ATS-15-1015

OCD-Hobbs

HOBBS OCD

JUL 19 2016

RECEIVED

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
LC 031621B

6. If Indian, Allotee or Tribe Name
N/A

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

8. Lease Name and Well No.
Britt B 52 (31365)

2. Name of Operator ConocoPhillips Company (217817)

9. API Well No.
30-025-43372

3a. Address 600 N. Dairy Ashford Rd.; P10-3096
Houston, TX 77079-1175

3b. Phone No. *(include area code)*
281-206-5281

10. Field and Pool, or Exploratory
Blinebry; Tubb

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 1330' FSL & 10' FEL; UL I, Sec. 10, T20S, R37E
At proposed prod. zone 1330' FSL & 10' FEL; UL I, Sec. 10, T20S, R37E

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 10, T20S, R37E

14. Distance in miles and direction from nearest town or post office*
Approximately 5 miles NW of Monument, NM

12. County or Parish
Lea County

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
670' to lease boundary

16. No. of acres in lease
1757

17. Spacing Unit dedicated to this well
40.00

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
~700'

19. Proposed Depth
7198' TVD/7198' MD

20. BLM/BIA Bond No. on file
ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3592' GL

22. Approximate date work will start*
06/01/2016

23. Estimated duration
7 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:

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 Susan B. Maunder — Name *(Printed/Typed)* Susan B. Maunder — Date 9/9/15

Title
Senior Regulatory Specialist

Approved by *(Signature)* /s/Cody Layton — Name *(Printed/Typed)* — Date JUL 14 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

See attached NMOCD Conditions of Approval

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)

Lea County Controlled Water Basin

KZ 07/21/16

SEE ATTACHED FOR CONDITIONS OF APPROVAL

MUST APPLY FOR ADMIN ORDER WITH SANTA FE TO DHC

Approval Subject to General Requirements & Special Stipulations Attached

KZ

1. Geologic Formations

TVD of target	7198'	Pilot hole depth	NA
MD at TD:	7198'	Deepest expected fresh water:	1330'

Permian Basin

Formation	TVD (ft)
Rustler	1330
Salado	1424
Tansill	2574
Yates	2716
Seven Rivers	2980
Queen	3511
Penrose	3627
Grayburg	3797
San Andres	4057
Glorieta	5228
Paddock	5361
Blinebry	5696
Tubb	6396
Drinkard	6704
Abo	6998
TD	7198

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 (dry)	SF Tension (wet)
12.25"	0'	~~1360'~~ 1415'	8.625"	24	J-55	STC	2.28	4.91	7.5	8.6
7.875"	0'	7188'	5.5"	17	L-80	LTC	1.68	2.07	2.77	3.26
				BLM Minimum Safety Factor			1.125	1	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	YES
Does casing meet API specifications? If no, attach casing specification sheet.	YES
Is premium or uncommon casing planned? If yes attach casing specification sheet.	NO
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	YES
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	N/A
Is well located within Capitan Reef?	NO
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?	NO
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?	NO
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?	NO
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?	NO
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# of Sacks	Weight (ppg)	Yield ft^3/ sack	H_20 (gps)	500# Comp. Strength (hours)	Slurry Description
Surface	450	13.5	1.75	9.16	12.24	Class C + .005 lbs/sx Static Free + 2% CaCl2 + .25 lb/sx cellophane flakes + 0.1% dispersant + .005 gps defoamer + 4% Bentonite
	210	14.8	1.34	6.34	7.22	Class C + .005 lbs/sx Static Free + 1% CaCl2 + 0.005 gps defoamer
Production	460	10.8	3.67	21.52	360 psi @ 72 HRS @ 116°F	Poz:Class C (60:40) + 15 lb/sk Gas Migration Control + 0.005 lb/sk Static Free + 8 lb/sx LCM + 0.5% fluid loss control + 0.8% free water control + 5% accelerant + 0.005 gps defoamer + 3% extender + 1% bonding agent + 0.05% retarder + 4% compressive strength enhancement additive
	530	13.2	1.6	7.70	12.3	(20:65:15) Poz:Class C:CSE-2 (CSE-2 is an additive which contributes to low density, high compressive strength development of slurries

