UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

, RECEIVED

	Type of Work	5. Lease Number 23 AUG 13 PM 2:
	DRILL	NMNM-03600
	DRILL	Unit Reporting Number
		PC-89109/660Barnington, 1
	⊤ype of Well	6. If Indian, All. or Tribe
	GAS	
	GAN	
	Operator	7. Unit Agreement Name
	Signal INICTI INI	
•	RESOURCES OIL & GAS COMPANY OF	San Juan 29-7 Unit
	6.77	
	Address & Phone No. of Operator	8 Farm or Lease Name
	PO Box 4289, Farmington, NM 87499	ාූ San Juan 29-7 Unit
	less than the second of the se	9. Well Number
	(505) 326-9700	(d. ∫ 185
	(505) 320	
	Location of Well	10. Field, Pool, Wildcat
	Location of Well 1490' FNL, 525' FEL	La Jara Pict Cliffs
	1490. FND, 0-	11. Seç., Twn, Rge, Mer. (NMPM)
	Latitude 36° 44.36, Longitude 107° 33.02	# Sec. 10, T-29-N, R-7-
	Latitude 30	API # / 30-039-
		2 1489
	Distance in Miles from Nearest Town	12. County 13. State
-	Distance in Miles 12 11 miles from Navajo City	Rio Arriba NM
	II miles is	
	Distance from Proposed Location to Nearest Property or Lease	e Line
5.	525'	
	Acres in Lease	17. Acres Assigned to Well
3.	Acres in Leads	160
	Distance from Proposed Location to Nearest Well, Drlg, Comp	l, or Applied for on this Lease
В.	20'	_ ?
	20	
_	Proposed Depth	20. Rotary or Cable Tools
9.	3525'	Rotary
	Elevations (DF, FT, GR, Etc.)	22. Approx. Date Work will Start
1.	6370' GR	
	Proposed Casing and Cementing Program	
23.	See Operations Plan attached	
	See Oper	
		1 70-12
	Authorized by:	4-28-03
24.	Regulatory/Compliance Supervisor	Date Date
	APPROVAL	L DATE
	RMIT NO.	AUG 27 2
PER	18/ David I Mantinui	DATE
	/s/ David J. Mankiewicz TITLE	
	PROVED BY	
APF	PROVED BY	
APF	PROVED BY be submitted	
APF	haeological Report to be submitted eatened and Endangered Species Report to be submitted TE: This format is issued in lieu of U.S. BLM Form 3160-3 TE: This format is issued in lieu of U.S. BLM Form 3160-3 TE: This format is issued in 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully at 18 U.S.C. Section 1001, makes it a crime for any person knowingly at 18 U.S.C. Section 1001, makes it a crime for any person knowingly at 18 U.S.C. Section 1001, makes it a crime for any person knowingly at 18 U.S.C. Section 1001, makes it a crime for any person knowingly at 18 U.S.C. Section 1001, makes it a crime for any person know	

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

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

strict I Bbx 1980, Hobbs, NM 88241-1980 State Of New Mexico Energy, Minerals & Natural Resources Department Horm C-102
Revised February 21, 1994
Instructions on back

strict II Drawer DD, Artesia, NM 88211-0719 Strict III 100 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

