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 & Natural Resources

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

Form C-104
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
Advance Energy Partners, LLC 11490 Westheimer, Suite 950 Houston, Texas 77077	372417
	[3] Reason for Filing Code/ Effective Date NW

[4] API Number	[5] Pool Name	[6] Pool Code
30-025-45579	LEGG; BONE SPRING	37870

[7] Property Code	[8] Property Name	[9] Well Number
319599	Dagger Lake 5 State Com	501H

II. [10] Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
L	5	22S	33E		2140	South	380	West	Lea

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	32	21S	33E		50	North	351	West	Lea

[12] Lse Code	[13] Producing Method Code	[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/. Sioe 200E Midland, Texas 79705	O
24650	Targa Midstream Services, LLC 811 Louisiana, Suite 21 Houston, Texas 77022	G

IV. Well Completion Data

[021] Spud Date	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
03/13/2019	08/07/2019	19,095'	18,946'	11,281'-18,916'	

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
17.5	13.375	1,165'	635
12.25	9.625	3,866'/4,830'	970
8.5	5.5	19,012'	3070

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
08/15/2019	08/16/2019	08/25/2019	24 hrs	890	1000
[37] Choke Size	**[38] Oil**	**[39] Water**	**[40] Gas**		**[41] Test Method**
38	850	3474	793		Flowing

[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: Eileen M Kosakowski

Printed name: Eileen M Kosakowski

Title: Sr. Eng. Tech

E-mail Address: ekosakowski@advanceenergypartners.com

Date: 2/18/22

Phone: 832-672-4604

OIL CONSERVATION DIVISION

Approved by: *PATRICIA MARTINEZ*

Title: *PETROLEUM SPECIALIST*

Approval Date: *7/25/2024*

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
As Drilled

API Number	Pool Code	Pool Name
30-025-45579	37870	LEGG;BONE SPRING

Property Code	Property Name	Well Number
319599	DAGGER LAKE 5 STATE COM	501H

OGRID No.	Operator Name	Elevation
372417	ADVANCE ENERGY PARTNERS HAT MESA	3658'

Surface Location

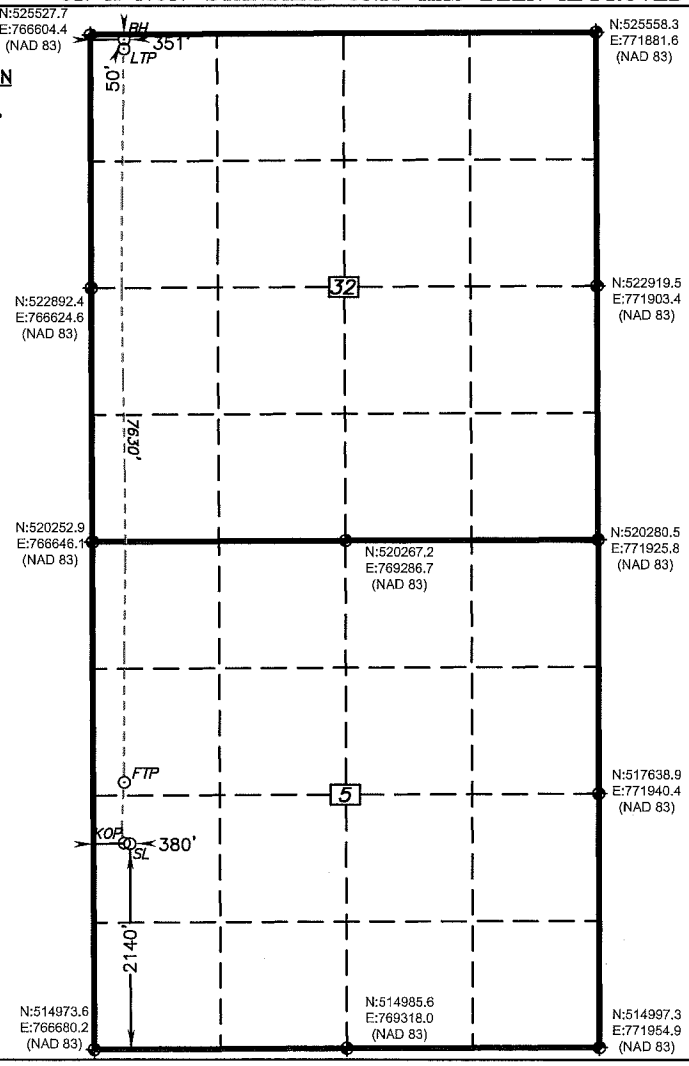
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
L	5	22 S	33 E		2140	SOUTH	380	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
D	32	21 S	33 E		50	NORTH	351	WEST	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



BOTTOM HOLE LOCATION
Lat – N 32.442486°
Long – W 103.601978°
NMSPCE– N 525480.0
E 766956.1
(NAD-83)

LAST TAKE POINT
150' FNL & 350' FWL
Lat – N 32.442214°
Long – W 103.601983°
NMSPCE– N 525381.1
E 766955.3
(NAD-83)

FIRST TAKE POINT
2504' FNL & 324' FWL
Lat – N 32.421242°
Long – W 103.602052°
NMSPCE– N 517751.1
E 766986.1
(NAD-83)

