

Office

District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM
 87505

State of New Mexico
 Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

DHC-5281

Form C-103

Revised July 18, 2013

WELL API NO. 30-039-25515	
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No. NMSF078773	
7. Lease Name or Unit Agreement Name ROSA UNIT	
8. Well Number 77A	
9. OGRID Number 289408	
10. Pool name or Wildcat BLANCO MESAVERDE / BASIN DAKOTA	
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 PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other	
2. Name of Operator LOGOS OPERATING, LLC	
3. Address of Operator 2010 AFTON PLACE, FARMINGTON NM 87401	
4. Well Location Unit Letter <u>I</u> : <u>1575'</u> feet from the <u>SOUTH</u> line and <u>1170'</u> feet from the <u>EAST</u> line Section <u>33</u> <u>31N</u> Township <u>05W</u> Range <u>NMPM</u> Rio Arriba County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6503'	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input checked="" type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Pre-approved Pool Division Order R-11363.

Pools to be commingled: Blanco Mesaverde (72319) and Basin Dakota (71599).

Perforated Intervals:

Blanco Mesaverde: 5541' - 6016'

Basin Dakota: 7995' - 8121'

Fixed percentage allocation based upon production data 24% Blanco Mesaverde and 76% Basin Dakota. This is based upon the historic production of both the Mesaverde and Dakota production zones within the well.

Commingling will not reduce the value of reserves.

Interest owners in the spacing unit have not been notified of the intent of the downhole commingle per order R-12991. BLM has been notified on sundry notice form 3160-5 attached.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Etta Trujillo TITLE Regulatory Specialist DATE 2/7/2023

Type or print name Etta Trujillo E-mail address: etrujillo@logosresourcesllc.com PHONE: (505) 324-4154

For State Use Only

APPROVED BY: Dean R McClure TITLE Petroleum Engineer DATE 02/24/2023

Conditions of Approval (if any):

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.

Prior to conducting work, submit a NOI as a C-103G.

Well Name: ROSA UNIT	Well Location: T31N / R5W / SEC 33 / NESE / 36.85388 / -107.36125	County or Parish/State: RIO ARRIBA / NM
Well Number: 77A	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF078773	Unit or CA Name: ROSA UNIT--DK, ROSA UNIT--MV	Unit or CA Number: NMNM78407A, NMNM78407B
US Well Number: 3003925515	Well Status: Producing Gas Well	Operator: LOGOS OPERATING LLC

Notice of Intent

Sundry ID: 2714348

Type of Submission: Notice of Intent	Type of Action: Commingling (Subsurface)
Date Sundry Submitted: 02/06/2023	Time Sundry Submitted: 03:37
Date proposed operation will begin: 04/01/2023	

Procedure Description: LOGOS Operating, LLC requests permission to downhole commingle subject well with the existing Blanco Mesaverde and Basin Dakota formations. Attached is the downhole commingle procedure and allocation. The DHC application will be submitted and approved before work proceeds.

NOI Attachments

Conditions of Approval

Specialist Review

2714348_DHC_77A_3003925515_KR_02072023_20230207135530.pdf

Received by OCD: 2/7/2023 3:13:17 PM

Page 4 of 11

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US Well Number: 3003925515	Well Status: Producing Gas Well	Operator: LOGOS OPERATING LLC

Operator

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: FEB 06, 2023 03:36 PM

Name: LOGOS OPERATING LLC

Title: Regulatory Specialist

Street Address: 2010 AFTON PLACE

City: FarmingtonState: 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: 02/07/2023

Signature: Kenneth Rennick



DOWNHOLE COMMINGLE PROCEDURE AND ALLOCATION-NMOCD (2023)

Rosa Unit 77A
30-039-25515
1575' FSL & 1170' FEL
Section 33, T31N, R05W
Rio Arriba, New Mexico
LAT: 36.8531685° N LONG: -107.3625946° W
Mesaverde/Dakota

PROJECT OBJECTIVE:

Remove packer and downhole commingle Mesaverde and Dakota.

