HOBBS OCD

JUL 1 9 2016

OCD Hobbs

RECEIVED

Form 3160-3 (March 2012) UNITED STATE:	2		OMB	APPROV No. 1004-01 October 31,	137
DEPARTMENT OF THE BUREAU OF LAND MAN	5. Lease Serial No: SHL: NMLC 069515 BHL: EO66220006				
APPLICATION FOR PERMIT TO			6. If Indian, Allotee N/A	or Tribe	Name
la. Type of work:	ER ATS-14-1	000	2 If Unit or CA Age N/A	eement, Na	
Ib. Type of Well: Oil Well Gas Well Other	Singlé Zone Mu		8. Lease Name and 1 WAR HAMMER 25	Well No.	OM W2 14H (313578
2. Name of Operator CONOCOPHILLIPS COMPANY (2	17817)		9. API Well No. 30-025- 433	364	OM W2 14H (313578
3a. Address 600 N. DAIRY ASHFORD ROAD HOUSTON, TX 77079	3b. Phone No. (include area code) 281 206-5282	WC-	10. Field and Pool, or 1 72.5 G-08	Explorator	7205N:4PL WC
4. Location of Well (Report location clearly and in accordance with an	y State requirements.*)		11. Sec., T. R. M. or B		
At surface 283' FNL & 2310' FEL 25-26S-32E			NWNE 25-265-32E	E	
At proposed prod. zone 330' FSL & 2310' FEL 36-26S-32E			12. County or Parish		13. State
 Distance in miles and direction from nearest town or post office* 22 AIR MILES NE OF ORLA, TX & 25 AIR MILES SW OF 	JAL, NM		LEA		NM.
 Distance from proposed* location to nearest property or lease line, ft. BHL: 330' (Also to nearest drig, unit line, if any) 	I6. No. of acres in lease NMLC-069515: 1,080.00 E066220006: 259.76	W2E2.S	g Unit dedicated to this w EC. 25 and NWNE & ACRES		SEC. 36
 Distance from proposed location[*] to nearest well, drilling, completed, BHL: 33' (WAR 13H, 15H) applied for, on this lease, ft. 	19: Proposed Depth TVD: 12,744' MD: 19,532'	20. BLM/I ES0085	BIA Bond No. on file		
 Elevations (Show whether DF, KDB, RT, GL, etc.) 3,135' UNGRADED 	22. Approximate date work will st C1/21/2015	art*	23. Estimated duration 3 MONTHS	1	
	24. Attachments			ç	
The following, completed in accordance with the requirements of Onshor	e Oil and Gas Order No.1, must be	attached to thi	s form:		
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office). 	Lands, the 5. Operator certif	ication	ns unless covered by an ormation and/or plans as		
25. Signature Midee	Name (Printed/Typed) KRISTINA MICKENS		1	Date 07	7/30/2014
SEMOR REGULATORY SPECIALIST					
Approved by (Signature) 7/Cody Layton	Name (Printed/Typed)			ĴÜL	1 4 2016
FIELD MANAGER	Office	CARL	SBAD FIELD OF	FFICE	
Application approval does not warrant or certify that the applicant holds conduct operations thereas	legalor equitable title to those rig	hts in the subj	ect lease which would en	hitle the ap	DR TWO YEARS
See attached NMOCD	or any person knowingly and matter within its jurisdiction.	willfully to m	ake to any department or	agency o	f the United
Conditions of Approva.	K-2 /20/16	,	*(Instr	uctions	on page 2)

Carlsbad Controlled Water Basin

ß

X

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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Drilling Program ConocoPhillips Company War Hammer 25 Federal COM W2 14H 283' FNL 2310' FEL (SHL) Sec 25-T265-R32E 330' FSL 2310' FEL (BHL) Sec 36-T265-R32E Lea County, New Mexico

1. Estimated tops of geological formations:

Geologic Formation at surface: Quaternary

F	ormation	TVD (ft)	
Ba	ase Fresh Water	300	
	Rustler	600	
	Top Salt	1050	
	Base Salt	4689	
	Cherry Canyon	5671	
	Brushy Canyon	7368	
В	one Spring Carb	8865	
	Avalon	9071	
1	1st Bone Spring	9758	
2	nd Bone Spring	10141	
Э	Brd Bone Spring	10654	
	Wolfcamp	11835	

2. Estimated depth/thickness of freshwater and/or hydrocarbons:

Water:	Fresh water is anticipated above the Rustler at
	300' and will be protected by surface casing at 950'
	and cemented to surface.
Hydrocarbons:	Oil and gas are anticipated in the formations
	annotated above (*). These zones will be isolated
	as necessary.

