

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Advance Energy Partners Hat Mesa, LLC 11490 Westheimer RD, Suite 950 Houston, TX		² OGRID Number 372417
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30-025-45934	⁵ Pool Name WC-025 G-06 S213326D;BONE SPRING	⁶ Pool Code 97929
⁷ Property Code 319601	⁸ Property Name Dagger State Com	⁹ Well Number 552H

II. ¹⁰ Surface Location

UL or lot no. G	Section 30	Township 21S	Range 33E	Lot Idn	Feet from the 2610	North/South Line N	Feet from the 1965	East/West line E	County Lea
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¹¹ Bottom Hole Location

UL or lot no. B	Section 19	Township 21S	Range 33E	Lot Idn	Feet from the 45	North/South line N	Feet from the 1952	East/West line E	County Lea
¹² Lse Code S	¹³ Producing Method Code F	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

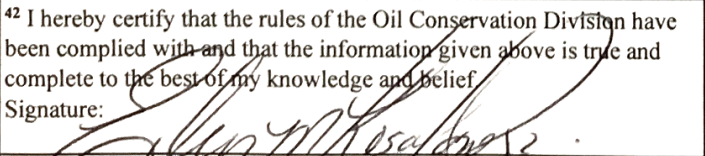
¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
214984	Plains Marketing, L.P. 10 Desta Dr/Suite 200E Midland, TX 79705	O
24650	Targa Midstream Services, LLC 811 Louisiana, Suite 21 Houston, TX 77022	G

IV. Well Completion Data

²¹ Spud Date 05/22/2019	²² Ready Date 08/19/2019	²³ TD 18,936'	²⁴ PBTD 18,834'	²⁵ Perforations 11,428' – 18,819'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17.5"	13.375"	1,618	760		
12.25"	9.625"	3,712'/5,295'	1330		
8.5"	5.5"	18,918'	2465		

V. Well Test Data

³¹ Date New Oil 08/20/2019	³² Gas Delivery Date 08/21/2019	³³ Test Date 9/01/2019	³⁴ Test Length 24	³⁵ Tbg. Pressure 758	³⁶ Csg. Pressure 170
³⁷ Choke Size 50	³⁸ Oil 2592	³⁹ Water 1705	⁴⁰ Gas 3120		⁴¹ Test Method F

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 	OIL CONSERVATION DIVISION
Printed name: Eileen M Kosakowski	Approved by: PATRICIA MARTINEZ
Title: Sr. Eng. Tech.	Title: PETROLEUM SPECIALIST
E-mail Address: ekosakowski@advanceenergypartners.com	Approval Date: 7/26/2024
Date: 2/21/22	Phone: 832-672-4604

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-6161 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 748-1289 Fax: (505) 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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT
As Drilled

API Number 30-025-45854	Pool Code 97929	Pool Name WC-025 G-06 S213326D;BONE SPRING
Property Code 319601	Property Name DAGGER STATE COM	Well Number 552H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA	Elevation 3812'

Surface Location

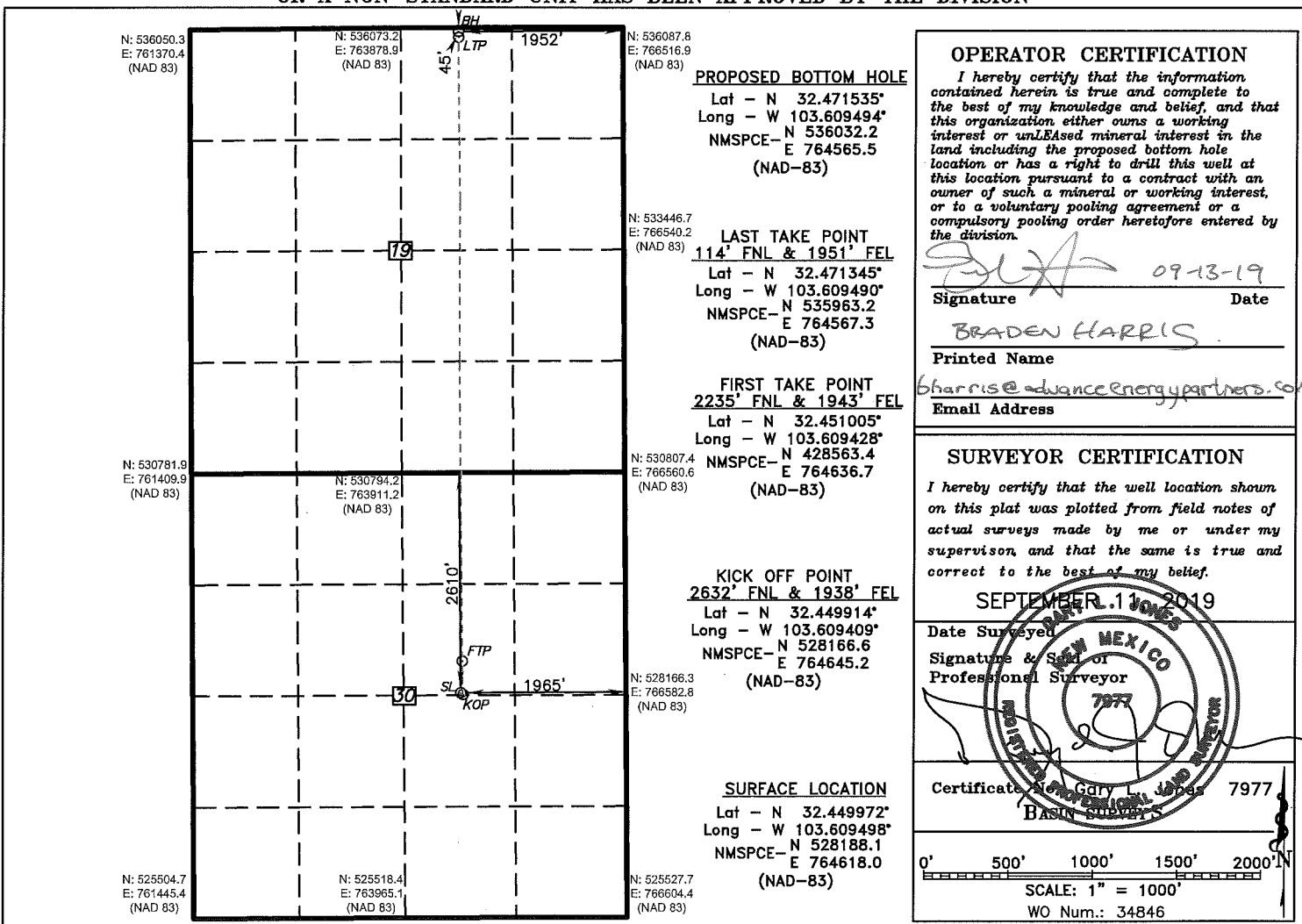
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
G	30	21 S	33 E		2610	NORTH	1965	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
B	19	21 S	33 E		45	NORTH	1952	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	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**





End of Well Report

Advance Energy Partners, LLC Dagger State Com, Well No. 552H Lea County, New Mexico

Rig: H&P #389

Job No.: WT-19-085

Start Date: 05/21/2019

End Date: 07/05/2019

Directional Drillers:

Advance Directional

Office Support:

Damien Tarpley

Directional Coordinator

E-mail: Damien.Tarpley@aimdir.com

Ivonne Gonzalez

Well Planner

E-mail: Ivonne.Gonzalez@aimdir.com

Allison Reinert

Executive VP

E-mail: Allison.Reinert@aimdir.com

Thomas Rinald

President

E-mail: Thomas.Rinald@aimdir.com

P.O. Box 181015 • Corpus Christi, Texas 78480

Phone: 361-653-6500 • Fax: 361-653-6599

www.aimdir.com





Performance Overview

Dagger State Com #552H (WT-19-085)

2019-05-21 to 2019-07-05

Lea, New Mexico, US (32.45, -103.61)

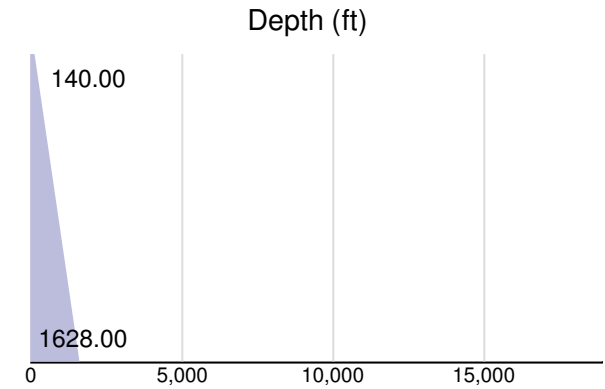
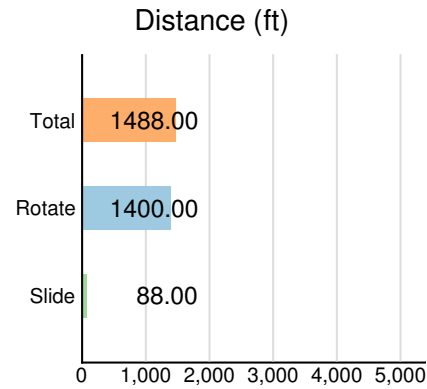
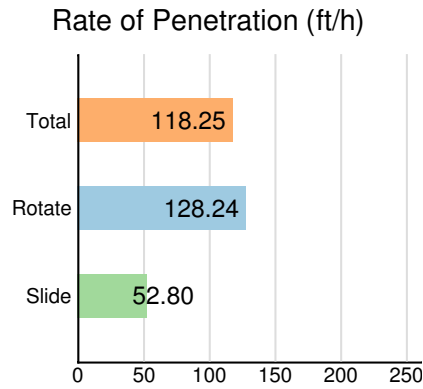
BHA Performance

BHA 1

Surface

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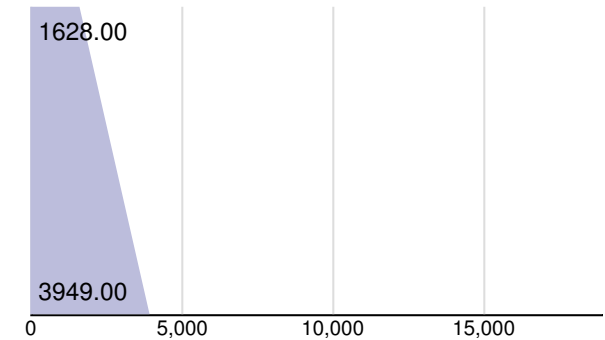
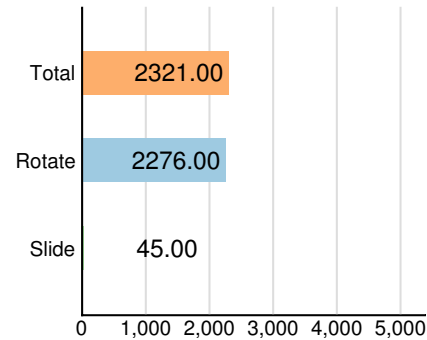
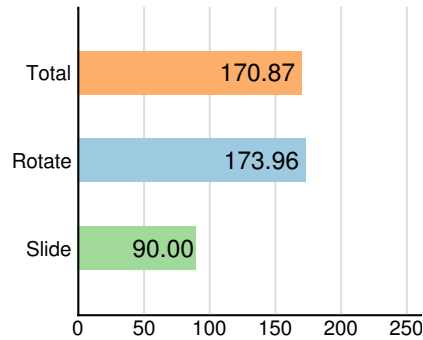


BHA 2

Intermediate

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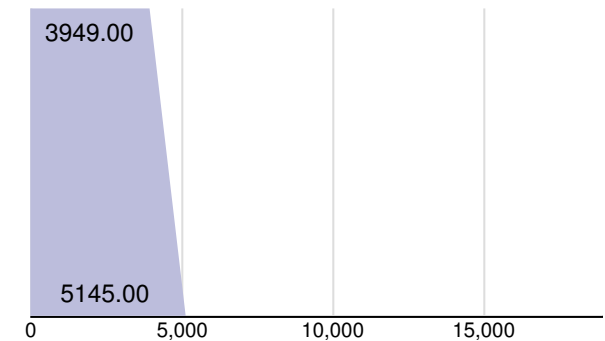
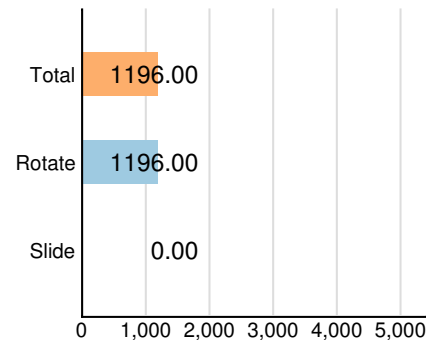
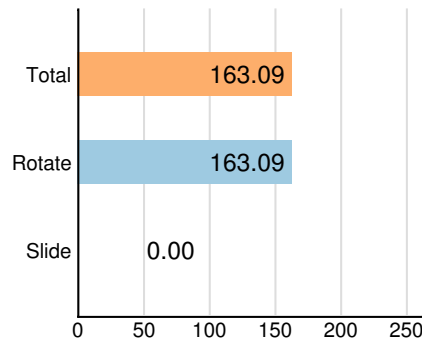


BHA 3

Intermediate

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Out: 05/25/2019 13:30

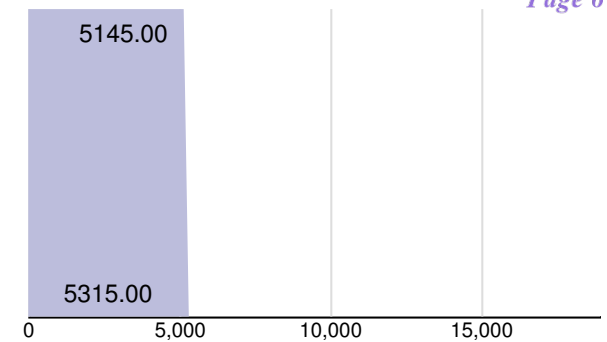
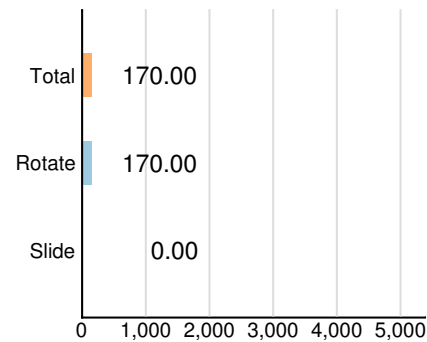
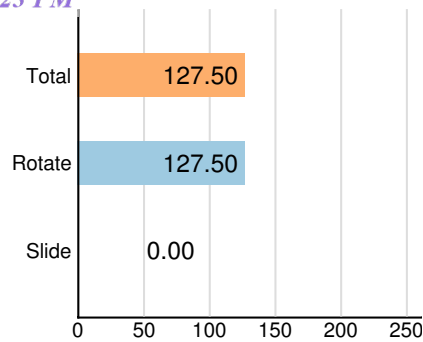


BHA 4

Intermediate

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Out: 05/25/2019 23:00

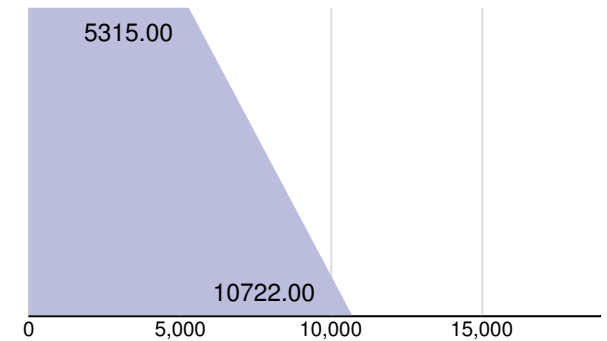
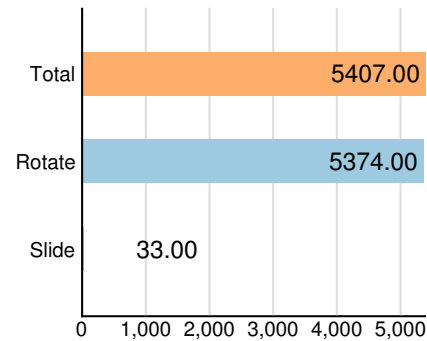
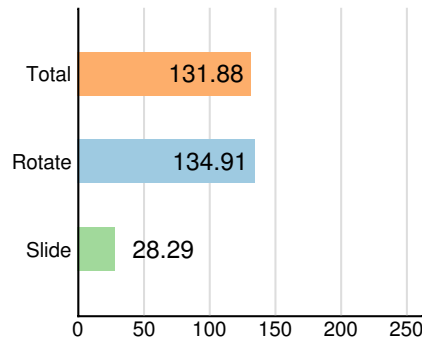


BHA 5

Intermediate

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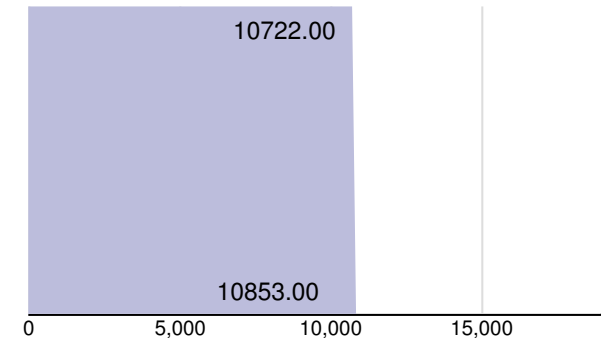
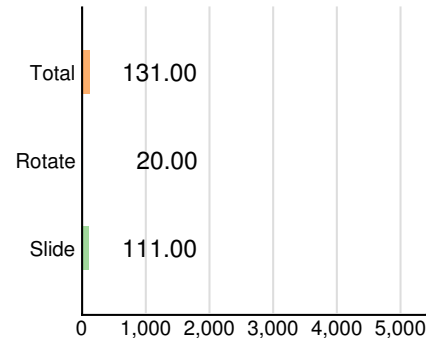
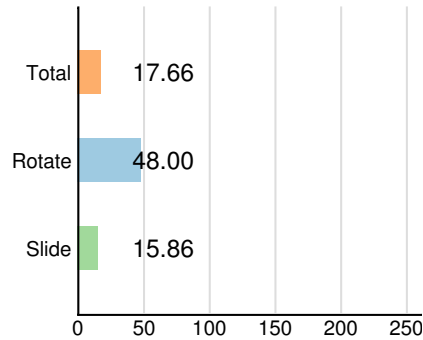


BHA 6

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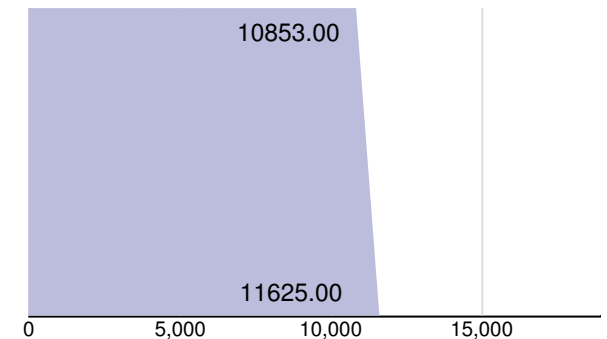
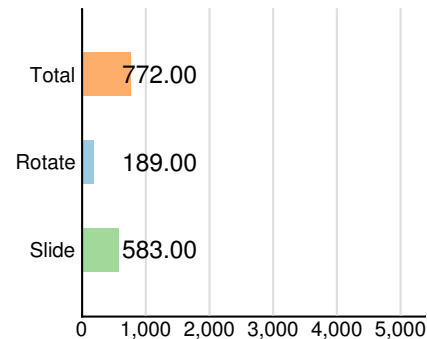
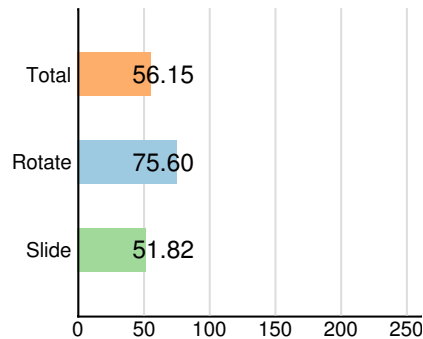


BHA 7

Curve 2

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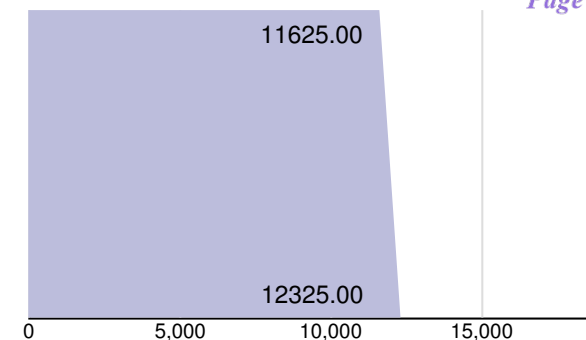
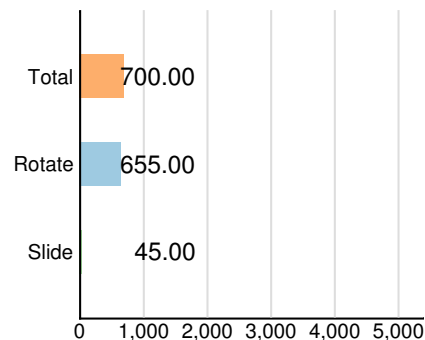
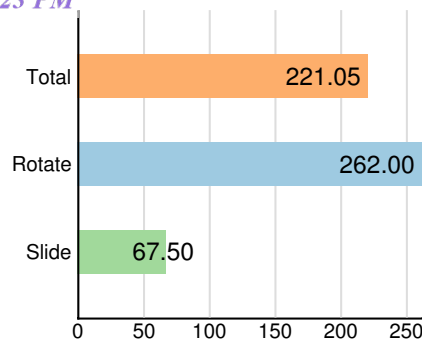


BHA 8

Lateral

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Out: 06/27/2019 19:00

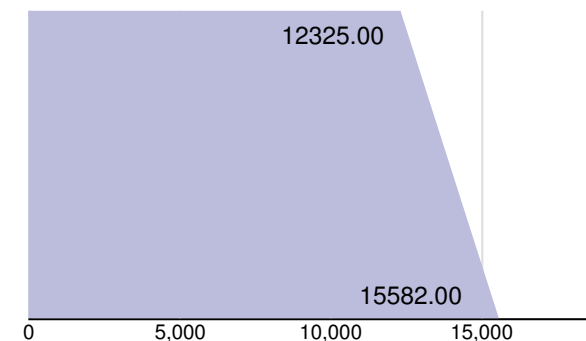
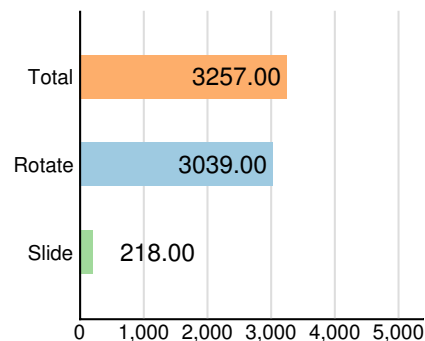
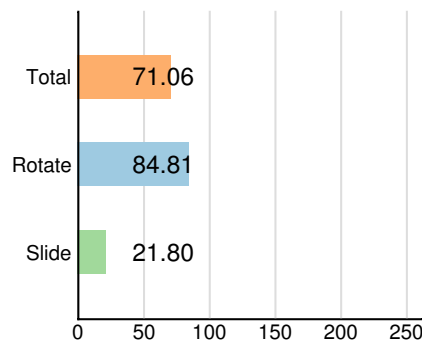


BHA 9

LATERAL

In: 06/27/2019 19:00

Out: 06/30/2019 06:15

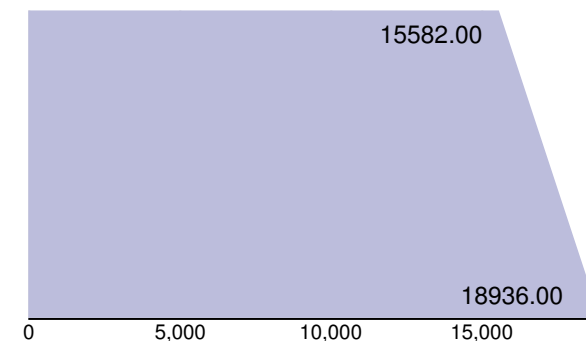
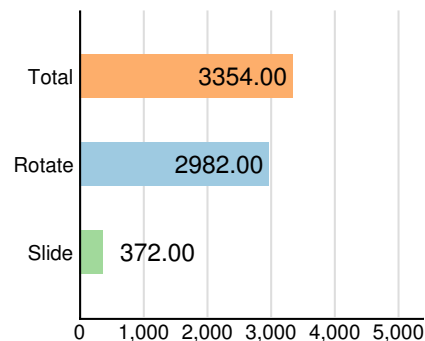
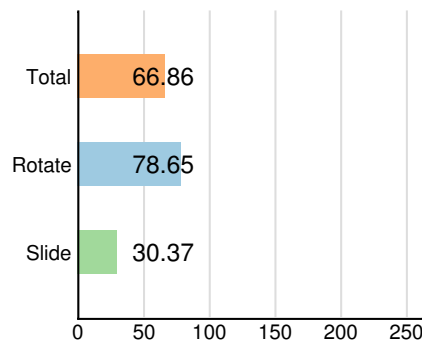


BHA 10

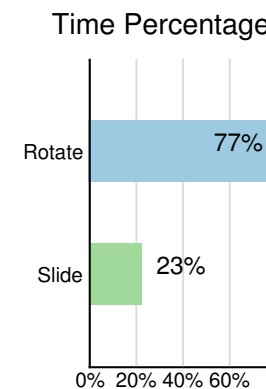
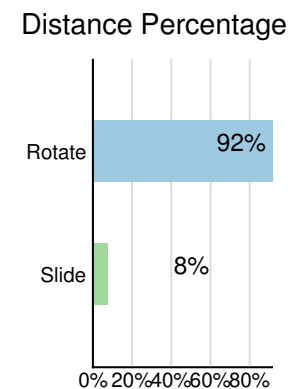
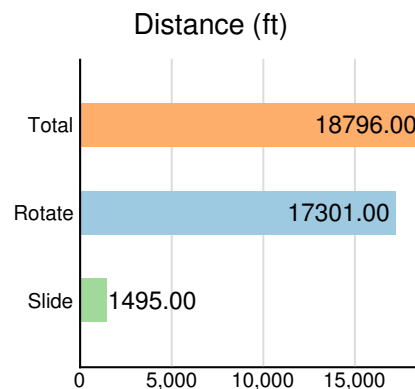
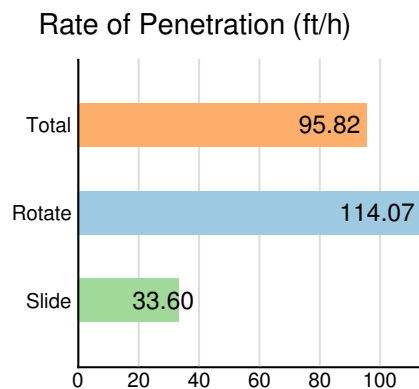
Lateral

In: 06/30/2019 06:15

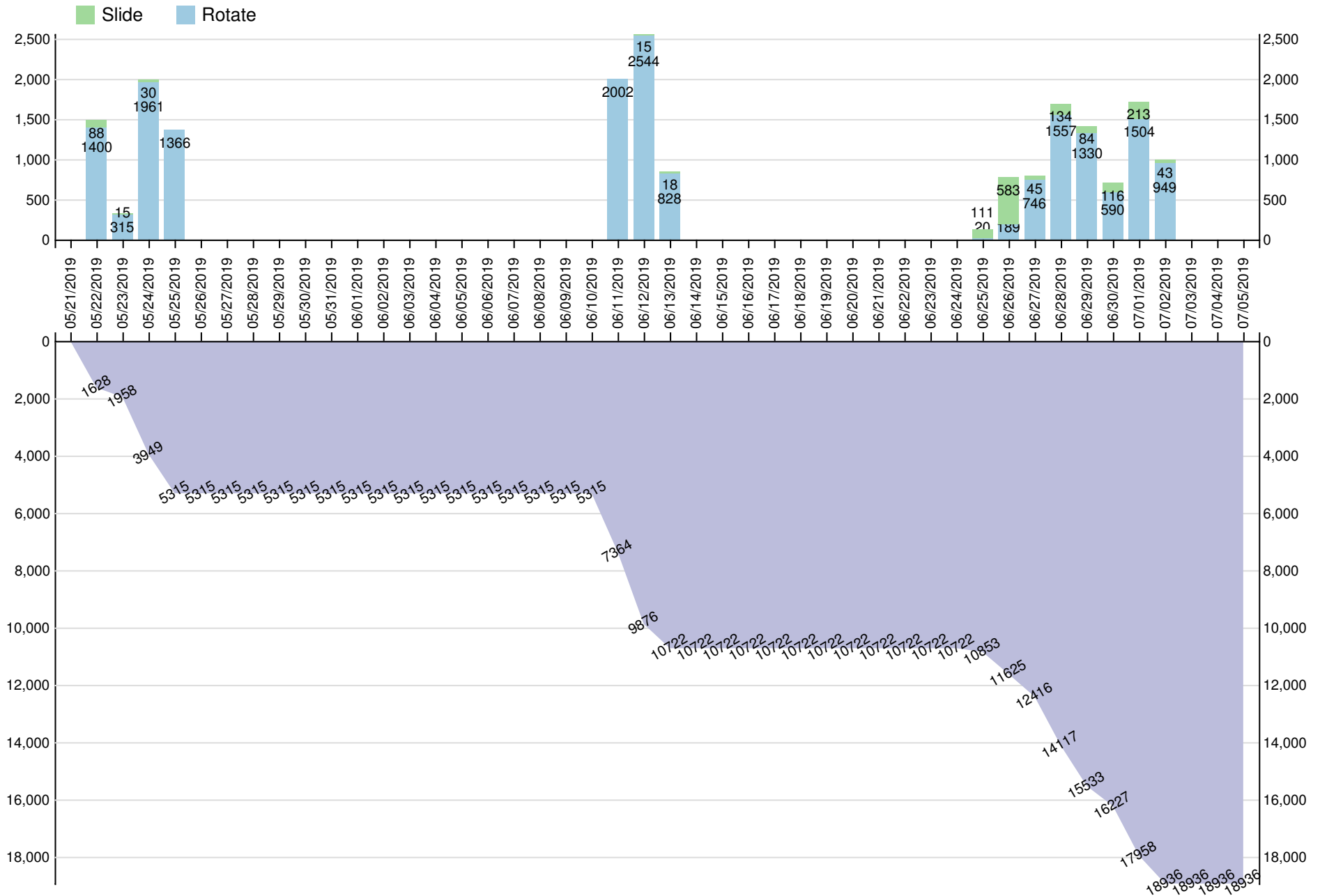
Out: 07/03/2019 19:45



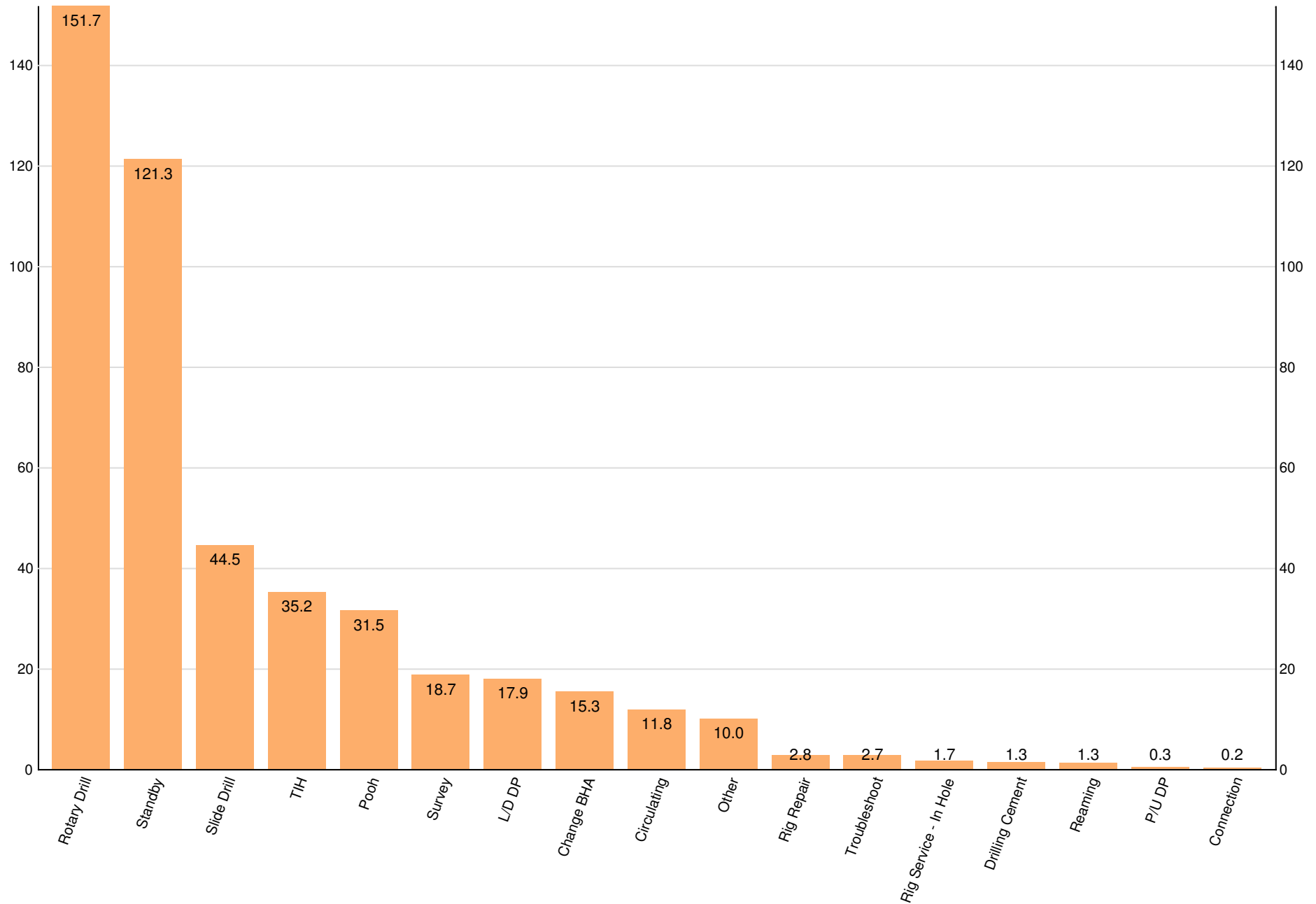
Total



Days vs. Depth



Directional Activity Hours





Proposed vs. As Drilled

Dagger State Com #552H (WT-19-085)

2019-05-21 to 2019-07-05

Lea, New Mexico, US (32.45, -103.61)

Advance Energy Partners, LLC

Dagger State Com 552H
Lea County, New Mexico
Job No. WT-19-085
H&P 389
Plan 2.0



SITE DETAILS: Dagger State Com 552H

Site Centre Northing: 528187.70
Easting: 764617.50
Positional Uncertainty: 0.00
Convergence: 0.39
Local North: Grid



Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.27°

Magnetic Field
Strength: 48109.9nT
Dip Angle: 60.24°
Date: 6/27/2019
Model: MVHD

Magnetic North: 6.27° to Grid North

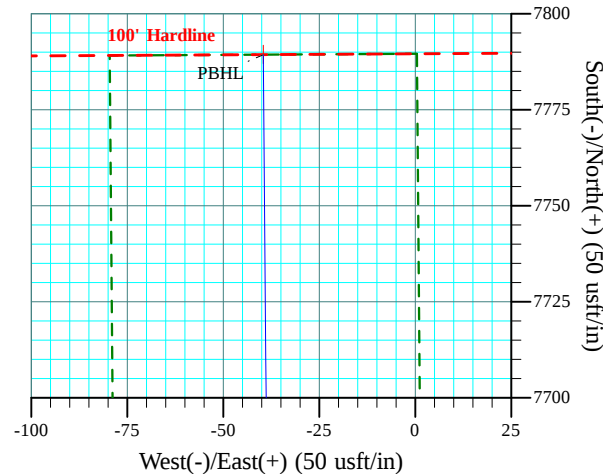
PROJECT DETAILS: Lea County, New Mexico

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:
3812'G+26.5'KB @ 3838.50usft

*Note - Aim is not responsible for any collision issues against unknown offset wells.

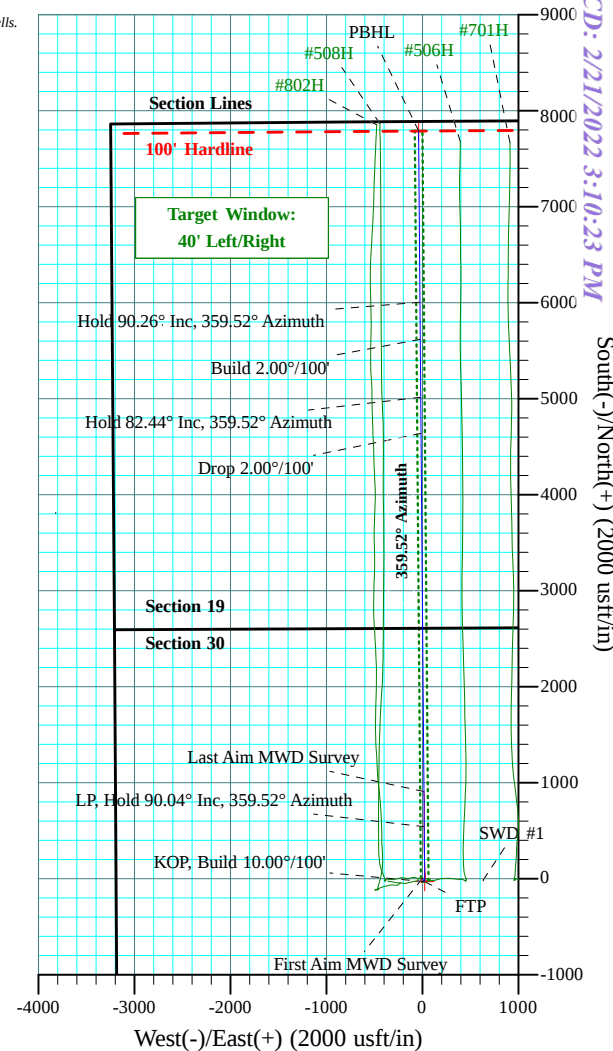
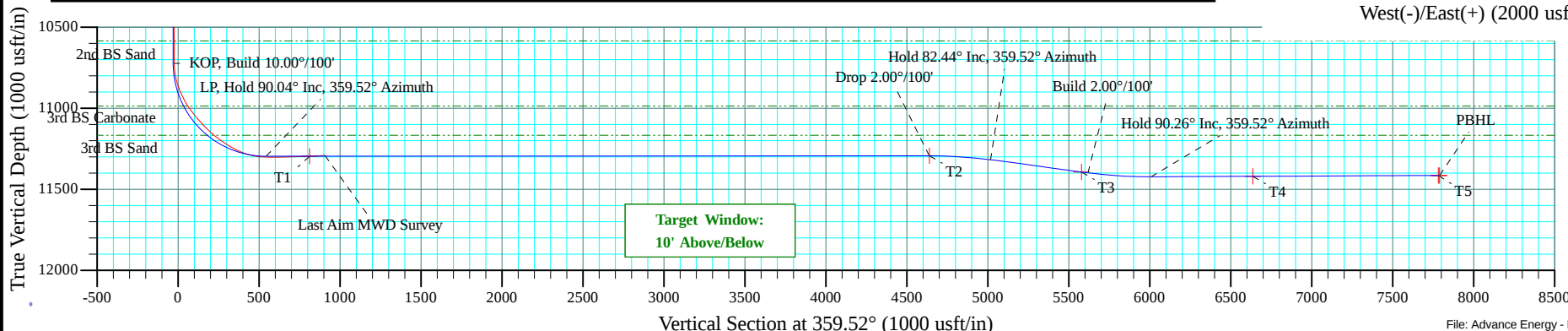


SECTION DETAILS

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	1060.00	0.00	0.00	1060.00	0.00	0.00	0.00	0.00	0.00	Build 1.00°/100'
3	1360.00	3.00	139.76	1359.86	-5.99	5.07	1.00	139.76	-6.04	Hold 3.0° Inc, 139.76° Azimuth
4	1808.32	3.00	139.76	1807.57	-23.91	20.23	0.00	0.00	-24.07	Drop 1.00°/100'
5	2108.32	0.00	0.00	2107.43	-29.90	25.30	1.00	180.00	-30.11	Hold Vertical
6	10724.49	0.00	0.00	10723.60	-29.90	25.30	0.00	0.00	-30.11	KOP, Build 10.00°/100'
7	11624.89	90.04	359.52	11296.56	543.44	20.54	10.00	359.52	543.25	LP, Hold 90.04° Inc, 359.52° Azimuth
8	15720.64	90.04	359.52	11293.70	4639.05	-13.45	0.00	0.00	4639.00	Drop 2.00°/100'
9	16100.59	82.44	359.52	11318.59	5017.89	-16.60	2.00	180.00	5017.85	Hold 82.44° Inc, 359.52° Azimuth
10	16706.00	82.44	359.52	11398.23	5618.02	-21.58	0.00	0.00	5618.00	Build 2.00°/100'
11	17096.71	90.26	359.52	11423.10	6007.62	-24.81	2.00	0.00	6007.62	Hold 90.26° Inc, 359.52° Azimuth
12	18878.57	90.26	359.52	11415.16	7789.40	-39.60	0.00	0.00	7789.46	PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Dagger552H)	0.00	-29.90	25.30	528157.80	764642.80	32° 26' 59.603 N	103° 36' 33.901 W
PBHL r1 (Dagger552H)	11415.16	7789.40	-39.60	535977.10	764577.90	32° 28' 16.978 N	103° 36' 34.040 W



Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Lateral 1r1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 2.0	Database:	EDM 5000.14 Single User Db

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		Dagger State Com 552H			
Site Position:		Northing:	528,187.70 usft	Latitude:	32° 26' 59.900 N
From:	Map	Easting:	764,617.50 usft	Longitude:	103° 36' 34.194 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	#552H - Slot 552H					
Well Position	+N/-S	0.00 usft	Northing:	528,187.70 usft	Latitude:	32° 26' 59.900 N
	+E/-W	0.00 usft	Easting:	764,617.50 usft	Longitude:	103° 36' 34.194 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,812.00 usft

Wellbore	Lateral 1r1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	6/27/2019	6.66	60.24	48,109.87166477

Design	Plan 2.0				
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	359.52	

Survey Tool Program	Date	6/27/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	18,878.57	Plan 2.0 (Lateral 1r1)	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 (Dagger552H)										
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 Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Lateral 1r1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 2.0	Database:	EDM 5000.14 Single User Db

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
1,060.00	0.00	0.00	1,060.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 1.00°/100'									
1,100.00	0.40	139.76	1,100.00	-0.11	0.09	-0.11	1.00	1.00	0.00
1,200.00	1.40	139.76	1,199.99	-1.31	1.10	-1.31	1.00	1.00	0.00
1,300.00	2.40	139.76	1,299.93	-3.84	3.25	-3.86	1.00	1.00	0.00
1,360.00	3.00	139.76	1,359.86	-5.99	5.07	-6.04	1.00	1.00	0.00
Hold 3.0° Inc, 139.76° Azimuth									
1,400.00	3.00	139.76	1,399.81	-7.59	6.42	-7.65	0.00	0.00	0.00
1,500.00	3.00	139.76	1,499.67	-11.59	9.80	-11.67	0.00	0.00	0.00
1,597.46	3.00	139.76	1,597.00	-15.48	13.10	-15.59	0.00	0.00	0.00
Rustler									
1,600.00	3.00	139.76	1,599.53	-15.58	13.19	-15.69	0.00	0.00	0.00
1,605.47	3.00	139.76	1,605.00	-15.80	13.37	-15.91	0.00	0.00	0.00
13 3/8"									
1,700.00	3.00	139.76	1,699.40	-19.58	16.57	-19.72	0.00	0.00	0.00
1,808.32	3.00	139.76	1,807.57	-23.91	20.23	-24.07	0.00	0.00	0.00
Drop 1.00°/100'									
1,900.00	2.08	139.76	1,899.16	-27.01	22.85	-27.20	1.00	-1.00	0.00
2,000.00	1.08	139.76	1,999.12	-29.12	24.64	-29.32	1.00	-1.00	0.00
2,108.32	0.00	0.00	2,107.43	-29.90	25.30	-30.11	1.00	-1.00	-129.03
Hold Vertical									
2,200.00	0.00	0.00	2,199.11	-29.90	25.30	-30.11	0.00	0.00	0.00
2,300.00	0.00	0.00	2,299.11	-29.90	25.30	-30.11	0.00	0.00	0.00
2,400.00	0.00	0.00	2,399.11	-29.90	25.30	-30.11	0.00	0.00	0.00
2,500.00	0.00	0.00	2,499.11	-29.90	25.30	-30.11	0.00	0.00	0.00
2,600.00	0.00	0.00	2,599.11	-29.90	25.30	-30.11	0.00	0.00	0.00
2,700.00	0.00	0.00	2,699.11	-29.90	25.30	-30.11	0.00	0.00	0.00
2,800.00	0.00	0.00	2,799.11	-29.90	25.30	-30.11	0.00	0.00	0.00
2,900.00	0.00	0.00	2,899.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,000.00	0.00	0.00	2,999.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,100.00	0.00	0.00	3,099.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,200.00	0.00	0.00	3,199.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,300.00	0.00	0.00	3,299.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,400.00	0.00	0.00	3,399.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,500.00	0.00	0.00	3,499.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,600.00	0.00	0.00	3,599.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,700.00	0.00	0.00	3,699.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,800.00	0.00	0.00	3,799.11	-29.90	25.30	-30.11	0.00	0.00	0.00
3,900.00	0.00	0.00	3,899.11	-29.90	25.30	-30.11	0.00	0.00	0.00
4,000.00	0.00	0.00	3,999.11	-29.90	25.30	-30.11	0.00	0.00	0.00
4,100.00	0.00	0.00	4,099.11	-29.90	25.30	-30.11	0.00	0.00	0.00
4,200.00	0.00	0.00	4,199.11	-29.90	25.30	-30.11	0.00	0.00	0.00
4,300.00	0.00	0.00	4,299.11	-29.90	25.30	-30.11	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Lateral 1r1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 2.0	Database:	EDM 5000.14 Single User Db

