

UN FED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

1a.	Type of Work DRILL	5. Lease Number SF-080673 Unit Reporting Number		
1b.	Type of Well GAS	6. If Indian, All. or Tribe		
2.	Operator PATONI	7. Unit Agreement Name		
	RESOURCES Oil & Gas Company	San Juan 27-4 Unit		
3.	Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499DEC 2001	-8. Farm or Lease Name San Juan 27-4 Unit		
	(505) 326-9700 (505) 326-9700	9. Well Number 31B		
4.	Location of Well 1395' FNL, 2025' FWL	. 10. Field, Pool, Wildcat Blanco Mesaverde 11. Sec., Twn, Rge, Mer. (NMPM)		
	Latitude 36° 35.5, Longitude 107° 17.6	Sec. 7, T-27-N, R-4-W API # 30-039- 265//		
14.	Distance in Miles from Nearest Town 18 miles from Gobernador	12. County 13. State Rio Arriba NM		
15.	Distance from Proposed Location to Nearest Property or Lease Line	_		
16.	Acres in Lease	17. Acres Assigned to Well 321.56 W/2		
18.	Distance from Proposed Location to Nearest Well, Drlg, Compl, or 2000' This action is subject to technical and	Applied for on this Lease		
19.	Proposed Depth procedural review pursuant to 43 CFR 3166.3 and appeal pursuant to 43 CFR 3166.4	20. Rotary or Cable Tools Rotary		
21.	Elevations (DF, FT, GR, Etc.) 6926' GR	22. Approx. Date Work will Start		
23.	Proposed Casing and Cementing Program See Operations Plan attached	PER CONTROL TO AS AUTHORIZED ARE LINEAR THE ADMINISTRATION OF ATTACHES THE RESIDENCE WITH ATTACHES		
24.	Authorized by: Signatury Compliance Supervisor	1-17-00 Date		
PERM	APPROVAL DA	ATE 12/13/01		
APPF	ROVED BY Mankelone TITLE AFM	DATE <u>/2//3/</u> 0		

Archaeological Report to be submitted

Threatened and Endangered Species Report to be submitted

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

4

District I PO Box 1980, Hobbs, NM 88241-1980

District II PO Drawer DD, Artesia, NM 88211-0719

District III 1000 Ric Brazos Rd., Aztec, NM 87410

District IV PO Box 2088, Santa Fe, NM B7504-2088 State of New Mexico Energy, Minerals & Natural Resources Department

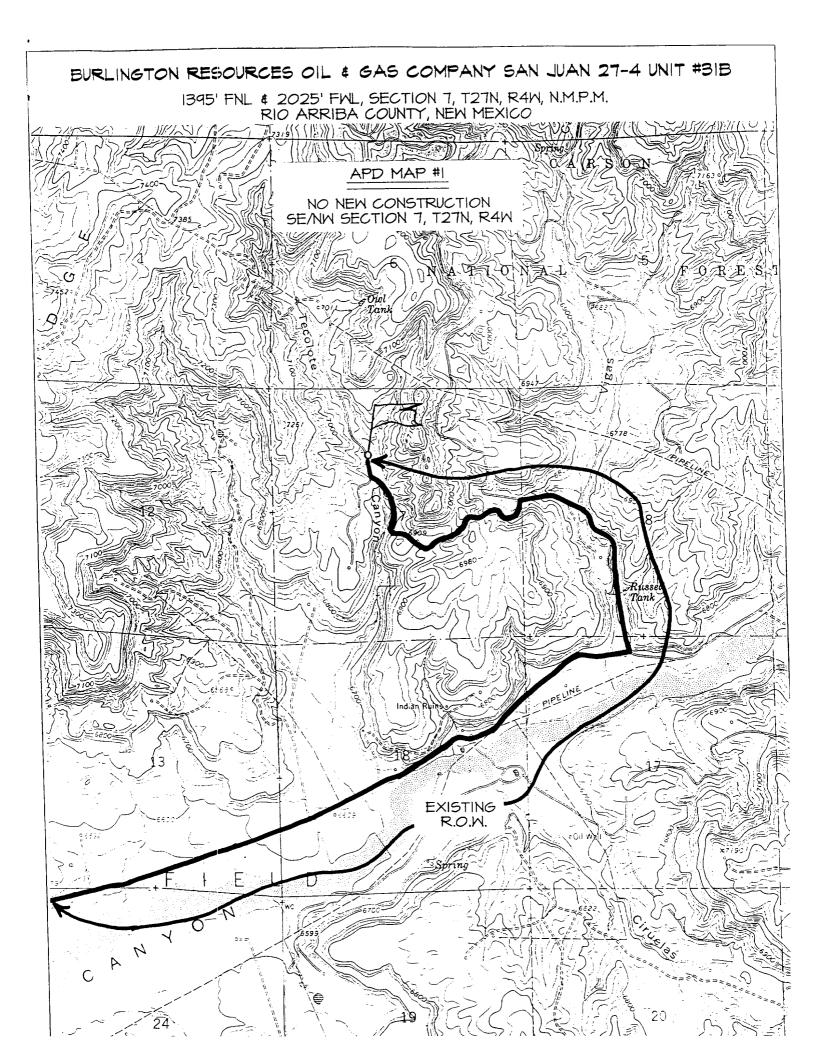
Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies

State Lease - 4 Copies
Fee Lease - 3 Copies

____AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

				NU ACHLAGE DED.			
	API Number		Pool Code		'Pool Name		
30-039-	265	// 72319)	Blanco Mesaverde	<u> </u>	61.10	ll Number
'Property	Code	Property Name SAN JUAN 27-4 UNIT				31B	
7452							levation
'OGRID	Nc.	OUDL TA)perator Name JRCES OIL & GAS	S COMPANY		5926
14538		BURLIN			- COMPART		3320
			¹⁰ Sur		-,	5	County
U_ or lot no.	Section	Township Range		rom the North/South line 95 NORTH	Feet from the 2025	WEST	RIO
F	7	27N 4W	13	30 NORTA			ARRIBA
			Hole Locat:				
UL or lot no.	Sect 100	Township Range	Lot Ion Feet 1	from the North/South line	Feet from the	East/West line	County
í					15		
12 Dedicated Acre	25		13.00	int or Infill 14 Consolidation Co	ode ¹⁵ Onder No.		
W/321.5	6						
NO ALLO	WABLE W	ILL BE ASSIGNED	TO THIS CO	MPLETION UNTIL ALL	INTERESTS HAY	VE BEEN CO	NSOLIDATED
		OR A NON-ST	ANDARD UNII	HAS BEEN APPROVED	BI IUC DIAISI	LOIN	
¹⁵ 1338	. 48 '	1320.00		2640.00			IFICATION
			ľ	}	true and comple	te to the best of my	on contained herein is knowledge and belief
		$\bar{\nu}$					
LOT	T 1	345		1			
		_				.5	
			45	10 10 10 00.	~ 1.71	1/6	
ļ		_ -	<u> </u>	3 S	-	y car	<u> </u>
	2025	LAT: 36 *35.5 N		EC 2001	Signátúre		
		LONG: 107 17.6	W 1 13 D	EC 2001	Peggy C Printed		
	_	; 1	E 6			ory Superv	visor
1 40	T 2		्री र्		Title	ory superv	1301
. ,	1C A C	F-080673				1-11-00	7
8	JSA S	r=00J0/J			Date		
<u>c</u>		-	- /	 	- 0 II SURVE	YOR CERT	TIFICATION
1280 			l:		I hereby cent	ify that the well lo	cation shown on this p sctual surveys made by
∭ CC		!			or wholen my s connect to th	supervision, and that we best of my belief.	the same is true and
\parallel)T 3						
	/ ! J	1				11, 200	0
			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1	1		
					Date of	Survey	Dda
 					Signature at	Survey	740
				l L		NA ME	40/01
		1				N WE	. 7,0 Jal
	OT 4					Z (685	1181
L(DT 4			(1/1/		
		1			16	1 1 C	S
11 400	7 70.	1 4330 00	· [1	2640 00'	Certifi	cate Northor.	6857



