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AUG 29 2012

RCVD NOV 2 '12

OIL CONS. DIV.

FORM APPROVED  
OMB No. 1004-0136  
DIST 3

Expires November 30, 2000

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Farmington Field Office  
Bureau of Land Management

APPLICATION FOR PERMIT TO DRILL OR REENTER

|   |   |  |
|---|---|--|
| 1a Type of Work. <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER   |   | 5. Lease Serial No<br><b>NMNM 109403</b>                                     |
| b Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone |   | 6. If Indian, Allottee or Tribe Name   |
| 2 Name of Operator<br><b>Thompson Engineering and Production Corp.</b>  |   | 7. If Unit or CA Agreement, Name and No                                      |
| 3A Address c/o Walsh Engineering<br><b>7415 E. Main, Farmington, NM 87402</b>   |   | 8. Lease Name and Well No<br><b>Juniper South 15 #23</b>                     |
| 3b. Phone No. (include area code)<br><b>(505) 327-4892</b>  |   | 9 API Well No.<br><b>30-045-35411</b>  |
| 4 Location of Well (Report location clearly and in accordance with any State requirements *)<br>At surface <b>1600' FSL and 1500' FWL</b><br>At proposed prod Zone <b>Same</b>                                      |   | 10 Field and Pool, or Exploratory<br><b>Basin Fruitland Coal</b>             |
| 14 Distance in miles and direction from nearest town or post office*<br><b>11 miles southwest of Blanco Trading Post, NM</b>  |   | 11. Sec, T., R., M, or Blk, and Survey or Area<br><b>Sec. 15, T23N, R10W</b> |
| 15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) <b>1500'</b>   | 16. No. of Acres in lease<br><b>1,760</b>                       | 12 County or Parish<br><b>San Juan</b>                                       |
| 18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft <b>NA</b>  | 19. Proposed Depth<br><b>1,080 +/-</b>                          | 13 State<br><b>NM</b>  |
| 21 Elevations (Show whether DF, KDB, RT, GL, etc.)<br><b>6,638' GL</b>  | 22. Approximate date work will start*<br><b>October 1, 2012</b> | 20. BLM/BIA Bond No. on file<br><b>Bond #MS2-65-42-42-15</b>                 |
| 23. Estimated duration<br><b>1 week</b>   |   |  |

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

24. Attachments

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

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

|   |   |                          |
|---|---|--------------------------|
| 25 Signature<br><i>Paul C. Thompson</i> | Name (Printed/Typed)<br><b>Paul C. Thompson, P.E.</b> | Date<br><b>8/29/2012</b> |
|---|---|--------------------------|

|   |  |                         |
|---|--|-------------------------|
| Approved by (Signature)<br><i>[Signature]</i> | Name (Printed/Typed)<br><b>President</b> | Date<br><b>10/29/12</b> |
| Title<br><b>AFM</b>                           | Office<br><b>FFO</b>                     |                         |

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.

\*(Instructions on reverse)

**NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT!**

NOV 08 2012 *ca*

**NMOCD**  
*Ar*

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

RECEIVED

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 Rd., 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

Form C-102

Energy, Minerals & Natural Resources Department

Revised August 1, 2011

OIL CONSERVATION DIVISION

Submit one copy to appropriate

1220 South St. Francis Dr. Farmington Field Office

District Office

Santa Fe, NM 87505 Bureau of Land Management

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|   |  |  |
|---|--|--|
| <sup>1</sup> API Number<br>30-045-35411 | <sup>2</sup> Pool Code<br>71629                | <sup>3</sup> Pool Name<br>Basin Fruitland Coal |
| <sup>4</sup> Property Code<br>39537     | <sup>5</sup> Property Name<br>JUNIPER SOUTH 15 |  |
| <sup>7</sup> OGRID No<br>37581          | <sup>8</sup> Well Number<br>23                 | <sup>9</sup> Elevation<br>6638                 |

<sup>10</sup> Surface Location

| UL or Lot No | Section | Township | Range | Lot Idn | Feet from the | North/South Line | Feet from the | East/West Line | County   |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| K            | 15      | 23 N     | 10 W  |         | 1600          | South            | 1500          | West           | San Juan |

<sup>11</sup> 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 |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|              |         |          |       |         |               |                  |               |                |        |

|  |                               |                                  |                         |
|--|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>5/2 320 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |
|--|-------------------------------|----------------------------------|-------------------------|

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.

