3rd Party Certification Requirements per issuance of October 14, 2010 Code of Federal Regulations

1. CFR 250.416(e)
Independent third party verification and supporting documentation that show the blind-shear rams installed in the BOP stack are capable of shearing any drill pipe in the hole under maximum anticipated surface pressure.
David Lewis – Blade Energy Partners

2. CFR 250.416(f)(1,2,3)
When using a subsea BOP stack, independent third party verification that shows:
(1) the BOP stack is designed for the specific equipment on the rig and for the specific well design.
David Lewis – Blade Energy Partners

CFR 250.420(a)(6)
Include certification signed by a Registered Professional Engineer that there will be at least two independent tested barriers, including one mechanical barrier, across each flow path during well completion activities and that the casing and cementing design is appropriate for the purpose for which it is intended under expected wellbore conditions.
David Lewis – Blade Energy Partners

1. **CFR 250.416(e) – Independent third party verification and supporting documentation that show the blind-shear rams installed in the BOP stack are capable of shearing any drill pipe in the hole under maximum anticipated surface pressure.**

WELL EXAMINATION AND CERTIFICATION
Verification that Blind-shear Rams will Shear Pipe in the Hole

Well Name	Atwater Valley 617 SA01 ST01 - OCS-G1-08037 #2 – Neptune Development
Drilling Rig Name	Development Driller 1 (DD1)
Program Description	Verify that the blind-shear rams will shear the planned pipe in the wellbore
Program Revision Number / Date	BHP-U211-019 Rev A / 10 August 2011
Well Examiner	David B. Lewis

The Development Driller 1 (DD1) is equipped with Hydril 18-3/4" 15,000 psi Dual Compact Ram BOP blind shear rams (BSRs) and a Cameron 18-3/4" 15,000 psi TL Super Shear casing shear rams (CSRs). It is capable to shear the planned drill pipe for the subject well which will be 6-5/8" S-135 drill pipe, 0.362" wall (27.7 lb/ft) and 0.625" wall (40.05 lb/ft).

Requirements CFR 250.416 (e,g)	Documents Reviewed	Deemed Appropriate
Verification that Blind-shear Rams will Shear Pipe in the Hole	• SA01ST01 AT617 CFR Certification Requirements Blade.pdf – 5 August 2011 • 02 DD1 6-58 Landing String Specs Binder 1 20081208 mwd.pdf – 8 December 2008 • 03 DD1 6-58 40 lb-ft Drillpipe Specs 20081208 mwd.pdf – 8 December 2008 • 04 DD1 6-58 27 lb-ft Drillpipe Specs 20081208 mwd.pdf – 8 December 2008	Yes

Signed: David B. Lewis	
Date: 10 August 2011	

QUALIFICATIONS OF DAVID B. LEWIS

General	David has thirty years of domestic and international experience in oil & gas exploration and production. He has an engineering and an operational background in drilling, completions, offshore structures and experience in deepwater, big bore (mono bore) and high pressure-high temperature wells. He is a Registered Professional Engineer in the State of Texas, a member of ASCE, SPE, and serves on numerous API and ISO committees.
Education	MS degree in Civil Engineering - Structures / Engineering Mechanics – 1980 - University of Missouri-Rolla BS degree in Civil Engineering - Structures / Engineering Mechanics – 1978 - University of Missouri-Rolla Post-graduate doctoral work in finite element methods, continuum mechanics, vibrations, and structural dynamics.
Employment	2001 – Present President and CEO - Blade Energy Partners 2000 – 2001 Section Manager – Well Construction Technology - ExxonMobil 1997 – 2000 Section Manager – Drilling Technology - Mobil Technology Company 1992 – 1997 Senior Drilling Engineering Advisor - Mobil Drilling 1988 – 1992 Senior Drilling Engineer - Mobil Drilling 1981 – 1988 Senior Structural Engineer - Mobil Technology Company
Affiliations	Registered Professional Engineer – Texas #59664 API – American Petroleum Institute • API Executive Board Member of Committee 5 – Tubular Goods • Chairman API RP 5-EX Resource Group on Solid Expandable Development • Chairman API Resource Group on Tubular Properties Software Development • Technical Member of API 5CT - Specifications for Casing and Tubing • Technical Member of API TR 5C3 - Bulletin on Formulas and Calculations for Casing, Tubing, Drill Pipe, and Line Pipe Properties • API Executive Board Member of Committee 16 - Drilling Well Control Equipment • Chairman 16Q - Recommended Practice for Design, Selection, Operation and Maintenance of Marine Drilling Riser Systems • Chairman 16R - Specification for Marine Drilling Riser Couplings • Technical Member of API RP 6HP (PER 15K) - Greater than 15 ksi Equipment • Technical Member API RP 96 – Deepwater Design Considerations ISO – International Standardization Organization • Technical Member WG2A and WG2B for ISO TR 10400 - Petroleum and natural gas industries — Equations and calculations for the properties of casing, tubing, drill pipe and line pipe used as casing or tubing Authored or co-authored 25 technical publications in the upstream oil and gas industry.