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)
4,400.00	0.00	0.00	4,399.11	-29.90	25.30	-30.11	0.00	0.00	0.00
4,500.00	0.00	0.00	4,499.11	-29.90	25.30	-30.11	0.00	0.00	0.00
4,600.00	0.00	0.00	4,599.11	-29.90	25.30	-30.11	0.00	0.00	0.00
4,700.00	0.00	0.00	4,699.11	-29.90	25.30	-30.11	0.00	0.00	0.00
4,800.00	0.00	0.00	4,799.11	-29.90	25.30	-30.11	0.00	0.00	0.00
4,900.00	0.00	0.00	4,899.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,000.00	0.00	0.00	4,999.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,100.00	0.00	0.00	5,099.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,200.00	0.00	0.00	5,199.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,257.89	0.00	0.00	5,257.00	-29.90	25.30	-30.11	0.00	0.00	0.00
Limestone base									
5,300.00	0.00	0.00	5,299.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,310.89	0.00	0.00	5,310.00	-29.90	25.30	-30.11	0.00	0.00	0.00
9 5/8"									
5,400.00	0.00	0.00	5,399.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,500.00	0.00	0.00	5,499.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,600.00	0.00	0.00	5,599.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,700.00	0.00	0.00	5,699.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,800.00	0.00	0.00	5,799.11	-29.90	25.30	-30.11	0.00	0.00	0.00
5,900.00	0.00	0.00	5,899.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,000.00	0.00	0.00	5,999.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,100.00	0.00	0.00	6,099.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,200.00	0.00	0.00	6,199.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,300.00	0.00	0.00	6,299.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,400.00	0.00	0.00	6,399.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,500.00	0.00	0.00	6,499.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,600.00	0.00	0.00	6,599.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,700.00	0.00	0.00	6,699.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,800.00	0.00	0.00	6,799.11	-29.90	25.30	-30.11	0.00	0.00	0.00
6,900.00	0.00	0.00	6,899.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,000.00	0.00	0.00	6,999.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,100.00	0.00	0.00	7,099.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,200.00	0.00	0.00	7,199.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,300.00	0.00	0.00	7,299.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,400.00	0.00	0.00	7,399.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,500.00	0.00	0.00	7,499.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,600.00	0.00	0.00	7,599.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,700.00	0.00	0.00	7,699.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,800.00	0.00	0.00	7,799.11	-29.90	25.30	-30.11	0.00	0.00	0.00
7,900.00	0.00	0.00	7,899.11	-29.90	25.30	-30.11	0.00	0.00	0.00
8,000.00	0.00	0.00	7,999.11	-29.90	25.30	-30.11	0.00	0.00	0.00
8,100.00	0.00	0.00	8,099.11	-29.90	25.30	-30.11	0.00	0.00	0.00
8,200.00	0.00	0.00	8,199.11	-29.90	25.30	-30.11	0.00	0.00	0.00
8,300.00	0.00	0.00	8,299.11	-29.90	25.30	-30.11	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Lateral 1r1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 2.0	Database:	EDM 5000.14 Single User Db

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,400.00	0.00	0.00	8,399.11	-29.90	25.30	-30.11	0.00	0.00	0.00
8,500.00	0.00	0.00	8,499.11	-29.90	25.30	-30.11	0.00	0.00	0.00
8,557.89	0.00	0.00	8,557.00	-29.90	25.30	-30.11	0.00	0.00	0.00
Lower Brushy									
8,600.00	0.00	0.00	8,599.11	-29.90	25.30	-30.11	0.00	0.00	0.00
8,700.00	0.00	0.00	8,699.11	-29.90	25.30	-30.11	0.00	0.00	0.00
8,800.00	0.00	0.00	8,799.11	-29.90	25.30	-30.11	0.00	0.00	0.00
8,900.00	0.00	0.00	8,899.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,000.00	0.00	0.00	8,999.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,029.89	0.00	0.00	9,029.00	-29.90	25.30	-30.11	0.00	0.00	0.00
Avalon									
9,100.00	0.00	0.00	9,099.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,200.00	0.00	0.00	9,199.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,300.00	0.00	0.00	9,299.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,400.00	0.00	0.00	9,399.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,500.00	0.00	0.00	9,499.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,600.00	0.00	0.00	9,599.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,700.00	0.00	0.00	9,699.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,800.00	0.00	0.00	9,799.11	-29.90	25.30	-30.11	0.00	0.00	0.00
9,900.00	0.00	0.00	9,899.11	-29.90	25.30	-30.11	0.00	0.00	0.00
10,000.00	0.00	0.00	9,999.11	-29.90	25.30	-30.11	0.00	0.00	0.00
10,024.89	0.00	0.00	10,024.00	-29.90	25.30	-30.11	0.00	0.00	0.00
1st BS Sand									
10,100.00	0.00	0.00	10,099.11	-29.90	25.30	-30.11	0.00	0.00	0.00
10,200.00	0.00	0.00	10,199.11	-29.90	25.30	-30.11	0.00	0.00	0.00
10,300.00	0.00	0.00	10,299.11	-29.90	25.30	-30.11	0.00	0.00	0.00
10,400.00	0.00	0.00	10,399.11	-29.90	25.30	-30.11	0.00	0.00	0.00
10,500.00	0.00	0.00	10,499.11	-29.90	25.30	-30.11	0.00	0.00	0.00
10,585.89	0.00	0.00	10,585.00	-29.90	25.30	-30.11	0.00	0.00	0.00
2nd BS Sand									
10,600.00	0.00	0.00	10,599.11	-29.90	25.30	-30.11	0.00	0.00	0.00
10,700.00	0.00	0.00	10,699.11	-29.90	25.30	-30.11	0.00	0.00	0.00
10,724.49	0.00	0.00	10,723.60	-29.90	25.30	-30.11	0.00	0.00	0.00
KOP, Build 10.00°/100'									
10,750.00	2.55	359.52	10,749.10	-29.33	25.30	-29.54	10.00	10.00	0.00
10,800.00	7.55	359.52	10,798.89	-24.93	25.26	-25.14	10.00	10.00	0.00
10,850.00	12.55	359.52	10,848.11	-16.21	25.19	-16.42	10.00	10.00	0.00
10,900.00	17.55	359.52	10,896.38	-3.23	25.08	-3.44	10.00	10.00	0.00
10,950.00	22.55	359.52	10,943.33	13.91	24.94	13.70	10.00	10.00	0.00
10,998.18	27.37	359.52	10,987.00	34.23	24.77	34.02	10.00	10.00	0.00
3rd BS Carbonate									
11,000.00	27.55	359.52	10,988.62	35.07	24.76	34.86	10.00	10.00	0.00
11,050.00	32.55	359.52	11,031.88	60.10	24.55	59.89	10.00	10.00	0.00
11,100.00	37.55	359.52	11,072.80	88.81	24.31	88.60	10.00	10.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Lateral 1r1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 2.0	Database:	EDM 5000.14 Single User Db

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)	
11,150.00	42.55	359.52	11,111.06	120.97	24.05	120.76	10.00	10.00	0.00	
11,200.00	47.55	359.52	11,146.37	156.34	23.75	156.14	10.00	10.00	0.00	
11,231.52	50.70	359.52	11,167.00	180.18	23.56	179.97	10.00	10.00	0.00	
3rd BS Sand										
11,250.00	52.55	359.52	11,178.47	194.66	23.44	194.46	10.00	10.00	0.00	
11,300.00	57.55	359.52	11,207.10	235.63	23.10	235.43	10.00	10.00	0.00	
11,350.00	62.55	359.52	11,232.06	278.94	22.74	278.74	10.00	10.00	0.00	
11,400.00	67.55	359.52	11,253.14	324.26	22.36	324.06	10.00	10.00	0.00	
11,450.00	72.55	359.52	11,270.19	371.24	21.97	371.04	10.00	10.00	0.00	
11,500.00	77.55	359.52	11,283.09	419.53	21.57	419.34	10.00	10.00	0.00	
11,550.00	82.55	359.52	11,291.72	468.76	21.16	468.57	10.00	10.00	0.00	
11,600.00	87.55	359.52	11,296.03	518.56	20.75	518.37	10.00	10.00	0.00	
11,624.89	90.04	359.52	11,296.56	543.44	20.54	543.25	10.00	10.00	0.00	
LP, Hold 90.04° Inc, 359.52° Azimuth										
11,700.00	90.04	359.52	11,296.51	618.55	19.92	618.36	0.00	0.00	0.00	
11,800.00	90.04	359.52	11,296.44	718.54	19.09	718.36	0.00	0.00	0.00	
11,893.72	90.04	359.52	11,296.37	812.26	18.31	812.08	0.00	0.00	0.00	
T1 (Dagger552H)										
11,900.00	90.04	359.52	11,296.37	818.54	18.26	818.36	0.00	0.00	0.00	
12,000.00	90.04	359.52	11,296.30	918.54	17.43	918.36	0.00	0.00	0.00	
12,100.00	90.04	359.52	11,296.23	1,018.53	16.60	1,018.36	0.00	0.00	0.00	
12,200.00	90.04	359.52	11,296.16	1,118.53	15.77	1,118.36	0.00	0.00	0.00	
12,300.00	90.04	359.52	11,296.09	1,218.53	14.94	1,218.36	0.00	0.00	0.00	
12,400.00	90.04	359.52	11,296.02	1,318.52	14.11	1,318.36	0.00	0.00	0.00	
12,500.00	90.04	359.52	11,295.95	1,418.52	13.28	1,418.36	0.00	0.00	0.00	
12,600.00	90.04	359.52	11,295.88	1,518.52	12.45	1,518.36	0.00	0.00	0.00	
12,700.00	90.04	359.52	11,295.81	1,618.51	11.62	1,618.36	0.00	0.00	0.00	
12,800.00	90.04	359.52	11,295.74	1,718.51	10.79	1,718.36	0.00	0.00	0.00	
12,900.00	90.04	359.52	11,295.67	1,818.51	9.96	1,818.36	0.00	0.00	0.00	
13,000.00	90.04	359.52	11,295.60	1,918.50	9.13	1,918.36	0.00	0.00	0.00	
13,100.00	90.04	359.52	11,295.53	2,018.50	8.30	2,018.36	0.00	0.00	0.00	
13,200.00	90.04	359.52	11,295.46	2,118.49	7.47	2,118.36	0.00	0.00	0.00	
13,300.00	90.04	359.52	11,295.39	2,218.49	6.64	2,218.36	0.00	0.00	0.00	
13,400.00	90.04	359.52	11,295.32	2,318.49	5.81	2,318.36	0.00	0.00	0.00	
13,500.00	90.04	359.52	11,295.25	2,418.48	4.98	2,418.36	0.00	0.00	0.00	
13,600.00	90.04	359.52	11,295.18	2,518.48	4.15	2,518.36	0.00	0.00	0.00	
13,700.00	90.04	359.52	11,295.11	2,618.48	3.32	2,618.36	0.00	0.00	0.00	
13,800.00	90.04	359.52	11,295.04	2,718.47	2.49	2,718.36	0.00	0.00	0.00	
13,900.00	90.04	359.52	11,294.97	2,818.47	1.66	2,818.36	0.00	0.00	0.00	
14,000.00	90.04	359.52	11,294.90	2,918.47	0.83	2,918.36	0.00	0.00	0.00	
14,100.00	90.04	359.52	11,294.83	3,018.46	0.00	3,018.36	0.00	0.00	0.00	
14,200.00	90.04	359.52	11,294.76	3,118.46	-0.83	3,118.36	0.00	0.00	0.00	
14,300.00	90.04	359.52	11,294.69	3,218.46	-1.66	3,218.36	0.00	0.00	0.00	
14,400.00	90.04	359.52	11,294.62	3,318.45	-2.49	3,318.36	0.00	0.00	0.00	

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Lateral 1r1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 2.0	Database:	EDM 5000.14 Single User Db

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)
14,500.00	90.04	359.52	11,294.55	3,418.45	-3.32	3,418.36	0.00	0.00	0.00
14,600.00	90.04	359.52	11,294.48	3,518.45	-4.15	3,518.36	0.00	0.00	0.00
14,700.00	90.04	359.52	11,294.41	3,618.44	-4.98	3,618.36	0.00	0.00	0.00
14,800.00	90.04	359.52	11,294.34	3,718.44	-5.81	3,718.36	0.00	0.00	0.00
14,900.00	90.04	359.52	11,294.27	3,818.44	-6.64	3,818.36	0.00	0.00	0.00
15,000.00	90.04	359.52	11,294.20	3,918.43	-7.47	3,918.36	0.00	0.00	0.00
15,100.00	90.04	359.52	11,294.13	4,018.43	-8.30	4,018.36	0.00	0.00	0.00
15,200.00	90.04	359.52	11,294.06	4,118.43	-9.13	4,118.36	0.00	0.00	0.00
15,300.00	90.04	359.52	11,293.99	4,218.42	-9.96	4,218.36	0.00	0.00	0.00
15,400.00	90.04	359.52	11,293.92	4,318.42	-10.79	4,318.36	0.00	0.00	0.00
15,500.00	90.04	359.52	11,293.85	4,418.42	-11.62	4,418.36	0.00	0.00	0.00
15,600.00	90.04	359.52	11,293.78	4,518.41	-12.45	4,518.36	0.00	0.00	0.00
15,700.00	90.04	359.52	11,293.71	4,618.41	-13.28	4,618.36	0.00	0.00	0.00
15,720.64	90.04	359.52	11,293.70	4,639.05	-13.45	4,639.00	0.00	0.00	0.00
Drop 2.00°/100'									
15,721.02	90.03	359.52	11,293.70	4,639.43	-13.46	4,639.38	2.00	-2.00	0.00
T2 (Dagger552H)									
15,800.00	88.45	359.52	11,294.74	4,718.40	-14.11	4,718.35	2.00	-2.00	0.00
15,900.00	86.45	359.52	11,299.19	4,818.29	-14.94	4,818.24	2.00	-2.00	0.00
16,000.00	84.45	359.52	11,307.11	4,917.96	-15.77	4,917.92	2.00	-2.00	0.00
16,100.59	82.44	359.52	11,318.59	5,017.89	-16.60	5,017.85	2.00	-2.00	0.00
Hold 82.44° Inc, 359.52° Azimuth									
16,200.00	82.44	359.52	11,331.67	5,116.43	-17.42	5,116.40	0.00	0.00	0.00
16,300.00	82.44	359.52	11,344.82	5,215.56	-18.24	5,215.53	0.00	0.00	0.00
16,400.00	82.44	359.52	11,357.98	5,314.69	-19.06	5,314.66	0.00	0.00	0.00
16,500.00	82.44	359.52	11,371.13	5,413.81	-19.88	5,413.79	0.00	0.00	0.00
16,600.00	82.44	359.52	11,384.29	5,512.94	-20.71	5,512.92	0.00	0.00	0.00
16,666.58	82.44	359.52	11,393.05	5,578.94	-21.25	5,578.92	0.00	0.00	0.00
T3 (Dagger552H)									
16,706.00	82.44	359.52	11,398.23	5,618.02	-21.58	5,618.00	0.00	0.00	0.00
Build 2.00°/100'									
16,800.00	84.32	359.52	11,409.07	5,711.38	-22.35	5,711.37	2.00	2.00	0.00
16,900.00	86.32	359.52	11,417.22	5,811.04	-23.18	5,811.03	2.00	2.00	0.00
17,000.00	88.32	359.52	11,421.90	5,910.92	-24.01	5,910.92	2.00	2.00	0.00
17,096.71	90.26	359.52	11,423.10	6,007.62	-24.81	6,007.62	2.00	2.00	0.00
Hold 90.26° Inc, 359.52° Azimuth									
17,100.00	90.26	359.52	11,423.08	6,010.91	-24.84	6,010.91	0.00	0.00	0.00
17,200.00	90.26	359.52	11,422.64	6,110.90	-25.67	6,110.90	0.00	0.00	0.00
17,300.00	90.26	359.52	11,422.19	6,210.90	-26.50	6,210.90	0.00	0.00	0.00
17,400.00	90.26	359.52	11,421.75	6,310.90	-27.33	6,310.90	0.00	0.00	0.00
17,500.00	90.26	359.52	11,421.30	6,410.89	-28.16	6,410.90	0.00	0.00	0.00
17,600.00	90.26	359.52	11,420.86	6,510.89	-28.99	6,510.90	0.00	0.00	0.00
17,700.00	90.26	359.52	11,420.41	6,610.88	-29.82	6,610.90	0.00	0.00	0.00
17,725.18	90.26	359.52	11,420.30	6,636.06	-30.03	6,636.08	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Lateral 1r1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 2.0	Database:	EDM 5000.14 Single User Db

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)
T4 (Dagger552H)									
17,800.00	90.26	359.52	11,419.97	6,710.88	-30.65	6,710.90	0.00	0.00	0.00
17,900.00	90.26	359.52	11,419.52	6,810.87	-31.48	6,810.90	0.00	0.00	0.00
18,000.00	90.26	359.52	11,419.07	6,910.87	-32.31	6,910.90	0.00	0.00	0.00
18,100.00	90.26	359.52	11,418.63	7,010.86	-33.14	7,010.90	0.00	0.00	0.00
18,200.00	90.26	359.52	11,418.18	7,110.86	-33.97	7,110.89	0.00	0.00	0.00
18,300.00	90.26	359.52	11,417.74	7,210.86	-34.80	7,210.89	0.00	0.00	0.00
18,400.00	90.26	359.52	11,417.29	7,310.85	-35.63	7,310.89	0.00	0.00	0.00
18,500.00	90.26	359.52	11,416.85	7,410.85	-36.46	7,410.89	0.00	0.00	0.00
18,600.00	90.26	359.52	11,416.40	7,510.84	-37.29	7,510.89	0.00	0.00	0.00
18,700.00	90.26	359.52	11,415.96	7,610.84	-38.12	7,610.89	0.00	0.00	0.00
18,800.00	90.26	359.52	11,415.51	7,710.83	-38.95	7,710.89	0.00	0.00	0.00
18,871.14	90.26	359.52	11,415.19	7,781.97	-39.54	7,782.03	0.00	0.00	0.00
T5 (Dagger552H)									
18,878.57	90.26	359.52	11,415.16	7,789.40	-39.60	7,789.46	0.00	0.00	0.00
PBHL - PBHL r1 (Dagger552H)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
FTP (Dagger552H)	0.00	0.00	0.00	-29.90	25.30	528,157.80	764,642.80	32° 26' 59.603 N	103° 36' 33.901 W
- plan misses target center by 39.17usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
PBHL r1 (Dagger552H)	0.00	0.00	11,415.16	7,789.40	-39.60	535,977.10	764,577.90	32° 28' 16.978 N	103° 36' 34.040 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,605.47	1,605.00	13 3/8"		13-3/8	17-1/2
5,310.89	5,310.00	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 Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Lateral 1r1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 2.0	Database:	EDM 5000.14 Single User Db

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,597.46	1,597.00	Rustler		0.00	
5,257.89	5,257.00	Limestone base		0.00	
8,557.89	8,557.00	Lower Brushy		0.00	
9,029.89	9,029.00	Avalon		0.00	
10,024.89	10,024.00	1st BS Sand		0.00	
10,585.89	10,585.00	2nd BS Sand		0.00	
10,998.18	10,987.00	3rd BS Carbonate		0.00	
11,231.52	11,167.00	3rd BS Sand		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1060	1060	0	0	Build 1.00°/100'	
1360	1360	-6	5	Hold 3.0° Inc, 139.76° Azimuth	
1808	1808	-24	20	Drop 1.00°/100'	
2108	2107	-30	25	Hold Vertical	
10,724	10,724	-30	25	KOP, Build 10.00°/100'	
11,625	11,297	543	21	LP, Hold 90.04° Inc, 359.52° Azimuth	
15,721	11,294	4639	-13	Drop 2.00°/100'	
16,101	11,319	5018	-17	Hold 82.44° Inc, 359.52° Azimuth	
16,706	11,398	5618	-22	Build 2.00°/100'	
17,097	11,423	6008	-25	Hold 90.26° Inc, 359.52° Azimuth	
18,879	11,415	7789	-40	PBHL	

Advance Energy Partners, LLC

Dagger State Com 552H
Lea County, New Mexico
Job No. WT-19-085
H&P 389
Plan 2.0 Final PVA



SITE DETAILS: Dagger State Com 552H

Site Centre Northing: 528187.70
Easting: 764617.50

Positional Uncertainty: 0.00
Convergence: 0.39
Local North: Grid



Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.27°

Magnetic Field
Strength: 48109.9nT
Dip Angle: 60.24°
Date: 6/27/2019
Model: MVHD

Magnetic North: 6.27° to Grid North

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

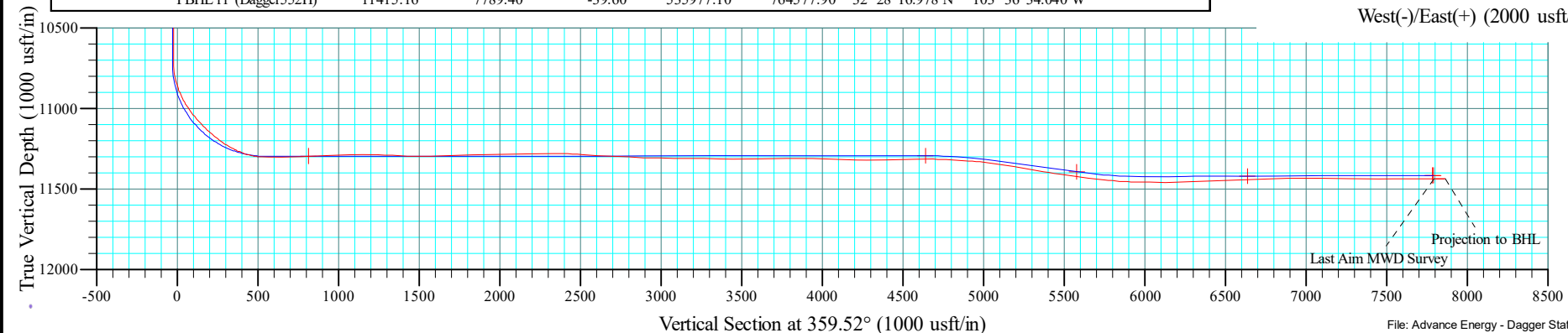
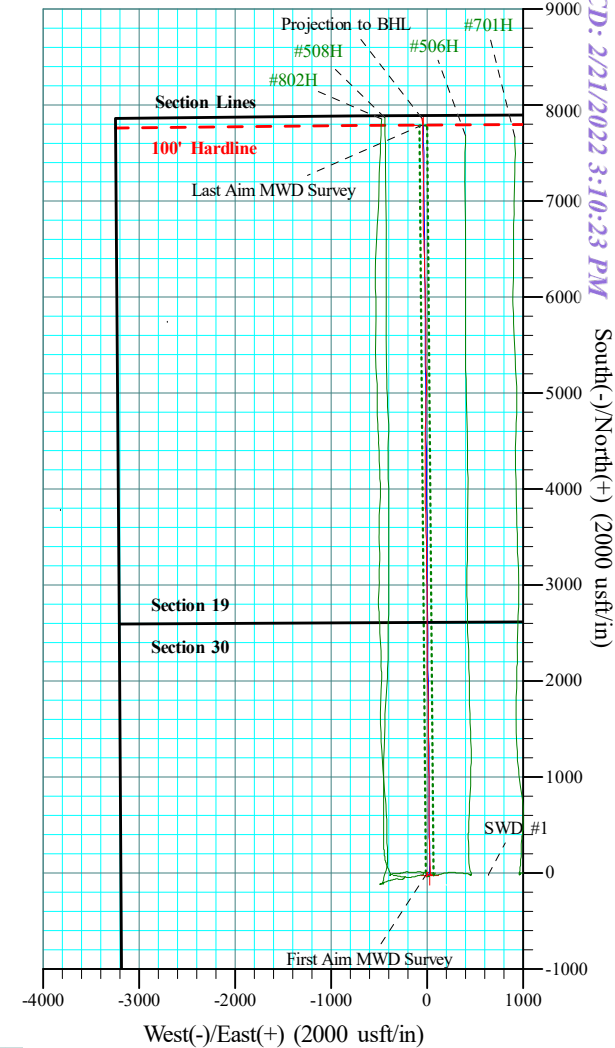
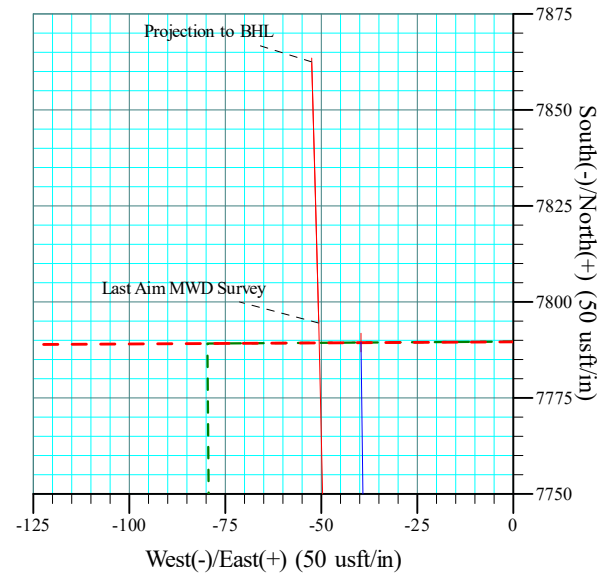
Depth Reference:
3812'G+26.5'KB @ 3838.50usft

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	18868.00	89.05	358.46	11436.35	7794.56	-50.66	0.00	0.00	7794.71	Last Aim MWD Survey
2	18936.00	89.05	358.46	11437.48	7862.52	-52.49	0.00	0.00	7862.69	Projection to BHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Dagger552H)	0.00	-29.90	25.30	528157.80	764642.80	$32^\circ 26' 59.603$ N	$103^\circ 36' 33.901$ W
PBHL r1 (Dagger552H)	11415.16	7789.40	-39.60	535977.10	764577.90	$32^\circ 28' 16.978$ N	$103^\circ 36' 34.040$ W



Received by OCD: 2/21/2022 3:10:23 PM

South(-)/North(+) (2000 usft/in)

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Drawn by: IG
Date Created: 5/1/2018
Date Revised: 7/1/2018
File: Advance Energy - Dagger State Com #552H Plan 2.0 Final PVA.wps



Survey Reports

Dagger State Com #552H (WT-19-085)

2019-05-21 to 2019-07-05

Lea, New Mexico, US (32.45, -103.61)

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	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	Dagger State Com 552H		
Site Position:		Northing:	528,187.70 usft
From:	Map	Easting:	764,617.50 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 26' 59.900 N
		Longitude:	103° 36' 34.194 W
		Grid Convergence:	0.39 °

Well	#552H - Slot 552H		
Well Position	+N/-S	0.00 usft	Northing: 528,187.70 usft
	+E/-W	0.00 usft	Easting: 764,617.50 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 26' 59.900 N
		Longitude:	103° 36' 34.194 W
		Ground Level:	3,812.00 usft

Wellbore	Aim MWD Surveys				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	5/22/2019	6.67	60.24	48,120.64870000

Design	Aim MWD Surveys				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	359.52	

Survey Program	Date	7/11/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
198.00	18,936.00	Aim MWD Surveys (Aim MWD Surveys)	B001Mb_MWD+HRGM	OWSG MWD + HRGM	

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
198.00	0.84	342.11	197.99	1.38	-0.45	1.38	0.42	0.42	0.00
First Aim MWD Survey									
320.00	0.53	333.67	319.98	2.74	-0.97	2.75	0.27	-0.25	-6.92
412.00	0.44	327.87	411.98	3.42	-1.35	3.43	0.11	-0.10	-6.30
504.00	0.53	325.32	503.98	4.07	-1.78	4.08	0.10	0.10	-2.77
595.00	0.44	289.02	594.97	4.53	-2.35	4.55	0.35	-0.10	-39.89
687.00	2.33	181.53	686.95	2.77	-2.73	2.80	2.71	2.05	-116.84
779.00	1.01	186.28	778.91	0.10	-2.87	0.12	1.44	-1.43	5.16
871.00	1.85	174.59	870.88	-2.19	-2.82	-2.16	0.96	0.91	-12.71
966.00	2.73	179.34	965.80	-5.98	-2.65	-5.95	0.95	0.93	5.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.1 Aim Database

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)
1,060.00	3.21	179.60	1,059.68	-10.85	-2.60	-10.82	0.51	0.51	0.28
1,155.00	3.21	187.77	1,154.53	-16.14	-2.94	-16.12	0.48	0.00	8.60
1,250.00	3.08	182.41	1,249.38	-21.33	-3.41	-21.30	0.34	-0.14	-5.64
1,345.00	3.12	198.15	1,344.25	-26.33	-4.32	-26.30	0.89	0.04	16.57
1,440.00	2.59	207.37	1,439.13	-30.70	-6.12	-30.64	0.74	-0.56	9.71
1,535.00	2.11	214.23	1,534.05	-34.05	-8.09	-33.98	0.58	-0.51	7.22
1,701.00	1.45	244.55	1,699.97	-37.48	-11.70	-37.38	0.68	-0.40	18.27
1,891.00	0.97	45.83	1,889.96	-37.39	-12.72	-37.28	1.26	-0.25	84.88
2,081.00	0.53	23.07	2,079.94	-35.46	-11.22	-35.37	0.28	-0.23	-11.98
2,176.00	0.44	6.19	2,174.94	-34.69	-11.01	-34.60	0.18	-0.09	-17.77
2,270.00	0.35	352.39	2,268.93	-34.05	-11.01	-33.96	0.14	-0.10	-14.68
2,365.00	0.35	355.82	2,363.93	-33.47	-11.07	-33.38	0.02	0.00	3.61
2,460.00	0.40	359.86	2,458.93	-32.85	-11.09	-32.76	0.06	0.05	4.25
2,650.00	0.26	21.57	2,648.93	-31.79	-10.93	-31.70	0.10	-0.07	11.43
2,745.00	0.53	37.83	2,743.92	-31.24	-10.59	-31.15	0.30	0.28	17.12
2,840.00	0.84	50.40	2,838.92	-30.45	-9.78	-30.37	0.36	0.33	13.23
2,935.00	1.05	64.55	2,933.90	-29.63	-8.46	-29.56	0.33	0.22	14.89
3,029.00	1.67	70.00	3,027.88	-28.79	-6.39	-28.74	0.67	0.66	5.80
3,124.00	1.98	75.10	3,122.83	-27.90	-3.51	-27.87	0.37	0.33	5.37
3,219.00	2.37	68.07	3,217.76	-26.74	-0.10	-26.74	0.50	0.41	-7.40
3,314.00	2.81	62.97	3,312.66	-24.95	3.80	-24.98	0.52	0.46	-5.37
3,409.00	1.93	73.08	3,407.58	-23.43	7.40	-23.49	1.02	-0.93	10.64
3,504.00	1.76	88.11	3,502.53	-22.91	10.39	-23.00	0.54	-0.18	15.82
3,599.00	1.80	82.66	3,597.49	-22.67	13.33	-22.79	0.18	0.04	-5.74
3,693.00	1.54	76.07	3,691.45	-22.18	16.02	-22.32	0.34	-0.28	-7.01
3,882.00	1.41	79.05	3,880.39	-21.13	20.77	-21.30	0.08	-0.07	1.58
4,072.00	1.10	79.23	4,070.34	-20.34	24.86	-20.55	0.16	-0.16	0.09
4,262.00	0.57	73.43	4,260.32	-19.73	27.55	-19.96	0.28	-0.28	-3.05
4,357.00	0.48	43.28	4,355.31	-19.31	28.28	-19.55	0.30	-0.09	-31.74
4,452.00	0.62	44.34	4,450.31	-18.65	28.91	-18.89	0.15	0.15	1.12
4,547.00	0.75	43.02	4,545.30	-17.83	29.69	-18.08	0.14	0.14	-1.39
4,737.00	0.22	26.06	4,735.30	-16.59	30.70	-16.85	0.29	-0.28	-8.93
4,831.00	0.31	51.46	4,829.30	-16.27	30.98	-16.53	0.16	0.10	27.02
4,926.00	0.22	101.03	4,924.29	-16.15	31.36	-16.41	0.25	-0.09	52.18
5,021.00	0.57	105.07	5,019.29	-16.30	32.00	-16.57	0.37	0.37	4.25
5,116.00	0.53	114.65	5,114.29	-16.61	32.85	-16.89	0.11	-0.04	10.08
5,211.00	0.79	122.91	5,209.28	-17.15	33.80	-17.43	0.29	0.27	8.69
5,307.00	0.57	116.93	5,305.27	-17.73	34.78	-18.02	0.24	-0.23	-6.23
5,402.00	0.66	149.19	5,400.27	-18.41	35.48	-18.71	0.37	0.09	33.96
5,497.00	0.70	155.78	5,495.26	-19.41	36.00	-19.71	0.09	0.04	6.94
5,592.00	0.26	182.15	5,590.26	-20.15	36.23	-20.46	0.51	-0.46	27.76
5,687.00	0.31	118.69	5,685.26	-20.49	36.45	-20.80	0.32	0.05	-66.80
5,781.00	0.48	147.08	5,779.26	-20.94	36.89	-21.25	0.27	0.18	30.20

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.1 Aim Database

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,876.00	0.44	141.19	5,874.25	-21.56	37.33	-21.87	0.07	-0.04	-6.20
5,971.00	0.44	135.65	5,969.25	-22.11	37.82	-22.42	0.04	0.00	-5.83
6,066.00	0.44	144.27	6,064.25	-22.67	38.28	-22.98	0.07	0.00	9.07
6,161.00	0.48	132.84	6,159.24	-23.23	38.79	-23.56	0.11	0.04	-12.03
6,255.00	0.44	118.96	6,253.24	-23.67	39.39	-24.00	0.13	-0.04	-14.77
6,350.00	0.22	111.57	6,348.24	-23.92	39.88	-24.25	0.24	-0.23	-7.78
6,445.00	0.09	236.55	6,443.24	-24.03	39.99	-24.36	0.30	-0.14	131.56
6,540.00	0.18	143.39	6,538.24	-24.19	40.02	-24.52	0.22	0.09	-98.06
6,635.00	0.31	114.12	6,633.24	-24.41	40.34	-24.75	0.19	0.14	-30.81
6,730.00	0.13	123.00	6,728.24	-24.58	40.66	-24.92	0.19	-0.19	9.35
6,824.00	0.26	155.43	6,822.24	-24.83	40.84	-25.17	0.18	0.14	34.50
6,919.00	0.13	119.04	6,917.24	-25.08	41.03	-25.42	0.18	-0.14	-38.31
7,014.00	0.18	117.20	7,012.24	-25.20	41.25	-25.54	0.05	0.05	-1.94
7,204.00	0.22	60.24	7,202.24	-25.15	41.83	-25.50	0.10	0.02	-29.98
7,298.00	0.48	40.91	7,296.23	-24.76	42.25	-25.12	0.30	0.28	-20.56
7,393.00	0.53	47.68	7,391.23	-24.17	42.83	-24.53	0.08	0.05	7.13
7,488.00	0.44	32.47	7,486.23	-23.56	43.36	-23.93	0.16	-0.09	-16.01
7,583.00	0.26	92.15	7,581.22	-23.26	43.77	-23.63	0.40	-0.19	62.82
7,678.00	0.35	85.12	7,676.22	-23.25	44.27	-23.62	0.10	0.09	-7.40
7,772.00	0.09	62.62	7,770.22	-23.19	44.62	-23.56	0.29	-0.28	-23.94
7,867.00	0.40	36.69	7,865.22	-22.89	44.89	-23.26	0.34	0.33	-27.29
8,057.00	0.31	92.15	8,055.22	-22.38	45.80	-22.76	0.18	-0.05	29.19
8,151.00	0.35	102.61	8,149.22	-22.45	46.33	-22.84	0.08	0.04	11.13
8,246.00	0.40	129.85	8,244.21	-22.73	46.87	-23.12	0.19	0.05	28.67
8,341.00	0.48	135.22	8,339.21	-23.22	47.40	-23.62	0.09	0.08	5.65
8,436.00	0.44	117.55	8,434.21	-23.67	48.01	-24.07	0.15	-0.04	-18.60
8,531.00	0.48	158.33	8,529.21	-24.21	48.48	-24.62	0.34	0.04	42.93
8,626.00	0.40	141.98	8,624.20	-24.84	48.83	-25.25	0.16	-0.08	-17.21
8,721.00	0.57	143.74	8,719.20	-25.48	49.31	-25.90	0.18	0.18	1.85
8,815.00	0.70	180.39	8,813.19	-26.43	49.59	-26.85	0.44	0.14	38.99
9,005.00	0.26	181.71	9,003.19	-28.03	49.56	-28.44	0.23	-0.23	0.69
9,100.00	0.13	222.84	9,098.19	-28.32	49.49	-28.73	0.19	-0.14	43.29
9,195.00	0.31	111.66	9,193.19	-28.49	49.65	-28.91	0.40	0.19	-117.03
9,290.00	0.70	128.10	9,288.18	-28.95	50.35	-29.37	0.43	0.41	17.31
9,385.00	0.57	129.94	9,383.18	-29.61	51.17	-30.04	0.14	-0.14	1.94
9,479.00	0.26	100.76	9,477.17	-29.95	51.73	-30.38	0.39	-0.33	-31.04
9,574.00	0.70	318.38	9,572.17	-29.55	51.56	-29.99	0.97	0.46	-149.87
9,669.00	1.10	290.34	9,667.16	-28.80	50.32	-29.22	0.61	0.42	-29.52
9,764.00	1.89	279.18	9,762.13	-28.24	47.92	-28.64	0.88	0.83	-11.75
9,859.00	1.89	281.20	9,857.08	-27.68	44.83	-28.06	0.07	0.00	2.13
9,954.00	1.71	287.27	9,952.03	-26.96	41.94	-27.31	0.28	-0.19	6.39
10,048.00	1.85	287.88	10,045.98	-26.08	39.16	-26.40	0.15	0.15	0.65
10,143.00	0.88	299.92	10,140.96	-25.24	37.07	-25.55	1.06	-1.02	12.67

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.1 Aim Database

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)
10,238.00	0.84	315.13	10,235.95	-24.38	35.95	-24.68	0.24	-0.04	16.01
10,333.00	0.75	275.84	10,330.94	-23.83	34.84	-24.12	0.57	-0.09	-41.36
10,428.00	0.75	261.51	10,425.93	-23.86	33.60	-24.14	0.20	0.00	-15.08
10,523.00	1.14	273.03	10,520.92	-23.90	32.04	-24.16	0.45	0.41	12.13
10,618.00	1.23	277.42	10,615.90	-23.72	30.09	-23.97	0.13	0.09	4.62
10,739.00	1.14	303.17	10,736.87	-22.89	27.79	-23.12	0.44	-0.07	21.28
10,784.00	8.44	2.06	10,781.69	-19.34	27.54	-19.57	17.58	16.22	130.87
10,834.00	15.03	6.19	10,830.62	-9.21	28.37	-9.45	13.28	13.18	8.26
10,853.00	17.49	4.70	10,848.86	-3.92	28.87	-4.16	13.13	12.95	-7.84
10,882.00	20.26	3.91	10,876.30	5.44	29.57	5.19	9.59	9.55	-2.72
10,928.00	25.05	1.45	10,918.74	23.13	30.36	22.87	10.61	10.41	-5.35
11,023.00	34.95	355.47	11,000.93	70.49	28.71	70.24	10.87	10.42	-6.29
11,118.00	41.85	359.42	11,075.34	129.38	26.24	129.16	7.71	7.26	4.16
11,213.00	47.16	358.46	11,143.07	195.94	24.98	195.72	5.63	5.59	-1.01
11,308.00	54.81	358.11	11,202.83	269.66	22.76	269.46	8.06	8.05	-0.37
11,402.00	62.33	357.67	11,251.82	349.76	19.80	349.58	8.01	8.00	-0.47
11,497.00	73.76	359.69	11,287.28	437.69	17.84	437.53	12.19	12.03	2.13
11,557.00	83.34	2.06	11,299.18	496.42	18.75	496.25	16.43	15.97	3.95
11,592.00	87.96	1.71	11,301.83	531.29	19.90	531.11	13.24	13.20	-1.00
11,686.00	91.74	0.48	11,302.08	625.25	21.70	625.05	4.23	4.02	-1.31
11,780.00	91.74	359.60	11,299.22	719.21	21.76	719.00	0.94	0.00	-0.94
11,875.00	91.91	358.72	11,296.20	814.15	20.37	813.95	0.94	0.18	-0.93
11,969.00	92.09	357.84	11,292.92	908.05	17.55	907.87	0.95	0.19	-0.94
12,064.00	91.38	358.90	11,290.04	1,002.97	14.85	1,002.81	1.34	-0.75	1.12
12,158.00	91.08	358.81	11,288.02	1,096.93	12.97	1,096.78	0.33	-0.32	-0.10
12,252.00	89.41	359.25	11,287.62	1,190.91	11.38	1,190.77	1.84	-1.78	0.47
12,347.00	88.00	359.69	11,289.77	1,285.88	10.50	1,285.74	1.55	-1.48	0.46
12,441.00	86.68	0.22	11,294.13	1,379.77	10.43	1,379.64	1.51	-1.40	0.56
12,536.00	88.57	0.83	11,298.07	1,474.68	11.30	1,474.54	2.09	1.99	0.64
12,631.00	92.62	359.51	11,297.08	1,569.66	11.58	1,569.50	4.48	4.26	-1.39
12,725.00	91.52	359.51	11,293.69	1,663.59	10.78	1,663.44	1.17	-1.17	0.00
12,820.00	91.69	358.55	11,291.02	1,758.54	9.17	1,758.40	1.03	0.18	-1.01
12,914.00	91.56	357.93	11,288.36	1,852.45	6.28	1,852.34	0.67	-0.14	-0.66
13,009.00	90.95	359.07	11,286.28	1,947.40	3.80	1,947.30	1.36	-0.64	1.20
13,103.00	90.64	358.72	11,284.97	2,041.37	1.98	2,041.28	0.50	-0.33	-0.37
13,197.00	91.43	358.37	11,283.28	2,135.32	-0.40	2,135.25	0.92	0.84	-0.37
13,292.00	91.56	358.11	11,280.80	2,230.25	-3.32	2,230.20	0.31	0.14	-0.27
13,387.00	89.27	359.42	11,280.11	2,325.21	-5.37	2,325.18	2.78	-2.41	1.38
13,481.00	88.48	359.95	11,281.95	2,419.19	-5.88	2,419.16	1.01	-0.84	0.56
13,575.00	85.98	0.39	11,286.50	2,513.08	-5.60	2,513.03	2.70	-2.66	0.47
13,670.00	86.86	0.30	11,292.43	2,607.89	-5.03	2,607.84	0.93	0.93	-0.09
13,764.00	87.38	359.78	11,297.15	2,701.77	-4.97	2,701.71	0.78	0.55	-0.55
13,859.00	87.21	359.95	11,301.64	2,796.66	-5.19	2,796.61	0.25	-0.18	0.18
13,953.00	88.22	359.78	11,305.38	2,890.59	-5.41	2,890.53	1.09	1.07	-0.18

