RCVD MAR7'07
OIL CONS. DIV.
DIST. 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RCVD DEC 8 AM 8 03

RECEIVED
070 FARMINGTON NM

1a. Type of Work
DRILL

1b. Type of Well
GAS

5. Lease Number
NM-03563

CA Unit Reporting Number
NMNM-76141-DK NMNM-76140 MV

6. If Indian, All. or Tribe

2. Operator
ConocoPhillips

7. Unit Agreement Name

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

(505) 326-9700

8. Farm or Lease Name
Gage

9. Well Number
#3F

4. Location of Well
Unit E (SWNW), 1727' FNL & 1035' FWL,

Latitude 36° 47.9864041 N
Longitude 107° 54.7364196 W

10. Field, Pool, Wildcat
Basin DK/Blanco MV

11. Sec., Twn, Rge, Mer. (NMPM)
E Sec. 20, T30N, R10W

API # 30-045-34105

14. Distance in Miles from Nearest Town
7 miles/Aztec

12. County
San Juan

13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
1035'

16. Acres in Lease

17. Acres Assigned to Well
DK & MV - 316.18 - (N/2)

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease

19. Proposed Depth
7449'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6289' GL

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

NOTIFY AZTEC OCD 24 HRS
IN TIME TO WITNESS Cement

24. Authorized by: Rhonda Rogers
Rhonda Rogers (Regulatory Technician)

12-7-06
Date

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE AFM

DATE 3/6/07

Archaeological Report attached
Threatened and Endangered Species Report 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.

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

3/8/07

NMOCD

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

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

2006 DEC 8 AM 8 03

RECEIVED
070 FARMINGTON NM

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

☐ AMMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045- 34105	71599/72319	DAKOTA / MESAVERDE

4 Property Code	5 Property Name	6 Well Number
31551	GAGE	3F

7 OGRID No.	8 Operator Name	9 Elevation
217817	CONOCOPHILLIPS COMPANY	6,288.5'

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
E	20	30-N	10-W		1727	NORTH	1035	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

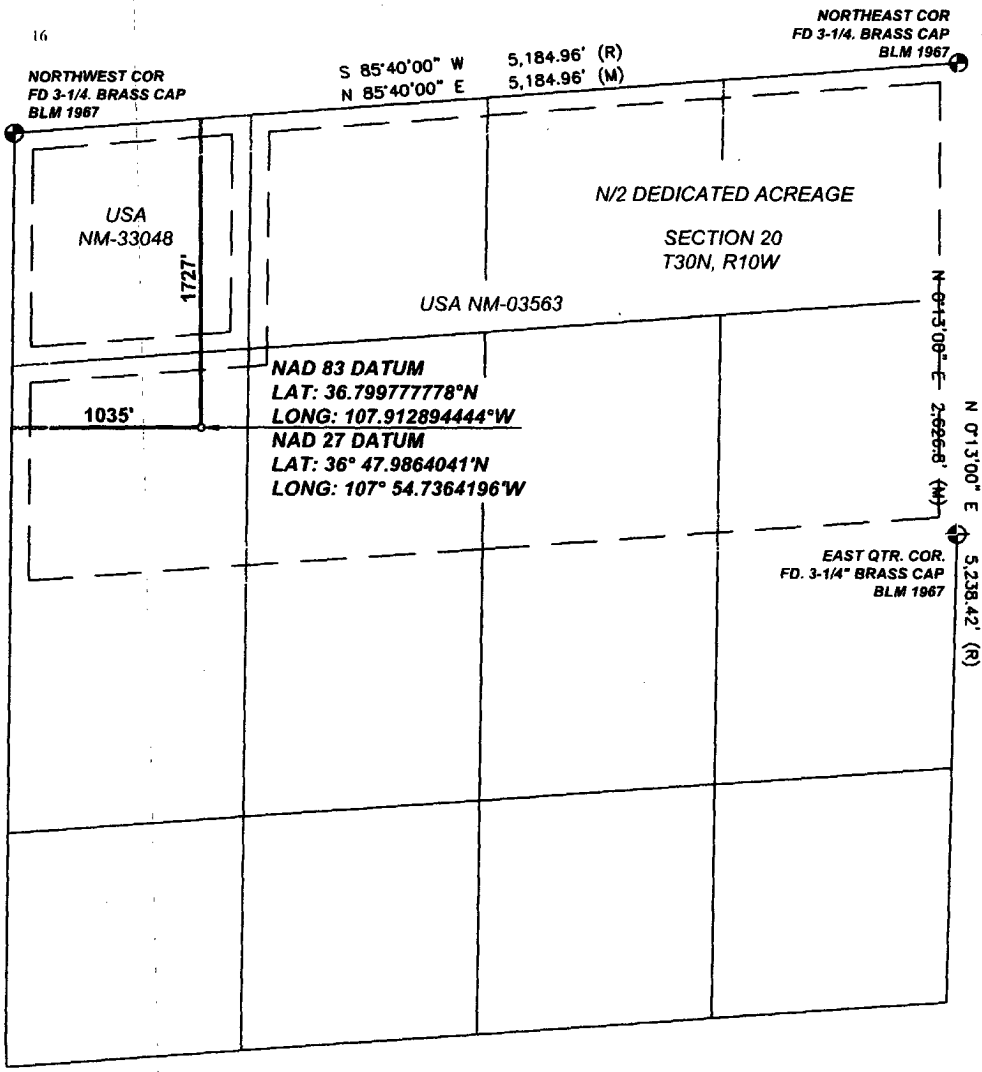
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E									