Data Pack for Shearing Verification

Neptuner SA01ST01
Atwater Valley 617

Summary

The purpose of this data package it to provide actual shear test results and calculations for shearing capability of all drill pipe to be used in the Neptune SA01ST01 well, including the correction for mud weights and maximum anticipated shut-in pressure (MASP). This data package has been submitted for an independent 3rd party verification by Blade for review to confirm that the blind shear rams (BSRs) on the Development Driller 1 (DD1) are capable of shearing all drill pipe in the hole under MASP. The DD1 is equipped with two sets of Hydril 18-3/4" 15,000psi Compact Ram BOP blind shear rams (BSRs) with 3,000psi operating pressure.

Three different wall thicknesses of 6-5/8" S-135 drill pipe are required to reach total depth: 0.625" wall (40ppf), 0.522" wall (34ppf), and 0.362" wall (27ppf). All three sizes of drill pipe are expected to be across the BOP during normal drilling operations and all are capable of being sheared at the MASP and mud weight.

Surface testing was performed on the 0.625" wall drill pipe and actual test results are included in this data package. The drill pipe tested requires the highest shear pressure planned to be used in the well. Based on these actual test results, the blind-shear rams are capable of shearing and sealing on all sizes of 6-5/8" S-135 that will be used for normal drilling operations on the WI003 well.

The calculations to show the additional closing pressure required for operating the BRSs due to the effects of mud weight and MASP are also included in this data package. Based on the calculations the 3,000psi operating pressure of the BSRs on the DD1 is sufficient to provide the additional closing pressure required to shear under the maximum anticipated shut-in conditions.

List of Attachments - Support Documents

Attachment 1 – DD1 40ppf Drill Pipe

- Actual Surface Shearing Test Data
- Calculated Surface Shearing Data
- Calculated Required Shear Pressure