						and also controls free water without the need for standard extenders.) + 0.005 lb/sx Static Free + 0.2% retarder + 3 lb/sx LCM + 2% fluid loss control + 0.005 gps defoamer + 0.7% extender + 0.5% bonding agent + 8% CSE-2
Two Stage Option for Shallow Flow (DV tool @ ~1500')	400	10.8	3.67	21.52	360 psi @ 72 HRS @ 116°F	(From surface to ~3000') Poz:Class C (60:40) + 15 lb/sk Gas Migration Control + 0.005 lb/sk Static Free + 8 lb/sx LCM + 0.5% fluid loss control + 0.8% free water control + 5% accelerant + 0.005 gps defoamer + 3% extender + 1% bonding agent + 0.05% retarder + 4% compressive strength enhancement additive
	530	13.2	1.6	7.70	12.3	(From 3000' to TD) (20:65:15) Poz:Class C:CSE-2 (CSE-2 is an additive which contributes to low density, high compressive strength development of slurries and also controls free water without the need for standard extenders.) + 0.005 lb/sx Static Free + 0.2% retarder + 3 lb/sx LCM + 2% fluid loss control + 0.005 gps defoamer + 0.7% extender + 0.5% bonding agent + 8% CSE-2
	120	10.8	3.67	21.52	360 psi @ 72 HRS @ 116°F	(From ~1450' to surface) Poz:Class C (60:40) + 15 lb/sk Gas Migration Control + 0.005 lb/sk Static Free + 8 lb/sx LCM + 0.5% fluid loss control + 0.8% free water control + 5% accelerant + 0.005 gps defoamer + 3% extender + 1% bonding agent + 0.05% retarder + 4% compressive strength enhancement additive
Two Stage Option for Lower Zone Losses or Waterflow (DV tool @ ~2900')	460	10.8	3.67	21.52	360 psi @ 72 HRS @ 116°F	(From surface to ~2900') Poz:Class C (60:40) + 15 lb/sk Gas Migration Control + 0.005 lb/sk Static Free + 8 lb/sx LCM + 0.5% fluid loss control + 0.8% free water control + 5% accelerant + 0.005 gps defoamer + 3% extender + 1% bonding agent + 0.05% retarder + 4% compressive strength enhancement additive
	530	13.2	1.6	7.70	12.3	(From 2900' to TD) (20:65:15) Poz:Class C:CSE-2 (CSE-2 is an additive which contributes to low density, high compressive strength development of slurries and also controls free water without the need for standard extenders.) + 0.005 lb/sx Static Free + 0.2% retarder + 3 lb/sx LCM + 2% fluid loss control + 0.005 gps defoamer + 0.7% extender + 0.5% bonding agent + 8% CSE-2

Lab reports with recipe and the 500 psi compressive strength time for the cement will be onsite for review.

DV tool to be run and two stage cement job to be performed as contingency in the event of flows or severe losses while drilling and running casing. DV tool depth 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.

Proposal for Option to Adjust Production Casing Cement Volumes:
The production casing cement volumes for the proposed single stage and two-stage options presented above are estimates based on gauge hole. We propose the option to adjust these volumes as necessary based on the caliper log data and our trends for cement volumes returned to surface. If no caliper log data is available, we propose the option to possibly increase the production casing cement volume to account for uncertainty in regard to actual hole volume.

Casing String	TOC	% Excess
Surface	0'	76%
Production	0'	97%

4. Pressure Control Equipment —> See COA

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
7-7/8"	11"	3M	Annular	x	70% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
			Pipe Ram		
			Double Ram		
			Other *		

*Specify if additional ram is utilized.

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

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

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
No	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 (N) Are anchors required by manufacturer?
No	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	FV (sec/qt)	Water Loss	PH
From	To					
0	Surf. shoe	FW Gel	8.4-8.9	28-40	N/C	N.C.
Surf. Shoe	TD	Saturated Brine	10.0	29	N/C	10-11

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/Flow paddle on flowline

6. Logging and Testing Procedures

Logging, Coring and Testing.	
YES	Will run GR/CNL from TD 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.
NO	Drill stem test? If yes, explain
NO	Coring? If yes, explain

Additional logs planned		Interval
YES	Quad Combo (Neutron, Density, PE, Sonic, Resistivity)	TD to Surface shoe
	Cased-Hole Logs	
	CBL	
YES	Mud log	3000' - TD
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	3122 psi
Abnormal Temperature	No

- Mitigation measure for abnormal conditions - Loss of circulation is a possibility in the horizons below the Top of Grayburg. We expect that normal Loss of Circulation Material will be successful in healing any such loss of circulation events.

