

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF - 078367A 0783879
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator BP AMERICA PRODUCTION COMPANY		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. BOX 3092 HOUSTON, TX 77253-3092		8. Lease Name and Well No. KERNAGHAN B 4S
3b. Phone No. (include area code) Ph: 281.366.4081 Fx: 281.366.0700		9. API Well No. 3004532169
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SESE 915FSL 875FEL 36.51900 N Lat, 107.42700 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
14. Distance in miles and direction from nearest town or post office* 22.8 MILES N/E FROM AZTEC, NM		11. Sec., T., R., M., or Blk. and Survey or Area p Sec 30 T31N R8W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 875'	16. No. of Acres in Lease 1280.00	12. County or Parish SAN JUAN
17. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 75'	18. Proposed Depth 3395 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6405 GL	22. Approximate date work will start 04/01/2004	17. Spacing Unit dedicated to this well 320.00 E/2
		20. BLM/BIA Bond No. on file WY2924
		23. Estimated duration 7 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) CHERRY HLAVA	Date 02/12/2004
Title REGULATORY ANALYST		
Approved by (Signature)	Name (Printed/Typed)	Date
Title Office		

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #27838 verified by the BLM Well Information System
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

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

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

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

NMOC

District I
PO Box 1980, Hobbs NM 88241-1980
District II
PO Drawer KK, Artesia, NM 87211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-045-32169		2 Pool Code 71629		3 Pool Name Basin Fruitland Coal		
4 Property Code 766		5 Property Name Kernaghan B			6 Well Number # 4S	
7 OGRID No. 000778		8 Operator Name BP AMERICA PRODUCTION COMPANY			9 Elevation 6405	

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
P	30	31 N	8 W		915	SOUTH	875	EAST	SAN JUAN

11 Bottom Hole Location If Different From Surface

7 UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 320		13 Joint or Infill		14 Consolidation Code		15 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

16	497'(R)	1382'(R)	2764'(R)	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Cherry Hlava Signature Cherry Hlava Printed Name Regulatory Analyst Title 1-21-04 Date
	Lot 1			
	Lot 2			
	Lot 3			
	5291'(R)	30		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. October 1, 2003 Date of Survey Signature and Seal of Professional Surveyor GARY D. VANM NEW MEXICO REGISTERED 7016 PROFESSIONAL LAND SURVEYOR
	Lot 4	486'(R)	1348'(R)	7016 Certificate Number

Additional Operator Remarks:

This well is located on the existing Kernaghan B 4A well pad.

Notice of Staking was submitted on 11/06/03

BP America Production Company respectfully requests permission to drill the subject well to a total depth of approximately 3395 and complete into the Basin Fruitland Coal Pool as per the attached drilling and completion procedure.

SUPPLEMENTAL TO SURFACE USE PLAN**New Facilities:**

A 4" diameter buried steel pipeline that is +/- 1760 feet in length will be constructed. The pipe wall thickness is .156 and the pipe wall strength is 42,000#. It will be adjacent to the access road and tie the well into an existing gas meter operated by BP America Production Company. The pipeline will not be used to transport gas to drill the well. After the well is spud the pipeline will be authorized by a right-of-way issued by Williams Field Services.

High Productivity Area Well

In reference to Order No. R-8768-F dated July 17, 2003 BP America Production Co. has notified offset operator: Burlington Resources & Conoco Phillips of our intent to drill above mentioned well. Notification was sent 02/12/04 by certified mail.

Waiting On Cement Time:

Please see attached the Compressive Strength Report from Schlumberger.
Showing 4 hrs. waiting on cement time (rather than the 6 hrs)

GENERAL REMARKS:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMSF078387A

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other8. Well Name and No.
KERNAGHAN B 4S

2. Name of Operator

BP AMERICA PRODUCTION CO

Contact: CHERRY HLAVA

E-Mail: hlavacl@bp.com

9. API Well No.
30-045-32169-00-X1

3a. Address

P. O. BOX 3092
HOUSTON, TX 77253

3b. Phone No. (include area code)

Ph: 281.366.4081

Fx: 281.366.0700

10. Field and Pool, or Exploratory
BASIN FRUITLAND COAL

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 30 T31N R8W SESE 915FSL 875FEL
36.51900 N Lat, 107.42700 W Lon

11. County or Parish, and State

SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Original APD was submitted on 2/12/04 EC#27838.