RCVD MAR7'07
OIL CONS. DIV.
DIST. 3

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
316.18 N2			

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
Tracey N. Monroe

Printed Name
Regulatory Assistant

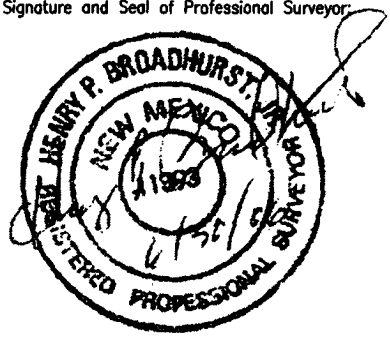
Title and E-mail Address
October 11 2006

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: 6/21/06
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- 34105
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No. NM-03563

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: GAGE #3F

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

2. Name of Operator: **ConocoPhillips**
9. OGRID Number: 217817

3. Address of Operator: 3401 E. 30TH STREET, FARMINGTON, NM 87402
10. Pool name or Wildcat: Basin DK/Blanco MV

4. Well Location
Unit Letter E : 1727' feet from the North line and 1035' feet from the West line
Section 20 Township 30N Rng 10W NMPM County San Juan

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 6289'

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:				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		☒	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 and an associated vent/flare pit. Based on Burlington's interpretation of the Ecosphere's risk ranking criteria, the new drilling pit will be a lined pit as detailed in Burlington's Revised Drilling / Workover Pit Construction / Operation Procedures dated November 11, 2004 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. Burlington Resources anticipates closing these pits according to the Drilling / Workover Pit Closure Procedure dated August 2, 2004 on file at the NMOCD office.