Gas detection equipment and pit level flow monitoring equipment will be on location. A flow paddle will be installed in the flow line to monitor relative amount of mud flowing in the non-pressurized return line. Mud probes will be installed in the individual tanks to monitor pit volumes of the drilling fluid with a pit volume totalizer. Gas detecting equipment and H2S monitor alarm will be installed in the mud return system and will be monitored. A mud gas separator will be installed and operable before drilling out from the Surface Casing. The gases shall be piped into the flare system. Drilling mud containing H2S shall be degassed in accordance with API RP-49, item 5.14. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
X	H2S is present
X	H2S Plan attached

8. Other facets of operation

Is this a walking operation? If yes, describe.
Will be pre-setting casing? If yes, describe.
A 10' rathole is planned between TD and production casing set depth.

Attachments
___ Directional Plan
__X_ Other, describe: Two Stage contingency cementing diagram, Drill Plan Attachment

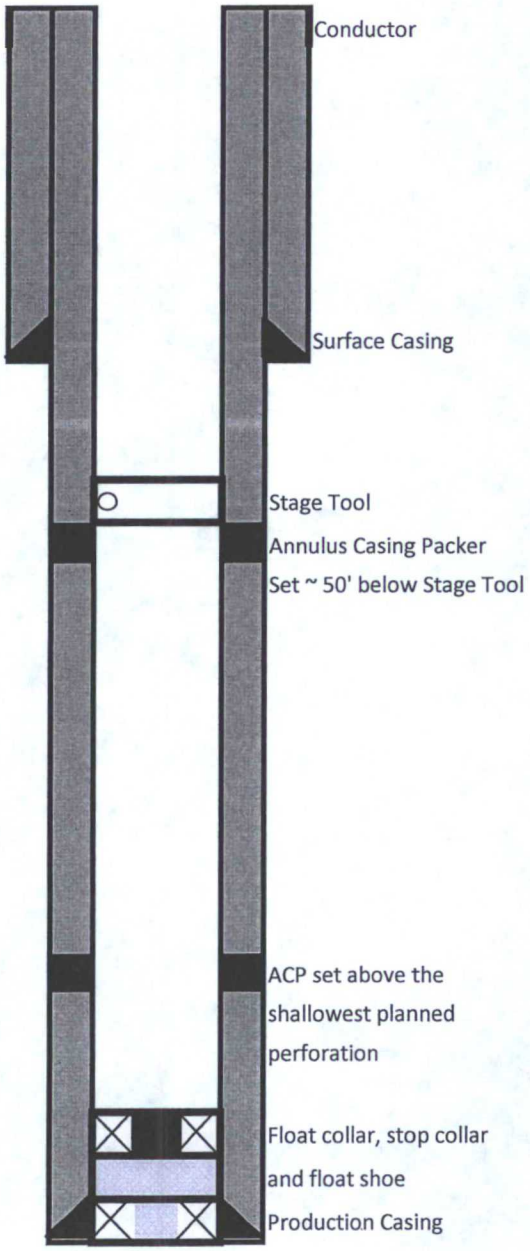
Drill Plan Attachment

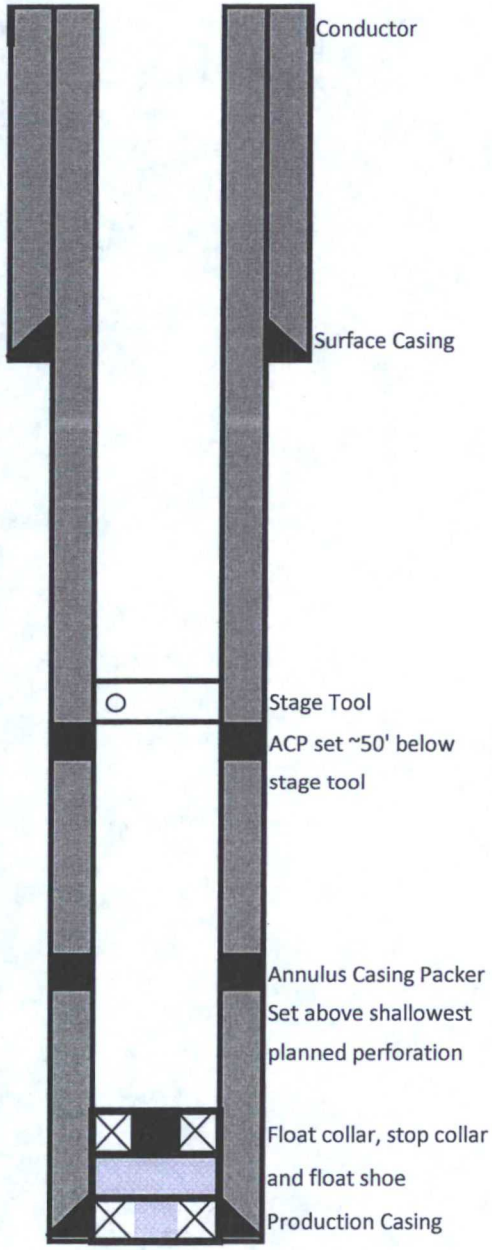
Two-Stage Cementing (Alternative for Shallow Flow)

Provide contingency plan for using two-stage cementing for the production casing cement job if shallow flow occurs during the drilling operations. See APD Drill Plan Section 3.

Two-Stage Cementing (Lower Zone Losses or Waterflow)

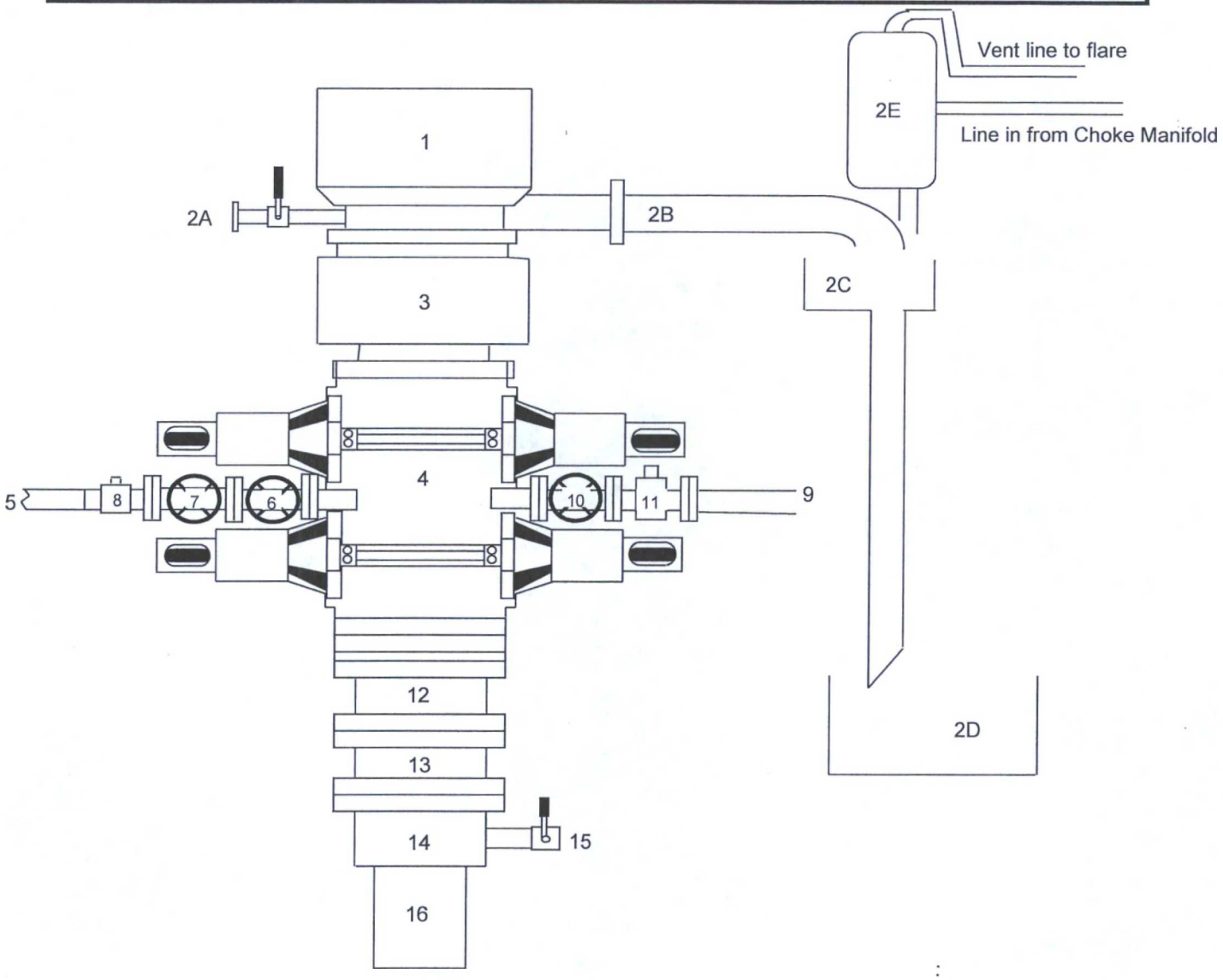
Provide contingency plan for using two-stage cementing for the production casing cement job if lower zone severe losses or waterflow are expecienced during drilling operations. See APD Drill Plan Section 3.





