**APD ID:** 10400011520 **Submission Date:** 02/27/2017

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FIGHTING OKRA 18-19 FED **Well Number:** 3H

**Well Type:** OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

## Section 1 - Geologic Formations

| Formation ID | Formation Name | Elevation | True Vertical Depth | Measured Depth | Lithologies | Mineral Resources | Producing Formation |
|---|---|---|---|---|---|---|---|
| 1 | UNKNOWN | 3361 | 0 | 0 | OTHER : SURFACE | NONE | No |
| 2 | RUSTLER | 2567 | 794 | 794 | ANHYDRITE | NONE | No |
| 3 | TOP OF SALT | 2212 | 1149 | 1149 | SALT | NONE | No |
| 4 | BASE OF SALT | -1663 | 5024 | 5024 | SALT | NONE | No |
| 5 | DELAWARE | -1918 | 5279 | 5279 | SANDSTONE | NATURAL GAS,OIL | No |
| 6 | BRUSHY CANYON LOWER | -5978 | 9339 | 9339 | SANDSTONE | NATURAL GAS,OIL | No |
| 7 | BONE SPRING LIME | -6188 | 9549 | 9549 | LIMESTONE | NATURAL GAS,OIL | No |
| 8 | BONE SPRING 1ST | -7083 | 10444 | 10444 | SANDSTONE | NATURAL GAS,OIL | No |
| 9 | BONE SPRING LIME | -7313 | 10674 | 10674 | LIMESTONE | NATURAL GAS,OIL | No |
| 10 | BONE SPRING 2ND | -7678 | 11039 | 11039 | SANDSTONE | NATURAL GAS,OIL | No |
| 11 | BONE SPRING 3RD | -8138 | 11499 | 11499 | LIMESTONE | NATURAL GAS,OIL | No |
| 12 | BONE SPRING 3RD | -8758 | 12119 | 12119 | SANDSTONE | NATURAL GAS,OIL | No |
| 13 | WOLFCAMP | -9193 | 12554 | 12554 | SHALE | NATURAL GAS,OIL | Yes |
| 14 | WOLFCAMP | -9393 | 12754 | 12754 | SHALE | NATURAL GAS,OIL | Yes |

## Section 2 - Blowout Prevention

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FIGHTING OKRA 18-19 FED **Well Number:** 3H

**Pressure Rating (PSI):** 10M **Rating Depth:** 12654

**Equipment:** BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 10M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.

**Requesting Variance?** YES

**Variance request:** 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.

**Testing Procedure:** A multibowl wellhead may be 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.

**Choke Diagram Attachment:**

Fighting_Okra_18_19_Fed_3H_10M_BOPE_CHK_20171004085937.pdf

**BOP Diagram Attachment:**

Fighting_Okra_18_19_Fed_3H_10M_BOPE_CHK_20171004090001.pdf

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**Pressure Rating (PSI):** 5M **Rating Depth:** 12617

**Equipment:** BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.

**Requesting Variance?** YES

**Variance request:** 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.

**Testing Procedure:** A multibowl wellhead may be 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.

**Choke Diagram Attachment:**

Fighting_Okra_18_19_Fed_3H_5M_BOPE_CK_20171004085752.pdf

**BOP Diagram Attachment:**

Fighting_Okra_18_19_Fed_3H_5M_BOPE_CK_20171004085808.pdf

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**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FIGHTING OKRA 18-19 FED **Well Number:** 3H