KICK OFF POINT
2145' FSL & 321' FWL
Lat – N 32.419507°
Long – W 103.602062°
NMSPCE– N 517119.9
E 766987.3
(NAD-83)

SURFACE LOCATION
Lat – N 32.419492°
Long – W 103.601870°
NMSPCE– N 517114.9
E 767046.7
(NAD-83)

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unLEAsed mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

09-13-19
Signature Date

BRADEN HARRIS.
Printed Name

bharris@advanceenergypartners.com
Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

SEPTEMBER 11, 2019
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR
BASIN SURVEYS

Certificate No. Gary L. Jones 7977

0' 1000' 2000' 3000' 4000' N
SCALE: 1" = 2000'
WO Num.: 34842

Aim Directional Services

End of Well Report

Advance Energy Partners, LLC
Dagger Lake 5 State, Well No. 501H
Lea County, New Mexico
Rig: H&P #620
Job No.: WT-19-031

Start Date: 03/12/2019
End Date: 04/25/2019

Directional Drillers:
Joel Johnson, Josh Cockrell, Omar Alaniz

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

RTOC
Aim Directional Services

Contender
DOWNHOLE MOTORS

Performance Overview

Dagger Lake 5 State #501H (WT-19-031)

2019-03-12 to 2019-04-25

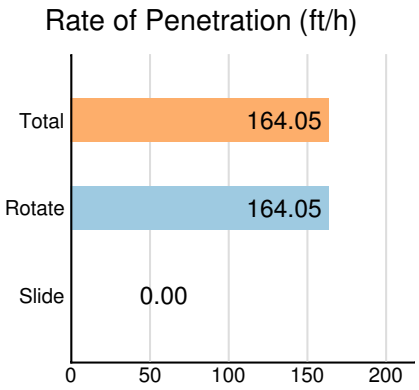
Lea, New Mexico, US (32.42, -103.60)

