

**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 311649

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

1. Operator Name and Address ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077		2. OGRID Number 372417
		3. API Number 30-025-49939
4. Property Code 325948	5. Property Name WOOL HEAD 20 STATE COM	6. Well No. 508H

**7. Surface Location**

UL - Lot O	Section 20	Township 21S	Range 33E	Lot Idn O	Feet From 150	N/S Line S	Feet From 1980	E/W Line E	County Lea
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**8. Proposed Bottom Hole Location**

UL - Lot J	Section 17	Township 21S	Range 33E	Lot Idn J	Feet From 2540	N/S Line S	Feet From 1485	E/W Line E	County Lea
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**9. Pool Information**

WC-025 G-08 S213304D;BONE SPRING	97895
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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 3720
16. Multiple N	17. Proposed Depth 17913	18. Formation Bone Spring	19. Contractor	20. Spud Date 3/15/2022
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	1713	555	0
Int1	12.25	10.75	40.5	3806	395	0
Int2	9.875	7.625	29.7	5337	685	0
Prod	6.75	5.5	20	17913	1255	0

**Casing/Cement Program: Additional Comments**

--

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	TBD

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:

Printed Name: Electronically filed by Eileen M Kosakowski

Title:

Email Address: ekosakowski@advanceenergypartners.com

Date: 3/25/2022

Phone: 832-672-4604

Approved By: Paul F Kautz

Title: Geologist

Approved Date: 3/29/2022

Expiration Date: 3/29/2024

Conditions of Approval Attached

**OIL CONSERVATION DIVISION**

**DISTRICT I**  
1825 N. French Dr., Hobbs, NM 88240  
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**DISTRICT IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 476-3480 Fax: (505) 476-3482

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised August 4, 2011

Submit one copy to appropriate  
District Office

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

☐ AMENDED REPORT

API Number 30-025-49939	Pool Code 97895	Pool Name WC-025 G-08 S213304D; BONE SPRING
Property Code 325948	Property Name WOOL HEAD 20 STATE COM	Well Number 508H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA	Elevation 3720'

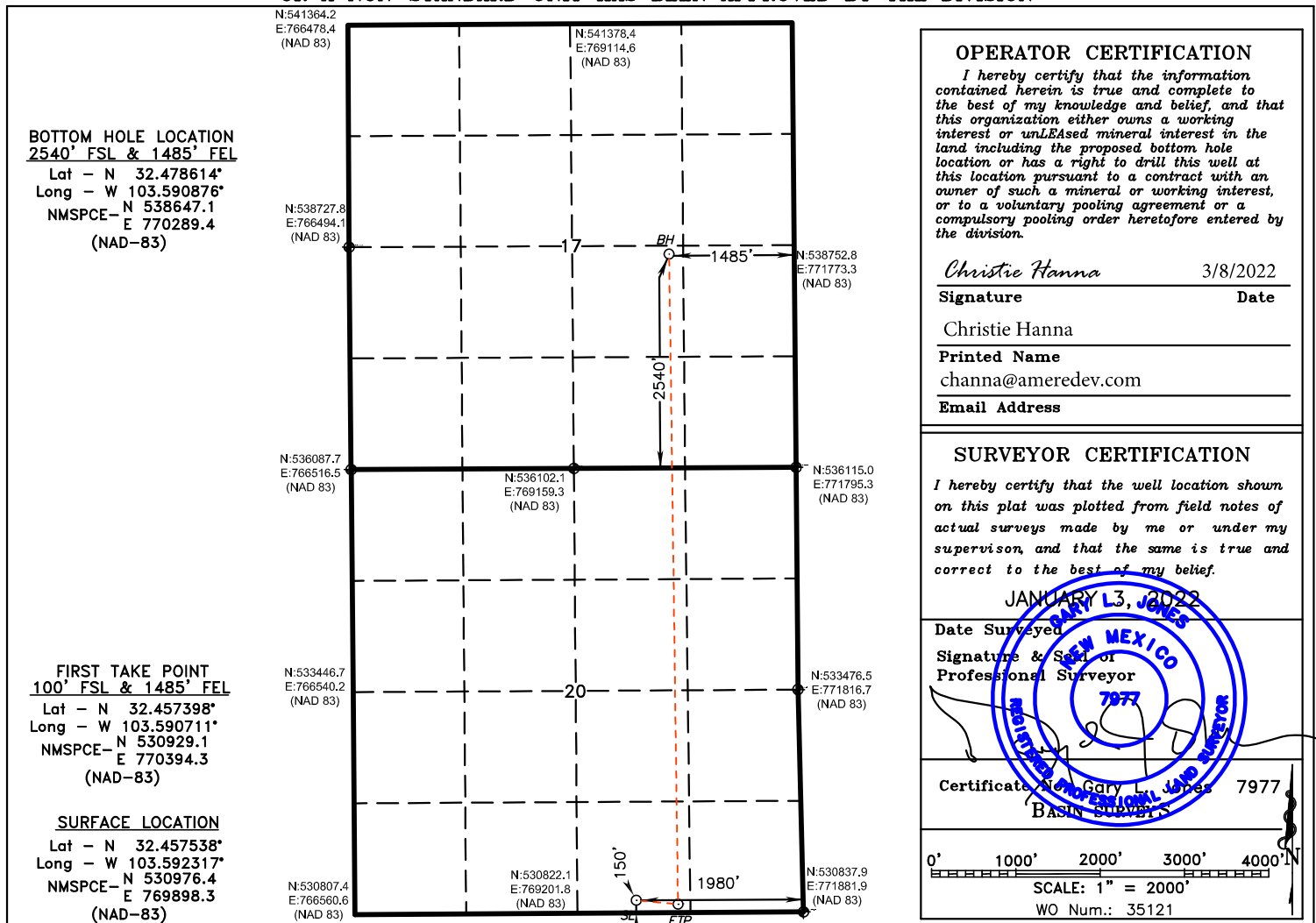
**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
O	20	21 S	33 E		150	SOUTH	1980	EAST	LEA

**Bottom Hole Location If Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
J	17	21 S	33 E		2540	SOUTH	1485	EAST	LEA
Dedicated Acres 240	Joint or Infill	Consolidation Code C	Order No.						