## Section 3 - Casing

| Casing ID | String Type | Hole Size | Csg Size | Condition | Standard | Tapered String | Top Set MD | Bottom Set MD | Top Set TVD | Bottom Set TVD | Top Set MSL | Bottom Set MSL | Calculated casing length MD | Grade | Weight | Joint Type | Collapse SF | Burst SF | Joint SF Type | Joint SF | Body SF Type | Body SF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SURFACE | 14.75 | 10.75 | NEW | API | N | 0 | 875 | 0 | 875 | -9393 | -10243 | 875 | J-55 | 40.5 | STC | 1.125 | 1.25 | BUOY | 1.6 | BUOY | 1.6 |
| 2 | INTERMEDIATE | 9.875 | 7.625 | NEW | API | N | 0 | 9500 | 0 | 9445 | -9393 | -20993 | 9500 | P-110 | 29.7 | OTHER - BTC | 1.125 | 1.25 | BUOY | 1.6 | BUOY | 1.6 |
| 3 | INTERMEDIATE | 8.75 | 7.625 | NEW | API | N | 9500 | 12800 | 9445 | 12617 | | | 3300 | P-110 | 29.7 | OTHER - FLUSHMAX | 1.125 | 1.25 | BUOY | 1.6 | BUOY | 1.6 |
| 4 | PRODUCTION | 6.75 | 5.5 | NEW | API | N | 0 | 22329 | 0 | 12654 | -9393 | -22127 | 22329 | P-110 | 20 | OTHER - VAM SG | 1.125 | 1.25 | BUOY | 1.6 | BUOY | 1.6 |

**Casing Attachments**

**Casing ID:** 1 **String Type:** SURFACE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Fighting_Okra_18_19_Fed_3H_Surf_Csg_Ass_20171004091435.pdf

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FIGHTING OKRA 18-19 FED **Well Number:** 3H

**Casing Attachments**

**Casing ID:** 2 **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Fighting_Okra_18_19_Fed_3H_Int_Csg_Ass_20171004091448.pdf

**Casing ID:** 3 **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Fighting_Okra_18_19_Fed_3H_Int_Csg_Ass_20171004091620.pdf

**Casing ID:** 4 **String Type:** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Fighting_Okra_18_19_Fed_3H_Prod_Csg_Ass_20171004091658.pdf

## Section 4 - Cement

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FIGHTING OKRA 18-19 FED **Well Number:** 3H

| String Type | Lead/Tail | Stage Tool Depth | Top MD | Bottom MD | Quantity(sx) | Yield | Density | Cu Ft | Excess% | Cement type | Additives |
|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERMEDIATE | Lead | | 0 | 0 | 0 | 0 | 0 | 0 | | SEE DRLG CONTINGENCY ATTACHMENT | N/A |
| SURFACE | Lead | | 0 | 875 | 529 | 1.34 | 14.8 | 708.86 | 50 | C | 1% Calcium Chloride |
| INTERMEDIATE | Lead | | 0 | 11300 | 890 | 3.27 | 9 | 2911 | 30 | TUNED | TUNED LIGHT |
| INTERMEDIATE | Tail | | 11300 | 12800 | 163 | 1.2 | 14.5 | 196 | 30 | H | Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite |
| PRODUCTION | Lead | | 12800 | 22329 | 798 | 1.33 | 14.8 | 1061 | 25 | C | 0.125 lbs/sack Poly-E-Flake |

## Section 5 - Circulating Medium

**Mud System Type:** Closed

**Will an air or gas system be Used?** NO

**Description of the equipment for the circulating system in accordance with Onshore Order #2:**

**Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

**Describe the mud monitoring system utilized:** PVT/Pason/Visual Monitoring

## Circulating Medium Table

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FIGHTING OKRA 18-19 FED **Well Number:** 3H

| Top Depth | Bottom Depth | Mud Type | Min Weight (lbs/gal) | Max Weight (lbs/gal) | Density (lbs/cu ft) | Gel Strength (lbs/100 sqft) | PH | Viscosity (CP) | Salinity (ppm) | Filtration (cc) | Additional Characteristics |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 875 | SPUD MUD | 8.33 | 9.1 | | | | 2 | | | |
| 875 | 12800 | SALT SATURATED | 8.6 | 10 | | | | 2 | | | |
| 12800 | 22329 | OIL-BASED MUD | 11 | 13 | | | | 12 | | | |

## Section 6 - Test, Logging, Coring

**List of production tests including testing procedures, equipment and safety measures:**

Will run GRMWD from TD to from KOP. Cement bond logs will be run in vertical to determine top of cement.