Please see attached the revised cement program using the new type C slurry. The Schlumberger lab test report was sent with the original APD.

PRE-SET ALTERNATE TO NEW SLURRY:

Drilling of the surface hole may be with air/air mist in lieu of drilling mud and the surface casing to be cemented with 81 CU/FT TYPE I-II, 20% FLYASH, 14.5 PPG, 7.41 GAL/SK, 1.61 CF/SK YIELD, 80 DEG BHST READY MIX CMT.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #27999 verified by the BLM Well Information System

For BP AMERICA PRODUCTION CO, sent to the Farmington

Committed to AFMSS for processing by ADRIENNE GARCIA on 02/20/2004 (04AXG0673SE)

Name (Printed/Typed) CHERRY HLAVA

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 02/17/2004

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

/s/ David J. Monkiewicz

Approved By

Title

APR 22 2004

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

NMOC

Cementing Program

Well Name:	Kernaghan B 4S	Field:	Basin Fruitland Coal
Location:	Sec 30 - 31N - 08W, 915' FSL, 875" FEL	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Fruitland Coal
		KB Elev (est)	6418
		GL Elev. (est)	6405

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)	Cmt Cir. Out (bbl.)
Surface	120	12.5	9.625	ST&C	Surface	NA	
Intermediate	3020	8.75	7	LT&C	Surface	NA	

Casing Properties:

		(No Safety Factor Included)						
Casing String	Size (in.)	Weight (lb/ft)	Grade	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Drift (in.)
Surface		9.625	32 H-40	3370		1400	254	0.0787
Production -		7	20 K-55	3740		2270	234	0.0405

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing:	
			PV	<20
			YP	<10
			Fluid Loss	<6
0 - SCP	Water/Spud	8.6-9.2		
SCP - TD	Water/LSND	8.6-9.2		
SCP - TD	Gas/Air/N2/Mist	NA		

Cementing Program:

	Surface	Production
Excess %, Lead	100	40
Excess %, Tail	NA	40
BHST (est deg. F)	75	120
Special Instructions	1,6,7	2,4,6

1. Do not wash pumps and lines.
2. Wash pumps and lines.
3. Reverse out
4. Run Blend Test on Cement
5. Record Rate, Pressure, and Density on 3.5" disk
6. Confirm densitometer with pressurized mud scales
7. 1" cement to surface if cement is not circulated.
8. If cement is not circulated to surface, run temp. survey 10-12 hr. after landing plug.

Notes:

*Do not wash up on top of plug. Wash lines before displacing production cement job to minimize drillout.

Surface:

Preflush 20 bbl. FreshWater

Slurry 1 70 sx Class C Cement 83 cuft
TOC@Surface + 2% CaCl2 (accelerator)

0.347 cuft/ft OH

Slurry Properties:

	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8

Casing Equipment:

9-5/8", 8R, ST&C
1 Guide Shoe

Cementing Program

1 Top Wooden Plug
 1 Autofill insert float valve
 Centralizers, 1 per joint except top joint
 1 Stop Ring
 1 Thread Lock Compound

Production:

Fresh Water 10 bbl CW100

Lead	210 sx Class "G" Cement	526 cuft
Slurry 1	+ 3% D79 extender	
TOC@Surface	+ 2% S1 Calcium Chloride	
	+1/4 #/sk. Cellophane Flake	
	+ 0.1% D46 antifoam'	
Tail	90 sx 50/50 Class "G"/Poz	105 cuft
Slurry 2	+ 2% gel (extender)	
500 ft fill	0.1% D46 antifoam	0.1503 cuft/ft OH
	+1/4 #/sk. Cellophane Flake	0.1746 cuft/ft csg ann
	+ 2% CaCl2 (accelerator)	

