

Form 3160-3  
(March 2012)

AUG 21 2017

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM112942
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator COG OPERATING LLC (229137)		7. If Unit or CA Agreement, Name and No.
3a. Address 600 West Illinois Ave Midland TX 79701	3b. Phone No. (include area code) (432)683-7443	8. Lease Name and Well No. WHITE FALCON 16 FEDERAL 11H
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NENW / 226 FNL / 1980 FWL / LAT 32.137015 / LONG -103.374627 At proposed prod. zone SESW / 200 FSL / 1980 FWL / LAT 32.109173 / LONG -103.374622		9. API Well No. 30-025-43930 (319419)
14. Distance in miles and direction from nearest town or post office* 9 miles		10. Field and Pool, or Exploratory WC-025 G-08 S2535340 / BONE SPRIN (91068)
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200 feet		11. Sec., T. R. M. or Blk. and Survey or Area SEC 16 / T25S / R35E / NMP
16. No. of acres in lease 680		12. County or Parish LEA
17. Spacing Unit dedicated to this well 320		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, 1030 feet applied for, on this lease, ft.		20. BLM/BIA Bond No. on file FED: NMB000215
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3246 feet		22. Approximate date work will start* 06/01/2017
23. Estimated duration 30 days		24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature (Electronic Submission)	Name (Printed/Typed) Mayte Reyes / Ph: (575)748-6945	Date 03/28/2017
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 08/14/2017
Title Supervisor Multiple Resources		
Office CARLSBAD		

Application approval 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.

Conditions of approval, if any, are attached.

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.

(Continued on page 2)

\*(Instructions on page 2)

APPROVED WITH CONDITIONS

KZ  
08/21/17



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Drilling Plan Data Report

08/15/2017

APD ID: 10400012741

Submission Date: 03/28/2017

Operator Name: COG OPERATING LLC

**HOBBS OCD**

Well Name: WHITE FALCON 16 FEDERAL COM

Well Number: 11H

**AUG 21 2017**

Well Type: OIL WELL

Well Work Type: Drill

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### Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
17318	UNKNOWN	3246	0	0		NONE	No
17348	RUSTLER	2380	866	866		NONE	No
17349	TOP OF SALT	2039	1207	1207	SALT	NONE	No
17350	BASE OF SALT	-1756	5002	5002	ANHYDRITE	NONE	No
17360	LAMAR LS	-2086	5332	5332	LIMESTONE	NATURAL GAS,OIL	No
17345	BELL CANYON	-2118	5364	5364		NONE	No
17339	CHERRY CANYON	-3057	6303	6303		NATURAL GAS,OIL	No
18596	BRUSHY CANYON	-4516	7762	7762		NATURAL GAS,OIL	No
17316	BONE SPRING	-5757	9003	9003	SANDSTONE	NATURAL GAS,OIL	No
18620	AVALON	-5791	9037	9037		NATURAL GAS,OIL	No
18620	AVALON	-5965	9211	9211		NATURAL GAS,OIL	No
17359	BONE SPRING 1ST	-7146	10392	10392		NATURAL GAS,OIL	No
17364	BONE SPRING 2ND	-7664	10910	10910		NATURAL GAS,OIL	No
17366	BONE SPRING 3RD	-8669	11915	11915		NATURAL GAS,OIL	Yes
17333	WOLFCAMP	-9105	12351	12351	SHALE	NATURAL GAS,OIL	No

### Section 2 - Blowout Prevention



**Operator Name:** COG OPERATING LLC

**Well Name:** WHITE FALCON 16 FEDERAL COM

**Well Number:** 11H

**Pressure Rating (PSI):** 3M

**Rating Depth:** 11700

**Equipment:** Annular. Accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

**Requesting Variance?** YES

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for specs and hydrostatic test chart.

**Testing Procedure:** 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.

**Choke Diagram Attachment:**

COG\_White\_Falcon\_11H\_3M\_Choke\_03-28-2017.pdf

**BOP Diagram Attachment:**

COG\_White\_Falcon\_11H\_3M\_BOP\_03-28-2017.pdf

COG\_White\_Falcon\_11H\_Flex\_Hose\_06-26-2017.pdf

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

**Rating Depth:** 12550

**Equipment:** Annular, Blind Ram, Pipe Ram. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold

**Requesting Variance?** YES

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for specs and hydrostatic test chart.

**Testing Procedure:** 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.

**Choke Diagram Attachment:**

COG\_White\_Falcon\_11H\_5M\_Choke\_03-28-2017.pdf

**BOP Diagram Attachment:**

COG\_White\_Falcon\_11H\_5M\_BOP\_03-28-2017.pdf

COG\_White\_Falcon\_11H\_Flex\_Hose\_06-26-2017.pdf

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Operator Name: COG OPERATING LLC

Well Name: WHITE FALCON 16 FEDERAL COM

Well Number: 11H

### 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	17.5	13.375	NEW	API	N	0	895	0	895	-6672	-7567	895	J-55	68	STC	4.76	0.8	DRY	11.09	DRY	11.09
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	11700	0	11700	-6672	-18559	11700	L-80	47	OTHER	1.3	1.17	DRY	1.97	DRY	1.97
3	PRODUCTION	8.5	5.5	NEW	API	N	0	22210	0	22210	-6672	-29111	22210	P-110	23	OTHER	2.05	2.16	DRY	2.55	DRY	2.55

#### Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Taperd String Spec:

Casing Design Assumptions and Worksheet(s):

COG\_White\_Falcon\_11H\_Casing\_Prog\_03-28-2017.pdf



**Operator Name:** COG OPERATING LLC

**Well Name:** WHITE FALCON 16 FEDERAL COM

**Well Number:** 11H

#### Casing Attachments

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

**Inspection Document:**

**Spec Document:**

**Taperd String Spec:**

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

COG\_White\_Falcon\_11H\_Casing\_Prog\_03-28-2017.pdf

**Casing ID:** 3      **String Type:** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Taperd String Spec:**

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

COG\_White\_Falcon\_11H\_Casing\_Prog\_03-28-2017.pdf

#### Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	895	350	1.75	13.5	612	50	Class C	4% Gel + 1% CaCl2
SURFACE	Tail		0	895	250	1.34	14.8	335	50	Class C	2% CaCl2
INTERMEDIATE	Lead		0	1170 0	1460	3.5	10.3	5110		Tuned Light Blend	As needed
INTERMEDIATE	Tail		0	1170 0	250	1.34	14.8	335	50	Class C	2% CaCl

