

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>

Form C-101
August 1, 2011

Permit 406303

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

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
4. Property Code 337745						3. API Number 30-025-55861
5. Property Name QUAIL 16 STATE COM						6. Well No. 754H

7. Surface Location

UL - Lot P	Section 16	Township 20S	Range 34E	Lot Idn	Feet From 314	N/S Line S	Feet From 803	E/W Line E	County Lea
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8. Proposed Bottom Hole Location

UL - Lot B	Section 16	Township 20S	Range 34E	Lot Idn B	Feet From 100	N/S Line N	Feet From 1485	E/W Line E	County Lea
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9. Pool Information

WC-025 G-08 S203435D;WOLFCAMP	98247
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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 3639
16. Multiple N	17. Proposed Depth 16558	18. Formation Wolfcamp	19. Contractor	20. Spud Date 2/15/2026
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	17.5	13.375	54.5	1577	915	0
Int1	12.25	10.75	45.5	5319	1210	0
Int2	9.875	8.625	32	9926	845	0
Int2	9.875	8.625	32	6000	845	0
Int2	9.875	8.625	32	5600	845	0
Prod	7.875	5.5	20	16558	870	0

Casing/Cement Program: Additional Comments

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.	OIL CONSERVATION DIVISION	
Signature:		
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: 1/27/2026	Expiration Date: 1/27/2028
Date: 1/7/2026	Phone: 720-854-9020	Conditions of Approval Attached

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

WELL LOCATION INFORMATION

API Number 30-025-55861	Pool Code 98247	Pool Name WC-025 G-09 S203435D;WOLFCAMP			
Property Code 337745	Property Name QUAIL 16 STATE COM			Well Number #754H	
OGRID No. 332947	Operator Name AVANT OPERATING II, LLC			Ground Level Elevation 3639'	
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 P	Section 16	Township 20 S	Range 34 E	Lot	Ft. from N/S 314' FSL	Ft. from E/W 803' FEL	Latitude 32.566732°	Longitude -103.559269°	County LEA
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Bottom Hole Location

UL B	Section 16	Township 20 S	Range 34 E	Lot	Ft. from N/S 100' FNL	Ft. from E/W 1485' FEL	Latitude 32.580104°	Longitude -103.561483°	County LEA
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Dedicated Acres 320.00	Infill or Defining Well Infill	Defining Well API n/a	Overlapping Spacing Unit (Y/N) No	Consolidation Code n/a
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Order Numbers. Pending	Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Kick Off Point (KOP)

UL P	Section 16	Township 20 S	Range 34 E	Lot	Ft. from N/S 314' FSL	Ft. from E/W 803' FEL	Latitude 32.566732°	Longitude -103.559269°	County LEA
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First Take Point (FTP)

UL O	Section 16	Township 20 S	Range 34 E	Lot	Ft. from N/S 100' FSL	Ft. from E/W 1485' FEL	Latitude 32.566155°	Longitude -103.561481°	County LEA
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Last Take Point (LTP)

UL B	Section 16	Township 20 S	Range 34 E	Lot	Ft. from N/S 100' FNL	Ft. from E/W 1485' FEL	Latitude 32.580104°	Longitude -103.561483°	County LEA
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Unitized Area or Area of Uniform Interest Yes	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: 3639'
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OPERATOR CERTIFICATIONS

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.

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.



1/5/2026

SURVEYOR CERTIFICATIONS

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.



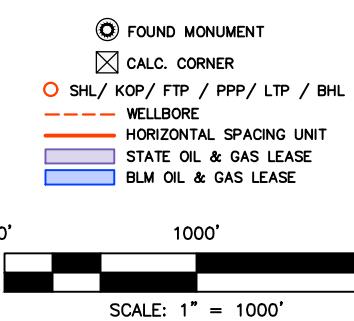
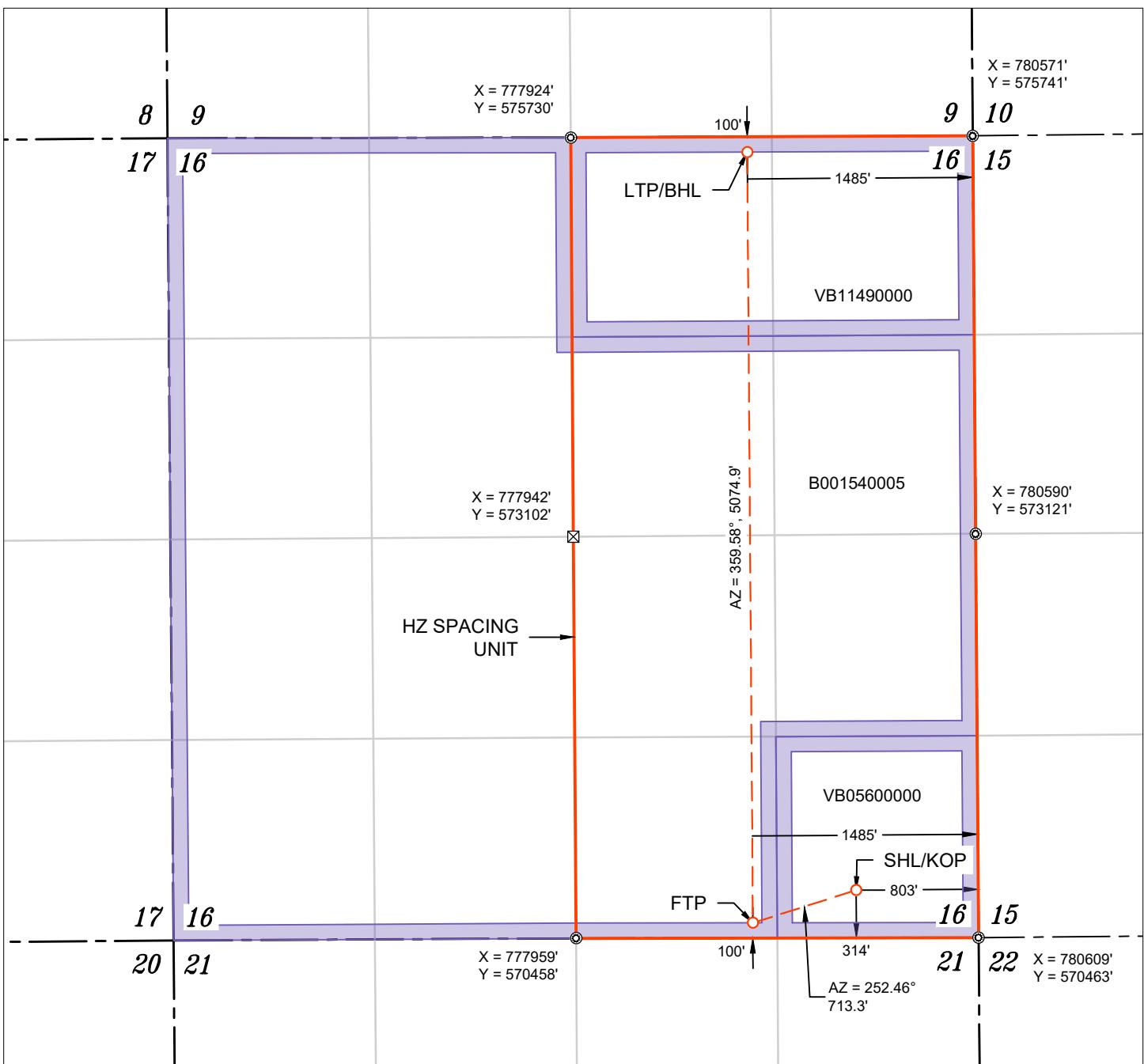
Signature Sarah Ferreyros	Date
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Signature and Seal of Professional Surveyor	
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Printed Name sarah@avantnr.com	Certificate Number	Date of Survey
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23203		DECEMBER 18, 2025
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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.



