Office State of New Mexico	DHC-5228 Form C-103 Program Revised July 18, 2013
<u>District I</u> – (575) 393-6161 Energy, Minerals and Natural Resources 1625 N. French Dr., Hobbs, NM 88240	WELL API NO.
District II – (575) 748-1283 811 S. First St., Artesia, NM 88210 OIL CONSERVATION DIVISION	30-039-07944
<u>District III</u> – (505) 334-6178 1220 South St. Francis Dr.	5. Indicate Type of Lease STATE FEE
1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> – (505) 476-3460 Santa Fe, NM 87505	6. State Oil & Gas Lease No.
1220 S. St. Francis Dr., Santa Fe, NM 87505	NMSF078771
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH	7. Lease Name or Unit Agreement Name
PROPOSALS.)	ROSA UNIT 8. Well Number 008
Type of Well: Oil Well ☐ Gas Well ☒ Other      Name of Operator	9. OGRID Number
LOGOS Operating, LLC	289408
3. Address of Operator 2010 Afton Place, Farmington, New Mexico 87401	10. Pool name or Wildcat Rosa Pictured Cliffs / Blanco Mesaverde
4. Well Location	Rosa i ictured Citiis / Bianco iviesaveide
Unit Letter <u>M</u> : <u>1100</u> feet from the <u>South</u> line and	900 feet from the West line
Section 26 31N Township 06W Range	NMPM Rio Arriba County
11. Elevation (Show whether DR, RKB, RT, GR, etc.	c.)
6429'	
12. Check Appropriate Box to Indicate Nature of Notice	, Report or Other Data
	BSEQUENT REPORT OF:
PERFORM REMEDIAL WORK   PLUG AND ABANDON   REMEDIAL WOL	<del>_</del>
	RILLING OPNS. P AND A
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐ CASING/CEMENDOWNHOLE COMMINGLE ☐	NI JOB
CLOSED-LOOP SYSTEM	
OTHER: OTHER:	
13. Describe proposed or completed operations. (Clearly state all pertinent details, a of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Coproposed completion or recompletion.	
<ol> <li>Pre-approved Pool Division Order R-12991</li> <li>Pools to be commingled Blanco MV 72319, Rosa Pictured Cliffs 96175</li> <li>Perforated intervals: Blanco MV 5406' – 5689', Rosa Pictured Cliffs 3272' – 3</li> <li>Fixed percentage allocation 10% Blanco MV and 90% Rosa Pictured Cliffs</li> <li>Commingling will not reduce the value of reserves</li> <li>Notification of working, royalty, and overriding royalty interest owners; no no</li> <li>The BLM has been notified on sundry notice form 3160-5</li> </ol>	
Spud Date:  Rig Release Date:  I hereby certify that the information above is true and complete to the best of my knowled	ge and belief.
SIGNATURE <u>tta Trujillo</u> TITLE <u>Regulatory Specialist</u>	DATE <u>10/26/2022</u>
Type or print name <u>Etta Trujillo</u> E-mail address: <u>etrujillo@logosre</u> For State Use Only	esourcesllc.com PHONE: _505-324-4154
APPROVED BY: R Molline TITLE Petroleum Engineer Conditions of Approval (if any):	DATE 10/27/2022

#### CONDITIONS OF APPROVAL

If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Permit shall terminate on the date of such action.

If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.

If a completed interval of the Well is altered from what is submitted within this application, then no later than sixty (60) days after the alteration, the Operator shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.



# **DOWNHOLE COMMINGLE PROCEDURE AND ALLOCATION-NMOCD (2022)**

Rosa Unit 8 30-039-07944 1100' FSL & 900' FWL Section 26, T31N, R06W Rio Arriba, New Mexico

<u>LAT</u>: 36.8664055° N <u>LONG</u>: -107.4381256° W Pictured Cliffs/Mesaverde

#### **PROJECT OBJECTIVE:**

Downhole commingle Pictured Cliffs and Mesaverde.

# **WORKOVER PROCEDURE:**

- 1. Hold safety meeting. MIRU workover rig. Place fire and safety equipment in strategic locations. Comply with all LOGOS, BLM, and NMOCD rules and regulations.
- 2. Rig up flow lines. Check and record casing pressure. Sell pressure down to line. Kill well if necessary.
- 3. Nipple down wellhead and nipple up BOP.
- 4. Remove all tubing and downhole equipment from the wellbore.
- 5. Run in hole with single 2-3/8" production tubing string.
- 6. Return to production as a Pictured Cliffs/Mesaverde commingle.

# PRODUCTION ALLOCATION

Historic production data from both zones in this well was gathered and analyzed. Production rates from 2005 were used to determine allocations for greater allocation accuracy.

# **Gas Production Rate**

Total Gas Production Rate	119 Mcfpd
Pictured Cliffs Gas Production Rate	107 Mcfpd
Mesaverde Gas Production Rate	12 Mcfpd

PC allocation = PC rate/total rate = 107/119 = **90%** MV allocation = MV rate/total rate = 12/119 = **10%** 

