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 1b. Type of Well: Oil Well Gas Well Other Single Zone Multiple Zone 2. Name of Operator Contact: CHERRY HLAVA BP AMERICA PRODUCTION COMPANY E-Mail: hlavacl@bp.com 3a. Address P.O. BOX 3092 HOUSTON, TX 77253-3092 Ph: 281.366.4081 Fx: 281.366.4081 Fx: 281.366.4081 Fx: 281.366.0700 4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface NESE 1330FSL 890FEL 36.79361 N Lat, 107.67528 W Lon- At proposed prod. zone 14. Distance in miles and direction from nearest town or post office* 2 MILES FROM NAVAJO DAM, NM 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 890' 18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	9. API Well No. 30045 32428 10. Field and Pool, or Exploratory BASIN FRUITLAND COAL 11. Sec., T., R., M., or Blk. and Survey or Area Sec 21 T30N R8W Mer NMP 12. County or Parish SAN JUAN 13. State NM 17. Spacing Unit dedicated to this well
1b. Type of Well: Oil Well Gas Well Other Single Zone Multiple Zone 2. Name of Operator Contact: CHERRY HLAVA BP AMERICA PRODUCTION COMPANY E-Mail: hlavacl@bp.com 3a. Address P.O. BOX 3092 HOUSTON, TX 77253-3092 4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface NESE 1330FSL 890FEL 36.79361 N Lat, 107.67528 W Lon At proposed prod. zone 14. Distance in miles and direction from nearest town or post office* 2 MILES FROM NAVAJO DAM, NM 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 890' 18. Distance from proposed location to nearest well, drilling, 19. Proposed Depth	8. Lease Name and Well No. FLORANCE Z 3S 9. API Well No. 30045 32428 10. Field and Pool, or Exploratory BASIN FRUITLAND COAL 11. Sec., T., R., M., or Blk. and Survey or Area Sec 21 T30N R8W Mer NMP 12. County or Parish SAN JUAN 13. State NM 17. Spacing Unit dedicated to this well
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18. Distance from proposed location to nearest well, drilling, 19. Proposed Depth	320.00 户 2
completed, applied for, on this lease, it. 80' 2804 MD	WY2924
21. Elevations (Show whether DF, KB, RT, GL, etc. 5840 GL 22. Approximate date work will start 10/15/2004	23. Estimated duration 7 DAYS
24. Attachments	
he following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached	to this form:
A Drilling Plan. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification	ations unless covered by an existing bond on file (see information and/or plans as may be required by the
25. Signature Name (Printed/Typed) (Electronic Submission) CHERRY HLAVA	Date 06/21/2004
Title REGULATORY ANALYST	
Approved by (Signature) Name (Printed/Typed)	Date 8-17-05
Title Office	
pplication approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject perations thereon. onditions of approval, if any, are attached.	lease which would entitle the applicant to conduct
tle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully ates any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.	to make to any department or agency of the United
dditional Operator Remarks (see next page)	
Electronic Submission #32182 verified by the BLM Well Info	•

This action is subject to technical and procedural review pursuant to 43 CFR 3185.3 and appeal pursuant to 43 CFR 3165.4

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

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

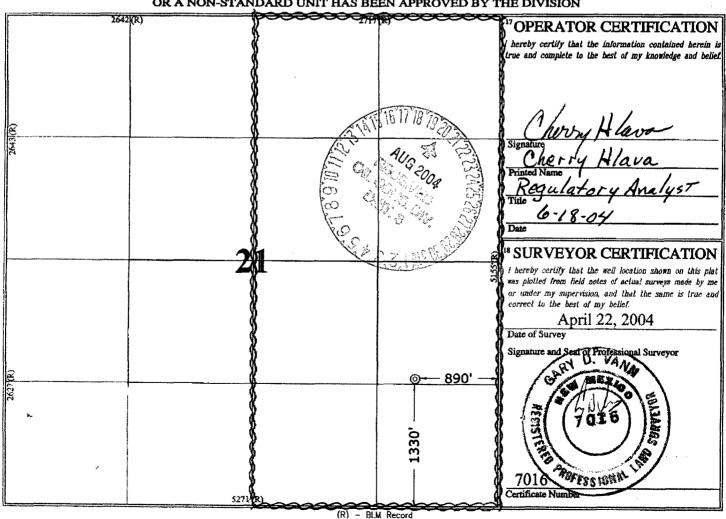
30-0(5-32	2428 71629 Basin Fruitland Coal	
' Property Code	⁵ Property Name	* Well Number
000 555	Florance Z	#·3S
OGRID No.	¹ Operator Name	* Elevation
000778	BP AMERICA PRODUCTION COMPANY	5840

