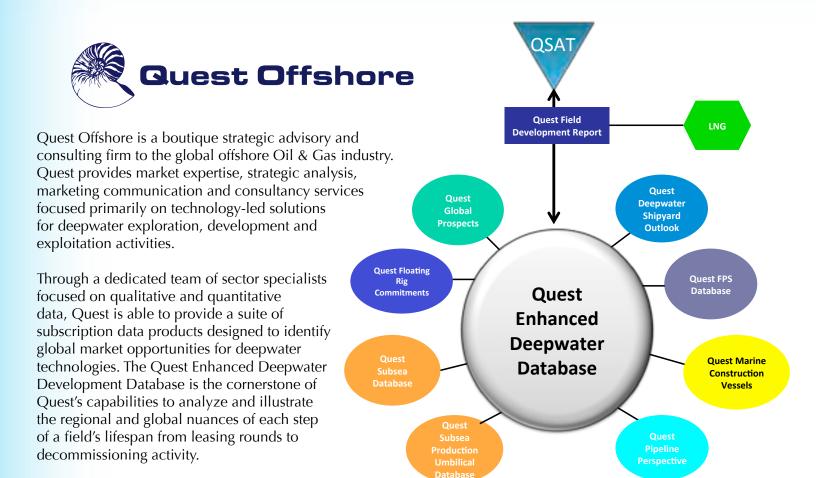


Drill Semi
Drillship
Fixed Platform
FLNG
FPSO
FPU
FSO
FSRU
FSU
Jackup
MarCon
Onshore Modules
Semi
Spar

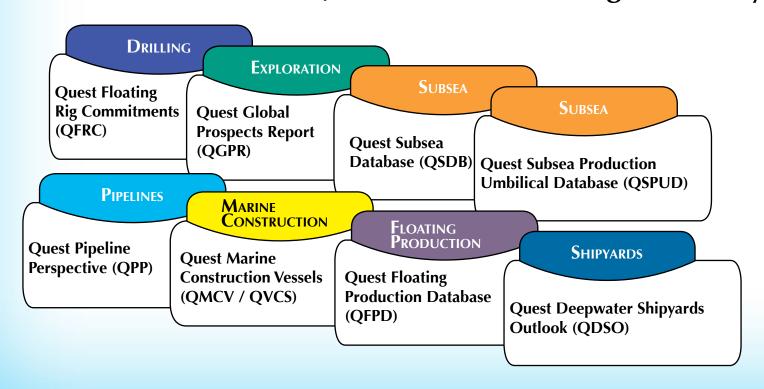
QUEST OFFSHORE PRODUCT CATALOG



About Quest Offshore Resources



Quest Product Catalog Directory



Quest Consulting Services & Experience

Quest Consulting Services & Experience

Quest Offshore's consultancy practice has grown considerably in recent years as an extension of our comprehensive market coverage through our subscription products. Utilizing the

Quest Enhanced Deepwater Development Database, in combination with our global network of key industry contacts, Quest maintains the flexibility to speak to a wide variety of questions and requirements through a client-driven consulting process aimed at providing accurate and concise results in a format best fitting the customer's needs.

Clients engage Quest's consulting practice from all business areas involved in deepwater oil and gas including financial firms, engineering firms, supply chain companies, trade groups, law firms and oil companies. Our clients look to branch out into new areas of the market and seek to understand the competitive landscape, to better understand the current and future pricing environment, to expand upon a market trend illustrated in a current subscription product, or otherwise utilize the data and expertise of Quest.

Quest is a leading source for valuable, client-directed consulting products and expertise that enables companies to make well-informed decisions across the offshore oil and gas industry.



Select Consulting Experience

Buy Side Investment Firm	Comprehensive Investor Briefing Book
Flexibles & Umbilical Contractor	Analysis of Industry Decision Centers Related to Forecast Demand
FPS Contractor	Report on the Market for FPS Moorings
Independent Oil Company	Multi-Project Component and Total Cost / Reserve Analysis
Industry Lobby Groups	Analysis of Economic Impact of Offshore Industry
	Regulatory Impact Analysis
International Chemicals Company	Global Pipeline Insulation Report
Major International Oil Companies	Offshore Pipeline Pigging Study
	Gulf of Mexico Field Development Study
	FPS Fabrication Yard Report
	Subsea Equipment Pricing Study
	Deepwater Equipment Cost Indicies
	Hind-cast Trends in Marine Construction Asset Day Rates
	Analysis of Current and Future Subsea Processing Applications
	Forecast Marine Construction Asset Day Rate Model
Major National Law Firm	Contract Dispute Research and Analysis, Expert Witness Services
Major Rig Fabricator	Government Required Cost Benefit Analysis
Marine Construction Contractors	Global SURF Installation Spending Report
	Market Outlook and Business Plan Support
	Newbuild Vessel Cost Analysis
	Vessel Capabilities and Work Targeting Study
Operator / Engineering Contractor	FPS Replacement Cost Valuations
Private Equity Investors	Engineering Firm Capabilities and Work Targeting Study
	Newbuild Pipelay / Construction Valuation and Market Study
	Detailed Supply & Demand Analysis for all SURF Components
	Comprehensive Analysis of Market Opportunities for Niche Player
Steel Supplier	Large Diameter Pipeline Competitor Analysis
Steel-tube Supplier	Regionally-Specific Analysis of Deep and Ultradeepwater Steel Demand

Quest Floating Rig Commitments (QFRC)

STRATEGIC VALUE

- Identifies global and regional deepwater exploration, appraisal and development well drilling demand
- Details global and regional floating rig supply, including existing fleet and newbuild units
- Illustrates "gap" analysis between global well demand and floating rig supply

QFRC Deliverables

- Monthly snap-shot of Quest Floating Rig Commitments in MS Excel
- Quarterly market overview outlining key forecast trends in MS PowerPoint

QFRC Outline

Global Drilling Activity

- Current Drilling Activity by Well Type (Exploration, Appraisal, Development)
- Most active Operators currently drilling with Floating Rigs
- Global Floating Rig Supply & Total Well Demand

Quarterly Regional Activity

- Current Drilling Activity by Well Type (Exploration, Appraisal, Development)
- Percentage of rigs working by provinces within the region
- Supply and Demand by Region five-year forecast
- Average Day-rates among top five operators in region

Floating Rig Analysis

- Twelve Month Utilization by Region & Global Comparison
- Floating Rig Supply to 2018 (Contracted vs. Spec Rigs)
- Newbuild Deliveries out to 2018
- Operators with Newbuilds ordered
- Stacked Rigs by Type
- Top 10 Operators with Floating Rigs contracted