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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

Form APD Conditions

Permit 406303

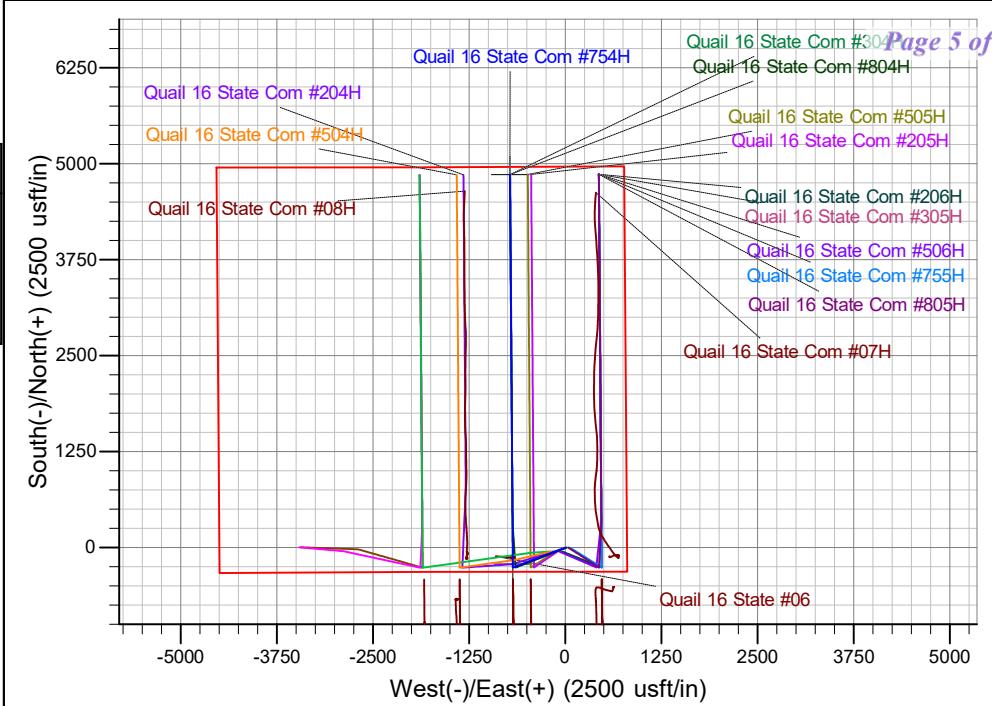
PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: Avant Operating II, LLC [332947] 1515 Wynkoop Street Denver, CO 80202	API Number: 30-025-55861
	Well: QUAIL 16 STATE COM #754H

