OCD Hobbs

ATS-16-409

CONFIDENTIAL

HOBBS OCD

AUG 18 2016

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Form 3160-3
(March 2012)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. Lateral: NMNM92781, NMNM69596
SHL:NMNM66272;BHL:NMNM66271

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
NMNM094480X

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. (30863)
GAUCHO UNIT 66H

2. Name of Operator Devon Energy Production Company, L.P. (6137)

9. API Well No.
30-025-43386

3a. Address 333 W. Sheridan
Oklahoma City, OK 73102

3b. Phone No. *(include area code)*
405.552.7848

10. Field and Pool, or Exploratory
WC-025 G-06 S223421L; BS (97922)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 437 FNL & 1028 FEL, Unit A PP: 750 FNL & 1217 FEL
At proposed prod. zone 330 FSL & 500 FEL, Unit P

11. Sec., T. R. M. or Blk. and Survey or Area
SHL: Sec 19, T22S, R34E
BHL: Sec 30, T22S, R34E

14. Distance in miles and direction from nearest town or post office*
Approximately 24 miles E of Jal, NM

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
See attached map

16. No. of acres in lease
NMNM66272; 120ac
NMNM92781; 960 ac
NMNM69596; 830.64 ac
NMNM66271; 80 ac

17. Spacing Unit dedicated to this well
320 ac

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
See attached map

19. Proposed Depth
TVD: 11,391' MD: 21,167'

20. BLM/BIA Bond No. on file
CO-1104; NMB-000801

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3,467.1' GL

22. Approximate date work will start*
01/22/2018

23. Estimated duration
45 Days

24. Attachments To Be Pad Drilled With Gaucho Unit 99H

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

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

25. Signature

Name *(Printed/Typed)*
David H. Cook

Date 2/19/2016

Title
Regulatory Compliance Professional

Approved by *(Signature)* /s/George MacDonell

Name *(Printed/Typed)*

Date AUG 1 - 2016

Title
FIELD MANAGER

Office
CARLSBAD FIELD OFFICE

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.

APPROVAL FOR TWO YEARS

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)

Capitan Controlled Water Basin

KZ 08/19/16

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 18 2016
RECEIVED

Approval Subject to General Requirements & Special Stipulations Attached

1. Geologic Formations

TVD of target	11,391'	Pilot hole depth	N/A
MD at TD:	21,167'	Deepest expected fresh water:	300'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	1590		
Top of Salt	2030		
Base of Salt	5091		
Delaware	5158		
LWR Brushey	8360		
Bone Spring	8551		
1st BSPG Sand	9570		
2nd BSPG Sand	10189		
3rd BSPG Lime	10571		
3rd BSPG Sand	11093		
Wolfcamp	11398		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

See COA

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0	1,650'	13.375"	54.5	J-55	BTC	1.64	3.68	10.73
12.25"	0	4,300'	9.625"	40	J-55	BTC	1.15	3.43	4.69
	4,300'	~~5,200~~ 5,000'	9.625"	40	HCK-55	BTC	1.57	4.63	6.07
8.75"	0	21,167'	5.5"	17	P-110RY	BTC	1.79	2.55	3.68
				BLM Minimum Safety Factor			1.125	1.00	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	H_2O gal/sk	Yld ft3/ sack	500# Comp. Strength (hours)	Slurry Description
13-3/8" Surface	930	13.5	9.07	1.72	12	Lead: Class C Cement + 4% Bentonite Gel + 0.125 lbs/sack Poly-E-Flake
	550	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
9-5/8" Inter.	1060	12.9	9.81	1.85	17	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	430	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
9-5/8" Inter. Two Stage	890	12.9	9.81	1.85	17	1st Stage Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	220	14.8	6.32	1.33	6	1st Stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
	DV Tool = 1700'					
	220	12.9	9.81	1.85	17	2nd Stage Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	140	14.8	6.32	1.33	6	2nd Stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
5-1/2" Prod.	560	10.9	20.6	3.31	24	Lead: (50:40:10) Class C: Silicalite: Enhancer 923 + 10% BWOC Bentonite + 0.05% BWOC SA-1015 + 0.3% BWOC HR-800 + 0.2% BWOC FE-2 + 0.125 lb/sk Pol-E-Flake + 0.5 lb/sk D-Air 5000
	2730	14.5	5.31	1.2	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

See COA

Casing String	TOC	% Excess
13-3/8" Surface	0'	100%
9-5/8" Intermediate	0'	75%
5-1/2" Production Casing Single Stage Option	~~4900'~~ 4800'	25%

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

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

Y	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.