Operator Name: COG OPERATING LLC

Well Name: WHITE FALCON 16 FEDERAL COM

Well Number: 11H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	22210	140	2.5	11.9	350	30	50:50:10 H Blend	As needed
PRODUCTION	Tail		0	22210	2730	1.24	14.4	3385	30	50:50:2 Class H Blend	As needed

## 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

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	895	OTHER : FW Gel	8.6	8.8							FW Gel
895	11700	OTHER : Diesel Brine Emulsion	8.4	9							Diesel Brine Emulsion
11700	22210	OIL-BASED MUD	9.6	11							



**Operator Name:** COG OPERATING LLC

**Well Name:** WHITE FALCON 16 FEDERAL COM

**Well Number:** 11H

## Section 6 - Test, Logging, Coring

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

None planned

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

CNL,GR

**Coring operation description for the well:**

None planned

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 7100

**Anticipated Surface Pressure:** 4369.36

**Anticipated Bottom Hole Temperature(F):** 180

**Anticipated abnormal proessures, 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:**

COG\_White\_Falcon\_11H\_H2S\_SUP\_03-28-2017.pdf

COG\_White\_Falcon\_11H\_H2S\_Schem\_03-28-2017.pdf

## Section 8 - Other Information

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

COG\_White\_Falcon\_11H\_AC\_Report\_03-28-2017.pdf

COG\_White\_Falcon\_11H\_Directional\_Plan\_03-28-2017.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

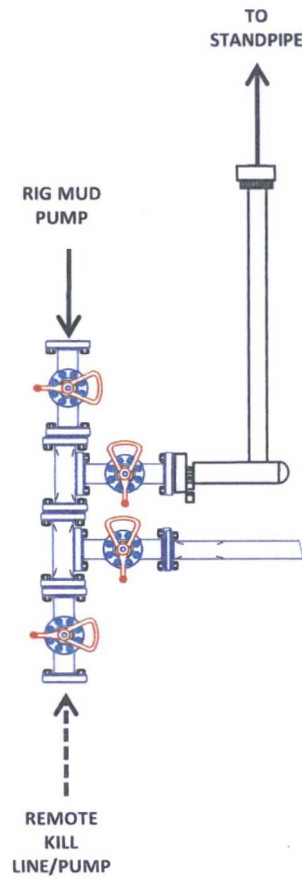
COG\_White\_Falcon\_11H\_Drilling\_Prog\_03-28-2017.pdf

**Other Variance attachment:**

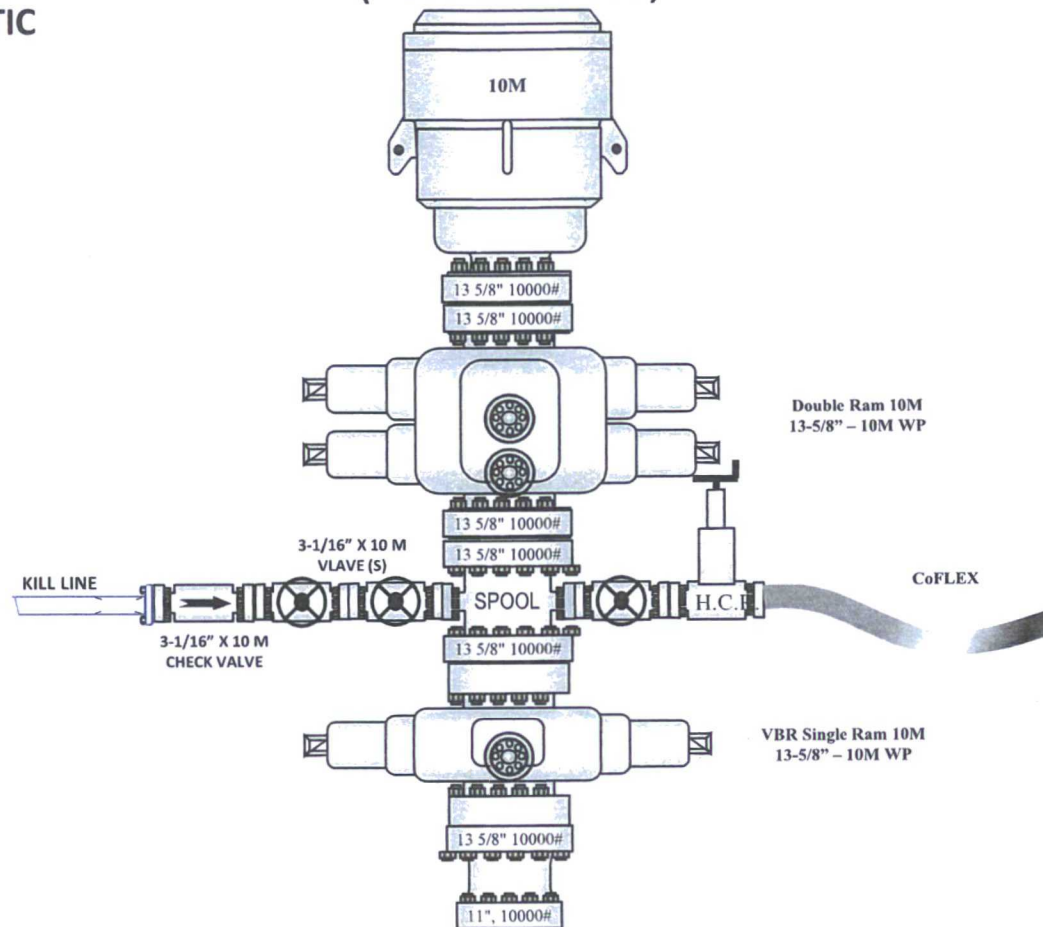
COG\_White\_Falcon\_11H\_Flex\_Hose\_03-28-2017.pdf

