

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

|                                                                                                                    |                                                                                                |                                                                                     |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1a. Type of Work<br>DRILL                                                                                          |               | 5. Lease Number 07351<br>NMSF-080854<br>Unit Reporting Number<br>NMMN-078 424A-MV   |
| 1b. Type of Well<br>GAS                                                                                            |                                                                                                | 6. If Indian, All. or Tribe                                                         |
| 2. Operator<br>ConocoPhillips                                                                                      |                                                                                                | 7. Unit Agreement Name<br><br>San Juan 32-8 Unit                                    |
| 3. Address & Phone No. of Operator<br>PO Box 4289, Farmington, NM 87499<br><br>(505) 326-9700                      | 8. Farm or Lease Name                                                                          | 9. Well Number<br>#15M                                                              |
| 4. Location of Well<br>Unit F (SENW), 1915' FNL & 1960' FWL,<br><br>Latitude 36° 88475'N<br>Longitude 107° 62949'W | 10. Field, Pool, Wildcat<br>Basin Dakota / Blanco MV                                           | 11. Sec., Twn, Rge, Mer. (NMPM)<br>F Sec. 24, T31N, R08W<br><br>API # 30-045- 33772 |
| 14. Distance in Miles from Nearest Town                                                                            | 12. County<br>San Juan                                                                         | 13. State<br>NM                                                                     |
| 15. Distance from Proposed Location to Nearest Property or Lease Line<br>758'                                      | 17. Acres Assigned to Well<br>DK & MV 320 W/2<br><del>300.63</del> 310.26                      |                                                                                     |
| 16. Acres in Lease                                                                                                 | 18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease |                                                                                     |
| 19. Proposed Depth<br>8076'                                                                                        | 20. Rotary or Cable Tools<br>Rotary                                                            |                                                                                     |
| 21. Elevations (DF, FT, GR, Etc.)<br>6475' GL                                                                      | 22. Approx. Date Work will Start                                                               |                                                                                     |
| 23. Proposed Casing and Cementing Program<br>See Operations Plan attached                                          |                                                                                                |                                                                                     |
| 24. Authorized by: <u>Patsy Clugston</u><br>Sr. Regulatory Analyst                                                 | Date <u>5/31/06</u>                                                                            |                                                                                     |

PERMIT NO.

APPROVAL DATE

APPROVED BY D. Montez

TITLE AFM

DATE 6/15/06

Archaeological Report attached

Environmental Assessment is attached.

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED  
DATE 10/10/06 BY 60320 JAL/STP

NMOC

This document contains information that is exempt from public release under the provisions of the Freedom of Information Act, 5 U.S.C. 552.

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

|                             |  |                                          |  |                                               |                     |
|-----------------------------|--|------------------------------------------|--|-----------------------------------------------|---------------------|
| *API Number<br>30-045-33778 |  | *Pool Code<br>72319 / 71599              |  | *Pool Name<br>BLANCO MESAVERDE / BASIN DAKOTA |                     |
| *Property Code<br>31330     |  | *Property Name<br>SAN JUAN 32-8 UNIT     |  |                                               | *Well Number<br>15M |
| *OGRID No.<br>217817        |  | *Operator Name<br>CONOCOPHILLIPS COMPANY |  |                                               | *Elevation<br>6475' |

