

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

HOBBS OCD

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

NOV 02 2015

5. Lease Serial No.
NMLC071985

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
BATTLE AXE 27 FEDERAL COM 2H

9. API Well No.
30-025-42894

10. Field and Pool, or Exploratory
WOLFCAMP

11. County or Parish, and State
LEA COUNTY, NM

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
CONOCOPHILLIPS
Contact: ASHLEY BERGEN
E-Mail: ashley.bergen@conocophillips.com

RECEIVED

3a. Address
P.O. BOX 51810
MIDLAND, TX 79710

3b. Phone No. (include area code)
Ph: 432-688-6938

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 27 T26S R32E Mer NMP NENE 283FNL 245FEL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

ConocoPhillips Company respectfully requests to amend the approved APD. COP will be using rig, Precision 822 instead of Pinnergy #1 to pre-set surface casing and the 1st intermediate string. The 1st intermediate string will be set with a 10 3/4" casing size at approximately 4000'. The well above is planned to spud 11/17/15. Please see the following attachments:

- Spudder Rig and Skid Operations Description which includes the proposed casing and cementing program
- BOP/BOPE and Choke Manifold Schematic
- Coreflex Choke Line Test Certificate
- Spudder Rig Specifications/Layout
- Premium Connection Spec Sheets
- Wellhead Schematic

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #321733 verified by the BLM Well Information System
For CONOCOPHILLIPS, sent to the Hobbs

Name (Printed/Typed) ASHLEY BERGEN

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 10/27/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

NOV 04 2015

jm

**Sundry Notice Request
ConocoPhillips Company
Red Hills West; Wolfcamp
Battle Axe 27 Federal COM 2H**

Lea County, New Mexico

ConocoPhillips Company respectfully requests to amend the approved permit to pre-set the surface and intermediate casings. The reasons would be to improve time and cost savings.

1. Spudder Rig and Skid Operations:

Precision Drilling #822 Rig will be used to drill the surface hole and intermediate hole (to set *1st intermediate casing string*). BLM will be contacted / notified 24 hours prior to commencing spudder rig operations and expected to take 10-12 days for a dual pad.

Surface casing and intermediate casing will be preset on all the wells on the same pad. Both hole sections will be drilled, cased and cemented according to casing program based on the approved permit. All casing strings will be tested in accordance to the rules and regulations per Onshore Order.

The wellhead will be nipped up and tested as soon as 13-3/8" surface casing is cut off after the applicable WOC time has been reached. Prior to drilling out the 13-3/8" surface casing, ConocoPhillips shall nipple up a 3M BOPE & choke arrangement with 5M components and test to the rated working pressure of a 3M BOPE system as it is subjected to the maximum anticipated surface pressure 1,500 psi (0.33 psi/ft pressure gradient assuming fully evacuated) per Onshore Order 2. The pressure test to MASP and 50% for annular shall be performed with a test plug after installing the 13-5/8" casing head and nipping up the 3M BOPE system prior to drilling out the 13-3/8" surface casing.

A blind flange cap of the same pressure rating as the wellhead will be secured to seal the wellbore on all casing strings. Pressure will be monitored via flanged port tied to a needle valve and pressure gauge to monitor pressures on each wellhead section and a means for intervention will be maintained while the drilling rig is not over the well.

The drilling operation will re-commence with a big Drilling Rig (H&P Flex 3 rig type) and a BOP stack based on the approved permit will be nipped up and tested on the wellhead before drilling operations resumes on each well. The rig will skid between each well until each well's section has been drilled in this possible order:

1. Move-in PD822 to Battle Axe 27 Federal COM 1H
2. Drill and pre-set Surface & Intermediate Casing
3. Skid to Battle Axe 27 Federal COM 2H
4. Drill and pre-set Surface & Intermediate Casing
5. Move-in H&P Flex 3 rig to Battle Axe 27 Federal COM 1H
6. Drill, Set & Cement Intermediate2 Casing
7. Skid to Battle Axe 27 Federal COM 2H
8. Drill, Set & Cement Intermediate2 Casing
9. Drill, Set & Cement Production Casing
10. Skid to Battle Axe 27 Federal COM 1H
11. Drill, Set & Cement Production Casing

Rig move in to drill will depend on rig availability and APD approval date. Once "Spudder Rigs" has performed pre-set surface and intermediate, the "Big Drilling Rig" shall return to each well to drill the remain sections per conditions of approval.

2. Proposed Casing and Cementing Program – Option to Preset 10-3/4" Casing at Delaware

ConocoPhillips Company respectfully requests the option to Preset 10-3/4" 45.5# J-55 TSH-W511 (Flushed Connection) Casing. The intent of the 10-3/4" intermediate casing and cementing program is to drill 9-7/8" hole and run 7-5/8" 29.7# P-110 BTC, later on, thus would improve time and cost savings.

All Tubulars used for this design will be new. A multi-bowl system will be utilized. **Option to Preset 10-3/4" will be as follows:**

Hole Size (in)	Casing (in)	Wt/Ft	Grade	Connection	Thread & Cplg OD	Depth (ft)	Depth (ftTVD)	Depth (ftMD)	BOPE System
17 1/2	13 3/8	54.5	J-55	BTC	14.375	0-950	950	950	N/A
12 1/4	10-3/4	45.5	J-55	Tenaris W511	10.75	0-4000	4000	4000	3M
9-7/8	7 5/8	29.7	P-110	BTC	7.752	0-12000	11900	12000	5M
6 3/4	5	18	P-110	Tenaris Blue/TXP	5.720	0-19300	12085	19300	10M

Minimum casing design factors: Burst 1.0, Collapse 1.125, Tensile Strength 1.6 Dry / 1.0 Buoyant

Hole Size (in)	Casing (in)	Burst	Collapse	Tension	Minimum Clearance
17 1/2	13 3/8	5.94	2.46	19.2	1.5625
12 1/4	10-3/4	1.64	**2.82	2.10	0.75
9-7/8	7-5/8	1.7	**2.48	2.10	0.6875
6 3/4	5	1.58	1.53	3.39	0.515

****COP Collapse Design**

Mud drop to hydrostatic column equilibrium with pore pressure of lost circulation zone.

