

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DIST. 3

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-079294 Unit Reporting Number NMNM-78413C-DK NMNM-78413A-MV
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator ConocoPhillips	7. Unit Agreement Name San Juan 28-7 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name 9. Well Number #221F
4. Location of Well Unit P (SESE), 1005' FSL & 665' FEL, Latitude 36° 37.6695' N Longitude 107° 31.0531' W	10. Field, Pool, Wildcat Blanco Mesa Verde/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) P Sec. 25 T28N, R7W, NMPM API # 30-039- 30146
14. Distance in Miles from Nearest Town 25 miles to Blanco	12. County Rio Arriba
15. Distance from Proposed Location to Nearest Property or Lease Line 665'	13. State NM
16. Acres in Lease	17. Acres Assigned to Well 320 acres E/2
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease	
19. Proposed Depth 7672'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6524' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Nancy V. Monroe</u> Regulatory Technician	<u>12/20/06</u> Date

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY [Signature] TITLE ATM DATE 3/9/07

Archaeological Report submitted separately
Enviromental 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.

This is not an HPA well
This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4
NMOCB 8 3/13/07
DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

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

District II
PO Drawer 00, 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

2006 DEC 20 PM 4:12
AMENDED REPORT

RECEIVED

BLM

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039- 3D146	*Pool Code 72319 / 71599	*Pool Name BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 31739	*Property Name SAN JUAN 28-7 UNIT	*Well Number 221F
*OGRID No. 217817	*Operator Name CONOCOPHILLIPS COMPANY	*Elevation 6524

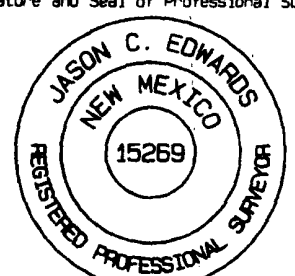
10 Surface Location

UL or lot no. P	Section 25	Township 28N	Range 7W	Lot Idh	Feet from the	North/South line	Feet from the	East/West line	County RIO ARriba
					1005	SOUTH	665	EAST	

11 Bottom Hole Location If Different From Surface

UL or lot no. P	Section	Township	Range	Lot Idh	Feet from the	North/South line	Feet from the	East/West line	County
*Dedicated Acres 320.0 Acres - (E/2)					*Joint or Infill	*Consolidation Code	*Order No. DIST. 3		

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

15	5280.00'	LEASE SF-079290-B	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Virgil E. Chavez</i> Signature Virgil E. Chavez Printed Name Projects & Operations Lead Title November 2, 2006 Date
5280.00'	25	LEASE SF-079294	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. Date of Survey: APRIL 17, 2006 Signature and Seal of Professional Surveyor  JASON C. EDWARDS Certificate Number 15269
		LAT: 36.62783°N LONG: 107.51816°W DATUM: NAD83 LAT: 36°37.6695'N LONG: 107°31.0531'W DATUM: NAD27 665' 1005'	

District I
1625 N. French Dr., Hobbs, NM 88240

Energy, Minerals and Natural Resources

May 27, 2004

District II
1301 W. Grand Ave., Artesia, NM 88210

OIL CONSERVATION DIVISION

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

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

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

WELL API NO.	30-039-30146
5. Indicate Type of Lease	STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	SF-079294
7. Lease Name or Unit Agreement Name	San Juan 28-7 Unit
8. Well Number	221F
9. OGRID Number	217817
10. Pool name or Wildcat	Basin Dakota/Blanco Mesa Verde

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

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

4. Well Location
Unit Letter P : 1005 feet from the South line and 665 feet from the East line
Section 25 Township 28N Range 7W NMPM County Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
6524' 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 >1000'
Pit Liner Thickness: 12 mil Below-Grade Tank: bbbs 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 ☐

SUBSEQUENT REPORT OF:

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

OTHER: New Drill Pit ☒ 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.

New Drill, Lined:

ConocoPhillips proposes to construct a new drilling pit, an associated vent/flare pit and a pre-set mud pit (if required). Based on ConocoPhillips' interpretation of the Ecosystem's risk ranking criteria, the new drilling pit and pre-set mud pit will be lined pits as detailed in ConocoPhillips' General Plan dated June 2005 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids and that portion will be lined as per the risk ranking criteria. ConocoPhillips anticipates closing these pits according to the November 1, 2004 Guidelines.

