

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

Form C-101  
August 1, 2011

Permit 407599

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address Avant Operating II, LLC 1515 Wynkoop Street Denver, CO 80202		2. OGRID Number 332947
		3. API Number 30-015-57753
4. Property Code 338802	5. Property Name CASINO QUEEN 2 3 STATE COM	
		6. Well No. 501H

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
P	2	24S	26E		1240	S	460	E	Eddy

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
O	3	24S	26E	O	330	S	2553	E	Eddy

**9. Pool Information**

WC-015 G-04 S232628M;BONE SPRING	98056
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3281
16. Multiple N	17. Proposed Depth 14698	18. Formation 2nd Bone Spring Sand	19. Contractor	20. Spud Date 4/1/2026
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	14.75	10.75	40.5	537	310	0
Int1	9.875	8.625	32	1961	280	0
Prod	7.875	5.5	20	14698	1785	0

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Pipe	10000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.  Signature:	<b>OIL CONSERVATION DIVISION</b>
Printed Name: Electronically filed by Sarah Ferreyros	Approved By: Jeffrey Harrison
Title: Director of Regulatory	Title: Petroleum Specialist III
Email Address: sarah@avantnr.com	Approved Date: 1/30/2026      Expiration Date: 1/30/2028
Date: 1/21/2026      Phone: 720-854-9020	Conditions of Approval Attached

<b>C-102</b> Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department <b>OIL CONSERVATION DIVISION</b>		Revised July 9, 2024	
			Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
				<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled		

**WELL LOCATION INFORMATION**

API Number <b>30-015-57753</b>	Pool Code <b>98056</b>	Pool Name <b>WC-015 G-04 S232628M;BONE SPRING</b>
Property Code <b>338802</b>	Property Name <b>CASINO QUEEN 2 3 STATE COM</b>	Well Number <b>#501H</b>
OGRID No. <b>332947</b>	Operator Name <b>AVANT OPERATING II, LLC</b>	Ground Level Elevation <b>3281'</b>
Surface Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

**Surface Location**

UL <b>P</b>	Section <b>2</b>	Township <b>24 S</b>	Range <b>26 E</b>	Lot	Ft. from N/S <b>1240' FSL</b>	Ft. from E/W <b>460' FEL</b>	Latitude <b>32.242643°</b>	Longitude <b>-104.256745°</b>	County <b>EDDY</b>
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**Bottom Hole Location**

UL <b>O</b>	Section <b>3</b>	Township <b>24 S</b>	Range <b>26 E</b>	Lot	Ft. from N/S <b>330' FSL</b>	Ft. from E/W <b>2553' FEL</b>	Latitude <b>32.240335°</b>	Longitude <b>-104.280758°</b>	County <b>EDDY</b>
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Dedicated Acres <b>480.00</b>	Infill or Defining Well <b>Defining</b>	Defining Well API <b>n/a</b>	Overlapping Spacing Unit (Y/N) <b>No</b>	Consolidation Code <b>n/a</b>
Order Numbers. <b>n/a</b>			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

**Kick Off Point (KOP)**

UL <b>P</b>	Section <b>2</b>	Township <b>24 S</b>	Range <b>26 E</b>	Lot	Ft. from N/S <b>1240' FSL</b>	Ft. from E/W <b>460' FEL</b>	Latitude <b>32.242643°</b>	Longitude <b>-104.256745°</b>	County <b>EDDY</b>
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**First Take Point (FTP)**

UL <b>P</b>	Section <b>2</b>	Township <b>24 S</b>	Range <b>26 E</b>	Lot	Ft. from N/S <b>330' FSL</b>	Ft. from E/W <b>100' FEL</b>	Latitude <b>32.240132°</b>	Longitude <b>-104.255609°</b>	County <b>EDDY</b>
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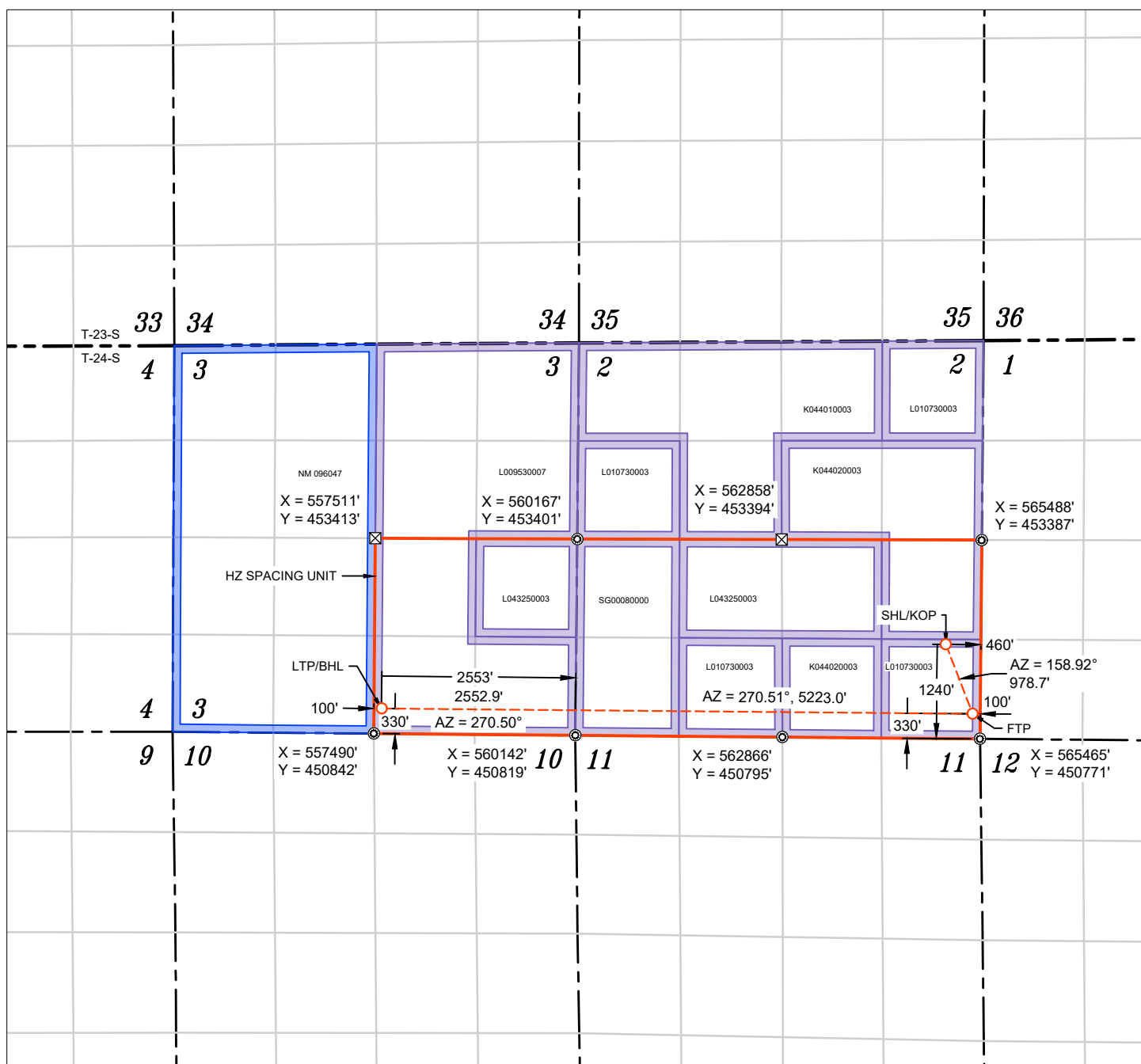
**Last Take Point (LTP)**

