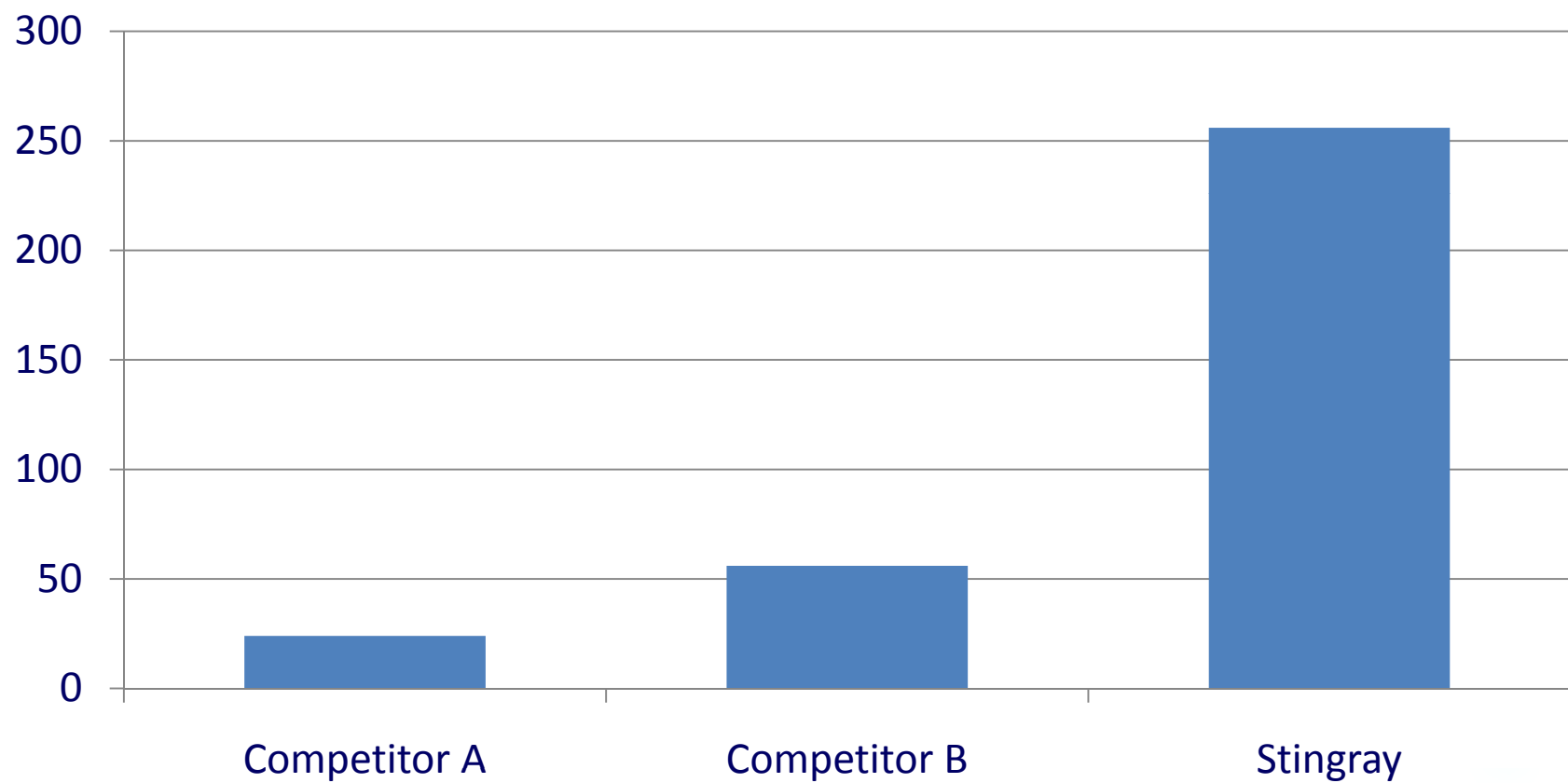
Installable with COTS connectors
Smaller interrogator
Lower power consumption

Long tie-back capability

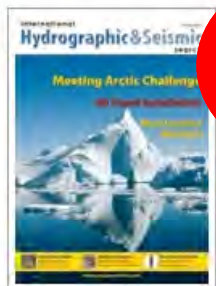
Up to 500 km remote operation



Sensors per Fiber Pair





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Hydrographic & Seismic - Equipment Cabling**768 fibre optic sub-sea riser cable sets new world record**

Einar Magnus Bjelland and Jon-Steinassen look at the scope of work for the 768 fibre optic riser cable, including the arrangements for installation.

