

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 - 0800697 080597
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. GARTNER LS 6M
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. 30 045 31174
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE Lot P 990FSL 940FEL 36.46100 N Lat, 107.39400 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* 21.5 MILES FROM BLOOMFIELD, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area P Sec 27 T30N R8W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 940	16. No. of Acres in Lease 320.00	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1000	19. Proposed Depth 7540 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6238 GL	22. Approximate date work will start 10/01/2002	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:

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 (Electronic Submission)	Name (Printed/Typed) MARY CORLEY	Date 08/14/2002
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) DM	Name (Printed/Typed)	Date 9-16-2
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 #13563 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
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

NMOCD

** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL **

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 30-045-31174		2 Pool Code 71599 & 72319		3 Pool Name BASIN DAKOTA & BLANCO MESA VALDE	
4 Property Code 000591		5 Property Name Gartner LS			6 Well Number 6M
7 OGRID No. 000228		8 Operator Name BP AMERICA PRODUCTION COMPANY			9 Elevation 6238

10 Surface Location

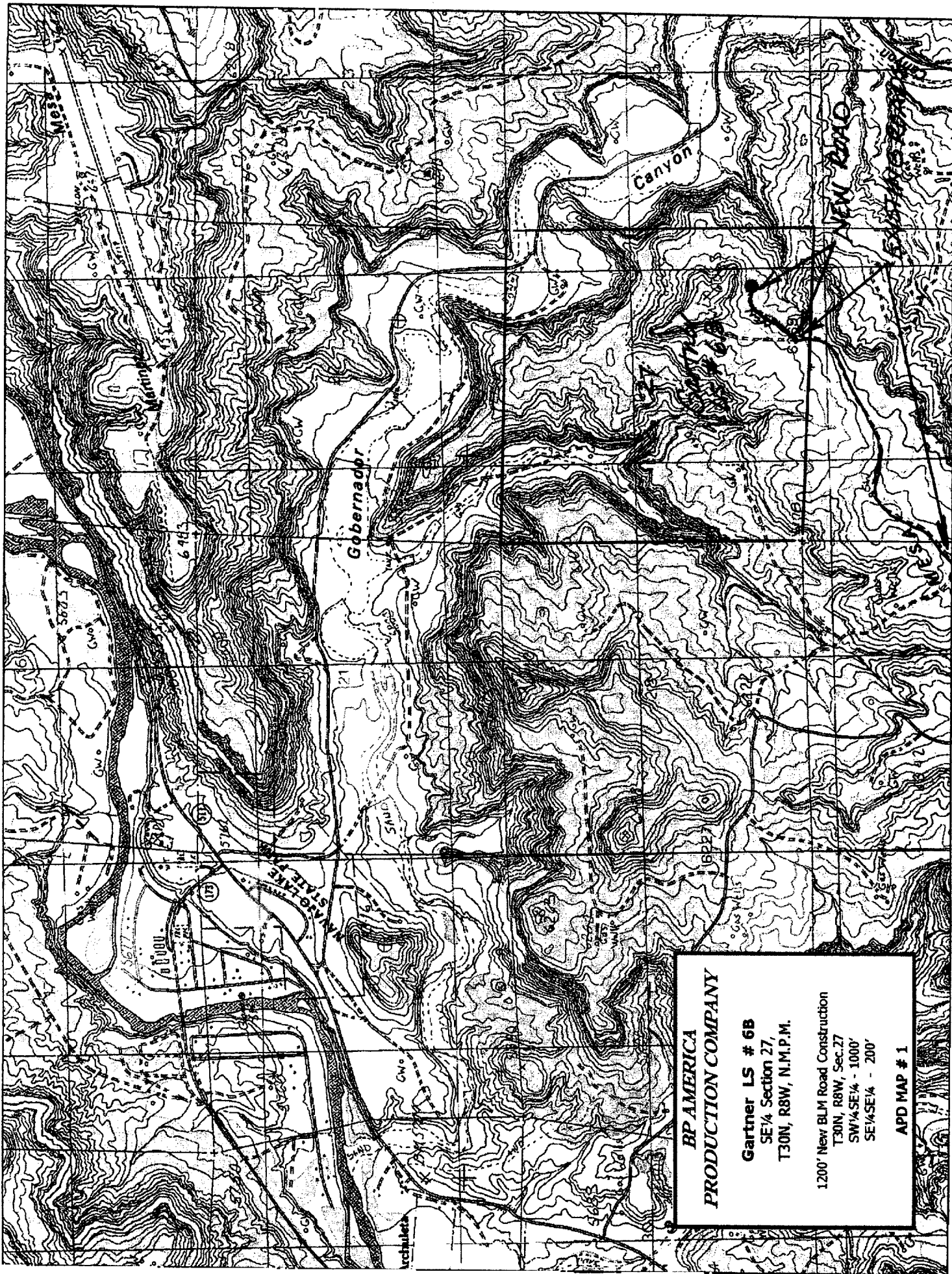
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	27	30 N	8 W		990	SOUTH	940	EAST	SAN JUAN

Bottom Hole Location If Different From Surface

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

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	5281	27	5283	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <u>Mary Corley</u> Printed Name: <u>MARY CORLEY</u> Title: <u>REGULATORY Analyst</u> Date: <u>8.14.2002</u>



**BP AMERICA
PRODUCTION COMPANY**

Gartner LS # 6B
SE $\frac{1}{4}$ Section 27,
T30N, R8W, N.M.P.M.