		Volume (sx)	Type	Weight (ppg)	Yield (ft3/sx)	Water (Gal/sx)	Excess	Cement Top
Surface	<i>Lead</i>	530	Class C	13.6	1.73	10.88	>100%	Surface
	<i>Tail</i>	310	Class C	14.8	1.35	6.39	>100%	650ft
Additives (BWOB): 4% Extender, 2% CaCl2, 0.125 lb/sx LCM, 0.2% Anti-Foam								
Intermediate 1	Lead	690	Tuned Light	11.9	1.91	11.85	>100%	Surface
	Tail	140	Class C	14.8	1.33	8.23	>100%	3500ft
Additives (BWOB): 4% Extender, 2% CaCl2, 0.125 lb/sx LCM, 0.2% Anti-Foam								
Intermediate 2	<i>Lead</i>	900	Tuned Light	9.7	2.44	9.116	>30%	Surface
	<i>Tail</i>	140	TXI	13.2	1.53	7.474	>30%	12000ft
Additives (BWOB): 0.4% Dispersant, 1 lb/sx Salt, 0.1% Retarder, 0.5% Fluid Loss, 3 lb/sx LCM								
Production	<i>Lead</i>							
	<i>Tail</i>	750	Class H	15	1.14	3.216	>35%	11400ft
Additives (BWOB): 0.4% Retarder, 0.2% Anti-foam, 0.7 Anti-gelling, 0.4% Fluid Loss, 2% Expanding Agent, 5.0% Silica								

2. Pressure Control Equipment:

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	50% of working pressure
			Blind Ram		± 1,500 psi
			Pipe Ram		
			Double Ram	x	
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
X	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. • Provide description here See attached schematic.

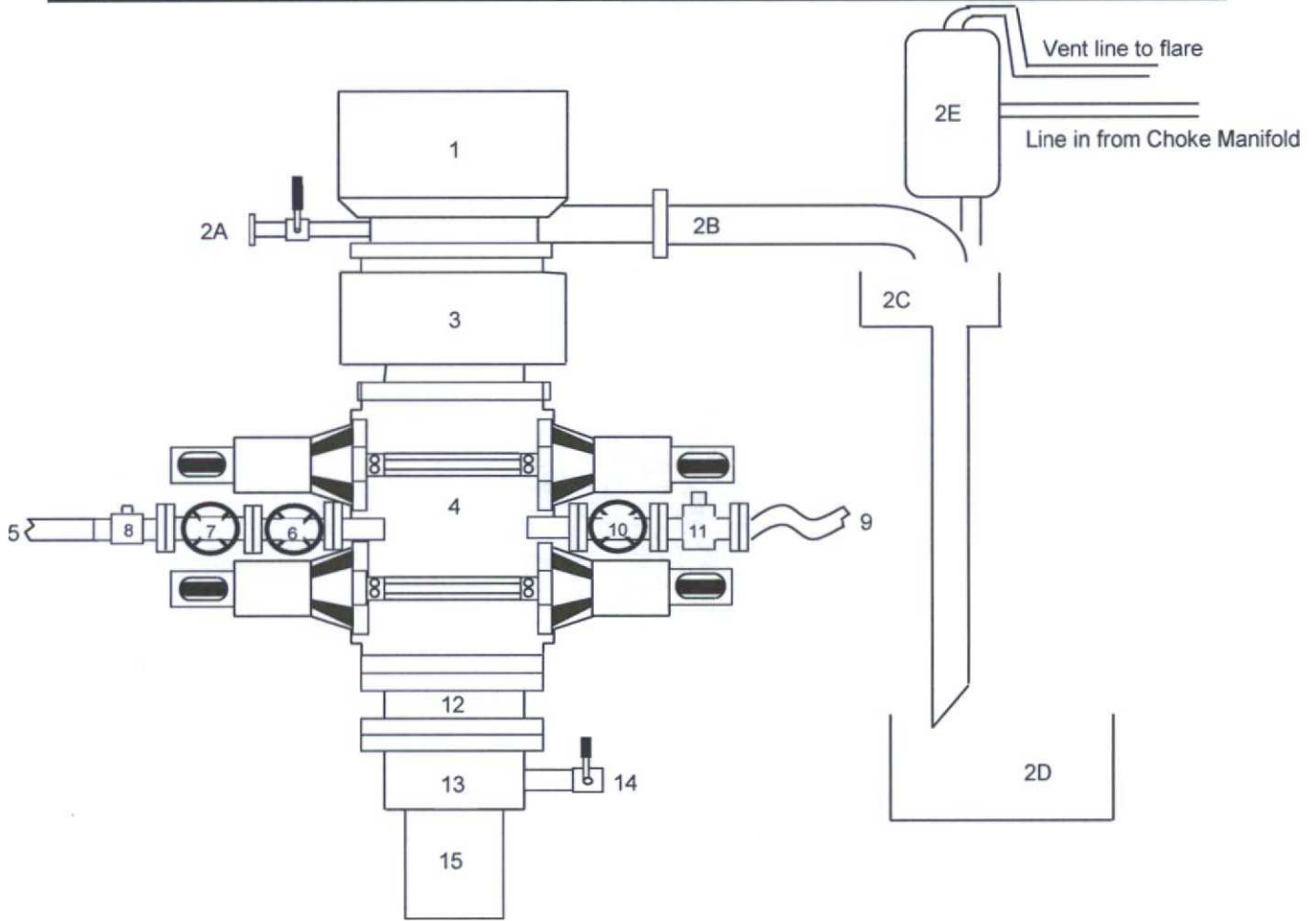
Attachments:

- ✚ Attachment # 1 BOP/BOPE and Choke Manifold Schematic
- ✚ Attachment # 2 Coflex Choke Line Test Certificate
- ✚ Attachment # 3 Spudder Rig Specifications/Layout
- ✚ Attachment # 4 Premium Connection Spec Sheets
- ✚ Attachment # 5 Wellhead Schematic

Sundry request proposed 19 October 2015 by:
James Chen, P.E.
Drilling Engineer | ConocoPhillips Permian Shale
Office Phone: 281.206.5244
Cell Phone: 832.768.1647

BLOWOUT PREVENTER ARRANGEMENT

3M System per Onshore Oil and Gas Order No. 2 utilizing 3M and 5M Rated Equipment



Item	Description
1	Rotating Head, 13-5/8"
2A	Fill up Line and Valve
2B	Flow Line (10")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (13-5/8", 5M)
4	Double Ram (13-5/8", 5M, equipped with Blind Rams and Pipe Rams)
5	Kill Line (2" flexible hose, 3000 psi WP)
6	Kill Line Valve, Inner (3-1/8", 3000 psi WP)
7	Kill Line Valve, Outer (3-1/8", 3000 psi WP)
8	Kill Line Check Valve (2-1/16", 3000 psi WP)
9	Choke Line (5M Stainless Steel Coflex Line, 3-1/8" 3M API Type 6B, 3000 psi WP)
10	Choke Line Valve, Inner (3-1/8", 3000 psi WP)
11	Choke Line Valve, Outer, (Hydraulically operated, 3-1/8", 3000 psi WP)
12	Spacer Spool (13-5/8", 5M)
13	Casing Head (13-5/8" 5M)
14	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
15	Surface Casing

James Chen, P.E.
 Drilling Engineer | ConocoPhillips Permian Shale
 Office Phone 281.206.5244
 Cell Phone 832.768.1647

RELIANCE

Industrial Products USA, Ltd.

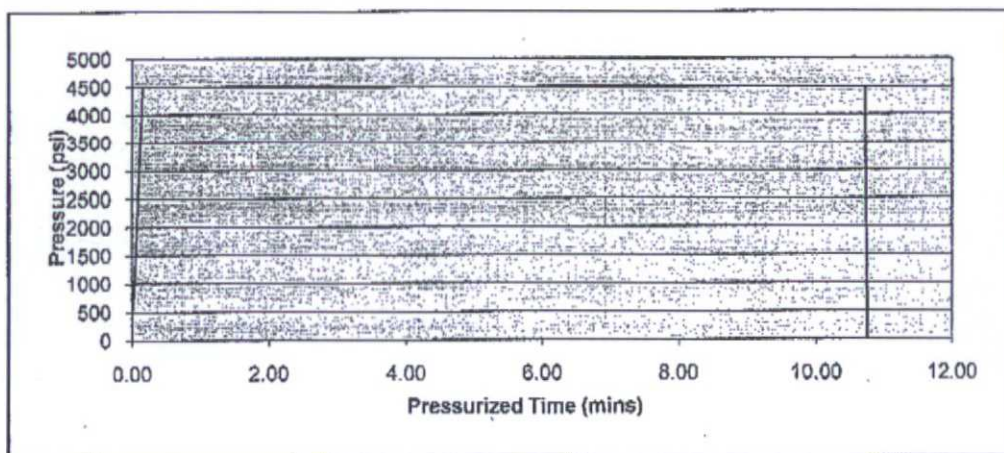
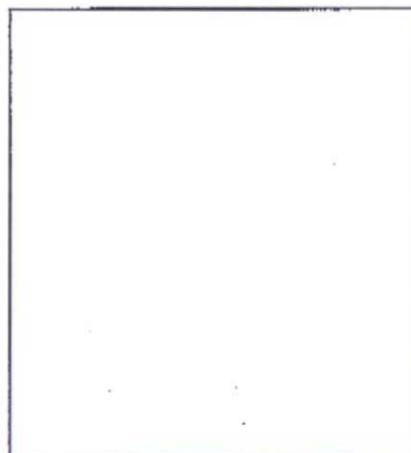
2030 E. 8th Street, Suite B • Greeley, CO 80631

Ph: (970) 346-3751 • Fax: (970) 353-3168 • Toll Free: (866) 771-9739

T E S T C E R T I F I C A T E

Customer: PERCISION DRILLING
P.O. #: 73011111
Invoice #: 25279
Material: 3 1/2" FIRE GUARD
Description: 2" X 30'
Coupling 1: FLOATING FLANGE
" Serial:
" Quality:
Coupling 2: FLANGE
" Serial:
" Quality:
Working Pressure : 3000
Test Pressure: 4500
Duration (mins): 10