3. Pressure Control Equipment:

All

*Please see attached BOPE and Choke Manifold Schematic for more detail.

A 13-5/8" BOP system will be installed and tested prior to drilling out of the surface casing shoe. The BOP system will be utilized to drill the intermediate and production hole sections, and will be tested per BLM Onshore Oil & Gas Order No. 2 per each hole section specified in the final column of the table in section four.

Pressure tests will be conducted at the initial installation of the BOPE and again if needed 30 days from the initial test as per BLM Onshore Oil and Gas Order No. 2. BOPE controls will be installed prior to drilling under the surface casing and will be used until the completion of drilling operations. The intermediate 1 and intermediate 2 string will be tested per 5M working system requirements. The production interval will be tested per 10M working system requirements.

ConocoPhillips Company requests a variance to use a flexible line between the BOP and the choke. The testing and manufacturing specifications for this equipment is attached. The line will be kept as straight as possible with minimum turns.

4. Proposed Casing Program

*All tubulars used for this design will be new.

Hole Size (in)	Casing (in)	Wt/Ft	Grade	Connection	Depth (ft)	Depth (ftTVD)	Depth (ftMD)	BOPE System
17 1/2	13 3/8	54.5	J-55	BTC	0-950	950	950	N/A
12 1/4	9 5/8	40.0	L-80	BTC	0-4825	4825	4825	5M
8 3/4	7 5/8	33.7	P-110	Wedge 523	0-12150	12144	12150	5M
6 5/8	5	21.4	P-110	BTC	0-11650	11645	11650	10M
6 5/8	4 1/2	15.1	P-110	BTC	11650-19507	12744	19507	10M



Drilling Program ConocoPhillips Company War Hammer 25 Federal COM W2 14H 283' FNL 2310' FEL (SHL) Sec 25-T26S-R32E 330' FSL 2310' FEL (BHL) Sec 36-T26S-R32E Lea County, New Mexico

Hole Size (in)	Casing (in)	Burst	Collapse	Tension	Thread & Cplg. OD (in)	Minimum Clearance (in)
17 1/2	13 3/8	6.07	2.51	20.39	14.375	1.5625
12 1/4	9 5/8	2.18	1.17	5.84	10.625	0.8125
8 3/4	7 5/8	1.85	1.34	3.11	7.775	0.4875
6 5/8	5	1.80	2.32	3.33	5.563	0.5310
6 5/8	4 1/2	1.74	1.73	3.27	5.000	0.8125

Minimum casing design factors: Burst 1.0, Collapse:1.125, Tensile Strength 1.6 dry / 1.8 buoyant

5. Proposed Cementing Program

		Volume (sx)	Туре	Weight (ppg)	Yield (ft3/sx)	Water (Gal/sx)	Excess	Cement Top
	Lead	530	Class C	13.5	1.73	9.14	100%	Surface
Surface	Tail	310	Class C	14.8	1.35	6.39	100%	650ft
Additives (BWOB): 4% Extender, 2	% CaCl2, 0.125 lb,	/sx LCM, 0.2% An	ti-Foam				
	Lead	1430	Class C	12.9	1.97	10.88	100%	Surface
Intermediate 1	Tail	380	Class C	14.8	1.35	6.19	100%	4325ft
Additives (BWOB): 4% Extender, 2	% CaCl2, 0.125 lb,	/sx LCM, 0.2% An	ti-Foam	-			1
	Lead	430	Tuned Light	9.5	3.45	14.38	100%	4325ft
Intermediate 2	Tail	140	Class C	13.2	1.61	8.20	100%	11650ft
Additives (BWOB): 0.4% Dispersar	nt, 1 lb/sx Salt, 0.1	% Retarder, 0.5%	Fluid Loss, 3 lb/sx	LCM		and the second	A second second
	Lead	Contraction of the						
					1			-

6. Proposed Fluids Program

	Depth (ft)		Туре	Mud Weight (ppg)	Viscosity	Fluid Loss
0	to	950	Spud Mud	8.4 - 9.3	32-36	NC
950	to	4825	Brine	9.3 - 10.5	28-30	≤5
4825	to	12150	Cut Brine	8.6 - 9.1	30-40	≤5
12150	to	19532	Oil Based Mud	12.0 - 14.0	30-40	≤5

Sufficient fluid volume, weight material, and additives will be available onsite at all times. Visual and electronic mud monitoring equipment will be in place to indicate gain or loss.