Surface Location

UL or Lot No.	Section 21	Township 30 N	Range 8 W	Lot Idn	Peet from the 1330	North/South line SOUTH	Feet from the	East/West line EAST	County SAN JUAN	
	"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	
Dedicated Acres	s ⁱⁱ Join	or Infill 14	Consolidatio	n Code 13 (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



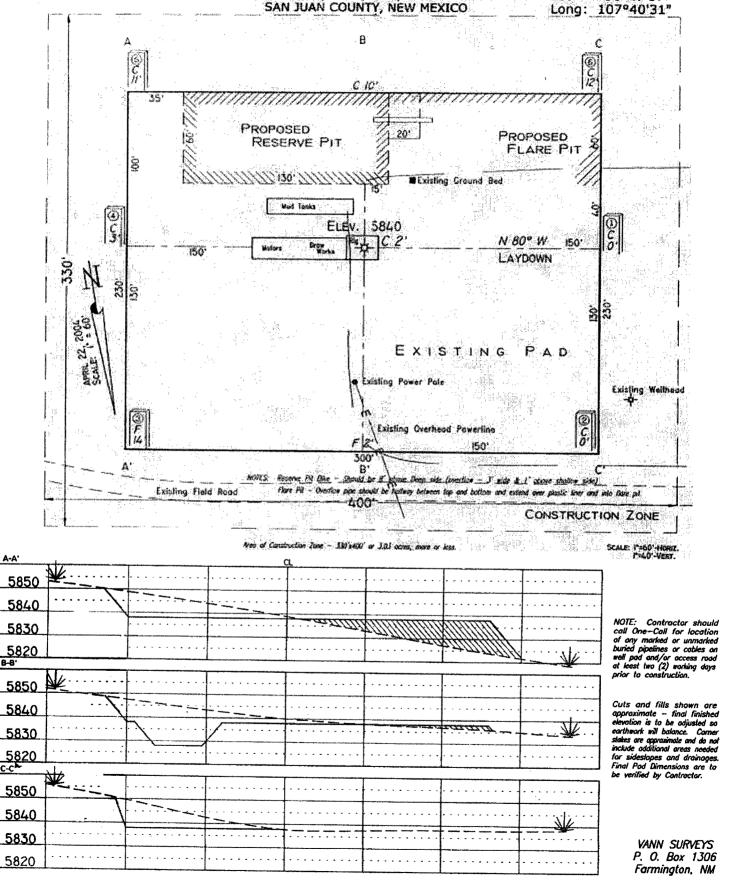
Submit 3 Copies To Appropriate District Office	State of Energy, Minerals	New Me		Form C-103 March 4, 2004				
<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240	Elicigy, Willicials	and race	mai Resources	WELL API NO				
<u>District II</u> 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERV	VATION	DIVISION		New Well			
District III	1220 South			5. Indicate Typ STATE	e of Lease			
1000 Rio Brazos Rd., Aztec, NM 87410 District IV		e, NM 8		6. State Oil & O				
1220 S. St. Francis Dr., Santa Fe, NM 87505		,			Sub Boase Iver			
SUNDRY NOTIC	CES AND REPORTS O				or Unit Agreement Name			
(DO NOT USE THIS FORM FOR PROPOS DIFFERENT RESERVOIR. USE "APPLIC. PROPOSALS.)	Florance Z (Federal well SF – 078578-A)							
1. Type of Well:	0. 37/ 11.57							
Oil Well Gas Well	Other			8. Well Number 3 S				
2. Name of Operator				9. OGRID Nun				
BP AMERICA PRODUCTION C 3. Address of Operator	U			10. Pool name o	or Wildcat			
P.O. BOX 3092 HOUSTON, TX	77079-2064			Basin Fruitland				
4. Well Location			W-14**		\$4. The second s			
Unit Letter I : 1330	feet from the <u>SOU</u>	<u>TH</u>	line and 890	feet from the EA	AST line			
Section 21	Township 30N		Range 08W	NMPM	SAN JUAN County			
THE PART OF THE PARTY.	11. Elevation (Show wi		, RKB, RT, GR, etc.,) ;;	Act S			
Pit or Below-grade Tank Application (For	nit or helow-grade tank clas	5840'						
Pit Location: UL I Sect 21 Twp 30					nearest fresh water well >1000'			
Distance from nearest surface water >100					incarest fresh water wen <u>> 1000</u>			
1430 feet from the South line and 875	-			Kiig 0011 ,				
A 120 Lett Hom the Board and W/2	Teet it out the <u>Dase</u> into 1 D		ATTACHEDTAD					
10 (1 1 4		11 . 31	CNT /	D 0.1	ъ.			
NOTICE OF INT	ppropriate Box to In	idicate N	1	-				
PERFORM REMEDIAL WORK		ı 🗆	REMEDIAL WOR	SEQUENT RI ĸ □	ALTERING CASING			
TEMPORARILY ABANDON ☐	CHANGE PLANS		COMMENCE DRI	_	PLUG AND			
TEMPORARIET ABANDON	CHANGE PLANS		COMMENCE DRI	LLING OPNS.	ABANDONMENT			
PULL OR ALTER CASING	MULTIPLE COMPLETION		CASING TEST AN	ND 🗆				
OTHER: Lined Drilling PIT PERMIT		\boxtimes	OTHER:					
13. Describe proposed or comple	ted operations. (Clearly	y state all	pertinent details, and	d give pertinent da	tes, including estimated date			
of starting any proposed wor or recompletion.	k). SEE RULE 1103. F	or Multip	le Completions: At	tach wellbore diag	ram of proposed completion			
Please reference BP America's San					e NMOCD. Pit			
Construction Plan issued date of 04	/15/2004. Pit will be cle	osed acco	rding to closure pl	an on file				
I hereby certify that the information a	oove is true and complet	te to the be	est of my knowledge	e and belief. I furt	ner certify that any pit or below-			
grade tank has been/will be constructed or cl	osed according to NMOCD	guidelines L	, a general permit	or an (attached) alter	native OCD-approved plan .			
SIGNATURE Cherry Hlava		TITI	LE Regulatory Ana	lystI	DATE_6/21/04			
Type or print name Cherry Hlava	E-ma	il address:		Teleph	one No. 281-366-4081			
(This space for State use)								
	<u> 4 </u>	(NEW PRO-	~		Anne o o o ona			
APPPROVED BY	Mal	ritle <u>"</u>	uil & gas inspec	רוא אוכד איי	DAANU G G LOOT			
Conditions of approval, if any:	V //			· •n, vi31, gg				