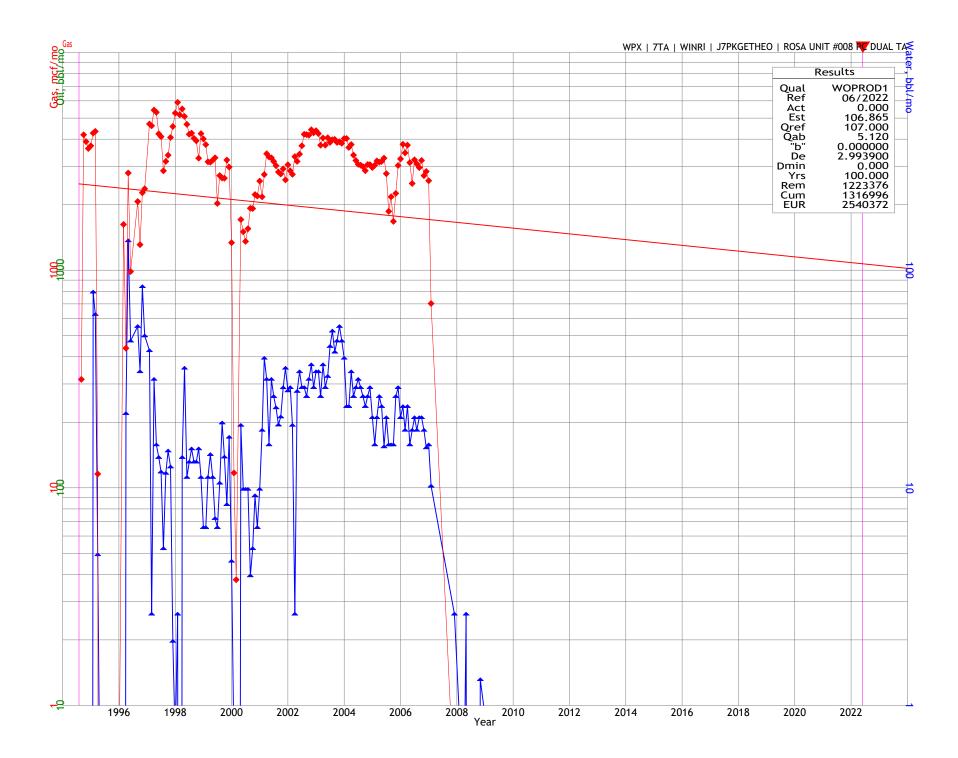
Oil Production Rate NA

#### **Water Production Rate**

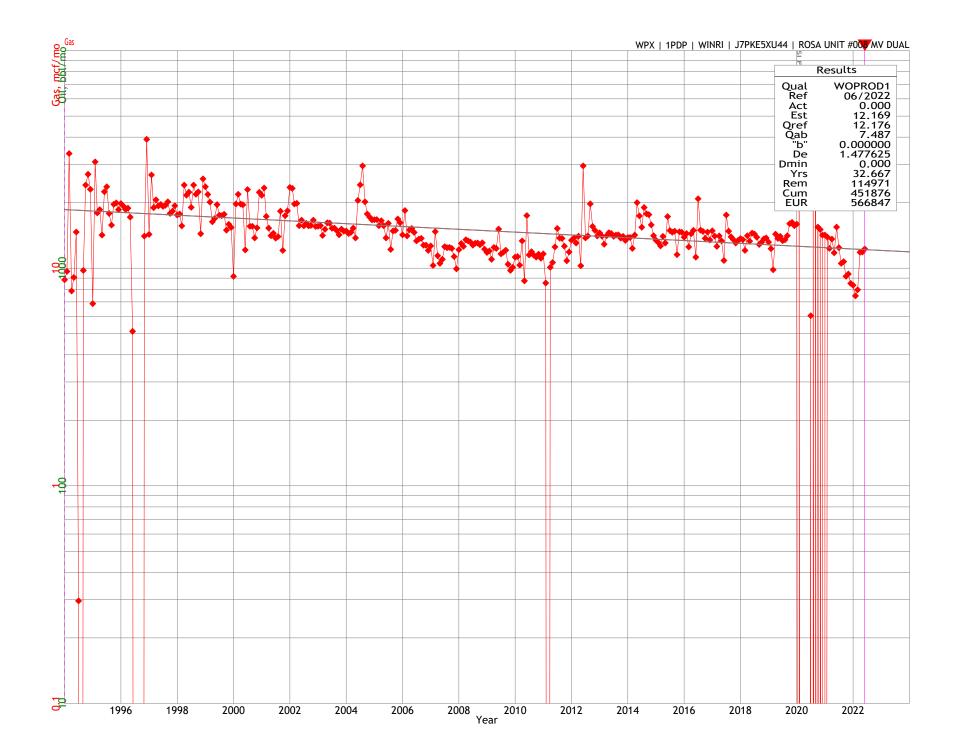
Total Water Production Rate 50 bwpd
Pictured Cliffs Water Production Rate 50 bwpd
Mesaverde Water Production Rate 0 bwpd

PC allocation = PC rate/total rate = 50/50 = 100%

Received by OCD: 10/26/2022 8:54:30 AM



Received by OCD: 10/26/2022 8:54:30 AM





#### **Wellbore Schematic**

Surface Casing: (07/03/1955)

Well Name:	Rosa Unit 8				
Location:	M-26-31N-06W	1100' F	SL & 900' FW	/L	
County:	Rio Arriba, NM				
API#:	30-039-07944				
Co-ordinates:	Lat 36.8664055, L	ong -107	7.4381256		
Elevations:	GROUND:		6429'		
	KB:		6440'		
Depths (KB):	PBTD:		5865'		
	TD:		5865'		

 Date Prepared:
 7/22/2022 Moss

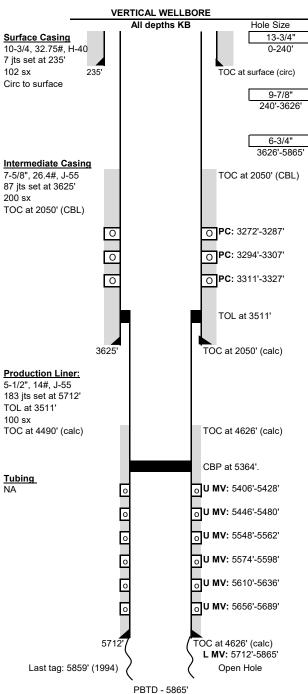
 Reviewed By:
 7/25/2022 Gomez

 Last Updated:
 10/17/2022 Moss

 Spud Date:
 7/2/1955

 Completion Date:
 8/23/1955

 Last Workover Date:
 8/4/2022



TD - 5865'

