Form 3160-3
(August 1999)

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: ☒ DRILL ☐ REENTER	5. Lease Serial No. SF 04202
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA Agreement, Name and No.
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone	8. Lease Name and Well No. JOHNSTON COM B 2M
2. Name of Operator BP AMERICA PRODUCTION COMPANY Contact: CHERRY HLAVA E-Mail: hlavacl@bp.com	9. API Well No. 30045 32403
3a. Address P.O. BOX 3092 HOUSTON, TX 77253-3092 / 3b. Phone No. (include area code) Ph: 281.366.4081	10. Field and Pool, or Exploratory BASIN DK & BLANCO MV
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface NWSW 875FNL 1130FWL 36.40400 N Lat, 107.45800 W Lon At proposed prod. zone	11. Sec., T., R., M., or Blk. and Survey or Area Sec 11 T28N R9W Mer NMP
14. Distance in miles and direction from nearest town or post office* 17 MILES S/E FROM BLOOMFIELD	12. County or Parish SAN JUAN / 13. State NM
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	17. Spacing Unit dedicated to this well 334.46
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1200' / 19. Proposed Depth 6788 MD	20. BLM/BIA Bond No. on file WY2924
21. Elevations (Show whether DF, KB, RT, GL, etc. 5874 GL / 22. Approximate date work will start 08/25/2004	23. Estimated duration 7 DAYS

OCT 2004

24. Attachments

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

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

25. Signature	Name (Printed/Typed)	Date
(Electronic Submission)	CHERRY HLAVA	06/01/2004

Title: REGULATORY ANALYST

Approved by (Signature)	Name (Printed/Typed)	Date
Wayne Townsend	Wayne Townsend	10/5/04
Title: Acting AFM	Office: FFO	

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 #31359 verified by the BLM Well Information System
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

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

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

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

NMOCD

C-102

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-1
Revised February 21, 19
Instructions on ba
Submit to Appropriate District Off
State Lease - 4 Cop
Fee Lease - 3 Cop

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045-32403	71599 ; 72359	Basin Dakota ; Blanco Mesaverde

4 Property Code	5 Property Name	6 Well Number
000756	Johnston Com B	# 2M

7 OGRID No.	8 Operator Name	9 Elevation
000778	BP AMERICA PRODUCTION COMPANY	5874

10 Surface Location

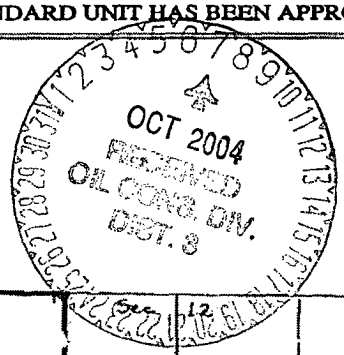
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L (Lot 4)	11	28 N	9 W		875	NORTH	1130	WEST	SAN JUA

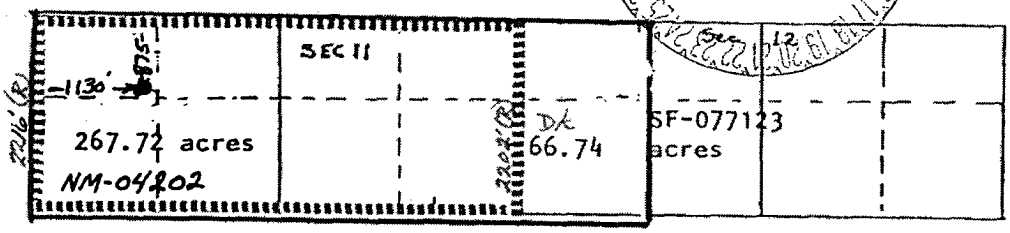
11 Bottom Hole Location If Different From Surface

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

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
334.46 DK 267.72 MV			T-22 R-1814

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATEI
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION





SCALE: 1"=2000'

17 OPERATOR CERTIFICATI

I hereby certify that the information contained he true and complete to the best of my knowledge and

Signature: Cherry Hlava

Printed Name: Cherry Hlava

Title: Regulatory Analyst

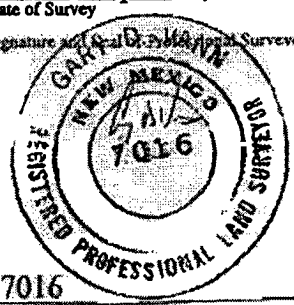
Date: 6-1-04

18 SURVEYOR CERTIFICATI

I hereby certify that the well location shown on th was plotted from field notes of actual surveys made or under my supervision, and that the same is tr correct to the best of my belief.

