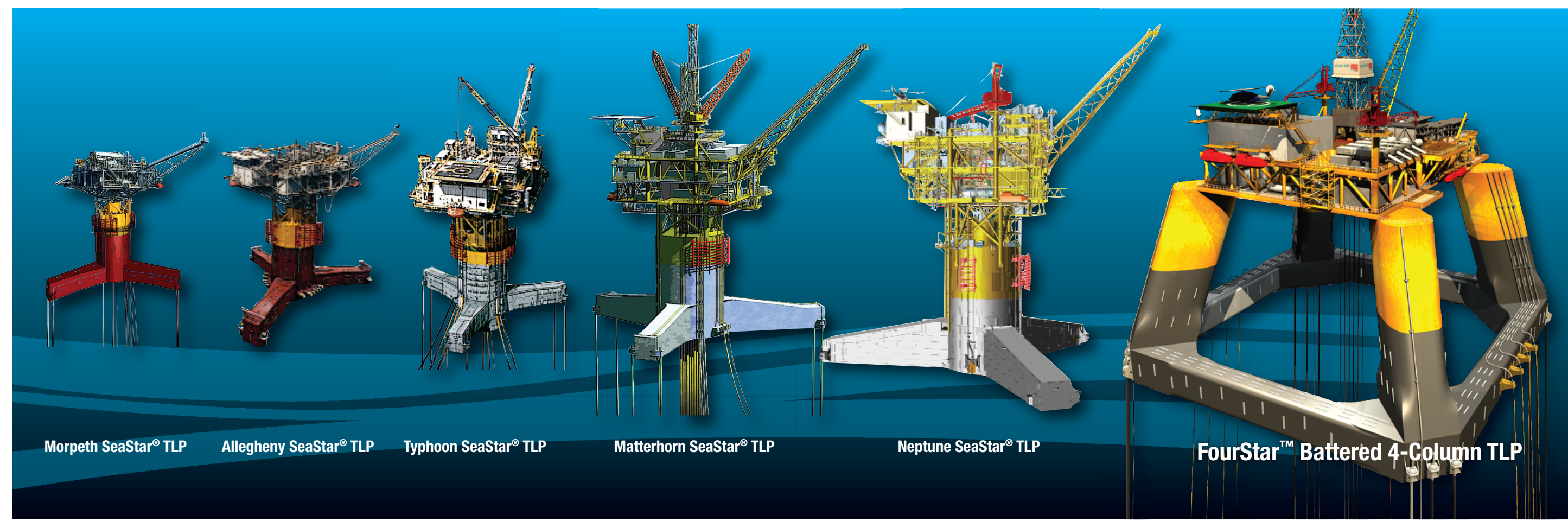

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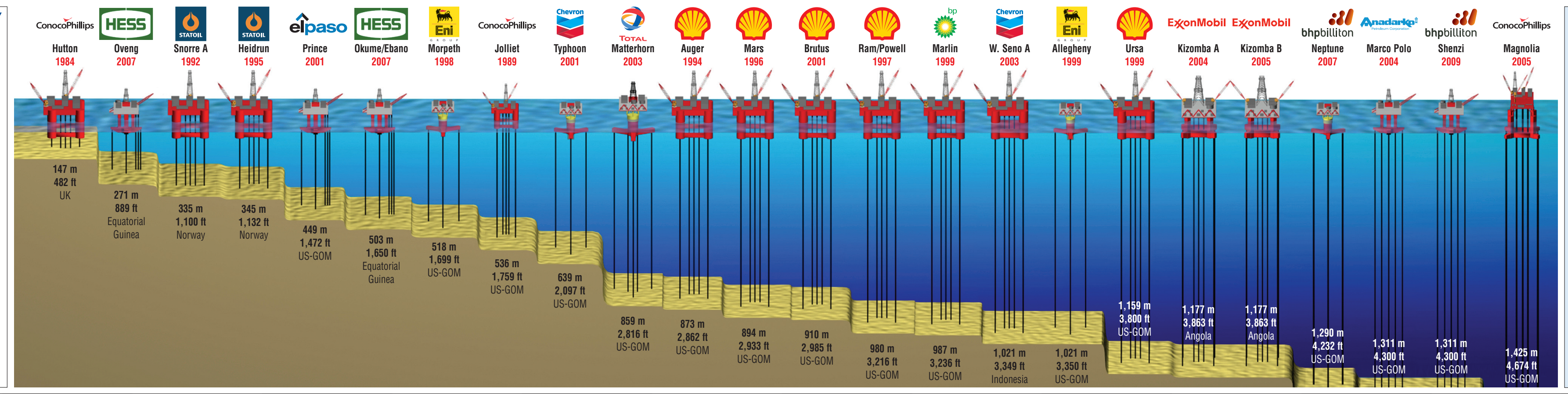

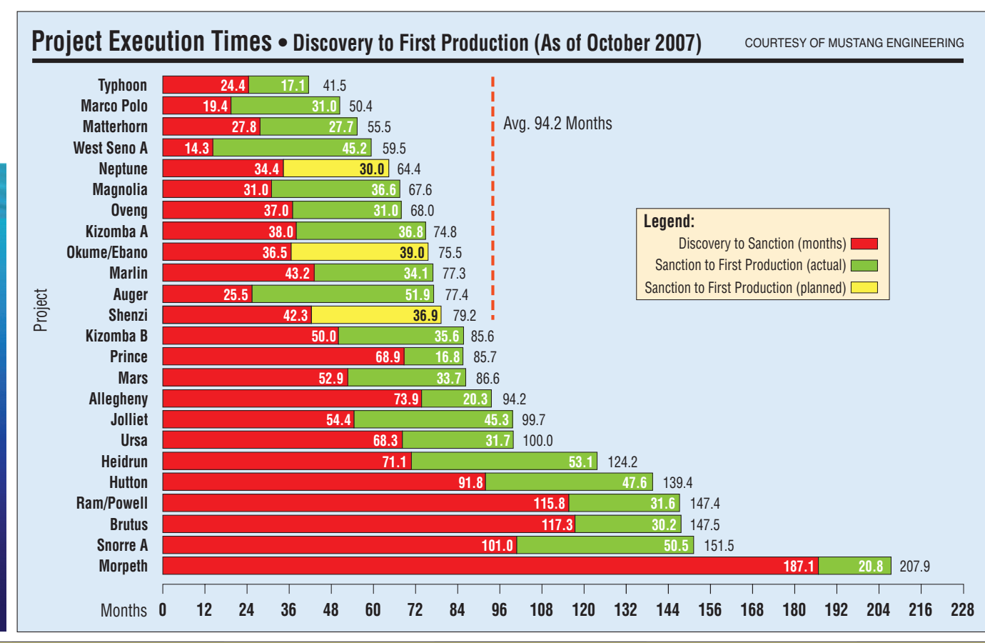

Project Execution Times • Discovery to First Production (As of October 2007)

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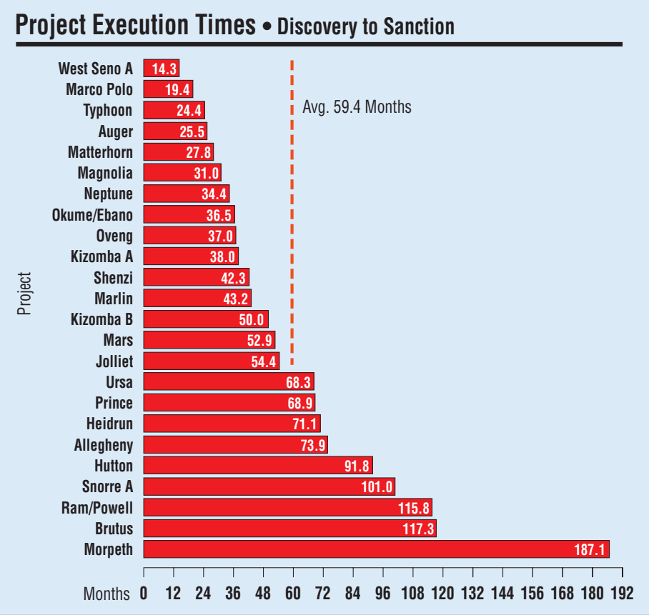
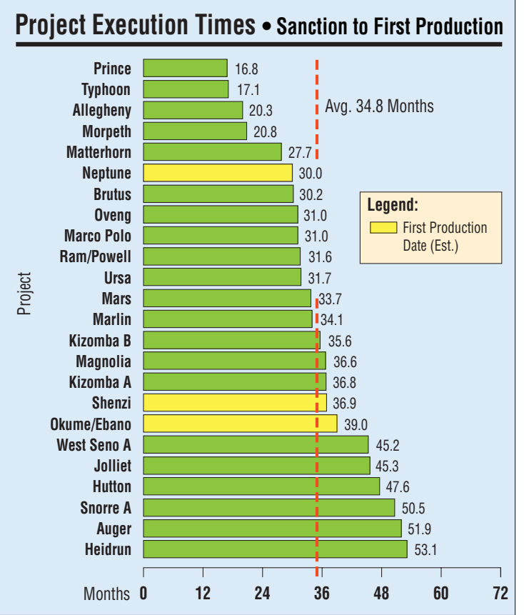