0 111 / 100 1	% del (158 cu ft).	Circ to surface.	
Cmt'd w/ 102 sx 4	g (		
Intermediate Casi	na: (07/20/10EE)		
Intermediate Casi	mg. (07/30/1933)	0606! Cat 07 ita 7 E/0!! 06	4# 1 FE as a at 260
		3626'. Set 87 jts 7-5/8", 26	.4#, J-55 CSg at 362
		sx neat cmt. (347 cu ft).	
TOC at 2050' per	CBL (1994).		
Production Liner:	(00/16/10EE)		
		12'. Set 183 jts 5-1/2", 14#	+   EE oog of E710'
		TOC at 4626' per calc. DC	past cmt to 5865,
4-3/4" open hole b		.fft 05401 II 144	10 H- 0 451 5
		off csg at ~3542', pulled 11	
Thew 5-1/2 csg j	t & screwed into c	sg stub at 3547' & set line	r nanger at 35 i i .
PC Tubing:		Length (ft	)
KB		Longar (it	11
Pulled & LD in 8/20	22		
r diled & ED iii 0/20	·LL		
		Set at:	ft
MV Tubing:			
KB			11
	_		
Pulled & LD in 2022	2		
Pulled & LD in 2022	2	Catat	t.
	2	Set at:	ft
Artificial Lift:	2	Set at:	ft
Artificial Lift:	2	Set at:	ft
Artificial Lift: NA	2	Set at:	ft
Artificial Lift: NA Perforations:			
Artificial Lift: NA Perforations:		Set at: 2. Frac w/ 20,000# 20/40 s	
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406	'-5865') Open hole '-28', 5446'-80', 58	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3	eand in 20,000 gal
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406	'-5865') Open hole '-28', 5446'-80', 58	e. Frac w/ 20,000# 20/40 s	eand in 20,000 gal
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406 5406'-28', 4 SPF 8 Frac w/ 20,000# 2	'-5865') Open hole '-28', 5446'-80', 55 3 5446'-5689', 2 S 0/40 sand in 20,0	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid.	sand in 20,000 gal 6', 5656'-5689'). d.
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406 5406'-28', 4 SPF 8 Frac w/ 20,000# 2	'-5865') Open hole '-28', 5446'-80', 55 3 5446'-5689', 2 S 0/40 sand in 20,0	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid.	sand in 20,000 gal 6', 5656'-5689'). d.
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3	'-5865') Open hole '-28', 5446'-80', 55 3 5446'-5689', 2 S 0/40 sand in 20,0' 287', 3294'-3307',	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci	sand in 20,000 gal 6', 5656'-5689'). d.
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3	'-5865') Open hole '-28', 5446'-80', 55 3 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frac	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, c w/ 98,300# 20/40 mesh i	sand in 20,000 gal 6', 5656'-5689'). d.
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406' 5406'-28', 4 SPF 8 Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g	'-5865') Open hole '-28', 5446'-80', 55 3 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frac	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, c w/ 98,300# 20/40 mesh i	sand in 20,000 gal 6', 5656'-5689'). d.
Artificial Lift: NA  Perforations: 1955- L MV: (5712 fluid. 1955- U MV: (5406 5406-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin	'-5865') Open hole '-28', 5446'-80', 55 3 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frac	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, c w/ 98,300# 20/40 mesh i	sand in 20,000 gal 6', 5656'-5689'). d.
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406 5406'-28', 4 SPF 8 Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g: of 30# borate x-lin  Formations:	'-5865') Open hole '-28', 5446'-80', 55 3 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frac k gel in 70Q N2 fo	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, c w/ 98,300# 20/40 mesh i	sand in 20,000 gal 16', 5656'-5689'). 1d. 10.36" holes. 10.396 gal
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin  Formations: Kirtland-	'-5865') Open hole '-28', 5446'-80', 55 3 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frac k gel in 70Q N2 fo	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, c w/ 98,300# 20/40 mesh i pam.	sand in 20,000 gal 16', 5656'-5689'). id. 0.36" holes. n 18,396 gal
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406' 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g: of 30# borate x-lin  Formations: Kirtland- Fruitland-	'-5865') Open hole '-28', 5446'-80', 58 3 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frac k gel in 70Q N2 fo	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, 4 c w/ 98,300# 20/40 mesh i oam.	sand in 20,000 gal 16', 5656'-5689'). 1d. 10.36" holes. 11 18,396 gal MD 5387' 5438'
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g- of 30# borate x-lin  Formations: Kirtland- Fruitland- Pictured Cliffs-	'-5865') Open hole '-28', 5446'-80', 55 8 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frac k gel in 70Q N2 fo	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, 1 c w/ 98,300# 20/40 mesh i coam.	sand in 20,000 gal 16', 5656'-5689'). 1d. 10.36" holes. 11 18,396 gal MD 5387' 5438'
Perforations: 1955- L MV: (5712 fluid. 1955- U MV: (5406 5406'-28', 4 SPF 8 Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 gr of 30# borate x-lin Formations: Kirtland- Fruitland- Pictured Cliffs- Additional Notes:	'-5865') Open hole '-28', 5446'-80', 58 3 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frack gel in 70Q N2 fo MD 2588' 3090' 3266'	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, 1 c w/ 98,300# 20/40 mesh i bam. Cliff House Menefee Point Lookou	sand in 20,000 gal 6', 5656'-5689'). d. 0.36" holes. n 18,396 gal MD 5387' 5438' t 5658'
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406' 5406'-28', 4 SPF & Frac w' 20,000# 2 1994- PC: (3272'-3 Acidize w' 1000 g: of 30# borate x-lin  Formations: Kirtland- Fruitland- Pictured Cliffs-  Additional Notes: 08/1955 Initial com	'-5865') Open hole '-28', 5446'-80', 58 \$ 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frack gel in 70Q N2 fo  MD 2588' 3090' 3266'	2. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, c w/ 98,300# 20/40 mesh i oam. Cliff House Menefee Point Lookou	sand in 20,000 gal 6', 5656'-5689'). id. 0.36" holes. n 18,396 gal MD 5387' 5438' t 5658'
Artificial Lift: NA  Perforations: 1955- L MV: (5712' fluid. 1955- U MV: (5406 5406'-28', 4 SPF 8 Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 gi of 30# borate x-lin  Formations: Kirtland- Fruitland- Pictured Cliffs-  Additional Notes: 08/1955 Initial com 08/1994 Re-compl	'-5865') Open hole '-28', 5446'-80', 55 3 5446'-5689', 2 S 0/40 sand in 20,0 287', 3294'-3307', al 7.5% HCL. Frack k gel in 70Q N2 fo  MD 2588' 3090' 3266'  spletion. Perf'd & s ete. Backed off 5-	e. Frac w/ 20,000# 20/40 s 548-62', 5574'-98', 5610'-3 PF. Acidize w/ 500 gal aci 00 gal fluid. 3311'-3327'). 1 SPF, 47, 1 c w/ 98,300# 20/40 mesh i bam. Cliff House Menefee Point Lookou	sand in 20,000 gal 16', 5656'-5689'). 1d. 10.36" holes. 11 18,396 gal MD 5387' 5438' 15 5658' 15' cutoff. Ran new

MV string at 5713'. Set 1-1/2" PC string at 3324'.

08/2022 Trip & LD PC tbg string. Work PC string out of pkr. Tagged pkr at 4000'.

Mill on pkr & TOOH w/ pkr. Mill to 5400'. Set CBP at 5364'. Did NOT run tbg.

Drilled a 13-3/4" surface hole to 240'. Set 7 jts, 10-3/4", 32.75#, H-40 csg at 235'.



# **Proposed Wellbore Schematic**

Well Name:	Rosa Unit 8		
Location:	M-26-31N-06W	1100' FSL & 900' FWL	
County:	Rio Arriba, NM		
API #:	30-039-07944		
Co-ordinates:	Lat 36.8664055, Lo	ong -107.4381256	
Elevations:	GROUND:	6429'	
	KB:	6440'	
Depths (KB):	PBTD:	5865'	
	TD:	5865'	