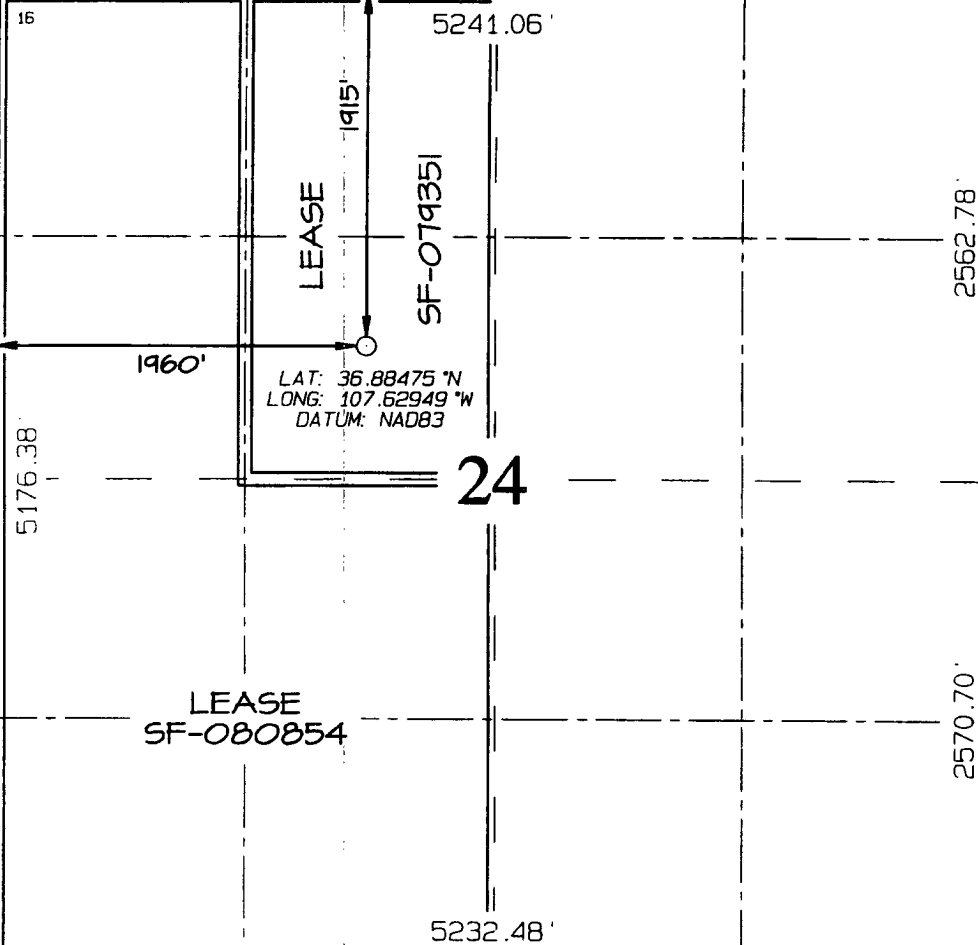
<sup>10</sup> Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| F             | 24      | 31N      | 8W    |         | 1915          | NORTH            | 1960          | 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><del>320.0</del><br>310.26 Acres - W/2 |         |          |       |         | <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

|                                                                                      |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Virgil E. Chavez</i><br/>Signature<br/>Virgil E. Chavez<br/>Printed Name<br/>Projects &amp; Operations Lead<br/>Title<br/>March 17, 2006<br/>Date</p> <p><sup>18</sup> SURVEYOR CERTIFICATION</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>Survey Date: JANUARY 4, 2006</p> <p>Signature and Seal of Professional Surveyor</p> <p></p> <p><i>JASON C. EDWARDS</i><br/>Certificate Number 15269</p> |
|--------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Office

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico

Energy, Minerals and Natural Resources

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-103

May 27, 2004

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
Oil Well ☐ Gas Well ☒ Other

2. Name of Operator  
ConocoPhillips Company

3. Address of Operator  
3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location  
Unit Letter F : 1915 feet from the North line and 11960 feet from the West line  
Section 24 Township 31N Rng 8W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6475' GL

Pit or Below-grade Tank Application

☐ or Closure ☐

Pit type New Drill Depth to Groundwater <100' Distance from nearest fresh water well >1000' Distance from nearest surface water >200'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume \_\_\_\_\_ bbls; Construction Material \_\_\_\_\_

## 12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

## NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: New Drill ☒

## SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The pit will be constructed and closed in accordance with Rule 50 and as per the November 1, 2004 guidelines. See the attached diagram that details the location of the pit in reference to the proposed wellhead. The drill pit will be lined. The drill pit will be closed after the well has been completed.

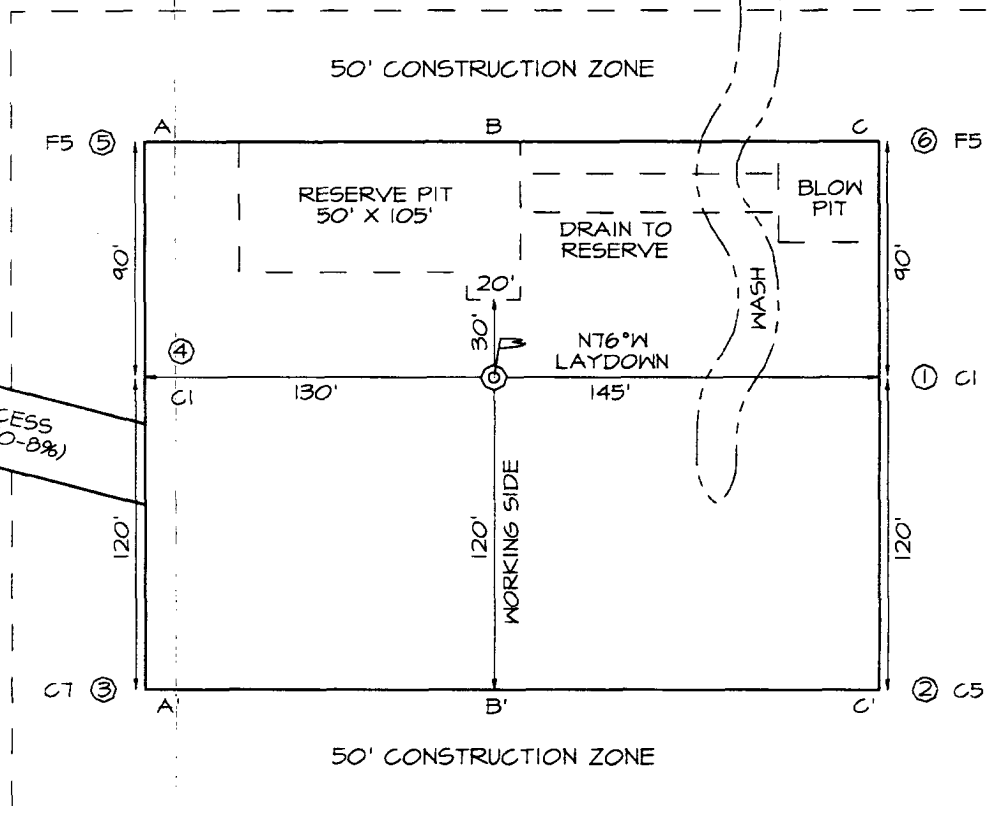
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Patsy Clugston TITLE Sr. Regulatory Analyst DATE 5/8/2006