## 10M BOP Stack

### 10M REMOTE KILL SCHEMATIC

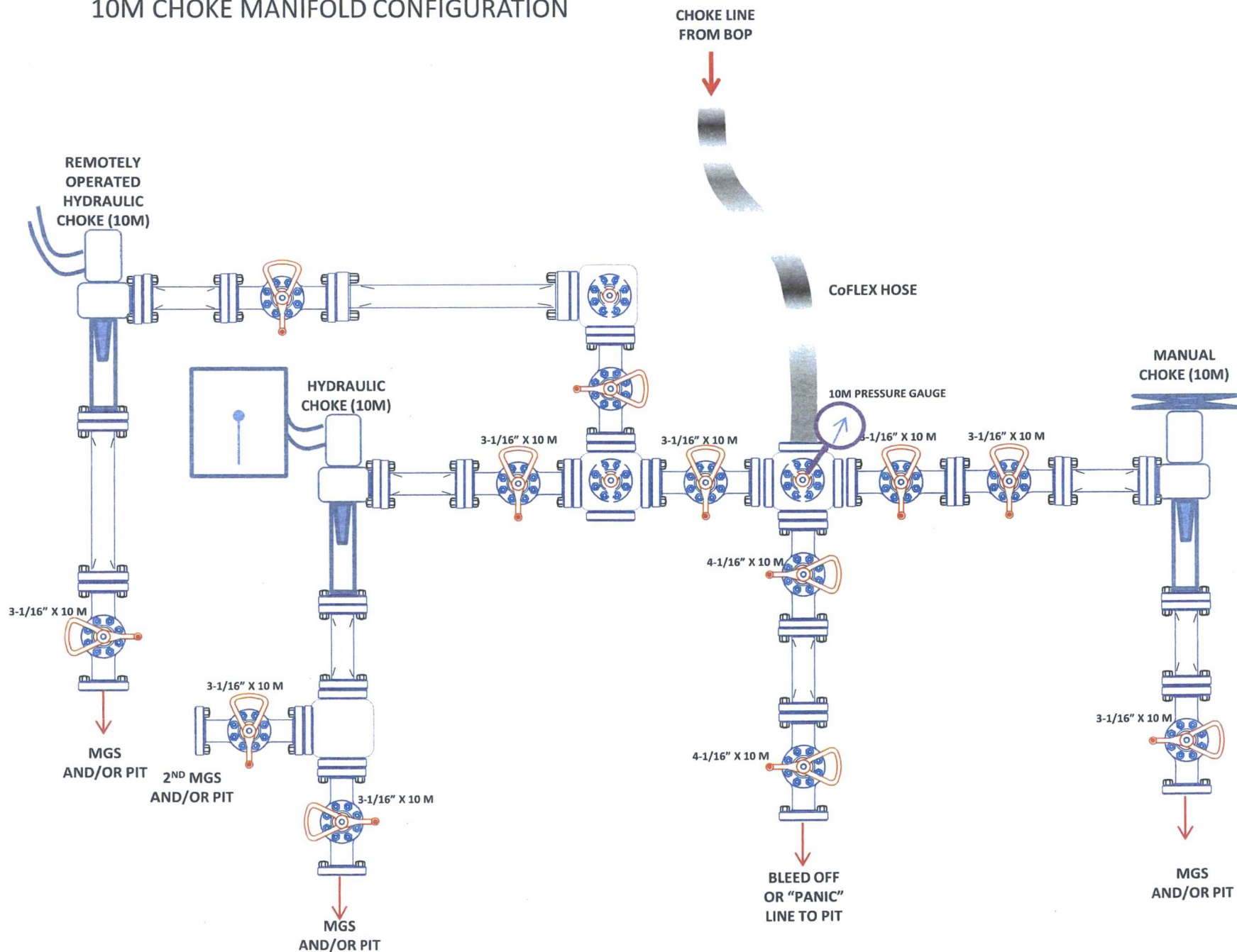


## 10M BOP Stack (10M Annular)

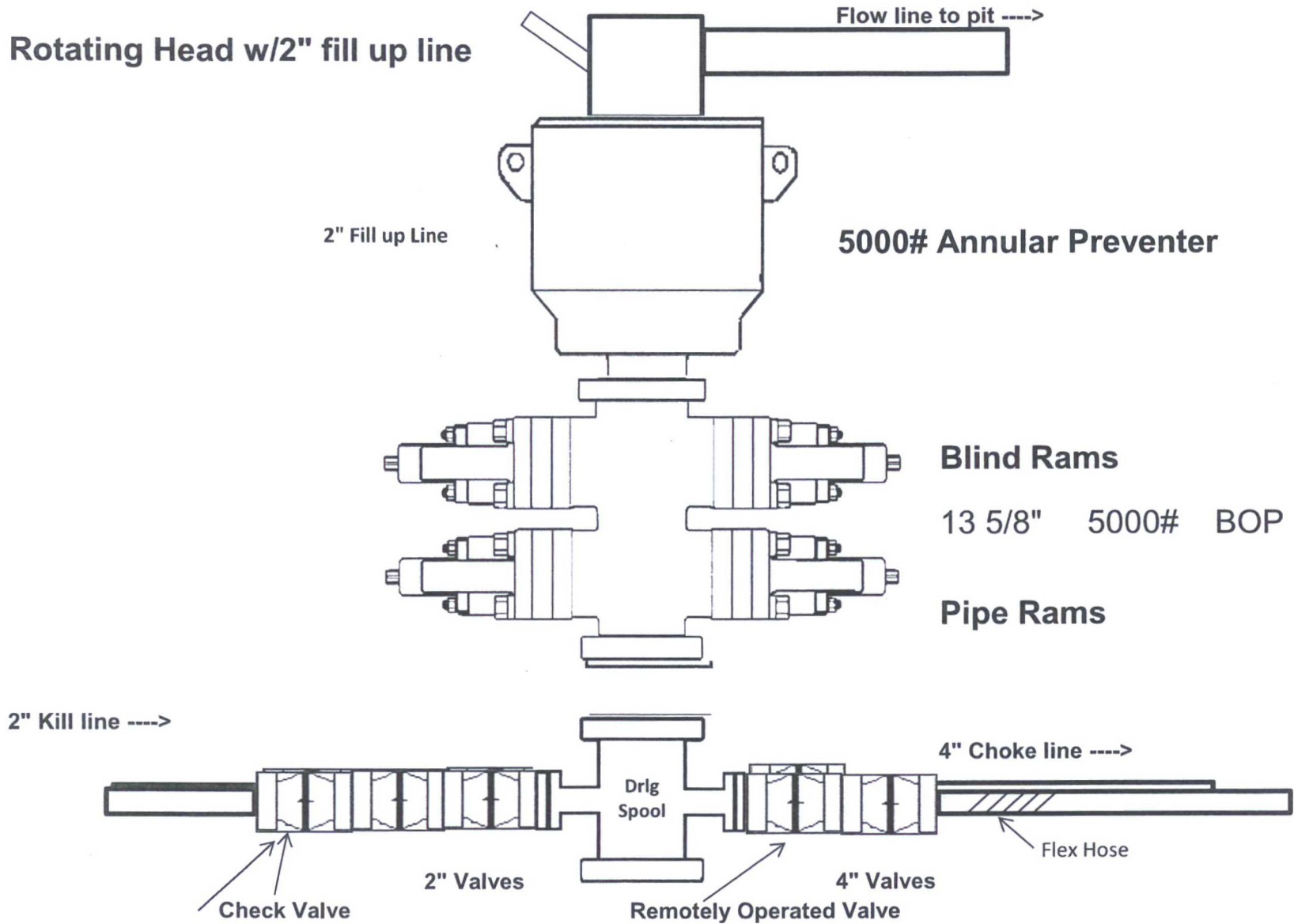