Y	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.	
	Y	Are anchors required by manufacturer?
Y	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 the option of 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 5000 (5M) psi. • Wellhead will be installed by vendor's representatives. • If the welding is performed by a third party, the vendor's representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal. • Vendor representative will install the test plug for the initial BOP test. • Vendor 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 5M, 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 5M 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 5,000 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 5M 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 5,000 psi WP. Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal	

	turns. See attached schematic.

5. Mud Program

See COA

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1,650'	FW Gel	8.6-8.8	28-34	N/C
1,650'	~~5,200'~~ 5,000'	Saturated Brine	10.0-10.2	28-34	N/C
~~5,200'~~ 5,000'	21,167'	Cut Brine	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
x	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned		Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5509 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

Is this a walking operation? No.
Will be pre-setting casing? No.

Attachments
_x_ Directional Plan
___ Other, describe

NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, L.P.
Gaucho Unit 66H

1. Drilling Nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.

2. Wear ring will be properly installed in head.

3. Blowout preventer and all associated filings will be in operable condition to withstand a minimum of 5000psi working pressure.

4. All fittings will be flanged.

5. A fill bore safety valve tested to a minimum of 5000psi WP with proper thread connections will be available on the rotary rig floor at all times.

6. All choke lines will be anchored to prevent movement.

7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.

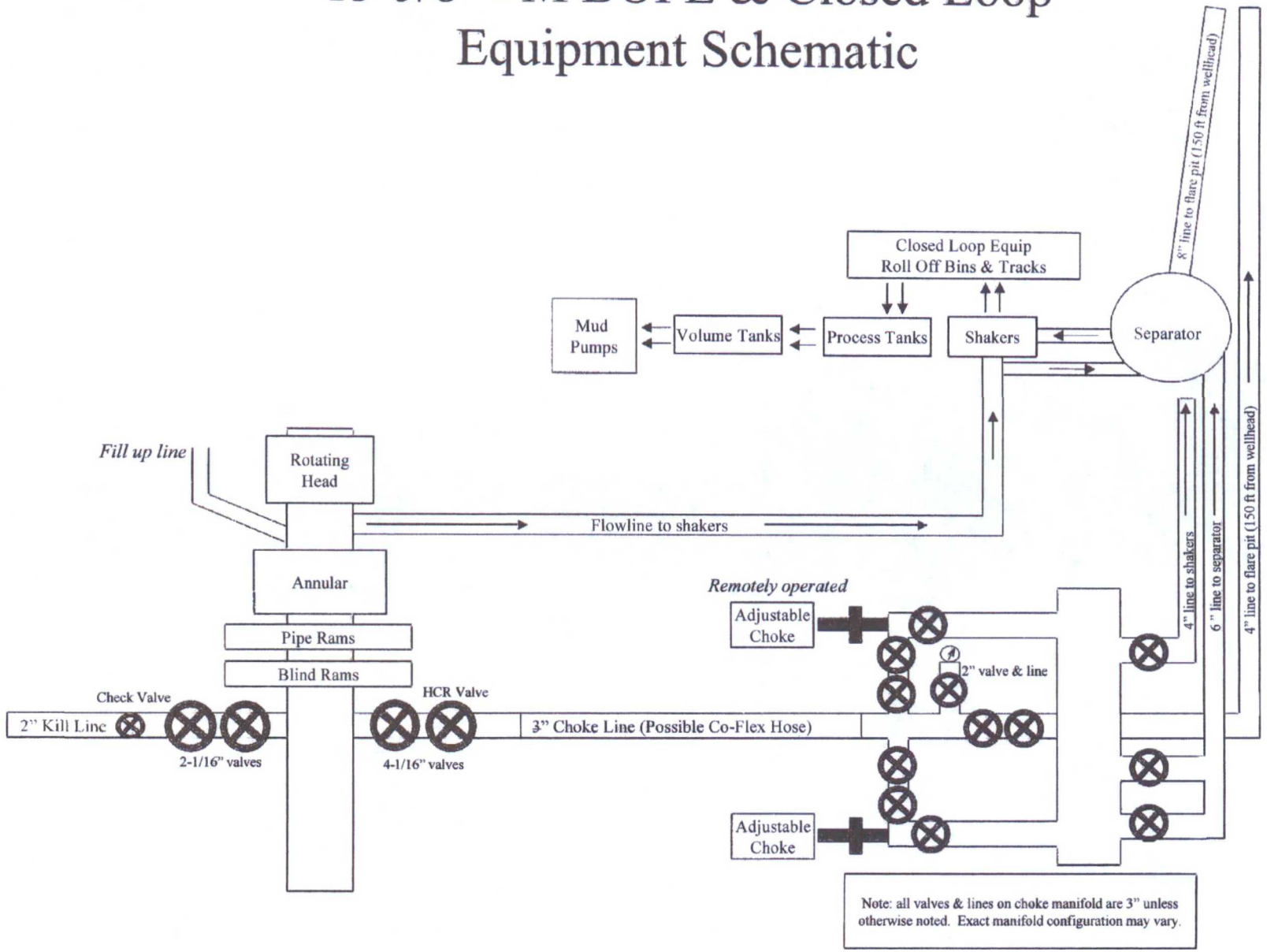
8. Will maintain a kelly cock attached to the kelly.

