RCVD JAN 5'07
OIL CONS. DIV.
DIST. 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2006 NOV 13 PM 5 01

RECEIVED
070 FARMINGTON NM

1a. Type of Work
DRILL

5. Lease Number
SF-080854
Unit Reporting Number

1b. Type of Well
GAS

6. If Indian, All. or Tribe

2. Operator
ConocoPhillips

7. Unit Agreement Name
San Juan 32-8 Unit

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. Farm or Lease Name

9. Well Number
#30A

4. Location of Well
Surf Unit O (SWSE), 740' FSL & 1615' FEL,
Bott

Latitude 36° 53' 31.00000" N

Longitude 107° 38'30.45000"W

10. Field, Pool, Wildcat
Blanco MesaVerde

11. Sec., Twn, Rge, Mer. (NMPM)
O
Sec. 14 T31N, R08W, NMPM

API # 30-045- 34057

14. Distance in Miles from Nearest Town
13 miles to Navajo Dam

12. County
San Juan

13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
740'

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

16. Acres in Lease

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

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
6101'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6575' GL

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Patsy Clugston
Regulatory Assistant

11/13/06
Date

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE Acting AFM Minerals DATE 1/3/07

Archaeological Report submitted seperately
Enviromental Assessment is attached.

9/9

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

NMOCD 1/8/07

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Fee Lease - 3 Copies
State Lease - 7 Copies
Submit to Appropriate District Office
Revised June 10, 2003
Form C-102

2006 NOV 13 PM 5 01

☐ AMMENDED REPORT

RECEIVED
070 FARMINGTON NM

RCVD JAN3'07
OIL CONS. DIV.
DIST. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045- 34057	72319	MESAVERDE

4 Property Code	5 Property Name	6 Well Number
~~13713~~ 31330	SAN JUAN 32-8 Unit	30A

7 OGRID No.	8 Operator Name	9 Elevation
217817	CONOCOPHILLIPS COMPANY	6,575.1'

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
O	14	31-N	8-W		740	SOUTH	1615	EAST	SAN JUAN

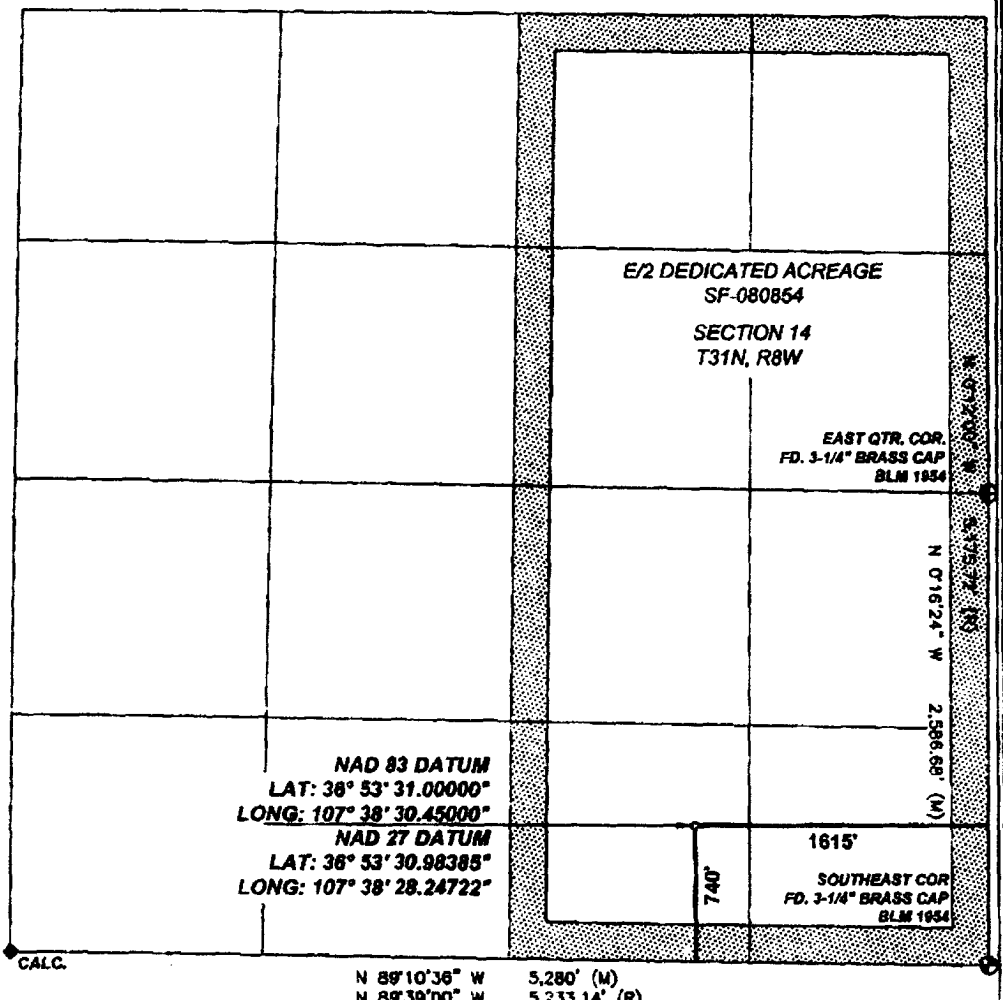
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O									