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Revisions: Mud Program: Interval Type Weight Fluid Loss 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight Grade 8 3/4" 0-4000' 7" 20.0# J-55 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G"/Soop poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.55 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G"/Soop poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite,			
DEC 2001 Tribe Name DEC 2001 Tribe Name DEC 2001 Tunit Agreement Name DEC 2001 Tunit Agreement Name Name of Operator RUSSINGEESN OIL & GAS COMPANY San Juan 27-4 Unit Well Name & Number San Juan 27-4 Unit New Construct Non-Routine F		5.	Lease Number
DEC 2001 Tribe Name DEC 2001 Tribe Name DEC 2001 Tunit Agreement Name DEC 2001 Tunit Agreement Name Name of Operator RUSSINGEESN OIL & GAS COMPANY San Juan 27-4 Unit Well Name & Number San Juan 27-4 Unit New Construct Non-Routine F			SF-080673
Name of Operator Program			
Name of Operator Public P	. Type of Well	6.	If Indian, All. or
Name of Operator Part	$=$ - f_{π} .		Tribe Name
Name of Operator RESOURCES OIL 6 GAS COMPANY Address 6 Phone No. of Operator PO BOX 4289, Farmington, NM 87499 (505) 326-9700 Location of Well, Footage, Sec., T, R, M Location of Well, Footage, Sec., T, R, M 10. Field and Pool 1395'FNL, 2025'FWL Sec.7, T-27-N, R-4-W, NMFM Country and State Rio Arriba Co, NM 2. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission X Notice of Intent Abandonment X Change of Plans Recompletion Subsequent Report Plugging Back Recompletion Casing Repair Water Shut off Final Abandonment X Altering Casing Conversion to Impection Other 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Nod Program: Interval Type Weight 10. State 11. Country 10. State 11. Country 10. State 11. Country 10. State 11. State 11	OAD A STATE OF THE		
Name of Operator RESOURCES OIL 6 GAS COMPANY Address 6 Phone No. of Operator PO BOX 4289, Farmington, NM 87499 (505) 326-9700 Location of Well, Footage, Sec., T, R, M Location of Well, Footage, Sec., T, R, M 10. Field and Pool 1395'FNL, 2025'FWL Sec.7, T-27-N, R-4-W, NMFM Country and State Rio Arriba Co, NM 2. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission X Notice of Intent Abandonment X Change of Plans Recompletion Subsequent Report Plugging Back Recompletion Casing Repair Water Shut off Final Abandonment X Altering Casing Conversion to Impection Other 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Nod Program: Interval Type Weight 10. State 11. Country 10. State 11. Country 10. State 11. Country 10. State 11. State 11	DEC 0204		
Name of Operator RESOURCES OIL & GAS COMPANY Address & Phone No. of Operator FO Box 4289, Farmington, NM. 87499 (505) \$26-9700; Do Box 4289, Farmington, NM. 87499 (505) \$26-9700; Location of Well, Footage, Sec., T, R, M Location of Well, Exception of Notage, Sec., Totage, Control of Notage, Sec., Totage, Called of Non-Routine Fracturing Location of Location of Non-Routine Fracturing Location of Non-Routine F	per DEG 2001	. 7.	Unit Agreement Name
Address & Phone No. of Operator Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700 Location of Well, Footage, Sec. T. R. M 1395'FNL, 2025'FNL Sec. 7, T-27-N, R-4-N, NMFM Location of Well, Footage, Sec. T. R. M 10 Field and Pool Blanco Mesaverde 11. County and State Ro Arriba Co, NM 2. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission X Notice of Intent Abandonment Recompletion Recompletion Non-Routine Fracturing Casing Repair Water Shut off Final Abandonment X Altering Casing Conversion to Impection Other 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Propram: Interval 1018-3122 1020-4128' Lishb 1028-6340' Air/Mist n/a n/a 1028-6340' Air/Mist n/a n/a 1028-6340' Air/Mist n/a n/a 1031-63412 1031-64128' Lishb 1042-6340' Air/Mist n/a n/a 1042-6340' Air/Mist n/a n/a 1052-6340' Air/Mist n/a n/a 1053-6340' Air/Mist n/a n/a 1054-6340' Air/Mist n/a n/a 1055-6340' Air/Mist n/a n/a 1056-6340' Air/Mist n/a n/a 1057-6340' Air/Mist n/a n/a 1058-6340' Air/Mist n/a 1058-6340' Air/Mist n/a 1058-6340' Air/Mist n/a 1058-6340'			•
Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700 9. API Well No. 30-039- Location of Well, Footage, Sec., T. R. M 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. FNL SEC. 7, T-27-N, R-4-W, NMF	. Name of Operator	٠.	
Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700 9. API Well No. 30-039- Location of Well, Footage, Sec., T. R. M 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. Field and Pool 1395' FNL, 2025' FWL Sec. 7, T-27-N, R-4-W, NMFM 10. FNL SEC. 7, T-27-N, R-4-W, NMF	DEEDE ENTERNAT	. 1 2	
Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700. Location of Well, Footage, Sec., T, R, M 10-039- 1395' FNL, 2025' FWL Sec.7, T-27-N, R-4-W, NMPM 1395' FNL, 2025' FWL Sec.7, T-27-N, R-4-W, NMPM 10-030-039- 1-1995' FNL, 2025' FWL Sec.7, T-27-N, R-4-W, NMPM 10-030-039- 1-1995' FNL, 2025' FWL Sec.7, T-27-N, R-4-W, NMPM 10-030-039- 11-1995' FNL, 2025' FWL Sec.7, T-27-N, R-4-W, NMPM 10-030-039- 11-1995' FNL, 2025' FWL Sec.7, T-27-N, R-4-W, NMPM 11-1995' FNL, 2025' FWL Sec.7, T-27-N,			
Address & Phone No. of Operator 20 Box 4289, Farmington, NM 87499 (505) 326-9700. 10 Location of Well, Footage, Sec., T, R, M 10. Field and Pool 1395'FNL, 2025'FWL Sec.7, T-27-N, R-4-W, NMPM 10. Field and Pool 1395'FNL, 2025'FWL Sec.7, T-27-N, R-4-W, NMPM 11. Field and Pool 1395'FNL, 2025'FWL Sec.7, T-27-N, R-4-W, NMPM 12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission 12. Notice of Intent 13. Recompletion 14. Abandonment 15. Change of Plans 16. New Construction 17. Non-Routine Fracturing 18. Casing Repair 19. Water Shut off 19. Casing Repair 20. Conversion to Injection 21. Conversion to Injection 22. Check Appropriate Box To Indicate Allering Casing Conversion to Injection 23. Describe Proposed or Completed Operations 24. Altering Casing Conversion to Injection 25. Describe Proposed or Completed Operations 26. The Submission Conversion to Injection 27. Interval Type Weight Fluid Loss 28. Allering Casing Size Weight Grade 28. Casing Program: 28. Signed Conversion to Injection 29. Allering Casing Size Weight Grade 29. Casing Program: 29. Allering Casing Size Weight Grade 29. Casing Program: 29. Allering Casing Size Weight Grade 29. Casing Conversion to Size Size Conversion 29. Allering Casing Size Weight Grade 29. Casing Conversion Size Size Conversion 29. Allering Casing Size Size Conversion 29. Allering Casing Size Weight Grade 29. Casing Conversion Size Size Conversion 29. Allering Casing Size Size Conversion 29. Allering Casing Size Size Conversion Size Size Conversion 29. Allering Casing Size Size Conversion Size Size Conversion 29. Allering Casing Size Size Conversion Size Size Conversion 29. Allering Casing Size Size Conversion Size Conversion Size Conversion Size Size Size Size Size Size Size Conversion Size Size Size Size Size Size Size Size	RESOURCES OIL & GAS COMPANY		San Juan 27-4 Unit