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. Lay flow lines. Check and record casing and tubing pressures. Sell pressure down to line. Kill well as necessary.
3. Nipple down wellhead and nipple up BOP.
4. Release Mesaverde tubing string. Trip out of hole with Mesaverde tubing string and lay down.
5. Release Dakota tubing string. Trip out of hole with Dakota tubing string and lay down.
6. Run in hole with packer plucker to retrieve Model D Packer at 6107'. Trip out of hole with packer plucker assembly and string.
7. Run in hole with single 2-3/8" production tubing string.
8. Return to production as a Mesaverde/Dakota commingle.

PRODUCTION ALLOCATION

Historic production data from both zones in this well was gathered and analyzed. Cumulative production was used to determine allocations and allocations were verified with recent production history.

Cumulative Production

Cumulative production from well	291.3 MMcf
Cumulative MV production	69.4 MMcf
Cumulative DK production	221.9 MMcf

MV allocation = MV cumulative/total cumulative = $69.4/291.3 = 24\%$

DK allocation = DK cumulative /total cumulative = $221.9/291.3 = 76\%$

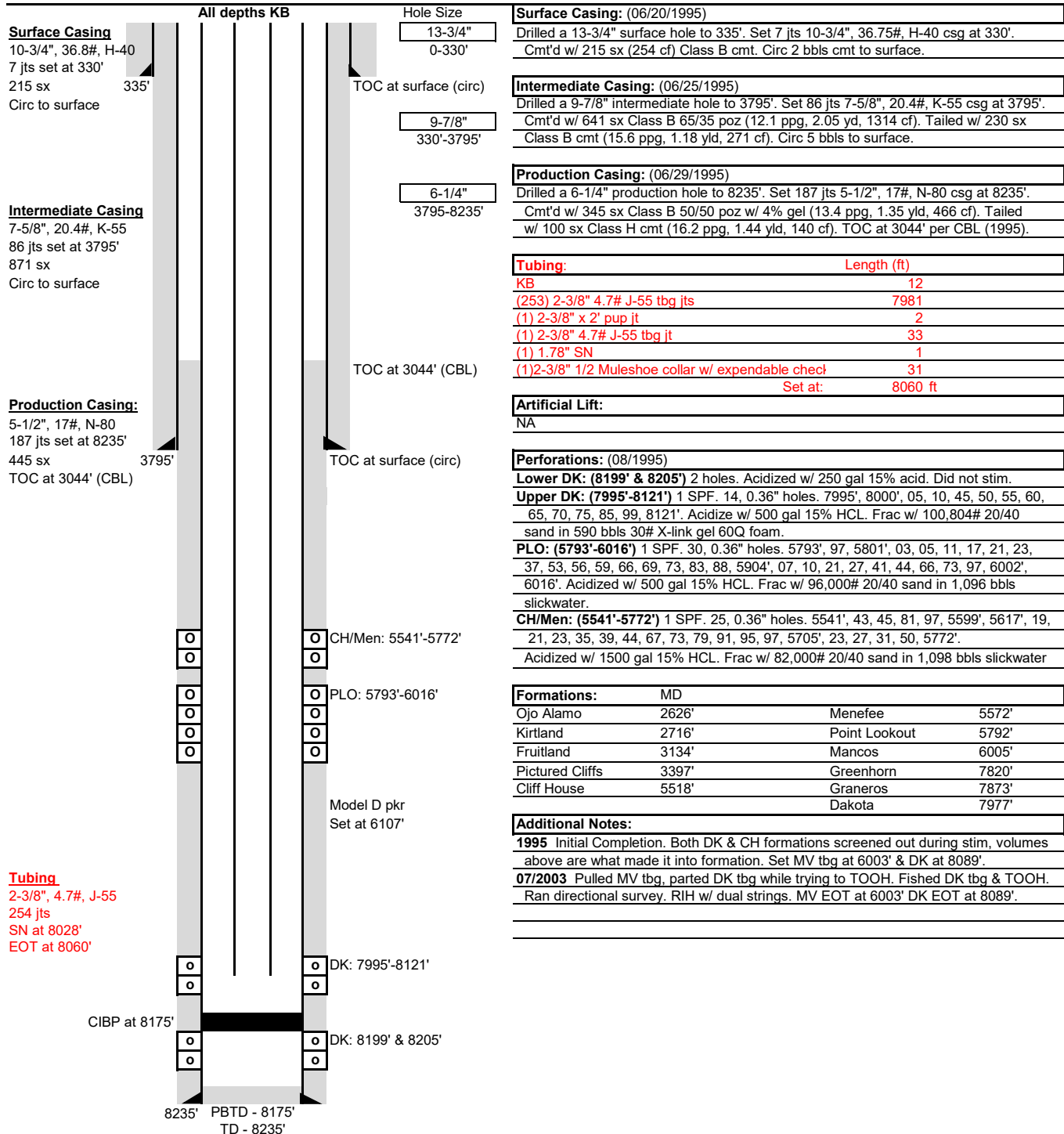


Wellbore Schematic

Well Name: Rosa Unit 77A
 Location: I-33-31N-05W 1575' FSL & 1170' FEL
 County: Rio Arriba, NM
 API #: 30-039-25515
 Co-ordinates: Lat 36.8531685, Long -107.3625946 NAD1983
 Elevations: GROUND: 6503'
 KB: 6515'
 Depths (KB): PBDT: 8175'
 TD: 8235'

Date Prepared: 12/15/2022 Moss
 Reviewed By: 1/11/2023 Peace
 Last Updated: 1/31/2023 Peace
 Spud Date: 6/19/1995
 Completion Date: 9/7/1995
 Last Workover Date: 7/17/2003

PROPOSED WELLBORE SCHEMATIC



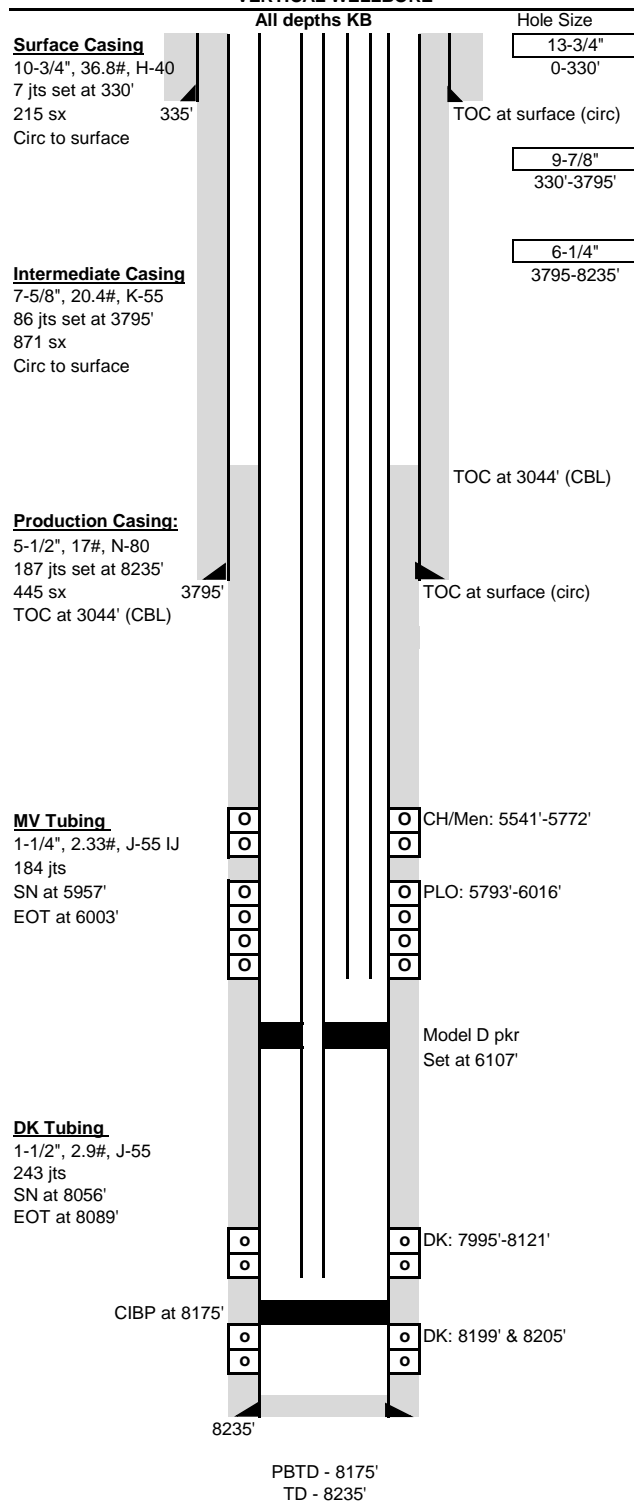


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VERTICAL WELLBORE



Surface Casing: (06/20/1995)
 Drilled a 13-3/4" surface hole to 335'. Set 7 jts 10-3/4", 36.75#, H-40 csg at 330'.
 Cmt'd w/ 215 sx (254 cf) Class B cmt. Circ 2 bbls cmt to surface.