UL <b>O</b>	Section <b>3</b>	Township <b>24 S</b>	Range <b>26 E</b>	Lot	Ft. from N/S <b>330' FSL</b>	Ft. from E/W <b>2553' FEL</b>	Latitude <b>32.240335°</b>	Longitude <b>-104.280758°</b>	County <b>EDDY</b>
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Unitized Area or Area of Uniform Interest <b>No</b>	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: <b>3281'</b>
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<b>OPERATOR CERTIFICATIONS</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>  <i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>   <b>1/16/2026</b>		<b>SURVEYOR CERTIFICATIONS</b> <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>   <b>6 Jan 2026</b>	
Signature <b>Sarah Ferreyros</b>		Signature and Seal of Professional Surveyor 	
Printed Name <b>sarah@avantnr.com</b>		Certificate Number <b>21209</b>	
Email Address <b>sarah@avantnr.com</b>		Date of Survey <b>JANUARY 6, 2026</b>	

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



WELL NAME: CASINO QUEEN 2 3 STATE COM #501H  
ELEVATION: 3281'

<b>NAD 83 (SHL/KOP) 1240' FSL &amp; 460' FEL</b>
LATITUDE = 32.242643°
LONGITUDE = -104.256745°
<b>NAD 27 (SHL/KOP)</b>
LATITUDE = 32.242524°
LONGITUDE = -104.256243°
<b>STATE PLANE NAD 83 (N.M. EAST)</b>
N: 452015.44' E: 565016.09'
<b>STATE PLANE NAD 27 (N.M. EAST)</b>
N: 451957.20' E: 523834.48'

<b>NAD 83 (FTP) 330' FSL &amp; 100' FEL</b>
LATITUDE = 32.240132°
LONGITUDE = -104.255609°
<b>NAD 27 (FTP)</b>
LATITUDE = 32.240013°
LONGITUDE = -104.255107°
<b>STATE PLANE NAD 83 (N.M. EAST)</b>
N: 451102.26' E: 565368.07'
<b>STATE PLANE NAD 27 (N.M. EAST)</b>
N: 451044.04' E: 524186.43'

<b>NAD 83 (LTP/BHL) 330' FSL &amp; 2553' FEL</b>
LATITUDE = 32.240335°
LONGITUDE = -104.280758°
<b>NAD 27 (LTP/BHL)</b>
LATITUDE = 32.240216°
LONGITUDE = -104.280255°
<b>STATE PLANE NAD 83 (N.M. EAST)</b>
N: 451171.25' E: 557592.48'
<b>STATE PLANE NAD 27 (N.M. EAST)</b>
N: 451113.17' E: 516410.96'

APPROXIMATE WELL BORE DISTANCE FROM FTP TO LTP/BHL	
L010730003	1201.69'
K044020003	1301.70'
L010730003	1359.81'
SG00080000	1359.79'
L009530007	2552.88'
TOTAL	7775.87'

## NOTES

1. ALL COORDINATES, BEARINGS, AND DISTANCES CONTAINED HEREIN ARE GRID, BASED UPON THE NEW MEXICO STATE PLANE COORDINATES SYSTEM, NORTH AMERICAN DATUM 83. NEW MEXICO EAST (3001).

2. THIS DOCUMENT IS BASED UPON AN ON THE GROUND SURVEY PERFORMED DURING DECEMBER, 2025. CERTIFICATION OF THIS DOCUMENT IS ONLY TO THE LOCATION OF THIS INFORMATION IN RELATION TO RECORDED MONUMENT OF DEEDS PROVIDED BY THE CLIENT.

3. ELEVATIONS MSL, DERIVED FROM G.N.S.S. OBSERVATION AND DERIVED FROM SAID ON-THE-GROUND SURVEY.

 FOUND MONUMENT

 CALC. CORNER

○ SHL / KOP / FTP / PPP / LTP / BHL

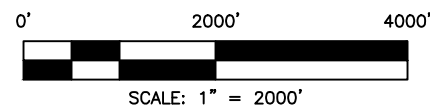
--- WELLBORE

 HORIZONTAL SPACING UNIT

STATE OIL &amp; GAS LEASE

BLM OIL &amp; GAS LEASE

DATE: 01/03/2018



SCALE: 1" = 2000'

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Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

Form APD Comments  
Permit 407599

PERMIT COMMENTS

Operator Name and Address: Avant Operating II, LLC [332947] 1515 Wynkoop Street Denver, CO 80202		API Number: 30-015-57753
		Well: CASINO QUEEN 2 3 STATE COM #501H
Created By	Comment	Comment Date
jeffrey.harrison	Submitted as defining well.	1/30/2026

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

Form APD Conditions

Permit 407599

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: Avant Operating II, LLC [332947] 1515 Wynkoop Street Denver, CO 80202	API Number: 30-015-57753
	Well: CASINO QUEEN 2 3 STATE COM #501H

OCD Reviewer	Condition
jeffrey.harrison	NSL required if FTP or LTP is less than 100' from spacing unit boundary parallel to the trajectory of the well.
jeffrey.harrison	NSP required if not included in an existing order or not an infill to an appropriate defining well in the same pool and spacing unit.
jeffrey.harrison	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.
jeffrey.harrison	Cement is required to circulate on both surface and intermediate1 strings of casing.
jeffrey.harrison	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.
jeffrey.harrison	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.
jeffrey.harrison	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
jeffrey.harrison	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.