Address & Phone No. of Operator PO Box 4289, Farmington, NM. 87499 (505) 326-9700 9. API Well No. 30-039- Location of Well, Footage, Sec., T. R. M. 10-039- 1395'FNL, 2025'FWL Sec.7, T-27-N, R-4-W, NMPM Blanco Messaverde 11. County and State Rio Arriba Co, NM Z. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission Type of Action X. Notice of Intent Abandonment X Change of Plans Recompletion Non-Routine Fracturing Casing Repair Water Shut off Final Abandonment X Altering Casing Conversion to Injection Other - 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: MMM Propram: Internative Type Weight Pluid Loss 1200-4128' ISBN 8.4-9.0 No control 1200-412	OIL & GAD COILING	0	
FO Box 4289, Farmington, NM 87499 (505) 326-9700 9. API Well No. 30-039-		8.	Well Name & Number
FO Box 4289, Farmington, NM 87499 (505) 326-9700 9. API Well No. 30-039-	Address & Phone No. of Operator		San Juan 27-4 U #31
Location of Well, Footage, Sec., T, R, M 10. Field and Pool 1395'FNL, 2025'FWL Sec.7, T-27-N, R-4-W, NMFM 10. Field and Pool Blanco Mesaverde 11. County and State Rio Arriba Co, NM		0	
Location of Well, Footage, Sec., T, R, M 10. Field and Pool 1395'FNL, 2025'FWL Sec.7, T-27-N, R-4-W, NMPM Blanco Mesaverde Rio Arriba Co, NM	PO Box 4289, Farmington, NM 87499 (505) 326-9700 (1975)	9.	API Well No.
Location of Well, Footage, Sec., T, R, M 10. Field and Pool 1395'FNL, 2025'FWL Sec.7, T-27-N, R-4-W, NMPM Blanco Mesaverde Rio Arriba Co, NM			30-039-
1395 FNL, 2025 FWL Sec.7, T-27-N, R-4-W, NMFM 11. County and State Rio Arriba Co, NM 22. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission X		7.0	
2. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission X Notice of Intent Abandonment X Change of Plans Recompletion New Construction Non-Routine Fracturing Casing Repair Water Shut off Final Abandonment X Altering Casing Conversion to Imjection Other 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval 1200-4128' ISBD 8-4-9.0 No control 1218-6340' AirMist n/a No Casing Program: Bole Size Boly 4000-4128' 77 20.04 3-55 8 3/4" 0-4000' 77 20.04 3-55 8 3/4" 0-4000' 77 20.04 3-55 8 3/4" 4000-4128' 77 20.04 3-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 por w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2 calcium chloride, 5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 3 calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 56/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 3 calcium chloride, 10 pps Gilsonite, 0.5% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate to surface). 10 pps Gilsonite, 0.5 sps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 11 hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 (This space Tor Polety) or State Office use)	1. Location of Well, Footage, Sec., T, R, M	10.	Field and Pool
2. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission X Notice of Intent Abandonment X Change of Plans Recompletion New Construction Non-Routine Fracturing Casing Repair Water Shut off Final Abandonment X Altering Casing Conversion to Imjection Other 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval 1200-4128' ISBD 8-4-9.0 No control 1218-6340' AirMist n/a No Casing Program: Bole Size Boly 4000-4128' 77 20.04 3-55 8 3/4" 0-4000' 77 20.04 3-55 8 3/4" 0-4000' 77 20.04 3-55 8 3/4" 4000-4128' 77 20.04 3-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 por w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2 calcium chloride, 5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 3 calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 56/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 3 calcium chloride, 10 pps Gilsonite, 0.5% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate to surface). 10 pps Gilsonite, 0.5 sps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 11 hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 (This space Tor Polety) or State Office use)	1395'FNI. 2025'FWI Sec. 7. T-27-N. R-4-W. NMPM		Blanco Mesaverde
Rio Arriba Co, NM 2. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission X Notice of Intent Abandonment X Change of Plans Recompletion Non-Routine Fracturing Casing Repair Water Shut off Final Abandonment X Altering Casing Other Other It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval 1200-4128 Libib 18-4-9.0 No control 1204-4128 Libib 18-4-9.0 No control 18-3-4-9.0 No control 19-3-4-128 Libib 18-3-4-9.0 No control 18-3-4-9.	1000 TML, 2020 TML BOOT , 1 27 M, 10 1 M, 10121		
Type of Submission Type of Action X Notice of Intent Abandonment X Change of Plans Recompletion New Construction Non-Routine Fracturing Casing Repair Final Abandonment X Altering Casing Conversion to Injection Cother Altering Casing Conversion to Injection Tit is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval Type Bill Bil		тт.	-
Type of Submission Type of Action X Notice of Intent Abandonment X Change of Plans Recompletion New Construction Non-Routine Fracturing Casing Repair Final Abandonment X Altering Casing Conversion to Injection Cother Altering Casing Conversion to Injection Tit is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval Type Bill Bil			Rio Arriba Co, NM
Type of Submission X_ Notice of Intent Abandonment X_ Change of Plans Recompletion New Construction New Construction New Construction New Construction New Construction New Construction Non-Routine Fracturing Casing Repair Water Shut off Conversion to Imjection Other - 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval Interval Tinterval Casing Program: Hole Size 8 3/4" O-4000' 8 3/4" O-4000' 7" Casing Size Weight 8 3/4" O-4000-1129' 7" 23.04 5-55 6 1/4" 4020-6340' A 1/2" Cementing Program: "Intermediate casing - lead w/436 sx 50/50 Class "C"/Trinity Light with 2.5% sodium metasilicate, 28 calcium chloride, 5 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "C" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). "" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "C" pos Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). "" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "C" pos Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). "" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "C" pos Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 10 ps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 11 A proby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 APPROVED BY The Februal or State Office use) APPROVED BY The Februal or State Office use)			,
