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Split Estate

Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM-012612

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

1a. Type of work: ☐ DRILL ☑ REENTER

7. If Unit or CA Agreement, Name and No.
COOPER JAL NMNM-070926X

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

8. Lease Name and Well No. <306443>
COOPER JAL UNIT 123

2. Name of Operator RESACA OPERATING COMPANY <263848>

9. API Well No.
30-025-11150

3a. Address 1331 LAMAR, SUITE 1450
HOUSTON, TX 77010-3039

3b. Phone No. (include area code)
713 650-1246

10. Field and Pool, or Exploratory
JALMAT TY7RO & LANGLIE M7RQG

4. Location of Well (Report location clearly and in accordance with any State requirements *)
At surface 334' FNL & 984' FWL Unit D
At proposed prod. zone SAME

11. Sec., T. R. M. or Blk. and Survey or Area
Lot 1 (≈ NWNW) 19-24S-37E NMPM

14. Distance in miles and direction from nearest town or post office*
6 AIR MILES NORTH OF JAL, NM

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 984'

16. No. of acres in lease
312.45

17. Spacing Unit dedicated to this well
Lot 1 (≈ NWNW) 38.12 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 891' (Cooper Jal 242)

19. Proposed Depth
3,740'

20. BLM/BIA Bond No. on file
NM B005247 ~~B005247~~ 624

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3,305.9' UNGRADED

22. Approximate date work will start*
07/15/2011

23. Estimated duration
1 WEEK

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 Wood

Name (Printed/Typed)
BRIAN WOOD (505 466-8120)

Date
06/11/2011

Title
CONSULTANT

(FAX 505 466-9682)

Approved by (Signature) /s/ James Stovall

Name (Printed/Typed)

Date DEC 06 2011

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)

KZ 12/13/11

Capitan Controlled Water Basin

Oil Conservation Division
Conditions of approval : Approval for drilling/workover ONLY— CANNOT produce Downhole Commingled until DHC is approved in Santa Fe.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached
DEC 13 2011

REVISED RE-ENTRY PROGNOSIS

Resaca Operating Co.
Cooper Jal Unit #123
API No. 30-025-11150
330' FNL, 990' FWL
Section 19, T-24S, R-37E
Lea Co., New Mexico

DESCRIPTION OF OPERATION

Resaca proposes to re-enter and deepen subject well which was drilled in 1952 and plugged in 2001 as part of an effort to re-develop certain acreage within the Cooper Jal Unit, an existing Secondary Recovery project. The Unitized Interval includes both the Jalmat and the Langlie Mattix pools. Subject well will be commingled as to these intervals, and utilized as a producing well. Commingling authority will be obtained prior to production.

1) SURFACE DESCRIPTION

The surface is a mildly undulating dunal plain consisting of Quaternary alluvium sediments. Vegetation is sparse, and includes snakeweed, shinoak, yucca cactus, assorted grasses and, on a more limited basis, other flora. The ground elevation at the wellsite is 3,302' above sea level.

2) FORMATION TOPS

Formation	Estimated Top - MD (ft)	Lithology	Fluid Content
Alluvium	0	Sand, Caliche	Fresh Water
Ogalalla	150	Red Beds	None
Rustler	1,200	Anhydrite	None
Salado	1,310	Salt	None
Tansill	2,888	Anhydrite, Dolomite	None
Yates	2,995	Sandstone, Dolomite	Oil
Seven Rivers	3,218	Sandstone, Dolomite	Oil
Queen	3,634	Sandstone, Dolomite	Oil

The surface casing previously set and cemented in this well isolates and thereby protects the fresh water interval. The production casing previously set and cemented in this well isolates various productive intervals. It is not anticipated that any additional casing or remedial cementing will be required. The deepened portion of the well will extend the existing open-hole interval.

The Jalmat Pool is defined, in this area, as the interval from the top of the Tansill formation to a point 250' above the base of the Seven Rivers formation, thereby including all of the Yates formation. The top of the Tansill formation is at an estimated depth of 2,888' in subject well.