**WELL DETAILS: Casino Queen 2 3 State Com #501H**

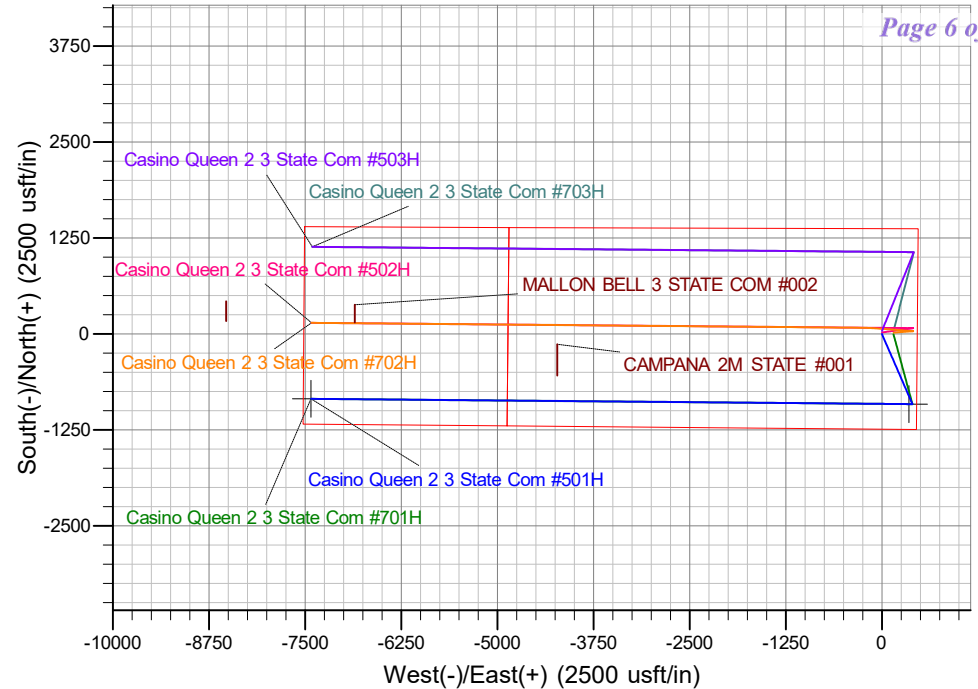
Ground Elev: 3281.0 KB: 3306

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	452015.44	565016.09	32.242643	-104.256745

**PROJECT DETAILS: Eddy County, NM (NAD 83)**

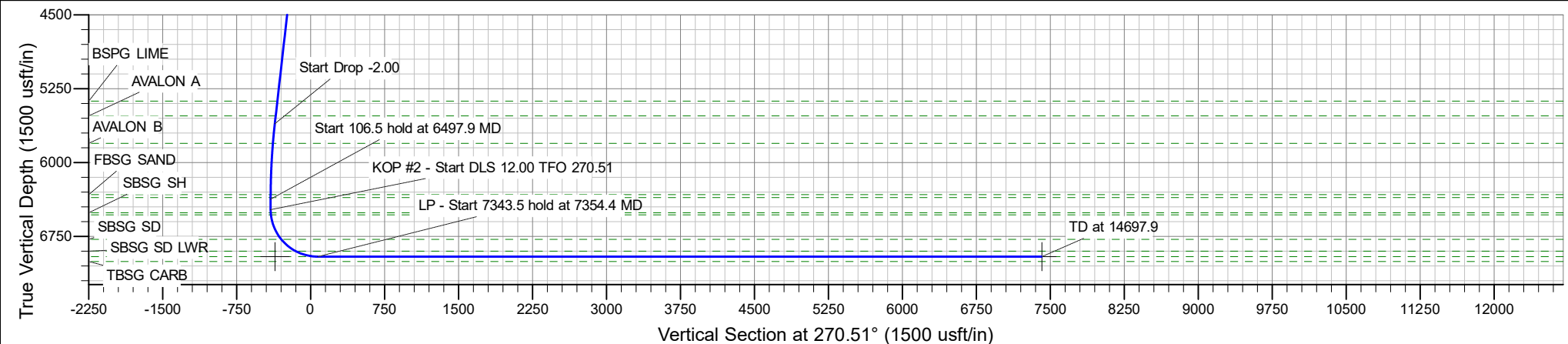
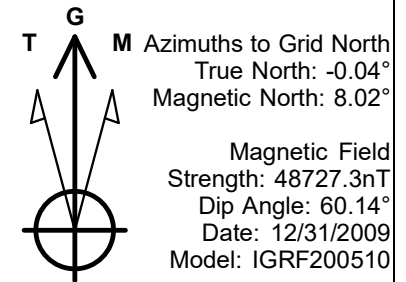
Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level



**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 2.00
3	2774.6	15.49	156.50	2765.2	-95.4	41.5	2.00	156.50	-42.3	Start 2948.8 hold at 2774.6 MD
4	5723.4	15.49	156.50	5606.8	-817.7	355.5	0.00	0.00	-362.8	Start Drop -2.00
5	6497.9	0.00	0.00	6372.0	-913.2	397.0	2.00	180.00	-405.1	Start 106.5 hold at 6497.9 MD
6	6604.4	0.00	0.00	6478.5	-913.2	397.0	0.00	0.00	-405.1	KOP #2 - Start DLS 12.00 TFO 270.51
7	7354.4	90.00	270.51	6956.0	-909.0	-80.4	12.00	270.51	72.3	LP - Start 7343.5 hold at 7354.4 MD
8	14697.9	90.00	270.51	6956.0	-844.2	-7423.6	0.00	0.00	7415.8	TD at 14697.9