PAD LAYOUT PLAN & PROFILE BP AMERICA PRODUCTION COMPANY Florance Z #3S

1330' F/SL 890' F/EL SEC. 21, TONNER ROW, N.M.P.M.

36°47'37"

Lat:



BP AMERICA PRODUCTION COMPANY DRILLING AND COMPLETION PROGRAM

Prospect Name: Florance Z 3S

Well No: 3S

Lease:

Surface Location: Section 21I, T30N, R08W; 1330'

FSL, 890' FEL Field: Basin Fruitland Coal

County: San Juan State: New Mexico

Date: June 14, 2004 OBJECTIVE: Drill to a TD of 2804' kb set 7" casing and perf and frac the Fruitland Coal interval.

METHOD OF DRILLING						APPROXIM	ATE	DEPT	HS OF	GEOL	OGIC	AL M	ARKER
TYPE OF TOOLS	DEF	TH OF	DRILLI	NG	- }	Estimated	d GL:	584	00	Estir	mated	KB:	5853
Rotary	0 – 1	2804' KI	В		Γ	MARKER	₹		S	UBSE	A	MEA	S. DEPTH
	PROGR	AM			\Box	Ojo Alamo		}			4383		1470
						Kirtland					4228		1625
						Fruitland)			3512		2341
TYPE	DEP	TH INVE	RAL			Fruitland Coa		*#			3361		2492
OPEN HOLE	TD.					Pictured Cliffs	S	*			3199		2654
Run1: Run Platform Express (array induction, 3-detector Lit		ip to min	ımum cn	arge.				ļ	ļ				
Density, compensated neutror					- 1								
caliper, microlog, SP and gam											ĺ		
ray). (see Remarks section								ļ					
below).								!	1				
					-			1			Ì		
REMARKS:					\dashv								
- Primary presentation is Bulk	Density Pr	esentatio	on (5"=10	00') with	Ì]	1				
<1.75 g/cc shaded as coal. Hi					1			•					
interval only. Three final prints				iston.				ļ					
Customer LAS file to Dennis H	filkewich in	Houston	ı –		-			 					
hilkewdn@bp.com						TOTAL DEPT	ГН	:			3049		2804
					_	# Probable co		tion inte	erval		ossible	Pav	
SPE	CIAL TES	STS				DRILL CUT				l	DRIL		TIME
TYPE					Ì	FREQUENCY DEPTH FREQUENCY						DEPTH	
None						none		none		Geolo	ograph		0-2804
REMARKS:													
MUD PROGRAM:													
Approx. Interval		pe Mud		Weight, #/	ga	Vis, sec/qt	V	V/L cc'	s/30 mi	n O	ther S	pecit	ication
0 - 120	Sp			8.6-9.2									
120 - 2804 (1	l) Wa	ater/LSN	ID	8.6-9.2			<	6			•		
REMARKS:											_		
(1) The hole will require sw													
CASING PROGRAM: (Norr													
Casing String E Surface/Conductor	<u>stimated</u>	120	Casin	8-5/8"	5	ade 40, 8 RND	we	ight 20.0	Hole S		Landii 1	ng Pt,	Cmt, Etc.
Intermediate		2804		5-1/2"		55, 8 RND		15.5		75"	1 1		
REMARKS:		2007		0-1/2	0-0	30, 0 KIND	L	10.0		10	<u> </u>		· · · · · · · · · · · · · · · · · · ·
(1) Circulate Cement to Sur	rface												
(1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1													
CORING PROGRAM:													
None													
COMPLETION PROGRAM			_										
Rigless, Single Stage Limite	ed Entry F	lydraulic	Frac										
GENERAL REMARKS:	un prior to	Could I	DOD +=	است مستاد	C	.i		·					i
Notify BLM/NMOCD 24 hou Form 46 Reviewed by:	irs prior to	Spua, i	BOP les						N/A				
PREPARED BY:		ADDD	OVED:	Log	girig	program re	VIEW	eu by.	IN/F	`			
I NEFANED DI.		AFFR	OVED:			DATE:							
Daniel Crosby						6/14/04)			
Form 46 12-00 MNP													