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

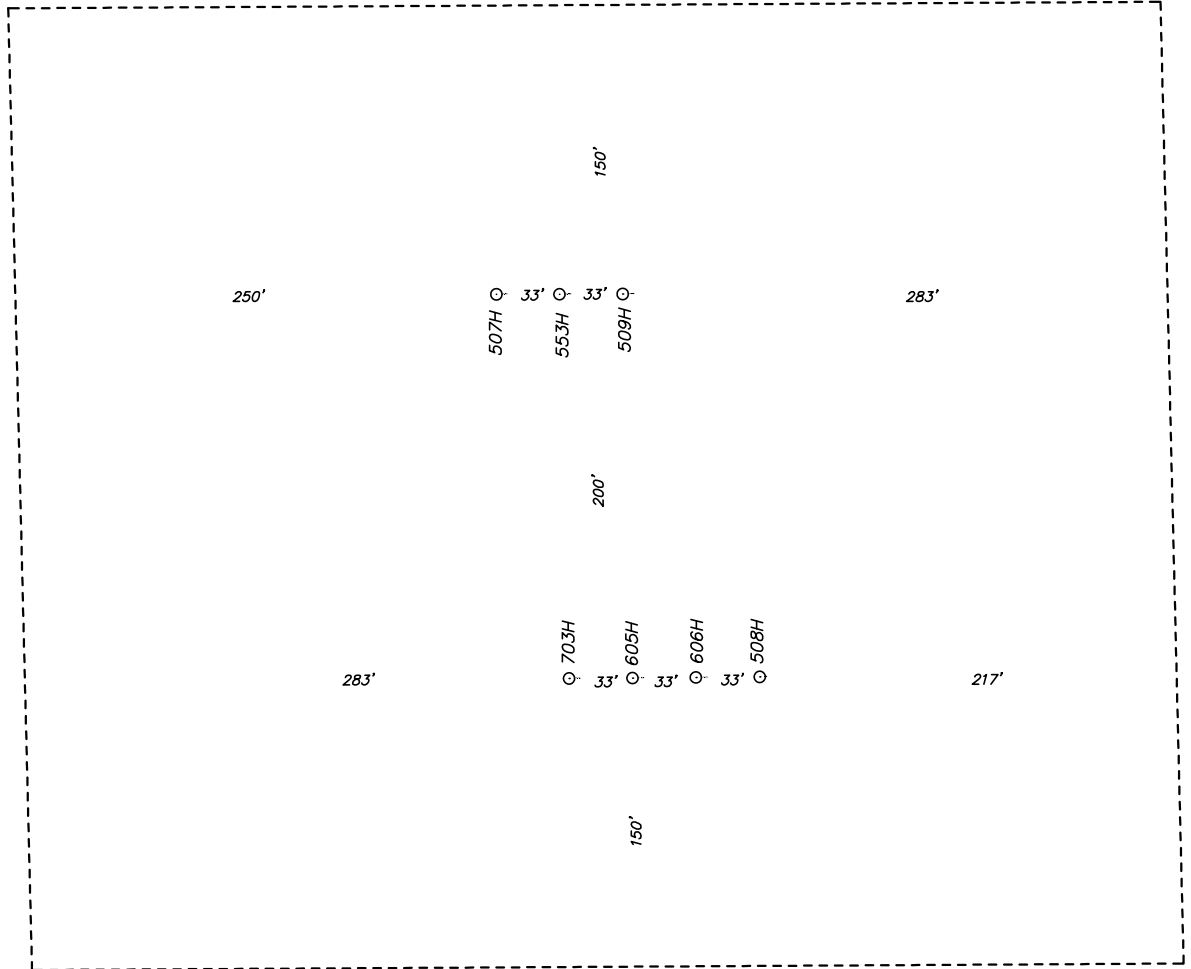


W.O. Number: 35544	Drawn By: K. GOAD	Date: 01-04-2022	Survey Date: 01-03-2022	Sheet 1 of 1 Sheets
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**SECTION 20, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,  
LEA COUNTY, NEW MEXICO.**

N32.458501°  
W103.593576°  
ELEV = 3721.3'

N32.458499°  
W103.591634°  
ELEV = 3740.2'



N32.457126°  
W103.593547°  
ELEV = 3714.9'

N32.457124°  
W103.591606°  
ELEV = 3713.6'



100 0 100 200 FEET  
SCALE: 1" = 100'

**ADVANCE ENERGY PARTNERS HAT MESA**

REF: WOOL HEAD 20 STATE COM 508H / WELL PAD TOPO

THE WOOL HEAD 20 STATE COM 508H LOCATED 150' FROM  
THE SOUTH LINE AND 1980' FROM THE EAST LINE OF  
SECTION 20, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

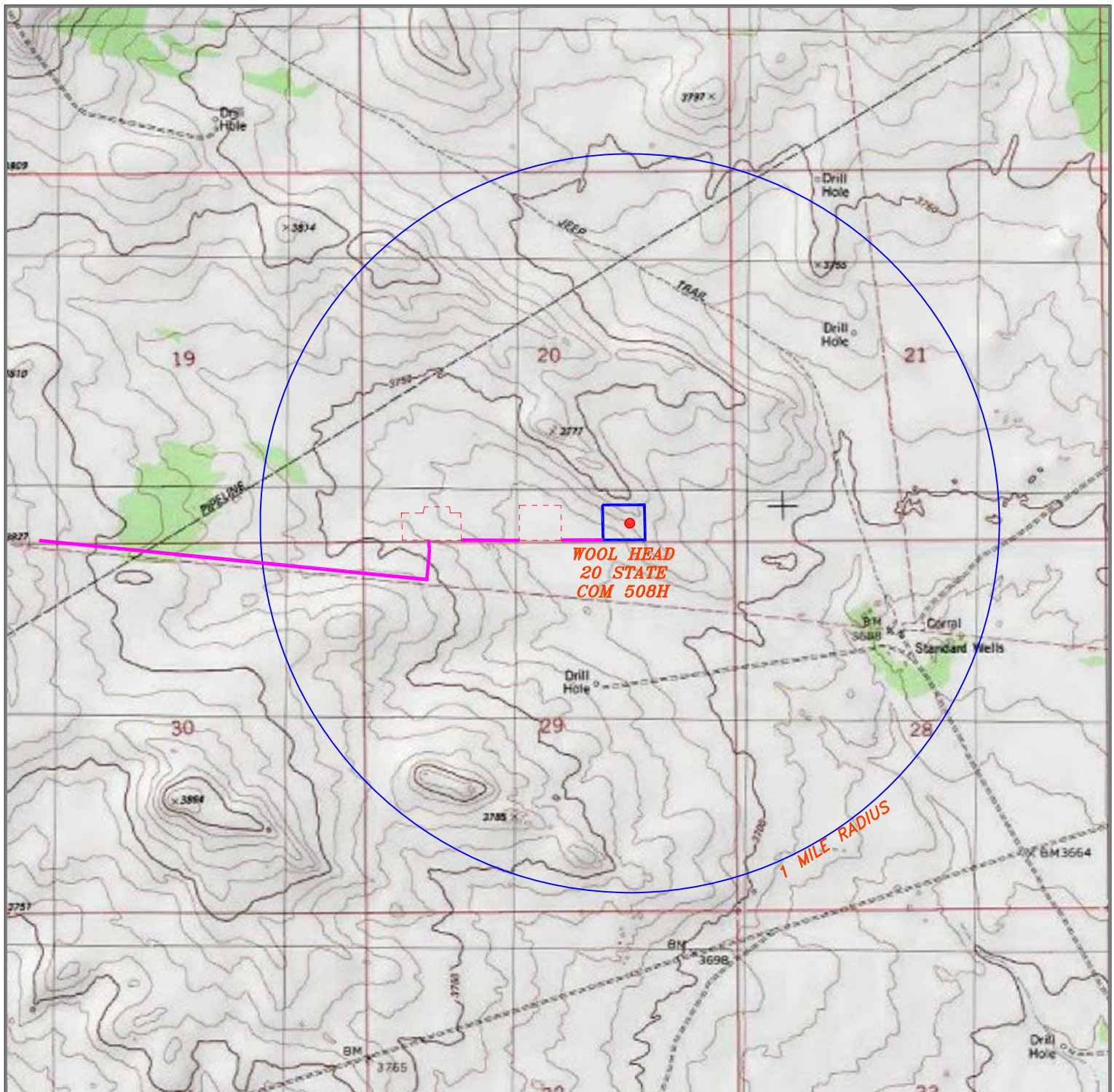
N.M.P.M., LEA COUNTY, NEW MEXICO.