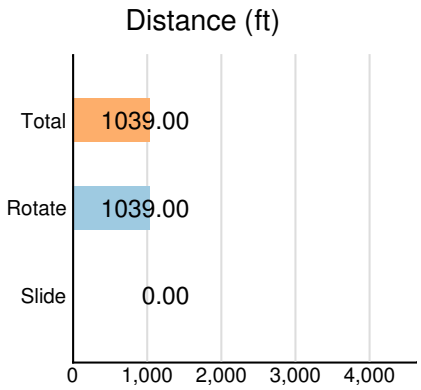
BHA Performance

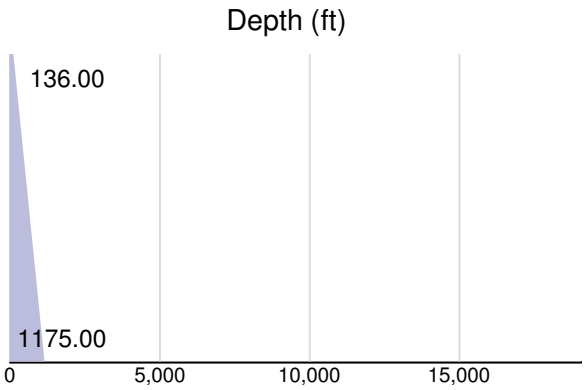
BHA 1

BHA #1 Surface

In: **03/13/2019 18:45**
Out: **03/14/2019 13:30**



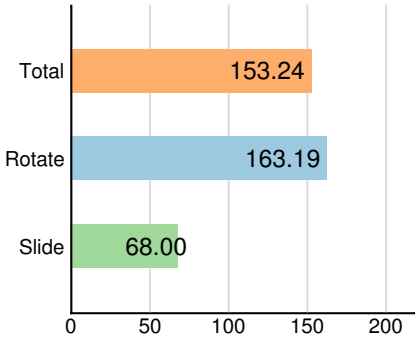


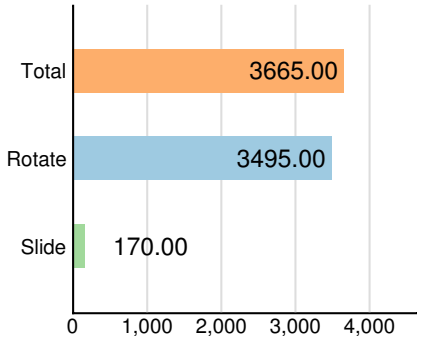


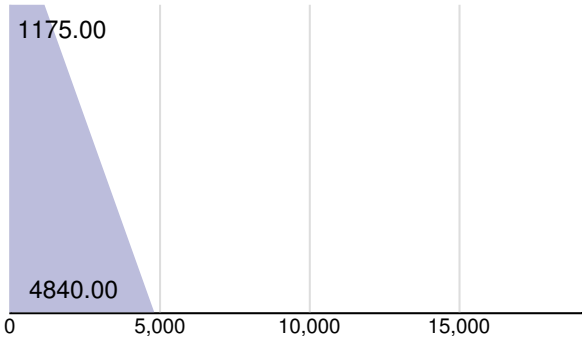
BHA 2

BHA #2 1st Intermediate

In: **03/20/2019 19:00**
Out: **03/22/2019 08:00**



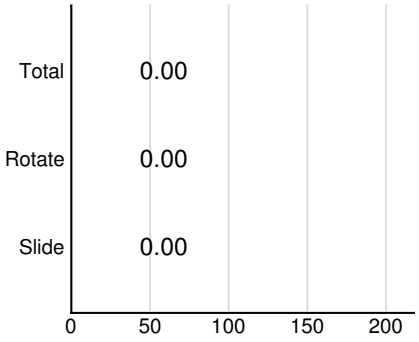


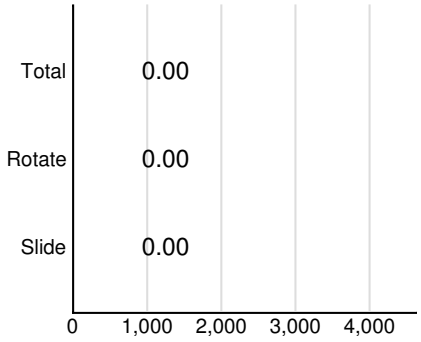


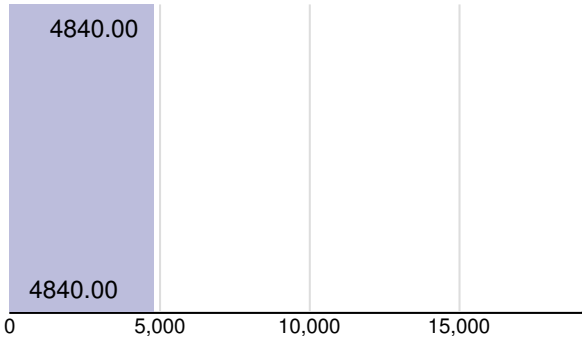
BHA 3

BHA #3

In: **03/23/2019 03:15**
Out: **03/23/2019 14:45**





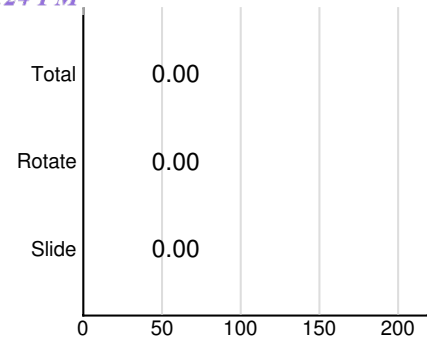


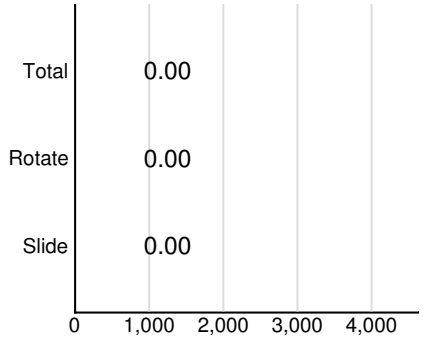
BHA 4

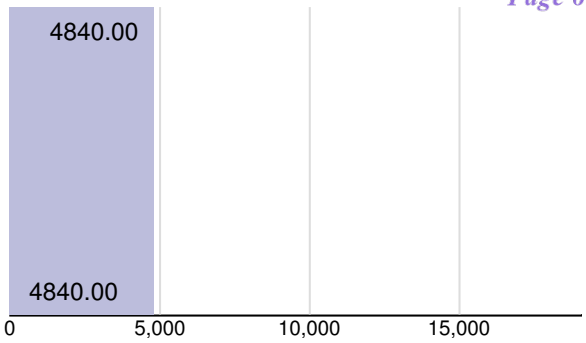
BHA #4 (Packer Run)

In: **03/23/2019 14:45**

Out: **03/23/2019 21:30**





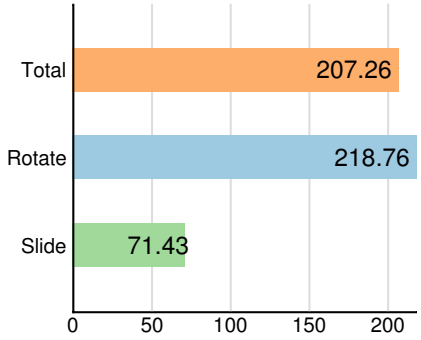


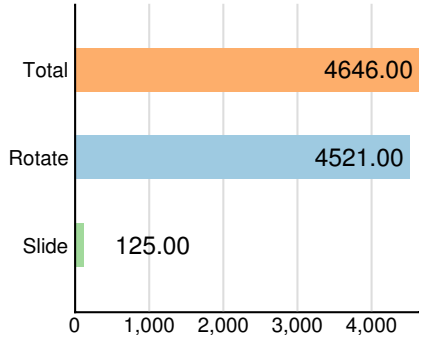
BHA 5

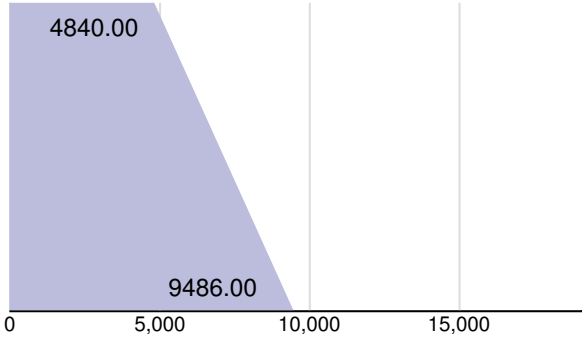
BHA #5 (2nd Intermediate)

