ATS-11-892

Form 3160-3
(August 2007)

HOBBS OCD
MAR 22 2012
RECEIVED

OCD-HOBBS

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NM27508

6. If Indian, Allotee or Tribe Name:

1a. Type of work: [X] DRILL [ ] REENTER

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

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

8. Lease Name and Well No. <39134>: Wilder Federal 28 3H

2. Name of Operator: ConocoPhillips Company <217817>

9. API Well No.: 30-025-40501

3a. Address: 3300 N "A" St, Bldg 6 Midland, TX 79705

3b. Phone No. *(include area code)*: (432)688-6913

10. Field and Pool, or Exploratory: WC 025 G-05 S263208P; ~~Red Hills;~~ Bone Springs ; Upper Shale

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: UL C, Sec 28, T 26S, 32E, 224 FNL 1544 FWL

At proposed prod. zone: UL N, Sec 28, T 26S, 32E, 330 FSL 1544 FWL

11. Sec., T. R. M. or Blk. and Survey or Area: Sec 28, T 26S, R 32E

14. Distance in miles and direction from nearest town or post office*: 19 miles north east of Orla, TX

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): 330 FSL

16. No. of acres in lease: 640

17. Spacing Unit dedicated to this well: 80

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1214' east of Wilder 28 #4H

19. Proposed Depth: 13475' MD 9358' TVD

20. BLM/BIA Bond No. on file: ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3168' GR

22. Approximate date work will start*: 06/09/2012

23. Estimated duration: 44 days

24. Attachments

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

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

25. Signature: B. Dai — Name *(Printed/Typed)*: Brian D Maiorino — Date: 12/02/2011

Title: Regulatory Specialist

Approved by *(Signature)*: /s/ James A. Amos — Name *(Printed/Typed)*: — Date: MAR 2 1 2012

Title: FIELD MANAGER — Office: CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Kz 03/23/12

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

MAR 26 2012

OPERATORS NAME:	**ConocoPhillips Company**
LEASE NAME AND WELL NO.:	**Wilder Federal 28 #3H**
SURFACE LOCATION:	**224 FNL & 1544 FWL**
BHL:	**330 FSL & 1544 FWL**
FIELD NAME:	**Red Hills**
POOL NAME:	**Bone Spring**
COUNTY:	**Lea County, New Mexico**

The following information is to supplement the Application for Permit to Drill.

DRILLING PLAN

1. Name and estimated tops of all geologic groups, formations, members, or zones.

Quaternary	Surface	Water
Rustler	780	Salt
Castile	2498	Salt
Delaware Top	4417	Oil/gas/water
Ramsey	4373	Oil/gas/water
Ford Sand	4443	Oil/gas/water
Olds	4448	Oil/gas/water
Cherry Canyon Lower Top	6545	Oil/gas/water
Bone Spring	8334	Oil/gas/water
Bone Spring 1st carbonate top	8558	Oil/gas/water
Bone Spring 1st carbonate base	8630	Oil/gas/water
KOP	8550	
Avalon A shale Top	8816	Oil/gas/water
Avalon A shale base	8998	Oil/gas/water
Avalon B zone top	8998	Oil/gas/water
Avalon B zone base	9194	Oil/gas/water
Avalon C shale top	9194	Oil/gas/water Oil/gas/water
Avalon C Shale Base	9458	Oil/gas/water

2. Estimated depths and thickness of formations, members or zones potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals that the operator expects to encounter, and the operator's plans for protecting such resources.

Quanternary	780 (water)
Rustler	2498 (Salt)
Castile	4417 (Salt)

All of the water bearing and salt formations identified above will be protected by the intermediate setting of the 9-5/8" casing and circulating of cement to surface

Bone Spring	8558-9458 (gas & gas/oil)

The geologic tops identified above from the Bone Spring/Avalon are part of the target formation.

3. The operator's minimum specifications for blowout prevention equipment and diverter systems to be used, including size, pressure rating, configuration, and the testing procedure and frequency.

A 5000# system will be installed, used, maintained, and tested accordingly. After nippling up, and every 30 days thereafter, preventors will be pressure tested. BOP will be inspected and operated at least daily to insure good working order. All pressure and operating tests will be recorded on the daily drilling reports. Ram Type preventors will be tested to rated working pressure. Annular type preventer(s) shall be tested to 50% of the approved BOP stack working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer. ConocoPhillips Company request a variance to the testing as follows: The 13 3/8 surface casing will be set at a depth of 850' and a Wood Group Pressure Control SH2 type wellhead will be installed on the 13 3/8" casing string. The SH2 type wellhead is a "multi-bowl" type wellhead system that allows the landing of multiple casing strings without having to remove the BOP to install additional wellhead components. This specific wellhead design consists of a 13 3/8" SOW x 13 5/8" 3M psi lower flange assembly with a 13 5/8" x 5M psi upper flange assembly. For the initial installation on the 13 3/8" surface casing, the maximum pressure application to the wellhead system is limited by the 3M psi flange rating. Once installed, the 3M psi wellhead flange will be isolated and all subsequent BOPe pressure testing can be performed to 5000 psi, consistent with the requirements of a 5M system as set forth in Onshore Order No. 2 and the APD Conditions of Approval. The SH2 wellhead schematic and proposed BOPe configuration is attached for reference. COP also request approval for use of one flex hose on the drilling rig. **See Attached BOPe Schematic and Testing Information and hose specifications.**

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition. For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

NEW CASING:

Surface: 17 1/2" hole, 13 3/8" 54.5# J-55 STC csg, set @ 850'. Drill out with 12 ¼" bit and perform shoe test to 11.0 ppg MWE.
Burst: 2.67/Collapse: 4.92/Tension: 2.57

Inter 1: 12 1/4" hole, 9 5/8" 40# L-80 BTC csg, set @ ~~4500~~'
Burst: 2.88/Collapse: 2.62/Tension: 4.74

Production Lateral: 8-3/4" hole, 5 ½" 17# P-110 BTC csg set @ 13,745' MD 9358' TVD. Burst 2.17/Collapse 5.32/Tension 2.84

Casing Sring	Settig Depth TVD	OD"	Wt lb/ft	Grade	Conn	MIY (psi)	Collapse (psi)	Jt Str (Klbs)	MASP	Burst DF	Collapse DF	Axial DF
Surface	850	13-3/8	54.5	J-55	STC	2730	1130	514	1024	2.67	4.92	2.57
Intermdiate	~~4400~~ 4350	9-5/8	40.0	L-80	BTC	5750	3090	947	1995	2.88	2.62	4.74
Production	9235	5-1/2	17.0	P-110	BTC	10640	7840	568	-	2.17	5.32	2.84

See COA

The Plan is to set casing and drill in a southern direction to a proposed bottom hole location of 330 FSL 1544 FWL Unit letter "N" Section 28, T 26S, 32E

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

a. 13-3/8" Csg: lead w/870 sx Class C cement + HalCem-C (Yeild: 1.33 cft) Tail w/230 sx Class C cement + 1 lbm/sk EconoChem-HRLTRRC (Yield 1.85 cft/sk) Circulate to surface. Based on 17-1/2" OH, with 200% excess
b. 9-5/8" Csg: lead w/1200 sx 50/50 Class C Poz + 2.5 gal/bbl WG-19 + 1 lbm/sk EconoCem-C (Yield: 2.48 cft/sk) Tail w/270 sx 'H' + HalCem C (Yield 1.33 cft/sk) Circulate to surface. Based on 12.25" hole with 150% excess
c. 5-1/2" Csg lead w/1180 sx HLH+ 0.3% Halad-9 + 5lbs/sk silicalite + 0.3% HR- 800 (Yield: 2.00 cft/sk) Tail w/805 sx 'H' + 0.4% Halad-9 + 0.1% WG-17 + 3.0% KCL + 0.3% HR-800 (Yield 1.2 cft/sk) circulate cement 500' into 9-5/8" casing. Based on 8-3/4" Hole w/150% excess

6. The anticipated type and characteristics of the proposed circulating medium or mediums proposed for the drilling of each wellbore section, the quantities and types of mud and weighting material to be maintained, and the monitoring equipment to be used on the circulating system.

