Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NMNM120905 BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. ✓ DRILL REENTER 1a. Type of work: 1b. Type of Well: ✓ Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing ✓ Single Zone Multiple Zone ANDERSON FED COM [326484] 702H 2. Name of Operator 9. API Well No. [372417] 30-025-49658 ADVANCE ENERGY PARTNERS HAT MESA LLC 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 11490 Westheimer Rd, Suite 950, Houston, TX 77707 (346) 444-9739 WC-025 G-10 S2133280;WOLFCAMP 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area SEC 2/T22S/R32E/NMP At surface LOT 3 / 180 FNL / 2287 FWL / LAT 32.427547 / LONG -103.646543 At proposed prod. zone SESW / 1220 FSL / 2310 FWL / LAT 32.44592 / LONG -103.646455 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13 State LEA NM 26 miles 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well 180 feet location to nearest property or lease line, ft. 200.0 (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, 12050 feet / 18729 feet FED: NMB001444 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 3667 feet 06/01/2021 90 days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above) 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date BRIAN WOOD / Ph: (346) 444-9739 (Electronic Submission) 03/22/2021 Title President Approved by (Signature) Name (Printed/Typed) Date (Electronic Submission) Cody Layton / Ph: (575) 234-5959 10/15/2021 Title Office Assistant Field Manager Lands & Minerals Hobbs Field Station Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. NGMP Rec 12/20/2021

SL

(Continued on page 2)

APPROVED WITH CONDITIONS

12/20/2021

*(Instructions on page 2)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Pax: (576) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1263 Fax: (575) 748-9720

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) 476-3460 Fax: (505) 476-3462 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

SEE AMENDED C-102 BELOW

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-025- 30-025-49658		Pool Code 98033	; Wolfcamp	
Property Code		-	erty Name	Well Number
326484			N FED COM	702H
0GRID No.		•	ator Name	Elevation
372417			RTNERS HAT MESA, LLC	3667'

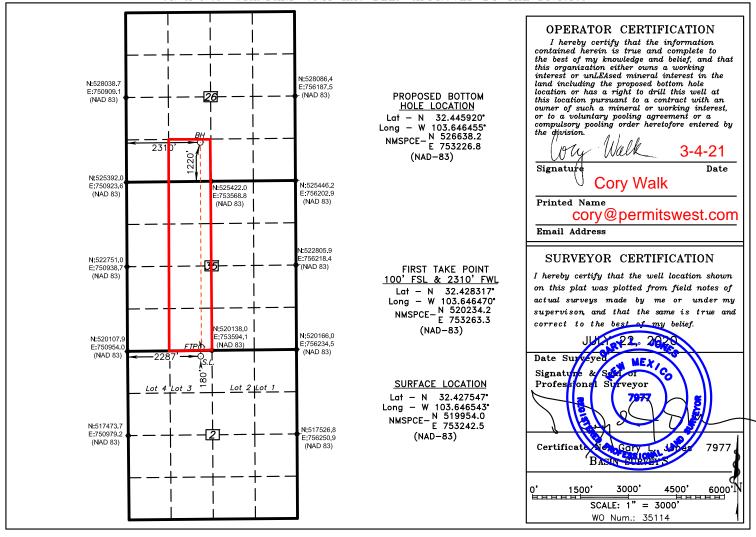
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 3	2	22 S	32 E		180	NORTH	2287	WEST	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
N	26	21 S	32 E		1220	SOUTH	2310	WEST	LEA
Dedicated Acres	s Joint o	r Infill (Consolidation (Code Or	der No.				
200.00			С						

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





U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Sundry Print Reports
12/17/2021

Well Name: ANDERSON FED COM Well Location: T22S / R32E / SEC 2 / County or Parish/State:

LOT 3/

Well Number: 702H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM120905 Unit or CA Name: Unit or CA Number:

US Well Number: Well Status: Approved Application for Operator: ADVANCE ENERGY

Permit to Drill PARTNERS HAT MESA LLC

Notice of Intent

Sundry ID: 2649288

Type of Submission: Notice of Intent

Type of Action: Other

Date Sundry Submitted: 12/16/2021 Time Sundry Submitted: 02:25

Date proposed operation will begin: 12/24/2021

Procedure Description: Request to move the Surface Hole Location from 180' FNL & 2287' FWL, Section 2, T-22-S, R-32-E, Lot 3 to 180' FNL & 2155' FWL, Section 2, T-22-S, R-32-E, Lot 3 and the Bottom Hole Location 1220' FSL & 2310' FWL, Section 26, T-21-S, R-32-E, SESW to 2540' FSL & 1254' FWL, Section 26, T-21-S, R-32-E, NWSW. Please see attached drill plan, directional plan, and plats for detailed information regarding changes to casing, cement, and mud programs.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Anderson_702H_SHL_BHL_etc_Sundry_Attachment_20211216142211.pdf

Page 1 of 2

eceived by OCD: 12/20/2021 10:12:27 AM Well Name: ANDERSON FED COM

Well Location: T22S / R32E / SEC 2 /

LOT 3 /

Well Number: 702H Type of Well: OIL WELL

County or Parish/State:

Page 4 of

Allottee or Tribe Name:

Lease Number: NMNM120905

Unit or CA Name:

Unit or CA Number:

US Well Number:

Well Status: Approved Application for

Permit to Drill

Operator: ADVANCE ENERGY PARTNERS HAT MESA LLC

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: BRIAN WOOD Signed on: DEC 16, 2021 02:22 PM

Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Title: President

Street Address: 37 VERANO LOOP

City: SANTA FE State: NM

Phone: (505) 466-8120

Email address: AFMSS@PERMITSWEST.COM

Field Representative

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: Cody Layton **BLM POC Title:** Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959 BLM POC Email Address: clayton@blm.gov

Disposition: Approved **Disposition Date:** 12/17/2021

Signature: Cody R. Layton

Page 2 of 2

DISTRICT I
1825 N. French Dr., Hobbs, NM 88240
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1220 S. St. Francis Dr., Santa Fe, NM 67505 Phone (505) 476-3480 Fax: (505) 478-3482

DISTRICT IV

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

30-025- API Number 30-025	5-49658	Pool Code 98033	Pool Name WC-025 G-10 S2133280	; Wolfcamp			
Property Code 326484		Property Name Well N ANDERSON FED COM 70					
OGRID No. 372417		Operator Name Elevation ADVANCE ENERGY PARTNERS HAT MESA, LLC 3672'					

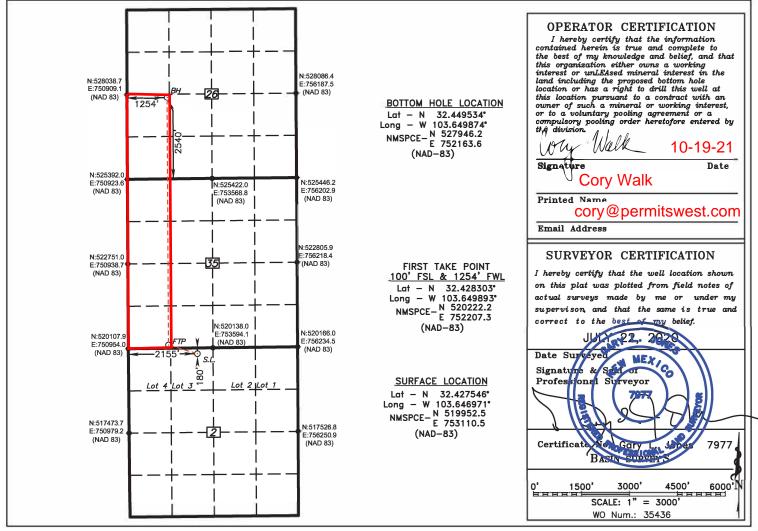
Surface Location

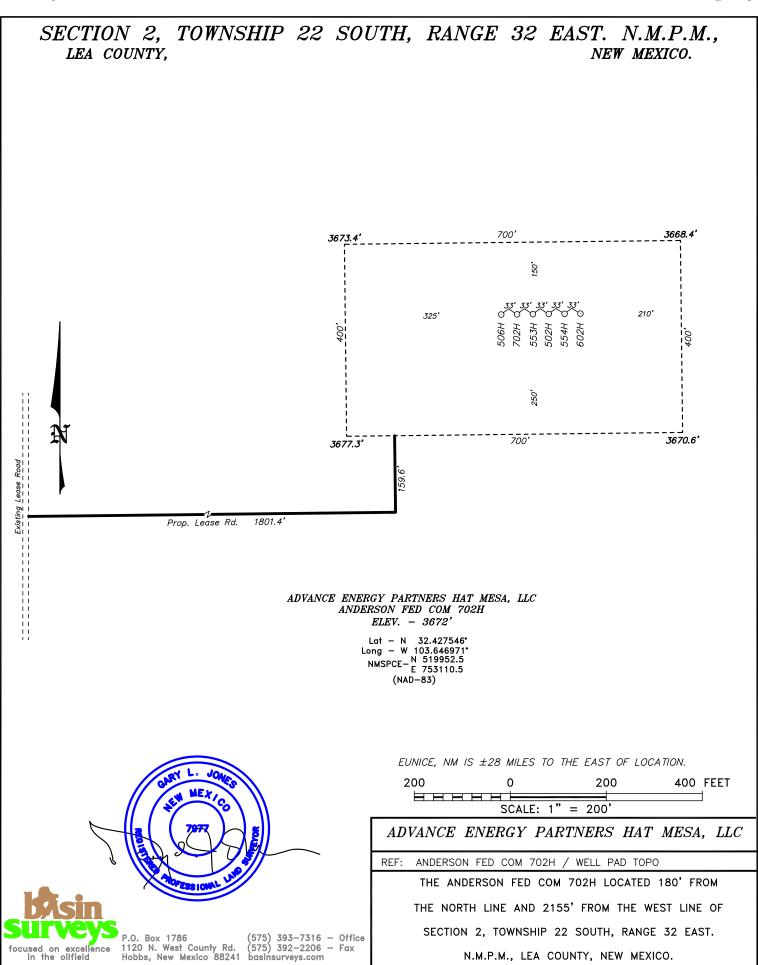
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 3	2	22 S	32 E		180	NORTH	2155	WEST	LEA

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
N	26	21 S	32 E		2540	SOUTH	1254	WEST	LEA
Dedicated Acres	Joint o	r Infill	Consolidation	Code Or	der No.	314		Di Di	
240			С						

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





Date: 01-19-2021

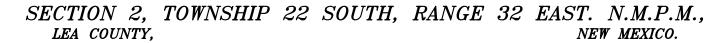
Survey Date: 01-18-2021

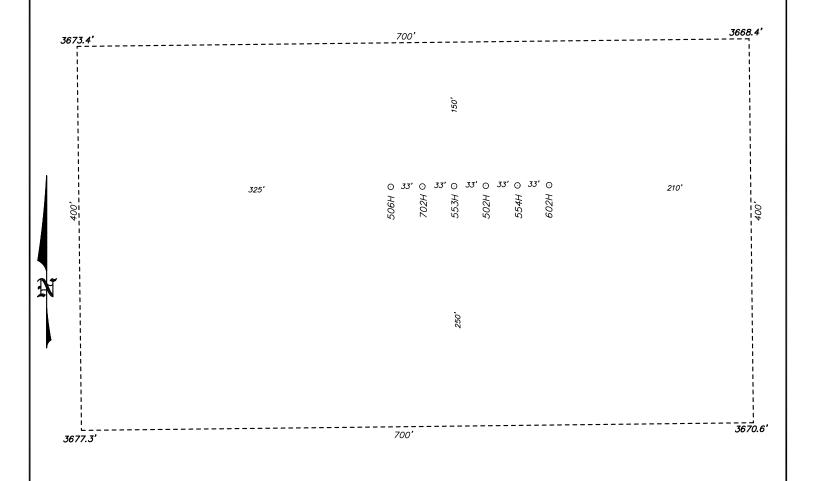
Sheet 1 of 1

35436

W.O. Number:

Drawn By: K. GOAD





Date: 01-19-2021



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

Drawn By: K. GOAD

100 0 100 200 FEET

SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS HAT MESA, LLC

REF: ANDERSON FED COM 702H / WELL PAD TOPO

Survey Date: 01-18-2021

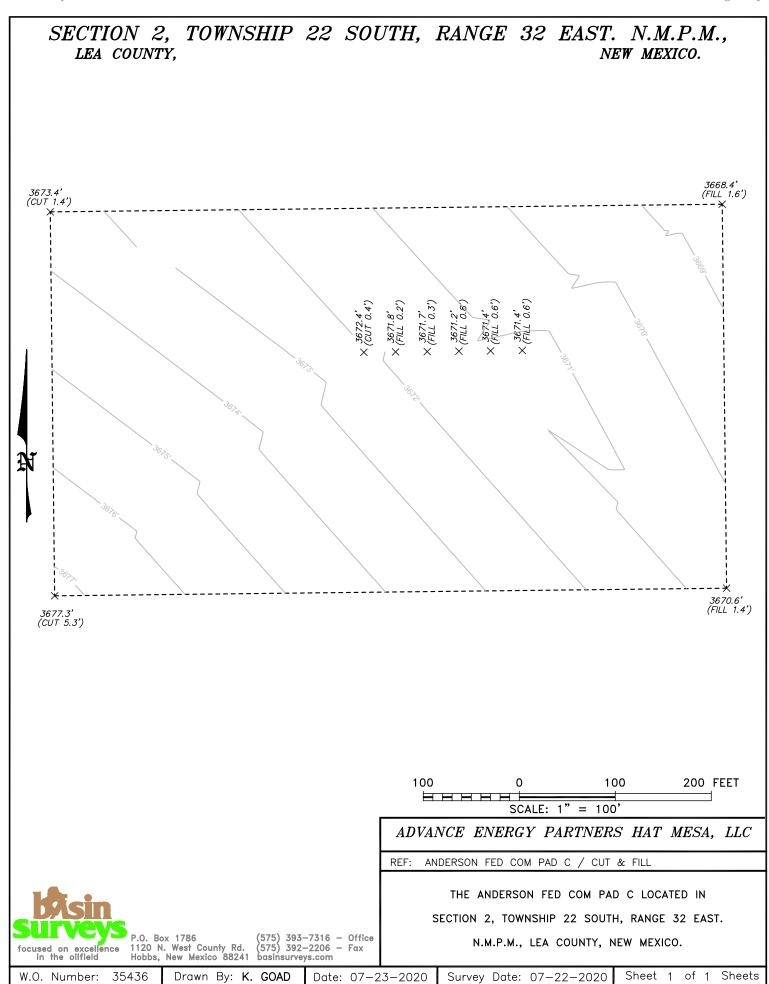
THE ANDERSON FED COM 702H LOCATED 180' FROM THE NORTH LINE AND 2155' FROM THE WEST LINE OF SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST.

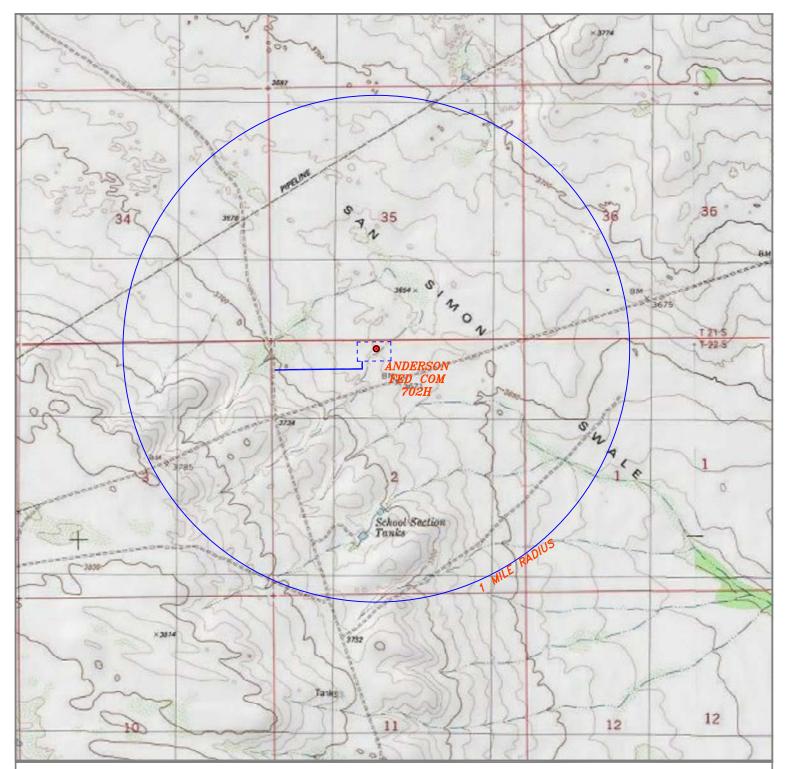
N.M.P.M., LEA COUNTY, NEW MEXICO.

Sheet 1 of 1 Sheets

35436

W.O. Number:





ANDERSON FED COM 702H

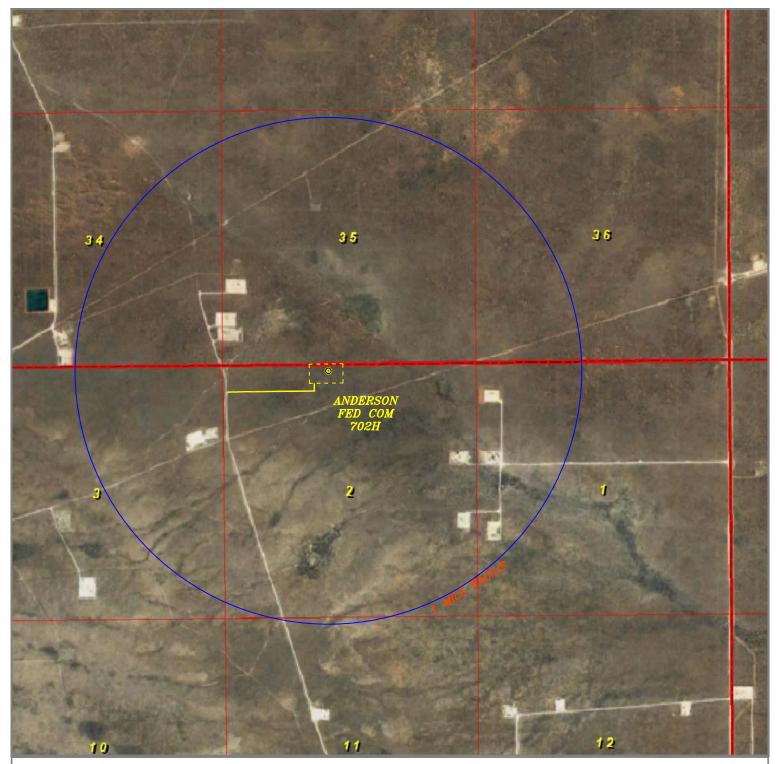
Located 180' FNL and 2155' FWL Section 2, Township 22 South, Range 32 East, N.M.P.M., Lea County, New Mexico.



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

0' 1000' 2000' 3000' 150'0' SCALE: 1" = 2000'		
W.O. Number: KJG 35436		
Survey Date: 01-18-2021	4	l
YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FEE LAND	1	

ADVANCE ENERGY PARTNERS HAT MESA, LLC



ANDERSON FED COM 702H

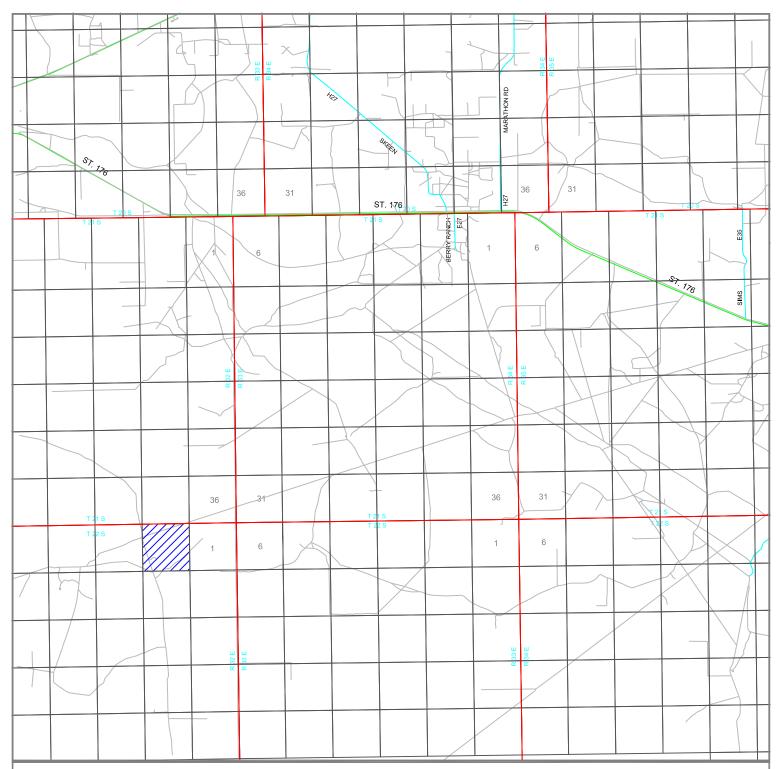
Located 180' FNL and 2155' FWL Section 2, Township 22 South, Range 32 East, N.M.P.M., Lea County, New Mexico.



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0' 1000' 2000' 3000' 150'0' SCALE: 1" = 2000'	
W.O. Number: KJG 35436	{
Survey Date: 01-18-2021	 ¶
YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FEE LAND	1

ADVANCE ENERGY PARTNERS HAT MESA, LLC



ANDERSON FED COM 702H

Located 180' FNL and 2155' FWL Section 2, Township 22 South, Range 32 East, N.M.P.M., Lea County, New Mexico.



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

0 1 MI 2 MI 3 MI 4 MI SCALE: 1" = 2 MILES		
W.O. Number: KJG 35436		
Survey Date: 01-18-2021	 ¶	
YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FEE LAND		

ADVANCE ENERGY PARTNERS HAT MESA, LLC

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: _Advance	Energy Partn	ers Hat Mesa, LLC	OGRID: _	372417	Da	ite: Septe	mber 25, 2021
II. Type: ⊠ Original □	Amendment	t due to □ 19.15.27	.9.D(6)(a) NMA	.C □ 19.15.27.9.D	(6)(b) NMAC	☐ Other.	
If Other, please describe:							
III. Well(s): Provide the be recompleted from a sin					wells propose	d to be dri	lled or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipate Gas MCF/I		Anticipated roduced Water BBL/D
Anderson Fed Com 506H		Lot 3-Sec 2 22S-32E	180 FNL & 2122 FEL	1280	1500		3200
Anderson Fed Com 702H		Lot 3-Sec 2 22S-32E	180 FNL & 2287 FWL	1280	1500		3200
IV. Central Delivery Po V. Anticipated Schedule proposed to be recomplet	: Provide the ed from a sin	e following informa	tion for each nev	v or recompleted war delivery point.	vell or set of w	ells propo	osed to be drilled or
Well Name	API	Spud Date	TD Reached Date	Completion Commencement		al Flow ck Date	First Production Date
Anderson Fed Com 506H		10/12/21	11/6/21	1/30/22	3	/5/22	5/1/22
Anderson Fed Com 702H		10/13/21	10/28/21	1/30/22	3	/5/22	5/1/22
VI. Separation EquipmovII. Operational Practice Subsection A through Fourier VIII. Best Management during active and planned	ces: ⊠ Attac of 19.15.27.8 • Practices: [ch a complete desc NMAC.	ription of the ac	tions Operator wil	l take to com	ply with t	he requirements of

Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

0 0 1	2022, an operator the complete this section	*	with its statewide natural g	as capture requirement for the applicable
_	es that it is not requi t for the applicable re	_	ction because Operator is in	compliance with its statewide natural gas
IX. Anticipated Na	ntural Gas Producti	on:		
W	/ell	API	Anticipated Average Natural Gas Rate MCF/I	Anticipated Volume of Natural Gas for the First Year MCF
X. Natural Gas Ga	nthering System (NO	GGS):		
Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in
production operatio	ns to the existing or j	planned interconnect of		nticipated pipeline route(s) connecting the em(s), and the maximum daily capacity of nected.
		thering system \square will [o the date of first produc		gather 100% of the anticipated natural gas
	-	-		ted to the same segment, or portion, of the n line pressure caused by the new well(s).
☐ Attach Operator	's plan to manage pro	oduction in response to t	he increased line pressure.	
Section 2 as provide	ed in Paragraph (2) o		27.9 NMAC, and attaches a	SA 1978 for the information provided in full description of the specific information

(i)

Section 3 - Certifications <u>Effective May 25, 2021</u>

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; reinjection for underground storage; (e) **(f)** reinjection for temporary storage; **(g)** reinjection for enhanced oil recovery; fuel cell production; and (h)

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

- (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: Cory Walk
Title: Consultant
E-mail Address: cory@permitswest.com
Date: 9/25/21
Phone: (505) 466-8120
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan - Attachment

- 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. Advance Energy Partners Hat Mesa, LLC (AEP) will take the following actions to comply with the regulations listed in 19.15.27.8:
 - A. AEP 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. AEP will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
 - 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 repolted appropriately.
 - C. During completion operations any natural gas brought to smface 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, AEP will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. AEP 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. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(I) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and repolted appropriately.
 - E. AEP will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(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. AEP 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.
 - F. 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. AEP will install equipment to measure

the volume of natural gas flared from existing process piping, or a flowline piped from equipment such as high-pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021, that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, AEP will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

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.

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II. Type: ⊠ Original [☐ Amendment	t due to □ 19.15.27	.9.D(6)(a) NMA	.C □ 19.15.27.9.D((6)(b) NMAC □	Other.	
If Other, please describe	e:						
III. Well(s): Provide the be recompleted from a s					wells proposed t	o be dri	illed or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	P	Anticipated Produced Water BBL/D
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Anderson Fed Com 702H 30	-025-49658	Lot 3-Sec 2 22S-32E	180 FNL & 2287 FWL	1280	1500		3200
IV. Central Delivery P	oint Name: _	Anderson Pad C_		[See 1	9.15.27.9(D)(1)	NMAC	
V. Anticipated Schedu proposed to be recomple					rell or set of wel	ls propo	osed to be drilled or
Well Name	API	Spud Date	TD Reached Date	Completion Commencement			First Production Date
Anderson Fed Com 506H		10/12/21	11/6/21	1/30/22	3/5/	/22	5/1/22
Anderson Fed Com 702H 30-0	25-49658	10/13/21	10/28/21	1/30/22	3/5/	/22	5/1/22
VI. Separation Equipm	nent: ⊠ Attac	h a complete descri	ption of how Op	erator will size sep	aration equipme	ent to op	otimize gas capture.
VII. Operational Prac Subsection A through F			ription of the ac	tions Operator wil	l take to comply	y with t	the requirements of
VIII. Best Management during active and planned			ete description of	f Operator's best n	nanagement pra	ctices to	o minimize venting

Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

0 0 1	2022, an operator the complete this section		with its statewide natural ga	as capture requirement for the applicable
-	s that it is not require for the applicable re	-	tion because Operator is in	compliance with its statewide natural gas
IX. Anticipated Na	tural Gas Production	on:		
W	ell	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF
X. Natural Gas Ga	thering System (NG	GGS):		
Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in
production operation the segment or porti	ns to the existing or p on of the natural gas . The natural gas gat	planned interconnect of t gathering system(s) to v	the natural gas gathering system which the well(s) will be considered will not have capacity to g	nticipated pipeline route(s) connecting the em(s), and the maximum daily capacity of nected.
•	-	•		
				ted to the same segment, or portion, of the a line pressure caused by the new well(s).
☐ Attach Operator'	s plan to manage pro	oduction in response to the	he increased line pressure.	
Section 2 as provide	ed in Paragraph (2) of	• •	27.9 NMAC, and attaches a f	SA 1978 for the information provided in full description of the specific information

(h)

(i)

Section 3 - Certifications Effective May 25, 2021

Operator certifies th	nat, after reasonable inquiry and based on the available information at the time of submittal:
one hundred percer	able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport at of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering
hundred percent of into account the cur	the able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking trent and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. this box, Operator will select one of the following:
Well Shut-In. □ O D of 19.15.27.9 NM	perator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection IAC; or
Venting and Flari	ng Plan. □ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential
alternative benefici	al uses for the natural gas until a natural gas gathering system is available, including:
(8	
(I	
(0	
(0	
(6	
(f	
(6	reinjection for enhanced oil recovery:

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

fuel cell production; and

- (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: Cory Walk
Title: Consultant
E-mail Address: cory@permitswest.com
Date: 9/25/21
Phone: (505) 466-8120
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan - Attachment

- 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. Advance Energy Partners Hat Mesa, LLC (AEP) will take the following actions to comply with the regulations listed in 19.15.27.8:
 - A. AEP 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. AEP will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
 - 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 repolted appropriately.
 - C. During completion operations any natural gas brought to smface 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, AEP will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. AEP 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. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(I) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and repolted appropriately.
 - E. AEP will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(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. AEP 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.
 - F. 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. AEP will install equipment to measure

the volume of natural gas flared from existing process piping, or a flowline piped from equipment such as high-pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021, that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, AEP will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

Received by OCD: 12/20/2021 10:12:27 AM CE SON

WELL DETAILS: Anderson Fed Com 702H

Ground Elev: 3667.0 KB: 3699.5

+N/-S +E/-W Northing Easting Latittude Longitude 0.0 0.0 519953.79 753242.64 32° 25' 39.169 N 103° 38' 47.555 W

PROJECT DETAILS: Hat Mesa

Geodetic System: US State Plane 1983

Datum: North American Datum 1983

Ellipsoid: GRS 1980

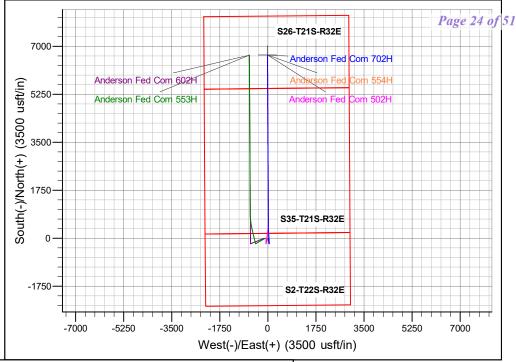
Zone: New Mexico Eastern Zone

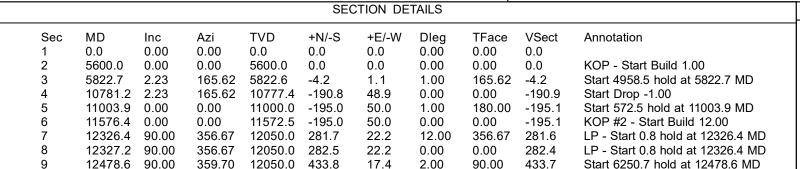
12050.0

6684.4

System Datum: Mean Sea Level

359.70



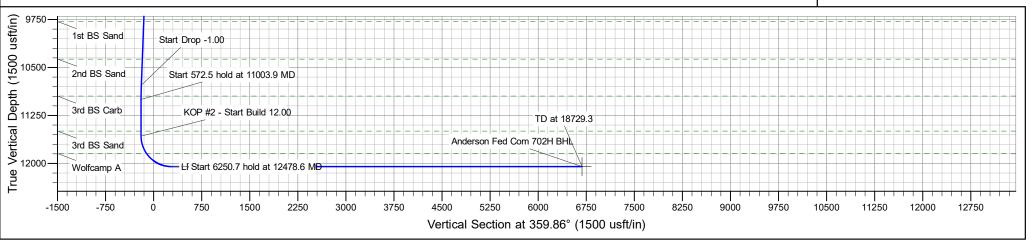


0.00

-15.8

M Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.25°

Magnetic Field
Strength: 47681.0nT
Dip Angle: 60.19°
Date: 1/12/2021
Model: IGRF2015



0.00

6684.4

TD at 18729.3

18729.3 90.00

10



Advance Energy Partners

Hat Mesa Anderson Fed Com - Pad C Anderson Fed Com 702H

Anderson Fed Com 702H

Plan: Anderson Fed Com 702H - Prelim 1

Standard Planning Report

11 February, 2021

3,667.0 usft



Planning Report

Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

Site: Anderson Fed Com - Pad C
Well: Anderson Fed Com 702H
Wellbore: Anderson Fed Com 702H

Design: Anderson Fed Com 702H - Prelim 1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Anderson Fed Com 702H

WELL @ 3699.5usft (Original Well Elev.) WELL @ 3699.5usft (Original Well Elev.)

359.86

Grid

Minimum Curvature

Project Hat Mesa, Lea County, NM

Map System:US State Plane 1983Geo Datum:North American Datum 1983Map Zone:New Mexico Eastern Zone

System Datum:

Mean Sea Level

Site Anderson Fed Com - Pad C

 Site Position:
 Northing:
 519,952.78 usft
 Latitude:
 32° 25' 39.166 N

 From:
 Lat/Long
 Easting:
 753,142.98 usft
 Longitude:
 103° 38' 48.718 W

Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 "

0.0

 Well
 Anderson Fed Com 702H

 Well Position
 +N/-S
 0.0 usft
 Northing:
 519,953.79 usft
 Latitude:
 32° 25′ 39.169 N

 +E/-W
 0.0 usft
 Easting:
 753,242.64 usft
 Longitude:
 103° 38′ 47.555 W

Position Uncertainty 0.0 usft Wellhead Elevation: usft Ground Level:

Grid Convergence: 0.37 °

Anderson Fed Com 702H Wellbore Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (°) (nT) 47,680.98314102 IGRF2015 1/12/2021 6.61 60.19

Anderson Fed Com 702H - Prelim 1 Design Audit Notes: **PROTOTYPE** Tie On Depth: 0.0 Version: Phase: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°)

0.0

 Plan Survey Tool Program
 Date 2/11/2021

 Depth From (usft)
 Depth To (usft)
 Survey (Wellbore)
 Tool Name
 Remarks

 1
 0.0
 18,729.3
 Anderson Fed Com 702H - Prelim
 MWD+HRGM

0.0

OWSG MWD + HRGM



Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

Site: Anderson Fed Com - Pad C
Well: Anderson Fed Com 702H
Wellbore: Anderson Fed Com 702H

Design: Anderson Fed Com 702H - Prelim 1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Anderson Fed Com 702H

WELL @ 3699.5usft (Original Well Elev.) WELL @ 3699.5usft (Original Well Elev.)

Grid

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	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,822.7	2.23	165.62	5,822.6	-4.2	1.1	1.00	1.00	0.00	165.62	
10,781.2	2.23	165.62	10,777.4	-190.8	48.9	0.00	0.00	0.00	0.00	
11,003.9	0.00	0.00	11,000.0	-195.0	50.0	1.00	-1.00	0.00	180.00	
11,576.4	0.00	0.00	11,572.5	-195.0	50.0	0.00	0.00	0.00	0.00	
12,326.4	90.00	356.67	12,050.0	281.7	22.2	12.00	12.00	0.00	356.67	
12,327.2	90.00	356.67	12,050.0	282.5	22.2	0.00	0.00	0.00	0.00	
12,478.6	90.00	359.70	12,050.0	433.8	17.4	2.00	0.00	2.00	90.00	
18,729.3	90.00	359.70	12,050.0	6,684.4	-15.8	0.00	0.00	0.00	0.00	Anderson Fed Com



Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

Site: Anderson Fed Com - Pad C
Well: Anderson Fed Com 702H
Wellbore: Anderson Fed Com 702H

Design: Anderson Fed Com 702H - Prelim 1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Anderson Fed Com 702H

WELL @ 3699.5usft (Original Well Elev.) WELL @ 3699.5usft (Original Well Elev.)

Grid

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
1,169.0	0.00	0.00	1,169.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
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
1,300.0		0.00	1,300.0						
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
	0.00	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
4,747.0	0.00	0.00	4,747.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Lim	estone/Bell Can	yon							
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



Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

Site:Anderson Fed Com - Pad CWell:Anderson Fed Com 702HWellbore:Anderson Fed Com 702H

Design: Anderson Fed Com 702H - Prelim 1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Anderson Fed Com 702H

WELL @ 3699.5usft (Original Well Elev.) WELL @ 3699.5usft (Original Well Elev.)

Grid

esigii.										
Planned Surve										
Meas Dep (us	oth	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5.	,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5.	,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5.	,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
	,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
	,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
	,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,	,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP	- Start Bu	ild 1.00								
5	,700.0	1.00	165.62	5,700.0	-0.8	0.2	-0.8	1.00	1.00	0.00
_	000 0	2.00	405.00	F 000 0	2.4	0.0	0.4	4.00	4.00	0.00
	,800.0	2.00	165.62	5,800.0	-3.4	0.9	-3.4	1.00	1.00	0.00
	,822.7	2.23	165.62	5,822.6	-4.2	1.1	-4.2	1.00	1.00	0.00
		old at 5822.7 M								
	,900.0	2.23	165.62	5,899.9	-7.1	1.8	-7.1	0.00	0.00	0.00
	,000.0	2.23	165.62	5,999.8	-10.9	2.8	-10.9	0.00	0.00	0.00
6	,100.0	2.23	165.62	6,099.7	-14.6	3.8	-14.6	0.00	0.00	0.00
6	,200.0	2.23	165.62	6,199.7	-18.4	4.7	-18.4	0.00	0.00	0.00
	,300.0	2.23	165.62	6,299.6	-22.2	5.7	-10.4	0.00	0.00	0.00
		2.23			-22.2 -25.9		-22.2 -25.9			
	,400.0		165.62	6,399.5		6.6		0.00	0.00	0.00
	,500.0	2.23	165.62	6,499.4	-29.7	7.6	-29.7	0.00	0.00	0.00
6	,600.0	2.23	165.62	6,599.4	-33.4	8.6	-33.5	0.00	0.00	0.00
6.	,700.0	2.23	165.62	6,699.3	-37.2	9.5	-37.2	0.00	0.00	0.00
	,800.0	2.23	165.62	6,799.2	-41.0	10.5	-41.0	0.00	0.00	0.00
	,900.0	2.23	165.62	6,899.1	-44.7	11.5	-44.8	0.00	0.00	0.00
	,000.0	2.23	165.62	6,999.1	-48.5	12.4	-48.5	0.00	0.00	0.00
	,100.0	2.23	165.62	7,099.0	-52.3	13.4	-52.3	0.00	0.00	0.00
	,200.0	2.23	165.62	7,198.9	-56.0	14.4	-56.1	0.00	0.00	0.00
	,300.0	2.23	165.62	7,298.8	-59.8	15.3	-59.8	0.00	0.00	0.00
	,400.0	2.23	165.62	7,398.8	-63.6	16.3	-63.6	0.00	0.00	0.00
7,	,500.0	2.23	165.62	7,498.7	-67.3	17.3	-67.4	0.00	0.00	0.00
7,	,600.0	2.23	165.62	7,598.6	-71.1	18.2	-71.1	0.00	0.00	0.00
7	,700.0	2.23	165.62	7,698.5	-74.8	19.2	-74.9	0.00	0.00	0.00
	,800.0	2.23	165.62	7,798.5	-78.6	20.2	-74.3	0.00	0.00	0.00
	,900.0	2.23	165.62	7,798.3	-82.4	21.1	-82.4		0.00	
	,900.0	2.23	165.62	7,898.4 7,998.3	-82.4 -86.1		-82.4 -86.2	0.00	0.00	0.00
		2.23	165.62			22.1		0.00	0.00	0.00
	,100.0			8,098.2	-89.9	23.1	-90.0	0.00	0.00	0.00
8	,200.0	2.23	165.62	8,198.1	-93.7	24.0	-93.7	0.00	0.00	0.00
8	,300.0	2.23	165.62	8,298.1	-97.4	25.0	-97.5	0.00	0.00	0.00
	,396.0	2.23	165.62	8,394.0	-101.0	25.9	-101.1	0.00	0.00	0.00
	er Brushy									
	,400.0	2.23	165.62	8,398.0	-101.2	25.9	-101.3	0.00	0.00	0.00
	,500.0	2.23	165.62	8,497.9	-105.0	26.9	-105.0	0.00	0.00	0.00
	,600.0	2.23	165.62	8,597.8	-108.7	27.9	-108.8	0.00	0.00	0.00
	,700.0	2.23	165.62	8,697.8	-112.5	28.8	-112.5	0.00	0.00	0.00
	,800.0	2.23	165.62	8,797.7	-116.2	29.8	-116.3	0.00	0.00	0.00
8,	,900.0	2.23	165.62	8,897.6	-120.0	30.8	-120.1	0.00	0.00	0.00
8.	,916.4	2.23	165.62	8,914.0	-120.6	30.9	-120.7	0.00	0.00	0.00
Avale	on									
			10-00		400.0					
	,000.0	2.23	165.62	8,997.5	-123.8	31.7	-123.8	0.00	0.00	0.00
	,100.0	2.23	165.62	9,097.5	-127.5	32.7	-127.6	0.00	0.00	0.00
	,200.0	2.23	165.62	9,197.4	-131.3	33.7	-131.4	0.00	0.00	0.00
	,300.0	2.23	165.62	9,297.3	-135.1	34.6	-135.1	0.00	0.00	0.00
9,	,400.0	2.23	165.62	9,397.2	-138.8	35.6	-138.9	0.00	0.00	0.00
Ω	,500.0	2.23	165.62	9,497.2	-142.6	36.6	-142.7	0.00	0.00	0.00
9	,500.0	2.23	100.02	9,491.2	-142.0	30.0	-142./	0.00	0.00	0.00



Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

Site:Anderson Fed Com - Pad CWell:Anderson Fed Com 702HWellbore:Anderson Fed Com 702H

Design: Anderson Fed Com 702H - Prelim 1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Anderson Fed Com 702H

WELL @ 3699.5usft (Original Well Elev.) WELL @ 3699.5usft (Original Well Elev.)

Grid

gn:	7 11 14 01 0 011 1 0 4	Colli 702H - Fi							
nned 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)
9,600.0 9,700.0 9,784.0	2.23 2.23 2.23	165.62 165.62 165.62	9,597.1 9,697.0 9,781.0	-146.4 -150.1 -153.3	37.5 38.5 39.3	-146.4 -150.2 -153.4	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
1st BS Sand									
9,800.0 9,900.0	2.23 2.23	165.62 165.62	9,796.9 9,896.9	-153.9 -157.6	39.5 40.4	-154.0 -157.7	0.00	0.00	0.00 0.00
10,000.0 10,100.0 10,200.0 10,300.0	2.23 2.23 2.23 2.23	165.62 165.62 165.62 165.62	9,996.8 10,096.7 10,196.6 10,296.6	-161.4 -165.2 -168.9 -172.7	41.4 42.4 43.3 44.3	-161.5 -165.3 -169.0 -172.8	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
10,372.5	2.23	165.62	10,369.0	-175.4	45.0	-175.5	0.00	0.00	0.00
2nd BS Sand									
10,400.0 10,500.0 10,600.0 10,700.0	2.23 2.23 2.23 2.23	165.62 165.62 165.62 165.62	10,396.5 10,496.4 10,596.3 10,696.3	-176.5 -180.2 -184.0 -187.8	45.2 46.2 47.2 48.1	-176.6 -180.3 -184.1 -187.9	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
10,781.2	2.23	165.62	10,777.4	-190.8	48.9	-190.9	0.00	0.00	0.00
Start Drop -1 10,800.0 10,900.0 10,950.9	.00 2.04 1.04 0.53	165.62 165.62 165.62	10,796.2 10,896.1 10,947.0	-191.5 -194.1 -194.8	49.1 49.8 49.9	-191.6 -194.2 -194.9	1.00 1.00 1.00	-1.00 -1.00 -1.00	0.00 0.00 0.00
3rd BS Carb									
11,000.0	0.04	165.62	10,996.1	-195.0	50.0	-195.1	1.00	-1.00	0.00
11,003.9	0.00	0.00	11,000.0	-195.0	50.0	-195.1	1.00	-1.00	0.00
11,100.0 11,200.0 11,300.0 11,400.0	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	11,096.1 11,196.1 11,296.1 11,396.1	-195.0 -195.0 -195.0 -195.0	50.0 50.0 50.0 50.0	-195.1 -195.1 -195.1 -195.1	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
11,497.9	0.00	0.00	11,494.0	-195.0	50.0	-195.1	0.00	0.00	0.00
3rd BS Sand 11,500.0 11,576.4		0.00	11,496.1 11,572.5	-195.0 -195.0	50.0 50.0	-195.1 -195.1	0.00	0.00	0.00 0.00
KOP #2 - Sta	rt Build 12.00								
11,600.0 11,700.0	2.83 14.83	356.67 356.67	11,596.1 11,694.8	-194.4 -179.1	50.0 49.1	-194.5 -179.2	12.00 12.00	12.00 12.00	0.00 0.00
11,800.0 11,865.1	26.83 34.65	356.67 356.67	11,788.1 11,844.0	-143.7 -110.5	47.0 45.1	-143.8 -110.6	12.00 12.00	12.00 12.00	0.00 0.00
Wolfcamp A 11,900.0 12,000.0 12,100.0	38.83 50.83 62.83	356.67 356.67 356.67	11,871.9 11,942.7 11,997.3	-89.6 -19.4 64.0	43.9 39.8 34.9	-89.8 -19.5 63.9	12.00 12.00 12.00	12.00 12.00 12.00	0.00 0.00 0.00
12,200.0 12,300.0 12,326.4	74.83 86.83 90.00	356.67 356.67 356.67	12,033.4 12,049.3 12,050.0	156.9 255.3 281.7	29.5 23.8 22.2	156.9 255.3 281.6	12.00 12.00 12.00	12.00 12.00 12.00	0.00 0.00 0.00
LP - Start 0.8 12,327.2	hold at 12326.4 90.00	356.67	12,050.0	282.5	22.2	282.4	0.00	0.00	0.00
12,327.2 Start DLS 2.0		330.07	12,000.0	202.3	22.2	202.4	0.00	0.00	0.00
12,400.0	90.00	358.12	12,050.0	355.2	18.9	355.1	2.00	0.00	2.00
12,478.6	90.00	359.70	12,050.0	433.8	17.4	433.7	2.00	0.00	2.00
Start 6250.7 12,500.0 12,600.0	90.00 90.00	MD 359.70 359.70	12,050.0 12,050.0	455.2 555.2	17.3 16.8	455.1 555.1	0.00 0.00	0.00 0.00	0.00 0.00



Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

Site: Anderson Fed Com - Pad C
Well: Anderson Fed Com 702H
Wellbore: Anderson Fed Com 702H

Design: Anderson Fed Com 702H - Prelim 1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Anderson Fed Com 702H

WELL @ 3699.5usft (Original Well Elev.) WELL @ 3699.5usft (Original Well Elev.)

Grid

esign:	7 11 14 01 0 01 11 0 0	1 COIII 702H - FI							
nned 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)
12,700.0	90.00	359.70	12,050.0	655.2	16.2	655.1	0.00	0.00	0.00
12,800.0	90.00	359.70	12,050.0	755.2	15.7	755.1	0.00	0.00	0.00
12,900.0	90.00	359.70	12,050.0	855.2	15.2	855.1	0.00	0.00	0.00
13,000.0	90.00	359.70	12,050.0	955.2	14.6	955.1	0.00	0.00	0.00
13,100.0	90.00	359.70	12,050.0	1,055.2	14.1	1,055.1	0.00	0.00	0.00
13,200.0	90.00	359.70	12,050.0	1,155.2	13.6	1,155.1	0.00	0.00	0.00
13,300.0	90.00	359.70	12,050.0	1,255.2	13.0	1,255.1	0.00	0.00	0.00
13,400.0	90.00	359.70	12,050.0	1,355.2	12.5	1,355.1	0.00	0.00	0.00
13,500.0	90.00	359.70	12,050.0	1,455.2	12.0	1,455.1	0.00	0.00	0.00
13,600.0	90.00	359.70	12,050.0	1,555.2	11.4	1,555.1	0.00	0.00	0.00
13,700.0	90.00	359.70	12,050.0	1,655.2	10.9	1,655.1	0.00	0.00	0.00
13,800.0	90.00	359.70	12,050.0	1,755.2	10.4	1,755.1	0.00	0.00	0.00
13,900.0	90.00	359.70	12,050.0	1,855.2	9.8	1,855.1	0.00	0.00	0.00
14,000.0	90.00	359.70	12,050.0	1,955.1	9.3	1,955.1	0.00	0.00	0.00
14,100.0	90.00	359.70	12,050.0	2,055.1	8.8	2,055.1	0.00	0.00	0.00
14,200.0	90.00	359.70	12,050.0	2,155.1	8.2	2,155.1	0.00	0.00	0.00
14,300.0	90.00	359.70	12,050.0	2,255.1	7.7	2,255.1	0.00	0.00	0.00
14,400.0	90.00	359.70	12,050.0	2,355.1	7.2	2,355.1	0.00	0.00	0.00
14,500.0	90.00	359.70	12,050.0	2,455.1	6.7	2,455.1	0.00	0.00	0.00
14,600.0	90.00	359.70	12,050.0	2,555.1	6.1	2,555.1	0.00	0.00	0.00
14,700.0	90.00	359.70	12,050.0	2,655.1	5.6	2,655.1	0.00	0.00	0.00
14,800.0	90.00	359.70	12,050.0	2,755.1	5.1	2,755.1	0.00	0.00	0.00
14,900.0	90.00	359.70	12,050.0	2,855.1	4.5	2,855.1	0.00	0.00	0.00
15,000.0	90.00	359.70	12,050.0	2,955.1	4.0	2,955.1	0.00	0.00	0.00
15,100.0	90.00	359.70	12,050.0	3,055.1	3.5	3,055.1	0.00	0.00	0.00
15,200.0	90.00	359.70	12,050.0	3,155.1	2.9	3,155.1	0.00	0.00	0.00
15,300.0	90.00	359.70	12,050.0	3,255.1	2.4	3,255.1	0.00	0.00	0.00
15,400.0	90.00	359.70	12,050.0	3,355.1	1.9	3,355.1	0.00	0.00	0.00
15,500.0	90.00	359.70	12,050.0	3,455.1	1.3	3,455.1	0.00	0.00	0.00
15,600.0	90.00	359.70	12,050.0	3,555.1	8.0	3,555.1	0.00	0.00	0.00
15,700.0	90.00	359.70	12,050.0	3,655.1	0.3	3,655.1	0.00	0.00	0.00
15,800.0	90.00	359.70	12,050.0	3,755.1	-0.3	3,755.1	0.00	0.00	0.00
15,900.0	90.00	359.70	12,050.0	3,855.1	-0.8	3,855.1	0.00	0.00	0.00
16,000.0	90.00	359.70	12,050.0	3,955.1	-1.3	3,955.1	0.00	0.00	0.00
16,100.0	90.00	359.70	12,050.0	4,055.1	-1.9	4,055.1	0.00	0.00	0.00
16,200.0	90.00	359.70	12,050.0	4,155.1	-2.4	4,155.1	0.00	0.00	0.00
16,300.0	90.00	359.70	12,050.0	4,255.1	-2.9	4,255.1	0.00	0.00	0.00
16,400.0	90.00	359.70	12,050.0	4,355.1	-3.4	4,355.1	0.00	0.00	0.00
16,500.0	90.00	359.70	12,050.0	4,455.1	-4.0	4,455.1	0.00	0.00	0.00
16,600.0	90.00	359.70	12,050.0	4,555.1	-4.5	4,555.1	0.00	0.00	0.00
16,700.0	90.00	359.70	12,050.0	4,655.1	-5.0	4,655.1	0.00	0.00	0.00
16,800.0	90.00	359.70	12,050.0	4,755.1	-5.6	4,755.1	0.00	0.00	0.00
16,900.0	90.00	359.70	12,050.0	4,855.1	-6.1	4,855.1	0.00	0.00	0.00
17,000.0	90.00	359.70	12,050.0	4,955.1	-6.6	4,955.1	0.00	0.00	0.00
17,100.0	90.00	359.70	12,050.0	5,055.1	-7.2	5,055.1	0.00	0.00	0.00
17,200.0	90.00	359.70	12,050.0	5,155.1	-7.7	5,155.1	0.00	0.00	0.00
17,300.0	90.00	359.70	12,050.0	5,255.1	-8.2	5,255.1	0.00	0.00	0.00
17,400.0	90.00	359.70	12,050.0	5,355.1	-8.8	5,355.1	0.00	0.00	0.00
17,500.0	90.00	359.70	12,050.0	5,455.1	-9.3	5,455.1	0.00	0.00	0.00
17,600.0	90.00	359.70	12,050.0	5,555.1	-9.8	5,555.1	0.00	0.00	0.00
17,700.0	90.00	359.70	12,050.0	5,655.1	-10.4	5,655.1	0.00	0.00	0.00
17,800.0	90.00	359.70	12,050.0	5,755.1	-10.9	5,755.1	0.00	0.00	0.00
17,900.0	90.00	359.70	12,050.0	5,855.1	-11.4	5,855.1	0.00	0.00	0.00
18,000.0	90.00	359.70	12,050.0	5,955.1	-12.0	5,955.1	0.00	0.00	0.00



Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

Site: Anderson Fed Com - Pad C
Well: Anderson Fed Com 702H
Wellbore: Anderson Fed Com 702H

Design: Anderson Fed Com 702H - Prelim 1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Anderson Fed Com 702H

WELL @ 3699.5usft (Original Well Elev.) WELL @ 3699.5usft (Original Well Elev.)

Grid

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)
18,100.0	90.00	359.70	12,050.0	6,055.1	-12.5	6,055.1	0.00	0.00	0.00
18,200.0	90.00	359.70	12,050.0	6,155.1	-13.0	6,155.1	0.00	0.00	0.00
18,300.0	90.00	359.70	12,050.0	6,255.1	-13.5	6,255.1	0.00	0.00	0.00
18,400.0	90.00	359.70	12,050.0	6,355.1	-14.1	6,355.1	0.00	0.00	0.00
18,500.0	90.00	359.70	12,050.0	6,455.1	-14.6	6,455.1	0.00	0.00	0.00
18,600.0	90.00	359.70	12,050.0	6,555.1	-15.1	6,555.1	0.00	0.00	0.00
18,700.0	90.00	359.70	12,050.0	6,655.1	-15.7	6,655.1	0.00	0.00	0.00
18.729.3	90.00	359.70	12.050.0	6,684.4	-15.8	6,684.4	0.00	0.00	0.00

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
Anderson Fed Com 702l - plan hits target cent - Point	0.00 ter	0.00	12,050.0	6,684.4	-15.8	526,638.14	753,226.81	32° 26′ 45.312 N	103° 38' 47.238 W

Casing Points					
	Measured	Vertical		Casing	Hole
	Depth	Depth		Diameter	Diameter
	(usft)	(usft)	Name	(")	(")
	12,326.4	12,050.0 LP		5-1/2	5-1/2

Formations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,169.0	1,169.0	Rustler		0.00	
	4,747.0	4,747.0	Base of Limestone/Bell Canyon		0.00	
	8,396.0	8,394.0	Lower Brushy		0.00	
	8,916.4	8,914.0	Avalon		0.00	
	9,784.0	9,781.0	1st BS Sand		0.00	
	10,372.5	10,369.0	2nd BS Sand		0.00	
	10,950.9	10,947.0	3rd BS Carb		0.00	
	11,497.9	11,494.0	3rd BS Sand		0.00	
	11,865.1	11,844.0	Wolfcamp A		0.00	



Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

Site: Anderson Fed Com - Pad C
Well: Anderson Fed Com 702H
Wellbore: Anderson Fed Com 702H

Design: Anderson Fed Com 702H - Prelim 1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Anderson Fed Com 702H

WELL @ 3699.5usft (Original Well Elev.) WELL @ 3699.5usft (Original Well Elev.)

Grid

nnotations									
Measured	Vertical	Local Coordinates							
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment					
5,600.0	5,600.0	0.0	0.0	KOP - Start Build 1.00					
5,822.7	5,822.6	-4.2	1.1	Start 4958.5 hold at 5822.7 MD					
10,781.2	10,777.4	-190.8	48.9	Start Drop -1.00					
11,003.9	11,000.0	-195.0	50.0	Start 572.5 hold at 11003.9 MD					
11,576.4	11,572.5	-195.0	50.0	KOP #2 - Start Build 12.00					
12,326.4	12,050.0	281.7	22.2	LP - Start 0.8 hold at 12326.4 MD					
12,327.2	12,050.0	282.5	22.2	Start DLS 2.00 TFO 90.00					
12,478.6	12,050.0	433.8	17.4	Start 6250.7 hold at 12478.6 MD					
18,729.3	12,050.0	6,684.4	-15.8	TD at 18729.3					

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Advance Energy Partners Hat Mesa LLC
LEASE NO.: NMNM120905
LOCATION: Section 2, T.22 S., R.32 E., NMPM
COUNTY: Lea County, New Mexico

WELL NAME & NO.: Anderson Fed Com 701H
SURFACE HOLE FOOTAGE: 180'/N & 776'/W

SURFACE HOLE FOOTAGE: 180'/N & 776'/W BOTTOM HOLE FOOTAGE 2540'/S & 990'/W

WELL NAME & NO.: Anderson Fed Com 702H
SURFACE HOLE FOOTAGE: 180'/N & 2287'/W
BOTTOM HOLE FOOTAGE 1220'/S & 2310'/W

WELL NAME & NO.: Anderson Fed Com 703H

SURFACE HOLE FOOTAGE: 180'/N & 2248'/E

BOTTOM HOLE FOOTAGE 1220'/S & 1650'/E

WELL NAME & NO.: Anderson Fed Com 705H SURFACE HOLE FOOTAGE: 630'/N & 892'/E

BOTTOM HOLE FOOTAGE: | 030 /N & 892 /E

COA

H2S	☐ Yes	© No	
Potash	None	Secretary	R -111-P
Cave/Karst Potential	© Low	☐ Medium	☐ High
Cave/Karst Potential	Critical		
Variance	None	☑ Flex Hose	C Other
Wellhead	Conventional	Multibowl	□ Both
Other	☐4 String Area	☐ Capitan Reef	□WIPP
Other	Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	▼ COM	□ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

- 1. The 10-3/4 inch surface casing shall be set at approximately 1194 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:

Option 1 (Single Stage):

• Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
 - Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

- ❖ In <u>Secretary Potash Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.

• In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
 - Eddy County
 Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
 - Lea County
 Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
 393-3612
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

- hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
- C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.



H₂S Drilling Operations Plan

- a. All personnel will be trained in H₂S working conditions as required by Onshore Order 6 before drilling out of the surface casing.
- b. Two briefing areas will be established. Each briefing area will be $\geq 150'$ from the wellhead, perpendicular from one another, and easily entered and exited. See H₂S page 5 for more details.
- c. H₂S Safety Equipment/Systems:
 - i. Well Control Equipment
 - Flare line will be >150' from the wellhead and ignited by a flare gun.
 - Beware of SO₂ created by flaring.
 - Choke manifold will have a remotely operated choke.
 - Mud gas separator
 - ii. Protective Equipment for Personnel
 - Every person on site will wear a personal H₂S and SO₂ monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
 - One self-contained breathing apparatus (SCBA) 30-minute rescue pack will be at each briefing area. Two 30-minute SCBA packs will be stored in the safety trailer.
 - Four work/escape packs will be on the rig floor. Each pack will have a sufficiently long hose to allow unimpaired work activity.
 - Four emergency escape packs will be in the doghouse for emergency evacuation.
 - Hand signals will be used when wearing protective breathing apparatus.
 - Stokes litter or stretcher
 - Two full OSHA compliant body harnesses
 - A 100' long x 5/8" OSHA compliant rope
 - One 20-pound ABC fire extinguisher

iii. H₂S Detection & Monitoring Equipment

- Every person on site will wear a personal H₂S and SO₂ monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
- A stationary detector with three sensors will be in the doghouse.
- Sensors will be installed on the rig floor, bell nipple, and at the end of the flow line or where drilling fluids are discharged.
- Visual alarm will be triggered at 10 ppm.
- Audible alarm will be triggered at 10 ppm.
- Calibration will occur at least every 30 days. Gas sample tubes will be kept in the safety trailer.

iv. Visual Warning System

- A color-coded H₂S condition sign will be set at each pad entrance.
- Color-coded condition flag will be installed to indicate current H₂S conditions.
- Two wind socks will be installed that will be visible from all sides.

v. Mud Program

- A water based mud with a pH of > 10 will be maintained to control corrosion, H₂S gas returns to the surface, and minimize sulfide stress cracking and embrittlement.
- Drilling mud containing H₂S gas will be degassed at an optimum location for the rig configuration.
- This gas will be piped into the flare system.
- Enough mud additives will be on location to scavenge and/or neutralize H₂S where formation pressures are unknown.

vi. Metallurgy

- All equipment that has the potential to be exposed to H₂S will be suitable for H₂S service.
- Equipment that will meet these metallurgical standards include the drill string, casing, wellhead, BOP assembly, casing head and spool, rotating head, kill lines, choke, choke manifold and lines, valves, mud-gas separators, DST tools, test units, tubing, flanges, and other related equipment (elastomer packings and seals).

vii. Communication from well site

 Cell phones and/or two-way radios will be used to communicate from the well site. d. A remote-controlled choke, mud-gas separator, and a rotating head will be installed before drilling or testing any formation expected to contain H_2S .

Company Personnel to be Notified

Braden Harris, Drilling Manager Office: (832) 672-4700

Mobile: (406) 600-3310

Local & County Agencies

Monument Fire Department 911 or (575) 393-4339

Eunice Fire & Ambulance Dept. (575) 394-3258

Hobbs Fire Marshal (575) 391-8185

Lea County Sheriff (Lovington) 911 or (575) 396-3611

Lea County Emergency Management (Lovington) (575) 396-8602

Lea Regional Medical Center Hospital (Hobbs) (575) 492-5000

State Agencies

NM State Police (Hobbs) (575) 392-5588

NM Oil Conservation (Hobbs) (575) 370-3186

NM Oil Conservation (Santa Fe) (505) 476-3440

NM Dept. of Transportation (Roswell) (575) 637-7201

Federal Agencies

BLM Carlsbad Field Office (575) 234-5972

BLM Hobbs Field Station	(575) 393-3612
National Response Center	(800) 424-8802
US EPA Region 6 (Dallas)	(800) 887-6063
	(214) 665-6444

Veterinarians

Dal Paso Animal Hospital (Hobbs)	(575) 397-2286
Hobbs Animal Clinic & Pet Care (Hobbs)	(575) 392-5563

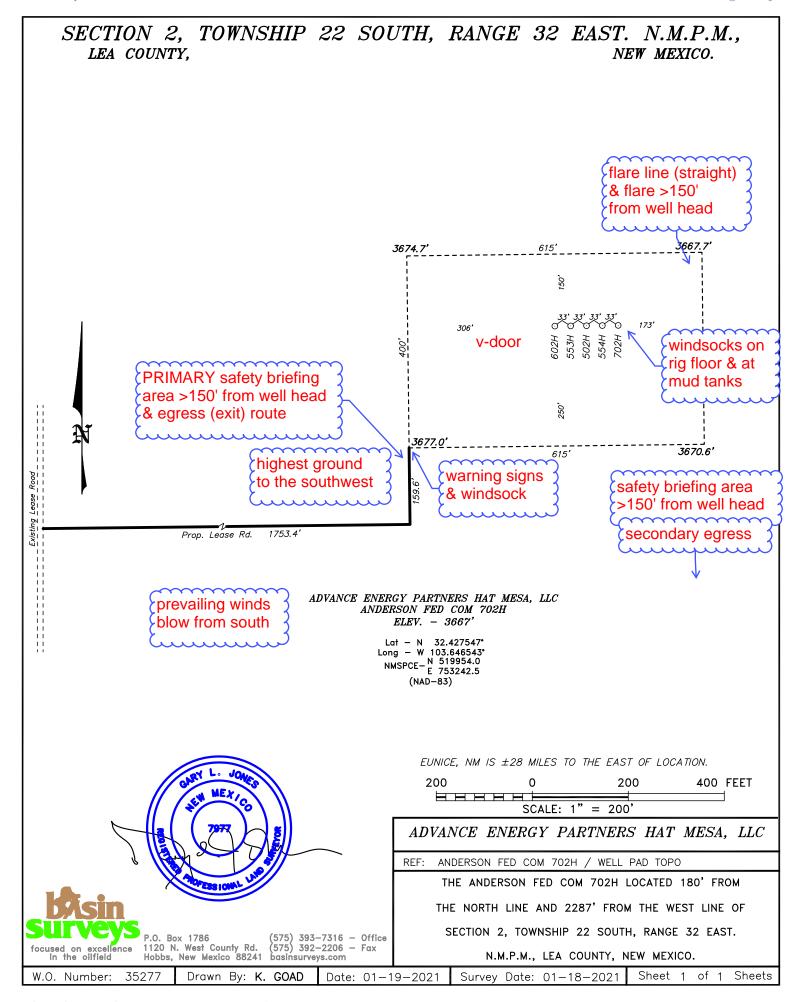
Great Plains Veterinary Clinic & Hospital (Hobbs) (575) 392-5513

Residents within 2 miles

No residents are within 2 miles.

Air Evacuation

Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuguerque)	(888) 866-7256



Section

015

103.6667° W

016

103.6833° W

017

Released to Imaging: 12/20/2021 10:42:42 AM

Section

014

Section

018

103.6167° W

Section

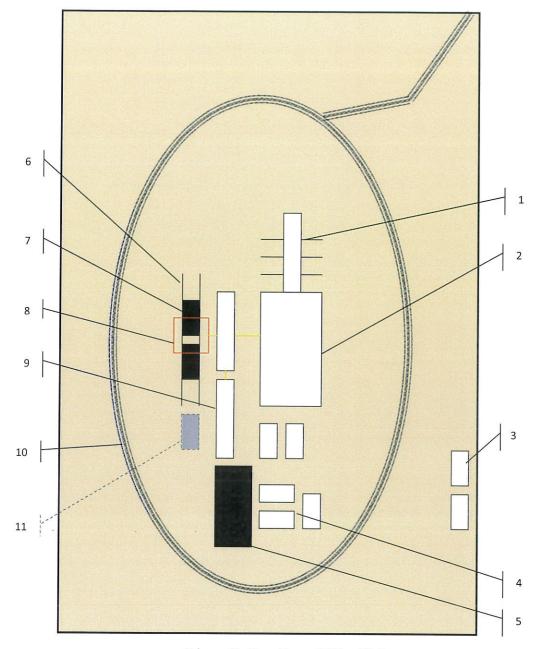
013

103.6333° W

Section

017

103.6° W



Schematic Closed Loop Drilling Rig*

- 1. Pipe Rack
- 2. Drill Rig
- 3. House Trailers/ Offices
- 4. Generator/Fuel/Storage
- 5. Overflow-Frac Tank
- 6. Skids
- 7. Roll Offs
- 8. Hopper or Centrifuge
- 9. Mud Tanks
- 10. Loop Drive
- 11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available





Above: Centrifugal Closed Loop System



Closed Loop Drilling System: Mud tanks to right (1)

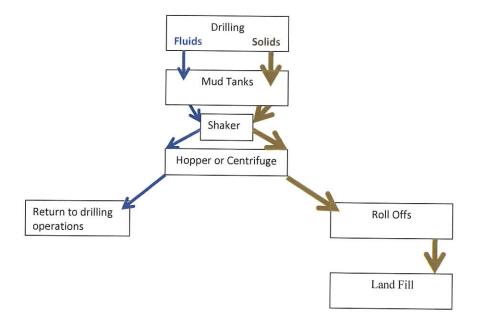
Hopper in air to settle out solids (2)

Water return pipe (3)

Shaker between hopper and mud tanks (4)

Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service



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

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**

CONDITIONS

Action 67946

CONDITIONS

Operator:	OGRID:
ADVANCE ENERGY PARTNERS HAT MESA, LLC	372417
11490 Westheimer Rd., Ste 950	Action Number:
Houston, TX 77077	67946
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	12/20/2021
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	12/20/2021
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	12/20/2021
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	12/20/2021