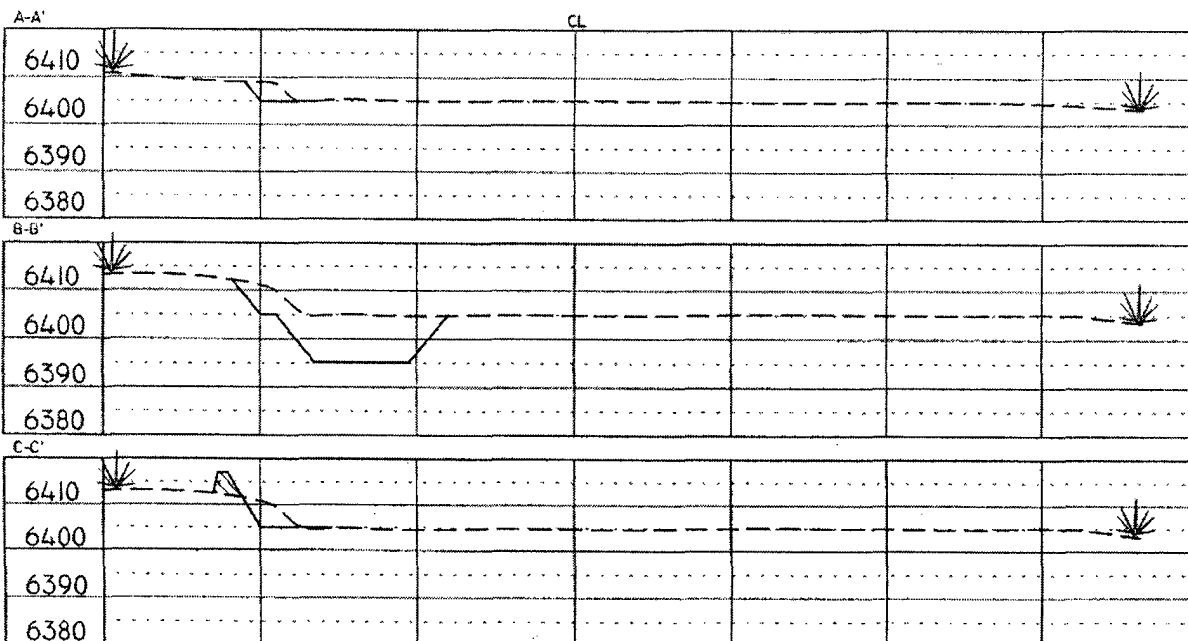
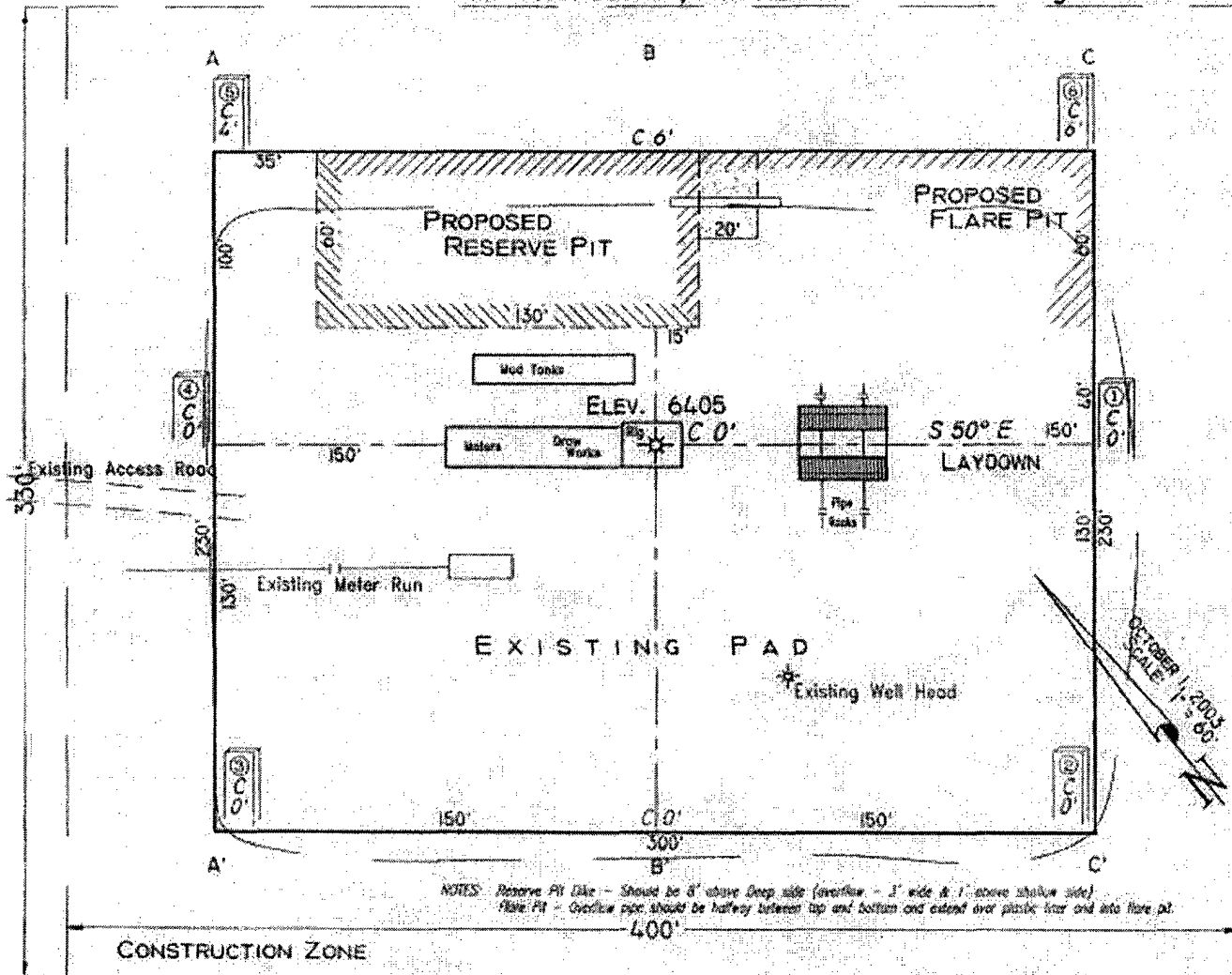
Slurry Properties:	Density	Yield	Water
	(lb/gal)	(ft3/sk)	(gal/sk)
Slurry 1	11.4	2.61	17.77
Slurry 2	13.5	1.27	5.72