9. Hand wheels and wrenches will be properly installed and tested for safe operation.

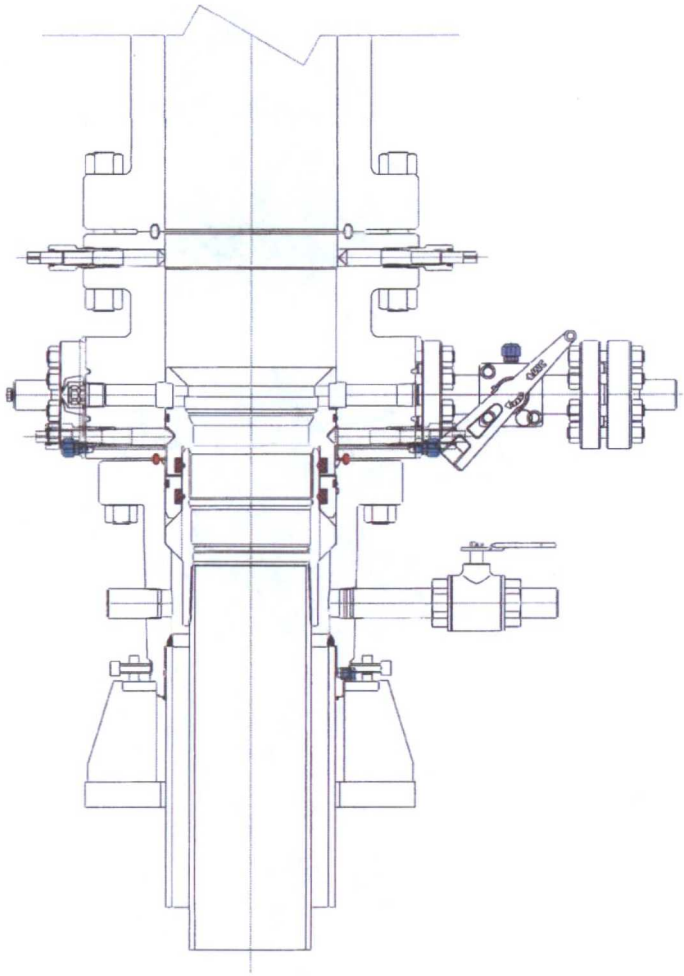
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.

11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

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



Multibowl Wellhead Manufactor



PRIMARY MODE

DEVON ENERGY

ARTESIA

S.E.N.M

13 3/8 X 9 5/8

QUOTE LAYOUT
F18648
REF: DM100161737
DM100151315

REVISIONS	
A	05-08-13
B	1-22-14
C	5-13-14

DESCRIPTION

SURFACE WELLHEAD LAYOUT
UNIHEAD, UH-1, SOW,
DEVON ENERGY, ODESSA

DRAWN BY	K. VU	05-08-13
DRAFTING REVIEW	Z. MARQUEZ	05-08-13
DESIGN REVIEW	K. TAHA	05-08-13
APPROVED BY	R. HAMILTON	05-08-13

FMC Technologies

DRAWING NUMBER
DM100161771-2A

Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST CERTIFICATE

Customer: CACTUS			Customer P.O. Number: RE-CERT M5322&M1075
HOSE SPECIFICATIONS			
Type: Rotary/Vibrator Hose CHOKE HC / API 7K		Hose Length: 35 FEET	
I.D. INCHES		O.D. INCHES	
WORKING PRESSURE 5,000 PSI	TEST PRESSURE 10,000 PSI		BURST PRESSURE N/A PSI
COUPLINGS			
Part Number	Stem Lot Number		Ferrule Lot Number
Type of Coupling: SWAGE-IT		Die Size:	
PROCEDURE			
Hose assembly pressure tested with water at ambient temperature.			
TIME HELD AT TEST PRESSURE 12 3/4 MIN.		ACTUAL BURST PRESSURE: N/A PSI	
Hose Assembly Serial Number: 194103-2		Hose Serial Number:	
Comments: ASSET# M5322			
Date: 3/6/2013	Tested:		Approved:

Midwest Hose & Specialty, Inc.