# 10M CHOKE MANIFOLD CONFIGURATION

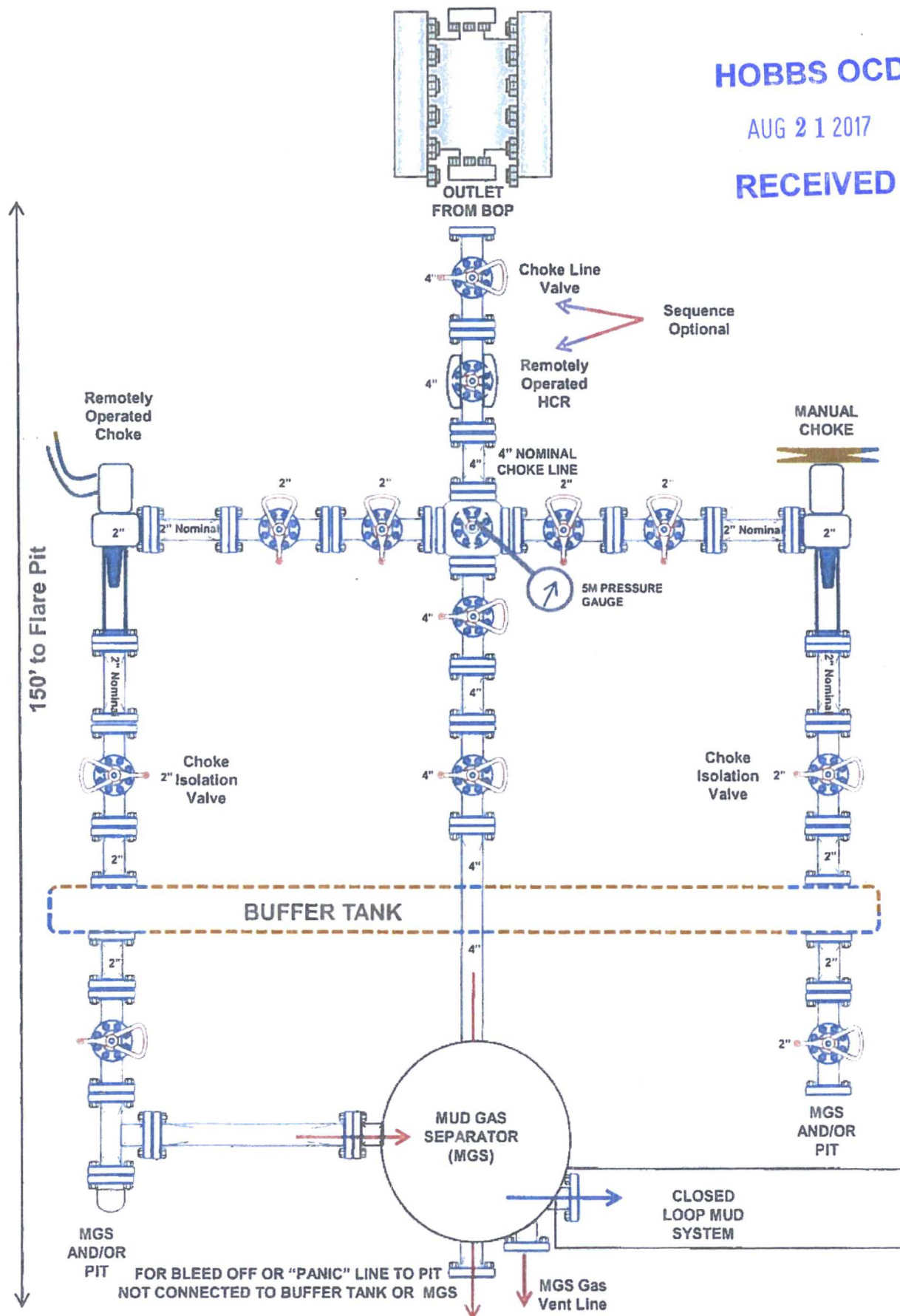


# 5,000 psi BOP Schematic





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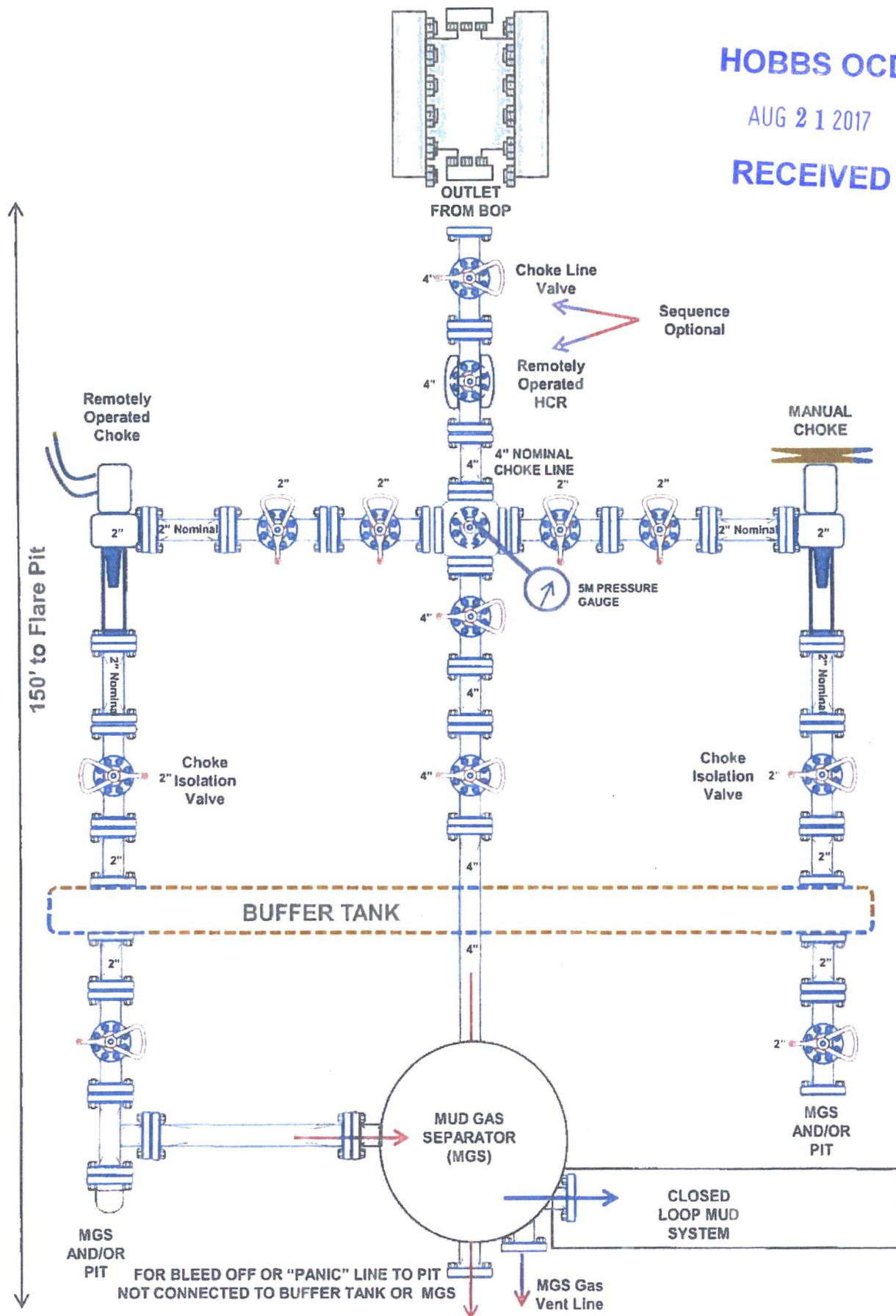