**List of open and cased hole logs run in the well:**

CALIPER,CBL,DS,GR,MUDLOG

**Coring operation description for the well:**

N/A

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 7320 **Anticipated Surface Pressure:** 4662.18

**Anticipated Bottom Hole Temperature(F):** 165

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geoharzards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

Fighting_Okra_18_19_Fed_3H_H2S_Plan_20171004092720.pdf

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FIGHTING OKRA 18-19 FED **Well Number:** 3H

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

Fighting_Okra_18_19_Fed_3H_Dir_Plan_20171004093536.pdf

**Other proposed operations facets description:**

MULTI-BOWL VERBIAGE
MULTI-BOWL WELLHEAD
CLOSED-LOOP DESIGN PLAN
CO-FLEX HOSE
DRILLING CONTINGENCY
GCP FORM
AC REPORT - ATTACHED WITH DRILLING PLAN
SPUDDER RIG

**Other proposed operations facets attachment:**

Fighting_Okra_18_19_Fed_3H_Drlg_Cont_20171004092929.pdf
Fighting_Okra_18_19_Fed_3H_MB_Wellhd_20171004093237.pdf
Fighting_Okra_18_19_Fed_3H_MB_Verb_20171004093236.pdf
Fighting_Okra_18_19_Fed_3H_Clsd_Loop_20171004093303.pdf
Fighting_Okra_18_19_Fed_3H_GCP_Form_20171004093516.pdf

**Other Variance attachment:**

Fighting_Okra_18_19_Fed_3H_Co_flex_20171004093313.pdf
Fighting_Okra_18_19_Fed_3H_Spudder_Rig_Info_20171004093609.pdf

Fighting Okra 18-19 Fed 83H

Casing Assumptions and Load Cases

Surface

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

| Surface Casing Burst Design | | |
|---|---|---|
| **Load Case** | **External Pressure** | **Internal Pressure** |
| Pressure Test | Formation Pore Pressure | Max mud weight of next hole-section plus Test psi |
| Drill Ahead | Formation Pore Pressure | Max mud weight of next hole section |
| Displace to Gas | Formation Pore Pressure | Dry gas from next casing point |

| Surface Casing Collapse Design | | |
|---|---|---|
| **Load Case** | **External Pressure** | **Internal Pressure** |
| Full Evacuation | Water gradient in cement, mud above TOC | None |
| Cementing | Wet cement weight | Water (8.33ppg) |

| Surface Casing Tension Design | |
|---|---|
| **Load Case** | **Assumptions** |
| Overpull | 100kips |
| Runing in hole | 3 ft/s |
| Service Loads | N/A |