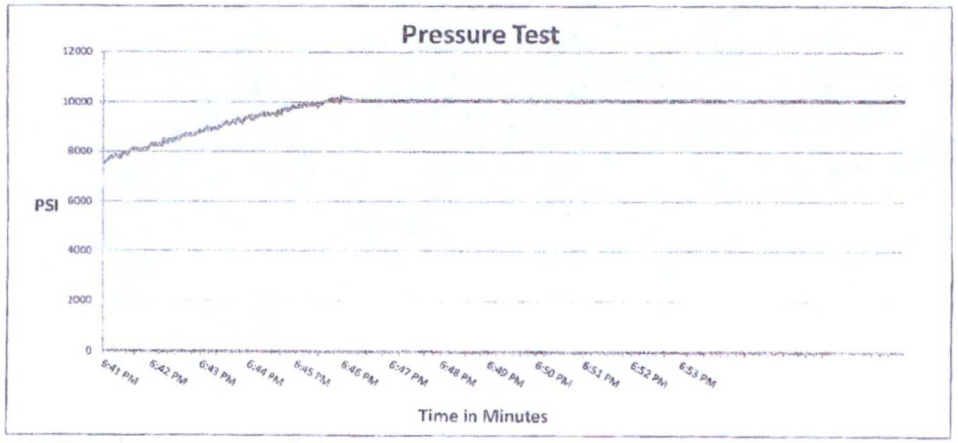
Internal Hydrostatic Test Graph

March 17, 2013

Customer: Cactus

Pick Ticket #: 194103

Hose Specifications		Verification	
Hose Type	**Length**	**Type of Fitting**	**Coupling Method**
C&K	35'	4 1/16 10K	Swage
I.D.	**O.D.**	**Die Size**	**Final O.D.**
"	0	0	0
Working Pressure	**Burst Pressure**	**Hose Serial #**	**Hose Assembly Serial #**
5000 PSI	Standard Safety Multiplier Applies	0	194103-2



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
10000 PSI	12 3/4 Minutes		10253 PSI

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

Tested By: *Billy Balok*

Approved By: *Joshua Dahlem*

DATE: 03/18/13 10:10AM

PACKING LIST

Midwest Hose & Specialty, Inc.

Ship From
Midwest Hose & Specialty, Inc.
3312 S I-35 Service Road
Oklahoma City OK 73129
USA

Ship To
Cactus Drilling Co., LLC
ATTN: John Andrade
8300 SW 15th
Oklahoma City OK
USA

Bill To
Cactus Drilling Co., LLC
ATTN: Accounts Payable
8300 SW 15th Street
Oklahoma City OK 73128-9594
USA

Payment Terms	1% 10 - NET 30 DAYS (1NET30)
Ship Method	PICKUP
Freight Terms	Prepaid
Customer Ship	CACTUS01
Cartons	1
Weight	0.00
Tracking Nbrs	

Shipping Notes:

Cust phone: 577-5347
Written by: ESPARKMAN

Customer PO: Re-Cert M5322 & M1075 **Mark Number:** John Andrade **Packing List #:**00194103

INVOICE REQUIREMENTS:
1.Purchase Order Number and Rig # Required
2. Proof of Delivery Required

Received By:_____
Date Received: _____

Print Name: _____
Work Phone #: _____

LIN E	ITEM / DESCRIPTION	UOM	QUANTITY ORDERED	QUANTITY SHIP	QUANTITY BACK ORDERED	QUANTITY SUPS SHIPMENT
0010	TESTLABOR Internal Hydrostratic Test Labor Your item # is: M5322 & M1075	EA	2.00	0.00	0.00 Unit Price: 500.00	2.00 Ext. Price: 1,000.00
	PL#: 00194103 Picked by: BBALAK SO#: 00162217 Shipped by: ESPARKMAN				AMOUNT FREIGHT/INSUR/HANDLE SALES TAX TOTAL	1,000.00 0.00 $83.75 1,083.75

Questions? Phone: (800) 375-2358