Project Execution Times • Discovery to Sanction



Project Execution Times • Sanction to First Production

FACILITY INDUSTRY NAME TYPE	1 HUTTON TLP	2 JOLLIET TLWP	3 SNORRE A TLP	4 AUGER TLP	5 HEIDRUN TLP	6 MARS TLP	7 RAM/POWELL TLP	8 MORPETH TLP
1.0 GENERAL DESCRIPTION								
1.1 Current Status	RETIRED	PRODUCING	PRODUCING	PRODUCING	PRODUCING	PRODUCING	PRODUCING	PRODUCING
1.2 TLP/TLWP (Type)	6 Column Conventional TLP	4 Column Conventional TLWP	4 Column Conventional TLP	4 Column Conventional TLP	4 Column Conventional TLP	4 Column Conventional TLP	4 Column Conventional TLP	1 Column New Generation TLP
1.3 Hull Designer	ConocoPhillips	ConocoPhillips		Shell	ConocoPhillips	Shell	Shell	SBM Atlantia SeaStar®
1.4 Well Slots	32	24	46	32	76	24	20	0
1.5 Dry Tree or Wet Tree	Dry	Dry	Wet	Dry	Dry / Wet	Dry	Dry	Wet
2.0 FIELD OPERATOR & PARTNERS	Note 2		Note 3					
2.1 Current Operator	ConocoPhillips	ConocoPhillips	Statoil	Shell	Statoil	Shell	Shell	Eni
2.1.1 Partner 1 Percent Ownership		33.4%	41.4%	100.0%	12.4%	71.5%	38.0%	100.0%
2.2 Partner 2	Britoil PLC	Apache (33.3%)	Saga (11.9%)		Petoro AS (58.2%)	BP (28.5%)	ExxonMobil (31%)	
2.3 Partner 3	Gulf	Chevron (33.3%)	ExxonMobil (10.3%)		Norske ConocoPhillips (24.3%)		BP Amoco (31%)	
2.4 Partner 4			Note 5		Agip-ENI Norge AS (5.1%)			
3.0 TLP OWNERS	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners
4.0 LOCATION INFORMATION								
4.1 General Location	UK	US-GOM	NORWAY	US-GOM	NORWAY	US-GOM	US-GOM	US-GOM
4.2 Block	211/27 & 211/28	GC 184	34/4b & 34/7a	GB 426	6507/7-8	MC 807	VK 956	EB 921
4.3 Water Depth (Feet)	482	1,759	1,100	2,862	1,132	2,933	3,216	1,699
4.4 Water Depth (Meters)	147	536	335	873	345	894	980	518
5.0 WELL INFORMATION								
5.1 Dry Tree Wells	28	20	36	4		10	10	0
5.2 Wet Trees Well (SS Tiebacks - In Field)						1		4
5.3 Wet Tree Wells (SS Tiebacks - Other Fields)			10	12		3		1
5.4 Total Number of Wells	28	20	46	16	76 Note 13	14	10	5
5.5 Types								
5.5.1 Production Wells			21		51			3
5.5.2 Water Injection Wells			17		24			1
5.6 Subsea Tieback (Other Fields)			Hub for:	Hub for:		Hub For:		
5.6.1 Field 1 (Wells)			Vigdis	Serrano (2)		Europa (3)		Black Widow (1)
5.6.2 Field 2 (Wells)			Snorre North	Oregano (3)		King (1)		
5.6.3 Field 3 (Wells)				Macaroni (3)				
5.6.4 Field 4 (Wells)				Llano (2)				
5.6.5 Field 5 (Wells)				Habanero (2)				
6.0 TOPSIDE FACILITIES								
6.1 Process Capabilities								
6.1.1 Oil Production (MBOPD)	120	35	360	105	250	200	160	45
6.1.2 Gas Production (MSCFD)	10	50	36	420	6.1	185	200	45
6.1.3 Total Throughput (MBOED)	121.7	43.3	366.0	175.0	251.0	230.8	193.3	52.5
6.1.4 Produced Water (MBWPD)					110		30	10
6.1.5 Water Injection (MBPD)			380					28
6.2 Quarters Information								
6.2.1 Permanent Quarters (Persons)	239	56	220	132	370	106	110	18
6.2.2 Temporary Quarters (Persons)					200			
6.2.3 Helideck Rating								Bell 412
6.3 Deck Levels		3		2				2
6.4 Deck Dimensions (L x W x H)	256' x 243' x 39' (78m x 74m x 12m)	140' x 180' (459m x 591m)		290' x 330' x 70' (88m x 101m x 21m)		245' x 245' x 45' (75m x 75m x 14m)	245' x 245' x 40' (75m x 75m x 12m)	110' x 110' (34m x 34m)
7.0 HULL INFORMATION								
7.1 Hull Type	Steel	Steel	Steel	Steel	Concrete	Steel	Steel	Steel
7.2 No. of Columns	6 Col.	4 Col.	4 Col.	4 Col.	4 Col.	4 Col.	4 Col.	1 Col.
7.3 Column Dimensions	4@59' (18m) & 2@49' (15m)	40' (12m) Dia.	80' (25m) Dia.	74' (22.6m) Dia.	102' (31 m) Dia.	66.5' (22m) Dia.	66.5' (22m) Dia.	58' (18m) Dia.
7.4 Column Height						162' (49 m)	165' (50 m)	112' (34 m)
7.5 Column Centers	256' x 242' (78m x 74m)				262' x 262' (80m x 80m)			
7.6 Length x Width			322' x 302' (98m x 92m)		361' x 361' (110m x 110m)			
7.7 No. of Pontoons	4	4		4	4	4	4	3
7.8 Draft @ MWL	106' (33.2m)	79' (24m)			77' (23m)			91' (28m)
7.9 Well Spacing								
7.10 Center Well Bay Dimensions				74' x 194' (22.6m x 59.1m)				None
7.11 Well Pattern	4 x 8							
7.12 Design Life (Years)					50 Yrs			
8.0 WORKOVER OR DRILLING RIG								
8.1 Type	25,000' API Platform Rig	Work over		25,000' Rated Platform Rig			25,000' API Platform Rig	None
8.2 Leased or Owned	Owned	Leased (Note 6)		Leased			Leased	NA
8.3 Contractor & Rig				Zane Barnes Semi-Sub Rig			HP Rig #202	NA
9.0 PRODUCTION WELL SYSTEM								
9.1 Tubing Size	5-1/2"	1.90" & '2-7/8" OD		3-1/2"				
9.2 Barrier(s)	Single Barrier	Single Barrier		Dual Barrier	Single Barrier			
9.3 Barrier Sizes	9-5/8"	9-5/8"		9-5/8" & 7"	10-3/4"			
9.4 Production Well System Supplier	FMC	FMC	FMC	FMC	FMC	FMC	FMC	
9.5 Stroke				14' (4.3 m)				
9.6 Tensioning System				Hydro-Pneumatic				
10.0 TENDON INFORMATION								
10.1 No. of Tendons (Pattern)	16	12 (4 x 3)	16 (4 x 4)	12 (4 x 3)	16	12 (4 x 3)	12 (4 x 3)	6 (3 x 2)
10.2 Tendon Diameter & Wall Thickness (WT)	10.23" (260 mm)	24" x .812" WT	32" (813 mm)	26" & 1.3" WT (660mm & 33mm)	42" (1.07m)	28" x 1.2" WT (711mm x 30.5mm)	28" x 1.2" WT (711mm x 30.5mm)	26" (660.4mm)
10.3 Total Length of Tendon		1,690'				2,852' (869m)	3,145' (959m)	1,410 (430m)
10.4 Tendon Segments x Length		1 x 1,690' (3.28m x 515.2m)						6 x 235' (72m)
10.5 Tendon Connector	Threaded Connector	None, All Welded		Oil State's Merlin Mech. Connector				Oil State's Merlin Mech. Connector
10.6 Tendon Supplier								
11.0 FOUNDATION								
11.1 Type		Piled Foundation Template	Concrete Foundation Template	4 Templates + Piles				Individual Piles
11.2 No. of Piles		16 Piles	16 Piles	16 Piles		12 Piles	12 Piles	6 Piles
11.3 Piling (Diameter x Pile Length)		60" x 300'		72" x 427' (1,829mm x 130m)		84" x 375' (2,134mm x 114m)	84" x 349' (2,134mm x 106m)	84" x 340' (2,134mm x 104m)
12.0 ENGINEERING & PROJECT MANAGEMENT								
12.1 FEED			Aker Maritime / Kværner					
12.2 Hull	Conoco	Conoco		Shell	Conoco	Shell	Shell	Atlantia Offshore
12.3 Topside Facilities	Brown&Root; VO Offshore Ltd.	Lummas Crest		Shell	Kværner	Shell	Shell	Alliance Engineering
12.4 Mooring Engineering								
12.5 Subsea (Trees/Controls)					FMC			Mentor Subsea
12.6 Procurement								
12.7 Project Management								
13.0 CLASSIFICATIONS SOCIETY								
13.1 Classification Organization	Lloyd's Register	NONE	?	NONE	?	NONE	NONE	ABS
13.2 Hull Class Designation (Note 11)	?	N/A	?	N/A	?	N/A	N/A	+A1 FOI
13.3 CVA Scope of Work (Note 7)	N/A	ABS (D)	N/A	ABS (D)	N/A	ABS (D)	ABS (D)	ABS (D/F/I)
14.0 CONTRACT METHOD								
14.1 Contract Type					EPCi			Reimbursable EPCi
14.2 Contractor								Atlantia Offshore
15.0 FABRICATORS								
15.1 Topsides								
15.1.1 Fabricator	McDermott Scotland Ltd.	Far East Livingston (FELS)	Aker Stord	J. Ray McDermott		J. Ray McDermott	J. Ray McDermott	Gulf Island Fabricators
15.1.2 Location	Ardersier, Scotland	Singapore	Norway	Morgan City, LA		Morgan City, LA	Morgan City, LA	Houma, LA
15.2 Hull								
15.2.1 Fabricator	Highland Fabricators	Far East Livingston (FELS)	Dragados Offshore	Belleli S.p.A.		Belleli S.p.A.	Belleli S.p.A.	Gulf Island Fabricators
15.2.2 Location	Nigg, Scotland	Singapore	Cadiz	Taranto, Italy		Taranto, Italy	Taranto, Italy	Houma, LA
15.3 Hull & Topsides Assembly								
15.3.1 Assembly Method	Float over	Dockside Lifts		Float over	Float over	Dockside Lifts	Dockside Lifts	Offshore DB Lift
15.3.2 Contractor		Far East Livingston (FELS)		Heerema Marine Contractors		Gulf Marine Fabricators	Gulf Marine Fabricators	J. Ray McDermott
15.3.3 Location	Moray Firth, Scotland	Singapore		Offshore Aubra		Ingleside, Texas	Ingleside, Texas	Offshore @ EB 921
15.4 Tendon Fabricator		Aker-Gulf Marine		Aker-Gulf Marine		Aker-Gulf Marine	Aker-Gulf Marine	Aker-Gulf Marine
15.5 Pile Fabricator				Aker-Gulf Marine		Aker-Gulf Marine	Aker-Gulf Marine	
16.0 TRANSPORTATION								
16.1 Transport Contractor		Wijsmuller Transport B.V.				Dockwise	Dockwise	
16.2 Hull Transporter/Vessel		Mighty Servant 3	Smit Transport & Heavy Lift					
16.3 Trips & Method		Dry Tow			Wet Tow	Dry Tow	Dry Tow	Dry Tow
17.0 INSTALLATION								
17.1 Usage of Temporary Floatation Tanks	NO	NO	NO	NO	NO	NO	NO	NO
17.2 Tendon & Hull Contractor	Heerema Marine Contractors			HeereMac (Note 9)		HeereMac	Heerema Marine Contractors	J. Ray McDermott
17.3 Installation Vessel(s)	Hermod & Balder			SSCV Hermod			Balder	DB 50
18.0 MILESTONES & DURATIONS								
18.1 Commercial Discovery Date	15-Dec-72	1-Jul-81	8-Dec-79	30-Oct-87	10-Jun-85	15-Apr-89	14-May-85	1-Jun-81
18.2 Full Project Sanction Date (Note 10)	15-Aug-80	15-Jan-86	15-May-88	15-Dec-89	15-May-91	15-Sep-93	15-Jan-95	15-Jan-97
18.3 Offshore Installation Date (Hull & Topsides)				1-Feb-94	1-Jun-95			
18.4 First Oil or Gas Date	6-Aug-84	27-Oct-89	3-Aug-92	15-Apr-94	18-Oct-95	8-Jul-96	6-Sep-97	11-Oct-98
18.5 Estimated Field Life (Years)					35			
19.0 CYCLE TIMES								
19.1 Commercial Discovery to Sanction (Months)	91.8	54.4	101.0	25.5	71.1	52.9	115.8	187.1
19.2 Sanction to First Production (Months)	47.6	45.3	50.5	51.9	53.1	33.7	31.6	20.8
19.3 Discovery to First Production (Months)	139.4	99.7	151.5	77.3	124.3	86.6	147.5	207.9
20.0 WEIGHT								
20.1 Topsides Weight (Deck & Facilities)	20,792 mt (22,919.2 st)	1,950.4 mt (2,150 st)	43,700 mt (48,171 st)	21,772.4 mt (24,000 st)	89,000 mt	6,531.7 mt (7,200 st)		2,816.8 mt (3,105 st)
20.2 Hull Weight	25,500 mt (28,123 st)	4,170 mt (4,600 st)	30,000 mt (33,093 st)	35,380 mt (39,000 st)	166,000 mt	15,105 mt (16,650 st)	13,608 mt (15,000 st)	2,540 mt (2,800 st)
20.3 Total Weight	47,300 mt (52,139 st)	11,294 mt (12,450 st)						
20.4 Payload (Facilities/Riser/Rig - Deck)								3,175 mt (3,500 st)
20.5 Displacement @ MWL	61,500 mt (67,792 st)	16,602 mt (18,300 st)	106,000 mt (116,845 st)	66,224 mt (73,000 st)	290,610 mt (320,343 st)	49,099 mt (54,123 st)	49,100 mt (54,123 st)	10,605 mt (11,690 st)
20.6 Pile Weight		2,994 mt (3,300 st)		2,944 mt (3,248 st)		2,832 mt (3,120 st)		1,164 mt (1,284 st)
20.7 Tendons Weight		1,905 mt (2,100 st)				5,579 mt (6,150 st)		
20.8 Foundation Template Weight		1,279 mt (1,400 st)		4 Temp. x 544 mt (611 st)				
20.9 Drilling Template Weight		304 mt (335 st)						
21.0 EXPORT PIPELINE INFORMATION								
21.1 Oil Export Pipeline Size & Riser Type		10" ID Flex PL		12" & 16"		18" & 24"	12"	12"
21.2 Oil Export Length		12 Miles (19 Km)				40 Miles (64 Km)	25 Miles (40 Km)	19 Miles (31 Km)
21.3 Gas Export Pipeline Size & Riser Type		8" ID Flex PL		12" & 12"	16"	14"	14"	8"
21.4 Gas Export Length		6 Miles (9 Km)			60 Miles (37 Km)	55 Miles (89 Km)	25 Miles (40 Km)	19 Miles (31 Km)
22.0 RESERVOIR INFORMATION								
22.1 Proven Reserves	~ 200 MMBOE	54 MMBOE	1,420 MMBOE	340 MMBOE	1,065 MMBOE	500 MMBOE	~ 260 MMBOE	42 MMBOE
22.2 Oil:Gas Ratio		65 :35					2:50	85 :15
22.3 API Gravity (Degrees API)	31 Deg.	25 - 35 Deg.		38 Deg.		20 - 32 Deg.	33 Deg.	32 Deg.
22.4 Sulfur Content (%)				< 1.0%		2 - 2.5%	.25% to .45%	
23.0 RECORDS & FIRSTS	World's First TLP	First TLP in GOM Region			World's Largest TLP			First Mini-TLP