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.1 Aim Database

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)	
14,048.00	88.75	359.69	11,307.89	2,985.55	-5.85	2,985.50	0.57	0.56	-0.09	
14,142.00	88.88	359.95	11,309.84	3,079.53	-6.15	3,079.47	0.31	0.14	0.28	
14,237.00	89.54	359.07	11,311.15	3,174.52	-6.96	3,174.46	1.16	0.69	-0.93	
14,331.00	89.45	359.42	11,311.98	3,268.50	-8.20	3,268.46	0.38	-0.10	0.37	
14,426.00	89.05	359.34	11,313.22	3,363.49	-9.23	3,363.45	0.43	-0.42	-0.08	
14,520.00	89.85	358.90	11,314.12	3,457.47	-10.67	3,457.44	0.97	0.85	-0.47	
14,615.00	90.07	358.72	11,314.19	3,552.45	-12.64	3,552.43	0.30	0.23	-0.19	
14,709.00	90.68	358.46	11,313.57	3,646.42	-14.96	3,646.42	0.71	0.65	-0.28	
14,803.00	91.52	358.37	11,311.77	3,740.37	-17.56	3,740.38	0.90	0.89	-0.10	
14,898.00	91.74	358.90	11,309.07	3,835.30	-19.82	3,835.33	0.60	0.23	0.56	
14,992.00	88.31	359.69	11,309.03	3,929.28	-20.97	3,929.32	3.74	-3.65	0.84	
15,087.00	87.65	359.69	11,312.37	4,024.22	-21.49	4,024.26	0.69	-0.69	0.00	
15,181.00	87.38	0.13	11,316.45	4,118.13	-21.64	4,118.17	0.55	-0.29	0.47	
15,276.00	88.00	359.60	11,320.28	4,213.05	-21.86	4,213.09	0.86	0.65	-0.56	
15,370.00	89.98	0.13	11,321.94	4,307.03	-22.08	4,307.07	2.18	2.11	0.56	
15,464.00	91.87	1.01	11,320.42	4,401.01	-21.15	4,401.03	2.22	2.01	0.94	
15,593.00	91.78	0.48	11,316.31	4,529.93	-19.47	4,529.94	0.42	-0.07	-0.41	
15,688.00	90.46	1.18	11,314.45	4,624.90	-18.09	4,624.89	1.57	-1.39	0.74	
15,782.00	88.44	1.09	11,315.36	4,718.88	-16.23	4,718.85	2.15	-2.15	-0.10	
15,876.00	86.55	0.57	11,319.46	4,812.77	-14.87	4,812.73	2.09	-2.01	-0.55	
15,972.00	86.15	1.80	11,325.58	4,908.55	-12.89	4,908.49	1.34	-0.42	1.28	
16,065.00	83.08	0.83	11,334.30	5,001.11	-10.76	5,001.02	3.46	-3.30	-1.04	
16,159.00	81.49	359.69	11,346.92	5,094.25	-10.34	5,094.16	2.07	-1.69	-1.21	
16,254.00	80.57	359.34	11,361.73	5,188.08	-11.13	5,188.00	1.03	-0.97	-0.37	
16,348.00	80.92	359.25	11,376.85	5,280.85	-12.27	5,280.77	0.38	0.37	-0.10	
16,442.00	80.04	358.99	11,392.40	5,373.55	-13.70	5,373.47	0.98	-0.94	-0.28	
16,537.00	82.15	359.16	11,407.10	5,467.38	-15.21	5,467.32	2.23	2.22	0.18	
16,631.00	82.11	359.51	11,419.97	5,560.49	-16.29	5,560.43	0.37	-0.04	0.37	
16,726.00	82.64	359.51	11,432.58	5,654.65	-17.10	5,654.59	0.56	0.56	0.00	
16,821.00	83.47	359.69	11,444.07	5,748.95	-17.76	5,748.90	0.89	0.87	0.19	
16,915.00	86.29	357.84	11,452.46	5,842.54	-19.78	5,842.50	3.58	3.00	-1.97	
17,010.00	89.23	358.46	11,456.17	5,937.40	-22.84	5,937.39	3.16	3.09	0.65	
17,104.00	87.74	359.42	11,458.65	6,031.35	-24.58	6,031.35	1.89	-1.59	1.02	
17,199.00	91.78	358.90	11,459.05	6,126.32	-25.97	6,126.32	4.29	4.25	-0.55	
17,293.00	91.96	358.81	11,455.98	6,220.25	-27.85	6,220.27	0.21	0.19	-0.10	
17,387.00	91.82	358.81	11,452.88	6,314.18	-29.80	6,314.21	0.15	-0.15	0.00	
17,482.00	92.13	358.72	11,449.61	6,409.10	-31.85	6,409.14	0.34	0.33	-0.09	
17,577.00	91.96	358.37	11,446.22	6,504.01	-34.26	6,504.07	0.41	-0.18	-0.37	
17,671.00	91.60	358.11	11,443.30	6,597.92	-37.14	6,598.00	0.47	-0.38	-0.28	
17,766.00	91.96	357.75	11,440.35	6,692.81	-40.57	6,692.92	0.54	0.38	-0.38	
17,860.00	92.13	359.16	11,436.99	6,786.72	-43.11	6,786.84	1.51	0.18	1.50	
17,955.00	91.03	0.48	11,434.38	6,881.68	-43.40	6,881.80	1.81	-1.16	1.39	
18,049.00	89.98	0.30	11,433.55	6,975.67	-42.76	6,975.78	1.13	-1.12	-0.19	

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 552H
Project:	Lea County, New Mexico	TVD Reference:	3812'G+26.5'KB @ 3838.50usft
Site:	Dagger State Com 552H	MD Reference:	3812'G+26.5'KB @ 3838.50usft
Well:	#552H	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.1 Aim Database

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)	
18,144.00	89.80	359.95	11,433.73	7,070.67	-42.56	7,070.78	0.41	-0.19	-0.37	
18,238.00	89.41	359.69	11,434.38	7,164.67	-42.85	7,164.77	0.50	-0.41	-0.28	
18,333.00	89.36	359.51	11,435.40	7,259.66	-43.52	7,259.77	0.20	-0.05	-0.19	
18,427.00	89.23	359.25	11,436.55	7,353.64	-44.53	7,353.76	0.31	-0.14	-0.28	
18,521.00	88.88	359.51	11,438.10	7,447.63	-45.55	7,447.75	0.46	-0.37	0.28	
18,616.00	91.43	359.42	11,437.85	7,542.61	-46.44	7,542.74	2.69	2.68	-0.09	
18,710.00	90.42	359.16	11,436.33	7,636.59	-47.60	7,636.72	1.11	-1.07	-0.28	
18,805.00	90.11	358.90	11,435.89	7,731.58	-49.21	7,731.72	0.43	-0.33	-0.27	
18,868.00	89.05	358.46	11,436.35	7,794.56	-50.66	7,794.71	1.82	-1.68	-0.70	
Last Aim MWD Survey										
18,936.00	89.05	358.46	11,437.48	7,862.53	-52.49	7,862.69	0.00	0.00	0.00	
Projection to BHL										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
198.00	197.99	1.38	-0.45	First Aim MWD Survey	
18,868.00	11,436.35	7,794.56	-50.66	Last Aim MWD Survey	
18,936.00	11,437.48	7,862.53	-52.49	Projection to BHL	



BHA Reports

Dagger State Com #552H (WT-19-085)

2019-05-21 to 2019-07-05

Lea, New Mexico, US (32.45, -103.61)



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

BHA #1 - Surface (Directional)

Motor Details		Date/Depth/Distances	Hours
Size(in)	8.00	Date In	2019-05-22 04:45
Lobe/Stage	7/8, 4.0	Depth In (ft)	140.00
Bend Angle	1.50	Date Out	2019-05-22 21:30
Speed (rev/gal)	0.15	Depth Out (ft)	1628.00
Wear Pad OD (in)	8.250	Distance Slid (ft)	88.00
Incident	No	Distance Rotated (ft)	1400.00
Motor Results		% Distance Sliding	5.91%
Average Total ROP (ft/h)	118.25	% Distance Rotating	94.09%
Average Slide ROP (ft/h)	52.80		
Average Rotating ROP (ft/h)	128.24		

Bit Details		BHA Objective
OD (in)	17.500	Drill Surface to Casing Point
Vendor	HUGHES	

S/N	5300910	POOH Reason/Notes
Nozzles	9 X 12'S	Total Depth/Casing Point
Total Flow Area (in²)	0.944	

MWD		Incident Notes
Max Downhole Temp (°F)	N/A	Directional:
		MWD:

Bit Distances		Comments
Bit To Bend (Bit to Bend): 6.50 ft, Survey (Bit to Survey): 62.00 ft		Directional: 8" 1.50 FBH 7/8 4.0 w/ 12" NBS. Flow Rate : 400-900, Max Diff:900 psi, Max TQ: 14930 ft/lbs. RPG 0.15. Bit 17 1/4" PDC, SN 7041931. Jets 9 x 12's, TFA: .994

Mud Properties		Parameters
Type	Water	Flow Rate (gpm)
WT	9.95	On Bottom Pressure (psi)
VIS	32.00	Off Bottom Pressure (psi)
PV	0.00	Stall Pressure (psi)
YP	0.00	Stalls
		NPT

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 17.5 (DP606S), Style: PDC, Gauge Length (in): 3.50, Size (in): 17.50	HUGHES	5300910	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 4.0 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 4	CONTENDER	80040010	6 5/8" Reg Box	6 5/8" Reg Box		8.000		30.04	31.54
Stabilizer Description: 17" STAB	DR	DR27311	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		6.56	38.10
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	42.02
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	72.79
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	103.39
Crossover Sub Description: X-O 4 1/2 IF BOX x 6 5/8 REG P, Type: Steel	DTI	DR38948	4 1/2" IF Box	6 5/8" Reg Pin	3.125	5.000		4.02	107.41
HWDP Description: 9 Stds HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	933.29





Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

BHA #2 - Intermediate (Directional)

Motor Details		Date/Depth/Distances	Hours
Size(in)	8.00	Date In	2019-05-23 17:00
Lobe/Stage	7/8, 5.9	Depth In (ft)	1628.00
Bend Angle	1.50	Date Out	2019-05-24 19:30
Speed (rev/gal)	0.17	Depth Out (ft)	3949.00
Wear Pad OD (in)	8.250	Distance Slid (ft)	45.00
Incident	No	Distance Rotated (ft)	2276.00
Motor Results		% Distance Sliding	1.94%
Average Total ROP (ft/h)	170.87	% Distance Rotating	98.06%
Average Slide ROP (ft/h)	90.00		
Average Rotating ROP (ft/h)	173.96		

BHA Objective
DRILL INTERMEDIATE

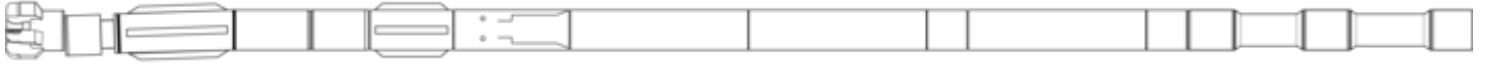
Bit Details		POOH Reason/Notes
OD (in)	12.250	
Vendor	HUGHES	
S/N	5286596	MWD Incident
Nozzles	6 X 12'S	
Total Flow Area (in²)	0.633	

MWD		Incident Notes
Max Downhole Temp (°F)	N/A	Directional: MWD quit pulsing
		MWD:

Bit Distances		Comments
Bit To Bend: 5.20 ft, Survey: 67.00 ft		Directional: 8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:890 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" PDC, SN 528696. Jets 6 x 12's, TFA: .663

Mud Properties		Parameters
Type	Brine	Flow Rate (gpm)
WT	8.40	On Bottom Pressure (psi)
VIS	31.00	Off Bottom Pressure (psi)
PV	1.00	Stall Pressure (psi)
YP	3.00	Stalls
		NPT

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 12.25 (D606X), Style: PDC, Gauge Length (in): 3.00, Size (in): 12.25	HUGHES	5286596	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 5.9 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	DYNOMAX	DM80035	6 5/8" Reg Box	6 5/8" Reg Box		8.000		36.58	38.08
Stabilizer Description: 12" STAB	DR	DR41352	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		5.55	43.63
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	47.55
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	78.32
Drill Collar Description: 8 " NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	108.92
Crossover Sub Description: X-O 4 1/2 XH BOX x 6 5/8 REG P, Type: Steel	DTI	DR39819	4 1/2" XH Box	6 5/8" Reg Pin	2.785	5.000		4.02	112.94
Drill Collar Description: 5 STANDS 6 1/2 DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.250	6.500		448.34	561.28
Crossover Sub Description: X-O 4 1/2 IF B X 4 1/2 XH P, Type: Steel	DR	DR23523	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.250		2.37	563.65
HWDP Description: 9 Stds HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	1389.53





Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

BHA #3 - Intermediate (Directional)

Motor Details		Date/Depth/Distances	Hours
Size(in)	8.00	Date In	2019-05-24 21:30
Lobe/Stage	7/8, 5.9	Depth In (ft)	3949.00
Bend Angle	1.50	Date Out	2019-05-25 13:30
Speed (rev/gal)	0.17	Depth Out (ft)	5145.00
Wear Pad OD (in)	8.250	Distance Slid (ft)	0.00
Incident	No	Distance Rotated (ft)	1196.00
Motor Results		% Distance Sliding	0.00%
Average Total ROP (ft/h)	163.09	% Distance Rotating	100.00%
Average Slide ROP (ft/h)	0.00		
Average Rotating ROP (ft/h)	163.09		

BHA Objective
Drill Intermediate to casing point

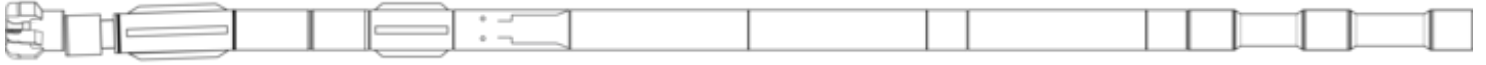
Bit Details		POOH Reason/Notes
OD (in)	12.250	
Vendor	HUGHES	
S/N	7163483	Penetration Rate
Nozzles	6 X 12'S	
Total Flow Area (in²)	0.633	

MWD		Incident Notes
Max Downhole Temp (°F)	N/A	Directional:
		MWD:

Bit Distances		Comments
Bit To Bend: 5.20 ft, Survey: 67.00 ft		Directional: 8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:1330 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" T806FX, SN 7163483. Jets 6 x 12's, TFA: .663

Mud Properties		Parameters	
Type	Brine	Flow Rate (gpm)	715.00 - 900.00
WT	9.40	On Bottom Pressure (psi)	3650.00 - 5150.00
VIS	32.00	Off Bottom Pressure (psi)	2900.00 - 3900.00
PV	1.00	Stall Pressure (psi)	0.00
YP	3.00	Stalls	0
		NPT	0.0

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 12.25 (T806FX), Style: PDC, Gauge Length (in): 3.00, Size (in): 12.25	HUGHES	7163483	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 5.9 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	DYNOMAX	DM80035	6 5/8" Reg Box	6 5/8" Reg Box		8.000		36.58	38.08
Stabilizer Description: 12" STAB	DR	DR41352	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		5.55	43.63
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	47.55
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	78.32
Drill Collar Description: 8 " NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	108.92
Crossover Sub Description: X-O 4 1/2 XH BOX x 6 5/8 REG P, Type: Steel	DTI	DR39819	4 1/2" XH Box	6 5/8" Reg Pin	2.785	5.000		4.02	112.94
Drill Collar Description: 5 STANDS 6 1/2 DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.250	6.500		448.34	561.28
Crossover Sub Description: X-O 4 1/2 IF B X 4 1/2 XH P, Type: Steel	DR	DR23523	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.250		2.37	563.65
HWDP Description: 9 Stds HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	1389.53





Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

BHA #4 - Intermediate (Directional)

Motor Details		Date/Depth/Distances	Hours
Size(in)	8.00	Date In	2019-05-25 13:30
Lobe/Stage	7/8, 5.9	Depth In (ft)	5145.00
Bend Angle	1.50	Date Out	2019-05-25 23:00
Speed (rev/gal)	0.17	Depth Out (ft)	5315.00
Wear Pad OD (in)	8.250	Distance Slid (ft)	0.00
Incident	No	Distance Rotated (ft)	170.00
Motor Results		% Distance Sliding	0.00%
Average Total ROP (ft/h)	127.50	% Distance Rotating	100.00%
Average Slide ROP (ft/h)	0.00		
Average Rotating ROP (ft/h)	127.50		

BHA Objective
Finish drilling intermediate to casing point

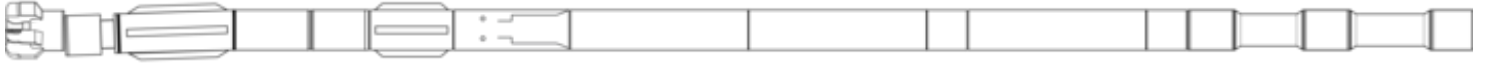
Bit Details		POOH Reason/Notes
OD (in)	12.250	
Vendor	HUGHES	
S/N	5287917	Total Depth/Casing Point
Nozzles	6 X 12'S	
Total Flow Area (in²)	0.633	

MWD		Incident Notes
Max Downhole Temp (°F)	N/A	Directional:
		MWD:

Bit Distances		Comments
Bit To Bend: 5.20 ft, Survey: 67.00 ft		Directional: 8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:1330 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" D606X, SN 5287917. Jets 6 x 12's, TFA: .663

Mud Properties		Parameters	
Type	Brine	Flow Rate (gpm)	715.00 - 715.00
WT	9.40	On Bottom Pressure (psi)	3650.00 - 3650.00
VIS	32.00	Off Bottom Pressure (psi)	2900.00 - 2900.00
PV	1.00	Stall Pressure (psi)	0.00
YP	3.00	Stalls	0
		NPT	0.0

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 12.25 (D606X), Style: PDC, Gauge Length (in): 3.00, Size (in): 12.25	HUGHES	5287917	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 5.9 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	DYNOMAX	DM80035	6 5/8" Reg Box	6 5/8" Reg Box		8.000		36.58	38.08
Stabilizer Description: 12" STAB	DR	DR41352	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		5.55	43.63
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	47.55
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	78.32
Drill Collar Description: 8 " NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	108.92
Crossover Sub Description: X-O 4 1/2 XH BOX x 6 5/8 REG P, Type: Steel	DTI	DR39819	4 1/2" XH Box	6 5/8" Reg Pin	2.785	5.000		4.02	112.94
Drill Collar Description: 5 STANDS 6 1/2 DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.250	6.500		448.34	561.28
Crossover Sub Description: X-O 4 1/2 IF B X 4 1/2 XH P, Type: Steel	DR	DR23523	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.250		2.37	563.65
HWDP Description: 9 Stds HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	1389.53





Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

BHA #5 - Intermediate (Directional)

Motor Details		Date/Depth/Distances	Hours
Size(in)	7.00	Date In	2019-06-11 08:00
Lobe/Stage	6/7, 8.4	Depth In (ft)	5315.00
Bend Angle	1.50	Date Out	2019-06-13 21:00
Speed (rev/gal)	0.30	Depth Out (ft)	10722.00
Wear Pad OD (in)	7.430	Distance Slid (ft)	33.00
Incident	No	Distance Rotated (ft)	5374.00
Motor Results		% Distance Sliding	0.61%
Average Total ROP (ft/h)	131.88	% Distance Rotating	99.39%
Average Slide ROP (ft/h)	28.29		
Average Rotating ROP (ft/h)	134.91		

BHA Objective
Drill intermediate to KOP

Bit Details		POOH Reason/Notes
OD (in)	8.500	
Vendor	SECURITY	
S/N	13266539	Total Depth/Casing Point
Nozzles	6-15's	
Total Flow Area (in²)	1.035	

MWD		Incident Notes
Max Downhole Temp (°F)	N/A	Directional:
		MWD:

Bit Distances		Comments
Bit To Survey (BIT TO SURVEY): 60.00 ft, Gamma		Directional: 7" RUBICON 6/7, 8.4 FXD @ 1.5° w/ 8 1/4" NBS FLOW RATE: 350-750 MAX DIFF: 1980psi MAX
(Bit to Gamma): 45.00 ft		TQ:16,550 ft/lbs. RPG: 0.30 BIT: MM65DRM SN: 13266539 JETS: 6-15's TFA: 1.035

Mud Properties		Parameters
Type	Brine	Flow Rate (gpm)
WT	9.50	On Bottom Pressure (psi)
VIS	30.00	Off Bottom Pressure (psi)
PV	1.00	Stall Pressure (psi)
YP	3.00	Stalls
		NPT

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" SECURITY MM65DRM, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	SECURITY	13266539	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" RUBICON 6/7, 8.4 FXD @ 1.5° w/ 8 1/4" NBS, Size (in): 7.00, Bend Angle (°): 1.5, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 8.4	AIM	7036	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.72
Stabilizer Description: 8 1/4" IB STABILIZER	DR	DR39040	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		5.70	39.42
UBHO Sub Description: UBHO, Type: NM	DR	DR35417	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		2.75	42.17
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR24901	4 1/2" IF Box	4 1/2" IF Pin	3.562	6.700		30.15	72.32
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40059	4 1/2" IF Box	4 1/2" IF Pin	3.562	6.820		31.33	103.65
Crossover Sub Description: CROSSOVER SUB, Type: Steel	DR	DR12783	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.440		2.49	106.14
Drill Collar Description: 4 STANDS 6.5" DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		357.08	463.22
Crossover Sub Description: CROSSOVER SUB, Type: Steel	DR	DR41205	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.500		2.51	465.73
HWDP Description: 8 STANDS 5" HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		734.40	1200.13





Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

BHA #6 - CURVE (Directional)

Motor Details		Date/Depth/Distances	Hours
Size(in)	7.00	Date In	2019-06-25 02:30
Lobe/Stage	7/8, 8.5	Depth In (ft)	10722.00
Bend Angle	2.12	Date Out	2019-06-25 23:00
Speed (rev/gal)	0.26	Depth Out (ft)	10853.00
Wear Pad OD (in)	7.250	Distance Slid (ft)	111.00
Incident	Yes	Distance Rotated (ft)	20.00
Motor Results		% Distance Sliding	84.73%
Average Total ROP (ft/h)	17.66	% Distance Rotating	15.27%
Average Slide ROP (ft/h)	15.86		
Average Rotating ROP (ft/h)	48.00		

BHA Objective
DRILL CURVE

Bit Details		POOH Reason/Notes
OD (in)	8.500	Change Bottom Hole Assembly: POOH for motor
Vendor	SECURITY	
S/N	13184323	
Nozzles	6-20's	
Total Flow Area (in²)	1.841	

MWD		Incident Notes
Max Downhole Temp (°F)	N/A	Directional: Motor hanging up. Stalling. Gained 600 psi off bottom pressure. Bit had 2 jets plugged with rubber and metal shavings
		MWD:

Bit Distances		Comments
Bit To Bend: 4.85 ft, Survey (Bit to Survey): 69.00 ft, Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 45.00 ft		Directional: 7" SINPER 7/8, 8.5 FXD @ 2.12° w/ SS FLOW RATE: 350-750 MAX DIFF: 1910psi MAX TQ:18,710 ft/lbs. RPG: 0.26 BIT: GTD64C SN: 13184323 JETS: 6-20's TFA: 1.841

Mud Properties		Parameters
Type	Oil Based	Flow Rate (gpm)
WT	9.20	On Bottom Pressure (psi)
VIS	0.00	Off Bottom Pressure (psi)
PV	0.00	Stall Pressure (psi)
YP	0.00	Stalls
		NPT

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" SECURITY GTD64C, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	SECURITY	13184323	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" SINPER 7/8, 8.5 FXD @ 2.12° w/ SS, Size (in): 7.00, Bend Angle (°): 2.12, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SINPER	DR70003	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	68.14
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	4500-744B-1	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.500		17.50	85.64
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	116.79
Drill Pipe Description: 12 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		1138.14	1254.93
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	1989.33





Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

BHA #7 - Curve 2 (Directional)

Motor Details		Date/Depth/Distances	Hours
Size(in)	6.75	Date In	2019-06-26 00:45
Lobe/Stage	7/8, 5.7	Depth In (ft)	10853.00
Bend Angle	2.12	Date Out	2019-06-27 02:15
Speed (rev/gal)	0.21	Depth Out (ft)	11625.00
Wear Pad OD (in)	7.000	Distance Slid (ft)	583.00
Incident	No	Distance Rotated (ft)	189.00
Motor Results		% Distance Sliding	75.52%
Average Total ROP (ft/h)	56.15	% Distance Rotating	24.48%
Average Slide ROP (ft/h)	51.82		
Average Rotating ROP (ft/h)	75.60		

Bit Details		BHA Objective
OD (in)	8.500	Drill Curve
Vendor	SECURITY	

S/N	13243076	POOH Reason/Notes
Nozzles	6-20's	Change Bottom Hole Assembly: none
Total Flow Area (in²)	1.841	

MWD		Incident Notes
Max Downhole Temp (°F)	N/A	Directional: none
		MWD:

Bit Distances		Comments
Bit To Bend: 4.00 ft, Survey (Bit to Survey): 68.00 ft, Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 44.00 ft		Directional: 6 3/4" Contender 7/8, 5.7 FXD @ 2.12° w/ SS FLOW RATE: 300-600 MAX DIFF: 1280 psi MAX TQ:13,720 ft/lbs. RPG: 0.21 BIT: (0 runs) GTD64C SN: 13243076 JETS: 6-20's TFA: 1.841

Mud Properties		Parameters
Type	Oil Based	Flow Rate (gpm)
WT	9.30	On Bottom Pressure (psi)
VIS	58.00	Off Bottom Pressure (psi)
PV	0.00	Stall Pressure (psi)
YP	0.00	Stalls
		NPT

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" SECURITY GTD64C, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	SECURITY	13243076	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 6 3/4" Contender 7/8, 5.7 FXD @ 2.12° w/ SS, Size (in): 6.75, Bend Angle (°): 2.12, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.7	AIM	650010AIM	4 1/2" IF Box	4 1/2" Reg Box		6.750		31.63	32.63
Float Sub Description: Float Sub, Type: Steel	DR	DR9145	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.750		2.65	35.28
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	66.83
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	4500-744B-1	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.500		17.50	84.33
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	115.48
Drill Pipe Description: 12 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		1138.14	1253.62
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	1988.02





Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

BHA #8 - Lateral (Directional)

Motor Details		Date/Depth/Distances	Hours
Size(in)	7.00	Date In	2019-06-27 02:15
Lobe/Stage	7/8, 8.5	Depth In (ft)	11625.00
Bend Angle	1.75	Date Out	2019-06-27 19:00
Speed (rev/gal)	0.26	Depth Out (ft)	12325.00
Wear Pad OD (in)	7.250	Distance Slid (ft)	45.00
Incident	Yes	Distance Rotated (ft)	655.00
Motor Results		% Distance Sliding	6.43%
Average Total ROP (ft/h)	221.05	% Distance Rotating	93.57%
Average Slide ROP (ft/h)	67.50		
Average Rotating ROP (ft/h)	262.00		

Bit Details		BHA Objective
OD (in)	8.500	DRILL 8 1/2" LATERAL
Vendor	REED	

S/N	A256218	POOH Reason/Notes
Nozzles	6-20's	Pressure Spike: While drilling ahead noticed PSI increased. Pulled off bottom and PSI didn't bleed off. Attempted to drill but PSI kept increasing. POOH to inspect BHA components
Total Flow Area (in²)	1.841	

MWD		Incident Notes
Max Downhole Temp (°F)	N/A	Directional: At surface motor felt tighter than expected. Heard Clunking noises in Tranny. Found rubber in bit.
		MWD:

Bit Distances		Comments
Bit To Bend: 4.00 ft, Survey (Bit to Survey): 71.00 ft, Resistivity (Bit to Resistivity): 57.00 ft, Gamma (Bit to Gamma): 47.00 ft		Directional: 7" IPS 7/8, 8.5 FXD @ 1.75° w/ SS Size (in): 7.00 Bend Angle (°): 1.75 Rotor Lobe: 7 Stator Lobe: 8 Stator Stage: 8.50 Flow Rate: 300-750, Max Diff: 1910, Max Torque: 18,710, RPG: 0.26 Bit: (0 Runs)

Mud Properties		Parameters
Type	Oil Based	Flow Rate (gpm)
WT	9.30	On Bottom Pressure (psi)
VIS	58.00	Off Bottom Pressure (psi)
PV	0.00	Stall Pressure (psi)
YP	0.00	Stalls
		NPT

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" REED SKC616M, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	REED	A256218	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" IPS 7/8, 8.5 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	IPS	IPS7004	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.94	35.94
Float Sub Description: Float Sub, Type: Steel	DR	DR9145	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.750		2.65	38.59
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	70.14
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	87.63
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	118.78
Drill Pipe Description: 88 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		8345.23	8464.01
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9198.41





Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

BHA #9 - LATERAL (Directional)

Motor Details		Date/Depth/Distances	Hours
Size(in)	7.00	Date In	2019-06-27 19:00
Lobe/Stage	7/8, 8.5	Depth In (ft)	12325.00
Bend Angle	1.75	Date Out	2019-06-30 06:15
Speed (rev/gal)	0.26	Depth Out (ft)	15582.00
Wear Pad OD (in)	7.330	Distance Slid (ft)	218.00
Incident	No	Distance Rotated (ft)	3039.00
Motor Results		% Distance Sliding	6.69%
Average Total ROP (ft/h)	71.06	% Distance Rotating	93.31%
Average Slide ROP (ft/h)	21.80		
Average Rotating ROP (ft/h)	84.81		

BHA Objective
DRILL 8 1/2" LATERAL

Bit Details		POOH Reason/Notes
OD (in)	8.500	Penetration Rate: POOH FOR LOW ROP
Vendor	Security	
S/N	13133077	
Nozzles	6-20's	
Total Flow Area (in²)	1.841	

MWD		Incident Notes
Max Downhole Temp (°F)	N/A	Directional: BIT IS DBR
		MWD:

Bit Distances		Comments
Bit To Bend: 4.41 ft, Survey (Bit to Survey): 69.00 ft, Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 45.00 ft		Directional: Flow Rate: 300-750, Max Diff: 1910, Max Torque: 18,710, Bit: (1 Run)

Mud Properties		Parameters
Type	Oil Based	Flow Rate (gpm)
WT	9.30	On Bottom Pressure (psi)
VIS	49.00	Off Bottom Pressure (psi)
PV	0.00	Stall Pressure (psi)
YP	0.00	Stalls
		NPT

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Security MM65DRM, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Security	13133077	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" SNIPER: 7/8, 8.5 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SNIPER	DR70001	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	68.14
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	85.63
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	116.78
Drill Pipe Description: 88 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		8345.23	8462.01
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9196.41





Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

BHA #10 - Lateral (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	Date In	2019-06-30 06:15	Downhole Hours	85.50
Lobe/Stage	6/7, 8.4	Depth In (ft)	15582.00	Drilling/Circulating Hours	55.00
Bend Angle	1.75	Date Out	2019-07-03 19:45	Drilling Hours	50.17
Speed (rev/gal)	0.30	Depth Out (ft)	18936.00	Circulating Hours	4.83
Wear Pad OD (in)	7.420	Distance Slid (ft)	372.00	Sliding Hours	12.25
Incident	No	Distance Rotated (ft)	2982.00	Rotating Hours	37.92
Motor Results		% Distance Sliding	11.09%	% Hours Sliding	24.42%
Average Total ROP (ft/h)	66.86	% Distance Rotating	88.91%	% Hours Rotating	75.58%
Average Slide ROP (ft/h)	30.37	BHA Objective			
Average Rotating ROP (ft/h)	78.65	Drill Lateral to TD			

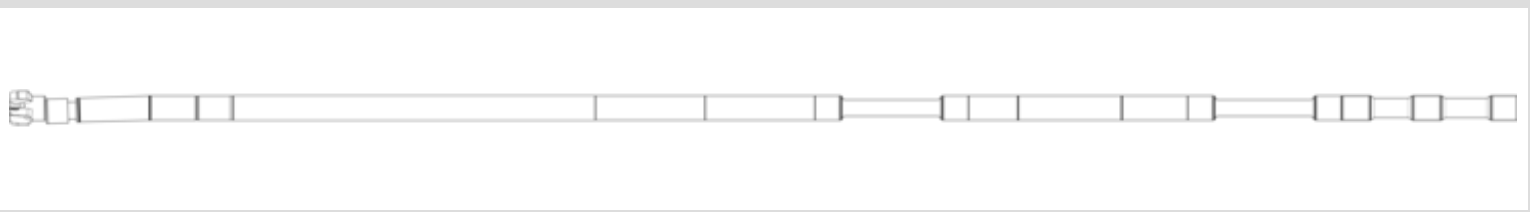
Bit Details		POOH Reason/Notes	
OD (in)	8.500	Total Depth/Casing Point: Well TD as planned	
Vendor	Baker Hughes		
S/N	5292993		
Nozzles	6-22's		
Total Flow Area (in²)	2.227		

MWD		Incident Notes	
Max Downhole Temp (°F)	N/A	Directional:	
		MWD:	

Bit Distances		Comments	
Bit To Bend: 5.36 ft, Survey (Bit to Survey): 68.00 ft, Resistivity (Bit to Resistivity): 54.00 ft, Gamma (Bit to Gamma): 44.00 ft		Directional: Directional: 7" 6/7, 8.4 FXD @ 1.75° w/ SS Size (in): 7.00 Bend Angle (°): 1.75 Rotor Lobe: 6 Stator Lobe: 7 Stator Stage: 8.40 Flow Rate: 300-750, Max Diff: 1980, Max Torque: 16,550, RPG: 0.30 Bit: (0 Runs)	

Mud Properties		Parameters	
Type	Oil Based	Flow Rate (gpm)	624.00 - 728.00
WT	9.30	On Bottom Pressure (psi)	4650.00 - 5450.00
VIS	49.00	Off Bottom Pressure (psi)	4450.00 - 5100.00
PV	0.00	Stall Pressure (psi)	0.00
YP	0.00	Stalls	0
		NPT	0.0

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Baker DD506TWX, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Baker Hughes	5292993	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" 6/7, 8.4 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 8.4	Aim	700-40-004	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.08	35.08
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	66.63
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	84.12
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	115.27
Drill Pipe Description: 30 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		2845.38	2960.65
Agitator Description: Agitator, Size (in): 6.50	Rubicon	Agitator	4 1/2" IF Box	4 1/2" IF Pin		6.500		34.67	2995.32
Drill Pipe Description: 58 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		5499.85	8495.17
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9229.57





Mud Motor Reports

Dagger State Com #552H (WT-19-085)

2019-05-21 to 2019-07-05

Lea, New Mexico, US (32.45, -103.61)



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Mud Motor Report - BHA 1 (Surface)

Motor Details		Date/Depth/Distances		Hours	
S/N	80040010	Date In	2019-05-22 04:45	Downhole Hours	16.75
Size (in)	8.0	Depth In (ft)	140.00	Drilling/Circulating Hours	13.50
Lobe/Stage	7/8, 4.00	Date Out	2019-05-22 21:30		
Bend Angle	1.5	Depth Out (ft)	1628.00	Circulating Hours	0.92
Speed (rev/gal)	0.15	Total Drilled (ft)	1488.00	Drilling Hours	12.58
Wear Pad OD (in)	8.250	Distance Slid (ft)	88.00	Sliding Hours	1.67
Manufacturer	N/A	Distance Rotated (ft)	1400.00	Rotating Hours	10.92
Motor Results		% Distance Sliding	5.91%	% Hours Rotating	86.75%
Motor Incident	No	% Distance Rotating	94.09%	% Hours Sliding	13.25%
Average Total ROP (ft/h)	118.25	BHA Parameters			
Average Slide ROP (ft/h)	52.80	Flow Rate (gpm)	550.00 - 805.00	Motor RPM	50.00 - 75.00
Average Rotating ROP (ft/h)	128.24	Stalls	0	Surface RPM	50.00 - 75.00
Bit Details		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	15.00 - 35.00
OD (in)	17.500	On Bottom Pressure (psi)	1250.00 - 2200.00	Sliding WOB (klbs)	15.00 - 15.00
Vendor	HUGHES	Off Bottom Pressure (psi)	800.00 - 1400.00	Temp (°F)	71.00 - 104.00
S/N	5300910	NPT	0.0		
Nozzles	9 X 12'S	BHA Objective			
Total Flow Area (in²)	0.944	Drill Surface to Casing Point			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 6.50 ft, Survey (Bit to Survey): 62.00 ft					
Mud Properties					
Type	Water				
WT	9.95				
VIS	32.00				
PV	0.00				
YP	0.00				
POOH Reason/Notes					
Total Depth/Casing Point					
Incident Notes					
Directional:					
MWD:					
Comments					
Directional: 8" 1.50 FBH 7/8 4.0 w/ 12" NBS. Flow Rate : 400-900, Max Diff:900 psi, Max TQ: 14930 ft/lbs. RPG 0.15. Bit 17 1/4" PDC, SN 7041931. Jets 9 x 12's, TFA: .994					
MWD:					



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Mud Motor Report - BHA 2 (Intermediate)

Motor Details		Date/Depth/Distances	Hours
S/N	DM80035	Date In	2019-05-23 17:00
Size (in)	8.0	Depth In (ft)	1628.00
Lobe/Stage	7/8, 5.90	Date Out	2019-05-24 19:30
Bend Angle	1.5	Depth Out (ft)	3949.00
Speed (rev/gal)	0.17	Total Drilled (ft)	2321.00
Wear Pad OD (in)	8.250	Distance Slid (ft)	45.00
Manufacturer	N/A	Distance Rotated (ft)	2276.00
Motor Results		% Distance Sliding	1.94%
Motor Incident	No	% Distance Rotating	98.06%
Average Total ROP (ft/h)	170.87		
Average Slide ROP (ft/h)	90.00		
Average Rotating ROP (ft/h)	173.96		
Bit Details			
OD (in)	12.250	On Bottom Pressure (psi)	2100.00 - 4250.00
Vendor	HUGHES	Off Bottom Pressure (psi)	1700.00 - 3800.00
S/N	5286596	NPT	0.5
Nozzles	6 X 12'S		
Total Flow Area (in²)	0.633		
Bit Type	PDC		
Bit Distances			
Bend: 5.20 ft, Survey: 67.00 ft			
Mud Properties			
Type	Brine		
WT	8.40		
VIS	31.00		
PV	1.00		
YP	3.00		
POOH Reason/Notes			
MWD Incident			
Incident Notes			
Directional: MWD quit pulsing			
MWD:			
Comments			
Directional: 8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:890 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" PDC, SN 528696. Jets 6 x 12's, TFA: .663			
MWD: POOH for MWD flatline. OOS for catastrophic shock submitted prior.			



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Mud Motor Report - BHA 3 (Intermediate)

Motor Details		Date/Depth/Distances	Hours
S/N	DM80035	Date In	2019-05-24 21:30
Size (in)	8.0	Depth In (ft)	3949.00
Lobe/Stage	7/8, 5.90	Date Out	2019-05-25 13:30
Bend Angle	1.5	Depth Out (ft)	5145.00
Speed (rev/gal)	0.17	Total Drilled (ft)	1196.00
Wear Pad OD (in)	8.250	Distance Slid (ft)	0.00
Manufacturer	N/A	Distance Rotated (ft)	1196.00
Motor Results		% Distance Sliding	0.00%
Motor Incident	No	% Distance Rotating	100.00%
Average Total ROP (ft/h)	163.09		
Average Slide ROP (ft/h)	0.00		
Average Rotating ROP (ft/h)	163.09		
Bit Details			
OD (in)	12.250	On Bottom Pressure (psi)	3650.00 - 5150.00
Vendor	HUGHES	Off Bottom Pressure (psi)	2900.00 - 3900.00
S/N	7163483	NPT	0.0
Nozzles	6 X 12'S		
Total Flow Area (in²)	0.633		
Bit Type	PDC		
Bit Distances			
Bend: 5.20 ft, Survey: 67.00 ft			
Mud Properties			
Type	Brine		
WT	9.40		
VIS	32.00		
PV	1.00		
YP	3.00		
POOH Reason/Notes			
Penetration Rate			
Incident Notes			
Directional:			
MWD:			
Comments			
Directional: 8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:1330 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" T806FX, SN 7163483. Jets 6 x 12's, TFA: .663			
MWD:			



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Mud Motor Report - BHA 4 (Intermediate)

Motor Details		Date/Depth/Distances		Hours	
S/N	DM80035	Date In	2019-05-25 13:30	Downhole Hours	9.50
Size (in)	8.0	Depth In (ft)	5145.00	Drilling/Circulating Hours	2.50
Lobe/Stage	7/8, 5.90	Date Out	2019-05-25 23:00		
Bend Angle	1.5	Depth Out (ft)	5315.00	Circulating Hours	1.17
Speed (rev/gal)	0.17	Total Drilled (ft)	170.00	Drilling Hours	1.33
Wear Pad OD (in)	8.250	Distance Slid (ft)	0.00	Sliding Hours	0.00
Manufacturer	N/A	Distance Rotated (ft)	170.00	Rotating Hours	1.33
Motor Results		% Distance Sliding	0.00%	% Hours Rotating	100.00%
Motor Incident	No	% Distance Rotating	100.00%	% Hours Sliding	0.00%
Average Total ROP (ft/h)	127.50	BHA Parameters			
Average Slide ROP (ft/h)	0.00	Flow Rate (gpm)	715.00 - 715.00	Motor RPM	80.00 - 80.00
Average Rotating ROP (ft/h)	127.50	Stalls	0	Surface RPM	80.00 - 80.00
Bit Details		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	45.00 - 45.00
OD (in)	12.250	On Bottom Pressure (psi)	3650.00 - 3650.00	Sliding WOB (klbs)	0.00 - 0.00
Vendor	HUGHES	Off Bottom Pressure (psi)	2900.00 - 2900.00	Temp (°F)	113.00 - 113.00
S/N	5287917	NPT	0.0		
Nozzles	6 X 12'S	BHA Objective			
Total Flow Area (in²)	0.633	Finish drilling intermediate to casing point			
Bit Type	PDC				
Bit Distances					
Bend: 5.20 ft, Survey: 67.00 ft					
Mud Properties					
Type	Brine				
WT	9.40				
VIS	32.00				
PV	1.00				
YP	3.00				
POOH Reason/Notes					
Total Depth/Casing Point					
Incident Notes					
Directional:					
MWD:					
Comments					
Directional: 8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:1330 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" D606X, SN 5287917. Jets 6 x 12's, TFA: .663					
MWD:					



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Mud Motor Report - BHA 5 (Intermediate)

Motor Details		Date/Depth/Distances		Hours	
S/N	7036	Date In	2019-06-11 08:00	Downhole Hours	61.00
Size (in)	7.0	Depth In (ft)	5315.00	Drilling/Circulating Hours	42.83
Lobe/Stage	6/7, 8.40	Date Out	2019-06-13 21:00		
Bend Angle	1.5	Depth Out (ft)	10722.00	Circulating Hours	1.83
Speed (rev/gal)	0.30	Total Drilled (ft)	5407.00	Drilling Hours	41.00
Wear Pad OD (in)	7.430	Distance Slid (ft)	33.00	Sliding Hours	1.17
Manufacturer	N/A	Distance Rotated (ft)	5374.00	Rotating Hours	39.83
Motor Results		% Distance Sliding	0.61%	% Hours Rotating	97.15%
Motor Incident	No	% Distance Rotating	99.39%	% Hours Sliding	2.85%
Average Total ROP (ft/h)	131.88	BHA Parameters			
Average Slide ROP (ft/h)	28.29	Flow Rate (gpm)	645.00 - 713.00	Motor RPM	40.00 - 40.00
Average Rotating ROP (ft/h)	134.91	Stalls	0	Surface RPM	40.00 - 40.00
Bit Details		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	40.00 - 40.00
OD (in)	8.500	On Bottom Pressure (psi)	2700.00 - 3300.00	Sliding WOB (klbs)	25.00 - 25.00
Vendor	SECURITY	Off Bottom Pressure (psi)	2250.00 - 2800.00	Temp (°F)	-0.00 - -0.00
S/N	13266539	NPT	0.0		
Nozzles	6-15's	BHA Objective			
Total Flow Area (in²)	1.035	Drill intermediate to KOP			
Bit Type	PDC				
Bit Distances					
Survey (BIT TO SURVEY): 60.00 ft, Gamma (Bit to Gamma): 45.00 ft					
Mud Properties					
Type	Brine				
WT	9.50				
VIS	30.00				
PV	1.00				
YP	3.00				
POOH Reason/Notes					
Total Depth/Casing Point					
Incident Notes					
Directional:					
MWD:					
Comments					
Directional: 7" RUBICON 6/7, 8.4 FXD @ 1.5° w/ 8 1/4" NBS FLOW RATE: 350-750 MAX DIFF: 1980psi MAX TQ:16,550 ft/lbs. RPG: 0.30 BIT: MM65DRM SN: 13266539 JETS: 6-15's TFA: 1.035					
MWD:					



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Mud Motor Report - BHA 6 (CURVE)