# **Avant Operating II, LLC**

**Eddy County, NM (NAD 83)**

**Casino Queen 2 3 State Com Pad 1**

**Casino Queen 2 3 State Com #501H**

**OH**

**Plan: Plan 0.1**

## **Standard Planning Report**

**14 January, 2026**

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Casino Queen 2 3 State Com #501H
<b>Company:</b>	Avant Operating II, LLC	<b>TVD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Project:</b>	Eddy County, NM (NAD 83)	<b>MD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Site:</b>	Casino Queen 2 3 State Com Pad 1	<b>North Reference:</b>	Grid
<b>Well:</b>	Casino Queen 2 3 State Com #501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 0.1		

<b>Project</b>	Eddy County, NM (NAD 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

Site	Casino Queen 2 3 State Com Pad 1				
Site Position:		Northing:	452,015.44 usft	Latitude:	32.242643
From:	Map	Easting:	565,016.09 usft	Longitude:	-104.256746
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	Casino Queen 2 3 State Com #501H					
Well Position	+N/-S	0.0 usft	Northing:	452,015.44 usft	Latitude:	32.242643
	+E/-W	0.0 usft	Easting:	565,016.09 usft	Longitude:	-104.256746
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,281.0 usft
Grid Convergence:		0.04 °				

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	12/31/2009	8.06	60.14	48,727.34882897

<b>Design</b>	Plan 0.1				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	270.51	

<b>Plan Survey Tool Program</b>	<b>Date</b>	1/14/2026			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	14,697.9 Plan 0.1 (OH)	B001Mb_MWD+HRGM		
			OWSG MWD + HRGM		

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,774.6	15.49	156.50	2,765.2	-95.4	41.5	2.00	2.00	0.00	156.50	
5,723.4	15.49	156.50	5,606.8	-817.7	355.5	0.00	0.00	0.00	0.00	
6,497.9	0.00	0.00	6,372.0	-913.2	397.0	2.00	-2.00	0.00	180.00	
6,604.4	0.00	0.00	6,478.5	-913.2	397.0	0.00	0.00	0.00	0.00	
7,354.4	90.00	270.51	6,956.0	-909.0	-80.4	12.00	12.00	-11.93	270.51	
14,697.9	90.00	270.51	6,956.0	-844.2	-7,423.6	0.00	0.00	0.00	0.00	LTP/BHL - Casino Qu