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

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

16



17 OPERATOR CERTIFICATION

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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature

Patsy Clugston
Printed Name

Sr. Regulatory Specialist
Title and E-mail Address

Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from feild 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: 6/19/06
Signature and Seal of Professional Surveyor:

Certificate Number: NM 11393

Submit 3 Copies To Appropriate District 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

WELL API NO. 30-045- 34057
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No. SF-080854

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.)

7. Lease Name or Unit Agreement Name: **San Juan 32-8 Unit**

1. Type of Well: Oil Well ☐ Gas Well ☒ Other
8. Well Number: **30A**

2. Name of Operator: BURLINGTON RESOURCES OIL & GAS COMPANY LP
9. OGRID Number: **72319**

3. Address of Operator: 3401 E. 30TH STREET, FARMINGTON, NM 87402
10. Pool name or Wildcat: **Blanco MesaVerde**

4. Well Location
Unit Letter **O** : **740** feet from the **South** line and **1615** feet from the **East** line
Section **14** Township **31N** Range **8W** NMPM County San Juan

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* **6575' 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 <1000'**
Pit Liner Thickness: **n/a** 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:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	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 Ecosphere'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 ☐.**

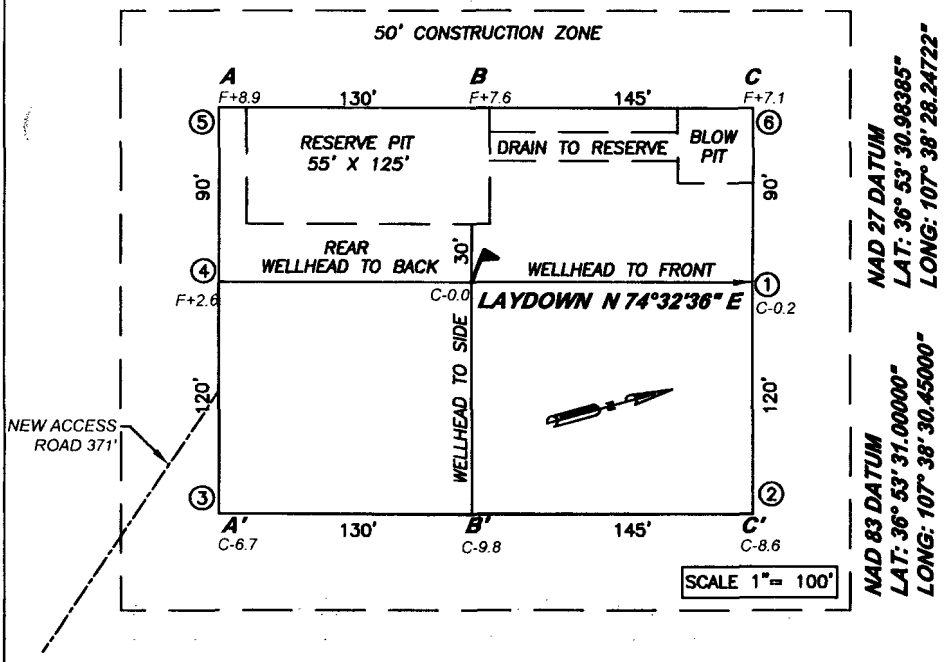
SIGNATURE Tracey Monroe by pc TITLE **Regulatory Assistant** DATE **10/6/2006**

