NOS 4/18/02

Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SF-079290

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

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

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

8. Lease Name and Well No.
SAN JUAN 28-7 UNIT 258G

2. Name of Operator
CONOCO INC.

Contact: VICKI WESTBY
E-Mail: Vicki.R.Westby@conoco.com

9. API Well No.
30039 27249

3a. Address
10 DESTA DR., ROOM 608W
MIDLAND, TX 79705

3b. Phone No. (include area code)
Ph: 915.686.5799 Ext: 5799

10. Field and Pool, or Exploratory
BLANCO MESAVERDE/BASIN DAKOTA

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

At surface SENW 1365FNL 2375FWL

At proposed prod. zone

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 23 T28N R7W Mer NMP
F

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

12. County or Parish
RIO ARRIBA

13. State
NM

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

16. No. of Acres in Lease

17. Spacing Unit dedicated to this well
320.00 W/2

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

19. Proposed Depth
7877 MD

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KB, RT, GL, etc.
6669 GL

22. Approximate date work will start

23. Estimated duration

DEC 2002
RECEIVED
OIL CONS. DIV.
DIST. 3

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall 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 shall 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 authorized officer.

| 25. Signature | Name (Printed/Typed) | Date |
|---|---|---|
| (Electronic Submission) | VICKI WESTBY | 11/14/2002 |

Title
AUTHORIZED SIGNATURE

| Approved by (Signature) | Name (Printed/Typed) | Date |
|---|---|---|
| /s/ David J. Mankiewicz | | DEC 11 2002 |
| Title | Office | |

Application approval does not warrant or certify 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.

**Additional Operator Remarks (see next page)**

**Electronic Submission #16109 verified by the BLM Well Information System**
**For CONOCO INC., sent to the Farmington**

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

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

** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL **

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| 1 API Number | 2 Pool Code | 3 Pool Name |
|---|---|---|
| 30-039-27249 | 72319 / 71599 | BLANCO MESAVERDE / BASIN DAKOTA |

| 4 Property Code | 5 Property Name | 6 Well Number |
|---|---|---|
| 016608 | SAN JUAN 28-7 UNIT | 258G |

| 7 OGRID No. | 8 Operator Name | 9 Elevation |
|---|---|---|
| 005073 | CONOCO, INC. | 6669' |

## 10 Surface Location

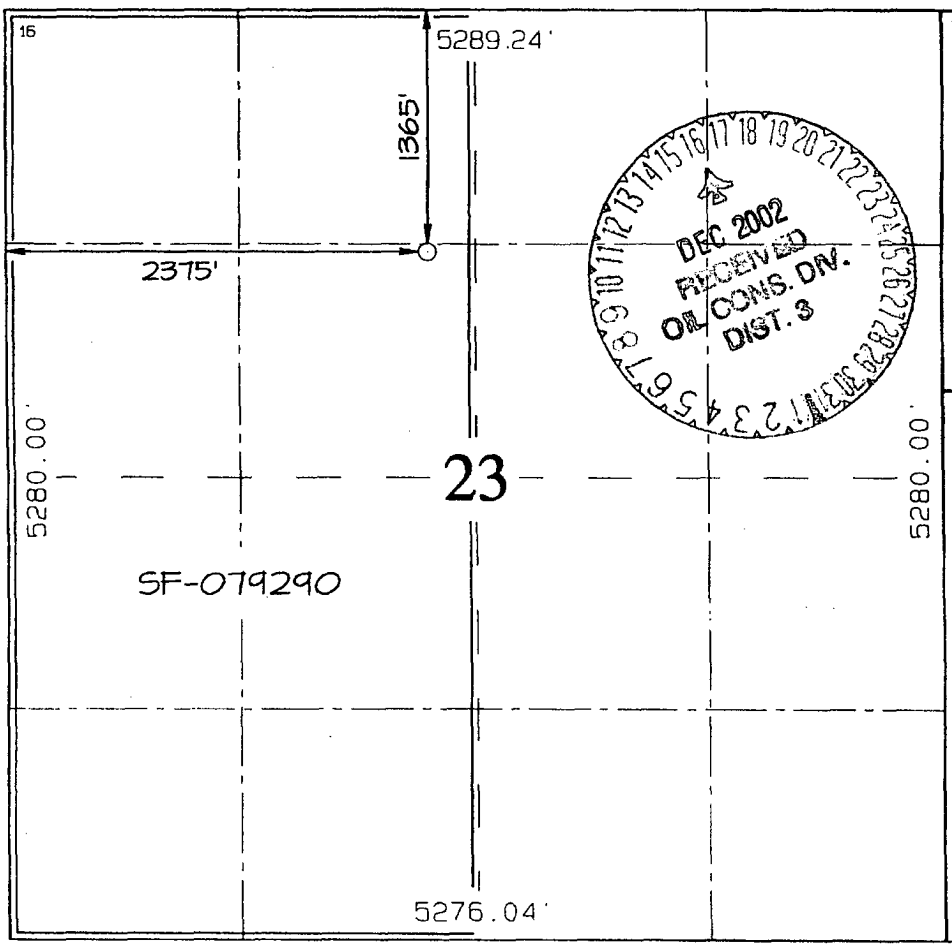
| UL or lot no: | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| F | 23 | 28N | 7W | | 1365 | NORTH | 2375 | WEST | RIO ARRIBA |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| 12 Dedicated Acres | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
|---|---|---|---|
| 320.0 Acres - (W/2) | | | |