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 ☐.**

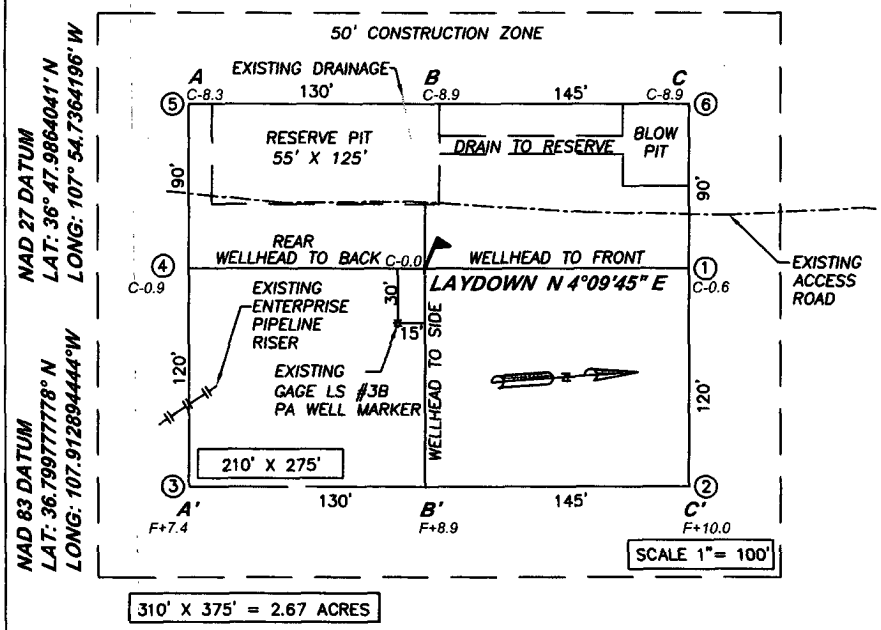
SIGNATURE Rhonda Rogers TITLE Regulatory Technician DATE 12-7-06

Type or print name Rhonda Rogers E-mail address: rogerrs@conocophillips.com Telephone No. 505-599-4018

For State Use Only

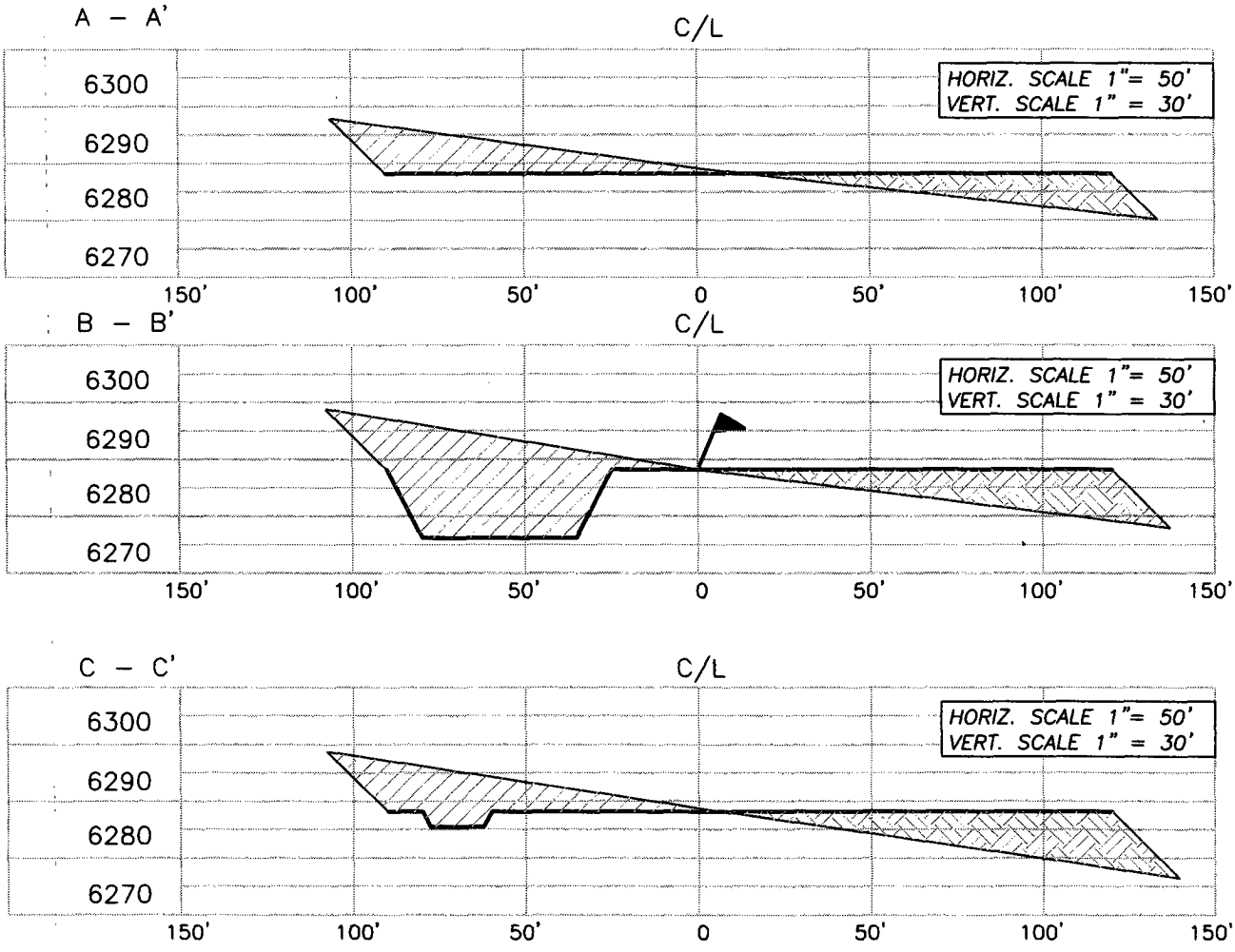
APPPROVED BY _____ TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE MAR 08 2007