FACILITY INDUSTRY NAME TYPE	9 URSA TLP	10 ALLEGHENY TLP	11 MARLIN TLP	12 TYPHOON TLP	13 BRUTUS TLP	14 PRINCE TLP	15 WEST SENO A TLWP	16 MATTERHORN TLP
1.0 GENERAL DESCRIPTION								
1.1 Current Status	PRODUCING	PRODUCING	PRODUCING	Note 1	PRODUCING	PRODUCING	PRODUCING	PRODUCING
1.2 TLP/TLWP (Type)	4 Column Conventional TLP	1 Column New Generation TLP	4 Column Conventional	1 Column New Generation TLP	4 Column Conventional TLP	4 Column New Generation TLP	4 Column New Generation TLWP	1 Column New Generation TLP
1.3 Hull Designer	Shell	SBM Atlantia SeaStar®	Shell	SBM Atlantia SeaStar®	Shell	Worley Parsons Sea / MODEC	Sea Engineering	SBM Atlantia SeaStar®
1.4 Well Slots	24	0	6	0	8	9	28	9
1.5 Dry Tree or Wet Tree	Dry	Wet	Dry	Wet	Dry	Dry	Dry	Dry
2.0 FIELD OPERATOR & PARTNERS								
2.1 Current Operator	Shell	Eni	BP	Chevron	Shell	El Paso	Chevron	Total
2.1.1 Partner 1 Percent Ownership	45.4%	100.0%	75.0%	50.0%	100.0%	100.0%	90.0%	
2.2 Partner 2	BP (22.6%)		Shell (25%)	BHP Billiton (50%)			Pertamina (10%)	
2.3 Partner 3	ConocoPhillips (16.0%)							
2.4 Partner 4	ExxonMobil (16.0%)							
3.0 TLP OWNERS	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners
4.0 LOCATION INFORMATION								
4.1 General Location	US-GOM	US-GOM	US-GOM	US-GOM	US-GOM	US-GOM	INDONESIA	US-GOM
4.2 Block	MC 809	GC 254	VK 915	GC 236 & 237	GC 158	EW 1003	Makassar Strait PSC	MC 243
4.3 Water Depth (Feet)	3,800	3,350	3,236	2,097	2,985	1,490	3,349	2,816
4.4 Water Depth (Meters)	1,159	1,021	987	639	910	454	1,021	859
5.0 WELL INFORMATION								
5.1 Dry Tree Wells	9	0	5	0	8	4	20	7
5.2 Wet Trees Well (SS Tiebacks - In Field)	0	6	2	4	0	0	0	1
5.3 Wet Tree Wells (SS Tiebacks - Other Fields)	6	3	3	3	2	3	0	0
5.4 Total Number of Wells	15	9	10	7	10	7	20	8
5.5 Types								
5.5.1 Production Wells								7
5.5.2 Water Injection Wells								1
5.6 Subsea Tieback (Other Fields)	Hub for:	Hub for:	Hub for:	Hub for:	Hub for:			
5.6.1 Field 1 (Wells)	Crosby (3)	King Kong(2)	King (2)	Boris (2)	Glider (2)			
5.6.2 Field 2 (Wells)	Princess (3)	Yosemite (1)	King West (1)	Little Burn (1)	J. Bellis (Fut.)			
5.6.3 Field 3 (Wells)		Allegheny South (1)	Nile	Balvanie (Fut.)	Brutus RU (Fut)			
5.6.4 Field 4 (Wells)			Swordfish					
5.6.5 Field 5 (Wells)			Dorado (Future)					
6.0 TOPSIDE FACILITIES								
6.1 Process Capabilities								
6.1.1 Oil Production (MBOPD)	150	35	40	40	130	50	None	33
6.1.2 Gas Production (MSCFD)	400	195	300	60	150	80	None	55
6.1.3 Total Throughput (MBOED)	216.7	67.5	90.0	50.0	155.0	63.3	None	42.2
6.1.4 Produced Water (MBWPD)	50	10	20	15				20
6.1.5 Water Injection (MBPD)		15						30
6.2 Quarters Information								
6.2.1 Permanent Quarters (Persons)	156	18		22	94	24	0 on TLWP	22
6.2.2 Temporary Quarters (Persons)								78
6.2.3 Helideck Rating		Bell 412		S-76				S-76
6.3 Deck Levels		2				3 Levels	2-1/2 Levels	3 Levels
6.4 Deck Dimensions (L x W x H)		110' x 100' (34m x 30.4m)		110' x 110' (34m x 34m)		114' x 130' (35m x 40m)	110' x 170' (34m x 51.8m)	140' x 140' (43m x 43m)
7.0 HULL INFORMATION								
7.1 Hull Type	Steel	Steel	Steel	Steel	Steel	MODEC Proprietary	Steel	Steel
7.2 No. of Columns	4 Col.	1 Col.	4 Col.	1 Col.	4 Col.	4 Col.	4 Col.	1 Col.
7.3 Column Dimensions	85' (26m) Dia.	58' (18m) Dia.		58' (18m) Dia.	66.5' (20m) Dia.	23' x 18' (7m x 5m) Sq.	21.5' x 31.5' (7m x 10m) Sq.	84' (26m) Dia.
7.4 Column Height	177' (54 m)	112' (34 m)		109' (33 m)	166' (51m)	127' (39 m)		125' (38m)
7.5 Column Centers					200' (61m)			
7.6 Length x Width			210' x 210' (64m x 64m)		266' x 266' (81m x 81m)		165' x 165' (50m x 50m)	
7.7 No. of Pontoons	4	3	4	3	4	4	4	3
7.8 Draft @ MWL		91' (28m)		115' (35m)		114' (35m)		104' (32m)
7.9 Well Spacing	25' x 20' (8m x 6m)			NA			10' x 15' (3m x 5m)	10' x 10' (3m x 3m)
7.10 Center Well Bay Dimensions		None						36' (11m) Dia.
7.11 Well Pattern	6 x 4	NA		NA			4 x 7	3 x 3
7.12 Design Life (Years)	30 Yrs	20 Yrs		20 Yrs				20 Yrs
8.0 WORKOVER OR DRILLING RIG								
8.1 Type	API Platform Rig	None		None	25,000' Rated Platform Rig	1,200 HP Work over Rig	Tender Assisted Platform Rig	1,000 HP Worker Rig
8.2 Leased or Owned	Leased	NA		NA	Leased	Leased	Leased	Leased
8.3 Contractor & Rig	HP Rig #201	NA		NA	HP Rig #202	Nabors's Super Sundowner	Smedvig's West Alliance Tender	Nabors's SuperSundowner XVI
9.0 PRODUCTION WELL SYSTEM								
9.1 Tubing Size	5-1/2", 4-1/2"				4-1/2" & 5"	3-1/2"	3-1/2"	4-1/2"
9.2 Barrier(s)	Dual Barrier				Dual Barrier	Single Barrier	Single Barrier	Single Barrier
9.3 Barrier Sizes	14" x 10-7/8' & 13-5/8" x 10-3/4"				4@13-5/8" & 4@10-3/4"	10-3/4"	13-3/8"	1@10-3/4", 3@9-5/8", 3@9-7/8"
9.4 Production Well System Supplier	FMC		FMC		FMC	FMC	FMC	FMC
9.5 Stroke	68"					4' (1m)		4' (1m)
9.6 Tensioning System						Passive Spring Tensioner	Fixed Screw & Hydraulic Jacks	Hydra-pneumatic
10.0 TENDON INFORMATION								
10.1 No. of Tendons (Pattern)	16 (4 x4)	6 (3 x 2)	12 (4 x 3)	6 (3 x 2)	12 (4 x 3)	8 (4 x 2)	8 (4 x 2)	6 (3 x 2)
10.2 Tendon Diameter & Wall Thickness (WT)	32" x 1.5" WT (812.8mm x 38.1mm)	28" (711.2mm)	28" (711.2mm)	28" x .881" (711.2 mm x 22.4mm)	32" x 1.25" WT (813mm x 31.7mm)	24" x .812" WT (609.6mm x 20.6mm)	26" (660mm)	32" x 1.143" WT (812.8mm x 29mm)
10.3 Total Length of Tendon	3,800' (1,158m)				2,900'		3,120' (951m)	2,715' (828m)
10.4 Tendon Segments x Length	13 x 284' (86m)					284' (86m)	18 x 167' (51m)	290' (88m)
10.5 Tendon Connector						Oil State's Merlin Mech. Connector		Oil States' Mech. Connector
10.6 Tendon Supplier						Sumitomo		Europipe
11.0 FOUNDATION								
11.1 Type	Individual Piles	Individual Piles		Individual Piles	Individual Piles	Individual Piles	Individual Piles	Individual Piles
11.2 No. of Piles		6 Piles	8 Piles	6 Piles	12 Piles	8 Piles	8 Piles	6 Piles
11.3 Piling (Diameter x Pile Length)	96" x 417' (2,438mm x 127m)		84"		82" x 340' (2,083mm x 104m)	64" x 320' (1,626mm x 98m)	72" x 251' (1.83m x 76.5 m)	96" x 418' (2.4m x 130m)