RIG SU	JPPLY									
					Statio	on	Drilling	WD		Yea
Rig	Owne	er Rig N	ame	Rig Type	Keepi	ng I	Depth ft	Rate FT	WD CUL	L Build
Transo	cean	Discoverer Lu	ıanda	Drillship	dp	4	10000	7500	Ultra-deep	2010
Ensco		Ensco 5001		Semi	moored	2	25000	6500	Deepwate	r 1998
Transo	cean	Jack Bates		Semi	moored	3	30000	5400	Deepwate	r 1997
Vantag	e Drill	ing Platinum Exp	lorer	Drillship	dp	4	10000	10000	Ultra-deep	2011
Noble I	Drilling	Noble Discov	erer	Drillship	moored	2	20000	2000	Mid-water	r 197 5
Transo	cean	Deepwater P	athfinder	Drillship	dp	3	30000	10000	Ultra-deep	1998
Saipem	า	Scarabeo 5		Semi	dp	2	29500	6000	Deepwate	r 1990
Seadr	RIG CO	NTRACTS								
Transo							Contra			Day Rate
Drysh _t		Operator	Hemis	•	Prov	ince	Start	Enc		(\$000)
			Africa/Medit.		Angola			10 1/15/20		470
	Maersk		Africa/Medit.		Angola		10/1/201			275
	Santos		Asia Pacific/N		Australia		, -, -	12 4/15/20		380
	ONGC		Asia Pacific/N		India		1/1/201			590
	•	utch/Shell	North Americ	-	Alaska		, -, -	12 3/1/20:		240
	Eni		North Americ	-	GOM-US		9/1/201			672
5	Statoil		North Sea/Ar		N Sea, Nor	•	-, -, -	02 9/1/20:		400
& DEVELO	OPMEN	T WELL SPUDS	North Coo/Ar	otio	Work of Ch	مامصملغم	1/0/201	1/10/2/	2015	452
Quest										270
ID 1	Туре	Project Name		Bloc	ck	Water	r Depth Mtr	Proje	ect Status	530
1754 E) BL	OCK 31 PHS 1 (NE AREA)	31 PHS 1 (NE AREA) (PSVM)			1804		Pending/0	Construction	1
4255 E	BI-	ock 23 Exploration (Kwar	3 Exploration (Kwanza Basin)			1200		Drilling (P	rospect)	
1056 E	Cr	own-1	- P			1000		Drilling (P	rospect)	
3694 E	К	Basin Exploration (ongo	ing)	Krishna-Godav	, , , , , , , , , , , , , , , , , , ,			rospect)		
3030 E	Bu	irger Top-Hole		6713-6714'		50	Drilling (Prospect)			
3837 E	Ap	paloosa well 003		MC460'		803		Drilling (P	rospect)	

S-M-1100'

Northern License Area'

Pending/Construction

Drilling (Prospect)

Drilling (Prospect)

Drilling (Prospect)

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Hyme 6407/8-C-2

Tomintoul 205/9-2

Scotia (Hersilia Complex)

Sabia BM-S-72

Parent Project Prospect Prospect Prospect Prospect

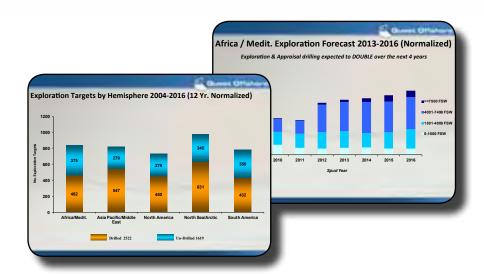
Prospect

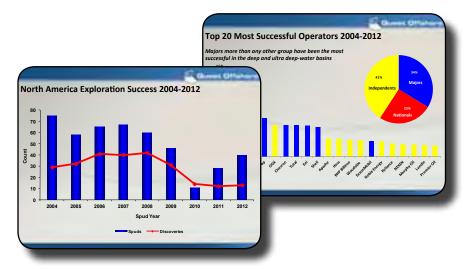
Prospect

Parent Project

3572

Quest Global Prospects Report & Quarterly (QGPR/QGPQ)





Operator	Prospect Name	Hemisphere	Province	Block	Water Depth Mtr
OGX	Abacate Extension Well	South America	Brazil	'BM-S-29'	100
Royal Dutch/Shell	Benbecula	North Sea/Arctic	West of Shetland	'154/1a'	1240
Nido	Bikuda SC58	Asia Pacific/Middle I	Philippines	'SC58'	1000
bp	Capella KC 414	North America	GOM-US	'KC414'	1680
ConocoPhillips	DS-08-11	Asia Pacific/Middle I	Bangladesh	'DS-08-11'	1000
Petrobras	Mexilhao	Africa/Medit.	Portugal	'Mexilhao Blk / Lusitaniana Bi	3000
Petrobras	Park of Sweets area BM-ES-23	South America	Brazil	'ES-M-525'	1400
Premier Oil	Rocket (Catcher Area)	North Sea/Arctic	N Sea, UK	'28/9'	100
Cobalt International Er	ner Rocky Mountain MC649	North America	GOM-US	'MC649'	1890