Conditions of Approval (if any):



CONOCOPHILLIPS COMPANY

GAGE 3F
1727' FNL, 1035' FWL
SECTION 20, T30N, R10W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO
ELEV.: 6,288.5' NADV88



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

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

GAGE 3F

Lease:	AFE #: WAN.CNV.6141			AFE $:
Field Name: NEW MEXICO-WEST	Rig: Aztec Rig 301	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: Harrington, Tim R.	Phone: 832-486-2207	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: 36.799773	Longitude: -107.912274	X:	Y:	Section: 20	Range: 10W
Footage X: 1035 FWL	Footage Y: 1727 FNL	Elevation: 6289 (FT)	Township: 30N		
Tolerance:					
Location Type: Year Round	Start Date (Est.):	Completion Date:	Date In Operation:		

Formation Data: Assume KB = 6305 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SURFACE CSG	200 ~~230~~	6185	☐			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
OJAM	1520	4785	☐			Possible water flows.
KRLD	1609	4696	☐			
FRLD	2539	3766	☐			Possible gas.
PCCF	2838	3467	☐			
LEWS	3059	3246	☐			
HURF	3558	2747	☐			
UCLFH	3960	2345	☐			
CLFH	4358	1947	☐			Gas; possibly wet
MENF	4618	1687	☐			Gas.
Intermediate Casing	4718	1587	☐			8 3/4" hole, 7" casing (bottom: 1300' 7" 23#/ft, J-55, LTC; remainder: 7" 20#/ft, J-55, STC), Circulate cement to surface.
PTLK	5136	1169	☐			Gas.
MNCS	5340	965	☐			
UPPER GLLP	6339	-34	☐			
GLLP	6467	-162	☐			Gas. Possibly wet.
GRHN	7084	-779	☐			Gas possible, highly fractured
GRRS	7136	-831	☐			
TWLS	7190	-885	☐			Gas
PAGU	7271	-966	☐			Gas. Highly Fractured.
CBRO	7334	-1029	☐			
TD	7455	-1150	☐			
TOTAL DEPTH DK	7455	-1150	☐			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
Intermediate	Gage COM 1E	20-30N-10W-SE, KB = 6238
Intermediate	Gage 3	20-30N-10W-NE, KB = 6396

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ConocoPhillips

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

GAGE 3F

Intermediate	Scumacher 10A	18-30N-10W-SE, KB = 6431

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: Location/Tops/Logging - CLFH might be wet, TD is 265' below TWLS - the ENCN looks dry

Zones - This well will replace the Gage 3B which has been cancelled.