 Date Prepared:
 7/22/2022 Moss

 Reviewed By:
 7/25/2022 Gomez

 Last Updated:
 10/24/2022 Moss

 Spud Date:
 7/2/1955

 Completion Date:
 8/23/1955

 Last Workover Date:
 8/4/2022

TD:	5865'					
VERTICAL WELLBORE						
	epths KB Hole Size					
Surface Casing	13-3/4"					
10-3/4, 32.75#, H-40	0-240'					
7 jts set at 235'						
102 sx 235'	TOC at surface (circ)					
Circ to surface						
	9-7/8"					
	240'-3626'					
	6-3/4"					
	3626'-5865'					
Intermediate Casing						
	TOC -+ 2050L(CDL)					
7-5/8", 26.4#, J-55	TOC at 2050' (CBL)					
87 jts set at 3625'						
200 sx						
TOC at 2050' (CBL)						
0	O PC: 3272'-3287'					
0	O PC: 3294'-3307'					
	III <b>=</b>					
0	O PC: 3311'-3327'					
	III 🔚					
	TOL at 3511'					
3625'	TOC at 2050' (calc)					
3023	100 at 2000 (calc)					
Draduation Linear						
Production Liner:						
5-1/2", 14#, J-55						
183 jts set at 5712'						
TOL at 3511'						
100 sx						
TOC at 4490' (calc)	TOC at 4626' (calc)					
(====)						
Tubing	11 MV: 5406! 5429!					
2-3/8" 4.7# J-55	o U MV: 5406'-5428'					
115 jts						
SN at 5668'	o <b>U MV</b> : 5446'-5480'					
EOT at 5700'	L					
o	o U MV: 5548'-5562'					
	<del> </del>					
o	o <b>U MV</b> : 5574'-5598'					
o	o <b>U MV</b> : 5610'-5636'					
o	O U MV: 5656'-5689'					
O						
	· · •					
5712'/	TOC at 4626' (calc)					
52	L MV: 5712'-5865'					
Last tag: 5859' (1994)	Open Hole					
Last tag. 5003 (1994)	\ Open Hole					
PRTI	D - 5865'					
	- 5865'					
10						

Confess Contract	27/02/4055	
Surface Casing: (	)//03/1955)	
Drilled a 13-3/4" su	rface hole to 240'. So	et 7 jts, 10-3/4", 32.75#, H-40 csg at 235'.
Cmt'd w/ 102 sx 4	% gel (158 cu ft). Cir	rc to surface.
Intermediate Casi	ng: (07/30/1955)	
Drilled a 9-7/8" inte	rmediate hole to 362	26'. Set 87 jts 7-5/8", 26.4#, J-55 csg at 362
Cmt'd w/ 150 sx 8	% gel tailed w/ 50 sx	r neat cmt. (347 cu ft).
TOC at 2050' per	CBL (1994).	,
Production Liner:	(08/16/1955)	
Drilled a 6-3/4" prod	duction hale to 5712'	'. Set 183 jts 5-1/2", 14#, J-55 csg at 5712'
		DC at 4626' per calc. DO past cmt to 5865'
4-3/4" open hole b		20 at 4020 per caic. Do past criti to 3003
		csg at ~3542', pulled 113 jts & 15' cutoff. F
1994- Kan nee-poi	t & seroused into see	i stub at 3547' & set liner hanger at 3511'.
1 flew 5-1/2 CSg J	i & screwed into csg	stub at 3547 & set liner hanger at 3511.
		1 (6)
Tubing:		Length (ft)
KB		11
(115) 2-3/8" 4.7#, J	-55 tbg jts	5657
(1) SN		1
(1) 2-3/8" MS MA		31
		Set at: 5700 ft
Rods:		
	shed rod w/ 1-1/2" x	10' liner 22
(81) 7/8" plain rods		2025
(137) 3/4" plain rod		3425
(2) 3/4" x 8' plain po		16
(8) 1-1/4" sinker ba		200
(1) 21k shear tool	15	1
(1) 3/4" x 8' guided	nony rodo	<u> </u>
(1) 3/4 x 6 guided	porty rous	8
(1) 2" x 1-1/2" x 16"	RWAC pump	16
Dumming Units		
Pumping Unit:	2. OOII atmalia lawanth	
Dansco 228-246-86	o, 86" stroke length	
D 6 41		
Perforations:		
	-5865') Open hole. I	Frac w/ 20,000# 20/40 sand in 20,000 gal
fluid.		
		8-62', 5574'-98', 5610'-36', 5656'-5689').
		F. Acidize w/ 500 gal acid.
	20/40 sand in 20,000	
1994- PC: (3272'-3	287', 3294'-3307', 33	311'-3327'). 1 SPF, 47, 0.36" holes.
		// 98,300# 20/40 mesh in 18,396 gal
of 30# borate x-lin	k gel in 70Q N2 foar	m.
Formations:	MD	MD
IZ:tll	2588'	Cliff House 5387'
Kirtiand-	3090'	
Fruitland-		Menefee 5438'
Pictured Cliffs-	3266'	Point Lookout 5658'
Additional Notes:		
		n'd MV formation. Set 2-3/8" tbg at 5692'.
		2" csg, pulled 113 jts & 15' cutoff. Ran new
5-1/2" csg, screwe	ed into csg stub at 35	547', TOL at 3511'. Perf'd & stim'd the PC
formation CO to !	5050' had 1/2" piago	se of chale & cand Set nkr & landed 1 1/2"

formation. CO to 5859', had 1/2" pieces of shale & sand. Set pkr & landed 1-1/2" MV string at 5713'. Set 1-1/2" PC string at 3324'.

Form 3160-5 (June 2019)

# **UNITED STATES** DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

5.	Lease	Serial	No.

BURI	EAU OF LAND MANAGEMENT		5. Lease Serial No.	NMSF078771
Do not use this f	OTICES AND REPORTS ON Worm for proposals to drill or to Jse Form 3160-3 (APD) for suc	re-enter an	6. If Indian, Allottee	or Tribe Name
SUBMIT IN 1	FRIPLICATE - Other instructions on page	e 2		eement, Name and/or No.
. Type of Well			ROSA UNITMV/N	
Oil Well Gas W	<del></del>		8. Well Name and No	ROSA UNIT/8
2. Name of Operator LOGOS OPERA	TING LLC		9. API Well No. 3003	3907944
a. Address 2010 AFTON PLACE, F	ARMINGTON, NM 87401 3b. Phone No. (505) 278-872	(include area code)	10. Field and Pool or	Exploratory Area  O CLIFFS/BLANCO MESAVERDE
Location of Well (Footage, Sec., T.,R			11. Country or Parish	
SEC 26/T31N/R6W/NMP	,,nii, or survey best query		RIO ARRIBA/NM	,
12. CHE	CK THE APPROPRIATE BOX(ES) TO INC	DICATE NATURE OF	NOTICE, REPORT OR OT	HER DATA
TYPE OF SUBMISSION		ТҮРЕ (	OF ACTION	
Notice of Intent	Acidize Deep	en	Production (Start/Resume)	Water Shut-Off
	Alter Casing Hydra	aulic Fracturing	Reclamation	Well Integrity
Subsequent Report		Construction	Recomplete	<b>✓</b> Other
		and Abandon	Temporarily Abandon	Downhole Commingle
Final Abandonment Notice	Convert to Injection Plug		Water Disposal	
completed. Final Abandonment Not is ready for final inspection.)  LOGOS Resources requests p formations. Attached is the dox proceeds.	I be perfonned or provide the Bond No. on fins. If the operation results in a multiple comices must be filed only after all requirements the remission to downhole commingle subject without commingle procedure and allocated the commingle procedure and allocated	pletion or recompletions, including reclamation ect well with the exist	on in a new interval, a Form on, have been completed and ting Pictured Cliffs and Bla	3160-4 must be filed once testing has been the operator has detennined that the site anco Mesaverde
4. I hereby certify that the foregoing is ETTA TRUJILLO / Ph: (505) 324-4	true and correct. Name (Printed/Typed) 154	Regulatory S	pecialist	
Signature Cta Trujillo		Date	10/25/2	2022
	THE SPACE FOR FEDE	ERAL OR STAT	E OFICE USE	
approved by				
		Title		Date
	ned. Approval of this notice does not warrant quitable title to those rights in the subject lead duct operations thereon.			