Date of Survey: April 22, 2004

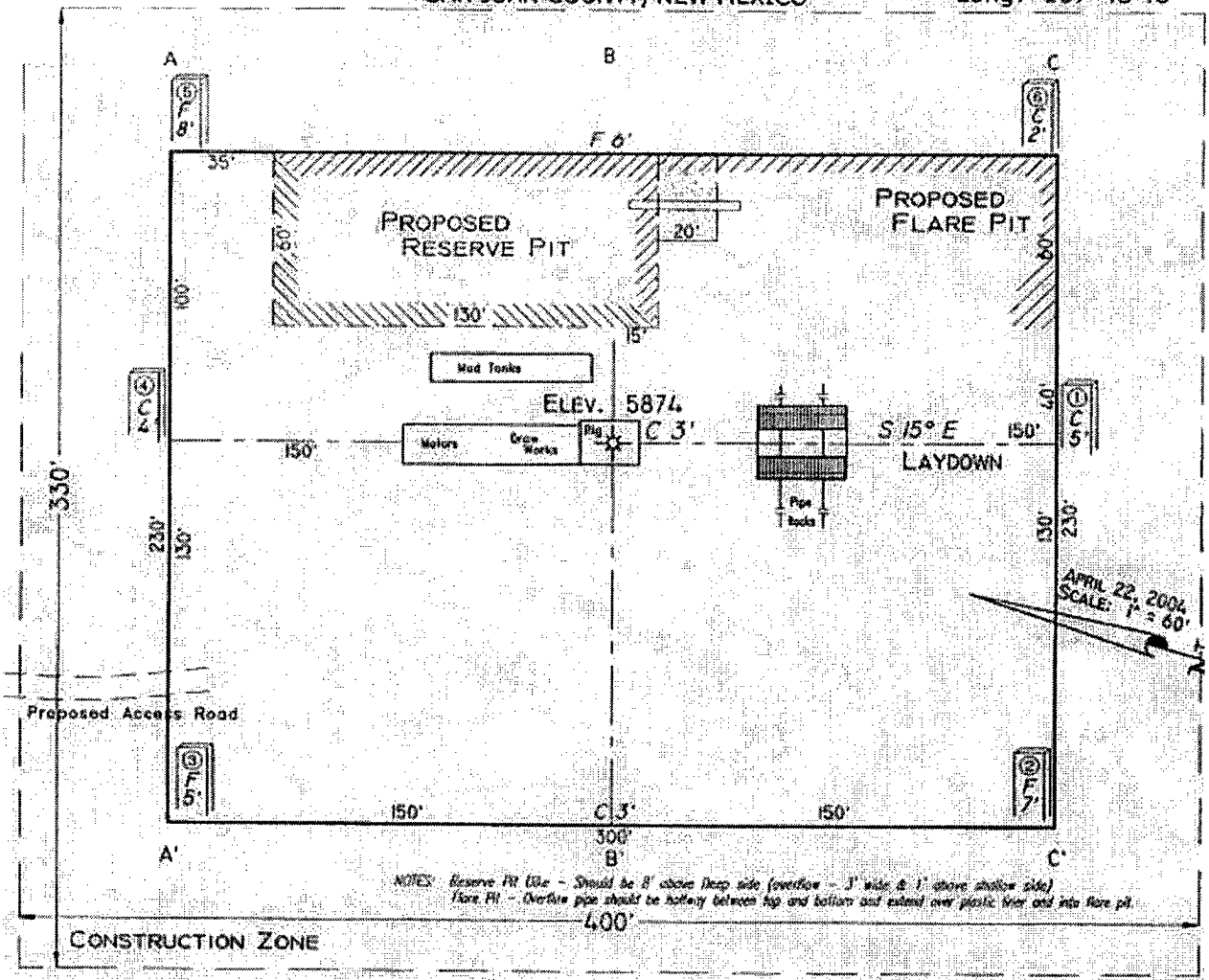
Signature and Seal of Professional Surveyor