Mud Program:

0-850'	Aquagel/Spudmud	8.9#	Vis 32-36 WL: NC
850-4500'	Brine	10.1#	Vis 28-30 WL: 5-8
4500-13,720' 4350	Cut Brine	9.2-9.3#	Vis 30-40 WL: <=5

Gas detection equipment and pit level flow monitoring equipment will be on location. ConocoPhillips Company will maintain sufficient mud and weighted material on location at all times.

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

See COA
a. DST Program: None
b. Mud Logging: Two-Man – 2800'-TD' Vertical and Horizontal Lateral
Logs to be run: GR-MWD 13720'-8550'

8. List the expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of the BLM.

The expected pressure gradient is 0.433 psi/ft or 9.0-9.1 ppg equivalent
.The average anticipated bottom hole pressure ranges on average 4360 psi.

See COA
No hydrogen sulfide is expected to be encountered during drilling operations; however, the potential does exist for H2S. Please see attached H2S contingency plan to be used in the event of occurrence.

Any other facets of the proposed operation which the operator wishes to be considered in reviewing the application.

Anticipated Spud date of July 23, 2012. Construction of well pad and road will begin as soon as all agency approvals are obtained.

9. Address the proposed directional design, plan view, and vertical section in true vertical and measured depth for directional, horizontal, or coil tubing operations.

The proposed directional/horizontal documents are attached.

ConocoPhillips MCBU

Permian Hz Bonespring/Avalon
Wilder Federal 28
Wilder Federal 28 #3H

Wilder Federal 28 #3H

Plan: Plan BLM

Standard Planning Report

22 November, 2011

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Well Wilder Federal 28 #3H
Company:	ConocoPhillips MCBU	**TVD Reference:**	Do Not Use @ 3156.0ft (Original Well Elev)
Project:	Permian Hz Bonespring/Avalon	**MD Reference:**	Do Not Use @ 3156.0ft (Original Well Elev)
Site:	Wilder Federal 28	**North Reference:**	True
Well:	Wilder Federal 28 #3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wilder Federal 28 #3H		
Design:	Plan BLM		

Project Permian Hz Bonespring/Avalon

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas South Central 4204		

Site Wilder Federal 28

Site Position:		**Northing:**	m	**Latitude:**	
From:	None	**Easting:**	m	**Longitude:**	
Position Uncertainty:	0.0 ft	**Slot Radius:**	in	**Grid Convergence:**	0.00 °

Well Wilder Federal 28 #3H

Well Position	**+N/-S**	0.0 ft	**Northing:**	0.00 m	**Latitude:**	27° 41' 16.664 N
	+E/-W	0.0 ft	**Easting:**	0.00 m	**Longitude:**	105° 10' 51.259 W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,138.0 ft

Wellbore Wilder Federal 28 #3H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2011	9/19/2011	7.90	55.40	45,583

Design Plan BLM

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	180.00

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,650.0	0.00	180.00	8,650.0	0.0	0.0	0.00	0.00	0.00	180.00	
9,753.0	90.00	180.00	9,352.2	-702.2	0.0	8.16	8.16	0.00	180.00	
13,745.0	89.83	180.00	9,358.1	-4,694.2	0.0	0.00	0.00	0.00	-180.00	

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Well Wilder Federal 28 #3H
Company:	ConocoPhillips MCBU	**TVD Reference:**	Do Not Use @ 3156.0ft (Original Well Elev)
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Site:	Wilder Federal 28	**North Reference:**	True
Well:	Wilder Federal 28 #3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wilder Federal 28 #3H		
Design:	Plan BLM		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	180.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	180.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	180.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	180.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	180.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	180.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	180.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	180.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	180.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	180.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	180.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	180.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	180.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	180.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	180.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	180.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	180.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	180.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	180.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	180.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	180.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	180.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	180.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	180.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	180.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	180.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	180.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	180.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	180.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	180.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	180.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	180.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	180.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	180.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	180.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	180.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	180.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	180.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	180.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	180.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	180.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	180.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	180.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	180.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	180.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	180.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	180.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	180.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	180.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	180.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	180.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	180.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	180.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Well Wilder Federal 28 #3H
Company:	ConocoPhillips MCBU	**TVD Reference:**	Do Not Use @ 3156.0ft (Original Well Elev)
Project:	Permian Hz Bonespring/Avalon	**MD Reference:**	Do Not Use @ 3156.0ft (Original Well Elev)
Site:	Wilder Federal 28	**North Reference:**	True
Well:	Wilder Federal 28 #3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wilder Federal 28 #3H		
Design:	Plan BLM		

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)
5,400.0	0.00	180.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	180.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	180.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	180.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	180.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	180.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	180.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	180.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	180.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	180.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	180.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	180.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	180.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	180.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	180.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	180.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	180.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	180.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	180.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	180.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	180.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	180.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	180.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	180.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	180.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	180.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	180.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	180.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	180.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	180.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	180.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	180.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	180.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,650.0	0.00	180.00	8,650.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	4.08	180.00	8,700.0	-1.8	0.0	1.8	8.16	8.16	0.00
8,800.0	12.24	180.00	8,798.9	-16.0	0.0	16.0	8.16	8.16	0.00
8,900.0	20.40	180.00	8,894.8	-44.0	0.0	44.0	8.16	8.16	0.00
9,000.0	28.56	180.00	8,985.7	-85.4	0.0	85.4	8.16	8.16	0.00
9,100.0	36.72	180.00	9,069.8	-139.3	0.0	139.3	8.16	8.16	0.00
9,200.0	44.88	180.00	9,145.5	-204.6	0.0	204.6	8.16	8.16	0.00
9,300.0	53.04	180.00	9,211.1	-280.0	0.0	280.0	8.16	8.16	0.00
9,400.0	61.20	180.00	9,265.3	-363.9	0.0	363.9	8.16	8.16	0.00
9,500.0	69.36	180.00	9,307.1	-454.6	0.0	454.6	8.16	8.16	0.00
9,600.0	77.52	180.00	9,335.6	-550.4	0.0	550.4	8.16	8.16	0.00
9,700.0	85.68	180.00	9,350.2	-649.3	0.0	649.3	8.16	8.16	0.00
9,753.0	90.00	180.00	9,352.2	-702.2	0.0	702.2	8.16	8.16	0.00
9,800.0	90.00	180.00	9,352.2	-749.2	0.0	749.2	0.00	0.00	0.00
9,900.0	89.99	180.00	9,352.2	-849.2	0.0	849.2	0.00	0.00	0.00
10,000.0	89.99	180.00	9,352.2	-949.2	0.0	949.2	0.00	0.00	0.00
10,100.0	89.99	180.00	9,352.2	-1,049.2	0.0	1,049.2	0.00	0.00	0.00
10,200.0	89.98	180.00	9,352.3	-1,149.2	0.0	1,149.2	0.00	0.00	0.00
10,300.0	89.98	180.00	9,352.3	-1,249.2	0.0	1,249.2	0.00	0.00	0.00
10,400.0	89.97	180.00	9,352.3	-1,349.2	0.0	1,349.2	0.00	0.00	0.00

Database:	EDM Central Planning	**Local Co-ordinate Reference:**	Well Wilder Federal 28 #3H
Company:	ConocoPhillips MCBU	**TVD Reference:**	Do Not Use @ 3156.0ft (Original Well Elev)
Project:	Permian Hz Bonespring/Avalon	**MD Reference:**	Do Not Use @ 3156.0ft (Original Well Elev)
Site:	Wilder Federal 28	**North Reference:**	True
Well:	Wilder Federal 28 #3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wilder Federal 28 #3H		
Design:	Plan BLM		