Type or print name Patsy Clugston E-mail address: plclugston@br-inc.com Telephone No. 505-326-9518  
**For State Use Only**

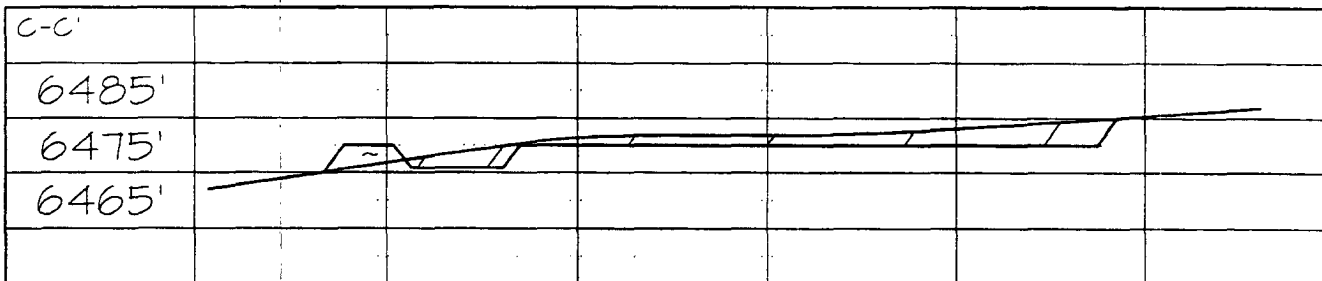
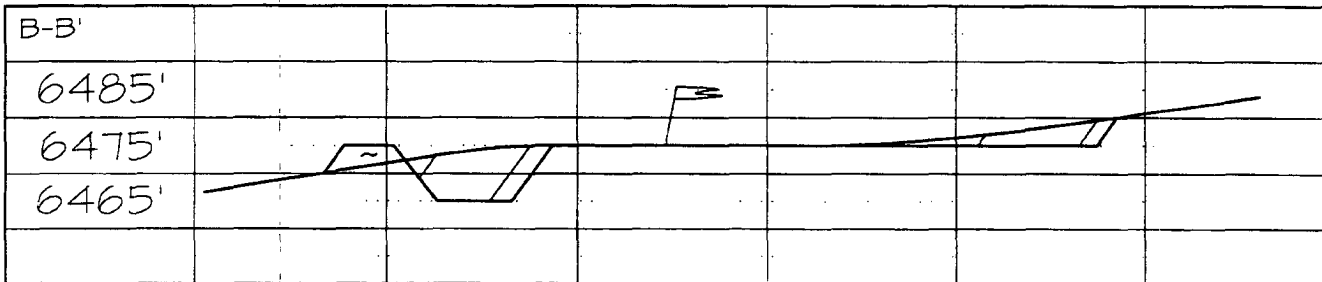
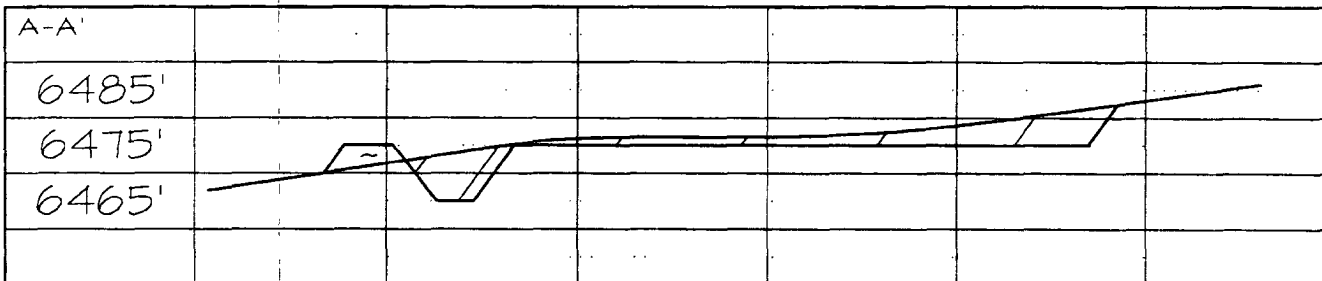
APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3 DATE JUN 19 2006  
Conditions of Approval (if any):