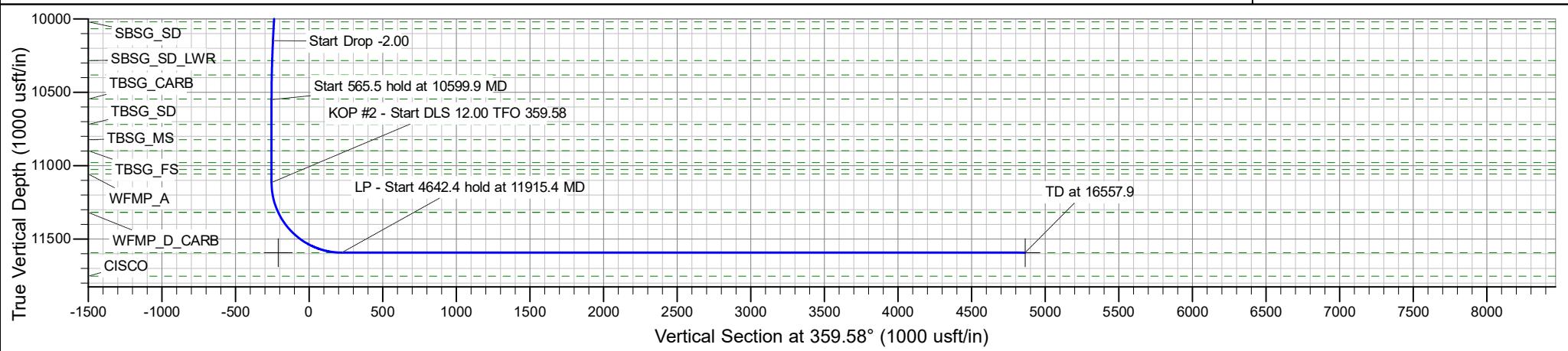
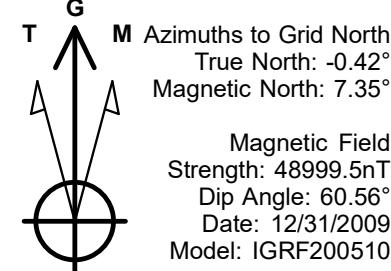
OCD Reviewer	Condition
jeffrey.harrison	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.
jeffrey.harrison	NSP required if not included in an existing order or not an infill to an appropriate defining well in the same pool and spacing unit.
jeffrey.harrison	This well is within the Capitan Reef aquifer zone. The first intermediate casing string shall be set and cemented back to surface immediately below the Capitan Reef.
jeffrey.harrison	In Capitan Reef areas if lost circulation (50% or greater) occurs below the base of the salt, the operator shall switch to freshwater mud until the intermediate casing is set..
jeffrey.harrison	This well is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the order.
jeffrey.harrison	Designs must align to one of the six options mandated within R-111-Q. No alterations or modifications are permitted to any of the casing design options mandated within order R-111-Q. If you have any questions, please contact Justin.Wrinkle@emnrd.nm.gov .
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	Notify the OCD 24 hours prior to casing & cement.
jeffrey.harrison	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
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: Quail 16 State Com #754H					
Ground Elev: 3639.0 KB: 3664					
+N/-S 0.0	+E/-W 0.0	Northing 570775.07	Easting 779803.77	Latitude 32.566732	Longitude -103.559269

PROJECT DETAILS: Lea 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	5000.0	0.00	0.00	5000.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 2.00
3	5402.6	8.05	249.08	5401.3	-10.1	-26.4	2.00	249.08	-9.9	Start 4794.7 hold at 5402.6 MD
4	10197.3	8.05	249.08	10148.7	-249.9	-653.7	0.00	0.00	-245.1	Start Drop -2.00
5	10599.9	0.00	0.00	10550.0	-260.0	-680.1	2.00	180.00	-255.0	Start 565.5 hold at 10599.9 MD
6	11165.4	0.00	0.00	11115.5	-260.0	-680.1	0.00	0.00	-255.0	KOP #2 - Start DLS 12.00 TFO 359.58
7	11915.4	90.00	359.58	11593.0	217.4	-683.6	12.00	359.58	222.5	LP - Start 4642.4 hold at 11915.4 MD
8	16557.9	90.00	359.58	11593.0	4859.8	-717.5	0.00	0.00	4864.9	TD at 16557.9



Avant Operating II, LLC

Lea County, NM (NAD 83)
Quail 16 State Com Pad 2
Quail 16 State Com #754H

OH

Plan: Plan 0.1

Standard Planning Report

22 December, 2025

Planning Report

Database: Company: Project: Site: Well: Wellbore: Design:	EDM 5000.16 Single User Db Avant Operating II, LLC Lea County, NM (NAD 83) Quail 16 State Com Pad 2 Quail 16 State Com #754H OH Plan 0.1	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Well Quail 16 State Com #754H Well @ 3664.0usft (3664) Well @ 3664.0usft (3664) Grid Minimum Curvature
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Project	Lea County, NM (NAD 83)		
Map System: Geo Datum: Map Zone:	US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone	System Datum:	Mean Sea Level

Site	Quail 16 State Com Pad 2		
Site Position: From: Position Uncertainty:	Lat/Long 0.0 usft	Northing: Easting: Slot Radius:	575,486.84 usft 779,592.22 usft 13-3/16 "

Well	Quail 16 State Com #754H				
Well Position	+N-S 0.0 usft +E-W 0.0 usft	Northing: Easting:	570,775.07 usft 779,803.77 usft	Latitude: Longitude:	32.579687 -103.559844
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,639.0 usft
Grid Convergence:	0.42 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.77	60.56	48,999.47143249

Design	Plan 0.1				
Audit Notes:					
Version:		Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:		Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
		0.0	0.0	0.0	359.58

Plan Survey Tool Program	Date	12/22/2025		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	16,557.4	Plan 0.1 (OH)	B001Mb_MWD+HRGM OWSG MWD + HRGM

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
5,402.6	8.05	249.08	5,401.3	-10.1	-26.4	2.00	2.00	0.00	0.00	249.08
10,197.3	8.05	249.08	10,148.7	-249.9	-653.7	0.00	0.00	0.00	0.00	0.00
10,599.9	0.00	0.01	10,550.0	-260.0	-680.1	2.00	-2.00	0.00	0.00	180.00
11,165.4	0.00	0.01	11,115.5	-260.0	-680.1	0.00	0.00	0.00	0.00	0.01
11,915.4	90.00	359.58	11,593.0	217.4	-683.6	12.00	12.00	-0.06	359.58	
16,557.9	90.00	359.58	11,593.0	4,859.8	-717.5	0.00	0.00	0.00	0.00	Quail 16 State Com #

Planning Report

Database: Company: Project: Site: Well: Wellbore: Design:	EDM 5000.16 Single User Db Avant Operating II, LLC Lea County, NM (NAD 83) Quail 16 State Com Pad 2 Quail 16 State Com #754H OH Plan 0.1	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Well Quail 16 State Com #754H Well @ 3664.0usft (3664) Well @ 3664.0usft (3664) Grid Minimum Curvature
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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
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
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
1,552.0	0.00	0.00	1,552.0	0.0	0.0	0.0	0.00	0.00	0.00
RUSTLER									
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
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,881.0	0.00	0.00	1,881.0	0.0	0.0	0.0	0.00	0.00	0.00
SOLADO									
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
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,308.0	0.00	0.00	3,308.0	0.0	0.0	0.0	0.00	0.00	0.00
BASE_OF_SALT									
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,410.0	0.00	0.00	3,410.0	0.0	0.0	0.0	0.00	0.00	0.00
YATES									
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,844.0	0.00	0.00	3,844.0	0.0	0.0	0.0	0.00	0.00	0.00
SVRV									
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,012.0	0.00	0.00	4,012.0	0.0	0.0	0.0	0.00	0.00	0.00
CAPITAN_REEF									