12.0 ENGINEERING & PROJECT MANAGEMENT								
12.1 FEED				Atlantia Offshore			ABB	
12.2 Hull	Han-Padron Assoc.	Atlantia Offshore	Han-Pandron Assoc.	Atlantia Offshore	Shell Deepwater Dev. Systems	Worley Parsons Sea/MODEC	Worley Parsons Sea	Atlantia Offshore
12.3 Topside Facilities	Shell	Alliance Engineering	ABB Lummus Global	Mustang Engineering	Shell	Alliance Engineering	Alliance Engineering	Paragon Engineering
12.4 Mooring Engineering		Atlantia Offshore	ABB Vetco Gray	Atlantia Offshore			Worley Parsons Sea	Deep Sea Development
12.5 Subsea (Trees/Controls)		Mentor Subsea		Cameron/ABB Lummus Global				Deep Sea Development
12.6 Procurement		Atlantia Offshore				MODEC		Atlantia Offshore
12.7 Project Management		Atlantia Offshore	ABB Lummus Global			MODEC		Atlantia Offshore
13.0 CLASSIFICATIONS SOCIETY								
13.1 Classification Organization	NONE	ABS	ABS	ABS	NONE	ABS	ABS	ABS
13.2 Hull Class Designation (Note 11)	N/A	+A1 FOI	+A1 FPS	+A1 FOI	N/A	+A1 FOI	+A1 FOI	+A1 FOI
13.3 CVA Scope of Work (Note 7)	ABS (D)	ABS (D/F/I)	ABS (D/F/I)	ABS (D/F/I)	ABS (D)	ABS (D/F/I)	N/A	ABS (D/F/I)
14.0 CONTRACT METHOD								
14.1 Contract Type		Reimbursable EPCi	EPCi	Reimbursable EPCi		Full Turnkey EPCi	EPCi with Yard Consortium	Full Turnkey EPCi
14.2 Contractor		Atlantia Offshore	ABB Lummus Global	Atlantia Offshore		MODEC	Consortium (Note 8)	MODEC
15.0 FABRICATORS								
15.1 Topsides								
15.1.1 Fabricator	J. Ray McDermott	Gulf Island Fabricators	Aker Gulf Marine	J. Ray McDermott	J. Ray McDermott	Omega Natchiq		Gulf Marine Fabricator
15.1.2 Location	Morgan City, LA	Houma, LA	Ingleside, TX	Morgan City, LA	Morgan City, LA	Port Iberia, LA		Ingleside, TX
15.2 Hull								
15.2.1 Fabricator	Belleli Offshore	Gulf Island Fabricators	Belleli Offshore	J. Ray McDermott	Daewoo Shipbuilding	AMFELS	Samsung Heavy Industries	Keppel-FELS
15.2.2 Location	Taranto, Italy	Houma, LA	Taranto, Italy	Morgan City, LA	Okpo, S. Korea	Brownsville, TX	Ulsan, S. Korea	Singapore
15.3 Hull & Topsides Assembly								
15.3.1 Assembly Method	Dockside Lifts	Offshore DB Lift	Dockside Lifts	Offshore DB Lift	Dockside Lifts	Offshore DB Lift		Offshore DB Lift
15.3.2 Contractor	Gulf Marine	J. Ray McDermott	Aker Gulf Marine	J. Ray McDermott	Aker Gulf Marine:	Heerema Marine Contractors		Heerema Marine Contr.
15.3.3 Location	Ingleside, Texas	Offshore @ GC 254	Ingleside, Texas	Offshore @ GC 237	Ingleside, Texas	Offshore @ EW 1003		Offshore @ MC 243
15.4 Tendon Fabricator		Aker-Gulf Marine		Aker-Gulf Marine	Aker-Gulf Marine	Gulf Marine Fabricators		Kiewit Offshore Services
15.5 Pile Fabricator		Gulf Island Fabricators	Aker-Gulf Marine		Aker-Gulf Marine			Gulf Marine Fabricators
16.0 TRANSPORTATION								
16.1 Transport Contractor	Heerema Marine Contractors		Dockwise		Dockwise			Cosco
16.2 Hull Transporter/Vessel	H-851		Mighty Servant 2	250' x 72' Barge	Mighty Servant 3			
16.3 Trips & Method	Dry Tow @ 8 Knots	Dry Tow	Dry Tow	Dry Tow	Dry Tow (7 wks @ 13 Knots)	Wet Tow		Dry Tow
17.0 INSTALLATION								
17.1 Usage of Temporary Floatation Tanks	NO	NO	NO	NO	NO	NO	NO	NO
17.2 Tendon & Hull Contractor	Heerema Marine Contractors	J. Ray McDermott	HeereMac	J. Ray McDermott	Heerema Marine Contractors	Heerema Marine Contractors	Clough Offshore	Heerema Marine Contractors
17.3 Installation Vessel(s)	Balder	DB 50		DB 50	SSCV Hermod	SSCV Hermod	DB Java Constructor	SSCV Hermod
18.0 MILESTONES & DURATIONS								
18.1 Commercial Discovery Date	31-Oct-90	15-Nov-91	6-Jun-93	13-Jan-98	10-Apr-89	20-Jul-94	17-Aug-98	24-Mar-99
18.2 Full Project Sanction Date (Note 10)	15-Jul-96	15-Jan-98	15-Jan-97	27-Jan-00	26-Jan-99	20-Apr-00	26-Oct-99	18-Jul-01
18.3 Offshore Installation Date (Hull & Topsides)								
18.4 First Oil or Gas Date	8-Mar-99	25-Sep-99	20-Nov-99	1-Jul-01	3-Aug-01	15-Sep-01	5-Aug-03	10-Nov-03
18.5 Estimated Field Life (Years)								
19.0 CYCLE TIMES								
19.1 Commercial Discovery to Sanction (Months)	68.3	73.9	43.2	24.4	117.3	68.9	14.3	27.8
19.2 Sanction to First Production (Months)	31.7	20.3	34.1	17.1	30.2	16.8	45.2	27.7
19.3 Discovery to First Production (Months)	100.0	94.1	77.3	41.5	147.5	85.7	59.5	55.5
20.0 WEIGHT								
20.1 Topsides Weight (Deck & Facilities)	20,320.9 mt (22,400 st)	2,780.5 mt (3,065 st)	5,000 mt (5,511.6 st)		19,958.1 mt (22,000 st)	3,628.7 mt (4,000 st)		5,569.7 mt (6,139.5 st)
20.2 Hull Weight	26,018 mt (28,680 st)	2,359 mt (2,600 st)	8,165 mt (9,000 st)	2,817 mt (3,105 st)	13,154 mt (14,500 st)	3,175 mt (3,500 st)	9,000 mt (9,928 st)	5,352 mt (5,900 st)
20.3 Total Weight								
20.4 Payload (Facilities/Riser/Rig - Deck)		3,719 mt (4,100 st)		3,810 mt (4,200 st)		5,533 mt (6,100 st)	4,800 mt (5,291 st)	12,208 mt (13,457 st)
20.5 Displacement @ MWL	88,451 mt (97,500 st)	10,605 st (11,690 st)	23,800 mt (26,235 st)	12,157 mt (13,400 st)	49,623 mt (54,700 st)	13,097 mt (14,437 st)	23,059 mt (25,418 st)	14,881 mt (16,403 st) 12
20.6 Pile Weight					2,940 mt (3,240 st)			2,178 mt (2,400 st)
20.7 Tendons Weight					7,500 st			
20.8 Foundation Template Weight								
20.9 Drilling Template Weight								
21.0 EXPORT PIPELINE INFORMATION								
21.1 Oil Export Pipeline Size & Riser Type	18", SCR	14", SCR	10"	10.75", SCR	20"	12", SCR	12"	12.75", SCR
21.2 Oil Export Length	47 Miles (76 Km)	30 Miles (48 Km)	22 Miles (35 Km)		26 Miles (41 Km)	10 Miles (16 Km)		
21.3 Gas Export Pipeline Size & Riser Type	20", SCR	16", SCR	14"	18", SCR	20"	12", SCR	12"	10", SCR
21.4 Gas Export Length	47 Miles (76 Km)	44 Miles (71 Km)	18 Miles (29 Km)		24 Miles (39 Km)	15 Miles (24 Km)		
22.0 RESERVOIR INFORMATION								
22.1 Proven Reserves	431 MMBOE	51 MMBOE	96 MMBOE	60 MMBOE	110 MMBOE	6 MMBOE	210-320 MMBOE	~ 75 MMBOE
22.2 Oil:Gas Ratio					70:30	84:16		
22.3 API Gravity (Degrees API)	32 Deg.	25 - 30 Deg.	32 Deg.	32 Deg.	30 - 35 Deg.	28 - 30 Deg.		36 Deg.
22.4 Sulfur Content (%)	1.5%	< 1.0%			1.28%			
23.0 RECORDS & FIRSTS							First TLP in SE Asia	