Attachment 2 – Rental 34ppf Drill Pipe

- Calculated Surface Shearing Data
- Calculated Required Shear Pressure

Attachment 3 – DD1 27ppf Drill Pipe

- Calculated Surface Shearing Data
- Calculated Required Shear Pressure

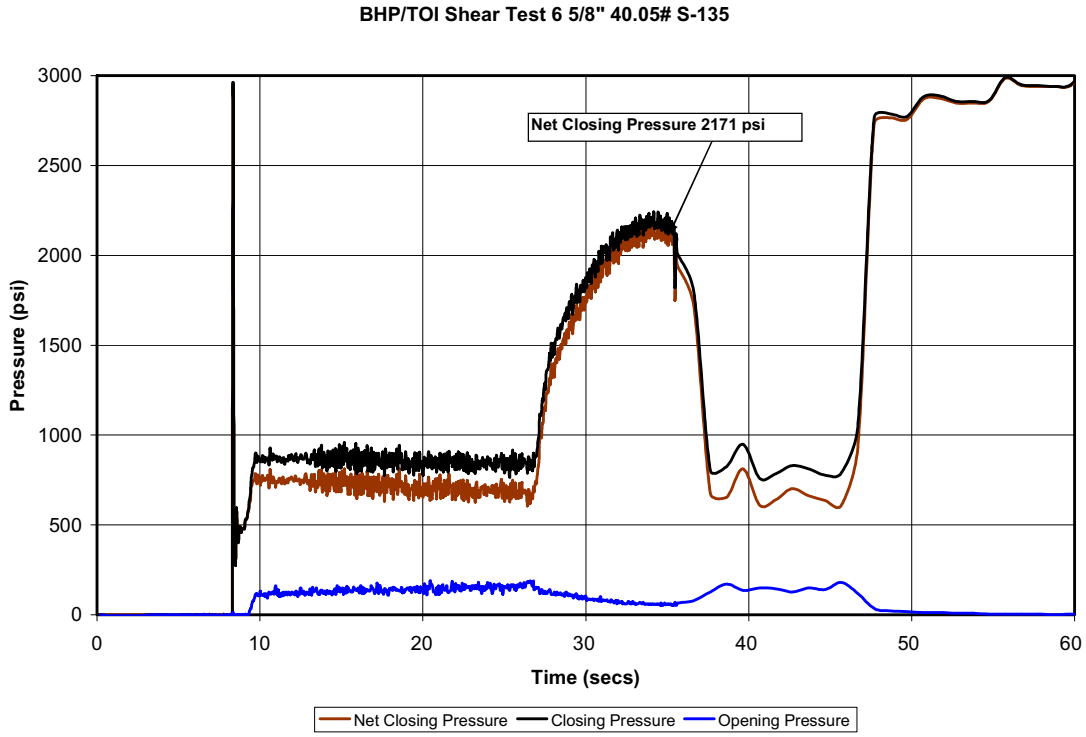
Attachment 1

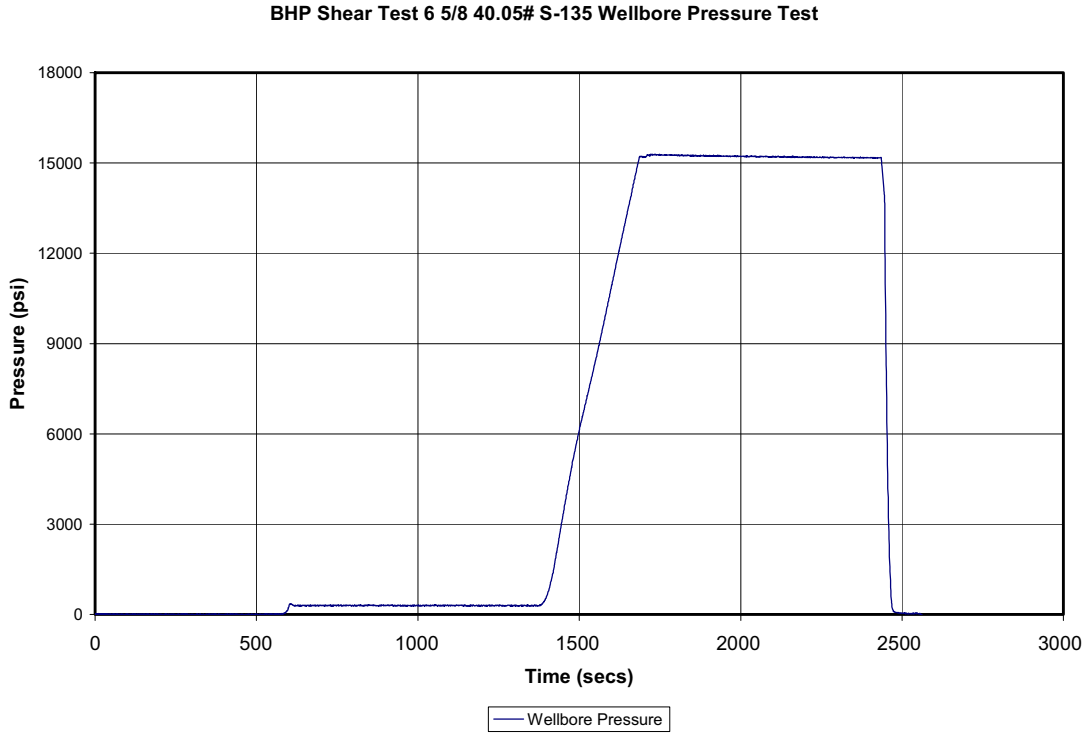
DD1 40ppf Drill Pipe

Hydril BSR Surface Test Data

Sample 1 Description	6-5/8" 40 ppf S-135 DP (0.625" wall)
Customer Company	Hydril
Contact	Raylan LeBleu, BHP
Technical Witness	Alan D Schneider
Technical Witness Company	ModuSpec USA
Pipe Description (OD, ppf, Grade)	6-5/8" 40 ppf S-135 DP (0.625" wall)
Tracking Number	DDV0156
Test Date	8-Sep-10
Test Start Time	Hydril will supply data in final report
Centralizer Centralization (type and location)	Lower VBR 21" up from bottom
BOP Size & WP	18.750" 15k
BOP Model	Test Stand Compact Light
Shear Operator Size (in)	22"
Shear Rod Size (in)	5.750"
Shear Model Designation	Hydril BSR
Post-Test 200-300 psi hold (psi/, min, Pass, Y/N)	Pass 288 psi
Post-Test 15000 psi hold (psi, /min, Pass Y/N)	Pass 15166 psi
Calipered Pipe OD taken at cut area at 180°	6.666 x 6.635
Pipe ID	5.37
UT Wall thickness (in)	0.723
Shear Achieved Y/N	Yes
Max Shear Force (lb) [1]	798000
Max Shear Pressure (psi)	2100
Material Grade	S-135
Plain End weight (ppf) from UT/WT	45.5
Fish Height (in) - Short Oval Dimension	4