# 5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)

HOBBS OCD

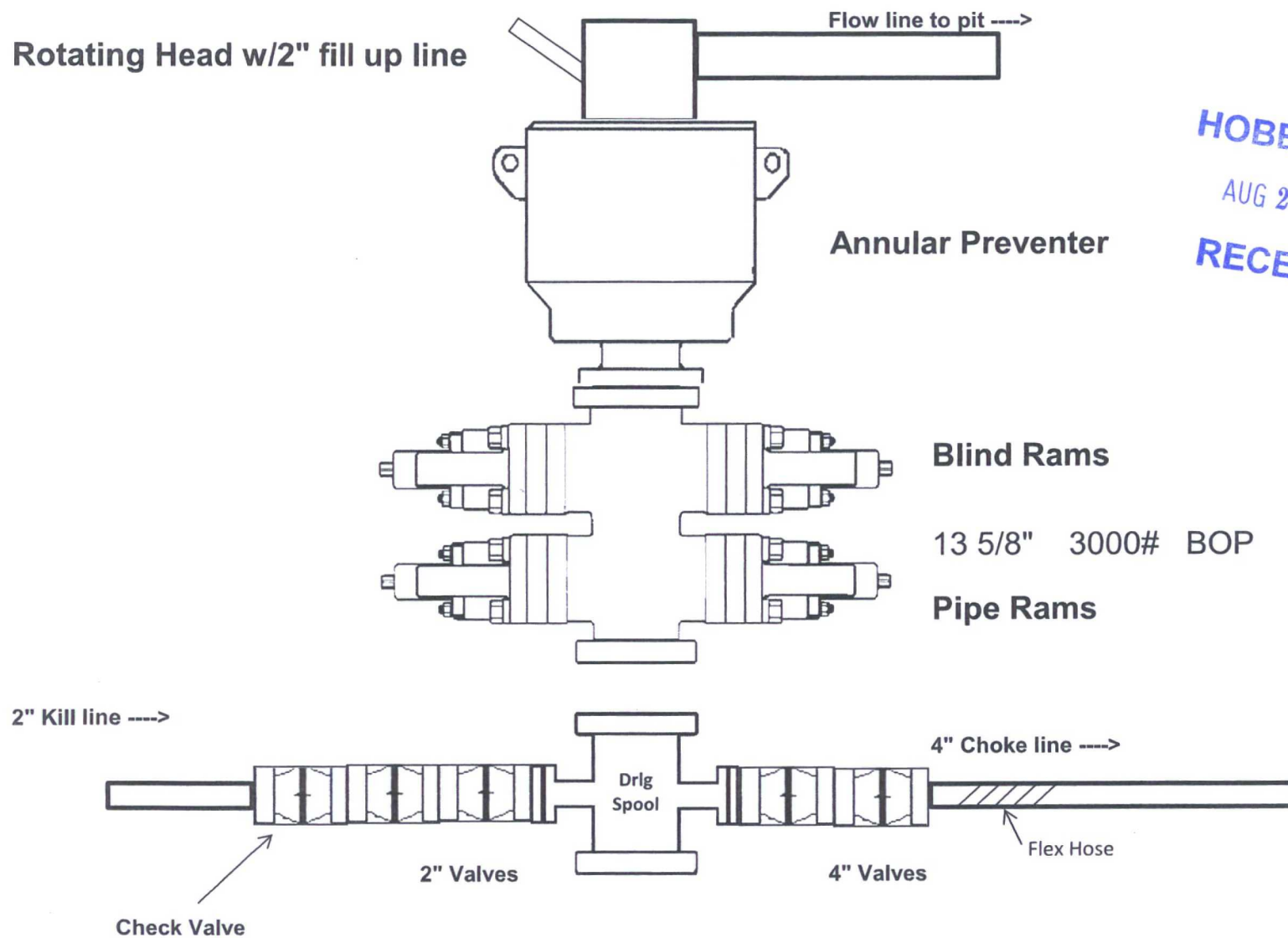
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# 3,000 psi BOP Schematic



HOBBS OCD

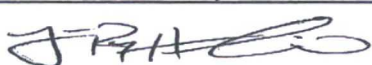
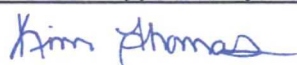
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Midwest Hose  
& Specialty, Inc.

### Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	Hobbs	Hose Assembly Type	Rotary/Vibrator
MWH Sales Representative	Ryan Rynolds	Certification	API 7K/FSL Level 2
Date Assembled	11/19/2015	Hose Grade	D
Location Assembled	OKC	Hose Working Pressure	5000
Sales Order #	271739	Hose Lot # and Date Code	11834 11/14
Customer Purchase Order #	302337	Hose I.D. (Inches)	3.5"
Assembly Serial # (Pick Ticket #)	326000	Hose O.D. (Inches)	4.89"
Hose Assembly Length	25'	Armor (yes/no)	No
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.5X64WB	Stem (Part and Revision #)	R3.5X64WB
Stem (Heat #)	A144783	Stem (Heat #)	A144783
Ferrule (Part and Revision #)	RF3.5	Ferrule (Part and Revision #)	RF3.5
Ferrule (Heat #)	J1628	Ferrule (Heat #)	J1628
Connection . Flange Hammer Union Part	4-1/16 5000	Connection (Part #)	4-1/16 5000
Connection (Heat #)	14032501	Connection (Heat #)	1404H321
Nut (Part #)	N/A	Nut (Part #)	N/A
Nut (Heat #)	N/A	Nut (Heat #)	N/A
Dies Used	5.49"	Dies Used	5.49"
Hydrostatic Test Requirements			
Test Pressure (psi)	10,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	11 1/2		
Date Tested	Tested By	Approved By	
11/19/2015			





Midwest Hose  
& Specialty, Inc.

