Form 3160-3
(June 2015)

OCD – HOBBS
06/09/2020
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FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0068281B

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.
ZIA HILLS BS/WC / NMNM138329X

8. Lease Name and Well No.
ZHU 2032 BS 6H [328111]

2. Name of Operator
CONOCOPHILLIPS COMPANY [217817]

9. API Well No. 30-025-47304

3a. Address
PO Box 2197 Houston TX 77252

3b. Phone No. *(include area code)*
(281)293-1748

10. Field and Pool, or Exploratory [98009]
WOLFCAMP / ZIA HILLS; WOLFCAMP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NESE / 2640 FSL / 1291 FEL / LAT 32.028108 / LONG -103.69276
At proposed prod. zone NWNE / 50 FNL / 2030 FEL / LAT 32.05009 / LONG -103.695153

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 20 / T26S / R32E / NMP

14. Distance in miles and direction from nearest town or post office*
43.95 miles

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)
1291 feet

16. No of acres in lease
1841.48

17. Spacing Unit dedicated to this well
0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
33 feet

19. Proposed Depth
9493 feet / 17569 feet

20. BLM/BIA Bond No. in file
FED: ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3143 feet

22. Approximate date work will start*
10/09/2020

23. Estimated duration
90 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

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 requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Jeremy Lee / Ph: (832)486-2510	07/17/2019

Title
Regulatory Coordinator

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Christopher Walls / Ph: (575)234-2234	06/08/2020

Title	Office
Petroleum Engineer	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.

GCP Rec 06/09/2020

SL

APPROVED WITH CONDITIONS

KZ

06/19/2020

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 06/08/2020

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**CONOCOPHILLIPS COMPANY**
LEASE NO.:	**NMLC0068281B**
WELL NAME & NO.:	ZHU 2032 BS 6H
SURFACE HOLE FOOTAGE:	2640'/S & 1291'/E
BOTTOM HOLE FOOTAGE	50'/N & 2030'/E
LOCATION:	Section 20, T.26 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	( ) Low	(•) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Other	[ ] 4 String Area	[ ] Capitan Reef	[ ] WIPP
Other	[x] Fluid Filled	[ ] Cement Squeeze	[ ] Pilot Hole
Special Requirements	[ ] Water Disposal	[ ] COM	[ ] Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the Cherry and Brushy Canyon formations. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1224 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
  Excess cement calculates to -51%, additional cement might be required.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. 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.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

1. Operator has proposed 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 **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 2500 psi.**

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. 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. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

OTA06012020

APD ID: 10400043592
Submission Date: 07/17/2019
Operator Name: CONOCOPHILLIPS COMPANY
Well Name: ZHU 2032 BS
Well Number: 6H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400043592
Tie to previous NOS? N
Submission Date: 07/17/2019
BLM Office: CARLSBAD
User: Jeremy Lee
Title: Regulatory Coordinator
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMLC0068281B
Lease Acres: 1841.48
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? YES
Federal or Indian agreement: FEDERAL
Agreement number: NMNM138329X
Agreement name:
Keep application confidential? NO
Permitting Agent? NO
APD Operator: CONOCOPHILLIPS COMPANY
Operator letter of designation:

Operator Info

Operator Organization Name: CONOCOPHILLIPS COMPANY
Operator Address: PO Box 2197
Zip: 77252
Operator PO Box:
Operator City: Houston
State: TX
Operator Phone: (281)293-1748
Operator Internet Address:

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: ZHU 2032 BS
Well Number: 6H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: WOLFCAMP
Pool Name: ZIA HILLS; WOLFCAMP
Is the proposed well in an area containing other mineral resources? NONE

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

Is the proposed well in an area containing other mineral resources? NONE

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** ZIA HILLS 20 PAD **Number:** 4

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 43.95 Miles **Distance to nearest well:** 33 FT **Distance to lease line:** 1291 FT

Reservoir well spacing assigned acres Measurement: 0 Acres

Well plat: ZHU_2032_BS_6H_C_102_20190711135643.pdf

Well work start Date: 10/09/2020 **Duration:** 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:**

Wellbore	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	Will this well produce from this lease?
SHL Leg #1	2640	FSL	1291	FEL	26S	32E	20	Aliquot NESE	32.028108	-103.69276	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0068281B	3143	0	0	
KOP Leg #1	2283	FSL	1924	FEL	26S	32E	20	Aliquot NESW	32.0271364	-103.6948105	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0068281B	-5634	8827	8777	
PPP Leg #1-1	2639	FSL	1931	FEL	26S	32E	20	Aliquot NWSE	32.0281	-103.694825	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0068281B	-5032	8225	8175	

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

Wellbore	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	Will this well produce from this lease?
EXIT Leg #1	100	FNL	2030	FEL	26S	32E	17	Aliquot NWNE	32.049952	-103.695151	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0068281B	-6350	17519	9493	
BHL Leg #1	50	FNL	2030	FEL	26S	32E	17	Aliquot NWNE	32.05009	-103.695153	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0068281B	-6350	17569	9493	

APD ID: 10400043592 **Submission Date:** 07/17/2019

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

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

Highlighted data reflects the most recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
496349	QUATERNARY	3144	22	22		NONE	N
496350	RUSTLER	1970	1174	1174	ANHYDRITE, DOLOMITE	NONE	N
496351	SALADO	1800	1344	1344	SALT	NONE	N
496352	CASTILE	810	2334	2334	SALT	NONE	N
496353	DELAWARE	-1187	4331	4331	SANDSTONE	NATURAL GAS, OIL	N
496354	CHERRY CANYON	-2110	5254	5254	SANDSTONE	NATURAL GAS, OIL	N
496355	BRUSHY CANYON	-3641	6785	6785	SANDSTONE	NATURAL GAS, OIL	N
496356	BONE SPRING	-5031	8175	8175	SANDSTONE	NATURAL GAS, OIL	N
664443	BONE SPRING 1ST	-6188	9332	9332	SANDSTONE	NATURAL GAS, OIL	Y
664444	BONE SPRING 2ND	-6913	10057	10057		NATURAL GAS, OIL	N
664445	BONE SPRING 3RD	-7398	10542	10542	LIMESTONE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M **Rating Depth:** 9493

Equipment: Rotating Head, Annular Preventer, Pipe/Blind Rams, Kill Lines, Choke Lines, Adapter Spool

Requesting Variance? YES

Variance request: A variance to use flexible choke line(s) from the BOP to Choke Manifold. Testing certificate is attached in "Flexhose Variance data" document. A variance to use a multibowl wellhead system. Please see attached in section 8 of drilling plan. A variance is requested to use a 5M annular and test the annular to 100% of its working pressure. The variance is requested in conjunction with the attached well control plan.
Testing Procedure: BOP/BOPE will be isolated from the casing and tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. BOPE controls will be installed prior to drilling under the surface casing and will be used until the completion of drilling operations. The intermediate interval and the

production interval will be tested per 10M working system requirements. See attached "Drill Plan" document.

Choke Diagram Attachment:

ZHU_2032_BS_6H_Choke_Manifold_20190712060152.pdf

BOP Diagram Attachment:

ZHU_2032_BS_6H_BOPE_20190712060203.pdf

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	1224	0	1224			1224	J-55	54.5	OTHER - BTC	3.08	4.99	DRY	13.63	DRY	13.63
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	10052	0	9493			10052	OTHER	40	OTHER - BTC	3.11	2.06	DRY	2.3	DRY	2.3
3	PRODUCTION	8.5	5.5	NEW	API	N	0	17569	0	9493			17569	OTHER	20	OTHER - TXP	7.69	4.37	DRY	3.84	DRY	3.84

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

13.375_54.5_lb_J55_20190710134019.pdf

ZHU_2032_BS_6H_Csg_Design_20190712060549.pdf

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

9.625_40_lb_L_80_IC_20190710134042.pdf

ZHU_2032_BS_6H_Csg_Design_20190712060605.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.5_TXP_Spec_Sheet_20190710134130.pdf

ZHU_2032_BS_6H_Csg_Design_20190712060620.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	824	1000	1.73	12.8	1716	200	Control Set ‘C’	1.0% CaCl2, 1.0% SMS, 1.0% OGC-60, ¼ lb/sk Polyflake, ½ ppb FiberBlock
SURFACE	Tail		824	1224	660	1.33	14.8	868	200	0:1:0 ‘Type III’	0.5% CaCl2, ¼ lb/sk Polyflake, ½ ppb FiberBlock

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		0	6785	3280	1.73	11	5668	200	Thermal 35	10% NaCl, 0.9% CFR, 0.7% CFL-4, 0.1% LTR, 0.2% SPC-II, 0.4% CDF-4P, ¼ lb/sk Polyflake, ½ ppb FiberBlock
INTERMEDIATE	Lead	6785	724	8327	310	2.7	11	821	70	WBL	0.5% CFL-4, 0.6% LTR, 0.2% SPC-II, 0.4% CDF-4P, ¼ lb/sk Polyflake, ½ ppb FiberBlock
INTERMEDIATE	Tail		8327	10052	470	1.59	13.2	741	30	Thermal 35	10% NaCl, 0.9% CFR, 0.7% CFL-4, 0.1% LTR, 0.2% SPC-II, 0.4% CDF-4P, ¼ lb/sk Polyflake, ½ ppb FiberBlock
PRODUCTION	Lead		0	17688	0	0	0	0	0	No Lead	No Lead
PRODUCTION	Tail		7827	17569	2080	1.19	15.6	2474	10	1:1:0 'Poz:Lafarge G'	20% Silica Flour, 8% Silica Flume, 2% FWCA-H (FWC-2), 0.3% HTR, 0.5% CR-4 (MCR-4), 1% TAE-1 (SEA-1), 1% CFL-4, 0.2% CFR-5, 0.3% ASM-3 (AS-3)

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. See attached "Drill Plan" for additional information.

Describe the mud monitoring system utilized: Closed-loop mud system using steel mud containers will be on location. Mud monitoring of any changes in levels (gains or losses) will use Pressure Volume Temperature, Pason, Visual Observations. See attached "Drill Plan" for additional information.

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

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
1224	9493	OTHER : Brine	9.5	10.5							
0	1224	OTHER : Fresh Water	8.6	9.1							
9493	9493	OIL-BASED MUD	10.5	11.5							

Section 6 - Test, Logging, Coring

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

Production tests will be conducted multiple times per week, through a test separator, during first months following completion. Thereafter, tests will be less frequently. See attached "Drill Plan" for additional information.