A riser cable containing 768 fibres, claimed to be a world record, is being installed in Norway. Because of the large number of fibres, because of the required installation efficiency and the need for optical measurement during installation.

The total scope of work for the riser cable includes the arrangements for the hang off arrangement for the riser cable and the arrangement for the cables for future connection.

To meet these requirements, the riser cable is made up of four individual steel armoured cables joined together. Each of the four cable cores contains 192 fibres, making a total of 768 fibres (Fig. 1). The cable cores will be connected to the various sub-sea cable segments in the future. The cable cores are robust as individual cables on the sea bed. Nexans fibre in a welded steel tube filled with a water impregnation preventing compound is a Nexans proven technology and a basic building block in all our sub sea cables.

The transition between the complete cable pulled in to the J-tube and the individual cables supporting sub-sea cable segments was made without any fibre splices. A special mechanical component was developed to protect and secure the transition, where the assembled riser cable is split into four. The cable ends lying on the sea bed are



Stingray's Fosar
= 166 fibers

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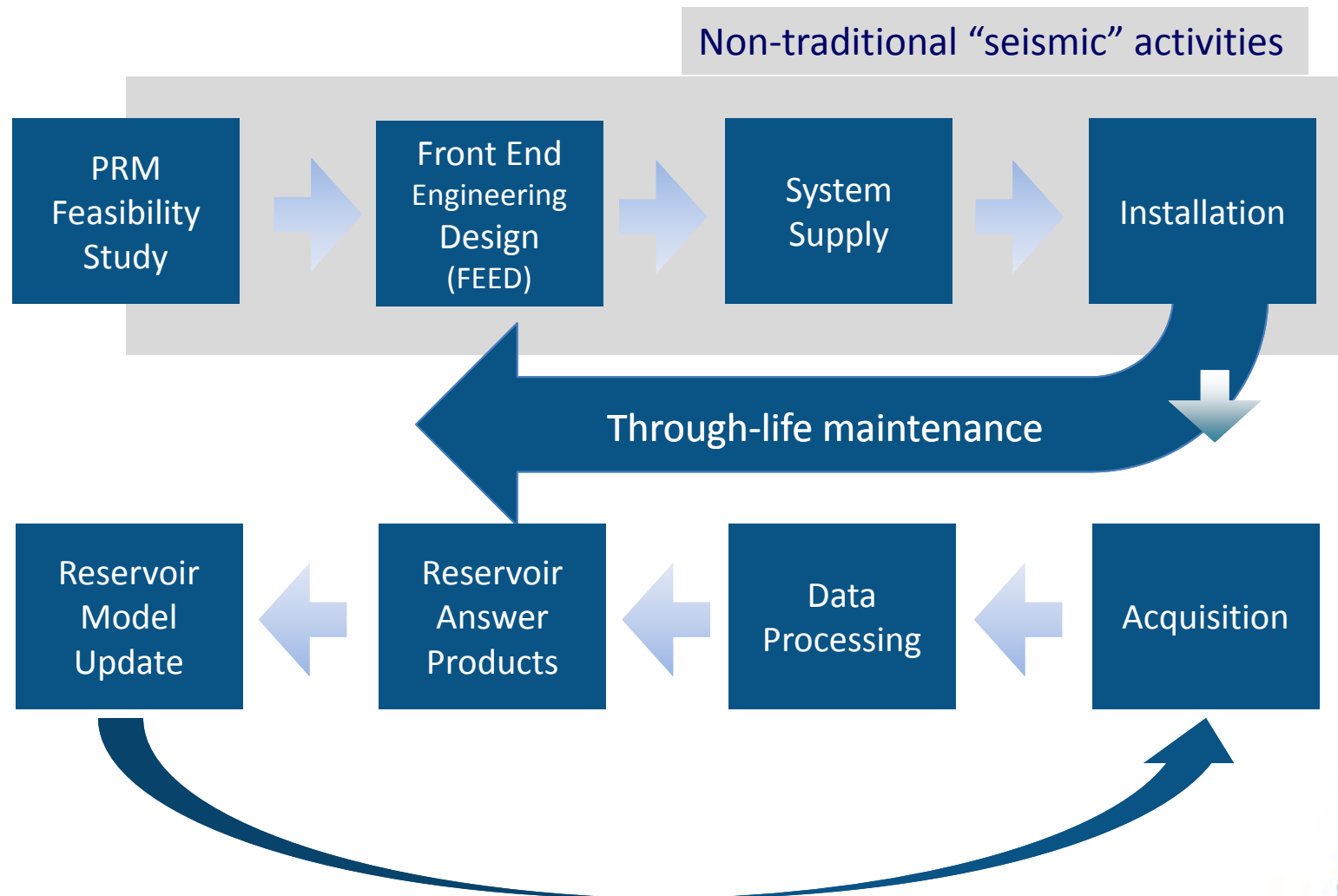
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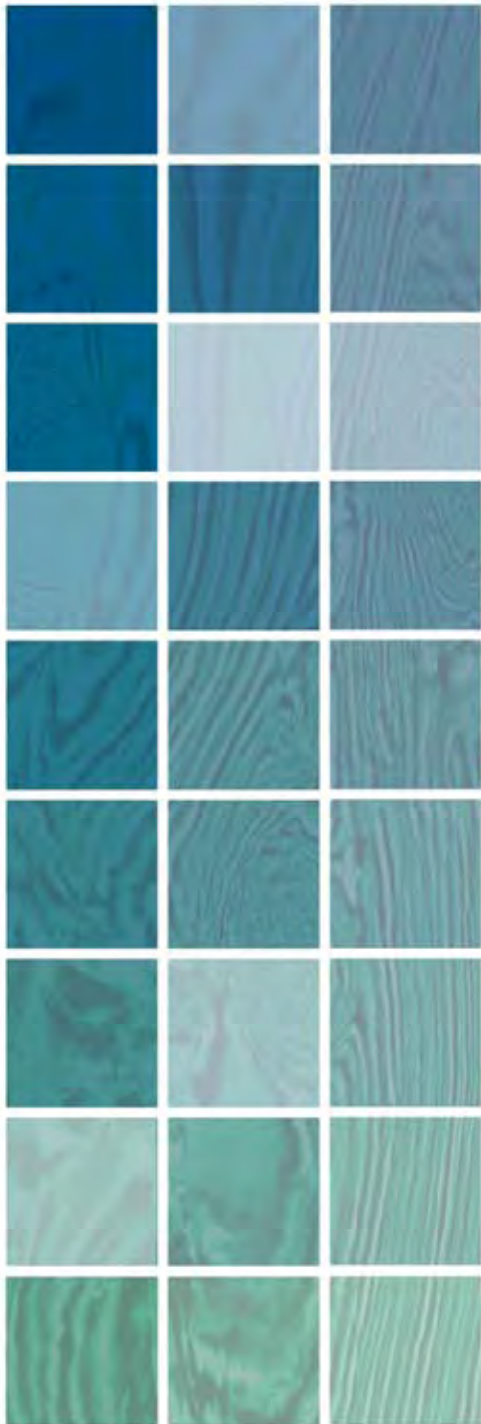
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Integrated Solutions