Cementing Program

Well Name:	Florance Z 3S				Field:	Basin Fru	itland Coa	al
Location:	Sec 21 - 30N -	<u>08</u> W, 1330' FSI	L, 890' FEL		API No.	[
County:	San Juan	_			Well Flac	<u> </u>		
State:	New Mexico				Formation:	Fruitland		
					KB Elev (est)		5853	
					GL Elev. (est)	Ь	5840	
Casing Progran	n:							
Casing String	Est. Depth	Hole Size	Casing Size	Thread	TOC			
	(ft.)	(in.)	(in.)		(ft.)			
Surface Production -	120 2804	12.5 8.75	8 5/8 5 1/2	8rd 8rd	Surface Surface			
Casing Properti			actor Included)	010	Surface			
Casing String	Size	Weight	Grade					
	(in.)	(lb/ft)			_			
Surface	8 5/	/8 20	يهل	10- K-4	1			
Production -	5 1/	/2 15.5	J-:	55				
M. d Decare								
Mud Program Apx. Interval	Mud Type	Mud Weight		Recomme	nded Mud Prope	erties Prio C	ementina:	
(ft.)	was rype	mad Proight		PV	<20	,, 400 i 110 C	ornerialis.	
\/				ΥP	<10			
0-SCP	Water/Spud	8.6-9.2		Fluid Loss				
SCP - TD	Water/LSND	8.6-9.2						
Camankia								
Cementing Progr	ram.		Surface		Production			
Excess %, Lead			100		40			
Excess %, Tail			NA		40			
BHST (est deg. f	F)		75		120			
Special Instruction			1,6,7		2,4,6			
	 Do not wash 	pumps and line	S.					
	a 147 1							
	2. Wash pumps	and lines.						
	3. Reverse out							
	Reverse out Run Blend Te	est on Cement	Density on 3.5"	disk				
	3. Reverse out	est on Cement , Pressure, and	-					
	3. Reverse out 4. Run Blend Te 5. Record Rate,	est on Cement , Pressure, and sitometer with pr	ressurized mud	scales				
	 Reverse out Run Blend Te Record Rate, Confirm dens 	est on Cement Pressure, and sitometer with pr surface if ceme	ressurized mud nt is not circula	scales ted.)-12 hr. after land	ding plug.		
Notes	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to	est on Cement Pressure, and sitometer with pr surface if ceme	ressurized mud nt is not circula	scales ted.)-12 hr. after land	ding plug.		· · · · · · · · · · · · · · · · · · ·
Notes:	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to	est on Cement , Pressure, and sitometer with pr surface if ceme not circulated to	ressurized mud int is not circula surface, run ter	scales ted. np. survey 10			ninmize di	illout.
	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n	est on Cement , Pressure, and sitometer with pr surface if ceme not circulated to	ressurized mud int is not circula surface, run ter	scales ted. np. survey 10			ninmize di	illout.
	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n	est on Cement , Pressure, and sitometer with pr surface if ceme not circulated to	ressurized mud int is not circulai surface, run ter . Wash lines be	scales ted. np. survey 10 fore displacin	g production cer		ninmize di	illout.
	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n	est on Cement , Pressure, and sitometer with pr surface if ceme not circulated to	ressurized mud int is not circula surface, run ter	scales ted. np. survey 10	g production cer		ninmize di	illout.
	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n	est on Cement Pressure, and sitometer with pr surface if ceme not circulated to p on top of plug	ressurized mud int is not circulai surface, run ter . Wash lines be	scales ted. np. survey 10 fore displacin FreshWate	g production cer		ninmize di	rillout.
	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up	est on Cement Pressure, and sitometer with pr surface if ceme not circulated to p on top of plug	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl.	scales ted. np. survey 10 fore displacin FreshWate	g production cer		ninmize di	· · · · · ·