istrict IV 3 Roy 2088, Santa Fe, NM 87504-2088 AMENDED REPORT

Box 2088, 5	Santa Fe, I	M 6/504°									
			WELL	LOCATI	ON AND AC	CREAGE DED	ICAT	ION PL	ΑT		
1 A	PI Number	CIL		Pool Cod	е			Pool Name	2		
30-039-	274	84	96199	9	La J. Property	ara Picture	d Cli	ffs	·		17 11 11 11
*Property	Code			S	AN JUAN 2						ll Number 185
7465	10				*Operator						levation
'OGRID	NO.		BURLIN	IGTON F	RESOURCES C		COMPAN	IY, LP			370 '
14538				:	10 Surface I						
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet	from the	East/West	line	County
Н	10	29N	7W		1490	NORTH		525	EAS	T	RIO ARRIBA
	<u></u>	11		Hole L	ocation I	f Different	Fro	m Surf	ace.		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet	from the	East/West	line	County
					13	44	45				
12 Dedicated Acre	5				¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order	No.			
PC - 160)		A5010\15								
NO ALLO	WABLE M	IILL BE OR	A NON-ST	ANDARD	IS COMPLETIC UNIT HAS BE	ON UNTIL ALI EEN APPROVEC	_ INTE) BY T	RESTS H HE DIVI	HAVE BEE SION	EN CON	ISOLIDATED
16			5	297.16 °				I hereb	y certify the	nat the i	FICATION Information Complete and belief
					USA NM	03600	<u> </u>	Sec	au (ac	
:				 				Signatur Peggy Printed	Cole		
				-		-	FORII		tory Su	pervi	sor
		1			2100'	01203.4	525'	Title			
						1 . AA33.03	ا م	Date	1-28-0	2	
		i		Ì		: 3,01	<u> </u>		EVOD (·	CICATION
. 00				i	AC	<i>1</i> 20.	. 00	I heceby	centify tha	t the we	FICATION 11 location
⁻ .	95			10 =		 †-		notes of	tnis plat v actual surv bha doisin	was plott eys made	ed from field by me or under same is true
5280 FD	15	Z			, and a second	1	1 5280	and corr	ect to the b	est of n	ny belief.
5	l ā	18			ANTE 303177						RY 7, 2003
	m			K		103		Signatur		of Profes	sional Surveyor
	·				S PED 201				JEON C	EDW	ARES .
I II	Service Land	12 12			C,	3		/	SPUSEN	MEXIC	18/
	- (-₽			<u>-</u>			$\{ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	m / * / ₁₅	269)	7 \ \
	6 ~43				Ruggy					ESSION	SAME YOR
			57	l 294.52				JA	Son (I.E	

OPERATIONS PLAN

Well Name: San Juan 29-7 Unit #185

Location: 14 90'FNL, 525' FEL, Section 10, T-29-N, R-7-W

Rio Arriba County, New Mexico

Latitude 36° 44.36, Longitude 107° 33.02

Formation: La Jara Pictured Cliffs

Elevation: 6370' GL

Formation:	Top	Bottom	Contents
Surface Ojo Alamo Kirtland Fruitland Pictured Cliffs Lewis Shale Marker Total Depth	San Jose 2252' 2432' 2982' 3227' 3477' 3525'	2252' 2432' 2982' 3227' 3477'	aquifer gas gas gas

Logging Program:

Open hole - Array Induction - Surface to TD, CNL-CDL - 2430' to TD

Mud log - None

Coring Program: None

Mud Program:

Interval	Type	Weight	<u>Vis.</u>	Flu:	id Loss
0- 120'	Spud		40-50	no	control
120-3525	FW	8.4-9.0	32-45	no	control

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

muhina	Program:						
_	7/8 " 1/4 "	_	120' 3525'	7 ' 4	" 1/2"	20.0# 10.5#	_
Hol	e Size	Depth	Interval	Csg	.Size	WC.	Grade

Tubing Program.

0' -3525' 2 3/8" 4.7# J-55

Float Equipment: 7" surface casing - saw tooth guide shoe.
Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - float shoe on bottom. Standard centralizers run every other joint above shoe to the base of the Ojo Alamo @ 2432'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2432'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: $7" \times 4 \frac{1}{2}" \times 2 \frac{3}{8}" 2000$ psi screw on independent wellhead.

Cementing:

7" surface casing - cement with 23 sx Class A, B Portland Type I, II cement (32 cu.ft. of slurry, bring cement to surface) or equivalent. Wait on cement for 24 hours for pre-set holes or 8 hrs for conventionally set holes before pressure testing or drilling out from under surface. Test casing to 600 psi for 30 minutes.

4 1/2" production casing - Lead w/196 sx Premium Lite cement w/3% calcium chloride, 1/4 pps Flocele, 5 pps LCM-1, 0.4% FL-52, 0.4% SMS. Tail w/90 sx Type III cement w/1% calcium chloride, 1/4 pps Flocele, and 0.2% FL-52 (542 cu.ft. of slurry, 50% excess to circulate to surface).

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

BOP and tests =

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test BOP and casing to 600 psi/30 min.

Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2).

Prior to completion operations, test BOP and casing to 2000 psi/15 min.

From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated to least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

Additional information:

- * The Pictured Cliffs formation will be completed.
- * Anticipated pore pressure for the Pictured Cliffs is 500 psi.
- * This gas is dedicated.
- * The northeast quarter of Section 10 is dedicated to the Pictured Cliffs.

Drilling Engineer

Date