Cert No.: 25279TO1
Date: 6/29/2012

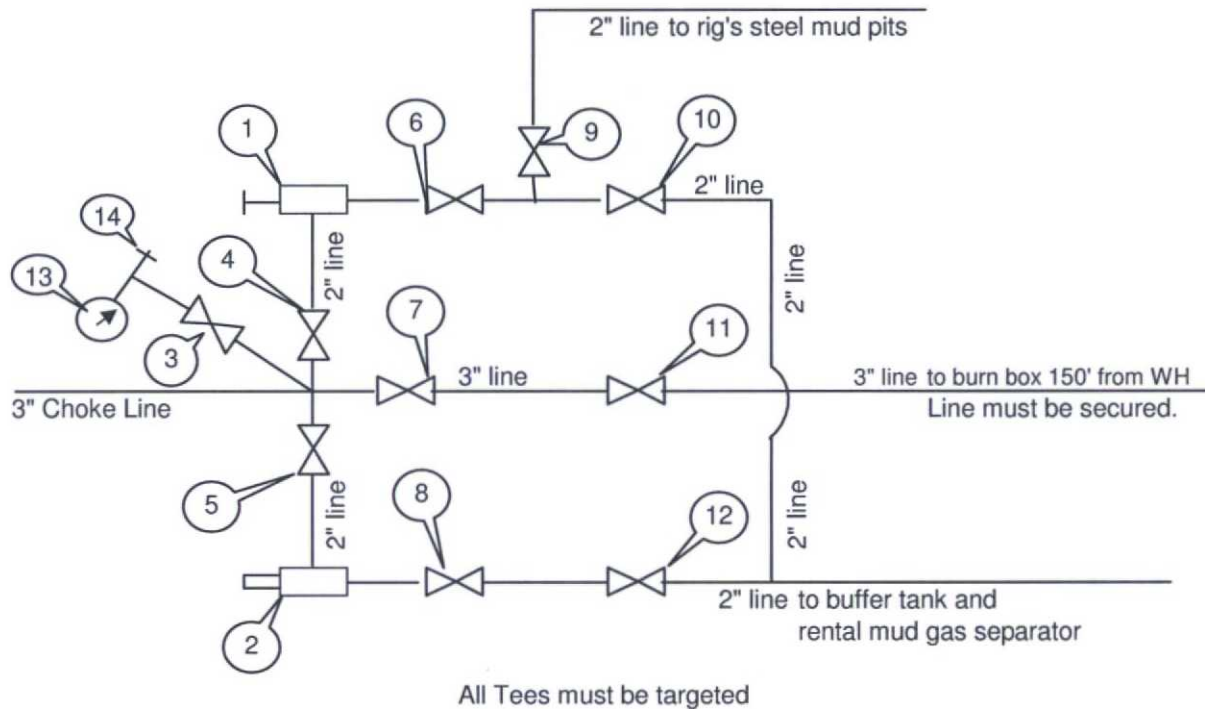


Conducted By: FLORES M.
Test Technician

- ☒ Acceptable
☐ Not Acceptable

CHOKE MANIFOLD ARRANGEMENT

3M System per Onshore Oil and Gas Order No. 2 utilizing 3M and 5M Equipment



Item	Description
1	Manual Adjustable Choke, 2-1/16", 3M
2	Remote Controlled Hydraulically Operated Adjustable Choke, 2-1/16", 3M
3	Gate Valve, 2-1/16" 5M
4	Gate Valve, 2-1/16" 5M
5	Gate Valve, 2-1/16" 5M
6	Gate Valve, 2-1/16" 5M
7	Gate Valve, 3-1/8" 3M
8	Gate Valve, 2-1/16" 5M
9	Gate Valve, 2-1/16" 5M
10	Gate Valve, 2-1/16" 5M
11	Gate Valve, 3-1/8" 3M
12	Gate Valve, 2-1/16" 5M
13	Pressure Gauge
14	2" hammer union tie-in point for BOP Tester

We will test each valve to 3000 psi from the upstream side.

Submitted by:

James Chen

Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company

Date: 21-March-2013



Rig Inventory and Layout

RIG 822SSE

Active

Rig #	822	Rig Type	Super Single™ Electric
Superintendent	Johnny Ison	Operation Centre	Mid Continent
Category	Electric	Rig Type Code	SSE
Loads Winter (include boiler)	21	Class	Super Singles
Rated Vertical Depth (ft)	10000	Horse Power Range	1000 - 1200
Region	US Operations Group 1	Rig Locator Status	
Company	PDOS	Rig Phone Number	817-694-6797
		Plant Code	1505
Rated with Drill Pipe (in)	4 1/2		

DRAWWORKS

Mechanical/Electric	VFD	Auxiliary Brake	N/A
Drawworks	Alta-Rig ARS-1201-AC	Rated Power (hp)	1200
Drawworks Capacity (lbs)	320000	Number of lines	8
Drawworks Drive (Quantity)	Baylor CM628TUT (AC) (1)	Rating (hp) - Each Motor	1230

MAST

Mast Type	Single	Manufacturer	
Static Hook Load (lbs)	299000	Mast Clear Height (ft)	75'
Drill Line Size (in)	1	Number of lines	8
Drill Line SF=2 (lbs)	348300	Drill Line SF=3 (lbs)	232200

SUBSTRUCTURE

Substructure Type	Trailer	Manufacturer	
Floor Height (ft)	10' 10" - 12' 6"	Kelly Bushing to Ground (ft)	
Clear Height (ft)	8' 6" - 10' 2"		
Rotary Capacity (lbs)	299000	Setback Capacity (lbs)	No Limitation

