

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. NMSF - 078655
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" 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.
Contact: MARY CORLEY E-Mail: corleyml@bp.com		8. Lease Name and Well No. DECKER LS 1M
3a. Address P.O. BOX 3092 HOUSTON, TX 77253	3b. Phone No. (include area code) Ph: 281.366.4491 Fx: 281.366.0700	9. API Well No. 3004532074
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NESW Lot K 2490FSL 1655FWL 36.59100 N Lat, 107.54500 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN DAKOTA/BLANCO MESAVER
14. Distance in miles and direction from nearest town or post office* 14 MILES FROM AZTEC, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area K Sec 17 T32N R10W Mer NMP SME: BLM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 985	16. No. of Acres in Lease 315.14	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1200	19. Proposed Depth 7604 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6128 GL	22. Approximate date work will start 02/25/2004	17. Spacing Unit dedicated to this well 315.14 WP
		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:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) MARY CORLEY	Date 12/17/2003
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 8-19-04
Title AFH	Office FFU	

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 #26234 verified by the BLM Well Information System
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

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

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

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

NMOC

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-32074		³ Pool Code 71599 & 72319		³ Pool Name BASIN DAKOTA & BLANCO MESAVERDE	
⁴ Property Code 000427		⁵ Property Name Decker LS			⁶ Well Number #1M
¹ OGRID No. 00077B		² Operator Name BP AMERICA PRODUCTION COMPANY			⁷ Elevation 6128

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
K (Lot 9)	17	32 N	10 W		2490	SOUTH	1655	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

1	U/L or lot no.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County	
15	Dedicated Acres 315.14		13	Joint or Infill	14	Consolidation Code		15			Order No.

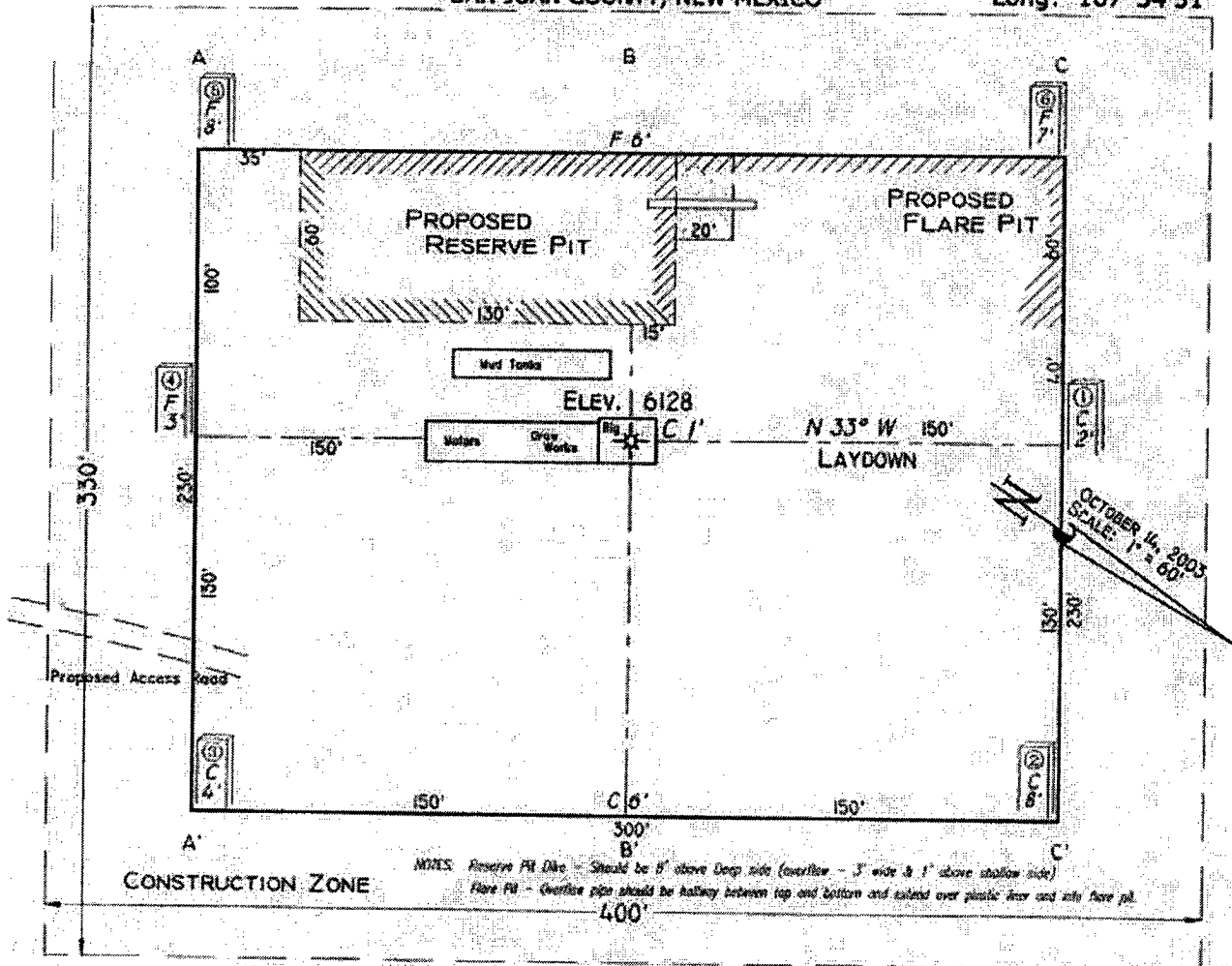
**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**