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Casino Queen 2 3 State Com #501H
<b>Company:</b>	Avant Operating II, LLC	<b>TVD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Project:</b>	Eddy County, NM (NAD 83)	<b>MD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Site:</b>	Casino Queen 2 3 State Com Pad 1	<b>North Reference:</b>	Grid
<b>Well:</b>	Casino Queen 2 3 State Com #501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
487.0	0.00	0.00	487.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>RUSTLER</b>									
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
836.0	0.00	0.00	836.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>SOLADO</b>									
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,766.0	0.00	0.00	1,766.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>BASE OF SALT/ LMAR</b>									
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP - Start Build 2.00</b>									
2,011.0	0.22	156.50	2,011.0	0.0	0.0	0.0	2.00	2.00	0.00
<b>BELL CANYON / DELAWARE SANDS</b>									
2,100.0	2.00	156.50	2,100.0	-1.6	0.7	-0.7	2.00	2.00	0.00
2,200.0	4.00	156.50	2,199.8	-6.4	2.8	-2.8	2.00	2.00	0.00
2,300.0	6.00	156.50	2,299.5	-14.4	6.3	-6.4	2.00	2.00	0.00
2,400.0	8.00	156.50	2,398.7	-25.6	11.1	-11.3	2.00	2.00	0.00
2,500.0	10.00	156.50	2,497.5	-39.9	17.4	-17.7	2.00	2.00	0.00
2,600.0	12.00	156.50	2,595.6	-57.4	25.0	-25.5	2.00	2.00	0.00
2,700.0	14.00	156.50	2,693.1	-78.0	33.9	-34.6	2.00	2.00	0.00
2,774.6	15.49	156.50	2,765.2	-95.4	41.5	-42.3	2.00	2.00	0.00
<b>Start 2948.8 hold at 2774.6 MD</b>									
2,800.0	15.49	156.50	2,789.7	-101.7	44.2	-45.1	0.00	0.00	0.00
2,900.0	15.49	156.50	2,886.0	-126.2	54.9	-56.0	0.00	0.00	0.00
2,910.3	15.49	156.50	2,896.0	-128.7	56.0	-57.1	0.00	0.00	0.00
<b>CHERRY CANYON</b>									
3,000.0	15.49	156.50	2,982.4	-150.7	65.5	-66.8	0.00	0.00	0.00
3,100.0	15.49	156.50	3,078.8	-175.2	76.1	-77.7	0.00	0.00	0.00
3,200.0	15.49	156.50	3,175.1	-199.7	86.8	-88.6	0.00	0.00	0.00
3,300.0	15.49	156.50	3,271.5	-224.1	97.4	-99.4	0.00	0.00	0.00
3,400.0	15.49	156.50	3,367.9	-248.6	108.1	-110.3	0.00	0.00	0.00
3,500.0	15.49	156.50	3,464.2	-273.1	118.7	-121.2	0.00	0.00	0.00
3,600.0	15.49	156.50	3,560.6	-297.6	129.4	-132.0	0.00	0.00	0.00
3,700.0	15.49	156.50	3,657.0	-322.1	140.0	-142.9	0.00	0.00	0.00
3,800.0	15.49	156.50	3,753.3	-346.6	150.7	-153.8	0.00	0.00	0.00
3,875.4	15.49	156.50	3,826.0	-365.1	158.7	-162.0	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Casino Queen 2 3 State Com #501H
<b>Company:</b>	Avant Operating II, LLC	<b>TVD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Project:</b>	Eddy County, NM (NAD 83)	<b>MD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Site:</b>	Casino Queen 2 3 State Com Pad 1	<b>North Reference:</b>	Grid
<b>Well:</b>	Casino Queen 2 3 State Com #501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>BRUSHY CANYON</b>									
3,900.0	15.49	156.50	3,849.7	-371.1	161.3	-164.6	0.00	0.00	0.00
4,000.0	15.49	156.50	3,946.1	-395.6	172.0	-175.5	0.00	0.00	0.00
4,100.0	15.49	156.50	4,042.4	-420.1	182.6	-186.4	0.00	0.00	0.00
4,200.0	15.49	156.50	4,138.8	-444.6	193.3	-197.2	0.00	0.00	0.00
4,300.0	15.49	156.50	4,235.2	-469.1	203.9	-208.1	0.00	0.00	0.00
4,400.0	15.49	156.50	4,331.5	-493.6	214.6	-219.0	0.00	0.00	0.00
4,500.0	15.49	156.50	4,427.9	-518.1	225.2	-229.8	0.00	0.00	0.00
4,600.0	15.49	156.50	4,524.3	-542.6	235.9	-240.7	0.00	0.00	0.00
4,700.0	15.49	156.50	4,620.6	-567.1	246.5	-251.6	0.00	0.00	0.00
4,800.0	15.49	156.50	4,717.0	-591.6	257.2	-262.4	0.00	0.00	0.00
4,900.0	15.49	156.50	4,813.4	-616.1	267.8	-273.3	0.00	0.00	0.00
5,000.0	15.49	156.50	4,909.8	-640.6	278.5	-284.2	0.00	0.00	0.00
5,100.0	15.49	156.50	5,006.1	-665.0	289.1	-295.0	0.00	0.00	0.00
5,200.0	15.49	156.50	5,102.5	-689.5	299.8	-305.9	0.00	0.00	0.00
5,300.0	15.49	156.50	5,198.9	-714.0	310.4	-316.8	0.00	0.00	0.00
5,400.0	15.49	156.50	5,295.2	-738.5	321.1	-327.6	0.00	0.00	0.00
5,483.8	15.49	156.50	5,376.0	-759.1	330.0	-336.7	0.00	0.00	0.00
<b>BSPG LIME</b>									
5,500.0	15.49	156.50	5,391.6	-763.0	331.7	-338.5	0.00	0.00	0.00
5,600.0	15.49	156.50	5,488.0	-787.5	342.4	-349.4	0.00	0.00	0.00
5,639.5	15.49	156.50	5,526.0	-797.2	346.6	-353.7	0.00	0.00	0.00
<b>AVALON A</b>									
5,700.0	15.49	156.50	5,584.3	-812.0	353.0	-360.2	0.00	0.00	0.00
5,723.4	15.49	156.50	5,606.8	-817.7	355.5	-362.8	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,800.0	13.96	156.50	5,681.0	-835.6	363.3	-370.7	2.00	-2.00	0.00
5,900.0	11.96	156.50	5,778.4	-856.2	372.2	-379.8	2.00	-2.00	0.00
5,927.2	11.42	156.50	5,805.0	-861.2	374.4	-382.1	2.00	-2.00	0.00
<b>AVALON B</b>									
6,000.0	9.96	156.50	5,876.6	-873.6	379.8	-387.6	2.00	-2.00	0.00
6,100.0	7.96	156.50	5,975.3	-887.9	386.0	-393.9	2.00	-2.00	0.00
6,200.0	5.96	156.50	6,074.6	-899.0	390.8	-398.8	2.00	-2.00	0.00
