

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 353087

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

1. Operator Name and Address Avant Operating, LLC 1515 Wynkoop Street Denver, CO 80202		2. OGRID Number 330396
		3. API Number 30-025-52203
4. Property Code 334829	5. Property Name EXPLORER 15 STATE COM	6. Well No. 602H

7. Surface Location

UL - Lot B	Section 15	Township 18S	Range 34E	Lot Idn B	Feet From 343	N/S Line N	Feet From 2082	E/W Line E	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	-------------------	---------------	---------------

8. Proposed Bottom Hole Location

UL - Lot B	Section 15	Township 18S	Range 34E	Lot Idn B	Feet From 343	N/S Line N	Feet From 2082	E/W Line E	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	-------------------	---------------	---------------

9. Pool Information

AIRSTIP:BONE SPRING	960
AIRSTIP:BONE SPRING, NORTH	962

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 4021
16. Multiple Y	17. Proposed Depth 19970	18. Formation 3rd Bone Spring Sand	19. Contractor	20. Spud Date 5/29/2024
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	17.5	13.375	54.5	1805	1045	1440
Int1	12.25	9.625	40	3400	890	2720
Prod	8.75	5.5	20	19970	3610	9290

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 <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: 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: 11/9/2023	Phone: 720-854-9020	Conditions of Approval Attached

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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
	960	AIRSTRIPEBONE SPRING
Property Code	Property Name	Well Number
	EXPLORER 15 STATE COM	#602H
OGRID No.	Operator Name	Elevation
330396	AVANT OPERATING, LLC	4021'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	15	18 S	34 E		343	NORTH	2082	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
O	22	18 S	34 E		100	SOUTH	1320	EAST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
320.00									

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	5182.05'
SECTION 22	5183.20'
TOTAL	10365.25'

DETAIL "A"
N.T.S.

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: 10/27/2023
Printed Name: Meghan Twele
E-mail Address: mtwele@outlook.com

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.
AUGUST 02, 2023
Date of Survey
Signature and Seal of Professional Surveyor:

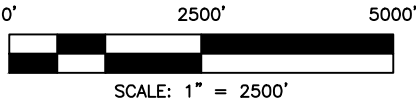
Job No.: 23-07-3357
MATTHEW B. TOMERLIN, N.M.P.L.S.
Certificate Number 23203

NAD 83 (SHL) 343' FNL & 2082' FEL LATITUDE = 32.754085° LONGITUDE = -103.546449° NAD 27 (SURFACE HOLE LOCATION) LATITUDE = 32.753962° LONGITUDE = -103.545952° STATE PLANE NAD 83 (N.M. EAST) N: 638966.68' E: 783248.04' STATE PLANE NAD 27 (N.M. EAST) N: 638902.01' E: 742068.89'	NAD 83 (FTP) 100' FNL & 1320' FEL LATITUDE = 32.754759° LONGITUDE = -103.543970° NAD 27 (FTP) LATITUDE = 32.754635° LONGITUDE = -103.543473° STATE PLANE NAD 83 (N.M. EAST) N: 639217.52' E: 784008.14' STATE PLANE NAD 27 (N.M. EAST) N: 639152.84' E: 742828.99'	NAD 83 (LTP/BHL) 100' FSL & 1320' FEL LATITUDE = 32.726270° LONGITUDE = -103.543908° NAD 27 (LTP/BHL) LATITUDE = 32.726146° LONGITUDE = -103.543412° STATE PLANE NAD 83 (N.M. EAST) N: 628852.73' E: 784104.70' STATE PLANE NAD 27 (N.M. EAST) N: 628788.36' E: 742925.26'
---	---	---

- ⊙ FND. U.S.G.L.O. MON. UNLESS OTHERWISE NOTED
- ☒ CALC. CORNER
- SHL/ KOP/ PPP/ LP
- OIL & GAS LEASE
- HORIZONTAL SPACING UNIT

NOTES

- 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.
- THIS DOCUMENT IS BASED UPON AN ON THE GROUND SURVEY PERFORMED DURING AUGUST, 2023. CERTIFICATION OF THIS DOCUMENT IS ONLY TO THE LOCATION OF THIS EASEMENT IN RELATION TO RECORDED MONUMENT OF DEEDS PROVIDED BY THE CLIENT.
- ELEVATIONS MSL, DERIVED FROM G.N.S.S. OBSERVATION AND DERIVED FROM SAID ON-THE-GROUND SURVEY.



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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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
	962	AIRSTrip;BONE SPRING, NORTH
Property Code	Property Name	Well Number
	EXPLORER 15 STATE COM	#602H
OGRID No.	Operator Name	Elevation
330396	AVANT OPERATING, LLC	4021'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	15	18 S	34 E		343	NORTH	2082	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
O	22	18 S	34 E		100	SOUTH	1320	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320.00			

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 5182.05'
SECTION 22 5183.20'
TOTAL 10365.25'

DETAIL "A"
N.T.S.

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 10/27/2023

Printed Name Meghan Twele

E-mail Address mtwele@outlook.com

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.

AUGUST 02, 2023
Date of Survey

Signature and Seal of Professional Surveyor:

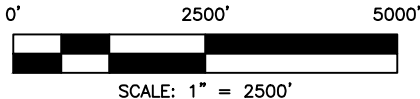
Job No.: 23-07-3357
MATTHEW B. TOMERLIN, N.M.P.L.S.
Certificate Number 23203

NAD 83 (SHL) 343' FNL & 2082' FEL LATITUDE = 32.754085° LONGITUDE = -103.546449° NAD 27 (SURFACE HOLE LOCATION) LATITUDE = 32.753962° LONGITUDE = -103.545952° STATE PLANE NAD 83 (N.M. EAST) N: 638966.68' E: 783248.04' STATE PLANE NAD 27 (N.M. EAST) N: 638902.01' E: 742068.89'	NAD 83 (FTP) 100' FNL & 1320' FEL LATITUDE = 32.754759° LONGITUDE = -103.543970° NAD 27 (FTP) LATITUDE = 32.754635° LONGITUDE = -103.543473° STATE PLANE NAD 83 (N.M. EAST) N: 639217.52' E: 784008.14' STATE PLANE NAD 27 (N.M. EAST) N: 639152.84' E: 742828.99'	NAD 83 (LTP/BHL) 100' FSL & 1320' FEL LATITUDE = 32.726270° LONGITUDE = -103.543908° NAD 27 (LTP/BHL) LATITUDE = 32.726146° LONGITUDE = -103.543412° STATE PLANE NAD 83 (N.M. EAST) N: 628852.73' E: 784104.70' STATE PLANE NAD 27 (N.M. EAST) N: 628788.36' E: 742925.26'
---	---	---

- © FND. U.S.G.L.O. MON. UNLESS OTHERWISE NOTED
☒ CALC. CORNER
 SHL/ KOP/ PPP/ LP
 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 AUGUST, 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.



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 APD Comments

Permit 353087

PERMIT COMMENTS

Operator Name and Address: Avant Operating, LLC [330396] 1515 Wynkoop Street Denver, CO 80202		API Number: 30-025-52203
		Well: EXPLORER 15 STATE COM #602H

Created By	Comment	Comment Date
twelem	Avant is applying for this well to be a proximity tract well, allowing 640 dedicated acres.	11/9/2023

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 APD Conditions

Permit 353087

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: Avant Operating, LLC [330396] 1515 Wynkoop Street Denver, CO 80202	API Number: 30-025-52203
	Well: EXPLORER 15 STATE COM #602H

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 601H		B-15-T18S-R34E	346FNL/2102FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 602H		B-15-T18S-R34E	343FNL/2082FEL	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 601H		05/08/2024	06/08/2024	06/14/2024	07/10/2024	07/10/2024
Explorer 15 State Com 602H		05/08/2024	06/08/2024	06/14/2024	07/10/2024	07/10/2024

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



Avant Operating, LLC

Lea Co., NM (NAD 83)

Explorer 15 State Com Pad 1

Explorer 15 State Com 602H

OH

Plan: Plan 0.1

Standard Planning Report

25 October, 2023





Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 602H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4047.5usft (4047.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4047.5usft (4047.5)
Site:	Explorer 15 State Com Pad 1	North Reference:	Grid
Well:	Explorer 15 State Com 602H	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 1			
Site Position:		Northing:	638,963.33 usft	Latitude:	32.7540760°N
From:	Lat/Long	Easting:	783,228.31 usft	Longitude:	103.5465130°W
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	

Well	Explorer 15 State Com 602H					
Well Position	+N/-S	0.0 usft	Northing:	638,966.75 usft	Latitude:	32.7540850°N
	+E/-W	0.0 usft	Easting:	783,247.96 usft	Longitude:	103.5464490°W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,021.0 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	49,744.79222826

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	175.16	

Plan Survey Tool Program	Date	10/25/2023			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	19,970.1 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	
5,694.3	13.89	68.97	5,687.5	30.0	78.1	2.00	2.00	0.00	68.97	
8,398.3	13.89	68.97	8,312.5	263.0	683.9	0.00	0.00	0.00	0.00	
9,092.6	0.00	0.00	9,000.0	293.0	762.0	2.00	-2.00	0.00	180.00	
9,290.1	0.00	0.00	9,197.5	293.0	762.0	0.00	0.00	0.00	0.00	
10,040.1	90.00	179.48	9,675.0	-184.4	766.3	12.00	12.00	0.00	179.48	
19,970.1	90.00	179.48	9,675.0	-10,114.0	856.6	0.00	0.00	0.00	0.00	Explorer 15 State Cor



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 602H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4047.5usft (4047.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4047.5usft (4047.5)
Site:	Explorer 15 State Com Pad 1	North Reference:	Grid
Well:	Explorer 15 State Com 602H	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



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 602H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4047.5usft (4047.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4047.5usft (4047.5)
Site:	Explorer 15 State Com Pad 1	North Reference:	Grid
Well:	Explorer 15 State Com 602H	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	68.97	5,100.0	0.6	1.6	-0.5	2.00	2.00	0.00
5,200.0	4.00	68.97	5,199.8	2.5	6.5	-1.9	2.00	2.00	0.00
5,300.0	6.00	68.97	5,299.5	5.6	14.6	-4.4	2.00	2.00	0.00
5,400.0	8.00	68.97	5,398.7	10.0	26.0	-7.8	2.00	2.00	0.00
5,500.0	10.00	68.97	5,497.5	15.6	40.6	-12.1	2.00	2.00	0.00
5,600.0	12.00	68.97	5,595.6	22.5	58.4	-17.5	2.00	2.00	0.00
5,657.8	13.16	68.97	5,652.0	27.0	70.2	-21.0	2.00	2.00	0.00
CHERRY CANYON									
5,694.3	13.89	68.97	5,687.5	30.0	78.1	-23.3	2.00	2.00	0.00
Start 2704.0 hold at 5694.3 MD									
5,700.0	13.89	68.97	5,693.1	30.5	79.4	-23.7	0.00	0.00	0.00
5,800.0	13.89	68.97	5,790.1	39.2	101.8	-30.4	0.00	0.00	0.00
5,820.5	13.89	68.97	5,810.0	40.9	106.4	-31.8	0.00	0.00	0.00
BRUSHY CANYON									
5,900.0	13.89	68.97	5,887.2	47.8	124.2	-37.1	0.00	0.00	0.00
6,000.0	13.89	68.97	5,984.3	56.4	146.6	-43.8	0.00	0.00	0.00
6,100.0	13.89	68.97	6,081.4	65.0	169.0	-50.5	0.00	0.00	0.00
6,200.0	13.89	68.97	6,178.4	73.6	191.4	-57.2	0.00	0.00	0.00
6,300.0	13.89	68.97	6,275.5	82.2	213.8	-63.9	0.00	0.00	0.00
6,400.0	13.89	68.97	6,372.6	90.8	236.2	-70.6	0.00	0.00	0.00
6,500.0	13.89	68.97	6,469.7	99.4	258.6	-77.3	0.00	0.00	0.00
6,600.0	13.89	68.97	6,566.8	108.1	281.0	-84.0	0.00	0.00	0.00
6,623.9	13.89	68.97	6,590.0	110.1	286.4	-85.6	0.00	0.00	0.00
Top of BSGL									
6,700.0	13.89	68.97	6,663.8	116.7	303.4	-90.6	0.00	0.00	0.00
6,800.0	13.89	68.97	6,760.9	125.3	325.8	-97.3	0.00	0.00	0.00
6,900.0	13.89	68.97	6,858.0	133.9	348.2	-104.0	0.00	0.00	0.00
7,000.0	13.89	68.97	6,955.1	142.5	370.6	-110.7	0.00	0.00	0.00
7,100.0	13.89	68.97	7,052.1	151.1	393.0	-117.4	0.00	0.00	0.00
7,200.0	13.89	68.97	7,149.2	159.7	415.4	-124.1	0.00	0.00	0.00
7,300.0	13.89	68.97	7,246.3	168.4	437.8	-130.8	0.00	0.00	0.00
7,400.0	13.89	68.97	7,343.4	177.0	460.2	-137.5	0.00	0.00	0.00
7,500.0	13.89	68.97	7,440.4	185.6	482.6	-144.2	0.00	0.00	0.00
7,600.0	13.89	68.97	7,537.5	194.2	505.0	-150.9	0.00	0.00	0.00
7,700.0	13.89	68.97	7,634.6	202.8	527.4	-157.6	0.00	0.00	0.00
7,800.0	13.89	68.97	7,731.7	211.4	549.8	-164.3	0.00	0.00	0.00
7,900.0	13.89	68.97	7,828.8	220.0	572.2	-171.0	0.00	0.00	0.00
8,000.0	13.89	68.97	7,925.8	228.6	594.6	-177.6	0.00	0.00	0.00
8,100.0	13.89	68.97	8,022.9	237.3	617.0	-184.3	0.00	0.00	0.00
8,200.0	13.89	68.97	8,120.0	245.9	639.4	-191.0	0.00	0.00	0.00
8,300.0	13.89	68.97	8,217.1	254.5	661.8	-197.7	0.00	0.00	0.00
8,398.3	13.89	68.97	8,312.5	263.0	683.9	-204.3	0.00	0.00	0.00
Start Drop -2.00									
8,400.0	13.85	68.97	8,314.1	263.1	684.2	-204.4	2.00	-2.00	0.00



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 602H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4047.5usft (4047.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4047.5usft (4047.5)
Site:	Explorer 15 State Com Pad 1	North Reference:	Grid
Well:	Explorer 15 State Com 602H	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	11.85	68.97	8,411.6	271.1	705.0	-210.6	2.00	-2.00	0.00
8,503.4	11.78	68.97	8,415.0	271.3	705.7	-210.8	2.00	-2.00	0.00
Top of FBSG SD									
8,600.0	9.85	68.97	8,509.8	277.8	722.6	-215.9	2.00	-2.00	0.00
8,700.0	7.85	68.97	8,608.6	283.4	736.9	-220.2	2.00	-2.00	0.00
8,800.0	5.85	68.97	8,707.9	287.6	748.1	-223.5	2.00	-2.00	0.00
8,900.0	3.85	68.97	8,807.6	290.7	756.0	-225.8	2.00	-2.00	0.00
9,000.0	1.85	68.97	8,907.4	292.5	760.6	-227.2	2.00	-2.00	0.00
9,092.6	0.00	0.00	9,000.0	293.0	762.0	-227.6	2.00	-2.00	0.00
Start 197.5 hold at 9092.6 MD									
9,100.0	0.00	0.00	9,007.4	293.0	762.0	-227.6	0.00	0.00	0.00
9,200.0	0.00	0.00	9,107.4	293.0	762.0	-227.6	0.00	0.00	0.00
9,206.6	0.00	0.00	9,114.0	293.0	762.0	-227.6	0.00	0.00	0.00
Top of SBSG SD									
9,290.1	0.00	0.00	9,197.5	293.0	762.0	-227.6	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
9,300.0	1.19	179.48	9,207.4	292.9	762.0	-227.5	12.00	12.00	0.00
9,400.0	13.19	179.48	9,306.5	280.4	762.1	-215.1	12.00	12.00	0.00
9,500.0	25.19	179.48	9,400.7	247.6	762.4	-182.4	12.00	12.00	0.00
9,505.8	25.89	179.48	9,406.0	245.1	762.4	-179.9	12.00	12.00	0.00
Top of TBSG Carb									
9,600.0	37.19	179.48	9,486.1	195.9	762.9	-130.8	12.00	12.00	0.00
9,700.0	49.19	179.48	9,558.9	127.6	763.5	-62.7	12.00	12.00	0.00
Explorer 15 State Com 602H FTP									
9,800.0	61.19	179.48	9,615.9	45.7	764.2	19.0	12.00	12.00	0.00
9,848.3	66.99	179.48	9,637.0	2.2	764.6	62.3	12.00	12.00	0.00
Top of TBSG SD									
9,900.0	73.19	179.48	9,654.6	-46.3	765.1	110.7	12.00	12.00	0.00
10,000.0	85.19	179.48	9,673.3	-144.4	766.0	208.5	12.00	12.00	0.00
10,040.1	90.00	179.48	9,675.0	-184.4	766.3	248.5	12.00	12.00	0.00
LP - Start 9930.0 hold at 10040.1 MD									
10,100.0	90.00	179.48	9,675.0	-244.3	766.9	308.2	0.00	0.00	0.00
10,200.0	90.00	179.48	9,675.0	-344.3	767.8	407.9	0.00	0.00	0.00
10,300.0	90.00	179.48	9,675.0	-444.3	768.7	507.6	0.00	0.00	0.00
10,400.0	90.00	179.48	9,675.0	-544.3	769.6	607.3	0.00	0.00	0.00
10,500.0	90.00	179.48	9,675.0	-644.3	770.5	707.0	0.00	0.00	0.00
10,600.0	90.00	179.48	9,675.0	-744.3	771.4	806.8	0.00	0.00	0.00
10,700.0	90.00	179.48	9,675.0	-844.3	772.3	906.5	0.00	0.00	0.00
10,800.0	90.00	179.48	9,675.0	-944.3	773.2	1,006.2	0.00	0.00	0.00
10,900.0	90.00	179.48	9,675.0	-1,044.3	774.2	1,105.9	0.00	0.00	0.00
11,000.0	90.00	179.48	9,675.0	-1,144.3	775.1	1,205.6	0.00	0.00	0.00
11,100.0	90.00	179.48	9,675.0	-1,244.3	776.0	1,305.3	0.00	0.00	0.00
11,200.0	90.00	179.48	9,675.0	-1,344.3	776.9	1,405.0	0.00	0.00	0.00
11,300.0	90.00	179.48	9,675.0	-1,444.3	777.8	1,504.8	0.00	0.00	0.00
11,400.0	90.00	179.48	9,675.0	-1,544.3	778.7	1,604.5	0.00	0.00	0.00
11,500.0	90.00	179.48	9,675.0	-1,644.3	779.6	1,704.2	0.00	0.00	0.00
11,600.0	90.00	179.48	9,675.0	-1,744.3	780.5	1,803.9	0.00	0.00	0.00
11,700.0	90.00	179.48	9,675.0	-1,844.3	781.4	1,903.6	0.00	0.00	0.00
11,800.0	90.00	179.48	9,675.0	-1,944.3	782.3	2,003.3	0.00	0.00	0.00
11,900.0	90.00	179.48	9,675.0	-2,044.3	783.2	2,103.1	0.00	0.00	0.00
12,000.0	90.00	179.48	9,675.0	-2,144.2	784.2	2,202.8	0.00	0.00	0.00
12,100.0	90.00	179.48	9,675.0	-2,244.2	785.1	2,302.5	0.00	0.00	0.00
12,200.0	90.00	179.48	9,675.0	-2,344.2	786.0	2,402.2	0.00	0.00	0.00



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 602H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4047.5usft (4047.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4047.5usft (4047.5)
Site:	Explorer 15 State Com Pad 1	North Reference:	Grid
Well:	Explorer 15 State Com 602H	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)
12,300.0	90.00	179.48	9,675.0	-2,444.2	786.9	2,501.9	0.00	0.00	0.00
12,400.0	90.00	179.48	9,675.0	-2,544.2	787.8	2,601.6	0.00	0.00	0.00
12,500.0	90.00	179.48	9,675.0	-2,644.2	788.7	2,701.4	0.00	0.00	0.00
12,600.0	90.00	179.48	9,675.0	-2,744.2	789.6	2,801.1	0.00	0.00	0.00
12,700.0	90.00	179.48	9,675.0	-2,844.2	790.5	2,900.8	0.00	0.00	0.00
12,800.0	90.00	179.48	9,675.0	-2,944.2	791.4	3,000.5	0.00	0.00	0.00
12,900.0	90.00	179.48	9,675.0	-3,044.2	792.3	3,100.2	0.00	0.00	0.00
13,000.0	90.00	179.48	9,675.0	-3,144.2	793.2	3,199.9	0.00	0.00	0.00
13,100.0	90.00	179.48	9,675.0	-3,244.2	794.2	3,299.7	0.00	0.00	0.00
13,200.0	90.00	179.48	9,675.0	-3,344.2	795.1	3,399.4	0.00	0.00	0.00
13,300.0	90.00	179.48	9,675.0	-3,444.2	796.0	3,499.1	0.00	0.00	0.00
13,400.0	90.00	179.48	9,675.0	-3,544.2	796.9	3,598.8	0.00	0.00	0.00
13,500.0	90.00	179.48	9,675.0	-3,644.2	797.8	3,698.5	0.00	0.00	0.00
13,600.0	90.00	179.48	9,675.0	-3,744.2	798.7	3,798.2	0.00	0.00	0.00
13,700.0	90.00	179.48	9,675.0	-3,844.2	799.6	3,897.9	0.00	0.00	0.00
13,800.0	90.00	179.48	9,675.0	-3,944.2	800.5	3,997.7	0.00	0.00	0.00
13,900.0	90.00	179.48	9,675.0	-4,044.2	801.4	4,097.4	0.00	0.00	0.00
14,000.0	90.00	179.48	9,675.0	-4,144.2	802.3	4,197.1	0.00	0.00	0.00
14,100.0	90.00	179.48	9,675.0	-4,244.2	803.2	4,296.8	0.00	0.00	0.00
14,200.0	90.00	179.48	9,675.0	-4,344.2	804.2	4,396.5	0.00	0.00	0.00
14,300.0	90.00	179.48	9,675.0	-4,444.2	805.1	4,496.2	0.00	0.00	0.00
14,400.0	90.00	179.48	9,675.0	-4,544.1	806.0	4,596.0	0.00	0.00	0.00
14,500.0	90.00	179.48	9,675.0	-4,644.1	806.9	4,695.7	0.00	0.00	0.00
14,600.0	90.00	179.48	9,675.0	-4,744.1	807.8	4,795.4	0.00	0.00	0.00
14,700.0	90.00	179.48	9,675.0	-4,844.1	808.7	4,895.1	0.00	0.00	0.00
14,800.0	90.00	179.48	9,675.0	-4,944.1	809.6	4,994.8	0.00	0.00	0.00
14,900.0	90.00	179.48	9,675.0	-5,044.1	810.5	5,094.5	0.00	0.00	0.00
15,000.0	90.00	179.48	9,675.0	-5,144.1	811.4	5,194.3	0.00	0.00	0.00
15,100.0	90.00	179.48	9,675.0	-5,244.1	812.3	5,294.0	0.00	0.00	0.00
15,200.0	90.00	179.48	9,675.0	-5,344.1	813.2	5,393.7	0.00	0.00	0.00
15,300.0	90.00	179.48	9,675.0	-5,444.1	814.2	5,493.4	0.00	0.00	0.00
15,400.0	90.00	179.48	9,675.0	-5,544.1	815.1	5,593.1	0.00	0.00	0.00
15,500.0	90.00	179.48	9,675.0	-5,644.1	816.0	5,692.8	0.00	0.00	0.00
15,600.0	90.00	179.48	9,675.0	-5,744.1	816.9	5,792.5	0.00	0.00	0.00
15,700.0	90.00	179.48	9,675.0	-5,844.1	817.8	5,892.3	0.00	0.00	0.00
15,800.0	90.00	179.48	9,675.0	-5,944.1	818.7	5,992.0	0.00	0.00	0.00
15,900.0	90.00	179.48	9,675.0	-6,044.1	819.6	6,091.7	0.00	0.00	0.00
16,000.0	90.00	179.48	9,675.0	-6,144.1	820.5	6,191.4	0.00	0.00	0.00
16,100.0	90.00	179.48	9,675.0	-6,244.1	821.4	6,291.1	0.00	0.00	0.00
16,200.0	90.00	179.48	9,675.0	-6,344.1	822.3	6,390.8	0.00	0.00	0.00
16,300.0	90.00	179.48	9,675.0	-6,444.1	823.2	6,490.6	0.00	0.00	0.00
16,400.0	90.00	179.48	9,675.0	-6,544.1	824.2	6,590.3	0.00	0.00	0.00
16,500.0	90.00	179.48	9,675.0	-6,644.1	825.1	6,690.0	0.00	0.00	0.00
16,600.0	90.00	179.48	9,675.0	-6,744.1	826.0	6,789.7	0.00	0.00	0.00
16,700.0	90.00	179.48	9,675.0	-6,844.1	826.9	6,889.4	0.00	0.00	0.00
16,800.0	90.00	179.48	9,675.0	-6,944.0	827.8	6,989.1	0.00	0.00	0.00
16,900.0	90.00	179.48	9,675.0	-7,044.0	828.7	7,088.9	0.00	0.00	0.00
17,000.0	90.00	179.48	9,675.0	-7,144.0	829.6	7,188.6	0.00	0.00	0.00
17,100.0	90.00	179.48	9,675.0	-7,244.0	830.5	7,288.3	0.00	0.00	0.00
17,200.0	90.00	179.48	9,675.0	-7,344.0	831.4	7,388.0	0.00	0.00	0.00
17,300.0	90.00	179.48	9,675.0	-7,444.0	832.3	7,487.7	0.00	0.00	0.00
17,400.0	90.00	179.48	9,675.0	-7,544.0	833.2	7,587.4	0.00	0.00	0.00
17,500.0	90.00	179.48	9,675.0	-7,644.0	834.2	7,687.1	0.00	0.00	0.00
17,600.0	90.00	179.48	9,675.0	-7,744.0	835.1	7,786.9	0.00	0.00	0.00



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 602H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4047.5usft (4047.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4047.5usft (4047.5)
Site:	Explorer 15 State Com Pad 1	North Reference:	Grid
Well:	Explorer 15 State Com 602H	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)	
17,700.0	90.00	179.48	9,675.0	-7,844.0	836.0	7,886.6	0.00	0.00	0.00	
17,800.0	90.00	179.48	9,675.0	-7,944.0	836.9	7,986.3	0.00	0.00	0.00	
17,900.0	90.00	179.48	9,675.0	-8,044.0	837.8	8,086.0	0.00	0.00	0.00	
18,000.0	90.00	179.48	9,675.0	-8,144.0	838.7	8,185.7	0.00	0.00	0.00	
18,100.0	90.00	179.48	9,675.0	-8,244.0	839.6	8,285.4	0.00	0.00	0.00	
18,200.0	90.00	179.48	9,675.0	-8,344.0	840.5	8,385.2	0.00	0.00	0.00	
18,300.0	90.00	179.48	9,675.0	-8,444.0	841.4	8,484.9	0.00	0.00	0.00	
18,400.0	90.00	179.48	9,675.0	-8,544.0	842.3	8,584.6	0.00	0.00	0.00	
18,500.0	90.00	179.48	9,675.0	-8,644.0	843.2	8,684.3	0.00	0.00	0.00	
18,600.0	90.00	179.48	9,675.0	-8,744.0	844.2	8,784.0	0.00	0.00	0.00	
18,700.0	90.00	179.48	9,675.0	-8,844.0	845.1	8,883.7	0.00	0.00	0.00	
18,800.0	90.00	179.48	9,675.0	-8,944.0	846.0	8,983.5	0.00	0.00	0.00	
18,900.0	90.00	179.48	9,675.0	-9,044.0	846.9	9,083.2	0.00	0.00	0.00	
19,000.0	90.00	179.48	9,675.0	-9,144.0	847.8	9,182.9	0.00	0.00	0.00	
19,100.0	90.00	179.48	9,675.0	-9,244.0	848.7	9,282.6	0.00	0.00	0.00	
19,200.0	90.00	179.48	9,675.0	-9,344.0	849.6	9,382.3	0.00	0.00	0.00	
19,300.0	90.00	179.48	9,675.0	-9,443.9	850.5	9,482.0	0.00	0.00	0.00	
19,400.0	90.00	179.48	9,675.0	-9,543.9	851.4	9,581.7	0.00	0.00	0.00	
19,500.0	90.00	179.48	9,675.0	-9,643.9	852.3	9,681.5	0.00	0.00	0.00	
19,600.0	90.00	179.48	9,675.0	-9,743.9	853.2	9,781.2	0.00	0.00	0.00	
19,700.0	90.00	179.48	9,675.0	-9,843.9	854.2	9,880.9	0.00	0.00	0.00	
19,800.0	90.00	179.48	9,675.0	-9,943.9	855.1	9,980.6	0.00	0.00	0.00	
19,900.0	90.00	179.48	9,675.0	-10,043.9	856.0	10,080.3	0.00	0.00	0.00	
19,970.1	90.00	179.48	9,675.0	-10,114.0	856.6	10,150.2	0.00	0.00	0.00	
TD at 19970.1 - Explorer 15 State Com 602H LTP/BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Explorer 15 State Com 602H - hit/miss target - Shape - Point	0.00	0.00	9,675.0	-10,114.0	856.6	628,852.77	784,104.57	32.7262700°N	103.5439080°W	
Explorer 15 State Com 602H - plan misses target center by 169.4usft at 9700.0usft MD (9558.9 TVD, 127.6 N, 763.5 E) - Point	0.00	0.00	9,675.0	250.9	760.3	639,217.65	784,008.27	32.7547590°N	103.5439700°W	



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 602H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4047.5usft (4047.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4047.5usft (4047.5)
Site:	Explorer 15 State Com Pad 1	North Reference:	Grid
Well:	Explorer 15 State Com 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

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				
5,657.8	5,652.0	CHERRY CANYON				
5,820.5	5,810.0	BRUSHY CANYON				
6,623.9	6,590.0	Top of BSGL				
8,503.4	8,415.0	Top of FBSG SD				
9,206.6	9,114.0	Top of SBSG SD				
9,505.8	9,406.0	Top of TBSG Carb				
9,848.3	9,637.0	Top of TBSG SD				

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	
5,694.3	5,687.5	30.0	78.1	Start 2704.0 hold at 5694.3 MD	
8,398.3	8,312.5	263.0	683.9	Start Drop -2.00	
9,092.6	9,000.0	293.0	762.0	Start 197.5 hold at 9092.6 MD	
9,290.1	9,197.5	293.0	762.0	KOP #2 - Start Build 12.00	
10,040.1	9,675.0	-184.4	766.3	LP - Start 9930.0 hold at 10040.1 MD	
19,970.1	9,675.0	-10,114.0	856.6	TD at 19970.1	

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