Certificate Number: 7016

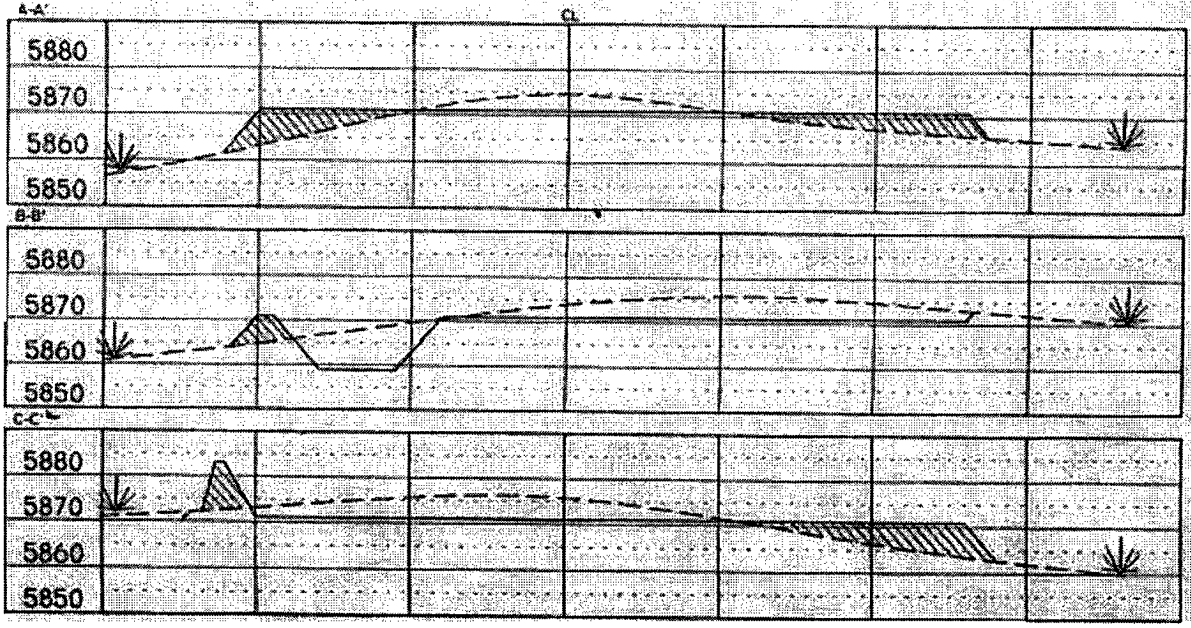
PAD LAYOUT PLAN & PROFILE
BP AMERICA PRODUCTION COMPANY
Johnston Com B # 2M
875' F/NL 1130' F/WL
SEC. 11, T28N, R9W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

Lat: 36°40'23"
Long: 107°45'48"



Area of Construction Zone - 330'x400' or 1.83 acres, more or less.

SCALE: 1"=60'-HORIZ.
1"=40'-VERT.



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

Additional Operator Remarks:

Notice of Staking Submitted 05/07/2004.

BP America Production Company respectfully requests permission to drill the subject well directionally to a total depth of approximately 6788'. Complete in the Basin Dakota Pool, isolate the Dakota; complete into the Blanco Mesaverde, establish a production rate; drill out the bridge plug and commingle production downhole.

Application for Downhole Commingling authority (NMOCD order R-11363) will be submitted to all appropriate for approval after Permit to Drill has been approved.