FACILITY INDUSTRY NAME TYPE	17 MARCO POLO TLP	18 KIZOMBA A TLWP	19 MAGNOLIA TLP	20 KIZOMBA B TLWP	21 OVENG TLWP	22 OKUME/EBANO TLWP	23 NEPTUNE TLP	24 SHENZI TLP
1.0 GENERAL DESCRIPTION								
1.1 Current Status	PRODUCING	PRODUCING	PRODUCING	PRODUCING	PRODUCING	INSTALLED	INSTALLED	UNDER CONSTRUCTION
1.2 TLP/TLWP (Type)	4 Column New Generation TLP	4 Column New Generation	4 Column New Generation TLP	4 Column New Generation ETLP	4 Column New Generation ETLP	4 Column New Generation ETLP	1 Column New Generation TLP	4 Column New Generation TLP
1.3 Hull Designer	Worley Parsons Sea / MODEC	ABB Lummus Global	ABB Lummus Global	ABB Lummus Global	Worley Parsons Sea / MODEC	Worley Parsons Sea / MODEC	SBM Atlantia SeaStar®	Worley Parsons Sea / MODEC
1.4 Well Slots	6	36	9	36	18	18	0	
1.5 Dry Tree or Wet Tree	Dry	Dry	Dry	Dry	Dry	Dry	Wet	Wet
2.0 FIELD OPERATOR & PARTNERS								
2.1 Current Operator	Anadarko	ExxonMobil	ConocoPhillips	ExxonMobil	Amerada Hess	Amerada Hess	BHP	BHP
2.1.1 Partner 1 Percent Ownership	100.0%	40.0%	75.0%	40.0%	85.0%	85.0%	35.0%	44.0%
2.2 Partner 2		BP Expl. Angola (26.7%)	Devon Energy (25%)	BP Expl. Angola (26.7%)	Tullow Oil PLC (15%)	Tullow Oil PLC (15%)	Marathon Oil (30%)	Hess (28%)
2.3 Partner 3		ENI Angola Expl. (20%)		Agip Angola Expl. (20%)	GEPetrol (5% Carried)	GEPetrol (5% Carried)	Woodside Energy (20%)	Repsol (28%)
2.4 Partner 4		Statoil Angola (13.3%)		Statoil (13.3%)			Repsol-YPF (15%)	
3.0 TLP OWNERS	Note 4	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners	Field Partners
4.0 LOCATION INFORMATION								
4.1 General Location	US-GOM	ANGOLA	US-GOM	ANGOLA	EQUATORIAL GUINEA	EQUATORIAL GUINEA	US-GOM	US-GOM
4.2 Block	GC 608	BLOCK 15	GB 783 & 784	BLOCK 15	BLOCK G	BLOCK G	GC 613	GC 653 & 654
4.3 Water Depth (Feet)	4,300	3,863	4,674	3,863	889	1,650	4,232	4,373
4.4 Water Depth (Meters)	1,311	1,178	1,425	1,178	271	503	1,290	1,333
5.0 WELL INFORMATION								
5.1 Dry Tree Wells	6	36	8	34	10	13	0	0
5.2 Wet Trees Well (SS Tiebacks - In Field)	0	0	0	0	0	0	7	20
5.3 Wet Tree Wells (SS Tiebacks - Other Fields)	6	0	2 (Future)	0	0	0	0	0
5.4 Total Number of Wells	12	36	8	34	10	13	7	20
5.5 Types								
5.5.1 Production Wells					6	7	7	7 (initial)/15 (full field)
5.5.2 Water Injection Wells					4	6		
5.6 Subsea Tieback (Other Fields)	Hub For:		Hub For:					
5.6.1 Field 1 (Wells)	K2 (3)		Entrada (Future)					
5.6.2 Field 2 (Wells)	K2 North (3)							
5.6.3 Field 3 (Wells)								
5.6.4 Field 4 (Wells)								
5.6.5 Field 5 (Wells)								
6.0 TOPSIDE FACILITIES								
6.1 Process Capabilities			Note 12		Note 12			
6.1.1 Oil Production (MBOPD)	120	250	40		25	25	50	100
6.1.2 Gas Production (MSCFD)	400	400	150		30	30	50	50
6.1.3 Total Throughput (MBOED)	186.7	316.7	65.0	0.0	?	?	58.3	108.3
6.1.4 Produced Water (MBWPD)	50				30	50	30	75
6.1.5 Water Injection (MBPD)					52	52	0	125
6.2 Quarters Information								
6.2.1 Permanent Quarters (Persons)			90		13	13	26	44
6.2.2 Temporary Quarters (Persons)			48 (Note 5)		12	12	24	12
6.2.3 Helideck Rating					15m / 5.4t	15m / 5.4t	S-92	S-92
6.3 Deck Levels					2	2	3	3
6.4 Deck Dimensions (L x W x H)		245' x 200' x 45' (75m x 61m x 14m)	222' x 222' x 40' (68m x 68m x 12m)	245' x 200' x 45' (75m x 61m x 14m)	130 ft x 120 ft	130 ft x 120 ft	121' x 110' (36.6m x 33.5m)	144' x 193' x 63' (44m x 59m x 19.2m)
7.0 HULL INFORMATION								
7.1 Hull Type	MODEC Proprietary	ETlp®4	ETlp®4	ETlp®4	MODEC Proprietary	MODEC Proprietary	Steel	MODEC Proprietary
7.2 No. of Columns	4 Col.	4 Col.	4 Cir. Col.	4 Col.	4 Col.	4 Col.	1 Col.	4 Col.
7.3 Column Dimensions	21.5' x 31.5' (7m x 10m) Sq.	45' (14m) Sq.	57.4' (71.5m)	45' (14m) Sq.	25' x 25' (7.6m x 7.6m)	25' x 25' (7.6m x 7.6m)	76' (23m) Dia.	34' x 29' (10.4m x 8.8m)
7.4 Column Height	129' (39m)	130' (40m)	126.9' (38.7m)	130' (40m)	52' (15.9m)	52' (15.9m)	128' (39m)	177' (54m)
7.5 Column Centers					87' (26.5m)	87' (26.5m)		113' (34.5m)
7.6 Length x Width					250' x 250' (76.2m x 76.2m)	250' x 250' (76.2m x 76.2m)		
7.7 No. of Pontoons	4	4	4	4	4	4	3	4
7.8 Draft @ MWL	129' (39m)	112' (34m)	82' (25m)	112' (34m)	60' (18.7m)	60' (18.7m)	98' (29.9m)	144' (43.9m)
7.9 Well Spacing					12' (3.7m)	12' (3.7m)		
7.10 Center Well Bay Dimensions					43' x 22' & 43' x 33' (13.1m x 6.7m x 13.1m x 10.1m)	43' x 22' & 43' x 33' (13.1m x 6.7m x 13.1m x 10.1m)		
7.11 Well Pattern								
7.12 Design Life (Years)					20	20	20	25
8.0 WORKOVER OR DRILLING RIG								
8.1 Type	1,200 HP Work over Rig	25,000' Rated Tender Assisted Rig	Compl./Work over	25,000' Rated Tender Assisted Rig	Tender Assisted Drilling Rig (TAD)	Tender Assisted Drilling Rig (TAD)	None	
8.2 Leased or Owned	Leased	Leased	Leased	Leased	Leased	Leased	NA	
8.3 Contractor & Rig		Pride International	Nabors		Atwood Oceanics's Seahawk	Atwood Oceanics's Seahawk	NA	
9.0 PRODUCTION WELL SYSTEM								
9.1 Tubing Size	4-1/2"				4 1/2" OD	4 1/2" OD		
9.2 Barrier(s)	Dual Barrier							
9.3 Barrier Sizes	13-3/8" x 9-5/8"	10-3/4"						
9.4 Production Well System Supplier	FMC	FMC	Dril-Quip, Inc.		FMC	FMC		
9.5 Stroke	5' (2m)				nil	nil		
9.6 Tensioning System	Hydra-pneumatic				Fixed	Fixed		
10.0 TENDON INFORMATION	Stepped Dia.							
10.1 No. of Tendons (Pattern)	8 (4 x 2)	8 (4 x 2)	8 (4 x 2)	8 (4 x 2)	8 (4 x 2)	8 (4 x 2)	6 (3 x 2)	8 (4 x 2)
10.2 Tendon Diameter & Wall Thickness (WT)	8" to 28" x 1.2" WT	32" (812.8mm)	32" (812.8mm)	32" (812.8mm)	24" (609.6mm)	24" (609.6mm)	36" x 1.36" WT (914.4mm x 34.5mm)	36" x 1.55" 44" x 1.44"
10.3 Total Length of Tendon					550' (167.7m)	450' (137.1m)		4,300'
10.4 Tendon Segments x Length							289' (88m)	357'
10.5 Tendon Connector	Oil States' Mech. Connector				Oil States	Oil States	VETCO	Oil States
10.6 Tendon Supplier	Europipe						Europipe	Sumitomo
11.0 FOUNDATION								
11.1 Type	Individual Piles				Conventional Piles	Conventional Piles	Individual Piles	
11.2 No. of Piles	8 Piles	8 Piles	8 Piles	8 Piles	8 Piles	8 Piles	6 Piles	
11.3 Piling (Diameter x Pile Length)	76" x 390' (1.93m x119m)	84" (2.134m)			64" x 173'	64" x 198'	96" x 414'	