**CONOCOPHILLIPS COMPANY SAN JUAN 32-8 UNIT #15M  
1915' FNL & 1960' FWL, SECTION 24, T31N, R8W, NMPM  
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6475'**



**LATITUDE: 36.88475° N  
LONGITUDE: 107.62949° W  
DATUM: NAD1983**

**PLAT NOTE:**  
\*SURFACE OWNER\*  
Bureau of Land  
Management



# PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 32-8 15M

|                                     |                       |                                    |                  |         |  |
|-------------------------------------|-----------------------|------------------------------------|------------------|---------|--|
| Lease:                              |                       | AFE #: WAN.CNV.6227                |                  | AFE \$: |  |
| Field Name: 32-8                    | Rig: 486-0597         | State: NM                          | County: SAN JUAN | API #:  |  |
| Geoscientist: Glaser, Terry J       | Phone: (832)486-2332  | Prod. Engineer:                    |                  | Phone:  |  |
| Res. Engineer: Tomberlin, Timothy A | Phone: (832) 486-2328 | Proj. Field Lead: Fransen, Eric E. |                  | Phone:  |  |

## Primary Objective (Zones):

| Zone   | Zone Name         |
|--------|-------------------|
| R20002 | MESAVERDE(R20002) |
| R20076 | DAKOTA(R20076)    |

|                     |                        |                    |      |               |           |
|---------------------|------------------------|--------------------|------|---------------|-----------|
| Location: Surface   |                        | Datum Code: NAD 27 |      | Straight Hole |           |
| Latitude: 36.884750 | Longitude: -107.629490 | X:                 | Y:   | Section: 24   | Range: 8W |
| Footage X: 1960 FWL | Footage Y: 1915 FNL    | Elevation: 6475    | (FT) | Township: 31N |           |
| Tolerance:          |                        |                    |      |               |           |

|                                             |                    |                  |                    |
|---------------------------------------------|--------------------|------------------|--------------------|
| Location Type: Summer Only                  | Start Date (Est.): | Completion Date: | Date In Operation: |
| Formation Data: Assume KB = 6491 Units = FT |                    |                  |                    |

| Formation Call & Casing Points | Depth (TVD in Ft) | SS (Ft) | Depletion (Yes/No)       | BHP (PSIG) | BHT | Remarks                                                                                                                                                                      |
|--------------------------------|-------------------|---------|--------------------------|------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surface Casing                 | 216               | 6275    | <input type="checkbox"/> |            |     | 13-1/2 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.                                                                                                 |
| NCMT                           | 891               | 5600    | <input type="checkbox"/> |            |     |                                                                                                                                                                              |
| CJAM                           | 2211              | 4280    | <input type="checkbox"/> |            |     | Possible water flows.                                                                                                                                                        |
| KRLD                           | 2361              | 4130    | <input type="checkbox"/> |            |     |                                                                                                                                                                              |
| FRLD                           | 3041              | 3450    | <input type="checkbox"/> |            |     | Possible gas.                                                                                                                                                                |
| PCCF                           | 3391              | 3100    | <input type="checkbox"/> |            |     |                                                                                                                                                                              |
| LEWS                           | 3591              | 2900    | <input type="checkbox"/> |            |     |                                                                                                                                                                              |
| Intermediate Casing            | 3691              | 2800    | <input type="checkbox"/> |            |     | 8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.                                                                                                      |
| CHRA                           | 4531              | 1960    | <input type="checkbox"/> |            |     |                                                                                                                                                                              |
| CLFH                           | 5341              | 1150    | <input type="checkbox"/> |            |     | Gas; possibly wet                                                                                                                                                            |
| MENF                           | 5391              | 1100    | <input type="checkbox"/> |            |     | Gas.                                                                                                                                                                         |
| PTLK                           | 5661              | 830     | <input type="checkbox"/> |            |     | Gas.                                                                                                                                                                         |
| CLLP                           | 6991              | -500    | <input type="checkbox"/> |            |     | Gas. Possibly wet.                                                                                                                                                           |
| CRHN                           | 7726              | -1235   | <input type="checkbox"/> |            |     | Gas possible, highly fractured                                                                                                                                               |
| PAGU                           | 7895              | -1404   | <input type="checkbox"/> |            |     | Gas. Highly Fractured.                                                                                                                                                       |
| Total Depth                    | 8076              | -1585   | <input type="checkbox"/> |            |     | 6-1/4" Hole. 4-1/2", 11.6 ppf, N-80, LTC 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:

| Reference Type | Well Name | Comments |
|----------------|-----------|----------|
|----------------|-----------|----------|

# PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 32-8 15M

## Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☒ TDT

## Additional Information:

| Log Type | Stage | From (Ft) | To (Ft) | Tool Type/Name | Remarks |
|----------|-------|-----------|---------|----------------|---------|
|----------|-------|-----------|---------|----------------|---------|

Comments: Zones - MV PA. DK is not in PA

General/Work Description - MV PA. DK is not in PA

HOLE: 13.5 "  
CSG OD: 9.625 "  
CSG ID: 9.001 "  
WGT: 32.3 ppf  
GRADE: H-40  
EXCESS: 125 %  
DEPTH: 235'

HOLE: 8.75 "  
CSG OD: 6.456 "  
CSG ID: 6.456 "  
WGT: 20 ppf  
GRADE: J-55  
EXCESS: 150 %  
TAIL: 738.2'  
DEPTH: 3691'

HOLE: 6.25 "  
CSG OD: 4.5 "  
CSG ID: 4 "  
WGT: 11.6 ppf  
GRADE: N-80  
EXCESS: 50 %  
DEPTH: 8076'

**SURFACE:**  
Option 1  
222 sx  
46.2 bbls  
259.5 cuft  
1.17 ft<sup>3</sup>/sx  
15.8 ppg  
4.973 gal/sx  
Class G Cement  
+ 3% S001 Calcium Chloride  
+ 0.25 lb/sx D029 Cellophane Flakes  
Comp. Strength  
6 hrs 250 psi  
8 hrs 500 psi

Option 2  
214 sx  
46.2 bbls  
259.5 cuft  
1.21 ft<sup>3</sup>/sx  
15.6 ppg  
5.29 gal/sx  
Standard Cement  
+ 3% Calcium Chloride  
+ 0.25 lb/sx Flocele  
Comp. Strength  
6 hrs 250 psi  
8 hrs 500 psi

**INTERMEDIATE LEAD:**

Option 1  
391 sx  
189.3 bbls  
1062.9 cuft  
2.72 ft<sup>3</sup>/sx  
11.7 ppg  
15.74 gal/sx  
Class G Cement  
+ 3% D079 Extender  
+ 0.20% D046 Antifoam  
+ 10 lb/sx Phenoseal  
Comp. Strength  
9 hrs 300 psi  
48 hrs 525 psi

Option 2  
409 sx  
189.3 bbls  
1062.9 cuft  
2.80 ft<sup>3</sup>/sx  
11.5 ppg  
14.62 gal/sx  
Type III Ashgrove Cement  
+ 30 lb/sx San Juan Poz  
+ 3% Bentonite  
+ 5.0 lb/sx Phenoseal  
Comp. Strength  
1.47 hrs 50 psi  
12 hrs 350 psi  
24 hrs 450 psi

Option 3  
404 sx  
189.3 bbls  
1062.9 cuft  
2.63 ft<sup>3</sup>/sx  
11.7 ppg  
15.92 gal/sx  
Class G Cement  
+ 3% D079 Extender  
+ 0.20% D046 Antifoam  
+ 1.0 lb/bbl CemNet  
Comp. Strength  
3 hrs 100 psi  
24 hrs 443 psi

**INTERMEDIATE TAIL:**

Option 1  
219 sx  
51.1 bbls  
287.1 cuft  
1.31 ft<sup>3</sup>/sx  
13.5 ppg  
5.317 gal/sx  
50/50 Poz: Class G Cement  
+ 0.25 lb/sx D029 Cellophane Flakes  
+ 3% S001 Calcium Chloride  
+ 2% D020 Bentonite  
+ 1.5 lb/sx D024 Gilsomite Extender  
+ 0.1% D046 Antifoamer  
+ 6 lb/sx Phenoseal  
Comp. Strength  
3:53 500 psi  
8:22 1000 psi  
24 hrs 3170 psi  
48 hrs 5399 psi

Option 2  
216 sx  
51.1 bbls  
287.1 cuft  
1.33 ft<sup>3</sup>/sx  
13.5 ppg  
5.52 gal/sx  
50/50 Poz: Standard Cement  
+ 2% Bentonite  
+ 6.0 lb/sx Phenoseal  
Comp. Strength  
2:05 50 psi  
4:06 500 psi  
12 hrs 1250 psi  
24hrs 1819 psi