SUPPLEMENTAL TO SURFACE USE PLAN

New Facilities:
A 4" diameter buried steel pipeline that is +/- 1000 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 El Paso Field Services.

If conditions allow, it is our intent to pre-set the 9 5/8" casing on the above mentioned well by drilling a surface hole with air/air mist in lieu of drilling mud and the surface casing be cemented with 94.5 cu/ft type I-II FLYASH, 14.5 PPG, 7.41 gal. sk, 1.61 cf/sk Yield, 80 DEG BHST ready mix cement. If the area will not allow for pre-set we will follow the approved cement program.

BP AMERICA PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM

Prospect Name: **Johnston Com B**
Lease: Johnston Com B
County: San Juan
State: New Mexico
Date: May 13, 2004

Well No: **2 M**
Surface Location: 11-28N-9W, 875 FNL, 1130 FWL
BHL:
Field: Blanco Mesaverde/Basin Dakota

OBJECTIVE: Drill 230' below the top of the Two Wells; set 41/2" production casing, Stimulate CH, MF, PL and DK intervals

METHOD OF DRILLING

TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	0 - TD

LOG PROGRAM

TYPE	DEPTH INVERAL
OPEN HOLE	
none	
CASED HOLE	
GR-CCL-TDT	TDT – TD to 7" shoe
CBL	Identify 4 ½" cement top

REMARKS:
- Please report any flares (magnitude & duration).

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Estimated GL: 5874' Estimated KB: 5888'

MARKER		SUBSEA	TVD.
Ojo Alamo		4624'	1264'
Kirkland		4584'	1304'
Fruitland		4120'	1768'
Fruitland Coal	*	3890'	1998'
Pictured Cliffs	*	3651'	2237'
Lewis Shale	#	3287'	2601'
Cliff House	#	2335'	3553'
Menefee Shale	#	1956'	3932'
Point Lookout	#	1393'	4495'
Mancos		956'	4932'
Greenhorn		-552'	6440'
Bentonite Marker		-621'	6509'
Two Wells	#	-670'	6558'
Paguate	#	-742'	6630'
Cubero Upper	#	-787'	6675'
Cubero Lower	#	-800'	6689'
Encinal Canyon	#	-830'	6718'
TOTAL DEPTH		-900'	6788'

Probable completion interval * Possible Pay

SPECIAL TESTS

TYPE
None

REMARKS:

DRILL CUTTING SAMPLES

FREQUENCY	DEPTH
10'	2701' -TD

DRILLING TIME

FREQUENCY	DEPTH
Geolograph	0-TD

MUD PROGRAM:

Approx. Interval			Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0	- 120		Spud	8.6-9.2			
120	- 2701	(1)	Water/LSND	8.6-9.2		<6	
2701	- 6788		Gas/Air/N2/Mist	Volume sufficient to maintain a stable and clean wellbore			

REMARKS:
(1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.

CASING PROGRAM: (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)

Casing String	Estimated Depth	Casing Size	Grade	Weight	Hole Size	Landing Pt, Cmt, Etc.
Surface/Conductor	120	9 5/8"	H-40 ST&C	32#	13.5"	1
Intermediate 1	2701	7"	J/K-55 ST&C	20#	8.75"	1,2
Production	6788	4 1/2"	J-55	11.6#	6.25"	3

REMARKS:
(1) Circulate Cement to Surface
(2) Set casing 100' into Lewis Shale
(3) Bring cement 100' above 7" shoe

CORING PROGRAM:
None

COMPLETION PROGRAM:
Rigless, 3-4 Stage Limited Entry Hydraulic Frac

GENERAL REMARKS:
Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.