This Rig Type is Equipped with a Pipe Arm

HOISTING AND ROTATING EQUIPMENT

Top Drive Model	Precision/Rostel PDCA50/70	Top Drive Capacity (tons)	150
Rotary Table Model	Slip Table	Rotary Table Capacity (lbs)	200000
		Rotary Table Clearance (in)	20-1/2
Power Wrench Model	W-N Apache 90-70	Maximum Diameter (in)	11-3/4

RIG 822SSE

MUD PUMPS AND MUD SYSTEM

MUD PUMP 1

Manufacturer & Model	BPMMP - BSF-1000 (Triplex)	Rated Power (hp)	1000
Stroke (in)	10		
Mud Pump Drive (Quantity)	Baylor CM628TUT (AC) (1)	Rating (hp) - Each Motor	1230

MUD PUMP 2

Manufacturer & Model	BPMMP - BSF-1000 (Triplex)	Rated Power (hp)	1000
Stroke (in)	10		
Mud Pump Drive (Quantity)	Baylor CM628TUT (AC) (1)	Rating (hp) - Each Motor	1230

MUD SYSTEM

Mud Tank Total Volume (bbl)	360	# of Mud Tanks	1
Premix Tank Volume (bbl)		Pill Tank Volume (bbl)	9.4
Trip Tank Volume (bbl)	15.7	TripTank Surface Area (ft ²)	18.3
Centrifugal Pump Quantity:	2	Centrifugal Pump Size	5 x 6
Shale Shaker Quantity	1	Shale Shaker	Brandt King Cobra Linear Motion
Atmospheric Degasser	Single - 30 in OD 3 in Inlet 8 in Vent Line		
Additional Information			

WELL CONTROL SYSTEM

Annular	Townsend Type-90	Pressure Rating (psi)	3000
		Size (in)	11
Rams			
Ram 1	Townsend T-82 - Single	Pressure Rating (psi)	3000
		Size (in)	11
Ram 2	Townsend T-82 - Single	Pressure Rating (psi)	3000
		Size (in)	11
Trim Type	Nace	BOP Additional Information	
Accumulator Manufacturer	E.C.S.	Remote Panel Type	Electric
Accumulator Volume (gal-US)	84	# of Stations:	5
Accumulator Pumps			
Choke Manifold Style (in)	2 x 3 x 2	Pressure Rating (psi)	3000

Well control equipment listed is rig's normal inventory. Well control equipment is subject to change; Operator should confirm current configuration and specific requirements with the Precision Drilling Contracts Representative.

RIG 822SSE

ELECTRICAL POWER

Power Distribution Type 3 Diesel Electric Generators, each with Ross Hill 1402 Generator Bays powering 4 ABB ASC800

Drive Bays & Allen Bradley MCC

POWER GENERATION

Power Generators					
Quantity	2	Generator Drive	CAT C-32	Generator Rating (kW)	810
Quantity	1	Generator Drive	CAT C-18	Generator Rating (kW)	545

MISCELLANEOUS EQUIPMENT

Winterization	N/A	Boiler Rating (hp)	
Fuel Tank Qty	1	Total Fuel Tank Capacity (gal-US)	5200
Water Tank Qty	1	Total Water Tank Capacity (bbl)	375
Special Equipment	Hydraulic BOP Handler, Hydraulic Catheads, Hydraulic Catwalk, Hydraulic Pipe Arm, Power Tong, Substructure Leveling Jacks		