In: **03/23/2019 21:30**

Out: **03/25/2019 09:30**





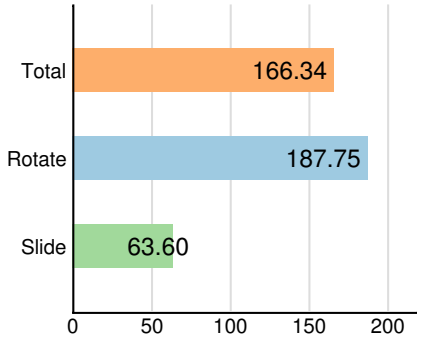


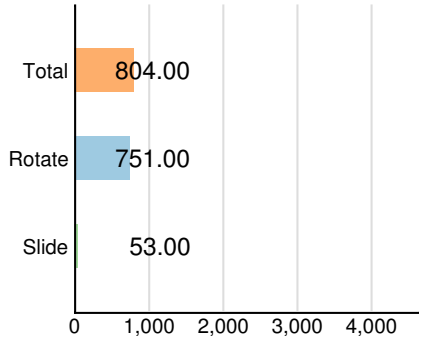
BHA 6

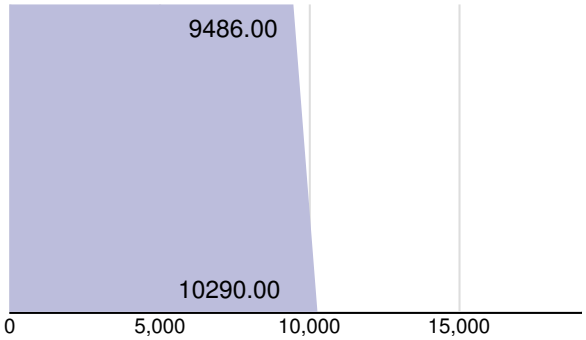
BHA #6 (2nd Intermediate)

In: **03/25/2019 09:30**

Out: **03/26/2019 06:30**





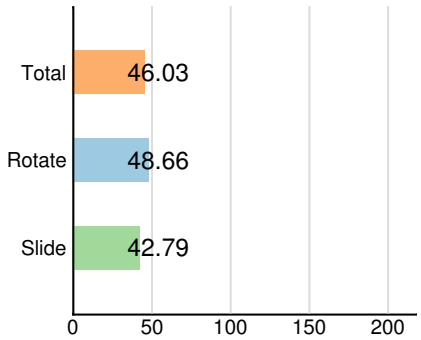


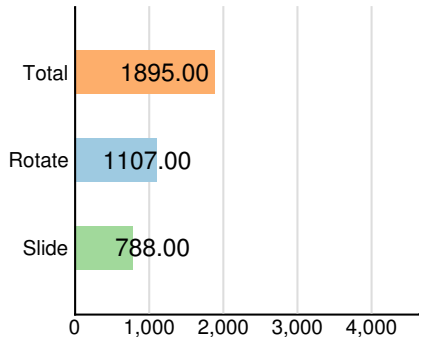
BHA 7

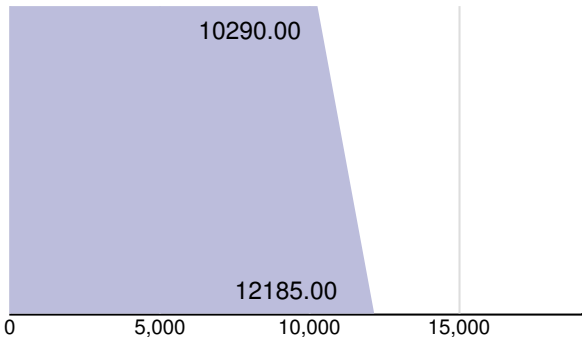
BHA #7 (Curve)