Type of Submission X_ Notice of Intent Abandonment X_ Change of Plans Recompletion New Construction New Construction New Construction New Construction New Construction New Construction Non-Routine Fracturing Casing Repair Water Shut off Conversion to Imjection Other - 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval Interval Tinterval Casing Program: Hole Size 8 3/4" O-4000' 8 3/4" O-4000' 7" Casing Size Weight 8 3/4" O-4000-1129' 7" 23.04 5-55 6 1/4" 4020-6340' A 1/2" Cementing Program: "Intermediate casing - lead w/436 sx 50/50 Class "C"/Trinity Light with 2.5% sodium metasilicate, 28 calcium chloride, 5 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "C" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). "" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "C" pos Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). "" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "C" pos Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). "" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "C" pos Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 10 ps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 11 A proby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 APPROVED BY The Februal or State Office use) APPROVED BY The Februal or State Office use)			
Type of Submission X_ Notice of Intent Abandonment X_ Change of Plans Recompletion New Construction New Construction New Construction New Construction New Construction New Construction Non-Routine Fracturing Casing Repair Water Shut off Conversion to Imjection Other - 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval Interval Tinterval Casing Program: Hole Size 8 3/4" O-4000' 8 3/4" O-4000' 7" Casing Size Weight 8 3/4" O-4000-1129' 7" 23.04 5-55 6 1/4" 4020-6340' A 1/2" Cementing Program: "Intermediate casing - lead w/436 sx 50/50 Class "C"/Trinity Light with 2.5% sodium metasilicate, 28 calcium chloride, 5 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "C" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). "" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "C" pos Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). "" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "C" pos Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). "" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "C" pos Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 10 ps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 11 A proby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 APPROVED BY The Februal or State Office use) APPROVED BY The Februal or State Office use)	L2. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT	, OTHER	DATA
X Notice of Intent Recompletion Recompletion Recompletion Non-Routine Fracturing Casing Repair Final Abandonment X Altering Casing Other - 3. Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval Type 100-4128' 1200-4128'			
Recompletion New Construction Subsequent Report Plugging Back Non-Routine Fracturing Casing Repair Water Shut off Final Abandonment X Altering Casing Conversion to Injection Other - Conversion to Injection Other - Describe Proposed or Completed Operations It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval Lype Weight Fluid Loss 1200-4128' LSHD 8.4-9.0 No control 14128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight Grade 8 3/4" 0-4000' 7" 20.04 J-55 8 3/4" 0-4000' 41/2" 10.54 J-55 6 1/4" 4000-4128' 7" 23.04 J-55 6 1/4" 4000-4128' 7" 23.04 J-55 6 1/4" 4000-4128' 7" 23.04 J-55 Commenting Program: Printermediate casing - lead w/436 xs 05/50 Class "C"/Trinity Light with 2.5% sodium metasilicate, 24 calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "C" 50/50 poz w/28 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 1004 excess to circulate to surface). Tintermediate casing alternative two stage: Stage collar at 3326'. First stage: cement w/188 sx 50/50 Class "C" poz w/28 calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 56/50 Class "C", Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 1004 excess to circulate to surface). 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 1004 excess to circulate to surface). 11 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 1004 excess to circulate liner). 12 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 1004 excess to circulate liner). 13 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 1004 excess to circulate liner). 14 Perpoy certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 Page Prove Date 11/8/00		6 51	
Subsequent Report Plugging Back Non-Routine Fracturing	X Notice of Intent Abandonment X Chang	e of Pl	ans
Subsequent Report Plugging Back Non-Routine Fracturing	Recompletion New C	onstruc	tion
Casing Repair Water Shut off		0115 61 40	
Conversion to Injection Other	Subsequent Report Plugging Back Non-R		
Conversion to Injection Other	Casing Repair Water	Shut o	ff
Other -			
It is intended to alter the submitted casing depths and cement of the subject well Revisions: Mud Program: Interval Type Weight Fluid Loss 200-4128' LSHD 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight Grade 8 3/4" 0-4000' 7" 20.0# J-55 6 1/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4000-4128' 7" 23.0# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% eq. 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 10 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% eq.) 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate to surface). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no Title R		131011 6	o imjection
Revisions: Mud Program: Interval Type Weight Fluid Loss 200-4128' LiSHD 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight J-55 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" bodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Alankeloss Title	Other -		•
Revisions: Mud Program: Interval Type Weight Fluid Loss 200-4128' LiSHD 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight J-55 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" bodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Alankeloss Title			
Revisions: Mud Program: Interval Type Weight Fluid Loss 200-4128' LiSHD 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight J-55 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" bodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Alankeloss Title			
Revisions: Mud Program: Interval Type Weight Fluid Loss 200-4128' LiSHD 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight J-55 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" bodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Alankeloss Title	13. Describe Proposed or Completed Operations		
Revisions: Mud Program: Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist No Casing Frogram: Bole Size 8 3/4" 0-4000' 7" 20.0# 20.0# 20.0# 3-55 8 3/4" 4000-4128' 7" 23.0# 3-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Classs "G"/Trinity Light with 2.5% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Classs "G"/50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 (This space for Federal or State Office use) APPROVED BY Alankeases Title			•