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Quail 16 State Com #754H
Company:	Avant Operating II, LLC	TVD Reference:	Well @ 3664.0usft (3664)
Project:	Lea County, NM (NAD 83)	MD Reference:	Well @ 3664.0usft (3664)
Site:	Quail 16 State Com Pad 2	North Reference:	Grid
Well:	Quail 16 State Com #754H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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)	
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
KOP - Start Build 2.00										
5,100.0	2.00	249.08	5,100.0	-0.6	-1.6	-0.6	2.00	2.00	0.00	
5,200.0	4.00	249.08	5,199.8	-2.5	-6.5	-2.4	2.00	2.00	0.00	
5,269.4	5.39	249.08	5,269.0	-4.5	-11.8	-4.4	2.00	2.00	0.00	
CPTN_REEF_BASE										
5,300.0	6.00	249.08	5,299.5	-5.6	-14.7	-5.5	2.00	2.00	0.00	
5,400.0	8.00	249.08	5,398.7	-10.0	-26.0	-9.8	2.00	2.00	0.00	
5,402.6	8.05	249.08	5,401.3	-10.1	-26.4	-9.9	2.00	2.00	0.00	
Start 4794.7 hold at 5402.6 MD										
5,500.0	8.05	249.08	5,497.7	-15.0	-39.1	-14.7	0.00	0.00	0.00	
5,561.9	8.05	249.08	5,559.0	-18.1	-47.2	-17.7	0.00	0.00	0.00	
CHERRY_CNYN										
5,600.0	8.05	249.08	5,596.7	-20.0	-52.2	-19.6	0.00	0.00	0.00	
5,700.0	8.05	249.08	5,695.7	-25.0	-65.3	-24.5	0.00	0.00	0.00	
5,800.0	8.05	249.08	5,794.8	-30.0	-78.4	-29.4	0.00	0.00	0.00	
5,900.0	8.05	249.08	5,893.8	-35.0	-91.5	-34.3	0.00	0.00	0.00	
6,000.0	8.05	249.08	5,992.8	-40.0	-104.5	-39.2	0.00	0.00	0.00	
6,100.0	8.05	249.08	6,091.8	-45.0	-117.6	-44.1	0.00	0.00	0.00	
6,200.0	8.05	249.08	6,190.8	-50.0	-130.7	-49.0	0.00	0.00	0.00	
6,300.0	8.05	249.08	6,289.8	-55.0	-143.8	-53.9	0.00	0.00	0.00	
6,400.0	8.05	249.08	6,388.8	-60.0	-156.9	-58.8	0.00	0.00	0.00	
6,500.0	8.05	249.08	6,487.9	-65.0	-170.0	-63.7	0.00	0.00	0.00	
6,600.0	8.05	249.08	6,586.9	-70.0	-183.0	-68.6	0.00	0.00	0.00	
6,633.5	8.05	249.08	6,620.0	-71.7	-187.4	-70.3	0.00	0.00	0.00	
BRUSHY_CANYON										
6,700.0	8.05	249.08	6,685.9	-75.0	-196.1	-73.5	0.00	0.00	0.00	
6,800.0	8.05	249.08	6,784.9	-80.0	-209.2	-78.4	0.00	0.00	0.00	
6,900.0	8.05	249.08	6,883.9	-85.0	-222.3	-83.4	0.00	0.00	0.00	
7,000.0	8.05	249.08	6,982.9	-90.0	-235.4	-88.3	0.00	0.00	0.00	
7,100.0	8.05	249.08	7,081.9	-95.0	-248.5	-93.2	0.00	0.00	0.00	
7,200.0	8.05	249.08	7,181.0	-100.0	-261.6	-98.1	0.00	0.00	0.00	
7,300.0	8.05	249.08	7,280.0	-105.0	-274.6	-103.0	0.00	0.00	0.00	
7,400.0	8.05	249.08	7,379.0	-110.0	-287.7	-107.9	0.00	0.00	0.00	
7,500.0	8.05	249.08	7,478.0	-115.0	-300.8	-112.8	0.00	0.00	0.00	
7,600.0	8.05	249.08	7,577.0	-120.0	-313.9	-117.7	0.00	0.00	0.00	
7,700.0	8.05	249.08	7,676.0	-125.0	-327.0	-122.6	0.00	0.00	0.00	
7,800.0	8.05	249.08	7,775.0	-130.0	-340.1	-127.5	0.00	0.00	0.00	
7,900.0	8.05	249.08	7,874.1	-135.0	-353.1	-132.4	0.00	0.00	0.00	
8,000.0	8.05	249.08	7,973.1	-140.0	-366.2	-137.3	0.00	0.00	0.00	
8,100.0	8.05	249.08	8,072.1	-145.0	-379.3	-142.2	0.00	0.00	0.00	
8,200.0	8.05	249.08	8,171.1	-150.0	-392.4	-147.1	0.00	0.00	0.00	
8,300.0	8.05	249.08	8,270.1	-155.0	-405.5	-152.0	0.00	0.00	0.00	
8,387.8	8.05	249.08	8,357.0	-159.4	-417.0	-156.3	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Quail 16 State Com #754H