<div><div>16</div><div>Lot 3</div><div>Lot 2</div><div>Lot 1</div><div>Decker LS 1A 30-045-24235 1700' FNL & 825' FWL MV</div><div>1655'</div><div>Lot 4</div><div>Lot 5</div><div>Lot 6</div><div>17</div><div>Lot 9</div><div>Lot 8</div><div>Lot 7</div><div>2490'</div><div>Lot 10</div><div>Lot 11</div><div>Lot 12</div><div>Decker LS 1 30-045-11403 1014' FSL & 959' FWL MV</div><div>17</div></div> <td colspan="2"><div>17 OPERATOR CERTIFICATION</div><div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div><div>Signature <u>Mary Corley</u></div><div>Printed Name <u>Mary Corley</u></div><div>Title <u>SR Regulatory Analyst</u></div><div>Date <u>11-20-2003</u></div></td>			<div>17 OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div> <div>Signature <u>Mary Corley</u></div> <div>Printed Name <u>Mary Corley</u></div> <div>Title <u>SR Regulatory Analyst</u></div> <div>Date <u>11-20-2003</u></div>	
			<div>18 SURVEYOR CERTIFICATION</div> <div>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.</div> <div>October 14, 2003</div> <div>Date of Survey</div> <div>Signature and Seal of Professional Surveyor</div> <div><div><div>GARY D. VANA</div><div>NEW MEXICO</div><div>REGISTERED PROFESSIONAL LAND SURVEYOR</div><div>2016</div></div><div>7016</div><div>Certificate Number</div></div>	