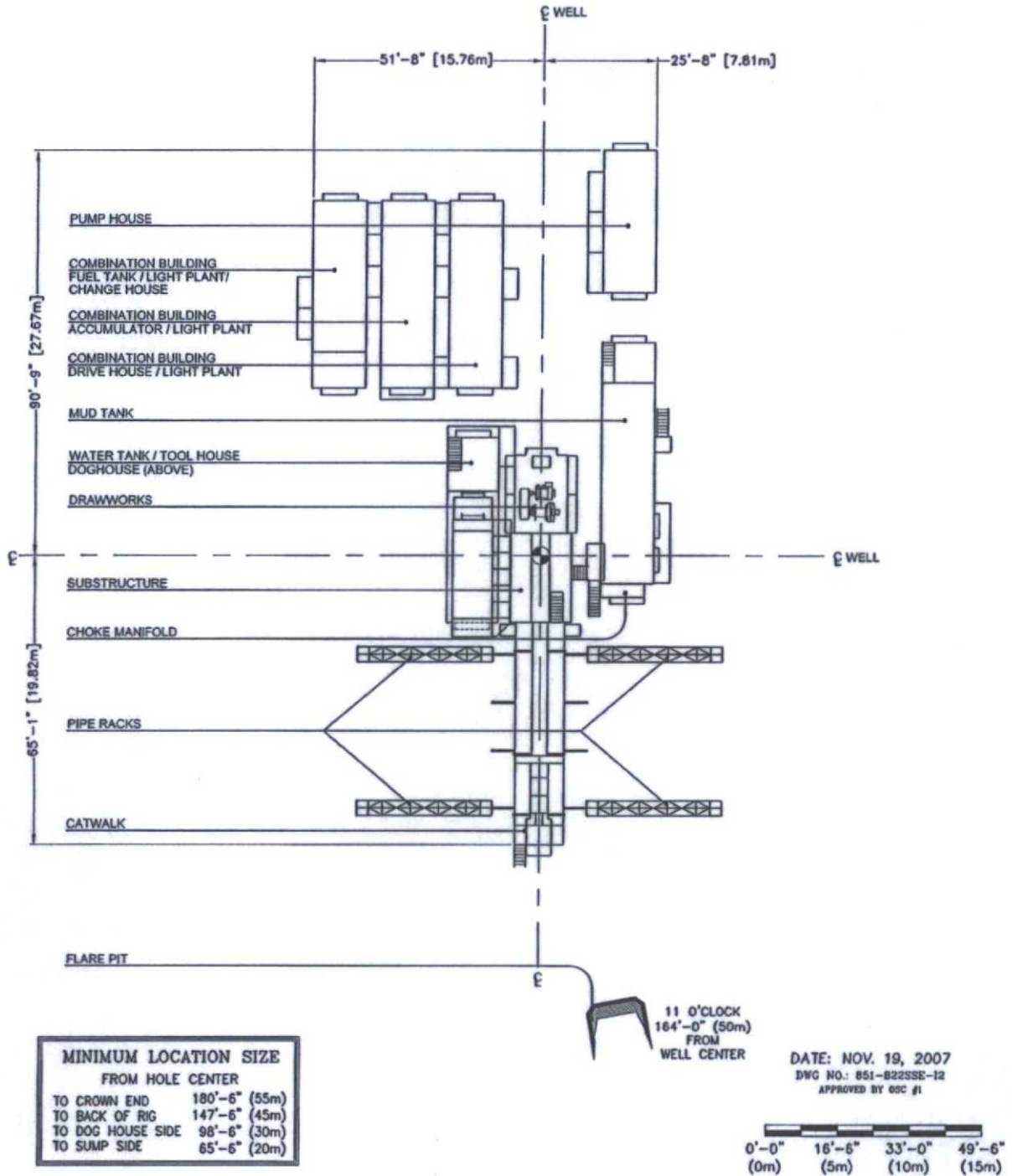
NOTES

TUBULARS

As the selection of tubulars is dependant on the planned well program, specific requirements are to be discussed with the contracts representative of Precision Drilling. Exact quantities and descriptions of the selected tubulars are available upon request.

RIG LAYOUT

RIG 822SSE

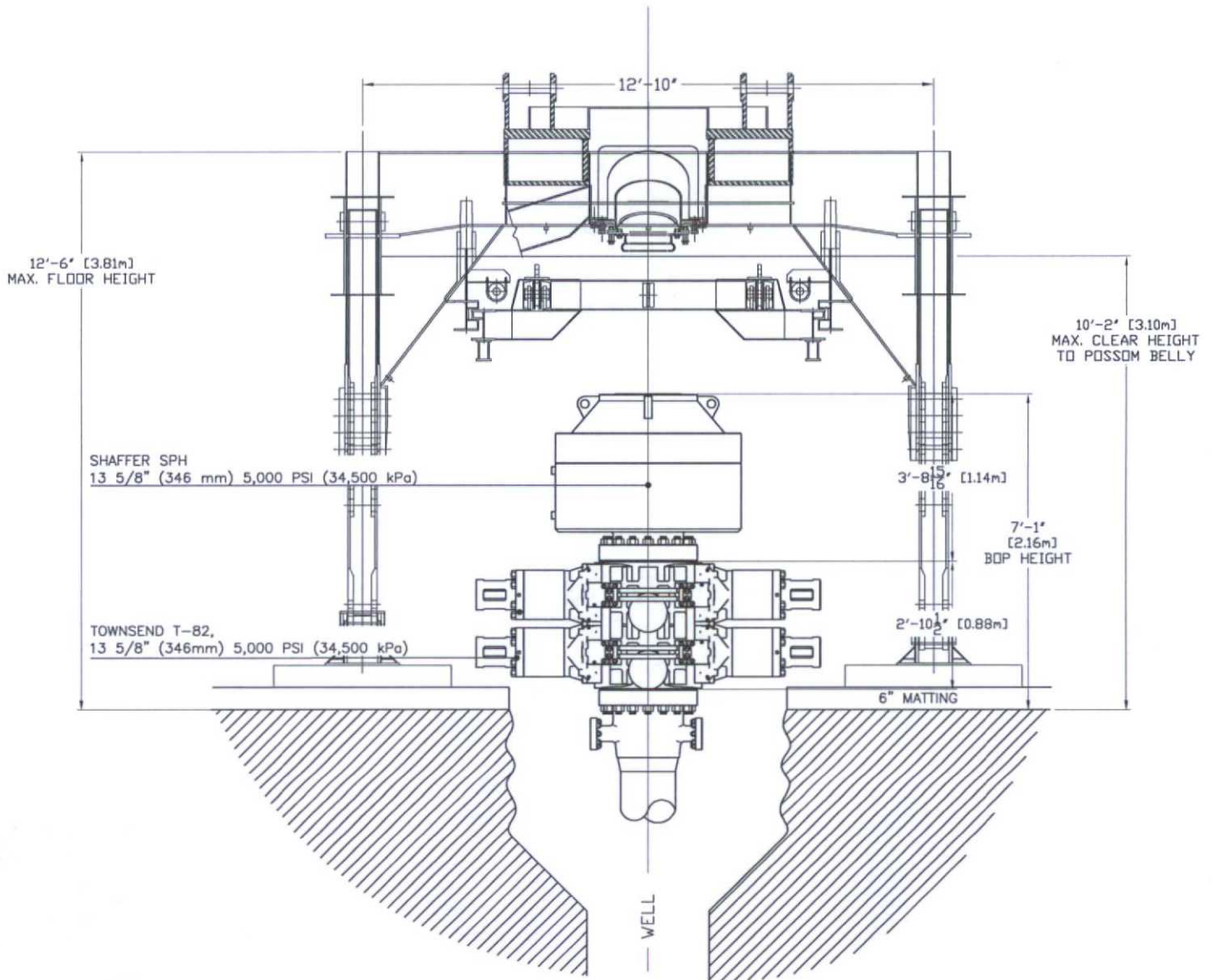


PRECISION DRILLING

CALGARY, ALBERTA, CANADA

BOP LAYOUT

RIG 822SSE



NOTE: STACK SHOWN IN VERTICAL POSITION FOR CLARITY

STACK COMPONENTS REPRESENTED ARE SUBJECT TO AVAILABILITY, PLEASE CONFIRM WITH WELL CONTROL DEPARTMENT MANAGER.



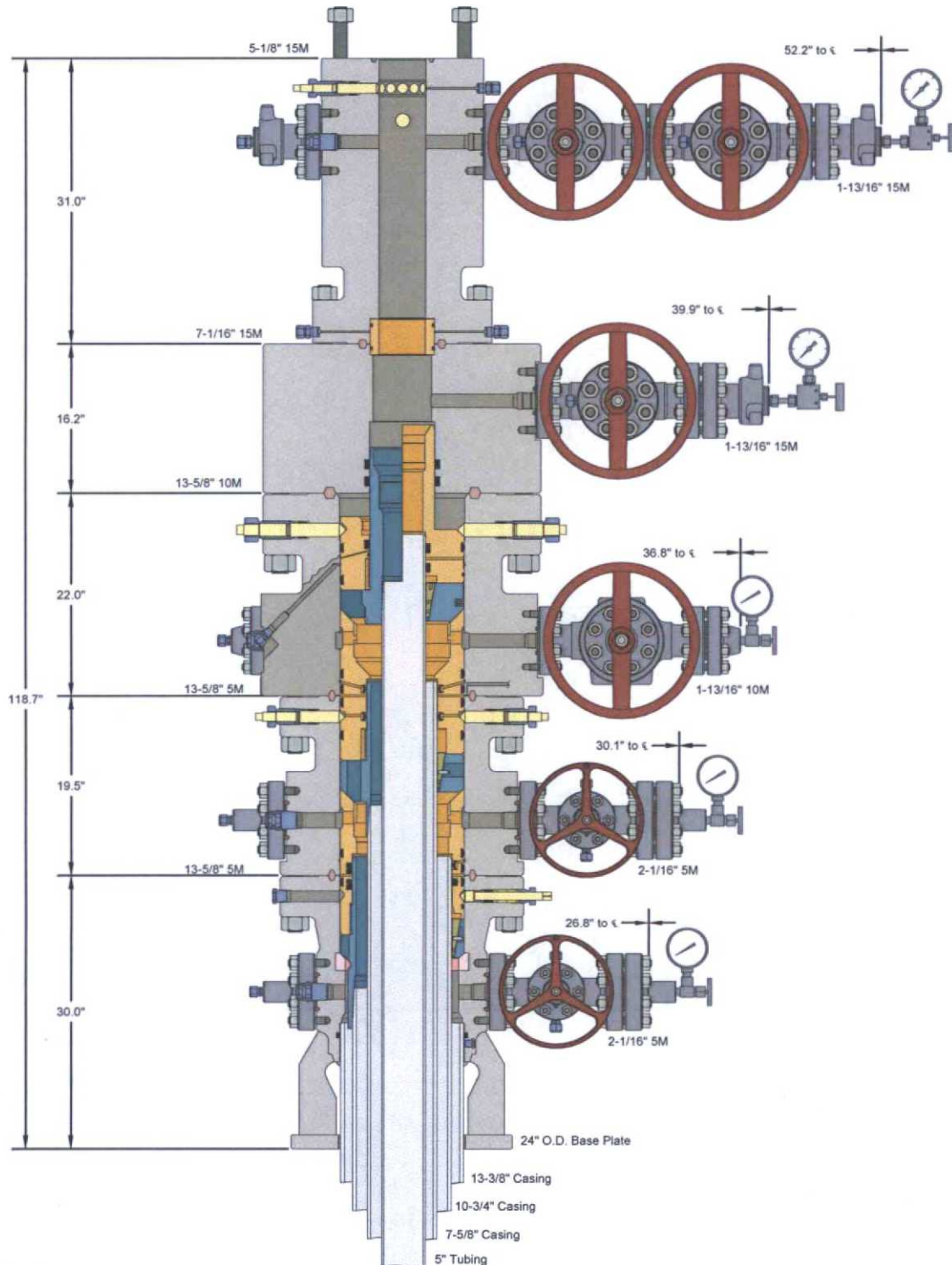
EQUIPMENT REPRESENTATION ONLY
NOT DRAWN TO SCALE

PRECISION DRILLING

DATE: 2015/10/05
DWG No.: BOP-B22-008
DWG BY : CTJ



GE Oil & Gas



ALL DIMENSIONS ARE APPROXIMATE

This drawing is the property of GE Oil & Gas Pressure Control LP and is considered confidential. Unless otherwise approved in writing, neither it nor its contents may be used, copied, transmitted or reproduced except for the sole purpose of GE Oil & Gas Pressure Control LP.

CONOCOPHILLIPS COMPANY

13-3/8" x 10-3/4" x 7-5/8" x 5" 15M SH2/3STG Wellhead
Assembly, With DSPA-DBLEBS and MTH-2FB Tubing Head

DRAWN	CDG	14OCT15
APPRV	VJK	15OCT15
FOR REFERENCE ONLY		
DRAWING NO.		10010485

For the latest performance data, always visit our website: www.tenaris.com

October 12 2015



Connection: Wedge 511™
Casing/Tubing: CAS

Size: 10.750 in.
Wall: 0.400 in.
Weight: 45.50 lbs/ft
Grade: J55
Min. Wall Thickness: 87.5 %

PIPE BODY DATA

GEOMETRY			
Nominal OD	10.750 in.	Nominal Weight	45.50 lbs/ft
Nominal ID	9.950 in.	Wall Thickness	0.400 in.
Plain End Weight	44.26 lbs/ft	Standard Drift Diameter	9.794 in.
		Special Drift Diameter	9.875 in.
PERFORMANCE			
Body Yield Strength	715 x 1000 lbs	Internal Yield	3580 psi
Collapse	2090 psi	SMYS	55000 psi

WEDGE 511™ CONNECTION DATA

GEOMETRY			
Connection OD	10.750 in.	Connection ID	9.922 in.
Critical Section Area	7.671 sq. in.	Threads per in.	3.28
		Make-Up Loss	3.700 in.
PERFORMANCE			
Tension Efficiency	59.0 %	Joint Yield Strength	422 x 1000 lbs
Compression Strength	505 x 1000 lbs	Compression Efficiency	70.6 %
External Pressure Capacity	2090 psi	Internal Pressure Capacity	3360 psi
		Bending	14 °/100 ft
MAKE-UP TORQUES			
Minimum	11000 ft-lbs	Optimum	13200 ft-lbs
		Maximum (Δ)	19300 ft-lbs
OPERATIONAL LIMIT TORQUES			
Operating Torque	49000 ft-lbs	Yield Torque	74000 ft-lbs

BLANKING DIMENSIONS

October 21 2014



Connection: Blue®
Casing/Tubing: CAS
Coupling Option: REGULAR

Size: 5.000 in.
Wall: 0.362 in.
Weight: 18.00 lbs/ft
Grade: P110
Min. Wall Thickness: 87.5 %

**PIPE BODY DATA**

GEOMETRY			
Nominal OD	5.000 in.	Nominal Weight	18.00 lbs/ft
Nominal ID	4.276 in.	Wall Thickness	0.362 in.
Plain End Weight	17.95 lbs/ft	Standard Drift Diameter	4.151 in.
		Special Drift Diameter	N/A
PERFORMANCE			
Body Yield Strength	580 x 1000 lbs	Internal Yield	13940 psi
Collapse	13470 psi	SMYS	110000 psi

BLUE® CONNECTION DATA

GEOMETRY			
Connection OD	5.630 in.	Coupling Length	10.551 in.
Critical Section Area	5.275 sq. in.	Make-Up Loss	4.579 in.
		Connection ID	4.264 in.
		Threads per in.	5.00
PERFORMANCE			
Tension Efficiency	100 %	Joint Yield Strength	580 x 1000 lbs
Compression Efficiency	100 %	Compression Strength	580 x 1000 lbs
External Pressure Capacity	13470 psi	Internal Pressure Capacity	13940 psi
		Bending	101 °/100 ft

MAKE-UP TORQUES

Minimum	6400 ft-lbs	Target	7110 ft-lbs	Maximum	7820 ft-lbs
---------	-------------	--------	-------------	---------	-------------

OPERATIONAL LIMIT TORQUES

Operating Torque	ASK	Yield Torque	17600 ft-lbs
------------------	-----	--------------	--------------

SHOULDER TORQUES

Minimum	1070 ft-lbs	Maximum	6040 ft-lbs
---------	-------------	---------	-------------

December 18 2014



Connection: TenarisXP™ BTC
Casing/Tubing: CAS
Coupling Option: REGULAR

Size: 5.000 in.
Wall: 0.362 in.
Weight: 18.00 lbs/ft
Grade: P110
Min. Wall Thickness: 87.5 %

PIPE BODY DATA					
GEOMETRY					
Nominal OD	5.000 in.	Nominal Weight	18.00 lbs/ft	Standard Drift Diameter	4.151 in.
Nominal ID	4.276 in.	Wall Thickness	0.362 in.	Special Drift Diameter	N/A
Plain End Weight	17.95 lbs/ft				
PERFORMANCE					
Body Yield Strength	580 x 1000 lbs	Internal Yield	13940 psi	SMYS	110000 psi
Collapse	13470 psi				
TENARISXP™ BTC CONNECTION DATA					
GEOMETRY					
Connection OD	5.720 in.	Coupling Length	9.325 in.	Connection ID	4.264 in.
Critical Section Area	5.275 sq. in.	Threads per in.	5.00	Make-Up Loss	4.141 in.
PERFORMANCE					
Tension Efficiency	100 %	Joint Yield Strength	580 x 1000 lbs	Internal Pressure Capacity ⁽¹⁾	13940 psi
Structural Compression Efficiency	100 %	Structural Compression Strength	580 x 1000 lbs	Structural Bending ⁽²⁾	101 °/100 ft
External Pressure Capacity	13470 psi				
ESTIMATED MAKE-UP TORQUES ⁽³⁾					
Minimum	N/A ft-lbs	Target	N/A ft-lbs	Maximum	N/A ft-lbs
OPERATIONAL LIMIT TORQUES					
Operating Torque	ASK	Yield Torque	N/A ft-lbs		
BLANKING DIMENSIONS					