Fighting Okra 18-19 Fed 83H

Casing Assumptions and Load Cases

Intermediate

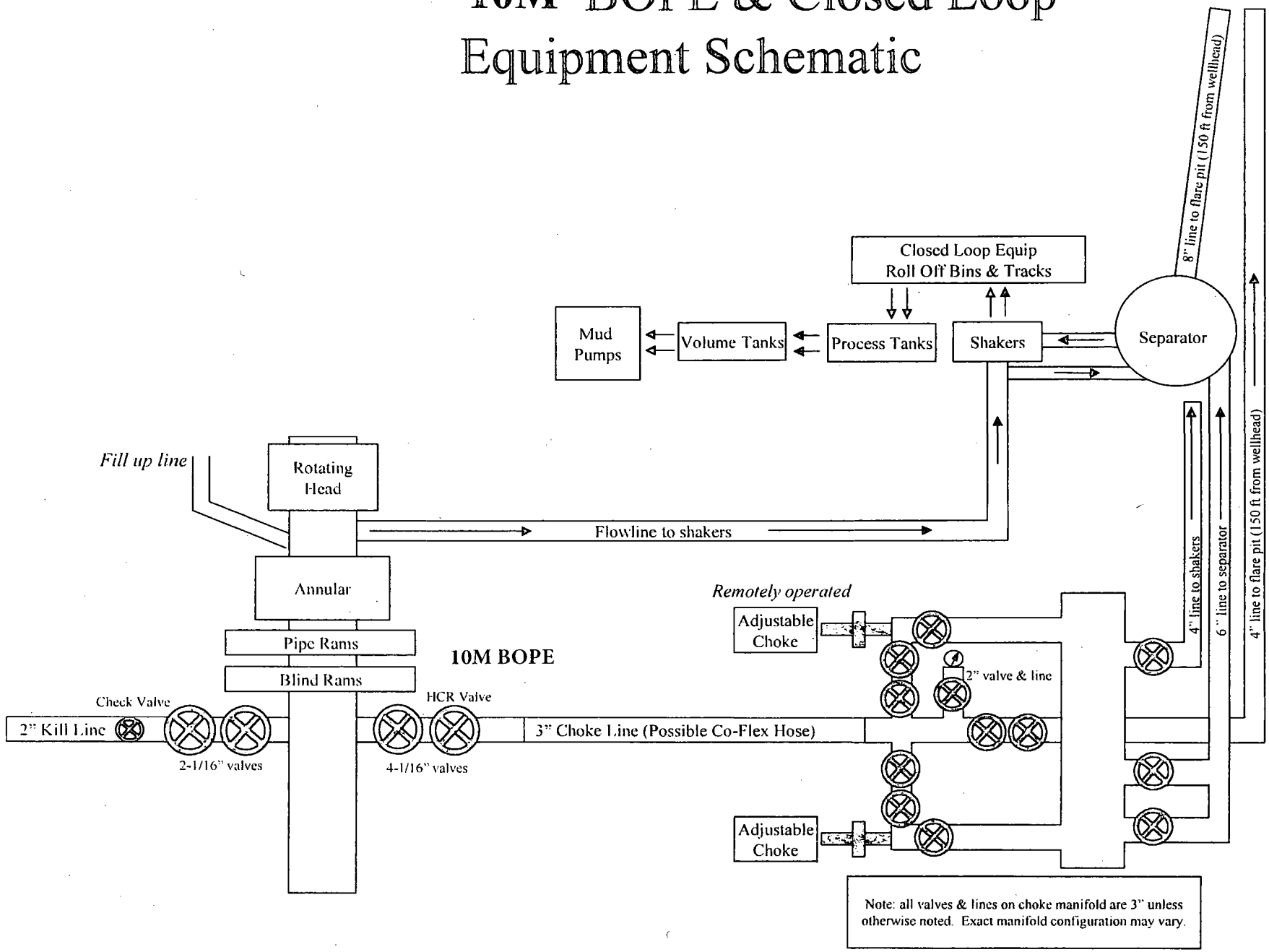
All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

| Intermediate Casing Burst Design | | |
|---|---|---|
| **Load Case** | **External Pressure** | **Internal Pressure** |
| Pressure Test | Formation Pore Pressure | Max mud weight of next hole-section plus Test psi |
| Drill Ahead | Formation Pore Pressure | Max mud weight of next hole section |
| Fracture @ Shoe | Formation Pore Pressure | Dry gas |