6,300.0	3.96	156.50	6,174.2	-906.9	394.3	-402.3	2.00	-2.00	0.00
6,400.0	1.96	156.50	6,274.1	-911.6	396.3	-404.4	2.00	-2.00	0.00
6,451.9	0.92	156.50	6,326.0	-912.8	396.9	-405.0	2.00	-2.00	0.00
<b>FBSG SAND</b>									
6,481.9	0.32	156.50	6,356.0	-913.1	397.0	-405.1	2.00	-2.00	0.00
<b>300s</b>									
6,497.9	0.00	0.00	6,372.0	-913.2	397.0	-405.1	2.00	-2.00	0.00
<b>Start 106.5 hold at 6497.9 MD</b>									
6,500.0	0.00	0.00	6,374.1	-913.2	397.0	-405.1	0.00	0.00	0.00
6,600.0	0.00	0.00	6,474.1	-913.2	397.0	-405.1	0.00	0.00	0.00
6,604.4	0.00	0.00	6,478.5	-913.2	397.0	-405.1	0.00	0.00	0.00
<b>KOP #2 - Start DLS 12.00 TFO 270.51</b>									
6,637.0	3.90	270.51	6,511.0	-913.2	395.9	-404.0	12.00	12.00	0.00
<b>SBSG SH</b>									
6,657.0	6.31	270.51	6,531.0	-913.2	394.1	-402.2	12.00	12.00	0.00
<b>400s</b>									
6,700.0	11.47	270.51	6,573.4	-913.1	387.5	-395.6	12.00	12.00	0.00
6,800.0	23.47	270.51	6,668.6	-912.8	357.5	-365.6	12.00	12.00	0.00
6,900.0	35.47	270.51	6,755.6	-912.4	308.4	-316.5	12.00	12.00	0.00
6,932.0	39.31	270.51	6,781.0	-912.2	289.0	-297.1	12.00	12.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Casino Queen 2 3 State Com #501H
<b>Company:</b>	Avant Operating II, LLC	<b>TVD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Project:</b>	Eddy County, NM (NAD 83)	<b>MD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Site:</b>	Casino Queen 2 3 State Com Pad 1	<b>North Reference:</b>	Grid
<b>Well:</b>	Casino Queen 2 3 State Com #501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>SBSG SD</b>									
7,000.0	47.47	270.51	6,830.3	-911.8	242.3	-250.4	12.00	12.00	0.00
<b>FTP - Casino Queen 2 3 State Com #501H</b>									
7,100.0	59.47	270.51	6,889.8	-911.1	162.1	-170.2	12.00	12.00	0.00
7,123.1	62.24	270.51	6,901.0	-910.9	142.0	-150.1	12.00	12.00	0.00
<b>SBSG SD LWR</b>									
7,200.0	71.47	270.51	6,931.2	-910.3	71.3	-79.4	12.00	12.00	0.00
7,300.0	83.47	270.51	6,952.9	-909.4	-26.1	18.0	12.00	12.00	0.00
7,354.4	90.00	270.51	6,956.0	-909.0	-80.4	72.3	12.00	12.00	0.00
<b>LP - Start 7343.5 hold at 7354.4 MD</b>									
7,400.0	90.00	270.51	6,956.0	-908.6	-126.0	117.9	0.00	0.00	0.00
7,500.0	90.00	270.51	6,956.0	-907.7	-226.0	217.9	0.00	0.00	0.00
7,600.0	90.00	270.51	6,956.0	-906.8	-326.0	317.9	0.00	0.00	0.00
7,700.0	90.00	270.51	6,956.0	-905.9	-426.0	417.9	0.00	0.00	0.00
7,800.0	90.00	270.51	6,956.0	-905.0	-526.0	517.9	0.00	0.00	0.00
7,900.0	90.00	270.51	6,956.0	-904.2	-626.0	617.9	0.00	0.00	0.00
8,000.0	90.00	270.51	6,956.0	-903.3	-726.0	717.9	0.00	0.00	0.00
8,100.0	90.00	270.51	6,956.0	-902.4	-826.0	817.9	0.00	0.00	0.00
8,200.0	90.00	270.51	6,956.0	-901.5	-926.0	917.9	0.00	0.00	0.00
8,300.0	90.00	270.51	6,956.0	-900.6	-1,026.0	1,017.9	0.00	0.00	0.00
8,400.0	90.00	270.51	6,956.0	-899.7	-1,126.0	1,117.9	0.00	0.00	0.00
8,500.0	90.00	270.51	6,956.0	-898.9	-1,226.0	1,217.9	0.00	0.00	0.00
8,600.0	90.00	270.51	6,956.0	-898.0	-1,326.0	1,317.9	0.00	0.00	0.00
8,700.0	90.00	270.51	6,956.0	-897.1	-1,426.0	1,417.9	0.00	0.00	0.00
8,800.0	90.00	270.51	6,956.0	-896.2	-1,526.0	1,517.9	0.00	0.00	0.00
8,900.0	90.00	270.51	6,956.0	-895.3	-1,626.0	1,617.9	0.00	0.00	0.00
9,000.0	90.00	270.51	6,956.0	-894.5	-1,726.0	1,717.9	0.00	0.00	0.00
9,100.0	90.00	270.51	6,956.0	-893.6	-1,825.9	1,817.9	0.00	0.00	0.00
9,200.0	90.00	270.51	6,956.0	-892.7	-1,925.9	1,917.9	0.00	0.00	0.00
9,300.0	90.00	270.51	6,956.0	-891.8	-2,025.9	2,017.9	0.00	0.00	0.00
9,400.0	90.00	270.51	6,956.0	-890.9	-2,125.9	2,117.9	0.00	0.00	0.00
9,500.0	90.00	270.51	6,956.0	-890.0	-2,225.9	2,217.9	0.00	0.00	0.00
9,600.0	90.00	270.51	6,956.0	-889.2	-2,325.9	2,317.9	0.00	0.00	0.00
9,700.0	90.00	270.51	6,956.0	-888.3	-2,425.9	2,417.9	0.00	0.00	0.00
9,800.0	90.00	270.51	6,956.0	-887.4	-2,525.9	2,517.9	0.00	0.00	0.00
9,900.0	90.00	270.51	6,956.0	-886.5	-2,625.9	2,617.9	0.00	0.00	0.00
10,000.0	90.00	270.51	6,956.0	-885.6	-2,725.9	2,717.9	0.00	0.00	0.00
10,100.0	90.00	270.51	6,956.0	-884.7	-2,825.9	2,817.9	0.00	0.00	0.00
10,200.0	90.00	270.51	6,956.0	-883.9	-2,925.9	2,917.9	0.00	0.00	0.00
10,300.0	90.00	270.51	6,956.0	-883.0	-3,025.9	3,017.9	0.00	0.00	0.00
10,400.0	90.00	270.51	6,956.0	-882.1	-3,125.9	3,117.9	0.00	0.00	0.00
10,500.0	90.00	270.51	6,956.0	-881.2	-3,225.9	3,217.9	0.00	0.00	0.00
10,600.0	90.00	270.51	6,956.0	-880.3	-3,325.9	3,317.9	0.00	0.00	0.00
10,700.0	90.00	270.51	6,956.0	-879.5	-3,425.9	3,417.9	0.00	0.00	0.00
10,800.0	90.00	270.51	6,956.0	-878.6	-3,525.9	3,517.9	0.00	0.00	0.00
10,900.0	90.00	270.51	6,956.0	-877.7	-3,625.9	3,617.9	0.00	0.00	0.00
11,000.0	90.00	270.51	6,956.0	-876.8	-3,725.9	3,717.9	0.00	0.00	0.00
11,100.0	90.00	270.51	6,956.0	-875.9	-3,825.9	3,817.9	0.00	0.00	0.00
11,200.0	90.00	270.51	6,956.0	-875.0	-3,925.9	3,917.9	0.00	0.00	0.00
11,300.0	90.00	270.51	6,956.0	-874.2	-4,025.9	4,017.9	0.00	0.00	0.00