Well Type Spud Mo Spud Yr Status Rig Name Modified Date Modified Year Drilling Notes	WELL-LEVEL	. DATA						
Exploration 4 2013 Prospect (Prospect) 9 2011 Exploration 5 2014 Prospect (Prospect) 6 2012 2d seismic tb complete mid 2012; will drill Balyena prospect in same block Exploration 9 2013 Prospect (Prospect) 7 2010 Exploration 7 2013 Prospect (Prospect) 7 2012 Bangladesh winter season is Nov-Feb Exploration 9 2014 Prospect (Prospect) 7 2011 200-3000 meter water depths in block Exploration 10 2013 Prospect (Prospect) 11 2012 addt wells planned for area after making multiple discoveries Exploration 9 2014 Prospect (Prospect) 3 2012 one of three low risk prospects identified the drilled before 2015 (incld Rapit Exploration 11 2013 Prospect (Prospect RSCO 850: 10 2011 One of many prospects on Cobalist priority list to be drilled.	Well Type	Spud Mo	Spud Yr	Status	Rig Name	Modified Date	Modified Ye	ar Drilling Notes
Exploration 5 2014 Prospect (Prospect) 6 2012 2d seismic tb complete mid 2012; will drill Balyena prospect in same block Exploration 7 2013 Prospect (Prospect) 7 2010 Sexploration 7 2013 Prospect (Prospect) 7 2012 Bangladesh winter season is Nov-Feb Exploration 9 2014 Prospect (Prospect) 7 2012 200-3000 meter water depths in block Exploration 10 2013 Prospect (Prospect) 11 2012 add wells planned for area after making multiple discoveries Exploration 9 2014 Prospect (Prospect) 3 2012 one of three low risk prospects identified the drilled before 2015 (incld Rapi Exploration 11 2013 Prospect (Prospect NSCO 850: 10 2011 One of many prospects on Cobalts priority list to be drilled.	Appraisal	9	2013	Prospect (Prospect		11	20:	12 Nov 2010: OGX assumed Maersk interest and becomes operator; more 3d se
Exploration 9 2013 Prospect (Prospect) 7 2010 Exploration 7 2013 Prospect (Prospect) 7 2012 Bangladesh winter season is Nov-Feb Exploration 9 2014 Prospect (Prospect) 7 2011 200-3000 meter water depths in block Exploration 10 2013 Prospect (Prospect) 11 2012 add wells planned for area after making multiple discoveries Exploration 9 2014 Prospect (Prospect) 3 2012 one of three low risk prospects identified the drilled before 2015 (incld Rapi Exploration 11 2013 Prospect (Prospect RSSCO 850: 10 2011 One of many prospects on Cobalts priority list to be drilled.	Exploration	4	2013	Prospect (Prospect		9	20:	11
Exploration 7 2013 Prospect (Prospect) 7 2012 Bangladesh winter season is Nov-Feb Exploration 9 2014 Prospect (Prospect) 7 2011 2003-3000 meter water depths in block Exploration 10 2013 Prospect (Prospect) 11 2012 addt wells planned for area after making multiple discoveries Exploration 9 2014 Prospect (Prospect) 3 2012 one of three low risk prospects identified the drilled before 2015 (incld Rapi Exploration 11 2013 Prospect (Prospec ENSCO 850: 10 2011 One of many prospects on Cobalts priority list to be drilled.	Exploration	5	2014	Prospect (Prospect		6	20:	12 2d seismic tb complete mid 2012; will drill Balyena prospect in same block fir
Exploration 9 2014 Prospect (Prospect) 7 2011 200-3000 meter water depths in block Exploration 10 2013 Prospect (Prospect) 11 2012 addt wells planned for a rea after making multiple discoveries Exploration 9 2014 Prospect (Prospect) 3 2012 one of three low risk prospects identified the drilled before 2015 (incld Rapi Exploration 11 2013 Prospect (ProspecENSCO 850: 10 2011 One of many prospects on Cobalts priority list to be drilled.	Exploration	9	2013	Prospect (Prospect		7	20:	10
Exploration 10 2013 Prospect (Prospect) 11 2012 addt wells planned for area after making multiple discoveries Exploration 9 2014 Prospect (Prospect) 3 2012 one of three low risk prospects identified the diffed before 2015 (incld Rapi Exploration 11 2013 Prospect (Prospec ENSCO 850: 10 2011 One of many prospects on Cobalts priority list to be drilled.	Exploration	7	2013	Prospect (Prospect		7	20:	12 Bangladesh winter season is Nov-Feb
Exploration 9 2014 Prospect (Prospect) 3 2012 one of three low risk prospects identified the drilled before 2015 (incld Rapi Exploration 11 2013 Prospect (Prospec ENSCO 850: 10 2011 One of many prospects on Cobalts priority list to be drilled.	Exploration	9	2014	Prospect (Prospect		7	20:	11 200-3000 meter water depths in block
Exploration 11 2013 Prospect (Prospec ENSCO 850: 10 2011 One of many prospects on Cobalts priority list to be drilled.	Exploration	10	2013	Prospect (Prospect		11	20:	12 addt wells planned for area after making multiple discoveries
	Exploration	9	2014	Prospect (Prospect		3	20:	12 one of three low risk prospects identified tb drilled before 2015 (incld Rapide
Exploration 9 2014 Prospect (Prospect) 8 2012	Exploration	11	2013	Prospect (Prospec B	NSCO 8503	10	20:	11 One of many prospects on Cobalts priority list to be drilled.
provide the second seco	Exploration	9	2014	Prospect (Prospect	1	8	20:	12

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STRATEGIC VALUE

- Outlines global deepwater exploration opportunities
- Leading indicator for long-term deepwater development activity
- Highlights upcoming areas of focus and operator interest for E&P activity
- Prospect-level data enabling users to identify which drilling programs are driving future trends

QGPR/QGPQ Deliverables

- Monthly snapshot of exploration activity (MS Excel)
- Quarterly market analysis of global and regional exploration trends (MS PowerPoint)

QGPR/QGPQ Outline

Global Deepwater Exploration Activity

- Drilled and undrilled activity by hemisphere
- Drilled and undrilled activity by water depth cull
- Drilled and undrilled activity by current status

Operators' Activity Highlights

- Drilled and undrilled activity by operator classification
- Top 15 Most Active, Most Successful and Least Successful drillers
- Global Deepwater Exploration Drilling Activity – Five-Year Rolling Forecast
- Identified Exploration and Appraisal counts
- Forecast drilling by hemisphere compared to actual drilling

Quarterly Regional Activity

- Comparison of activity levels by regions within a hemisphere
- Operator activity in a specific region
- Exploration activity levels by water depth category
- Drilling Success Rates since 2004

Quest Subsea Database (QSDB)

STRATEGIC VALUE

- Industry leading forecast of subsea tree awards
- Market forecasts illustrate near and longterm health of overall subsea industry
- Key analysis around regional, operator and water depth trends for subsea tree awards and startups
- Historic and forecast subsea CAPEX analysis

QSDB Deliverables

- Market Overview in MS PowerPoint of key trends and forecasts
- ► Full working files in MS Excel supporting Market Overview
- Full downloads of historic and forecast subsea databases

QSDB Outline

Subsea Project Spend by Onstream (Startup) Year

 Illustrations of global historical and forecast spending for entire subsea production package

Market Forecast Subsea Awards

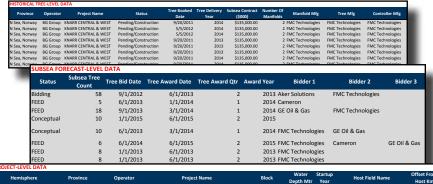
- Quest applies a base, mean and high case to all projects to take into consideration the location, timing, status, etc. of a project in calculating forecasted trees. Current market dynamics also influence the base and high case scenarios for projects.
- Historical and five-year forecast of global subsea tree awards: By Region, By Water Depth, CAPEX analysis for tree, control and manifold hardware (Only)
- Top operators classified by their mean case tree award forecast