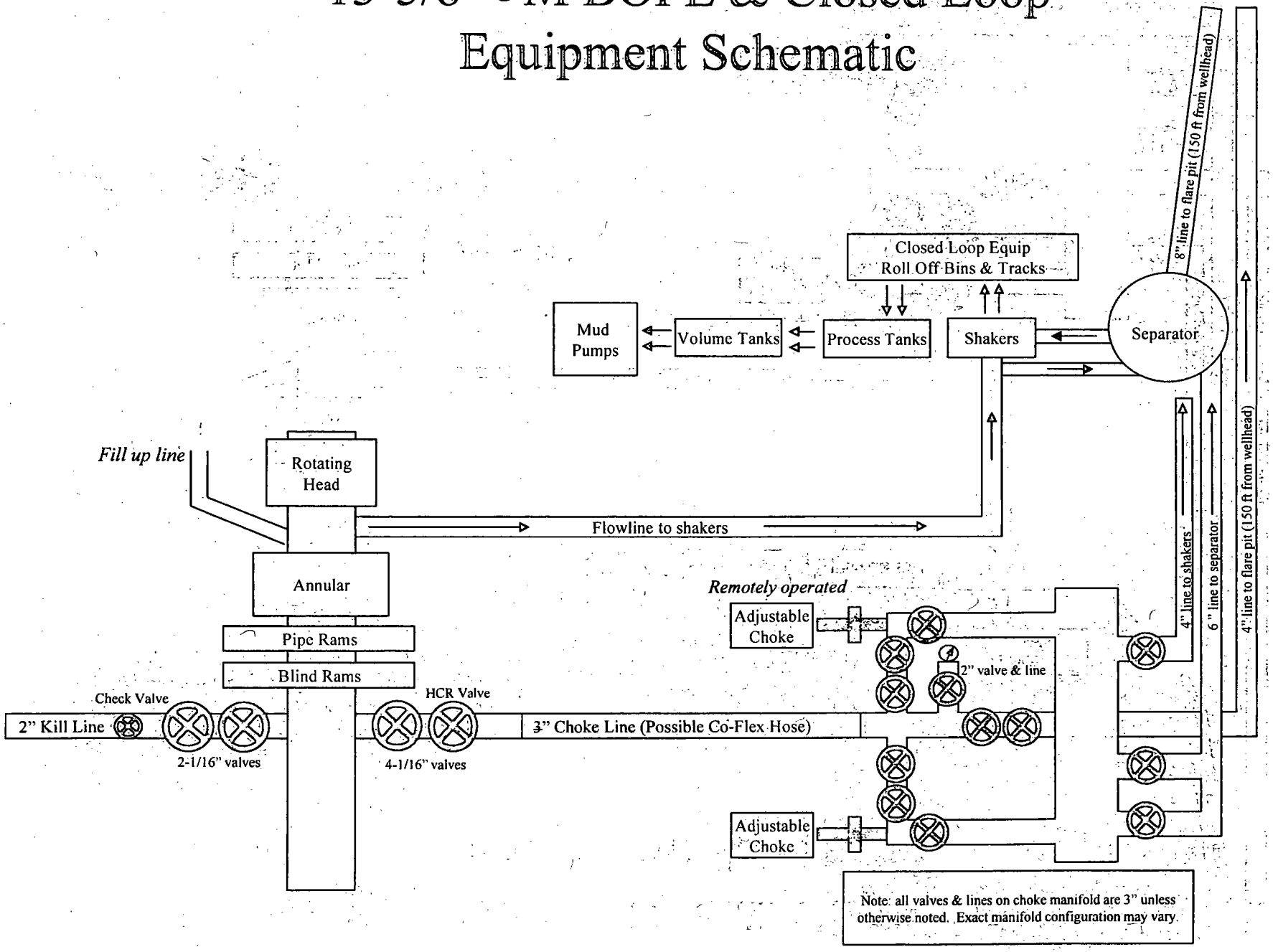
| Intermediate Casing Collapse Design | | |
|---|---|---|
| **Load Case** | **External Pressure** | **Internal Pressure** |
| Full Evacuation | Water gradient in cement, mud above TOC | None |
| Cementing | Wet cement weight | Water (8.33ppg) |

| Intermediate Casing Tension Design | |
|---|---|
| **Load Case** | **Assumptions** |
| Overpull | 100kips |
| Runing in hole | 2 ft/s |
| Service Loads | N/A |