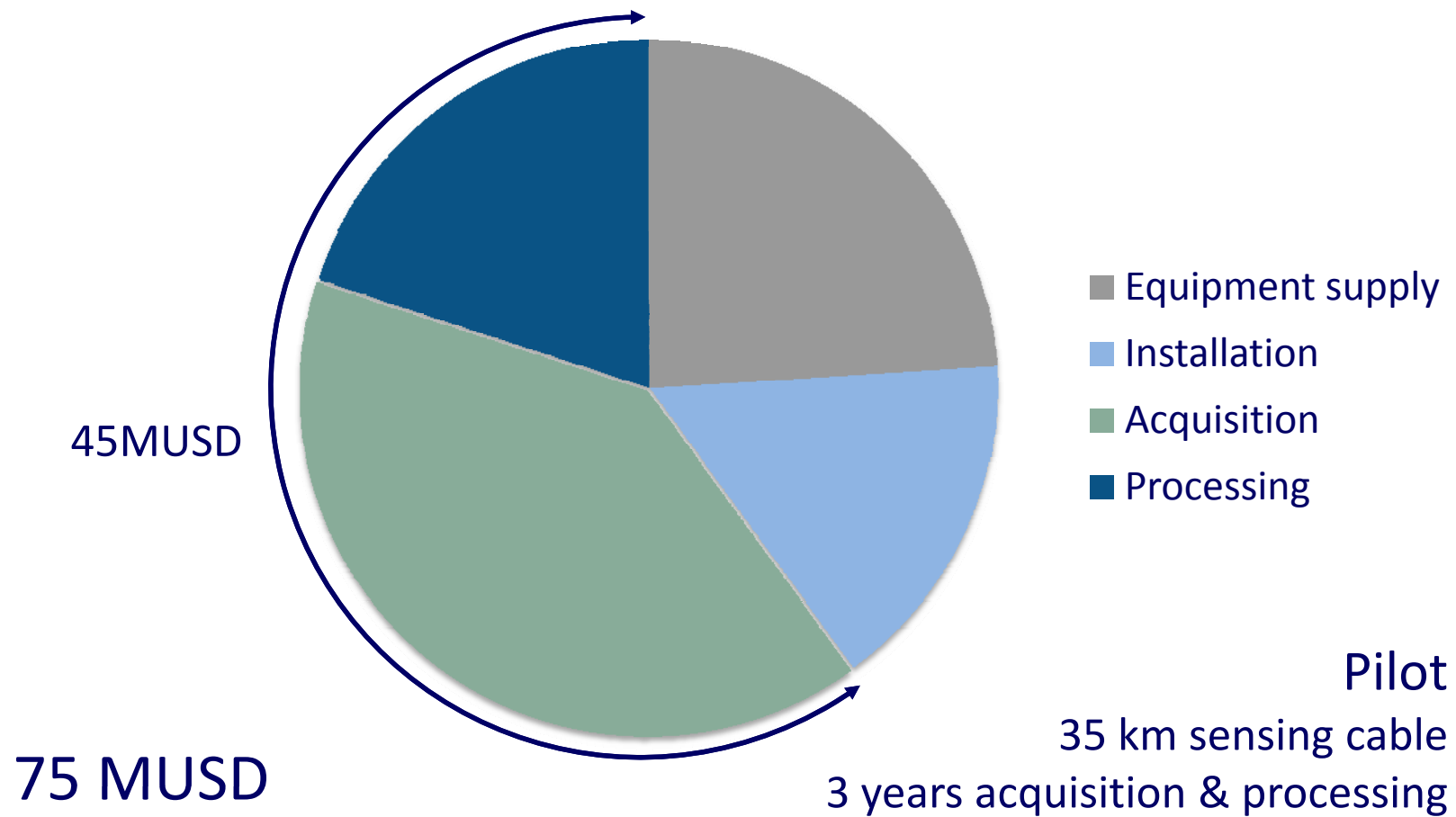




The TGS Advantage

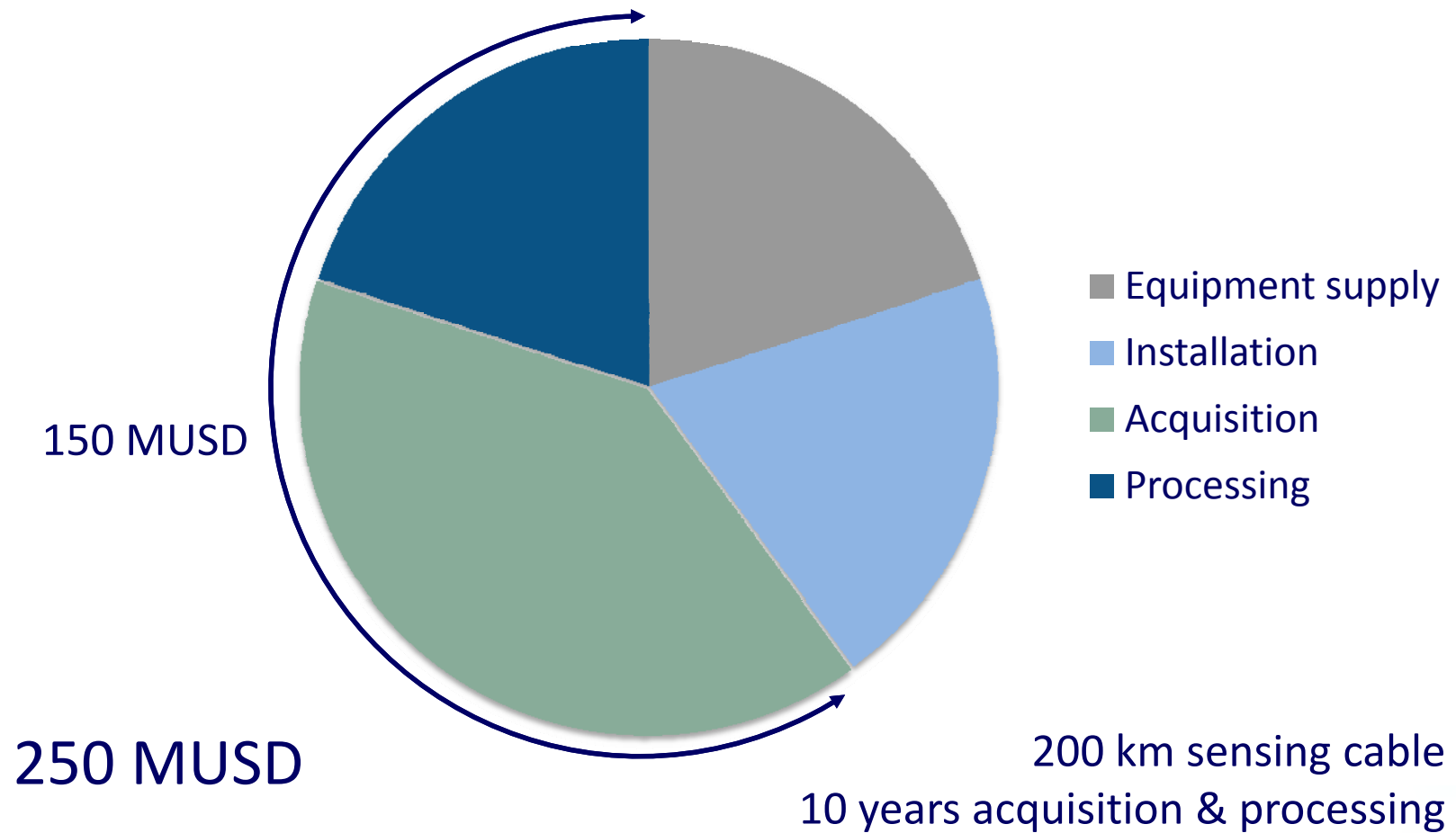


Scale - Petrobras: Jubarte – 2010 Pilot





Scale – ConocoPhillips: Ekofisk





Complete Solutions





Summary

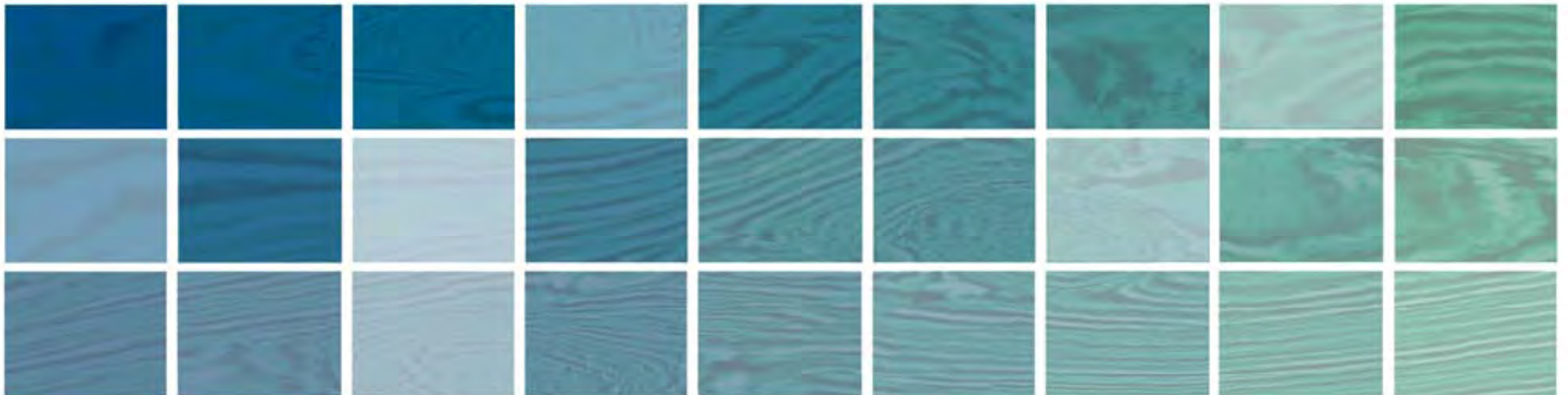
- Advantaged PRM technology and solutions
- Sizeable, long-term contracts
- Leverage global client relationships, sales and seismic delivery capability
- Asset light business model
- Capability across all key components of integrated solution