### Certificate of Conformity

Customer: **Hobbs**

Customer P.O.# **302337**

Sales Order # **271739**

Date Assembled: **11/19/2015**

### Specifications

Hose Assembly Type: **Rotary/Vibrator**

Assembly Serial # **326000**

Hose Lot # and Date Code **11834 11/14**

Hose Working Pressure (psi) **5000**

Test Pressure (psi) **10000**

*We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.*

Supplier:

**Midwest Hose & Specialty, Inc.**

**3312 S I-35 Service Rd**

**Oklahoma City, OK 73129**

Comments:

Approved By

*Kim Thomas*

Date

**11/19/2015**



Midwest Hose  
& Specialty, Inc.

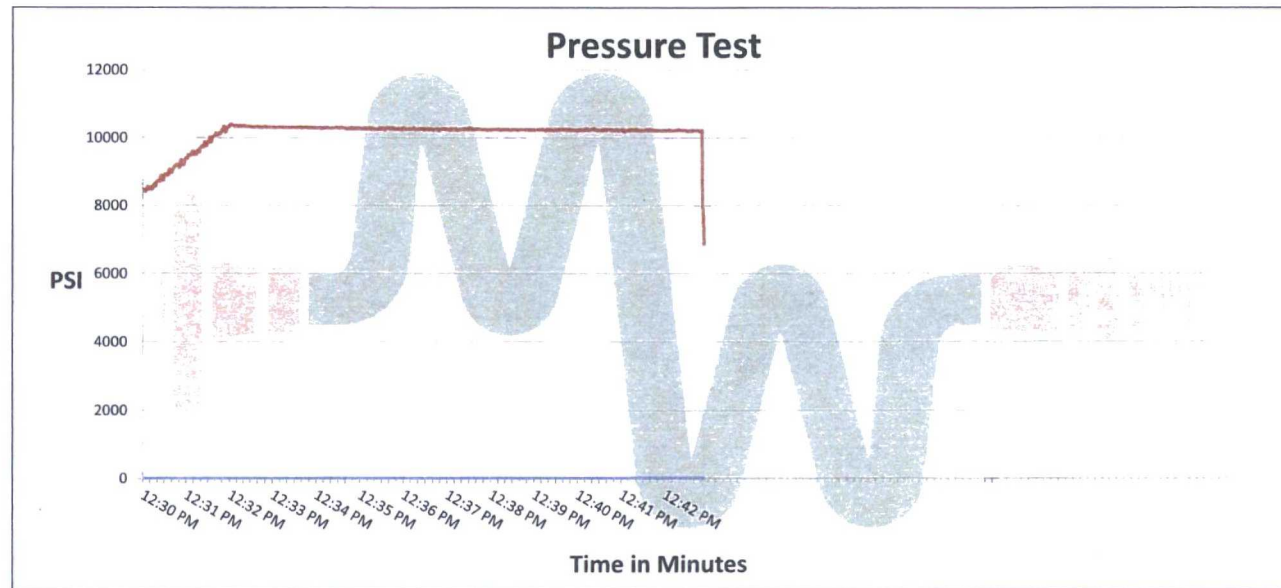
## Internal Hydrostatic Test Graph

November 19, 2015

Customer: Hobbs

Pick Ticket #: 326000

Hose Specifications		Verification	
<u>Hose Type</u>	<u>Length</u>	<u>Type of Fitting</u>	<u>Coupling Method</u>
D	25'	4 1/16 5K	Swage
<u>I.D.</u>	<u>O.D.</u>	<u>Die Size</u>	<u>Final O.D.</u>
3.5"	4.89"	5.49"	5.50"
<u>Working Pressure</u>	<u>Burst Pressure</u>	<u>Hose Serial #</u>	<u>Hose Assembly Serial #</u>
5000 PSI	Standard Safety Multiplier Applies	11834	326000



Test Pressure  
10000 PSI

Time Held at Test Pressure  
11 2/4 Minutes

Actual Burst Pressure

Peak Pressure  
10473 PSI

**Comments:** Hose assembly pressure tested with water at ambient temperature.

**Tested By:** James Hawkins

**Approved By:** Kim Thomas

X \_\_\_\_\_

X \_\_\_\_\_



## Hose Assembly & Test Report

General Information		Hose Specifications	
Customer	Hobbs	Hose Assembly Type	change + 2 1/2"
Date Assembled	6-26-14	Certification	API 7K
Location Assembled	Dick	Hose Grade	D
Sales Order #	216 797	Hose Working Pressure	5,000
Customer Purchase Order #	237 512	Hose Lot #	8309
Hose Assembly Serial #	260212	Hose Date Code	04/12
Pick Ticket Line Item	0010	Hose I.D. (Inches)	3.5 inches
Hose Assembly Length (Feet and Inches)	50 feet	Hose O.D. (Inches)	5.49
Contact Information Phone #		Armor (yes/no)	yes

Fittings			
End A		End B	
Stern (Part and Revision #)	R3.5 x 64 UB	Stern (Part and Revision #)	R3.5 x 64 UB
Stern (Heat #)	13114050225	Stern (Heat #)	13114050225
Stern (Rockwell Hardness HRB #)	—	Stern (Rockwell Hardness HRB #)	—
Ferrule (Part and Revision #)	RF 3.5	Ferrule (Part and Revision #)	RF 3.5
Ferrule (Heat #)	126151	Ferrule (Heat #)	37211Y
Ferrule (Rockwell Hardness HRB #)	—	Ferrule (Rockwell Hardness HRB #)	—
Connection (Part #)	4 1/16 SK	Connection (Part #)	4 1/16 SK
Connection (Heat #)	V3360	Connection (Heat #)	V3360
Connection (Brinell Hardness HB #)	—	Connection (Brinell Hardness HB #)	—
Stress Relief #	17614	Stress Relief #	17614
Welding #	MKR	Welding #	MKR
X-ray #	—	X-ray #	—

Assembly Information			
End A		End B	
Skive O.D. (Inches)	5.04	Skive O.D. (Inches)	4.92
Swager Dies (1st pass)	5.62	Swager Dies (1st pass)	5.53
Swager Dies (2nd pass)	—	Swager Dies (2nd pass)	—
Final Swage O.D. (Inches)	5.64	Final Swage O.D. (Inches)	5.48
Compression % (See Crimp Calculator)	24%	Compression % (See Crimp Calculator)	22%
Swaged By: Charles Ash			

Hydrostatic Test Requirements			
Test Pressure (psi)	10,000	Hold Time (minutes)	13 1/4
Tested By	Charles Ash	Date Tested	6-26-14

This is to certify that the above Hose Assembly has been satisfactorily tested in accordance with MHSI procedure 8.2.4.2

Final Verification			
Third Party Witness 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hammer Unions	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Safety Clamps	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Customer or Third Party Witnessed By:			





Midwest Hose  
& Specialty, Inc.

### Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	Hobbs	Hose Assembly Type	Rotary/Vibrator
MWH Sales Representative	Ryan Rynolds	Certification	API 7K/FSL Level 2
Date Assembled	11/19/2015	Hose Grade	D
Location Assembled	OKC	Hose Working Pressure	5000
Sales Order #	271739	Hose Lot # and Date Code	11834 11/14
Customer Purchase Order #	302337	Hose I.D. (Inches)	3.5"
Assembly Serial # (Pick Ticket #)	326000	Hose O.D. (Inches)	4.89"
Hose Assembly Length	25'	Aarmor (yes/no)	No
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.5X64WB	Stem (Part and Revision #)	R3.5X64WB
Stem (Heat #)	A144783	Stem (Heat #)	A144783
Ferrule (Part and Revision #)	RF3.5	Ferrule (Part and Revision #)	RF3.5
Ferrule (Heat #)	J1628	Ferrule (Heat #)	J1628
Connection . Flange Hammer Union Part	4-1/16 5000	Connection (Part #)	4-1/16 5000
Connection (Heat #)	14032501	Connection (Heat #)	1404H321
Nut (Part #)	N/A	Nut (Part #)	N/A
Nut (Heat #)	N/A	Nut (Heat #)	N/A
Dies Used	5.49"	Dies Used	5.49"
Hydrostatic Test Requirements			
Test Pressure (psi)	10,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	11 1/2		
Date Tested	Tested By		Approved By
11/19/2015			



Midwest Hose  
& Specialty, Inc.

### Certificate of Conformity

Customer: **Hobbs**

Customer P.O.# **302337**

Sales Order # **271739**

Date Assembled: **11/19/2015**

### Specifications

Hose Assembly Type: **Rotary/Vibrator**

Assembly Serial # **326000**

Hose Lot # and Date Code **11834 11/14**

Hose Working Pressure (psi) **5000**

Test Pressure (psi) **10000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

**Midwest Hose & Specialty, Inc.**

**3312 S I-35 Service Rd**

**Oklahoma City, OK 73129**

Comments:

Approved By

*Kim Thomas*

Date

**11/19/2015**





Midwest Hose  
& Specialty, Inc.

## Internal Hydrostatic Test Graph

November 19, 2015

Customer: Hobbs

Pick Ticket #: 326000

### Hose Specifications

#### Hose Type

D

#### I.D.

3.5"

#### Working Pressure

5000 PSI

#### Length

25'

#### O.D.

4.89"

#### Burst Pressure

Standard Safety Multiplier Applies

### Verification

#### Type of Fitting

4 1/16 5K

#### Die Size

5.49"

#### Hose Serial #

11834

#### Coupling Method

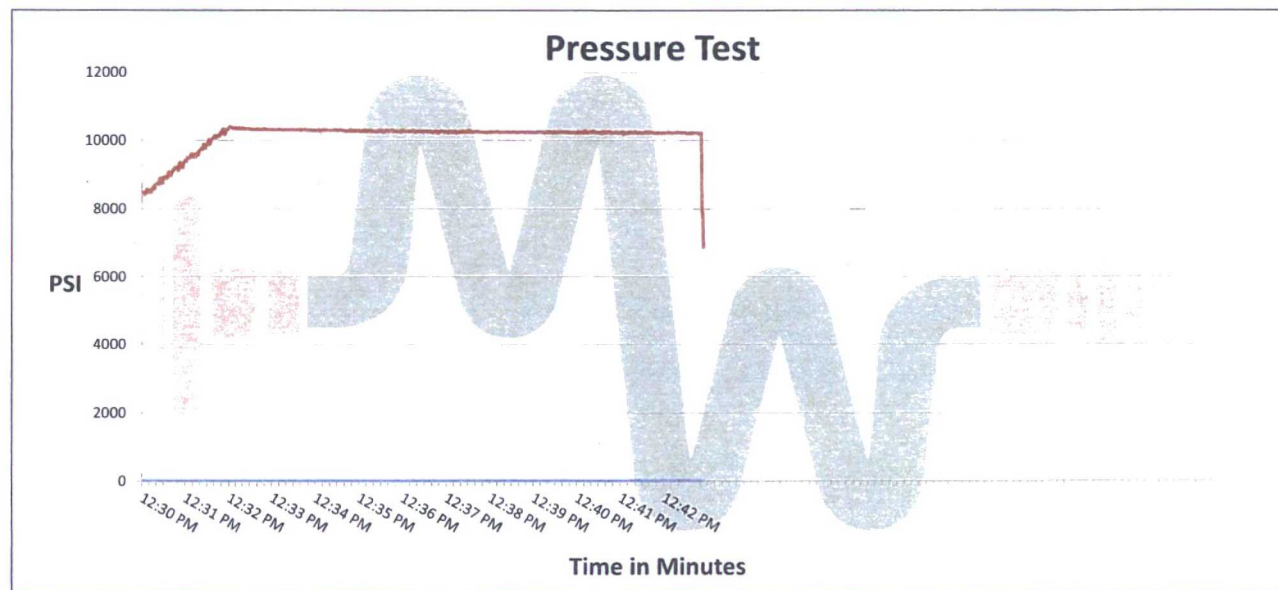
Swage

#### Final O.D.

5.50"