Company:	Avant Operating II, LLC	TVD Reference:	Well @ 3664.0usft (3664)
Project:	Lea County, NM (NAD 83)	MD Reference:	Well @ 3664.0usft (3664)
Site:	Quail 16 State Com Pad 2	North Reference:	Grid
Well:	Quail 16 State Com #754H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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)
BSPG_LIME									
8,400.0	8.05	249.08	8,369.1	-160.0	-418.6	-156.9	0.00	0.00	0.00
8,500.0	8.05	249.08	8,468.1	-165.0	-431.6	-161.8	0.00	0.00	0.00
8,600.0	8.05	249.08	8,567.2	-170.0	-444.7	-166.8	0.00	0.00	0.00
8,700.0	8.05	249.08	8,666.2	-175.0	-457.8	-171.7	0.00	0.00	0.00
8,798.8	8.05	249.08	8,764.0	-180.0	-470.7	-176.5	0.00	0.00	0.00
AVALON_B									
8,800.0	8.05	249.08	8,765.2	-180.0	-470.9	-176.6	0.00	0.00	0.00
8,900.0	8.05	249.08	8,864.2	-185.0	-484.0	-181.5	0.00	0.00	0.00
9,000.0	8.05	249.08	8,963.2	-190.0	-497.1	-186.4	0.00	0.00	0.00
9,010.9	8.05	249.08	8,974.0	-190.6	-498.5	-186.9	0.00	0.00	0.00
200S									
9,100.0	8.05	249.08	9,062.2	-195.0	-510.1	-191.3	0.00	0.00	0.00
9,200.0	8.05	249.08	9,161.2	-200.0	-523.2	-196.2	0.00	0.00	0.00
9,300.0	8.05	249.08	9,260.3	-205.0	-536.3	-201.1	0.00	0.00	0.00
9,400.0	8.05	249.08	9,359.3	-210.0	-549.4	-206.0	0.00	0.00	0.00
9,500.0	8.05	249.08	9,458.3	-215.0	-562.5	-210.9	0.00	0.00	0.00
9,532.0	8.05	249.08	9,490.0	-216.6	-566.7	-212.5	0.00	0.00	0.00
FBSG_SD									
9,600.0	8.05	249.08	9,557.3	-220.0	-575.6	-215.8	0.00	0.00	0.00
9,645.2	8.05	249.08	9,602.0	-222.3	-581.5	-218.0	0.00	0.00	0.00
300'S									
9,700.0	8.05	249.08	9,656.3	-225.0	-588.7	-220.7	0.00	0.00	0.00
9,800.0	8.05	249.08	9,755.3	-230.0	-601.7	-225.6	0.00	0.00	0.00
9,825.9	8.05	249.08	9,781.0	-231.3	-605.1	-226.9	0.00	0.00	0.00
SBSG_SHALE									
9,840.1	8.05	249.08	9,795.0	-232.0	-607.0	-227.6	0.00	0.00	0.00
SBSG_CARB									
9,900.0	8.05	249.08	9,854.3	-235.0	-614.8	-230.5	0.00	0.00	0.00
10,000.0	8.05	249.08	9,953.3	-240.0	-627.9	-235.4	0.00	0.00	0.00
10,067.3	8.05	249.08	10,020.0	-243.4	-636.7	-238.7	0.00	0.00	0.00
SBSG_SD									
10,100.0	8.05	249.08	10,052.4	-245.0	-641.0	-240.3	0.00	0.00	0.00
10,114.8	8.05	249.08	10,067.0	-245.8	-642.9	-241.1	0.00	0.00	0.00
500S_UPPER									
10,197.3	8.05	249.08	10,148.7	-249.9	-653.7	-245.1	0.00	0.00	0.00
Start Drop -2.00									
10,200.0	8.00	249.08	10,151.4	-250.0	-654.1	-245.2	2.00	-2.00	0.00
10,300.0	6.00	249.08	10,250.6	-254.4	-665.4	-249.5	2.00	-2.00	0.00
10,333.5	5.33	249.08	10,284.0	-255.6	-668.5	-250.7	2.00	-2.00	0.00
SBSG_SD_LWR									
10,400.0	4.00	249.08	10,350.2	-257.5	-673.6	-252.6	2.00	-2.00	0.00
10,431.8	3.36	249.08	10,382.0	-258.2	-675.5	-253.3	2.00	-2.00	0.00
500S									
10,500.0	2.00	249.08	10,450.1	-259.4	-678.5	-254.4	2.00	-2.00	0.00
10,595.9	0.08	249.08	10,546.0	-260.0	-680.1	-255.0	2.00	-2.00	0.00
TBSG_CARB									
10,599.9	0.00	0.01	10,550.0	-260.0	-680.1	-255.0	2.00	-2.00	0.00
Start 565.5 hold at 10599.9 MD									
10,600.0	0.00	0.00	10,550.1	-260.0	-680.1	-255.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,650.1	-260.0	-680.1	-255.0	0.00	0.00	0.00
10,768.9	0.00	0.00	10,719.0	-260.0	-680.1	-255.0	0.00	0.00	0.00