Fish Width (in) - Long Oval Dimension	8.5
Hardness (test site HB)[2]	340
Hardness (lab test HB) - Laboratory acquired[2]	
Tensile Strength (psi) - Laboratory acquired[2]	
Yield Strength (psi) - Laboratory acquired[2]	
Charpy Value (ft-lb) - Laboratory acquired[2]	
Charpy Temp (F) - Laboratory acquired[2]	
Percent Elongation % - Laboratory acquired[2]	
Reduction of Area % - Laboratory acquired[2]	
Notes	Replaced upper blade after first cut.
Instrument Calibration Summary	**Shear Ram Closed**
Instrument Type	Pressure Transmitter
Instrument Range	4-20 mA
Last Calibration Date	20-Aug-10
Utilized during Testing	Yes
Instrument Calibration Summary	**Pressure Test Unit**
Instrument Type	Pressure Transmitter
Instrument Range	4-20 mA
Last Calibration Date	6-May-10
Utilized during Testing	Yes


BHP/TOI Shear Test 6 5/8" 40.05# S-135
Net Closing Pressure 2171 psi
Pressure (psi)
3000
2500
2000
1500
1000
500
0
0
10
20
30
40
50
60
Time (secs)
Net Closing Pressure
Closing Pressure
Opening Pressure

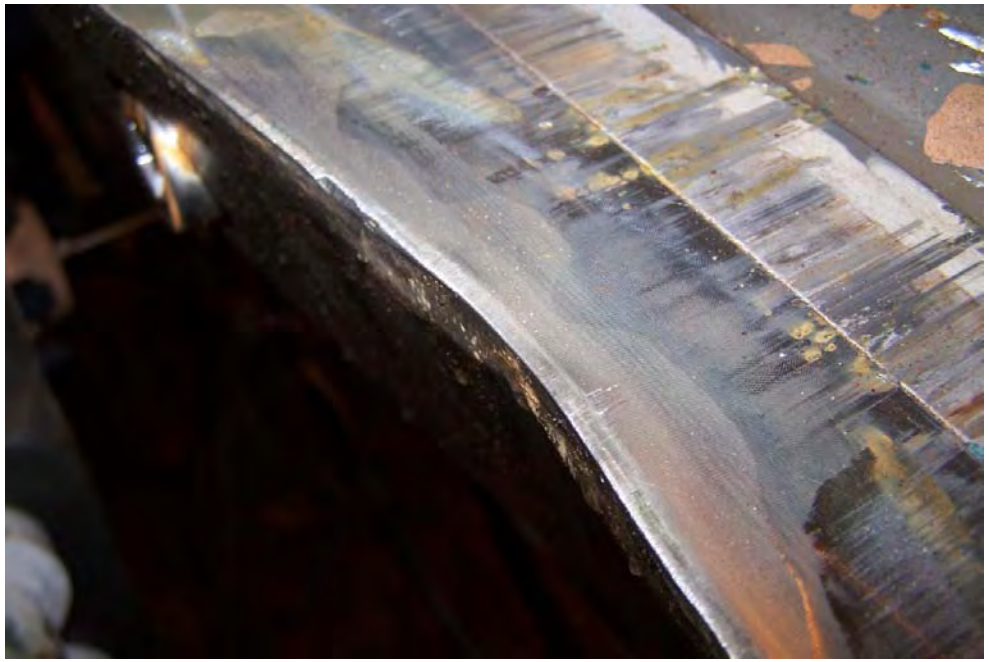

BHP Shear Test 6 5/8 40.05# S-135 Wellbore Pressure Test
Pressure (psi)
18000
15000
12000
9000
6000
3000
0
0
500
1000
1500
2000
2500
3000
Time (secs)
Wellbore Pressure

Sample No 1 Upper

Sample No 1 Lower on left

Before test Lower

Before test Upper



Lower blade after test

Upper blade and lateral "T" seal damage after test

GE Oil & Gas

Shearing Pressure Inquiry Response

6 5/8” 40.05# S-135

Ram BOP Shear Pressure Calculation Page

To calculate shearing pressure for a pipe with specific properties using Hydril Ram BOPs equipped with blind shear blades or casing shear blades enter the following values in decimal form.

For your convenience, a fraction to decimal chart has been provided on the right side of the page.