11,400.0	90.00	270.51	6,956.0	-873.3	-4,125.9	4,117.9	0.00	0.00	0.00
11,500.0	90.00	270.51	6,956.0	-872.4	-4,225.9	4,217.9	0.00	0.00	0.00
11,600.0	90.00	270.51	6,956.0	-871.5	-4,325.9	4,317.9	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Casino Queen 2 3 State Com #501H
<b>Company:</b>	Avant Operating II, LLC	<b>TVD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Project:</b>	Eddy County, NM (NAD 83)	<b>MD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Site:</b>	Casino Queen 2 3 State Com Pad 1	<b>North Reference:</b>	Grid
<b>Well:</b>	Casino Queen 2 3 State Com #501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,700.0	90.00	270.51	6,956.0	-870.6	-4,425.8	4,417.9	0.00	0.00	0.00	
11,800.0	90.00	270.51	6,956.0	-869.8	-4,525.8	4,517.9	0.00	0.00	0.00	
11,900.0	90.00	270.51	6,956.0	-868.9	-4,625.8	4,617.9	0.00	0.00	0.00	
12,000.0	90.00	270.51	6,956.0	-868.0	-4,725.8	4,717.9	0.00	0.00	0.00	
12,100.0	90.00	270.51	6,956.0	-867.1	-4,825.8	4,817.9	0.00	0.00	0.00	
12,200.0	90.00	270.51	6,956.0	-866.2	-4,925.8	4,917.9	0.00	0.00	0.00	
12,300.0	90.00	270.51	6,956.0	-865.3	-5,025.8	5,017.9	0.00	0.00	0.00	
12,400.0	90.00	270.51	6,956.0	-864.5	-5,125.8	5,117.9	0.00	0.00	0.00	
12,500.0	90.00	270.51	6,956.0	-863.6	-5,225.8	5,217.9	0.00	0.00	0.00	
12,600.0	90.00	270.51	6,956.0	-862.7	-5,325.8	5,317.9	0.00	0.00	0.00	
12,700.0	90.00	270.51	6,956.0	-861.8	-5,425.8	5,417.9	0.00	0.00	0.00	
12,800.0	90.00	270.51	6,956.0	-860.9	-5,525.8	5,517.9	0.00	0.00	0.00	
12,900.0	90.00	270.51	6,956.0	-860.0	-5,625.8	5,617.9	0.00	0.00	0.00	
13,000.0	90.00	270.51	6,956.0	-859.2	-5,725.8	5,717.9	0.00	0.00	0.00	
13,100.0	90.00	270.51	6,956.0	-858.3	-5,825.8	5,817.9	0.00	0.00	0.00	
13,200.0	90.00	270.51	6,956.0	-857.4	-5,925.8	5,917.9	0.00	0.00	0.00	
13,300.0	90.00	270.51	6,956.0	-856.5	-6,025.8	6,017.9	0.00	0.00	0.00	
13,400.0	90.00	270.51	6,956.0	-855.6	-6,125.8	6,117.9	0.00	0.00	0.00	
13,500.0	90.00	270.51	6,956.0	-854.8	-6,225.8	6,217.9	0.00	0.00	0.00	
13,600.0	90.00	270.51	6,956.0	-853.9	-6,325.8	6,317.9	0.00	0.00	0.00	
13,700.0	90.00	270.51	6,956.0	-853.0	-6,425.8	6,417.9	0.00	0.00	0.00	
13,800.0	90.00	270.51	6,956.0	-852.1	-6,525.8	6,517.9	0.00	0.00	0.00	
13,900.0	90.00	270.51	6,956.0	-851.2	-6,625.8	6,617.9	0.00	0.00	0.00	
14,000.0	90.00	270.51	6,956.0	-850.3	-6,725.8	6,717.9	0.00	0.00	0.00	
14,100.0	90.00	270.51	6,956.0	-849.5	-6,825.8	6,817.9	0.00	0.00	0.00	
14,200.0	90.00	270.51	6,956.0	-848.6	-6,925.7	6,917.9	0.00	0.00	0.00	
14,300.0	90.00	270.51	6,956.0	-847.7	-7,025.7	7,017.9	0.00	0.00	0.00	
14,400.0	90.00	270.51	6,956.0	-846.8	-7,125.7	7,117.9	0.00	0.00	0.00	
14,500.0	90.00	270.51	6,956.0	-845.9	-7,225.7	7,217.9	0.00	0.00	0.00	
14,600.0	90.00	270.51	6,956.0	-845.1	-7,325.7	7,317.9	0.00	0.00	0.00	
14,697.9	90.00	270.51	6,956.0	-844.2	-7,423.6	7,415.8	0.00	0.00	0.00	
TD at 14697.9 - 500s (Lower 2BS) - LTP/BHL - Casino Queen 2 3 State Com #501H										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - Casino Queen 2 3	0.00	0.00	6,956.0	-913.2	352.0	451,102.26	565,368.07	32.240132	-104.255609
- hit/miss target									
- Shape									
- plan misses target center by 166.8usft at 7000.0usft MD (6830.3 TVD, -911.8 N, 242.3 E)									
- Point									
LTP/BHL - Casino Queen	0.00	0.00	6,956.0	-844.2	-7,423.6	451,171.25	557,592.48	32.240335	-104.280759
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Casino Queen 2 3 State Com #501H
<b>Company:</b>	Avant Operating II, LLC	<b>TVD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Project:</b>	Eddy County, NM (NAD 83)	<b>MD Reference:</b>	WELL @ 3306.0usft (3306)
<b>Site:</b>	Casino Queen 2 3 State Com Pad 1	<b>North Reference:</b>	Grid
<b>Well:</b>	Casino Queen 2 3 State Com #501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 0.1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
487.0	487.0	RUSTLER				
836.0	836.0	SOLADO				
1,766.0	1,766.0	BASE OF SALT/ LMAR				
2,011.0	2,011.0	BELL CANYON / DELAWARE SANDS				
2,910.3	2,896.0	CHERRY CANYON				
3,875.4	3,826.0	BRUSHY CANYON				
5,483.8	5,376.0	BSPG LIME				
5,639.5	5,526.0	AVALON A				
5,927.2	5,805.0	AVALON B				
6,451.9	6,326.0	FBSG SAND				
6,481.9	6,356.0	300s				
6,637.0	6,511.0	SBSG SH				
6,657.0	6,531.0	400s				
6,932.0	6,781.0	SBSG SD				
7,123.1	6,901.0	SBSG SD LWR				
14,697.9	6,956.0	500s (Lower 2BS)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,000.0	2,000.0	0.0	0.0	KOP - Start Build 2.00	
2,774.6	2,765.2	-95.4	41.5	Start 2948.8 hold at 2774.6 MD	
5,723.4	5,606.8	-817.7	355.5	Start Drop -2.00	
6,497.9	6,372.0	-913.2	397.0	Start 106.5 hold at 6497.9 MD	
6,604.4	6,478.5	-913.2	397.0	KOP #2 - Start DLS 12.00 TFO 270.51	
7,354.4	6,956.0	-909.0	-80.4	LP - Start 7343.5 hold at 7354.4 MD	
14,697.9	6,956.0	-844.2	-7,423.6	TD at 14697.9	