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)
10,500.0	89.97	180.00	9,352.4	-1,449.2	0.0	1,449.2	0.00	0.00	0.00
10,600.0	89.96	180.00	9,352.5	-1,549.2	0.0	1,549.2	0.00	0.00	0.00
10,700.0	89.96	180.00	9,352.5	-1,649.2	0.0	1,649.2	0.00	0.00	0.00
10,800.0	89.96	180.00	9,352.6	-1,749.2	0.0	1,749.2	0.00	0.00	0.00
10,900.0	89.95	180.00	9,352.7	-1,849.2	0.0	1,849.2	0.00	0.00	0.00
11,000.0	89.95	180.00	9,352.8	-1,949.2	0.0	1,949.2	0.00	0.00	0.00
11,100.0	89.94	180.00	9,352.9	-2,049.2	0.0	2,049.2	0.00	0.00	0.00
11,200.0	89.94	180.00	9,353.0	-2,149.2	0.0	2,149.2	0.00	0.00	0.00
11,300.0	89.93	180.00	9,353.1	-2,249.2	0.0	2,249.2	0.00	0.00	0.00
11,400.0	89.93	180.00	9,353.2	-2,349.2	0.0	2,349.2	0.00	0.00	0.00
11,500.0	89.93	180.00	9,353.3	-2,449.2	0.0	2,449.2	0.00	0.00	0.00
11,600.0	89.92	180.00	9,353.5	-2,549.2	0.0	2,549.2	0.00	0.00	0.00
11,700.0	89.92	180.00	9,353.6	-2,649.2	0.0	2,649.2	0.00	0.00	0.00
11,800.0	89.91	180.00	9,353.7	-2,749.2	0.0	2,749.2	0.00	0.00	0.00
11,900.0	89.91	180.00	9,353.9	-2,849.2	0.0	2,849.2	0.00	0.00	0.00
12,000.0	89.90	180.00	9,354.1	-2,949.2	0.0	2,949.2	0.00	0.00	0.00
12,100.0	89.90	180.00	9,354.2	-3,049.2	0.0	3,049.2	0.00	0.00	0.00
12,200.0	89.90	180.00	9,354.4	-3,149.2	0.0	3,149.2	0.00	0.00	0.00
12,300.0	89.89	180.00	9,354.6	-3,249.2	0.0	3,249.2	0.00	0.00	0.00
12,400.0	89.89	180.00	9,354.8	-3,349.2	0.0	3,349.2	0.00	0.00	0.00
12,500.0	89.88	180.00	9,355.0	-3,449.2	0.0	3,449.2	0.00	0.00	0.00
12,600.0	89.88	180.00	9,355.2	-3,549.2	0.0	3,549.2	0.00	0.00	0.00
12,700.0	89.87	180.00	9,355.4	-3,649.2	0.0	3,649.2	0.00	0.00	0.00
12,800.0	89.87	180.00	9,355.6	-3,749.2	0.0	3,749.2	0.00	0.00	0.00
12,900.0	89.87	180.00	9,355.9	-3,849.2	0.0	3,849.2	0.00	0.00	0.00
13,000.0	89.86	180.00	9,356.1	-3,949.2	0.0	3,949.2	0.00	0.00	0.00
13,100.0	89.86	180.00	9,356.4	-4,049.2	0.0	4,049.2	0.00	0.00	0.00
13,200.0	89.85	180.00	9,356.6	-4,149.2	0.0	4,149.2	0.00	0.00	0.00
13,300.0	89.85	180.00	9,356.9	-4,249.2	0.0	4,249.2	0.00	0.00	0.00
13,400.0	89.84	180.00	9,357.1	-4,349.2	0.0	4,349.2	0.00	0.00	0.00
13,500.0	89.84	180.00	9,357.4	-4,449.2	0.0	4,449.2	0.00	0.00	0.00
13,600.0	89.84	180.00	9,357.7	-4,549.2	0.0	4,549.2	0.00	0.00	0.00
13,700.0	89.83	180.00	9,358.0	-4,649.2	0.0	4,649.2	0.00	0.00	0.00
13,745.0	89.83	180.00	9,358.1	-4,694.2	0.0	4,694.2	0.00	0.00	0.00

DRILLING PLAN

PROSPECT/FIELD	Bonespring/Red Hills			COUNTY/STATE		Lea County, NM
OWNERS	BURLINGTON RESOURCES		LEASE			
WELL NO.	*Buck Federal 20 #3H*	FNL	FSL	FEL	FWL	
LOCATION	Surface Location	224			1544	
	Bottom Hole Location		330		1544	
EST. T.D.	Leg #1 13,745' MD			GROUND ELEV.		3,160' (est)
					RKB	3183'

PROGNOSIS: Based on 3,160' KB(est)

Marker	TVD	S.S. Depth
Quaternary	Surface	
Rustler	780	2,380
Castile	2498	685
Delaware Top	4,292	-1,109
Ramsey	4373	-1230
Ford Sand	4443	-1260
Olds	4448	-1265
Cherry Canyon Lower Top	6545	-3362
Bone Spring	8,334	-5,174
Bone Spring 1st Carbonate Top	8,558	-5,398
Bone Spring 1st Carbonate Base	8,630	-5,470
Avalon A Shale Top	8,816	-5,656
Avalon A Shale Base	8,998	-5,838
Avalon B Zone Top	8,998	-5,838
Avalon B Zone Base	9,194	-6,034
Avalon C Shale Top	9,194	-6,034
Avalon C Shale Base (Should not penetrate	9,458	-6,298

LOGS:

Type	Interval
Open Hole.	
GR-MWD	13745- 8,550'

DEVIATION:

Surf	3° max., svy every 500'
Int1/2	3° max., svy every 90'
Prod	

DST'S:

CORES. No core

SAMPLES:

Mudlogging	Start	End	
Two-Man	2,800'	TD	Vertical and Horizontal sections

BOP: COP Category 3 Well Control Requirements

Nabors Rig M-09 BOPE (With Rotating Head)
- 13-5/8"-5Mpsi Annular (Hydril GK)
- 13-5/8"-5Mpsi Blind Ram (Cameron U)
- 13-5/8"-5Mpsi Cross / Choke & Kill Lines
- 13-5/8"-5M psi Pipe Ram (Cameron U)
- *13-5/8"-5Mpsi Spacer Spool*

Dip Rate (See inclination prediction)

Max. Anticipated BHP: 0.65 psi/ft **Surface Formation:**

MUD:	Interval	Type	Max MW	Vis	WL	Remarks
Surface	0'-850'	Aquagel - Spud Mud	8.9	32-36	NC	
Intermediate 1	850'-4500'	Brine	10.1	28-30	5-8	
Production	4500'-13745'	Cut Brine	10	30-40	<=5	

CASING:	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface	13-3/8"	54.5	17-1/2	850'	To Surface	18hrs	
Intermediate 1	9-5/8"	40	12-1/4"	4,500'	To Surface	18hrs	
Production Lat #1.	5-1/2"	17	8-3/4"	13,745'	500' into intermediate	18hrs	Long String

DIRECTIONAL PLAN

	MD	TVD	AZ		
Surface	N/A	N/A	180	Directional Company	DDC
Vertical KOP	8,550'	8,500'	180.0	Vertical Build Rate.	8.8 °/100'
End Build/ 7"Casing (90° curve)	9,753'	9,352'	180.0	Tan Leg Turn Rate	0.0 °/100'
Tangent	N/A	N/A	180.0		
Turn	N/A	N/A	180.0		
TD	13,745'	9,358'	180.0		

Comments:
Surveys will be taken at 90' interval below surface casing while drilling with PDC / Motor / MWD