Planning Report

Database: Company: Project: Site: Well: Wellbore: Design:	EDM 5000.16 Single User Db Avant Operating II, LLC Lea County, NM (NAD 83) Quail 16 State Com Pad 2 Quail 16 State Com #754H OH Plan 0.1	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Well Quail 16 State Com #754H Well @ 3664.0usft (3664) Well @ 3664.0usft (3664) Grid Minimum Curvature
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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)	
TBSG_SD										
10,800.0	0.00	0.00	10,750.1	-260.0	-680.1	-255.0	0.00	0.00	0.00	
10,872.9	0.00	0.00	10,823.0	-260.0	-680.1	-255.0	0.00	0.00	0.00	
TBSG_MS										
10,900.0	0.00	0.00	10,850.1	-260.0	-680.1	-255.0	0.00	0.00	0.00	
10,947.9	0.00	0.00	10,898.0	-260.0	-680.1	-255.0	0.00	0.00	0.00	
TBSG_FS										
11,000.0	0.00	0.00	10,950.1	-260.0	-680.1	-255.0	0.00	0.00	0.00	
11,028.9	0.00	0.00	10,979.0	-260.0	-680.1	-255.0	0.00	0.00	0.00	
WFMP										
11,075.9	0.00	0.00	11,026.0	-260.0	-680.1	-255.0	0.00	0.00	0.00	
WFMP_CL_Y										
11,100.0	0.00	0.00	11,050.1	-260.0	-680.1	-255.0	0.00	0.00	0.00	
11,106.9	0.00	0.00	11,057.0	-260.0	-680.1	-255.0	0.00	0.00	0.00	
WFMP_A										
11,165.4	0.00	0.00	11,115.5	-260.0	-680.1	-255.0	0.00	0.00	0.00	
KOP #2 - Start DLS 12.00 TFO 359.58										
11,200.0	4.15	359.58	11,150.1	-258.7	-680.1	-253.8	12.00	12.00	0.00	
11,300.0	16.15	359.58	11,248.3	-241.2	-680.2	-236.2	12.00	12.00	0.00	
11,374.5	25.09	359.58	11,318.0	-214.9	-680.4	-209.9	12.00	12.00	0.00	
WFMP_B										
11,375.6	25.23	359.58	11,319.0	-214.5	-680.4	-209.5	12.00	12.00	0.00	
WFMP_D_CARB										
11,400.0	28.15	359.58	11,340.8	-203.5	-680.5	-198.5	12.00	12.00	0.00	
11,500.0	40.15	359.58	11,423.4	-147.5	-680.9	-142.5	12.00	12.00	0.00	
11,569.0	48.43	359.58	11,472.7	-99.4	-681.3	-94.4	12.00	12.00	0.00	
Quail 16 State Com #754H FTP										
11,600.0	52.15	359.58	11,492.5	-75.5	-681.4	-70.5	12.00	12.00	0.00	
11,700.0	64.15	359.58	11,545.2	9.3	-682.1	14.3	12.00	12.00	0.00	
11,800.0	76.15	359.58	11,579.1	103.2	-682.8	108.2	12.00	12.00	0.00	
11,900.0	88.15	359.58	11,592.7	202.0	-683.5	207.0	12.00	12.00	0.00	
11,915.4	90.00	359.58	11,593.0	217.4	-683.6	222.5	12.00	12.00	0.00	
LP - Start 4642.4 hold at 11915.4 MD										
12,000.0	90.00	359.58	11,593.0	302.0	-684.2	307.0	0.00	0.00	0.00	
12,100.0	90.00	359.58	11,593.0	402.0	-684.9	407.0	0.00	0.00	0.00	
12,200.0	90.00	359.58	11,593.0	502.0	-685.7	507.0	0.00	0.00	0.00	
12,300.0	90.00	359.58	11,593.0	602.0	-686.4	607.0	0.00	0.00	0.00	
12,400.0	90.00	359.58	11,593.0	702.0	-687.1	707.0	0.00	0.00	0.00	
12,500.0	90.00	359.58	11,593.0	802.0	-687.9	807.0	0.00	0.00	0.00	
12,600.0	90.00	359.58	11,593.0	902.0	-688.6	907.0	0.00	0.00	0.00	
12,700.0	90.00	359.58	11,593.0	1,002.0	-689.3	1,007.0	0.00	0.00	0.00	
12,800.0	90.00	359.58	11,593.0	1,102.0	-690.1	1,107.0	0.00	0.00	0.00	
12,900.0	90.00	359.58	11,593.0	1,202.0	-690.8	1,207.0	0.00	0.00	0.00	
13,000.0	90.00	359.58	11,593.0	1,302.0	-691.5	1,307.0	0.00	0.00	0.00	
13,100.0	90.00	359.58	11,593.0	1,402.0	-692.2	1,407.0	0.00	0.00	0.00	
13,200.0	90.00	359.58	11,593.0	1,502.0	-693.0	1,507.0	0.00	0.00	0.00	
13,300.0	90.00	359.58	11,593.0	1,602.0	-693.7	1,607.0	0.00	0.00	0.00	
13,400.0	90.00	359.58	11,593.0	1,702.0	-694.4	1,707.0	0.00	0.00	0.00	
13,500.0	90.00	359.58	11,593.0	1,802.0	-695.2	1,807.0	0.00	0.00	0.00	
13,600.0	90.00	359.58	11,593.0	1,902.0	-695.9	1,907.0	0.00	0.00	0.00	
13,700.0	90.00	359.58	11,593.0	2,002.0	-696.6	2,007.0	0.00	0.00	0.00	
13,800.0	90.00	359.58	11,593.0	2,102.0	-697.4	2,107.0	0.00	0.00	0.00	
13,900.0	90.00	359.58	11,593.0	2,202.0	-698.1	2,207.0	0.00	0.00	0.00	