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 Tracey N. Monroe TITLE Regulatory Technician DATE 12/18/2006

Type or print name Tracey N. Monroe E-mail address: Tracey.N.Monroe@conocophillips.com Telephone No. 505-326-9752
For State Use Only

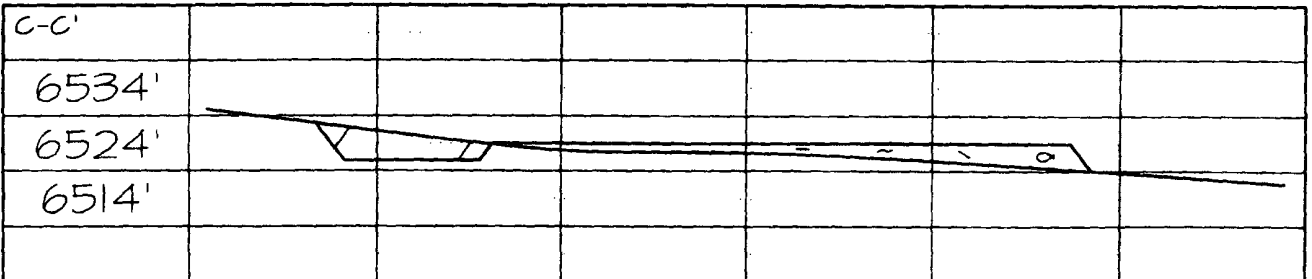
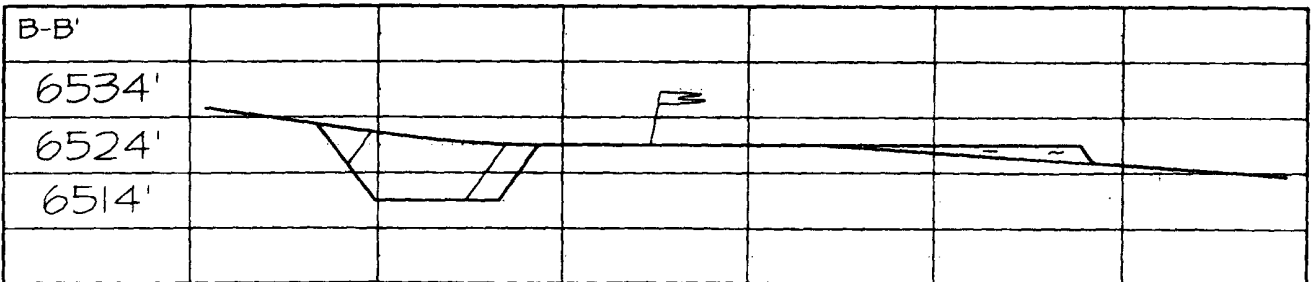
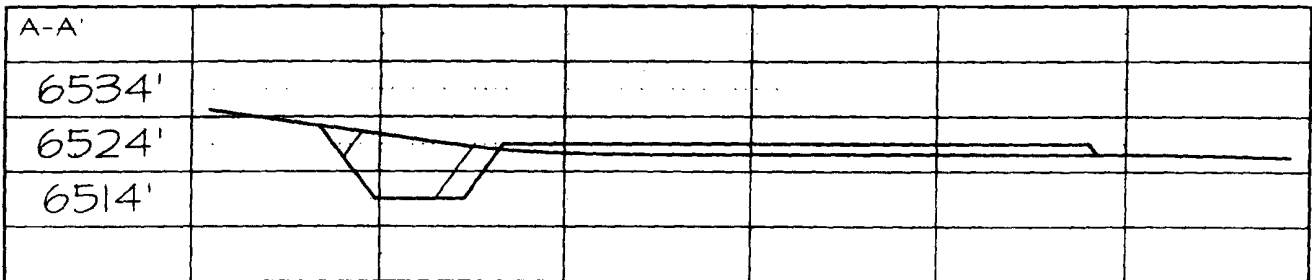
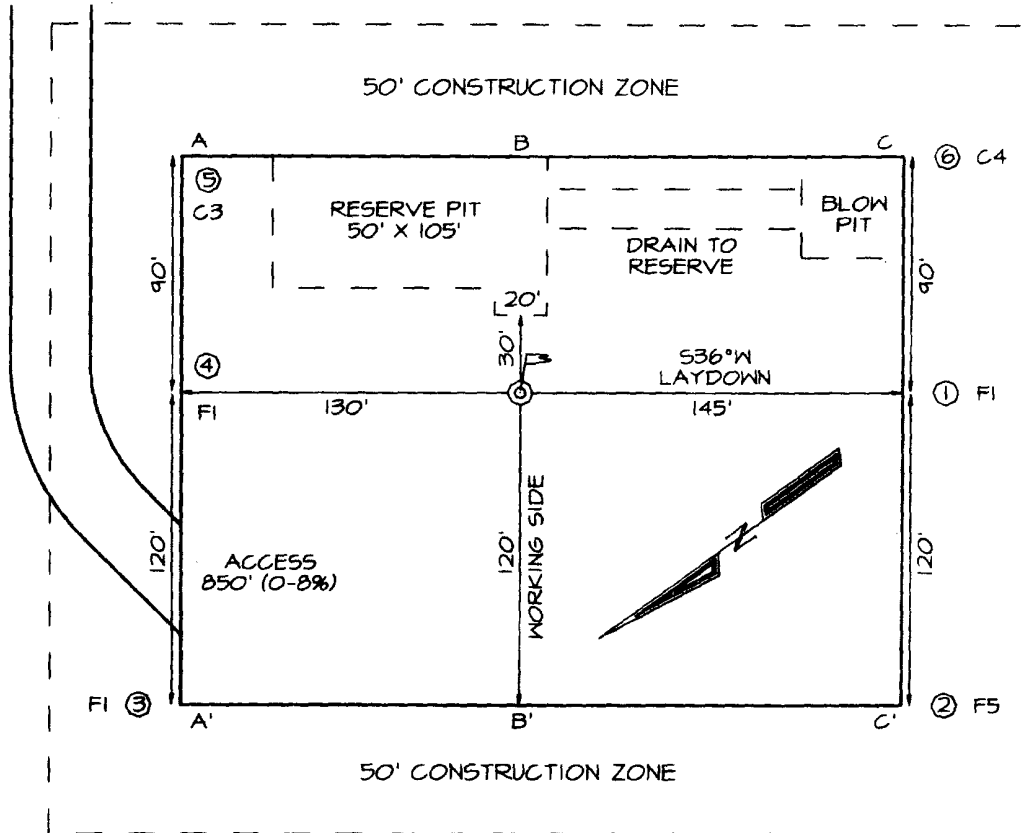
APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 03 DATE 3/13/07
Conditions of Approval (if any):