Motor Details		Date/Depth/Distances	Hours
S/N	DR70003	Date In	2019-06-25 02:30
Size (in)	7.0	Depth In (ft)	10722.00
Lobe/Stage	7/8, 8.50	Date Out	2019-06-25 23:00
Bend Angle	2.12	Depth Out (ft)	10853.00
Speed (rev/gal)	0.26	Total Drilled (ft)	131.00
Wear Pad OD (in)	7.250	Distance Slid (ft)	111.00
Manufacturer	N/A	Distance Rotated (ft)	20.00
Motor Results		% Distance Sliding	84.73%
Motor Incident	Yes	% Distance Rotating	15.27%
Average Total ROP (ft/h)	17.66		
Average Slide ROP (ft/h)	15.86		
Average Rotating ROP (ft/h)	48.00		
Bit Details			
OD (in)	8.500		
Vendor	SECURITY		
S/N	13184323		
Nozzles	6-20's		
Total Flow Area (in ²)	1.841		
Bit Type	PDC		
Bit Distances			
Bend: 4.85 ft, Survey (Bit to Survey): 69.00 ft, Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 45.00 ft			
Mud Properties			
Type	Oil Based		
WT	9.20		
VIS	0.00		
PV	0.00		
YP	0.00		
POOH Reason/Notes			
Change Bottom Hole Assembly: POOH for motor			
Incident Notes			
Directional: Motor hanging up. Stalling. Gained 600 psi off bottom pressure. Bit had 2 jets plugged with rubber and metal shavings			
MWD:			
Comments			
Directional: 7" SINPER 7/8, 8.5 FXD @ 2.12° w/ SS FLOW RATE: 350-750 MAX DIFF: 1910psi MAX TQ:18,710 ft/lbs. RPG: 0.26 BIT: GTD64C SN: 13184323 JETS: 6-20's TFA: 1.841			
MWD:			

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Mud Motor Report - BHA 7 (Curve 2)

Motor Details		Date/Depth/Distances		Hours	
S/N	650010AIM	Date In	2019-06-26 00:45	Downhole Hours	25.50
Size (in)	6.75	Depth In (ft)	10853.00	Drilling/Circulating Hours	13.75
Lobe/Stage	7/8, 5.70	Date Out	2019-06-27 02:15		
Bend Angle	2.12	Depth Out (ft)	11625.00	Circulating Hours	0.00
Speed (rev/gal)	0.21	Total Drilled (ft)	772.00	Drilling Hours	13.75
Wear Pad OD (in)	7.000	Distance Slid (ft)	583.00	Sliding Hours	11.25
Manufacturer	N/A	Distance Rotated (ft)	189.00	Rotating Hours	2.50
Motor Results		% Distance Sliding	75.52%	% Hours Rotating	18.18%
Motor Incident	No	% Distance Rotating	24.48%	% Hours Sliding	81.82%
Average Total ROP (ft/h)	56.15	BHA Parameters			
Average Slide ROP (ft/h)	51.82	Flow Rate (gpm)	475.00 - 600.00	Motor RPM	25.00 - 25.00
Average Rotating ROP (ft/h)	75.60	Stalls	0	Surface RPM	25.00 - 25.00
Bit Details		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	20.00 - 20.00
OD (in)	8.500	On Bottom Pressure (psi)	2750.00 - 3200.00	Sliding WOB (klbs)	30.00 - 30.00
Vendor	SECURITY	Off Bottom Pressure (psi)	2400.00 - 2700.00	Temp (°F)	140.00 - 140.00
S/N	13243076	NPT	0.0		
Nozzles	6-20's	BHA Objective			
Total Flow Area (in²)	1.841	Drill Curve			
Bit Type	PDC				
Bit Distances					
Bend: 4.00 ft, Survey (Bit to Survey): 68.00 ft, Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 44.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.30				
VIS	58.00				
PV	0.00				
YP	0.00				
POOH Reason/Notes					
Change Bottom Hole Assembly: none					
Incident Notes					
Directional: none					
MWD:					
Comments					
Directional: 6 3/4" Contender 7/8, 5.7 FXD @ 2.12° w/ SS FLOW RATE: 300-600 MAX DIFF: 1280 psi MAX TQ:13,720 ft/lbs. RPG: 0.21 BIT: (0 runs) GTD64C SN: 13243076 JETS: 6-20's TFA: 1.841					
MWD:					



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Mud Motor Report - BHA 8 (Lateral)

Motor Details		Date/Depth/Distances		Hours	
S/N	IPS7004	Date In	2019-06-27 02:15	Downhole Hours	16.75
Size (in)	7.0	Depth In (ft)	11625.00	Drilling/Circulating Hours	5.08
Lobe/Stage	7/8, 8.50	Date Out	2019-06-27 19:00		
Bend Angle	1.75	Depth Out (ft)	12325.00	Circulating Hours	1.92
Speed (rev/gal)	0.26	Total Drilled (ft)	700.00	Drilling Hours	3.17
Wear Pad OD (in)	7.250	Distance Slid (ft)	45.00	Sliding Hours	0.67
Manufacturer	N/A	Distance Rotated (ft)	655.00	Rotating Hours	2.50
Motor Results		% Distance Sliding	6.43%	% Hours Rotating	78.95%
Motor Incident	Yes	% Distance Rotating	93.57%	% Hours Sliding	21.05%
Average Total ROP (ft/h)	221.05	BHA Parameters			
Average Slide ROP (ft/h)	67.50	Flow Rate (gpm)	642.00 - 720.00	Motor RPM	25.00 - 25.00
Average Rotating ROP (ft/h)	262.00	Stalls	0	Surface RPM	50.00 - 80.00
Bit Details		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	40.00 - 40.00
OD (in)	8.500	On Bottom Pressure (psi)	4550.00 - 5500.00	Sliding WOB (klbs)	35.00 - 35.00
Vendor	REED	Off Bottom Pressure (psi)	3800.00 - 4600.00	Temp (°F)	155.00 - 160.00
S/N	A256218	NPT	11.75		
Nozzles	6-20's	BHA Objective			
Total Flow Area (in²)	1.841	DRILL 8 1/2" LATERAL			
Bit Type	PDC				
Bit Distances					
Bend: 4.00 ft, Survey (Bit to Survey): 71.00 ft, Resistivity (Bit to Resistivity): 57.00 ft, Gamma (Bit to Gamma): 47.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.30				
VIS	58.00				
PV	0.00				
YP	0.00				
POOH Reason/Notes					
Pressure Spike: While drilling ahead noticed PSI increased. Pulled off bottom and PSI didn't bleed off. Attempted to drill but PSI kept increasing. POOH to inspect BHA components					
Incident Notes					
Directional: At surface motor felt tighter than expected. Heard Clunking noises in Tranny. Found rubber in bit.					
MWD:					
Comments					
Directional: 7" IPS 7/8, 8.5 FXD @ 1.75° w/ SS Size (in): 7.00 Bend Angle (°): 1.75 Rotor Lobe: 7 Stator Lobe: 8 Stator Stage: 8.50 Flow Rate: 300-750, Max Diff: 1910, Max Torque: 18,710, RPG: 0.26 Bit: (0 Runs)					
MWD:					



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Mud Motor Report - BHA 9 (LATERAL)

Motor Details		Date/Depth/Distances		Hours	
S/N	DR70001	Date In	2019-06-27 19:00	Downhole Hours	59.25
Size (in)	7.0	Depth In (ft)	12325.00	Drilling/Circulating Hours	46.33
Lobe/Stage	7/8, 8.50	Date Out	2019-06-30 06:15		
Bend Angle	1.75	Depth Out (ft)	15582.00	Circulating Hours	0.50
Speed (rev/gal)	0.26	Total Drilled (ft)	3257.00	Drilling Hours	45.83
Wear Pad OD (in)	7.330	Distance Slid (ft)	218.00	Sliding Hours	10.00
Manufacturer	N/A	Distance Rotated (ft)	3039.00	Rotating Hours	35.83
Motor Results		% Distance Sliding	6.69%	% Hours Rotating	78.18%
Motor Incident	No	% Distance Rotating	93.31%	% Hours Sliding	21.82%
Average Total ROP (ft/h)		BHA Parameters			
Average Slide ROP (ft/h)	71.06	Flow Rate (gpm)	720.00 - 750.00	Motor RPM	25.00 - 25.00
Average Rotating ROP (ft/h)	21.80	Stalls	0	Surface RPM	40.00 - 50.00
	84.81	Stall Pressure (psi)	0.00	Rotating WOB (klbs)	36.00 - 58.00
Bit Details		On Bottom Pressure (psi)	4900.00 - 5700.00	Sliding WOB (klbs)	35.00 - 70.00
OD (in)	8.500	Off Bottom Pressure (psi)	4500.00 - 5000.00	Temp (°F)	143.00 - 189.00
Vendor	Security	NPT	0.0		
S/N	13133077	BHA Objective			
Nozzles	6-20's	DRILL 8 1/2" LATERAL			
Total Flow Area (in²)	1.841				
Bit Type	PDC				
Bit Distances					
Bend: 4.41 ft, Survey (Bit to Survey): 69.00 ft,					
Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 45.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.30				
VIS	49.00				
PV	0.00				
YP	0.00				
POOH Reason/Notes					
Penetration Rate: POOH FOR LOW ROP					
Incident Notes					
Directional: BIT IS DBR					
MWD:					
Comments					
Directional: Flow Rate: 300-750, Max Diff: 1910, Max Torque: 18,710, Bit: (1 Run)					
MWD:					



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Mud Motor Report - BHA 10 (Lateral)

Motor Details		Date/Depth/Distances	Hours
S/N	700-40-004	Date In	2019-06-30 06:15
Size (in)	7.0	Depth In (ft)	15582.00
Lobe/Stage	6/7, 8.40	Date Out	2019-07-03 19:45
Bend Angle	1.75	Depth Out (ft)	18936.00
Speed (rev/gal)	0.30	Total Drilled (ft)	3354.00
Wear Pad OD (in)	7.420	Distance Slid (ft)	372.00
Manufacturer	N/A	Distance Rotated (ft)	2982.00
Motor Results		% Distance Sliding	11.09%
Motor Incident	No	% Distance Rotating	88.91%
Average Total ROP (ft/h)	66.86	BHA Parameters	
Average Slide ROP (ft/h)	30.37	Flow Rate (gpm)	624.00 - 728.00
Average Rotating ROP (ft/h)	78.65	Stalls	0
Bit Details		Stall Pressure (psi)	0.00
OD (in)	8.500	On Bottom Pressure (psi)	4650.00 - 5450.00
Vendor	Baker Hughes	Off Bottom Pressure (psi)	4450.00 - 5100.00
S/N	5292993	NPT	0.0
Nozzles	6-22's	BHA Objective	
Total Flow Area (in ²)	2.227	Drill Lateral to TD	
Bit Type	PDC		
Bit Distances			
Bend: 5.36 ft, Survey (Bit to Survey): 68.00 ft, Resistivity (Bit to Resistivity): 54.00 ft, Gamma (Bit to Gamma): 44.00 ft			
Mud Properties			
Type	Oil Based		
WT	9.30		
VIS	49.00		
PV	0.00		
YP	0.00		
POOH Reason/Notes			
Total Depth/Casing Point: Well TD as planned			
Incident Notes			
Directional:			
MWD:			
Comments			
Directional: Directional: 7" 6/7, 8.4 FXD @ 1.75° w/ SS Size (in): 7.00 Bend Angle (°): 1.75 Rotor Lobe: 6 Stator Lobe: 7 Stator Stage: 8.40 Flow Rate: 300-750, Max Diff: 1980, Max Torque: 16,550, RPG: 0.30 Bit: (0 Runs)			
MWD:			



Slide/Rotate Reports

Dagger State Com #552H (WT-19-085)

2019-05-21 to 2019-07-05

Lea, New Mexico, US (32.45, -103.61)



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Slide/Rotate Report - BHA #1 (Surface)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	05-22	04:45	05:10	05-22	0.42	140.00	199.00	59.00	141.60	N/A	550.00	50.0	15.00	1250.00	800.00	
Rotate	05-22	05:15	05:25	05-22	0.17	199.00	260.00	61.00	366.00	N/A	650.00	65.0	15.00	1500.00	1000.00	
Rotate	05-22	05:30	06:10	05-22	0.67	260.00	382.00	122.00	183.00	N/A	795.00	65.0	15.00	1800.00	1400.00	
Rotate	05-22	06:15	06:30	05-22	0.25	382.00	474.00	92.00	368.00	N/A	795.00	65.0	15.00	1800.00	1400.00	
Rotate	05-22	06:35	06:50	05-22	0.25	474.00	566.00	92.00	368.00	N/A	795.00	65.0	15.00	1800.00	1400.00	
Rotate	05-22	06:55	07:20	05-22	0.42	566.00	657.00	91.00	218.40	N/A	795.00	65.0	15.00	1800.00	1400.00	
Slide	05-22	07:30	08:00	05-22	0.5	657.00	687.00	30.00	60.00	150.0	725.00	N/A	15.00	2000.00	1400.00	
Rotate	05-22	08:00	08:35	05-22	0.58	687.00	749.00	62.00	106.29	N/A	795.00	65.0	15.00	1800.00	1400.00	
Rotate	05-22	08:40	09:00	05-22	0.33	749.00	841.00	92.00	276.00	N/A	795.00	65.0	15.00	1800.00	1400.00	
Rotate	05-22	09:05	09:10	05-22	0.08	841.00	848.00	7.00	84.00	N/A	795.00	65.0	15.00	1800.00	1400.00	
Slide	05-22	09:10	09:45	05-22	0.58	848.00	871.00	23.00	39.43	160.0	725.00	N/A	15.00	2000.00	1400.00	
Rotate	05-22	09:45	09:55	05-22	0.17	871.00	933.00	62.00	372.00	N/A	795.00	65.0	15.00	1800.00	1400.00	
Rotate	05-22	10:00	10:05	05-22	0.08	933.00	938.00	5.00	60.00	N/A	795.00	65.0	15.00	1800.00	1400.00	
Slide	05-22	10:05	10:20	05-22	0.25	938.00	958.00	20.00	80.00	150.0	803.00	N/A	15.00	2000.00	1400.00	
Rotate	05-22	10:20	10:45	05-22	0.42	958.00	1028.00	70.00	168.00	N/A	805.00	75.0	35.00	2000.00	1400.00	
Rotate	05-22	10:50	11:00	05-22	0.17	1028.00	1038.00	10.00	60.00	N/A	805.00	75.0	35.00	2000.00	1400.00	
Slide	05-22	11:00	11:20	05-22	0.33	1038.00	1053.00	15.00	45.00	150.0	803.00	N/A	15.00	2000.00	1400.00	
Rotate	05-22	11:20	11:50	05-22	0.5	1053.00	1122.00	69.00	138.00	N/A	805.00	75.0	35.00	2000.00	1400.00	
Rotate	05-22	11:55	13:40	05-22	1.75	1122.00	1217.00	95.00	54.29	N/A	805.00	75.0	35.00	2000.00	1400.00	
Rotate	05-22	13:45	15:15	05-22	1.5	1217.00	1312.00	95.00	63.33	N/A	805.00	75.0	35.00	2000.00	1400.00	
Rotate	05-22	15:20	16:40	05-22	1.33	1312.00	1407.00	95.00	71.25	N/A	805.00	75.0	35.00	2000.00	1400.00	
Rotate	05-22	16:45	17:30	05-22	0.75	1407.00	1502.00	95.00	126.67	N/A	805.00	75.0	35.00	2000.00	1400.00	
Rotate	05-22	17:35	18:15	05-22	0.67	1502.00	1597.00	95.00	142.50	N/A	805.00	75.0	35.00	2000.00	1400.00	
Rotate	05-22	18:20	18:45	05-22	0.42	1597.00	1628.00	31.00	74.40	N/A	805.00	75.0	35.00	2200.00	1400.00	



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Slide/Rotate Report - BHA #2 (Intermediate)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	05-23	20:55	22:30	05-23	1.58	1628.00	1768.00	140.00	88.42	N/A	645.00	50.0	20.00	2100.00	1700.00	
Slide	05-23	22:40	22:50	05-23	0.17	1768.00	1783.00	15.00	90.00	65.0	800.00	N/A	20.00	2800.00	2300.00	
Rotate	05-23	22:50	00:00	05-24	1.17	1783.00	1958.00	175.00	150.00	N/A	800.00	70.0	25.00	3150.00	1800.00	
Rotate	05-24	00:10	01:00	05-24	0.83	1958.00	2054.00	96.00	115.20	N/A	900.00	70.0	25.00	3700.00	3100.00	
Slide	05-24	01:00	01:05	05-24	0.08	2054.00	2064.00	10.00	120.00	270.0	900.00	N/A	20.00	3600.00	3100.00	
Rotate	05-24	01:05	01:40	05-24	0.58	2064.00	2148.00	84.00	144.00	N/A	900.00	70.0	25.00	3700.00	3100.00	
Rotate	05-24	01:50	02:35	05-24	0.75	2148.00	2243.00	95.00	126.67	N/A	900.00	70.0	25.00	3700.00	3100.00	
Rotate	05-24	02:40	03:20	05-24	0.67	2243.00	2337.00	94.00	141.00	N/A	900.00	70.0	25.00	3700.00	3100.00	
Rotate	05-24	03:25	04:10	05-24	0.75	2337.00	2432.00	95.00	126.67	N/A	900.00	70.0	25.00	3700.00	3100.00	
Rotate	05-24	04:15	05:10	05-24	0.92	2432.00	2527.00	95.00	103.64	N/A	900.00	70.0	25.00	3700.00	3100.00	
Rotate	05-24	05:15	05:50	05-24	0.58	2527.00	2622.00	95.00	162.86	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	05:55	06:25	05-24	0.5	2622.00	2717.00	95.00	190.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	06:30	07:00	05-24	0.5	2717.00	2812.00	95.00	190.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	07:10	07:30	05-24	0.33	2812.00	2907.00	95.00	285.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	07:35	07:50	05-24	0.25	2907.00	3002.00	95.00	380.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	07:55	08:10	05-24	0.25	3002.00	3096.00	94.00	376.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	08:15	08:30	05-24	0.25	3096.00	3191.00	95.00	380.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	08:35	08:55	05-24	0.33	3191.00	3286.00	95.00	285.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	09:00	09:20	05-24	0.33	3286.00	3381.00	95.00	285.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	09:25	09:30	05-24	0.08	3381.00	3387.00	6.00	72.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Slide	05-24	09:30	09:45	05-24	0.25	3387.00	3407.00	20.00	80.00	225.0	900.00	N/A	25.00	4250.00	3800.00	
Rotate	05-24	09:45	10:00	05-24	0.25	3407.00	3476.00	69.00	276.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	10:05	10:25	05-24	0.33	3476.00	3571.00	95.00	285.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	10:30	11:00	05-24	0.5	3571.00	3666.00	95.00	190.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	11:05	11:20	05-24	0.25	3666.00	3760.00	94.00	376.00	N/A	900.00	80.0	25.00	3700.00	3100.00	
Rotate	05-24	11:25	12:30	05-24	1.08	3760.00	3949.00	189.00	174.46	N/A	900.00	80.0	25.00	3700.00	3100.00	



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Slide/Rotate Report - BHA #3 (Intermediate)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	05-25	00:25	01:20	05-25	0.92	3949.00	4139.00	190.00	207.27	N/A	900.00	80.0	45.00	4450.00	3800.00	
Rotate	05-25	01:30	02:15	05-25	0.75	4139.00	4329.00	190.00	253.33	N/A	900.00	80.0	45.00	5150.00	3900.00	
Rotate	05-25	02:25	02:45	05-25	0.33	4329.00	4424.00	95.00	285.00	N/A	900.00	80.0	45.00	5150.00	3900.00	
Rotate	05-25	02:50	03:05	05-25	0.25	4424.00	4519.00	95.00	380.00	N/A	900.00	80.0	45.00	5150.00	3900.00	
Rotate	05-25	03:10	03:35	05-25	0.42	4519.00	4614.00	95.00	228.00	N/A	900.00	80.0	45.00	5150.00	3900.00	
Rotate	05-25	03:40	04:20	05-25	0.67	4614.00	4804.00	190.00	285.00	N/A	900.00	80.0	45.00	5150.00	3900.00	
Rotate	05-25	04:25	05:00	05-25	0.58	4804.00	4898.00	94.00	161.14	N/A	900.00	80.0	45.00	5150.00	3900.00	
Rotate	05-25	05:05	06:00	05-25	0.92	4898.00	4993.00	95.00	103.64	N/A	900.00	80.0	45.00	5150.00	3900.00	
Rotate	05-25	06:05	06:45	05-25	0.67	4993.00	5088.00	95.00	142.50	N/A	715.00	80.0	45.00	3650.00	2900.00	
Rotate	05-25	06:50	08:40	05-25	1.83	5088.00	5145.00	57.00	31.09	N/A	715.00	80.0	45.00	3650.00	2900.00	

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389	
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H	
	Play Delaware Basin	State/Province and Country New Mexico, US		County Lea	Company Man

Slide/Rotate Report - BHA #4 (Intermediate)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	05-25	16:45	17:15	05-25	0.5	5145.00	5183.00	38.00	76.00	N/A	715.00	80.0	45.00	3650.00	2900.00	
Rotate	05-25	17:20	17:55	05-25	0.58	5183.00	5278.00	95.00	162.86	N/A	715.00	80.0	45.00	3650.00	2900.00	
Rotate	05-25	18:00	18:15	05-25	0.25	5278.00	5315.00	37.00	148.00	N/A	715.00	80.0	45.00	3650.00	2900.00	



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Slide/Rotate Report - BHA #5 (Intermediate)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	06-11	15:40	15:50	06-11	0.17	5315.00	5373.00	58.00	348.00	N/A						
Rotate	06-11	15:55	16:10	06-11	0.25	5373.00	5468.00	95.00	380.00	N/A						
Rotate	06-11	16:15	16:30	06-11	0.25	5468.00	5563.00	95.00	380.00	N/A						
Rotate	06-11	16:35	16:50	06-11	0.25	5563.00	5658.00	95.00	380.00	N/A						
Rotate	06-11	17:20	17:40	06-11	0.33	5658.00	5753.00	95.00	285.00	N/A						
Rotate	06-11	17:45	18:05	06-11	0.33	5753.00	5847.00	94.00	282.00	N/A						
Rotate	06-11	18:10	18:25	06-11	0.25	5847.00	5942.00	95.00	380.00	N/A						
Rotate	06-11	18:30	18:45	06-11	0.25	5942.00	6037.00	95.00	380.00	N/A						
Rotate	06-11	18:50	19:15	06-11	0.42	6037.00	6132.00	95.00	228.00	N/A						
Rotate	06-11	19:20	19:40	06-11	0.33	6132.00	6227.00	95.00	285.00	N/A						
Rotate	06-11	19:45	19:55	06-11	0.17	6227.00	6321.00	94.00	564.00	N/A						
Rotate	06-11	20:00	20:15	06-11	0.25	6321.00	6416.00	95.00	380.00	N/A						
Rotate	06-11	20:20	20:30	06-11	0.17	6416.00	6511.00	95.00	570.00	N/A						
Rotate	06-11	20:35	20:55	06-11	0.33	6511.00	6606.00	95.00	285.00	N/A						
Rotate	06-11	21:00	21:10	06-11	0.17	6606.00	6701.00	95.00	570.00	N/A						
Rotate	06-11	21:15	21:30	06-11	0.25	6701.00	6796.00	95.00	380.00	N/A						
Rotate	06-11	21:35	21:50	06-11	0.25	6796.00	6890.00	94.00	376.00	N/A						
Rotate	06-11	21:55	22:10	06-11	0.25	6890.00	6985.00	95.00	380.00	N/A						
Rotate	06-11	22:15	22:35	06-11	0.33	6985.00	7080.00	95.00	285.00	N/A						
Rotate	06-11	22:40	23:40	06-11	1.0	7080.00	7270.00	190.00	190.00	N/A						
Rotate	06-11	23:45	00:15	06-12	0.5	7270.00	7364.00	94.00	188.00	N/A						
Rotate	06-12	00:20	00:40	06-12	0.33	7364.00	7459.00	95.00	285.00	N/A						
Rotate	06-12	00:45	01:10	06-12	0.42	7459.00	7554.00	95.00	228.00	N/A						
Rotate	06-12	01:15	01:35	06-12	0.33	7554.00	7649.00	95.00	285.00	N/A						
Rotate	06-12	01:40	02:05	06-12	0.42	7649.00	7744.00	95.00	228.00	N/A						
Rotate	06-12	02:10	02:40	06-12	0.5	7744.00	7838.00	94.00	188.00	N/A						
Rotate	06-12	02:45	03:10	06-12	0.42	7838.00	7933.00	95.00	228.00	N/A						
Rotate	06-12	03:15	04:20	06-12	1.08	7933.00	8123.00	190.00	175.38	N/A						
Rotate	06-12	04:25	04:50	06-12	0.42	8123.00	8217.00	94.00	225.60	N/A						
Rotate	06-12	04:55	05:30	06-12	0.58	8217.00	8312.00	95.00	162.86	N/A						
Rotate	06-12	05:35	06:10	06-12	0.58	8312.00	8407.00	95.00	162.86	N/A						
Rotate	06-12	06:15	06:45	06-12	0.5	8407.00	8502.00	95.00	190.00	N/A						
Rotate	06-12	06:50	07:30	06-12	0.67	8502.00	8597.00	95.00	142.50	N/A						
Rotate	06-12	07:35	08:30	06-12	0.92	8597.00	8692.00	95.00	103.64	N/A						
Rotate	06-12	08:35	09:15	06-12	0.67	8692.00	8787.00	95.00	142.50	N/A						
Rotate	06-12	09:20	10:30	06-12	1.17	8787.00	8881.00	94.00	80.57	N/A						
Rotate	06-12	10:45	13:00	06-12	2.25	8881.00	9071.00	190.00	84.44	N/A						
Rotate	06-12	13:05	14:15	06-12	1.17	9071.00	9166.00	95.00	81.43	N/A						
Rotate	06-12	14:20	15:20	06-12	1.0	9166.00	9261.00	95.00	95.00	N/A						
Rotate	06-12	15:25	16:20	06-12	0.92	9261.00	9356.00	95.00	103.64	N/A						
Rotate	06-12	16:35	17:15	06-12	0.67	9356.00	9451.00	95.00	142.50	N/A						
Rotate	06-12	17:20	18:30	06-12	1.17	9451.00	9545.00	94.00	80.57	N/A	645.00	40.0	40.00	2800.00	2250.00	
Rotate	06-12	18:35	19:40	06-12	1.08	9545.00	9640.00	95.00	87.69	N/A	645.00	40.0	40.00	2800.00	2250.00	
Rotate	06-12	19:45	21:25	06-12	1.67	9640.00	9735.00	95.00	57.00	N/A	645.00	40.0	40.00	2800.00	2250.00	
Rotate	06-12	21:30	22:50	06-12	1.33	9735.00	9830.00	95.00	71.25	N/A	645.00	40.0	40.00	2800.00	2250.00	
Rotate	06-12	22:55	23:10	06-12	0.25	9830.00	9845.00	15.00	60.00	N/A	645.00	40.0	40.00	2800.00	2250.00	
Slide	06-12	23:10	23:55	06-12	0.75	9845.00	9860.00	15.00	20.00	90.0	645.00	N/A	25.00	2700.00	2300.00	
Rotate	06-12	23:55	00:00	06-13	0.08	9860.00	9876.00	16.00	192.00	N/A	645.00	40.0	40.00	2800.00	2250.00	
Rotate	06-13	00:00	00:30	06-13	0.5	9876.00	9925.00	49.00	98.00	N/A	645.00	40.0	40.00	2800.00	2250.00	
Rotate	06-13	00:35	01:35	06-13	1.0	9925.00	10020.00	95.00	95.00	N/A	645.00	40.0	40.00	2800.00	2250.00	
Rotate	06-13	01:40	02:50	06-13	1.17	10020.00	10114.00	94.00	80.57	N/A	645.00	40.0	40.00	2800.00	2250.00	
Rotate	06-13	02:55	03:05	06-13	0.17	10114.00	10115.00	1.00	6.00	N/A	713.00	40.0	40.00	3300.00	2800.00	
Slide	06-13	03:05	03:30	06-13	0.42	10115.00	10133.00	18.00	43.20	90.0	645.00	N/A	25.00	2700.00	2300.00	
Rotate	06-13	03:30	04:20	06-13	0.83	10133.00	10209.00	76.00	91.20	N/A	713.00	40.0	40.00	3300.00	2800.00	
Rotate	06-13	04:25	05:55	06-13	1.5	10209.00	10304.00	95.00	63.33	N/A	713.00	40.0	40.00	3300.00	2800.00	
Rotate	06-13	06:00	07:30	06-13	1.5	10304.00	10399.00	95.00	63.33	N/A	713.00	40.0	40.00	3300.00	2800.00	
Rotate	06-13	07:35	09:35	06-13	2.0	10399.00	10494.00	95.00	47.50	N/A	713.00	40.0	40.00	3300.00	2800.00	
Rotate	06-13	09:40	11:25	06-13	1.75	10494.00	10589.00	95.00	54.29	N/A						
Rotate	06-13	11:30	13:00	06-13	1.5	10589.00	10684.00	95.00	63.33	N/A						
Rotate	06-13	13:05	13:55	06-13	0.83	10684.00	10722.00	38.00	45.60	N/A						

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389	
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H	
	Play Delaware Basin	State/Province and Country New Mexico, US		County Lea	Company Man

Slide/Rotate Report - BHA #6 (CURVE)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	06-25	08:50	09:15	06-25	0.42	10722.00	10742.00	20.00	48.00	N/A	475.00	25.0	20.00	2750.00	2400.00	
Slide	06-25	09:15	12:15	06-25	3.0	10742.00	10808.00	66.00	22.00	0.0	645.00	N/A	25.00	2700.00	2300.00	
Slide	06-25	12:20	16:20	06-25	4.0	10808.00	10853.00	45.00	11.25	0.0	645.00	N/A	25.00	2700.00	2300.00	



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
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Company Man		

Slide/Rotate Report - BHA #7 (Curve 2)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Slide	06-26	04:40	05:35	06-26	0.92	10853.00	10877.00	24.00	26.18	350.0	525.00	N/A	30.00	3200.00	2700.00	
Rotate	06-26	05:35	06:15	06-26	0.67	10877.00	10903.00	26.00	39.00	N/A	475.00	25.0	20.00	2750.00	2400.00	
Slide	06-26	06:20	06:50	06-26	0.5	10903.00	10922.00	19.00	38.00	340.0		N/A				
Slide	06-26	06:55	07:30	06-26	0.58	10922.00	10951.00	29.00	49.71	340.0		N/A				
Slide	06-26	07:40	08:05	06-26	0.42	10951.00	10974.00	23.00	55.20	340.0		N/A				
Rotate	06-26	08:05	08:20	06-26	0.25	10974.00	10996.00	22.00	88.00	N/A	475.00	25.0	20.00	2750.00	2400.00	
Slide	06-26	08:30	09:30	06-26	1.0	10996.00	11050.00	54.00	54.00	20.0		N/A				
Rotate	06-26	09:30	09:55	06-26	0.42	11050.00	11091.00	41.00	98.40	N/A	600.00	25.0	20.00	2750.00	2400.00	
Slide	06-26	10:05	10:45	06-26	0.67	11091.00	11141.00	50.00	75.00	20.0		N/A				
Rotate	06-26	10:45	11:15	06-26	0.5	11141.00	11186.00	45.00	90.00	N/A	600.00	25.0	20.00	2750.00	2400.00	
Slide	06-26	11:25	12:25	06-26	1.0	11186.00	11246.00	60.00	60.00	0.0		N/A				
Rotate	06-26	12:25	12:50	06-26	0.42	11246.00	11281.00	35.00	84.00	N/A						
Slide	06-26	13:00	14:45	06-26	1.75	11281.00	11376.00	95.00	54.29	0.0		N/A				
Rotate	06-26	14:55	15:10	06-26	0.25	11376.00	11396.00	20.00	80.00	N/A						
Slide	06-26	15:10	16:20	06-26	1.17	11396.00	11470.00	74.00	63.43	0.0		N/A				
Slide	06-26	16:30	18:45	06-26	2.25	11470.00	11565.00	95.00	42.22	0.0		N/A				
Slide	06-26	18:55	19:55	06-26	1.0	11565.00	11625.00	60.00	60.00	0.0		N/A				



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Slide/Rotate Report - BHA #8 (Lateral)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	06-27	08:05	08:35	06-27	0.5	11625.00	11663.00	38.00	76.00	N/A	642.00	50.0	40.00	4550.00	3800.00	
Rotate	06-27	08:45	09:00	06-27	0.25	11663.00	11757.00	94.00	376.00	N/A	642.00	50.0	40.00	4550.00	3800.00	
Rotate	06-27	09:10	09:20	06-27	0.17	11757.00	11851.00	94.00	564.00	N/A	720.00	70.0	40.00	5300.00	4450.00	
Rotate	06-27	09:30	09:40	06-27	0.17	11851.00	11946.00	95.00	570.00	N/A	720.00	70.0	40.00	5300.00	4450.00	
Rotate	06-27	09:50	10:00	06-27	0.17	11946.00	12040.00	94.00	564.00	N/A	720.00	80.0	40.00	5300.00	4450.00	
Rotate	06-27	10:10	10:15	06-27	0.08	12040.00	12050.00	10.00	120.00	N/A	720.00	80.0	40.00	5300.00	4450.00	
Slide	06-27	10:15	10:25	06-27	0.17	12050.00	12070.00	20.00	120.00	120.0	720.00	N/A	35.00	4900.00	4450.00	
Rotate	06-27	10:25	10:35	06-27	0.17	12070.00	12135.00	65.00	390.00	N/A	720.00	80.0	40.00	5300.00	4450.00	
Rotate	06-27	10:40	10:55	06-27	0.25	12135.00	12229.00	94.00	376.00	N/A	720.00	80.0	40.00	5300.00	4450.00	
Rotate	06-27	11:00	11:15	06-27	0.25	12229.00	12240.00	11.00	44.00	N/A	720.00	80.0	40.00	5500.00	4600.00	
Slide	06-27	11:15	11:45	06-27	0.5	12240.00	12265.00	25.00	50.00	140.0	720.00	N/A	35.00	5500.00	4600.00	
Rotate	06-27	11:45	12:10	06-27	0.42	12265.00	12323.00	58.00	139.20	N/A	720.00	80.0	40.00	5500.00	4600.00	
Rotate	06-27	12:15	12:20	06-27	0.08	12323.00	12325.00	2.00	24.00	N/A	720.00	80.0	40.00	5500.00	4600.00	



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Slide/Rotate Report - BHA #9 (LATERAL)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	06-27	23:05	23:50	06-27	0.75	12325.00	12416.00	91.00	121.33	N/A	730.00	50.0	48.00	5400.00	4900.00	
Rotate	06-28	00:00	00:20	06-28	0.33	12416.00	12510.00	94.00	282.00	N/A	730.00	50.0	48.00	5400.00	4900.00	
Rotate	06-28	00:25	00:30	06-28	0.08	12510.00	12515.00	5.00	60.00	N/A	730.00	50.0	48.00	5400.00	4900.00	
Slide	06-28	00:30	01:00	06-28	0.5	12515.00	12535.00	20.00	40.00	0.0	720.00	N/A	35.00	5500.00	4600.00	
Rotate	06-28	01:00	01:20	06-28	0.33	12535.00	12605.00	70.00	210.00	N/A						
Slide	06-28	01:25	01:45	06-28	0.33	12605.00	12625.00	20.00	60.00	340.0	750.00	N/A	40.00	5700.00	5000.00	
Rotate	06-28	01:45	02:05	06-28	0.33	12625.00	12700.00	75.00	225.00	N/A	750.00	50.0	50.00	5700.00	5000.00	
Rotate	06-28	02:10	02:15	06-28	0.08	12700.00	12715.00	15.00	180.00	N/A	750.00	50.0	50.00	5700.00	5000.00	
Slide	06-28	02:40	02:50	06-28	0.17	12715.00	12727.00	12.00	72.00	180.0	750.00	N/A	40.00	5700.00	5000.00	
Rotate	06-28	02:50	03:10	06-28	0.33	12727.00	12794.00	67.00	201.00	N/A	750.00	50.0	50.00	5700.00	5000.00	
Rotate	06-28	03:15	03:50	06-28	0.58	12794.00	12889.00	95.00	162.86	N/A	750.00	50.0	50.00	5700.00	5000.00	
Rotate	06-28	03:55	04:25	06-28	0.5	12889.00	12983.00	94.00	188.00	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	04:30	04:35	06-28	0.08	12983.00	12993.00	10.00	120.00	N/A	750.00	50.0	42.00	5700.00	5000.00	
Slide	06-28	05:15	05:45	06-28	0.5	12993.00	13008.00	15.00	30.00	90.0	750.00	N/A	40.00	5700.00	5000.00	
Rotate	06-28	05:45	06:15	06-28	0.5	13008.00	13078.00	70.00	140.00	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	06:20	07:05	06-28	0.75	13078.00	13172.00	94.00	125.33	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	07:10	08:40	06-28	1.5	13172.00	13266.00	94.00	62.67	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	08:45	09:25	06-28	0.67	13266.00	13315.00	49.00	73.50	N/A	750.00	50.0	42.00	5700.00	5000.00	
Slide	06-28	09:25	10:30	06-28	1.08	13315.00	13335.00	20.00	18.46	140.0		N/A				
Rotate	06-28	10:30	10:50	06-28	0.33	13335.00	13361.00	26.00	78.00	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	10:55	11:20	06-28	0.42	13361.00	13388.00	27.00	64.80	N/A	750.00	50.0	42.00	5700.00	5000.00	
Slide	06-28	11:20	12:00	06-28	0.67	13388.00	13403.00	15.00	22.50	150.0		N/A				
Rotate	06-28	12:00	12:50	06-28	0.83	13403.00	13456.00	53.00	63.60	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	12:55	13:25	06-28	0.5	13456.00	13488.00	32.00	64.00	N/A	750.00	50.0	42.00	5700.00	5000.00	
Slide	06-28	13:25	14:35	06-28	1.17	13488.00	13510.00	22.00	18.86	180.0		N/A				
Rotate	06-28	14:35	15:00	06-28	0.42	13510.00	13550.00	40.00	96.00	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	15:05	16:05	06-28	1.0	13550.00	13644.00	94.00	94.00	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	16:10	17:10	06-28	1.0	13644.00	13739.00	95.00	95.00	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	17:15	18:30	06-28	1.25	13739.00	13833.00	94.00	75.20	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	18:35	19:55	06-28	1.33	13833.00	13928.00	95.00	71.25	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	20:00	20:25	06-28	0.42	13928.00	13948.00	20.00	48.00	N/A	750.00	50.0	42.00	5700.00	5000.00	
Slide	06-28	20:25	21:25	06-28	1.0	13948.00	13958.00	10.00	10.00	20.0		N/A				
Rotate	06-28	21:25	22:30	06-28	1.08	13958.00	14022.00	64.00	59.08	N/A	750.00	50.0	42.00	5700.00	5000.00	
Rotate	06-28	22:35	00:10	06-29	1.58	14022.00	14117.00	95.00	60.00	N/A	750.00	40.0	55.00	5300.00	4700.00	
Rotate	06-29	00:15	01:10	06-29	0.92	14117.00	14211.00	94.00	102.55	N/A	750.00	40.0	55.00	5300.00	4700.00	
Rotate	06-29	01:15	02:10	06-29	0.92	14211.00	14306.00	95.00	103.64	N/A	750.00	40.0	55.00	5300.00	4700.00	
Rotate	06-29	02:15	02:35	06-29	0.33	14306.00	14316.00	10.00	30.00	N/A	750.00	40.0	55.00	5300.00	4700.00	
Slide	06-29	02:35	03:05	06-29	0.5	14316.00	14326.00	10.00	20.00	140.0	750.00	N/A	70.00	5050.00	4900.00	
Rotate	06-29	03:05	04:30	06-29	1.42	14326.00	14400.00	74.00	52.24	N/A	750.00	40.0	55.00	5300.00	4700.00	
Rotate	06-29	04:35	06:00	06-29	1.42	14400.00	14495.00	95.00	67.06	N/A	750.00	40.0	55.00	5300.00	4700.00	
Rotate	06-29	06:05	07:00	06-29	0.92	14495.00	14589.00	94.00	102.55	N/A	750.00	40.0	55.00	5300.00	4700.00	
Rotate	06-29	07:05	08:15	06-29	1.17	14589.00	14684.00	95.00	81.43	N/A	750.00	40.0	55.00	5300.00	4700.00	
Rotate	06-29	08:20	09:45	06-29	1.42	14684.00	14778.00	94.00	66.35	N/A						
Rotate	06-29	09:50	11:00	06-29	1.17	14778.00	14872.00	94.00	80.57	N/A						
Slide	06-29	11:30	12:20	06-29	0.83	14872.00	14886.00	14.00	16.80	150.0		N/A				
Rotate	06-29	12:20	13:35	06-29	1.25	14886.00	14967.00	81.00	64.80	N/A	728.00	50.0	36.00	4900.00	4500.00	
Rotate	06-29	13:40	13:45	06-29	0.08	14967.00	14970.00	3.00	36.00	N/A	728.00	50.0	36.00	4900.00	4500.00	
Slide	06-29	13:45	15:00	06-29	1.25	14970.00	14995.00	25.00	20.00	160.0		N/A				
Rotate	06-29	15:00	16:10	06-29	1.17	14995.00	15061.00	66.00	56.57	N/A	728.00	50.0	36.00	4900.00	4500.00	
Rotate	06-29	16:15	17:20	06-29	1.08	15061.00	15156.00	95.00	87.69	N/A	728.00	50.0	36.00	4900.00	4500.00	
Rotate	06-29	17:25	18:20	06-29	0.92	15156.00	15250.00	94.00	102.55	N/A	728.00	50.0	36.00	4900.00	4500.00	
Rotate	06-29	18:25	18:35	06-29	0.17	15250.00	15262.00	12.00	72.00	N/A	728.00	50.0	36.00	4900.00	4500.00	
Slide	06-29	18:35	19:50	06-29	1.25	15262.00	15277.00	15.00	12.00	0.0		N/A				
Rotate	06-29	19:50	20:40	06-29	0.83	15277.00	15345.00	68.00	81.60	N/A	728.00	50.0	36.00	4900.00	4500.00	
Rotate	06-29	20:45	20:55	06-29	0.17	15345.00	15355.00	10.00	60.00	N/A	728.00	50.0	36.00	4900.00	4500.00	
Slide	06-29	20:55	21:15	06-29	0.33	15355.00	15365.00	10.00	30.00	30.0		N/A				
Rotate	06-29	21:15	22:30	06-29	1.25	15365.00	15439.00	74.00	59.20	N/A	728.00	50.0	36.00	4900.00	4500.00	
Rotate	06-29	22:35	22:45	06-29	0.17	15439.00	15449.00	10.00	60.00	N/A	728.00	50.0	36.00	4900.00	4500.00	
Slide	06-29	22:45	23:10	06-29	0.42	15449.00	15459.00	10.00	24.00	0.0		N/A				
Rotate	06-29	23:10	00:10	06-30	1.0	15459.00	15533.00	74.00	74.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	06-30	00:15	01:20	06-30	1.08	15533.00	15582.00	49.00	45.23	N/A	728.00	50.0	58.00	5000.00	4600.00	