#### Hose Assembly Serial #

326000



#### Test Pressure

10000 PSI

#### Time Held at Test Pressure

11 2/4 Minutes

#### Actual Burst Pressure

#### Peak Pressure

10473 PSI

**Comments:** Hose assembly pressure tested with water at ambient temperature.

**Tested By:** James Hawkins

**Approved By:** Kim Thomas

X \_\_\_\_\_

X \_\_\_\_\_



## Hose Assembly & Test Report

General Information		Hose Specifications	
Customer	Hobbs	Hose Assembly Type	change + k-1
Date Assembled	6-26-14	Certification	API 7K
Location Assembled	Dick	Hose Grade	D
Sales Order #	216 297	Hose Working Pressure	5,000
Customer Purchase Order #	237 512	Hose Lot #	8309
Hose Assembly Serial #	260212	Hose Date Code	04/12
Pick Ticket Line Item	0010	Hose I.D. (Inches)	3.5 inches
Hose Assembly Length (Feet and Inches)	50 feet	Hose O.D. (Inches)	5.49
Contact Information Phone #		Armor (yes/no)	yes

Fittings			
End A		End B	
Stem (Part and Revision #)	R3.5 x 64 WD	Stem (Part and Revision #)	R3.5 x 64 WD
Stem (Heat #)	13114030225	Stem (Heat #)	13114030225
Stem (Rockwell Hardness HRB #)	—	Stem (Rockwell Hardness HRB #)	—
Ferrule (Part and Revision #)	RF 3.5	Ferrule (Part and Revision #)	RF 3.5
Ferrule (Heat #)	126151	Ferrule (Heat #)	37211Y
Ferrule (Rockwell Hardness HRB #)	—	Ferrule (Rockwell Hardness HRB #)	—
Connection (Part #)	4 1/16 SK	Connection (Part #)	4 1/16 SK
Connection (Heat #)	U336D	Connection (Heat #)	U336D
Connection (Brinell Hardness HB #)	—	Connection (Brinell Hardness HB #)	—
Stress Relief #	17614	Stress Relief #	17614
Welding #	MKR	Welding #	MKR
X-ray #	—	X-ray #	—

Assembly Information			
End A		End B	
Skive O.D. (Inches)	5.04	Skive O.D. (Inches)	4.92
Swager Dies (1st pass)	5.62	Swager Dies (1st pass)	5.53
Swager Dies (2nd pass)	—	Swager Dies (2nd pass)	—
Final Swage O.D. (Inches)	5.14	Final Swage O.D. (Inches)	4.98
Compression % (See Crimp Calculator)	22%	Compression % (See Crimp Calculator)	22%
Swaged By	Charles Ash		

Hydrostatic Test Requirements			
Test Pressure (psi)	10,000	Hold Time (minutes)	13 1/4
Tested By	Charles Ash	Date Tested	6-26-14

This is to certify that the above Hose Assembly has been satisfactorily tested in accordance with MHSI procedure 8.2.4.2

Final Verification			
Third Party Witness	<input checked="" type="checkbox"/> No	Hammer Unions	Yes <input checked="" type="checkbox"/> No
	<input checked="" type="checkbox"/> No	Safety Clamps	Yes <input checked="" type="checkbox"/> No
Customer or Third Party Witnessed By:			

# Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body
	From	To							
17.5"	0	895	13.375"	68	J55	STC	4.76	0.80	11.09
12.25"	0	11700	9.625"	47	L80	BTC	1.30	1.17	1.97
8.5"	0	22,210	5.5"	23	P110	BTC	2.05	2.16	2.55
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and  
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Operator Certification Data Report

08/15/2017

### Operator Certification

*I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.*

**NAME:** Mayte Reyes

**Signed on:** 03/27/2017

**Title:** Regulatory Analyst

**Street Address:** 2208 W Main Street

**City:** Artesia

**State:** NM

**Zip:** 88210

**Phone:** (575)748-6945

**Email address:** Mreyes1@concho.com

### Field Representative

**Representative Name:** Rand French

**Street Address:** 2208 West Main Street

**City:** Artesia

**State:** NM

**Zip:** 88210

**Phone:** (575)748-6340

**Email address:** rfrench@concho.com





U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Application Data Report

08/15/2017

APD ID: 10400012741

Submission Date: 03/28/2017

Operator Name: COG OPERATING LLC

Well Name: WHITE FALCON 16 FEDERAL COM

Well Number: 11H

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - General

APD ID: 10400012741

Tie to previous NOS?

Submission Date: 03/28/2017

BLM Office: CARLSBAD

User: Mayte Reyes

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM112942

Lease Acres: 680

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO

APD Operator: COG OPERATING LLC

Operator letter of designation:

Keep application confidential? YES

### Operator Info

Operator Organization Name: COG OPERATING LLC

Operator Address: 600 West Illinois Ave

Zip: 79701

Operator PO Box:

Operator City: Midland

State: TX

Operator Phone: (432)683-7443

Operator Internet Address: RODOM@CONCHO.COM

### Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: WHITE FALCON 16 FEDERAL COM

Well Number: 11H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WC-025 G-08  
S2535340

Pool Name: BONE SPRING



Operator Name: COG OPERATING LLC

Well Name: WHITE FALCON 16 FEDERAL COM

Well Number: 11H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,OIL

Describe other minerals:

Is the proposed well in a Helium production area? N

Use Existing Well Pad? NO

New surface disturbance?

Type of Well Pad: SINGLE WELL

Multiple Well Pad Name:

Number:

Well Class: HORIZONTAL

Number of Legs:

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 9 Miles

Distance to nearest well: 1030 FT

Distance to lease line: 200 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: COG\_White\_Falcon\_11H\_C102\_03-27-2017.pdf

Well work start Date: 06/01/2017

Duration: 30 DAYS

### Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	226	FNL	198 0	FWL	25S	35E	16	Aliquot NENW	32.13701 5	- 103.3746 27	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	324 6	0	0
KOP Leg #1	226	FNL	198 0	FWL	25S	35E	16	Aliquot NENW	32.13701 5	- 103.3746 27	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	324 6	0	0
PPP Leg #1	330	FNL	198 0	FWL	25S	35E	16	Aliquot NENW	32.13672 9	- 103.3746 26	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	- 856 2	118 08	118 08

**Operator Name:** COG OPERATING LLC

**Well Name:** WHITE FALCON 16 FEDERAL COM

**Well Number:** 11H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
PPP Leg #1	264 0	FSL	198 0	FWL	25S	35E	21	Aliquot NESW	32.11586 7	- 103.3746 23	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 132952	- 913 2	196 00	123 78
EXIT Leg #1	330	FSL	198 0	FWL	25S	35E	21	Aliquot SESW	32.10953	- 103.3746 22	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 112942	- 667 2	220 00	991 8
BHL Leg #1	200	FSL	198 0	FWL	25S	35E	21	Aliquot SESW	32.10917 3	- 103.3746 22	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 112942	- 916 6	222 10	124 12