General/Work Description - NO LEWIS
The cost estimate to facilitate this well includes costs to tie into gathering system ($50,000).

C. HARRADEN/ December 11, 2006 CEH

CONOCOPHILLIPS/ Gage #3F APD

STIPULATION/CONDITION OF APPROVAL

This well is located within a 'vulnerable area'. In order to protect the integrity of the fresh water alluvium aquifer, a minimum surface csg. depth of 200' is stipulated as a condition of approval for this APD.

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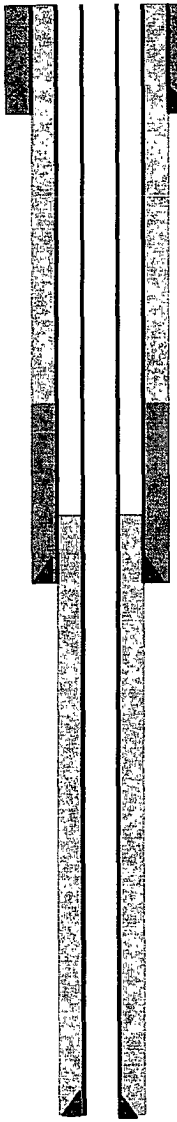
Gage #3F

APD Cement Calculations



HOLE:	12.25 "
CSG OD:	9.625 "
CSG ID:	9.001 "
WGT:	32.3 ppf
GRADE:	H-40
EXCESS:	125 %
DEPTH:	~~120'~~ 200'

SURFACE:

Option 1

79 sx	Comp. Strength		
16.4 bbls	6 hrs	250	psi
91.9 cuft	8 hrs	500	psi
1.17 ft^3/sx			psi
15.8 ppg			
4.973 gal/sx			

Class G Cement
+ 3% S001 Calcium Chloride
+ 0.25 lb/sx D029 Cellophane Flakes

Option 2

76 sx	Comp. Strength		
16.4 bbls	6 hrs	250	psi
91.9 cuft	8 hrs	500	psi
1.21 ft^3/sx			
15.6 ppg			
5.29 gal/sx			

Standard Cement
+ 3% Calcium Chloride
+ 0.25 lb/sx Flocele

Option 3

37 sx	Comp. Strength		
10.6 bbls	8 hrs	475	psi
59.3 cuft	24 hrs	1375	psi
1.61 ft^3/sx			
14.5 ppg			
7.41 gal/sx			

Type I-II Ready Mix
+ 20% Fly Ash

HOLE:	8.75 "
CSG OD:	7 "
CSG ID:	6.456 "
WGT:	20 ppf
GRADE:	J-55
EXCESS:	50 %
TAIL:	621'
DEPTH:	3105'

INTERMEDIATE LEAD:

Option 1

204 sx	Comp. Strength		
98.7 bbls	9 hrs	300	psi
554.2 cuft	48 hrs	525	psi
2.72 ft^3/sx			
11.7 ppg			
15.74 gal/sx			

Class G Cement
+ 3% D079 Extender
+ 0.20% D046 Antifoam
+ 10 lb/sx Phenoseal

Option 2

213 sx	Comp. Strength		
98.7 bbls	1:47 hrs	50	psi
554.2 cuft	12 hrs	350	psi
2.60 ft^3/sx	24 hrs	450	psi
11.5 ppg			
14.62 gal/sx			

Type III Ashgrove Cement
+ 30 lb/sx San Juan Poz
+ 3% Bentonite
+ 5.0 lb/sx Phenoseal

Option 3

211 sx	Comp. Strength		
98.7 bbls	3 hrs	100	psi
554.2 cuft	24 hrs	443	psi
2.63 ft^3/sx			
11.7 ppg			
15.92 gal/sx			

Class G Cement
+ 3% D079 Extender
+ 0.20% D046 Antifoam
+ 1.0 lb/bbl CemNet

INTERMEDIATE TAIL:

Option 1

114 sx	Comp. Strength		
26.7 bbls	3:53	500	psi
149.6 cuft	8:22	1000	psi
1.31 ft^3/sx	24 hrs	3170	psi
13.5 ppg	48 hrs	5399	psi
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

Option 2

113 sx	Comp. Strength		
26.7 bbls	2:05	50	psi
149.6 cuft	4:06	500	psi
1.33 ft^3/sx	12 hrs	1250	psi
13.5 ppg	24hrs	1819	psi
5.52 gal/sx			

50/50 Poz: Standard Cement
+ 2% Bentonite
+ 6.0 lb/sx Phenoseal

Option 3

117 sx	Comp. Strength		
26.7 bbls	24 hrs	1850	psi
149.6 cuft	48 hrs	3411	psi
1.28 ft^3/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

HOLE:	6.25 "
CSG OD:	4.5 "
CSG ID:	4 "
WGT:	11.6 ppf
GRADE:	N-80
EXCESS:	30 %
DEPTH:	7449'

PRODUCTION:

Option 1

419 sx	Comp. Strength		
107.4 bbls	7 hrs	500	psi
603.0 cuft	24 hrs	2100	psi
1.44 ft^3/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

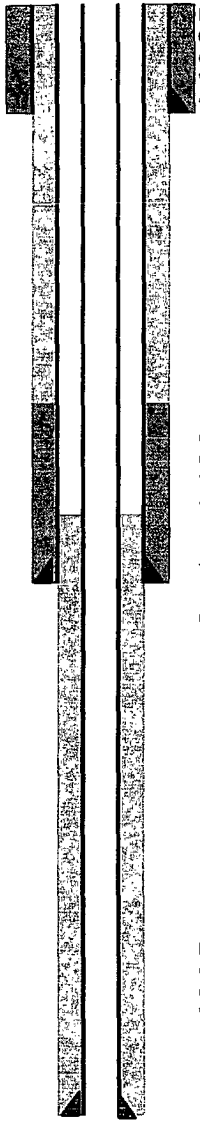
Option 2

416 sx	Comp. Strength		
107.4 bbls	9:32	50	psi
603.0 cuft	12 hrs	500	psi
1.45 ft^3/sx	13:29	1026	psi
13.1 ppg	24 hrs	2300	psi
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

M^3 - 11/15/06

Gage #3F



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

DEPTH: ~~426~~ 200

SURFACE:

INTERMEDIATE LEAD:

Option 4			Option 5		
192 sx	Comp. Strength		**264 sx**	Comp. Strength	
98.7 bbls	1:47	50 psi	98.7 bbls	10:56	500 psi
554.2 cuft	12 hrs	350 psi	554.2 cuft	42 hrs	1012 psi
2.88 ft^3/sx	24 hrs	450 psi	2.10 ft^3/sx		
11.5 ppg			11.7 ppg		
16.85 gal/sx			11.724 gal/sx		
Standard Cement			75% Type XI / 25% Class G Cement		
+ 3% Econolite (Extender)			+ 0.25 lb/sx D029 Cellophane Flakes		
+ 10 lb/sx Phenoseal			+ 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: 621 '

DEPTH: 3105 '

INTERMEDIATE TAIL:

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

DEPTH: 7449 '

PRODUCTION:

M3 - 11/15/06

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

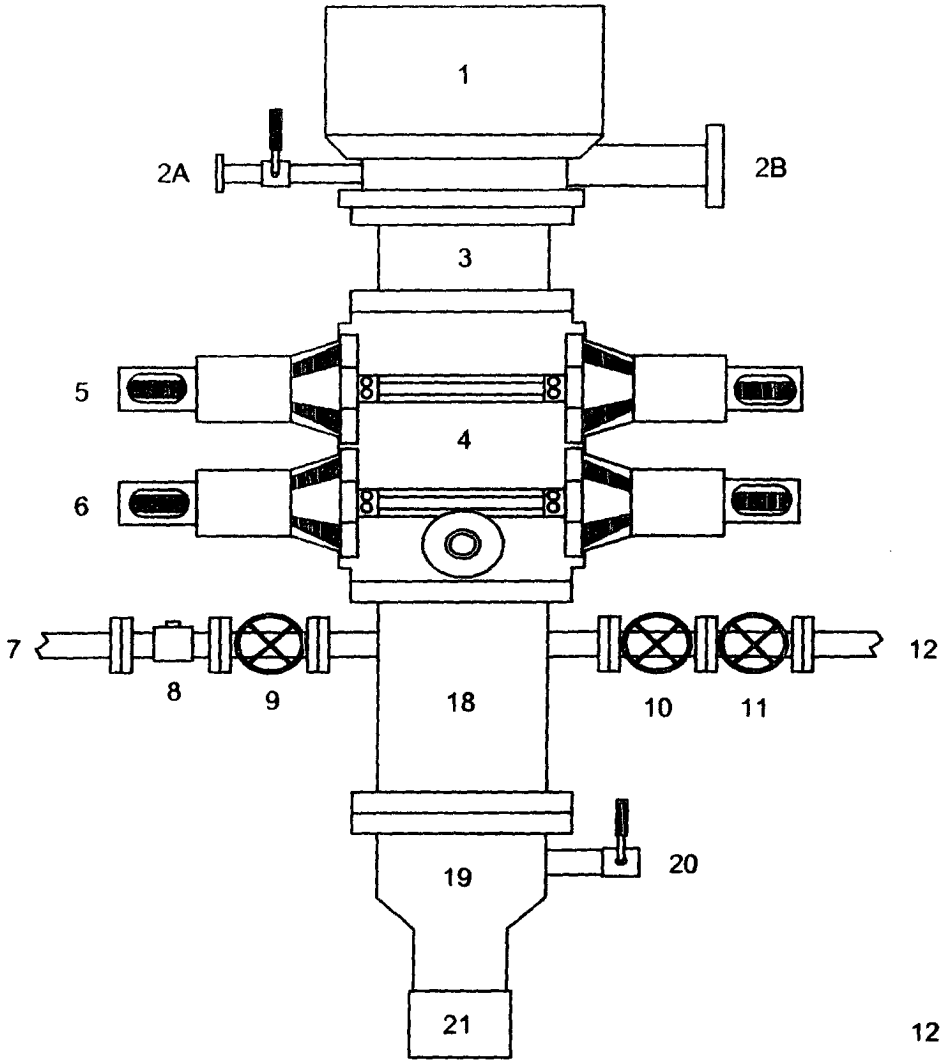
DAKOTA Wells:

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

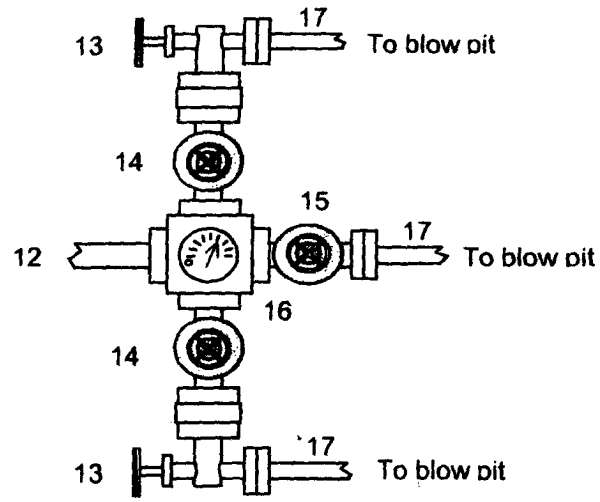
Centralizer Program:
Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints
Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints
Turbolizers placed one per 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.