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




## 17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature: Vicki Westby

Vicki R. Westby
Printed Name

Sr. Title Analyst
Title

November 12, 2002
Date

## 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.

Survey Date: AUGUST 16, 2002

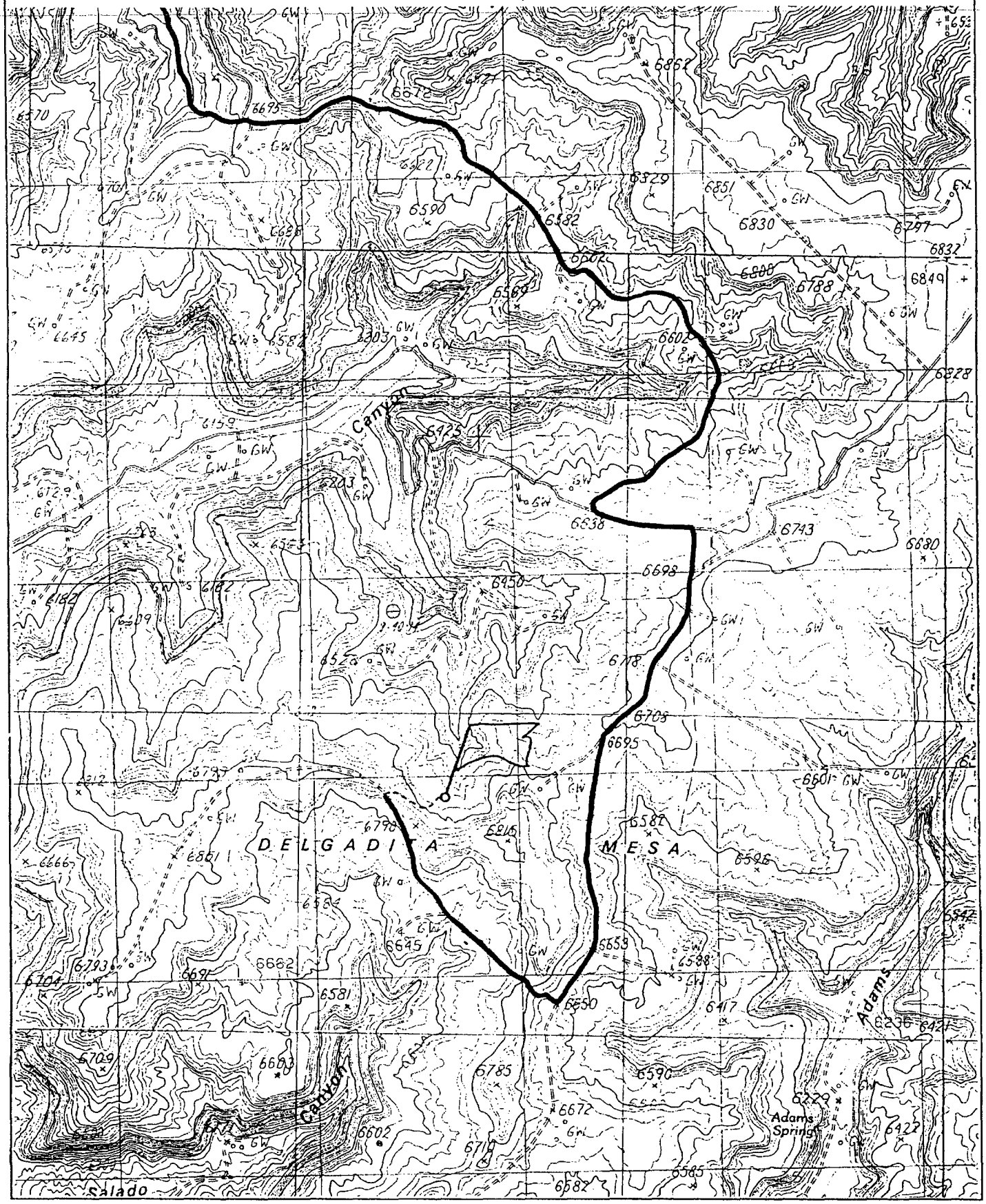
Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