Casing Equipment: 7", 8R, ST&C

1 Float Shoe (autofill with minimal LCM in mud)
 1 Float Collar (autofill with minimal LCM in mud)
 1 Top Rubber Plug
 1 Thread Lock Compound

PAD LAYOUT PLAN & PROFILE
BP AMERICA PRODUCTION COMPANY
Kernaghan B #4S
915' F/SL 875' F/EL
SEC. 30, T31N, R8W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

Lat: 36°51'51"
 Long: 107°42'39"



NOTE: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction.

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS
 P. O. Box 1306
 Farmington, NM

BOP Test Pressure

BP America Production Company BOP Pressure Testing Requirements

Well Name: Kernaghan B
County: San Juan

4S
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo			
Kirtland			
Fruitland Coal		200	0
PC		250	0
Lewis Shale			
Cliff House			
Menefee Shale			
Point Lookout			
Mancos			
Dakota			

** Note: Determined using the following formula: $ABHP - (.22 * TVD) = ASP$

Requested BOP Pressure Test Exception: 850 psi

SAN JUAN BASIN
Fruitland Formation
Pressure Control Equipment

Background

The objective Fruitland Coal formation maximum surface pressure is anticipated to be less than 1000 psi, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 psi. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 psi system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 psi rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rights to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth in the Basin Dakota. No abnormal temperature, pressure, or H2S anticipated.

Equipment Specification

Interval

BOP Equipment

Below conductor casing to total depth 11" nominal or 7 1/16", 3000 psi
double ram preventer with rotating
head.