Option 3  
224 sx  
51.1 bbls  
287.1 cuft  
1.28 ft<sup>3</sup>/sx  
13.5 ppg  
5.255 gal/sx  
50/50 Poz: Class G Cement  
+ 2% D020 Bentonite  
+ 5.0 lb/sx D024 Gilsomite Extender  
+ 2% S001 Calcium Chloride  
+ 0.1% D046 Antifoamer  
+ 0.15% D065 Dispersant  
+ 1.0 lb/bbl CemNet  
Comp. Strength  
24 hrs 1850 psi  
48 hrs 3411 psi

**PRODUCTION:**

Option 1  
485 sx  
124.4 bbls  
698.5 cuft  
1.44 ft<sup>3</sup>/sx  
13.0 ppg  
6.47 gal/sx  
50/50 Poz: Class G Cement  
+ 0.25 lb/sx D029 Cellophane Flakes  
+ 3% D020 Bentonite  
+ 1.0 lb/sx D024 Gilsomite Extender  
+ 0.25% D167 Fluid Loss  
+ 0.25% D065 Dispersant  
+ 0.1% D800 Retarder  
+ 0.1% D046 Antifoamer  
+ 3.5 lb/sx Phenoseal  
Comp. Strength  
7 hrs 500 psi  
24 hrs 2100 psi

Option 2  
482 sx  
124.4 bbls  
698.5 cuft  
1.45 ft<sup>3</sup>/sx  
13.1 ppg  
6.55 gal/sx  
50/50 Poz: Standard Cement  
+ 3% Bentonite  
+ 0.2% CFR-3 Friction Reducer  
+ 0.1% HR-5 Retarder  
+ 0.8% Halad-9 Fluid Loss Additive  
+ 3.5 lb/sx Phenoseal  
Comp. Strength  
9:32 50 psi  
12 hrs 500 psi  
13:29 1026 psi  
24 hrs 2300 psi

San Juan 32-8 #15M

HOLE: 13.5 "  
CSG OD: 9.625 "  
CSG ID: 9.001 "  
WGT: 32.3 ppf  
GRADE: H-40  
EXCESS: 125 %  
DEPTH: 235'

SURFACE:

INTERMEDIATE LEAD:

Option 4  
369 sx  
189.3 bbls  
1062.9 cuft  
2.88 ft³/sx  
11.5 ppg  
16.85 gal/sx  
Standard Cement  
+ 3% Econolite (Extender)  
+ 10 lb/sx Phenoseal

Option 5  
506 sx  
189.3 bbls  
1062.9 cuft  
2.10 ft³/sx  
11.7 ppg  
11.724 gal/sx  
75% Type XI / 25% Class G Cement  
+ 0.25 lb/sx D029 Cellophane Flakes  
+ 3% D079 Extender  
+ 0.20% D046 Antifoam

Comp. Strength  
10.56 500 psi  
42 hrs 1012 psi

HOLE: 8.75 "  
CSG OD: 7 "  
CSG ID: 6.456 "  
WGT: 20 ppf  
GRADE: J-55  
EXCESS: 150 %  
TAIL: 738.2'  
DEPTH: 3691'