1200' New BLM Road Construction
T30N, R8W, Sec. 27
SW $\frac{1}{4}$ SE $\frac{1}{4}$ - 1000'
SE $\frac{1}{4}$ SE $\frac{1}{4}$ - 200'

APD MAP # 1

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

Prospect Name: Gartner LS

Lease: Gartner LS

County: San Juan

State: New Mexico

Date: July 26, 2002

Well No: 6M

Surface Location: 27-30N-08W, 990 FSL, 940 FEL

Field: Blanco Mesaverde/Basin Dakota

OBJECTIVE: Drill 50' below the base of the Lower Cubero, set 4 1/2" production casing, Stimulate CH, MF, PL and DK intervals

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Estimated GL: 6238		Estimated KB: 6252	
Rotary	0 - TD	MARKER		SUBSEA	MEAS. DEPTH
LOG PROGRAM		Ojo Alamo		4368	1884
		Kirtland		4197	2055
		Fruitland Coal	*	3648	2604
		Pictured Cliffs	*	3238	3014
		Lewis Shale	#	3005	3247
		Cliff House	#	1690	4562
		Menefee Shale	#	1345	4907
		Point Lookout	#	1002	5250
		Mancos		689	5563
		Greenhorn		-979	7231
		Bentonite Marker		-1029	7281
		Two Wells	#	-1090	7342
		Paguate	#	-1193	7445
		Upper Cubero	*	-1212	7465
		Lower Cubero	*	-1238	7490
		TOTAL DEPTH		-1288	7540
REMARKS: - Please report any flares (magnitude & duration).		# Probable completion interval		* Possible Pay	
SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE		FREQUENCY	DEPTH	FREQUENCY	DEPTH
None		none	Production hole	Geolograph	0-TD
REMARKS:					

MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0 - 200	Spud	8.6-9.2			
200 - 3347 (1)	Water/LSND	8.6-9.2		<6	
3347 - 7540	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	200	9 5/8"	H-40 ST&C	32#	12.25"	1
Intermediate	3347	7"	J/K-55 ST&C	20#	8.75"	1,2
Production	7540	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, 4-6 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:

26th July 2002

Version 1.0

HGJ/MNP

Form 46 12-00 MNP

BP America Production Company

BOP Pressure Testing Requirements

Well Name: Gartner LS
County: San Juan

6M
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1884		
Kirtland	2055		
Fruitland Coal	2604		
PC	3014		
Lewis Shale	3247		
Cliff House	4562	500	0
Menefee Shale	4907		
Point Lookout	5250	600	0
Mancos	5563		
Dakota	7445	2600	1391

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

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

Below conductor casing to total depth

BOP Equipment

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,

Cementing Program

Well Name: Gartner LS 6M	Field: Blanco Mesaverde / Basin Dakota
Location: 27-30N-8W, 990 FSL, 940 FEL	API No.
County: San Juan	Well Flac
State: New Mexico	Formation: Dakota Mesa Verde
	KB Elev (est) 6252
	GL Elev. (est) 6238

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	200	12.25	9.625	ST&C	Surface	NA	
Intermediate	3347	8.75	7	LT&C	Surface	NA	
Production -	7540	6.25	4.5	?	3247	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	<u>Recommended Mud Properties Prio Cementing:</u>
			PV <20
			YP <10
			Fluid Loss <15
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	

Cementing Program:

	Surface	Intermediate	Production
Excess %, Lead	100	100	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.	Fresh Water	
Slurry 1	110 sx Class G Cement		125 cuft
TOC@Surface	+ 2% CaCl ₂ (accelerator)		
	0.25 #/sk Cellophane Flake (lost circulation additive)		0.3132 cuft/ft OH
	0.1% D46 antifoam		
Slurry Properties:	Density (lb/gal)	Yield (ft ³ /sk)	Water (gal/sk)
Slurry 1	15.8	1.16	4.95

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		320 sx Class "G" Cement + 3% D79 extender + 2% S1 Calcium Chloride + 1/4 #/sk. Cellophane Flake + 0.1% D46 antifoam'	831 cuft
Tail Slurry 2 500 ft fill		60 sx 50/50 Class "G"/Poz + 2% gel (extender) 0.1% D46 antifoam + 1/4 #/sk. Cellophane Flake + 2% CaCl2 (accelerator)	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	2.61	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

Production:

Fresh Water	10 bbl	CW100	
Lead Slurry 1 TOC, 100' above 7" shoe		160 LiteCrete D961 / D124 / D154 + 0.03 gps D47 antifoam + 0.5% D112 fluid loss + 0.11% D65 TIC	390 cuft
Tail Slurry 2 1477 ft fill		150 sx 50/50 Class "G"/Poz + 5% D20 gel (extender) + 0.1% D46 antifoam + 1/4 #/sk. Cellophane Flake + 0.25% D167 Fluid Loss	212 cuft + 5 #/sk D24 gilsonite + 0.15% D65 TIC + 0.1% D800 retarder 0.1026 cuft/ft OH