Prep By:	Luis Serrano	Date:	11/22/11	Doc:	REV 0

Buck Federal 20 #3H

Surface Location:		Bottom Hole Location	
0	0	330	0

SAP Network:	TBA
Inv Handler ID:	TBA
Drilling	TBA
Completion/Facility	$0
Total	

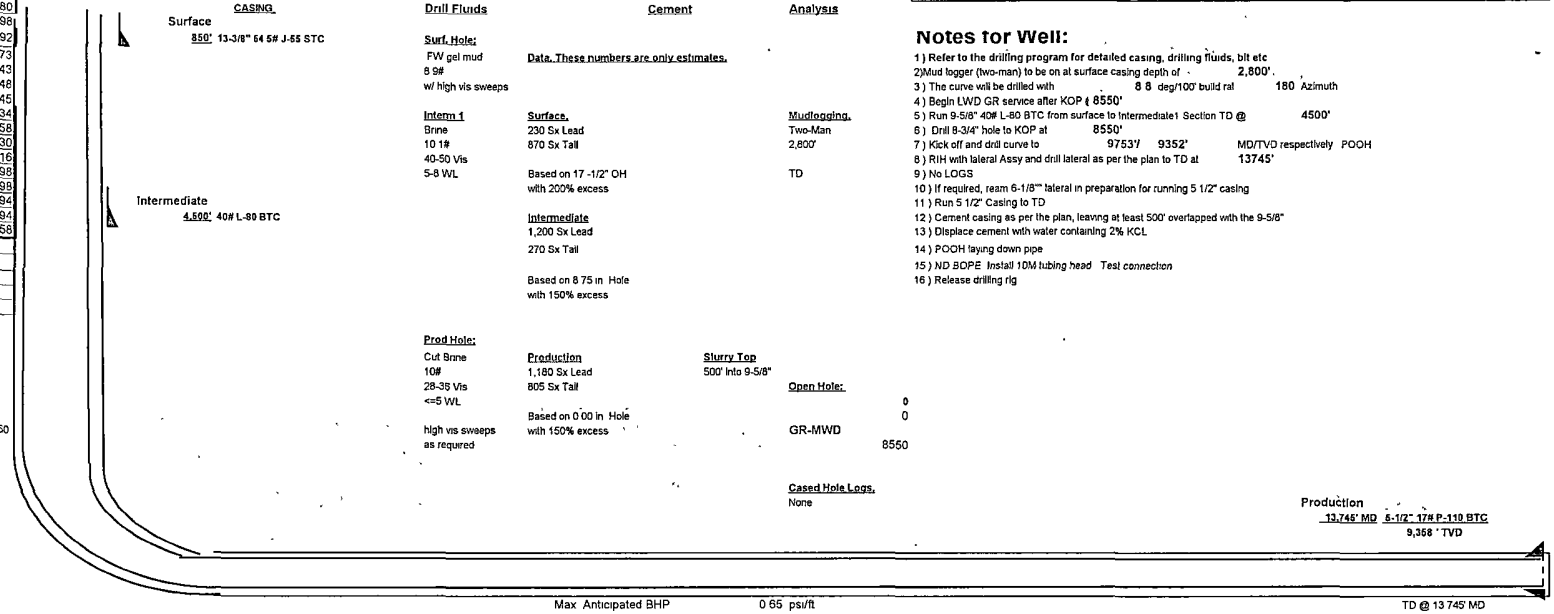
Permit:	
NDIC #	TBA
API #	TBA
Fed #	TBA
AFE#	TBA

Directional

	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI
Vertical KOP	8550	8500	0	0	0	180
End Build/ 7"Casing (90° curve)	9,753'	9,352'	0	0	0	180 0
Tangent	N/A	N/A	0	0	0	180 0
Turn	N/A	N/A	0	0	0	180 0
TD	13 745'	9 358'	0	0	0	180 0

Formation	TVD
Quaternary	Surface
Rustler	780
Castile	2498
Delaware Top	4292
Ramsey	4373
Ford Sand	4443
Olds	4448
Cherry Canyon Lower Top	6545
Bone Spring	8334
Bone Spring 1st Carbonate Top	8556
Bone Spring 1st Carbonate Base	8630
Avalon A Shale Top	8816
Avalon A Shale Base	8998
Avalon B Zone Top	8998
Avalon B Zone Base	9194
Avalon C Shale Top	9194
Avalon C Shale Base (Should not penetrate)	9458

KOP (8 8°/100') 8,550



CASING

Surface
850' 13-3/8" 54 5# J-55 STC

Intermediate
4,500' 40# L-80 BTC

Drill Fluids

Surf. Hole:
FW gel mud
8 9#
w/ high vis sweeps

Interm 1
Brine
10 1#
40-50 Vis
5-8 WL

Prod Hole:
Cut Brine
10#
28-36 Vis
<=5 WL

high vis sweeps
as required

Cement

Data. These numbers are only estimates.

Surface.
230 Sx Lead
870 Sx Tail

Based on 17 -1/2" OH
with 200% excess

Intermediate
1,200 Sx Lead
270 Sx Tail

Based on 8 75 in Hole
with 150% excess

Production
1,180 Sx Lead
805 Sx Tail

Based on 0 00 in Hole
with 150% excess

Slurry Top
500' Into 9-5/8"

Analysis

Mudlogging.
Two-Man
2,800'

TD

Open Hole:
0
0
GR-MWD
8550

Cased Hole Logs.
None

Notes for Well:

1) **Refer to the drilling program for detailed casing, drilling fluids, bit etc**
2)Mud logger (two-man) to be on at surface casing depth of 2,800'.
3) The curve will be drilled with 8 8 deg/100' build rat 180 Azimuth
4) Begin LWD GR service after KOP @ 8550'
5) Run 9-5/8" 40# L-80 BTC from surface to Intermediate1 Section TD @ 4500'
6) Drill 8-3/4" hole to KOP at 8550'
7) Kick off and drill curve to 9753' 9352' MD/TVD respectively POOH
8) RIH with lateral Assy and drill lateral as per the plan to TD at 13745'
9) No LOGS
10) If required, ream 6-1/8"" lateral in preparation for running 5 1/2" casing
11) Run 5 1/2" Casing to TD
12) Cement casing as per the plan, leaving at least 500' overlapped with the 9-5/8"
13) Displace cement with water containing 2% KCL
14) POOH laying down pipe
15) *ND BOPE Install 10M tubing head Test connection*
16) Release drilling rig

Max Anticipated BHP 0 65 psi/ft

Vick Harvey
Geologist
Date

Luis Serrano
Drilling Engineer
Date

Bonespring/Red Hills
BURLINGTON RESOURCES
Buck Federal 20 #3H

0

Surface Casing:	
Surface Casing Depth (Ft)	850
Surface Casing O.D. (In.)	13.375
Surface Casing ID (In)	12.715
Hole O.D. (In)	17.5
Excess (%)	200%
Volume Tail (Sx)	230
Yield Tail (Cu. Ft./Sx)	1.85
Yield Lead (Cu. Ft./Sx)	1.33
Shoe Joint (Ft)	40
Shoe Volume (Cu. Ft)	35.3
Tail feet of cement	300
Calculated Total Volume (Cu. Ft.)	1,598
Calc. Tail Volume (Cu. Ft.)	417
Calc. Lead Volume (Cu. Ft.)	1,146
Calc. Lead Volume (Sx)	870

Intermediate1 Casing (Lead):	
Intermediate Casing O.D. (In.)	9.625
Intermediate Casing ID (In)	8.835
Hole O.D. (In)	12.25
Excess (%)	150%
cap 12-1/4 - 9-5/8"	0.0558
Calculated fill:	3,800'
Yield Lead (Cu. Ft./Sx)	2.48
Calculated Total Lead (Cu. Ft.)	2,975
Calc. Lead Volume (Sx)	1200

Intermediate1 Casing (Tail):			
Intermediate Casing O.D. (In.)	9-5/8"		
Production Casing ID (In)	8 835		
Hole O.D. (In)	12.25		
Excess (%)	150%		
cap 12-1/4 - 9-5/8"	0.0558		
Calculated fill:	700'		
Yield Tail (Cu. Ft./Sx)	1.33		
Shoe Joint (Ft)	40		
Shoe Volume (Cu. Ft)	17.0		
Calc. Tail Volume (Cu. Ft.)	346		5480
Required Tail Volume (Sx)	270		