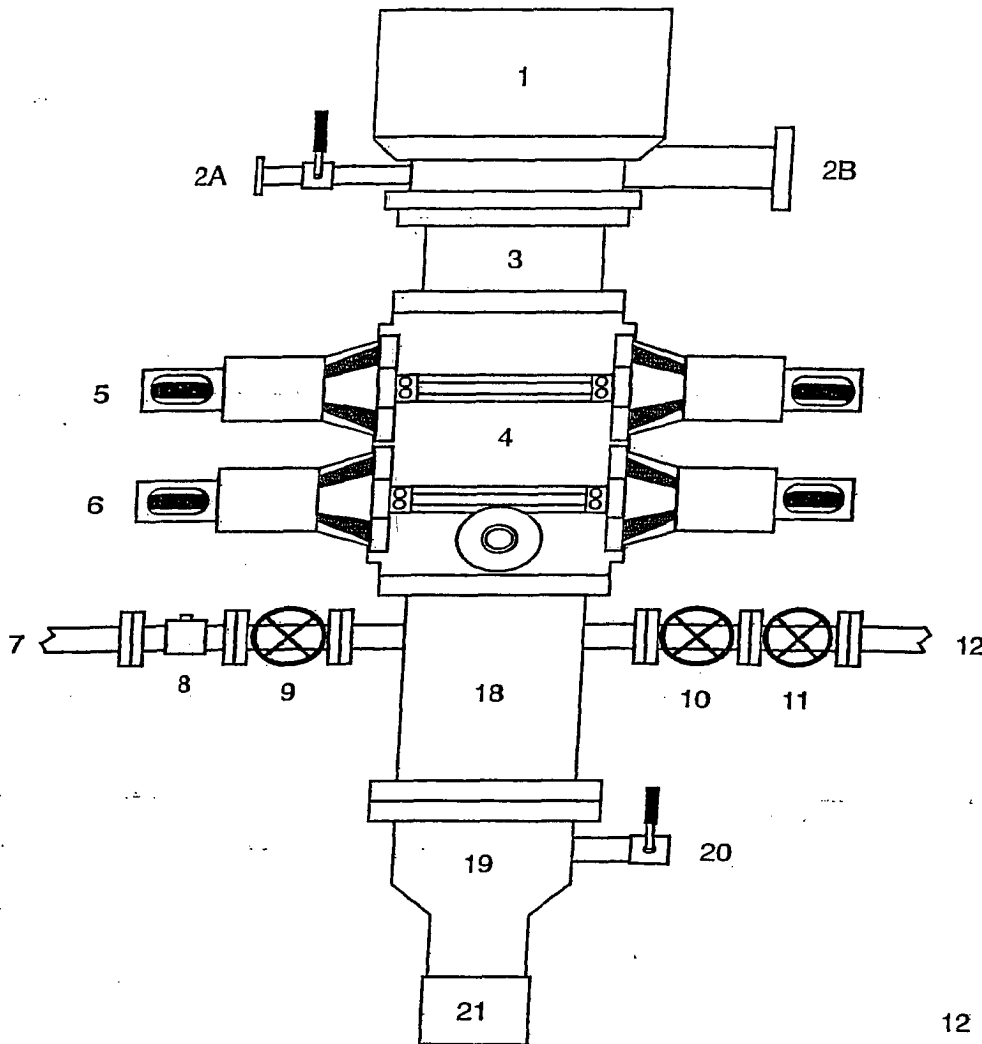
INTERMEDIATE TAIL:

HOLE: 6.25 "  
CSG OD: 4.5 "  
CSG ID: 4 "  
WGT: 11.6 ppf  
GRADE: N-80  
EXCESS: 50 %  
DEPTH: 8076'

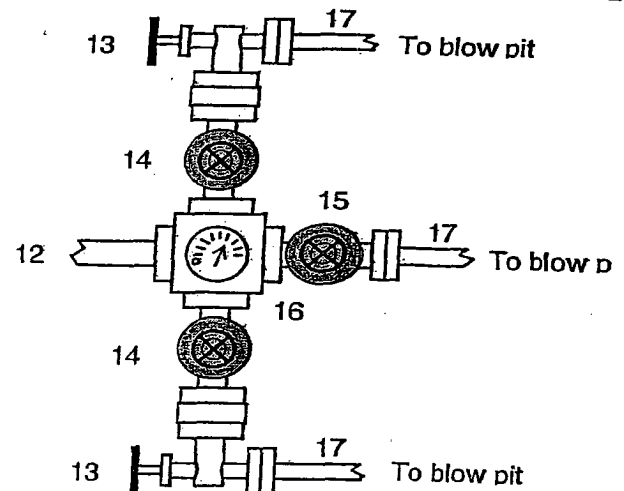
PRODUCTION:

# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to Intermediate Casing Point & Setting 7" Intermediate Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Flowline
3. Spacer Spool
4. Double Ram BOP (11", 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. Mud Cross Spacer Spool
19. Casing Head "A" Section
20. Casing Head "A" Section 2" Valve
21. 9 5/8" Casing Collar