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

GR

Coring operation description for the well:

No coring operation is planned at this time.
This well will be an Infill Horizontal well as defined in Part H of 19.15.16.7 NMAC. It will not have a unique horizontal spacing unit. It will share a horizontal spacing unit.
ConocoPhillips Company requests a variance to the requirement to run a neutron porosity log for any wells within one mile of an existing well with a neutron porosity log (vertical well, or vertical portion of a horizontal well). If there is an existing neutron log within one mile, ConocoPhillips requests to log gamma ray only. If there is not an existing neutron log within one mile, ConocoPhillips request to run a GR/N log on the vertical section of one well per pad.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4936 **Anticipated Surface Pressure:** 2847.54

Anticipated Bottom Hole Temperature(F): 165

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

Hydrogen sulfide drilling operations plan:

ZIA_HILLS_20_PAD_4_H2S_C_Plan_20190711125554.pdf

Zia_Hills_20_Pad_4_Rig_Layout_20190711125808.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

ZHU_2032_BS_6H_Directional_Plan_20190712062102.pdf

ZHU_2032_BS_6H_Drill_Plan_20190712062112.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Zia_Hills_20_Pad_4_Drill_Waste_Containment_20190711130956.pdf

ZHU_2032_BS_6H__Drilling_Plan_20190712062131.pdf

ZHU_2032_BS_6H_Cement_20190712062159.pdf

ZHU_2032_BS_6H_Kelly_Choke_20190712062211.pdf

ZHU_2032_BS_5H_8H_Gas_Capture_Plan_20190712062235.pdf

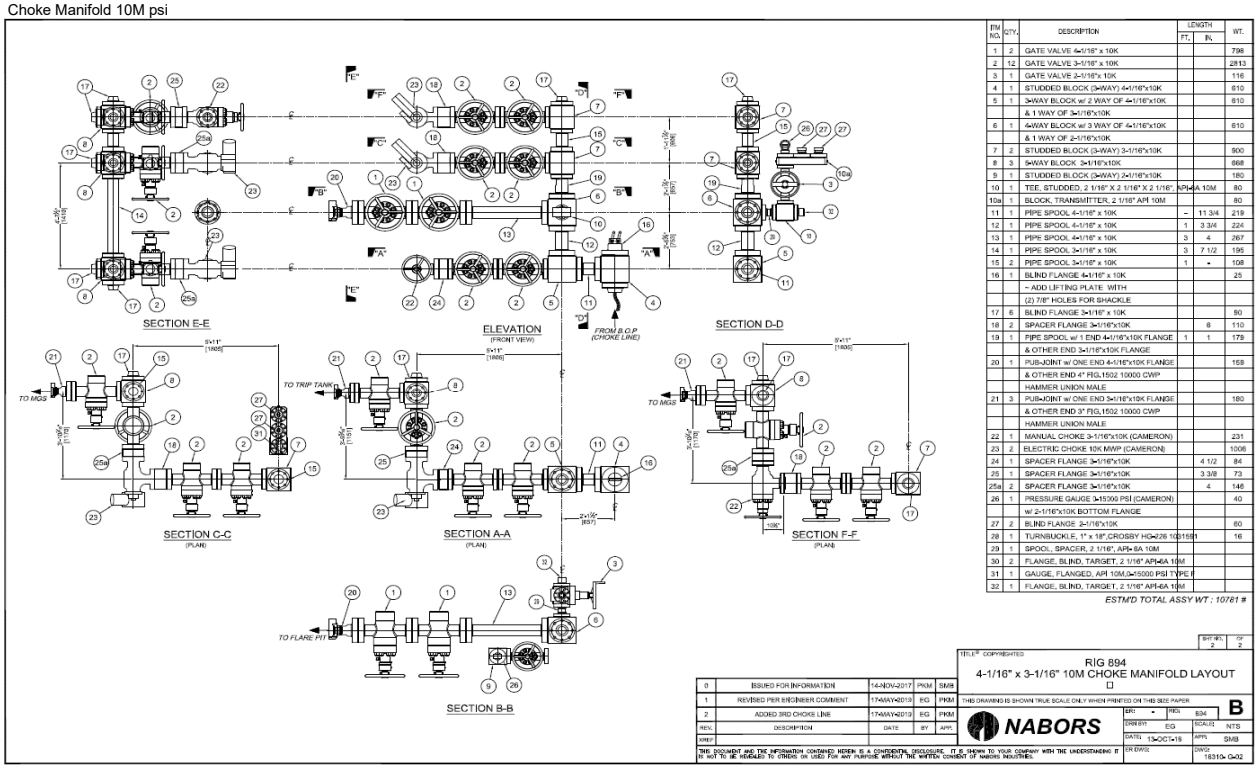
Other Variance attachment:

Zia_Hills_20_Pad_4_Flexhose_Variance_20190711131033.pdf

Wild_Well_Control_Plan_20190711131059.pdf

Wellhead_diagram_3_String__20200217132119.pdf

Choke Manifold 10M psi



ITM NO.	QTY.	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT.
1	2	GATE VALVE 4-1/16" x 10K			798
2	12	GATE VALVE 3-1/16" x 10K			2813
3	1	GATE VALVE 2-1/16"x 10K			116
4	1	STUDDED BLOCK (5-WAY) 4-1/16"x10K			610
5	1	3-WAY BLOCK w/ 2 WAY OF 4-1/16"x10K			610
		& 1 WAY OF 3-1/16"x10K			
6	1	4-WAY BLOCK w/ 3 WAY OF 4-1/16"x10K			610
		& 1 WAY OF 2-1/16"x10K			
7	2	STUDDED BLOCK (3-WAY) 3-1/16"x10K			900
8	3	5-WAY BLOCK 3-1/16"x10K			668
9	1	STUDDED BLOCK (3-WAY) 2-1/16"x10K			180
10	1	TEE, STUDDED, 2 1/16" X 2 1/16" X 2 1/16", API-6A 10M			80
10a	1	BLOCK, TRANSMITTER, 2 1/16" API 10M			80
11	1	PIPE SPOOL 4-1/16" x 10K	-	11 3/4	219
12	1	PIPE SPOOL 4-1/16" x 10K	1	3 3/4	224
13	1	PIPE SPOOL 4-1/16" x 10K	3	4	267
14	1	PIPE SPOOL 3-1/16" x 10K	3	7 1/2	195
15	2	PIPE SPOOL 3-1/16" x 10K	1	-	108
16	1	BLIND FLANGE 4-1/16" x 10K			25
		- ADD LIFTING PLATE WITH			
		(2) 7/8" HOLES FOR SHACKLE			
17	6	BLIND FLANGE 3-1/16" x 10K			90
18	2	SPACER FLANGE 3-1/16"x10K		6	110
19	1	PIPE SPOOL w/ 1 END 4-1/16"x10K FLANGE	1	1	179
		& OTHER END 3-1/16"x10K FLANGE			
20	1	PUP-JOINT w/ ONE END 4-1/16"x10K FLANGE			159
		& OTHER END 4" FIG.1502 10000 CWP			
		HAMMER UNION MALE			
21	3	PUP-JOINT w/ ONE END 3-1/16"x10K FLANGE			180
		& OTHER END 3" FIG.1502 10000 CWP			
		HAMMER UNION MALE			
22	1	MANUAL CHOKE 3-1/16"x10K (CAMERON)			231
23	2	ELECTRIC CHOKE 10K MWP (CAMERON)			1008
24	1	SPACER FLANGE 3-1/16"x10K		4 1/2	84
25	1	SPACER FLANGE 3-1/16"x10K		3 3/8	73
25a	2	SPACER FLANGE 3-1/16"x10K		4	146
26	1	PRESSURE GAUGE 3-15399 PSI (CAMERON)			40
		w/ 2-1/16"x10K BOTTOM FLANGE			
27	2	BLIND FLANGE 2-1/16"x10K			60
28	1	TURNBUCKLE, 1" x 18",CROSBY HG-226 1031591			16
29	1	SPOOL, SPACER, 2 1/16", API-6A 10M			
30	2	FLANGE, BLIND, TARGET, 2 1/16" API-6A 10M			
31	1	GAUGE, FLANGED, API 10M,0-15000 PSI TYPE F			
32	1	FLANGE, BLIND, TARGET, 2 1/16" API-6A 10M			

ESTM'D TOTAL ASSY WT : 10761 #

REV.	DESCRIPTION	DATE	BY	APP.
0	ISSUED FOR INFORMATION	14-NOV-2017	PKM	SMB
1	REVISED PER ENGINEER COMMENT	17-MAY-2019	EG	PKM
2	ADDED 3RD CHOKE LINE	17-MAY-2019	EG	PKM
XREF				