Note: Pipe Ultimate strength is NOT the Yield Strength

Pipe Diameter (in)	6.625
Wall Thickness (in)	0.625
Pipe Ultimate Strength (psi)	160900
Pipe Mtl Elongation (%)	25.1
Operator Rating (psi)	3K
Ram Operator Size (in)	22.00
Water Depth (ft)	0
Mud Weight (lbs/gal)	0
BOP Size (in)	18-15M
Calculated Shear Pressure (psi)	2308

Compute

Decimal Equivalent Chart

1/8 = 0.125
1/4 = 0.250
3/8 = 0.375
1/2 = 0.500
5/8 = 0.625
3/4 = 0.750
7/8 = 0.875

Required Shear Pressure for Hydril 18-3/4" 15K BSR with 22" Operators

Nomenclature

Dp = Diameter of Piston
Dr = Diameter of Piston Rod
CR = Closing ratio
Depth = Water Depth
MudWt = Mud weight
SPMud = Pressure effect due to mud weight and water depth
MASP = Maximum absolute anticipated shut in pressure in the cavity
SPPw = Pressure effect due to wellbore pressure in the cavity
Pc = Closing Pressure to shear at surface
PcTotal = Total Closing Pressure
Density Seawater = DenSW
Density Control Fluid = DenCF

Assumptions

Dp =	*22 in*	
Dr =	*5.75 in*	
Pc =	*2,308 psi*	for 6-5/8" 40.0ppf S-135 drill pipe
MASP =	*7,400 psi*	
Depth =	*6,171 ft*	
MudWt =	*12.80 ppg*	
DenSW =	*8.54 ppg*	
DenCF =	*8.33 ppg*	

CR =	$(Dp^2) / (Dr^2)$
CR =	$(22^2) / (5.75^2)$
CR =	***14.64***

Pressure Effect Due to Mud Weight and Water Depth

SPMud =	$(Depth \times 0.052 \times (DenSW \times (Dp^2 - Dr^2) + (MudWt \times Dr^2) - (DenCF \times Dp^2))) / Dp^2$
SPMud =	$(6171 \times 0.052 \times (8.54 \times (22^2 - 5.75^2) + (12.8 \times 5.75^2) - (8.33 \times 22^2))) / 22^2$
SPMud =	***161 psi***

PcTotal =	*Pc + SPMud*
PcTotal =	*2308 + 161*
PcTotal =	***2,469 psi***

Pressure Effect Due to Wellbore Pressure in the cavity

SPPw =	$(Depth \times 0.052 \times (DenSW \times (Dp^2 - Dr^2) - (DenCF \times Dp^2)) + (MASP \times Dr^2)) / Dp^2$
SPPw =	$(6171 \times 0.052 \times (8.54 \times (22^2 - 5.75^2) - (8.33 \times 22^2)) + (7400 \times 5.75^2)) / 22^2$
SPPw =	***386 psi***

PcTotal =	*Pc + SPPw*
PcTotal =	*2308 + 386*
PcTotal =	***2,694 psi***

Attachment 2

Rental 34ppf Drill Pipe

GE Oil & Gas

Shearing Pressure Inquiry Response

6 5/8” 0.522 S-135

Ram BOP Shear Pressure Calculation Page

To calculate shearing pressure for a pipe with specific properties using Hydril Ram BOPs equipped with blind shear blades or casing shear blades enter the following values in decimal form.

For your convenience, a fraction to decimal chart has been provided on the right side of the page.

Note: Pipe Ultimate strength is NOT the Yield Strength

Pipe Diameter (in)	6.625
Wall Thickness (in)	0.522
Pipe Ultimate Strength (psi)	161800
Pipe Mtl Elongation (%)	25.1
Operator Rating (psi)	3K
Ram Operator Size (in)	22.00
Water Depth (ft)	0
Mud Weight (lbs/gal)	0
BOP Size (in)	18-15M
Calculated Shear Pressure (psi)	**1971**

Compute

Decimal Equivalent Chart

1/8 = 0.125
1/4 = 0.250
3/8 = 0.375
1/2 = 0.500
5/8 = 0.625
3/4 = 0.750
7/8 = 0.875

Required Shear Pressure for Hydril 18-3/4" 15K BSR with 22" Operators

Nomenclature

Dp = Diameter of Piston
Dr = Diameter of Piston Rod
CR = Closing ratio
Depth = Water Depth
MudWt = Mud weight
SPMud = Pressure effect due to mud weight and water depth
MASP = Maximum absolute anticipated shut in pressure in the cavity
SPPw = Pressure effect due to wellbore pressure in the cavity
Pc = Closing Pressure to shear at surface
PcTotal = Total Closing Pressure
Density Seawater = DenSW
Density Control Fluid = DenCF

Assumptions

Dp =	*22 in*	
Dr =	*5.75 in*	
Pc =	*1,971 psi*	for 6-5/8" 34.0ppf S-135 drill pipe
MASP =	*7,400 psi*	
Depth =	*6,171 ft*	
MudWt =	*12.80 ppg*	
DenSW =	*8.54 ppg*	
DenCF =	*8.33 ppg*	