Market Analysis Subsea Tree Startups

- Illustrates historic and forecast installed base of subsea tree awards
- From 1996 and includes six-year forecast: By Region, By Water Depth

Market Share Analysis

- Long-term regional subsea tree market share
- Current quarter analysis of subsea tree and control awards
- Current quarter and YTD review of subsea tree, control and manifold awards by manufacturer and estimated value (US\$)

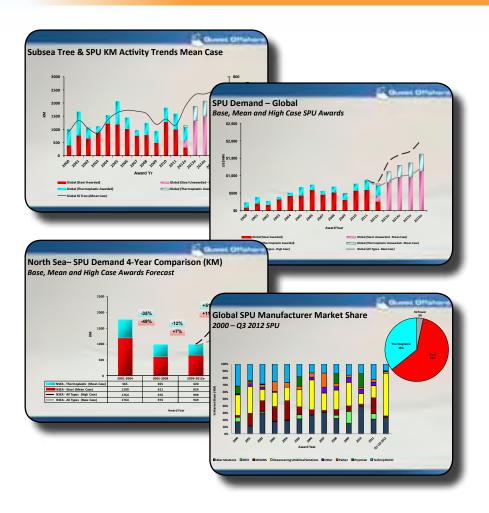


Hemisphere	Province	Operator	Project Name	Block	Water	Startup	Host Field Name	Offset From
nemisphere	Province	Operator	Project Name	DIULK	Depth Mtr	Year	nost riela Name	Host Km
Africa/Medit.	Angola	Total	Kaombo Phase 1 (BLOCK 32)	'32'	1540	2018	Kaombo Phase 1	20
Africa/Medit.	Israel	Noble Energy	LEVIATHAN EPS (DOMESTIC SUPPLY)	'Rachel License'	1000	2017	LEVIATHAN EPS (DOMESTIC SUPPI	3
Asia Pacific/Middle East	Indonesia	INPEX	ABADI GAS FIELD FLNG (MASELA BLOCK)	'Masela'	500	2017	ABADI GAS FIELD FLNG (MASELA E	5
Asia Pacific/Middle East	Indonesia	Chevron	KUTEI BASIN: RANGGAS (RAPAK PSC)	'Rapak PSC'	1600	2018	MAKASSAR STRAIGHT PHS 3	11
North America	GOM-Mexico	Pemex	LAKACH-LABAY COMPLEX	'Deep Coatzacoalcos'	1500	2016		50
North America	GOM-US	ExxonMobil	JULIA WR627	'WR627'	2160	2017	HADRIAN NORTH KC919	75
North America	GOM-US	Royal Dutch/Shell	STONES FFD WR508	'WR508'	2900	2015	STONES FFD WR508	5
North Sea/Arctic	N Sea, UK	Enquest PLC	KRAKEN 9/2b	'9-2'	118	2016	KRAKEN 9/2b	3
North Sea/Arctic	West of Shetlands	Hurricane Exp	LANCASTER 205/21A PHS 1	'205/21a'	157	2016	LANCASTER 205/21A PHS 1	3
South America	Falkland Island	Premier Oil	SEA LION 14/10-3	'14/10-B'	400	2017	SEA LION 14/10-3	3

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Quest Subsea Production Umbilical Database (QSPUD)



				Install	Length			
Umbilical Status	Umbilical Type	Bid Date	Award Date	Date	Meters	Mfg Bidder 1	Mfg Bidder 2	Mfg Bidder 3
LOI (Letter of Intent)	Steel Super Duplex	6/1/2007	4/1/2015	1/1/2017	104585	Technip DUCO		
Bidding	Steel Super Duplex	4/2/2012	12/20/2012	9/1/2014	43443	Aker Solutions	Oceaneering Umbilical So	IrTechnip DUCO
FEED	Steel	6/1/2013	3/1/2014	8/1/2015	25000	NEXANS	JDR Umbilical Systems	Technip DUCO
Bidding	Thermoplastic	9/1/2012	1/1/2013	7/1/2013	10000	JDR Umbilical Systems		
Bidding	Steel	3/1/2012	12/1/2012	1/1/2015	1000	NEXANS	Oceaneering Umbilical So	lutions
Conceptual	Steel	6/1/2014	1/1/2015	1/1/2018	20000	NEXANS		
Conceptual	Subsea Power	6/1/2014	1/1/2015	1/1/2017	20000	NEXANS		
Bidding	Steel	6/1/2012	3/1/2013	4/15/2015	25000	Aker Solutions	NEXANS	Oceaneering Umbilical S
FEED	Thermoplastic	1/1/2013	10/1/2013	6/1/2015	60000	Oceaneering Umbilical Solution	s	
Bidding	Thermoplastic	6/1/2011	12/20/2012	4/1/2013	10000	Oceaneering Umbilical Solution	s	

					Water Depth	Startup	Offset From
Hemisphere	Province	Operator	Project Name	Block	Mtr	Year	Host Km
Africa/Medit.	Angola	bp	BLOCK 31 PHS 3 (CHTMCP)	'Blk 31'	1602	2017	
Africa/Medit.	Angola	Chevron	LIANZI ANGOLA-CONGO UZ BLOCK 14	'14'	909	2015	4
Asia Pacific/Middle East	China	CNOOC	LIUHUA 16-2	'16-2'	400	2016	
Asia Pacific/Middle East	Philippines	Otto	GALOC PHS 2	'SC 14C'	290	2013	
North America	GOM-US	bp	ATLANTIS PHS 2B GC699/GC700/GC743/GC743/GC744	'GC787'	2156	2015	
North America	GOM-US	bp	Kaskida KC292	'KC292'	1786	2018	
North America	GOM-US	bp	Kaskida KC292	'KC292'	1786	2018	
North Sea/Arctic	N Sea, Norway	Statoil	AASTA HANSTEEN (6707/10-2 ,6706/10)	'6707/10'	1275	2016	
South America	Brazil	Petrobras	FRANCO-1 TRANSFER OF RIGHTS FPSO P-74	ANP Transfer of Rights	2100	2016	
South America	Brazil	OGX	TUBARAO AZUL (FRMR WAIMEA) PHASE 2 BM-C-41 (OSX-2)	'BM-C-41'	140	2013	

Excel Tables Do Not Contain All Available Data Fields

STRATEGIC VALUE

- Illustrates global demand trends for the subsea production umbilical (SPU) market
- Delineates market into steel-tubed and thermoplastic-hosed SPU demand
- Analyzes market in terms of volume (KM) and value (US\$MM)
- Provides comprehensive market share analysis of historical global awards

QSPUD Deliverables

- Market Overview in MS PowerPoint of key trends and forecasts
- ► Full working files in MS Excel supporting Market Overview
- ► Full downloads of historic and forecast subsea production umbilical database

QSPUD Outline

Market Forecast of Subsea Production Umbilical Capex by Award Year

- Top operators classified by their historic and forecast demand
- Comparison of region demand based on historical and forecasted SPU awards
- Includes comparison between steel and thermoplastic SPU's for each region

Subsea Production Umbilical Forecast Awards

- Kilometers of SPU awarded (historical and forecast) vs. number of trees awarded (historical and forecast)
- Comparison between hemispheres based on SPU awards in kilometers and equivalent US\$
- Illustration of dynamics between steel and thermoplastic demand within the SPU market historically and in the next five years.