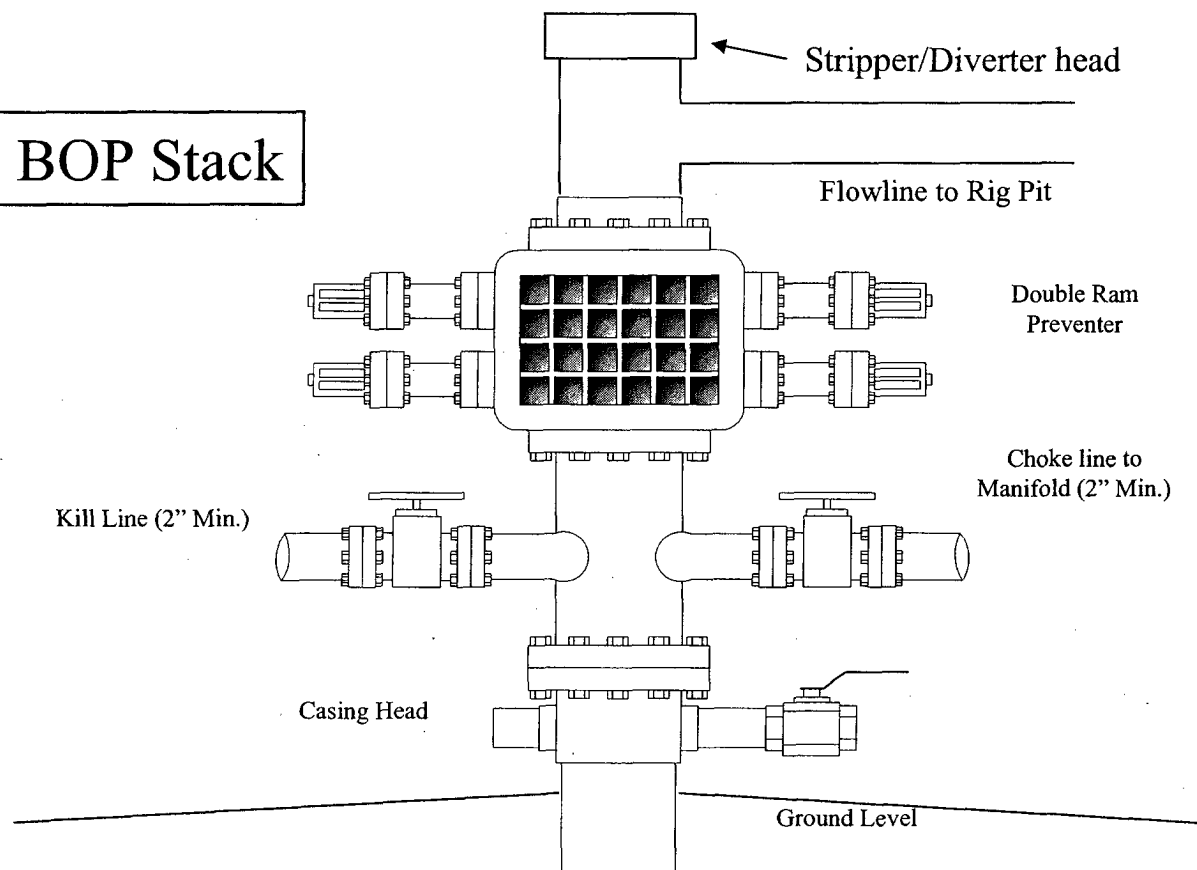
All ram type preventers and related control equipment will be hydraulically tested to 250 psi (low pressure) and 2000 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