Planning Report

Database: Company: Project: Site: Well: Wellbore: Design:	EDM 5000.16 Single User Db Avant Operating II, LLC Lea County, NM (NAD 83) Quail 16 State Com Pad 2 Quail 16 State Com #754H OH Plan 0.1	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Well Quail 16 State Com #754H Well @ 3664.0usft (3664) Well @ 3664.0usft (3664) Grid Minimum Curvature
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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)	
14,000.0	90.00	359.58	11,593.0	2,302.0	-698.8	2,307.0	0.00	0.00	0.00	
14,100.0	90.00	359.58	11,593.0	2,402.0	-699.6	2,407.0	0.00	0.00	0.00	
14,200.0	90.00	359.58	11,593.0	2,502.0	-700.3	2,507.0	0.00	0.00	0.00	
14,300.0	90.00	359.58	11,593.0	2,602.0	-701.0	2,607.0	0.00	0.00	0.00	
14,400.0	90.00	359.58	11,593.0	2,702.0	-701.7	2,707.0	0.00	0.00	0.00	
14,500.0	90.00	359.58	11,593.0	2,802.0	-702.5	2,807.0	0.00	0.00	0.00	
14,600.0	90.00	359.58	11,593.0	2,902.0	-703.2	2,907.0	0.00	0.00	0.00	
14,700.0	90.00	359.58	11,593.0	3,002.0	-703.9	3,007.0	0.00	0.00	0.00	
14,800.0	90.00	359.58	11,593.0	3,102.0	-704.7	3,107.0	0.00	0.00	0.00	
14,900.0	90.00	359.58	11,593.0	3,202.0	-705.4	3,207.0	0.00	0.00	0.00	
15,000.0	90.00	359.58	11,593.0	3,302.0	-706.1	3,307.0	0.00	0.00	0.00	
15,100.0	90.00	359.58	11,593.0	3,401.9	-706.9	3,407.0	0.00	0.00	0.00	
15,200.0	90.00	359.58	11,593.0	3,501.9	-707.6	3,507.0	0.00	0.00	0.00	
15,300.0	90.00	359.58	11,593.0	3,601.9	-708.3	3,607.0	0.00	0.00	0.00	
15,400.0	90.00	359.58	11,593.0	3,701.9	-709.1	3,707.0	0.00	0.00	0.00	
15,500.0	90.00	359.58	11,593.0	3,801.9	-709.8	3,807.0	0.00	0.00	0.00	
15,600.0	90.00	359.58	11,593.0	3,901.9	-710.5	3,907.0	0.00	0.00	0.00	
15,700.0	90.00	359.58	11,593.0	4,001.9	-711.3	4,007.0	0.00	0.00	0.00	
15,800.0	90.00	359.58	11,593.0	4,101.9	-712.0	4,107.0	0.00	0.00	0.00	
15,900.0	90.00	359.58	11,593.0	4,201.9	-712.7	4,207.0	0.00	0.00	0.00	
16,000.0	90.00	359.58	11,593.0	4,301.9	-713.4	4,307.0	0.00	0.00	0.00	
16,100.0	90.00	359.58	11,593.0	4,401.9	-714.2	4,407.0	0.00	0.00	0.00	
16,200.0	90.00	359.58	11,593.0	4,501.9	-714.9	4,507.0	0.00	0.00	0.00	
16,300.0	90.00	359.58	11,593.0	4,601.9	-715.6	4,607.0	0.00	0.00	0.00	
16,400.0	90.00	359.58	11,593.0	4,701.9	-716.4	4,707.0	0.00	0.00	0.00	
16,500.0	90.00	359.58	11,593.0	4,801.9	-717.1	4,807.0	0.00	0.00	0.00	
16,557.9	90.00	359.58	11,593.0	4,859.8	-717.5	4,864.9	0.00	0.00	0.00	

TD at 16557.9 - 750S - Quail 16 State Com #754H LTP/BHL

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/S (usft)	+E/W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target	0.00	0.01	11,593.0	-215.0	-680.1	570,560.11	779,123.67	32.566155	-103.561481	
- Shape										
Quail 16 State Com #75										
- plan misses target center by 166.8usft at 11569.0usft MD (11472.7 TVD, -99.4 N, -681.3 E)										
- Point										
Quail 16 State Com #75										
- plan hits target center										
- Point										

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Quail 16 State Com #754H
Company:	Avant Operating II, LLC	TVD Reference:	Well @ 3664.0usft (3664)
Project:	Lea County, NM (NAD 83)	MD Reference:	Well @ 3664.0usft (3664)
Site:	Quail 16 State Com Pad 2	North Reference:	Grid
Well:	Quail 16 State Com #754H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,552.0	1,552.0	RUSTLER			
1,881.0	1,881.0	SOLADO			
3,308.0	3,308.0	BASE_OF_SALT			
3,410.0	3,410.0	YATES			
3,844.0	3,844.0	SVRV			
4,012.0	4,012.0	CAPITAN_REEF			
5,269.4	5,269.0	CPTN_REEF_BASE			
5,561.9	5,559.0	CHERRY_CNYN			
6,633.5	6,620.0	BRUSHY_CANYON			
8,387.8	8,357.0	BSPG_LIME			
8,798.8	8,764.0	AVALON_B			
9,010.9	8,974.0	200S			
9,532.0	9,490.0	FBSG_SD			
9,645.2	9,602.0	300'S			
9,825.9	9,781.0	SBSG_SHALE			
9,840.1	9,795.0	SBSG_CARB			
10,067.3	10,020.0	SBSG_SD			
10,114.8	10,067.0	500S_UPPER			
10,333.5	10,284.0	SBSG_SD_LWR			
10,431.8	10,382.0	500S			
10,595.9	10,546.0	TBSG_CARB			
10,768.9	10,719.0	TBSG_SD			
10,872.9	10,823.0	TBSG_MS			
10,947.9	10,898.0	TBSG_FS			
11,028.9	10,979.0	WFMP			
11,075.9	11,026.0	WFMP_CL_Y			
11,106.9	11,057.0	WFMP_A			
11,374.5	11,318.0	WFMP_B			
11,375.6	11,319.0	WFMP_D_CARB			
16,557.9	11,593.0	750S			

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N-S (usft)	+E-W (usft)		Comment
5,000.0	5,000.0	0.0	0.0		KOP - Start Build 2.00
5,402.6	5,401.3	-10.1	-26.4		Start 4794.7 hold at 5402.6 MD
10,197.3	10,148.7	-249.9	-653.7		Start Drop -2.00
10,599.9	10,550.0	-260.0	-680.1		Start 565.5 hold at 10599.9 MD
11,165.4	11,115.5	-260.0	-680.1		KOP #2 - Start DLS 12.00 TFO 359.58
11,915.4	11,593.0	217.4	-683.6		LP - Start 4642.4 hold at 11915.4 MD
16,557.9	11,593.0	4,859.8	-717.5		TD at 16557.9

API: 0

REGULATORY: NM State



PERMIT # 0

RIG: 0

KB: 26.5

GL: 3639

AFE:

SHL:

Quail 16 State Com #754H

Wolfcamp

Lea County, NM

Sec. 16, T-20S, R-34E; 314 FSL, 803 FEL

Lat: 32.566732, Long: -103.559269 (NAD83)