7. Formation Evaluation Program

Dry samples taken 30' from intermediate casing point to TD. GC Tracers KOP to TD.

Samples: Logging:

GR/Neutron from base salt to surface. GR from 200' above KOP to TD. Shuttle log in the lateral.

8. Anticipated Wellbore Conditions

	Value	Comments
Bottom Hole Pressure (psi)	7137	Assumes 0.78psi/ft - 0.22psi/ft Partial Evacuation
Bottom Hole Temperature (°F)	199	Assumes 0.01deg/100ft
Abnormal Pressure / Potential Hazards	the top of Wolfcamp will be mitiga	igated with lost circulation material. Potential overpressure below ted with mud weight. If H2S is encountered the operator will hore Oil and Gas Order No. 6. All personnel will be familiar with all ed to drill this well.

Drilling Program ConocoPhillips Company War Hammer 25 Federal COM W2 14H 283' FNL 2310' FEL (SHL) Sec 25-T26S-R32E 330' FSL 2310' FEL (BHL) Sec 36-T26S-R32E Lea County, New Mexico

9. Directional Plan:

Kick off Point (ft)	Landing TVD (ft)	Landing MD (ft)	Total Measured Depth (ft)
12174	12174 12744		19532

*ConocoPhillips proposes to drill a vertical wellbore to kick off point and then drill horizontally to TD. Please see the attached directional plan for more detail.

10. Spudder Rig and Skid Operations.

The reasons for using the spudder rig to drill and pre-set surface casing are: Time & Cost Saving.

The "Pinnergy #1" Rig will be used to drill the surface hole and pre-set surface casing on all of the wells in the same pad. Once each surface hole section has been drilled, it will be cased and cemented according to all applicable rules and regulations (Onshore Orders). The wellhead will be nippled up and tested as soon as 13-3/8" surface casing is cut off after the applicable WOC time has been reached. A blind flange of the same pressure rating as the wellhead will be utilized to seal the wellbore on all casing strings. Pressure will be monitored via wing valves on each wellhead section and a means for intervention will be maintained while the drilling rig is not over the well. Spudder rig operation is expected to take 7-10 days for a quad pad and 4-6 days for a dual pad. The BLM will be contacted / notified 24 hours prior to commencing spudder rig operations.

Drilling operation will start with a big Drilling Rig (H&P Flex 3 rig type) and an approved BOP stack will be nippled up and tested on the wellhead before drilling operations resumes on each well. The rig will skid between the wells until each well's section has been drilled as planned (see "Skid-Batch Drilling Operations" Attachment). The BLM will be contacted / notified 24 hours before the big rig moves back on the location.

Once "Spudder Rig" has left the location, The "big Drilling Rig" will be on location within 90 days to drill each well in the Pad as batch drilling operations.

SKID / BATCH DRILLING OPERATIONS – "QUAD PAD"

SKID / BATCH DRILLING OPERATION PLAN FOR "QUAD PAD":

- 1. ALL SURFACE CASINGS PRE-SET (Pre-set with "Spudder Rig").
- 2. WELL 1 / WolfCamp 3. 9-5/8" CASING WBM.
- 3. WELL 2 / WolfCamp 2. 9-5/8" CASING WBM.
- 4. WELL 3 / WolfCamp 1. 9-5/8" CASING WBM.
- 5. WELL 4 / BS 3rd Carb. 9-5/8" CASING WBM.
- 6. WELL 4 / BS 3rd Carb. 5-1/2" CASING WBM.
- 7. WELL 3 / WolfCamp 1. 7-5/8" CASING WBM.
- 8. WELL 2 / WolfCamp 2. 7-5/8" CASING WBM.
- 9. WELL 1 / WolfCamp 3. 7-5/8" CASING WBM.
- 10. WELL 1 / WolfCamp 3. 5"x4-1/2" CASING OBM.
- 11. WELL 2 / WolfCamp 2. 5"x4-1/2" CASING OBM.
- 12. WELL 1 / WolfCamp 1. 5"x4-1/2" CASING OBM.
- 13. RIG RELEASE.