Type or print name **Tracey N. Monroe** E-mail address: tmonroe@br-inc.com Telephone No. **505-326-9752**

For State Use Only

APPPROVED BY _____ TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE JAN 08 2007

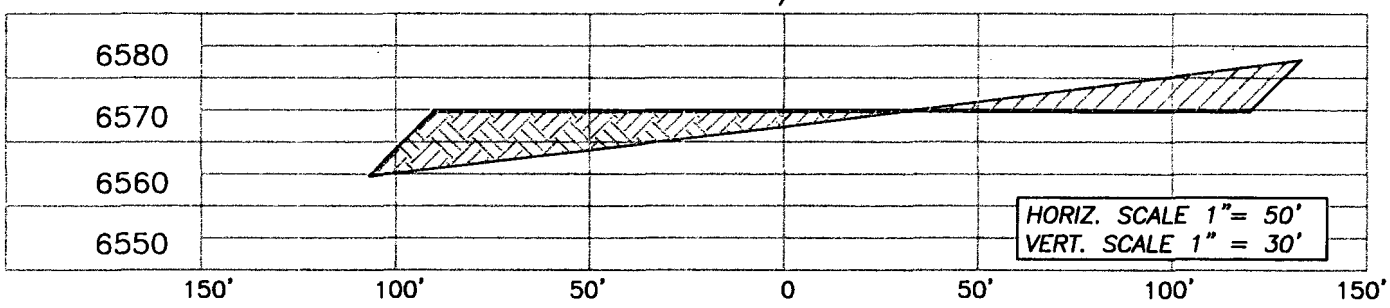
Conditions of Approval (if any):



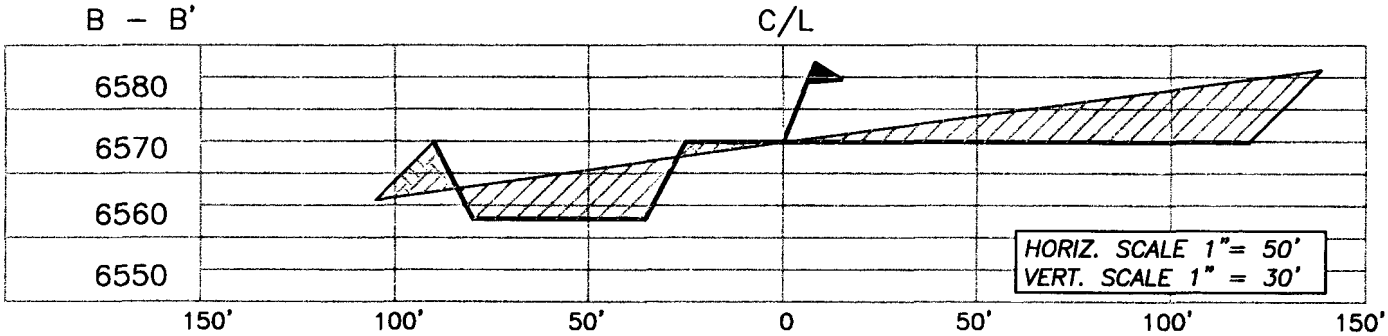
CONOCOPHILLIPS COMPANY

SAN JUAN 32-8 30A
740' FSL, 1615' FEL
SECTION 14, T31N, R8W,
SAN JUAN COUNTY, NEW MEXICO
ELEV.: 6,575.1' NADV88

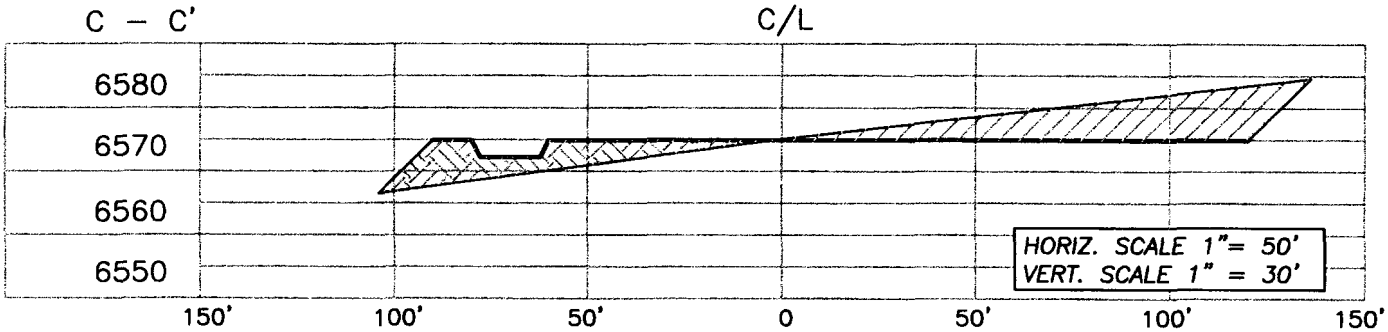
A – A'