Historical Umbilical Market Share

- Market share of SPU manufacturers
- Regional Comparison between hemispheres based on historical-todate awards
- Steel vs. thermoplastic comparison

est Offshore

Quest Pipeline Perspective (QPP)

STRATEGIC VALUE

- Illustrates global demand for deepwater flowline and pipeline installation and SURF projects
- Breaks market down into outer diameter ranges aligned with installation asset capabilities
- Analyzes demand associated with subsea projects, export lines and large transmission lines
- Detailed data includes location, pipeline specs, length, installation contractors and milestone dates

QPP Deliverables

- Market Overview in MS PowerPoint of key trends and forecasts
- ► Full working file in MS Excel supporting Market Overview
- Full downloads of historic and forecast deepwater pipeline and flowline database

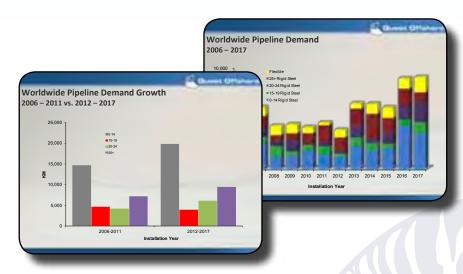
QPP Outline

Kilometers of flowline installed worldwide

- Provides Base, Mean, and High Six-Year Forecast Cases
- Historical Analysis from 2002 onward.
- Outside Diameter Analysis: 0-14", 15\19", 20-24", 25"+
- Rigid Steel and Flexible Analysis

Comparison of hemispheres and provinces based on historical and forecasted flowline projects

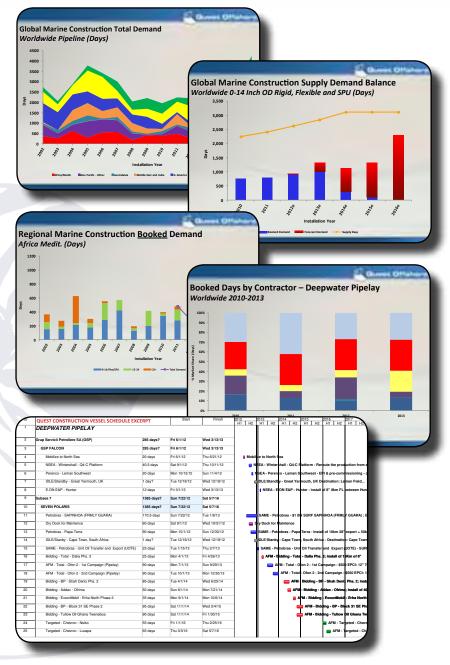
- Base, Mean, and High Normalized Case Six-Year Forecasts
- Historical Analysis from 2002 onward
- Outside Diameter Analysis per Hemisphere: 0-14", 15-19", 20-24", 25"+
- Demand Allocation: Global Demand Allocation by Kilometer
- Demand Growth: Historical v. Forecast Five-Year Period