8 June 2011



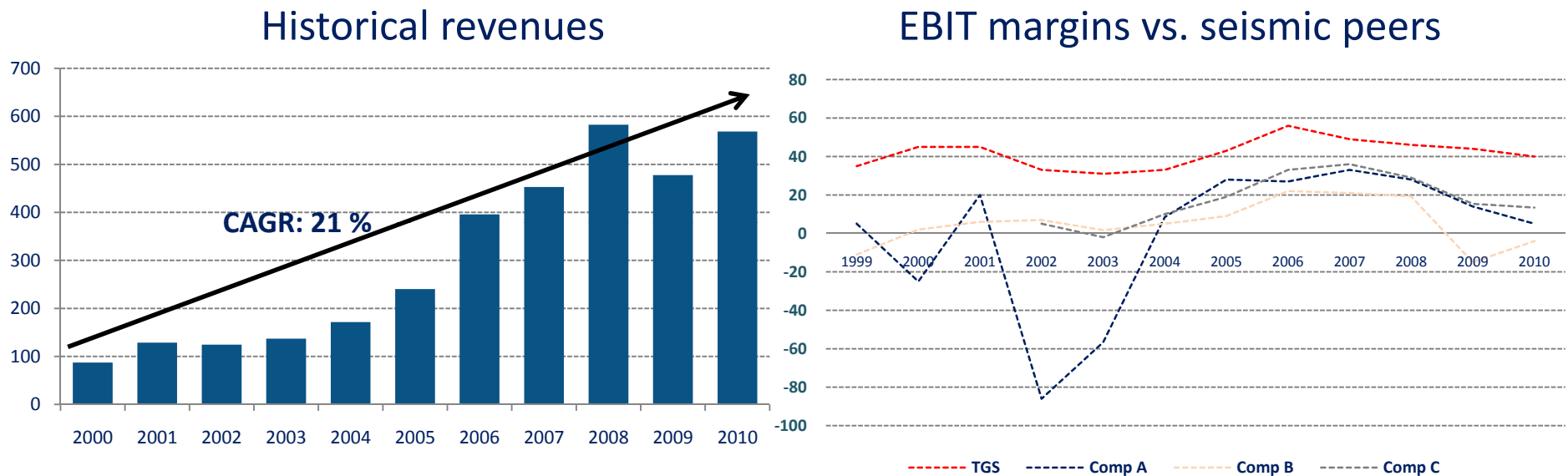
Capital Markets Day

Summary and Closing Remarks



Summary and Closing Remarks

TGS Performs well in Top-line Growth and Profitability

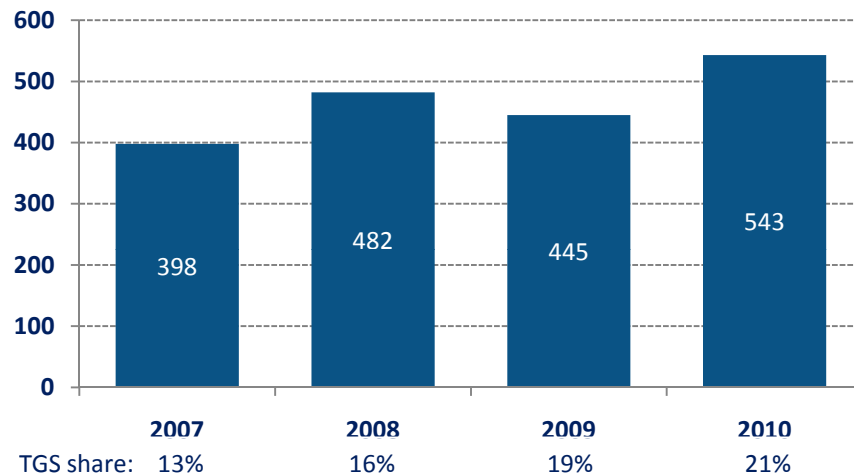


- Revenues have grown from 87 MUSD to 568 MUSD in 10 years
 - Corresponds to a CAGR (compounded annual growth rate) of 21%
- Over the same period EBIT margin has been consistently higher than peers
 - Asset light business model proven success through different industry cycles