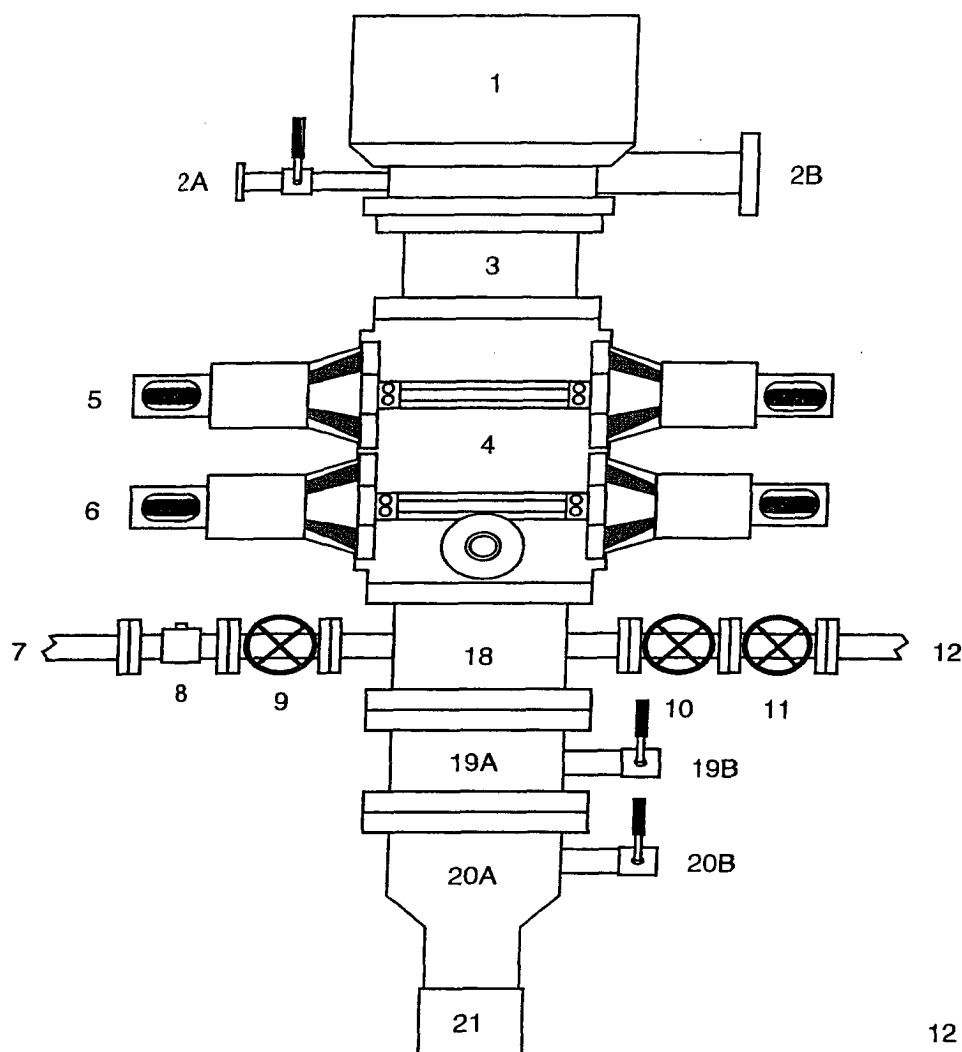


A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 10 minutes and to 1000 psi (high pressure test) for 10 minutes. Then the test plug will be removed, and the 9-5/8" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 10 minutes and to 1000 psi for 30 minutes (this value is one 44% of the minimum internal yield pressure of the 9-5/8" casing). (Note: per regulatory requirements we will wait on cement at least 8 hrs after placement before testing the 9-5/8" surface casing). Then an 8-3/4" hole will be drilled to intermediate casing point and 7" intermediate casing will be run and cemented.

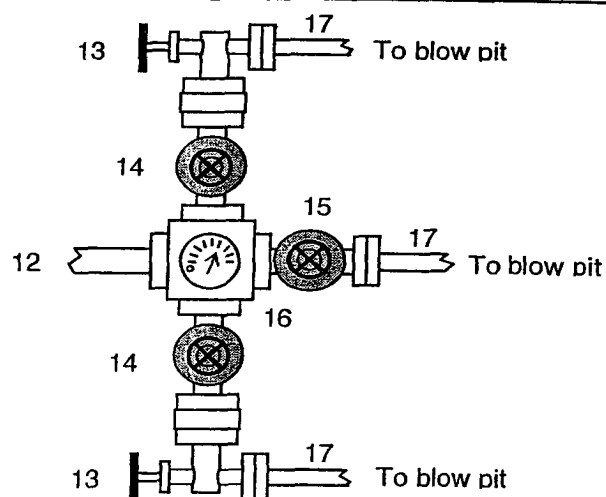
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Bleeie Line (for Air Drilling)
3. Spacer Spool
4. Double Ram BOP (11", 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. Mud Cross Spacer Spool
- 19A Csg Spool "B" Section (11", 3M)
- 19B "B" Section Csg Valve (2", 3M)
- 20A Csg Head "A" Section (11", 3M)
- 20B "A" Section Csg Valve (2", 3M)
21. 9 5/8" Casing Collar



After the 7" intermediate casing has been run and cemented, the Casing Spool ("B" Section) will be installed on the wellhead ("A" Section) and the BOP will be installed on the Casing Spool. A test plug will be set in the wellhead and the pipe rams, blind rams, and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 10 minutes and to 3000 psi (high pressure test) for 10 minutes. Then the test plug will be removed and the 7" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 10 minutes and to 1800 psi for 30 minutes - this test pressure is 48% of the minimum internal yield strength of 3740 psi for the 7", 20#, J-55, STC casing. Then we will air drill the 6-1/4" hole to TD and run and cement the 4-1/2" casing.

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