Form 46 Reviewed by: Logging program reviewed by: N/A

PREPARED BY:	APPROVED:	DATE:	
HGJ/JLP/JMP		May 13, 2004 Version 1.0	

Form 46 12-00 MNP

BP America Production Company
BOP Pressure Testing Requirements

Well Name: Johnston Com B 2 M
County: San Juan **State:** New Mexico

Formation	MD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1264		
Fruitland Coal	1998		
PC	2237		
Lewis Shale	2601		
Cliff House	3553	500	0
Menefee Shale	3932		
Point Lookout	4495	600	0
Mancos	4932		
Dakota	6558	2600	1449

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

Requested BOP Pressure Test Exception: 1500 psi

SAN JUAN BASIN
Dakota Formation
Pressure Control Equipment

Background

The objective Dakota 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.

FEDERAL CEMENTING REQUIREMENTS

1. All permeable zones containing fresh water and other usable water containing 10,000 PPM or less total dissolved solids will be isolated and protected from contamination by cement circulated in place for the protection of permeable zones per the NTL-FRA 90-1 Section III A.

2. The hole size will be no smaller than 1 ½" larger diameter than the casing O.D. across all water zones.

3. An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement.

4. An adequate number of casing centralizers will be run through usable water zones to ensure that the casing is centralized through these zones. The adequate number of centralizers to use will be determined by API SPEC 10D.

5. Centralizers will impart a swirling action around the casing and will be used just below and into the base of the lowest usable water zone.

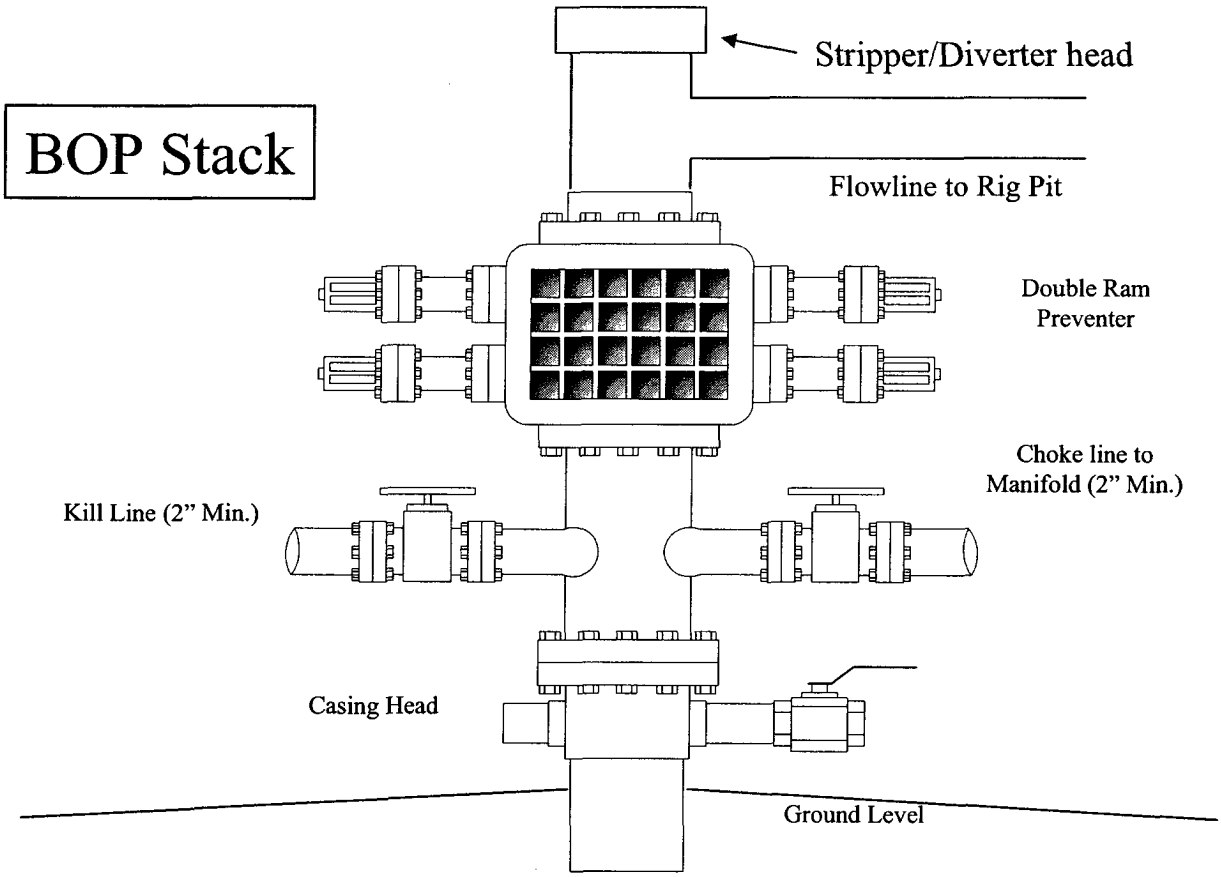
6. A chronological log will be kept recording the pump and slurry information and will be sent to the BLM with the subsequent sundry.