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.

(Instructions on page 2)

# Sundry Print Report

# U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Well Name: ROSA UNIT Well Location: T31N / R6W / SEC 26 / County or Parish/State: RIO

SWSW / 36.86639 / -107.43758 ARRIBA / NM

Well Number: 8 Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

WELL

**Lease Number:** NMSF078771 **Unit or CA Name:** ROSA UNIT--MV **Unit or CA Number:** 

NMNM78407A

US Well Number: 300390794400D1 Well Status: Producing Gas Well Operator: LOGOS OPERATING

LLC

# **Notice of Intent**

**Sundry ID: 2699630** 

Type of Submission: Notice of Intent

Type of Action: Commingling (Subsurface)

Date Sundry Submitted: 10/25/2022 Time Sundry Submitted: 12:15

Date proposed operation will begin: 10/25/2022

**Procedure Description:** LOGOS Resources requests permission to downhole commingle subject well with the existing Pictured Cliffs and Blanco Mesaverde formations. Attached is the downhole commingle procedure and allocation. The DHC application will be submitted and approved before work proceeds.

# **NOI Attachments**

# **Procedure Description**

Documents\_for\_Rosa\_Unit\_8\_DHC\_20221025121416.pdf

# **Conditions of Approval**

# **Specialist Review**

2699630 DHC 8 3003907944 KR 10262022 20221026134455.pdf

Page 1 of 2

Well Name: ROSA UNIT

Well Location: T31N / R6W / SEC 26 / County or Parish/State: RIC 10 of

SWSW / 36.86639 / -107.43758

Well Number: 8 Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

VELL

Unit or CA Name: ROSA UNIT--MV

Unit or CA Number: NMNM78407A

ARRIBA / NM

US Well Number: 300390794400D1 Well Status: Producing Gas Well Operator: LOGOS OPERATING

LLC

# **Operator**

Lease Number: NMSF078771

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: ETTA TRUJILLO Signed on: OCT 25, 2022 12:14 PM

Name: LOGOS OPERATING LLC

Title: Regulatory Specialist

Street Address: 2010 AFTON PLACE

City: Farmington State: NM

Phone: (505) 324-4154

Email address: ETRUJILLO@LOGOSRESOURCESLLC.COM

# **Field**

**Representative Name:** 

**Street Address:** 

City: State: Zip:

Phone:

Email address:

# **BLM Point of Contact**

BLM POC Name: KENNETH G RENNICK BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742 BLM POC Email Address: krennick@blm.gov

**Disposition:** Approved **Disposition Date:** 10/26/2022

Signature: Kenneth Rennick

Page 2 of 2



# **DOWNHOLE COMMINGLE PROCEDURE AND ALLOCATION-NMOCD (2022)**

Rosa Unit 8 30-039-07944 1100' FSL & 900' FWL Section 26, T31N, R06W Rio Arriba, New Mexico

<u>LAT</u>: 36.8664055° N <u>LONG</u>: -107.4381256° W Pictured Cliffs/Mesaverde

#### **PROJECT OBJECTIVE:**

Downhole commingle Pictured Cliffs and Mesaverde.

# **WORKOVER PROCEDURE:**

- 1. Hold safety meeting. MIRU workover rig. Place fire and safety equipment in strategic locations. Comply with all LOGOS, BLM, and NMOCD rules and regulations.
- 2. Rig up flow lines. Check and record casing pressure. Sell pressure down to line. Kill well if necessary.
- 3. Nipple down wellhead and nipple up BOP.
- 4. Remove all tubing and downhole equipment from the wellbore.
- 5. Run in hole with single 2-3/8" production tubing string.
- 6. Return to production as a Pictured Cliffs/Mesaverde commingle.

# PRODUCTION ALLOCATION

Historic production data from both zones in this well was gathered and analyzed. Production rates from 2005 were used to determine allocations for greater allocation accuracy.

# **Gas Production Rate**

Total Gas Production Rate	119 Mcfpd
Pictured Cliffs Gas Production Rate	107 Mcfpd
Mesaverde Gas Production Rate	12 Mcfpd

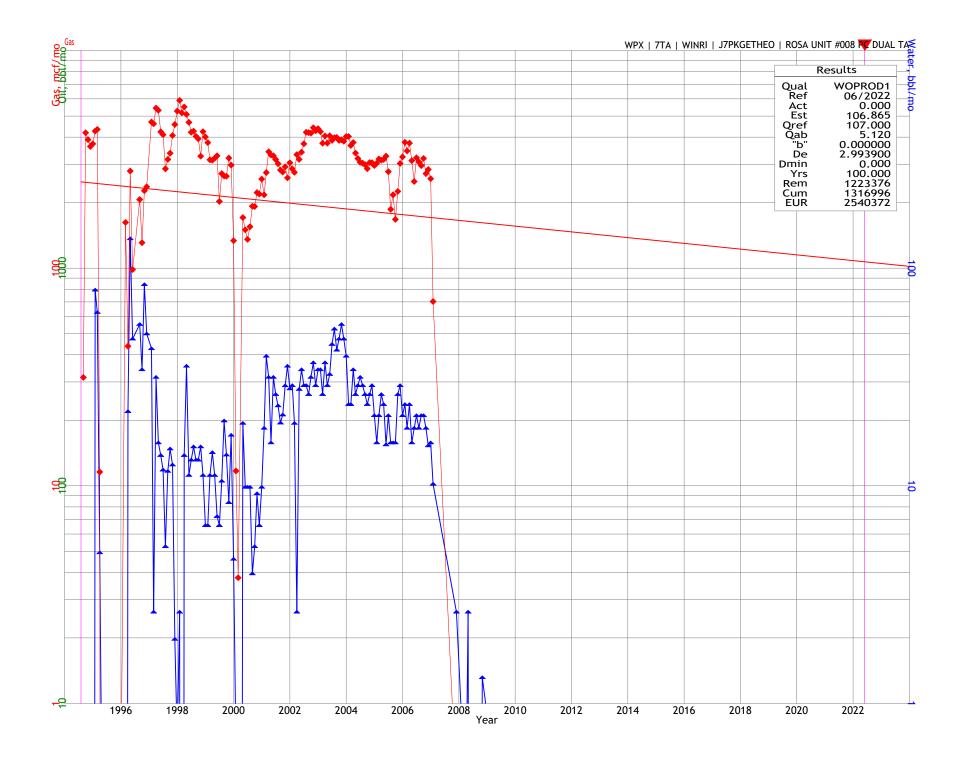
PC allocation = PC rate/total rate = 107/119 = **90%** MV allocation = MV rate/total rate = 12/119 = **10%** 