Revisions: Mud Program: Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist No Casing Frogram: Bole Size 8 3/4" 0-4000' 7" 20.0# 20.0# 20.0# 3-55 8 3/4" 4000-4128' 7" 23.0# 3-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Classs "G"/Trinity Light with 2.5% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Classs "G"/50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 (This space for Federal or State Office use) APPROVED BY Alankeases Title	It is intended to alter the submitted assign dopths and	comont	of the subject well
Mud Program: Type Weight Fluid Loss 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a n/a	It is intended to after the submitted casing depths and	cement	of the subject well.
Mud Program: Type Weight Fluid Loss 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a n/a			
Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight Grade 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 por w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 (This space for Federal or State Office use) APPROVED BY Title Date Date Date Date Date Date Date Dat	Revisions:		
Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight Grade 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 por w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 (This space for Federal or State Office use) APPROVED BY Title Date Date Date Date Date Date Date Dat			
Title Regulatory Supervisor Date 11/8/00 Proceedings Proceeding Procedure Proc	Mud Program:		
4128-6340' Air/Mist n/a n/a Casing Program: Hole Size 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 (This space for Federal or State Office use) APPROVED BY Ambelocs Title			
Casing Program: Hole Size Depth Interval Casing Size Weight Grade 8 3/4" 4000-4128' 7" 23.0 # J-55 8 3/4" 4000-4128' 7" 23.0 # J-55 6 1/4" 4028-6340' 4 1/2" 10.5 # J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed	Interval Type Weight Fluid Loss		
Hole Size 8 3/4" 0-4000' 7" 20.0# J-55 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 Title Regulatory Supervisor Date 12/3/6/ Date	IntervalTypeWeightFluid Loss200-4128'LSND8.4-9.0No control		
8 3/4" 4000-4128' 7" 23.0# J-55 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed	$\frac{\overline{\text{Interval}}}{200-4128'}$ $\frac{\overline{\text{Type}}}{\text{LSND}}$ $\frac{\text{Weight}}{8.4-9.0}$ $\frac{\overline{\text{Fluid Loss}}}{\text{No control}}$		# 1
8 3/4" 0-4000' 7" 20.0# J-55 8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 (This space for Federal) or State Office use) APPROVED BY Title Date Date Date Date Date Date Date Dat	Interval Type Weight Fluid Loss 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a		and the state of t
8 3/4" 4000-4128' 7" 23.0# J-55 6 1/4" 4028-6340' 4 1/2" 10.5# J-55 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed	Interval Type Weight Fluid Loss 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Casing Program: No control No control	ie	
Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed	IntervalTypeWeightFluid Loss200-4128'LSND8.4-9.0No control4128-6340'Air/Mistn/an/aCasing Program: Hole SizeDepth IntervalCasing SizeWeightGrace		
Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed	Interval Type Weight Fluid Loss	55	
7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chlorice, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed	Interval Type Weight Fluid Loss	55	
2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Tarkets Title AFM Date 12/13/6/	Type Weight Fluid Loss No control	55	
2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Tarkets Title AFM Date 12/13/6/	Type Weight Fluid Loss No control	55 55 55	
gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval Type Weight Fluid Loss No control	55 55 55 with 2.5	s sodium metasilicate,
7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval Type Weight Fluid Loss	55 55 55 with 2.5) sx Clas:	s "G" 50/50 poz w/2%
7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement w/188 sx 50/50 Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval Type Weight Fluid Loss	55 55 55 with 2.5) sx Clas:	s "G" 50/50 poz w/2%
Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Secon stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval Type Weight Fluid Loss	55 55 55 with 2.5) sx Clas:	s "G" 50/50 poz w/2%
stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval Type Weight Fluid Loss	with 2.5 ss Class ss Flocele	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry,
10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to circulate to surface). 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval Type Weight Fluid Loss No control	55 55 with 2.5 0 sx Class os Flocele First sta	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50
4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval Type Weight Fluid Loss No control	with 2.55 with 2.55 0 sx Classos Flocelor First stactifoam and	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second
4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a Casing Program: Hole Size 8 3/4" 0-4000' 7" 23.0# 41/2" Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pp 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. If Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.5 pps Gilsonite, 0.1% antifoam stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium meters.	with 2.55 55 sx Classos Flocelo First stac	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second . 2% calcium chloride,
Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to circulate liner). 14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Tankelsky Title AFM Date 12/13/6/	Interval Z00-4128' LSND Air/Mist No control Alize-6340' Air/Mist No control Air/Mist No control No control	with 2.55 55 sx Classos Flocelo First stac	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second . 2% calcium chloride,
14. I hereby certify that the foregoing is true and correct. Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval Z00-4128' LSND Rocontrol 4128-6340' Air/Mist No control Air/Mist No control No control	with 2.55 sx Class os Flocelos First stantifoam and asilicate ss to cir	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second , 2% calcium chloride, culate to surface).
Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Toterval Type	with 2.55 by sx Classos Flocel First statifoam and assilicate ss to cir. 5% gel, 0	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface). .25 pps Flocele, 5 pps
Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Toterval Type	with 2.55 by sx Classos Flocel First statifoam and assilicate ss to cir. 5% gel, 0	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface). .25 pps Flocele, 5 pps