TITLE© COPYRIGHTED

RIG 894

4-1/16" x 3-1/16" 10M CHOKE MANIFOLD LAYOUT

☐

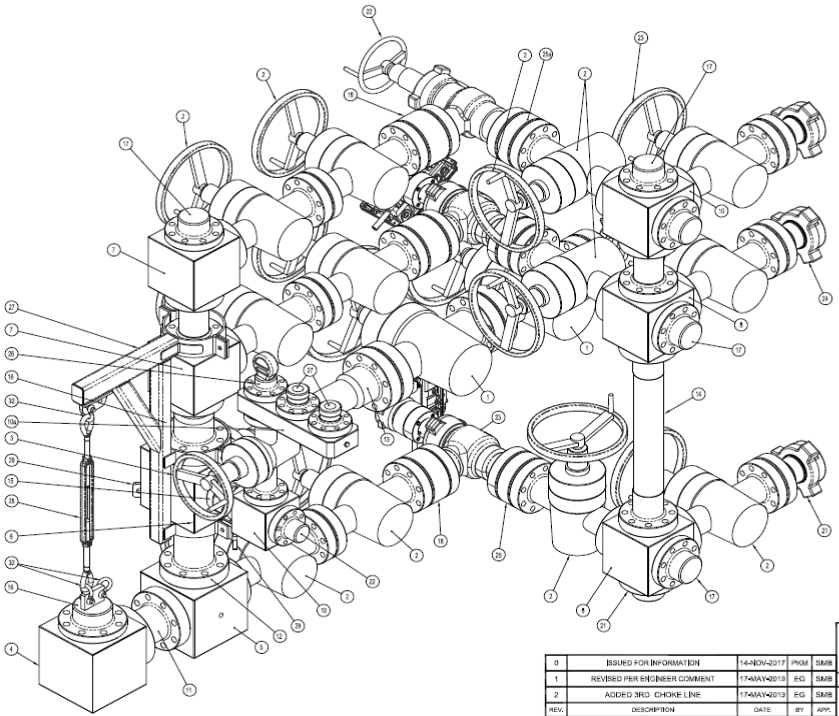
THIS DRAWING IS SHOWN TRUE SCALE ONLY WHEN PRINTED ON THIS SIZE PAPER

B

NABORS

BR	-	RIG	894
DRN BY	EG	SCALE	NTS
DATE	13-OCT-15	APP	SMB
ER DWG		DWG	16310-G-02

SHT NO. 2 OF 2



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TITLE© COPYRIGHTED

RIG 894

4-1/16" x 3-1/16" 10M CHOKE MANIFOLD LAYOUT

☐

THIS DRAWING IS SHOWN TRUE SCALE ONLY WHEN PRINTED ON THIS SIZE PAPER

B

NABORS

BR	-	RIG	894
DRN BY	PKM	SCALE	3/4"=1'-0"
DATE	06-NOV-2017	APP	SMB
ER DWG		DWG	16310-G-01

SHT NO. 1 OF 2

BOPE Configuration & Specifications
13-5/8" x 10,000 psi System

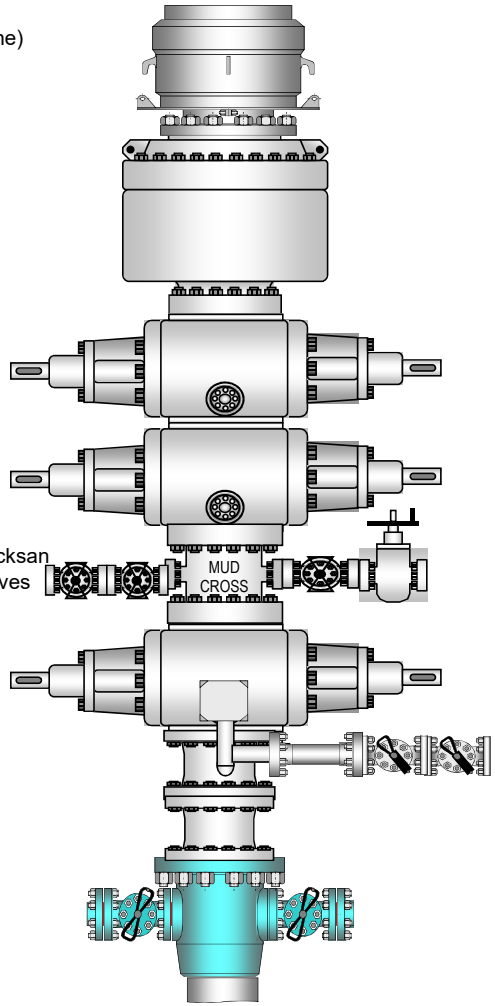
Rotating Head (w/ fill up line)
13-5/8" x 10k psi

Annular Preventer
13-5/8" x 5k psi

Pipe Ram
13-5/8" x 10k psi

Blind Ram
13-5/8" x 10k psi

Kill Line 2-1/16" x 10k Chicksan
(2) 2-1/16" x 10k Gate Valves
Outer Check Valve



Choke Line 6" x 3" x 10k psi
4-1/16" x 10k psi Inner Manual Valve
4 - 1/16" x 10k psi Outer Remote HCR

Pipe Ram
13-5/8" x 10k psi

2" x 5k psi Gate Valves
Pressure Testing Lines

Spacer Spool
13-5/8" x 10k psi

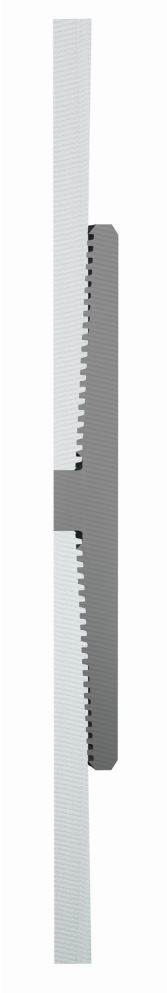
Casing Head
13-5/8" x 10k psi

For the latest performance data, always visit our website: www.tenaris.com

TXP® BTC

Printed on: 06/24/2019

Outside Diameter	**5.500** in.	Min. Wall Thickness	**87.5**%	(*) Grade P110	
Wall Thickness	**0.415** in.	Connection OD Option	**REGULAR**	COUPLING	PIPE BODY
Grade	**P110***	Drift	**API Standard**	Body: **White** 1st Band: - 2nd Band: - 3rd Band: -	1st Band: **White** 2nd Band: - 3rd Band: - 4th Band: -
		Type	**Casing**		



PIPE BODY DATA

GEOMETRY

Nominal OD	**5.500** in.	Nominal Weight	**23** lbs/ft	Drift	**4.545** in.
Nominal ID	**4.670** in.	Wall Thickness	**0.415** in.	Plain End Weight	**22.56** lbs/ft
OD Tolerance	**API**				

PERFORMANCE

Body Yield Strength	**729** x1000 lbs	Internal Yield	**14530** psi	SMYS	**110000** psi
Collapse	**14540** psi				

CONNECTION DATA

GEOMETRY

Connection OD	**6.200** in.	Coupling Length	**9.450** in.	Connection ID	**4.658** in.
Make-up Loss	**4.204** in.	Threads per in	**5**	Connection OD Option	**REGULAR**

PERFORMANCE

Tension Efficiency	**100.0** %	Joint Yield Strength	**729.000** x1000 lbs	Internal Pressure Capacity [1]	**14530.000** psi
Compression Efficiency	**100** %	Compression Strength	**729.000** x1000 lbs	Max. Allowable Bending	**92** °/100 ft
External Pressure Capacity	**14540.000** psi				

MAKE-UP TORQUES

Minimum	**12980** ft-lbs	Optimum	**14420** ft-lbs	Maximum	**15860** ft-lbs

OPERATION LIMIT TORQUES

Operating Torque	**24200** ft-lbs	Yield Torque	**26900** ft-lbs		

Notes

This connection is fully interchangeable with:

TXP® BTC - 5.5 in. - 15.5 / 17 / 20 / 26 lbs/ft

[1] Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per section 10.3 API 5C3 / ISO 10400 - 2007.

Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative.

For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

ZHU 2032 BS 6H **Sec 20 T26S R32E** **Lea, Co, NM** **7/8/2019**

SURFACE CASING DESIGN INFORMATION

Setting Depth: 1,224' MD 1,224' TVD

PIPE BODY DIMENSIONAL / PERFORMANCE DATA:

SIZE (Inches)	WEIGHT (LB/FT)	GRADE	CPLG TYPE	BORE ID (Inches)	DRIFT ID (Inches)	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
13.375	54.5	J-55	BTC	12.612	12.459	1,130 / 960	2,730 / 2,320	909 / 772

CONNECTION DIMENSIONAL / PERFORMANCE DATA:

OD (Inches)	ID (Inches)	DRIFT (Inches)	CPLG TYPE	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
14.375	12.612	12.459	BTC	1,130 / 960	2,730 / 2,320	909 / 772

Surface Casing Test Pressure = 1,500 psi

Pressure Test Prior to Drill Out

Minimum Design / Safety Factors COP

Burst	*Collapse*	*Tension (Body & Connection)*
1.15	*1.05*	*1.40*

Actual Design / Safety Factors

Burst	*Collapse*	*Tension (Body)*	
4.99	*3.08*	*13.63*	**Dry**
		15.69	**Bouyed**

INTERMEDIATE CASING DESIGN INFORMATION

Setting Depth: 10,052' MD 9,493' TVD

PIPE BODY DIMENSIONAL / PERFORMANCE DATA:

SIZE (Inches)	WEIGHT (LB/FT)	GRADE	CPLG TYPE	BORE ID (Inches)	DRIFT ID (Inches)	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
9.625	40.0	L80-IC	BTC	8.835	8.75	3,870 / 3,685	5,750 / 5000	916 / 654

CONNECTION DIMENSIONAL / PERFORMANCE DATA:

OD (Inches)	ID (Inches)	DRIFT (Inches)	CPLG TYPE	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
10.625	8.835	8.75	BTC	3,870 / 3,685	5,750 / 5000	947 / 676

Production Casing Test Pressure = TBD

Minimum Design / Safety Factors

Burst	*Collapse*	*Tension (Body & Connection)*
1.15	*1.05*	*1.40*

Actual Design / Safety Factors

Burst	*Collapse*	*Tension (Body)*	
2.06	*3.11*	*2.30*	**Dry**
		2.69	**Bouyed**

PRODUCTION CASING DESIGN INFORMATION

Setting Depth: 17,569' MD 9,493' TVD

PIPE BODY DIMENSIONAL / PERFORMANCE DATA:

SIZE (Inches)	WEIGHT (LB/FT)	GRADE	CPLG TYPE	BORE ID (Inches)	DRIFT ID (Inches)	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
5.5	20	P-110 ICY	TXP	4.778	4.653	12,100 / 11,524	14,360 / 12,487	729 / 521

CONNECTION DIMENSIONAL / PERFORMANCE DATA:

OD (Inches)	ID (Inches)	DRIFT (Inches)	CPLG TYPE	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
6.1	4.766	4.653	TXP	12,100 / 11,524	14,360 / 12,487	729 / 521

Production Casing Test Pressure = TBD

Minimum Design / Safety Factors

Burst	*Collapse*	*Tension (Body & Connection)*
1.15	*1.05*	*1.40*

Actual Design / Safety Factors

Burst	*Collapse*	*Tension (Body)*	
4.37	*7.69*	*3.84*	**Dry**
		4.57	**Bouyed**

TXP® BTC

Printed on: 22/04/2019

		Min. Wall Thickness	87.5%	(*)GradeJ55 (Casing)	
Outside Diameter	13.375 in.	Connection OD Option	REGULAR	Coupling	Pipe Body
Wall Thickness	0.380 in.	Drift	API Standard	Body: Bright Green	1st Band: Bright Green
Grade	J55 (Casing)*	Type	Casing	1st Band: White	2nd Band: -
				2nd Band: -	3rd Band: -
				3rd Band: -	4th Band: -

PIPE BODY DATA

Geometry

Nominal OD	13.375 in.	Nominal Weight	54.5 lbs/ft	Drift	12.459 in.
Nominal ID	12.615 in.	Wall Thickness	0.380 in.	Plain End Weight	52.79 lbs/ft
OD Tolerance	API				

Performance

Body Yield Strength	853 x1000 lbs	Internal Yield	2730 psi	SMYS	55000 psi
Collapse	1130 psi				

CONNECTION DATA

Geometry

Connection OD	14.375 in.	Coupling Length	10.825 in.	Connection ID	12.603 in.
Make-up Loss	4.891 in.	Threads per in	5	Connection OD Option	REGULAR

Performance

Tension Efficiency	100.0 %	Joint Yield Strength	853.000 x1000 lbs	Internal Pressure Capacity [1]	2730.000 psi
Compression Efficiency	100 %	Compression Strength	853.000 x1000 lbs	Max. Allowable Bending	19 °/100 ft
External Pressure Capacity	1130.000 psi				

Make-Up Torques

Minimum	21610 ft-lbs	Optimum	24010 ft-lbs	Maximum	26410 ft-lbs

Operation Limit Torques

Operating Torque	54300 ft-lbs	Yield Torque	68700 ft-lbs		

Notes

This connection is fully interchangeable with:

TXP® BTC - 13.375 in. - 61 / 68 / 72 lbs/ft

[1] Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per section 10.3 API 5C3 / ISO 10400 - 2007.

Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative.

For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

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ZHU 2032 BS 6H **Sec 20 T26S R32E** **Lea, Co, NM** **7/8/2019**

SURFACE CASING DESIGN INFORMATION

Setting Depth: 1,224' MD 1,224' TVD

PIPE BODY DIMENSIONAL / PERFORMANCE DATA:

SIZE (Inches)	WEIGHT (LB/FT)	GRADE	CPLG TYPE	BORE ID (Inches)	DRIFT ID (Inches)	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
13.375	54.5	J-55	BTC	12.612	12.459	1,130 / 960	2,730 / 2,320	909 / 772

CONNECTION DIMENSIONAL / PERFORMANCE DATA:

OD (Inches)	ID (Inches)	DRIFT (Inches)	CPLG TYPE	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
14.375	12.612	12.459	BTC	1,130 / 960	2,730 / 2,320	909 / 772

Surface Casing Test Pressure = 1,500 psi

Pressure Test Prior to Drill Out

Minimum Design / Safety Factors COP

Burst	*Collapse*	*Tension (Body & Connection)*
1.15	*1.05*	*1.40*

Actual Design / Safety Factors

Burst	*Collapse*	*Tension (Body)*	
4.99	*3.08*	*13.63*	**Dry**
		15.69	**Bouyed**

INTERMEDIATE CASING DESIGN INFORMATION

Setting Depth: 10,052' MD 9,493' TVD

PIPE BODY DIMENSIONAL / PERFORMANCE DATA:

SIZE (Inches)	WEIGHT (LB/FT)	GRADE	CPLG TYPE	BORE ID (Inches)	DRIFT ID (Inches)	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
9.625	40.0	L80-IC	BTC	8.835	8.75	3,870 / 3,685	5,750 / 5000	916 / 654

CONNECTION DIMENSIONAL / PERFORMANCE DATA:

OD (Inches)	ID (Inches)	DRIFT (Inches)	CPLG TYPE	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
10.625	8.835	8.75	BTC	3,870 / 3,685	5,750 / 5000	947 / 676

Production Casing Test Pressure = TBD

Minimum Design / Safety Factors

Burst	*Collapse*	*Tension (Body & Connection)*
1.15	*1.05*	*1.40*

Actual Design / Safety Factors

Burst	*Collapse*	*Tension (Body)*	
2.06	*3.11*	*2.30*	**Dry**
		2.69	**Bouyed**

PRODUCTION CASING DESIGN INFORMATION

Setting Depth: 17,569' MD 9,493' TVD

PIPE BODY DIMENSIONAL / PERFORMANCE DATA:

SIZE (Inches)	WEIGHT (LB/FT)	GRADE	CPLG TYPE	BORE ID (Inches)	DRIFT ID (Inches)	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
5.5	20	P-110 ICY	TXP	4.778	4.653	12,100 / 11,524	14,360 / 12,487	729 / 521

CONNECTION DIMENSIONAL / PERFORMANCE DATA:

OD (Inches)	ID (Inches)	DRIFT (Inches)	CPLG TYPE	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
6.1	4.766	4.653	TXP	12,100 / 11,524	14,360 / 12,487	729 / 521

Production Casing Test Pressure = TBD

Minimum Design / Safety Factors

Burst	*Collapse*	*Tension (Body & Connection)*
1.15	*1.05*	*1.40*

Actual Design / Safety Factors

Burst	*Collapse*	*Tension (Body)*	
4.37	*7.69*	*3.84*	**Dry**
		4.57	**Bouyed**

TXP® BTC

Printed on: 22/04/2019

		Min. Wall Thickness	87.5%	(*)GradeL80-IC	
Outside Diameter	9.625 in.	Connection OD Option	REGULAR	Coupling	Pipe Body
Wall Thickness	0.395 in.	Drift	API Standard	Body: Red	1st Band: Red
Grade	L80-IC*	Type	Casing	1st Band: Brown	2nd Band: Brown
				2nd Band: -	3rd Band: Pale Green
				3rd Band: -	4th Band: -

PIPE BODY DATA

Geometry

Nominal OD	9.625 in.	Nominal Weight	40 lbs/ft	Drift	8.679 in.
Nominal ID	8.835 in.	Wall Thickness	0.395 in.	Plain End Weight	38.97 lbs/ft
OD Tolerance	API				

Performance

Body Yield Strength	916 x1000 lbs	Internal Yield	5750 psi	SMYS	80000 psi
Collapse	3870 psi				

CONNECTION DATA

Geometry

Connection OD	10.625 in.	Coupling Length	10.825 in.	Connection ID	8.823 in.
Make-up Loss	4.891 in.	Threads per in	5	Connection OD Option	REGULAR

Performance

Tension Efficiency	100.0 %	Joint Yield Strength	916.000 x1000 lbs	Internal Pressure Capacity [1]	5750.000 psi
Compression Efficiency	100 %	Compression Strength	916.000 x1000 lbs	Max. Allowable Bending	38 °/100 ft
External Pressure Capacity	3870.000 psi				

Make-Up Torques

Minimum	18860 ft-lbs	Optimum	20960 ft-lbs	Maximum	23060 ft-lbs

Operation Limit Torques

Operating Torque	35600 ft-lbs	Yield Torque	43400 ft-lbs

Notes

This connection is fully interchangeable with:

TXP® BTC - 9.625 in. - 36 / 43.5 / 47 / 53.5 / 58.4 lbs/ft

[1] Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per section 10.3 API 5C3 / ISO 10400 - 2007.

Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative.

For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

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ZHU 2032 BS 6H **Sec 20 T26S R32E** **Lea, Co, NM** **7/8/2019**

SURFACE CASING DESIGN INFORMATION

Setting Depth: 1,224' MD 1,224' TVD

PIPE BODY DIMENSIONAL / PERFORMANCE DATA:

SIZE (Inches)	WEIGHT (LB/FT)	GRADE	CPLG TYPE	BORE ID (Inches)	DRIFT ID (Inches)	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
13.375	54.5	J-55	BTC	12.612	12.459	1,130 / 960	2,730 / 2,320	909 / 772

CONNECTION DIMENSIONAL / PERFORMANCE DATA:

OD (Inches)	ID (Inches)	DRIFT (Inches)	CPLG TYPE	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
14.375	12.612	12.459	BTC	1,130 / 960	2,730 / 2,320	909 / 772

Surface Casing Test Pressure = 1,500 psi

Pressure Test Prior to Drill Out

Minimum Design / Safety Factors COP

Burst	*Collapse*	*Tension (Body & Connection)*
1.15	*1.05*	*1.40*

Actual Design / Safety Factors

Burst	*Collapse*	*Tension (Body)*	
4.99	*3.08*	*13.63*	**Dry**
		15.69	**Bouyed**

INTERMEDIATE CASING DESIGN INFORMATION

Setting Depth: 10,052' MD 9,493' TVD

PIPE BODY DIMENSIONAL / PERFORMANCE DATA:

SIZE (Inches)	WEIGHT (LB/FT)	GRADE	CPLG TYPE	BORE ID (Inches)	DRIFT ID (Inches)	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
9.625	40.0	L80-IC	BTC	8.835	8.75	3,870 / 3,685	5,750 / 5000	916 / 654

CONNECTION DIMENSIONAL / PERFORMANCE DATA:

OD (Inches)	ID (Inches)	DRIFT (Inches)	CPLG TYPE	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
10.625	8.835	8.75	BTC	3,870 / 3,685	5,750 / 5000	947 / 676

Production Casing Test Pressure = TBD

Minimum Design / Safety Factors

Burst	*Collapse*	*Tension (Body & Connection)*
1.15	*1.05*	*1.40*

Actual Design / Safety Factors

Burst	*Collapse*	*Tension (Body)*	
2.06	*3.11*	*2.30*	**Dry**
		2.69	**Bouyed**

PRODUCTION CASING DESIGN INFORMATION

Setting Depth: 17,569' MD 9,493' TVD

PIPE BODY DIMENSIONAL / PERFORMANCE DATA:

SIZE (Inches)	WEIGHT (LB/FT)	GRADE	CPLG TYPE	BORE ID (Inches)	DRIFT ID (Inches)	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
5.5	20	P-110 ICY	TXP	4.778	4.653	12,100 / 11,524	14,360 / 12,487	729 / 521

CONNECTION DIMENSIONAL / PERFORMANCE DATA:

OD (Inches)	ID (Inches)	DRIFT (Inches)	CPLG TYPE	COLLAPSE (PSI) API / CoP	BURST (PSI) API / CoP	TENSION (1k LBS) API / CoP
6.1	4.766	4.653	TXP	12,100 / 11,524	14,360 / 12,487	729 / 521

Production Casing Test Pressure = TBD

Minimum Design / Safety Factors

Burst	*Collapse*	*Tension (Body & Connection)*
1.15	*1.05*	*1.40*

Actual Design / Safety Factors

Burst	*Collapse*	*Tension (Body)*	
4.37	*7.69*	*3.84*	**Dry**
		4.57	**Bouyed**

ConocoPhillips

H_2S Contingency Plan

November 2016

H_2S Contingency Plan Holders:

Attached is an H_2S Contingency Plan for COPC Permian Drilling working in the West Texas and Southeastern New Mexico areas operated by ConocoPhillips Company.

If you have any question regarding this plan, please call Matt Oster (830) 583-1297, or Ryan Vacarella (985) 217-7594.

Table of Contents

ConocoPhillips

HYDROGEN SULFIDE (H_2S) OPERATIONS

Contingency Plan
For
Permian Drilling Operations

ConocoPhillips Company

Mid-Continent Business Unit
Permian Asset Area

I. PURPOSE

The purpose of this Contingency Plan is to provide an organized plan of action for alerting and protecting the public following the release of a potentially hazardous volume of hydrogen sulfide. This plan prescribes mandatory safety procedures to be followed in the event of a release of H_2S into the atmosphere from exploration and production operations included in the scope of this plan. The extent of action taken will be determined by the supervisor and will depend on the severity and extent of H_2S release. Release of H_2S must be reported to the Drilling Superintendent and documented on the IADC and in Wellview.

II. SCOPE

This Contingency plan shall cover the West Texas and Southeastern New Mexico areas, which contain H2S gas and could result in a release where the R.O.E. is greater than 100 ppm at 50' and less than 3000' and does not include a public area and 500 ppm R.O.E. does not include a public road. Radius of exposure is defined as the maximum distance from the source of release that a specified calculated average concentration of H_2S could exist under specific weather conditions.