# 10M BOPE & Closed Loop Equipment Schematic



# 13-5/8" 5M BOPE & Closed Loop Equipment Schematic



Fighting Okra 18-19 Fed 83H

Casing Assumptions and Load Cases

Production

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

| Production Casing Burst Design | | |
|---|---|---|
| **Load Case** | **External Pressure** | **Internal Pressure** |
| Pressure Test | Formation Pore Pressure | Fluid in hole (water or produced water) + test psi |
| Tubing Leak | Formation Pore Pressure | Packer @ KOP, leak below surface 8.6 ppg packer fluid |
| Stimulation | Formation Pore Pressure | Max frac pressure with heaviest frac fluid |

| Production Casing Collapse Design | | |
|---|---|---|
| **Load Case** | **External Pressure** | **Internal Pressure** |
| Full Evacuation | Water gradient in cement, mud above TOC. | None |
| Cementing | Wet cement weight | Water (8.33ppg) |

| Production Casing Tension Design | |
|---|---|
| **Load Case** | **Assumptions** |
| Overpull | 100kips |
| Runing in hole | 2 ft/s |
| Service Loads | N/A |

## Contingency Intermediate Cement

| | | | |
|---|---|---|---|
| Additional Info for String | 3 | Additional String Description | Intermediate squeeze cement |
| Stage Tool Depth | | | |

*Lead*

| | | | | | |
|---|---|---|---|---|---|
| Top MD of Segment | 0 | Btm MD of Segment | 7000 | Cement Type | Class C |
| Additives | 0.125 lbs/sack Poly-E-Flake | Quanity (sks) | 1155 | Yield (cu.ft./sk) | 1.3 |
| Density (lbs/gal) | 14.5 | Volume (cu.ft.) | 1502 | Percent Excess | 0 |

*Tail*

| | | | | | |
|---|---|---|---|---|---|
| Top MD of Segment | | Top MD of Segment | | Cement Type | |
| Additives | | Quanity (sks) | | Yield (cu.ft./sk) | |
| Density (lbs/gal) | | Volume (cu.ft.) | | Percent Excess | |

## Contingency Production Cement

| | | | |
|---|---|---|---|
| Additional Info for String | | Additional String Description | |
| Stage Tool Depth | | | |

*Lead*

| | | | | | |
|---|---|---|---|---|---|
| Top MD of Segment | | Btm MD of Segment | | Cement Type | |
| Additives | | Quanity (sks) | | Yield (cu.ft./sk) | |
| Density (lbs/gal) | | Volume (cu.ft.) | | Percent Excess | |

*Tail*

| | | | | | |
|---|---|---|---|---|---|
| Top MD of Segment | | Top MD of Segment | | Cement Type | |
| Additives | | Quanity (sks) | | Yield (cu.ft./sk) | |
| Density (lbs/gal) | | Volume (cu.ft.) | | Percent Excess | |

A multibowl wellhead may be 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.

Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.

- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.
After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.

Continental CONTITECH

**Fluid Technology**

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly It is good practice to use lifting & safety equipment but not mandatory

Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com

RIG 212

PHOENIX

QUALITY DOCUMENT

PHOENIX RUBBER INDUSTRIAL LTD.
6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
Phone: (3662) 566-737 • Fax: (3662) 566-738
SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
Phone: (361) 456-4200 · Fax: (361) 217-2972, 456-4273 · www.taurusemerge.hu

| QUALITY CONTROL INSPECTION AND TEST CERTIFICATE | | | | CERT. N°: 552 |
|---|---|---|---|---|
| PURCHASER: Phoenix Beattie Co. | | | | P.O. N°: 1519FA-871 |
| PHOENIX RUBBER order N°: 170466 | | HOSE TYPE: 3" ID | | Choke and Kill Hose |
| HOSE SERIAL N°: 34128 | | NOMINAL / ACTUAL LENGTH: | | 11,43 m |
| W.P. 68,96 MPa | 10000 psi | T.P. 103,4 MPa | 15000 psi | Duration: 60 min. |