March 05 2014

PIPE BODY DATA

Size: 7.625 in. Wall: 0.430 in. Weight: 33.70 lbs/ft Grade: P110 Min. Wall Thickness: 87.5 %

Connection: Wedge 523[™] **Casing/Tubing**: CAS

		GEOMET	RY		
Nominal OD	7.625 in.	Nominal Weight	33.70 lbs/ft	Standard Drift Diameter	6.640 in.
Nominal ID	6.765 in.	Wall Thickness	0.430 in.	Special Drift Diameter	N/A
Plain End Weight	33.07 lbs/ft			National Street H	A Market
		PERFORM	ANCE		1 . 5 .
Body Yield Strength	1069 x 1000 lbs	Internal Yield	10860 psi	SMYS	110000 psi
Collapse	7870 psi				
	N	EDGE 523™ CON		A	
		GEOMET	Statistics and set of the	90 - 2. H. H.	12 10 10 10
Connection OD	7.775 in.	Connection ID	6.675 in.	Make-Up Loss	4.060 in.
Critical Section Area	7.057 sq. in.	Threads per in.	3.06		
		PERFORM	ANCE		
Tension Efficiency	72.6 %	Joint Yield Strength	776 x 1000 Ibs	Internal Pressure Capacity	10860 psi
Compression Strength	881 x 1000 lbs	Compression Efficiency	82.4 %	Bending	48 °/100 ft
External Pressure Capacity	7870 psi				
	at stades	MAKE-UP TO	RQUES		
	9900 ft-lbs	Target	11900 ft-lbs	Maximum (*)	17300 ft-lbs
Minimum	and the second				
Minimum		OPERATIONAL LIN	IIT TORQUES		
Minimum Operating Torque	42000 ft-lbs	OPERATIONAL LIN Yield Torque	63000 ft-lbs		in the second

* If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative.

T130XD

SCHRAMM

A heavy duty, heavy hoist carrier mounted drill rig. The T130XD utilizes innovative Telemast technology to achieve Range III pipe capability in a compact over the road package.

- Equipped with Schramm Telemast
- 50' head travel handles Range III casing
- 43' transport length with less than 6' overhang
- 130,000 lbs hoist
- No sub-structure required
- Mast slides to clear BOP



CARRIER MOUNTED RIG EQUIPPED WITH TELEMAST

T130XD ROTADRILL SPECIFICATIONS

Mast

Engine

Detroit Diesel DDC/MTU 12V-2000TA DDEC 760 bhp (567 kw) @ 1800 rpm

Standard Compressor





Variable volume two-stage, oil flooded rotary screw 1350 cfm @ 350 psi (38.0 cu. m/min @ 24.1 bar),

up to 1150 cfm @ 500 psi (32.6 cu. m/min @ 35.5 bar)

Cooling

Three core, side by side type 130°F (54.4°C) ambient design temp.

Dimensions

OA length, transport - 42' 9" (13 m) OA width - 8' 6" (2.6 m) OA height, transport - 13' 6" (4.1 m) Weight std. rig - 92,000 lb (41,723 kg)

Carrier

CCC 8x4 Carrier Cat C-13, 410 hp @ 2100 rpm engine 44,000 lb (19,955 kg) front axles 21,500 lb (9,750 kg) pusher axle 52,000 lb (23,587 kg) rear axles 117,500 lb (53,298 kg) GVWR

Top Head Rotation

Ductile iron, single reduction oil bath gearbox with two disc valve type hydraulic motors. Infinitely variable rotation speed. 3.5:1 Reduction Gear

3" diameter (76.2 mm) spindle thru hole 0-143 rpm, infinitely variable 106,600 in-lb (12,045 N[.]m) torque

Feed System

Top head is driven by hydraulic traverse cylinders through special wire rope and large diameter Nylatron sheaves. As top head is raised, the inner mast section extends by a ratio of 1:2 until it reaches its fully extended position at 50' of clear head travel.

42' 9" (13 m) OA height (retracted)

69' 9" (21.65 m) OA height (extended) 50' (15.24 m) top head travel

130,000 lb (59,090 kg) pullup

8 fpm (2.44 mpm) pullup speed-slow feed 125 fpm (38.1 mpm) pullup speed-rapid feed 32,000 lb (14,545 kg) pulldown capacity 26 fpm (7.92 mpm) pulldown speed-slow feed 270 fpm (82.3 mpm) pulldown speed-rapid feed 52' 10" (16.1 m) working clearance mast spindle to table (sub removed)