# CONOCO, INC. SAN JUAN 28-7 UNIT #258G

1365' FNL & 2375' FWL, SECTION 23, T28N, R7W, N.M.P.M.
RIO ARRIBA COUNTY, NEW MEXICO



# PROJECT PROPOSAL - New Drill / Sidetrack

ConocoPhillips
San Juan Business Unit

## SAN JUAN 28-7 258G (Not Assigned)

| | | | | |
|---|---|---|---|---|
| Lease : | AFE # : | | | AFE $ : |
| Field Name : EAST 28-7 | Rig : Key 49 | State : NM | County : RIO ARRIBA | API # : |
| Geoscientist : Glaser, Terry J | Phone (281) 293 - 6538 | Prod. Engineer Moody, Craig E. | | Phone : (281) 293 - 6559 |
| Res. Engineer : Valvatne, Christine K. | Phone | Proj. Field Lead | | Phone : 5053245816 |

**Primary Objective (Zones) :**

| Zone | Zone Name |
|---|---|
| FRR | BASIN DAKOTA (PRORATED GAS) |
| RON | BLANCO MESAVERDE (PRORATED GAS) |

"Air Drilled"

**Location :** Surface

| | | | | | |
|---|---|---|---|---|---|
| Latitude : 36.65 | Longitude : -107.54 | X : | Y : | Section : 23 | Abstract: 7W |
| Footage X : 2375 FWL | Footage Y : 1365 FNL | Elevation: 6669 (FT) | Survey : 28N | | |

Tolerance

Location Type : Year Round  Start Date (Est.)  Completion Date :  Date In Operation :

Formation Data  Assume KB  6682  Units = FT

| Formation Call & Casing Points | Depth (TVD in Ft) | SS (Ft) | Depletion (Yes/No) | BHP (PSIG) | BHT | Remarks |
|---|---|---|---|---|---|---|
| SURFACE CSG | 200 | 6482 | ☐ | | | Severe lost circulation is possible. 12 1/4" Hole. 9 5/8", 36 ppf, J-55, STC casing. Circulate cement to surface. |
| OJAM | 2482 | 4200 | ☐ | | | Possible water flows |
| KRLD | 2632 | 4050 | ☐ | | | |
| FRLD | 3117 | 3565 | ☐ | | | Possible gas |
| PCCF | 3367 | 3315 | ☐ | | | Possible gas |
| LEWS | 3567 | 3115 | ☐ | | | |
| Intermediate Casing | 3667 | 3015 | ☐ | | | 8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface. |
| CHRA | 4329 | 2353 | ☐ | | | |
| CLFH | 5012 | 1670 | ☐ | | | Gas; possibly wet |
| MENF | 5147 | 1535 | ☐ | | | Gas |
| PTLK | 5542 | 1140 | ☐ | | | Gas |
| MNCS | 5892 | 790 | ☐ | | | |
| GLLP | 6834 | -152 | ☐ | | | |
| GRHN | 7527 | -845 | ☐ | | | Gas possible, highly fractured |
| TWLS | 7617 | -935 | ☐ | | | Gas |
| CBBO | 7747 | -1065 | ☐ | | | Gas |
| Total Depth | 7877 | -1195 | ☐ | | | 6 1/4" Hole. 4 1/2", 10.5 ppf, J-55, STC casing. Circulate cement a minimum of 100' inside the previous casing string. No open hole logs. Cased hole TDT with GR to surface. |