12.0 ENGINEERING & PROJECT MANAGEMENT								
12.1 FEED					Mustang Engineering	Mustang Engineering	SBM Atlantia Inc.	Worley Parsons Sea/MODEC/INTEC
12.2 Hull	Worley Parsons Sea/MODEC	ABB Lummus Global	ABB Lummus Global	ABB Lummus Global	Worley Parsons Sea/MODEC	Worley Parsons Sea/MODEC	SBM Atlantia Inc.	Worley Parsons Sea/MODEC
12.3 Topside Facilities	Alliance Engineering	ABB Lummus Global	Alliance Engineering		Alliance Engineering	Alliance Engineering	SBM Atlantia Inc.	Alliance Engineering
12.4 Mooring Engineering			ABB Lummus Global		MODEC	MODEC		Worley Parsons Sea
12.5 Subsea (Trees/Controls)					FMC	FMC		INTEC Engineering
12.6 Procurement					MODEC	MODEC	SBM Atlantia Inc.	MODEC
12.7 Project Management					MODEC	MODEC	SBM Atlantia Inc.	MODEC
13.0 CLASSIFICATIONS SOCIETY								
13.1 Classification Organization	ABS	DNV	ABS	DNV	NONE	NONE	ABS	ABS
13.2 Hull Class Designation (Note 11)	+A1 FOI	?	+A1 FOI	?	N/A	N/A	+A1 FOI	+A1 FOI
13.3 CVA Scope of Work (Note 7)	ABS (D/F/I)	N/A	ABS (D/F/I)	N/A	N/A	N/A	ABS (D/F/I)	ABS (D/F/I)
14.0 CONTRACT METHOD								
14.1 Contract Type	EPC	EPCM		EPCM	Turnkey (EPC) for TLP	Turnkey (EPC) for TLP	EPCi	EPC + pre-commissioning
14.2 Contractor	MODEC	ABB Lummus Global		ABB Lummus Global	MODEC	MODEC	SBM Atlantia	MODEC
15.0 FABRICATORS								
15.1 Topsides								
15.1.1 Fabricator	Kiewit Offshore Services	Heerema	Gulf Marine	Heerema	Samsung Heavy Industries	Samsung Heavy Industries	Gulf Island Fabricators	Kiewit Offshore Services
15.1.2 Location	Ingleside, TX	Grootint, Holland	Ingleside, TX	Holland	S. Korea	S. Korea	Houma, LA	Ingleside, TX
15.2 Hull								
15.2.1 Fabricator	Samsung Heavy Industries	Daewoo Shipyard	Samsung Heavy Industries	Daewoo Shipyard	Samsung Heavy Industries	Samsung Heavy Industries	Signal International	Samsung Heavy Industries
15.2.2 Location	Koji Island, South Korea	Okpo, South Korea	S. Korea	Okpo, South Korea	S. Korea	S. Korea	Orange, TX	Koji Island, South Korea
15.3 Hull & Topsides Assembly								
15.3.1 Assembly Method	Offshore DB Lift	DB Lift in Harbor	Dockside Lift	DB Lift in Harbor	Lift and install at Quayside	Lift and install at Quayside	Offshore DB Lift	Offshore DB Lift
15.3.2 Contractor	Heerema Marine Contr.	Heerema	Gulf Marine	Heerema: Holland	Samsung Heavy Industries	Samsung Heavy Industries	Heerema Marine Contr.	Heerema Marine Contr.
15.3.3 Location	Offshore @ GC 608	Rotterdam, Holland	Ingleside, Texas	Rotterdam, Holland	S. Korea	S. Korea	Offshore @ AT 617	Offshore @ GC653
15.4 Tendon Fabricator	Kiewit Offshore Services	Gulf Marine Fabricators	Gulf Marine Fabricators	Gulf Marine Fabricators			Gulf Marine Fabricators	Gulf Marine Fabricators/ Kiewit Offshore Services
15.5 Pile Fabricator		Sonamet	Gulf Island Fabricators	Sonamet				Gulf Marine Fabricator
16.0 TRANSPORTATION								
16.1 Transport Contractor	Cosco-NMA	Dockwise		Dockwise Shipping	Heerema Marine Contractors	Heerema Marine Contractors	Heerema Marine Contractors	Dockwise Shipping
16.2 Hull Transporter/Vessel	Tai An Kou	Mighty Servant 1		HLV Blue Marlin			Wet Tow	
16.3 Trips & Method	Dry Tow	Dry Tow	Dry Tow	Dry Tow	Dry Tow	Dry Tow	Dry Tow	Dry Tow
17.0 INSTALLATION								
17.1 Usage of Temporary Floatation Tanks	NO	YES 4 Tanks	NO	YES 4 Tanks	NO	NO	NO	NO
17.2 Tendon & Hull Contractor	Heerema Marine Contractors	Heerema Marine Contractors	Saipem	Heerema Marine Contractors	Heerema Marine Contractors	Heerema Marine Contractors	Heerema Marine Contractors	Heerema Marine Contractors
17.3 Installation Vessel(s)			Saipem S-7000	Thialf HLV	Thialf HLV	Thialf HLV	Thialf HLV	Thialf HLV
18.0 MILESTONES & DURATIONS								
18.1 Commercial Discovery Date	1-May-00	13-May-98	14-May-99	13-May-98	30-Jun-01	15-Jul-01	15-Aug-02	19-Nov-02
18.2 Full Project Sanction Date (Note 10)	15-Dec-01	15-Jul-01	15-Dec-01	15-Jul-02	2-Aug-04	2-Aug-04	30-Jun-05	1-Jun-06
18.3 Offshore Installation Date (Hull & Topsides)					8-Apr-06	11-Apr-06	5-Jun-07	1-Jun-08
18.4 First Oil or Gas Date	19-Jul-04	11-Aug-04	5-Jan-05	6-Jul-05	21-Jan-07	1-Oct-07	End of 2007	1-Jul-09
18.5 Estimated Field Life (Years)					15	15	15	30
19.0 CYCLE TIMES								
19.1 Commercial Discovery to Sanction (Months)	19.4	38.0	31.0	50.0	37.0	36.5	34.4	42.3
19.2 Sanction to First Production (Months)	31.0	36.8	36.6	35.6	31.0	39.0	30.0	36.9
19.3 Discovery to First Production (Months)	50.5	74.8	67.6	85.6	68.0	75.5	64.4	79.2
20.0 WEIGHT								
20.1 Topsides Weight (Deck & Facilities)	12,500 mt (13,778 st)	11,600 mt (12,786 st)	13,816 mt (15,230 st)		2,250 mt	2,250 mt	5,352 mt / 5,900 st	8,684 st
20.2 Hull Weight	5,216 mt (5,750 st)	13,464 mt (14,841 st)	10,000 mt (11,023 st)		2,650 mt	2,700 mt	5,950 st	12,493 st
20.3 Total Weight		31,187 mt (34,377 st)		30,000 mt (33,069 st)	4,900 mt	4,950 mt	6,370 st	21,177 st
20.4 Payload (Facilities/Riser/Rig - Deck)	12,700 mt (14,000 st)	22,900 st	12,141 st	22,900 st			8,800 st	14,867 st
20.5 Displacement @ MWL	24,947 mt (27,500 st)	58,480 st	37,794 st	58,480 st			27,000 st	43,431 st
20.6 Pile Weight							2,334 st	433 st
20.7 Tendons Weight							6,564 st	1,329 st
20.8 Foundation Template Weight								
20.9 Drilling Template Weight								
21.0 EXPORT PIPELINE INFORMATION								
21.1 Oil Export Pipeline Size & Riser Type	14"	None - to FPSO	14", SCR	None - to FPSO	8" x 1440# Flex Riser	8" x 1440# Flex Riser	20"	20"
21.2 Oil Export Length	36 Miles (58 Km)				5 Miles (8 Km)	8 Miles (13 Km)	23 Miles (32 Km)	83 Miles (134 Km)
21.3 Gas Export Pipeline Size & Riser Type	18" & 20"		16", SCR		10" x 1440# Flex Riser	10" x 1440# Flex Riser	12.75"	12"
21.4 Gas Export Length	75 Miles (121 Km)				5 Miles (8 Km)	8 Miles (13 Km)	23 Miles (32 Km)	11 Miles (18 Km)
22.0 RESERVOIR INFORMATION								
22.1 Proven Reserves	20 MMBOE	1,000 MMBOE	68 MMBOE	1,000 MMBOE	50 - 150 MMBOE		100 - 150 MMBOE	350 - 400 MMBOE
22.2 Oil:Gas Ratio								
22.3 API Gravity (Degrees API)	30 - 34 Deg.							30-33 Deg.
22.4 Sulfur Content (%)								
23.0 RECORDS & FIRSTS		First TLWP in West Africa	World's Deepest TLP					