The Langlie Mattix Pool is defined as the interval from 100' above the base of the Seven Rivers formation to the base of the Queen formation. The base of the Queen formation is estimated from offset well logs to be below the proposed total depth of subject well.

3) WELL CONTROL EQUIPMENT

See COA *

A 2M system (as defined by BLM Onshore Oil and Gas Order No. 2), including a 3,000 PSI dual ram BOP dressed with 2-7/8" pipe rams and blind rams and choke manifold will be utilized throughout the proposed operations. The configuration and components of the BOP stack are set forth on Exhibit A, attached hereto. The configuration and components of the choke manifold are set forth on Exhibit B, attached hereto. The serial number and a copy of the test certificate for the rubber hose which will connect the BOP stack to the choke manifold will be provided by sundry notice prior to commencement of operations. Approval for flex hose will not be approved with APD, but with sundry

All blowout prevention equipment will meet the minimum standards outlined in BLM Onshore Oil and Gas Order 2. A schematic indicating the routing to the choke manifold and the closed loop system is attached hereto as Exhibit C. A safety valve and crossovers to facilitate make-up to each workstring component will be kept on or near the rig floor.

The blowout preventers and choke manifold will be tested in accordance with the provisions of BLM Onshore Oil and Gas Order 2 upon installation. Pipe rams will be function tested once each 24-hour period, and blind rams will be function tested each time the workstring is out of the hole.

4) WELL CONSTRUCTION

Surface and production casing were set and cemented when the well was drilled in 1952. A 3,000 psi socket weld wellhead will be installed on the 9-5/8" surface casing, and a 3,000 psi socket weld tubing head will be installed on the 5-1/2" production casing.

Existing casing is as follows:

Hole Size (in)	Setting Depth (ft)	Outer Diameter (in)	Weight (ppf)	Grade	Threads
12.500	290	9.625	36	Unknown	Unknown
7.875	3,342	5.500	17	Unknown	Unknown

A casing design audit has been conducted as follows:

- Maximum collapse loading was assumed to occur at the bottom of each casing string. An external pressure equivalent to that which would be exerted by a column of 10 ppg brine water (0.520 psi/ft), and an internal pressure of 0 psi were assumed.
- Maximum burst loading was assumed to occur at the top of each casing string. An internal pressure equivalent to that which would be exerted at setting depth by a column of 10 ppg brine water (0.520 psi/ft), and an external pressure of 0 psi were assumed.

- Tensile loading was not evaluated as both casing strings have been run and are cemented in place.
- To the extent the casing grade is unknown, the lowest applicable API standard grade was assumed.

Based upon these evaluation criteria, the surface casing was determined to have a collapse safety factor of 11.54 and a burst safety factor of 16.98, and the production casing was determined to have a collapse safety factor of 2.83 and a burst safety factor of 3.06.

The surface casing was cemented with 150 sacks of cement of unknown composition and yield. Available well records do not document circulation of the cement to surface; however, the calculated cement top, based on an assumed yield of 1.18 ft^3/sk (neat Class A) and hole enlargement factor of 20 percent, is at the surface.

The production casing was cemented in two stages. For the first stage, 250 sacks of cement of unknown composition and yield were pumped. Available well records do not document the top of cement; however, the calculated cement top, based on an assumed yield of 1.18 ft^3/sk (neat Class A) and hole enlargement factor of 20 percent, is at 1,980'. A DV tool was set at 1,357', and for the second stage, 100 sacks of cement of unknown composition and yield were pumped. Available well records do not document circulation of the cement to surface; however, the calculated cement top, based on an assumed yield of 1.18 ft^3/sk (neat Class A) and hole enlargement factor of 20 percent, is at 812'. It is noted that 300 sx of cement were squeezed behind the production casing through casing leaks over the interval from 634' to 664' and circulated to surface during remedial operations performed prior to plugging the well.

5) WORKING FLUID

Working fluid will be fresh water with 2% KCl, with a density of 8.4 ppg. Gelled sweeps and lost circulation material will be utilized as necessary. Working volume will be approximately 500 barrels. Given the low anticipated bottom-hole pressure, use of weighting materials is not anticipated, and no circulating system monitoring equipment will be utilized.