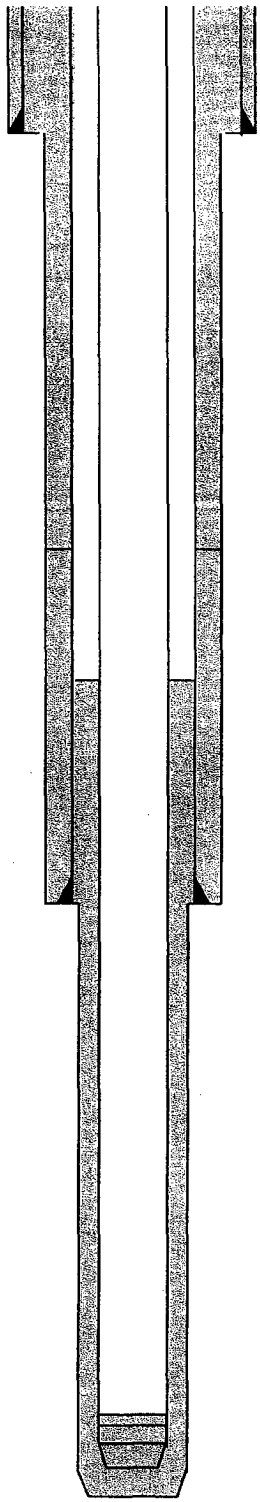
**Reference Wells:**

| | Well Name | Comments |
|---|---|---|
| **Intermediate:** | | |
| **Production:** | | |

**HALLIBURTON**

*ConocoPhillips Inc. - San Juan Operations*

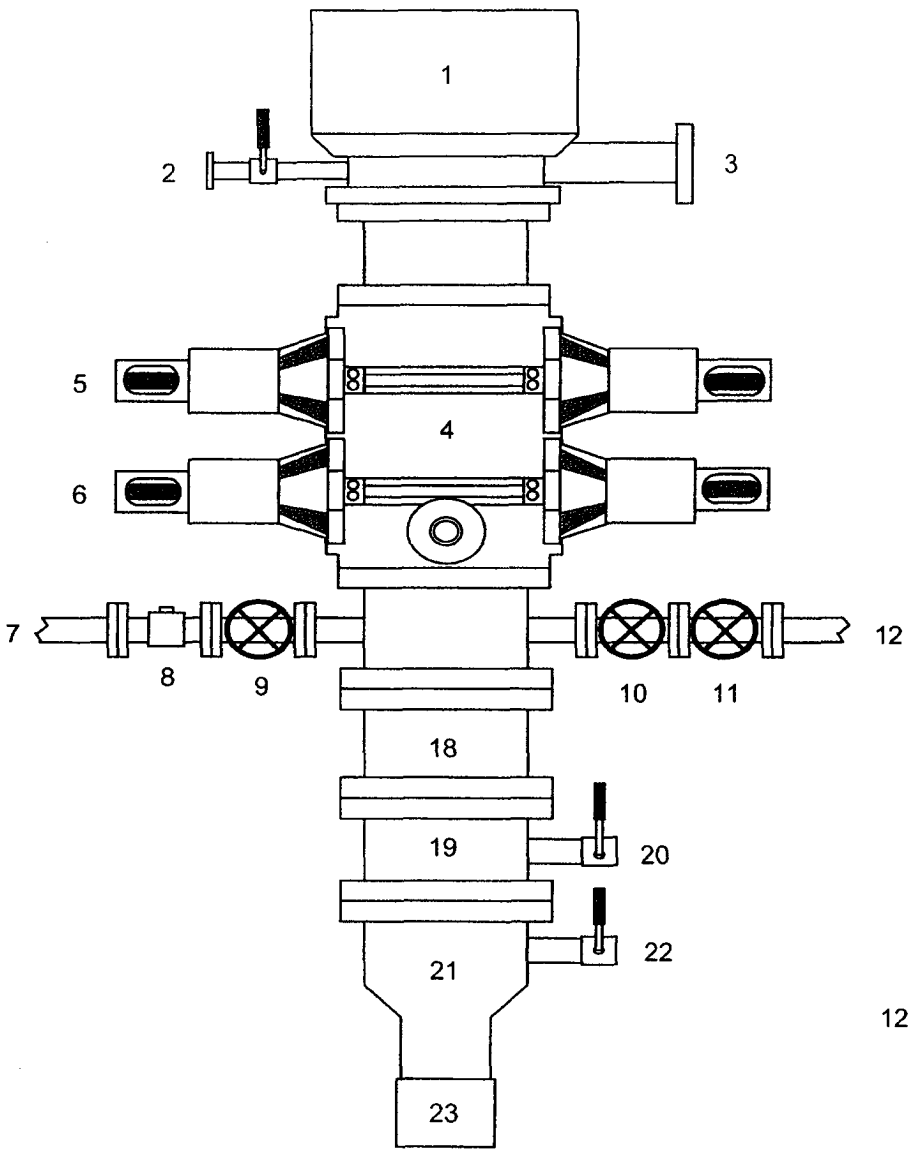
**Cementing Summary** **San Juan 28-7 258G (v1.0)**