	Operator	Hemisp	here	Province	Fi	eld	Block	Mtr resalt	Gas	Year	Date	Host Km
	Total	Africa/Medit.		Angola	CLOV: CRAVO, VIOLETA, ORG	OUIDEA, LIRIO BLO	CK 17 'Blk 17'	1291 No	No	2014	7/1/2008	1
	Total	Africa/Medit.		Angola	CLOV: CRAVO, VIOLETA, ORG			1291 No	No	2014	7/1/2008	1
	Total	Africa/Medit.		Angola	CLOV: CRAVO, VIOLETA, ORG	QUIDEA, LIRIO BLO	CK 17 'Blk 17'	1291 No	No	2014	7/1/2008	15
	Total	Africa/Medit.		Angola	CLOV: CRAVO, VIOLETA, ORG	QUIDEA, LIRIO BLO	CK 17 'Blk 17'	1291 No	No	2014	7/1/2008	1
	Total	Africa/Medit.		Angola	CLOV: CRAVO, VIOLETA, ORG	QUIDEA, LIRIO BLO	CK 17 'Blk 17'	1291 No	No	2014	7/1/2008	1
	Chevron	Asia Pacific/Mi		Australia	GREATER GORGON (GORGO	N, JANSZ, CLIO) LN			Yes	2014	1/15/2008	65
	Chevron	Asia Pacific/Mi	ddle East	Australia	GREATER GORGON (GORGO	N, JANSZ, CLIO) LN	IG 'WA-2-F	t' 200 No	Yes	2014	1/15/2008	65
	Chevron	Asia Pacific/Mi	ddle East	Australia	GREATER GORGON (GORGO	N, JANSZ, CLIO) LN			Yes	2014	1/15/2008	65
	Enterprise Products Partners	North America		GOM-US	INDEPENDENCE HUB (AVP)		'MC920		No	2007	7/1/2004	
	Enterprise Products Partners	North America		GOM-US	INDEPENDENCE HUB (AVP)		'MC920		No	2007	7/1/2004	
	Enterprise Products Partners	North America		GOM-US	INDEPENDENCE HUB (AVP)		'MC920		No	2007	7/1/2004	
	bp	North America		GOM-US	TIBER KC102		'KC102'	1259 Yes	No	2019		:
	bp Statoil	North America North Sea/Arct		GOM-US N Sea, Norway	TIBER KC102 AASTA HANSTEEN		'KC102'	1259 Yes 0' 1275 No	No Yes	2019	10/1/2011	
	and the state of t	North Sea/Arci	IC .	N Sea, Norway	AASTA HANSTEEN		6/0//1	U 1275 NO	res	2016	10/1/2011	
PIPELINE-LEVEL I	DATA										/15/2003	10
	Description	Flowline	Internal	External	anoth Kan Design	Flowline	Flourism Tune	Flowline Contracto		2000	/15/2003	10
	Description	Status	Diameter	r Diameter L	ength Km Design	Export Type	Flowline Type	Start Date Contracto	, ,	Barge	/15/2003	10
ORQUIDEA VIOLET	A PRODUCTION	Installing	1	0 14	21 Infield Flowline		Rigid steel	9/15/2012 Subsea 7	Seven	Borealis	/15/2003	10
DRQUIDEA VIOLET	A WATER INJ	Installing		10	33 Infield Flowline		Rigid steel	9/15/2012 Subsea 7	Seven	Borealis	/15/2003	100
RAVO LIRIO PROI	DUCTION	Installing	1	2 16	17 Infield Flowline		Rigid steel	9/15/2012 Subsea 7	Seven	Borealis	/15/2003	10
RAVO LIRO WATE		Installing		12	24 Infield Flowline		Rigid steel	9/15/2012 Subsea 7		Borealis	/15/2003	100
GAS EXPORT		Installing		13	32 Export Pipeline	Gas	Rigid steel	9/15/2012 Subsea 7		Borealis	/15/2003	100
MEG LINE		Installing		3	65 Infield Flowline	Gas	Rigid steel	7/1/2012 EMAS AM				
	TANT PIPE TO SHORE					c						
		Installing		30	65 Export Pipeline	Gas	Rigid steel	3/1/2012 ALLSEAS	SOLITA			
NFIELD BETWEEN		Installing		8	6 Infield Flowline		Rigid steel	1/1/2012 ALLSEAS	SOLITA			
ouisiana Deepwa		Flowing		18	5 Export Pipeline	Gas	Rigid steel	3/1/2006 ALLSEAS	SOLITA			
ouisiana Deepwa		Flowing		18	5 Export Pipeline	Gas	Rigid steel	3/1/2006 ALLSEAS	SOLITA			
ndependence Tra	il Gas Export Line	Flowing		24	225 Export Pipeline	Gas	Rigid steel	4/15/2006 ALLSEAS	SOLITA	AIRE	-	
nfield Flowlines		Discovery		12	60 Infield Flowline		Rigid steel	1/1/2019				
Oil Export		Discovery		20	65 Export Pipeline	Oil	Rigid steel	8/1/2018				_
nfield Flowlines		Bidding		6	25 Infield Flowline		Rigid steel	4/1/2015				
Gas Export (NSGI)		Bidding		34	480 Export Pipeline	Gas	Rigid steel	5/1/2014				
Aultiphase Produ	ction Line (LAST 20)	Flowing		30	20 Infield Flowline		Rigid steel	7/31/2006 SAIPEM	S7000			
Multiphase Produ		Flowing		30	120 Infield Flowline	Gas	Rigid steel	5/30/2006 SAIPEM	S7000			
0" Export		Flowing		30	33 Infield Flowline	Gas	Rigid steel	6/15/2005 ALLSEAS	SOLITA	AIRE		
	DUCTION LINE (FIRST 100)	Flowing		30	100 Infield Flowline	Gas	Rigid steel	7/31/2006 Acergy	LB 200			
Slycol Template T		Flowing		6	3 Infield Flowline		Rigid steel	8/1/2006 Acergy		Falcon		
Slycol Line		Flowing		6	125 Infield Flowline		Rigid steel	4/15/2006 Acergy		Falcon		
Slycol Line		Flowing		6	125 Infield Flowline		Rigid steel	6/1/2006 Acergy		Falcon		
BRITPIPE GAS EXP	ODT	_		42		Con			SOLITA			
		Flowing		42 8	230 Export Pipeline	Gas	Rigid steel	8/2/2006 ALLSEAS	3OLI17	VINE		
	MANIFOLD TO FPSO	FEED		8	3 Infield Flowline		Flexible	9/1/2016				
	MANIFOLD TO FPSO	FEED			3 Infield Flowline		Flexible	9/1/2016				
	MANIFOLD TO FPSO	FEED		8	3 Infield Flowline		Flexible	9/1/2016				
WATER INJ FLOWL		FEED		8	3 Infield Flowline		Flexible	9/1/2016				
WATER INJ FLOWL		FEED		8	3 Infield Flowline		Flexible	9/1/2016				
WATER INJ FLOWL		FEED		8	3 Infield Flowline		Flexible	9/1/2016				
GAS INJECTION LIN	IE.	FEED		8	3 Infield Flowline		Flexible	9/1/2016				

Quest Marine Construction Vessels (QMCV/QCVS)



Contractor	Vessel Name	Vessel Category	Length (m)	Min Pipe	Mx Pipe Dia	Tension Capacity	CRANE CAP	No	AHC	A&R	No	Buil
		- category		Dia (in)	(in)	(tonnes)	(tonnes)	Cranes		(tonnes)	ROVs	Yea
Allseas	Solitaire	DW PL	300.0	2	60	1050	850	3			1	199
Helix	Caesar	DW PL	146.5	2	42	405	300	5		450		200
Saipem	Castorone	DW PL	330.0		60	750	600	5	Yes	900	2	201
Technip	Deep Blue	DW PL	206.5	4	28	770	400	3	Yes	150	2	200
Technip	Global 1200	DW PL	162.3	4	60	640	1200	2		400		201
Heerema	DCV Thialf	Heavy-Lift DCV	165.3			0	14200					198
Subsea 7	Sapura 3000	Heavy-Lift DCV	151.2	4	60	400	3000	3		360	2	200
Helix	Q4000		95.2			725.74 (Riser	360	2				200
nelix	Q4000	Intervention	95.2			Tension)	360	2			1	200
Saipem	Castoro 7	Pipelay Trunkline	179.5	8	60	340	64.8	4		340		197
CEONA	Giant 3	Reel Lay	184.0			550	400		Yes			201
McDermot	North Ocean 109	Pool Lav	120.2	4	16	262.9	262.9		Voc			201