S 89°09' W 80.54 Ch.

|   |   |                  |  |
|---|---|------------------|--|
| <p>6</p> <p>79.68 Ch.</p> <p>1500'</p> <p>N 71°19' W</p> <p>1600'</p> <p>Fd. BLM Cap (Typ.)</p> | <p>Sec.</p> <p>15</p> <p>Lat. 36.22406° N<br/>Long. 107.88753° W<br/>(NAD 83)</p> | <p>79.64 Ch.</p> | <p><b>17 OPERATOR CERTIFICATION</b></p> <p>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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division</p> <p><i>Paul C. Thompson</i> 8/29/12<br/>Signature Date</p> <p>PAUL C. THOMPSON<br/>Printed Name</p> <p>PAUL@WALSHENG.NET<br/>E-mail Address</p> |
|   |   |                  | <p><b>18 SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>Date of Survey: 04/15/2012</p> <p>Signature and Seal of Professional Surveyor:<br/><i>William E. Mahake, II</i><br/>08488</p> <p>Certificate Number: 08488</p>   |

S 89°09' W 81.16 Ch.  
Bearings from GLO Plat

Thompson Engineering and Production Corp.  
OPERATIONS PLAN  
Juniper South 15 #23

I. Location: 1600' FSL & 1500' FWL                      Date: August 29, 2012  
              Sec 15 T23N R10W  
              San Juan County, NM

Field: Basin Fruitland Coal                      Elev: GL 6638'  
Surface: BLM  
Minerals: NMNM 109403

II. Geology: Surface formation \_ San Jose

| <u>Formation Tops</u> | <u>Depths</u> |
|-----------------------|---------------|
| Ojo Alamo             | 140'          |
| Kirtland              | 195'          |
| Fruitland             | 570'          |
| Fruitland Coal        | 860'          |
| Pictured Cliffs       | 930'          |
| Total Depth           | 1080'         |

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 860' and 930'.

B. Logging Program: Induction/GR and density logs at TD.

C. No over pressured zones are expected in this well. No H<sub>2</sub>S zones will be penetrated in this well. Max. BHP = 600 psig.

III. Drilling

A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.5 ppg.

C. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached exhibit #1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

C. Cont.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

| Hole Size | Depth | Casing Size | Wt. & Grade |
|-----------|-------|-------------|-------------|
| 12-1/4"   | 200'  | 8-5/8"      | 24# J-55    |
| 7-7/8"    | 1080' | 5-1/2"      | 15.5# J-55  |

B. Float Equipment:

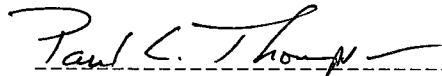
a) Surface Casing: Three centralizers and an insert fiber baffle.

b) Production Casing: 5-1/2" cement guide shoe and self fill insert float collar. Place float one joint above shoe. Five centralizers spaced every other joint above shoe and five turbolizers every other joint from the top of the well.

V. Cementing:

**Surface casing:** 8-5/8" - Use 140 sx (165.2 cu. ft.) of Cl "B" with ¼ #/sk celloflake and 2% CaCl<sub>2</sub> (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

**Production Casing:** 5-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 10 bbls of fresh water. **Lead** with 120 sx (247 cu.ft) of Cl "B" with 2% metasilicate and ¼ #/sk celloflake. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). **Tail** with 75 sx (89 cu.ft.) of Cl "B" with ¼ #/sk celloflake (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). Total cement volume is 336 cu.ft. (80% excess to circulate cement to surface).



Paul C. Thompson, P.E.

D&D Drilling Rig #1  
BOP Testing Procedure.

Refer to the attached diagram for the bradenhead and BOP configuration. No mud cross will be utilized. The choke manifold will be connected to one side of the bradenhead. Connect the third-party testing company's test truck to the opposite side of the bradenhead.

**Kill Line Valve:**

Connect the test truck to the kill line valve and pressure test the valve to 250 psig low and 1,000 psig high. Test each pressure for 10 minutes.

**Blind Rams:**

Close the blind rams and open the bradenhead valve to the choke manifold. Have all three of the choke manifold valves closed. Pressure test the blind rams, casing, bradenhead, and choke manifold to 250 psig low and 1,000 psig high. Test each pressure for 30 minutes. A successful test will not have more than a 10% drop during the 30 minute test period.

If the test is successful proceed with the pipe ram test.

If the test is not successful, open the blind rams and install the test plug at the bottom of the bradenhead (the test plug seal is below the two valves on the bradenhead). Close the bradenhead valve to the choke manifold. Pressure test the blind rams and bradenhead to 250 psig low and 1,000 psig high. Open the bradenhead valve to the choke manifold and repeat the test. If these tests fail with no obvious leaks at either the blind rams or the choke manifold, remove the test plug and run a 7" packer into the first joint of casing and repeat both tests. Use caution when pulling the test plug if pressure is trapped below the plug. Recommend closing the pipe rams and opening the bradenhead valve to the choke manifold before trying to pull the test plug.