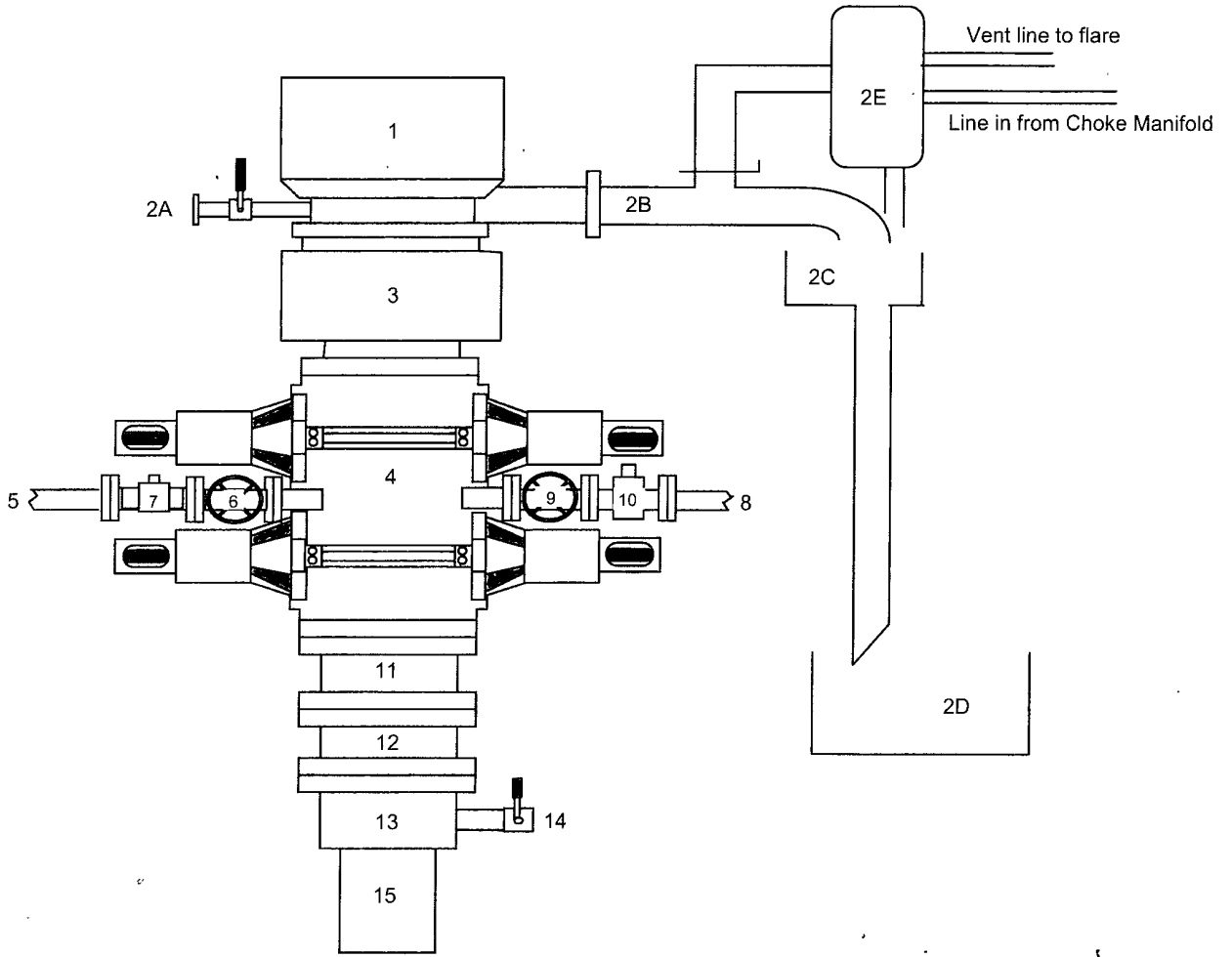
Production Casing (Lead):	
Intermediate Casing O D. (In.)	5.500
Intermediate Casing ID (In)	4.892
Hole O.D. (In)	8.75
Excess (%)	150%
cap 5-1/2" - 8-3/4" bls/ft	0.0450
cap 5-1/2 - 9-5/8" bls/ft	0.0408
Calculated fill: (500' into 9-5/8")	6,200'
Yield Lead (Cu. Ft./Sx)	2.0
Calculated Total Lead (Cu. Ft.)	2,349
Calc. Lead Volume (Sx)	1180

Production Casing (Tail):			
Intermediate Casing O.D. (In.)	5.500		
Intermediate Casing ID (In)	4.982		
Hole O.D. (In)	8.75		
Excess (%)	150%		
cap 5-1/2" - 8-3/4" bls/ft	0.0450		
cap 7 - 9-5/8" bls/ft			
Calculated fill:	2,550'	8,745'	
Yield Lead (Cu. Ft./Sx)	1.2		
Calculated Total Tail (Cu. Ft.)	966		
Required Tail Volume (Sx)	805		4050

7850

BLOWOUT PREVENTER ARRANGEMENT

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



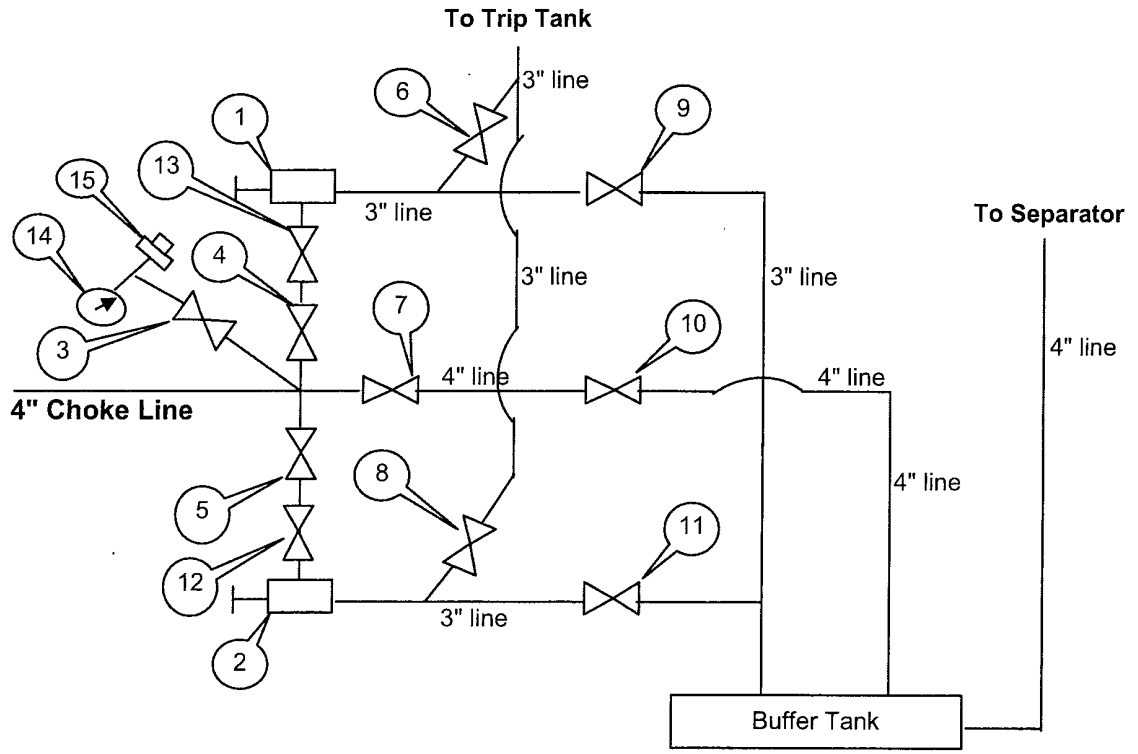
Inserted
12/23/2011
TMM

Item	Description
1	Rotating Head (13-5/8", 3M)
2A	Fill up Line and Valve
2B	Flow Line (8")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (13-5/8", 5M)
4	Double Ram BOP (13-5/8", 5M with Blind Rams in Upper Set and Pipe Rams in Lower Set)
5	Kill Line (2" chicksan, 5000 psi WP)
6	Kill Line Valve, Inner (2", 5000 psi WP)
7	Kill Line Check Valve (2", 5000 psi WP
8	Choke Line (4" Flexible Steel Line, 5000 psi WP)
9	Choke Line Valve, Inner (4", 5000 psi WP)
10	Choke Line Valve, Outer, (Hydraulically operated, 4", 5000 psi WP
11	Spacer Spool (13-5/8" 5M)
12	Spacer Spool (13-5/8" 5M)
13	Casing Head (13-5/8" 5M)
14	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
15	Surface Casing

