District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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 353375

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

1. Operator Name and Address	2. OGRID Number
Avant Operating, LLC 1515 Wynkoop Street Denver, CO 80202	330396
	3. API Number 30-025-52206

4. Property Code	5. Property Name	6. Well No.
334829	EXPLORER 15 STATE COM	008H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
A	15	18S	34E	A	271	N	1317	E	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
P	22	18S	34E	P	100	S	330	E	Lea

9. Pool Information

TONTO DEEP;WOLFCAMP	59510

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	4018
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	21545	Wolfcamp		5/30/2024
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	1805	875	1440
Int1	9.875	7.625	29.7	9287	935	7520
Prod	6.75	5.5	20	21545	1310	10868

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 further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:			**OIL CONSERVATION DIVISION**		
Printed Name:	Electronically filed by Sarah Ferreyros		Approved By:	Paul F Kautz	
Title:	Director of Regulatory		Title:	Geologist	
Email Address:	sarah@avantnr.com		Approved Date:	11/14/2023	Expiration Date: 11/14/2025
Date:	11/13/2023	Phone: 720-854-9020	Conditions of Approval Attached		

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State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	59510	TONTO DEEP;WOLFCAMP

Property Code	Property Name	Well Number
	EXPLORER 15 STATE COM	#008H

OGRID No.	Operator Name	Elevation
330396	AVANT OPERATING, LLC	4018'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	15	18 S	34 E		271	NORTH	1317	EAST	LEA

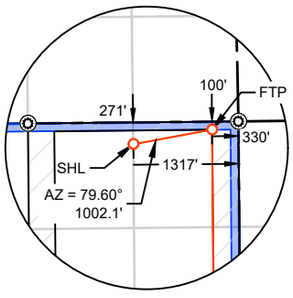
Bottom Hole Location If Different From Surface

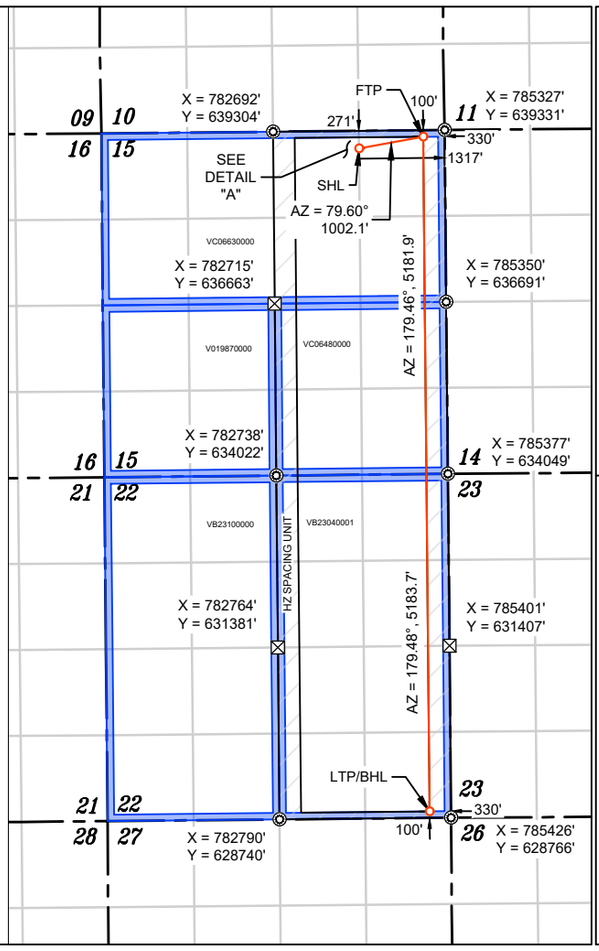
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	22	18 S	34 E		100	SOUTH	330	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640.00			

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.

APPROXIMATE WELL BORE DISTANCE FROM FTP TO LTP	
SECTION 15	5181.87'
SECTION 22	5183.65'
TOTAL	10365.52'





OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 11/10/2023

Meghan Twele
Printed Name

mtwele@outlook.com
E-mail Address

SURVEYOR CERTIFICATION

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.