BP American Production Company

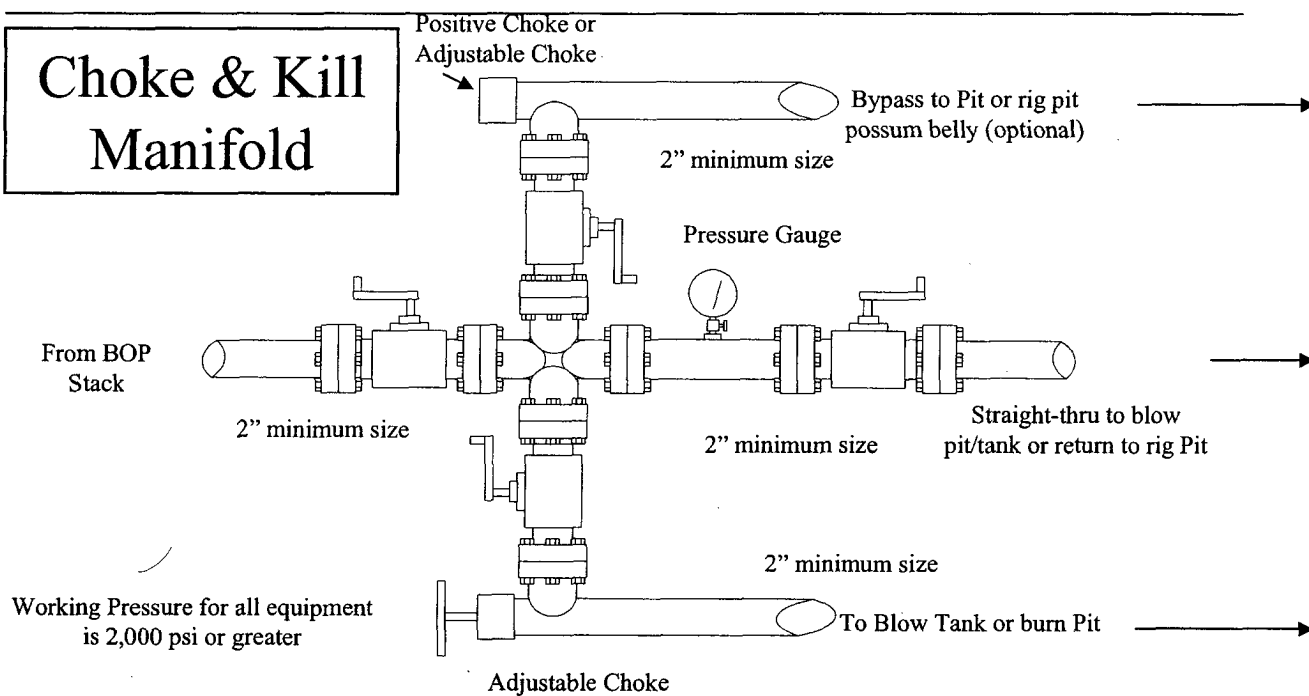
Well Control Equipment Schematic



BOP Stack



Choke & Kill Manifold



Section 1: Laboratory Cement Test Report- Class C

Well Data

Fluid No :	Client :	Location :	Signatures
Date : 29-01-2004	Well Name :	Field :	

Job Type	Depth (ft)	TVD (ft)
BHST (degF)	BHCT 60(degF)	BHP (psi)
Starting Temp. 60(degF)	Time to Temp. (hr:mn)	Heating Rate (degF/min)
Starting Pressure (psi)	Time to Pressure (hr:mn)	Schedule ()

Composition

Density	15.20 lb/gal	Yield	1.27 ft ³ /sk	Mix Fluid	5.777 gal/sk
Porosity	61.0 %	Solid Fraction	39.0 %		
Code	Concentration	Component	Lot Number		
C		Blend			
Fresh water	5.777 gal/sk	Base Fluid			
S001	2.000 %BWOC	ACCELERATOR			

Rheology

(rpm)	(deg)	(deg)
300	145.0	208.0
200	131.5	188.0
100	116.5	163.0
60	105.5	152.0
30	94.0	140.0
6	50.5	57.0
3	38.5	43.5

Temperature	80 degF	80(degF)
-------------	---------	----------

Pv: 51.151 cP	Pv: 73.080 cP
Tv: 96.19	Tv: 137.21
lb/100ft ²	lb/100ft ²

Thickening Time

Consistency	Time
POD :	01:45 hr:mn
30 Bc	00:00 hr:mn
70 Bc	02:40 hr:mn
73 Bc	02:41 hr:mn