III. PROCEDURES

First Employee on Scene

____Assess the incident and ensure your own safety.

Note the following:

——— Location of the incident.
____Nature of the incident.
——— Wind direction and weather conditions.
____Other assistance that may be needed.

____ Call local supervisory personnel (refer to Section V: Emergency Call List) until personal contact is made with a person on the list.

____ Perform emergency assessment and response as needed. The response may include rescue and/or evacuation of personnel, shutting in a system and/or notification of nearby residents/public (refer to Section VII: Public Notification/Evacuation).

____ Secure the site.

____ Follow the direction of the On-scene Incident Commander (first ConocoPhillips supervisor arriving on-scene).

First Supervisor on Scene (ConocoPhillips On-scene Incident Commander)

——— Becomes ConocoPhillips' On-scene Incident Commander upon arrival to location.

——— Follow the principles of the **D.E.C.I.D.E.** process below to assess the incident. (Note wind direction and weather conditions and ensure everyone's safety).

DETECT the problem
ESTIMATE likely harm without intervention
CHOOSE response objectives
IDENTIFY action options
DO the best option
EVALUATE the progress

____Complete the Preliminary Emergency Information Sheet (refer to Section VIII: Forms/Reports).

____Call your supervisor (refer to Section V: Emergency Call List).

____Perform emergency response as necessary. (This may include notification & evacuation of all personnel and/or nearby residents/public (refer to Section VII: Public Notification/Evacuation), requesting assistance from ConocoPhillips personnel or outside agencies (refer to Section V: Emergency Call List) and obtaining any safety equipment that may be required (refer to Section IV: Emergency Equipment and Maintenance).

____ Notify appropriate local emergency response agencies of the incident as needed. Also notify the appropriate regulatory agencies. (refer to Section V: Emergency Call List).

____ Ensure site security.

___ Set barricades and /or warning signs at or beyond the calculated 100 ppm H_2S radius of exposure (ROE). All manned barricades must be equipped with an H_2S monitor and a 2-way radio.

___ Set roadblocks and staging area as determined.

____ Establish the Incident Command Structure by designating appropriate on-scene response personnel as follows:

Recording Secretary _____
Public Information Officer _____
Safety/Medical Officer _____
Decontamination Officer _____

____ Have the "Recording Secretary" begin documenting the incident on the "Incident Log" (refer to Section VIII: Forms/Reports).

____ If needed, request radio silence on all channels that use your radio tower stating that, until further notice, the channels should be used for emergency communications only.

____ Perform a Site Characterization and designate the following:

Hot Zone -- Hazardous Area
Warm Zone -- Preparation & Decontamination Area
Cold Zone -- Safe Area

AND

On-Scene Incident Command Post	(Cold Zone)
Public Relations Briefing Area	(Cold Zone)
Staging Area	(Cold Zone)
Triage Area	(Cold Zone)
Decontamination Area	(Warm Zone)

____Refer all media personnel to ConocoPhillips' On-Scene Public Information Officer (refer to Section VI: Public Media Relations).

____Coordinate the attempt to stop the release of H_2S. You should consider closing upstream and downstream valves to shut-off gas supply sources, and/or plugging or clamping leaks. Igniting escaping gas to reduce the toxicity hazard should be used **ONLY AS A LAST RESORT**. (It must first be determined if the gas can be safely ignited, taking into consideration if there is a possibility of a widespread flammable atmosphere.)

____Once the emergency is over, return the situation to normal by:

Confirming the absence of H_2S and combustible gas throughout the area,

Discontinuing the radio silence on all channels, stating that the emergency incident is over,

Removing all barricades and warning signs,

Allowing evacuees to return to the area, and

Advising all parties previously notified that the emergency has ended.

____ Ensure the proper regulatory authorities/agencies are notified of the incident (refer to Section V: Emergency Call List).

____ Clean up the site. (Be sure all contractor crews have had appropriate HAZWOPER training.)

____ Report completion of the cleanup to the Asset Environmentalist. (Environmentalist will report this to the proper State and/or Federal agencies.)

____ Fill out all required incident reports and send originals to the Safety Department. (Keep a copy for your records.)

- Company employee receiving occupational injury or illnesses.
- Company employee involved in a vehicle accident while driving a company vehicle.
- Company property that is damaged or lost.
- Accident involving the public or a contractor; includes personal injuries, vehicle accidents, and property damage. Also includes any situation, which could result in a claim against the Company.
- Hazardous Material Spill/Release Report Form
- Emergency Drill Report

____ Assist the Safety Department in the investigation of the incident. Review the factors that caused or allowed the incident to occur, and modify operating, maintenance, and/or surveillance procedures as needed. Make appropriate repairs and train or retrain employees in the use and operation of the system.

____ If this incident was simulated for practice in emergency response, complete the Emergency Drill Report found in Section VIII: Forms/Reports and submit a copy to the Drilling Manager. (Keep one copy in area files to document exercising of the plan.)

Emergency Procedures
Responsibility

In the event of a release of potentially hazardous amounts of H2S, all personnel will immediately proceed upwind/ crosswind to the nearest designated briefing area. The COPC Drilling Rep. will immediately, upon assessing the situation, set this into action by taking the proper procedures to contain the gas and notify appropriate people and agencies.

1. In an emergency situation, the Drilling Rep. on duty will have complete responsibility and will take whatever action is deemed necessary in an emergency situation to insure the personnel's safety, to protect the well and to prevent property damage.

2. The Toolpusher will assume all responsibilities of the Drilling Rep. in an emergency situation in the event the Drilling Rep. becomes incapacitated.

3. Advise each contractor, service company, and all others entering the site that H2S may be encountered and the potential hazards that may exist.

4. Authorize the evacuation of local residents if H2S threatens their safety.

5. Keep the number of persons on location to a minimum during hazardous operations.

6. Direct corrective actions to control the flow of gas.

7. Has full responsibility for igniting escaping gas to reduce the toxicity hazard.

   This should be used **ONLY AS A LAST RESORT**.

IV. EMERGENCY EQUIPMENT and MAINTENANCE

Emergency Equipment Suppliers

DXP/ Safety International – Odessa, Tx. 432.580.3770
H_2S monitors
Breathing air includes cascade systems
First aid and medical supplies
Safety equipment
H2S Specialist

Total Safety US Odessa, Tx/ Hobs, NM 432.561.5049 Odessa
H_2S monitors 575.392.2973 Hobbs
Breathing air includes cascade systems
First aid and medical supplies
Safety equipment

DXP/ Indian Fire & Safety – Hobbs, NM 575.393.3093
H_2S monitors
Breathing air including cascade systems trailer mounted
30 minute air packs
Safety Equipment

TC Safety – Odessa, Tx.
H_2S monitors 432.413.8240
Cascade systems trailer mounted
30 minute air packs
Safety Equipment
H2S Specialist

Secorp Industries – Odessa, Tx. 432.614.2565
H2S Monitor Systems
Cascade Systems
H2S Specialist
H2S, CPR, First Aid Training

Emergency Equipment and Maintenance (continued)

General Information

Materials used for repair should be suitable for use where H_2S concentrations exceed 100 ppm. In general, carbon steels having low-yield strengths and a hardness below RC-22 are suitable. The engineering staff should be consulted if any doubt exists on material specifications.

Appropriate signs should be maintained in good condition at location entrance and other locations as specified in Texas Rule 36 and NMOCD Rule 118.

All notification lists should be kept current with changes in names, telephone numbers, etc.

All shutdown devices, alarms, monitors, breathing air systems, etc., should be maintained in accordance with applicable regulations.

All personnel working in H_2S areas shall have received training on the hazards, characteristics, and properties of H_2S, and on procedures and safety equipment applicable for use in H_2S areas.

H2S Safety Equipment and Monitoring Systems

An H2S emergency response package will be maintained at locations requiring H2S monitoring. The package will contain at a minimum the following:

3 – Fixed H2S sensors located as follows:
- 1 – on the rig floor
- 1 – at the Bell Nipple
- 1 – at the Shale Shaker or Flowline

1 – Entrance Warning Sign located at the main entrance to the location, with warning signs and colored flags to determine the current status for entry into the location.

2 – Windsocks that are clearly visible.

1 – Audible warning system located on rig floor

2 – Visual warning systems (Beacon Lights)
- 1 – Located at the rig floor
- 1 – Located in the mud mixing room

Note: All alarms (audible and visual) should be set to alarm at 10 ppm.

2 - Briefing areas clearly marked
- 2 - SCBA's at each briefing area
- 1- SCBA located at the Drilling Reps office

Note:
1. **All SCBA's must be positive pressure type only!!!**
2. **All SCBA's must either be Scott or Drager brand.**
3. **All SCBA's face pieces should be size large, unless otherwise specified by the Drilling Supervisor.**

5 – Emergency Escape Paks located at Top Doghouse.
Note: Ensure provisions are included for any personnel working above rig floor in derrick.

1 – Tri or Quad gas monitor located at the Drilling Reps office. This will be used to determine if the work area if safe to re-enter prior to returning to work following any alarm.

V. EMERGENCY CALL LIST:

The following is a priority list of personnel to contact in an emergency situation:

Supervisory Personnel	Office No.		Cellphone
Drilling Supt. (Unconventional) **Scott Nicholson**	432.688.9065		432.230.8010
Field Superintendents: **Clint Case**.	432.688.6878		940.231.2839
Safety Support: **Matt Oster** **Ryan Vaccarella**	830.583.1245 985.217.7594		601.540.6988 NA
Supt Operations-SEMN/Shale Mike Neuschafer	432.688.6834		713.419.9919
MCBU Safety Coordinator **James Buzan**	432.688.6860		832.630.4320
Manger GCBU/MCBU D & C **Seth Crissman**	832.486.6191		832.513.9308

EMERGENCY CALL LIST: State Officials

Regulatory Agencies

Texas Railroad Commission (District 8) Office: 432.684.5581
Midland, Texas

New Mexico Oil Conservation Commission Office: 575.393.6161
P. O. Box 1980
Hobbs, New Mexico 88240-1980

Bureau of Land Mngt.
Carlsbad Field Office
620 E. Greene St.
Carlsbad, NM 88220

Office: 575.234.5972
Fax: 575.885.9264

EMERGENCY CALL LIST: Local Officials

Refer to the Location Information Sheet
Note: The LIS should include any area residents (i.e. rancher's house, etc)

VI. Public Media Relations

The **Public Information Officer** becomes the ConocoPhillips on-scene contact (once designated by the Phillips On-Scene Incident Commander).

Confers with Houston Office's Human Relations Representative, who is responsible for assisting in the coordination of local public relations duties.

Answer media questions honestly and **only with facts,** do not speculate about the cause, amount of damage, or the potential impact of the incident of the community, company, employees, or environment. (This information will be formally determined in the incident investigation.)