Oil Production Rate NA

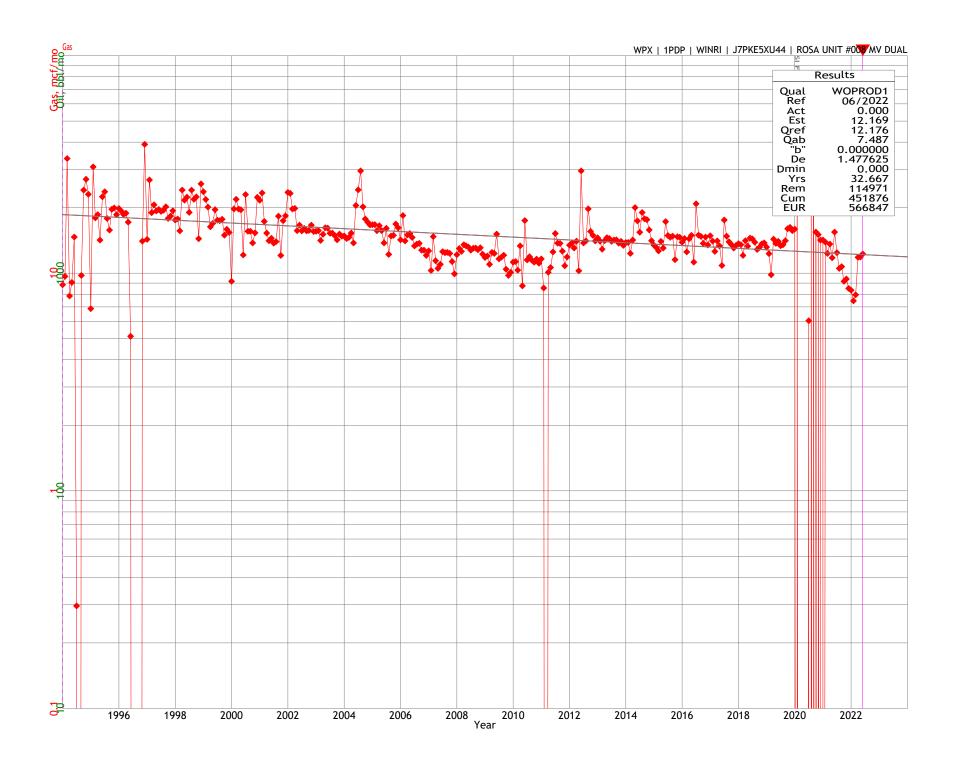
#### **Water Production Rate**

Total Water Production Rate 50 bwpd
Pictured Cliffs Water Production Rate 50 bwpd
Mesaverde Water Production Rate 0 bwpd

PC allocation = PC rate/total rate = 50/50 = 100%



Received by OCD: 10/26/2022 8:54:30 AM





#### **Wellbore Schematic**

Surface Casing: (07/03/1955)

Well Name:	Rosa Unit 8			
Location:	M-26-31N-06W	1100' F	SL & 900' FWL	
County:	Rio Arriba, NM			
API#:	30-039-07944			
Co-ordinates:	Lat 36.8664055, Lo	ong -107	7.4381256	
Elevations:	GROUND:		6429'	
	KB:		6440'	
Depths (KB):	PBTD:	•	5865'	<u> </u>
	TD:	1.	EOGE!	