SEPTEMBER 06, 2023
Date of Survey

Signature and Seal of Professional Surveyor:

Job No.: 23-07-3357
TYLER J. WILLIS, N.M.P.L.S.
Certificate Number 25344

NAD 83 (SHL) 271' FNL & 1317' FEL
LATITUDE = 32.754289°
LONGITUDE = -103.543960°
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32.754165°
LONGITUDE = -103.543463°
STATE PLANE NAD 83 (N.M. EAST)
N: 639046.56' E: 784012.51'
STATE PLANE NAD 27 (N.M. EAST)
N: 638981.88' E: 742833.35'

NAD 83 (FTP) 100' FNL & 330' FEL
LATITUDE = 32.754766°
LONGITUDE = -103.540750°
NAD 27 (FTP)
LATITUDE = 32.754642°
LONGITUDE = -103.540253°
STATE PLANE NAD 83 (N.M. EAST)
N: 639227.53' E: 784998.09'
STATE PLANE NAD 27 (N.M. EAST)
N: 639162.83' E: 743818.93'

NAD 83 (LTP/BHL) 100' FSL & 330' FEL
LATITUDE = 32.726276°
LONGITUDE = -103.540689°
NAD 27 (LTP/BHL)
LATITUDE = 32.726152°
LONGITUDE = -103.540193°
STATE PLANE NAD 83 (N.M. EAST)
N: 628862.46' E: 785094.66'
STATE PLANE NAD 27 (N.M. EAST)
N: 628798.07' E: 743915.22'

◎ FND. U.S.G.L.O. MON. UNLESS OTHERWISE NOTED
☒ CALC. CORNER
○ SHL/ KOP/ FTP/ PPP/ LTP / BHL
OIL & GAS LEASE
HORIZONTAL SPACING UNIT

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), NAVD 88.

2. THIS DOCUMENT IS BASED UPON AN ON THE GROUND SURVEY PERFORMED DURING SEPTEMBER, 2023. CERTIFICATION OF THIS DOCUMENT IS ONLY TO THE LOCATION OF THIS EASEMENT 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.

0' 2500' 5000'
SCALE: 1" = 2500'

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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 353375

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Avant Operating, LLC [330396] 1515 Wynkoop Street Denver, CO 80202	30-025-52206
	Well: EXPLORER 15 STATE COM #008H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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
pkautz	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
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	If cement does not circulate on any string , a CBL is required for that string of casing.
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

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, LLC **OGRID:** 330396 **Date:** 11/08/2023

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
Explorer 15 State Com 006H		B-15-T18S-R34E	271FNL/1357FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 007H		B-15-T18S-R34E	271FNL/1337FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 008H		A-15-T18S-R34E	271FNL/1317FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 301H		B-15-T18S-R34E	431FNL/1359FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 302H		B-15-T18S-R34E	431FNL/1339FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 303H		B-15-T18S-R34E	431FNL/1319FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D

IV. Central Delivery Point Name: Explorer CTB 1 [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
Explorer 15 State Com 006H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 007H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 008H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 301H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 302H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 303H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025

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 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: VP of Geosciences
E-mail Address: John@avantnr.com
Date: 11/08/23
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, 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. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, Avant will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications. 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 (l) 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

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

Avant Operating, LLC

Lea Co., NM (NAD 83)
Explorer 15 State Com Pad 2
Explorer 15 State Com 008H

OH

Plan: Plan 0.1

Standard Planning Report

30 October, 2023

AVANT NATURAL RESOURCES

Planning Report

AVANT NATURAL RESOURCES

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Explorer 15 State Com 008H
Company:	Avant Operating, LLC	**TVD Reference:**	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	**MD Reference:**	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	**North Reference:**	Grid
Well:	Explorer 15 State Com 008H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Project Lea Co., NM (NAD 83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Explorer 15 State Com Pad 2

Site Position:		**Northing:**	638,966.75 usft	**Latitude:**	32.7540850°N
From:	Lat/Long	**Easting:**	783,247.96 usft	**Longitude:**	103.5464490°W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well Explorer 15 State Com 008H

Well Position	**+N/-S**	0.0 usft	**Northing:**	639,046.67 usft	**Latitude:**	32.7542890°N
	+E/-W	0.0 usft	**Easting:**	784,012.62 usft	**Longitude:**	103.5439600°W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	4,018.0 usft
Grid Convergence:		0.43 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	8.59	60.94	49,745.24370690

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	173.94

Plan Survey Tool Program **Date** 10/30/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,545.4	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	
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,559.9	11.20	77.43	5,556.3	11.9	53.2	2.00	2.00	0.00	77.43	
10,205.7	11.20	77.43	10,113.7	208.1	933.8	0.00	0.00	0.00	0.00	
10,765.5	0.00	0.00	10,670.0	220.0	987.0	2.00	-2.00	0.00	180.00	
10,868.1	0.00	0.00	10,772.5	220.0	987.0	0.00	0.00	0.00	0.00	
11,618.1	90.00	179.48	11,250.0	-257.4	991.4	12.00	12.00	0.00	179.48	
21,545.4	90.00	179.48	11,250.0	-10,184.3	1,081.9	0.00	0.00	0.00	0.00	Explorer15 State Com

AVANT NATURAL RESOURCES

Planning Report

AVANT NATURAL RESOURCES

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Explorer 15 State Com 008H
Company:	Avant Operating, LLC	**TVD Reference:**	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	**MD Reference:**	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	**North Reference:**	Grid
Well:	Explorer 15 State Com 008H	**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)
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
1,600.0	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
1,780.0	0.00	0.00	1,780.0	0.0	0.0	0.0	0.00	0.00	0.00
RUSTLER									
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,890.0	0.00	0.00	1,890.0	0.0	0.0	0.0	0.00	0.00	0.00
SALT									
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
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
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
3,655.0	0.00	0.00	3,655.0	0.0	0.0	0.0	0.00	0.00	0.00
SEVEN RIVERS									
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
3,900.0	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
4,100.0	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
4,390.0	0.00	0.00	4,390.0	0.0	0.0	0.0	0.00	0.00	0.00
QUEEN									
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00

AVANT NATURAL RESOURCES

Planning Report

AVANT NATURAL RESOURCES

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Explorer 15 State Com 008H
Company:	Avant Operating, LLC	**TVD Reference:**	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	**MD Reference:**	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	**North Reference:**	Grid
Well:	Explorer 15 State Com 008H	**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)
4,500.0	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
4,997.0	0.00	0.00	4,997.0	0.0	0.0	0.0	0.00	0.00	0.00
CAPITAN REEF									
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	77.43	5,100.0	0.4	1.7	-0.2	2.00	2.00	0.00
5,200.0	4.00	77.43	5,199.8	1.5	6.8	-0.8	2.00	2.00	0.00
5,300.0	6.00	77.43	5,299.5	3.4	15.3	-1.8	2.00	2.00	0.00
5,400.0	8.00	77.43	5,398.7	6.1	27.2	-3.2	2.00	2.00	0.00
5,500.0	10.00	77.43	5,497.5	9.5	42.5	-4.9	2.00	2.00	0.00
5,559.9	11.20	77.43	5,556.3	11.9	53.2	-6.2	2.00	2.00	0.00
Start 4645.8 hold at 5559.9 MD									
5,600.0	11.20	77.43	5,595.7	13.6	60.8	-7.1	0.00	0.00	0.00
5,657.4	11.20	77.43	5,652.0	16.0	71.7	-8.3	0.00	0.00	0.00
CHERRY CANYON									
5,700.0	11.20	77.43	5,693.8	17.8	79.8	-9.3	0.00	0.00	0.00
5,800.0	11.20	77.43	5,791.9	22.0	98.7	-11.5	0.00	0.00	0.00
5,818.5	11.20	77.43	5,810.0	22.8	102.2	-11.9	0.00	0.00	0.00
BRUSHY CANYON									
5,900.0	11.20	77.43	5,890.0	26.2	117.7	-13.7	0.00	0.00	0.00
6,000.0	11.20	77.43	5,988.1	30.5	136.6	-15.9	0.00	0.00	0.00
6,100.0	11.20	77.43	6,086.2	34.7	155.6	-18.1	0.00	0.00	0.00
6,200.0	11.20	77.43	6,184.3	38.9	174.6	-20.3	0.00	0.00	0.00
6,300.0	11.20	77.43	6,282.4	43.1	193.5	-22.4	0.00	0.00	0.00
6,400.0	11.20	77.43	6,380.5	47.4	212.5	-24.6	0.00	0.00	0.00
6,500.0	11.20	77.43	6,478.5	51.6	231.4	-26.8	0.00	0.00	0.00
6,600.0	11.20	77.43	6,576.6	55.8	250.4	-29.0	0.00	0.00	0.00
6,613.6	11.20	77.43	6,590.0	56.4	252.9	-29.3	0.00	0.00	0.00
Top of BSGL									
6,700.0	11.20	77.43	6,674.7	60.0	269.3	-31.2	0.00	0.00	0.00
6,800.0	11.20	77.43	6,772.8	64.3	288.3	-33.4	0.00	0.00	0.00
6,900.0	11.20	77.43	6,870.9	68.5	307.2	-35.6	0.00	0.00	0.00
7,000.0	11.20	77.43	6,969.0	72.7	326.2	-37.8	0.00	0.00	0.00
7,100.0	11.20	77.43	7,067.1	76.9	345.1	-40.0	0.00	0.00	0.00
7,200.0	11.20	77.43	7,165.2	81.2	364.1	-42.2	0.00	0.00	0.00
7,300.0	11.20	77.43	7,263.3	85.4	383.0	-44.4	0.00	0.00	0.00
7,400.0	11.20	77.43	7,361.4	89.6	402.0	-46.6	0.00	0.00	0.00
7,500.0	11.20	77.43	7,459.5	93.8	421.0	-48.8	0.00	0.00	0.00
7,600.0	11.20	77.43	7,557.6	98.1	439.9	-51.0	0.00	0.00	0.00
7,700.0	11.20	77.43	7,655.7	102.3	458.9	-53.2	0.00	0.00	0.00
7,800.0	11.20	77.43	7,753.8	106.5	477.8	-55.4	0.00	0.00	0.00
7,900.0	11.20	77.43	7,851.9	110.7	496.8	-57.6	0.00	0.00	0.00
8,000.0	11.20	77.43	7,950.0	115.0	515.7	-59.8	0.00	0.00	0.00
8,100.0	11.20	77.43	8,048.1	119.2	534.7	-62.0	0.00	0.00	0.00
8,200.0	11.20	77.43	8,146.2	123.4	553.6	-64.2	0.00	0.00	0.00
8,300.0	11.20	77.43	8,244.3	127.6	572.6	-66.4	0.00	0.00	0.00
8,400.0	11.20	77.43	8,342.4	131.9	591.5	-68.6	0.00	0.00	0.00
8,474.0	11.20	77.43	8,415.0	135.0	605.6	-70.3	0.00	0.00	0.00
Top of FBSG SD									

AVANT NATURAL RESOURCES

Planning Report

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Project:	Lea Co., NM (NAD 83)	**MD Reference:**	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	**North Reference:**	Grid
Well:	Explorer 15 State Com 008H	**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)
8,500.0	11.20	77.43	8,440.5	136.1	610.5	-70.8	0.00	0.00	0.00
8,600.0	11.20	77.43	8,538.6	140.3	629.4	-73.0	0.00	0.00	0.00
8,700.0	11.20	77.43	8,636.7	144.5	648.4	-75.2	0.00	0.00	0.00
8,800.0	11.20	77.43	8,734.8	148.7	667.3	-77.4	0.00	0.00	0.00
8,900.0	11.20	77.43	8,832.9	153.0	686.3	-79.6	0.00	0.00	0.00
9,000.0	11.20	77.43	8,931.0	157.2	705.3	-81.8	0.00	0.00	0.00
9,100.0	11.20	77.43	9,029.1	161.4	724.2	-84.0	0.00	0.00	0.00
9,186.6	11.20	77.43	9,114.0	165.1	740.6	-85.9	0.00	0.00	0.00
Top of SBSG SD									
9,200.0	11.20	77.43	9,127.2	165.6	743.2	-86.2	0.00	0.00	0.00
9,300.0	11.20	77.43	9,225.2	169.9	762.1	-88.4	0.00	0.00	0.00
9,400.0	11.20	77.43	9,323.3	174.1	781.1	-90.6	0.00	0.00	0.00
9,484.3	11.20	77.43	9,406.0	177.7	797.0	-92.5	0.00	0.00	0.00
Top of TBSG Carb									
9,500.0	11.20	77.43	9,421.4	178.3	800.0	-92.8	0.00	0.00	0.00
9,600.0	11.20	77.43	9,519.5	182.5	819.0	-95.0	0.00	0.00	0.00
9,700.0	11.20	77.43	9,617.6	186.8	837.9	-97.2	0.00	0.00	0.00
9,719.7	11.20	77.43	9,637.0	187.6	841.7	-97.6	0.00	0.00	0.00
Top of TBSG SD									
9,800.0	11.20	77.43	9,715.7	191.0	856.9	-99.4	0.00	0.00	0.00
9,816.6	11.20	77.43	9,732.0	191.7	860.0	-99.8	0.00	0.00	0.00
Top WFMP									
9,900.0	11.20	77.43	9,813.8	195.2	875.8	-101.6	0.00	0.00	0.00
10,000.0	11.20	77.43	9,911.9	199.4	894.8	-103.8	0.00	0.00	0.00
10,100.0	11.20	77.43	10,010.0	203.7	913.7	-106.0	0.00	0.00	0.00
10,200.0	11.20	77.43	10,108.1	207.9	932.7	-108.2	0.00	0.00	0.00
10,205.7	11.20	77.43	10,113.7	208.1	933.8	-108.3	0.00	0.00	0.00
Start Drop -2.00									
10,300.0	9.31	77.43	10,206.5	211.8	950.2	-110.2	2.00	-2.00	0.00
10,400.0	7.31	77.43	10,305.4	214.9	964.3	-111.9	2.00	-2.00	0.00
10,500.0	5.31	77.43	10,404.8	217.3	975.0	-113.1	2.00	-2.00	0.00
10,600.0	3.31	77.43	10,504.5	219.0	982.3	-114.0	2.00	-2.00	0.00
10,700.0	1.31	77.43	10,604.5	219.8	986.3	-114.4	2.00	-2.00	0.00
10,765.5	0.00	0.00	10,670.0	220.0	987.0	-114.5	2.00	-2.00	-118.13
Start 102.5 hold at 10765.5 MD									
10,800.0	0.00	0.00	10,704.5	220.0	987.0	-114.5	0.00	0.00	0.00
10,868.1	0.00	0.00	10,772.5	220.0	987.0	-114.5	0.00	0.00	0.00
KOP - Start Build 12.00									
10,900.0	3.83	179.48	10,804.4	218.9	987.0	-113.4	12.00	12.00	0.00
11,000.0	15.83	179.48	10,902.8	201.9	987.2	-96.5	12.00	12.00	0.00
11,100.0	27.83	179.48	10,995.4	164.8	987.5	-59.5	12.00	12.00	0.00
11,200.0	39.83	179.48	11,078.4	109.2	988.0	-4.2	12.00	12.00	0.00
11,268.3	48.02	179.48	11,127.5	61.9	988.4	42.9	12.00	12.00	0.00
Explorer 15 State Com 008H FTP									
11,300.0	51.83	179.48	11,147.9	37.6	988.7	67.0	12.00	12.00	0.00
11,400.0	63.83	179.48	11,201.1	-46.9	989.4	151.1	12.00	12.00	0.00
11,500.0	75.83	179.48	11,235.5	-140.6	990.3	244.4	12.00	12.00	0.00
11,600.0	87.83	179.48	11,249.7	-239.4	991.2	342.7	12.00	12.00	0.00
11,618.1	90.00	179.48	11,250.0	-257.4	991.4	360.7	12.00	12.00	0.00
LP - Start 9927.3 hold at 11618.1 MD									
11,700.0	90.00	179.48	11,250.0	-339.4	992.1	442.3	0.00	0.00	0.00
11,800.0	90.00	179.48	11,250.0	-439.4	993.0	541.8	0.00	0.00	0.00
11,900.0	90.00	179.48	11,250.0	-539.3	993.9	641.3	0.00	0.00	0.00

AVANT NATURAL RESOURCES

Planning Report

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Project:	Lea Co., NM (NAD 83)	**MD Reference:**	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	**North Reference:**	Grid
Well:	Explorer 15 State Com 008H	**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)
12,000.0	90.00	179.48	11,250.0	-639.3	994.8	740.9	0.00	0.00	0.00
12,100.0	90.00	179.48	11,250.0	-739.3	995.7	840.4	0.00	0.00	0.00
12,200.0	90.00	179.48	11,250.0	-839.3	996.7	939.9	0.00	0.00	0.00
12,300.0	90.00	179.48	11,250.0	-939.3	997.6	1,039.5	0.00	0.00	0.00
12,400.0	90.00	179.48	11,250.0	-1,039.3	998.5	1,139.0	0.00	0.00	0.00
12,500.0	90.00	179.48	11,250.0	-1,139.3	999.4	1,238.5	0.00	0.00	0.00
12,600.0	90.00	179.48	11,250.0	-1,239.3	1,000.3	1,338.1	0.00	0.00	0.00
12,700.0	90.00	179.48	11,250.0	-1,339.3	1,001.2	1,437.6	0.00	0.00	0.00
12,800.0	90.00	179.48	11,250.0	-1,439.3	1,002.1	1,537.1	0.00	0.00	0.00
12,900.0	90.00	179.48	11,250.0	-1,539.3	1,003.0	1,636.7	0.00	0.00	0.00
13,000.0	90.00	179.48	11,250.0	-1,639.3	1,004.0	1,736.2	0.00	0.00	0.00
13,100.0	90.00	179.48	11,250.0	-1,739.3	1,004.9	1,835.7	0.00	0.00	0.00
13,200.0	90.00	179.48	11,250.0	-1,839.3	1,005.8	1,935.3	0.00	0.00	0.00
13,300.0	90.00	179.48	11,250.0	-1,939.3	1,006.7	2,034.8	0.00	0.00	0.00
13,400.0	90.00	179.48	11,250.0	-2,039.3	1,007.6	2,134.3	0.00	0.00	0.00
13,500.0	90.00	179.48	11,250.0	-2,139.3	1,008.5	2,233.8	0.00	0.00	0.00
13,600.0	90.00	179.48	11,250.0	-2,239.3	1,009.4	2,333.4	0.00	0.00	0.00
13,700.0	90.00	179.48	11,250.0	-2,339.3	1,010.3	2,432.9	0.00	0.00	0.00
13,800.0	90.00	179.48	11,250.0	-2,439.3	1,011.3	2,532.4	0.00	0.00	0.00
13,900.0	90.00	179.48	11,250.0	-2,539.3	1,012.2	2,632.0	0.00	0.00	0.00
14,000.0	90.00	179.48	11,250.0	-2,639.3	1,013.1	2,731.5	0.00	0.00	0.00
14,100.0	90.00	179.48	11,250.0	-2,739.3	1,014.0	2,831.0	0.00	0.00	0.00
14,200.0	90.00	179.48	11,250.0	-2,839.3	1,014.9	2,930.6	0.00	0.00	0.00
14,300.0	90.00	179.48	11,250.0	-2,939.2	1,015.8	3,030.1	0.00	0.00	0.00
14,400.0	90.00	179.48	11,250.0	-3,039.2	1,016.7	3,129.6	0.00	0.00	0.00
14,500.0	90.00	179.48	11,250.0	-3,139.2	1,017.6	3,229.2	0.00	0.00	0.00
14,600.0	90.00	179.48	11,250.0	-3,239.2	1,018.5	3,328.7	0.00	0.00	0.00
14,700.0	90.00	179.48	11,250.0	-3,339.2	1,019.5	3,428.2	0.00	0.00	0.00
14,800.0	90.00	179.48	11,250.0	-3,439.2	1,020.4	3,527.8	0.00	0.00	0.00
14,900.0	90.00	179.48	11,250.0	-3,539.2	1,021.3	3,627.3	0.00	0.00	0.00
15,000.0	90.00	179.48	11,250.0	-3,639.2	1,022.2	3,726.8	0.00	0.00	0.00
15,100.0	90.00	179.48	11,250.0	-3,739.2	1,023.1	3,826.4	0.00	0.00	0.00
15,200.0	90.00	179.48	11,250.0	-3,839.2	1,024.0	3,925.9	0.00	0.00	0.00
15,300.0	90.00	179.48	11,250.0	-3,939.2	1,024.9	4,025.4	0.00	0.00	0.00
15,400.0	90.00	179.48	11,250.0	-4,039.2	1,025.8	4,125.0	0.00	0.00	0.00
15,500.0	90.00	179.48	11,250.0	-4,139.2	1,026.8	4,224.5	0.00	0.00	0.00
15,600.0	90.00	179.48	11,250.0	-4,239.2	1,027.7	4,324.0	0.00	0.00	0.00
15,700.0	90.00	179.48	11,250.0	-4,339.2	1,028.6	4,423.6	0.00	0.00	0.00
15,800.0	90.00	179.48	11,250.0	-4,439.2	1,029.5	4,523.1	0.00	0.00	0.00
15,900.0	90.00	179.48	11,250.0	-4,539.2	1,030.4	4,622.6	0.00	0.00	0.00
16,000.0	90.00	179.48	11,250.0	-4,639.2	1,031.3	4,722.2	0.00	0.00	0.00
16,100.0	90.00	179.48	11,250.0	-4,739.2	1,032.2	4,821.7	0.00	0.00	0.00
16,200.0	90.00	179.48	11,250.0	-4,839.2	1,033.1	4,921.2	0.00	0.00	0.00
16,300.0	90.00	179.48	11,250.0	-4,939.2	1,034.0	5,020.8	0.00	0.00	0.00
16,400.0	90.00	179.48	11,250.0	-5,039.2	1,035.0	5,120.3	0.00	0.00	0.00
16,500.0	90.00	179.48	11,250.0	-5,139.2	1,035.9	5,219.8	0.00	0.00	0.00
16,600.0	90.00	179.48	11,250.0	-5,239.2	1,036.8	5,319.4	0.00	0.00	0.00
16,700.0	90.00	179.48	11,250.0	-5,339.1	1,037.7	5,418.9	0.00	0.00	0.00
16,800.0	90.00	179.48	11,250.0	-5,439.1	1,038.6	5,518.4	0.00	0.00	0.00
16,900.0	90.00	179.48	11,250.0	-5,539.1	1,039.5	5,618.0	0.00	0.00	0.00
17,000.0	90.00	179.48	11,250.0	-5,639.1	1,040.4	5,717.5	0.00	0.00	0.00
17,100.0	90.00	179.48	11,250.0	-5,739.1	1,041.3	5,817.0	0.00	0.00	0.00
17,200.0	90.00	179.48	11,250.0	-5,839.1	1,042.3	5,916.6	0.00	0.00	0.00
17,300.0	90.00	179.48	11,250.0	-5,939.1	1,043.2	6,016.1	0.00	0.00	0.00

AVANT NATURAL RESOURCES

Planning Report

AVANT NATURAL RESOURCES

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Explorer 15 State Com 008H
Company:	Avant Operating, LLC	**TVD Reference:**	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	**MD Reference:**	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	**North Reference:**	Grid
Well:	Explorer 15 State Com 008H	**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)
17,400.0	90.00	179.48	11,250.0	-6,039.1	1,044.1	6,115.6	0.00	0.00	0.00
17,500.0	90.00	179.48	11,250.0	-6,139.1	1,045.0	6,215.2	0.00	0.00	0.00
17,600.0	90.00	179.48	11,250.0	-6,239.1	1,045.9	6,314.7	0.00	0.00	0.00
17,700.0	90.00	179.48	11,250.0	-6,339.1	1,046.8	6,414.2	0.00	0.00	0.00
17,800.0	90.00	179.48	11,250.0	-6,439.1	1,047.7	6,513.8	0.00	0.00	0.00
17,900.0	90.00	179.48	11,250.0	-6,539.1	1,048.6	6,613.3	0.00	0.00	0.00
18,000.0	90.00	179.48	11,250.0	-6,639.1	1,049.6	6,712.8	0.00	0.00	0.00
18,100.0	90.00	179.48	11,250.0	-6,739.1	1,050.5	6,812.4	0.00	0.00	0.00
18,200.0	90.00	179.48	11,250.0	-6,839.1	1,051.4	6,911.9	0.00	0.00	0.00
18,300.0	90.00	179.48	11,250.0	-6,939.1	1,052.3	7,011.4	0.00	0.00	0.00
18,400.0	90.00	179.48	11,250.0	-7,039.1	1,053.2	7,110.9	0.00	0.00	0.00
18,500.0	90.00	179.48	11,250.0	-7,139.1	1,054.1	7,210.5	0.00	0.00	0.00
18,600.0	90.00	179.48	11,250.0	-7,239.1	1,055.0	7,310.0	0.00	0.00	0.00
18,700.0	90.00	179.48	11,250.0	-7,339.1	1,055.9	7,409.5	0.00	0.00	0.00
18,800.0	90.00	179.48	11,250.0	-7,439.1	1,056.8	7,509.1	0.00	0.00	0.00
18,900.0	90.00	179.48	11,250.0	-7,539.1	1,057.8	7,608.6	0.00	0.00	0.00
19,000.0	90.00	179.48	11,250.0	-7,639.1	1,058.7	7,708.1	0.00	0.00	0.00
19,100.0	90.00	179.48	11,250.0	-7,739.0	1,059.6	7,807.7	0.00	0.00	0.00
19,200.0	90.00	179.48	11,250.0	-7,839.0	1,060.5	7,907.2	0.00	0.00	0.00
19,300.0	90.00	179.48	11,250.0	-7,939.0	1,061.4	8,006.7	0.00	0.00	0.00
19,400.0	90.00	179.48	11,250.0	-8,039.0	1,062.3	8,106.3	0.00	0.00	0.00
19,500.0	90.00	179.48	11,250.0	-8,139.0	1,063.2	8,205.8	0.00	0.00	0.00
19,600.0	90.00	179.48	11,250.0	-8,239.0	1,064.1	8,305.3	0.00	0.00	0.00
19,700.0	90.00	179.48	11,250.0	-8,339.0	1,065.1	8,404.9	0.00	0.00	0.00
19,800.0	90.00	179.48	11,250.0	-8,439.0	1,066.0	8,504.4	0.00	0.00	0.00
19,900.0	90.00	179.48	11,250.0	-8,539.0	1,066.9	8,603.9	0.00	0.00	0.00
20,000.0	90.00	179.48	11,250.0	-8,639.0	1,067.8	8,703.5	0.00	0.00	0.00
20,100.0	90.00	179.48	11,250.0	-8,739.0	1,068.7	8,803.0	0.00	0.00	0.00
20,200.0	90.00	179.48	11,250.0	-8,839.0	1,069.6	8,902.5	0.00	0.00	0.00
20,300.0	90.00	179.48	11,250.0	-8,939.0	1,070.5	9,002.1	0.00	0.00	0.00
20,400.0	90.00	179.48	11,250.0	-9,039.0	1,071.4	9,101.6	0.00	0.00	0.00
20,500.0	90.00	179.48	11,250.0	-9,139.0	1,072.3	9,201.1	0.00	0.00	0.00
20,600.0	90.00	179.48	11,250.0	-9,239.0	1,073.3	9,300.7	0.00	0.00	0.00
20,700.0	90.00	179.48	11,250.0	-9,339.0	1,074.2	9,400.2	0.00	0.00	0.00
20,800.0	90.00	179.48	11,250.0	-9,439.0	1,075.1	9,499.7	0.00	0.00	0.00
20,900.0	90.00	179.48	11,250.0	-9,539.0	1,076.0	9,599.3	0.00	0.00	0.00
21,000.0	90.00	179.48	11,250.0	-9,639.0	1,076.9	9,698.8	0.00	0.00	0.00
21,100.0	90.00	179.48	11,250.0	-9,739.0	1,077.8	9,798.3	0.00	0.00	0.00
21,200.0	90.00	179.48	11,250.0	-9,839.0	1,078.7	9,897.9	0.00	0.00	0.00
21,300.0	90.00	179.48	11,250.0	-9,939.0	1,079.6	9,997.4	0.00	0.00	0.00
21,400.0	90.00	179.48	11,250.0	-10,039.0	1,080.6	10,096.9	0.00	0.00	0.00
21,500.0	90.00	179.48	11,250.0	-10,138.9	1,081.5	10,196.5	0.00	0.00	0.00
21,545.4	90.00	179.48	11,250.0	-10,184.3	1,081.9	10,241.6	0.00	0.00	0.00
TD at 21545.4 - Explorer15 State Com 008H LTP/BHL									

AVANT NATURAL RESOURCES

Planning Report

AVANT NATURAL RESOURCES

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Explorer 15 State Com 008H
Company:	Avant Operating, LLC	**TVD Reference:**	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	**MD Reference:**	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	**North Reference:**	Grid
Well:	Explorer 15 State Com 008H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Explorer 15 State Com (- plan misses target center by 170.8usft at 11268.3usft MD (11127.5 TVD, 61.9 N, 988.4 E) - Point	0.00	0.00	11,250.0	180.9	985.6	639,227.59	784,998.19	32.7547660°N	103.5407500°W
Explorer15 State Com 0 - plan hits target center - Point	0.00	0.00	11,250.0	-10,184.3	1,081.9	628,862.34	785,094.50	32.7262760°N	103.5406890°W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,780.0	1,780.0	RUSTLER			
1,890.0	1,890.0	SALT			
3,655.0	3,655.0	SEVEN RIVERS			
4,390.0	4,390.0	QUEEN			
4,997.0	4,997.0	CAPITAN REEF			
5,657.4	5,652.0	CHERRY CANYON			
5,818.5	5,810.0	BRUSHY CANYON			
6,613.6	6,590.0	Top of BSGL			
8,474.0	8,415.0	Top of FBSG SD			
9,186.6	9,114.0	Top of SBSG SD			
9,484.3	9,406.0	Top of TBSG Carb			
9,719.7	9,637.0	Top of TBSG SD			
9,816.6	9,732.0	Top WFMP			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
5,000.0	5,000.0	0.0	0.0	KOP - Start Build 2.00
5,559.9	5,556.3	11.9	53.2	Start 4645.8 hold at 5559.9 MD
10,205.7	10,113.7	208.1	933.8	Start Drop -2.00
10,765.5	10,670.0	220.0	987.0	Start 102.5 hold at 10765.5 MD
10,868.1	10,772.5	220.0	987.0	KOP - Start Build 12.00
11,618.1	11,250.0	-257.4	991.4	LP - Start 9927.3 hold at 11618.1 MD
21,545.4	11,250.0	-10,184.3	1,081.9	TD at 21545.4