6) LOGGING, CORING AND TESTING

No mud-logging, coring, or testing are anticipated. The Unitized Interval will be logged in whole or part. Specific logs to be run have not yet been determined.

7) ANTICIPATED PRESSURES AND DRILLING HAZARDS

All formations above the Unitized Interval are cased off. The previous producing intervals, as well as the interval through which the well will be deepened, are believed to be partially pressure depleted due to production from the Unit and surrounding wells.

Based on a static fluid level survey conducted in February 2010 in an offset well (the Cooper Jal #202), reservoir pressure was 778 psi at a depth of 3,665'. Since that time, increased injection rates have been sustained, and reservoir pressure is likely to have risen; however, it is anticipated that the working fluid will create an overbalanced condition, and lost circulation may occur.

Hydrogen Sulfide may be present in the Yates and Seven Rivers. H_2S equipment will be operational prior to drilling out any cement plugs, and all operations will be conducted in accordance with BLM Onshore Oil and Gas Order 6. An H_2S plan is attached.

GENERAL PROCEDURE

1) Remove dry hole marker. Dress casing as necessary. Install 3,000 psi socket weld wellhead on 9-5/8" casing. Install 3,000 psi socket weld tubing head on 5-1/2" casing. Install 3,000 psi drilling flange.

2) MIRU pulling unit and reverse unit. Closed loop system to be utilized. Install H_2S equipment.

See COA

3) N/U and test 2M BOP system as depicted on Exhibits A and B.

4) P/U 4-3/4" bit on 2-7/8" production tubing (BHA design to be determined), and drill out:

See COA for CIT

See COA

   a. Cement plug surface – 350' +/-
   b. Cement plug 1,020' – 1,400' +/- (previously tagged)
   c. Cement plug 2,689' – 2,924 +/- (previously tagged)
   d. CIBP @ 2,924'.

5) Clean out well to 3,650' (current TD). Drill new hole to 3,740'. Circulate well clean and POOH and L/D 4-3/4" bit.

6) Log per supplemental procedure.

7) P/U 5-1/2" tension packer and RIH to 2,945'. Set packer @ 2,945' and test casing to 500 psi. If leaks occur, isolate and repair per supplemental procedure. POOH and L/D packer.

See COA

* – See Email from Bob Porter

8) Frac well and flow back per supplemental procedure.

9) P/U 5-1/2" TAC and RIH w/ 2-7/8" production tubing. Space out and set TAC per supplemental procedure. Land tubing.

10) N/D BOPs. N/U pumping tee.

11) N/U rod stripper. P/U & RIH w/ downhole pump and rods (design to be determined). Seat pump. Hang off rods. N/D rod stripper and pack off rods.

12) RDMO pulling unit and other equipment.

CURRENT WELLBORE SCHEMATIC

Operator.	Resaca Operating Co.
Well Name	Cooper Jal #123
Well Location:	
Calls	330' FNL, 990' FWL
Unit	D
Section	19
Township	24S
Range	37E

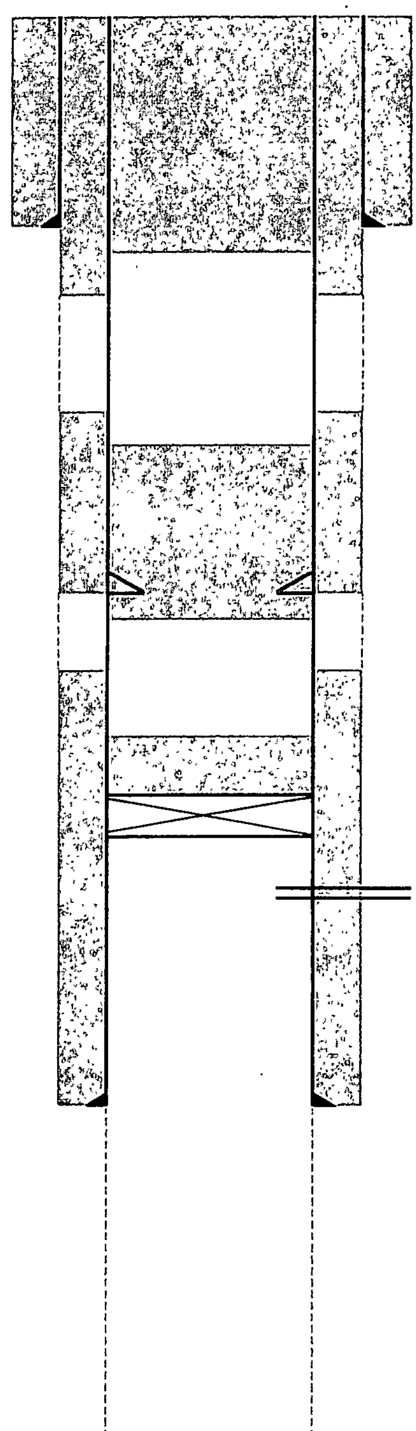
40 sx cmt plug surf - 350'