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
Company Man		

Slide/Rotate Report - BHA #10 (Lateral)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Slide	06-30	15:20	15:40	06-30	0.33	15582.00	15594.00	12.00	36.00	180.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	06-30	15:40	16:35	06-30	0.92	15594.00	15661.00	67.00	73.09	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	06-30	16:40	16:45	06-30	0.08	15661.00	15671.00	10.00	120.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	06-30	16:45	17:10	06-30	0.42	15671.00	15686.00	15.00	36.00	180.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	06-30	17:10	17:50	06-30	0.67	15686.00	15756.00	70.00	105.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	06-30	17:55	18:00	06-30	0.08	15756.00	15761.00	5.00	60.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	06-30	18:00	18:35	06-30	0.58	15761.00	15781.00	20.00	34.29	180.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	06-30	18:35	19:10	06-30	0.58	15781.00	15850.00	69.00	118.29	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	06-30	19:15	19:20	06-30	0.08	15850.00	15856.00	6.00	72.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	06-30	19:20	19:45	06-30	0.42	15856.00	15874.00	18.00	43.20	210.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	06-30	19:45	20:20	06-30	0.58	15874.00	15944.00	70.00	120.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	06-30	20:25	20:30	06-30	0.08	15944.00	15950.00	6.00	72.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	06-30	20:30	21:00	06-30	0.5	15950.00	15968.00	18.00	36.00	180.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	06-30	21:00	21:35	06-30	0.58	15968.00	16040.00	72.00	123.43	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	06-30	21:40	21:45	06-30	0.08	16040.00	16045.00	5.00	60.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	06-30	21:45	22:25	06-30	0.67	16045.00	16073.00	28.00	42.00	210.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	06-30	22:25	23:00	06-30	0.58	16073.00	16133.00	60.00	102.86	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	06-30	23:05	23:10	06-30	0.08	16133.00	16148.00	15.00	180.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	06-30	23:10	23:15	06-30	0.08	16148.00	16153.00	5.00	60.00	180.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	06-30	23:15	00:00	07-01	0.75	16153.00	16227.00	74.00	98.67	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	00:05	01:00	07-01	0.92	16227.00	16322.00	95.00	103.64	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	01:05	01:10	07-01	0.08	16322.00	16332.00	10.00	120.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	07-01	01:10	01:30	07-01	0.33	16332.00	16344.00	12.00	36.00	0.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	07-01	01:30	02:00	07-01	0.5	16344.00	16416.00	72.00	144.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	02:05	02:35	07-01	0.5	16416.00	16510.00	94.00	188.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	02:40	02:45	07-01	0.08	16510.00	16515.00	5.00	60.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	07-01	02:45	03:10	07-01	0.42	16515.00	16540.00	25.00	60.00	10.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	07-01	03:10	04:00	07-01	0.83	16540.00	16605.00	65.00	78.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	04:05	04:30	07-01	0.42	16605.00	16699.00	94.00	225.60	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	04:35	04:40	07-01	0.08	16699.00	16704.00	5.00	60.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	07-01	04:40	05:10	07-01	0.5	16704.00	16721.00	17.00	34.00	0.0	695.00	N/A	20.00	5450.00	5100.00	
Rotate	07-01	05:10	06:00	07-01	0.83	16721.00	16794.00	73.00	87.60	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	07-01	06:05	06:45	07-01	0.67	16794.00	16815.00	21.00	31.50	0.0		N/A				
Rotate	07-01	06:45	07:30	07-01	0.75	16815.00	16889.00	74.00	98.67	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	07-01	07:35	08:35	07-01	1.0	16889.00	16929.00	40.00	40.00	0.0		N/A				
Rotate	07-01	08:35	09:10	07-01	0.58	16929.00	16983.00	54.00	92.57	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	07-01	09:15	10:05	07-01	0.83	16983.00	17003.00	20.00	24.00	30.0		N/A				
Rotate	07-01	10:05	10:55	07-01	0.83	17003.00	17078.00	75.00	90.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	11:00	11:10	07-01	0.17	17078.00	17088.00	10.00	60.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	07-01	11:10	11:50	07-01	0.67	17088.00	17106.00	18.00	27.00	20.0		N/A				
Rotate	07-01	11:50	12:40	07-01	0.83	17106.00	17172.00	66.00	79.20	N/A	728.00	50.0	58.00	5000.00	4600.00	
Slide	07-01	12:45	14:20	07-01	1.58	17172.00	17206.00	34.00	21.47	20.0		N/A				
Rotate	07-01	14:20	14:40	07-01	0.33	17206.00	17240.00	34.00	102.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	14:45	15:05	07-01	0.33	17240.00	17267.00	27.00	81.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	15:10	16:15	07-01	1.08	17267.00	17361.00	94.00	86.77	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	16:20	17:15	07-01	0.92	17361.00	17455.00	94.00	102.55	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	17:20	18:10	07-01	0.83	17455.00	17550.00	95.00	114.00	N/A	728.00	50.0	58.00	5000.00	4600.00	
Rotate	07-01	18:15	19:10	07-01	0.92	17550.00	17645.00	95.00	103.64	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-01	19:15	20:15	07-01	1.0	17645.00	17739.00	94.00	94.00	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-01	20:20	21:35	07-01	1.25	17739.00	17834.00	95.00	76.00	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-01	21:40	21:45	07-01	0.08	17834.00	17837.00	3.00	36.00	N/A	624.00	40.0	50.00	5000.00	4600.00	
Slide	07-01	21:45	22:30	07-01	0.75	17837.00	17852.00	15.00	20.00	135.0	624.00	N/A	45.00	4650.00	4450.00	
Rotate	07-01	22:30	23:20	07-01	0.83	17852.00	17928.00	76.00	91.20	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-01	23:25	23:30	07-01	0.08	17928.00	17933.00	5.00	60.00	N/A	624.00	40.0	50.00	5000.00	4600.00	
Slide	07-01	23:30	00:40	07-02	1.17	17933.00	17958.00	25.00	21.43	150.0	624.00	N/A	45.00	4650.00	4450.00	
Rotate	07-02	00:40	01:25	07-02	0.75	17958.00	18023.00	65.00	86.67	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-02	01:30	01:35	07-02	0.08	18023.00	18028.00	5.00	60.00	N/A	624.00	40.0	50.00	5000.00	4600.00	
Slide	07-02	01:35	01:50	07-02	0.25	18028.00	18042.00	14.00	56.00	180.0	624.00	N/A	45.00	4650.00	4450.00	
Rotate	07-02	01:50	02:40	07-02	0.83	18042.00	18117.00	75.00	90.00	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-02	02:45	04:00	07-02	1.25	18117.00	18212.00	95.00	76.00	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-02	04:05	06:00	07-02	1.92	18212.00	18306.00	94.00	49.04	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-02	06:05	08:05	07-02	2.0	18306.00	18401.00	95.00	47.50	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-02	08:10	10:35	07-02	2.42	18401.00	18495.00	94.00	38.90	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-02	10:40	12:30	07-02	1.83	18495.00	18589.00	94.00	51.27	N/A	624.00	40.0	50.00	5000.00	4600.00	

Slide	07-02	12:40	13:45	07-02	1.08	18589.00	18604.00	15.00	13.85	0.0		N/A				
Rotate	07-02	13:45	15:35	07-02	1.83	18604.00	18684.00	80.00	43.64	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-02	15:40	17:35	07-02	1.92	18684.00	18778.00	94.00	49.04	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-02	17:40	19:35	07-02	1.92	18778.00	18873.00	95.00	49.57	N/A	624.00	40.0	50.00	5000.00	4600.00	
Rotate	07-02	19:40	20:35	07-02	0.92	18873.00	18936.00	63.00	68.73	N/A	624.00	40.0	50.00	5000.00	4600.00	



Daily Reports

Dagger State Com #552H (WT-19-085)

2019-05-21 to 2019-07-05

Lea, New Mexico, US (32.45, -103.61)

	Job Number	Operator		Rig Name
	WT-19-085	Advance Energy Partners		H&P #389
	Start Date	Well Name		Legal Well Name AFE
	2019-05-21	Dagger State Com #552H		Dagger State Com #552H
Play		State/Province and Country	County	Company Man
Delaware Basin		New Mexico, US	Lea	

Tuesday, May 21 00:00 - 23:59 (Day of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours	0.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating	0.00	Rotating SPM	
Total Distance (ft)	0.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	-
Distance Slid (ft)	0.00			Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer

No BHAs

Directional Activities								
Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	05-21	00:00	20:00	05-21			Standby during casing ops Dagger State Com 802H
Standby	15	05-21	20:00	00:00	05-22			Standby. Skid rig from Dagger State Com 802H to 552H

MWD Activities								
No Activities								



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Wednesday, May 22 00:00 - 23:59 (Day 1 of 46)

Billing: \$7,487.50 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	140.00	Downhole Hours	16.75	Rotating WOB (klbs)	15.00 - 35.00
Bit Depth (ft)	1628.00	Drilling Hours	12.58	Sliding WOB (klbs)	15.00 - 15.00
Bottom Hole Depth (ft)	1628.00	Hours Circulating	0.92	Rotating SPM	170.00 - 250.00
Total Distance (ft)	1488.00	Hours Sliding	1.67	Sliding SPM	220.00 - 250.00
Distance Rotated (ft)	1400.00	Hours Rotating	10.92	Motor RPM	50.00 - 75.00
Distance Slid (ft)	88.00			Surface RPM	50.00 - 75.00
Inclination In	0.84			Flow Rate (gpm)	550.00 - 805.00
Inclination Out	2.11			On Bottom Pressure (psi)	1250.00 - 2200.00
Azimuth In	342.11	% Hours Rotating	87%	Off Bottom Pressure (psi)	800.00 - 1400.00
Azimuth Out	214.23	% Hours Sliding	13%		
AVG Total ROP (ft/h)	118.25	% Distance Sliding	6%		
AVG Rotating ROP (ft/h)	128.24	% Distance Rotating	94%		
AVG Sliding ROP (ft/h)	52.80				

Personnel

Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer

BHA #1 - Surface

Date In: May 22, 2019, 4:45 Date Out: May 22, 2019, 21:30

Bit Details		Motor Details		Directional Comments
OD (in)	17.500	Size (in)	8.0	8" 1.50 FBH 7/8 4.0 w/ 12" NBS. Flow Rate : 400-900, Max Diff:900 psi, Max TQ: 14930 ft/lbs. RPG 0.15. Bit 17 1/4" PDC, SN 7041931. Jets 9 x 12's, TFA: .994
Vendor	HUGHES	Lobe/Stage	7/8, 4.0	
S/N	5300910	Bend Angle	1.5	
Nozzles	9 X 12'S	Speed (rev/gal)	0.15	
Total Flow Area (in²)	0.944	Wear Pad OD (in)	8.250	MWD Comments
Drilling Hours for Day	12.58	Bit Distances		
Total Drilled for Day (ft)	1488.00	Bend (Bit to Bend): 6.50 ft, Survey (Bit to Survey): 62.00 ft		
Drilling Hours for BHA	12.58			
Total Drilled for BHA (ft)	1488.00			POOH Reason
				Total Depth/Casing Point

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 17.5 (DP606S), Style: PDC, Gauge Length (in): 3.50, Size (in): 17.50	HUGHES	5300910	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 4.0 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 4	CONTENDER	80040010	6 5/8" Reg Box	6 5/8" Reg Box		8.000		30.04	31.54
Stabilizer Description: 17" STAB	DR	DR27311	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		6.56	38.10
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	42.02
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	72.79
Drill Collar Description: 8 " NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	103.39
Crossover Sub Description: X-O 4 1/2 IF BOX x 6 5/8 REG P, Type: Steel	DTI	DR38948	4 1/2" IF Box	6 5/8" Reg Pin	3.125	5.000		4.02	107.41
HWDP Description: 9 Stds HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	933.29

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	05-21	20:00	00:00	05-22			Standby. Skid rig from Dagger State Com 802H to 552H
Standby	15	05-22	00:00	03:00	05-22			Standby. Skid rig from Dagger State Com 802H to 552H
Change BHA	6	05-22	03:00	04:45	05-22			P/U BHA 1
Rotary Drill	1	05-22	04:45	05:10	05-22	140.00	199.00	Pressure On (psi): 1250.00, Pressure Off (psi): 800.00, Weight On Bit (klbs): 15.00, Surface RPM: 50, Surface Torque (ft lbf): 8.00, Flow Rate (gpm): 550.00, Strokes Per Minute: 170.00

Connection	33	05-22	05:10	05:15	05-22			
Rotary Drill	1	05-22	05:15	05:25	05-22	199.00	260.00	Pressure On (psi): 1500.00, Pressure Off (psi): 1000.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 216.00
Survey	46	05-22	05:25	05:30	05-22	260.00	260.00	Inclination (°): 0.840, Azimuth (°): 342.110, TVD (ft): 197.99, Dogleg (°/100 ft): 0.42, Sensor Depth (ft): 198.00, Bit To Sensor (ft): 62.00, Temperature (°F): 71.00
Rotary Drill	1	05-22	05:30	06:10	05-22	260.00	382.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 795.00, Strokes Per Minute: 246.00
Survey	46	05-22	06:10	06:15	05-22	382.00	382.00	Inclination (°): 0.530, Azimuth (°): 333.670, TVD (ft): 319.98, Dogleg (°/100 ft): 0.27, Sensor Depth (ft): 320.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	06:15	06:30	05-22	382.00	474.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 795.00, Strokes Per Minute: 246.00
Survey	46	05-22	06:30	06:35	05-22	474.00	474.00	Inclination (°): 0.440, Azimuth (°): 327.870, TVD (ft): 411.98, Dogleg (°/100 ft): 0.11, Sensor Depth (ft): 412.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	06:35	06:50	05-22	474.00	566.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 795.00, Strokes Per Minute: 246.00
Survey	46	05-22	06:50	06:55	05-22	566.00	566.00	Inclination (°): 0.530, Azimuth (°): 325.320, TVD (ft): 503.98, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 504.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	06:55	07:20	05-22	566.00	657.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 795.00, Strokes Per Minute: 246.00
Survey	46	05-22	07:20	07:30	05-22	657.00	657.00	Inclination (°): 0.440, Azimuth (°): 289.020, TVD (ft): 594.97, Dogleg (°/100 ft): 0.35, Sensor Depth (ft): 595.00, Bit To Sensor (ft): 62.00
Slide Drill	2	05-22	07:30	08:00	05-22	657.00	687.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Flow Rate (gpm): 725.00, Strokes Per Minute: 220, Toolface: 150, Toolface Type: magnetic
Rotary Drill	1	05-22	08:00	08:35	05-22	687.00	749.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 795.00, Strokes Per Minute: 246.00
Survey	46	05-22	08:35	08:40	05-22	749.00	749.00	Inclination (°): 2.330, Azimuth (°): 181.530, TVD (ft): 686.95, Dogleg (°/100 ft): 2.71, Sensor Depth (ft): 687.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	08:40	09:00	05-22	749.00	841.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 795.00, Strokes Per Minute: 246.00
Survey	46	05-22	09:00	09:05	05-22	841.00	841.00	Inclination (°): 1.010, Azimuth (°): 186.280, TVD (ft): 778.91, Dogleg (°/100 ft): 1.44, Sensor Depth (ft): 779.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	09:05	09:10	05-22	841.00	848.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 795.00, Strokes Per Minute: 246.00
Slide Drill	2	05-22	09:10	09:45	05-22	848.00	871.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Flow Rate (gpm): 725.00, Strokes Per Minute: 220, Toolface: 160, Toolface Type: magnetic
Rotary Drill	1	05-22	09:45	09:55	05-22	871.00	933.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 795.00, Strokes Per Minute: 246.00
Survey	46	05-22	09:55	10:00	05-22	933.00	933.00	Inclination (°): 1.850, Azimuth (°): 174.590, TVD (ft): 870.88, Dogleg (°/100 ft): 0.96, Sensor Depth (ft): 871.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	10:00	10:05	05-22	933.00	938.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Surface RPM: 65, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 795.00, Strokes Per Minute: 246.00
Slide Drill	2	05-22	10:05	10:20	05-22	938.00	958.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Flow Rate (gpm): 803.00, Strokes Per Minute: 250, Toolface: 150, Toolface Type: magnetic
Rotary Drill	1	05-22	10:20	10:45	05-22	958.00	1028.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 35.00, Surface RPM: 75, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 805.00, Strokes Per Minute: 250.00
Survey	46	05-22	10:45	10:50	05-22	1028.00	1028.00	Inclination (°): 2.730, Azimuth (°): 179.340, TVD (ft): 965.80, Dogleg (°/100 ft): 0.95, Sensor Depth (ft): 966.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	10:50	11:00	05-22	1028.00	1038.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 35.00, Surface RPM: 75, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 805.00, Strokes Per Minute: 250.00
Slide Drill	2	05-22	11:00	11:20	05-22	1038.00	1053.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 15.00, Flow Rate (gpm): 803.00, Strokes Per Minute: 250, Toolface: 150, Toolface Type: magnetic
Rotary Drill	1	05-22	11:20	11:50	05-22	1053.00	1122.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 35.00, Surface RPM: 75, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 805.00, Strokes Per Minute: 250.00
Survey	46	05-22	11:50	11:55	05-22	1122.00	1122.00	Inclination (°): 3.210, Azimuth (°): 179.600, TVD (ft): 1059.68, Dogleg (°/100 ft): 0.51, Sensor Depth (ft): 1060.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	11:55	13:40	05-22	1122.00	1217.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 35.00, Surface RPM: 75, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 805.00, Strokes Per Minute: 250.00
Survey	46	05-22	13:40	13:45	05-22	1217.00	1217.00	Inclination (°): 3.210, Azimuth (°): 187.770, TVD (ft): 1154.53, Dogleg (°/100 ft): 0.48, Sensor Depth (ft): 1155.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	13:45	15:15	05-22	1217.00	1312.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 35.00, Surface RPM: 75, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 805.00, Strokes Per Minute: 250.00
Survey	46	05-22	15:15	15:20	05-22	1312.00	1312.00	Inclination (°): 3.080, Azimuth (°): 182.410, TVD (ft): 1249.38, Dogleg (°/100 ft): 0.34, Sensor Depth (ft): 1250.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	15:20	16:40	05-22	1312.00	1407.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 35.00, Surface RPM: 75, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 805.00, Strokes Per Minute: 250.00

Survey	46	05-22	16:40	16:45	05-22	1407.00	1407.00	Inclination (°): 3.120, Azimuth (°): 198.150, TVD (ft): 1344.25, Dogleg (°/100 ft): 0.89, Sensor Depth (ft): 1345.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	16:45	17:30	05-22	1407.00	1502.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 35.00, Surface RPM: 75, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 805.00, Strokes Per Minute: 250.00
Survey	46	05-22	17:30	17:35	05-22	1502.00	1502.00	Inclination (°): 2.590, Azimuth (°): 207.370, TVD (ft): 1439.13, Dogleg (°/100 ft): 0.74, Sensor Depth (ft): 1440.00, Bit To Sensor (ft): 62.00
Rotary Drill	1	05-22	17:35	18:15	05-22	1502.00	1597.00	Pressure On (psi): 2000.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 35.00, Surface RPM: 75, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 805.00, Strokes Per Minute: 250.00
Survey	46	05-22	18:15	18:20	05-22	1597.00	1597.00	Inclination (°): 2.110, Azimuth (°): 214.230, TVD (ft): 1534.05, Dogleg (°/100 ft): 0.58, Sensor Depth (ft): 1535.00, Bit To Sensor (ft): 62.00, Temperature (°F): 104.00
Rotary Drill	1	05-22	18:20	18:45	05-22	1597.00	1628.00	Pressure On (psi): 2200.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 35.00, Surface RPM: 75, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 805.00, Strokes Per Minute: 250.00
Circulating	3	05-22	18:45	19:40	05-22			Circ.
Pooh	7	05-22	19:40	19:55	05-22			POOH. Reached Casing Point
Change BHA	6	05-22	19:55	21:30	05-22			Rack back BHA during Casing Ops
Standby	15	05-22	21:30	06:00	05-23			Standby during Casing Ops

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Thursday, May 23 00:00 - 23:59 (Day 2 of 46)

Billing: \$12,473.75 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	1628.00	Downhole Hours	7.00	Rotating WOB (klbs)	20.00 - 25.00
Bit Depth (ft)	1958.00	Drilling Hours	2.92	Sliding WOB (klbs)	20.00 - 20.00
Bottom Hole Depth (ft)	1958.00	Hours Circulating	1.08	Rotating SPM	200.00 - 249.00
Total Distance (ft)	330.00	Hours Sliding	0.17	Sliding SPM	249.00 - 249.00
Distance Rotated (ft)	315.00	Hours Rotating	2.75	Motor RPM	40.00 - 80.00
Distance Slid (ft)	15.00			Surface RPM	50.00 - 70.00
Inclination In	1.45			Flow Rate (gpm)	645.00 - 800.00
Inclination Out	1.45			On Bottom Pressure (psi)	2100.00 - 3150.00
Azimuth In	244.55	% Hours Rotating	94%	Off Bottom Pressure (psi)	1700.00 - 2300.00
Azimuth Out	244.55	% Hours Sliding	6%		
AVG Total ROP (ft/h)	113.14	% Distance Sliding	5%		
AVG Rotating ROP (ft/h)	114.55	% Distance Rotating	95%		
AVG Sliding ROP (ft/h)	90.00				

Personnel

Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer

BHA #2 - Intermediate

Date In: May 23, 2019, 17:00 Date Out: May 24, 2019, 19:30

Bit Details		Motor Details		Directional Comments
OD (in)	12.250	Size (in)	8.0	8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:890 psi. Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" PDC, SN 528696. Jets 6 x 12's, TFA: .663
Vendor	HUGHES	Lobe/Stage	7/8, 5.9	
S/N	5286596	Bend Angle	1.5	
Nozzles	6 X 12'S	Speed (rev/gal)	0.17	
Total Flow Area (in²)	0.633	Wear Pad OD (in)	8.250	MWD Comments
Drilling Hours for Day	2.92	Bit Distances		POOH for MWD flatline. OOS for catastrophic shock submitted prior.
Total Drilled for Day (ft)	330.00	Bend: 5.20 ft, Survey: 67.00 ft		
Drilling Hours for BHA	13.58			
Total Drilled for BHA (ft)	2321.00			
				POOH Reason
				MWD Incident

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 12.25 (D606X), Style: PDC, Gauge Length (in): 3.00, Size (in): 12.25	HUGHES	5286596	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 5.9 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	DYNOMAX	DM80035	6 5/8" Reg Box	6 5/8" Reg Box		8.000		36.58	38.08
Stabilizer Description: 12" STAB	DR	DR41352	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		5.55	43.63
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	47.55
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	78.32
Drill Collar Description: 8 " NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	108.92
Crossover Sub Description: X-O 4 1/2 XH BOX x 6 5/8 REG P, Type: Steel	DTI	DR39819	4 1/2" XH Box	6 5/8" Reg Pin	2.785	5.000		4.02	112.94
Drill Collar Description: 5 STANDS 6 1/2 DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.250	6.500		448.34	561.28
Crossover Sub Description: X-O 4 1/2 IF B X 4 1/2 XH P, Type: Steel	DR	DR23523	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.250		2.37	563.65
HWDP Description: 9 Stds HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	1389.53

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
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Standby	15	05-22	21:30	06:00	05-23			Standby during Casing Ops
Standby	15	05-23	06:00	15:30	05-23			Standby while nipple up and test
Change BHA	6	05-23	15:30	17:00	05-23			P/U BHA # 2
TIH	8	05-23	17:00	19:10	05-23			TIH W/ BHA #2
Other	16	05-23	19:10	19:50	05-23			Test Casing to 1500psi
Drilling Cement	17	05-23	19:50	20:55	05-23	1574.00	1628.00	Drilling Cement and Float Equipment
Rotary Drill	1	05-23	20:55	22:30	05-23	1628.00	1768.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 20.00, Surface RPM: 50, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00
Survey	46	05-23	22:30	22:40	05-23	1768.00	1768.00	Inclination (°): 1.450, Azimuth (°): 244.550, TVD (ft): 1699.97, Dogleg (°/100 ft): 0.68, Sensor Depth (ft): 1701.00, Bit To Sensor (ft): 67.00, Temperature (°F): 90.00
Slide Drill	2	05-23	22:40	22:50	05-23	1768.00	1783.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 249, Toolface: 65, Toolface Type: magnetic
Rotary Drill	1	05-23	22:50	00:00	05-24	1783.00	1958.00	Pressure On (psi): 3150.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 249.00

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Friday, May 24 00:00 - 23:59 (Day 3 of 46)

Billing: \$5,900.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	1958.00	Downhole Hours	22.00	Rotating WOB (klbs)	25.00 - 25.00
Bit Depth (ft)	3949.00	Drilling Hours	10.67	Sliding WOB (klbs)	20.00 - 25.00
Bottom Hole Depth (ft)	3949.00	Hours Circulating	0.50	Rotating SPM	279.00 - 279.00
Total Distance (ft)	1991.00	Hours Sliding	0.33	Sliding SPM	279.00 - 280.00
Distance Rotated (ft)	1961.00	Hours Rotating	10.33	Motor RPM	40.00 - 150.00
Distance Slid (ft)	30.00			Surface RPM	70.00 - 80.00
Inclination In	0.97			Flow Rate (gpm)	900.00 - 900.00
Inclination Out	1.54			On Bottom Pressure (psi)	3600.00 - 4250.00
Azimuth In	45.83	% Hours Rotating	97%	Off Bottom Pressure (psi)	3100.00 - 3800.00
Azimuth Out	76.07	% Hours Sliding	3%		
AVG Total ROP (ft/h)	183.04	% Distance Sliding	2%		
AVG Rotating ROP (ft/h)	185.74	% Distance Rotating	98%		
AVG Sliding ROP (ft/h)	90.00				

Personnel

Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer

BHA #2 - Intermediate

Date In: May 23, 2019, 17:00 Date Out: May 24, 2019, 19:30

Bit Details		Motor Details		Directional Comments
OD (in)	12.250	Size (in)	8.0	8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:890 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" PDC, SN 528696. Jets 6 x 12's, TFA: .663
Vendor	HUGHES	Lobe/Stage	7/8, 5.9	
S/N	5286596	Bend Angle	1.5	
Nozzles	6 X 12'S	Speed (rev/gal)	0.17	
Total Flow Area (in²)	0.633	Wear Pad OD (in)	8.250	MWD Comments POOH for MWD flatline. OOS for catastrophic shock submitted prior.
Drilling Hours for Day	10.67	Bit Distances		
Total Drilled for Day (ft)	1991.00	Bend: 5.20 ft, Survey: 67.00 ft		POOH Reason MWD Incident
Drilling Hours for BHA	13.58			
Total Drilled for BHA (ft)	2321.00			

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 12.25 (D606X), Style: PDC, Gauge Length (in): 3.00, Size (in): 12.25	HUGHES	5286596	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 5.9 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	DYNOMAX	DM80035	6 5/8" Reg Box	6 5/8" Reg Box		8.000		36.58	38.08
Stabilizer Description: 12" STAB	DR	DR41352	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		5.55	43.63
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	47.55
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	78.32
Drill Collar Description: 8 " NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	108.92
Crossover Sub Description: X-O 4 1/2 XH BOX x 6 5/8 REG P, Type: Steel	DTI	DR39819	4 1/2" XH Box	6 5/8" Reg Pin	2.785	5.000		4.02	112.94
Drill Collar Description: 5 STANDS 6 1/2 DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.250	6.500		448.34	561.28
Crossover Sub Description: X-O 4 1/2 IF B X 4 1/2 XH P, Type: Steel	DR	DR23523	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.250		2.37	563.65
HWDP Description: 9 Stds HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	1389.53

MWD Items

No Items

BHA #3 - Intermediate

Date In: May 24, 2019, 21:30 Date Out: May 25, 2019, 13:30

Bit Details		Motor Details		Directional Comments
OD (in)	12.250	Size (in)	8.0	8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:1330 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" T806FX, SN 7163483. Jets 6 x 12's, TFA: .663
Vendor	HUGHES	Lobe/Stage	7/8, 5.9	
S/N	7163483	Bend Angle	1.5	
Nozzles	6 X 12'S	Speed (rev/gal)	0.17	
Total Flow Area (in²)	0.633	Wear Pad OD (in)	8.250	MWD Comments
Drilling Hours for Day	0.00	Bit Distances		POOH Reason Penetration Rate
Total Drilled for Day (ft)		Bend: 5.20 ft, Survey: 67.00 ft		
Drilling Hours for BHA	7.33			
Total Drilled for BHA (ft)	1196.00			

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 12.25 (T806FX), Style: PDC, Gauge Length (in): 3.00, Size (in): 12.25	HUGHES	7163483	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 5.9 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	DYNOMAX	DM80035	6 5/8" Reg Box	6 5/8" Reg Box		8.000		36.58	38.08
Stabilizer Description: 12" STAB	DR	DR41352	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		5.55	43.63
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	47.55
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	78.32
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	108.92
Crossover Sub Description: X-O 4 1/2 XH BOX x 6 5/8 REG P, Type: Steel	DTI	DR39819	4 1/2" XH Box	6 5/8" Reg Pin	2.785	5.000		4.02	112.94
Drill Collar Description: 5 STANDS 6 1/2 DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.250	6.500		448.34	561.28
Crossover Sub Description: X-O 4 1/2 IF B X 4 1/2 XH P, Type: Steel	DR	DR23523	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.250		2.37	563.65
HWDP Description: 9 Sids HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	1389.53

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	05-23	22:50	00:00	05-24	1783.00	1958.00	Pressure On (psi): 3150.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 249.00
Survey	46	05-24	00:00	00:10	05-24	1958.00	1958.00	Inclination (°): 0.970, Azimuth (°): 45.830, TVD (ft): 1889.96, Dogleg (°/100 ft): 1.26, Sensor Depth (ft): 1891.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	00:10	01:00	05-24	1958.00	2054.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Slide Drill	2	05-24	01:00	01:05	05-24	2054.00	2064.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279, Toolface: 270, Toolface Type: magnetic
Rotary Drill	1	05-24	01:05	01:40	05-24	2064.00	2148.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	01:40	01:50	05-24	2148.00	2148.00	Inclination (°): 0.530, Azimuth (°): 23.070, TVD (ft): 2079.94, Dogleg (°/100 ft): 0.28, Sensor Depth (ft): 2081.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	01:50	02:35	05-24	2148.00	2243.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	02:35	02:40	05-24	2243.00	2243.00	Inclination (°): 0.440, Azimuth (°): 6.190, TVD (ft): 2174.94, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 2176.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	02:40	03:20	05-24	2243.00	2337.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	03:20	03:25	05-24	2337.00	2337.00	Inclination (°): 0.350, Azimuth (°): 352.390, TVD (ft): 2268.93, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 2270.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	03:25	04:10	05-24	2337.00	2432.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	04:10	04:15	05-24	2432.00	2432.00	Inclination (°): 0.350, Azimuth (°): 355.820, TVD (ft): 2363.93, Dogleg (°/100 ft): 0.02, Sensor Depth (ft): 2365.00, Bit To Sensor (ft): 67.00

Rotary Drill	1	05-24	04:15	05:10	05-24	2432.00	2527.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	05:10	05:15	05-24	2527.00	2527.00	Inclination (°): 0.400, Azimuth (°): 359.860, TVD (ft): 2458.93, Dogleg (°/100 ft): 0.06, Sensor Depth (ft): 2460.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	05:15	05:50	05-24	2527.00	2622.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Connection	33	05-24	05:50	05:55	05-24			
Rotary Drill	1	05-24	05:55	06:25	05-24	2622.00	2717.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	06:25	06:30	05-24	2717.00	2717.00	Inclination (°): 0.260, Azimuth (°): 21.570, TVD (ft): 2648.93, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 2650.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	06:30	07:00	05-24	2717.00	2812.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	07:00	07:10	05-24	2812.00	2812.00	Inclination (°): 0.530, Azimuth (°): 37.830, TVD (ft): 2743.92, Dogleg (°/100 ft): 0.30, Sensor Depth (ft): 2745.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	07:10	07:30	05-24	2812.00	2907.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	07:30	07:35	05-24	2907.00	2907.00	Inclination (°): 0.840, Azimuth (°): 50.400, TVD (ft): 2838.92, Dogleg (°/100 ft): 0.36, Sensor Depth (ft): 2840.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	07:35	07:50	05-24	2907.00	3002.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	07:50	07:55	05-24	3002.00	3002.00	Inclination (°): 1.050, Azimuth (°): 64.550, TVD (ft): 2933.90, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 2935.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	07:55	08:10	05-24	3002.00	3096.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	08:10	08:15	05-24	3096.00	3096.00	Inclination (°): 1.670, Azimuth (°): 70.000, TVD (ft): 3027.88, Dogleg (°/100 ft): 0.67, Sensor Depth (ft): 3029.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	08:15	08:30	05-24	3096.00	3191.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	08:30	08:35	05-24	3191.00	3191.00	Inclination (°): 1.980, Azimuth (°): 75.100, TVD (ft): 3122.83, Dogleg (°/100 ft): 0.37, Sensor Depth (ft): 3124.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	08:35	08:55	05-24	3191.00	3286.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	08:55	09:00	05-24	3286.00	3286.00	Inclination (°): 2.370, Azimuth (°): 68.070, TVD (ft): 3217.76, Dogleg (°/100 ft): 0.50, Sensor Depth (ft): 3219.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	09:00	09:20	05-24	3286.00	3381.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	09:20	09:25	05-24	3381.00	3381.00	Inclination (°): 2.810, Azimuth (°): 62.970, TVD (ft): 3312.66, Dogleg (°/100 ft): 0.52, Sensor Depth (ft): 3314.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	09:25	09:30	05-24	3381.00	3387.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Slide Drill	2	05-24	09:30	09:45	05-24	3387.00	3407.00	Pressure On (psi): 4250.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 280, Toolface: 225, Toolface Type: magnetic
Rotary Drill	1	05-24	09:45	10:00	05-24	3407.00	3476.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	10:00	10:05	05-24	3476.00	3476.00	Inclination (°): 1.930, Azimuth (°): 73.080, TVD (ft): 3407.58, Dogleg (°/100 ft): 1.02, Sensor Depth (ft): 3409.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	10:05	10:25	05-24	3476.00	3571.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	10:25	10:30	05-24	3571.00	3571.00	Inclination (°): 1.760, Azimuth (°): 88.110, TVD (ft): 3502.53, Dogleg (°/100 ft): 0.54, Sensor Depth (ft): 3504.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	10:30	11:00	05-24	3571.00	3666.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	11:00	11:05	05-24	3666.00	3666.00	Inclination (°): 1.800, Azimuth (°): 82.660, TVD (ft): 3597.49, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 3599.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	11:05	11:20	05-24	3666.00	3760.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-24	11:20	11:25	05-24	3760.00	3760.00	Inclination (°): 1.540, Azimuth (°): 76.070, TVD (ft): 3691.45, Dogleg (°/100 ft): 0.34, Sensor Depth (ft): 3693.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-24	11:25	12:30	05-24	3760.00	3949.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3100.00, Weight On Bit (klbs): 25.00, Surface RPM: 80, Surface Torque (ft lbf): 15.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Circulating	3	05-24	12:30	13:00	05-24			Trouble Shoot MWD
Pooh	7	05-24	13:00	13:15	05-24			POOH for MWD
Rig Repair	14	05-24	13:15	16:00	05-24			
Pooh	7	05-24	16:00	19:30	05-24			POOH for MWD
Change BHA	6	05-24	19:30	21:30	05-24			C/O MWD, Muleshoe Sleeve, and Bit. BHA 3
TIH	8	05-24	21:30	00:00	05-25			TIH W/ BHA #3

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Saturday, May 25 00:00 - 23:59 (Day 4 of 46)

Billing: \$19,125.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	3949.00	Downhole Hours	23.00	Rotating WOB (klbs)	45.00 - 45.00
Bit Depth (ft)	5315.00	Drilling Hours	8.67	Sliding WOB (klbs)	
Bottom Hole Depth (ft)	5315.00	Hours Circulating	1.50	Rotating SPM	225.00 - 279.00
Total Distance (ft)	1366.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	1366.00	Hours Rotating	8.67	Motor RPM	80.00 - 150.00
Distance Slid (ft)	0.00			Surface RPM	80.00 - 80.00
Inclination In	1.41			Flow Rate (gpm)	715.00 - 900.00
Inclination Out	0.79			On Bottom Pressure (psi)	3650.00 - 5150.00
Azimuth In	79.05	% Hours Rotating	100%	Off Bottom Pressure (psi)	2900.00 - 3900.00
Azimuth Out	122.91	% Hours Sliding	0%		
AVG Total ROP (ft/h)	157.62	% Distance Sliding	0%		
AVG Rotating ROP (ft/h)	157.62	% Distance Rotating	100%		
AVG Sliding ROP (ft/h)	0.00				

Personnel

Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer

BHA #3 - Intermediate

Date In: May 24, 2019, 21:30 Date Out: May 25, 2019, 13:30

Bit Details		Motor Details		Directional Comments
OD (in)	12.250	Size (in)	8.0	8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:1330 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" T806FX, SN 7163483. Jets 6 x 12's, TFA: .663
Vendor	HUGHES	Lobe/Stage	7/8, 5.9	
S/N	7163483	Bend Angle	1.5	
Nozzles	6 X 12'S	Speed (rev/gal)	0.17	
Total Flow Area (in²)	0.633	Wear Pad OD (in)	8.250	MWD Comments
Drilling Hours for Day	7.33	Bit Distances		
Total Drilled for Day (ft)	1196.00	Bend: 5.20 ft, Survey: 67.00 ft		
Drilling Hours for BHA	7.33			
Total Drilled for BHA (ft)	1196.00			POOH Reason
				Penetration Rate

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 12.25 (T806FX), Style: PDC, Gauge Length (in): 3.00, Size (in): 12.25	HUGHES	7163483	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 5.9 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	DYNOMAX	DM80035	6 5/8" Reg Box	6 5/8" Reg Box		8.000		36.58	38.08
Stabilizer Description: 12" STAB	DR	DR41352	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		5.55	43.63
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	47.55
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	78.32
Drill Collar Description: 8 " NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	108.92
Crossover Sub Description: X-O 4 1/2 XH BOX x 6 5/8 REG P, Type: Steel	DTI	DR39819	4 1/2" XH Box	6 5/8" Reg Pin	2.785	5.000		4.02	112.94
Drill Collar Description: 5 STANDS 6 1/2 DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.250	6.500		448.34	561.28
Crossover Sub Description: X-O 4 1/2 IF B X 4 1/2 XH P, Type: Steel	DR	DR23523	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.250		2.37	563.65
HWDP Description: 9 Stds HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	1389.53

MWD Items

No Items

BHA #4 - Intermediate

Date In: May 25, 2019, 13:30 Date Out: May 25, 2019, 23:00

Bit Details		Motor Details		Directional Comments	
OD (in)	12.250	Size (in)	8.0	8" 1.50 FBH 7/8 5.9 w/ 12" NBS. Flow Rate : 400-900, Max Diff:1330 psi, Max TQ: 14680 ft/lbs. RPG 0.166. Bit 12 1/4" D606X, SN 5287917. Jets 6 x 12's, TFA: .663	
Vendor	HUGHES	Lobe/Stage	7/8, 5.9		
S/N	5287917	Bend Angle	1.5		
Nozzles	6 X 12'S	Speed (rev/gal)	0.17		
Total Flow Area (in²)	0.633	Wear Pad OD (in)	8.250	MWD Comments	
Drilling Hours for Day	1.33	Bit Distances		POOH Reason Total Depth/Casing Point	
Total Drilled for Day (ft)	170.00	Bend: 5.20 ft, Survey: 67.00 ft			
Drilling Hours for BHA	1.33				
Total Drilled for BHA (ft)	170.00				

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 12.25 (D606X), Style: PDC, Gauge Length (in): 3.00, Size (in): 12.25	HUGHES	5287917	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: 8" Contender: 1.50 FBH 7/8 5.9 12" NBS, Size (in): 8.00, Bend Angle (°): 1.5, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	DYNOMAX	DM80035	6 5/8" Reg Box	6 5/8" Reg Box		8.000		36.58	38.08
Stabilizer Description: 12" STAB	DR	DR41352	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		5.55	43.63
UBHO Sub Description: NM UBHO, Type: NM	AIM	800702	6 5/8" Reg Box	6 5/8" Reg Pin	2.938	7.750		3.92	47.55
Drill Collar Description: 8" NMDC, Style: Slick Drill, Type: NM	AIM	80001013	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	7.875		30.77	78.32
Drill Collar Description: 8 " NMDC, Style: Slick Drill, Type: NM	AIM	8001019	6 5/8" Reg Box	6 1/2" Reg Pin	3.250	7.500		30.60	108.92
Crossover Sub Description: X-O 4 1/2 XH BOX x 6 5/8 REG P, Type: Steel	DTI	DR39819	4 1/2" XH Box	6 5/8" Reg Pin	2.785	5.000		4.02	112.94
Drill Collar Description: 5 STANDS 6 1/2 DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.250	6.500		448.34	561.28
Crossover Sub Description: X-O 4 1/2 IF B X 4 1/2 XH P, Type: Steel	DR	DR23523	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.250		2.37	563.65
HWDP Description: 9 Sids HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		825.88	1389.53

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
TIH	8	05-24	21:30	00:00	05-25			TIH W/ BHA #3
TIH	8	05-25	00:00	00:20	05-25			TIH W/ BHA #3
Survey	46	05-25	00:20	00:25	05-25	3949.00	3949.00	Inclination (°): 1.410, Azimuth (°): 79.050, TVD (ft): 3880.39, Dogleg (°/100 ft): 0.08, Sensor Depth (ft): 3882.00, Bit To Sensor (ft): 67.00, Temperature (°F): 102.00
Rotary Drill	1	05-25	00:25	01:20	05-25	3949.00	4139.00	Pressure On (psi): 4450.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-25	01:20	01:30	05-25	4139.00	4139.00	Inclination (°): 1.100, Azimuth (°): 79.230, TVD (ft): 4070.34, Dogleg (°/100 ft): 0.16, Sensor Depth (ft): 4072.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	01:30	02:15	05-25	4139.00	4329.00	Pressure On (psi): 5150.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-25	02:15	02:25	05-25	4329.00	4329.00	Inclination (°): 0.570, Azimuth (°): 73.430, TVD (ft): 4260.32, Dogleg (°/100 ft): 0.28, Sensor Depth (ft): 4262.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	02:25	02:45	05-25	4329.00	4424.00	Pressure On (psi): 5150.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-25	02:45	02:50	05-25	4424.00	4424.00	Inclination (°): 0.480, Azimuth (°): 43.280, TVD (ft): 4355.31, Dogleg (°/100 ft): 0.30, Sensor Depth (ft): 4357.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	02:50	03:05	05-25	4424.00	4519.00	Pressure On (psi): 5150.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-25	03:05	03:10	05-25	4519.00	4519.00	Inclination (°): 0.620, Azimuth (°): 44.340, TVD (ft): 4450.31, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 4452.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	03:10	03:35	05-25	4519.00	4614.00	Pressure On (psi): 5150.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-25	03:35	03:40	05-25	4614.00	4614.00	Inclination (°): 0.750, Azimuth (°): 43.020, TVD (ft): 4545.30, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 4547.00, Bit To Sensor (ft): 67.00

Rotary Drill	1	05-25	03:40	04:20	05-25	4614.00	4804.00	Pressure On (psi): 5150.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-25	04:20	04:25	05-25	4804.00	4804.00	Inclination (°): 0.220, Azimuth (°): 26.060, TVD (ft): 4735.30, Dogleg (°/100 ft): 0.29, Sensor Depth (ft): 4737.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	04:25	05:00	05-25	4804.00	4898.00	Pressure On (psi): 5150.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-25	05:00	05:05	05-25	4898.00	4898.00	Inclination (°): 0.310, Azimuth (°): 51.460, TVD (ft): 4829.29, Dogleg (°/100 ft): 0.16, Sensor Depth (ft): 4831.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	05:05	06:00	05-25	4898.00	4993.00	Pressure On (psi): 5150.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 900.00, Strokes Per Minute: 279.00
Survey	46	05-25	06:00	06:05	05-25	4993.00	4993.00	Inclination (°): 0.220, Azimuth (°): 101.030, TVD (ft): 4924.29, Dogleg (°/100 ft): 0.25, Sensor Depth (ft): 4926.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	06:05	06:45	05-25	4993.00	5088.00	Pressure On (psi): 3650.00, Pressure Off (psi): 2900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 715.00, Strokes Per Minute: 225.00
Survey	46	05-25	06:45	06:50	05-25	5088.00	5088.00	Inclination (°): 0.570, Azimuth (°): 105.070, TVD (ft): 5019.29, Dogleg (°/100 ft): 0.37, Sensor Depth (ft): 5021.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	06:50	08:40	05-25	5088.00	5145.00	Pressure On (psi): 3650.00, Pressure Off (psi): 2900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 715.00, Strokes Per Minute: 225.00
Circulating	3	05-25	08:40	09:00	05-25			Circ. DUE TO ROP
Pooh	7	05-25	09:00	13:00	05-25			POOH for BIT
Change BHA	6	05-25	13:00	13:30	05-25			P/U BHA # 4
TIH	8	05-25	13:30	16:45	05-25			TIH W/ BHA #??
Rotary Drill	1	05-25	16:45	17:15	05-25	5145.00	5183.00	Pressure On (psi): 3650.00, Pressure Off (psi): 2900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 715.00, Strokes Per Minute: 225.00
Survey	46	05-25	17:15	17:20	05-25	5183.00	5183.00	Inclination (°): 0.530, Azimuth (°): 114.650, TVD (ft): 5114.29, Dogleg (°/100 ft): 0.11, Sensor Depth (ft): 5116.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	17:20	17:55	05-25	5183.00	5278.00	Pressure On (psi): 3650.00, Pressure Off (psi): 2900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 715.00, Strokes Per Minute: 225.00
Survey	46	05-25	17:55	18:00	05-25	5278.00	5278.00	Inclination (°): 0.790, Azimuth (°): 122.910, TVD (ft): 5209.28, Dogleg (°/100 ft): 0.29, Sensor Depth (ft): 5211.00, Bit To Sensor (ft): 67.00
Rotary Drill	1	05-25	18:00	18:15	05-25	5278.00	5315.00	Pressure On (psi): 3650.00, Pressure Off (psi): 2900.00, Weight On Bit (klbs): 45.00, Surface RPM: 80, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 715.00, Strokes Per Minute: 225.00
Circulating	3	05-25	18:15	19:25	05-25			Circ.
Pooh	7	05-25	19:25	22:15	05-25			POOH.
Change BHA	6	05-25	22:15	23:00	05-25			L/D Stab and MSS. Rack back motor and monels.
Standby	15	05-25	23:00	00:00	05-26			Standby during Casing Ops

MWD Activities

No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Sunday, May 26 00:00 - 23:59 (Day of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours	0.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating	0.00	Rotating SPM	
Total Distance (ft)	0.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	-
Distance Slid (ft)	0.00			Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer

No BHAs

Directional Activities								
Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	05-25	23:00	00:00	05-26			Standby during Casing Ops
Standby	15	05-26	00:00	06:00	05-26			Standby during Casing Ops

MWD Activities								
No Activities								

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Monday, May 27 00:00 - 23:59 (Day 5 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Tuesday, May 28 00:00 - 23:59 (Day 6 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Wednesday, May 29 00:00 - 23:59 (Day 7 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number	Operator		Rig Name
	WT-19-085	Advance Energy Partners		H&P #389
	Start Date	Well Name		Legal Well Name AFE
	2019-05-21	Dagger State Com #552H		Dagger State Com #552H
Play		State/Province and Country	County	Company Man
Delaware Basin		New Mexico, US	Lea	