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**surveys**  
focused on excellence  
in the oilfield

P.O. Box 1786 (575) 393-7316 - Office  
1120 N. West County Rd. (575) 392-2206 - Fax  
Hobbs, New Mexico 88241 basinsurveys.com

W.O. Number: 35544 Drawn By: K. GOAD Date: 01-04-2022 Survey Date: 01-03-2022 Sheet 1 of 1 Sheets





## WOOL HEAD 20 STATE COM 508H

Located 150' FSL and 1980' FEL  
 Section 20, Township 21 South, Range 33 East,  
 N.M.P.M., Lea County, New Mexico.



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 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
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 basinsurveys.com

0' 1000' 2000' 3000' 4000'  
 SCALE: 1" = 2000'

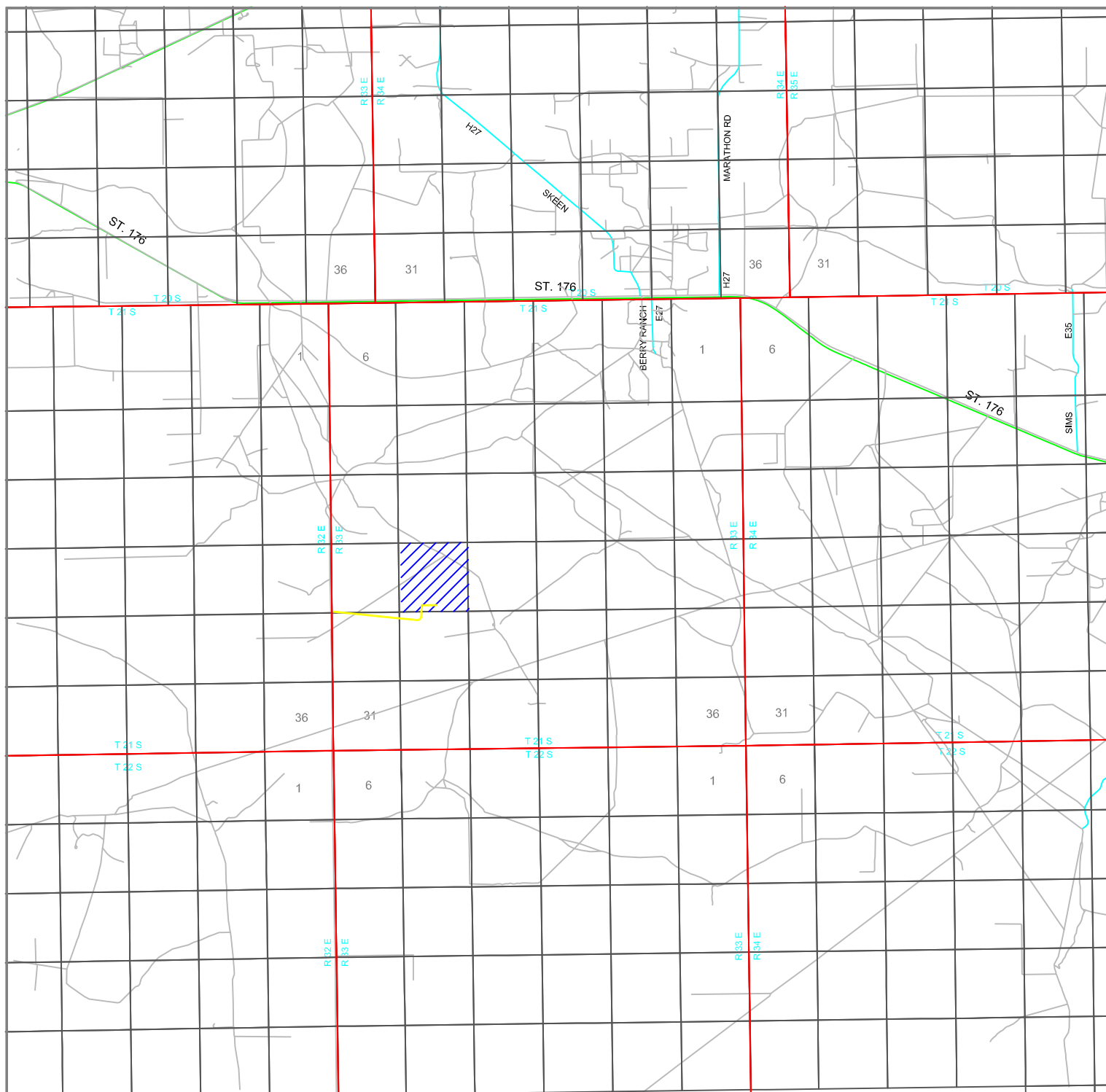
W.O. Number: KJG 35544

Survey Date: 01-04-2022

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



**ADVANCE  
 ENERGY  
 PARTNERS  
 HAT MESA**



## WOOL HEAD 20 STATE COM 508H

Located 150' FSL and 1980' FEL  
 Section 20, Township 21 South, Range 33 East,  
 N.M.P.M., Lea County, New Mexico.