In: **04/13/2019 05:30**

Out: **04/15/2019 23:30**



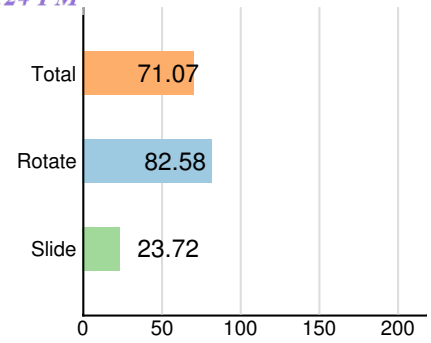


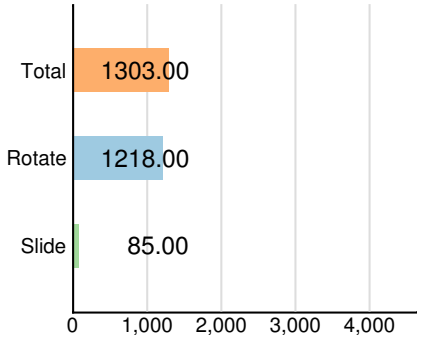


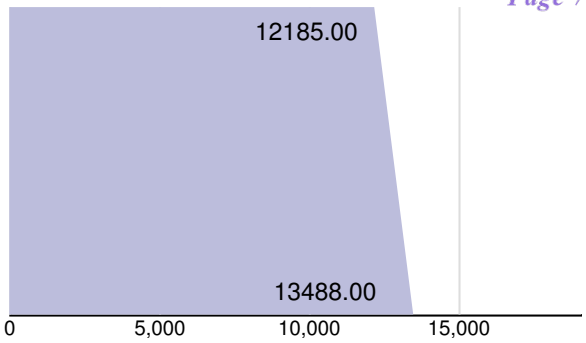
BHA 8

BHA #8 Lateral

In: **04/15/2019 22:15**
Out: **04/17/2019 13:45**



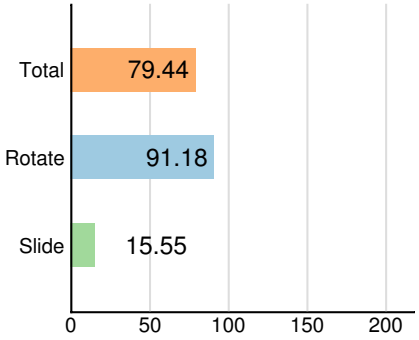


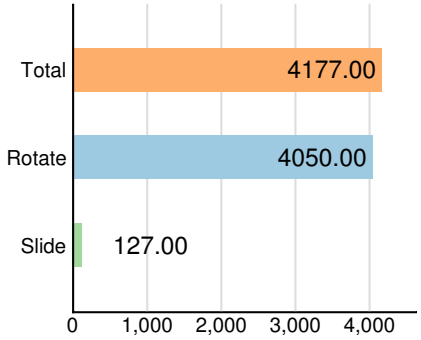


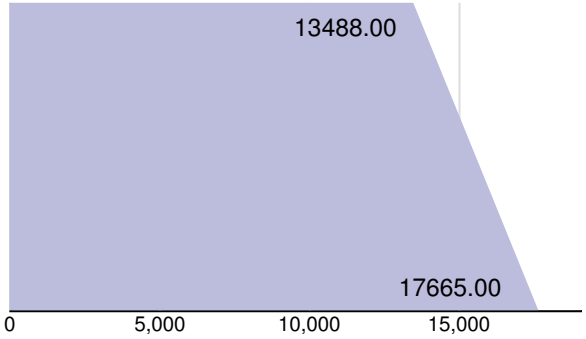
BHA 9

BHA #9 (Second Lateral Run)

In: **04/17/2019 15:45**
Out: **04/21/2019 02:15**



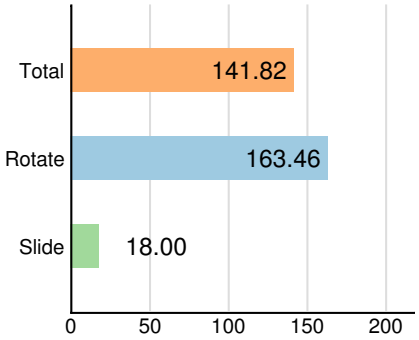


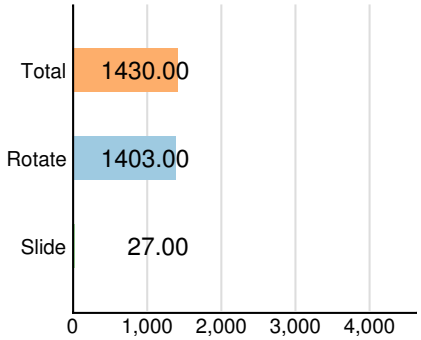


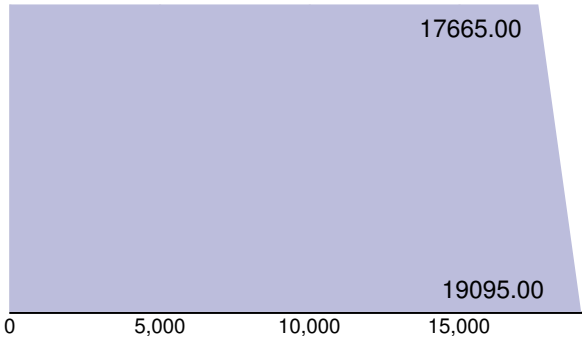
BHA 10

BHA #10 (Third Lateral Run)

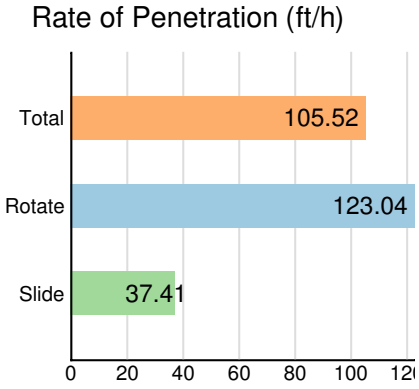
In: **04/21/2019 02:30**
Out: **04/23/2019 01:30**