CONOCOPHILLIPS COMPANY SAN JUAN 28-7 UNIT #221F
1005' FSL & 665' FEL, SECTION 25, T28N, R7W, NMPM
RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6524'

LATITUDE: 36.62783° N
LONGITUDE: 107.51816° W
 DATUM: NAD1983

PLAT NOTE:

SURFACE OWNER
 Bureau of Land
 Management



PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 221F

Lease:		AFE #: WAN.CNV.7168		AFE \$:	
Field Name: 28-7	Rig: Aztec Rig 711	State: NM	County: RIO ARRIBA	API #:	
Geoscientist: Pippin, Eddie A	Phone: 505-326-9780	Prod. Engineer: Fontenot, Jessie C	Phone: +1 832-486-3483		
Res. Engineer: Johnson, Tom B.	Phone: (832)-486-2347	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: 36.627822	Longitude: -107.517555	X:	Y:	Section: 25	Range: 7W
Footage X: 665 FEL	Footage Y: 1005 FSL	Elevation: 6524	(FT)	Township: 28N	

Tolerance:	
Location Type: Year Round	Start Date (Est.):
Completion Date:	Date In Operation:
Formation Data: Assume KB = 6538 Units = FT	

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SURFACE CSG	211	6327	<input type="checkbox"/>			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
NCMT	1088	5450	<input type="checkbox"/>			
OJAM	2424	4114	<input type="checkbox"/>			Possible water flows.
KRLD	2552	3986	<input type="checkbox"/>			
FRLD	3022	3516	<input type="checkbox"/>			Possible gas.
PCCF	3226	3312	<input type="checkbox"/>			
LEWS	3305	3233	<input type="checkbox"/>			
Intermediate Casing	3405	3133	<input type="checkbox"/>			8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
HURF	3786	2752	<input type="checkbox"/>			
CHRA	4179	2359	<input type="checkbox"/>			
UCLFH	4775	1763	<input type="checkbox"/>			
CLFH	4864	1674	<input type="checkbox"/>			Gas; possibly wet
MENF	5003	1535	<input type="checkbox"/>			Gas.
PTLK	5461	1077	<input type="checkbox"/>			Gas.
MNCS	5920	618	<input type="checkbox"/>			Gas.
UPPER GLLP	6640	-102	<input type="checkbox"/>			Gas. Possibly wet.
GRHN	7379	-841	<input type="checkbox"/>			Gas possible, highly fractured
GRRS	7441	-903	<input type="checkbox"/>			
TWLS	7476	-938	<input type="checkbox"/>			Gas
PAGU	7563	-1025	<input type="checkbox"/>			Gas. Highly Fractured.
CBBO	7589	-1051	<input type="checkbox"/>			Gas
CBRL	7615	-1077	<input type="checkbox"/>			
Total Depth	7672	-1134	<input type="checkbox"/>			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:		
Reference Type	Well Name	Comments
Intermediate	SJ 28-7 221M	25-28N-7W-SE, KB = 6225

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 28-7 221F

Intermediate	SJ 28-7 222	25-28N-7W-SW, KB = 6188
Intermediate	SJ 28-7 227	36-28N-7W-NE, KB = 6637

Logging Program:

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

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

GR/CBL

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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Comments: Location/Tops/Logging - TD is 293' below GRHN

Zones - MVNM028N007W25SE2 and DKNM028N007W25SE2

General/Work Description - NO LEWIS

San Juan 28-7 Unit #221F

APD Cement Calculations

HOLE: 12.25"
 CSG OD: 9.625"
 CSG ID: 9.001"
 WGT: 32.3 ppt
 GRADE: H-40
 EXCESS: 125 %
 DEPTH: 120'

SURFACE:
 Option 1
 79 sx
 16.4 bbls
 91.9 cuft
 1.17 ft³/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
 psi
 Option 2
 76 sx
 16.4 bbls
 91.9 cuft
 1.21 ft³/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
 psi
 Option 3
 37 sx
 10.6 bbls
 59.3 cuft
 1.61 ft³/sx
 14.5 ppg
 7.41 gal/sx
 Type I-II Ready Mix
 + 20% Fly Ash
 Comp. Strength
 8 hrs 475 psi
 24 hrs 1375 psi

INTERMEDIATE LEAD:

Option 1

224 sx
 108.4 bbls
 608.4 cuft
 2.72 ft³/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
 psi

HOLE: 8.75"
 CSG OD: 7"
 WGT: 6.456"
 GRADE: 20 ppt
 EXCESS: J-55
 50 %
 TAIL: 681'
 DEPTH: 3405'

Option 2

234 sx
 108.4 bbls
 608.4 cuft
 2.60 ft³/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

231 sx
 108.4 bbls
 608.4 cuft
 2.63 ft³/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

125 sx
 29.1 bbls
 163.2 cuft
 1.31 ft³/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 Gilsonite 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

HOLE: 6.25"
 CSG OD: 4.5"
 CSG ID: 4"
 WGT: 11.6 ppt
 GRADE: N-80
 EXCESS: 30 %
 DEPTH: 7672'

Option 2

123 sx
 29.1 bbls
 163.2 cuft
 1.33 ft³/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

127 sx
 29.1 bbls
 163.2 cuft
 1.28 ft³/sx
 13.5 ppg
 5.255 gal/sx
 50/50 Poz: Class G Cement
 + 2% D020 Bentonite
 + 5.0 lb/sx D024 Gilsonite 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

412 sx
 105.6 bbls
 592.8 cuft
 1.44 ft³/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 Gilsonite 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
 psi

Option 2

409 sx
 105.6 bbls
 592.8 cuft
 1.45 ft³/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

M² - 11/15/06

San Juan 28-7 Unit #221F

HOLE: 12.25"
CSG OD: 9.625"
CSG ID: 9.001"
WGT: 32.3 ppf
GRADE: H-40
EXCESS: 125 %

DEPTH: 120'

HOLE: 8.75"
CSG OD: 7"
CSG ID: 6.456"
WGT: 20 ppf
GRADE: J-55
EXCESS: 50 %

TAIL: 681'

DEPTH: 3405'