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0 1 MI 2 MI 3 MI 4 MI  
 SCALE: 1" = 2 MILES

W.O. Number: KJG 35544

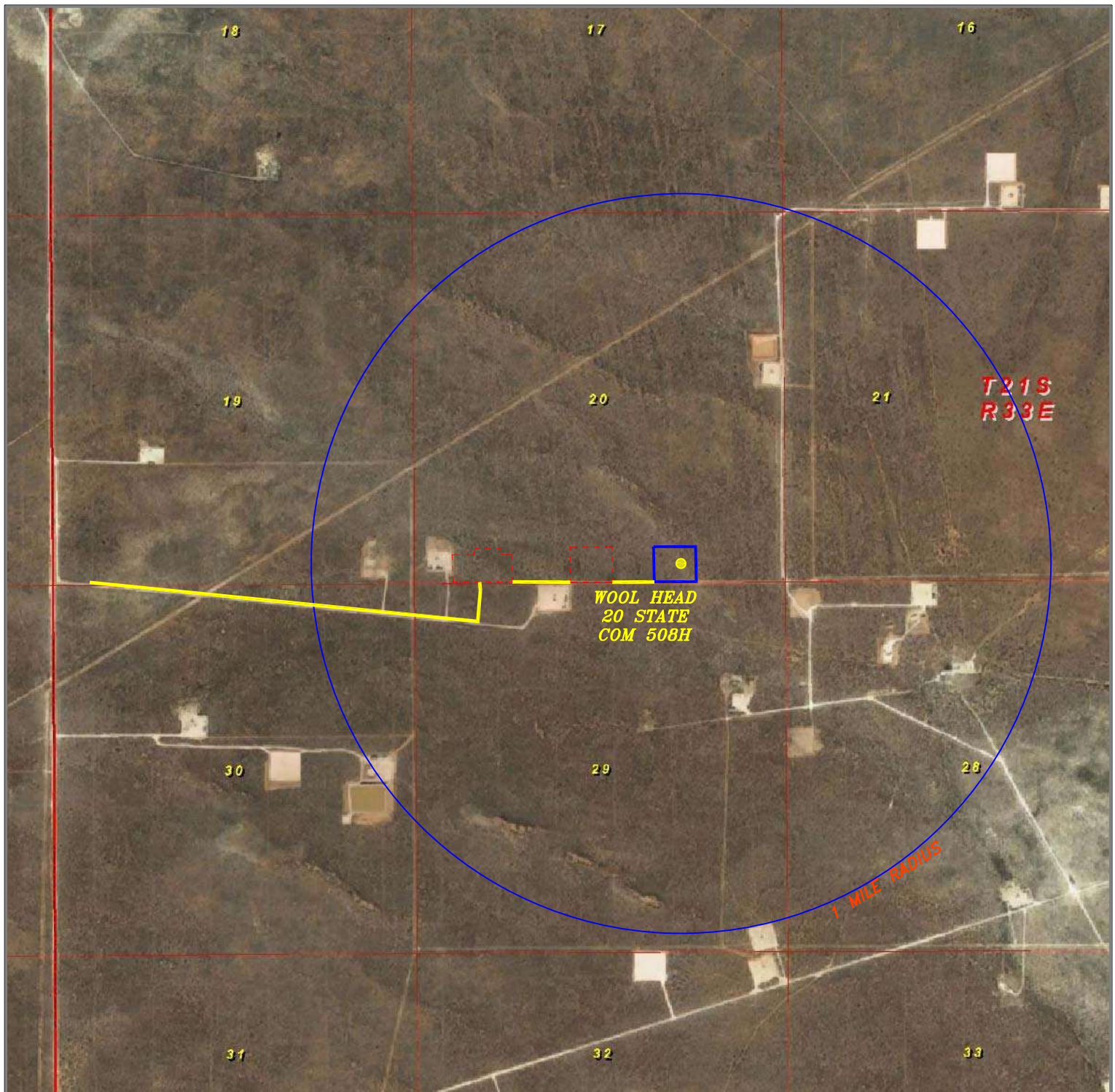
Survey Date: 01-04-2022

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



**ADVANCE  
 ENERGY  
 PARTNERS  
 HAT MESA**





## WOOL HEAD 20 STATE COM 508H

Located 150' FSL and 1980' FEL  
Section 20, Township 21 South, Range 33 East,  
N.M.P.M., Lea County, New Mexico.



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0' 1000' 2000' 3000' 4000'  
SCALE: 1" = 2000'

W.O. Number: KJG 35544

Survey Date: 01-04-2022

YELLOW TINT - USA LAND  
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ENERGY  
PARTNERS  
HAT MESA**

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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 Comments  
  
Permit 311649

PERMIT COMMENTS

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077		API Number: 30-025-49939
		Well: WOOL HEAD 20 STATE COM #508H

Created By	Comment	Comment Date
pkautz	HOLD NGMP INCOMPLETE	3/22/2022
pkautz	HOLD FOUR STRING CASIG AREA	3/23/2022
pkautz	Rejected so operator can resubmit four string casing design	3/24/2022



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

Form APD Conditions

Permit 311649

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077	API Number: 30-025-49939
	Well: WOOL HEAD 20 STATE COM #508H

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	Three String Casing Program - In accordance with R-111-P all strings shall be cemented to surface.
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud



11490 Westheimer Road, Suite 950, Houston, Texas 77077 • Phone 832-672-4700 • Fax 832-672-4609

Date: February 17, 2020

Intrepid Potash-New Mexico, LLC  
1996 Potash Mines Road.  
Carlsbad, New Mexico 88220

Attention: Mr. Robert Baldrige

Re: Proposed Well APDs – Wool Head Wells  
State Lands in Section 20, T21S-R33E and  
S/2 Section 17, T21S-R33E  
Lea County, New Mexico

Dear Mr. Baldrige,

This letter is to request waivers from Intrepid Potash-New Mexico, LLC (Intrepid) for the wells Advance Energy Partners Hat Mesa, LLC (Advance) plans to drill, having surface locations in the S/2SW/4 of Sec 20 and bottom-hole locations in the N/2SW/4 of Section 17 in T21S-R33E. The planned wells include, but are not necessarily limited to, the wells listed in the attached Exhibit "A". In the event Advance desires to drill additional wells in the above stated lands, Intrepid agrees to grant waivers for such additional wells.