(R) - BLM Record

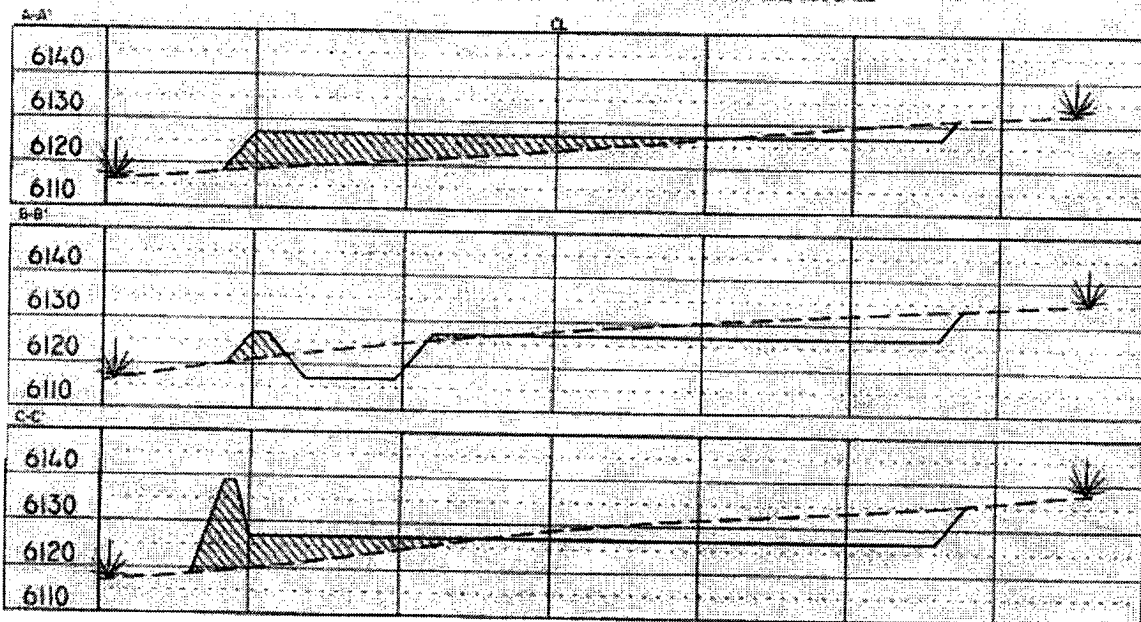
PAD LAYOUT PLAN & PROFILE
BP AMERICA PRODUCTION COMPANY
 Decker LS #1 MM
 2490' F/SL 1655' F/WL
 SEC. 17, T32N, R10W, N.M.P.M.
 SAN JUAN COUNTY, NEW MEXICO

Lat: 36°59'06"
 Long: 107°54'31"



Area of Construction Zone - 330'x400' or 1.03 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 to earthwork will balance. Carrier stakes are approximate and do not include additional areas needed for sidelaps and drainages. Final Pad Dimensions are to be verified by Contractor.

YANN SURVEYS
 P. O. Box 1306
 Farmington, NM

Additional Operator Remarks:

Notice of Staking was submitted on 11/16/2003, as the Decker LS 1B. Please note change in well number from 1B to 1M.

BP America Production Company respectfully request permission to drill the subject well to a total depth of approximately 7604', complete in the Basin Dakota Pool, produce the well to establish a production rate, perform a deliverability test, isolate the Dakota then completed into the Blanco Mesaverde Pool and commingle production Downhole.

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.~~

*see BLM
General Requirements*

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 + or 1200 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 well 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 to El Paso Field Services, refer to the attached survey plat.

**BP AMERICA PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM**

Prospect Name: Decker LS

Lease: Decker

County: San Juan

State: New Mexico

Date: November 18, 2003

Well No: 1 M

Surface Location: 17-32N-10W; 2490 FSL, 1655 FWL

Field: Blanco Mesaverde

OBJECTIVE: Drill 190' below the top of the Two Wells member of the Dakota, set 4 1/2" production liner, Stimulate DK, CH, MF and PL intervals						
METHOD OF DRILLING			APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS		DEPTH OF DRILLING	Estimated GL: 6128		Estimated KB: 6142	
Rotary		0 - TD				
LOG PROGRAM						
TYPE		DEPTH INTERVAL				
<u>OPEN HOLE</u>						
None						
<u>CASED HOLE</u>						
<u>GR-CCL-TDT</u>		TDT - TD to 7" shoe				
<u>CBL</u>		Identify 4 1/2" cement top				
REMARKS: - Please report any flares (magnitude & duration).			MARKER		SUBSEA	
			Ojo Alamo		4832	TVD
			Kirtland		4782	1310
			Fruitland		3891	1360
			Fruitland Coal		3624	2251
			Pictured Cliffs		3231	2518
			Lewis		3048	2911
			Cliff House		1694	3094
			Menefee		1286	4448
			Point Lookout		961	4856
			Mancos		603	5181
			Greenhorn		-1147	5540
			Graneros		-1203	7289
			Two Wells		-1272	7345
			Pagate		-1324	7414
Upper Cubero		-1347	7466			
Lower Cubero		-1370	7489			
Encinal Canyon		-1403	7512			
TOTAL DEPTH		-1462	7545	7604		
			# Probable completion interval * Possible Pay			
SPECIAL TESTS			DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE			FREQUENCY	DEPTH	FREQUENCY	
None			10'	3194-TD	Geograph	
					0-TD	
REMARKS:						