BP is currently using 3% CaCl2 in our slurry and achieves 300 psi compressive strength after 1 hr 50 min and 500 psi after 3 hrs 8 min. We, therefore, request approval to initiate blowout preventer (BOP) nipple up operations after a 2 hour wait on cement time in lieu of the 6 hour time frame required by rule to achieve 300 psi compressive strength with Class B cement slurry at 80 deg F.

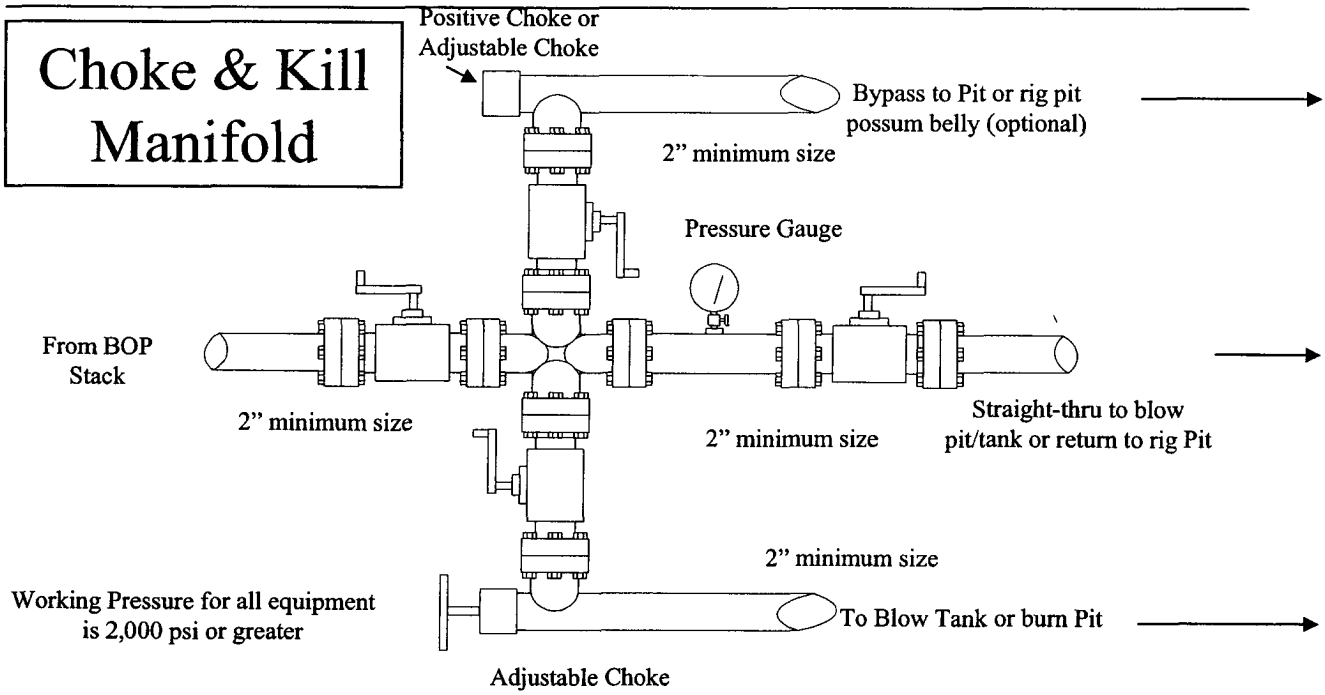
BP American Production Company

Well Control Equipment Schematic

BOP Stack



Choke & Kill Manifold



Cementing Program

Well Name:	Johnston Com B2M	Field:	Blanco Mesaverde / Basin Dakota
Location:	11-28N-09W, 875 FNL, 1130 FWL	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Blanco Mesaverde/Basin Dakota
		KB Elev (est)	5888
		GL Elev. (est)	5874