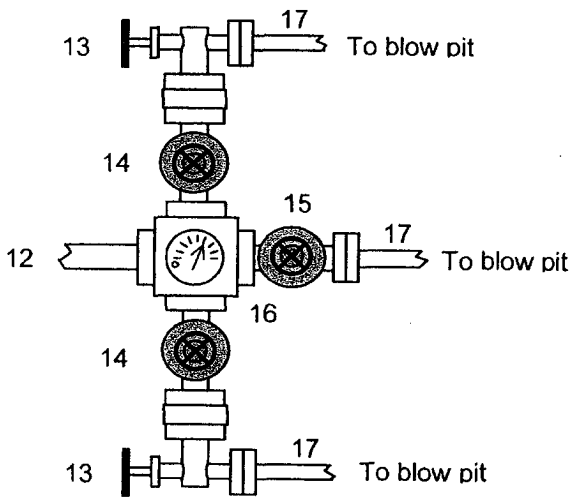
| | Depth | OH Excess | | | | | |
|---|---|---|---|---|---|---|---|
| 9-5/8" Sfc Casing | 0 | | 50:50 Poz Standard | 108.1 | sx | Slurry Volume | 142.6 cu ft |
| | | | Cement | 47 | lb/sk | | 25.4 bbl |
| | | | San Juan Poz | 34 | lb/sk | Slurry Density | 13.5 ppg |
| | | | Gel (Bentonite) | 2.0% | bwoc-db | Slurry Yield | 1.32 cu ft/sk |
| | | | Gilsonite | 5.0 | lb/sk | Mix Fluid | 5.35 gal/sk |
| | | | CaCl2 | 3.0% | bwoc-db | | |
| | | | Flocele | 0.5 | lb/sk | | |
| | | | CFR-3 | 0.20% | bwoc-db | | |
| 9-5/8" shoe | 200 | 100% | | | | | |
| 7" Lead Cement | | 100% | Standard Cement | 339.85 | sx | Slurry Volume | 985.6 cu ft |
| | | | Standard Cement | 94 | lb/sk | | 175.5 bbl |
| | | | Econolite | 3.0% | bwoc | Slurry Density | 11.4 ppg |
| | | | Flocele | 0.5 | lb/sk | Slurry Yield | 2.9 cu ft/sk |
| | | | Gilsonite | 10.0 | lb/sk | Mix Fluid | 16.78 gal/sk |
| | | | Defoamer (if req'd) | 0.05 | gal/bbl | | |
| 7" Top of Tail | 3,367 | | | | | | |
| 7" Tail Cement | | 100% | 50:50 Poz Standard | 82.176 | sx | Slurry Volume | 109.3 cu ft |
| | | | Standard Cement | 47.0 | bwob | | 19.5 bbl |
| | | | San Juan Poz | 34.0 | lb/sk | Slurry Density | 13.5 ppg |
| 4.5" TOC | 3,467 | | CaCl2 | 2.00% | bwob | Slurry Yield | 1.33 cu ft/sk |
| | | | Bentonite-Gel | 2.00% | bwob | Mix Fluid | 5.32 gal/sk |
| | | | Flocele | 0.25 | lb/sk | | |
| | | | Gilsonite | 5.0 | lb/sk | | |
| | | | Defoamer (if req'd) | 0.05 | gal/bbl | | |
| 7" Casing Intermediate | 3,667 | 100% | | | | | |
| 4.5" Cement | | 50% | 50:50 Poz Standard | 460.43 | sx | Slurry Volume | 672.2 cu ft |
| | | | Standard Cement | 47 | lb/sk | | 119.7 bbl |
| | | | San Juan Poz | 34 | lb/sk | Slurry Density | 13.0 ppg |
| | | | Bentonite | 3.00% | bwob | Slurry Yield | 1.46 cu ft/sk |
| | | | CFR-3 | 0.20% | bwoc | Mix Fluid | 6.42 gal/sk |
| | | | Halad-9 | 0.80% | bwoc | | |
| | | | HR-5 | 0.10% | bwoc | | |
| | | | Gilsonite | 5.0 | lb/sk | | |
| | | | Flocele | 0.25 | lb/sk | | |
| | | | Defoamer (if req'd) | 0.05 | gal/bbl | | |
| 4-1/2" Casing Production | 7,877 | 50% | | | | | |