csg leak 634' - 664'
sqz 300 sx cmt; circulated to surface

35 sx cmt plug 1020' - 1400'
TOC tagged @ 1020'

25 sx cmt plug 2689' - 2889'
TOC tagged @ 2689'

CIBP @ 2924' w/ 35 sx cmt
TOC tagged @ 2889'



Surface Casing

Hole Size (in)	12 1/2
Casing Size (in).	9 5/8
Casing Weight (ppf)·	36
Setting Depth (ft).	290
Amount Cement (sx)	150
Top of Cement (ft).	0
TOC Method:	Calculated

DV Tool

Depth (ft).	1357
Amount Cement (sx):	100
Top of Cement (ft)	Unknown
TOC Method.	-----------

Perforations

Top (ft)	2996
Bottom (ft)	3217

Production Casing

Hole Size (in).	7 7/8
Casing Size (in)·	5 1/2
Casing Weight (ppf).	17
Setting Depth (ft)	3342
Amount Cement (sx)	250
Top of Cement (ft)	1980
TOC Method	Calculated

Open Hole

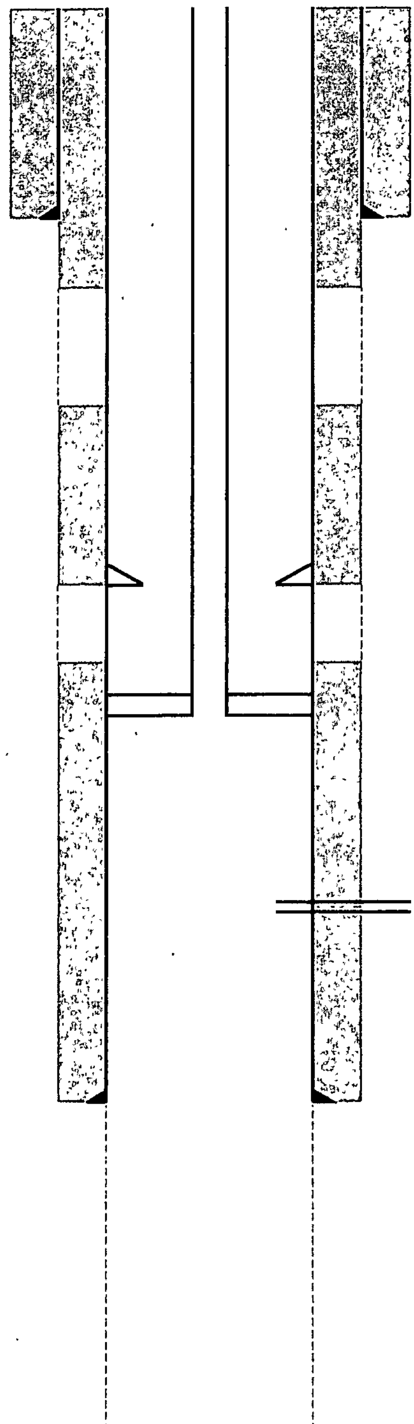
Hole Size (in)	4 3/4
Top (ft)	3342
Bottom (ft):	3650