B – B'



C – C'



NOTE: CCI IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD PRIOR TO CONSTRUCTION.

REVISIONS			
NO.	DESCRIPTION	REVISED BY	DATE

CCI
1300 W. BROADWAY
BLOOMFIELD,NM, 87413
PHONE: (505)632-7777
CHENAULT CONSULTING INC.

ConocoPhillips

San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 32-8 30A

Lease:	AFE #: WAN.CNV.7126			AFE $:
Field Name: 32-8	Rig:	State: NM	County: SAN JUAN	API #:
Geoscientist: Brain, Ted H.	Phone: 832-486-2592	Prod. Engineer: Piotrowicz, Greg M.		Phone: +1 832-486-3486
Res. Engineer: Prabowo, Wahyu	Phone: 832-486-2275	Proj. Field Lead: Fransen, Eric E.		Phone:

Primary Objective (Zones):

Zone	Zone Name
R20002	MESAVERDE(R20002)

Location: Surface	Datum Code: NAD 27				**Straight Hole**
Latitude: 36.891940	Longitude: -107.641180	X:	Y:	Section: 14	Range: 8W
Footage X: 1615 FEL	Footage Y: 740 FSL	Elevation: 6575 (FT)	Township: 31N		

Tolerance:

Location Type: Summer Only	Start Date (Est.):	Completion Date:	Date In Operation:

Formation Data: Assume KB = 6591 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SURFACE CSG	213	6378	☐			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
NCMT	951	5640	☐			
OJAM	2680	3911	☐			Possible water flows.
KRLD	2831	3760	☐			
FRLD	3185	3406	☐			Possible gas.
PCCF	3450	3141	☐			
LEWS	3595	2996	☐			
Intermediate Casing	3695	2896	☐			8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
HURF	4295	2296	☐			
CHRA	4430	2161	☐			
UCLFH	5075	1516	☐			
CLFH	5375	1216	☐			Gas; possibly wet
MENF	5444	1147	☐			Gas.
PTLK	5751	840	☐			Gas.
TD	6101	490	☐			

Reference Wells:

Reference Type	Well Name	Comments
Intermediate	SJ 32-8 23	14-31N-8W-SW, KB = 6656

ConocoPhillips

San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 32-8 30A

Logging Program:

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

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

CBL/GR

Additional Information:

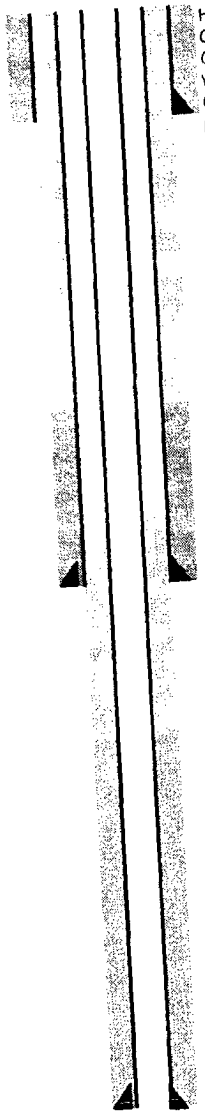
Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks

Comments:

Printed on: 11/13/2006 9:51:13 AM

San Juan 32-8 #30A

APD Cement Calculations



HOLE: 12.25 "
CSG OD: 9.625 "
CSG ID: 9.001 "
WGT: 32.3 ppf
GRADE: H-40
EXCESS: 200 %

DEPTH: 120'

SURFACE:

Option 1

99 sx
20.7 bbls
116.3 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

96 sx
20.7 bbls
116.3 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

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

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

TAIL: 739'

DEPTH: 3695'

INTERMEDIATE LEAD:

Option 1

243 sx
117.7 bbls
660.7 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

Option 2

254 sx
117.7 bbls
660.7 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

251 sx
117.7 bbls
660.7 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

HOLE: 6.25 "
CSG OD: 4.5 "
CSG ID: 4.052 "
WGT: 10.5 ppf
GRADE: J-55
EXCESS: 30 %

DEPTH: 6101'

INTERMEDIATE TAIL:

Option 1

135 sx
31.4 bbls
176.3 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

Option 2

133 sx
31.4 bbls
176.3 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

138 sx
31.4 bbls
176.3 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

239 sx
61.3 bbls
344.4 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

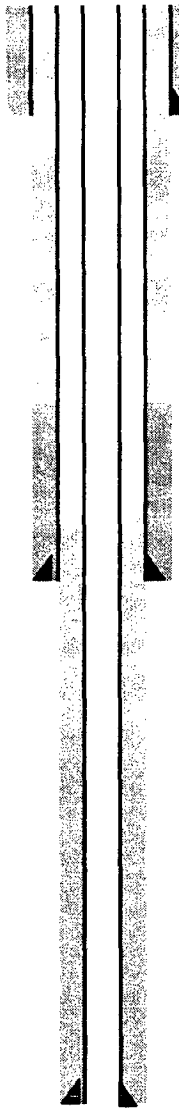
Comp. Strength
7 hrs 500 psi
24 hrs 2100 psi

Option 2

238 sx
61.3 bbls
344.4 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

San Juan 32-8 #30A



SURFACE:

HOLE:	12.25 "
CSG OD:	9.625 "
CSG ID:	9.001 "
WGT:	32.3 ppf
GRADE:	H-40
EXCESS:	200 %
DEPTH:	**120** '

INTERMEDIATE LEAD:

Option 4		Comp. Strength			Option 5		Comp. Strength		
229	**sx**	1:47	50	psi	**315**	**sx**	10:56	500	psi
117.7	bbls	12 hrs	350	psi	117.7	bbls	42 hrs	1012	psi
660.7	cuft	24 hrs	450	psi	660.7	cuft			
2.88	ft^3/sx				2.10	ft^3/sx			
11.5	ppg				11.7	ppg			
16.85	gal/sx				11.724	gal/sx			

Standard Cement
+ 3% Econolite (Extender)
+ 10 lb/sx Phenoseal

75% Type XI / 25% Class G Cement
+ 0.25 lb/sx D029 Cellophane Flakes
+ 3% D079 Extender
+ 0.20% D046 Antifoam

HOLE:	8.75 "
CSG OD:	7 "
CSG ID:	6.456 "
WGT:	20 ppf
GRADE:	J-55
EXCESS:	50 %
TAIL:	739 '
DEPTH:	**3695** '

INTERMEDIATE TAIL:

HOLE:	6.25 "
CSG OD:	4.5 "
CSG ID:	4.052 "
WGT:	10.5 ppf
GRADE:	J-55
EXCESS:	30 %
DEPTH:	**6101** '

PRODUCTION:

TOPSET FRUITLAND COAL Wells: (topset casing above coal to prepare for cavitation/DO/UR)

Drilling Mud Program:
Surface: spud mud
Intermediate: fresh water mud with bentonite and polymer as needed
Below Intermediate: air/mist/nitrogen drilling media with foamer, polymer, & corrosion inhibitor as needed

Centralizer Program:
Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints
Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints
Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale
Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

CASE & FRAC FRUITLAND COAL Wells: (casing set below coal to prepare for frac completion)

Drilling Mud Program:
Surface: spud mud
Production: fresh water mud with bentonite and polymer as needed

Centralizer Program:
Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints
Production: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints
Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

MESA VERDE Wells:

Drilling Mud Program:
Surface: spud mud
Intermediate: fresh water mud with bentonite and polymer as needed
Below Intermediate: air/mist drilling media with foamer, polymer, & corrosion inhibitor as needed

Centralizer Program:
Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints
Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints
Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale
Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