ea 7 ea 7	Vessel Category	Vessel Contractor	Vessel Name	Task Name	Duration	Start	Finish	Province	Operator	Status
Soluti	Deepwater Pipelay	Allseas	SOLITAIRE	Chevron - Gorgon/Janz - 1st Campaign	55 days	1/1/2012	2/25/2012	Australia	Chevron	Booked
ea 7	Deepwater Pipelay	Allseas	SOLITAIRE	NSEA - Total - Laggan-Tormore	53 days	4/15/2012	6/7/2012	West of Shetlands	Total	Booked
	Deepwater Pipelay	Allseas	SOLITAIRE	South Africa Campaign - Shallow water	30 days	10/1/2012	10/31/2012	South Africa		Booked
	Deepwater Pipelay	Allseas	SOLITAIRE	Chevron - Gorgon/Janz - 2nd Campaign	64 days	4/1/2013	6/4/2013	Australia	Chevron	Booked
	Deepwater Pipelay	Allseas	SOLITAIRE	Bidding - NAME Williams - Tubular Bells Hub -	100 days	4/15/2013	7/24/2013	GOM-US	Hess	Bidding
	Deepwater Pipelay	Allseas	SOLITAIRE	Bidding - Chevron - Rosebank / Lochnagar	75 days	7/24/2013	10/7/2013	West of Shetlands	Chevron	Bidding
- 1	Deepwater Pipelay	Allseas	SOLITAIRE	NSEA - Total - Laggan-Tormore	53 days	9/1/2013	10/24/2013	West of Shetlands	Total	Booked
- 1	Deepwater Pipelay	Allseas	SOLITAIRE	Shell - MARS South Mini-Hub Olympia Option	29 days	10/1/2013	10/30/2013	GOM-US	Royal Dutch/Shell	Booked
- 1	Deepwater Pipelay	Allseas	SOLITAIRE	Bidding - NAME Williams - Tubular Bells Hub -	100 days	10/8/2013	1/15/2014	GOM-US	Hess	Bidding
	Deepwater Pipelay	Allseas	SOLITAIRE	Enterprise - Anadarko/ExxonMobil - GoM Luc	82 days	11/1/2013	1/22/2014	GOM-US	Anadarko Petroleum	Booked
- 1	REEL LAY	Subsea 7	SEVEN SEAS	Chevron - Gorgon/Janz	161 days	12/15/2012	5/25/2013	Australia	Chevron	Booked
	REEL LAY	Subsea 7	SEVEN SEAS	Statoil - Svalin C Field	30 days	5/1/2013	5/31/2013	N Sea, Norway	Statoil	Booked
- 1	REEL LAY	Subsea 7	SEVEN SEAS	NSEA - Total - Laggan Tormore - Phase 2	48 days	8/1/2013	9/18/2013	West of Shetlands	Total	Booked
	REEL LAY	Subsea 7	SEVEN SEAS	Bidding - ENI WAFM Angola Western Hub (SB	58 days	12/16/2013	2/12/2014	Angola	Eni	Bidding
	REEL LAY	Subsea 7	SEVEN SEAS	Bidding - Husky - Liuhua 29-1	100 days	10/1/2014	1/9/2015	China	Husky Oil	Bidding

STRATEGIC VALUE

- Provides global insight into supply and demand dynamics of major marine construction assets
- Illustrates vessel-by-vessel schedule for over 125 assets of booked and bidding construction work
- Details strategic installation and construction capabilities of a wide range of marine assets

QMCV / QCVS Deliverables

- Quest Construction Vessel Schedule in MS Project and PDF (QCVS)
- Quest Construction Vessel Schedule PLUS (MS Excel)
- Quarterly Market Overview of key trends and forecasts (MS PowerPoint)
- Quarterly deliverable of the Quest Vessel Function Database (MS Excel)

QMCV / QCVS Outline

Construction Vessel Schedule (MS-Project or PDF format)

- Details over 125 vessels' current commitments and schedule and includes detailed information on project, timing and scope of work
- Shows potential installation opportunities

Construction Vessel Schedule PLUS (MS Excel)

- Combines data from Quest Construction Vessel Schedule with high level fields from the Quest Enhanced Deepwater Database
- Allows analysis to be performed around installation trends at the vessel, owner, and capability level due to the user friendliness of MS Excel

Market Report Overviews

- Global Marine Construction Supply and Demand Balance
- Marine Contractor Market Share
- Global Marine Construction Booked Demand Installation Days
- Historical Utilization by vessel category

Quest Vessel Function Database (QVFDB)

 Includes high level vessel specifications for each vessel tracked in the Quest Construction Vessel Schedule and more (details over 200 vessels)

Quest Floating Production Database (QFPD)

STRATEGIC VALUE

- Leading indicator of significant global deepwater development activity and investment
- Analyzes the global market for floating production demand in terms of volume and value (US\$MM)
- Breaks demand into specific FPS type (FPSO, SPARS, TLP, FLNG, Semi-Submersibles)
- Breaks demand into region
- Provides key historic market share analysis by shipyards and FPS owner

QFPD Deliverables

- Market Overview in MS PowerPoint of key trends and forecasts
- ► Full working files in MS Excel supporting Market Overview
- Full downloads of historic and forecast floating production database

QFPD Outline

Executive Overview

- Changes from Previous Forecast
- Award vs. Startup Trends by Hemisphere

Floating Production System Forecast

- Base, Mean and High Case Forecasts by Award and Startup Year
- By Hemisphere
- By Type
- In Volume of Units and Value (US\$)
- Top Operators

Floating Production System Historical Review

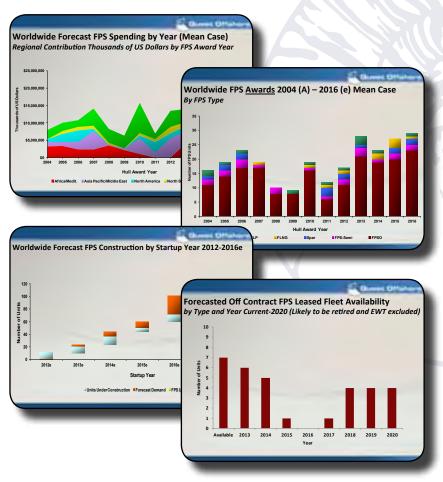
- Market Share Analysis
- By Type
- Hull Fabrication
- Topside Fabrication
- In Volume of Units and Metric Tons

Floating Production System Analysis

- Availability of Leased FPSO's and FSO's
- FPSO Leasing Market Share
- FPSO Newbuild vs. Conversion Analysis