 Date Prepared:
 7/22/2022 Moss

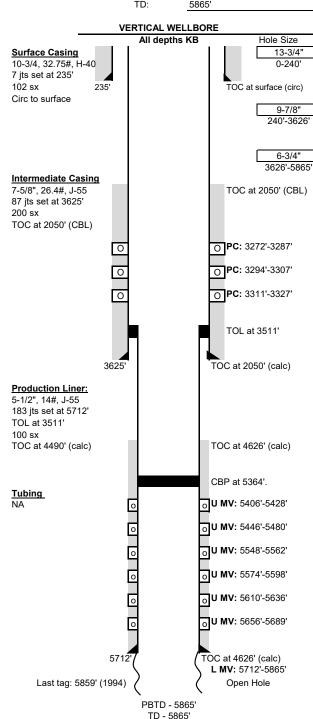
 Reviewed By:
 7/25/2022 Gomez

 Last Updated:
 10/17/2022 Moss

 Spud Date:
 7/2/1955

 Completion Date:
 8/23/1955

 Last Workover Date:
 8/4/2022



Drilled a 13-3/4" su	urface hole to 240'. Set 7	7 jts, 10-3/4", 32.75#, H-	40 csg at 235'.
Cmt'd w/ 102 sx 4	1% gel (158 cu ft). Circ t	o surface.	
l-4	(07/00/4055)		
Intermediate Casi	ermediate hole to 3626'.	Sat 97 its 7 5/9" 26 4#	I 55 ccg at 3625'
Cmt'd w/ 150 cv 9	8% gel tailed w/ 50 sx ne	oct on its 1-5/6, 20.4#	, J-55 CSy at 5025
TOC at 2050' per		sat cilit. (347 cu it).	
100 at 2000 per	CDL (1994).		
Duaduation Lineau	(00/4C/40EE)		
Production Liner:	duction hole to 5712'. S	ot 192 itc 5 1/2" 1/4   1	55 oca at 5712'
	2% gel (136 cu ft). TOC		
4-3/4" open hole b		at 4020 per carc. DO pa	ast citit to 5005 ,
	int calc & backed off csg	at ~3542' pulled 113 if	s & 15' cutoff. Ran
1 new 5-1/2" csg i	jt & screwed into csg stu	ub at 3547' & set liner h	anger at 3511'.
	<u> </u>		<u> </u>
PC Tubing:		Length (ft)	
KB			1
Pulled & LD in 8/20	)22		
		Set at:	ft
MV Tubing:			
KB		1	1
Pulled & LD in 2022	2		
	;	Set at:	ft
Artificial Lift:			
NA			
D f ti			
Perforations:	V 50051) On an hala 5	/ 00 000# 00/40	d : 00 000 l
fluid.	2'-5865') Open hole. Fra	c w/ 20,000# 20/40 san	in 20,000 gai
	1 20' E446' 90' EE49 6'	0' EE74' 00' E640' 26'	E6E6' E690'\
1955 <b>- U MV</b> : (5406	6'-28', 5446'-80', 5548-6:		5656'-5689').
1955 <b>- U MV</b> : (5406 5406'-28', 4 SPF 8	& 5446'-5689', 2 SPF. A	cidize w/ 500 gal acid.	5656'-5689').
1955- <b>U MV</b> : (5406 5406'-28', 4 SPF 8 Frac w/ 20,000# 2	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga	acidize w/ 500 gal acid. I fluid.	
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3	6" holes.
1955- <b>U MV</b> : (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- <b>PC</b> : (3272'-3 Acidize w/ 1000 g	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 al 7.5% HCL. Frac w/ 9	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3	6" holes.
1955- <b>U MV</b> : (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- <b>PC</b> : (3272'-3 Acidize w/ 1000 g	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3	6" holes.
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 al 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam.	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3	6" holes. 8,396 gal
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 jal 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam.	ucidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1	6" holes. 8,396 gal
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin Formations: Kirtland-	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 jal 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam. MD 2588'	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1	6" holes. 8,396 gal MD 5387'
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin Formations: Kirtland- Fruitland-	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 1287', 3294'-3307', 3311 Ial 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam. MD 2588' 3090'	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee	6" holes. 8,396 gal MD 5387' 5438'
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin Formations: Kirtland-	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 jal 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam. MD 2588'	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1	6" holes. 8,396 gal MD 5387'
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin Formations: Kirtland- Fruitland- Pictured Cliffs-	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 1287', 3294'-3307', 3311 Ial 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam. MD 2588' 3090'	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee	6" holes. 8,396 gal MD 5387' 5438'
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin Formations: Kirtland- Fruitland- Pictured Cliffs-	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 Jal 7.5% HCL. Frac W/ 9 nk gel in 70Q N2 foam. MD 2588' 3090' 3266'	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee Point Lookout	6" holes. 8,396 gal MD 5387' 5438' 5658'
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin Formations: Kirtland- Fruitland- Pictured Cliffs- Additional Notes: 08/1955 Initial com	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 jal 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam. MD 2588' 3090' 3266'	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee Point Lookout  MV formation. Set 2-3/8	6" holes. 8,396 gal MD 5387' 5438' 5658'
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin Formations: Kirtland- Fruitland- Pictured Cliffs- Additional Notes: 08/1955 Initial com 08/1994 Re-compl	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 jal 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam. MD 2588' 3090' 3266'	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee Point Lookout  MV formation. Set 2-3/8 sg, pulled 113 jts & 15'	6" holes. 8,396 gal MD 5387' 5438' 5658'
1955- U MV: (5406 5406'-28', 4 SPF 8 Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin  Formations: Kirtland- Fruitland- Pictured Cliffs-  Additional Notes: 08/1955 Initial com 08/1994 Re-compl 5-1/2" csg, screwe	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 al 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam.  MD 2588' 3090' 3266'  mpletion. Perf'd & stim'd lete. Backed off 5-1/2" c ed into csg stub at 3547	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee Point Lookout  MV formation. Set 2-3/8 sg, pulled 113 jts & 15' ", TOL at 3511'. Perfd 8	6" holes. 8,396 gal MD 5387' 5438' 5658' 3" tbg at 5692'. cutoff. Ran new
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin  Formations: Kirtland- Fruitland- Pictured Cliffs-  Additional Notes: 08/1995 Initial com 08/1994 Re-compl 5-1/2" csg, screwe formation. CO to 5	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 1287', 3294'-3307', 3311 1217.5% HCL. Frac w/ 9. 1288' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 32	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee Point Lookout  MV formation. Set 2-3/8 :sg, pulled 113 jts & 15' ", TOL at 3511'. Perfd &	6" holes. 8,396 gal MD 5387' 5438' 5658' 3" tbg at 5692'. cutoff. Ran new a stim'd the PC & landed 1-1/2"
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin  Formations: Kirtland- Fruitland- Pictured Cliffs-  Additional Notes: 08/1995 Initial com 08/1994 Re-compl 5-1/2" csg, screwe formation. CO to 5	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 1287', 3294'-3307', 3311 1217.5% HCL. Frac w/ 9. 1288' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 32	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee Point Lookout  MV formation. Set 2-3/8 :sg, pulled 113 jts & 15' ", TOL at 3511'. Perfd &	6" holes. 8,396 gal MD 5387' 5438' 5658' 3" tbg at 5692'. cutoff. Ran new a stim'd the PC & landed 1-1/2"
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin  Formations: Kirtland- Pictured Cliffs-  Additional Notes: 08/1955 Initial com 08/1994 Re-compl 5-1/2" csg, screwe formation. CO to & MV string at 5713 08/2022 Trip & LD	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 3287', 3294'-3307', 3311 al 7.5% HCL. Frac w/ 9 nk gel in 70Q N2 foam.  MD 2588' 3090' 3266'  npletion. Perf'd & stim'd lete. Backed off 5-1/2" c ed into csg stub at 3547 5859', had 1/2" pieces c i'. Set 1-1/2" PC etsing a PC tbg string. Work PC	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee Point Lookout  MV formation. Set 2-3/8 rsg, pulled 113 jts & 15' T, TOL at 3511'. Perf'd 8 for shale & sand. Set pkr t 3324'.	6" holes. 8,396 gal MD 5387' 5438' 5658' 5658' 8" tbg at 5692'. cutoff. Ran new a stim'd the PC & landed 1-1/2"
1955- U MV: (5406 5406'-28', 4 SPF & Frac w/ 20,000# 2 1994- PC: (3272'-3 Acidize w/ 1000 g of 30# borate x-lin  Formations: Kirtland- Pictured Cliffs-  Additional Notes: 08/1955 Initial com 08/1994 Re-compl 5-1/2" csg, screwe formation. CO to & MV string at 5713 08/2022 Trip & LD	& 5446'-5689', 2 SPF. A 20/40 sand in 20,000 ga 1287', 3294'-3307', 3311 1217.5% HCL. Frac w/ 9. 1288' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 1298' 3090' 3266' 32	cidize w/ 500 gal acid. I fluid. '-3327'). 1 SPF, 47, 0.3 8,300# 20/40 mesh in 1  Cliff House Menefee Point Lookout  MV formation. Set 2-3/8 rsg, pulled 113 jts & 15' T, TOL at 3511'. Perf'd 8 for shale & sand. Set pkr t 3324'.	6" holes. 8,396 gal MD 5387' 5438' 5658' 5658' 8" tbg at 5692'. cutoff. Ran new a stim'd the PC & landed 1-1/2" ed pkr at 4000'.