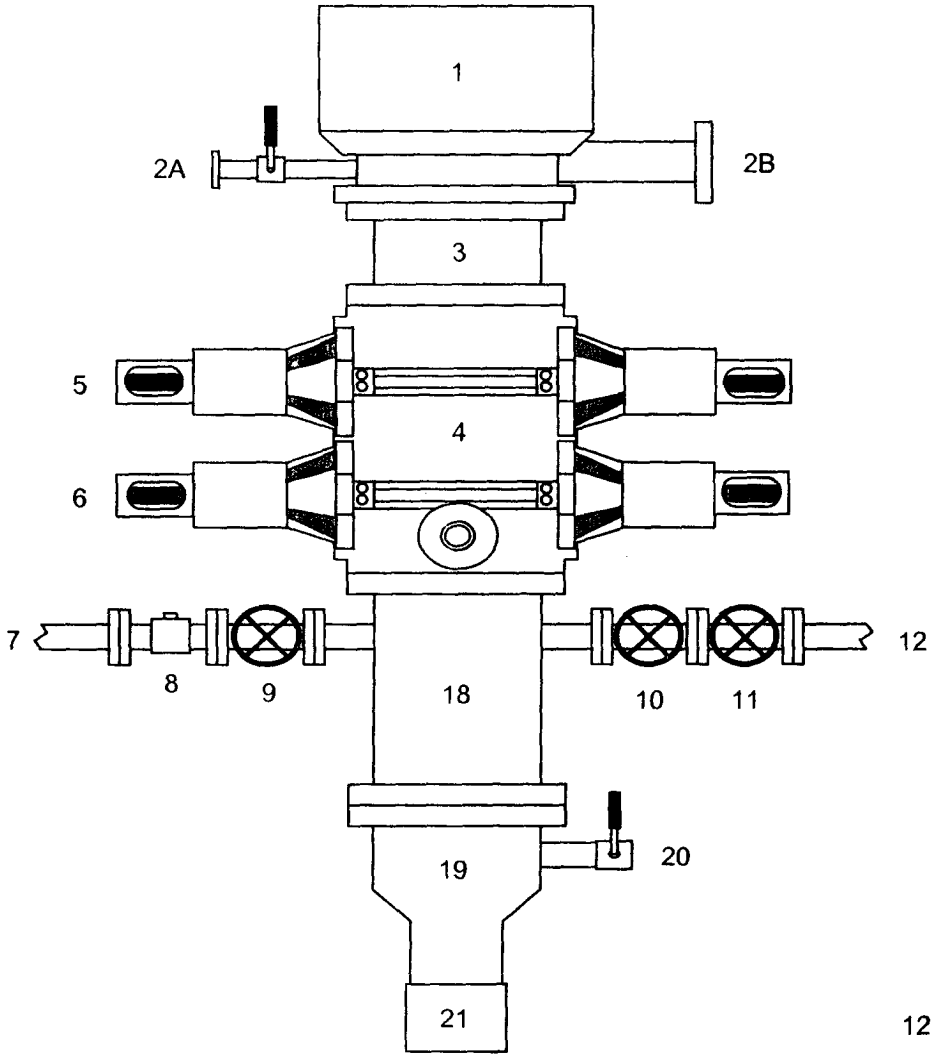
DAKOTA Wells:

Drilling Mud Program:
Surface: spud mud
Intermediate: fresh water mud with bentonite and polymer as needed
Below Intermediate: air/mist/nitrogen drilling media with foamer, polymer, & corrosion inhibitor as needed

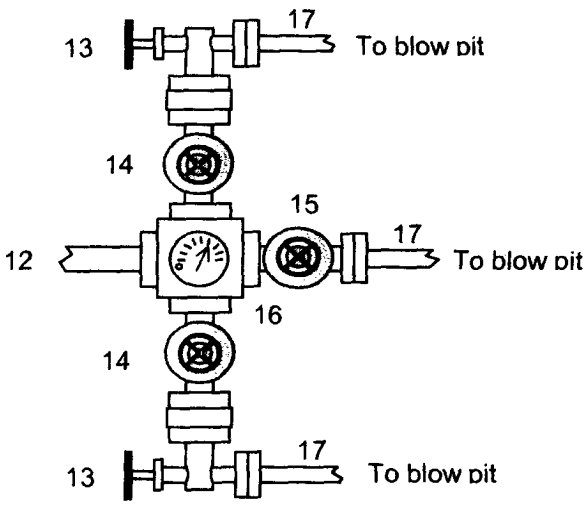
Centralizer Program:
Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints
Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints
Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale
Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