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	13.5	9.625	ST&C	Surface	NA	
Intermediate	2701	8.75	7	LT&C	Surface	NA	
Production -	6788	6.25	4.5	ST&C	2601	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	8.845
Intermediate	7	20	K-55	3740	2270	234	0.0405	6.456
Production -	4.5	11.6	J-55	5350	4960	154	0.0155	3.875

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight
0 - SCP	Water/Spud	8.6-9.2
SCP - ICP	Water/LSND	8.6-9.2
ICP - ICP2	Gas/Air Mist	NA
ICP2 - TD	LSND	8.6 - 9.2

Recommended Mud Properties Prio Cementing:

PV	<20
YP	<10
Fluid Loss	<15

Cementing Program:

	Surface	Intermediate	Production
Excess %, Lead	100	75	40
Excess %, Tail	NA	0	40
BHST (est deg. F)	75	120	183
Special Instructions	1,6,7	1,6,8	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 minmize drillout.

Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1 TOC@Surface	100 sx Class C Cement + 2% CaCl2 (accelerator)		117 cuft
			0.4887 cuft/ft OH

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

Cementing Program

Casing Equipment: 9-5/8", 8R, ST&C
1 Guide Shoe
1 Top Wooden Plug
1 Autofill insert float valve
Centralizers, 1 per joint except top joint
1 Stop Ring
1 Thread Lock Compound

Intermediate:

Fresh Water	20 bbl	fresh water	
Lead Slurry 1 TOC@Surface		220 sx Class "G" Cement + 3% D79 extender +1/4 #/sk. Cellophane Flake + 5 lb/sk Gilsonite	568 cuft
Tail Slurry 2 500 ft fill		60 sx 50/50 Class "G"/Poz + 2% gel (extender) +1/4 #/sk. Cellophane Flake + 2% CaCl2 (accelerator) + 5 lb/sk Gilsonite	75 cuft 0.1503 cuft/ft OH 0.1746 cuft/ft csg ann

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	11.4	2.63	15.8
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 Stop Ring
Centralizers one in middle of first joint, then every third collar
1 Top Rubber Plug
1 Thread Lock Compound

Production:

Fresh Water	10 bbl	CW100	
Lead Slurry 1 TOC, 400' above 7" shoe		190 LiteCrete D961 / D124 / D154 + 0.03 gps D47 antifoam + 0.5% D112 fluid loss + 0.11% D65 TIC	458 cuft
Tail Slurry 2 1356 ft fill		140 sx 50/50 Class "G"/Poz + 5% D20 gel (extender) + 0.1% D46 antifoam + 1/4 #/sk. Cellophane Flake + 0.25% D167 Fluid Loss + 5 lb/sk Gilsonite	195 cuft

Cementing Program

		+0.1% d800, retarder		
		+0.15% D65, dispersant		
				0.1026 cuft/ft OH
Slurry Properties:	Density	Yield	Water	
	(lb/gal)	(ft3/sk)	(gal/sk)	0.1169 cuft/ft csg ann
Slurry 1	9.5	2.52	6.38	
Slurry 2	13	1.44	6.5	Top of Mancos
				4932

Casing Equipment:

4-1/2", 8R, ST&C
1 Float Shoe (autofill with minimal LCM in mud)
1 Float Collar (autofill with minimal LCM in mud)
1 Stop Ring
Centralizers, every 4th joint in mud drilled holes, none in air drilled holes.
1 Top Rubber Plug
1 Thread Lock Compound