1

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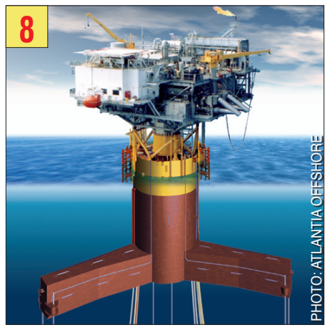
3 PHOTO: STATOIL

4 PHOTO: SHELL

5 PHOTO: SVEIN HARALD LEDAAL, STATOIL

6 PHOTO: SHELL

7 PHOTO: SHELL


8 PHOTO: ATLANTIA OFFSHORE

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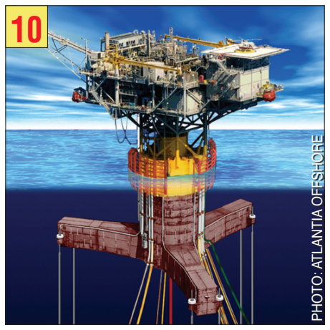
10 PHOTO: ATLANTIA OFFSHORE

11 PHOTO: BP

12 PHOTO: ATLANTIA OFFSHORE

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14 PHOTO: MODEC INTERNATIONAL

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16 PHOTO: ATLANTIA OFFSHORE

17 PHOTO: ANADARKO

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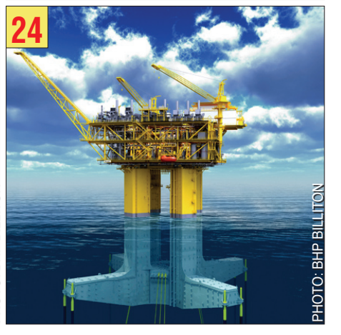
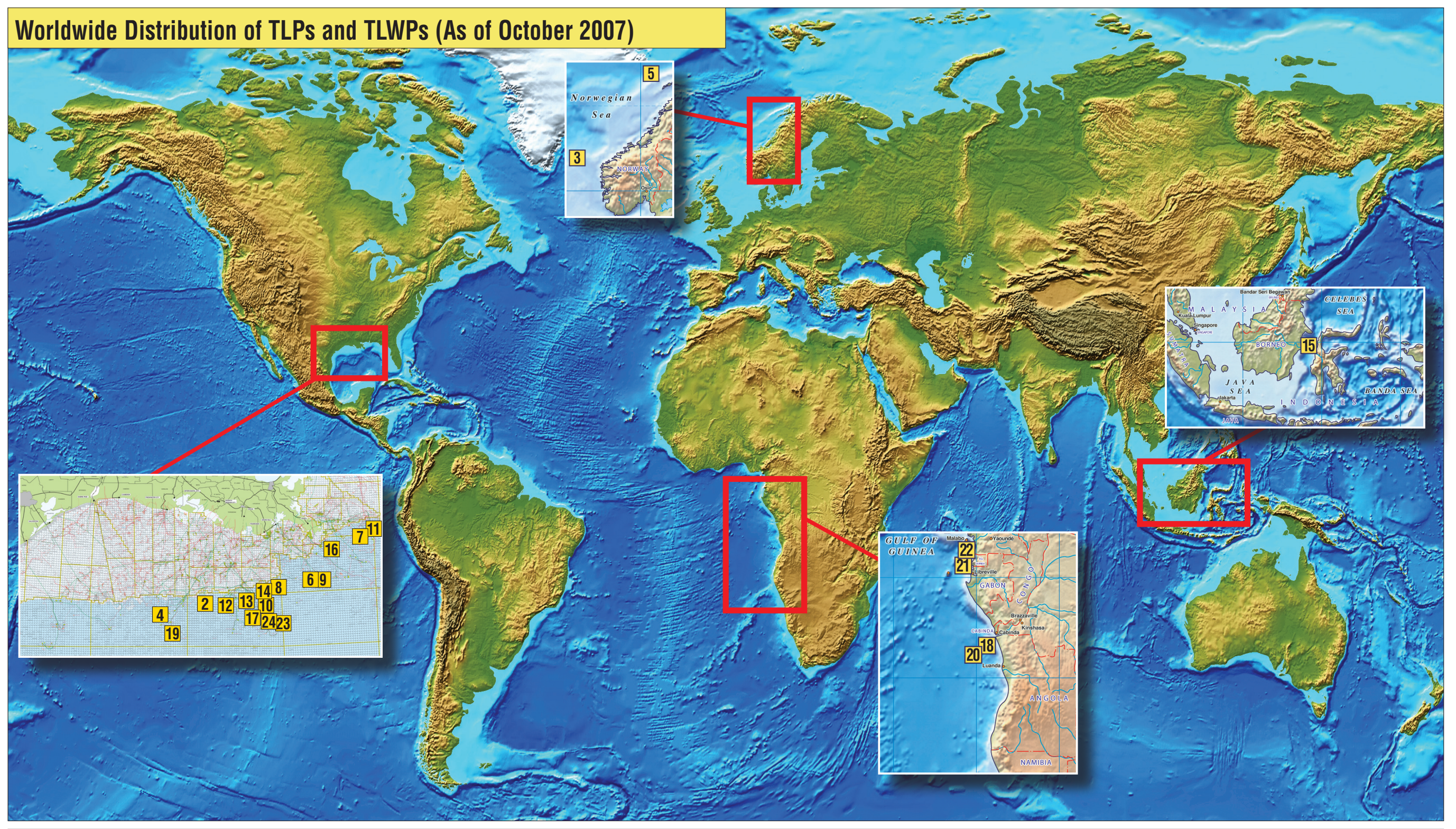
21 PHOTO: MODEC INTERNATIONAL