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



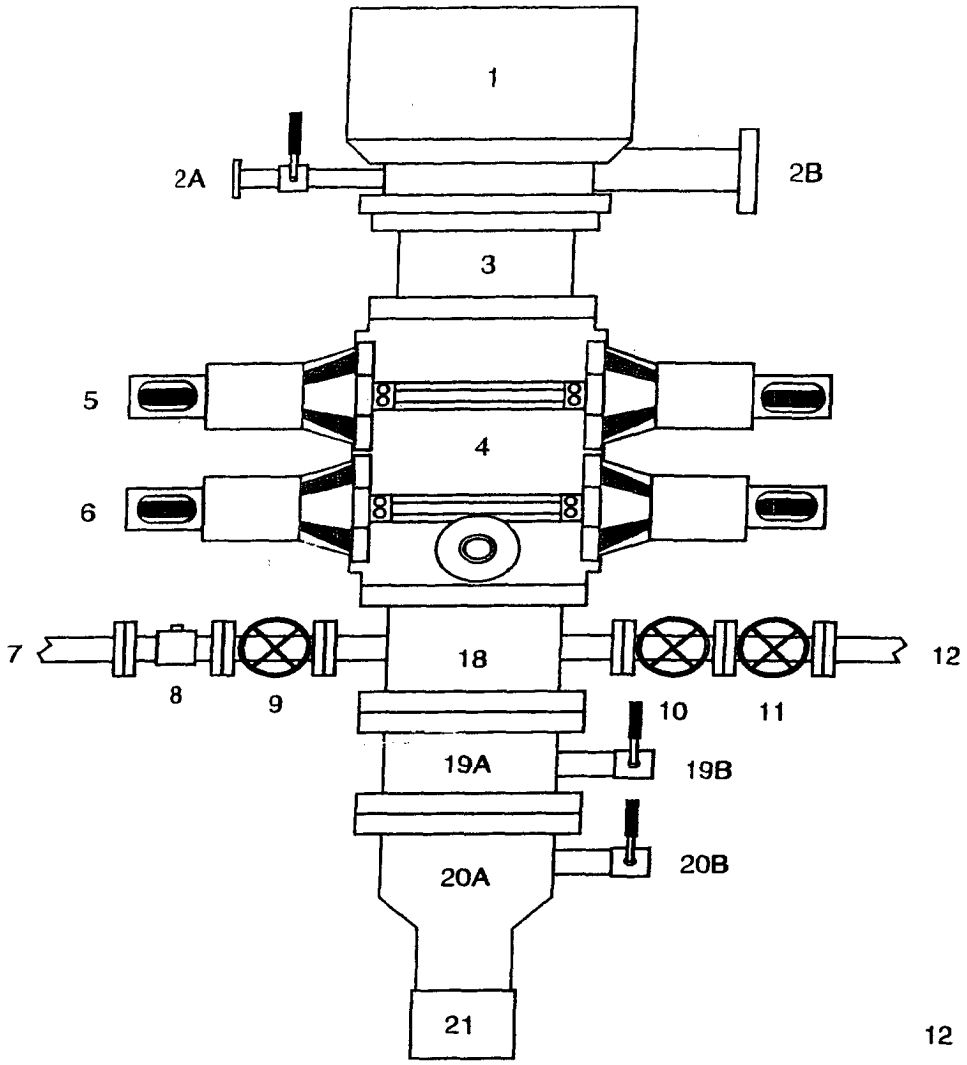
A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe 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:
1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

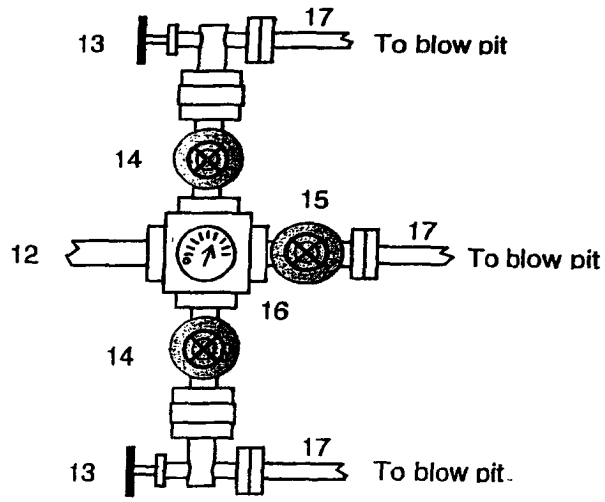
Revision Date: September 1, 2004

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



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