Intermediate Casing: (06/25/1995)
 Drilled a 9-7/8" intermediate hole to 3795'. Set 86 jts 7-5/8", 20.4#, K-55 csg at 3795'.
 Cmt'd w/ 641 sx Class B 65/35 poz (12.1 ppg, 2.05 yd, 1314 cf). Tailed w/ 230 sx
 Class B cmt (15.6 ppg, 1.18 yld, 271 cf). Circ 5 bbls to surface.

Production Casing: (06/29/1995)
 Drilled a 6-1/4" production hole to 8235'. Set 187 jts 5-1/2", 17#, N-80 csg at 8235'.
 Cmt'd w/ 345 sx Class B 50/50 poz w/ 4% gel (13.4 ppg, 1.35 yld, 466 cf). Tailed
 w/ 100 sx Class H cmt (16.2 ppg, 1.44 yld, 140 cf). TOC at 3044' per CBL (1995).

MV Tubing: (07/2003)	Length (ft)
KB	12
(183) 1-1/4" 2.33# J-55 IJ tbj jts	5946
(1) 1.065" SN at 5957'	1
(1) 1-1/4" 2.33# J-55 IJ tbj jt	33
(1) 1-1/4" perf sub	7
(1) 1-1/4" orange peel sub	5
Set at:	6003 ft

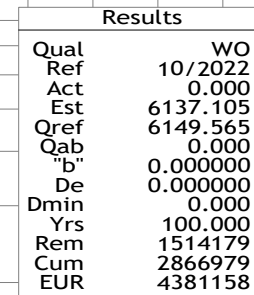
DK Tubing: (07/2003)	Length (ft)
KB	12
(1) 1-1/2" 2.9# J-55 EUE tbj jt	33
(2) 2-1/16" pup jts	9
(183) 1-1/2" 2.9# J-55 EUE tbj jt	6052
(1) Seal Assembly at 6107'	8
(59) 1-1/2" 2.9# J-55 EUE tbj jt	1942
(1) 1.375" SN at 8056'	1
(1) 1-1/2" 2.9# J-55 EUE tbj jt w/ MS end	32
Set at:	8089 ft