48' 10" (14.9 m) working clearance mast sub to table

Drill Pipe & Casing

 $30' \times 4^{-1/2''}$ OD x $2^{-7/8}$ IF breakout style drill pipe, range III casing 28" (711 mm) max. diameter through slipbox

el and working height, yet short OA length in transport position. 32" (813 mm) cylinder operated slide Free-standing mast hydaulically operated adjustable mast feet hydraulically retracted slip box 20" (508 mm) table opening w/o slips Winch Planetary with spring applied hydraulic release brake 9,600 lb (4,354 kg) bare drum line pull 151 fpm (46 mpm) bare drum line speed Hydraulic System Open loop load sensing system 7 micron filtration 200 gallon (760 l) system capacity Water Injection System 25 gpm (95 lpm) water pump Electric foam pump Outriggers Front - (1) 5" bore x 41" stroke (127 mm x 1.4 m) Rear - (2) 5" bore x 41" stroke (127 mm x 1.4 m) **Tool Lubricator** Positive displacement, air pump operated piston type pump variable to 5.0 gph (18.9 lph) Lighting & Electrical System - 24 Volt Mast - (4) 60 watt floodlights Control Panel - (2) 60 watt gauge floodlights Work - (3) 70 watt halogen Accessories Pipe handling sling, 60" breakout wrench, and 50 hour maintenance kit.

Telescoping construction permits long head trav-

Optional Equipment

Many modifications are available including: Third driving axle Reverse circulation package Tilt-out top head High capacity top head Single pipe loading arm Auxiliary winch controls Auxiliary air supply

These specifications are based on theoretical calculations and industry standards. Performance will vary according to actual drilling conditions. Schramm, Inc. continuously improves its prod-ucts and reserves the right to change specifications, design, prices and terms at any time without notification or obligation. These specifications do not extend any warranty, expressed or implied, nor do they or Schramm, Inc. make or imply any representation of the machine of merchanthality as fitness force are ticle in primeries. the machine's merchantability or fitness for a particular purpose.



SCHRAMM, INC. 800 E. Virginia Avenue West Chester, PA 19380 USA Phone: 610-696-2500 Fax: 610-696-6950 E-mail: schramm@schramminc.com

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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 SPUDDER RIG			
HSG,WG,SH2-LWR,13-5/8 5M X 13-3/8 SOW,W/2 2-1/16 5M FP	DRAWN	VJK	19AUG14	
		KN	16AUG14	
BASEPLATE,WELDLESS,28 OD	FOR REFERENCE ONLY			
FLANGE,BLIND, 13-5/8 5M	DRAWING NO	D. PE(0624	



"Pinnergy #1" Spudder Rig Layout

Closed Loop System Design, Operating and Maintenance, and Closure Plan

ConocoPhillips Company Well: WAR HAMMER 25 FEDERAL COM W2 14H Location: Sec. 25, T26S, R32E Date: 7/10/2014

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ConocoPhillips proposes the following plan for design, operating and maintenance, and closure of our proposed closed loop system for the above named well:

 We propose to use a closed loop system with steel pits, haul-off bins, and frac tanks for containing all cuttings, solids, mud, water, brine, and liquids. We will not dig a pit, nor will we use a drying pad, nor will we build an earth pit above ground level, nor will we dispose of or bury any waste on location.

All drilling waste and all drilling fluids (fresh water, brine, mud, cuttings, drill solids, cement returns, and any other liquid or solid that may be involved) will be contained on location in the rig's steel pits or in hauloff bins or in frac tanks as needed. The intent is as follows:

- We propose to use the rigs' steel pits for containing and maintaining the drilling fluids.
- We propose to remove cuttings and drilled solids from the mud by using solids control equipment and to contain such cuttings and drilled solids on location in haul-off bins.
- We propose that any excess water that may need to be stored on location will be stored in tanks.

The closed loop system components will be inspected daily by each tour and any needed repairs will be made immediately. Any leak in the system will be repaired immediately, and any spilled liquids and/or solids will be cleaned immediately, and the area where any such spill occurred will be remediated immediately.

2. Cuttings and solids will be removed from location in haul-off bins by an authorized contractor and disposed of at an authorized facility. For this well, we propose the following disposal facility:

R-360 Inc. 4507 West Carlsbad Hwy, Hobbs, NM 88240, P.O. Box 388; Hobbs, New Mexico 88241 Toll Free Phone: 877.505.4274, Local Phone Number: 432.638.4076

The physical address for the plant where the disposal facility is located is Highway 62/180 at mile marker 66 (33 miles East of Hobbs, NM and 32 miles West of Carlsbad, NM).

The Permit Number for R-360 is NM-01-0006.

A photograph showing the type of haul-off bins that will be used is attached.