Thursday, May 30 00:00 - 23:59 (Day 8 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Friday, May 31 00:00 - 23:59 (Day 9 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Saturday, Jun 01 00:00 - 23:59 (Day 10 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Sunday, Jun 02 00:00 - 23:59 (Day 11 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Monday, Jun 03 00:00 - 23:59 (Day 12 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Tuesday, Jun 04 00:00 - 23:59 (Day 13 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Wednesday, Jun 05 00:00 - 23:59 (Day 14 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
Shawn Flores	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

	Job Number	Operator		Rig Name
	WT-19-085	Advance Energy Partners		H&P #389
	Start Date	Well Name		Legal Well Name AFE
	2019-05-21	Dagger State Com #552H		Dagger State Com #552H
Play		State/Province and Country	County	Company Man
Delaware Basin		New Mexico, US	Lea	

Thursday, Jun 06 00:00 - 23:59 (Day 15 of 46)

Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)	Downhole Hours		0.00	Rotating WOB (klbs)
Bit Depth (ft)	Drilling Hours			Sliding WOB (klbs)
Bottom Hole Depth (ft)	Hours Circulating			Rotating SPM
Total Distance (ft)	Hours Sliding			Sliding SPM
Distance Rotated (ft)	Hours Rotating			Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In	% Hours Rotating			Off Bottom Pressure (psi)
Azimuth Out	% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Friday, Jun 07 00:00 - 23:59 (Day 16 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Saturday, Jun 08 00:00 - 23:59 (Day 17 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Sunday, Jun 09 00:00 - 23:59 (Day 18 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Monday, Jun 10 00:00 - 23:59 (Day 19 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Tuesday, Jun 11 00:00 - 23:59 (Day 20 of 46)

Billing: \$21,226.75 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	5315.00	Downhole Hours	16.00	Rotating WOB (klbs)	
Bit Depth (ft)	7270.00	Drilling Hours	6.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)	7270.00	Hours Circulating	0.25	Rotating SPM	
Total Distance (ft)	1955.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	1955.00	Hours Rotating	6.00	Motor RPM	40.00 - 40.00
Distance Slid (ft)	0.00			Surface RPM	
Inclination In	0.57			Flow Rate (gpm)	
Inclination Out	0.22			On Bottom Pressure (psi)	
Azimuth In	116.93	% Hours Rotating	100%	Off Bottom Pressure (psi)	
Azimuth Out	60.24	% Hours Sliding	0%		
AVG Total ROP (ft/h)	315.23	% Distance Sliding	0%		
AVG Rotating ROP (ft/h)	315.23	% Distance Rotating	100%		
AVG Sliding ROP (ft/h)	0.00				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #5 - Intermediate

Date In: Jun 11, 2019, 8:00 Date Out: Jun 13, 2019, 21:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	7" RUBICON 6/7, 8.4 FXD @ 1.5° w/ 8 1/4" NBS FLOW RATE: 350-750 MAX DIFF: 1980psi MAX TQ:16,550 ft/lbs. RPG: 0.30 BIT: MM65DRM SN: 13266539 JETS: 6-15's TFA: 1.035
Vendor	SECURITY	Lobe/Stage	6/7, 8.4	
S/N	13266539	Bend Angle	1.5	
Nozzles	6-15's	Speed (rev/gal)	0.30	
Total Flow Area (in²)	1.035	Wear Pad OD (in)	7.430	MWD Comments
Drilling Hours for Day	6.00	Bit Distances		
Total Drilled for Day (ft)	1955.00	Survey (BIT TO SURVEY): 60.00 ft, Gamma (Bit to Gamma): 45.00 ft		
Drilling Hours for BHA	41.00			
Total Drilled for BHA (ft)	5407.00			
				POOH Reason
				Total Depth/Casing Point

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" SECURITY MM65DRM, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	SECURITY	13266539	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" RUBICON 6/7, 8.4 FXD @ 1.5° w/ 8 1/4" NBS, Size (in): 7.00, Bend Angle (°): 1.5, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 8.4	AIM	7036	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.72
Stabilizer Description: 8 1/4" IB STABILIZER	DR	DR39040	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		5.70	39.42
UBHO Sub Description: UBHO, Type: NM	DR	DR35417	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		2.75	42.17
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR24901	4 1/2" IF Box	4 1/2" IF Pin	3.562	6.700		30.15	72.32
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40059	4 1/2" IF Box	4 1/2" IF Pin	3.562	6.820		31.33	103.65
Crossover Sub Description: CROSSOVER SUB, Type: Steel	DR	DR12783	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.440		2.49	106.14
Drill Collar Description: 4 STANDS 6.5" DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		357.08	463.22
Crossover Sub Description: CROSSOVER SUB, Type: Steel	DR	DR41205	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.500		2.51	465.73
HWDP Description: 8 STANDS 5" HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		734.40	1200.13

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
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Standby	15	06-11	00:00	08:00	06-11			Standby
Change BHA	6	06-11	08:00	09:15	06-11			P/U BHA #5
TIH	8	06-11	09:15	13:45	06-11			TIH W/ BHA #5
Rig Service - In Hole	19	06-11	13:45	15:25	06-11			slip/cut
Drilling Cement	17	06-11	15:25	15:40	06-11	5201.00	5315.00	Drilling Cement and Float Equipment
Rotary Drill	1	06-11	15:40	15:50	06-11	5315.00	5373.00	
Survey	46	06-11	15:50	15:55	06-11	5373.00	5373.00	Inclination (°): 0.570, Azimuth (°): 116.930, TVD (ft): 5305.27, Dogleg (°/100 ft): 0.24, Sensor Depth (ft): 5307.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	15:55	16:10	06-11	5373.00	5468.00	
Survey	46	06-11	16:10	16:15	06-11	5468.00	5468.00	Inclination (°): 0.660, Azimuth (°): 149.190, TVD (ft): 5400.27, Dogleg (°/100 ft): 0.37, Sensor Depth (ft): 5402.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	16:15	16:30	06-11	5468.00	5563.00	
Survey	46	06-11	16:30	16:35	06-11	5563.00	5563.00	Inclination (°): 0.700, Azimuth (°): 155.780, TVD (ft): 5495.26, Dogleg (°/100 ft): 0.09, Sensor Depth (ft): 5497.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	16:35	16:50	06-11	5563.00	5658.00	
Survey	46	06-11	16:50	17:20	06-11	5658.00	5658.00	Inclination (°): 0.260, Azimuth (°): 182.150, TVD (ft): 5590.26, Dogleg (°/100 ft): 0.51, Sensor Depth (ft): 5592.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	17:20	17:40	06-11	5658.00	5753.00	
Survey	46	06-11	17:40	17:45	06-11	5753.00	5753.00	Inclination (°): 0.310, Azimuth (°): 118.690, TVD (ft): 5685.26, Dogleg (°/100 ft): 0.32, Sensor Depth (ft): 5687.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	17:45	18:05	06-11	5753.00	5847.00	
Survey	46	06-11	18:05	18:10	06-11	5847.00	5847.00	Inclination (°): 0.480, Azimuth (°): 147.080, TVD (ft): 5779.26, Dogleg (°/100 ft): 0.27, Sensor Depth (ft): 5781.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	18:10	18:25	06-11	5847.00	5942.00	
Survey	46	06-11	18:25	18:30	06-11	5942.00	5942.00	Inclination (°): 0.440, Azimuth (°): 141.190, TVD (ft): 5874.25, Dogleg (°/100 ft): 0.07, Sensor Depth (ft): 5876.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	18:30	18:45	06-11	5942.00	6037.00	
Survey	46	06-11	18:45	18:50	06-11	6037.00	6037.00	Inclination (°): 0.440, Azimuth (°): 135.650, TVD (ft): 5969.25, Dogleg (°/100 ft): 0.04, Sensor Depth (ft): 5971.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	18:50	19:15	06-11	6037.00	6132.00	
Survey	46	06-11	19:15	19:20	06-11	6132.00	6132.00	Inclination (°): 0.440, Azimuth (°): 144.270, TVD (ft): 6064.25, Dogleg (°/100 ft): 0.07, Sensor Depth (ft): 6066.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	19:20	19:40	06-11	6132.00	6227.00	
Survey	46	06-11	19:40	19:45	06-11	6227.00	6227.00	Inclination (°): 0.480, Azimuth (°): 132.840, TVD (ft): 6159.24, Dogleg (°/100 ft): 0.11, Sensor Depth (ft): 6161.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	19:45	19:55	06-11	6227.00	6321.00	
Survey	46	06-11	19:55	20:00	06-11	6321.00	6321.00	Inclination (°): 0.440, Azimuth (°): 118.960, TVD (ft): 6253.24, Dogleg (°/100 ft): 0.13, Sensor Depth (ft): 6255.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	20:00	20:15	06-11	6321.00	6416.00	
Survey	46	06-11	20:15	20:20	06-11	6416.00	6416.00	Inclination (°): 0.220, Azimuth (°): 111.570, TVD (ft): 6348.24, Dogleg (°/100 ft): 0.24, Sensor Depth (ft): 6350.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	20:20	20:30	06-11	6416.00	6511.00	
Survey	46	06-11	20:30	20:35	06-11	6511.00	6511.00	Inclination (°): 0.090, Azimuth (°): 236.550, TVD (ft): 6443.24, Dogleg (°/100 ft): 0.30, Sensor Depth (ft): 6445.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	20:35	20:55	06-11	6511.00	6606.00	
Survey	46	06-11	20:55	21:00	06-11	6606.00	6606.00	Inclination (°): 0.180, Azimuth (°): 143.390, TVD (ft): 6538.24, Dogleg (°/100 ft): 0.22, Sensor Depth (ft): 6540.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	21:00	21:10	06-11	6606.00	6701.00	
Survey	46	06-11	21:10	21:15	06-11	6701.00	6701.00	Inclination (°): 0.310, Azimuth (°): 114.120, TVD (ft): 6633.24, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 6635.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	21:15	21:30	06-11	6701.00	6796.00	
Survey	46	06-11	21:30	21:35	06-11	6796.00	6796.00	Inclination (°): 0.130, Azimuth (°): 123.000, TVD (ft): 6728.24, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 6730.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	21:35	21:50	06-11	6796.00	6890.00	
Survey	46	06-11	21:50	21:55	06-11	6890.00	6890.00	Inclination (°): 0.260, Azimuth (°): 155.430, TVD (ft): 6822.24, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 6824.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	21:55	22:10	06-11	6890.00	6985.00	
Survey	46	06-11	22:10	22:15	06-11	6985.00	6985.00	Inclination (°): 0.130, Azimuth (°): 119.040, TVD (ft): 6917.24, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 6919.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	22:15	22:35	06-11	6985.00	7080.00	
Survey	46	06-11	22:35	22:40	06-11	7080.00	7080.00	Inclination (°): 0.180, Azimuth (°): 117.200, TVD (ft): 7012.24, Dogleg (°/100 ft): 0.05, Sensor Depth (ft): 7014.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	22:40	23:40	06-11	7080.00	7270.00	
Survey	46	06-11	23:40	23:45	06-11	7270.00	7270.00	Inclination (°): 0.220, Azimuth (°): 60.240, TVD (ft): 7202.23, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 7204.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-11	23:45	00:15	06-12	7270.00	7364.00	

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Wednesday, Jun 12 00:00 - 23:59 (Day 21 of 46)

Billing: \$6,750.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	7270.00	Downhole Hours	24.00	Rotating WOB (klbs)	40.00 - 40.00
Bit Depth (ft)	9876.00	Drilling Hours	21.83	Sliding WOB (klbs)	25.00 - 25.00
Bottom Hole Depth (ft)	9876.00	Hours Circulating	0.00	Rotating SPM	200.00 - 200.00
Total Distance (ft)	2606.00	Hours Sliding	0.75	Sliding SPM	200.00 - 200.00
Distance Rotated (ft)	2591.00	Hours Rotating	21.08	Motor RPM	40.00 - 40.00
Distance Slid (ft)	15.00			Surface RPM	40.00 - 40.00
Inclination In	0.48			Flow Rate (gpm)	645.00 - 645.00
Inclination Out	1.89			On Bottom Pressure (psi)	2700.00 - 2800.00
Azimuth In	40.91	% Hours Rotating	97%	Off Bottom Pressure (psi)	2250.00 - 2300.00
Azimuth Out	279.18	% Hours Sliding	3%		
AVG Total ROP (ft/h)	119.36	% Distance Sliding	1%		
AVG Rotating ROP (ft/h)	122.89	% Distance Rotating	99%		
AVG Sliding ROP (ft/h)	20.00				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #5 - Intermediate

Date In: Jun 11, 2019, 8:00 Date Out: Jun 13, 2019, 21:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	7" RUBICON 6/7, 8.4 FXD @ 1.5° w/ 8 1/4" NBS FLOW RATE: 350-750 MAX DIFF: 1980psi MAX TQ:16,550 ft/lbs. RPG: 0.30 BIT: MM65DRM SN: 13266539 JETS: 6-15's TFA: 1.035
Vendor	SECURITY	Lobe/Stage	6/7, 8.4	
S/N	13266539	Bend Angle	1.5	
Nozzles	6-15's	Speed (rev/gal)	0.30	
Total Flow Area (in²)	1.035	Wear Pad OD (in)	7.430	MWD Comments
Drilling Hours for Day	21.83	Bit Distances		
Total Drilled for Day (ft)	2606.00	Survey (BIT TO SURVEY): 60.00 ft, Gamma (Bit to Gamma): 45.00 ft		
Drilling Hours for BHA	41.00			
Total Drilled for BHA (ft)	5407.00			POOH Reason
				Total Depth/Casing Point

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" SECURITY MM65DRM, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	SECURITY	13266539	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" RUBICON 6/7, 8.4 FXD @ 1.5° w/ 8 1/4" NBS, Size (in): 7.00, Bend Angle (°): 1.5, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 8.4	AIM	7036	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.72
Stabilizer Description: 8 1/4" IB STABILIZER	DR	DR39040	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		5.70	39.42
UBHO Sub Description: UBHO, Type: NM	DR	DR35417	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		2.75	42.17
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR24901	4 1/2" IF Box	4 1/2" IF Pin	3.562	6.700		30.15	72.32
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40059	4 1/2" IF Box	4 1/2" IF Pin	3.562	6.820		31.33	103.65
Crossover Sub Description: CROSSOVER SUB, Type: Steel	DR	DR12783	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.440		2.49	106.14
Drill Collar Description: 4 STANDS 6.5" DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		357.08	463.22
Crossover Sub Description: CROSSOVER SUB, Type: Steel	DR	DR41205	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.500		2.51	465.73
HWDP Description: 8 STANDS 5" HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		734.40	1200.13

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
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Rotary Drill	1	06-11	23:45	00:15	06-12	7270.00	7364.00	
Survey	46	06-12	00:15	00:20	06-12	7364.00	7364.00	Inclination (°): 0.480, Azimuth (°): 40.910, TVD (ft): 7296.23, Dogleg (°/100 ft): 0.30, Sensor Depth (ft): 7298.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	00:20	00:40	06-12	7364.00	7459.00	
Survey	46	06-12	00:40	00:45	06-12	7459.00	7459.00	Inclination (°): 0.530, Azimuth (°): 47.680, TVD (ft): 7391.23, Dogleg (°/100 ft): 0.08, Sensor Depth (ft): 7393.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	00:45	01:10	06-12	7459.00	7554.00	
Survey	46	06-12	01:10	01:15	06-12	7554.00	7554.00	Inclination (°): 0.440, Azimuth (°): 32.470, TVD (ft): 7486.23, Dogleg (°/100 ft): 0.16, Sensor Depth (ft): 7488.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	01:15	01:35	06-12	7554.00	7649.00	
Survey	46	06-12	01:35	01:40	06-12	7649.00	7649.00	Inclination (°): 0.260, Azimuth (°): 92.150, TVD (ft): 7581.22, Dogleg (°/100 ft): 0.40, Sensor Depth (ft): 7583.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	01:40	02:05	06-12	7649.00	7744.00	
Survey	46	06-12	02:05	02:10	06-12	7744.00	7744.00	Inclination (°): 0.350, Azimuth (°): 85.120, TVD (ft): 7676.22, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 7678.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	02:10	02:40	06-12	7744.00	7838.00	
Survey	46	06-12	02:40	02:45	06-12	7838.00	7838.00	Inclination (°): 0.090, Azimuth (°): 62.620, TVD (ft): 7770.22, Dogleg (°/100 ft): 0.29, Sensor Depth (ft): 7772.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	02:45	03:10	06-12	7838.00	7933.00	
Survey	46	06-12	03:10	03:15	06-12	7933.00	7933.00	Inclination (°): 0.400, Azimuth (°): 36.690, TVD (ft): 7865.22, Dogleg (°/100 ft): 0.34, Sensor Depth (ft): 7867.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	03:15	04:20	06-12	7933.00	8123.00	
Survey	46	06-12	04:20	04:25	06-12	8123.00	8123.00	Inclination (°): 0.310, Azimuth (°): 92.150, TVD (ft): 8055.22, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 8057.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	04:25	04:50	06-12	8123.00	8217.00	
Survey	46	06-12	04:50	04:55	06-12	8217.00	8217.00	Inclination (°): 0.350, Azimuth (°): 102.610, TVD (ft): 8149.22, Dogleg (°/100 ft): 0.08, Sensor Depth (ft): 8151.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	04:55	05:30	06-12	8217.00	8312.00	
Survey	46	06-12	05:30	05:35	06-12	8312.00	8312.00	Inclination (°): 0.400, Azimuth (°): 129.850, TVD (ft): 8244.21, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 8246.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	05:35	06:10	06-12	8312.00	8407.00	
Survey	46	06-12	06:10	06:15	06-12	8407.00	8407.00	Inclination (°): 0.480, Azimuth (°): 135.220, TVD (ft): 8339.21, Dogleg (°/100 ft): 0.09, Sensor Depth (ft): 8341.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	06:15	06:45	06-12	8407.00	8502.00	
Survey	46	06-12	06:45	06:50	06-12	8502.00	8502.00	Inclination (°): 0.440, Azimuth (°): 117.550, TVD (ft): 8434.21, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 8436.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	06:50	07:30	06-12	8502.00	8597.00	
Survey	46	06-12	07:30	07:35	06-12	8597.00	8597.00	Inclination (°): 0.480, Azimuth (°): 158.330, TVD (ft): 8529.21, Dogleg (°/100 ft): 0.34, Sensor Depth (ft): 8531.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	07:35	08:30	06-12	8597.00	8692.00	
Survey	46	06-12	08:30	08:35	06-12	8692.00	8692.00	Inclination (°): 0.400, Azimuth (°): 141.980, TVD (ft): 8624.20, Dogleg (°/100 ft): 0.16, Sensor Depth (ft): 8626.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	08:35	09:15	06-12	8692.00	8787.00	
Survey	46	06-12	09:15	09:20	06-12	8787.00	8787.00	Inclination (°): 0.570, Azimuth (°): 143.740, TVD (ft): 8719.20, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 8721.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	09:20	10:30	06-12	8787.00	8881.00	
Survey	46	06-12	10:30	10:45	06-12	8881.00	8881.00	Inclination (°): 0.700, Azimuth (°): 180.390, TVD (ft): 8813.19, Dogleg (°/100 ft): 0.44, Sensor Depth (ft): 8815.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	10:45	13:00	06-12	8881.00	9071.00	
Survey	46	06-12	13:00	13:05	06-12	9071.00	9071.00	Inclination (°): 0.260, Azimuth (°): 181.710, TVD (ft): 9003.19, Dogleg (°/100 ft): 0.23, Sensor Depth (ft): 9005.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	13:05	14:15	06-12	9071.00	9166.00	
Survey	46	06-12	14:15	14:20	06-12	9166.00	9166.00	Inclination (°): 0.130, Azimuth (°): 222.840, TVD (ft): 9098.19, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 9100.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	14:20	15:20	06-12	9166.00	9261.00	
Survey	46	06-12	15:20	15:25	06-12	9261.00	9261.00	Inclination (°): 0.310, Azimuth (°): 111.660, TVD (ft): 9193.19, Dogleg (°/100 ft): 0.40, Sensor Depth (ft): 9195.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	15:25	16:20	06-12	9261.00	9356.00	
Survey	46	06-12	16:20	16:35	06-12	9356.00	9356.00	Inclination (°): 0.700, Azimuth (°): 128.100, TVD (ft): 9288.18, Dogleg (°/100 ft): 0.43, Sensor Depth (ft): 9290.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	16:35	17:15	06-12	9356.00	9451.00	
Survey	46	06-12	17:15	17:20	06-12	9451.00	9451.00	Inclination (°): 0.570, Azimuth (°): 129.940, TVD (ft): 9383.18, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 9385.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	17:20	18:30	06-12	9451.00	9545.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00
Survey	46	06-12	18:30	18:35	06-12	9545.00	9545.00	Inclination (°): 0.260, Azimuth (°): 100.760, TVD (ft): 9477.17, Dogleg (°/100 ft): 0.39, Sensor Depth (ft): 9479.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	18:35	19:40	06-12	9545.00	9640.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00
Survey	46	06-12	19:40	19:45	06-12	9640.00	9640.00	Inclination (°): 0.700, Azimuth (°): 318.380, TVD (ft): 9572.17, Dogleg (°/100 ft): 0.97, Sensor Depth (ft): 9574.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	19:45	21:25	06-12	9640.00	9735.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00
Survey	46	06-12	21:25	21:30	06-12	9735.00	9735.00	Inclination (°): 1.100, Azimuth (°): 290.340, TVD (ft): 9667.16, Dogleg (°/100 ft): 0.61, Sensor Depth (ft): 9669.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	21:30	22:50	06-12	9735.00	9830.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00

Survey	46	06-12	22:50	22:55	06-12	9830.00	9830.00	Inclination (°): 1.890, Azimuth (°): 279.180, TVD (ft): 9762.13, Dogleg (°/100 ft): 0.88, Sensor Depth (ft): 9764.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-12	22:55	23:10	06-12	9830.00	9845.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00
Slide Drill	2	06-12	23:10	23:55	06-12	9845.00	9860.00	Pressure On (psi): 2700.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200, Toolface: 90, Toolface Type: magnetic
Rotary Drill	1	06-12	23:55	00:00	06-13	9860.00	9876.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Thursday, Jun 13 00:00 - 23:59 (Day 22 of 46)

Billing: \$6,750.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	9876.00	Downhole Hours	21.00	Rotating WOB (klbs)	40.00 - 40.00
Bit Depth (ft)	10722.00	Drilling Hours	13.17	Sliding WOB (klbs)	25.00 - 25.00
Bottom Hole Depth (ft)	10722.00	Hours Circulating	1.58	Rotating SPM	200.00 - 222.00
Total Distance (ft)	846.00	Hours Sliding	0.42	Sliding SPM	200.00 - 200.00
Distance Rotated (ft)	828.00	Hours Rotating	12.75	Motor RPM	40.00 - 40.00
Distance Slid (ft)	18.00			Surface RPM	40.00 - 40.00
Inclination In	1.89			Flow Rate (gpm)	645.00 - 713.00
Inclination Out	1.23			On Bottom Pressure (psi)	2700.00 - 3300.00
Azimuth In	281.20	% Hours Rotating	97%	Off Bottom Pressure (psi)	2250.00 - 2800.00
Azimuth Out	277.42	% Hours Sliding	3%		
AVG Total ROP (ft/h)	65.06	% Distance Sliding	2%		
AVG Rotating ROP (ft/h)	65.77	% Distance Rotating	98%		
AVG Sliding ROP (ft/h)	43.20				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #5 - Intermediate

Date In: Jun 11, 2019, 8:00 Date Out: Jun 13, 2019, 21:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	7" RUBICON 6/7, 8.4 FXD @ 1.5° w/ 8 1/4" NBS FLOW RATE: 350-750 MAX DIFF: 1980psi MAX TQ:16,550 ft/lbs. RPG: 0.30 BIT: MM65DRM SN: 13266539 JETS: 6-15's TFA: 1.035
Vendor	SECURITY	Lobe/Stage	6/7, 8.4	
S/N	13266539	Bend Angle	1.5	
Nozzles	6-15's	Speed (rev/gal)	0.30	
Total Flow Area (in²)	1.035	Wear Pad OD (in)	7.430	MWD Comments
Drilling Hours for Day	13.17	Bit Distances		
Total Drilled for Day (ft)	846.00	Survey (BIT TO SURVEY): 60.00 ft, Gamma (Bit to Gamma): 45.00 ft		
Drilling Hours for BHA	41.00			
Total Drilled for BHA (ft)	5407.00			POOH Reason
				Total Depth/Casing Point

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" SECURITY MM65DRM, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	SECURITY	13266539	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" RUBICON 6/7, 8.4 FXD @ 1.5° w/ 8 1/4" NBS, Size (in): 7.00, Bend Angle (°): 1.5, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 8.4	AIM	7036	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.72
Stabilizer Description: 8 1/4" IB STABILIZER	DR	DR39040	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		5.70	39.42
UBHO Sub Description: UBHO, Type: NM	DR	DR35417	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		2.75	42.17
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR24901	4 1/2" IF Box	4 1/2" IF Pin	3.562	6.700		30.15	72.32
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40059	4 1/2" IF Box	4 1/2" IF Pin	3.562	6.820		31.33	103.65
Crossover Sub Description: CROSSOVER SUB, Type: Steel	DR	DR12783	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.440		2.49	106.14
Drill Collar Description: 4 STANDS 6.5" DC'S, Style: Spiral Drill, Type: Steel	RIG	RIG	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		357.08	463.22
Crossover Sub Description: CROSSOVER SUB, Type: Steel	DR	DR41205	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.500		2.51	465.73
HWDP Description: 8 STANDS 5" HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.125	5.000		734.40	1200.13

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
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Rotary Drill	1	06-12	23:55	00:00	06-13	9860.00	9876.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00
Rotary Drill	1	06-13	00:00	00:30	06-13	9876.00	9925.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00
Survey	46	06-13	00:30	00:35	06-13	9925.00	9925.00	Inclination (°): 1.890, Azimuth (°): 281.200, TVD (ft): 9857.08, Dogleg (°/100 ft): 0.07, Sensor Depth (ft): 9859.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-13	00:35	01:35	06-13	9925.00	10020.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00
Survey	46	06-13	01:35	01:40	06-13	10020.00	10020.00	Inclination (°): 1.710, Azimuth (°): 287.270, TVD (ft): 9952.03, Dogleg (°/100 ft): 0.28, Sensor Depth (ft): 9954.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-13	01:40	02:50	06-13	10020.00	10114.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2250.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200.00
Survey	46	06-13	02:50	02:55	06-13	10114.00	10114.00	Inclination (°): 1.850, Azimuth (°): 287.880, TVD (ft): 10045.98, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 10048.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-13	02:55	03:05	06-13	10114.00	10115.00	Pressure On (psi): 3300.00, Pressure Off (psi): 2800.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 713.00, Strokes Per Minute: 222.00
Slide Drill	2	06-13	03:05	03:30	06-13	10115.00	10133.00	Pressure On (psi): 2700.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200, Toolface: 90, Toolface Type: magnetic
Rotary Drill	1	06-13	03:30	04:20	06-13	10133.00	10209.00	Pressure On (psi): 3300.00, Pressure Off (psi): 2800.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 713.00, Strokes Per Minute: 222.00
Survey	46	06-13	04:20	04:25	06-13	10209.00	10209.00	Inclination (°): 0.880, Azimuth (°): 299.920, TVD (ft): 10140.96, Dogleg (°/100 ft): 1.06, Sensor Depth (ft): 10143.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-13	04:25	05:55	06-13	10209.00	10304.00	Pressure On (psi): 3300.00, Pressure Off (psi): 2800.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 713.00, Strokes Per Minute: 222.00
Survey	46	06-13	05:55	06:00	06-13	10304.00	10304.00	Inclination (°): 0.840, Azimuth (°): 315.130, TVD (ft): 10235.95, Dogleg (°/100 ft): 0.24, Sensor Depth (ft): 10238.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-13	06:00	07:30	06-13	10304.00	10399.00	Pressure On (psi): 3300.00, Pressure Off (psi): 2800.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 713.00, Strokes Per Minute: 222.00
Survey	46	06-13	07:30	07:35	06-13	10399.00	10399.00	Inclination (°): 0.750, Azimuth (°): 275.840, TVD (ft): 10330.94, Dogleg (°/100 ft): 0.57, Sensor Depth (ft): 10333.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-13	07:35	09:35	06-13	10399.00	10494.00	Pressure On (psi): 3300.00, Pressure Off (psi): 2800.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 12.00, Flow Rate (gpm): 713.00, Strokes Per Minute: 222.00
Survey	46	06-13	09:35	09:40	06-13	10494.00	10494.00	Inclination (°): 0.750, Azimuth (°): 261.510, TVD (ft): 10425.93, Dogleg (°/100 ft): 0.20, Sensor Depth (ft): 10428.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-13	09:40	11:25	06-13	10494.00	10589.00	
Survey	46	06-13	11:25	11:30	06-13	10589.00	10589.00	Inclination (°): 1.140, Azimuth (°): 273.030, TVD (ft): 10520.92, Dogleg (°/100 ft): 0.45, Sensor Depth (ft): 10523.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-13	11:30	13:00	06-13	10589.00	10684.00	
Survey	46	06-13	13:00	13:05	06-13	10684.00	10684.00	Inclination (°): 1.230, Azimuth (°): 277.420, TVD (ft): 10615.90, Dogleg (°/100 ft): 0.13, Sensor Depth (ft): 10618.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	06-13	13:05	13:55	06-13	10684.00	10722.00	
Circulating	3	06-13	13:55	15:30	06-13			Circ. [kop]
Pooh	7	06-13	15:30	20:00	06-13			POOH. Reach KOP
Change BHA	6	06-13	20:00	21:00	06-13			L/D BHA 5
Standby	15	06-13	21:00	00:00	06-14			Standby. Set Packer, Skid to 802H

MWD Activities

No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Friday, Jun 14 00:00 - 23:59 (Day of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM	
Total Distance (ft)		Hours Sliding		Sliding SPM	
Distance Rotated (ft)		Hours Rotating		Motor RPM	-
Distance Slid (ft)				Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

No BHAs

Directional Activities								
Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	06-13	21:00	00:00	06-14			Standby. Set Packer, Skid to 802H

MWD Activities								
No Activities								

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Saturday, Jun 15 00:00 - 23:59 (Day 23 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Sunday, Jun 16 00:00 - 23:59 (Day 24 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Monday, Jun 17 00:00 - 23:59 (Day 25 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number	Operator		Rig Name
	WT-19-085	Advance Energy Partners		H&P #389
	Start Date	Well Name		Legal Well Name AFE
	2019-05-21	Dagger State Com #552H		Dagger State Com #552H
Play		State/Province and Country	County	Company Man
Delaware Basin		New Mexico, US	Lea	

Tuesday, Jun 18 00:00 - 23:59 (Day 26 of 46)

Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number	Operator		Rig Name
	WT-19-085	Advance Energy Partners		H&P #389
	Start Date	Well Name		Legal Well Name AFE
	2019-05-21	Dagger State Com #552H		Dagger State Com #552H
Play		State/Province and Country	County	Company Man
Delaware Basin		New Mexico, US	Lea	

Wednesday, Jun 19 00:00 - 23:59 (Day 27 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

	Job Number	Operator		Rig Name
	WT-19-085	Advance Energy Partners		H&P #389
	Start Date	Well Name		Legal Well Name AFE
	2019-05-21	Dagger State Com #552H		Dagger State Com #552H
Play		State/Province and Country	County	Company Man
Delaware Basin		New Mexico, US	Lea	

Thursday, Jun 20 00:00 - 23:59 (Day 28 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Friday, Jun 21 00:00 - 23:59 (Day 29 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Saturday, Jun 22 00:00 - 23:59 (Day 30 of 46) Billing: N/A (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Sunday, Jun 23 00:00 - 23:59 (Day 31 of 46) Billing: \$2,472.50 (\$284,127.12 total)

Drilling Summary			Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)		Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)		Hours Circulating		Rotating SPM
Total Distance (ft)		Hours Sliding		Sliding SPM
Distance Rotated (ft)		Hours Rotating		Motor RPM
Distance Slid (ft)				Surface RPM
Inclination In				Flow Rate (gpm)
Inclination Out				On Bottom Pressure (psi)
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out		% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating		
AVG Sliding ROP (ft/h)	0.00			

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller
No BHAs	

Directional Activities
No Activities
MWD Activities
No Activities

	Job Number	Operator		Rig Name
	WT-19-085	Advance Energy Partners		H&P #389
	Start Date	Well Name		Legal Well Name AFE
	2019-05-21	Dagger State Com #552H		Dagger State Com #552H
Play		State/Province and Country	County	Company Man
Delaware Basin		New Mexico, US	Lea	

Monday, Jun 24 00:00 - 23:59 (Day of 46)

Billing: \$12,420.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours	0.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating	0.00	Rotating SPM	
Total Distance (ft)	0.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	-
Distance Slid (ft)	0.00			Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

No BHAs

Directional Activities								
Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	06-24	00:00	00:00	06-25			Standby

MWD Activities								
No Activities								



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Tuesday, Jun 25 00:00 - 23:59 (Day 32 of 46)

Billing: \$25,490.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	10722.00	Downhole Hours	20.50	Rotating WOB (klbs)	20.00 - 20.00
Bit Depth (ft)	10853.00	Drilling Hours	7.42	Sliding WOB (klbs)	25.00 - 25.00
Bottom Hole Depth (ft)	10853.00	Hours Circulating	1.33	Rotating SPM	150.00 - 150.00
Total Distance (ft)	131.00	Hours Sliding	7.00	Sliding SPM	200.00 - 200.00
Distance Rotated (ft)	20.00	Hours Rotating	0.42	Motor RPM	25.00 - 25.00
Distance Slid (ft)	111.00			Surface RPM	25.00 - 25.00
Inclination In	1.14			Flow Rate (gpm)	475.00 - 645.00
Inclination Out	8.44			On Bottom Pressure (psi)	2700.00 - 2750.00
Azimuth In	303.17	% Hours Rotating	6%	Off Bottom Pressure (psi)	2300.00 - 2400.00
Azimuth Out	2.06	% Hours Sliding	94%		
AVG Total ROP (ft/h)	17.66	% Distance Sliding	85%		
AVG Rotating ROP (ft/h)	48.00	% Distance Rotating	15%		
AVG Sliding ROP (ft/h)	15.86				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #6 - CURVE

Date In: Jun 25, 2019, 2:30 Date Out: Jun 25, 2019, 23:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	7" SINPER 7/8, 8.5 FXD @ 2.12° w/ SS FLOW RATE: 350-750 MAX DIFF: 1910psi MAX TQ:18,710 ft/lbs. RPG: 0.26 BIT: GTD64C SN: 13184323 JETS: 6-20's TFA: 1.841
Vendor	SECURITY	Lobe/Stage	7/8, 8.5	
S/N	13184323	Bend Angle	2.12	
Nozzles	6-20's	Speed (rev/gal)	0.26	
Total Flow Area (in²)	1.841	Wear Pad OD (in)	7.250	MWD Comments
Drilling Hours for Day	7.42	Bit Distances		
Total Drilled for Day (ft)	131.00	Bend: 4.85 ft, Survey (Bit to Survey): 69.00 ft,		
Drilling Hours for BHA	7.42	Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 45.00 ft		
Total Drilled for BHA (ft)	131.00			POOH Reason
				Change Bottom Hole Assembly: POOH for motor

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" SECURITY GTD64C, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	SECURITY	13184323	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" SINPER 7/8, 8.5 FXD @ 2.12° w/ SS, Size (in): 7.00, Bend Angle (°): 2.12, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SINPER	DR70003	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	68.14
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	4500-744B-1	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.500		17.50	85.64
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	116.79
Drill Pipe Description: 12 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		1138.14	1254.93
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	1989.33

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	06-24	00:00	00:00	06-25			Standby
Change BHA	6	06-25	00:00	01:00	06-25			P/U BHA #6
Other	16	06-25	01:00	02:10	06-25			Program & Test MWD
P/U DP	29	06-25	02:10	02:30	06-25			Scribe, M/U Bit & NMDC
TIH	8	06-25	02:30	08:30	06-25			TIH W/ BHA #6
Circulating	3	06-25	08:30	08:50	06-25			Circ. [relog]

Rotary Drill	1	06-25	08:50	09:15	06-25	10722.00	10742.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2400.00, Weight On Bit (klbs): 20.00, Surface RPM: 25, Surface Torque (ft lbf): 8000.00, Flow Rate (gpm): 475.00, Strokes Per Minute: 150.00
Slide Drill	2	06-25	09:15	12:15	06-25	10742.00	10808.00	Pressure On (psi): 2700.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200, Toolface: 0, Toolface Type: magnetic
Survey	46	06-25	12:15	12:20	06-25	10808.00	10808.00	Inclination (°): 1.140, Azimuth (°): 303.170, TVD (ft): 10736.87, Dogleg (°/100 ft): 0.44, Sensor Depth (ft): 10739.00, Bit To Sensor (ft): 69.00
Slide Drill	2	06-25	12:20	16:20	06-25	10808.00	10853.00	Pressure On (psi): 2700.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 645.00, Strokes Per Minute: 200, Toolface: 0, Toolface Type: magnetic
Survey	46	06-25	16:20	16:25	06-25	10853.00	10853.00	Inclination (°): 8.440, Azimuth (°): 2.060, TVD (ft): 10781.69, Dogleg (°/100 ft): 17.58, Sensor Depth (ft): 10784.00, Bit To Sensor (ft): 69.00
Circulating	3	06-25	16:25	17:25	06-25			Circ.
Pooh	7	06-25	17:25	22:00	06-25			POOH
Change BHA	6	06-25	22:00	23:00	06-25			P/U BHA # 7, Motor, Float Sub, & Bit
Other	16	06-25	23:00	00:00	06-26			Program & Test MWD

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Wednesday, Jun 26 00:00 - 23:59 (Day 33 of 46)

Billing: \$20,145.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	10853.00	Downhole Hours	23.25	Rotating WOB (klbs)	20.00 - 20.00
Bit Depth (ft)	11625.00	Drilling Hours	13.75	Sliding WOB (klbs)	30.00 - 30.00
Bottom Hole Depth (ft)	11625.00	Hours Circulating	0.00	Rotating SPM	150.00 - 186.00
Total Distance (ft)	772.00	Hours Sliding	11.25	Sliding SPM	162.00 - 162.00
Distance Rotated (ft)	189.00	Hours Rotating	2.50	Motor RPM	25.00 - 25.00
Distance Slid (ft)	583.00			Surface RPM	25.00 - 25.00
Inclination In	15.03			Flow Rate (gpm)	475.00 - 600.00
Inclination Out	83.34			On Bottom Pressure (psi)	2750.00 - 3200.00
Azimuth In	6.19	% Hours Rotating	18%	Off Bottom Pressure (psi)	2400.00 - 2700.00
Azimuth Out	2.06	% Hours Sliding	82%		
AVG Total ROP (ft/h)	56.15	% Distance Sliding	76%		
AVG Rotating ROP (ft/h)	75.60	% Distance Rotating	24%		
AVG Sliding ROP (ft/h)	51.82				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #7 - Curve 2

Date In: Jun 26, 2019, 0:45 Date Out: Jun 27, 2019, 2:15

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	6.75	6 3/4" Contender 7/8, 5.7 FXD @ 2.12° w/ SS FLOW RATE: 300-600 MAX DIFF: 1280 psi MAX TQ:13,720 ft/lbs. RPG: 0.21 BIT: (0 runs) GTD64C SN: 13243076 JETS: 6-20's TFA: 1.841
Vendor	SECURITY	Lobe/Stage	7/8, 5.7	
S/N	13243076	Bend Angle	2.12	
Nozzles	6-20's	Speed (rev/gal)	0.21	
Total Flow Area (in²)	1.841	Wear Pad OD (in)	7.000	MWD Comments
Drilling Hours for Day	13.75	Bit Distances		
Total Drilled for Day (ft)	772.00	Bend: 4.00 ft, Survey (Bit to Survey): 68.00 ft,		
Drilling Hours for BHA	13.75	Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 44.00 ft		
Total Drilled for BHA (ft)	772.00			
				POOH Reason
				Change Bottom Hole Assembly: none

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" SECURITY GTD64C, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	SECURITY	13243076	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 6 3/4" Contender 7/8, 5.7 FXD @ 2.12° w/ SS, Size (in): 6.75, Bend Angle (°): 2.12, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.7	AIM	650010AIM	4 1/2" IF Box	4 1/2" Reg Box		6.750		31.63	32.63
Float Sub Description: Float Sub, Type: Steel	DR	DR9145	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.750		2.65	35.28
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	66.83
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	4500-744B-1	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.500		17.50	84.33
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	115.48
Drill Pipe Description: 12 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		1138.14	1253.62
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	1988.02

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Other	16	06-25	23:00	00:00	06-26			Program & Test MWD
Other	16	06-26	00:00	00:25	06-26			Program & Test MWD
Other	16	06-26	00:25	00:45	06-26			M/U Bit & Monel
TIH	8	06-26	00:45	04:40	06-26			TIH W/ BHA #7

Slide Drill	2	06-26	04:40	05:35	06-26	10853.00	10877.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2700.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 525.00, Strokes Per Minute: 162, Toolface: 350, Toolface Type: gravity
Rotary Drill	1	06-26	05:35	06:15	06-26	10877.00	10903.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2400.00, Weight On Bit (klbs): 20.00, Surface RPM: 25, Surface Torque (ft lbf): 8000.00, Flow Rate (gpm): 475.00, Strokes Per Minute: 150.00
Survey	46	06-26	06:15	06:20	06-26	10903.00	10903.00	Inclination (°): 15.030, Azimuth (°): 6.190, TVD (ft): 10830.62, Dogleg (°/100 ft): 13.28, Sensor Depth (ft): 10834.00, Bit To Sensor (ft): 69.00
Slide Drill	2	06-26	06:20	06:50	06-26	10903.00	10922.00	Toolface: 340, Toolface Type: gravity
Survey	46	06-26	06:50	06:55	06-26	10922.00	10922.00	Inclination (°): 17.490, Azimuth (°): 4.700, TVD (ft): 10848.86, Dogleg (°/100 ft): 13.13, Sensor Depth (ft): 10853.00, Bit To Sensor (ft): 69.00
Slide Drill	2	06-26	06:55	07:30	06-26	10922.00	10951.00	Toolface: 340, Toolface Type: gravity
Survey	46	06-26	07:30	07:40	06-26	10951.00	10951.00	Inclination (°): 20.260, Azimuth (°): 3.910, TVD (ft): 10876.30, Dogleg (°/100 ft): 9.59, Sensor Depth (ft): 10882.00, Bit To Sensor (ft): 69.00
Slide Drill	2	06-26	07:40	08:05	06-26	10951.00	10974.00	Toolface: 340, Toolface Type: gravity
Rotary Drill	1	06-26	08:05	08:20	06-26	10974.00	10996.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2400.00, Weight On Bit (klbs): 20.00, Surface RPM: 25, Surface Torque (ft lbf): 8000.00, Flow Rate (gpm): 475.00, Strokes Per Minute: 150.00
Survey	46	06-26	08:20	08:30	06-26	10996.00	10996.00	Inclination (°): 25.050, Azimuth (°): 1.450, TVD (ft): 10918.74, Dogleg (°/100 ft): 10.61, Sensor Depth (ft): 10928.00, Bit To Sensor (ft): 68.00
Slide Drill	2	06-26	08:30	09:30	06-26	10996.00	11050.00	Toolface: 20, Toolface Type: gravity
Rotary Drill	1	06-26	09:30	09:55	06-26	11050.00	11091.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2400.00, Weight On Bit (klbs): 20.00, Surface RPM: 25, Surface Torque (ft lbf): 8000.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 186.00
Survey	46	06-26	09:55	10:05	06-26	11091.00	11091.00	Inclination (°): 34.950, Azimuth (°): 355.470, TVD (ft): 11000.93, Dogleg (°/100 ft): 10.87, Sensor Depth (ft): 11023.00, Bit To Sensor (ft): 68.00
Slide Drill	2	06-26	10:05	10:45	06-26	11091.00	11141.00	Toolface: 20, Toolface Type: gravity
Rotary Drill	1	06-26	10:45	11:15	06-26	11141.00	11186.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2400.00, Weight On Bit (klbs): 20.00, Surface RPM: 25, Surface Torque (ft lbf): 8000.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 186.00
Survey	46	06-26	11:15	11:25	06-26	11186.00	11186.00	Inclination (°): 41.850, Azimuth (°): 359.420, TVD (ft): 11075.34, Dogleg (°/100 ft): 7.71, Sensor Depth (ft): 11118.00, Bit To Sensor (ft): 68.00
Slide Drill	2	06-26	11:25	12:25	06-26	11186.00	11246.00	Toolface: 0, Toolface Type: gravity
Rotary Drill	1	06-26	12:25	12:50	06-26	11246.00	11281.00	
Survey	46	06-26	12:50	13:00	06-26	11281.00	11281.00	Inclination (°): 47.160, Azimuth (°): 358.460, TVD (ft): 11143.07, Dogleg (°/100 ft): 5.63, Sensor Depth (ft): 11213.00, Bit To Sensor (ft): 68.00
Slide Drill	2	06-26	13:00	14:45	06-26	11281.00	11376.00	Toolface: 0, Toolface Type: gravity
Survey	46	06-26	14:45	14:55	06-26	11376.00	11376.00	Inclination (°): 54.810, Azimuth (°): 358.110, TVD (ft): 11202.83, Dogleg (°/100 ft): 8.06, Sensor Depth (ft): 11308.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	06-26	14:55	15:10	06-26	11376.00	11396.00	
Slide Drill	2	06-26	15:10	16:20	06-26	11396.00	11470.00	Toolface: 0, Toolface Type: gravity
Survey	46	06-26	16:20	16:30	06-26	11470.00	11470.00	Inclination (°): 62.330, Azimuth (°): 357.670, TVD (ft): 11251.82, Dogleg (°/100 ft): 8.01, Sensor Depth (ft): 11402.00, Bit To Sensor (ft): 68.00
Slide Drill	2	06-26	16:30	18:45	06-26	11470.00	11565.00	Toolface: 0, Toolface Type: gravity
Survey	46	06-26	18:45	18:55	06-26	11565.00	11565.00	Inclination (°): 73.760, Azimuth (°): 359.690, TVD (ft): 11287.28, Dogleg (°/100 ft): 12.19, Sensor Depth (ft): 11497.00, Bit To Sensor (ft): 68.00
Slide Drill	2	06-26	18:55	19:55	06-26	11565.00	11625.00	Toolface: 0, Toolface Type: gravity
Survey	46	06-26	19:55	20:05	06-26	11625.00	11625.00	Inclination (°): 83.340, Azimuth (°): 2.060, TVD (ft): 11299.18, Dogleg (°/100 ft): 16.43, Sensor Depth (ft): 11557.00, Bit To Sensor (ft): 68.00
Other	16	06-26	20:05	20:20	06-26			FLOW CHECK, PUMP SLUG
Pooh	7	06-26	20:20	23:30	06-26			POOH for Lateral BHA
Other	16	06-26	23:30	02:15	06-27			Change BHA