Signed Title Regulatory Supervisor Date 11/8/00 no (This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a Casing Program: Hole Size 8 3/4" 0-4000' 7" 23.0# 6 1/4" 4028-6340' 4 1/2" Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pp 100% excess to circulate to surface). Tintermediate casing alternative two stage: Stage collar at 3328'. If Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps 100% excess to circulate to surface). Tintermediate casing alternative two stage: Stage collar at 3328'. If Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4. Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess for the surface) and the surface of the surfac	with 2.55 sx Classos Flocelor First starifoam and and and circulor to circul	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface). .25 pps Flocele, 5 pps
no (This space for Federal or State Office use) APPROVED BY Mankeloca Title AFM Date 12/13/6/	Interval Z00-4128' LSND S.4-9.0 No control Alz8-6340' Air/Mist No control Alz8-6340' Air/Mist No control N	with 2.55 sx Classos Flocelor First starifoam and and and circulor to circul	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface). .25 pps Flocele, 5 pps
no (This space for Federal or State Office use) APPROVED BY Mankeloca Title AFM Date 12/13/6/	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a Casing Program: Hole Size 8 3/4" 0-4000' 7" 23.0# 6 1/4" 4028-6340' 4 1/2" Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pp 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. If Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. If Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (1242 cu.ft. of slurry, 100% excess to pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess to 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4. Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4.	with 2.55 sx Classos Flocelor First starifoam and and and circulor to circul	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface). .25 pps Flocele, 5 pps
no (This space for Federal or State Office use) APPROVED BY Mankeloca Title AFM Date 12/13/6/	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist N/a Casing Program: Hole Size 8 3/4" 0-4000' 8 3/4" 4000-4128' 7" 23.0# 6 1/4" Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pp 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. I Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam extage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metage: w/388 sx	with 2.55 sx Classos Flocelor First statifoam and tifoam and t	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface)25 pps Flocele, 5 pps ate liner).
(This space for Federal or State Office use) APPROVED BY Title AFM Date 12/13/6/	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist N/a Casing Program: Hole Size 8 3/4" 0-4000' 8 3/4" 4000-4128' 7" 23.0# 6 1/4" Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pp 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. I Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam extage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metage: w/388 sx	with 2.55 sx Classos Flocelor First statifoam and tifoam and t	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface)25 pps Flocele, 5 pps ate liner).
APPROVED BY A / //ankeloca Title AFM Date 12/13/6/	Interval Type Weight Eluid Loss No control	with 2.55 sx Classos Flocelor First statifoam and tifoam and t	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface)25 pps Flocele, 5 pps ate liner).
APPROVED BY A / //ankeloca Title AFM Date 12/13/6/	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size 8 3/4" 0-4000' 7" 20.0# J-5 8 3/4" 4000-4128' 7" 23.0# J-5 6 1/4" 4028-6340' 4 1/2" 10.5# J-5 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pp 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. I Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam mete 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% exces 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4. Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to Title Regulatory Supervisor	with 2.55 sx Classos Flocelor First statifoam and tifoam and t	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface)25 pps Flocele, 5 pps ate liner).
	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a n/a Casing Program: Hole Size Depth Interval Casing Size Weight 3.4-9.0 8 3/4" 4000-4128' 7" 20.0# J-5 8 3/4" 4000-4128' 7" 23.0# J-5 6 1/4" 4028-6340' 4 1/2" 10.5# J-5 Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pp 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. I Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium meter 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excest 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4. Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to consider that the foregoing is true and correct Signed Title Regulatory Supervisor Title Regulatory S	with 2.55 sx Classos Flocelor First statifoam and tifoam and t	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface)25 pps Flocele, 5 pps ate liner).
CONDITION OF APPROVAL, if any:	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a Casing Program: Hole Size	with 2.55 sx Class sx Flocel First statifoam and asilicate sx to cir. gel, 0 to circul	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface)25 pps Flocele, 5 pps ate liner).
	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist n/a Casing Program: Hole Size 8 3/4" 0-4000' 7" 20.0# 3 3/4" 4000-4128' 7" 23.0# 5 6 1/4" 4028-6340' 4 1/2" Cementing Program: 7" intermediate casing - lead w/436 sx 50/50 Class "G"/Trinity Light 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pp 100% excess to circulate to surface). 7" intermediate casing alternative two stage: Stage collar at 3328'. I Class "G" poz w/2% cel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam stage: w/388 sx 50/50 Class "G"/Trinity Light with 2.5% sodium meter 10 pps Gilsonite, 0.5 pps Flocele (1242 cu.ft. of slurry, 100% excess 4 1/2" production liner - cement with 231 sx Class "G" 50/50 poz w/4. Gilsonite, 0.25% fluid loss, 0.1% retardant (332 cu.ft., 50% excess to company that the foregoing is true and correct. Signed Title Regulatory Supervisor Title AFM Title Regulatory Supervisor Title AFM Title AFM Title AFM	with 2.55 sx Class sx Flocel First statifoam and asilicate sx to cir. gel, 0 to circul	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface)25 pps Flocele, 5 pps ate liner).
	Interval 200-4128' LSND 8.4-9.0 No control 4128-6340' Air/Mist No control Air/Mist No control Air/Mist No control No	with 2.55 sx Class sx Flocel First statifoam and asilicate sx to cir. gel, 0 to circul	s "G" 50/50 poz w/2% e (1242 cu.ft. of slurry, ge: cement w/188 sx 50/50 d 0.25 pps Flocele. Second, 2% calcium chloride, culate to surface)25 pps Flocele, 5 pps ate liner).