- 3. Mud will be transported by vacuum truck and disposed of at R-360 Inc. at the facility described above.
- 4. Fresh Water and Brine will be hauled off by vacuum truck and disposed of at an authorized salt water disposal well. We propose the following for disposal of fresh water and brine as needed:
 - Nabors Well Services Company, 3221 NW County Rd; Hobbs, NM 88240, PO 5208 Hobbs, NM, 88241, Permit SWD 092. (Well Location: Section 3, T19S R37E)
 - Basic Energy Services, P.O. Box 1869; Eunice, NM 88231 Phone Number: 575.394.2545, Facility located at Hwy 18, Mile Marker 19; Eunice, NM.

Jason Levinson Drilling Engineer Office: 281-206-5334 Cell: 281-682-2783

SPECIFICATIONS

FLOOR: 3/16" PL one piece CROSS MEMBER: 3 x 4.1 channel 16" on center

WALLS: .3/16" PL solid welded with tubing top, insi de liner hooks

DOOR: 3/16" PL with tubing frame FRONT: 3/16" PL slant tormed PICK UP: Standard cable with 2" x 6" x 1/4" rails, gu sset at each crossmember WHEELS: 10 DIA x 9 long with rease fittings DOOR LATCH: 3 Independent ratchet binders with chains, vertical second latch GASKE TS: Extruded rubber seal with metalretainer s

WELDS: All welds continuous except substructure crossmembers

FINISH: Coated inside and out with direct to metal, rust inhibiting acrylic enamel color coat. HYDROTESTING: Full capacity static test DIMENSIONS: 22-11⁴ long (21-8" inside), 99" wide (88" inside), see drawing for height. OPTIONS: Steel grit blast and special paint, Ampliroll, Heil and Dino pickup

ROOF: 3/16" PL roof panels with lubing and channel support frame

LIDS: (2) 68" x 90" metal rolling lids springloaded, self raising

ROLLERS: 4" V-groove rollers with delrin bearings and grease fittings OPENING: (2) 60" x 82" openings with 8" divider centered on

container LATCH:(2) independent ratchet binders with chains

per lid. GASKETS: Extruded rubber seal with metal relainers

Heavy Duty Split Metal Rolling Lid



OUTUR.	n	
20 YD	41	53
25 YD	53	65
30 YD	65	77



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Item

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- Description Rotating Head Fill up Line and Valve 1
- 2A
- 2B
- 2C 2D
- Flow Line (8") Shale Shakers and Centrifuges Cuttings Bins for Zero Discharge
- 2E Mud Gas Separator with vent line to flare and return line to mud system
- 3
- Mud Gas Separator with vent line to flare and return line to mud Annular Preventer (13-5/8", 10M) Double Ram (13-5/8", 10M, Bline Ram bottom x Pipe Ram top) Drilling Spool (13-5/8", 10M, Pipe Rams) Kill Line Valve, Inner (4-1/16", 10k psi WP) Kill Line Valve, Outer (4-1/16", 10k psi WP) Kill Line Check Valve (4-1/16, 10k psi WP) Choke Line (4-1/16", 10k psi WP) Choke Line Valve, Inner (4-1/16", 10k psi WP) Choke Line Valve, Outer, (4-1/6" 10k psi WP) Choke Line Valve, Outer, (4-1/6" 10k psi WP) Drilling Spool Adapter (13-5/8", 10M) 4
- 5
- 4C
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Drawn by: James Chen P.E., Drilling Engineer, ConocoPhillips Company, April 11, 2014



CHOKE MANIFOLD ARRANGEMENT - HP486

Item Description

- 1 Pressure Gauge
- 2 2 Gate Valves, 3-1/16" 10M
- 3 2 Gate Valves, 3-1/16" 10M
- 4 2 Gate Valves, 3-1/16" 10M
- 5 2 Gate Valves, 3-1/16" 10M
- 6 Upper Manual Adjustable Choke, 4-1/16", 10M
- 7 Lower Manual Adjustable Choke, 4-1/16", 10M
- 8 Gate Valve, 3-1/16" 10M
- 9 Gate Valve, 3-1/16" 10M
- 10 Remote Controlled Hydraulic Adjustable Choke, 4-1/16", 10M
- 11 Gate Valve, 3-1/8" 5M
- 12 Gate Valve, 3-1/8" 5M
- 13 Gate Valve, 3-1/16" 10M

The 10M Choke Manifold & Valves will be tested to rated working pressure.

Drawn by: James Chen, P.E. Drilling Engineer, ConocoPhillips Company Date: June 25th-2012