HOLE: 6.25"
CSG OD: 4.5"
CSG ID: 4"
WGT: 11.6 ppf
GRADE: N-80
EXCESS: 30 %

DEPTH: 7672'

SURFACE:

INTERMEDIATE LEAD:

Option 4

211 sx
108.4 bbls
608.4 cuft
2.88 ft³/sx
11.5 ppg
16.85 gal/sx
Standard Cement
+ 3% Econolite (Extender)
+ 10 lb/sx Phenoseal

Comp. Strength
1:47 50 psi
12 hrs 350 psi
24 hrs 450 psi

Option 5

290 sx
108.4 bbls
608.4 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

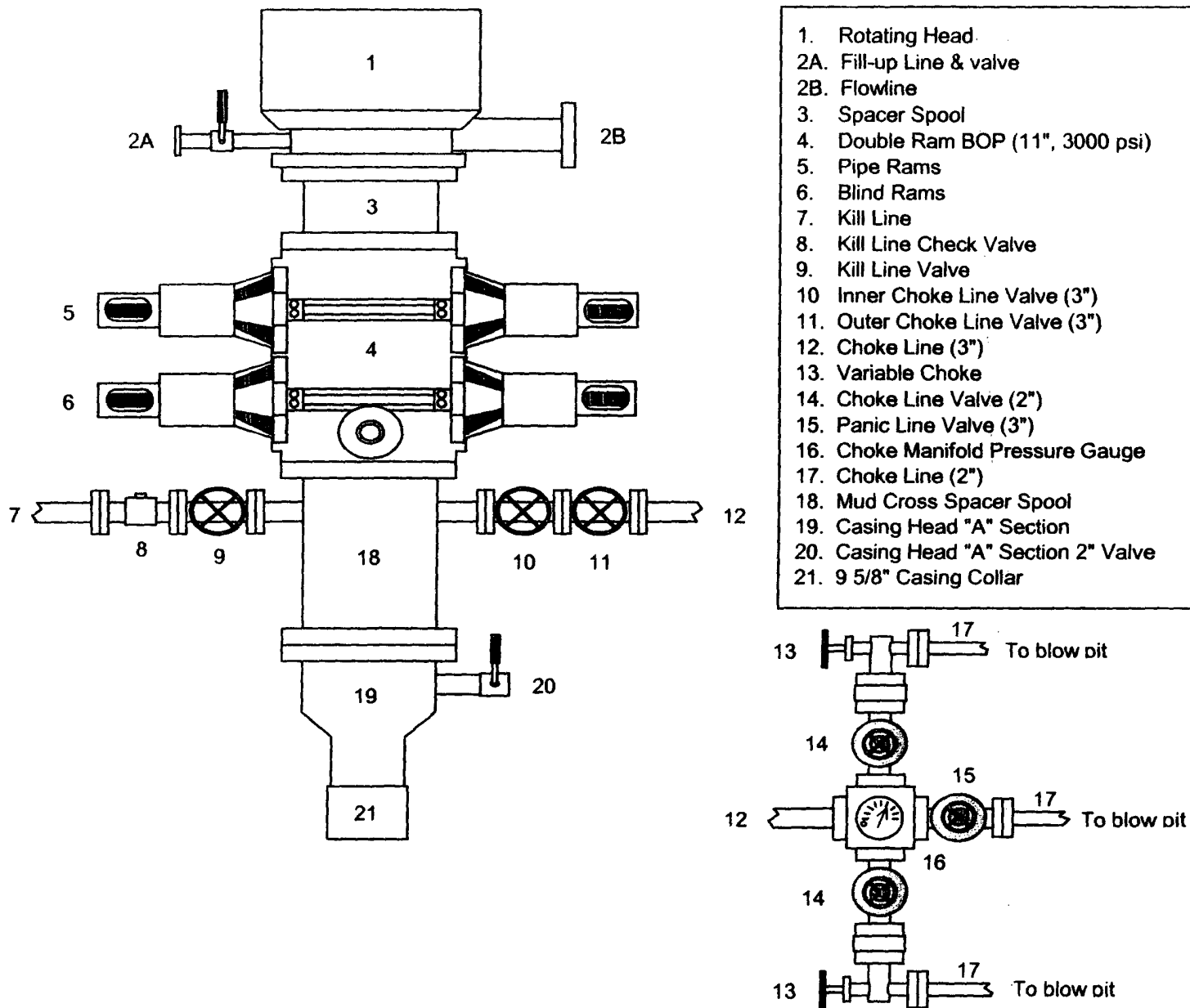
INTERMEDIATE TAIL:

PRODUCTION:

M³ - 11/15/06

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

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



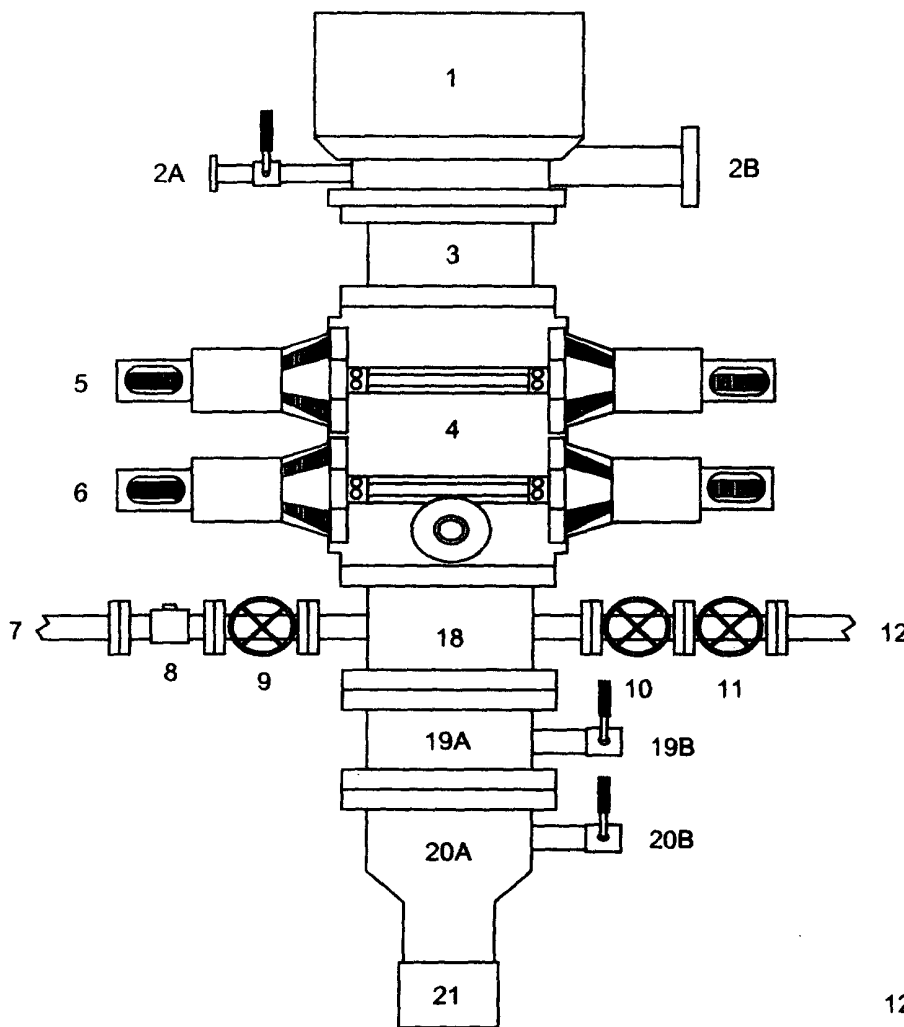
A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe 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:

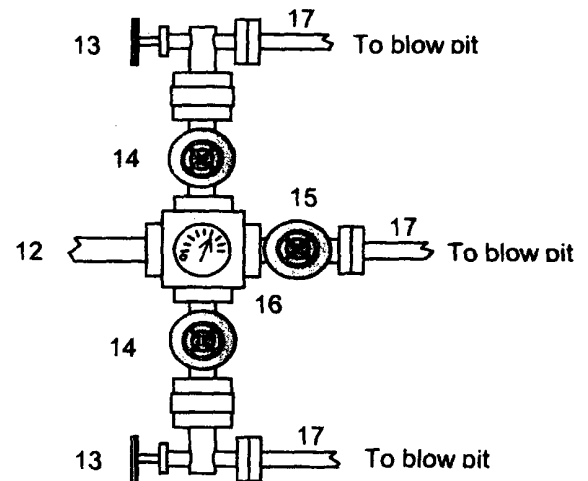
1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Bleeed 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

Revision Date: September 1, 2004