	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up Preflush Slurry 1	est on Cement Pressure, and sitometer with pr surface if ceme not circulated to p on top of plug	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl. sx Class C Cei	scales ted. np. survey 10 fore displacin FreshWate	g production cer		ninmize di	· · · · · ·
	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up Preflush Slurry 1	est on Cement Pressure, and sitometer with pr surface if ceme not circulated to p on top of plug	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl. sx Class C Cei	scales ted. np. survey 10 fore displacin FreshWate	g production cer		ninmize di	99 cuft
Surface:	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up Preflush Slurry 1 TOC@Surface	est on Cement Pressure, and sitometer with pr surface if ceme not circulated to p on top of plug	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl. sx Class C Cei	scales ted. np. survey 10 fore displacin FreshWate	g production cer		ninmize di	99 cuft
Surface:	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up Preflush Slurry 1 TOC@Surface	est on Cement Pressure, and sitometer with pr surface if ceme tot circulated to p on top of plug	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl. sx Class C Cei	scales ted. np. survey 10 fore displacin FreshWate ment ccelerator)	g production cer	nent job to r	minmize di	99 cuft
Surface:	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up Preflush Slurry 1 TOC@Surface	est on Cement Pressure, and sitometer with pr surface if ceme not circulated to p on top of plug 80 Density	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl. sx Class C Cei + 2% CaCl2 (a	scales ted. np. survey 10 fore displacin FreshWate ment ccelerator)	g production cer	nent job to r	ninmize di	99 cuft
Surface: Slurry Properties:	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up Preflush Slurry 1 TOC@Surface	est on Cement Pressure, and interest with pr surface if ceme tot circulated to p on top of plug 80 Density (lb/gal) 15.2	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl. sx Class C Cei + 2% CaCl2 (a	scales ted. np. survey 10 fore displacin FreshWate ment ccelerator) Yield (ft3/sk)	g production cer	nent job to r		99 cuft
Surface: Slurry Properties:	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up Preflush Slurry 1 TOC@Surface	est on Cement Pressure, and interest with presurface if ceme not circulated to p on top of plug Bo Density (lb/gal) 15.2 8-5/8", 8R, S	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl. sx Class C Cei + 2% CaCl2 (a	scales ted. np. survey 10 fore displacin FreshWate ment ccelerator) Yield (ft3/sk)	g production cer	nent job to r		99 cuft
Surface: Skurry Properties:	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up Preflush Slurry 1 TOC@Surface	est on Cement Pressure, and itometer with pr surface if ceme tot circulated to p on top of plug Bo Density (lb/gal) 15.2 8-5/8", 8R, S1 1 Guide Shoe	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl. sx Class C Cei + 2% CaCl2 (a	scales ted. np. survey 10 fore displacin FreshWate ment ccelerator) Yield (ft3/sk)	g production cer	nent job to r		99 cuft
Surface: Slurry Properties:	3. Reverse out 4. Run Blend Te 5. Record Rate, 6. Confirm dens 7. 1" cement to 8. If cement is n *Do not wash up Preflush Slurry 1 TOC@Surface	pest on Cement Pressure, and Sitometer with pressure of ceme end circulated to p on top of plug Bonsity (lb/gal) 15.2 8-5/8", 8R, S1 1 Guide Shoe 1 Top Woode	ressurized mud int is not circulal surface, run ter . Wash lines be 20 bbl. sx Class C Cei + 2% CaCl2 (a	scales ted. np. survey 10 fore displacin FreshWate ment ccelerator) Yield (ft3/sk)	g production cer	nent job to r		99 cuft
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Schlumberger Private Page 1