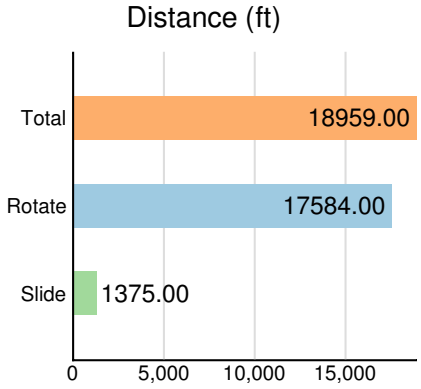






Total


Rate of Penetration (ft/h)
Total
105.52
Rotate
123.04
Slide
37.41
0
20
40
60
80
100


Distance (ft)
Total
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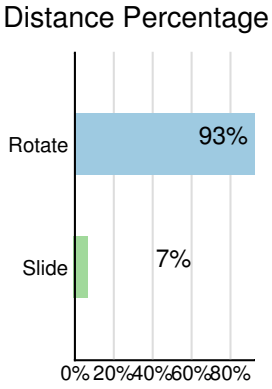
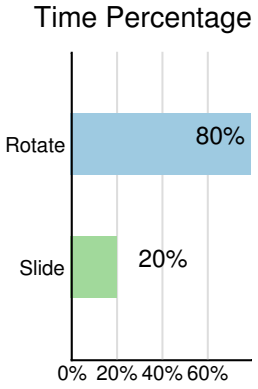
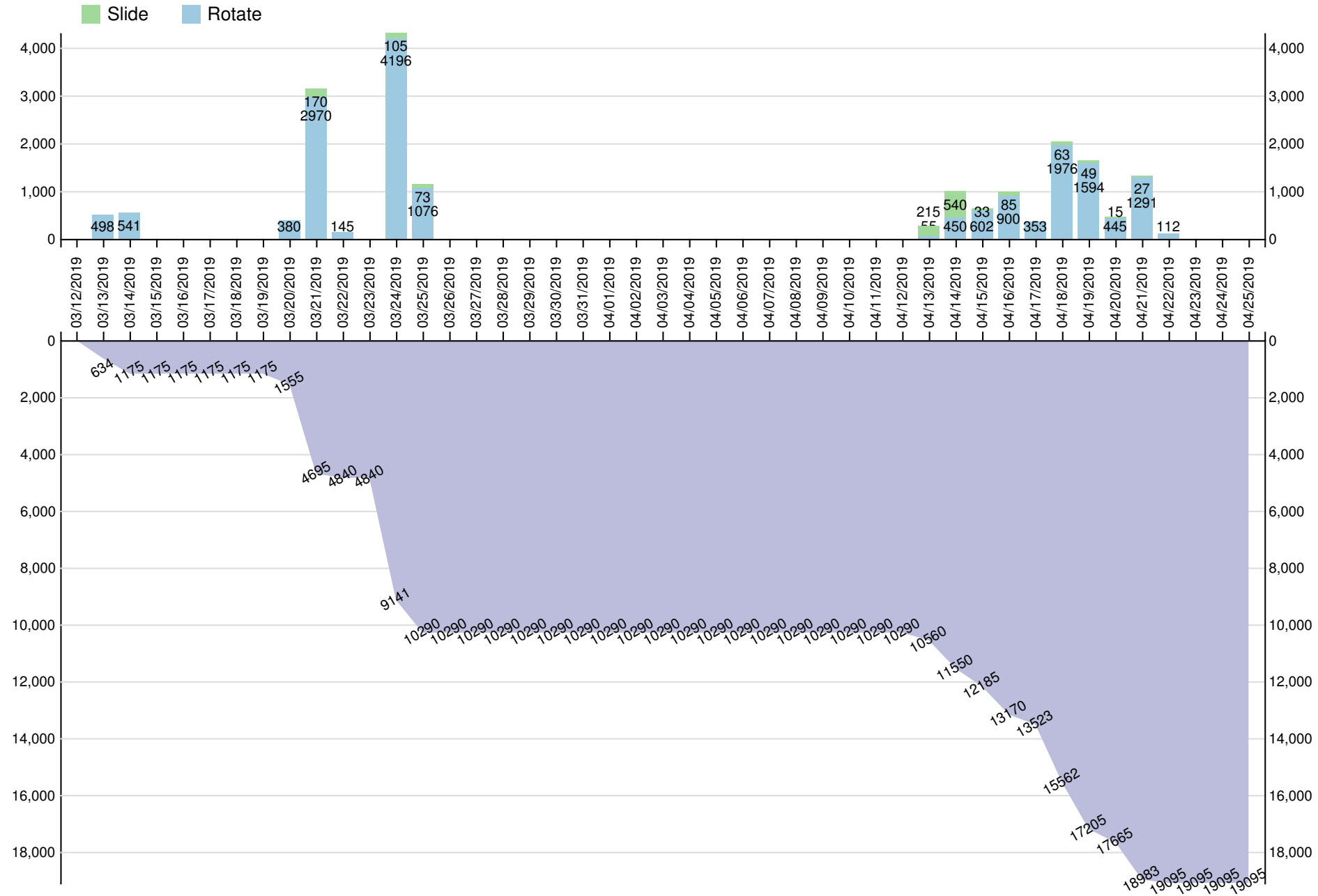
Rotate
17584.00
Slide
1375.00
0
5,000
10,000
15,000