Free Water

0.0 mL/250mL	in 2 hrs
At 80 degF and 90 deg incl.	
Sedimentation	None

Compressive Strength

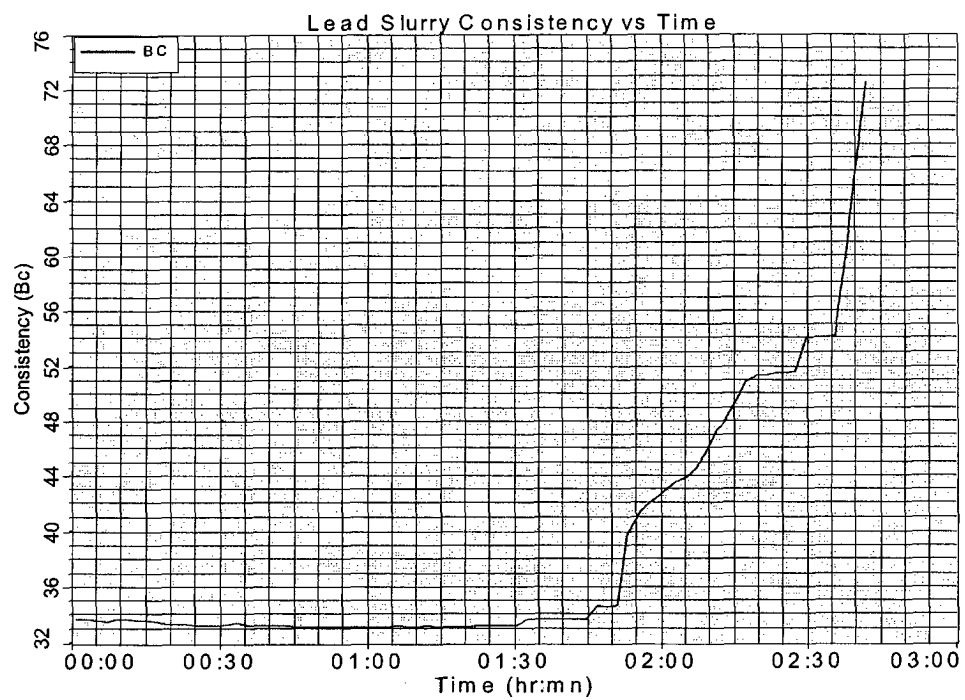
Time	CS
03:00 hr:mn	125 psi
04:00 hr:mn	275 psi
05:00 hr:mn	375 psi
06:00 hr:mn	425 psi
08:00 hr:mn	615 psi

Comments

Second set of rheologys were after 20 mnutes of conditioning.

Client :
Well :
String :
District :
Country :
Loadcase :

Schlumberger





Certified Mail

BP America, Inc.
501 WestLake Park Blvd.
Houston, TX 77079-3092

Phone: 281-366-4081

February 12, 2004

Released 3-13-04
Conoco Phillips
5525 Hwy 64
Farmington, NM 87401

ST
Re: New Fruitland Coal Infill; High Productivity Area
Kernaghan B 4S 915' FSL, 875' FEL Sec. 30 T31N, R8W
Kernaghan B 5S 1700' FSL, 1805' FEL Sec. 28 T31N, R8W
Kernaghan B 6S 970' FSL, 1440' FEL Sec. 29 T31N, R8W
San Juan County, New Mexico

This letter serves to advise you, as an Offset Operator to one or more of the above referenced wells, that BP America Production Company is applying for Application for Permit to Drill. By Case No.12888 Order No. R-8768-F July 17, 2003 we are required to notify all affected persons prior to commencement of any Optional Infill Well in the High Productivity Area. Please see attached APDs and C-102s showing standard locations.

Should you have any objection to these applications, you must notify the New Mexico Oil Conservation Division, Energy and Minerals Dept, 1220 South St. Frances Dr., Santa Fe, New Mexico 87505, in writing within 20 days of receipt of this letter.

Yours truly,

Cherry Hlava
Regulatory Analyst

cc: New Mexico Oil Conservation Div.
Energy & Minerals Dept.
1220 South St. Francis Drive
Santa Fe, NM 87505



Certified Mail

BP America, Inc.
501 WestLake Park Blvd.
Houston, TX 77079-3092

Phone: 281-366-4081

February 4, 2004

Burlington Resources
P.O. Box 4289
Farmington, NM 87499-4289

Attn: David Valdez

Re: New Fruitland Coal Infill; High Productivity Area
Kernaghan B 4S 915' FSL, 875' FEL Sec. 30 T31N, R8W
Kernaghan B 5S 1700' FSL, 1805' FEL Sec. 28 T31N, R8W
Kernaghan B 6S 970' FSL, 1440' FEL Sec. 29 T31N, R8W
San Juan County, New Mexico

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cc: New Mexico Oil Conservation Div.
Energy & Minerals Dept.
1220 South St. Francis Drive
Santa Fe, NM 87505