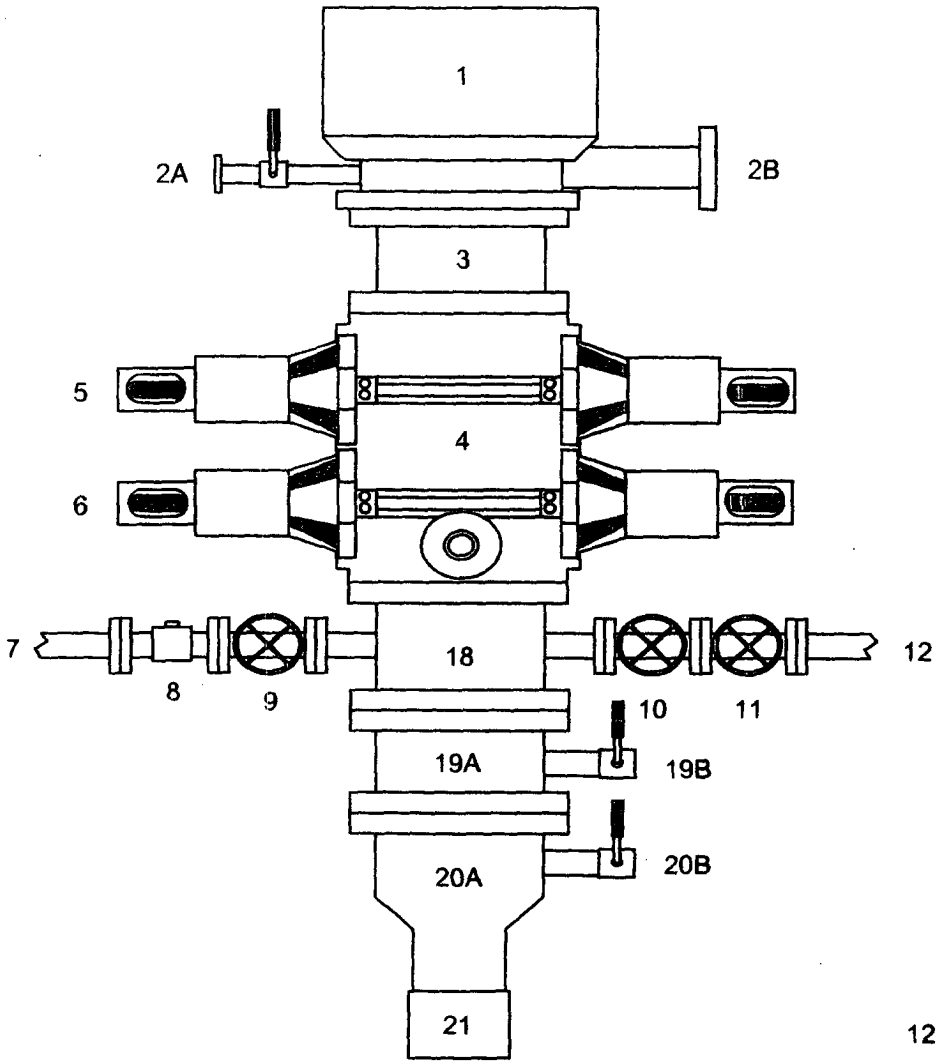
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

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

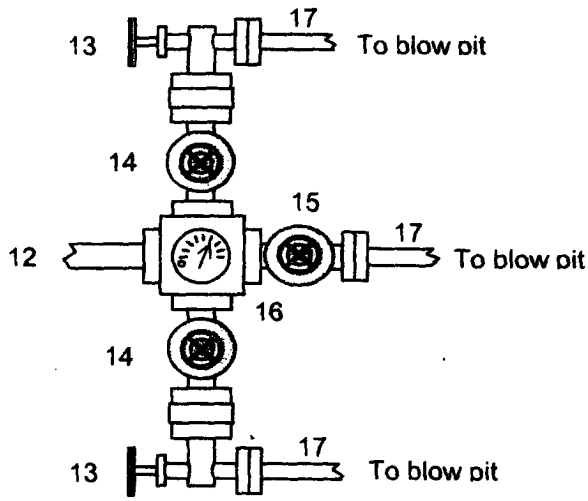
Revision Date: September 1, 2004

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