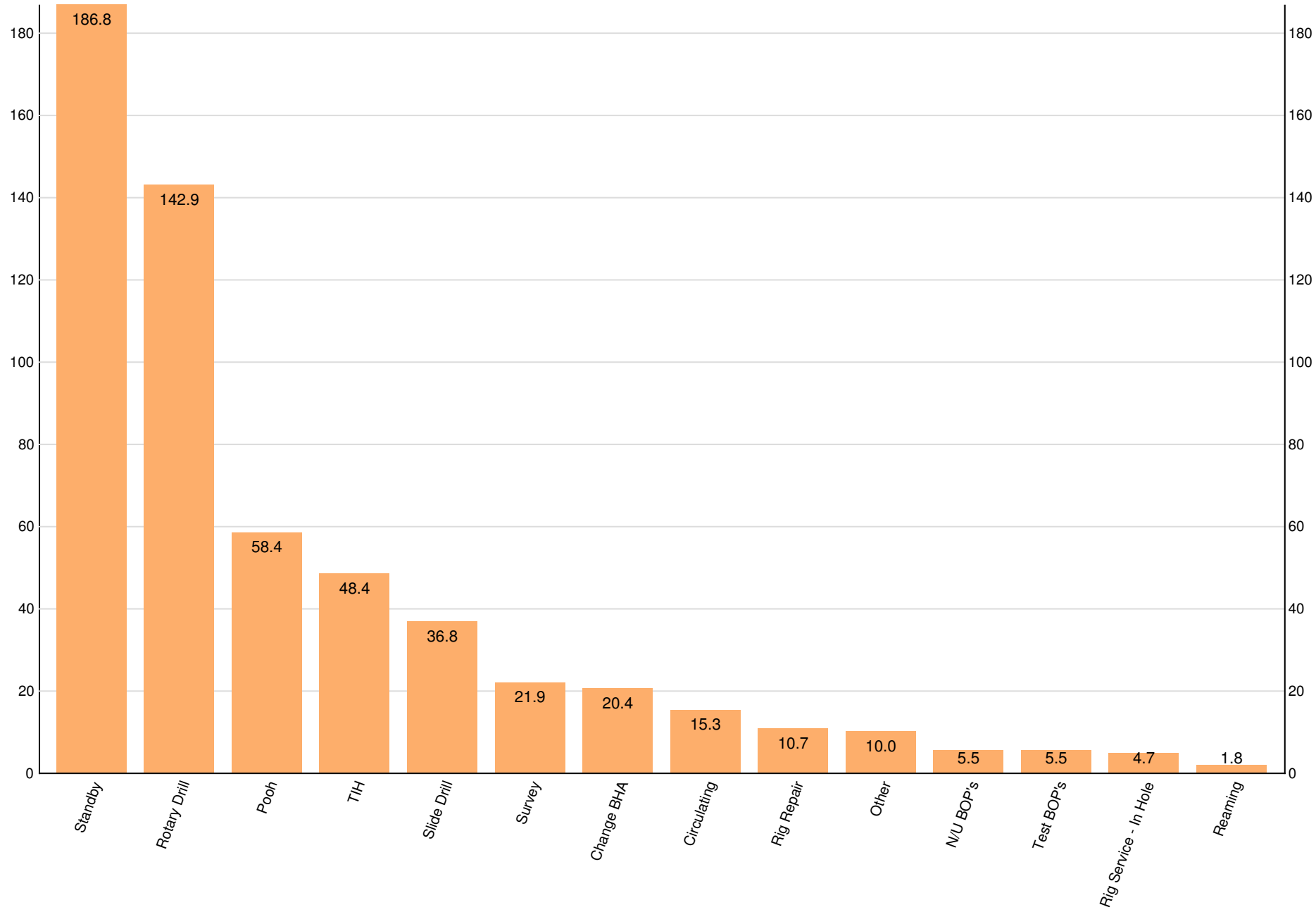

Distance Percentage
Rotate
93%
Slide
7%
0%
20%
40%
60%
80%


Time Percentage
Rotate
80%
Slide
20%
0%
20%
40%
60%

Days vs. Depth



Directional Activity Hours



Proposed vs. As Drilled

Dagger Lake 5 State #501H (WT-19-031)

2019-03-12 to 2019-04-25

Lea, New Mexico, US (32.42, -103.60)

Advance Energy Partners, LLC

Dagger Lake 5 State 501H
Lea County, New Mexico
WT-19-031
H&P 620
Plan 1.0

SITE DETAILS: Dagger Lake 5 State 501H	
Site Centre Northing:	517114.90
Easting:	767046.70
Positional Uncertainity:	0.00
Convergence:	0.39
Local North:	Grid