**Pipe Rams:**

Install the TIW valve on the bottom of one joint of drill pipe. Run the one joint into the well and close the pipe rams. Chain down the joint of drill pipe but leave the top of the pipe open. With the bradenhead valve open and the test truck still connected to the other side of the bradenhead, test the pipe rams to 250 psig low and 1,000 psig high. Hold each pressure for 30 min with no more than a 10% drop during the test period.

**Upper Kelly Cock:**

Install the TIW valve to the bottom of the Kelly. Install the test truck to the TIW Valve. With the TIW valve closed, pressure test the TIW valve to 250 psig low and 1,000 psig high for 10 minutes. Open the TIW valve and close the upper Kelly cock. Pressure test the Kelly and upper Kelly cock to 250 psig low and 1,000 psig high. Hold each pressure for 10 minutes with 0% drop during the test.

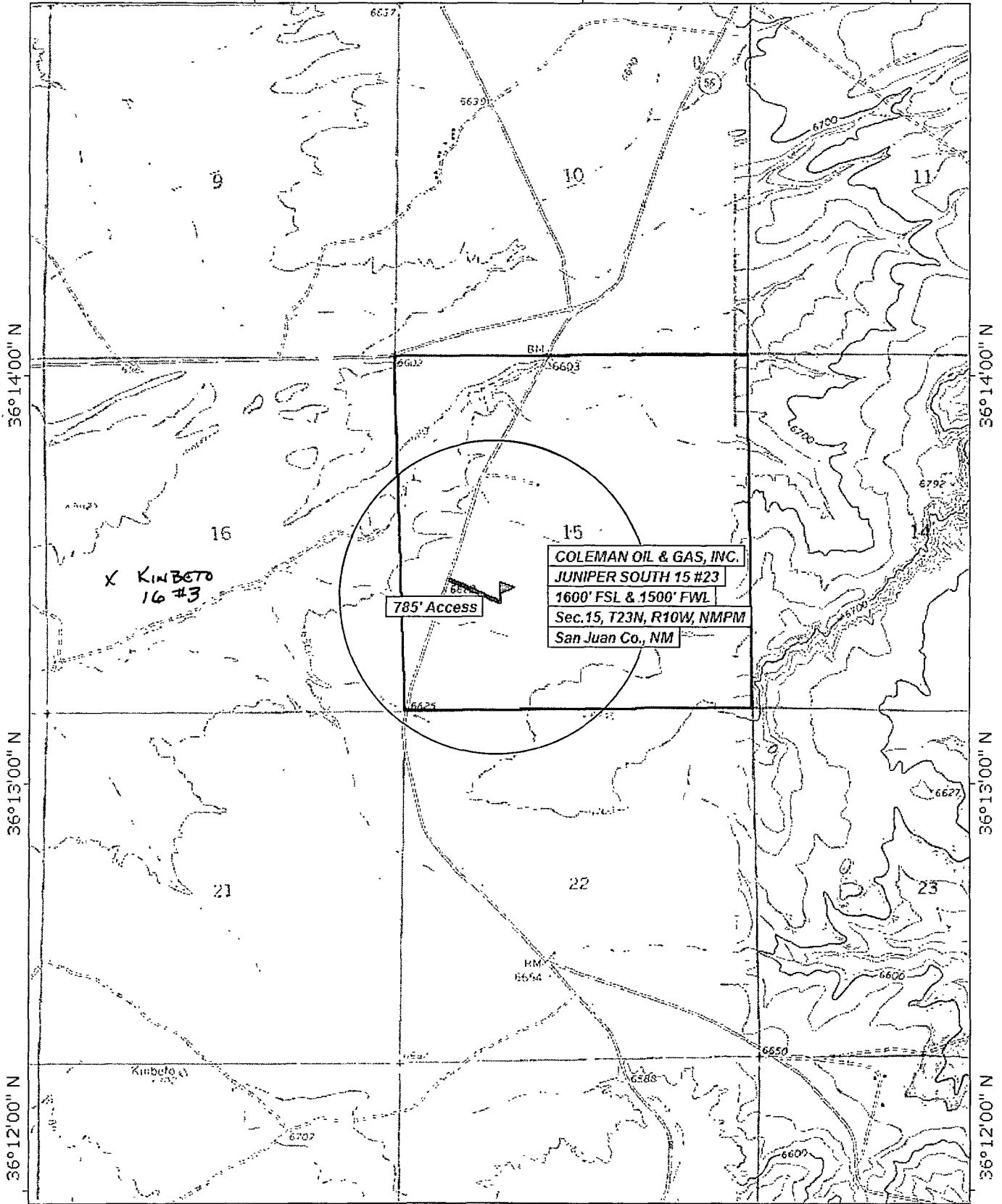
7LAT #1

Juniper South 15 #23

107°54'00" W

107°53'00" W

WGS84 107°52'00" W



36°14'00" N

36°13'00" N

36°12'00" N

36°14'00" N

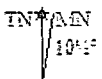
36°13'00" N

36°12'00" N

107°54'00" W

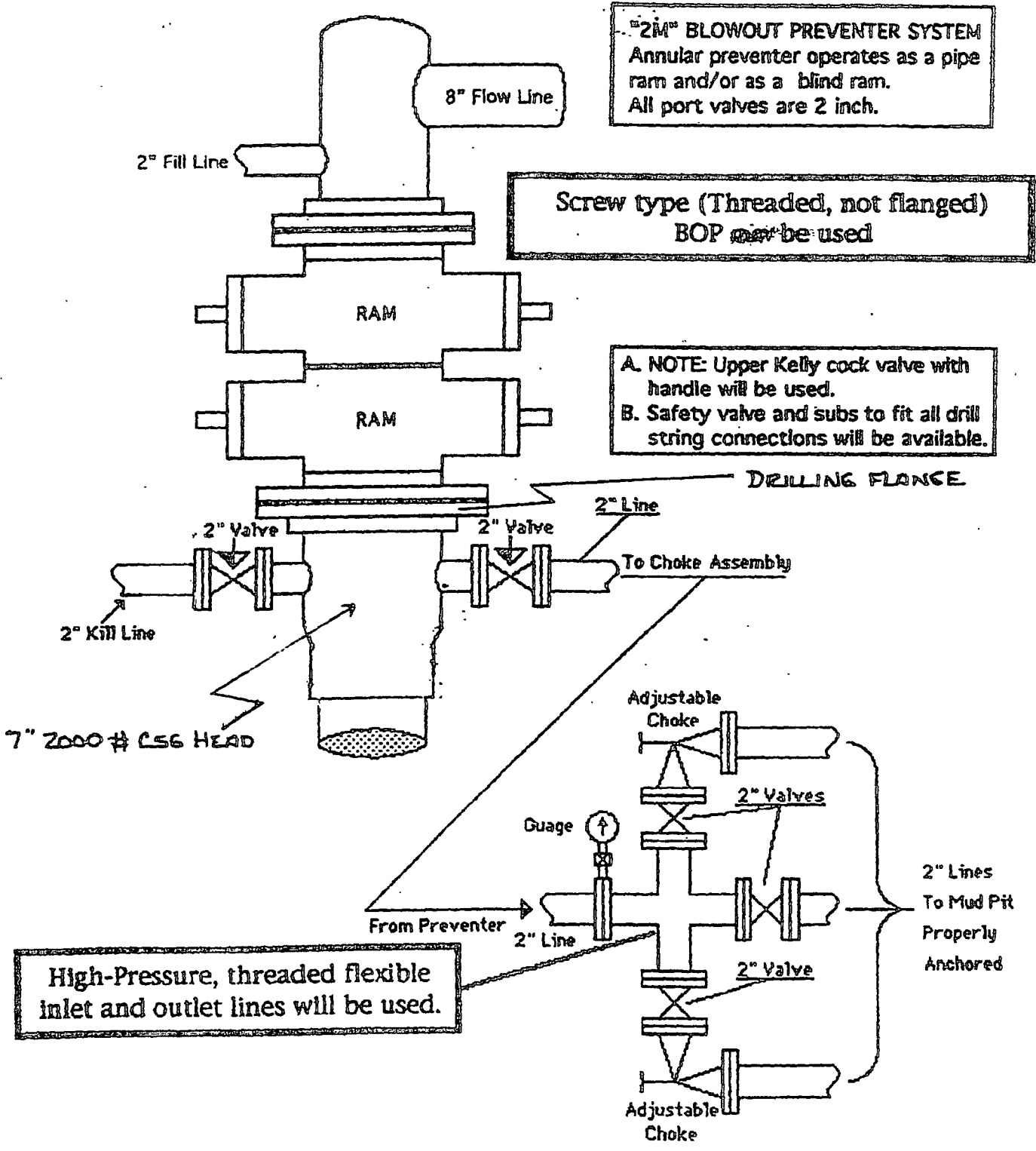
107°53'00" W

WGS84 107°52'00" W



Map created with TOPO! 5 ©2003 National Geographic (www.nationalgeographic.com/topo)

# "2M" BLOWOUT PREVENTER SYSTEM



"2M" BLOWOUT PREVENTER SYSTEM  
 Annular preventer operates as a pipe ram and/or as a blind ram.  
 All port valves are 2 inch.

Screw type (Threaded, not flanged)  
 BOP can be used

A. NOTE: Upper Kelly cock valve with handle will be used.  
 B. Safety valve and subs to fit all drill string connections will be available.

High-Pressure, threaded flexible inlet and outlet lines will be used.