22 PHOTO: MODEC INTERNATIONAL

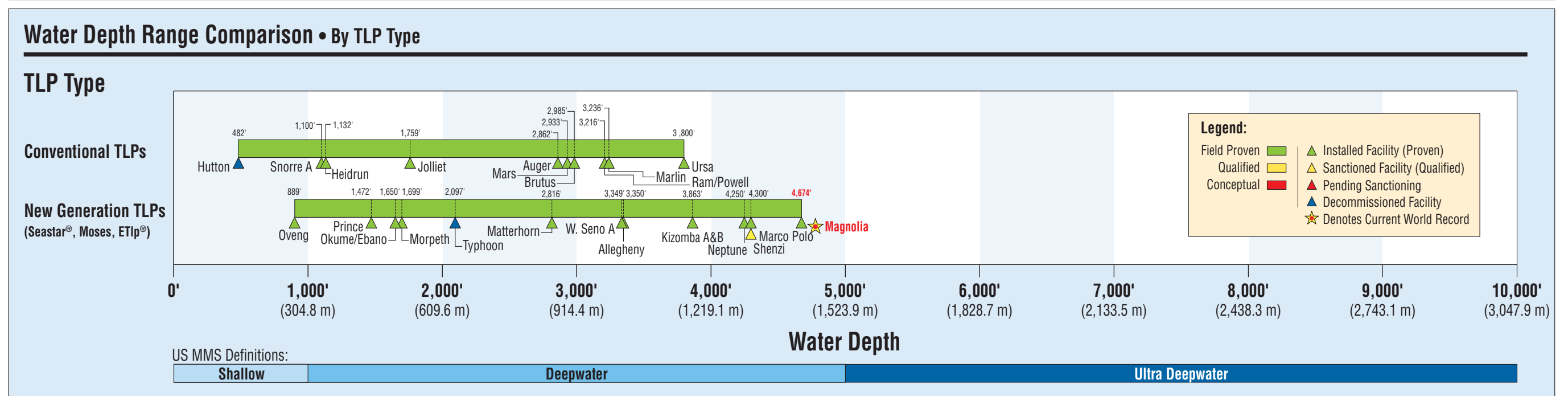
23 PHOTO: BHP BILLITON


24 PHOTO: BHP BILLITON

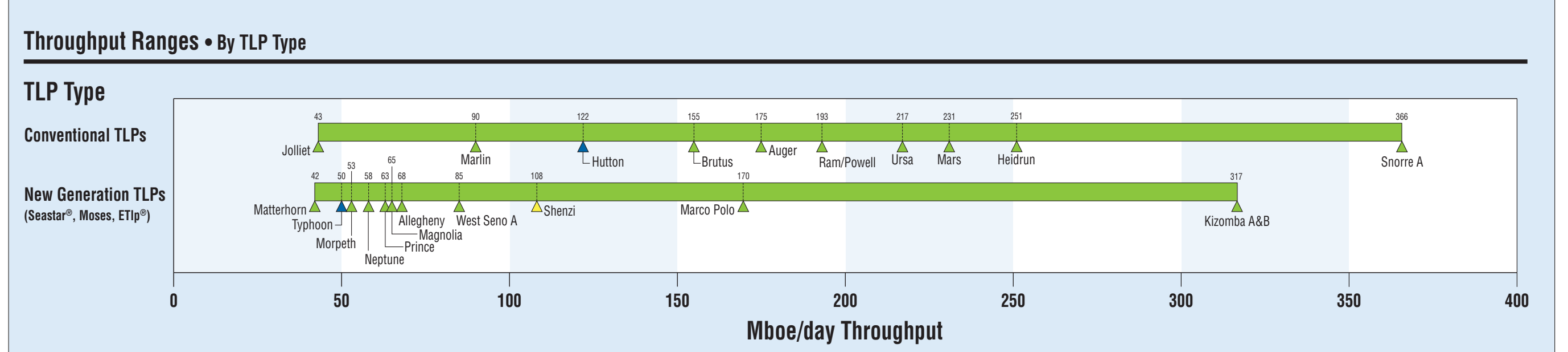
Worldwide Distribution of TLPs and TLWPs (As of October 2007)



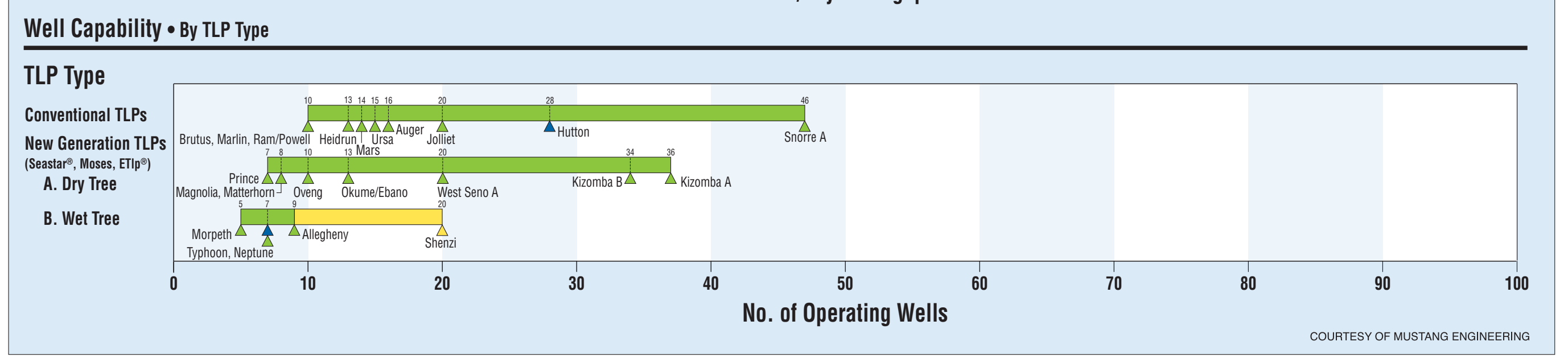
Water Depth Range Comparison • By TLP Type



Throughput Ranges • By TLP Type



Well Capability • By TLP Type



COURTESY OF MUSTANG ENGINEERING

NOTES

1. TLP damaged in Hurricanes Rita and Katrina and has been converted into an artificial reef.
2. Original Partners were Conoco U.K. Ltd., Britoil Plc., Gulf Oil Corp., Amoco (U.K.) Exploration Co., Enterprise Oil Plc, Mobil North Sea Ltd., Amerada Hess (U.K.) Ltd., Texas Eastern North Sea Inc. HUTTON
3. Current Partners are Petro (30%), Norsk Hydro Production (17.65%), Statoil (15.58%), ExxonMobil E&P Norway (11.16%), Idemitsu Petroleum Norge (9.6%), RWE Dea Norge (8.88%), Total E&P Norge (5.95%) and Amerada Hess Norge (1.18%). SNORRE A
4. Marco Polo TLP is owned by Deepwater Gateway LLC which is owned by Gulf Terra Partners (50%) & Cal Dive International (50%) MARCO POLO
5. Six temporary buildings x 8 persons/ building. MAGNOLIA
6. Originally the rig was owned by the partnership, now the rig is leased. JOLLIET
7. For CVA on behalf of MMS: D= design, F = fabrication, I = installation.
8. Consortium consists of of Hyundai Heavy Industries, Clough Engineering, and PetroSea. WEST SENO A
9. Joint venture between J. Ray McDermott and Hereema Marine Contractors
10. Project sanction date is the date that all the partners sanctioned the project.
11. OI + A1- Floating Offshore Installation
12. Full processing is being done on Kizomba A&B FPSOs. Figures listed are throughput to FPSOs.
13. Data on numbers of dry tree wells and subsea wells is unavailable.

Information Accuracy: Every attempt has been made to locate and contact all the TLP owners operating around the world. No owner(s) or TLP contractor(s) were intentionally excluded from the survey. In some cases the owner or vessel has not been included because information was not supplied in time. We have attempted to make the survey as complete and accurate as possible. However, we make no guarantee that it is all inclusive. The information was collected from company brochures, websites, personal interviews, phone interviews and in major part by owner-supplied data. Neither Mustang Engineering, L.P., nor Offshore Magazine guarantees or assumes any responsibility or liability for any reliance on the information presented.

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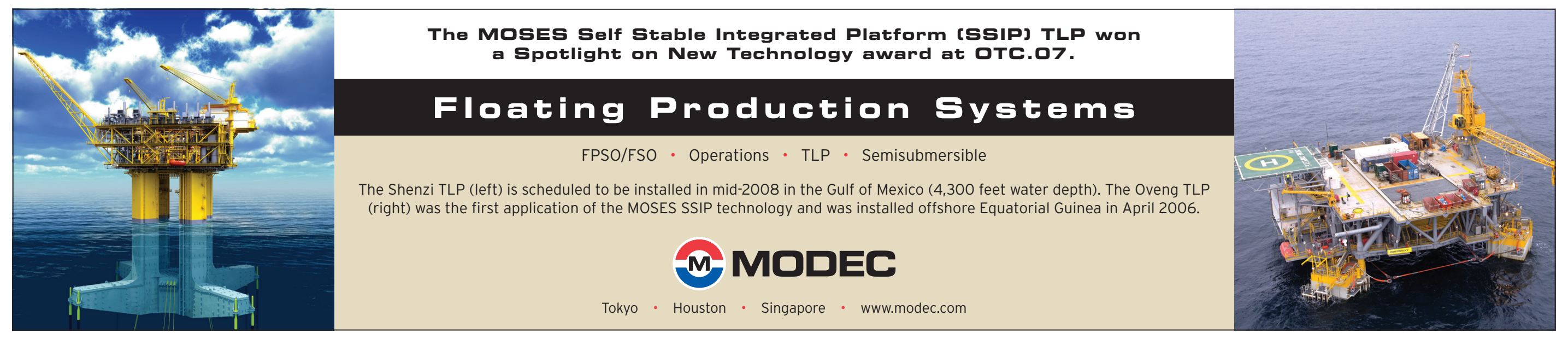
The MOSES Self Stable Integrated Platform (SSIP) TLP won a Spotlight on New Technology award at OTC.07.

Floating Production Systems

FPSO/FSO • Operations • TLP • Semisubmersible

The Shenzi TLP (left) is scheduled to be installed in mid-2008 in the Gulf of Mexico (4,300 feet water depth). The Oveng TLP (right) was the first application of the MOSES SSIP technology and was installed offshore Equatorial Guinea in April 2006.

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Keeping Score with Alliance Engineering
TLP Topsides
INDEPENDENCE HUB Water Depth - 8,000' 1 Billion scfd
MARCO POLO Water Depth - 4,300' 120,000BOPD 400 MMscfd
SHENZI Water Depth - 4,300' 150,000 BOPD
OKUME Complex TLPs Water Depth -1,650' & 900' 25,000 BOPD 30 MMscfd each
MAGNOLIA Water Depth - 4,744' 50,000 BOPD 150 MMscfd
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a JV of Keppel FELS & J. Ray McDermott