**AFE: NM1512**



## Casino Queen 2 3 State Com #501H

API:

REGULATORY: NMOCD

PERMIT #

RIG:

KB: 3307.5 (26.5')

GL: 3281'

### Bone Spring

*Eddy County, NM*

Sec. 2, T-24S, R-26E; 1240 FSL, 460 FEL

**SHL:**

Lat: 32.242643, Long: -104.256745 (NAD83)

HOLE SIZE	MD	FORMATION	TVD	MUD	CASING	CEMENT	SPECIAL INSTRUCTIONS
	120	20" Conductor	120				
14 3/4 "				SPUD	10 3/4 "	LEAD: 12.8 PPG Top of Lead: 0 50% Excess	Circ cement to surface is a NMOCD requirement  Casing must be set 25' into the Rustler  MUD: Fresh water only
	487	Rustler	487	MW	40.5# J-55 BTC	TAIL: 14.8 PPG Top of Tail: 212' 20% Excess	
	537	SURF CSG PT	537	8.4 ppg	+/- 7 Bowsprings 1 20' pup jt 1 joint shoe track		
9 7/8 "	836	Soldao	836	DRLOUT	8 5/8 "	2 STAGE CEMENT	Circ cement to surface is a NMOCD requirement
	1,000	DV TOOL & PACKER	1,000	MW	32# L-80 HC BK	1st STAGE	
				10 ppg	1 20' pup jt	LEAD: 12.5 PPG Top of Lead: 0' 20% excess TAIL: 14.5 PPG Top of Tail: 1568' 20% Excess	
	1,766	Base of Salt	1,766	Brine	+/- 8 Bowsprings 1 joint shoe track	2nd STAGE	
	1,961	INTRM CSG PT	1,961	TD MW	10 ppg	LEAD: 12.5 PPG Top of Lead: 0' 20% Excess TAIL: 14.2 PPG Top of Tail: 400' no excess	
7 7/8 " VERTICAL	2,011	Bell Canyon	2,011	DRLOUT MW			
	2,910	Cherry Canyon	2,896	9			
	3,875	Brushy Canyon	3,826	Cut Brine			
	5,484	Bone Springs	5,376	KOP			
7 7/8 " CURVE	6,452	1st BS Sand	6,326	MW			
	6,604	KOP	6,479	9.2	EOC		
	6,932	2nd BS Sand	6,781	OBM	Lat MW 9.2	OBM	TD MW 9.2
	7,354	EOC	6,956				
7 7/8 " LATERAL	DIRECTIONAL PLAN			12°/100'			
	MD	INC	INC	TVD	ANNOTATION		
					5 1/2 "	LEAD: 10.7 PPG Top of Lead: 0 20% Excess	BHL: 330 FSL, 2553 FEL
					20# P-110 HC GB CD	TAIL: 14.8 PPG Top of Tail: 6604 20% Excess	Expected BH Pressure: 3200
					1 15' pup jt 2 20' Marker Jts +/- 38 Bowsprings +/- 27 Doublebows +/- 174 Solid Bodies	All aqueous fluids (spacer and disp) left inside or outside of pipe must have biocide & corrosion inhibitor	

**DIRECTIONS TO LOCATION:**

Drilling Engineer: Ryan Harris

**Casino Queen 2 3 State Com #501H ()**

Date: 1/15/2026

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude			NAD	

## First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude			NAD	

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude			NAD	

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** Avant Operating II, LLC    **OGRID:** 332947    **Date:** 1/16/2026

**II. Type:** ☒ Original   ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC   ☐ 19.15.27.9.D(6)(b) NMAC   ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Casino Queen 2 3 State Com 501H		P-2-T24S-R26E	1240FSL/460FEL	1150 BBL/D	9200 MCF/D	6500 BBL/D
Casino Queen 2 3 State Com 502H		P-2-T24S-R26E	1260FSL/460FEL	1150 BBL/D	9200 MCF/D	6500 BBL/D
Casino Queen 2 3 State Com 503H		P-2-T24S-R26E	1280FSL/460FEL	1150 BBL/D	9200 MCF/D	6500 BBL/D
Casino Queen 2 3 State Com 701H		P-2-T24S-R26E	1240FSL/310FEL	1260 BBL/D	5040 MCF/D	7600 BBL/D
Casino Queen 2 3 State Com 702H		P-2-T24S-R26E	1260FSL/310FEL	1260 BBL/D	5040 MCF/D	7600 BBL/D
Casino Queen 2 3 State Com 703H		P-2-T24S-R26E	1280FSL/310FEL	1260 BBL/D	5040 MCF/D	7600 BBL/D

**IV. Central Delivery Point Name:** Casino Queen CTB [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Casino Queen 2 3 State Com 501H		11/15/2026	12/31/2026	01/27/2027	03/27/2027	03/27/2027
Casino Queen 2 3 State Com 502H		11/15/2026	12/31/2026	01/27/2027	03/27/2027	03/27/2027
Casino Queen 2 3 State Com 503H		11/15/2026	12/31/2026	01/27/2027	03/27/2027	03/27/2027
Casino Queen 2 3 State Com 701H		11/15/2026	12/31/2026	01/27/2027	03/27/2027	03/27/2027
Casino Queen 2 3 State Com 702H		11/15/2026	12/31/2026	01/27/2027	03/27/2027	03/27/2027
Casino Queen 2 3 State Com 703H		11/15/2026	12/31/2026	01/27/2027	03/27/2027	03/27/2027

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

### Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### **IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF



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**X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**

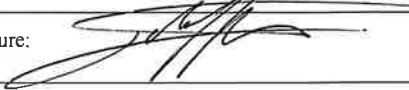
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: John Harper
Title: SVP – Assets and Exploration
E-mail Address: John@avantnr.com
Date: 1/13/26
Phone: 678-988-6644

**OIL CONSERVATION DIVISION**  
**(Only applicable when submitted as a standalone form)**

Approved By:
Title:
Approval Date:
Conditions of Approval:

**Avant Operating II, LLC Natural Gas Management Plan**

VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.

VII. Avant Operating, LLC (Avant) will take the following actions to comply with the regulations listed in 19.15.27.8:

- A. Avant will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. Avant will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas.
- B. All drilling operations will be equipped with a rig flare located at least 100' from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
- C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flowback will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. Avant will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will be analyzed twice per week, and the gas will be routed into a gathering system as soon as pipeline specifications are met.
- D. Avant will comply with the performance standards requirements and provisions listed in 19.15.27.8 (1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. Production storage tanks constructed after May 25, 2021, will be equipped with automatic gauging system. Flares constructed after May 25, 2021, will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. Avant will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
- E. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. Avant will install equipment to measure
- F. Measurement meters will be in place for low- and high-pressure gas that is flared due to not being able to use for reuse or sales. Equipment will be installed off tanks to reduce vented gas and the gas will be measured with a meter.

VIII. Best Management Practices: Avant plans to communicate consistently with midstream partners to ensure sufficient takeaway capacity is available and understand planned maintenance to minimize venting. Avant will depressurize equipment and capture vented gases for reuse before any maintenance occurs. Avant will use vapor recovery units for the vented gas off the tanks to capture for reuse or sales to minimize venting during active operations. Avant will be proactive on inspections to identify and fix leaks before they escalate.