Please provide your waiver by signing below and returning one signed counterpart of this letter to my attention at Advance. Please feel free to contact me about this request if you have any questions.

Sincerely,

Advance Energy Partners Hat Mesa, LLC

A handwritten signature in black ink, appearing to read "Paul Burdick".

Paul Burdick

Land Advisor

(832) 672-4623

Email: [PBurdick@AdvanceEnergyPartners.com](mailto:PBurdick@AdvanceEnergyPartners.com)

Waiver Granted this \_\_\_\_ day of February, 2020

Intrepid Potash-New Mexico, LLC

By: A handwritten signature in black ink, appearing to read "Robert Baldrige".

Name: ROBERT BALDRIDGE

*Intrepid Potash*  
*February 17, 2020*  
 Page 2

# EXHIBIT A

## WELLS

Well Name	Surface Location	Bottom-hole Location
Wool Head 20 State Com 501H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 502H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 503H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 504H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 551H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 552H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 601H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 602H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 603H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 604H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 801H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 802H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E

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

Submit Electronically  
Via E-permitting

## 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:** Advance Energy Partners Hat Mesa, LLC **OGRID:** 372417 **Date:** \_\_\_\_\_

**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
Wool Head 20 State Com 303H	30-025-	P-20-21S-33E	150 FSL & 825 FEL	+/- 1200	+/- 2250	+/- 3000
Wool Head 20 State Com 508H	30-025-	O-20-21S-33E	150 FSL & 1980 FEL	+/- 1200	+/- 2250	+/- 3000

**IV. Central Delivery Point Name:** \_\_\_\_\_ [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
Wool Head 20 State Com 303H	30-025-	5/6/2022	6/6/2022	12/3/2022	1/17/2023	1/19/2023
Wool Head 20 State Com 508H	30-025-	5/24/2022	6/24/2022	12/21/2022	2/4/2023	2/6/2023

**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: Dayeed Khan
Title: Engineer
E-mail Address: dkhan@ameredev.com
Date: 3/9/2022
Phone: 737-300-4700
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:



## **Natural Gas Management Plan**

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

- Separation equipment is sized to allow for retention time and velocity to adequately separate oil, gas, and water at anticipated peak rates.
- All central tank battery equipment is designed to efficiently capture the remaining gas from the liquid phase.
- Valves and meters are designed to service without flow interruption or venting of gas.

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

#### **19.15.27.8 (A)**

Advanced Energy Partners field operations are designed with the goal of minimizing flaring and preventing venting of natural gas. If capturing the gas is not possible then the gas is combusted/flared using properly sized flares or combustors in accordance with state air permit rules.

#### **19.15.27.8 (B) Venting and Flaring during drilling operations**

- A properly-sized flare stack will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared. Venting will only occur if there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment.

#### **19.15.27.8 (C) Venting and Flaring during completions or recompletions operations.**

- During all phases of flowback, wells will flow through a sand separator, or other appropriate flowback separation equipment, and the well stream will be directed to a central tank battery (CTB) through properly sized flowlines
- The CTB will have properly sized separation equipment for maximum anticipated flowrates
- Multiple stages of separation will be used to separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks equipped with a closed loop system that will recover any residual gas from the tanks and route such gas to a sales outlet.

#### **19.15.27.8 (D) Venting and Flaring during production operations.**

- During production, the well stream will be routed to the CTB where multiple stages of separation will separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks with a closed

loop system that will recover any residual gas from the tanks and route such gas to a sales outlet, minimizing tank emissions.

- Flares are equipped with auto-ignition systems and continuous pilot operations.
- Automatic gauging equipment is installed on all tanks.

#### **19.15.27.8 (E) Performance Standards**

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- Automatic gauging equipment is installed on all tanks to minimize venting
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Flares are equipped with continuous pilots and auto-ignitors along with remote monitoring of the pilot status
- Weekly AVOs and monthly LDAR inspections will be performed on all wells and facilities that produce more than 60 Mcfd.
- Gas/H<sub>2</sub>S detectors will be installed throughout the facilities and wellheads to detect leaks and enable timely repairs.

#### **19.15.27.8 (F) Measurement or estimation of vented and flared natural gas**

- All high pressure flared gas is measured by equipment conforming to API 14.10.
- No meter bypasses are installed.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated through flare flow curves with the assistance of air emissions consultants, as necessary.

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

- Advanced Energy Partners will use best management practices to vent as minimally as possible during well intervention operations and downhole well maintenance
- All natural gas is routed into the gas gathering system and directed to one of Advanced Energy Partners multiple gas sales outlets.
- All venting events will be recorded and all start-up, shutdown, maintenance logs will be kept for control equipment
- All control equipment will be maintained to provide highest run-time possible
- All procedures are drafted to keep venting and flaring to the absolute minimum



## **Advance Energy Partners**

**Hat Mesa**

**Wool Head 20 State Com Pad B**

**Wool Head 20 State Com 508H**

**Wool Head 20 State Com 508H**

**Plan: Wool Head 20 State Com 508H - Prelim**

## **Standard Planning Report**

**06 January, 2022**



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Wool Head 20 State Com 508H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Site:</b>	Wool Head 20 State Com Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Wool Head 20 State Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wool Head 20 State Com 508H		
<b>Design:</b>	Wool Head 20 State Com 508H - Prelim		

<b>Project</b>	Hat Mesa, Lea County, NM		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	Wool Head 20 State Com Pad B			
<b>Site Position:</b>		<b>Northing:</b>	531,175.38 usft	<b>Latitude:</b> 32° 27' 29.114 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	769,761.43 usft	<b>Longitude:</b> 103° 35' 33.924 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	

<b>Well</b>	Wool Head 20 State Com 508H			
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	530,976.51 usft
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	769,898.43 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b> 3,720.0 usft
<b>Grid Convergence:</b>	0.40 °			

<b>Wellbore</b>	Wool Head 20 State Com 508H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	3/30/2021	6.57	60.22	47,682.02435999

<b>Design</b>	Wool Head 20 State Com 508H - Prelim			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	2.92