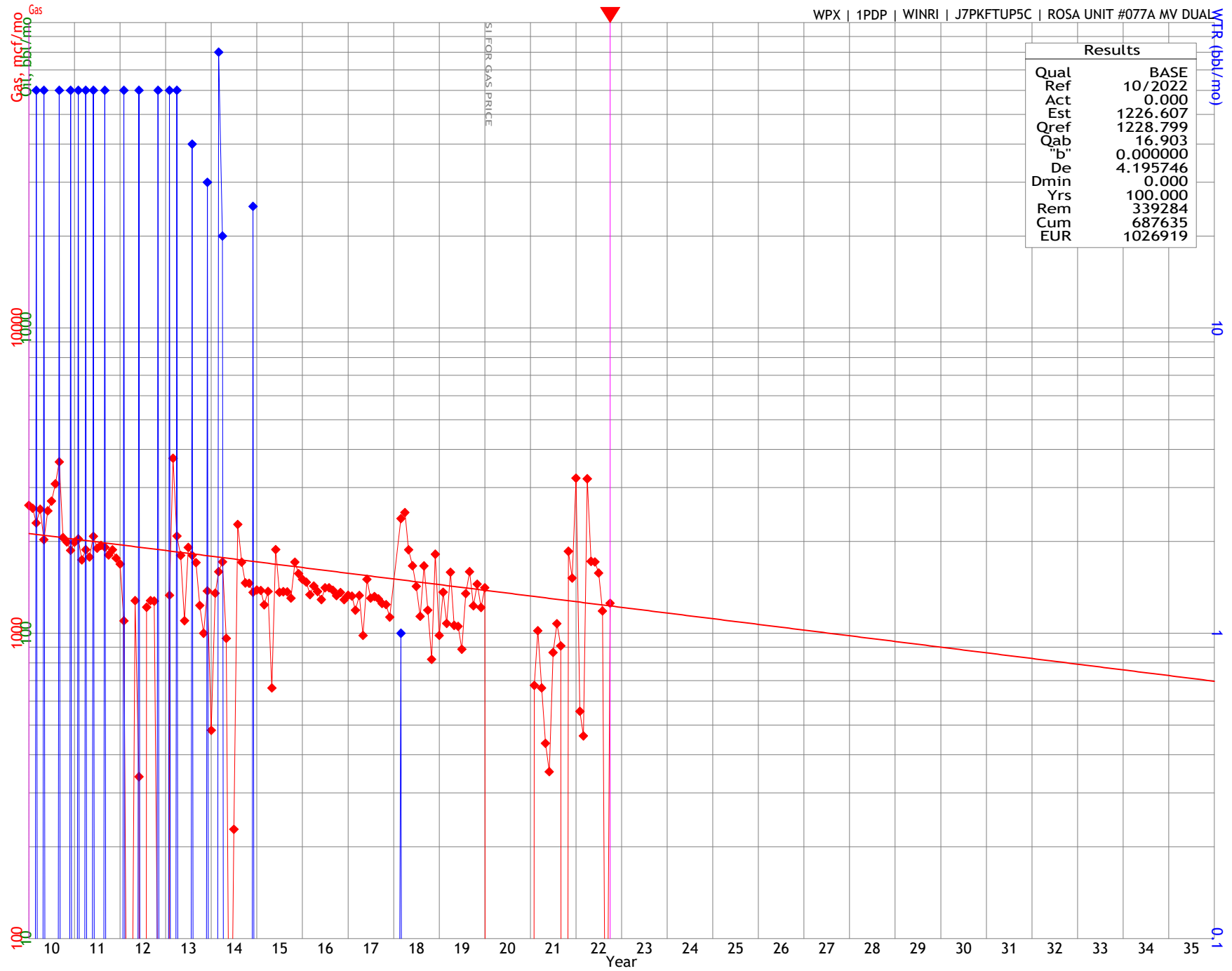
Artificial Lift:
 NA

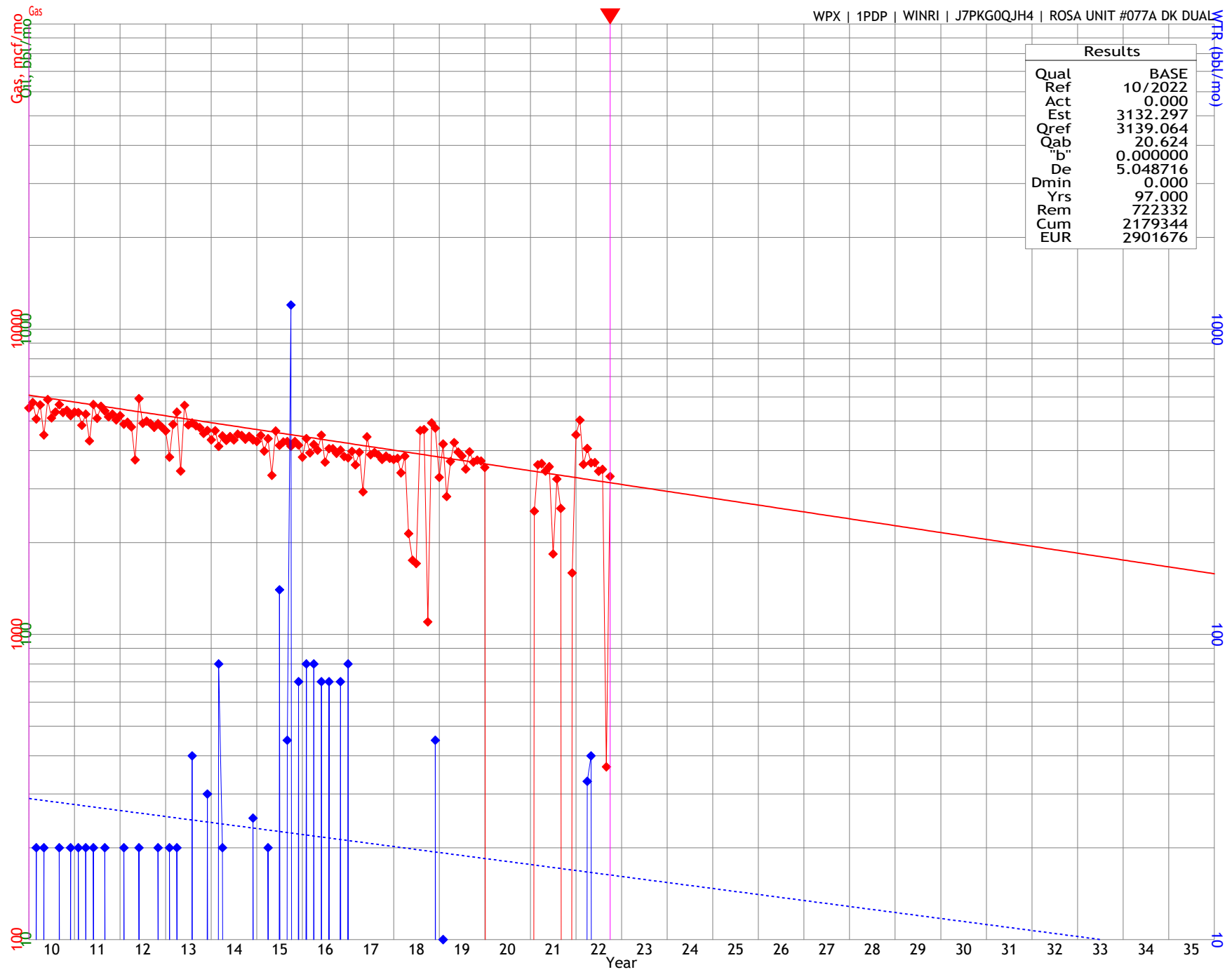
Perforations: (08/1995)
Lower DK: (8199' & 8205') 2 holes. Acidized w/ 250 gal 15% acid. Did not stim.
Upper DK: (7995'-8121') 1 SPF. 14, 0.36" holes. 7995', 8000', 05, 10, 45, 50, 55, 60, 65, 70, 75, 85, 99, 8121'. Acidize w/ 500 gal 15% HCL. Frac w/ 100,804# 20/40 sand in 590 bbls 30# X-link gel 60Q foam.
PLO: (5793'-6016') 1 SPF. 30, 0.36" holes. 5793', 97, 5801', 03, 05, 11, 17, 21, 23, 37, 53, 56, 59, 66, 69, 73, 83, 88, 5904', 07, 10, 21, 27, 41, 44, 66, 73, 97, 6002', 6016'. Acidized w/ 500 gal 15% HCL. Frac w/ 96,000# 20/40 sand in 1,096 bbls slickwater.
CH/Men: (5541'-5772') 1 SPF. 25, 0.36" holes. 5541', 43, 45, 81, 97, 5599', 5617', 19, 21, 23, 35, 39, 44, 67, 73, 79, 91, 95, 97, 5705', 23, 27, 31, 50, 5772'. Acidized w/ 1500 gal 15% HCL. Frac w/ 82,000# 20/40 sand in 1,098 bbls slickwater

Formations:	MD	
Ojo Alamo	2626'	Menefee 5572'
Kirtland	2716'	Point Lookout 5792'
Fruitland	3134'	Mancos 6005'
Pictured Cliffs	3397'	Greenhorn 7820'
Cliff House	5518'	Graneros 7873'
		Dakota 7977'

Additional Notes:
 1995 Initial Completion. Both DK & CH formations screened out during stim, volumes above are what made it into formation. Set MV tbj at 6003' & DK at 8089'.
 07/2003 Pulled MV tbj, parted DK tbj while trying to TOOH. Fished DK tbj & TOOH.
 Ran directional survey. RIH w/ dual strings. MV EOT at 6003' DK EOT at 8089'.







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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

CONDITIONS

Action 183798

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 183798
	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.	2/24/2023
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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.	2/24/2023
dmcclure	Prior to conducting work, submit a NOI as a C-103G.	2/24/2023