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Thursday, Jun 27 00:00 - 23:59 (Day 34 of 46)

Billing: \$31,565.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	11625.00	Downhole Hours	24.00	Rotating WOB (klbs)	40.00 - 48.00
Bit Depth (ft)	12416.00	Drilling Hours	3.92	Sliding WOB (klbs)	35.00 - 35.00
Bottom Hole Depth (ft)	12416.00	Hours Circulating	1.92	Rotating SPM	198.00 - 226.00
Total Distance (ft)	791.00	Hours Sliding	0.67	Sliding SPM	222.00 - 222.00
Distance Rotated (ft)	746.00	Hours Rotating	3.25	Motor RPM	25.00 - 25.00
Distance Slid (ft)	45.00			Surface RPM	50.00 - 80.00
Inclination In	87.96			Flow Rate (gpm)	642.00 - 730.00
Inclination Out	88.00			On Bottom Pressure (psi)	4550.00 - 5500.00
Azimuth In	1.71	% Hours Rotating	83%	Off Bottom Pressure (psi)	3800.00 - 4900.00
Azimuth Out	359.69	% Hours Sliding	17%		
AVG Total ROP (ft/h)	201.96	% Distance Sliding	6%		
AVG Rotating ROP (ft/h)	229.54	% Distance Rotating	94%		
AVG Sliding ROP (ft/h)	67.50				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #7 - Curve 2

Date In: Jun 26, 2019, 0:45 Date Out: Jun 27, 2019, 2:15

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	6.75	6 3/4" Contender 7/8, 5.7 FXD @ 2.12° w/ SS FLOW RATE: 300-600 MAX DIFF: 1280 psi MAX TQ:13,720 ft/lbs. RPG: 0.21 BIT: (0 runs) GTD64C SN: 13243076 JETS: 6-20's TFA: 1.841
Vendor	SECURITY	Lobe/Stage	7/8, 5.7	
S/N	13243076	Bend Angle	2.12	
Nozzles	6-20's	Speed (rev/gal)	0.21	
Total Flow Area (in²)	1.841	Wear Pad OD (in)	7.000	MWD Comments
Drilling Hours for Day	0.00	Bit Distances		
Total Drilled for Day (ft)		Bend: 4.00 ft, Survey (Bit to Survey): 68.00 ft,		
Drilling Hours for BHA	13.75	Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 44.00 ft		
Total Drilled for BHA (ft)	772.00			POOH Reason
				Change Bottom Hole Assembly: none

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" SECURITY GTD64C, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	SECURITY	13243076	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 6 3/4" Contender 7/8, 5.7 FXD @ 2.12° w/ SS, Size (in): 6.75, Bend Angle (°): 2.12, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.7	AIM	650010AIM	4 1/2" IF Box	4 1/2" Reg Box		6.750		31.63	32.63
Float Sub Description: Float Sub, Type: Steel	DR	DR9145	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.750		2.65	35.28
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	66.83
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	4500-744B-1	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.500		17.50	84.33
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	115.48
Drill Pipe Description: 12 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		1138.14	1253.62
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	1988.02

MWD Items

No Items

BHA #8 - Lateral

Date In: Jun 27, 2019, 2:15 Date Out: Jun 27, 2019, 19:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.500	Size (in)	7.0	7" IPS 7/8, 8.5 FXD @ 1.75° w/ SS Size (in): 7.00 Bend Angle (°): 1.75 Rotor Lobe: 7 Stator Lobe: 8 Stator Stage: 8.50 Flow Rate: 300-750, Max Diff: 1910, Max Torque: 18,710, RPG: 0.26 Bit: (0 Runs)	
Vendor	REED	Lobe/Stage	7/8, 8.5		
S/N	A256218	Bend Angle	1.75		
Nozzles	6-20's	Speed (rev/gal)	0.26	MWD Comments	
Total Flow Area (in²)	1.841	Wear Pad OD (in)	7.250	POOH Reason Pressure Spike: While drilling ahead noticed PSI increased. Pulled off bottom and PSI didn't bleed off. Attempted to drill but PSI kept increasing. POOH to inspect BHA components	
Drilling Hours for Day	3.17	Bit Distances			
Total Drilled for Day (ft)	700.00	Bend: 4.00 ft, Survey (Bit to Survey): 71.00 ft,			
Drilling Hours for BHA	3.17	Resistivity (Bit to Resistivity): 57.00 ft, Gamma (Bit to Gamma): 47.00 ft			
Total Drilled for BHA (ft)	700.00				

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" REED SKC616M, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	REED	A256218	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" IPS 7/8, 8.5 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	IPS	IPS7004	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.94	35.94
Float Sub Description: Float Sub, Type: Steel	DR	DR9145	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.750		2.65	38.59
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	70.14
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	87.63
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	118.78
Drill Pipe Description: 88 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		8345.23	8464.01
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9198.41

MWD Items

No Items

BHA #9 - LATERAL

Date In: Jun 27, 2019, 19:00 Date Out: Jun 30, 2019, 6:15

Bit Details		Motor Details		Directional Comments	
OD (in)	8.500	Size (in)	7.0	Flow Rate: 300-750, Max Diff: 1910, Max Torque: 18,710, Bit: (1 Run)	
Vendor	Security	Lobe/Stage	7/8, 8.5		
S/N	13133077	Bend Angle	1.75		
Nozzles	6-20's	Speed (rev/gal)	0.26	MWD Comments	
Total Flow Area (in²)	1.841	Wear Pad OD (in)	7.330		
Drilling Hours for Day	0.75	Bit Distances		POOH Reason Penetration Rate: POOH FOR LOW ROP	
Total Drilled for Day (ft)	91.00	Bend: 4.41 ft, Survey (Bit to Survey): 69.00 ft,			
Drilling Hours for BHA	45.83	Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 45.00 ft			
Total Drilled for BHA (ft)	3257.00				

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Security MM65DRM, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Security	13133077	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" SNIPER: 7/8, 8.5 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SNIPER	DR70001	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	68.14
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	85.63
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	116.78
Drill Pipe Description: 88 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		8345.23	8462.01

HWDP			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9196.41
Description: HWDP, Style: Spiral									

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Other	16	06-26	23:30	02:15	06-27			Change BHA
TIH	8	06-27	02:15	05:15	06-27			TIH W/ BHA 8
Reaming	4	06-27	05:15	06:30	06-27			Reaming F/ 10742-11565
Troubleshoot	34	06-27	06:30	08:05	06-27			Downlink MWD & Troubleshoot
Rotary Drill	1	06-27	08:05	08:35	06-27	11625.00	11663.00	Pressure On (psi): 4550.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 40.00, Surface RPM: 50, Surface Torque (ft lbf): 14000.00, Flow Rate (gpm): 642.00, Strokes Per Minute: 198.00
Survey	46	06-27	08:35	08:45	06-27	11663.00	11663.00	Inclination (°): 87.960, Azimuth (°): 1.710, TVD (ft): 11301.83, Dogleg (°/100 ft): 13.24, Sensor Depth (ft): 11592.00, Bit To Sensor (ft): 71.00
Rotary Drill	1	06-27	08:45	09:00	06-27	11663.00	11757.00	Pressure On (psi): 4550.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 40.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 642.00, Strokes Per Minute: 198.00
Survey	46	06-27	09:00	09:10	06-27	11757.00	11757.00	Inclination (°): 91.740, Azimuth (°): 0.480, TVD (ft): 11302.08, Dogleg (°/100 ft): 4.23, Sensor Depth (ft): 11686.00, Bit To Sensor (ft): 71.00
Rotary Drill	1	06-27	09:10	09:20	06-27	11757.00	11851.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 40.00, Surface RPM: 70, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222.00
Survey	46	06-27	09:20	09:30	06-27	11851.00	11851.00	Inclination (°): 91.740, Azimuth (°): 359.600, TVD (ft): 11299.22, Dogleg (°/100 ft): 0.94, Sensor Depth (ft): 11780.00, Bit To Sensor (ft): 71.00
Rotary Drill	1	06-27	09:30	09:40	06-27	11851.00	11946.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 40.00, Surface RPM: 70, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222.00
Survey	46	06-27	09:40	09:50	06-27	11946.00	11946.00	Inclination (°): 91.910, Azimuth (°): 358.720, TVD (ft): 11296.20, Dogleg (°/100 ft): 0.94, Sensor Depth (ft): 11875.00, Bit To Sensor (ft): 71.00
Rotary Drill	1	06-27	09:50	10:00	06-27	11946.00	12040.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 40.00, Surface RPM: 80, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222.00
Survey	46	06-27	10:00	10:10	06-27	12040.00	12040.00	Inclination (°): 92.090, Azimuth (°): 357.840, TVD (ft): 11292.92, Dogleg (°/100 ft): 0.95, Sensor Depth (ft): 11969.00, Bit To Sensor (ft): 71.00
Rotary Drill	1	06-27	10:10	10:15	06-27	12040.00	12050.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 40.00, Surface RPM: 80, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222.00
Slide Drill	2	06-27	10:15	10:25	06-27	12050.00	12070.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 35.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222, Toolface: 120, Toolface Type: gravity
Rotary Drill	1	06-27	10:25	10:35	06-27	12070.00	12135.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 40.00, Surface RPM: 80, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222.00
Survey	46	06-27	10:35	10:40	06-27	12135.00	12135.00	Inclination (°): 91.380, Azimuth (°): 358.900, TVD (ft): 11290.04, Dogleg (°/100 ft): 1.34, Sensor Depth (ft): 12064.00, Bit To Sensor (ft): 71.00
Rotary Drill	1	06-27	10:40	10:55	06-27	12135.00	12229.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 40.00, Surface RPM: 80, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222.00
Survey	46	06-27	10:55	11:00	06-27	12229.00	12229.00	Inclination (°): 91.080, Azimuth (°): 358.810, TVD (ft): 11288.02, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 12158.00, Bit To Sensor (ft): 71.00
Rotary Drill	1	06-27	11:00	11:15	06-27	12229.00	12240.00	Pressure On (psi): 5500.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 40.00, Surface RPM: 80, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222.00
Slide Drill	2	06-27	11:15	11:45	06-27	12240.00	12265.00	Pressure On (psi): 5500.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 35.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222, Toolface: 140, Toolface Type: gravity
Rotary Drill	1	06-27	11:45	12:10	06-27	12265.00	12323.00	Pressure On (psi): 5500.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 40.00, Surface RPM: 80, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222.00
Survey	46	06-27	12:10	12:15	06-27	12323.00	12323.00	Inclination (°): 89.410, Azimuth (°): 359.250, TVD (ft): 11287.62, Dogleg (°/100 ft): 1.84, Sensor Depth (ft): 12252.00, Bit To Sensor (ft): 71.00
Rotary Drill	1	06-27	12:15	12:20	06-27	12323.00	12325.00	Pressure On (psi): 5500.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 40.00, Surface RPM: 80, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222.00
Circulating	3	06-27	12:20	13:00	06-27			Circ. [POOH]
Pooh	7	06-27	13:00	17:00	06-27			POOH for New Motor
Change BHA	6	06-27	17:00	19:00	06-27			P/U BHA #9
TIH	8	06-27	19:00	23:05	06-27			TIH W/ BHA #9
Rotary Drill	1	06-27	23:05	23:50	06-27	12325.00	12416.00	Pressure On (psi): 5400.00, Pressure Off (psi): 4900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 730.00, Strokes Per Minute: 226.00
Survey	46	06-27	23:50	00:00	06-28	12416.00	12416.00	Inclination (°): 88.000, Azimuth (°): 359.690, TVD (ft): 11289.77, Dogleg (°/100 ft): 1.55, Sensor Depth (ft): 12347.00, Bit To Sensor (ft): 69.00

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Friday, Jun 28 00:00 - 23:59 (Day 35 of 46)

Billing: \$24,045.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	12416.00	Downhole Hours	24.00	Rotating WOB (klbs)	42.00 - 50.00
Bit Depth (ft)	14022.00	Drilling Hours	20.08	Sliding WOB (klbs)	35.00 - 40.00
Bottom Hole Depth (ft)	14022.00	Hours Circulating	0.00	Rotating SPM	156.00 - 226.00
Total Distance (ft)	1606.00	Hours Sliding	5.42	Sliding SPM	156.00 - 222.00
Distance Rotated (ft)	1472.00	Hours Rotating	14.67	Motor RPM	25.00 - 25.00
Distance Slid (ft)	134.00			Surface RPM	50.00 - 50.00
Inclination In	86.68			Flow Rate (gpm)	720.00 - 750.00
Inclination Out	88.22			On Bottom Pressure (psi)	5400.00 - 5700.00
Azimuth In	0.22	% Hours Rotating	73%	Off Bottom Pressure (psi)	4600.00 - 5000.00
Azimuth Out	359.78	% Hours Sliding	27%		
AVG Total ROP (ft/h)	78.51	% Distance Sliding	8%		
AVG Rotating ROP (ft/h)	96.43	% Distance Rotating	92%		
AVG Sliding ROP (ft/h)	24.74				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #9 - LATERAL

Date In: Jun 27, 2019, 19:00 Date Out: Jun 30, 2019, 6:15

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	Flow Rate: 300-750, Max Diff: 1910, Max Torque: 18,710, Bit: (1 Run)
Vendor	Security	Lobe/Stage	7/8, 8.5	
S/N	13133077	Bend Angle	1.75	
Nozzles	6-20's	Speed (rev/gal)	0.26	MWD Comments
Total Flow Area (in²)	1.841	Wear Pad OD (in)	7.330	POOH Reason Penetration Rate: POOH FOR LOW ROP
Drilling Hours for Day	20.08	Bit Distances		
Total Drilled for Day (ft)	1606.00	Bend: 4.41 ft, Survey (Bit to Survey): 69.00 ft,		
Drilling Hours for BHA	45.83	Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 45.00 ft		
Total Drilled for BHA (ft)	3257.00			

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Security MM65DRM, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Security	13133077	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" SNIPER: 7/8, 8.5 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SNIPER	DR70001	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	68.14
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	85.63
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	116.78
Drill Pipe Description: 88 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		8345.23	8462.01
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9196.41

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Survey	46	06-27	23:50	00:00	06-28	12416.00	12416.00	Inclination (°): 88.000, Azimuth (°): 359.690, TVD (ft): 11289.77, Dogleg (°/100 ft): 1.55, Sensor Depth (ft): 12347.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	00:00	00:20	06-28	12416.00	12510.00	Pressure On (psi): 5400.00, Pressure Off (psi): 4900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 730.00, Strokes Per Minute: 226.00
Survey	46	06-28	00:20	00:25	06-28	12510.00	12510.00	Inclination (°): 86.680, Azimuth (°): 0.220, TVD (ft): 11294.13, Dogleg (°/100 ft): 1.51, Sensor Depth (ft): 12441.00, Bit To Sensor (ft): 69.00

Rotary Drill	1	06-28	00:25	00:30	06-28	12510.00	12515.00	Pressure On (psi): 5400.00, Pressure Off (psi): 4900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 730.00, Strokes Per Minute: 226.00
Slide Drill	2	06-28	00:30	01:00	06-28	12515.00	12535.00	Pressure On (psi): 5500.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 35.00, Flow Rate (gpm): 720.00, Strokes Per Minute: 222, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	06-28	01:00	01:20	06-28	12535.00	12605.00	
Survey	46	06-28	01:20	01:25	06-28	12605.00	12605.00	Inclination (°): 88.570, Azimuth (°): 0.830, TVD (ft): 11298.07, Dogleg (°/100 ft): 2.09, Sensor Depth (ft): 12536.00, Bit To Sensor (ft): 69.00
Slide Drill	2	06-28	01:25	01:45	06-28	12605.00	12625.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156, Toolface: 340, Toolface Type: gravity
Rotary Drill	1	06-28	01:45	02:05	06-28	12625.00	12700.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	02:05	02:10	06-28	12700.00	12700.00	Inclination (°): 92.620, Azimuth (°): 359.510, TVD (ft): 11297.08, Dogleg (°/100 ft): 4.48, Sensor Depth (ft): 12631.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	02:10	02:15	06-28	12700.00	12715.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Troubleshoot	34	06-28	02:15	02:40	06-28			Troubleshoot MWD Tool
Slide Drill	2	06-28	02:40	02:50	06-28	12715.00	12727.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	06-28	02:50	03:10	06-28	12727.00	12794.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	03:10	03:15	06-28	12794.00	12794.00	Inclination (°): 91.520, Azimuth (°): 359.510, TVD (ft): 11293.68, Dogleg (°/100 ft): 1.17, Sensor Depth (ft): 12725.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	03:15	03:50	06-28	12794.00	12889.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	03:50	03:55	06-28	12889.00	12889.00	Inclination (°): 91.690, Azimuth (°): 358.550, TVD (ft): 11291.02, Dogleg (°/100 ft): 1.03, Sensor Depth (ft): 12820.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	03:55	04:25	06-28	12889.00	12983.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	04:25	04:30	06-28	12983.00	12983.00	Inclination (°): 91.560, Azimuth (°): 357.930, TVD (ft): 11288.36, Dogleg (°/100 ft): 0.67, Sensor Depth (ft): 12914.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	04:30	04:35	06-28	12983.00	12993.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Troubleshoot	34	06-28	04:35	05:15	06-28			[Detailed description of item troubleshooting]
Slide Drill	2	06-28	05:15	05:45	06-28	12993.00	13008.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156, Toolface: 90, Toolface Type: gravity
Rotary Drill	1	06-28	05:45	06:15	06-28	13008.00	13078.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	06:15	06:20	06-28	13078.00	13078.00	Inclination (°): 90.950, Azimuth (°): 359.070, TVD (ft): 11286.28, Dogleg (°/100 ft): 1.36, Sensor Depth (ft): 13009.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	06:20	07:05	06-28	13078.00	13172.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	07:05	07:10	06-28	13172.00	13172.00	Inclination (°): 90.640, Azimuth (°): 358.720, TVD (ft): 11284.97, Dogleg (°/100 ft): 0.50, Sensor Depth (ft): 13103.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	07:10	08:40	06-28	13172.00	13266.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	08:40	08:45	06-28	13266.00	13266.00	Inclination (°): 91.430, Azimuth (°): 358.370, TVD (ft): 11283.28, Dogleg (°/100 ft): 0.92, Sensor Depth (ft): 13197.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	08:45	09:25	06-28	13266.00	13315.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Slide Drill	2	06-28	09:25	10:30	06-28	13315.00	13335.00	Toolface: 140, Toolface Type: gravity
Rotary Drill	1	06-28	10:30	10:50	06-28	13335.00	13361.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	10:50	10:55	06-28	13361.00	13361.00	Inclination (°): 91.560, Azimuth (°): 358.110, TVD (ft): 11280.80, Dogleg (°/100 ft): 0.31, Sensor Depth (ft): 13292.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	10:55	11:20	06-28	13361.00	13388.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Slide Drill	2	06-28	11:20	12:00	06-28	13388.00	13403.00	Toolface: 150, Toolface Type: gravity
Rotary Drill	1	06-28	12:00	12:50	06-28	13403.00	13456.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00

Survey	46	06-28	12:50	12:55	06-28	13456.00	13456.00	Inclination (°): 89.270, Azimuth (°): 359.420, TVD (ft): 11280.11, Dogleg (°/100 ft): 2.78, Sensor Depth (ft): 13387.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	12:55	13:25	06-28	13456.00	13488.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Slide Drill	2	06-28	13:25	14:35	06-28	13488.00	13510.00	Toolface: 180, Toolface Type: gravity
Rotary Drill	1	06-28	14:35	15:00	06-28	13510.00	13550.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	15:00	15:05	06-28	13550.00	13550.00	Inclination (°): 88.480, Azimuth (°): 359.950, TVD (ft): 11281.95, Dogleg (°/100 ft): 1.01, Sensor Depth (ft): 13481.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	15:05	16:05	06-28	13550.00	13644.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	16:05	16:10	06-28	13644.00	13644.00	Inclination (°): 85.980, Azimuth (°): 0.390, TVD (ft): 11286.50, Dogleg (°/100 ft): 2.70, Sensor Depth (ft): 13575.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	16:10	17:10	06-28	13644.00	13739.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	17:10	17:15	06-28	13739.00	13739.00	Inclination (°): 86.860, Azimuth (°): 0.300, TVD (ft): 11292.43, Dogleg (°/100 ft): 0.93, Sensor Depth (ft): 13670.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	17:15	18:30	06-28	13739.00	13833.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	18:30	18:35	06-28	13833.00	13833.00	Inclination (°): 87.380, Azimuth (°): 359.780, TVD (ft): 11297.15, Dogleg (°/100 ft): 0.78, Sensor Depth (ft): 13764.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	18:35	19:55	06-28	13833.00	13928.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	19:55	20:00	06-28	13928.00	13928.00	Inclination (°): 87.210, Azimuth (°): 359.950, TVD (ft): 11301.64, Dogleg (°/100 ft): 0.25, Sensor Depth (ft): 13859.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	20:00	20:25	06-28	13928.00	13948.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Slide Drill	2	06-28	20:25	21:25	06-28	13948.00	13958.00	Toolface: 20, Toolface Type: gravity
Rotary Drill	1	06-28	21:25	22:30	06-28	13958.00	14022.00	Pressure On (psi): 5700.00, Pressure Off (psi): 5000.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 18700.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 156.00
Survey	46	06-28	22:30	22:35	06-28	14022.00	14022.00	Inclination (°): 88.220, Azimuth (°): 359.780, TVD (ft): 11305.38, Dogleg (°/100 ft): 1.09, Sensor Depth (ft): 13953.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-28	22:35	00:10	06-29	14022.00	14117.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4700.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234.00

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Saturday, Jun 29 00:00 - 23:59 (Day 36 of 46)

Billing: \$12,345.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	14022.00	Downhole Hours	24.00	Rotating WOB (klbs)	36.00 - 55.00
Bit Depth (ft)	15459.00	Drilling Hours	22.92	Sliding WOB (klbs)	70.00 - 70.00
Bottom Hole Depth (ft)	15459.00	Hours Circulating	0.00	Rotating SPM	224.00 - 234.00
Total Distance (ft)	1437.00	Hours Sliding	4.58	Sliding SPM	234.00 - 234.00
Distance Rotated (ft)	1353.00	Hours Rotating	18.33	Motor RPM	25.00 - 25.00
Distance Slid (ft)	84.00			Surface RPM	40.00 - 50.00
Inclination In	88.75			Flow Rate (gpm)	728.00 - 750.00
Inclination Out	89.98			On Bottom Pressure (psi)	4900.00 - 5300.00
Azimuth In	359.69	% Hours Rotating	80%	Off Bottom Pressure (psi)	4500.00 - 4900.00
Azimuth Out	0.13	% Hours Sliding	20%		
AVG Total ROP (ft/h)	63.18	% Distance Sliding	6%		
AVG Rotating ROP (ft/h)	73.81	% Distance Rotating	94%		
AVG Sliding ROP (ft/h)	18.33				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #9 - LATERAL

Date In: Jun 27, 2019, 19:00 Date Out: Jun 30, 2019, 6:15

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	Flow Rate: 300-750, Max Diff: 1910, Max Torque: 18,710, Bit: (1 Run)
Vendor	Security	Lobe/Stage	7/8, 8.5	
S/N	13133077	Bend Angle	1.75	
Nozzles	6-20's	Speed (rev/gal)	0.26	MWD Comments
Total Flow Area (in²)	1.841	Wear Pad OD (in)	7.330	POOH Reason Penetration Rate: POOH FOR LOW ROP
Drilling Hours for Day	22.92	Bit Distances		
Total Drilled for Day (ft)	1437.00	Bend: 4.41 ft, Survey (Bit to Survey): 69.00 ft,		
Drilling Hours for BHA	45.83	Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 45.00 ft		
Total Drilled for BHA (ft)	3257.00			

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Security MM65DRM, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Security	13133077	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" SNIPER: 7/8, 8.5 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SNIPER	DR70001	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	68.14
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	85.63
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	116.78
Drill Pipe Description: 88 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		8345.23	8462.01
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9196.41

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	06-28	22:35	00:10	06-29	14022.00	14117.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4700.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234.00
Survey	46	06-29	00:10	00:15	06-29	14117.00	14117.00	Inclination (°): 88.750, Azimuth (°): 359.690, TVD (ft): 11307.89, Dogleg (°/100 ft): 0.57, Sensor Depth (ft): 14048.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	00:15	01:10	06-29	14117.00	14211.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4700.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234.00

Survey	46	06-29	01:10	01:15	06-29	14211.00	14211.00	Inclination (°): 88.880, Azimuth (°): 359.950, TVD (ft): 11309.84, Dogleg (°/100 ft): 0.31, Sensor Depth (ft): 14142.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	01:15	02:10	06-29	14211.00	14306.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4700.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234.00
Survey	46	06-29	02:10	02:15	06-29	14306.00	14306.00	Inclination (°): 89.540, Azimuth (°): 359.070, TVD (ft): 11311.15, Dogleg (°/100 ft): 1.16, Sensor Depth (ft): 14237.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	02:15	02:35	06-29	14306.00	14316.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4700.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234.00
Slide Drill	2	06-29	02:35	03:05	06-29	14316.00	14326.00	Pressure On (psi): 5050.00, Pressure Off (psi): 4900.00, Weight On Bit (klbs): 70.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234, Toolface: 140, Toolface Type: gravity
Rotary Drill	1	06-29	03:05	04:30	06-29	14326.00	14400.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4700.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234.00
Survey	46	06-29	04:30	04:35	06-29	14400.00	14400.00	Inclination (°): 89.450, Azimuth (°): 359.420, TVD (ft): 11311.98, Dogleg (°/100 ft): 0.38, Sensor Depth (ft): 14331.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	04:35	06:00	06-29	14400.00	14495.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4700.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234.00
Survey	46	06-29	06:00	06:05	06-29	14495.00	14495.00	Inclination (°): 89.050, Azimuth (°): 359.340, TVD (ft): 11313.22, Dogleg (°/100 ft): 0.43, Sensor Depth (ft): 14426.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	06:05	07:00	06-29	14495.00	14589.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4700.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234.00
Survey	46	06-29	07:00	07:05	06-29	14589.00	14589.00	Inclination (°): 89.850, Azimuth (°): 358.900, TVD (ft): 11314.12, Dogleg (°/100 ft): 0.97, Sensor Depth (ft): 14520.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	07:05	08:15	06-29	14589.00	14684.00	Pressure On (psi): 5300.00, Pressure Off (psi): 4700.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 234.00
Survey	46	06-29	08:15	08:20	06-29	14684.00	14684.00	Inclination (°): 90.070, Azimuth (°): 358.720, TVD (ft): 11314.19, Dogleg (°/100 ft): 0.30, Sensor Depth (ft): 14615.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	08:20	09:45	06-29	14684.00	14778.00	
Survey	46	06-29	09:45	09:50	06-29	14778.00	14778.00	Inclination (°): 90.680, Azimuth (°): 358.460, TVD (ft): 11313.57, Dogleg (°/100 ft): 0.71, Sensor Depth (ft): 14709.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	09:50	11:00	06-29	14778.00	14872.00	
Survey	46	06-29	11:00	11:05	06-29	14872.00	14872.00	Inclination (°): 91.520, Azimuth (°): 358.370, TVD (ft): 11311.77, Dogleg (°/100 ft): 0.90, Sensor Depth (ft): 14803.00, Bit To Sensor (ft): 69.00
Other	16	06-29	11:05	11:30	06-29			Recycle & swap pumps
Slide Drill	2	06-29	11:30	12:20	06-29	14872.00	14886.00	Toolface: 150, Toolface Type: gravity
Rotary Drill	1	06-29	12:20	13:35	06-29	14886.00	14967.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-29	13:35	13:40	06-29	14967.00	14967.00	Inclination (°): 91.740, Azimuth (°): 358.900, TVD (ft): 11309.07, Dogleg (°/100 ft): 0.60, Sensor Depth (ft): 14898.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	13:40	13:45	06-29	14967.00	14970.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	06-29	13:45	15:00	06-29	14970.00	14995.00	Toolface: 160, Toolface Type: gravity
Rotary Drill	1	06-29	15:00	16:10	06-29	14995.00	15061.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-29	16:10	16:15	06-29	15061.00	15061.00	Inclination (°): 88.310, Azimuth (°): 359.690, TVD (ft): 11309.03, Dogleg (°/100 ft): 3.74, Sensor Depth (ft): 14992.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	16:15	17:20	06-29	15061.00	15156.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-29	17:20	17:25	06-29	15156.00	15156.00	Inclination (°): 87.650, Azimuth (°): 359.690, TVD (ft): 11312.37, Dogleg (°/100 ft): 0.69, Sensor Depth (ft): 15087.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	17:25	18:20	06-29	15156.00	15250.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-29	18:20	18:25	06-29	15250.00	15250.00	Inclination (°): 87.380, Azimuth (°): 0.130, TVD (ft): 11316.45, Dogleg (°/100 ft): 0.55, Sensor Depth (ft): 15181.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	18:25	18:35	06-29	15250.00	15262.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	06-29	18:35	19:50	06-29	15262.00	15277.00	Toolface: 0, Toolface Type: gravity
Rotary Drill	1	06-29	19:50	20:40	06-29	15277.00	15345.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-29	20:40	20:45	06-29	15345.00	15345.00	Inclination (°): 88.000, Azimuth (°): 359.600, TVD (ft): 11320.28, Dogleg (°/100 ft): 0.86, Sensor Depth (ft): 15276.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	20:45	20:55	06-29	15345.00	15355.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	06-29	20:55	21:15	06-29	15355.00	15365.00	Toolface: 30, Toolface Type: gravity
Rotary Drill	1	06-29	21:15	22:30	06-29	15365.00	15439.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-29	22:30	22:35	06-29	15439.00	15439.00	Inclination (°): 89.980, Azimuth (°): 0.130, TVD (ft): 11321.94, Dogleg (°/100 ft): 2.18, Sensor Depth (ft): 15370.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-29	22:35	22:45	06-29	15439.00	15449.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4500.00, Weight On Bit (klbs): 36.00, Surface RPM: 50, Surface Torque (ft lbf): 20.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00

Slide Drill	2	06-29	22:45	23:10	06-29	15449.00	15459.00	Toolface: 0, Toolface Type: gravity
Rotary Drill	1	06-29	23:10	00:10	06-30	15459.00	15533.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Sunday, Jun 30 00:00 - 23:59 (Day 37 of 46)

Billing: \$24,045.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	15459.00	Downhole Hours	24.00	Rotating WOB (klbs)	58.00 - 58.00
Bit Depth (ft)	16227.00	Drilling Hours	10.25	Sliding WOB (klbs)	20.00 - 20.00
Bottom Hole Depth (ft)	16227.00	Hours Circulating	0.50	Rotating SPM	224.00 - 224.00
Total Distance (ft)	768.00	Hours Sliding	3.00	Sliding SPM	215.00 - 215.00
Distance Rotated (ft)	652.00	Hours Rotating	7.25	Motor RPM	25.00 - 25.00
Distance Slid (ft)	116.00			Surface RPM	50.00 - 50.00
Inclination In	91.87			Flow Rate (gpm)	695.00 - 728.00
Inclination Out	83.08			On Bottom Pressure (psi)	5000.00 - 5450.00
Azimuth In	1.01	% Hours Rotating	71%	Off Bottom Pressure (psi)	4600.00 - 5100.00
Azimuth Out	0.83	% Hours Sliding	29%		
AVG Total ROP (ft/h)	74.93	% Distance Sliding	15%		
AVG Rotating ROP (ft/h)	89.93	% Distance Rotating	85%		
AVG Sliding ROP (ft/h)	38.67				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #9 - LATERAL

Date In: Jun 27, 2019, 19:00 Date Out: Jun 30, 2019, 6:15

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	Flow Rate: 300-750, Max Diff: 1910, Max Torque: 18,710, Bit: (1 Run)
Vendor	Security	Lobe/Stage	7/8, 8.5	
S/N	13133077	Bend Angle	1.75	
Nozzles	6-20's	Speed (rev/gal)	0.26	MWD Comments
Total Flow Area (in²)	1.841	Wear Pad OD (in)	7.330	
Drilling Hours for Day	2.08	Bit Distances		
Total Drilled for Day (ft)	123.00	Bend: 4.41 ft, Survey (Bit to Survey): 69.00 ft, Resistivity (Bit to Resistivity): 55.00 ft, Gamma (Bit to Gamma): 45.00 ft		
Drilling Hours for BHA	45.83			POOH Reason
Total Drilled for BHA (ft)	3257.00			
				Penetration Rate: POOH FOR LOW ROP

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Security MM65DRM, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Security	13133077	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" SNIPER: 7/8, 8.5 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SNIPER	DR70001	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	68.14
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	85.63
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	116.78
Drill Pipe Description: 88 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		8345.23	8462.01
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9196.41

MWD Items

No Items

BHA #10 - Lateral

Date In: Jun 30, 2019, 6:15 Date Out: Jul 3, 2019, 19:45

Bit Details		Motor Details		Directional Comments	
OD (in)	8.500	Size (in)	7.0	Directional: 7" 6/7, 8.4 FXD @ 1.75° w/ SS Size (in): 7.00 Bend Angle (°): 1.75 Rotor Lobe: 6 Stator Lobe: 7 Stator Stage: 8.40 Flow Rate: 300-750, Max Diff: 1980, Max Torque: 16,550, RPG: 0.30 Bit: (0 Runs)	
Vendor	Baker Hughes	Lobe/Stage	6/7, 8.4		
S/N	5292993	Bend Angle	1.75		
Nozzles	6-22's	Speed (rev/gal)	0.30	MWD Comments	
Total Flow Area (in²)	2.227	Wear Pad OD (in)	7.420	POOH Reason Total Depth/Casing Point: Well TD as planned	
Drilling Hours for Day	8.17	Bit Distances			
Total Drilled for Day (ft)	645.00	Bend: 5.36 ft, Survey (Bit to Survey): 68.00 ft,			
Drilling Hours for BHA	50.17	Resistivity (Bit to Resistivity): 54.00 ft, Gamma (Bit to Gamma): 44.00 ft			
Total Drilled for BHA (ft)	3354.00				

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Baker DD506Twx, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Baker Hughes	5292993	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" 6/7, 8.4 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 8.4	Aim	700-40-004	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.08	35.08
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	66.63
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	84.12
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	115.27
Drill Pipe Description: 30 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		2845.38	2960.65
Agitator Description: Agitator, Size (in): 6.50	Rubicon	Agitator	4 1/2" IF Box	4 1/2" IF Pin		6.500		34.67	2995.32
Drill Pipe Description: 58 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		5499.85	8495.17
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9229.57

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	06-29	23:10	00:10	06-30	15459.00	15533.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-30	00:10	00:15	06-30	15533.00	15533.00	Inclination (°): 91.870, Azimuth (°): 1.010, TVD (ft): 11320.42, Dogleg (°/100 ft): 2.22, Sensor Depth (ft): 15464.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	06-30	00:15	01:20	06-30	15533.00	15582.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Circulating	3	06-30	01:20	01:50	06-30			Build Slug, Flow Check
Pooh	7	06-30	01:50	06:15	06-30			POOH for poor ROP
Change BHA	6	06-30	06:15	07:15	06-30			P/U BHA # 10
Other	16	06-30	07:15	07:45	06-30			DOWNLOAD MWD TOOL
TIH	8	06-30	07:45	08:55	06-30			TIH W/ BHA #10
Other	16	06-30	08:55	09:15	06-30			P/U & TEST AGITATOR
TIH	8	06-30	09:15	09:55	06-30			TIH W/ BHA #10
Other	16	06-30	09:55	10:55	06-30			CUT DRILL LINE
TIH	8	06-30	10:55	14:30	06-30			TIH W/ BHA #10
Other	16	06-30	14:30	15:20	06-30			FILL PIPE & DOWNLINK MWD TOOL
Slide Drill	2	06-30	15:20	15:40	06-30	15582.00	15594.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	06-30	15:40	16:35	06-30	15594.00	15661.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-30	16:35	16:40	06-30	15661.00	15661.00	Inclination (°): 91.780, Azimuth (°): 0.480, TVD (ft): 11316.31, Dogleg (°/100 ft): 0.42, Sensor Depth (ft): 15593.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	06-30	16:40	16:45	06-30	15661.00	15671.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	06-30	16:45	17:10	06-30	15671.00	15686.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 180, Toolface Type: gravity

Rotary Drill	1	06-30	17:10	17:50	06-30	15686.00	15756.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-30	17:50	17:55	06-30	15756.00	15756.00	Inclination (°): 90.460, Azimuth (°): 1.180, TVD (ft): 11314.45, Dogleg (°/100 ft): 1.57, Sensor Depth (ft): 15688.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	06-30	17:55	18:00	06-30	15756.00	15761.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	06-30	18:00	18:35	06-30	15761.00	15781.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	06-30	18:35	19:10	06-30	15781.00	15850.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-30	19:10	19:15	06-30	15850.00	15850.00	Inclination (°): 88.440, Azimuth (°): 1.090, TVD (ft): 11315.36, Dogleg (°/100 ft): 2.15, Sensor Depth (ft): 15782.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	06-30	19:15	19:20	06-30	15850.00	15856.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	06-30	19:20	19:45	06-30	15856.00	15874.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 210, Toolface Type: gravity
Rotary Drill	1	06-30	19:45	20:20	06-30	15874.00	15944.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-30	20:20	20:25	06-30	15944.00	15944.00	Inclination (°): 86.550, Azimuth (°): 0.570, TVD (ft): 11319.46, Dogleg (°/100 ft): 2.09, Sensor Depth (ft): 15876.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	06-30	20:25	20:30	06-30	15944.00	15950.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	06-30	20:30	21:00	06-30	15950.00	15968.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	06-30	21:00	21:35	06-30	15968.00	16040.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-30	21:35	21:40	06-30	16040.00	16040.00	Inclination (°): 86.150, Azimuth (°): 1.800, TVD (ft): 11325.58, Dogleg (°/100 ft): 1.34, Sensor Depth (ft): 15972.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	06-30	21:40	21:45	06-30	16040.00	16045.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	06-30	21:45	22:25	06-30	16045.00	16073.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 210, Toolface Type: gravity
Rotary Drill	1	06-30	22:25	23:00	06-30	16073.00	16133.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	06-30	23:00	23:05	06-30	16133.00	16133.00	Inclination (°): 83.080, Azimuth (°): 0.830, TVD (ft): 11334.30, Dogleg (°/100 ft): 3.46, Sensor Depth (ft): 16065.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	06-30	23:05	23:10	06-30	16133.00	16148.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	06-30	23:10	23:15	06-30	16148.00	16153.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	06-30	23:15	00:00	07-01	16153.00	16227.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Monday, Jul 01 00:00 - 23:59 (Day 38 of 46)

Billing: \$12,345.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	16227.00	Downhole Hours	24.00	Rotating WOB (klbs)	50.00 - 58.00
Bit Depth (ft)	17933.00	Drilling Hours	21.83	Sliding WOB (klbs)	20.00 - 45.00
Bottom Hole Depth (ft)	17933.00	Hours Circulating	0.00	Rotating SPM	194.00 - 224.00
Total Distance (ft)	1706.00	Hours Sliding	6.75	Sliding SPM	194.00 - 215.00
Distance Rotated (ft)	1504.00	Hours Rotating	15.08	Motor RPM	25.00 - 25.00
Distance Slid (ft)	202.00			Surface RPM	40.00 - 50.00
Inclination In	81.49			Flow Rate (gpm)	624.00 - 728.00
Inclination Out	92.13			On Bottom Pressure (psi)	4650.00 - 5450.00
Azimuth In	359.69	% Hours Rotating	69%	Off Bottom Pressure (psi)	4450.00 - 5100.00
Azimuth Out	359.16	% Hours Sliding	31%		
AVG Total ROP (ft/h)	76.00	% Distance Sliding	12%		
AVG Rotating ROP (ft/h)	99.66	% Distance Rotating	88%		
AVG Sliding ROP (ft/h)	28.67				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #10 - Lateral

Date In: Jun 30, 2019, 6:15 Date Out: Jul 3, 2019, 19:45

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	Directional: 7" 6/7, 8.4 FXD @ 1.75° w/ SS Size (in): 7.00 Bend Angle (°): 1.75 Rotor Lobe: 6 Stator Lobe: 7 Stator Stage: 8.40 Flow Rate: 300-750, Max Diff: 1980, Max Torque: 16,550, RPG: 0.30 Bit: (0 Runs)
Vendor	Baker Hughes	Lobe/Stage	6/7, 8.4	
S/N	5292993	Bend Angle	1.75	
Nozzles	6-22's	Speed (rev/gal)	0.30	
Total Flow Area (in²)	2.227	Wear Pad OD (in)	7.420	
Drilling Hours for Day	21.83	Bit Distances		MWD Comments
Total Drilled for Day (ft)	1706.00	Bend: 5.36 ft, Survey (Bit to Survey): 68.00 ft,		
Drilling Hours for BHA	50.17	Resistivity (Bit to Resistivity): 54.00 ft, Gamma (Bit to Gamma): 44.00 ft		
Total Drilled for BHA (ft)	3354.00			
				POOH Reason
				Total Depth/Casing Point: Well TD as planned

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Baker DD506TWX, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Baker Hughes	5292993	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" 6/7, 8.4 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 8.4	Aim	700-40-004	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.08	35.08
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	66.63
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	84.12
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	115.27
Drill Pipe Description: 30 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		2845.38	2960.65
Agitator Description: Agitator, Size (in): 6.50	Rubicon	Agitator	4 1/2" IF Box	4 1/2" IF Pin		6.500		34.67	2995.32
Drill Pipe Description: 58 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		5499.85	8495.17
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9229.57