MUD PROGRAM:					
Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L cc's/30 min	Other Specification
0 - 120	Spud	8.6-9.2			
120 - 3194 (1)	Water/LSND	8.6-9.2		<6	
3194 - 7604	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 5/8" 12.25"	1
Intermediate 1	3194	7"	J/K-55 ST&C	20#	8.75"	1,2
Production	7604	4 1/2"	J-55	10.5#	6.25"	3,4
REMARKS:						
(1) Circulate Cement to Surface						
(2) Set casing 100' below top of Lewis Shale						
(3) Bring cement 100' above 7" shoe						
(4) 100' Overlap						

CORING PROGRAM:	
None	

COMPLETION PROGRAM:	
Rigless, 2-3 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/MNP/JMP		November 18, 2003
Form 46 12-00 MNP		Version 2.0

BP America Production Company

BOP Pressure Testing Requirements

Well Name: Decker LS
County: San Juan

1 M
State: New Mexico

Formation	Estimated TVD/MD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1310		
Fruitland Coal	2518		
PC	2911		
Lewis Shale	3094		
Cliff House	4448	500	0
Menefee Shale	4856		
Point Lookout	5181	600	0
Mancos	5540		
Dakota	7414	2600	

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

Requested BOP Pressure Test Exception: 750 psi

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 rigs 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 9", 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 1500 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include 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 1/2" 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 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.

See BLM General Requirements

Cementing Program

Well Name: Decker LS 1M Location: 17-32N-10W, 2490 FSL, 1655 FWL County: San Juan State: New Mexico	Field: Blanco Mesaverde / Basin Dakota API No. Well Flac Formation: Blanco Mesaverde/Basin Dakota KB Elev (est) 6142 GL Elev. (est) 6128
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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	3194	8.75	7	LT&C	Surface	NA	
Production -	7604	6.25	4.5	ST&C	3094	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	2270		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				Recommended Mud Properties Prio Cementing:			
Apx. Interval (ft.)	Mud Type	Mud Weight		PV	<20	YP	<10
0 - SCP	Water/Spud	8.6-9.2		Fluid Loss	<15		
SCP - ICP	Water/LSND	8.6-9.2					
ICP - ICP2	Gas/Air Mist	NA					
ICP2 - TD	LSND	8.6 - 9.2					

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 minimize drillout.

Surface:			
Preflush	20 bbl.	FreshWater	
Slurry 1	110 sx Class G Cement		117 cuft
TOC@Surface	+ 3% CaCl2 (accelerator)		
	0.25 #/sk Cellophane Flake (lost circulation additive)		0.4887 cuft/ft OH
	0.1% D46 antifoam		
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	15.8	1.16	4.95
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