Drawn by Steven O. Moore, Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 22-Dec-2011

CHOKE MANIFOLD ARRANGEMENT

3M System per Onshore Oil and Gas Order No. 2 utilizing 10M rated equipment



Item	Description
1	Manual Adjustable Choke, 3-1/16, 10M
2	Manual Adjustable Choke, 3-1/16, 10M
3	Gate Valve, 2-1/16 10M
4	Gate Valve; 3-1/16 10M
5	Gate Valve, 3-1/16 10M
6	Gate Valve, 3-1/16 10M
7	Gate Valve, 4-1/16" 10M
8	Gate Valve, 3-1/16 10M
9	Gate Valve, 3-1/16 10M
10	Gate Valve, 4-1/16" 10M
11	Gate Valve, 3-1/16 5M
12	Gate Valve, 3-1/16 10M
13	Gate Valve, 3-1/16 10M
14	Pressure Gauge
15	2" hammer union tie-in point for BOP Tester

Inserted 12/23/2011 TWM

Drawn by:
Steven O. Moore
Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company
22-Dec-2011

Stage 2 — . Install Split Speed Head With Riser Assembly

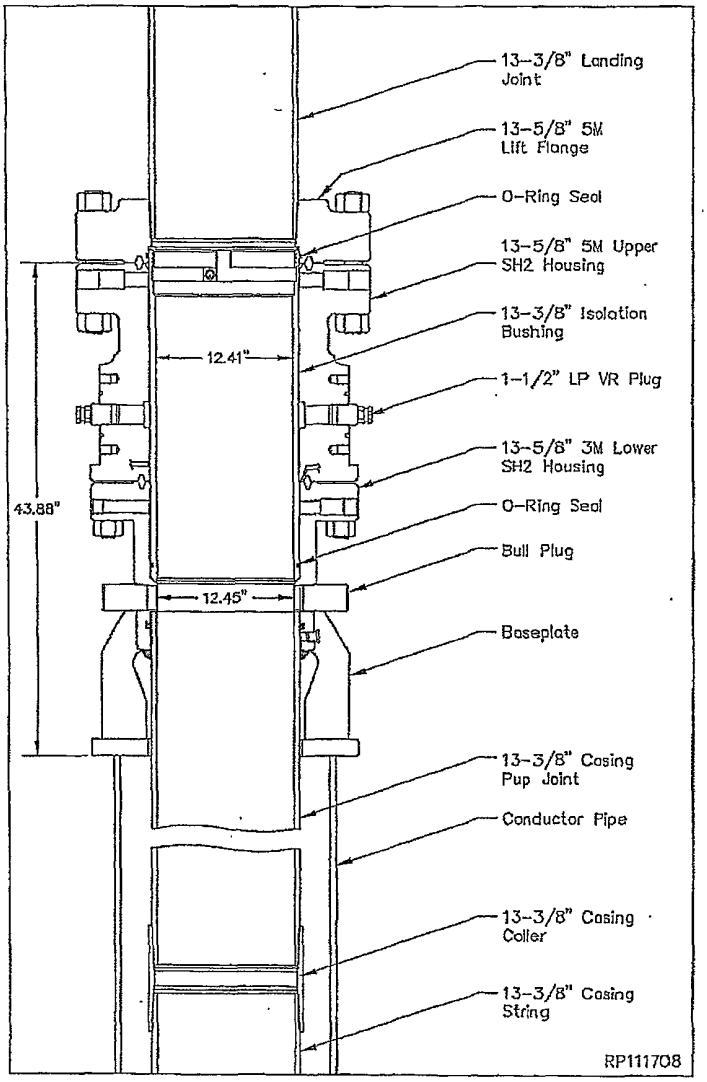
1. Drill and condition hole for surface casing.
2. Cut the conductor pipe off at the correct height above the cellar floor and grind stub level.

Note: The SH2 Riser Assembly is pre-assembled and tested prior to being shipped to location. The assembly is made up of a full length landing joint with flange, upper and lower SH2 housings, and a 10' long pup joint.

3. Examine the ***13-5/8" 5M x 13-3/8" SOW SH2 Speed Head/Riser Assembly (Items A1 & B1)***. Verify the following:
   - 10' pup joint is properly welded in place and casing threads are clean and in good condition
   - all outlet equipment has been removed including all studs and nuts, and valves
   - VR plugs are in place and tight
   - base plate is intact and properly welded to the casing head
   - isolation bushing is in place and properly retained with landing flange
   - landing flange with landing joint are in place and connection is properly made up

Note: Lockscrews are removed to clear 27-1/2" rotary.

4. Run the surface casing to the required depth and then set the last joint of casing run in the floor slips.
5. Pick up the SH2 Riser Assembly and make up the assembly in the casing string, tightening the thread connection to the thread manufacturers optimum make up torque.
6. Pick up the casing string and remove the floor slips and rotary bushings.
7. Slowly and carefully lower the assembly through the rotary table until the baseplate contacts the conductor pipe stub. Slack off all weight.
9. Remove the duct tape from the O.D. of both the upper and lower flanges of the assembly and lightly grease all threaded lockscrew holes.
10. Locate the (six) 1-1/4" and the (twelve) 1-1/2" lockscrew assemblies.



11. Install the 1-1/4" integral lockscrew assemblies in the upper flange and the 1-1/4" assemblies in the lower flange as indicated. (Ref. Dwg. RP111709)
12. Rig up the cement head and cement the surface casing string as per program, taking returns through the circulation ports in the baseplate.
13. After the cement job is completed, bleed off and remove the cement head.
14. Remove the landing flange with landing joint and set aside.

COPPER STATE RUBBER
VISUAL INSPECTION / HYDROSTATIC TEST REPORT
CHOKE & KILL HOSE
10,000 P.S.I. W/P X 15,000 P.S.I. T/P
SPEC: 090-1915 HS
H2S SUITABLE

SHOP ORDER NO.: 16528 SIZE: 3" I.D.

SERIAL NO.: 22269 LENGTH 25 FT. IN.

CONNECTIONS: 4-1/16" 10,000 PSI API FLANGE

VISUAL INSPECTION

(A) END CAPS / SLEEVE RECESS: OK
(B) EXTERIOR / COVER / BRANDING: OK
(C) INTERIOR TUBE: OK

HYDROSTATIC TEST

5 MIN. @ 10,000 PSI

2 MIN. @ 0 PSI 25' 3" OAL

3 MIN. @ 15,000 PSI

WITNESSED BY:

DATE February 23, 2007

FORM QA-21- REV-2
3-22-00

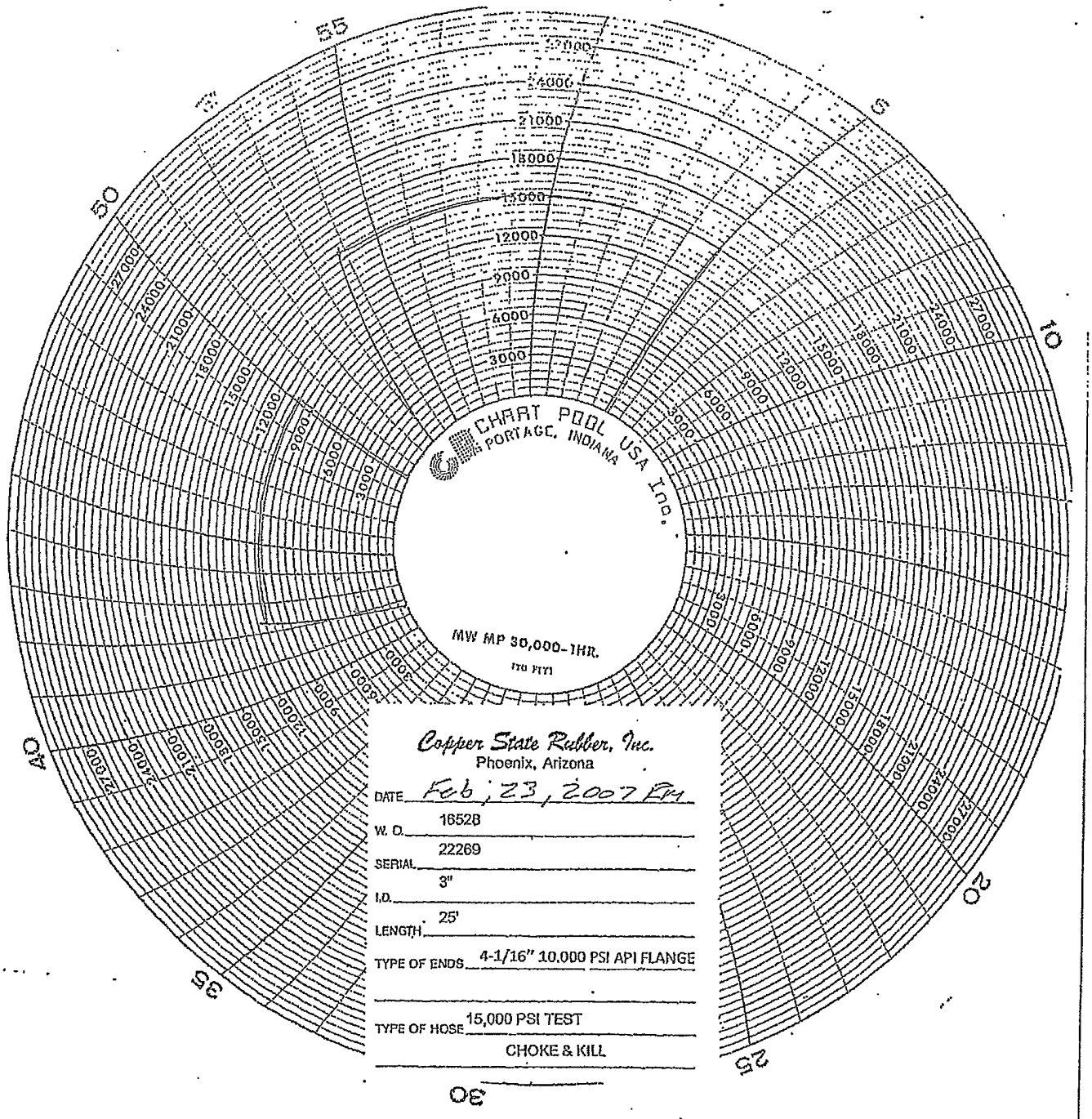


CHART POOL USA Inc.
PORTAGE, INDIANA
MW MP 30,000-1HR.
ITO PITI
Copper State Rubber, Inc.
Phoenix, Arizona
DATE Feb; 23, 2007 PM
W. O. 16528
SERIAL 22269
I.D. 3"
LENGTH 25'
TYPE OF ENDS 4-1/16" 10.000 PSI API FLANGE
TYPE OF HOSE 15,000 PSI TEST
CHOKE & KILL

August 09 2011

TenarisHydril

Size: 4.500 in.
Grade: API T95

Wall: 0.430 in.
Weight: 18.900 lbs/ft
Connection: Blue™

PIPE BODY DATA

GEOMETRY

Nominal OD	4.500 in.	Nominal Weight	18.90 lbs/ft	Standard Drift Diameter	3.515 in.
Nominal ID	3.640 in.	Wall Thickness	0.430 in.	Special Drift Diameter	N/A
Plain End Weight	18.71 lbs/ft				

PERFORMANCE

Body Yield Strength	522 x 1000 lbs	Internal Yield	15890 psi	Collapse	16410 psi

BLUE™ CONNECTION DATA

GEOMETRY

Regular OD	5.189 in.	Special Clearance OD	5.051 in.	Connection ID	3.740 in.
Critical Section Area	5.768 sq. in.	Critical Section Area (Special Clearance)	4.659 sq. in.	Make-Up Loss	4.012 in.
Threads per in.	5.00	Coupling Length	9.213 in.		

PERFORMANCE

Regular OD Tension Efficiency	100 %	Joint Yield Strength	522 x 1000 lbs	Internal Yield	15890 psi
Compression Efficiency	100 %	Compression Rating	522 x 1000 lbs	Collapse	16410 psi
Special Clearance Tension Efficiency	85.0 %	Bending	97 °/100 ft		

MAKE-UP TORQUES

Minimum	8630 ft-lbs	Target	9590 ft-lbs	Maximum	10550 ft-lbs
Yield Torque	15750 ft-lbs				

BLANKING DIMENSIONS

Blanking Dimensions

M09 CHOKE HOSE SPECIFICATIONS

HOSE MANUFACTURER	HOSE MANUFACTURED DATE	HOSE SERIAL #	HOSE OD	HOSE ID	WORKING PSI	TEST PSI
COPPER STATE RUBBER	2/2007 USA	22269	6.25	3	10K	15K
FLANGE	FLANGE MANUFACTERED DATE	RING TYPE				
4 1/16 10M	11/8/2006	BX153				

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

Well: Wilder Federal 28 #3H

Date: December 5, 2011

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

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

   All drilling waste and all drilling fluids (fresh water, brine, mud, cuttings, drill solids, cement returns, and any other liquid or solid that may be involved) will be contained on location in the rig's steel pits or in haul-off bins or in frac tanks as needed. The intent is as follows:
   - We propose to use the rigs's steel pits for containing and maintaining the drilling fluids.
   - We propose to remove cuttings and drilled solids from the mud by using solids control equipment and to contain such cuttings and drilled solids on location in haul-off bins.
   - We propose that any excess water that may need to be stored on location will be stored in a fresh water pond.

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

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

   Controlled Recovery Inc,
   4507 West Carlsbad Hwy, Hobbs, NM 88240,
   P.O. Box 388 Hobbs, New Mexico 88241
   Toll Free Phone: 877.505.4274, Local Phone Number: 432-638-4076

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

   The Permit Number for CRI is R9166

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

3. Mud will be transported by vacuum truck and disposed of at Controlled Recovery Inc at the facility described above.

4. Fresh Water and Brine will be hauled off by vacuum truck and disposed of at an authorized salt water disposal well. We propose the following for disposal of fresh water and brine as needed:

   - Nabors Well Services Company, 3221 NW County Rd, Hobbs, NM 88240, PO 5208 Hobbs, NM, 88241, Permit SWD 092. (Well Location: Section 3, T19S R37E)

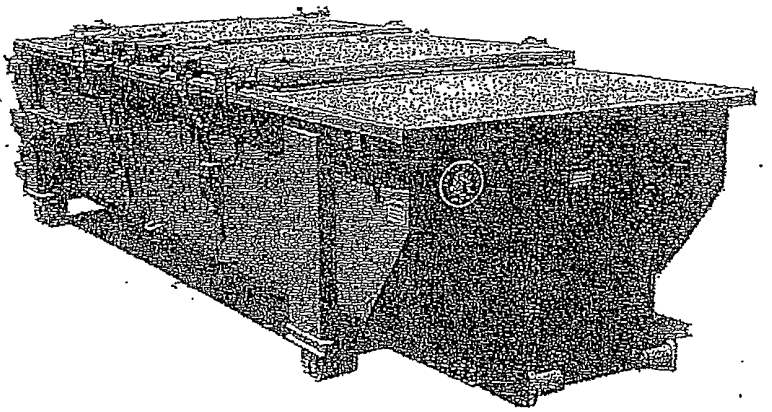
   - Basic Energy Services, PO Box 1869 Eunice, NM 88231 Phone Number 575 394 2545, Facility located at Hwy 18, Mile Marker 19, Eunice, NM.