CR =	$(Dp^2) / (Dr^2)$
CR =	$(22^2) / (5.75^2)$
CR =	***14.64***

Pressure Effect Due to Mud Weight and Water Depth

SPMud =	$(Depth \times 0.052 \times (DenSW \times (Dp^2 - Dr^2) + (MudWt \times Dr^2) - (DenCF \times Dp^2))) / Dp^2$
SPMud =	$(6171 \times 0.052 \times (8.54 \times (22^2 - 5.75^2) + (12.8 \times 5.75^2) - (8.33 \times 22^2))) / 22^2$
SPMud =	***161 psi***

PcTotal =	*Pc + SPMud*
PcTotal =	*1971 + 161*
PcTotal =	***2,132 psi***

Pressure Effect Due to Wellbore Pressure in the cavity

SPPw =	$(Depth \times 0.052 \times (DenSW \times (Dp^2 - Dr^2) - (DenCF \times Dp^2)) + (MASP \times Dr^2)) / Dp^2$
SPPw =	$(6171 \times 0.052 \times (8.54 \times (22^2 - 5.75^2) - (8.33 \times 22^2)) + (7400 \times 5.75^2)) / 22^2$
SPPw =	***386 psi***

PcTotal =	*Pc + SPPw*
PcTotal =	*1971 + 386*
PcTotal =	***2,357 psi***

Attachment 3

DD1 27 Drill Pipe

GE Oil & Gas

Shearing Pressure Inquiry Response

6 5/8” 27.70 lb/ft S-135

Ram BOP Shear Pressure Calculation Page

To calculate shearing pressure for a pipe with specific properties using Hydril Ram BOPs equipped with blind shear blades or casing shear blades enter the following values in decimal form.

For your convenience, a fraction to decimal chart has been provided on the right side of the page.

Note: Pipe Ultimate strength is NOT the Yield Strength

Pipe Diameter (in)	6.625
Wall Thickness (in)	0.362
Pipe Ultimate Strength (psi)	158900
Pipe Mtl Elongation (%)	20.5
Operator Rating (psi)	3K
Ram Operator Size (in)	22.00
Water Depth (ft)	0
Mud Weight (lbs/gal)	0
BOP Size (in)	18-15M
Calculated Shear Pressure (psi)	1170

Compute

Decimal Equivalent Chart

1/8 = 0.125
1/4 = 0.250
3/8 = 0.375
1/2 = 0.500
5/8 = 0.625
3/4 = 0.750
7/8 = 0.875

Required Shear Pressure for Hydril 18-3/4" 15K BSR with 22" Operators

Nomenclature

Dp = Diameter of Piston
Dr = Diameter of Piston Rod
CR = Closing ratio
Depth = Water Depth
MudWt = Mud weight
SPMud = Pressure effect due to mud weight and water depth
MASP = Maximum absolute anticipated shut in pressure in the cavity
SPPw = Pressure effect due to wellbore pressure in the cavity
Pc = Closing Pressure to shear at surface
PcTotal = Total Closing Pressure
Density Seawater = DenSW
Density Control Fluid = DenCF

Assumptions

Dp =	22 in	
Dr =	5.75 in	
Pc =	1,170 psi	for 6-5/8" 27.7ppf S-135 drill pipe
MASP =	7,400 psi	
Depth =	6,171 ft	
MudWt =	12.80 ppg	
DenSW =	8.54 ppg	
DenCF =	8.33 ppg	

CR =	$(Dp^2) / (Dr^2)$
CR =	$(22^2) / (5.75^2)$
CR =	**14.64**

Pressure Effect Due to Mud Weight and Water Depth

SPMud =	$(Depth \times 0.052 \times (DenSW \times (Dp^2 - Dr^2) + (MudWt \times Dr^2) - (DenCF \times Dp^2))) / Dp^2$
SPMud =	$(6171 \times 0.052 \times (8.54 \times (22^2 - 5.75^2) + (12.8 \times 5.75^2) - (8.33 \times 22^2))) / 22^2$
SPMud =	**161 psi**

PcTotal =	Pc + SPMud
PcTotal =	1170 + 161
PcTotal =	**1,331 psi**

Pressure Effect Due to Wellbore Pressure in the cavity

SPPw =	$(Depth \times 0.052 \times (DenSW \times (Dp^2 - Dr^2) - (DenCF \times Dp^2)) + (MASP \times Dr^2)) / Dp^2$
SPPw =	$(6171 \times 0.052 \times (8.54 \times (22^2 - 5.75^2) - (8.33 \times 22^2)) + (7400 \times 5.75^2)) / 22^2$
SPPw =	**386 psi**

PcTotal =	Pc + SPPw
PcTotal =	1170 + 386
PcTotal =	**1,556 psi**

2. **CFR 250.416(f)(1) – When using a subsea BOP stack, independent third party verification that shows:**
    a. **(1) the BOP stack is designed for the specific equipment on the rig and for the specific well design.**

WELL EXAMINATION AND CERTIFICATION
BOP Compatibility with the Well Design Verification

Well Name	Atwater Valley 617 SA01 ST01 - OCS-G1-08037 #2 – Neptune Development
Drilling Rig Name	Development Driller 1 (DD1)
Program Description	BOP Compatibility Verification
Program Revision Number / Date	BHP-U211-019 Rev A / 10 August 2011
Well Examiner	David B. Lewis

The Development Driller 1 BOP stack is designed for the specific well design (well location and well execution plan).

Requirements CFR 250.416 (f)(1) CFR 250.418 (i)	**Documents Reviewed**	**Deemed Appropriate**
BOP Compatibility with the Well Design Verification	• (14 a) DD1 BOP Ram Spaceout for SA01 ST1.pdf – 7 October 2010 • Blade CLAP Program File – Neptune SA01 ST01.CLP – 10 August 2011 • SA01ST01_MASP_MAWP_Casing_Design.xls – 1 August 2011 • SA01ST01_MMS123S_Form.xls – 1 August 2011 • SA01 ST01 Proposed Wellbore Schematic BOEM 20110801 rev 13 DEV.pptx – 1 August 2011	Yes

Signed: David B. Lewis	
Date: 10 August 2011	

QUALIFICATIONS OF DAVID B. LEWIS

General	David has thirty years of domestic and international experience in oil & gas exploration and production. He has an engineering and an operational background in drilling, completions, offshore structures and experience in deepwater, big bore (mono bore) and high pressure-high temperature wells. He is a Registered Professional Engineer in the State of Texas, a member of ASCE, SPE, and serves on numerous API and ISO committees.
Education	MS degree in Civil Engineering - Structures / Engineering Mechanics – 1980 - University of Missouri-Rolla BS degree in Civil Engineering - Structures / Engineering Mechanics – 1978 - University of Missouri-Rolla Post-graduate doctoral work in finite element methods, continuum mechanics, vibrations, and structural dynamics.
Employment	2001 – Present President and CEO - Blade Energy Partners 2000 – 2001 Section Manager – Well Construction Technology - ExxonMobil 1997 – 2000 Section Manager – Drilling Technology - Mobil Technology Company 1992 – 1997 Senior Drilling Engineering Advisor - Mobil Drilling 1988 – 1992 Senior Drilling Engineer - Mobil Drilling 1981 – 1988 Senior Structural Engineer - Mobil Technology Company
Affiliations	Registered Professional Engineer – Texas #59664 API – American Petroleum Institute • API Executive Board Member of Committee 5 – Tubular Goods • Chairman API RP 5-EX Resource Group on Solid Expandable Development • Chairman API Resource Group on Tubular Properties Software Development • Technical Member of API 5CT - Specifications for Casing and Tubing • Technical Member of API TR 5C3 - Bulletin on Formulas and Calculations for Casing, Tubing, Drill Pipe, and Line Pipe Properties • API Executive Board Member of Committee 16 - Drilling Well Control Equipment • Chairman 16Q - Recommended Practice for Design, Selection, Operation and Maintenance of Marine Drilling Riser Systems • Chairman 16R - Specification for Marine Drilling Riser Couplings • Technical Member of API RP 6HP (PER 15K) - Greater than 15 ksi Equipment • Technical Member API RP 96 – Deepwater Design Considerations ISO – International Standardization Organization • Technical Member WG2A and WG2B for ISO TR 10400 - Petroleum and natural gas industries — Equations and calculations for the properties of casing, tubing, drill pipe and line pipe used as casing or tubing Authored or co-authored 25 technical publications in the upstream oil and gas industry.

CFR 250.420(a)(6) – Include certification signed by a Registered Professional Engineer that there will be at least two independent tested barriers, including one mechanical barrier, across each flow path during well completion activities and that the casing and cementing design is appropriate for the purpose for which it is intended under expected wellbore conditions.

WELL EXAMINATION AND RECERTIFICATION
Well Tubulars, Cementing and Barrier Check

Well Name	Atwater Valley 617 SA01 ST01 - OCS-G1-08037 #2 – Neptune Development
Program Description	Well Casing Design, Cement Program and Barrier Reviews
Program Revision Number / Date	BHP-U211-019 Rev A / 10 August 2011
Well Examiner	David B. Lewis

The well program referenced above has been examined and is fit for purpose to achieve the stated objectives as per the BOEMRE requirements for the well casing design and cement program for the 11-3/4" drilling liner and 9-5/8" production liner. Should there be any deviations from the well design assumptions or stated purpose the Examiner must be contacted to check the potential implications.

There are at least two independent tested barriers, including one mechanical barrier, across each flow path during well completion activities and the casing and cementing design is appropriate for the purpose for which it is intended under expected wellbore conditions.

Requirements CFR 250.418 (h) CFR 250.420 (a)(6)	**Documents Reviewed**	**Deemed Appropriate**
Casing	• BOWD W2p7_August_2011.docx – 7 August 2011 • SA01 ST1 Sundry Procedure rev2.docx – 1 August 2011 • SA001 ST1_PPFG_20110801.ppt – 1 August 2011 • SA01ST1-W2_ProfileforDrilling.xls – 1 July 2011 • SA01 ST01 Proposed Wellbore Schematic BOEM 20110801 rev 13 DEV.pptx – 1 August 2011 • 8x11 – AT617 #2 SA001 ST01BP00 Option (W2.7) Rev 2.2.pdf – 20 July 2011 • AT617 #2 SA001 ST01BP00 Option (W2.7) Rev 2.2 rg 20July11 Proposal Report.xlsx – 20 July 2011 • Neptune Temperature Profile.pdf – 1 July 2010 • SA01ST01_MASP_MAWP_Casing_Design.xls – 1 August 2011 • SA01ST01_MMS123S_Form.xls – 1 August 2011 • Blade CLAP Program File – Neptune SA01 ST01.CLP – 10 August 2011	Yes
Cementing	• 072611 Neptune SA-01 ST1 Sidetrack 11 34 Liner Cemcade rev1.doc – 26 July 2011 • 080111 Neptune SA-01 ST1 Sidetrack 9 58 x 9 78 Liner Cemcade rev.2.doc – 1 August 2011 • Neptune SA01ST01 BHPB Cementing Best Practices rev2 20110802.pdf – 2 August 2011 • (11) SA01ST01 AT617 Cementing Best Practices.docx – 3 August 2011	Yes

Two independent tested barriers	• CFR 250.420(a)(6) SA01ST1 Suspension Barrier Analysis.pdf – 2 August 2011 • (20) SA01ST01 AT617 Well integrity Considerations.pdf – 4 August 2011	Yes

Signed: David B. Lewis
Date: 10 August 2011

QUALIFICATIONS OF DAVID B. LEWIS

General	David has thirty years of domestic and international experience in oil & gas exploration and production. He has an engineering and an operational background in drilling, completions, offshore structures and experience in deepwater, big bore (mono bore) and high pressure-high temperature wells. He is a Registered Professional Engineer in the State of Texas, a member of ASCE, SPE, and serves on numerous API and ISO committees.
Education	MS degree in Civil Engineering - Structures / Engineering Mechanics – 1980 - University of Missouri-Rolla BS degree in Civil Engineering - Structures / Engineering Mechanics – 1978 - University of Missouri-Rolla Post-graduate doctoral work in finite element methods, continuum mechanics, vibrations, and structural dynamics.
Employment	2001 – Present President and CEO - Blade Energy Partners 2000 – 2001 Section Manager – Well Construction Technology - ExxonMobil 1997 – 2000 Section Manager – Drilling Technology - Mobil Technology Company 1992 – 1997 Senior Drilling Engineering Advisor - Mobil Drilling 1988 – 1992 Senior Drilling Engineer - Mobil Drilling 1981 – 1988 Senior Structural Engineer - Mobil Technology Company
Affiliations	Registered Professional Engineer – Texas #59664 API – American Petroleum Institute • API Executive Board Member of Committee 5 – Tubular Goods • Chairman API RP 5-EX Resource Group on Solid Expandable Development • Chairman API Resource Group on Tubular Properties Software Development • Technical Member of API 5CT - Specifications for Casing and Tubing • Technical Member of API TR 5C3 - Bulletin on Formulas and Calculations for Casing, Tubing, Drill Pipe, and Line Pipe Properties • API Executive Board Member of Committee 16 - Drilling Well Control Equipment • Chairman 16Q - Recommended Practice for Design, Selection, Operation and Maintenance of Marine Drilling Riser Systems • Chairman 16R - Specification for Marine Drilling Riser Couplings • Technical Member of API RP 6HP (PER 15K) - Greater than 15 ksi Equipment • Technical Member API RP 96 – Deepwater Design Considerations ISO – International Standardization Organization • Technical Member WG2A and WG2B for ISO TR 10400 - Petroleum and natural gas industries — Equations and calculations for the properties of casing, tubing, drill pipe and line pipe used as casing or tubing Authored or co-authored 25 technical publications in the upstream oil and gas industry.