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.
→ 10 mm = 25 MPa

COUPLINGS

| Type | Serial N° | Quality | Heat N° |
|---|---|---|---|
| 3" coupling with 4 1/16" Flange end | 720 719 | AISI 4130<br>AISI 4130 | C7626<br>47357 |
| | | | |
| | | | |

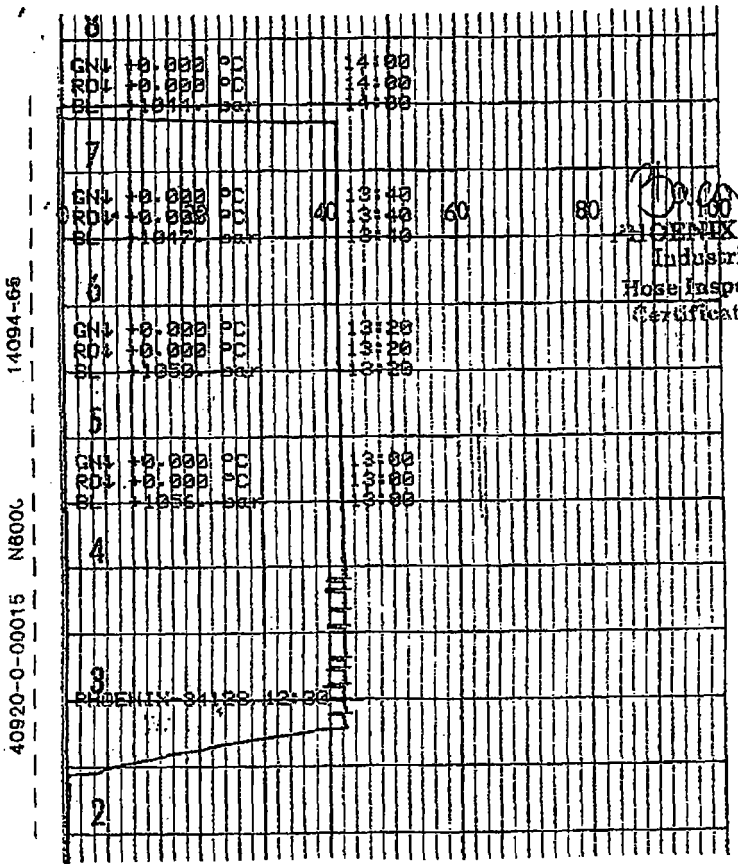
API Spec 16 C
Temperature rate:"B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

| Date: | Inspector | Quality Control |
|---|---|---|
| 29. April. 2002. | | PHOENIX RUBBER Industrial Ltd. Hose Inspection and Certification Dept. |

CERTIFIED TRUE COPY
PHOENIX RUBBER Q.C.