Cementing Program

TOC@Surface

+ 2% S1 Calcium Chloride

+1/4 #/sk. Cellophane Flake

+ 0.1% D46 antifoam'

Tail Slurry 2 140 sx 50/50 Class "G"/Poz

+ 2% gel (extender)

0.1% D46 antifoam

0.2526 cuft/ft OH 0.2009 cuft/ft csg ann

177 cuft

500 ft fill

+1/4 #/sk. Cellophane Flake

+ 2% CaCl2 (accelerator)

Slurry Properties:

Casing Equipment:

Density (lb/gal) 11.4 Yield (ft3/sk) 2.61 1.27

Water (gal/sk) 17.77 5.72

Slurry 1 Slurry 2

5 1/2", 8R, ST&C

13.5

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

BP America Production Company BOP Pressure Testing Requirements

Well Name: Florance Z 3S

County: San Juan State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1470		
Kirtland	1625		
Fruitland Coal	2492	400	0
PC	2654		
Lewis Shale Cliff House			
Menefee Shale		i	
Point Lookout	(
Mancos			
Dakota		i	

** 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

<u>Interval</u>

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 Stripper/Diverter head **BOP Stack** Flowline to Rig Pit Double Ram Preventer Choke line to Manifold (2" Min.) Kill Line (2" Min.) سا سا سا Casing Head Ground Level Positive Choke or Adjustable Choke Choke & Kill Bypass to Pit or rig pit Manifold possum belly (optional) 2" minimum size Pressure Gauge From BOP Stack Straight-thru to blow 2" minimum size

Working Pressure for all equipment is 2,000 psi or greater

Adjustable Choke

2" minimum size

2" minimum size

To Blow Tank or burn Pit

pit/tank or return to rig Pit