Luis Serrano Drilling Engineer
ConocoPhillips Company, 600 North Dairy Ashford, Room #2WL-13016, Houston, TX 77079-1175
Office: 832-486-2346

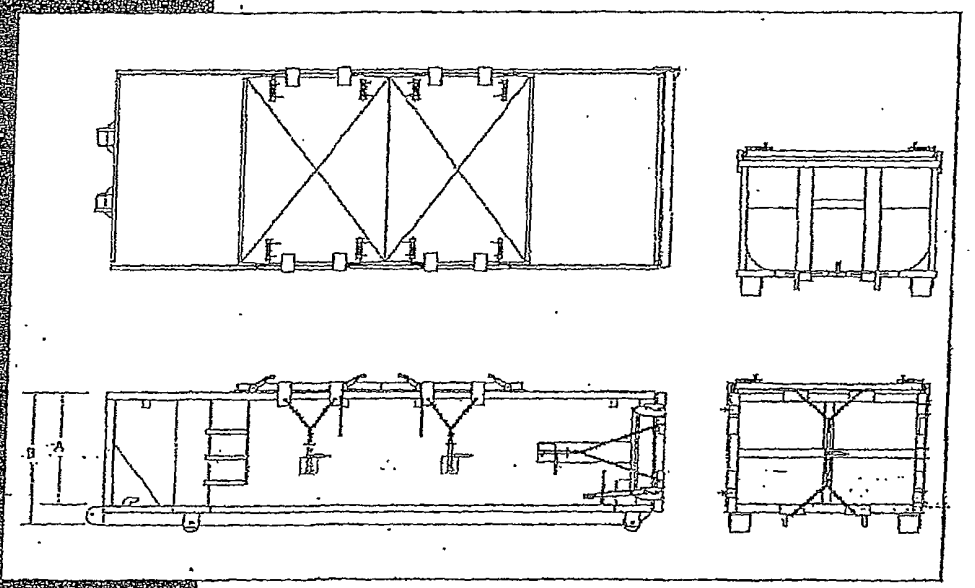
SPECIFICATIONS

Heavy Duty Split Metal Rolling Lid

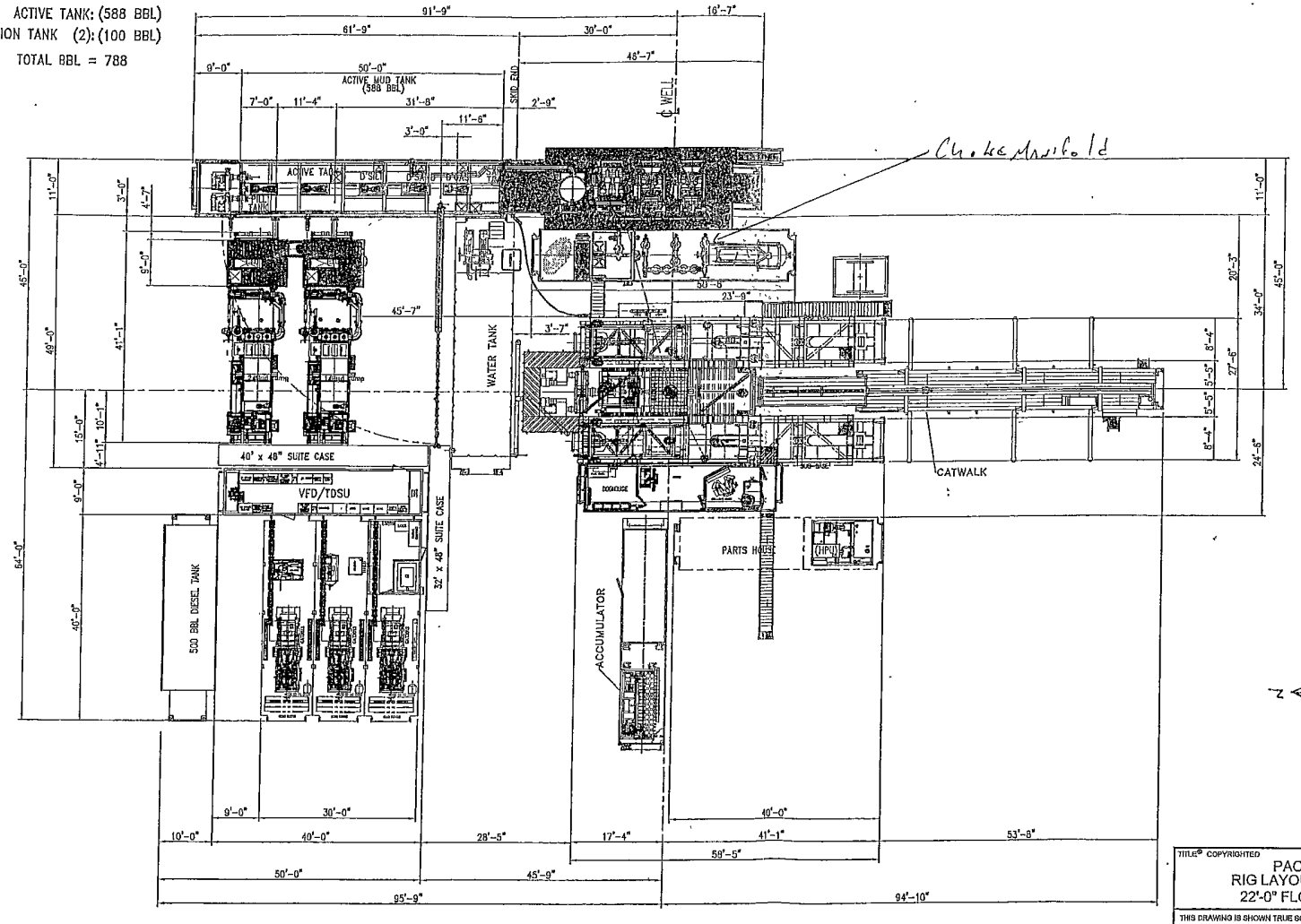
FLOOR: 3/16" PL one piece
CROSS MEMBER: 8"x 4.1 channel 16" on center
WALLS: 3/16" PL solid welded with tubing top inside liner hooks
DOOR: 3/16" PL with tubing frame
FRONT: 3/16" PL slant formed
PICK U.P.: Standard cable with 2" x 6" x 1/4" rails, gusset at each crossmember
WHEELS: 10 DIA x 9 long with rease fittings
DOOR LATCH: 3 independent ratchet binders with chains, vertical second latch
GASKETS: Extruded rubber seal with metal retainers
WELDS: All welds continuous except sub-structure crossmembers
FINISH: Coated inside and out with direct to metal rust inhibiting acrylic enamel color coat
HYDROTESTING: Full capacity static test
DIMENSIONS: 22'-11" long (21'-8" inside), 99" wide (88" inside), see drawing for height
OPTIONS: Steel grit blast and special paint, Amplroll, Heil and Dino pickup
ROOF: 3/16" PL roof panels with tubing and channel support frame
LIDS: (2) 88" x 90" metal rolling lids spring loaded, self raising
ROLLERS: 4" V-groove rollers with delrin bearings and grease fittings
OPENING: (2) 60" x 82" openings with 8" divider centered on container
LATCH: (2) independent ratchet binders with chains per lid
GASKETS: Extruded rubber seal with metal retainers

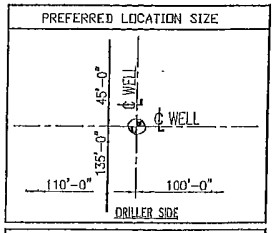


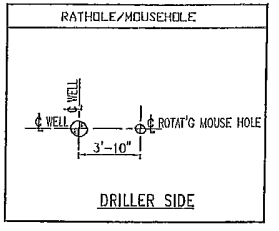
CONT.	A	B
20 YD	41	53
25 YD	53	65
30 YD	65	77

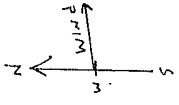


ACTIVE TANK: (588 BBL)
SUCTION TANK (2): (100 BBL)
- TOTAL BBL = 788









← 575 →

Access Road

← 450 →

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PACE 750 M-SERIES RIGS
RIG LAYOUT (SINGLE WELL DRILLING)
22'-0" FLOOR / 17'-0" CLEAR HEIGHT

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

B

REV.	DESCRIPTION	DATE	BY	APP.
0	UPDATED PER NEW EQUIPMENT	SEPT-20-06	EES	
XREF				

NABORS

ER:	RIG: PACE 750
DRN BY: EES	SCALE: 1/20=1'-0"
DATE 09/20/2006	APP:
ER DWG:	DWG: 750-801