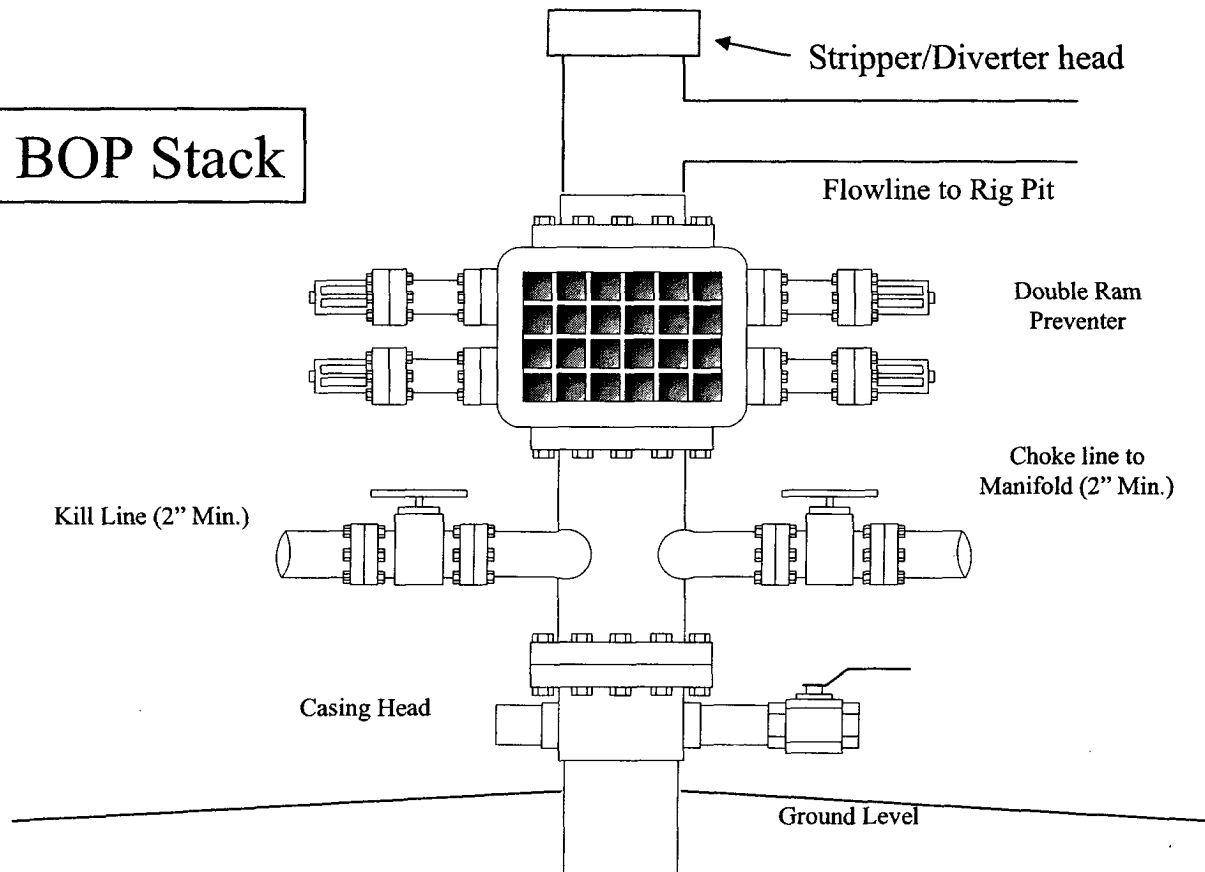
Cementing Program

Lead Slurry 1 TOC@Surface		270 sx Class "G" Cement + 3% D79 extender + 2% S1 Calcium Chloride +1/4 #/sk. Cellophane Flake + 0.1% D46 antifoam'	698 cuft
Tail Slurry 2		60 sx 50/50 Class "G"/Poz + 2% gel (extender) 0.1% D46 antifoam +1/4 #/sk. Cellophane Flake + 2% CaCl2 (accelerator)	75 cuft
	500 ft fill		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	2.61	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 Stop Ring		
	14 Centralizers (one in middle of first joint, then every third collar)		
	2 Fluidmaster vane centralizers @ base of Ojo		
	1 Top Rubber Plug		
	1 Thread Lock Compound		
<hr/>			
Production:	Fresh Water	10 bbl	CW100
Lead Slurry 1 TOC, 100' above 7" shoe		170 LiteCrete D961 / D124 / D154 + 0.03 gps D47 antifoam + 0.5% D112 fluid loss + 0.11% D65 TIC	409 cuft
Tail Slurry 2		160 sx 50/50 Class "G"/Poz + 5% D20 gel (extender) + 0.1% D46 antifoam + 1/4 #/sk. Cellophane Flake + 0.25% D167 Fluid Loss	225 cuft + 5 #/sk D24 gilsonite + 0.15% D65 TIC + 0.1% D800 retarder
	1564 ft fill		0.1026 cuft/ft OH
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	9.5	2.52	6.38
Slurry 2	13	1.44	6.5
			Top of Mancos 5540
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		

BP American Production Company
Well Control Equipment Schematic



BOP Stack



Choke & Kill Manifold