# **Proposed Wellbore Schematic**

Well Name:	Rosa Unit 8		
Location:	M-26-31N-06W	1100' FSL & 900' FWL	
County:	Rio Arriba, NM		
API#:	30-039-07944		
Co-ordinates:	Lat 36.8664055, Lo	ng -107.4381256	
Elevations:	GROUND:	6429'	
	KB:	6440'	
Depths (KB):	PBTD:	5865'	
	TD·	5865'	

 Date Prepared:
 7/22/2022 Moss

 Reviewed By:
 7/25/2022 Gomez

 Last Updated:
 10/24/2022 Moss

 Spud Date:
 7/2/1955

 Completion Date:
 8/23/1955

 Last Workover Date:
 8/4/2022

	TD:	5865'		
VERTICAL WELLBORE				
			ole Size	
Surface Casina	I I I			
Surface Casing			13-3/4"	
10-3/4, 32.75#, H-40			0-240'	
7 jts set at 235'	1 1 1			
102 sx 235'	-	TOC at sur	face (circ)	
Circ to surface			, ,	
One to surface			0.7/0"	
			9-7/8"	
			240'-3626'	
			6-3/4"	
			3626'-5865'	
Intermediate Casing				
7-5/8", 26.4#, J-55		TOC at 20	50' (CBL)	
87 jts set at 3625'			(- /	
-				
200 sx				
TOC at 2050' (CBL)				
	0	O PC: 3272'-	-3287'	
		0		
			00071	
	0	O PC: 3294'-	.3307	
	0	O PC: 3311'-	-3327'	
	$\Box$	0 . 5. 55	002.	
		TOL at 35	11'	
		102 41 00	• •	
	4			
36	325'	TOC at 2050'	(calc)	
			` '	
Draduction Lines				
Production Liner:				
5-1/2", 14#, J-55				
183 jts set at 5712'				
TOL at 3511'				
100 sx				
TOC at 4490' (calc)		TOC at 4626'	(calc)	
<u>Tubing</u>				
2-3/8" 4.7# J-55	0	o U MV: 5406'-5	428'	
115 jts	<u> </u>	∣ <b>∣ Ľ</b>		
•		HILMY, 5446' 5	100'	
SN at 5668'	О	o <b>U MV</b> : 5446'-5	400	
EOT at 5700'				
	О	o U MV: 5548'-5	562'	
	<u> </u>	∣ <b>∣ Ľ</b>		
	О	o <b>U MV</b> : 5574'-5	598	
		U MV: 5610'-5	636'	
		<b>II I</b>		
	О	o <b>U MV</b> : 5656'-5	689'	
	·	' [		
	-74017	TOO : 1 4000! (	-1-1	
÷	5712'/	( TOC at 4626' (ca		
	\	<b>L MV</b> : 5712'-5	865'	
Last tag: 5859' (19	994) /	Open Hole	;	
93 (	′ (	\		
	DDTD	- 5865'		
	ID-	5865'		

Suuface Casimer /	07/02/4055\		
Surface Casing: (	U//U3/1955)	ot 7 ito 10 0/4" 20 75"	LI 40 and =+ 005!
Omtid w/ 102 av 4	Inace note to 240°. S	et 7 jts, 10-3/4", 32.75#	, H-40 csg at 235°.
CITILU W/ 102 SX 4	l% gel (158 cu ft). Ci	ic to surface.	
Intermediate Casi	na: (07/30/1055)		
Drilled a 9-7/8" inte	ermediate hole to 362	26'. Set 87 jts 7-5/8", 26	4# J-55 csg at 3625'
		neat cmt. (347 cu ft).	, o oo oog at oozo
TOC at 2050' per		(0.17 04 11).	
	().		
Production Liner:	(08/16/1955)		
Drilled a 6-3/4" pro	duction hole to 5712	'. Set 183 jts 5-1/2", 14#	<sup>‡</sup> , J-55 csg at 5712'.
Cmt'd w/ 100 sx 2	2% gel (136 cu ft). TO	DC at 4626' per calc. DC	D past cmt to 5865',
4-3/4" open hole l			
<b>1994</b> - Ran free-poi	nt calc & backed off	csg at ~3542', pulled 11	3 jts & 15' cutoff. Rar
1 new 5-1/2" csg	it & screwed into csg	stub at 3547' & set line	r hanger at 3511'.
Tubing:		Length (f	•
KB			11
(115) 2-3/8" 4.7#, 3	I-55 tbg jts		5657
(1) SN			1
(1) 2-3/8" MS MA			31
		Sot at:	5700 ft
Dada		Set at:	5700 ft
Rods:	shod rod w/ 1 1/2" v	10' linor	22
	shed rod w/ 1-1/2" x		
(81) 7/8" plain rods			2025
(137) 3/4" plain rod			3425
(2) 3/4" x 8' plain p (8) 1-1/4" sinker ba			16 200
(1) 21k shear tool	IIS		1
(1) 3/4" x 8' guided	nony rode		8
(1) 2" x 1-1/2" x 16			16
(1) Z X 1-1/2 X 10	1111110 pamp		10
Pumping Unit:			
	6, 86" stroke length		
Perforations:			
1955- L MV: (5712	'-5865') Open hole. I	Frac w/ 20,000# 20/40 s	and in 20,000 gal
fluid.			
		3-62', 5574'-98', 5610'-3	
		Acidize w/ 500 gal ac	id.
Frac w/ 20,000# 2	20/40 sand in 20,000	gal fluid.	
1994 <b>- PC</b> : (3272'-3	287', 3294'-3307', 33	311'-3327'). 1 SPF, 47,	0.36" holes.
		v/ 98,300# 20/40 mesh i	n 18,396 gal
ot 30# borate x-lir	nk gel in 70Q N2 foar	m.	
	MD		MD
Formations:	MD	Olite	MD
Kirtland-	2588'	Cliff House	5387'
Fruitland-	3090'	Menefee	5438'
Pictured Cliffs-	3266'	Point Lookou	ıt 5658'
Additional Nat			
Additional Notes:			0/01/414-50001
		n'd MV formation. Set 2	
		2" csg, pulled 113 jts &	
		547', TOL at 3511'. Perf	
		es of shale & sand. Set p	okr & landed 1-1/2"
iviv string at 5/13	". Set 1-1/2" PC strin	ıy aı 3324 .	

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**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

CONDITIONS

Action 153805

# **CONDITIONS**

Operator:	OGRID:
LOGOS OPERATING, LLC	289408
2010 Afton Place	Action Number:
Farmington, NM 87401	153805
	Action Type:
	[C-107] Down Hole Commingle (C-107A)

#### CONDITIONS

Created By	Condition	Condition Date
dmcclure	If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Permit shall terminate on the date of such action.	10/27/2022
dmcclure	If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.	10/27/2022
dmcclure	If a completed interval of the Well is altered from what is submitted within this application, then no later than sixty (60) days after the alteration, the Operator shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.	10/27/2022