*Note: Conoco to verify casing depths.*

# BLOWOUT PREVENTER HOOKUP




1. Rotating Head
2. Fill-up Line & valve
3. Flowline
4. Blowout Preventer (3000 psi)
5. Pipe Rams
6. Blind Rams
7. Kill Line
8. Kill Line Check Valve
9. Kill Line Valve
10. Inner Choke Line Valve (3")
11. Outer Choke Line Valve (3")
12. Choke Line (3")
13. Variable Choke
14. Choke Line Valve (2")
15. Panic Line Valve (3")
16. Choke Manifold Pressure Gauge
17. Choke Line (2")
18. Spacer Spool
19. Casing Spool "B" Section
20. Casing Spool "B" Section 2" Valve
21. Casing Head "A" Section
22. Casing Head "A" Section 2" Valve
23. 9 5/8" Casing Collar




Drilling contractors used in the San Juan Basin suppy 3000 psi equipment, but cannot provide annular preventors because of sub-structure limitations. Maximum anticipated surface pressures for this well will not exceed the working pressure of the proposed BOP system. The above diagram of the BOP system details 2000 psi equipment according to Onshore Order No. 2 even thought the equipment will test to 3000 psi. The 2000 psi system allows deletion of the annular preventor and fulfills your requirements.

In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

# Cathodic Protection System Description

| | | |
|---|---|---|
| Anode Bed Type | Deep Well | |
| Hole Size | 8" | |
| Hole Depth | 200' - 500' | As required to place anodes below moisture and in low resistance strata. |
| Surface Casing | 8" Diam., ≥ 20' Length, Cemented In Annular Space | When needed, casing will be installed at an adequate depth to control ground water flow. Casing will extend a minimum of 2' above grade, be surrounded by a concrete pad, and sealed with a PVC cap. Steel casing will be substituted when boulders are encountered. |
| Vent Pipe | 1" Diam. PVC | Vent pipe will extend from bottom of hole, through top of casing cap, and sealed with a 1" perforated PVC cap. |
| Type Of Anodes | Cast Iron Or Graphite | |
| Number Of Anodes | 8 - 20 | Sufficient quantity to achieve a total anode bed resistance of < 1 ohm and a design life ≥ 20 years. |
| Anode Bed Backfill | Loresco SW Calcined Petroleum Coke Breeze | Installed from bottom of hole to 10' above top anode. |
| Anode Junction Box | 8 - 20 Circuit Fiberglass Or Metal | Sealed to prevent insect & rodent intrusion. |
| Current Splitter Box | 2 - 5 Circuit Metal | Sealed to prevent insect & rodent intrusion. |
| DC / AC Cable | DC: #2, #4, #6, #8 Stranded Copper (One Size Or Any Combination Of) With High Molecular Weight Polyethylene (HMWPE) Insulation.<br><br>AC: #8 Stranded Copper HMWPE | 18" depth in typical situation, 24" depth in roadway, & 36" depth in arroyo's and streams. EXCEPTION: If trenching is in extremely hard substratum, depth will be 8 - 12" with cable installed in conduit. Installed above foreign pipelines if 1' clearance is available. If not, installed under foreign pipeline with 1' clearance (AC cable always installed under foreign pipeline in conduit). |
| Power Source | 1) Rectifier<br>2) Solar Power Unit<br>3) Thermoelectric Generator | Choice of power source depending on availability of AC & other economic factors. |
| External Painting | Color to be selected according to BLM specifications. | Paint applied to any surface equipment associated with the CP system which can reasonably be painted. |