OPERATIONS PLAN

Well Name: San Juan 27-4 Unit #31B

Location: 1395'FNL, 2025'FWL, Section 7, T-27-N, R-4-W

Rio Arriba County, New Mexico

Latitude 36° 35.5, Longitude 107° 17.6

Formation: Blanco Mesa Verde

Elevation: 6926'GL

Formation Tops:	Top	<u>Bottom</u>	<u>Contents</u>
G	San Jose	3172′	
Surface			
Ojo Alamo	3172′	3336'	aquifer
Kirtland	3336′	3428'	
Fruitland	3428'	3789'	gas
Pictured Cliffs	3789'	3878'	gas
Lewis	3878′	4338'	gas
Intermediate TD	3978′		
Huerfanito Bentonite	4338′	4749'	gas
Chacra	4749'	5568'	gas
Massive Cliff House	5568′	5618'	gas
Menefee	5618'	5940'	gas
Point Lookout	5940'		gas
Total Depth	6340'		

Logging Program:

Mud Logs/Coring/DST -

Mud logs - none

Coring - none DST - none

Cased hole - Gamma Ray, Cement bond - surface to TD

Mud Program:

<u> Interval- MD</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>F1</u> 1	id Loss
0- 200'	Spud	8.4-9.0	40-50	no	control
200- 3978'	LSND	8.4-9.0	30-60	no	control
3978- 6340'	Air/Mist/N2*	n/a		n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

*Nitrogen might be used in conjunction with or instead of air to prevent a down hole fire.

Casing Program (as listed, the equivalent, or better):

Measured

<u> Hole Size</u>	<u>Depth</u>	<u>Csq Size</u>	<u>Weight</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3978'	7"	20.0#	J-55
6 1/4" 3	878' - 6340'	4 1/2"	10.5#	J-55

Tubing Program: 0'-6340' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -

9 5/8" x 7" x 2 3/8" x 2000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drill crew.
- All BOP tests & drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9 5/8" surface casing - cement with 159 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -

Lead w/374 sx Class "B" w/3% sodium metasilicate, 10# gilsonite/sx and 0.5# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% gel, 2% calcium chloride, 5# gilsonite/sx, 0.1% antifoam and 0.25# flocele/sx (1197 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 3328'. First stage: cement with 155 sx Class "B" 50/50 poz w/2% gel, 5 pps Gilsonite, 2% calcium chloride, 0.25 pps Cellophane. Second stage: 345 sx Class "B" with 3% sodium metasilicate, 1/2 pps Cellophane, 10 pps Gilsonite (1197 cu.ft., 100% excess to circulate to surface).

Cement nose quide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 3336'. Two turbolating centralizers at the base of the Ojo Alamo at 3336'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -

Cement to circulate liner top. Pump 251 sx 50/50 Class "B" Poz w/1/4# flocele/sx, 4% gel, 0.1% retardant, 5# gilsonite/sx, 0.3% fluid loss additive and 0.35% dispersant (354 cu.ft., 40% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

• If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Air/Mist Drilling):

The following equipment will be operational while air/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Mesa Verde formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal 300 psi Pictured Cliffs 600 psi 700 psi Mesa Verde

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The west half of Section 7 is dedicated to the Mesa Verde.
- This gas is dedicated.

Drilling Engineer

1/21/2000 Date