If you are comfortable answering a question or if you are unsure of the answer, use terms such as the following:

- "I do not know. I will try to find out."
- I am not qualified to answer that question, but I will try to find someone who can."
- "It is under investigation."

Note:
Do Not Say "No Comment." (This implies a cover-up.)

Do Not Disclose Names of Injured or Dead! Confer with the Houston Office's Human Relations Representative, who is responsible for providing that information.

VII. **Public Notification/Evacuation**

Alert and/or Evacuate People within the Exposure Area

1. Public Notification – If the escape of gas could result in a hazard to area residents, the general public, or employees, the person **first** observing the leak should take **immediate** steps to cause notification of any nearby residents. The avoidance of injury or loss of life should be of prime consideration and given top priority in all cases. If the incident is of such magnitude, or at such location as to create a hazardous situation, local authorities will be requested to assist in the evacuation and roadblocks of the designated area until the situation can be returned to normal.

   Note: Bilingual employees may be needed to assist in notification of residents.

2. Evacuation Procedures – Evacuation will proceed upwind from the source of the release of H_2S. Extreme caution should be exercised in order to avoid any depressions or low-lying areas in the terrain. The public area within the radius of exposure should be evacuated in a southwesterly and southeasterly direction so as to avoid the prevailing southern wind direction.

   Roadblocks and the staging area should be established as necessary for current wind conditions.

Note: In all situations, consideration should be given to wind direction and weather conditions. H_2S is heavier than air and can settle in low spots. Shifts in wind direction can also change the location of possible hazardous areas.

VIII. **FORMS & REPORTS**

I. Incident Log

II. Preliminary Emergency Information Sheet

III. Emergency Drill Report

IV. Onshore Hazardous Material Spill/Release Report Form

V. Immediate Report of Occupational Injury or Illness
Report of Accident-Public Contractor
Report of Loss or Damage to Company Property
Report of Automotive Incident

0 100 200

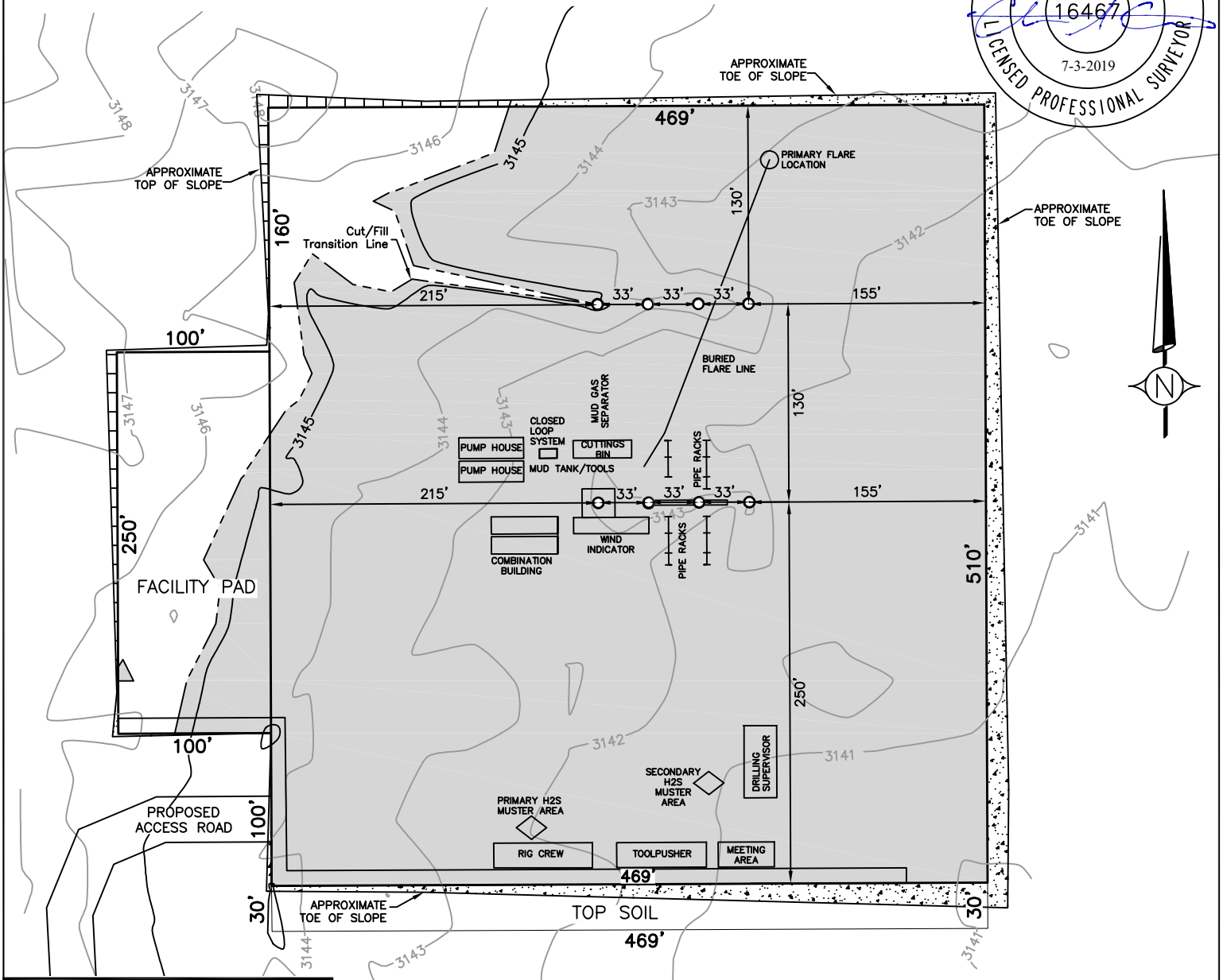
SECTION 20, T. 26 S., R. 32 E.
LEA COUNTY, NEW MEXICO

PROJECT BENCHMARK

1/2" IRON ROD WITH CAP
STAMPED "ROCKIN' CT" SET
N: 373,288.80
E: 733,506.82
ELEV: 3194.73'

CERTIFICATE
THE TOPOGRAPHIC INFORMATION DEPICTED HEREON WAS DEVELOPED USING PROCEDURES WHICH ENSURE COMPLIANCE WITH NATIONAL MAP ACCURACY STANDARDS FOR TOPOGRAPHIC SURVEYS AT A SCALE OF 1"=100' AND A CONTOUR INTERVAL OF 1'.

CHRISTIAN A CLAUSEN
NEW MEXICO
16467
7-3-2019
LICENSED PROFESSIONAL SURVEYOR



NOTES
1. ELEVATION DATA REPORTED HEREON IS NAVD88 BASED ON A GPS OBSERVATION AND CONNECTIONS TO THE NATIONAL CORS USING THE NGS OPUS UTILITY.
2. MINOR CONTOURS ARE 1' INTERVALS.
3. MAJOR CONTOURS ARE 5' INTERVALS.
4. COORDINATES AND DISTANCES ARE REFERENCED TO NAD83(2011) NEW MEXICO STATE PLANE, EAST ZONE 3001.
5. EARTHWORK CALCULATION REQUIRED A FILL AT SOME LOCATION STAKES FOR BALANCE. ALL FILL IS TO BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY OBTAINED BY AASHTO METHOD T-99
6. CUT/FILL SLOPE 3:1 TYPICAL

REV.	DATE	BY	DESCRIPTION	CHK.

PROJECT: 2019.003-ZHU 2032 BS 5H-8H, 13H-16H S20 T26S R32E

DRAWN BY: LM	DATE: 6/08/19
CHECKED BY: BG	DATE:
SCALE: 1"=100'	PAGE: 1 OF 1

ZHU 2032 BS
5H-8H, 13H-16H

ConocoPhillips Company

PREPARED BY:
ROCKIN' CT SURVEYING
500 West Kilpatrick
Cleburne, TX 76033
817.774.2800

SECTION 20, T. 26 S., R. 32 E.
LEA COUNTY, NEW MEXICO

TYPICAL RIG LAYOUT

ConocoPhillips MCBU - Permian-Panhandle Gold Data

Planning - NM East State Zone - 3001
ZIA HILLS 2032 BS 6H
ZIA HILLS 2032 BS 6H

ZIA HILLS 2032 BS 6H

Plan: ZIA HILLS 2032 BS 6H_WP1

Standard Planning Report

03 July, 2019

Database:	EDT 14 Central Planning	**Local Co-ordinate Reference:**	Site ZIA HILLS 2032 BS 6H
Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	**TVD Reference:**	RKB @ 3171.25ft
Project:	Planning - NM East State Zone - 3001	**MD Reference:**	RKB @ 3171.25ft
Site:	ZIA HILLS 2032 BS 6H	**North Reference:**	Grid
Well:	ZIA HILLS 2032 BS 6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ZIA HILLS 2032 BS 6H		
Design:	ZIA HILLS 2032 BS 6H_WP1		

Project Planning - NM East State Zone - 3001, Permian Basin - New Mexico - East/South East, Planning Project for Permian wells in NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site ZIA HILLS 2032 BS 6H

Site Position:		**Northing:**	374,495.793 usft	**Latitude:**	32° 1' 40.739 N
From:	Map	**Easting:**	698,661.627 usft	**Longitude:**	103° 41' 32.242 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.34 °

Well ZIA HILLS 2032 BS 6H

Well Position	**+N/-S**	0.00 ft	**Northing:**	374,495.793 usft	**Latitude:**	32° 1' 40.739 N
	+E/-W	0.00 ft	**Easting:**	698,661.627 usft	**Longitude:**	103° 41' 32.242 W
Position Uncertainty		2.00 ft	**Wellhead Elevation:**		**Ground Level:**	3,145.25 ft

Wellbore ZIA HILLS 2032 BS 6H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2018	2/25/2019	6.90	59.78	47,666.96099100

Design ZIA HILLS 2032 BS 6H_WP1

Audit Notes:				
Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	354.36

Plan Survey Tool Program **Date** 7/3/2019

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	1,200.00	ZIA HILLS 2032 BS 6H_WP1 (ZI	NS-GYRO-MS	
				North sensing gyrocompass	
2	1,200.00	17,568.73	ZIA HILLS 2032 BS 6H_WP1 (ZI	MWD+IFR1+MS_CoP	
				Fixed:v2:Eagleford, crustal	

Database:	EDT 14 Central Planning	**Local Co-ordinate Reference:**	Site ZIA HILLS 2032 BS 6H
Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	**TVD Reference:**	RKB @ 3171.25ft
Project:	Planning - NM East State Zone - 3001	**MD Reference:**	RKB @ 3171.25ft
Site:	ZIA HILLS 2032 BS 6H	**North Reference:**	Grid
Well:	ZIA HILLS 2032 BS 6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ZIA HILLS 2032 BS 6H		
Design:	ZIA HILLS 2032 BS 6H_WP1		