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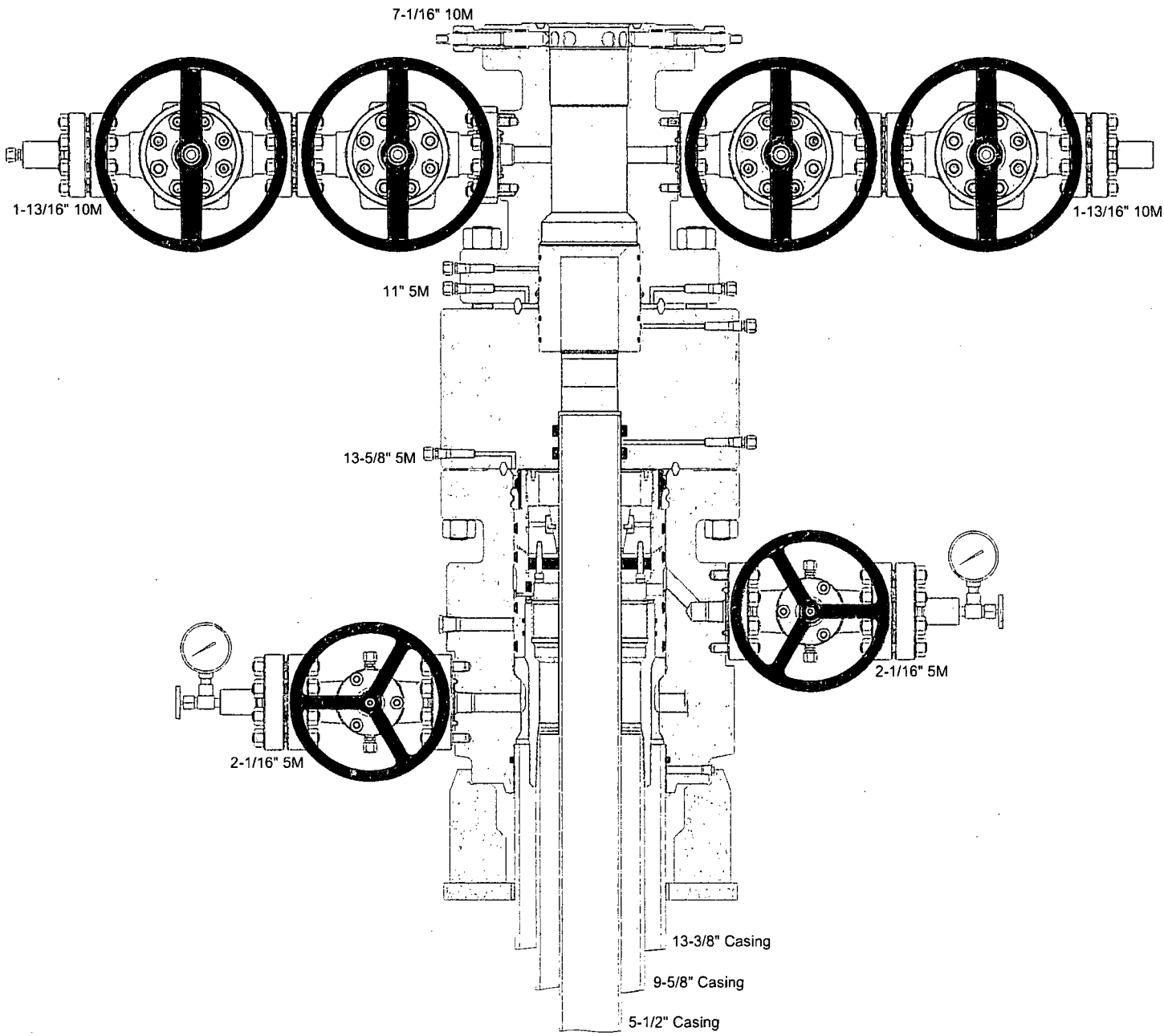
Industrial Ltd.
Hose Inspection and
Certification Dept.

VERIFIED TRUE CO:
PHOENIX RUBBER C.C.


7-1/16" 10M
1-13/16" 10M
1-13/16" 10M
11" 5M
13-5/8" 5M
2-1/16" 5M
2-1/16" 5M
13-3/8" Casing
9-5/8" Casing
5-1/2" Casing

# Devon Energy
## APD VARIANCE DATA

**OPERATOR NAME:** Devon Energy

1. **SUMMARY OF Variance:**

Devon Energy respectfully requests approval for the following additions to the drilling plan:

1. Potential utilization of a spudder rig to pre-set surface casing.

2. **Description of Operations**
   1. A spudder rig contractor may move in their rig to drill the surface hole section and pre-set surface casing on this well.
      - **a.** After drilling the surface hole section, the rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
      - **b.** Rig will utilize fresh water based mud to drill surface hole to TD.
   2. The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
   3. A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wingvalves.
      - **a.** A means for intervention will be maintained while the drilling rig is not over the well.
   4. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
   5. Drilling operation will be performed with the big rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
      - **a.** The BLM will be contacted / notified 24 hours before the big rig moves back on to the pad with the pre-set surface casing.
   6. Devon Energy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
   7. Once the rig is removed, Devon Energy will secure the wellhead area by placing a guard rail around the cellar area.