<b>Plan Survey Tool Program</b>	<b>Date</b>	1/6/2022		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.0	17,912.5 Wool Head 20 State Com 508H -	MWD+HRGM	
			OWSG MWD + HRGM	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,336.9	6.37	95.82	5,335.6	-3.6	35.2	1.00	1.00	0.00	95.82	
9,139.2	6.37	95.82	9,114.4	-46.4	454.8	0.00	0.00	0.00	0.00	
9,776.1	0.00	0.00	9,750.0	-50.0	490.0	1.00	-1.00	0.00	180.00	
9,918.6	0.00	0.00	9,892.5	-50.0	490.0	0.00	0.00	0.00	0.00	
10,668.6	90.00	359.27	10,370.0	427.4	483.9	12.00	12.00	0.00	359.27	
17,912.5	90.00	359.27	10,370.0	7,670.7	391.1	0.00	0.00	0.00	0.00	Wool Head 20 State C





## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Wool Head 20 State Com 508H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Site:</b>	Wool Head 20 State Com Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Wool Head 20 State Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wool Head 20 State Com 508H		
<b>Design:</b>	Wool Head 20 State Com 508H - Prelim		

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
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
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
3,700.0	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
4,400.0	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
<b>KOP - Start Build 1.00</b>									
4,800.0	1.00	95.82	4,800.0	-0.1	0.9	0.0	1.00	1.00	0.00
4,900.0	2.00	95.82	4,900.0	-0.4	3.5	-0.2	1.00	1.00	0.00
5,000.0	3.00	95.82	4,999.9	-0.8	7.8	-0.4	1.00	1.00	0.00
5,100.0	4.00	95.82	5,099.7	-1.4	13.9	-0.7	1.00	1.00	0.00
5,200.0	5.00	95.82	5,199.4	-2.2	21.7	-1.1	1.00	1.00	0.00



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<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Site:</b>	Wool Head 20 State Com Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Wool Head 20 State Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wool Head 20 State Com 508H		
<b>Design:</b>	Wool Head 20 State Com 508H - Prelim		

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)
5,300.0	6.00	95.82	5,298.9	-3.2	31.2	-1.6	1.00	1.00	0.00
5,336.9	6.37	95.82	5,335.6	-3.6	35.2	-1.8	1.00	1.00	0.00
Start 3802.2 hold at 5336.9 MD									
5,400.0	6.37	95.82	5,398.3	-4.3	42.1	-2.1	0.00	0.00	0.00
5,500.0	6.37	95.82	5,497.7	-5.4	53.2	-2.7	0.00	0.00	0.00
5,600.0	6.37	95.82	5,597.1	-6.6	64.2	-3.3	0.00	0.00	0.00
5,700.0	6.37	95.82	5,696.4	-7.7	75.3	-3.8	0.00	0.00	0.00
5,800.0	6.37	95.82	5,795.8	-8.8	86.3	-4.4	0.00	0.00	0.00
5,900.0	6.37	95.82	5,895.2	-9.9	97.3	-5.0	0.00	0.00	0.00
6,000.0	6.37	95.82	5,994.6	-11.1	108.4	-5.5	0.00	0.00	0.00
6,100.0	6.37	95.82	6,094.0	-12.2	119.4	-6.1	0.00	0.00	0.00
6,200.0	6.37	95.82	6,193.4	-13.3	130.4	-6.6	0.00	0.00	0.00
6,300.0	6.37	95.82	6,292.7	-14.4	141.5	-7.2	0.00	0.00	0.00
6,400.0	6.37	95.82	6,392.1	-15.6	152.5	-7.8	0.00	0.00	0.00
6,500.0	6.37	95.82	6,491.5	-16.7	163.5	-8.3	0.00	0.00	0.00
6,600.0	6.37	95.82	6,590.9	-17.8	174.6	-8.9	0.00	0.00	0.00
6,700.0	6.37	95.82	6,690.3	-18.9	185.6	-9.5	0.00	0.00	0.00
6,800.0	6.37	95.82	6,789.7	-20.1	196.7	-10.0	0.00	0.00	0.00
6,900.0	6.37	95.82	6,889.0	-21.2	207.7	-10.6	0.00	0.00	0.00
7,000.0	6.37	95.82	6,988.4	-22.3	218.7	-11.1	0.00	0.00	0.00
7,100.0	6.37	95.82	7,087.8	-23.4	229.8	-11.7	0.00	0.00	0.00
7,200.0	6.37	95.82	7,187.2	-24.6	240.8	-12.3	0.00	0.00	0.00
7,300.0	6.37	95.82	7,286.6	-25.7	251.8	-12.8	0.00	0.00	0.00
7,400.0	6.37	95.82	7,386.0	-26.8	262.9	-13.4	0.00	0.00	0.00
7,500.0	6.37	95.82	7,485.3	-27.9	273.9	-14.0	0.00	0.00	0.00
7,600.0	6.37	95.82	7,584.7	-29.1	284.9	-14.5	0.00	0.00	0.00
7,700.0	6.37	95.82	7,684.1	-30.2	296.0	-15.1	0.00	0.00	0.00
7,800.0	6.37	95.82	7,783.5	-31.3	307.0	-15.6	0.00	0.00	0.00
7,900.0	6.37	95.82	7,882.9	-32.4	318.1	-16.2	0.00	0.00	0.00
8,000.0	6.37	95.82	7,982.3	-33.6	329.1	-16.8	0.00	0.00	0.00
8,100.0	6.37	95.82	8,081.6	-34.7	340.1	-17.3	0.00	0.00	0.00
8,200.0	6.37	95.82	8,181.0	-35.8	351.2	-17.9	0.00	0.00	0.00
8,300.0	6.37	95.82	8,280.4	-36.9	362.2	-18.5	0.00	0.00	0.00
8,400.0	6.37	95.82	8,379.8	-38.1	373.2	-19.0	0.00	0.00	0.00
8,500.0	6.37	95.82	8,479.2	-39.2	384.3	-19.6	0.00	0.00	0.00
8,600.0	6.37	95.82	8,578.5	-40.3	395.3	-20.1	0.00	0.00	0.00
8,700.0	6.37	95.82	8,677.9	-41.4	406.3	-20.7	0.00	0.00	0.00
8,800.0	6.37	95.82	8,777.3	-42.6	417.4	-21.3	0.00	0.00	0.00
8,900.0	6.37	95.82	8,876.7	-43.7	428.4	-21.8	0.00	0.00	0.00
9,000.0	6.37	95.82	8,976.1	-44.8	439.5	-22.4	0.00	0.00	0.00
9,100.0	6.37	95.82	9,075.5	-46.0	450.5	-23.0	0.00	0.00	0.00
9,139.2	6.37	95.82	9,114.4	-46.4	454.8	-23.2	0.00	0.00	0.00
Start Drop -1.00									
9,200.0	5.76	95.82	9,174.9	-47.0	461.2	-23.5	1.00	-1.00	0.00
9,300.0	4.76	95.82	9,274.5	-48.0	470.3	-24.0	1.00	-1.00	0.00
9,400.0	3.76	95.82	9,374.2	-48.7	477.7	-24.3	1.00	-1.00	0.00
9,500.0	2.76	95.82	9,474.0	-49.3	483.4	-24.6	1.00	-1.00	0.00
9,600.0	1.76	95.82	9,573.9	-49.7	487.3	-24.8	1.00	-1.00	0.00
9,700.0	0.76	95.82	9,673.9	-49.9	489.5	-24.9	1.00	-1.00	0.00
9,776.1	0.00	0.00	9,750.0	-50.0	490.0	-25.0	1.00	-1.00	0.00
Start 142.5 hold at 9776.1 MD									
9,800.0	0.00	0.00	9,773.9	-50.0	490.0	-25.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,873.9	-50.0	490.0	-25.0	0.00	0.00	0.00



## Planning Report

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<b>Site:</b>	Wool Head 20 State Com Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Wool Head 20 State Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wool Head 20 State Com 508H		
<b>Design:</b>	Wool Head 20 State Com 508H - Prelim		

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)
9,918.6	0.00	0.00	9,892.5	-50.0	490.0	-25.0	0.00	0.00	0.00
<b>KOP #2 - Start Build 12.00</b>									
10,000.0	9.76	359.27	9,973.5	-43.1	489.9	-18.1	12.00	12.00	0.00
10,100.0	21.76	359.27	10,069.6	-15.9	489.6	9.0	12.00	12.00	0.00
10,200.0	33.76	359.27	10,157.9	30.5	489.0	55.4	12.00	12.00	0.00
10,300.0	45.76	359.27	10,234.6	94.4	488.2	119.1	12.00	12.00	0.00
10,400.0	57.76	359.27	10,296.4	172.8	487.1	197.4	12.00	12.00	0.00
10,500.0	69.76	359.27	10,340.5	262.3	486.0	286.7	12.00	12.00	0.00
10,600.0	81.76	359.27	10,365.1	359.1	484.8	383.3	12.00	12.00	0.00
10,668.6	90.00	359.27	10,370.0	427.4	483.9	451.5	12.00	12.00	0.00
<b>LP - Start 7243.9 hold at 10668.6 MD</b>									
10,700.0	90.00	359.27	10,370.0	458.8	483.5	482.8	0.00	0.00	0.00
10,800.0	90.00	359.27	10,370.0	558.8	482.2	582.6	0.00	0.00	0.00
10,900.0	90.00	359.27	10,370.0	658.8	480.9	682.4	0.00	0.00	0.00
11,000.0	90.00	359.27	10,370.0	758.8	479.6	782.2	0.00	0.00	0.00
11,100.0	90.00	359.27	10,370.0	858.8	478.4	882.0	0.00	0.00	0.00
11,200.0	90.00	359.27	10,370.0	958.8	477.1	981.8	0.00	0.00	0.00
11,300.0	90.00	359.27	10,370.0	1,058.8	475.8	1,081.6	0.00	0.00	0.00
11,400.0	90.00	359.27	10,370.0	1,158.8	474.5	1,181.4	0.00	0.00	0.00
11,500.0	90.00	359.27	10,370.0	1,258.7	473.2	1,281.2	0.00	0.00	0.00
11,600.0	90.00	359.27	10,370.0	1,358.7	472.0	1,381.0	0.00	0.00	0.00
11,700.0	90.00	359.27	10,370.0	1,458.7	470.7	1,480.8	0.00	0.00	0.00
11,800.0	90.00	359.27	10,370.0	1,558.7	469.4	1,580.6	0.00	0.00	0.00
11,900.0	90.00	359.27	10,370.0	1,658.7	468.1	1,680.4	0.00	0.00	0.00
12,000.0	90.00	359.27	10,370.0	1,758.7	466.8	1,780.2	0.00	0.00	0.00
12,100.0	90.00	359.27	10,370.0	1,858.7	465.6	1,880.0	0.00	0.00	0.00
12,200.0	90.00	359.27	10,370.0	1,958.7	464.3	1,979.8	0.00	0.00	0.00
12,300.0	90.00	359.27	10,370.0	2,058.7	463.0	2,079.6	0.00	0.00	0.00
12,400.0	90.00	359.27	10,370.0	2,158.7	461.7	2,179.4	0.00	0.00	0.00
12,500.0	90.00	359.27	10,370.0	2,258.7	460.4	2,279.2	0.00	0.00	0.00
12,600.0	90.00	359.27	10,370.0	2,358.7	459.2	2,379.0	0.00	0.00	0.00
12,700.0	90.00	359.27	10,370.0	2,458.7	457.9	2,478.8	0.00	0.00	0.00
12,800.0	90.00	359.27	10,370.0	2,558.6	456.6	2,578.6	0.00	0.00	0.00
12,900.0	90.00	359.27	10,370.0	2,658.6	455.3	2,678.4	0.00	0.00	0.00
13,000.0	90.00	359.27	10,370.0	2,758.6	454.0	2,778.2	0.00	0.00	0.00
13,100.0	90.00	359.27	10,370.0	2,858.6	452.8	2,878.0	0.00	0.00	0.00
13,200.0	90.00	359.27	10,370.0	2,958.6	451.5	2,977.8	0.00	0.00	0.00
13,300.0	90.00	359.27	10,370.0	3,058.6	450.2	3,077.6	0.00	0.00	0.00
13,400.0	90.00	359.27	10,370.0	3,158.6	448.9	3,177.4	0.00	0.00	0.00
13,500.0	90.00	359.27	10,370.0	3,258.6	447.6	3,277.2	0.00	0.00	0.00
13,600.0	90.00	359.27	10,370.0	3,358.6	446.4	3,376.9	0.00	0.00	0.00
13,700.0	90.00	359.27	10,370.0	3,458.6	445.1	3,476.7	0.00	0.00	0.00
13,800.0	90.00	359.27	10,370.0	3,558.6	443.8	3,576.5	0.00	0.00	0.00
13,900.0	90.00	359.27	10,370.0	3,658.6	442.5	3,676.3	0.00	0.00	0.00
14,000.0	90.00	359.27	10,370.0	3,758.5	441.2	3,776.1	0.00	0.00	0.00
14,100.0	90.00	359.27	10,370.0	3,858.5	440.0	3,875.9	0.00	0.00	0.00
14,200.0	90.00	359.27	10,370.0	3,958.5	438.7	3,975.7	0.00	0.00	0.00
14,300.0	90.00	359.27	10,370.0	4,058.5	437.4	4,075.5	0.00	0.00	0.00
14,400.0	90.00	359.27	10,370.0	4,158.5	436.1	4,175.3	0.00	0.00	0.00
14,500.0	90.00	359.27	10,370.0	4,258.5	434.8	4,275.1	0.00	0.00	0.00
14,600.0	90.00	359.27	10,370.0	4,358.5	433.5	4,374.9	0.00	0.00	0.00
14,700.0	90.00	359.27	10,370.0	4,458.5	432.3	4,474.7	0.00	0.00	0.00
14,800.0	90.00	359.27	10,370.0	4,558.5	431.0	4,574.5	0.00	0.00	0.00
14,900.0	90.00	359.27	10,370.0	4,658.5	429.7	4,674.3	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Wool Head 20 State Com 508H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Site:</b>	Wool Head 20 State Com Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Wool Head 20 State Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wool Head 20 State Com 508H		
<b>Design:</b>	Wool Head 20 State Com 508H - Prelim		

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)
15,000.0	90.00	359.27	10,370.0	4,758.5	428.4	4,774.1	0.00	0.00	0.00
15,100.0	90.00	359.27	10,370.0	4,858.5	427.1	4,873.9	0.00	0.00	0.00
15,200.0	90.00	359.27	10,370.0	4,958.4	425.9	4,973.7	0.00	0.00	0.00
15,300.0	90.00	359.27	10,370.0	5,058.4	424.6	5,073.5	0.00	0.00	0.00
15,400.0	90.00	359.27	10,370.0	5,158.4	423.3	5,173.3	0.00	0.00	0.00
15,500.0	90.00	359.27	10,370.0	5,258.4	422.0	5,273.1	0.00	0.00	0.00
15,600.0	90.00	359.27	10,370.0	5,358.4	420.7	5,372.9	0.00	0.00	0.00
15,700.0	90.00	359.27	10,370.0	5,458.4	419.5	5,472.7	0.00	0.00	0.00
15,800.0	90.00	359.27	10,370.0	5,558.4	418.2	5,572.5	0.00	0.00	0.00
15,900.0	90.00	359.27	10,370.0	5,658.4	416.9	5,672.3	0.00	0.00	0.00
16,000.0	90.00	359.27	10,370.0	5,758.4	415.6	5,772.1	0.00	0.00	0.00
16,100.0	90.00	359.27	10,370.0	5,858.4	414.3	5,871.9	0.00	0.00	0.00
16,200.0	90.00	359.27	10,370.0	5,958.4	413.1	5,971.7	0.00	0.00	0.00
16,300.0	90.00	359.27	10,370.0	6,058.4	411.8	6,071.5	0.00	0.00	0.00
16,400.0	90.00	359.27	10,370.0	6,158.3	410.5	6,171.3	0.00	0.00	0.00
16,500.0	90.00	359.27	10,370.0	6,258.3	409.2	6,271.1	0.00	0.00	0.00
16,600.0	90.00	359.27	10,370.0	6,358.3	407.9	6,370.9	0.00	0.00	0.00
16,700.0	90.00	359.27	10,370.0	6,458.3	406.7	6,470.7	0.00	0.00	0.00
16,800.0	90.00	359.27	10,370.0	6,558.3	405.4	6,570.4	0.00	0.00	0.00
16,900.0	90.00	359.27	10,370.0	6,658.3	404.1	6,670.2	0.00	0.00	0.00
17,000.0	90.00	359.27	10,370.0	6,758.3	402.8	6,770.0	0.00	0.00	0.00
17,100.0	90.00	359.27	10,370.0	6,858.3	401.5	6,869.8	0.00	0.00	0.00
17,200.0	90.00	359.27	10,370.0	6,958.3	400.3	6,969.6	0.00	0.00	0.00
17,300.0	90.00	359.27	10,370.0	7,058.3	399.0	7,069.4	0.00	0.00	0.00
17,400.0	90.00	359.27	10,370.0	7,158.3	397.7	7,169.2	0.00	0.00	0.00
17,500.0	90.00	359.27	10,370.0	7,258.3	396.4	7,269.0	0.00	0.00	0.00
17,600.0	90.00	359.27	10,370.0	7,358.2	395.1	7,368.8	0.00	0.00	0.00
17,700.0	90.00	359.27	10,370.0	7,458.2	393.9	7,468.6	0.00	0.00	0.00
17,800.0	90.00	359.27	10,370.0	7,558.2	392.6	7,568.4	0.00	0.00	0.00
17,900.0	90.00	359.27	10,370.0	7,658.2	391.3	7,668.2	0.00	0.00	0.00
17,912.5	90.00	359.27	10,370.0	7,670.7	391.1	7,680.7	0.00	0.00	0.00
TD at 17912.5 - Wool Head 20 State Com 508H BHL									

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
Wool Head 20 State Cor - plan hits target center - Point	0.00	0.00	10,370.0	7,670.7	391.1	538,647.22	770,289.57	32° 28' 43.010 N	103° 35' 27.154 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
10,668.6	10,370.0	LP	5-1/2	5-1/2	





## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Wool Head 20 State Com 508H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3752.5usft (Original Well Elev)
<b>Site:</b>	Wool Head 20 State Com Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Wool Head 20 State Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wool Head 20 State Com 508H		
<b>Design:</b>	Wool Head 20 State Com 508H - Prelim		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,700.0	4,700.0	0.0	0.0	KOP - Start Build 1.00
5,336.9	5,335.6	-3.6	35.2	Start 3802.2 hold at 5336.9 MD
9,139.2	9,114.4	-46.4	454.8	Start Drop -1.00
9,776.1	9,750.0	-50.0	490.0	Start 142.5 hold at 9776.1 MD
9,918.6	9,892.5	-50.0	490.0	KOP #2 - Start Build 12.00
10,668.6	10,370.0	427.4	483.9	LP - Start 7243.9 hold at 10668.6 MD
17,912.5	10,370.0	7,670.7	391.1	TD at 17912.5