BLOWOUT PREVENTER ARRANGEMENT

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

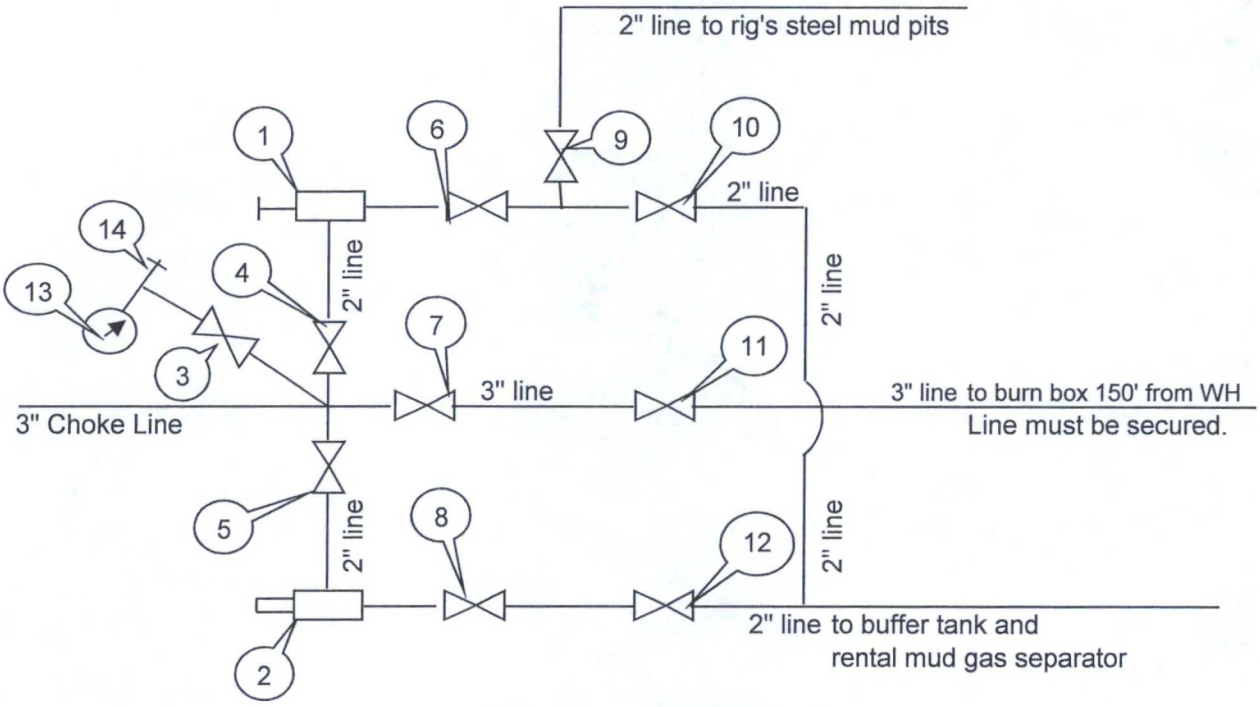


Item	Description
1	Rotating Head (11")
2A	Fill up Line and Valve
2B	Flow Line (8")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (11", 3M)
4	Double Ram (11", 3M, equipped with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