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
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Rotary Drill	1	06-30	23:15	00:00	07-01	16153.00	16227.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	00:00	00:05	07-01	16227.00	16227.00	Inclination (°): 81.490, Azimuth (°): 359.690, TVD (ft): 11346.92, Dogleg (°/100 ft): 2.07, Sensor Depth (ft): 16159.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	00:05	01:00	07-01	16227.00	16322.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	01:00	01:05	07-01	16322.00	16322.00	Inclination (°): 80.570, Azimuth (°): 359.340, TVD (ft): 11361.73, Dogleg (°/100 ft): 1.03, Sensor Depth (ft): 16254.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	01:05	01:10	07-01	16322.00	16332.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	07-01	01:10	01:30	07-01	16332.00	16344.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	07-01	01:30	02:00	07-01	16344.00	16416.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	02:00	02:05	07-01	16416.00	16416.00	Inclination (°): 80.920, Azimuth (°): 359.250, TVD (ft): 11376.85, Dogleg (°/100 ft): 0.38, Sensor Depth (ft): 16348.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	02:05	02:35	07-01	16416.00	16510.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	02:35	02:40	07-01	16510.00	16510.00	Inclination (°): 80.040, Azimuth (°): 358.990, TVD (ft): 11392.40, Dogleg (°/100 ft): 0.98, Sensor Depth (ft): 16442.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	02:40	02:45	07-01	16510.00	16515.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	07-01	02:45	03:10	07-01	16515.00	16540.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 10, Toolface Type: gravity
Rotary Drill	1	07-01	03:10	04:00	07-01	16540.00	16605.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	04:00	04:05	07-01	16605.00	16605.00	Inclination (°): 82.150, Azimuth (°): 359.160, TVD (ft): 11407.10, Dogleg (°/100 ft): 2.23, Sensor Depth (ft): 16537.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	04:05	04:30	07-01	16605.00	16699.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	04:30	04:35	07-01	16699.00	16699.00	Inclination (°): 82.110, Azimuth (°): 359.510, TVD (ft): 11419.97, Dogleg (°/100 ft): 0.37, Sensor Depth (ft): 16631.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	04:35	04:40	07-01	16699.00	16704.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	07-01	04:40	05:10	07-01	16704.00	16721.00	Pressure On (psi): 5450.00, Pressure Off (psi): 5100.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 215, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	07-01	05:10	06:00	07-01	16721.00	16794.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	06:00	06:05	07-01	16794.00	16794.00	Inclination (°): 82.640, Azimuth (°): 359.510, TVD (ft): 11432.58, Dogleg (°/100 ft): 0.56, Sensor Depth (ft): 16726.00, Bit To Sensor (ft): 68.00
Slide Drill	2	07-01	06:05	06:45	07-01	16794.00	16815.00	Toolface: 0, Toolface Type: gravity
Rotary Drill	1	07-01	06:45	07:30	07-01	16815.00	16889.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	07:30	07:35	07-01	16889.00	16889.00	Inclination (°): 83.470, Azimuth (°): 359.690, TVD (ft): 11444.07, Dogleg (°/100 ft): 0.89, Sensor Depth (ft): 16821.00, Bit To Sensor (ft): 68.00
Slide Drill	2	07-01	07:35	08:35	07-01	16889.00	16929.00	Toolface: 0, Toolface Type: gravity
Rotary Drill	1	07-01	08:35	09:10	07-01	16929.00	16983.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	09:10	09:15	07-01	16983.00	16983.00	Inclination (°): 86.290, Azimuth (°): 357.840, TVD (ft): 11452.46, Dogleg (°/100 ft): 3.58, Sensor Depth (ft): 16915.00, Bit To Sensor (ft): 68.00
Slide Drill	2	07-01	09:15	10:05	07-01	16983.00	17003.00	Toolface: 30, Toolface Type: gravity
Rotary Drill	1	07-01	10:05	10:55	07-01	17003.00	17078.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	10:55	11:00	07-01	17078.00	17078.00	Inclination (°): 89.230, Azimuth (°): 358.460, TVD (ft): 11456.17, Dogleg (°/100 ft): 3.16, Sensor Depth (ft): 17010.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	11:00	11:10	07-01	17078.00	17088.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Slide Drill	2	07-01	11:10	11:50	07-01	17088.00	17106.00	Toolface: 20, Toolface Type: gravity
Rotary Drill	1	07-01	11:50	12:40	07-01	17106.00	17172.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	12:40	12:45	07-01	17172.00	17172.00	Inclination (°): 87.740, Azimuth (°): 359.420, TVD (ft): 11458.65, Dogleg (°/100 ft): 1.89, Sensor Depth (ft): 17104.00, Bit To Sensor (ft): 68.00
Slide Drill	2	07-01	12:45	14:20	07-01	17172.00	17206.00	Toolface: 20, Toolface Type: gravity
Rotary Drill	1	07-01	14:20	14:40	07-01	17206.00	17240.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Other	16	07-01	14:40	14:45	07-01			CHECK SHOT @ 17172'

Rotary Drill	1	07-01	14:45	15:05	07-01	17240.00	17267.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	15:05	15:10	07-01	17267.00	17267.00	Inclination (°): 91.780, Azimuth (°): 358.900, TVD (ft): 11459.05, Dogleg (°/100 ft): 4.29, Sensor Depth (ft): 17199.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	15:10	16:15	07-01	17267.00	17361.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	16:15	16:20	07-01	17361.00	17361.00	Inclination (°): 91.960, Azimuth (°): 358.810, TVD (ft): 11455.98, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 17293.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	16:20	17:15	07-01	17361.00	17455.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	17:15	17:20	07-01	17455.00	17455.00	Inclination (°): 91.820, Azimuth (°): 358.810, TVD (ft): 11452.88, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 17387.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	17:20	18:10	07-01	17455.00	17550.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 58.00, Surface RPM: 50, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 728.00, Strokes Per Minute: 224.00
Survey	46	07-01	18:10	18:15	07-01	17550.00	17550.00	Inclination (°): 92.130, Azimuth (°): 358.720, TVD (ft): 11449.61, Dogleg (°/100 ft): 0.34, Sensor Depth (ft): 17482.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	18:15	19:10	07-01	17550.00	17645.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-01	19:10	19:15	07-01	17645.00	17645.00	Inclination (°): 91.960, Azimuth (°): 358.370, TVD (ft): 11446.22, Dogleg (°/100 ft): 0.41, Sensor Depth (ft): 17577.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	19:15	20:15	07-01	17645.00	17739.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-01	20:15	20:20	07-01	17739.00	17739.00	Inclination (°): 91.600, Azimuth (°): 358.110, TVD (ft): 11443.30, Dogleg (°/100 ft): 0.47, Sensor Depth (ft): 17671.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	20:20	21:35	07-01	17739.00	17834.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-01	21:35	21:40	07-01	17834.00	17834.00	Inclination (°): 91.960, Azimuth (°): 357.750, TVD (ft): 11440.35, Dogleg (°/100 ft): 0.54, Sensor Depth (ft): 17766.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	21:40	21:45	07-01	17834.00	17837.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Slide Drill	2	07-01	21:45	22:30	07-01	17837.00	17852.00	Pressure On (psi): 4650.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194, Toolface: 135, Toolface Type: gravity
Rotary Drill	1	07-01	22:30	23:20	07-01	17852.00	17928.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-01	23:20	23:25	07-01	17928.00	17928.00	Inclination (°): 92.130, Azimuth (°): 359.160, TVD (ft): 11436.99, Dogleg (°/100 ft): 1.51, Sensor Depth (ft): 17860.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-01	23:25	23:30	07-01	17928.00	17933.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Slide Drill	2	07-01	23:30	00:40	07-02	17933.00	17958.00	Pressure On (psi): 4650.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194, Toolface: 150, Toolface Type: gravity

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Tuesday, Jul 02 00:00 - 23:59 (Day 39 of 46)

Billing: \$12,345.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	17933.00	Downhole Hours	24.00	Rotating WOB (klbs)	50.00 - 50.00
Bit Depth (ft)	18936.00	Drilling Hours	20.17	Sliding WOB (klbs)	45.00 - 45.00
Bottom Hole Depth (ft)	18936.00	Hours Circulating	0.00	Rotating SPM	194.00 - 194.00
Total Distance (ft)	1003.00	Hours Sliding	2.50	Sliding SPM	194.00 - 194.00
Distance Rotated (ft)	949.00	Hours Rotating	17.67	Motor RPM	25.00 - 25.00
Distance Slid (ft)	54.00			Surface RPM	40.00 - 40.00
Inclination In	91.03			Flow Rate (gpm)	624.00 - 624.00
Inclination Out	89.05			On Bottom Pressure (psi)	4650.00 - 5000.00
Azimuth In	0.48	% Hours Rotating	88%	Off Bottom Pressure (psi)	4450.00 - 4600.00
Azimuth Out	358.46	% Hours Sliding	12%		
AVG Total ROP (ft/h)	49.74	% Distance Sliding	5%		
AVG Rotating ROP (ft/h)	53.72	% Distance Rotating	95%		
AVG Sliding ROP (ft/h)	21.60				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #10 - Lateral

Date In: Jun 30, 2019, 6:15 Date Out: Jul 3, 2019, 19:45

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	Directional: 7" 6/7, 8.4 FXD @ 1.75° w/ SS Size (in): 7.00 Bend Angle (°): 1.75 Rotor Lobe: 6 Stator Lobe: 7 Stator Stage: 8.40 Flow Rate: 300-750, Max Diff: 1980, Max Torque: 16,550, RPG: 0.30 Bit: (0 Runs)
Vendor	Baker Hughes	Lobe/Stage	6/7, 8.4	
S/N	5292993	Bend Angle	1.75	
Nozzles	6-22's	Speed (rev/gal)	0.30	MWD Comments
Total Flow Area (in²)	2.227	Wear Pad OD (in)	7.420	POOH Reason Total Depth/Casing Point: Well TD as planned
Drilling Hours for Day	20.17	Bit Distances		
Total Drilled for Day (ft)	1003.00	Bend: 5.36 ft, Survey (Bit to Survey): 68.00 ft,		
Drilling Hours for BHA	50.17	Resistivity (Bit to Resistivity): 54.00 ft, Gamma (Bit to Gamma): 44.00 ft		
Total Drilled for BHA (ft)	3354.00			

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Baker DD506TWX, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Baker Hughes	5292993	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" 6/7, 8.4 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 8.4	Aim	700-40-004	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.08	35.08
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	66.63
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	84.12
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	115.27
Drill Pipe Description: 30 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		2845.38	2960.65
Agitator Description: Agitator, Size (in): 6.50	Rubicon	Agitator	4 1/2" IF Box	4 1/2" IF Pin		6.500		34.67	2995.32
Drill Pipe Description: 58 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		5499.85	8495.17
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9229.57

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
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Slide Drill	2	07-01	23:30	00:40	07-02	17933.00	17958.00	Pressure On (psi): 4650.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	07-02	00:40	01:25	07-02	17958.00	18023.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	01:25	01:30	07-02	18023.00	18023.00	Inclination (°): 91.030, Azimuth (°): 0.480, TVD (ft): 11434.37, Dogleg (°/100 ft): 1.81, Sensor Depth (ft): 17955.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-02	01:30	01:35	07-02	18023.00	18028.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Slide Drill	2	07-02	01:35	01:50	07-02	18028.00	18042.00	Pressure On (psi): 4650.00, Pressure Off (psi): 4450.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	07-02	01:50	02:40	07-02	18042.00	18117.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	02:40	02:45	07-02	18117.00	18117.00	Inclination (°): 89.980, Azimuth (°): 0.300, TVD (ft): 11433.55, Dogleg (°/100 ft): 1.13, Sensor Depth (ft): 18049.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-02	02:45	04:00	07-02	18117.00	18212.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	04:00	04:05	07-02	18212.00	18212.00	Inclination (°): 89.800, Azimuth (°): 359.950, TVD (ft): 11433.73, Dogleg (°/100 ft): 0.41, Sensor Depth (ft): 18144.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-02	04:05	06:00	07-02	18212.00	18306.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	06:00	06:05	07-02	18306.00	18306.00	Inclination (°): 89.410, Azimuth (°): 359.690, TVD (ft): 11434.38, Dogleg (°/100 ft): 0.50, Sensor Depth (ft): 18238.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-02	06:05	08:05	07-02	18306.00	18401.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	08:05	08:10	07-02	18401.00	18401.00	Inclination (°): 89.360, Azimuth (°): 359.510, TVD (ft): 11435.40, Dogleg (°/100 ft): 0.20, Sensor Depth (ft): 18333.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-02	08:10	10:35	07-02	18401.00	18495.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	10:35	10:40	07-02	18495.00	18495.00	Inclination (°): 89.230, Azimuth (°): 359.250, TVD (ft): 11436.55, Dogleg (°/100 ft): 0.31, Sensor Depth (ft): 18427.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-02	10:40	12:30	07-02	18495.00	18589.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	12:30	12:40	07-02	18589.00	18589.00	Inclination (°): 88.880, Azimuth (°): 359.510, TVD (ft): 11438.10, Dogleg (°/100 ft): 0.46, Sensor Depth (ft): 18521.00, Bit To Sensor (ft): 68.00
Slide Drill	2	07-02	12:40	13:45	07-02	18589.00	18604.00	Toolface: 0, Toolface Type: gravity
Rotary Drill	1	07-02	13:45	15:35	07-02	18604.00	18684.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	15:35	15:40	07-02	18684.00	18684.00	Inclination (°): 91.430, Azimuth (°): 359.420, TVD (ft): 11437.85, Dogleg (°/100 ft): 2.69, Sensor Depth (ft): 18616.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-02	15:40	17:35	07-02	18684.00	18778.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	17:35	17:40	07-02	18778.00	18778.00	Inclination (°): 90.420, Azimuth (°): 359.160, TVD (ft): 11436.33, Dogleg (°/100 ft): 1.11, Sensor Depth (ft): 18710.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-02	17:40	19:35	07-02	18778.00	18873.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	19:35	19:40	07-02	18873.00	18873.00	Inclination (°): 90.110, Azimuth (°): 358.900, TVD (ft): 11435.89, Dogleg (°/100 ft): 0.43, Sensor Depth (ft): 18805.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	07-02	19:40	20:35	07-02	18873.00	18936.00	Pressure On (psi): 5000.00, Pressure Off (psi): 4600.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 21.00, Flow Rate (gpm): 624.00, Strokes Per Minute: 194.00
Survey	46	07-02	20:35	20:40	07-02	18936.00	18936.00	Inclination (°): 89.050, Azimuth (°): 358.460, TVD (ft): 11436.35, Dogleg (°/100 ft): 1.82, Sensor Depth (ft): 18868.00, Bit To Sensor (ft): 68.00
Survey	46	07-02	20:40	20:45	07-02	18936.00	18936.00	Inclination (°): 89.050, Azimuth (°): 358.460, TVD (ft): 11437.48, Dogleg (°/100 ft): 0.00, Sensor Depth (ft): 18936.00, Bit To Sensor (ft): 0.00
								PTB
Circulating	3	07-02	20:45	01:35	07-03			Circ. prior to laying down drill pipe.

MWD Activities

No Activities



Job Number WT-19-085	Operator Advance Energy Partners	Rig Name H&P #389
Start Date 2019-05-21	Well Name Dagger State Com #552H	Legal Well Name AFE Dagger State Com #552H
Play Delaware Basin	State/Province and Country New Mexico, US	County Lea
		Company Man

Wednesday, Jul 03 00:00 - 23:59 (Day 40 of 46)

Billing: \$12,345.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		Downhole Hours	19.75	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours	0.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating	4.83	Rotating SPM	
Total Distance (ft)	0.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	25.00 - 25.00
Distance Slid (ft)	0.00			Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

BHA #10 - Lateral

Date In: Jun 30, 2019, 6:15 Date Out: Jul 3, 2019, 19:45

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	Size (in)	7.0	Directional: 7" 6/7, 8.4 FXD @ 1.75° w/ SS Size (in): 7.00 Bend Angle (°): 1.75 Rotor Lobe: 6 Stator Lobe: 7 Stator Stage: 8.40 Flow Rate: 300-750, Max Diff: 1980, Max Torque: 16,550, RPG: 0.30 Bit: (0 Runs)
Vendor	Baker Hughes	Lobe/Stage	6/7, 8.4	
S/N	5292993	Bend Angle	1.75	
Nozzles	6-22's	Speed (rev/gal)	0.30	
Total Flow Area (in²)	2.227	Wear Pad OD (in)	7.420	MWD Comments
Drilling Hours for Day	0.00	Bit Distances		
Total Drilled for Day (ft)		Bend: 5.36 ft, Survey (Bit to Survey): 68.00 ft,		
Drilling Hours for BHA	50.17	Resistivity (Bit to Resistivity): 54.00 ft, Gamma (Bit to Gamma): 44.00 ft		POOH Reason
Total Drilled for BHA (ft)	3354.00			
				Total Depth/Casing Point: Well TD as planned

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: 8 1/2" Baker DD506TWX, Style: PDC, Gauge Length (in): 0.00, Size (in): 8.50	Baker Hughes	5292993	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: 7" 6/7, 8.4 FXD @ 1.75° w/ SS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 8.4	Aim	700-40-004	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.08	35.08
Drill Collar Description: NMDC (MWD), Style: Slick Drill, Type: NM	BT	HPR650-001	4 1/2" IF Box	4 1/2" IF Pin	2.937	6.500		31.55	66.63
MWD Hangoff Sub Description: HANG OFF SUB, Type: NM	BT	NMDC634	4 1/2" IF Box	4 1/2" IF Pin	2.938	6.750		17.49	84.12
Drill Collar Description: NMDC, Style: Slick Drill, Type: NM	DR	DR40430	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		31.15	115.27
Drill Pipe Description: 30 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		2845.38	2960.65
Agitator Description: Agitator, Size (in): 6.50	Rubicon	Agitator	4 1/2" IF Box	4 1/2" IF Pin		6.500		34.67	2995.32
Drill Pipe Description: 58 Stds. Drill Pipe, Style: Slick			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		5499.85	8495.17
HWDP Description: HWDP, Style: Spiral			4 1/2" IF Box	4 1/2" IF Pin	3.000	5.000		734.40	9229.57

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Circulating	3	07-02	20:45	01:35	07-03			Circ. prior to laying down drill pipe.
L/D DP	28	07-03	01:35	06:00	07-03			L/D 5" Drill Pipe

L/D DP	28	07-03	06:00	19:30	07-03			L/D 5" Drill Pipe
Other	16	07-03	19:30	19:45	07-03			L/D BHA #10
Standby	15	07-03	19:45	06:00	07-04			Standby while running production casing.

MWD Activities

No Activities

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Thursday, Jul 04 00:00 - 23:59 (Day of 46) Billing: \$500.00 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours	0.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating	0.00	Rotating SPM	
Total Distance (ft)	0.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	-
Distance Slid (ft)	0.00			Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

No BHAs

Directional Activities								
Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	07-03	19:45	06:00	07-04			Standby while running production casing.
Standby	15	07-04	06:00	00:00	07-05			Standby while running casing/cement casing.

MWD Activities								
No Activities								

	Job Number WT-19-085	Operator Advance Energy Partners		Rig Name H&P #389
	Start Date 2019-05-21	Well Name Dagger State Com #552H		Legal Well Name AFE Dagger State Com #552H
	Play Delaware Basin	State/Province and Country New Mexico, US	County Lea	Company Man

Friday, Jul 05 00:00 - 23:59 (Day of 46) Billing: \$14,351.62 (\$284,127.12 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours	0.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating	0.00	Rotating SPM	
Total Distance (ft)	0.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	-
Distance Slid (ft)	0.00			Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

Personnel	
Name	Position
Robert Olivarez	MWD Engineer
Advance Directional	Directional Driller

No BHAs

Directional Activities								
Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	07-04	06:00	00:00	07-05			Standby while running casing/cement casing.
Standby	15	07-05	00:00	06:00	07-05			Standby while rigging down.

MWD Activities								
No Activities								



Surface Plat

Dagger State Com #552H (WT-19-085)

2019-05-21 to 2019-07-05

Lea, New Mexico, US (32.45, -103.61)

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102

Revised August 4, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name DAGGER STATE COM	Well Number 552H
OGRID No.	Operator Name ADVANCE ENERGY PARTNERS HAT MESA	Elevation 3812'

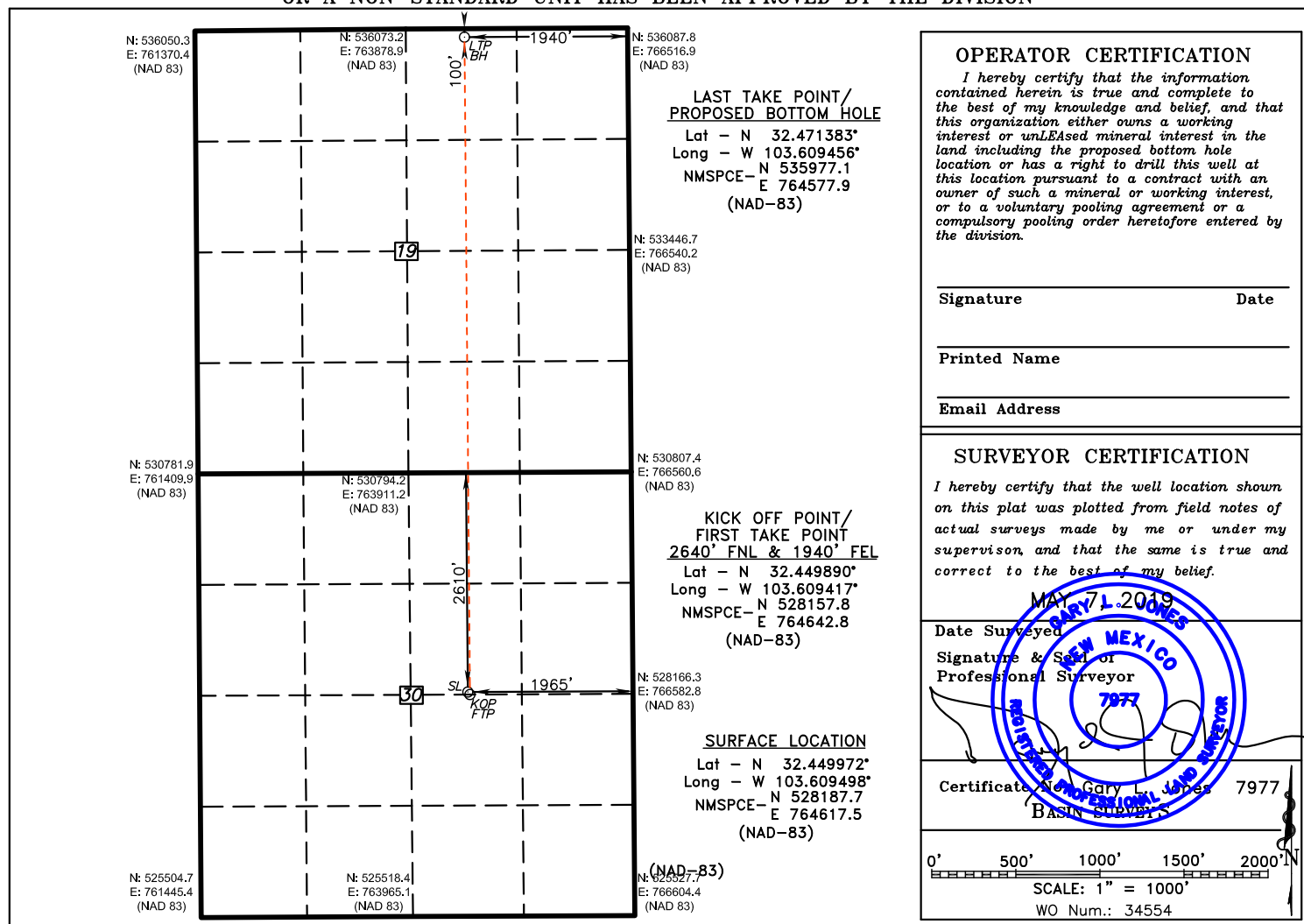
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
G	30	21 S	33 E		2610	NORTH	1965	EAST	LEA

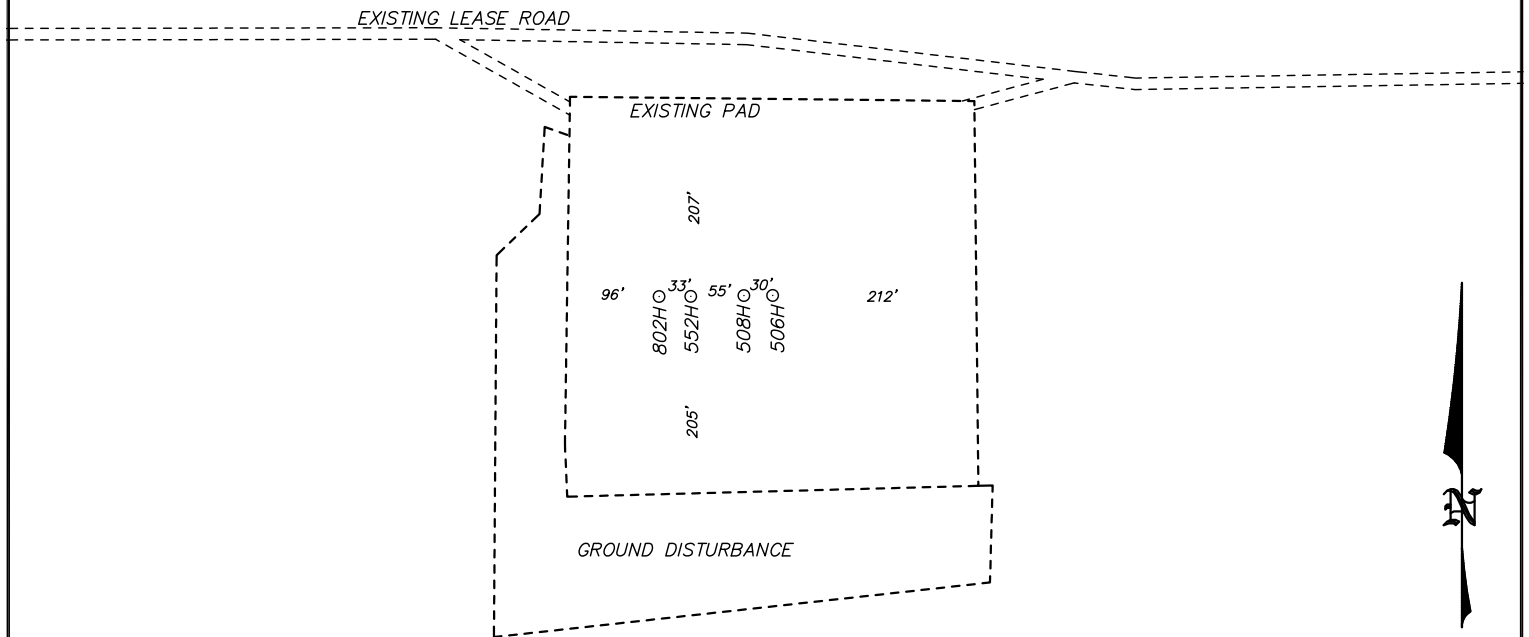
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
B	19	21 S	33 E		100	NORTH	1940	EAST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	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



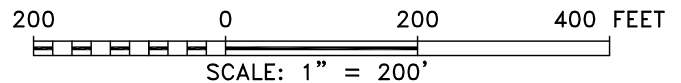
**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA
DAGGER STATE COM #552H
ELEV. - 3812'**

Lat - N 32.449972°
Long - W 103.609498°
NMSPCE- N 528187.7
E 764617.5
(NAD-83)

EUNICE, NM IS ±26 MILES TO THE EAST OF LOCATION.



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #552H / WELL PAD TOPO

THE DAGGER STATE COM #552H LOCATED 2610' FROM
THE NORTH LINE AND 1965' FROM THE EAST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

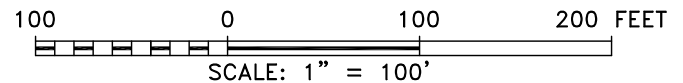
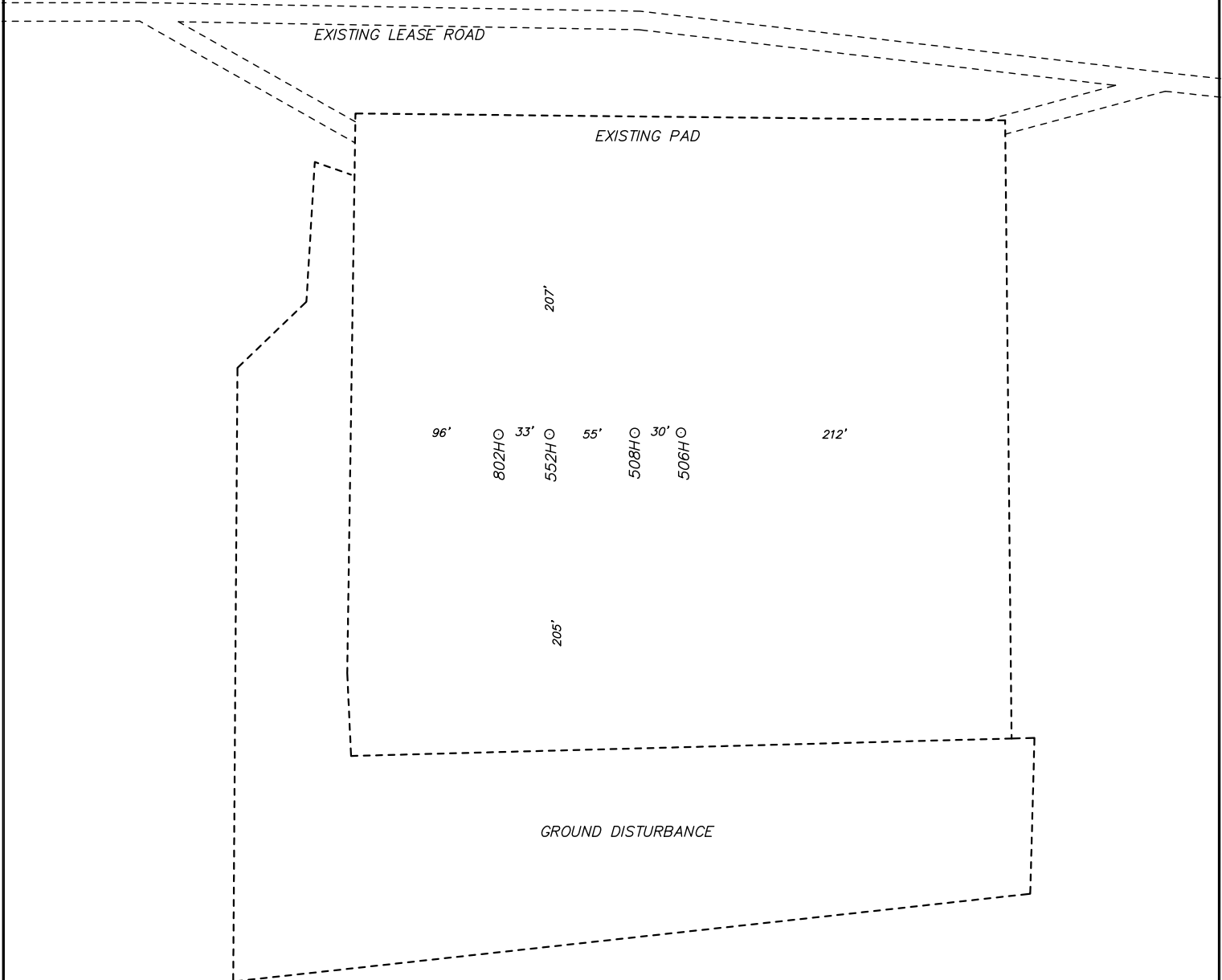
N.M.P.M., LEA COUNTY, NEW MEXICO.

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

W.O. Number: 34554 Drawn By: K. GOAD Date: 05-07-2019 Survey Date: 05-07-2019 Sheet 1 of 1 Sheets

**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #552H / WELL PAD TOPO

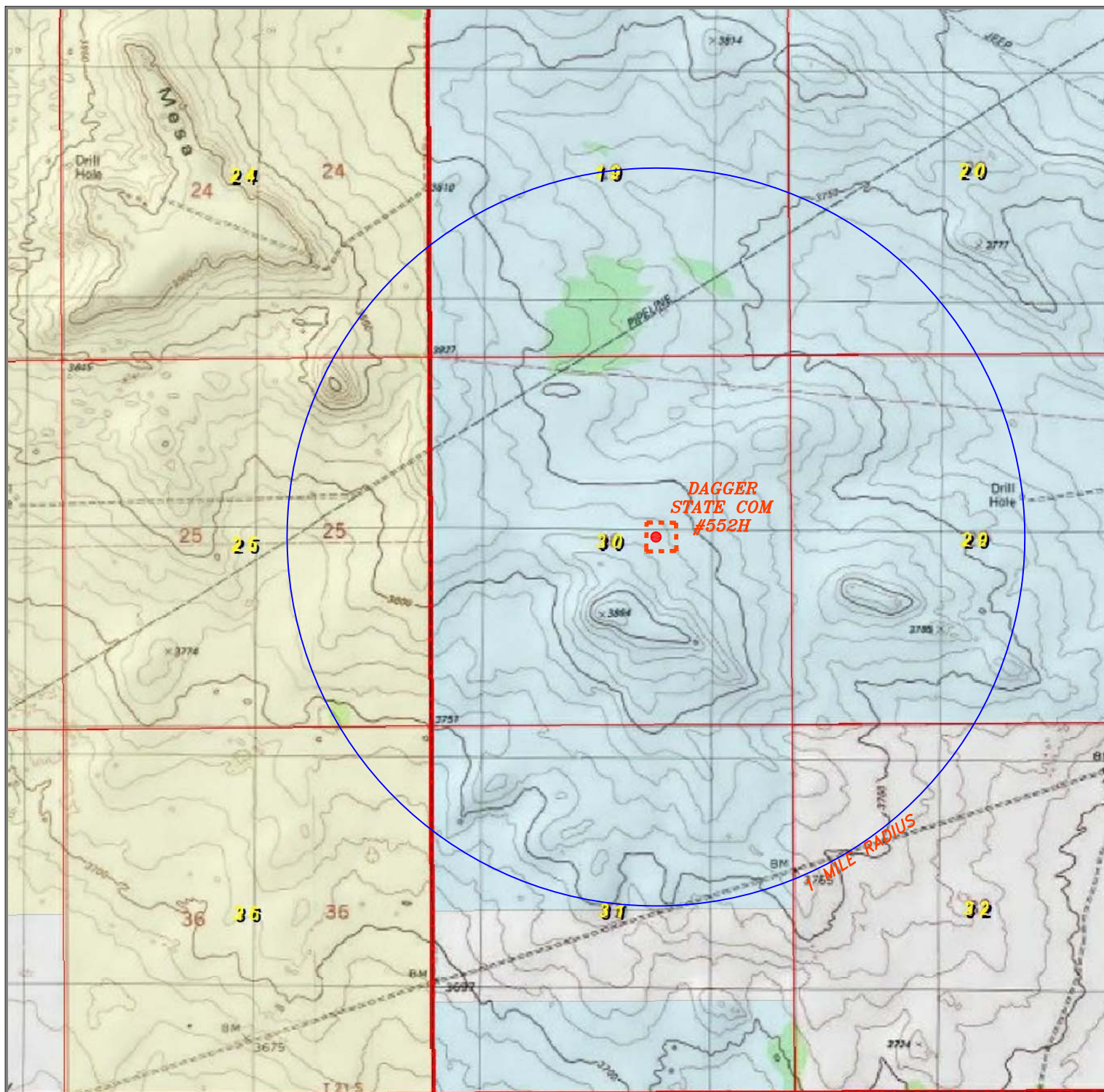
THE DAGGER STATE COM #552H LOCATED 2610' FROM
THE NORTH LINE AND 1965' FROM THE EAST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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

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W.O. Number: 34554	Drawn By: K. GOAD	Date: 05-07-2019	Survey Date: 05-07-2019	Sheet 1 of 1 Sheets
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DAGGER STATE COM #552H

Located 2610' FNL and 1965' FEL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
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0' 1000' 2000' 3000' 150'0"
 SCALE: 1" = 2000'

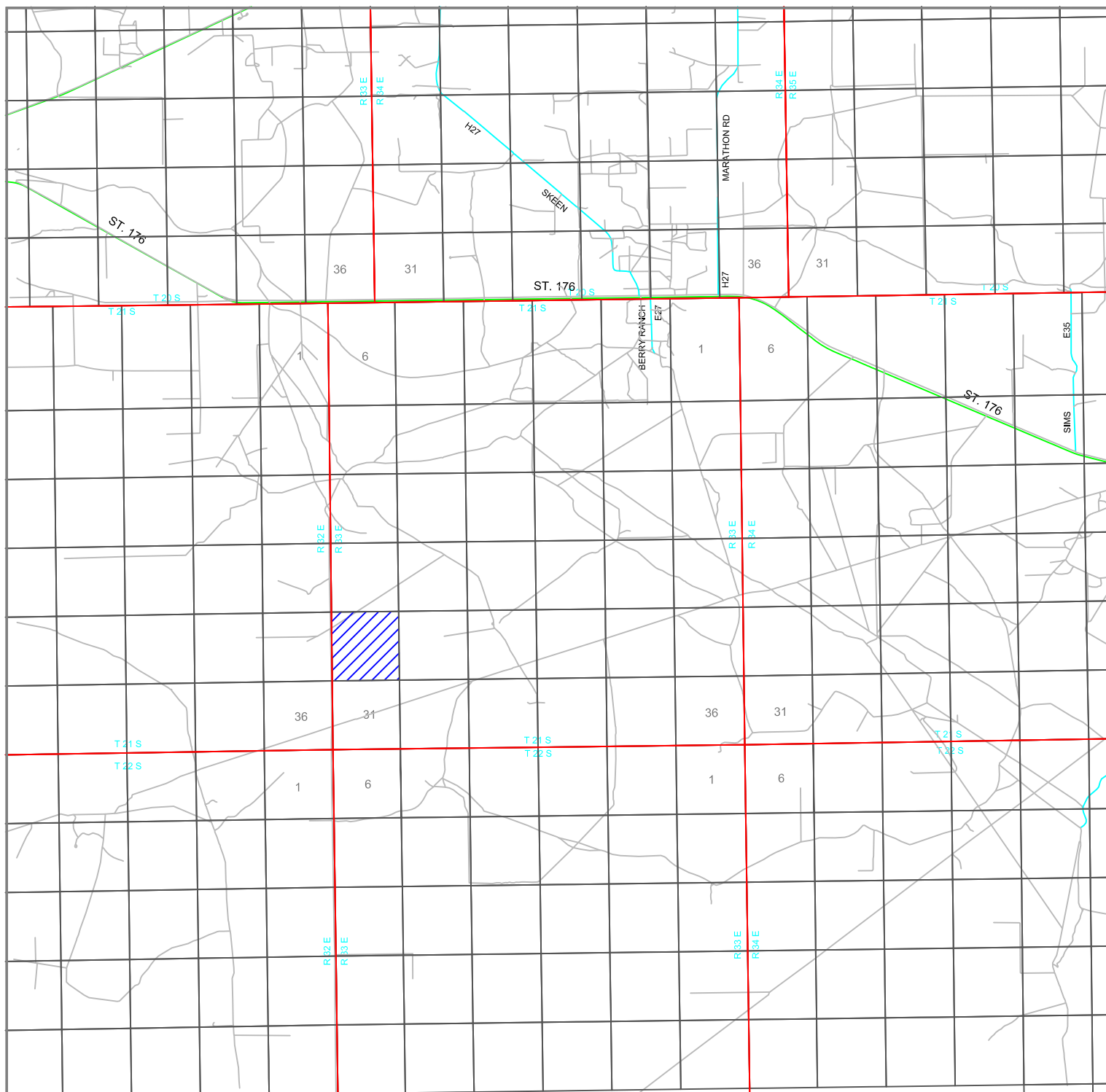
W.O. Number: KJG 34554

Survey Date: 05-07-2019

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**



DAGGER STATE COM #552H

Located 2610' FNL and 1965' FEL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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 (575) 393-7316 - Office
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0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

W.O. Number: KJG 34554

Survey Date: 05-07-2019

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**



DAGGER STATE COM #552H

Located 2610' FNL and 1965' FEL
Section 30, Township 21 South, Range 33 East,
N.M.P.M., Lea County, New Mexico.



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(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

0' 1000' 2000' 3000' 1500'
SCALE: 1" = 2000'

W.O. Number: KJG 34554

Survey Date: 05-07-2019

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



**ADVANCE
ENERGY
PARTNERS
HAT MESA**

Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

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

WELL API NO. 30-025-45934
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Dagger State Com
8. Well Number 552H
9. OGRID Number 372417
10. Pool name or Wildcat WC-025 G-06 S213326D;BONE SPRING

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
Advance Energy Partners Hat Mesa

3. Address of Operator
11490 Westheimer Rd, Houston, TX 77077

4. Well Location
Unit Letter G : 2610 feet from the N line and 1965 feet from the E line
Section 30 Township 21S Range 33E NMPM County LEA

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3812' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:
REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: ☒

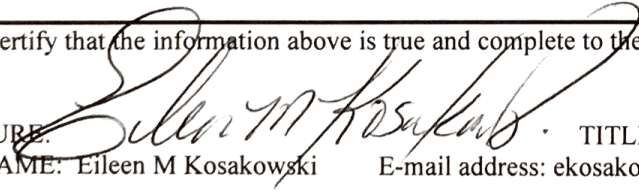
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

- 7/12/19: Pressure test casing to 9,900 psi for 30 minutes.
- 7/26/19 – 8/09/19: Perforate from 11,428' – 18,819' (2210). Frac with 18,785,940 lbs sand and 24,699,822 gal fluid.
- 8/11/19 – 8/13/19: Drill all plugs out and clean out to PBTD of 18,834'.
- 8/18/19 – Set packer @ 10,755'. Run 2-7/8" production tubing and gas lift valves. EOT @ 10,786'
- 8/19/19: Begin flowback – Ready to produce.
- 2/21/22 – CORRECTION to Casing Depths filed on 7/17/19. CORRECT depths are as follows:
13.375" Surface Casing set at 1,618'
9.625" Intermediate Casing set at 3,712'/5,295'
5.5" Production Casing set at 18,918'

Spud Date: 05/22/2019

Rig Release Date: 07/05/2019

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE:  TITLE: Sr. Eng. Tech.
PRINT NAME: Eileen M Kosakowski E-mail address: ekosakowski@advanceenergypartners.com

DATE: 2/2/22
PHONE: (832) 672-4604

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any): _____

Two Copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 Revised April 3, 2017 1. WELL API NO. 30-025-45934 2. Type of Lease ☒ STATE ☐ FEE ☐ FED/INDIAN 3. State Oil & Gas Lease No.
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WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)	5. Lease Name or Unit Agreement Name Dagger State Com 6. Well Number: 552H																																	
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER																																		
8. Name of Operator Advance Energy Partners Hat Mesa, LLC	9. OGRID 372417																																	
10. Address of Operator 11490 Westheimer RD, Suite 950 Houston, TX 77077	11. Pool name or Wildcat WC-025 G-06 S213326D;BONE SPRING																																	
<table border="1"> <tr> <th>12. Location</th> <th>Unit Ltr</th> <th>Section</th> <th>Township</th> <th>Range</th> <th>Lot</th> <th>Feet from the</th> <th>N/S Line</th> <th>Feet from the</th> <th>E/W Line</th> <th>County</th> </tr> <tr> <td>Surface:</td> <td>G</td> <td>30</td> <td>21S</td> <td>33E</td> <td></td> <td>2610</td> <td>N</td> <td>1965</td> <td>E</td> <td>Lea</td> </tr> <tr> <td>BH:</td> <td>B</td> <td>19</td> <td>21S</td> <td>33E</td> <td></td> <td>45</td> <td>N</td> <td>1952</td> <td>E</td> <td>Lea</td> </tr> </table>	12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County	Surface:	G	30	21S	33E		2610	N	1965	E	Lea	BH:	B	19	21S	33E		45	N	1952	E	Lea	
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County																								
Surface:	G	30	21S	33E		2610	N	1965	E	Lea																								
BH:	B	19	21S	33E		45	N	1952	E	Lea																								
13. Date Spudded 05/22/19	14. Date T.D. Reached 07/02/2019	15. Date Rig Released 07/05/2019	16. Date Completed (Ready to Produce) 08/19/2019	17. Elevations (DF and RKB, RT, GR, etc.) 3,812' GR																														
18. Total Measured Depth of Well 18,936'	19. Plug Back Measured Depth 18,834'	20. Was Directional Survey Made? YES	21. Type Electric and Other Logs Run Gamma Ray																															
22. Producing Interval(s), of this completion - Top, Bottom, Name 11,428' - 18,819' Bone Spring																																		

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13.375"	54.4#	1,618'	17.75	760	
9.625"	40#	3,712'/5,295'	12.25	1330	
5.5"	20#	18,918'	8.5	2465	

24. LINER RECORD				25. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-7/8	10,786'	10,775'
26. Perforation record (interval, size, and number) 11,428' - 18,819' (2210 holes)				27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL 11,428' - 18,819' AMOUNT AND KIND MATERIAL USED 18,785,940 lbs sand 24,699,822 Gals water			

PRODUCTION

Date First Production 08/20/2019		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing			Well Status (Prod. or Shut-in) Prod		
Date of Test 09/01/2019	Hours Tested 24	Choke Size 50	Prod'n For Test Period 24	Oil - Bbl 2592	Gas - MCF 3120	Water - Bbl. 1705	Gas - Oil Ratio 1206
Flow Tubing Press. 758	Casing Pressure 170	Calculated 24-Hour Rate	Oil - Bbl. 2592	Gas - MCF 3120	Water - Bbl. 1705	Oil Gravity - API - (Corr.) 48.1	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)	30. Test Witnessed By Baron Chandler
31. List Attachments	

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.	33. Rig Release Date: 07/05/2019
34. If an on-site burial was used at the well, report the exact location of the on-site burial:	
Latitude _____ Longitude _____ NAD83	

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature 	Date: 2/21/22
Printed Name: Eileen M. Kosowski	E-mail Address: ekosowski@advanceenergypartners.com

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T.Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T.Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs 9043	T.Todilto	
T. Abo	T.	T. Entrada	
T. Wolfcamp 12060	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

OIL OR GAS SANDS OR ZONES

No. 1, from.....to.....

No. 3, from.....to.....

No. 2, from.....to.....

No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....

No. 2, from.....to.....feet.....

No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology

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

ACKNOWLEDGMENTS

Action 83026

ACKNOWLEDGMENTS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	OGRID: 372417
	Action Number: 83026
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
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CONDITIONS

Action 83026

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CONDITIONS

Created By	Condition	Condition Date
plmartinez	None	7/26/2024