Operator		н	lemisphere	Province		Project N	ame		Water Depth Mtr	Star Ye
IPEX		Asia Paci	fic/Middle East	Indonesia	ABADI GAS FIE	LD FLNG PHASE 1	(MASELA BLO	CK)	500	2
haca Energy		North Se	a/Arctic	N Sea, UK	ATHENA/ATHI	NA EAST 14/18b	(BW ATHENA	PSO)	136	2
o		North Ar	nerica	GOM-US	ATLANTIS/ATL	ANTIS SOUTH			2156	2
oodside Petroleun	า	Asia Paci	fic/Middle East	Australia	BROWSE PRO.	ECT PHASE 1 LNG	i		400	2
oodside Petroleun	า		fic/Middle East	Australia	BROWSE PRO.	ECT PHASE 1 LNG	i		400	2
obalt International	Energy	Africa/M	edit.	Angola	CAMEIA BLOC	K 21 PRF-SALT			1525	2
ni		North Se		Barents Sea	GOLIAT 7122/	7			341	2
FPS-LEVEL DATA		110111111111111111111111111111111111111	-	Darento Dea	002,717,7122,					:
ni				Prod Cap Oil	Prod Cap Gas	Prod Cap Water S	torage Capacity	Surface Well		1
FPS Type	Hι	II Status	FPS Owne	(BOPD)	(MMCPFD)	(BWPD)	(Bbls)	Count	Mooring Typ	e
FLNG	FEED			((()	(====,		Turret	
FPSO	Flowing		BW Offshore	40000)		50000		Turret-Submerge	ed.
FPS-Semi	Flowing			200000	180				Spread/Wire Cha	
wTLP	Bidding) Spread/Wire Cha	
wTLP	Bidding							10	Spread/Wire Cha	iin
FPSO FPSO ROUNDSHIP	FEED	Construction		100000			050000		Carrad Attion Cha	
Spar Spar	Conceptu			100000	,		950000		Spread/Wire Cha Spread/Poly Chai	
EDSO	- Do Donlo	rod.	CDM	00000	05	150000	1700000		Turret Euternal	
CONSTRUCT	ION-LEVEL							_		
EPC Cont	ractor	Hull Award Date	Hull Designer	Hull Fabricator	Hull Fabrica Shipyard	Topsides Design	er Topsides Fab	ricator	psides Fabricator Shipyard	
BW Offshore		1/1/2014		Lauranta Chiana			Laurentela Chia			
Daewoo Shipi		11/18/2005	HALIBURTON GVA	Langstein Shipyard Daewoo Shipbuilding		J Ray McDermott	Langstein Shipy J Ray McDermo		gan City, LA	
Daewoo Silipi	bulluling	3/1/2013	TALIBUR TON GVA	Daewoo Silipbullulii	5	J Kay WICDEITHOLL	. J Kay MICDEIIIIC	itt ivio	gail City, LA	
		3/1/2013								
		9/1/2013								
			Sevan Marine	Hyundai(HHI)		Sevan Marine	Hyundai(HHI)			
		1/1/2015								
		6/1/2011 5	BM	Drydock World Duba	ii Dubai, UAE		Drydock World	Dubai		

Excel Tables Do Not Contain All Available Data Fields





Quest Deepwater Shipyard Outlook (QDSO)





		N-LEVEL D							
Start	Start	Delivery	Delivery	Yard	Book	Book	Total		
Quarter	Year	Quarter	Year	QTRs	Quarter	Year	QTRs	Design	Notes
1	2007	4	2009	12				Aker	Integration at Aker Stord
1	2007	1	2009	9				Modec Owned	1.6M Storage
3	2007	1	2009	7				Modec Owned	100kboe/d 124mmsc/d Capacity - 21 Modules
3	2004	2	2006	8	1	2004	10	F&G JU2000E	9/2/04 Steel - 6/6/06 Delivery
3	2004	2	2006	8	1	2004	10	F&G JU2000E	9/2/04 Steel - 6/6/06 Delivery
4	2005	4	2007	9	2	2005	11		10/9/05 Steel Cut- 10/2/07 Delivery.2.15M Storage
4	2005	4	2007	9	2	2005	11	Alliance Engineering	10/9/05 Steel Cut- 10/2/07 Delivery. 250mboe/d & 450mmscf/d Capaci
3	2011	4	2012	6	4	2010	9	Floatec ABB Lummus	eTLP - Steel cut 7/25/2011. Keel Laying 3/21/2012. Hull Cost only.
2	2013	1	2014	4	3	2012	7		1.9BN for 2WHP + LQ + CPF
2	2013	1	2014	4	3	2012	7		1.9BN for 2WHP + LQ + CPF
4	2006	1	2000	10					SRM Owned - 1 5M Storage
C			VEL DETA						
-	Start		livery Del		ard Bo		ok Tota		
C	Quarter					ter Ye	ar QTR		Notes
	1	2007			12			Aker	Integration at Aker Stord
	1				9			Modec Owned Modec Owned	1.6M Storage
	3				7	20	04 10		100kboe/d 124mmsc/d Capacity - 21 Modules
	3				8 1 8 1				9/2/04 Steel - 6/6/06 Delivery 9/2/04 Steel - 6/6/06 Delivery
	4	2004			9 2			F&G J02000E	10/9/05 Steel Cut- 10/2/07 Delivery.2.15M Storage
	4	2005			9 2			Alliance Engineering	10/9/05 Steel Cut- 10/2/07 Delivery. 250mboe/d & 450mmscf/d Capacity
	3	2011			6 4			Floatec ABB Lummus	eTLP - Steel cut 7/25/2011, Keel Laving 3/21/2012, Hull Cost only.
	2				4 3	20		riodice riob Edillinas	1.9BN for 2WHP + LO + CPF
	2	2013	1 2	014	4 3	20	12 7		1.9BN for 2WHP + LO + CPF

Excel Tables Do Not Contain All Available Data Fields

ffshore

STRATEGIC VALUE

- Illustrates supply and demand profiles of major shipyards serving the offshore oil & gas market
- Analyzes historic and forecast construction of FPS systems, drilling rigs, fixed platforms, marine construction assets and onshore modules
- Identifies potential future capacity constraints within major shipyards and sectors
- Outlines construction schedule within each major shipyard

QDSO Deliverables

- Quarterly delivery of Master Shipyard Backlog file (MS Excel)
- Semi-annual delivery of Market
 Overview of key trends and forecasts
 (MS PowerPoint)

QDSO Outline

Companies Included:

Samsung Heavy Industries (SHI),
 Daewoo Shipbuilding & Marine
 Engineering (DSME), Hyundai Heavy
 Industries (HHI), Sembcorp, Keppel
 Offshore & Marine, Kiewit, Gulf Island
 Fabrication, McDermott, Lamprell,
 MMHE/MHB, Aker, Technip, as well as
 Chinese and Brasilian yards

Shipyard Tonnage by Awarded Projects

 Project by project timing and build analysis broken up by individual shipyards and combined into a forecast of tonnage throughput and capacity utilization

Shipyard Tonnage Forecast

 Quest forecasts future demand outside of awarded projects by taking into account shipyard histories, known projects, location, timing, and other market driving factors

Shipyard Financial & Macro Overview

- Analysis focused on changing margins, backlogs, and new orders
- Illustrations of macro shipyard drivers such as; container ship indexes, steel price indexes, and oil prices

Market Share Analysis by Shipyard

- Total tonnage analysis
- Project scope and type analysis



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GLOBAL DEEPWATER OIL AND GAS INDUSTRY.

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