Total Depth (ft): 3650

PROPOSED WELLBORE SCHEMATIC

Operator	Resaca Operating Co
Well Name	Cooper Jal #123
Well Location.	
Calls	330' FNL, 990' FWL
Unit	D
Section	19
Township	24S
Range	37E

csg leak 634' - 664'
sqz 300 sx cmt, circulated to surface



Surface Casing

Hole Size (in):	12 1/2
Casing Size (in):	9 5/8
Casing Weight (ppf)	36
Setting Depth (ft)	290
Amount Cement (sx)	150
Top of Cement (ft):	0
TOC Method·	Calculated

DV Tool

Depth (ft).	1357
Amount Cement (sx).	100
Top of Cement (ft).	Unknown
TOC Method·	----------

Production Tubing

Tubing Size (in)·	2 7/8
Tubing Weight (ppf).	6 5
TAC Depth (ft).	2975
Setting Depth (ft)·	2975

Perforations

Top (ft)	2996
Bottom (ft)	3217

Production Casing

Hole Size (in).	7 7/8
Casing Size (in)	5 1/2
Casing Weight (ppf)·	17
Setting Depth (ft)	3342
Amount Cement (sx)	250
Top of Cement (ft):	1980
TOC Method·	Calculated

Open Hole

Hole Size (in).	4 3/4
Top (ft)	3342
Bottom (ft)	3740

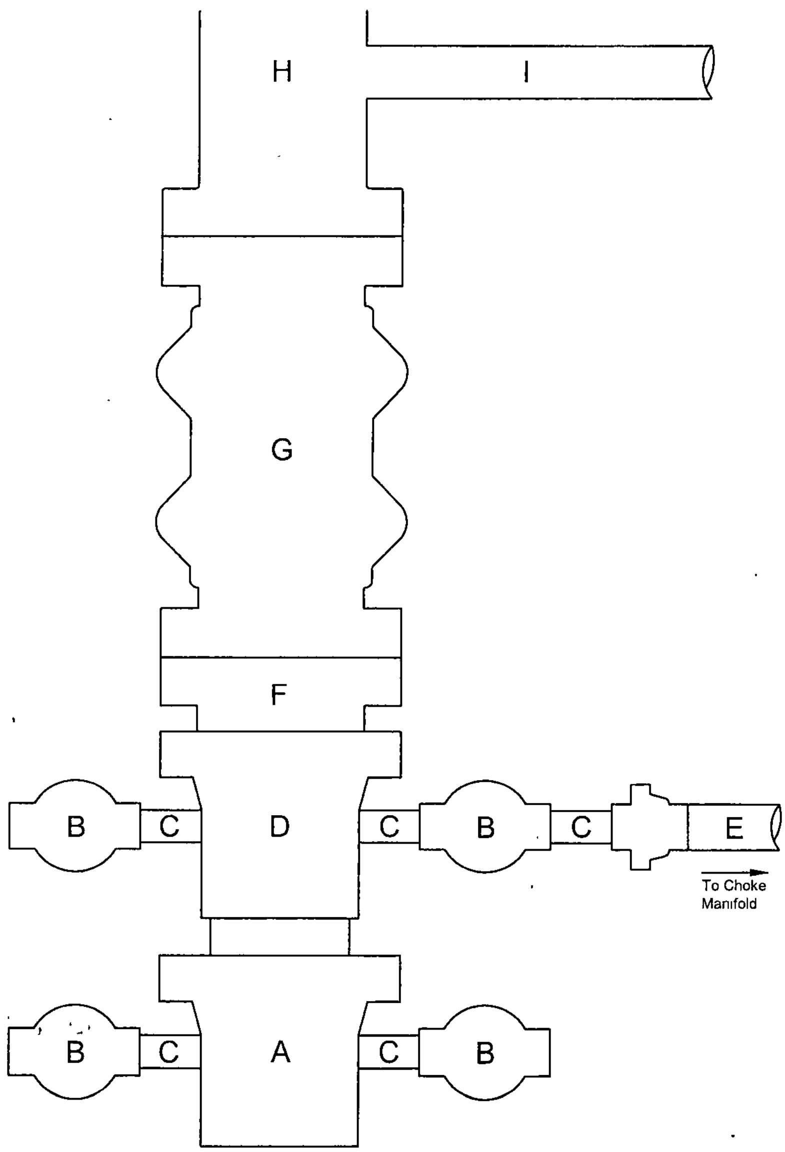
Total Depth (ft): 3740

REVISED EXHIBIT A:

2M BOP STACK CONFIGURATION - CJU #123

See COA

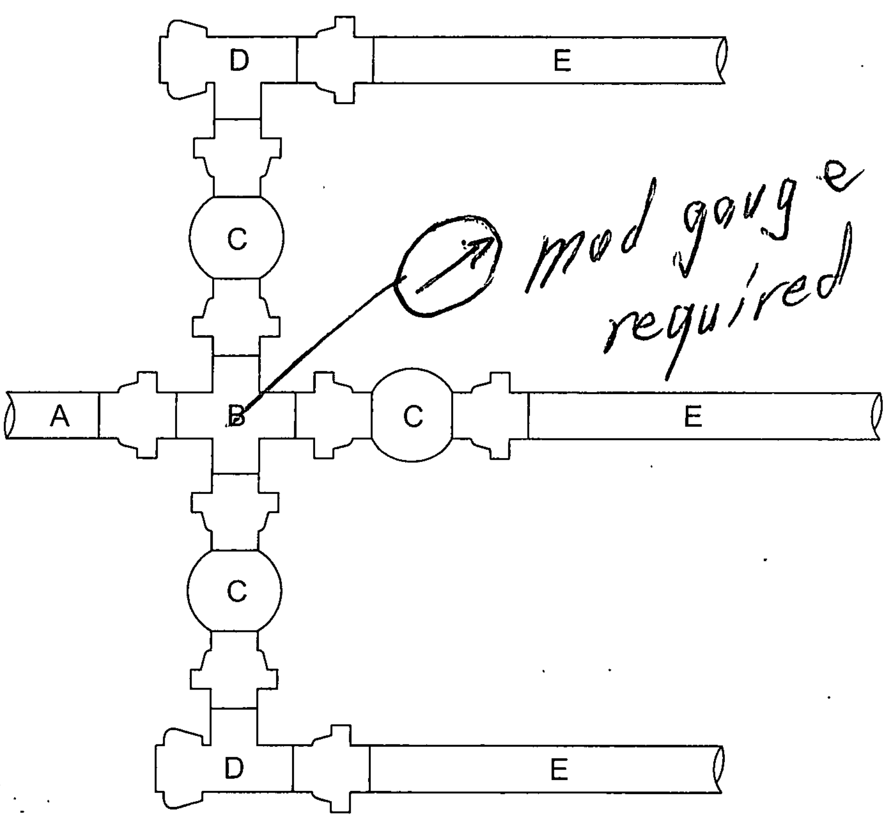
A. 9 ⅝" SW x 11 ¾" 3000 PSI WP Casing Mandrel w/ Threaded Outlets
B. 2 1/16" 3000 PSI WP Ball Valve
C. 2" Schedule 80 Nipple
D. 5 ½" SW x 8 ⅝" 3000 PSI WP Tubing Head w/ Threaded Outlets
E. 2" 2500 PSI WP Rubber Hose – see COA
F. 8 ⅝" x 7 1/16" 3000 PSI WP Drilling Flange
G. 7 1/16" 3000 PSI WP Type "U" Double Ram Type BOP w/ Blind Rams & 2 ⅞" Pipe Rams
H. Bell Nipple
I. Fill-Up Line



REVISED EXHIBIT B:

2M CHOKE MANIFOLD CONFIGURATION

A. 2" 2500 PSI WP Rubber Hose
B. 2 $\frac{1}{16}$" 3000 PSI WP Cross
C. 2 $\frac{1}{16}$" 3000 PSI WP Ball Valve
D. 2 $\frac{1}{16}$" 3000 PSI WP Manual Choke
E. 2" Schedule 80 Line Pipe



Note: All connections are hammer unions.