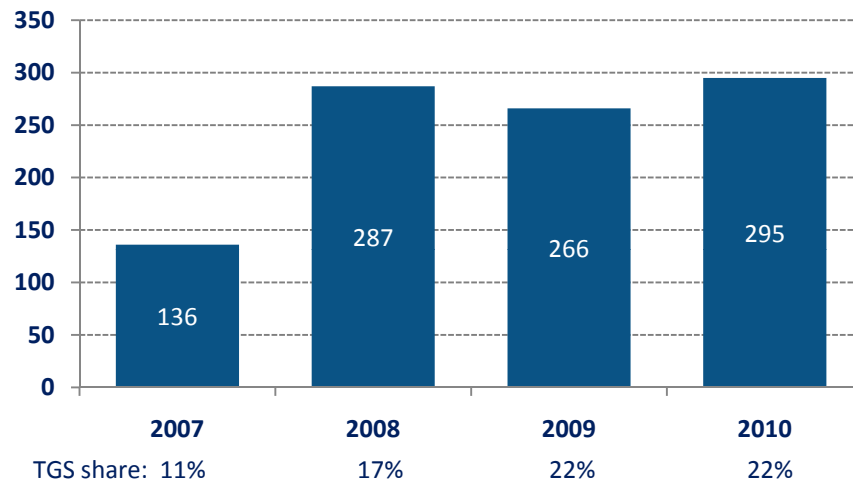


TGS Grown Market Share Significantly Since 2007...

Multi-client revenue 2007-2010



Multi-client Investments

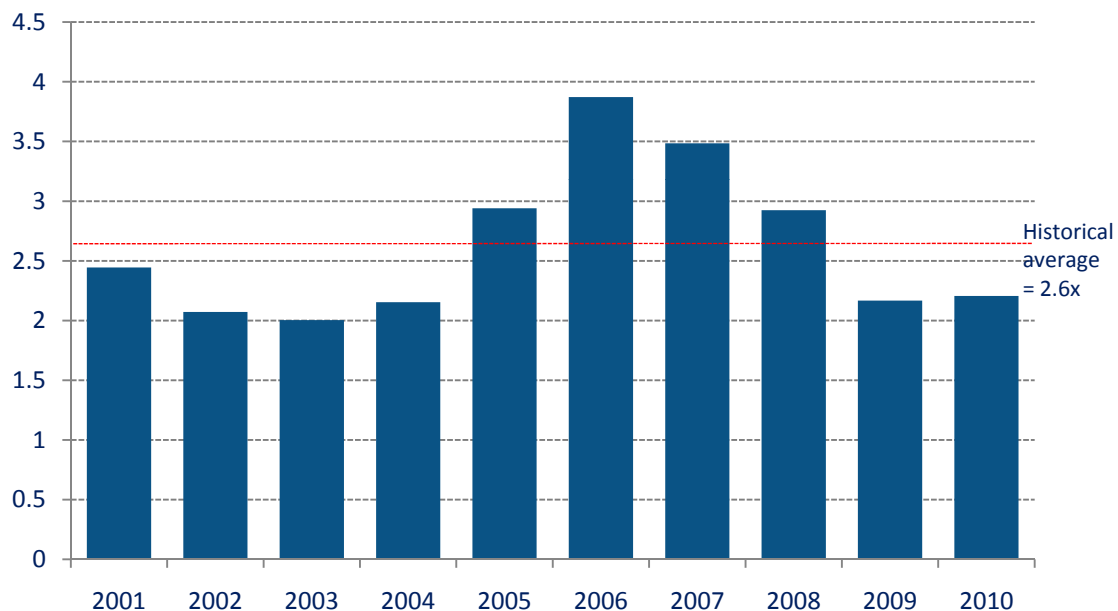


- TGS multi-client revenue has grown by 36% since 2007
 - TGS market share in terms of revenue has in the same period increased from 13% of the total market to approximately 21% at the end of 2010
- TGS multi-client investment has grown by 102% since 2007
 - TGS market share has in the same period increased from 11% of the total investment in 2007 to approximately 22% at the end of 2010



Historically, TGS has Returned 2.6 Times Investment

Multi-client revenues divided by last 4 years average investments

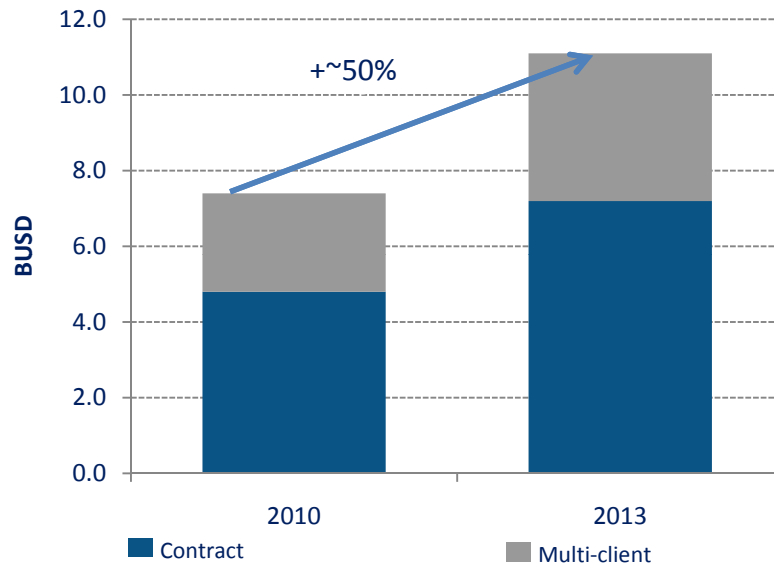


- Sales performance are measured against historical investments as projects have a sales cycle of more than 4-5 years
- TGS has over the last 10 years returned revenues of 2.6 times average investments (previous 4 years)
- Over time the multiple has fluctuated partly due to overall cyclical movements in the oil services industry but also other external factors such as the financial crisis and the Macondo accident



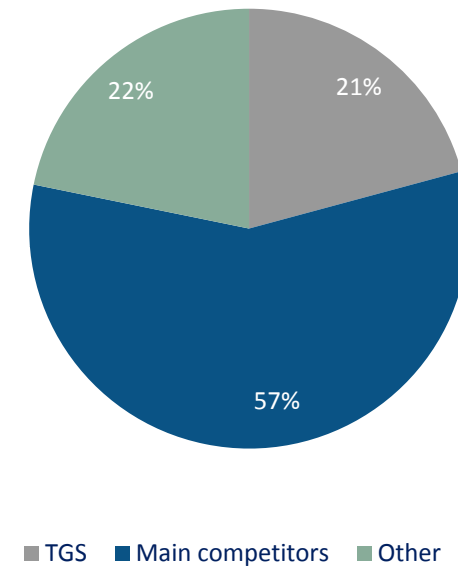
The Global Multi-client Seismic Market is Attractive

Expected seismic spending growth 2010 - 2013



- According to seismic research analysts, the total marine seismic market is expected to grow by almost 50% from 2010 to 2013
- This corresponds to a growth of approximately 3.5 BUSD
- Assuming that multi-client seismic spending grows at the same rate as the total seismic spending and the share of total spending remains the same, oil companies will increase spending on multi-client seismic data by approximately 1.3 BUSD from 2010 to 2013

Multi-client sales market share 2010



- TGS has an estimated 21% share of the market for multi-client sales in 2010
- The 4 largest players (including TGS) represent 78% of the market



Highlights from TGS Long-term Plan

Growth

- Steady Growth (CAGR of 21%) combined with industry-leading margins
- Identified frontier basins and new plays
- New Products (Organic) } High margins and growth potential
- New Products (M&A) }
- Management has target of increasing market share in existing business
- Important to leverage proven asset light business model and operational capabilities into new plays and opportunities in a market that will grow at double-digit rates

Product / Service Expansion

- Stingray opportunity expands TGS' available market into growth opportunities related to the reservoir while remaining true to its business model
- Active M&A team to evaluate 5 – 10 opportunities to strengthen core MC market, improve technology offerings, or expand products



Highlights from TGS Long-term Plan

Access to Capacity

- Vessel market is favorable for TGS for the foreseeable future
- Management will utilize longer-term charters to manage any future tightening in the vessel market when it occurs

Delivering Shareholder Returns

- Five-year average ROCE of 37% proves a strategy of continuing to invest in the multi-client Geoscience data market
- Annual dividend of NOK 3/share with supplemental extraordinary dividends and stock buyback to handle excess cash



Summary

- Our Market...
 - Global demand for new Oil and Gas Reserves will grow
 - The oil that has been found was the easy oil... new reserves will require new technology in new regions and new plays
- Our Position...
 - TGS is the dominant multi-client geoscience data provider in the market
 - A proven business model across all cycles
 - Strong financial and market position allows for expansion into new exciting products and technologies
- Our People...
 - Highly motivated team
 - Deep management experience and commitment to leadership development

See the Energy!