Submitted by: Cord Denton, Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 27-April-2015

CHOKE MANIFOLD ARRANGEMENT

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



All Tees must be targeted

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

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

Submitted by:
Cord Denton
Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company
Date: 27-April-2015

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

ConocoPhillips Company
Well: Britt B 52
Location: Section 10, T20S, R37E
Date: 9/8/2015

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

1. 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, use a drying pad, build an earthen pit above ground level, nor 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 haul-off bins or frac tanks as needed. The intent is as follows:

   - We propose to use the rig's 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 during each tour and any necessary repairs will be made immediately. Any leak in the system will be repaired immediately, 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 the 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
   Phone Number: 575.393.1079

   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 NM1-006.
   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:

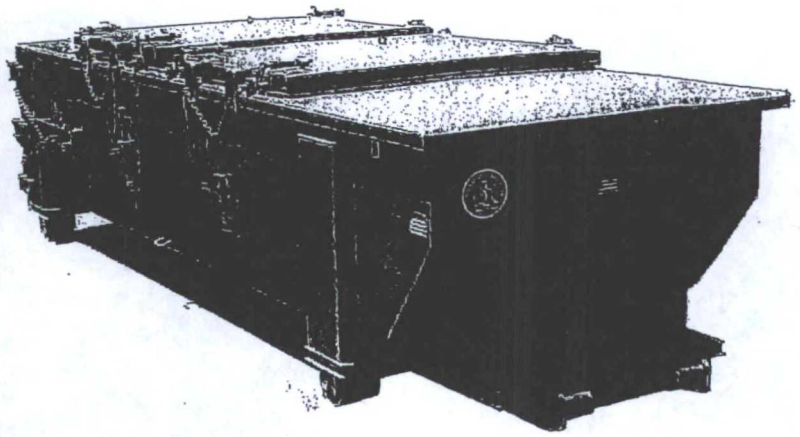
   - Nabors Well Services Company, 3221 NW County Rd, Hobbs, NM 88240; P.O. Box 5208 Hobbs, NM, 88241, Phone Number: 575.392.2577; Permit SWD 092.
   - Basic Energy Services, 2404 W Texas Ave, Eunice, NM 88231; P.O. Box 1869, Eunice, NM 88231 Phone Number: 575.394.2545, Facility located at Hwy 18, Mile Marker 19; Eunice, NM.
   - C & C Transport, LLC, P.O. Box 1352, Hobbs, NM 88241 Phone Number: 575.393.0422
   - Sundance Services, Inc., P.O. Box 1737 Eunice, NM 88231 Phone Number: 575.394.2511

Cord Denton
Drilling Engineer, ConocoPhillips Company
Phone: (281) 206-5406 Cell: (832) 754-7363

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, inside liner hooks
DOOR: 3/16" PL with tubing frame
FRONT: 3/16" PL slant formed
PICK UP: Standard cable with 2" x 6" x 1/4" rails, gusset at each crossmember
WHEELS: 10 DIA x 9 long with rease fittings
DOOR LATCH: 3 Independent ratchet binders with chains, vertical second latch
GASKETS: Extruded rubber seal with metal retainers
WELDS: All welds continuous except sub-structure crossmembers
FINISH: Coated inside and out with direct to metal, rust inhibiting acrylic enamel color coat
HYDROTESTING: Full capacity static test
DIMENSIONS: 22'-11" 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 tubing and channel support frame
LIDS: (2) 68" x 90" metal rolling lids spring loaded, 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 retainers

Heavy Duty Split Metal Rolling Lid



CONT.	A	B
20 YD	41	53
25 YD	53	65
30 YD	65	77