HOLE SIZE	MD	FORMATION	TVD	MUD SPUD MW	CASING	CEMENT	SPECIAL INSTRUCTIONS
	120	20" Conductor	120	8.4 ppg <i>Fresh</i>	13 3/8 "	LEAD: 12.8 PPG Top of Lead: 0	<i>Circ cmt to surface is a regulatory requirement</i>
17.5"	1,552	Rustler	1,552	TD MW 9.9 ppg	54.5# J-55 BTC	50% Excess TAIL: 14.8 PPG Top of Tail: 1261.6' 20% Excess	Casing must be set 25' into the Rustler MUD: Fresh water only
17.5"	1,577	SURF CSG PT	1,577	+/- 21 Bowsprings			
12.25"	1,881	Solado	1,881	TD MW 10.0 ppg	10 3/4 "	2 STAGE CEMENT	<i>Circ cmt to surface is a regulatory requirement</i>
12.25"	3,410	Yates	3,410	Brine	45.5# J-55 BTC-SCC	1st STAGE LEAD: 12.5 PPG Top of Lead: 0' 20% excess TAIL: 14.5 PPG Top of Tail: 4255' 20% Excess	
12.25"	3,800	DV TOOL & PACKER	3,800	TD MW 10 ppg		2nd STAGE LEAD: 12.5 PPG Top of Lead: 0' 20% Excess TAIL: 14.2 PPG Top of Tail: 3400' no excess	
12.25"	4,012	Capitan Reef	4,012	+/- 25 Bowsprings			
12.25"	5,269	Base of Capitan	5,269	1 joint shoe track			
12.25"	5,319	INTRM1 CSG PT	5,319				
9.875"	5,562	Cherry Canyon	5,559	DRILLOUT MW 8.4 ppg	SPLIT STRING 8 5/8 "	LEAD: 12.5 PPG Top of Lead: 0' 20% Excess TAIL: 14.2 PPG Top of Tail: 7940' 20% Excess	<i>Pump stage 1 as designed. If cement is not circulated to surface, shift DV tool and pump stage 2. CBL required if cement is not circulated off DV tool during stage 2 job.</i>
9.875"	6,634	Brushy Canyon	6,620	Cut Brine	32# L-80 HC BK 5600' - 6000' (10 joints) R-111-Q FIGURE F		
9.875"	8,388	Bone Spring	8,357	TD MW 8.4 ppg	32# P-110 HC BK 0' - 5600' - 6000' - 9926'		
9.875"	9,532	1st BS Sand	9,490	+/- 30 Bowsprings			
9.875"	9,826	2nd BS Shale	9,781	1 joint shoe track			
9.875"	9,926	INTRM2 CSG PT	9,881				Alternate Drift of 7-7/8"
VERT							
7.875"	10,769	3BS Sand	10,719	DROUT MW 9 ppg	5 1/2 "	LEAD: 10.7 PPG Top of Lead: 9426' No Excess TAIL: 14.8 PPG Top of Tail: 11165' (KOP) No Excess	Annular Capacity above top of lead: 298 bbls
7.875"	11,029	Wolfcamp	10,979	Cut Brine	20# P-110 HC GBCD 0' - TD	R-111-Q FIGURE F	+/- 88 Bowsprings +/- 26 Doublebows +/- 395 Solid Bodies
CRV							
7.875"	11,165	KOP	11,116	OBM	EOC MW 9.2 ppg	OBM	TD MW 9.2 ppg
LAT							
7.875"	11,916	EOC	11,593	EOC VS = 223'	Lat. Azi = VS Azi. = 359.58°	Est BHST = 181°F, Est BHCT = 164°F	16,558 MD 4,865 VS 11,593 TVD BHL: 100 FNL, 1485 FEL
7.875"							Expected BH Pressure: 5333
DIRECTIONS TO LOCATION							

Drilling Engineer: Ryan Harris

0

DATE: 12/3/2025

PRELIMINARY

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:** 09/29/2025

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
Quail 16 State Com 204H		P-16-T20S-R34E	263FSL/964FEL	1200 BBL/D	3600 MCF/D	6000 BBL/D
Quail 16 State Com 205H		P-16-T20S-R34E	264FSL/904FEL	1200 BBL/D	3600 MCF/D	6000 BBL/D
Quail 16 State Com 206H		P-16-T20S-R34E	264FSL/844FEL	1200 BBL/D	3600 MCF/D	6000 BBL/D
Quail 16 State Com 303H		P-16-T20S-R34E	263FSL/1004FEL	950 BBL/D	2000 MCF/D	6650 BBL/D
Quail 16 State Com 304H		P-16-T20S-R34E	263FSL/944FEL	950 BBL/D	2000 MCF/D	6650 BBL/D
Quail 16 State Com 305H		P-16-T20S-R34E	264FSL/864FEL	950 BBL/D	2000 MCF/D	6650 BBL/D
Quail 16 State Com 504H		P-16-T20S-R34E	263FSL/984FEL	1400 BBL/D	2400 MCF/D	7500 BBL/D
Quail 16 State Com 505H		P-16-T20S-R34E	264FSL/924FEL	1400 BBL/D	2400 MCF/D	7500 BBL/D
Quail 16 State Com 506H		P-16-T20S-R34E	264FSL/884FEL	1400 BBL/D	2400 MCF/D	7500 BBL/D
Quail 16 State Com 754H		P-16-T20S-R34E	314FSL/803FEL	1250 BBL/D	2600 MCF/D	7500 BBL/D
Quail 16 State Com 755H		P-16-T20S-R34E	314FSL/743FEL	1250 BBL/D	2600 MCF/D	7500 BBL/D
Quail 16 State Com 804H		P-16-T20S-R34E	314FSL/783FEL	1200 BBL/D	2500 MCF/D	6000 BBL/D
Quail 16 State Com 805H		P-16-T20S-R34E	314FSL/763FEL	1200 BBL/D	2500 MCF/D	6000 BBL/D

IV. Central Delivery Point Name: Quail 16 State 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
Quail 16 State Com 204H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 205H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 206H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 303H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 304H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 305H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 504H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 505H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 506H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 754H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 755H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 804H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026
Quail 16 State Com 805H		02/15/2026	03/30/2026	05/01/2026	07/01/2026	07/01/2026

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

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:

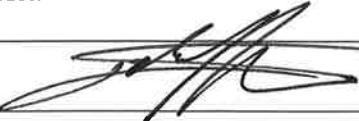
(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit 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: 08/15/25

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.

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
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KZ 06/29/2018