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,548.77	8.23	240.57	3,546.88	-19.34	-34.27	1.50	1.50	0.00	240.57	
8,078.61	8.23	240.57	8,030.05	-338.04	-599.11	0.00	0.00	0.00	0.00	
8,627.37	0.00	0.00	8,576.93	-357.38	-633.39	1.50	-1.50	0.00	180.00	
8,827.37	0.00	0.00	8,776.93	-357.38	-633.39	0.00	0.00	0.00	0.00	ZIA HILLS 20 FEDE
8,827.38	0.00	0.00	8,776.94	-357.38	-633.39	0.00	0.00	0.00	0.00	
9,952.38	90.00	358.94	9,493.14	358.70	-646.68	8.00	8.00	0.00	358.94	
17,568.86	90.00	358.94	9,493.14	7,973.86	-788.11	0.00	0.00	0.00	0.00	ZIA HILLS 20 FEDE

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,548.77	8.23	240.57	3,546.88	-19.34	-34.27	-15.87	1.50	1.50	0.00
8,078.61	8.23	240.57	8,030.05	-338.04	-599.11	-277.48	0.00	0.00	0.00
8,627.37	0.00	0.00	8,576.93	-357.38	-633.39	-293.35	1.50	-1.50	0.00
8,827.37	0.00	0.00	8,776.93	-357.38	-633.39	-293.35	0.00	0.00	0.00
8,827.38	0.00	0.00	8,776.94	-357.38	-633.39	-293.35	0.00	0.00	0.00
9,952.38	90.00	358.94	9,493.14	358.70	-646.68	420.56	8.00	8.00	0.00
17,568.86	90.00	358.94	9,493.14	7,973.86	-788.11	8,012.71	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
ZIA HILLS 20 FEDER - plan misses target center by 465.46ft at 5537.52ft MD (5515.15 TVD, -159.26 N, -282.26 E) - Point	0.00	0.00	5,448.69	-354.74	-699.42	374,141.065	697,962.243	32° 1' 37.269 N	103° 41' 40.391 W
ZIA HILLS 20 FEDER - plan hits target center - Point	0.00	0.00	8,776.93	-357.38	-633.39	374,138.432	698,028.271	32° 1' 37.240 N	103° 41' 39.624 W
ZIA HILLS 20 FEDER - plan misses target center by 51.91ft at 17568.86ft MD (9493.14 TVD, 7973.86 N, -788.11 E) - Point	0.00	0.00	9,493.13	7,975.05	-736.21	382,470.466	697,925.449	32° 2' 59.700 N	103° 41' 40.246 W
ZIA HILLS 20 FEDER - plan misses target center by 0.01ft at 17568.86ft MD (9493.14 TVD, 7973.86 N, -788.11 E) - Point	0.00	0.00	9,493.13	7,973.86	-788.11	382,469.269	697,873.555	32° 2' 59.691 N	103° 41' 40.849 W

Database:	EDT 14 Central Planning	**Local Co-ordinate Reference:**	Site ZIA HILLS 2032 BS 6H
Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	**TVD Reference:**	RKB @ 3171.25ft
Project:	Planning - NM East State Zone - 3001	**MD Reference:**	RKB @ 3171.25ft
Site:	ZIA HILLS 2032 BS 6H	**North Reference:**	Grid
Well:	ZIA HILLS 2032 BS 6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ZIA HILLS 2032 BS 6H		
Design:	ZIA HILLS 2032 BS 6H_WP1		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
1,060.00	1,060.00	9 5/8"	9-5/8	12-1/4
1,200.00	1,200.00	13 3/8"	13-3/8	17-1/2
17,574.00		5 1/2"	5-1/2	8-1/2

WELL PLAN SUMMARY

1280 Extended Reach Single Lateral

ConocoPhillips

Date: Jul 08, 2019
Version: 1
Prepared by: M. Callahan

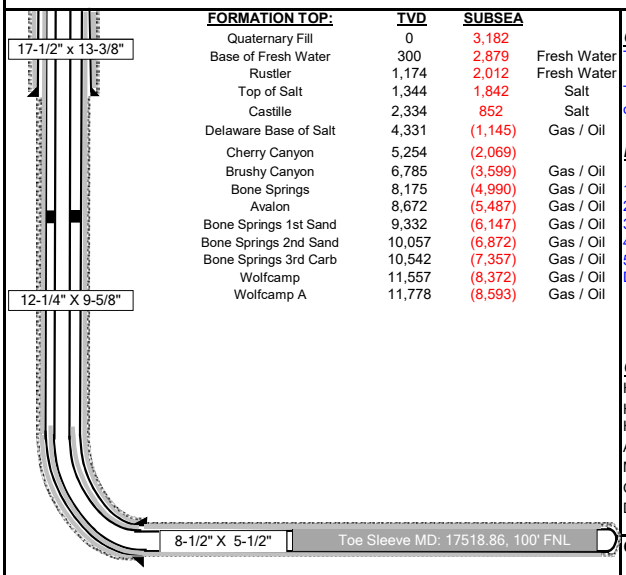
WELL: ZHU 2032 BS 6H
SURFACE LOC: Sec 20 T26S R32E — 2640' FSL — 1291' FEL
BH LOC: Sec 17 T26S R32E — 50' FNL — 2030' FEL

COUNTY,STATE: Lea, Co, NM
API No.:
TRRC Permit:
BLM Permit:

ELEVATIONS: GL 3,143.3' / KB +30.5'

WH Coord.: (NAD-27) LAT 32º 1' 40.74" N / LON 103º 41' 32.24" W

AFE: WAF.OND.
Drilling Network No.:
Invoice Handler ID: VENNECP
COST ESTIMATE
DRILLING
COMPLETION
FACILITIES
TOTAL



FORMATION TOP:	TVD	SUBSEA	
Quaternary Fill	0	3,182	
Base of Fresh Water	300	2,879	Fresh Water
Rustler	1,174	2,012	Fresh Water
Top of Salt	1,344	1,842	Salt
Castille	2,334	852	Salt
Delaware Base of Salt	4,331	(1,145)	Gas / Oil
Cherry Canyon	5,254	(2,069)	
Brushy Canyon	6,785	(3,599)	Gas / Oil
Bone Springs	8,175	(4,990)	Gas / Oil
Avalon	8,672	(5,487)	Gas / Oil
Bone Springs 1st Sand	9,332	(6,147)	Gas / Oil
Bone Springs 2nd Sand	10,057	(6,872)	Gas / Oil
Bone Springs 3rd Carb	10,542	(7,357)	Gas / Oil
Wolfcamp	11,557	(8,372)	Gas / Oil
Wolfcamp A	11,778	(8,593)	Gas / Oil
TARGET	17,569	9,493	Gas / Oil
Formation Dip Rate:	est 90.1° (up dip)		
PBTD	17,569	9,493	Gas / Oil

9 5/8 in. shoe 10052.38' MD 2998.7'FSL

Estimated BH Static Temperature (°F): 165
Max. Anticipated BH Pressure: 0.520 psi/ft — 4,936 psi — 10. ppg
Max Anticipated Surface Pressure: 1,515 psi

Objective

This well is to be drilled with safety and protection of the environment as the primary objectives.

The objective is to drill a 1280 single lateral well in the Bone Springs formation and completed with 5-1/2"cemented casing.

Notes

1.) Refer to drilling procedure for additional detail and information.
2.) The primary regulatory agency is the BLM.
3.) Surface: 2° max., 1°/ 100' DLS; svy every 500'
4.) Int: 90° max., 8°/ 100'; svy every 90' (svy every 30' in build and drop, 30' in curve)
5.) Losses to be expected in Cherry and Brushy Canyon formations. Overpressure may be encountered throughout Delaware.

Goals

Have no lost time or recordable accidents.
Have no spills or adverse environmental impact.
Have no stuck pipe incidents.
Avoid lost circulation incidents.
Maintain well control and follow ConocoPhillips well control policy.
Obtain good mud log data.
Deliver usable wellbore to production department.

CONTACTS

		Office	Cell
Drilling Engineer:	Mike Callahan	832-486-2480	907-231-2176
Geologist:	Josh Day	281-206-5620	423-512-0347
Onsite Drilling Rep.:	Greg Rivera	432-309-9007	
	Manny Castillo		
Field Drilling Supt.:	James Taylor	830-583-4828	956-229-1393
	Patrick Wellman		432-215-7079
Drilling Supt.:	Troy McGinn	832-486-2575	346-242-4551

DRILLING FLUID:

	Type	Interval (MD)	Density ppg	Vis sec/qt	PV cP	YP #/100ft2	pH	FL mL	LGS % by vol	NaCl ppb sol	Remarks
Surface:	Fresh Water	Surface - 1,224'	8.6	28-50	1-5	2-6	7.5-8.5	NC	< 5.0	10,000	Rig Tanks
Intermediate 1:	Brine	1224' - 10052'	9.5	28-50	1-5	2-6	7.5-8.5	NC	< 5.0	150,000	Rig Tanks
Production:	OBM	10052' - 17569'	10.5	50-70	18-25	8-14	9.5-10	< 8	< 8.0	400 - 00	Rig Tanks

Reference Drilling Fluids Program

CASING:

	Hole	TOP (MD)	BTM (MD)	Length	Size	Wt	Grade	Connection
Surface:	17-1/2"	31'	1,224'	1,193'	13 3/8	54.50	J-55	BTC
Intermediate	12-1/4"	31'	10,052'	10,022'	9 5/8	40.00	L80-IC	BTC
Production:	8-1/2"	31'	17,569'	17,538'	5 1/2	20.00	P-110 ICY	TXP

BOP:
Minimum - COP Class 3 Well Control Requirements
Rig - 13-5/8"x10M psi Rams / 4-1/16"x10M psi Manifold
Stackup - Rotating Head, Annular Preventer, Pipe Ram, Blind Ram, Mud Cross (Choke & Kill Valves), Pipe Ram
Waste Handling: Closed loop cuttings disposal system with haul off to approved facility.
Mud Pit: Float Based Electronic PVT with Flow Sensor and Gravity Trip Tank, Alarms +/- 10 BBLS
Wellhead: 13-5/8" x 10M psi (Casing Head - "A" Section)

CENTRALIZATION:
Surface Casing: 1 per 4 joints.
Intermediate Casing: Shoe joint. 1 per joint from FC to 7,800'. 1 per 2 joints 7,800' to 2,300'. 1 per 4 joints 2,300' to surface.
Production Liner: Rigid body 1 per 2 joints TD to Int Shoe. Bow Spring 1 per 2 joints Int shoe to 100' above KOP. 1 per 4 joints to surface

CEMENT:

	Hole	MD	TVD	Spacer	Lead	Tail	COMMENTS
Surface:	17-1/2"X13-3/8"	1,224'	1,224'	20 bbl FW	1000 sx Control Set 'C' + adds 11.5ppg 2.66 ft3/sk	660 sx Type 'III' + adds 13ppg 1.34 ft3/sk	Cemented to surface w/ 200%XS Add FiberBlock
Intermediate:	12-1/4"X9-5/8"	10,052'	9,493	40 bbl Invert Spacer + 100 bbl SW	310 sx WBL + adds 11.5ppg 1.77 ft3/sk	470 sx Thermal 35 + adds 15ppg 1.63 ft3/sk	TOC 500' into previous casing shoe w/ 70%L / 30%T XS calc'd on 12.25" Add FiberBlock
Production:	8-1/2"X5-1/2"	17,569'	9,493'	40 bbl Visweep	2080 sx 1:1:0 'Poz:Lafarge G' + 20% Silica Flour + 8% Silica Fume + adds 15.6 ppg 1.19ft3/sk		Cemented to TOL w/ 10% XS calc'd on 8.5" hole, Displ. = volume to float collar +/- half shoe track

Reference Cementing Recommendation

DIRECTIONAL PLAN:

Comments	MD (ft)	INC (deg)	AZI (deg)	TVD (ft)	NS (ft)	EW (ft)	DLS (º/100')	VS (ft)	SEC-T-R	Section Line Distance	
Build @ 1.5°/100'	3,000'	0	0	3,000'	0	0	0	0	Sec 20 T26S R32E	2640' FSL	1291' FEL
End Build @ 8°	3,549'	8	241	3,547'	-19	-34	1.5	-16	Sec 20 T26S R32E	2621' FSL	1325' FEL
Drop @ 1.5°/100'	8,079'	8	241	8,030'	-338	-599	0.0	-277	Sec 20 T26S R32E	2302' FSL	1890' FEL
Complete Drop, Hold to KOP	8,627'	0	0	8,577'	-357	-633	1.5	-293	Sec 20 T26S R32E	2283' FSL	1924' FEL
KOP Build @ 8°/100'	8,827'	0	0	8,777'	-357	-633	0	-293	Sec 20 T26S R32E	2283' FSL	1924' FEL
Curve LP	9,952'	90	359	9,493'	359	-647	8	421	Sec 20 T26S R32E	2999' FSL	1938' FEL
Toe Sleeve 2	17,469'	90	0	9,493'	8074	-788	0	7,913	Sec 17 T26S R32E	150' FNL	2030' FEL
Toe Sleeve 1	17,519'	90	0	9,493'	8024	-788	0	7,963	Sec 17 T26S R32E	100' FNL	2030' FEL
PBHL/TD	17,569'	90	359	9,493'	7974	-788	0	8,013	Sec 17 T26S R32E	50' FNL	2030' FEL

Reference Directional Plan — MWD Surveys will be taken at 90' interval below surface casing, 30' while building curve, and every 90' while drilling lateral.

FORMATION EVALUATION:
Mud Logging - One-Man: First surface hole to TD. First intermediate hole to TD
Mud Logging - Two-Man: Intermediate Casing Point to TD
Open Hole - PEX: None
Cased Hole - GR/CBL/USIT: NA
MWD - GR: 200' above KOP to TD

Correlation Well:

OUR WORK IS NEVER SO URGENT OR IMPORTANT THAT WE CANNOT TAKE THE TIME TO DO IT SAFELY!

APD ID: 10400043592 **Submission Date:** 07/17/2019

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

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

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS **Well Number:** 6H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

06/09/2020

APD ID: 10400043592

Submission Date: 07/17/2019

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2032 BS

Well Number: 6H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: ES0085

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-47304	98009	Zia Hills; Bone Spring Pool

[4] Property Code	[5] Property Name	[6] Well Number
328111	ZHU 2032 BS	6H

[7] OGRID No.	[8] Operator Name	[9] Elevation
217817	ConocoPhillips Company	3,143.3' (NAVD88)

[10] Surface Location

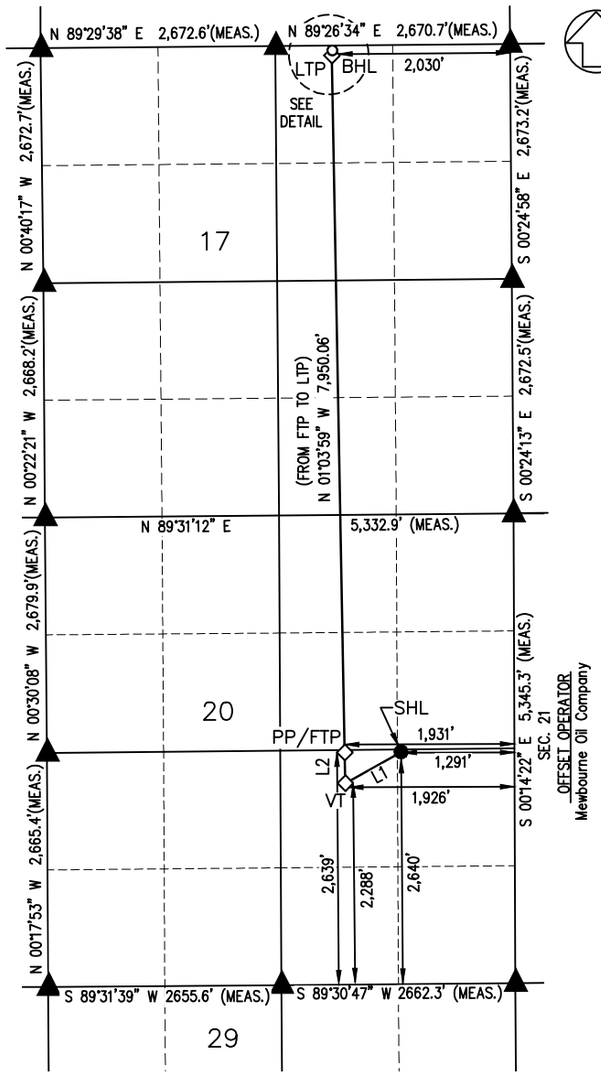
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	20	26 S	32 E		2,640'	SOUTH	1,291'	EAST	LEA COUNTY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	17	26 S	32 E		50'	NORTH	2,030'	EAST	LEA COUNTY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
240			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

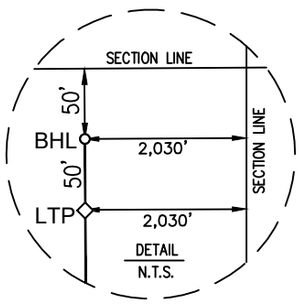


LINE TABLE		
LINE	BEARING	DISTANCE
L1	S 60°33'58" W	727.22'
L2	N 01°03'59" W	350.77'

LEGEND
● SHL ○ BHL
◇ TAKE POINT
▲ FOUND MONUMENT

0' 2000' 4000'

6H (SURFACE LOCATION)
2,640' FSL, 1,291' FEL (SEC. 20)
STATE PLANE NAD83(2011) (N.M. EAST) N(Y): 374,552.95' E(X): 739,848.76' LAT: 32°01'41.19" (32.028108°) LON: −103°41'33.94" (−103.692760°)
STATE PLANE NAD27 (N.M. EAST) N(Y): 374,495.79' E(X): 698,661.63' LAT: 32°01'40.74" (32.027983°) LON: −103°41'32.24" (−103.692289°)
6H (VERTICAL TARGET)
2,288' FSL, 1,926' FEL (SEC. 20)
STATE PLANE NAD83(2011) (N.M. EAST) N(Y): 374,195.58' E(X): 739,215.41' LAT: 32°01'37.69" (32.027136°) LON: −103°41'41.32" (−103.694811°)
STATE PLANE NAD27 (N.M. EAST) N(Y): 374,138.43' E(X): 698,028.27' LAT: 32°01'37.24" (32.027011°) LON: −103°41'39.62" (−103.694340°)
6H (PP/FTP)
2,639' FSL, 1,931' FEL (SEC. 20)
STATE PLANE NAD83(2011) (N.M. EAST) N(Y): 374,546.29' E(X): 739,208.88' LAT: 32°01'41.16" (32.028100°) LON: −103°41'41.37" (−103.694825°)
STATE PLANE NAD27 (N.M. EAST) N(Y): 374,489.14' E(X): 698,021.76' LAT: 32°01'40.71" (32.027975°) LON: −103°41'39.68" (−103.694354°)
6H (LAST TAKE POINT)
100' FNL, 2,030' FEL (SEC. 17)
STATE PLANE NAD83(2011) (N.M. EAST) N(Y): 382,494.97' E(X): 739,060.94' LAT: 32°02'59.83" (32.049952°) LON: −103°41'42.54" (−103.695151°)
STATE PLANE NAD27 (N.M. EAST) N(Y): 382,437.63' E(X): 697,874.14' LAT: 32°02'59.38" (32.049827°) LON: −103°41'40.84" (−103.694679°)
6H (BOTTOM HOLE LOCATION)
50' FNL, 2,030' FEL (SEC. 17)
STATE PLANE NAD83(2011) (N.M. EAST) N(Y): 382,544.97' E(X): 739,060.01' LAT: 32°03'00.32" (32.050090°) LON: −103°41'42.55" (−103.695153°)
STATE PLANE NAD27 (N.M. EAST) N(Y): 382,487.62' E(X): 697,873.21' LAT: 32°02'59.87" (32.049965°) LON: −103°41'40.85" (−103.694681°)



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 7/8/19 Date

Jeremy Lee
Printed Name

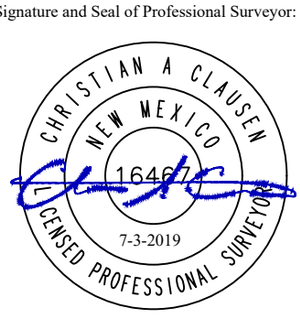
Jeremy.L.Lee@cop.com
E-mail Address

Infill Horizontal Well

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey 04-14-2019
Signature and Seal of Professional Surveyor:



Certificate Number

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

OCD – HOBBS
06/09/2020
RECEIVED

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

☒ Original
☐ Amended
Reason for Amendment:

Operator & OGRID No.: ConocoPhillips Company/ 217817
Date: 6/19/19

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
ZHU 2032 BS 5H, 6H, 7H, 8H	Pending	Sec. 20, T26S, 32E	Various		Flared	Flaring is expected to be sporadic
#006H	**30-025-47304**					

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Enterprise and will be connected to Enterprise low/high pressure gathering system located in Lea County, New Mexico. It will require 568' of pipeline to connect the facility to low/high pressure gathering system. Conocophillips provides (periodically) to Enterprise a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Enterprise and Conocophillips have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Enterprise Processing Plant located in Oral, Texas Reeves County, Texas. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines