

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 271400

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
4. Property Code 319603		3. API Number 30-025-46363
5. Property Name MERCHANT STATE UNIT		6. Well No. 551H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	35	21S	33E	D	200	N	950	W	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	2	22S	33E	M	100	S	660	W	Lea

9. Pool Information

WC-025 G-06 S213326D;BONE SPRING	97929
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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 3688
16. Multiple N	17. Proposed Depth 21785	18. Formation Bone Spring	19. Contractor	20. Spud Date 9/13/2019
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	1750	915	0
Int1	12.25	9.625	40	4000	385	0
Int1	12.25	9.625	40	5240	360	4000
Prod	8.5	5.5	20	21785	2890	0

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable. Signature:	OIL CONSERVATION DIVISION
Printed Name: Electronically filed by David C Harwell	Approved By: Paul F Kautz
Title: VP Engineering	Title: Geologist
Email Address: dharwell@advanceenergypartners.com	Approved Date: 9/13/2019 Expiration Date: 9/13/2021
Date: 9/11/2019 Phone: 832-672-4604	Conditions of Approval Attached

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Oil Conservation Division
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Santa Fe, NM 87505

Form C-102
August 1, 2011
Permit 271400

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-46363	2. Pool Code 97929	3. Pool Name WC-025 G-06 S213326D;BONE SPRING
4. Property Code 319603	5. Property Name MERCHANT STATE UNIT	6. Well No. 551H
7. OGRID No. 372417	8. Operator Name ADVANCE ENERGY PARTNERS HAT MESA, LLC	9. Elevation 3688

10. Surface Location

UL - Lot D	Section 35	Township 21S	Range 33E	Lot Idn D	Feet From 200	N/S Line N	Feet From 950	E/W Line W	County Lea
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11. Bottom Hole Location If Different From Surface

UL - Lot M	Section 2	Township 22S	Range 33E	Lot Idn M	Feet From 100	N/S Line S	Feet From 660	E/W Line W	County Lea
12. Dedicated Acres 320.04			13. Joint or Infill		14. Consolidation Code			15. 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

	OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> E-Signed By: David C Harwell Title: VP Engineering Date: 9/11/2019
	SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i> Surveyed By: Gary Jones Date of Survey: 9/6/2019 Certificate Number: 7977

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GAS CAPTURE PLAN

Date: 9/13/2019

☒ Original

Operator & OGRID No.: [372417] ADVANCE ENERGY PARTNERS HAT MESA, LLC

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
MERCHANT STATE UNIT #551H	30-025-46363	D-35-21S-33E	0200N 0950W	1500	Flared	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to TARGA MIDSTREAM SERVICES LLC and will be connected to TARGA MIDSTREAM SERVICES LLC Low Pressure gathering system located in Lea County, New Mexico. It will require 200' of pipeline to connect the facility to Low Pressure gathering system. ADVANCE ENERGY PARTNERS HAT MESA, LLC provides (periodically) to TARGA MIDSTREAM SERVICES LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, ADVANCE ENERGY PARTNERS HAT MESA, LLC and TARGA MIDSTREAM SERVICES LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at TARGA MIDSTREAM SERVICES LLC Processing Plant located in Sec. 36, Twn. 19S, Rng. 36E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on TARGA MIDSTREAM SERVICES LLC system at that time. Based on current information, it is ADVANCE ENERGY PARTNERS HAT MESA, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Form APD Comments

Permit 271400

PERMIT COMMENTS

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077		API Number: 30-025-46363
		Well: MERCHANT STATE UNIT #551H

Created By	Comment	Comment Date
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Form APD Conditions

Permit 271400

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

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: 30-025-46363
	Well: MERCHANT STATE UNIT #551H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool at 5753703186 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

Advance Energy Partners, LLC



Merchant State Unit 551H
Lea County, New Mexico
H&P 389
Plan 0.1



SITE DETAILS: Merchant State Unit 551H

Site Centre Northing: 525420.00
Easting: 783396.60

Positional Uncertainty: 0.00
Convergence: 0.42
Local North: Grid

PROJECT DETAILS: Lea County, New Mexico

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

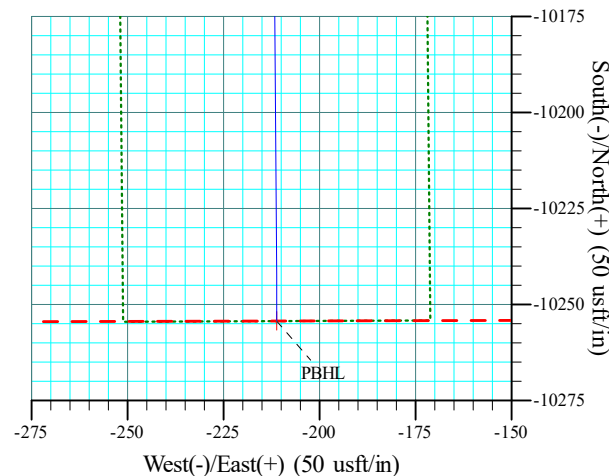
Depth Reference:
3684'GL+25.5'KB @ 3709.50usft (H&P 389)



Azimuths to Grid North
True North: -0.42°
Magnetic North: 6.18°

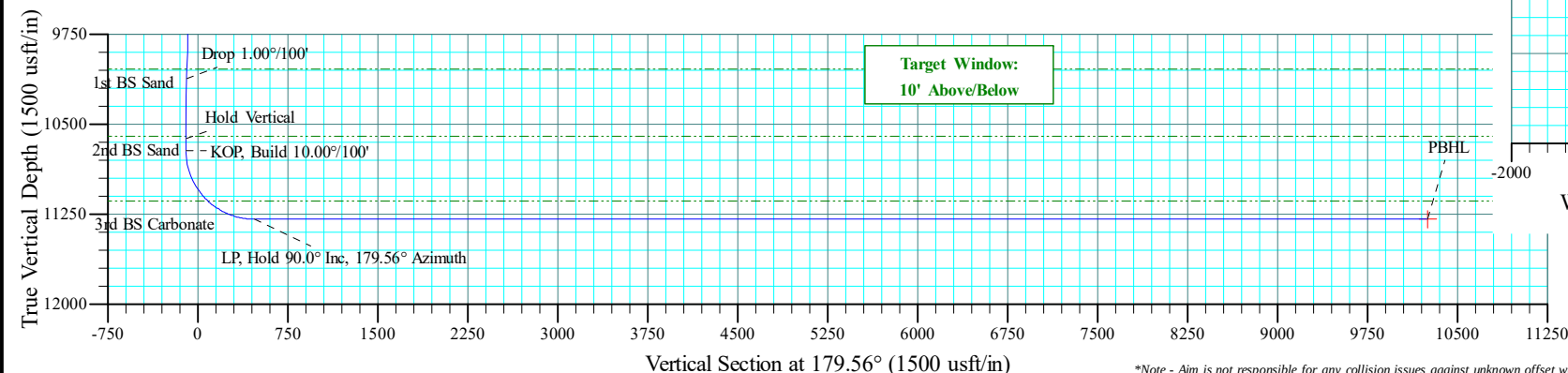
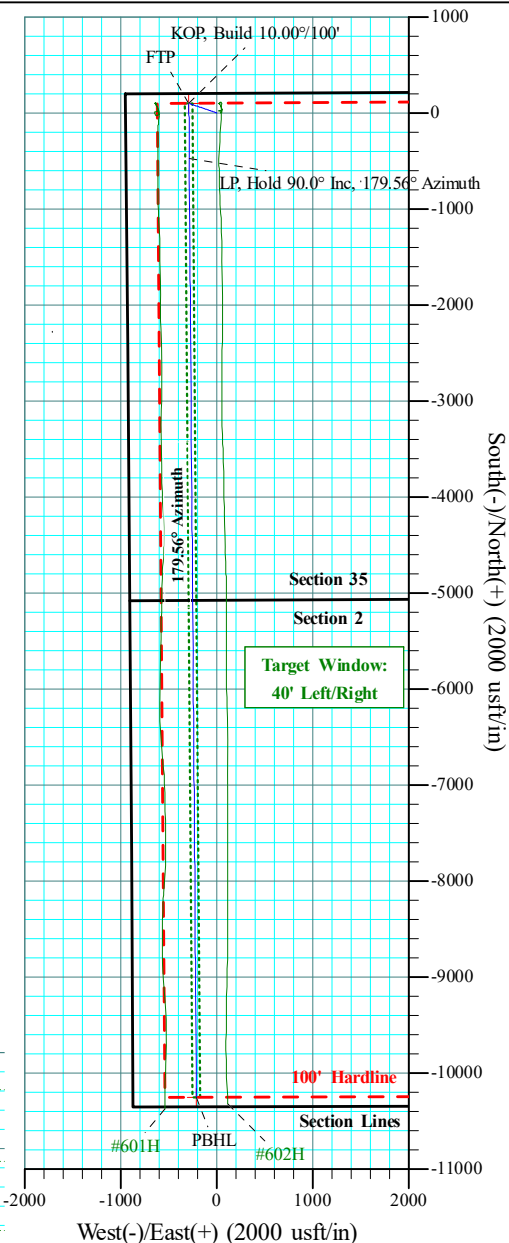
Magnetic Field
Strength: 48068 InT
Dip Angle: 60.21°
Date: 9/10/2019
Model: MVHD

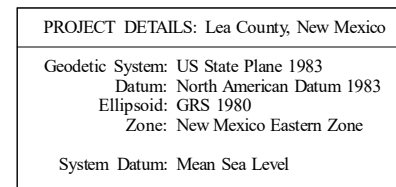
Magnetic North: 6.18° to Grid North



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6608.28	0.00	0.00	6608.28	0.00	0.00	0.00	0.00	0.00	Build 1.00°/100'
3	7108.28	5.00	288.71	7107.65	6.99	-20.65	1.00	288.71	-7.15	Hold 5.0° Inc, 288.71° Azimuth
4	10131.81	5.00	288.71	10119.67	91.51	-270.25	0.00	0.00	-93.58	Drop 1.00°/100'
5	10631.81	0.00	0.00	10619.04	98.50	-290.90	1.00	180.00	-100.73	Hold Vertical
6	10731.81	0.00	0.00	10719.04	98.50	-290.90	0.00	0.00	-100.73	KOP, Build 10.00°/100'
7	11631.81	90.00	179.56	11292.00	-474.44	-286.48	10.00	179.56	472.23	LP, Hold 90.0° Inc, 179.56° Azimuth
8	21411.96	90.00	179.56	11292.00	-10254.30	-211.00	0.00	0.00	10252.38	PBHL

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
FTP (Merchant551H)	0.00	98.50	-290.90	525518.50	783105.70	32° 26' 32.198 N	103° 32' 58.672 W	
PBHL (Merchant551H)	11292.00	-10254.30	-211.00	515165.70	783185.60	32° 24' 49.753 N	103° 32' 58.625 W	





Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6608.28	0.00	0.00	6608.28	0.00	0.00	0.00	0.00	0.00	Build 1.00°/100'
3	7108.28	5.00	288.71	7107.65	6.99	-20.65	1.00	288.71	-7.15	Hold 5.0° Inc, 288.71° Azimuth
4	10131.81	5.00	288.71	10119.67	91.51	-270.25	0.00	0.00	-93.58	Drop 1.00°/100'
5	10631.81	0.00	0.00	10619.04	98.50	-290.90	1.00	180.00	-100.73	Hold Vertical
6	10731.81	0.00	0.00	10719.04	98.50	-290.90	0.00	0.00	-100.73	KOP, Build 10.00°/100'
7	11631.81	90.00	179.56	11292.00	-474.44	-286.48	10.00	179.56	472.23	LP, Hold 90.0° Inc, 179.56° Azimuth
8	21411.96	90.00	179.56	11292.00	-10254.30	-211.00	0.00	0.00	10252.38	PBHL

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 551H
Project:	Lea County, New Mexico	TVD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Site:	Merchant State Unit 551H	MD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Well:	#551H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.1 Aim Database

Project	Lea County, New Mexico		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Merchant State Unit 551H		
Site Position:		Northing:	525,420.00 usft
From:	Map	Easting:	783,396.60 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 26' 31.202 N
		Longitude:	103° 32' 55.286 W
		Grid Convergence:	0.42 °

Well	#551H - Slot 551H		
Well Position	+N/-S	0.00 usft	Northing: 525,420.00 usft
	+E/-W	0.00 usft	Easting: 783,396.60 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 26' 31.202 N
		Longitude:	103° 32' 55.286 W
		Ground Level:	3,684.00 usft

Wellbore	Lateral 1r0				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	9/10/2019	6.60	60.21	48,068.11066796

Design	Plan 0.1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00		179.56

Survey Tool Program	Date	9/10/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	21,411.97	Plan 0.1 (Lateral 1r0)	B001Mb_MWD+HRGM	OWSG MWD + HRGM	

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FTP (Merchant551H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 551H
Project:	Lea County, New Mexico	TVD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Site:	Merchant State Unit 551H	MD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Well:	#551H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.1 Aim Database

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)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,750.00	0.00	0.00	1,750.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8"									
1,759.50	0.00	0.00	1,759.50	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 551H
Project:	Lea County, New Mexico	TVD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Site:	Merchant State Unit 551H	MD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Well:	#551H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.1 Aim Database

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,209.50	0.00	0.00	5,209.50	0.00	0.00	0.00	0.00	0.00	0.00
Base of Limestone									
5,250.00	0.00	0.00	5,250.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,608.28	0.00	0.00	6,608.28	0.00	0.00	0.00	0.00	0.00	0.00
Build 1.00°/100'									
6,700.00	0.92	288.71	6,700.00	0.24	-0.70	-0.24	1.00	1.00	0.00
6,800.00	1.92	288.71	6,799.96	1.03	-3.04	-1.05	1.00	1.00	0.00
6,900.00	2.92	288.71	6,899.87	2.38	-7.03	-2.44	1.00	1.00	0.00
7,000.00	3.92	288.71	6,999.70	4.29	-12.68	-4.39	1.00	1.00	0.00
7,108.28	5.00	288.71	7,107.65	6.99	-20.65	-7.15	1.00	1.00	0.00
Hold 5.0° Inc, 288.71° Azimuth									
7,200.00	5.00	288.71	7,199.02	9.56	-28.22	-9.77	0.00	0.00	0.00
7,300.00	5.00	288.71	7,298.64	12.35	-36.48	-12.63	0.00	0.00	0.00
7,400.00	5.00	288.71	7,398.26	15.15	-44.73	-15.49	0.00	0.00	0.00
7,500.00	5.00	288.71	7,497.88	17.94	-52.99	-18.35	0.00	0.00	0.00
7,600.00	5.00	288.71	7,597.49	20.74	-61.24	-21.21	0.00	0.00	0.00
7,700.00	5.00	288.71	7,697.11	23.53	-69.50	-24.07	0.00	0.00	0.00
7,800.00	5.00	288.71	7,796.73	26.33	-77.75	-26.92	0.00	0.00	0.00
7,900.00	5.00	288.71	7,896.35	29.12	-86.01	-29.78	0.00	0.00	0.00
8,000.00	5.00	288.71	7,995.97	31.92	-94.26	-32.64	0.00	0.00	0.00
8,100.00	5.00	288.71	8,095.59	34.71	-102.52	-35.50	0.00	0.00	0.00
8,200.00	5.00	288.71	8,195.21	37.51	-110.77	-38.36	0.00	0.00	0.00
8,300.00	5.00	288.71	8,294.83	40.30	-119.03	-41.22	0.00	0.00	0.00
8,400.00	5.00	288.71	8,394.45	43.10	-127.28	-44.08	0.00	0.00	0.00
8,500.00	5.00	288.71	8,494.07	45.89	-135.54	-46.93	0.00	0.00	0.00
8,585.76	5.00	288.71	8,579.50	48.29	-142.62	-49.39	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 551H
Project:	Lea County, New Mexico	TVD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Site:	Merchant State Unit 551H	MD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Well:	#551H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.1 Aim Database

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)
Lower Brushy									
8,600.00	5.00	288.71	8,593.69	48.69	-143.80	-49.79	0.00	0.00	0.00
8,700.00	5.00	288.71	8,693.31	51.48	-152.05	-52.65	0.00	0.00	0.00
8,800.00	5.00	288.71	8,792.93	54.28	-160.31	-55.51	0.00	0.00	0.00
8,900.00	5.00	288.71	8,892.55	57.08	-168.56	-58.37	0.00	0.00	0.00
9,000.00	5.00	288.71	8,992.17	59.87	-176.82	-61.23	0.00	0.00	0.00
9,100.00	5.00	288.71	9,091.79	62.67	-185.07	-64.09	0.00	0.00	0.00
9,127.82	5.00	288.71	9,119.50	63.44	-187.37	-64.88	0.00	0.00	0.00
Avalon									
9,200.00	5.00	288.71	9,191.41	65.46	-193.33	-66.94	0.00	0.00	0.00
9,300.00	5.00	288.71	9,291.03	68.26	-201.58	-69.80	0.00	0.00	0.00
9,400.00	5.00	288.71	9,390.65	71.05	-209.84	-72.66	0.00	0.00	0.00
9,500.00	5.00	288.71	9,490.26	73.85	-218.09	-75.52	0.00	0.00	0.00
9,600.00	5.00	288.71	9,589.88	76.64	-226.35	-78.38	0.00	0.00	0.00
9,700.00	5.00	288.71	9,689.50	79.44	-234.60	-81.24	0.00	0.00	0.00
9,800.00	5.00	288.71	9,789.12	82.23	-242.86	-84.10	0.00	0.00	0.00
9,900.00	5.00	288.71	9,888.74	85.03	-251.11	-86.95	0.00	0.00	0.00
10,000.00	5.00	288.71	9,988.36	87.82	-259.37	-89.81	0.00	0.00	0.00
10,051.33	5.00	288.71	10,039.50	89.26	-263.61	-91.28	0.00	0.00	0.00
1st BS Sand									
10,100.00	5.00	288.71	10,087.98	90.62	-267.62	-92.67	0.00	0.00	0.00
10,131.81	5.00	288.71	10,119.67	91.51	-270.25	-93.58	0.00	0.00	0.00
Drop 1.00°/100'									
10,200.00	4.32	288.71	10,187.63	93.28	-275.49	-95.40	1.00	-1.00	0.00
10,300.00	3.32	288.71	10,287.41	95.42	-281.80	-97.58	1.00	-1.00	0.00
10,400.00	2.32	288.71	10,387.29	97.00	-286.46	-99.19	1.00	-1.00	0.00
10,500.00	1.32	288.71	10,487.24	98.01	-289.46	-100.23	1.00	-1.00	0.00
10,600.00	0.32	288.71	10,587.23	98.47	-290.82	-100.70	1.00	-1.00	0.00
10,612.27	0.20	288.71	10,599.50	98.49	-290.87	-100.72	1.00	-1.00	0.00
2nd BS Sand									
10,631.81	0.00	0.00	10,619.04	98.50	-290.90	-100.73	1.00	-1.00	0.00
Hold Vertical									
10,700.00	0.00	0.00	10,687.23	98.50	-290.90	-100.73	0.00	0.00	0.00
10,731.81	0.00	0.00	10,719.04	98.50	-290.90	-100.73	0.00	0.00	0.00
KOP, Build 10.00°/100'									
10,750.00	1.82	179.56	10,737.22	98.21	-290.90	-100.44	10.00	10.00	0.00
10,800.00	6.82	179.56	10,787.07	94.45	-290.87	-96.68	10.00	10.00	0.00
10,850.00	11.82	179.56	10,836.39	86.35	-290.81	-88.58	10.00	10.00	0.00
10,900.00	16.82	179.56	10,884.82	73.99	-290.71	-76.22	10.00	10.00	0.00
10,950.00	21.82	179.56	10,931.99	57.46	-290.58	-59.69	10.00	10.00	0.00
11,000.00	26.82	179.56	10,977.54	36.87	-290.42	-39.10	10.00	10.00	0.00
11,050.00	31.82	179.56	11,021.12	12.40	-290.24	-14.63	10.00	10.00	0.00
11,100.00	36.82	179.56	11,062.40	-15.78	-290.02	13.55	10.00	10.00	0.00
11,150.00	41.82	179.56	11,101.07	-47.45	-289.77	45.22	10.00	10.00	0.00
11,200.00	46.82	179.56	11,136.84	-82.37	-289.50	80.15	10.00	10.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 551H
Project:	Lea County, New Mexico	TVD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Site:	Merchant State Unit 551H	MD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Well:	#551H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.1 Aim Database

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)
11,203.91	47.21	179.56	11,139.50	-85.23	-289.48	83.00	10.00	10.00	0.00
3rd BS Carbonate									
11,250.00	51.82	179.56	11,169.42	-120.28	-289.21	118.05	10.00	10.00	0.00
11,300.00	56.82	179.56	11,198.57	-160.87	-288.90	158.65	10.00	10.00	0.00
11,350.00	61.82	179.56	11,224.08	-203.86	-288.57	201.64	10.00	10.00	0.00
11,400.00	66.82	179.56	11,245.74	-248.91	-288.22	246.69	10.00	10.00	0.00
11,450.00	71.82	179.56	11,263.39	-295.67	-287.86	293.45	10.00	10.00	0.00
11,500.00	76.82	179.56	11,276.90	-343.79	-287.49	341.57	10.00	10.00	0.00
11,550.00	81.82	179.56	11,286.17	-392.91	-287.11	390.69	10.00	10.00	0.00
11,600.00	86.82	179.56	11,291.12	-442.64	-286.72	440.43	10.00	10.00	0.00
11,631.81	90.00	179.56	11,292.00	-474.44	-286.48	472.23	10.00	10.00	0.00
LP, Hold 90.0° Inc, 179.56° Azimuth									
11,700.00	90.00	179.56	11,292.00	-542.62	-285.95	540.41	0.00	0.00	0.00
11,800.00	90.00	179.56	11,292.00	-642.62	-285.18	640.41	0.00	0.00	0.00
11,900.00	90.00	179.56	11,292.00	-742.62	-284.41	740.41	0.00	0.00	0.00
12,000.00	90.00	179.56	11,292.00	-842.62	-283.64	840.41	0.00	0.00	0.00
12,100.00	90.00	179.56	11,292.00	-942.61	-282.86	940.41	0.00	0.00	0.00
12,200.00	90.00	179.56	11,292.00	-1,042.61	-282.09	1,040.41	0.00	0.00	0.00
12,300.00	90.00	179.56	11,292.00	-1,142.61	-281.32	1,140.41	0.00	0.00	0.00
12,400.00	90.00	179.56	11,292.00	-1,242.60	-280.55	1,240.41	0.00	0.00	0.00
12,500.00	90.00	179.56	11,292.00	-1,342.60	-279.78	1,340.41	0.00	0.00	0.00
12,600.00	90.00	179.56	11,292.00	-1,442.60	-279.01	1,440.41	0.00	0.00	0.00
12,700.00	90.00	179.56	11,292.00	-1,542.59	-278.23	1,540.41	0.00	0.00	0.00
12,800.00	90.00	179.56	11,292.00	-1,642.59	-277.46	1,640.41	0.00	0.00	0.00
12,900.00	90.00	179.56	11,292.00	-1,742.59	-276.69	1,740.41	0.00	0.00	0.00
13,000.00	90.00	179.56	11,292.00	-1,842.59	-275.92	1,840.41	0.00	0.00	0.00
13,100.00	90.00	179.56	11,292.00	-1,942.58	-275.15	1,940.41	0.00	0.00	0.00
13,200.00	90.00	179.56	11,292.00	-2,042.58	-274.38	2,040.41	0.00	0.00	0.00
13,300.00	90.00	179.56	11,292.00	-2,142.58	-273.60	2,140.41	0.00	0.00	0.00
13,400.00	90.00	179.56	11,292.00	-2,242.57	-272.83	2,240.41	0.00	0.00	0.00
13,500.00	90.00	179.56	11,292.00	-2,342.57	-272.06	2,340.41	0.00	0.00	0.00
13,600.00	90.00	179.56	11,292.00	-2,442.57	-271.29	2,440.41	0.00	0.00	0.00
13,700.00	90.00	179.56	11,292.00	-2,542.56	-270.52	2,540.41	0.00	0.00	0.00
13,800.00	90.00	179.56	11,292.00	-2,642.56	-269.75	2,640.41	0.00	0.00	0.00
13,900.00	90.00	179.56	11,292.00	-2,742.56	-268.97	2,740.41	0.00	0.00	0.00
14,000.00	90.00	179.56	11,292.00	-2,842.56	-268.20	2,840.41	0.00	0.00	0.00
14,100.00	90.00	179.56	11,292.00	-2,942.55	-267.43	2,940.41	0.00	0.00	0.00
14,200.00	90.00	179.56	11,292.00	-3,042.55	-266.66	3,040.41	0.00	0.00	0.00
14,300.00	90.00	179.56	11,292.00	-3,142.55	-265.89	3,140.41	0.00	0.00	0.00
14,400.00	90.00	179.56	11,292.00	-3,242.54	-265.11	3,240.41	0.00	0.00	0.00
14,500.00	90.00	179.56	11,292.00	-3,342.54	-264.34	3,340.41	0.00	0.00	0.00
14,600.00	90.00	179.56	11,292.00	-3,442.54	-263.57	3,440.41	0.00	0.00	0.00
14,700.00	90.00	179.56	11,292.00	-3,542.54	-262.80	3,540.41	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 551H
Project:	Lea County, New Mexico	TVD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Site:	Merchant State Unit 551H	MD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Well:	#551H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.1 Aim Database

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,800.00	90.00	179.56	11,292.00	-3,642.53	-262.03	3,640.41	0.00	0.00	0.00
14,900.00	90.00	179.56	11,292.00	-3,742.53	-261.26	3,740.41	0.00	0.00	0.00
15,000.00	90.00	179.56	11,292.00	-3,842.53	-260.48	3,840.41	0.00	0.00	0.00
15,100.00	90.00	179.56	11,292.00	-3,942.52	-259.71	3,940.41	0.00	0.00	0.00
15,200.00	90.00	179.56	11,292.00	-4,042.52	-258.94	4,040.41	0.00	0.00	0.00
15,300.00	90.00	179.56	11,292.00	-4,142.52	-258.17	4,140.41	0.00	0.00	0.00
15,400.00	90.00	179.56	11,292.00	-4,242.51	-257.40	4,240.41	0.00	0.00	0.00
15,500.00	90.00	179.56	11,292.00	-4,342.51	-256.63	4,340.41	0.00	0.00	0.00
15,600.00	90.00	179.56	11,292.00	-4,442.51	-255.85	4,440.41	0.00	0.00	0.00
15,700.00	90.00	179.56	11,292.00	-4,542.51	-255.08	4,540.41	0.00	0.00	0.00
15,800.00	90.00	179.56	11,292.00	-4,642.50	-254.31	4,640.41	0.00	0.00	0.00
15,900.00	90.00	179.56	11,292.00	-4,742.50	-253.54	4,740.41	0.00	0.00	0.00
16,000.00	90.00	179.56	11,292.00	-4,842.50	-252.77	4,840.41	0.00	0.00	0.00
16,100.00	90.00	179.56	11,292.00	-4,942.49	-252.00	4,940.41	0.00	0.00	0.00
16,200.00	90.00	179.56	11,292.00	-5,042.49	-251.22	5,040.41	0.00	0.00	0.00
16,300.00	90.00	179.56	11,292.00	-5,142.49	-250.45	5,140.41	0.00	0.00	0.00
16,400.00	90.00	179.56	11,292.00	-5,242.48	-249.68	5,240.41	0.00	0.00	0.00
16,500.00	90.00	179.56	11,292.00	-5,342.48	-248.91	5,340.41	0.00	0.00	0.00
16,600.00	90.00	179.56	11,292.00	-5,442.48	-248.14	5,440.41	0.00	0.00	0.00
16,700.00	90.00	179.56	11,292.00	-5,542.48	-247.36	5,540.41	0.00	0.00	0.00
16,800.00	90.00	179.56	11,292.00	-5,642.47	-246.59	5,640.41	0.00	0.00	0.00
16,900.00	90.00	179.56	11,292.00	-5,742.47	-245.82	5,740.41	0.00	0.00	0.00
17,000.00	90.00	179.56	11,292.00	-5,842.47	-245.05	5,840.41	0.00	0.00	0.00
17,100.00	90.00	179.56	11,292.00	-5,942.46	-244.28	5,940.41	0.00	0.00	0.00
17,200.00	90.00	179.56	11,292.00	-6,042.46	-243.51	6,040.41	0.00	0.00	0.00
17,300.00	90.00	179.56	11,292.00	-6,142.46	-242.73	6,140.41	0.00	0.00	0.00
17,400.00	90.00	179.56	11,292.00	-6,242.45	-241.96	6,240.41	0.00	0.00	0.00
17,500.00	90.00	179.56	11,292.00	-6,342.45	-241.19	6,340.41	0.00	0.00	0.00
17,600.00	90.00	179.56	11,292.00	-6,442.45	-240.42	6,440.41	0.00	0.00	0.00
17,700.00	90.00	179.56	11,292.00	-6,542.45	-239.65	6,540.41	0.00	0.00	0.00
17,800.00	90.00	179.56	11,292.00	-6,642.44	-238.88	6,640.41	0.00	0.00	0.00
17,900.00	90.00	179.56	11,292.00	-6,742.44	-238.10	6,740.41	0.00	0.00	0.00
18,000.00	90.00	179.56	11,292.00	-6,842.44	-237.33	6,840.41	0.00	0.00	0.00
18,100.00	90.00	179.56	11,292.00	-6,942.43	-236.56	6,940.41	0.00	0.00	0.00
18,200.00	90.00	179.56	11,292.00	-7,042.43	-235.79	7,040.41	0.00	0.00	0.00
18,300.00	90.00	179.56	11,292.00	-7,142.43	-235.02	7,140.41	0.00	0.00	0.00
18,400.00	90.00	179.56	11,292.00	-7,242.43	-234.24	7,240.41	0.00	0.00	0.00
18,500.00	90.00	179.56	11,292.00	-7,342.42	-233.47	7,340.41	0.00	0.00	0.00
18,600.00	90.00	179.56	11,292.00	-7,442.42	-232.70	7,440.41	0.00	0.00	0.00
18,700.00	90.00	179.56	11,292.00	-7,542.42	-231.93	7,540.41	0.00	0.00	0.00
18,800.00	90.00	179.56	11,292.00	-7,642.41	-231.16	7,640.41	0.00	0.00	0.00
18,900.00	90.00	179.56	11,292.00	-7,742.41	-230.39	7,740.41	0.00	0.00	0.00
19,000.00	90.00	179.56	11,292.00	-7,842.41	-229.61	7,840.41	0.00	0.00	0.00
19,100.00	90.00	179.56	11,292.00	-7,942.40	-228.84	7,940.41	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 551H
Project:	Lea County, New Mexico	TVD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Site:	Merchant State Unit 551H	MD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Well:	#551H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.1 Aim Database

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)
19,200.00	90.00	179.56	11,292.00	-8,042.40	-228.07	8,040.41	0.00	0.00	0.00
19,300.00	90.00	179.56	11,292.00	-8,142.40	-227.30	8,140.41	0.00	0.00	0.00
19,400.00	90.00	179.56	11,292.00	-8,242.40	-226.53	8,240.41	0.00	0.00	0.00
19,500.00	90.00	179.56	11,292.00	-8,342.39	-225.76	8,340.41	0.00	0.00	0.00
19,600.00	90.00	179.56	11,292.00	-8,442.39	-224.98	8,440.41	0.00	0.00	0.00
19,700.00	90.00	179.56	11,292.00	-8,542.39	-224.21	8,540.41	0.00	0.00	0.00
19,800.00	90.00	179.56	11,292.00	-8,642.38	-223.44	8,640.41	0.00	0.00	0.00
19,900.00	90.00	179.56	11,292.00	-8,742.38	-222.67	8,740.41	0.00	0.00	0.00
20,000.00	90.00	179.56	11,292.00	-8,842.38	-221.90	8,840.41	0.00	0.00	0.00
20,100.00	90.00	179.56	11,292.00	-8,942.37	-221.13	8,940.41	0.00	0.00	0.00
20,200.00	90.00	179.56	11,292.00	-9,042.37	-220.35	9,040.41	0.00	0.00	0.00
20,300.00	90.00	179.56	11,292.00	-9,142.37	-219.58	9,140.41	0.00	0.00	0.00
20,400.00	90.00	179.56	11,292.00	-9,242.37	-218.81	9,240.41	0.00	0.00	0.00
20,500.00	90.00	179.56	11,292.00	-9,342.36	-218.04	9,340.41	0.00	0.00	0.00
20,600.00	90.00	179.56	11,292.00	-9,442.36	-217.27	9,440.41	0.00	0.00	0.00
20,700.00	90.00	179.56	11,292.00	-9,542.36	-216.49	9,540.41	0.00	0.00	0.00
20,800.00	90.00	179.56	11,292.00	-9,642.35	-215.72	9,640.41	0.00	0.00	0.00
20,900.00	90.00	179.56	11,292.00	-9,742.35	-214.95	9,740.41	0.00	0.00	0.00
21,000.00	90.00	179.56	11,292.00	-9,842.35	-214.18	9,840.41	0.00	0.00	0.00
21,100.00	90.00	179.56	11,292.00	-9,942.34	-213.41	9,940.41	0.00	0.00	0.00
21,200.00	90.00	179.56	11,292.00	-10,042.34	-212.64	10,040.41	0.00	0.00	0.00
21,300.00	90.00	179.56	11,292.00	-10,142.34	-211.86	10,140.41	0.00	0.00	0.00
21,400.00	90.00	179.56	11,292.00	-10,242.34	-211.09	10,240.41	0.00	0.00	0.00
21,411.97	90.00	179.56	11,292.00	-10,254.30	-211.00	10,252.38	0.00	0.00	0.00
PBHL - PBHL (Merchant551H)									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Merchant551H)	0.00	0.00	0.00	98.50	-290.90	525,518.50	783,105.70	32° 26' 32.198 N	103° 32' 58.672 W
- hit/miss target									
- Shape									
- plan misses target center by 307.12usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
PBHL (Merchant551H)	0.00	0.00	11,292.00	-10,254.30	-211.00	515,165.70	783,185.60	32° 24' 49.753 N	103° 32' 58.625 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,750.00	1,750.00	13 3/8"	13-3/8	17-1/2
5,250.00	5,250.00	9 5/8"	9-5/8	12-1/4

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 551H
Project:	Lea County, New Mexico	TVD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Site:	Merchant State Unit 551H	MD Reference:	3684'GL+25.5'KB @ 3709.50usft (H&P 389)
Well:	#551H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.1 Aim Database

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,759.50	1,759.50	Rustler		0.00	
5,209.50	5,209.50	Base of Limestone		0.00	
8,585.76	8,579.50	Lower Brushy		0.00	
9,127.82	9,119.50	Avalon		0.00	
10,051.33	10,039.50	1st BS Sand		0.00	
10,612.27	10,599.50	2nd BS Sand		0.00	
11,203.91	11,139.50	3rd BS Carbonate		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
6608	6608	0	0	Build 1.00°/100'	
7108	7108	7	-21	Hold 5.0° Inc, 288.71° Azimuth	
10,132	10,120	92	-270	Drop 1.00°/100'	
10,632	10,619	98	-291	Hold Vertical	
10,732	10,719	98	-291	KOP, Build 10.00°/100'	
11,632	11,292	-474	-286	LP, Hold 90.0° Inc, 179.56° Azimuth	
21,412	11,292	-10,254	-211	PBHL	