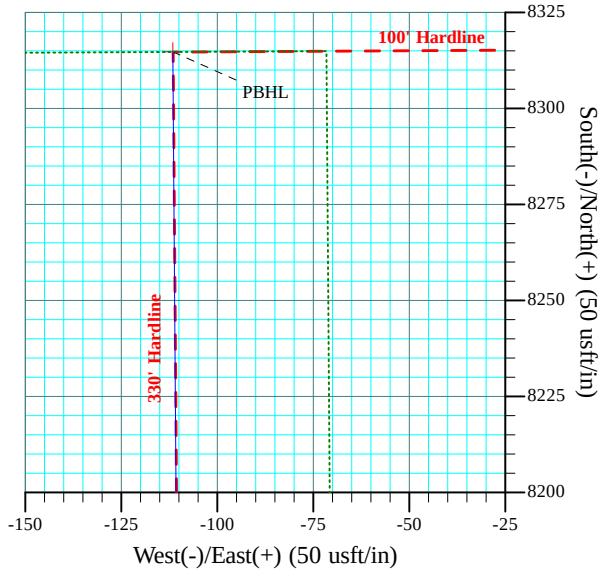
T G M

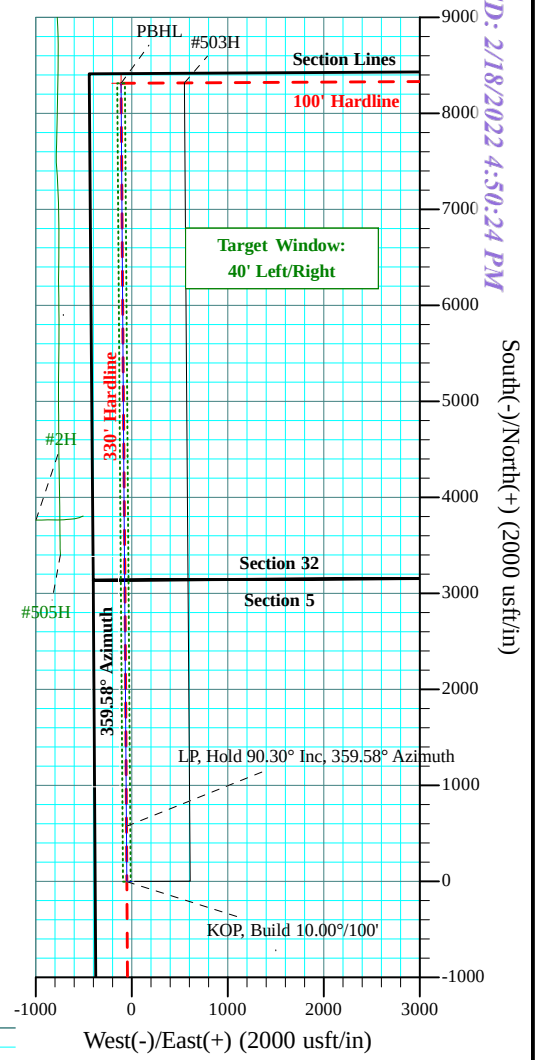
Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.29°

Magnetic Field
Strength: 48108.4nT
Dip Angle: 60.19°
Date: 3/11/2019
Model: MVHD

Magnetic North: 6.29° 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:	3658'GL+26.5'KB @ 3684.50usft (H&P 620)

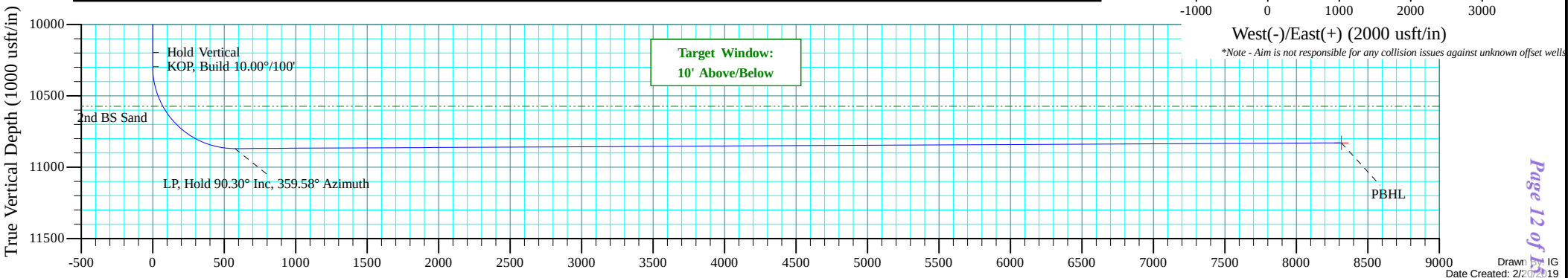




*Note - Aim is not responsible for any collision issues against unknown offset wells

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	8937.18	0.00	0.00	8937.18	0.00	0.00	0.00	0.00	0.00	Build 1.00°/100'
3	9237.18	3.00	269.62	9237.04	-0.05	-7.85	1.00	269.62	0.01	Hold 3.0° Inc, 269.62° Azimuth
4	9898.23	3.00	269.62	9897.19	-0.28	-42.45	0.00	0.00	0.03	Drop 1.00°/100'
5	10198.23	0.00	0.00	10197.05	-0.33	-50.30	1.00	180.00	0.04	Hold Vertical
6	10298.23	0.00	0.00	10297.05	-0.33	-50.30	0.00	0.00	0.04	KOP, Build 10.00°/100'
7	11201.19	90.30	359.58	10870.00	575.57	-54.55	10.00	359.58	575.96	LP, Hold 90.30° Inc, 359.58° Azimuth
8	18940.73	90.30	359.58	10830.00	8314.80	-111.60	0.00	0.00	8315.39	PBHL

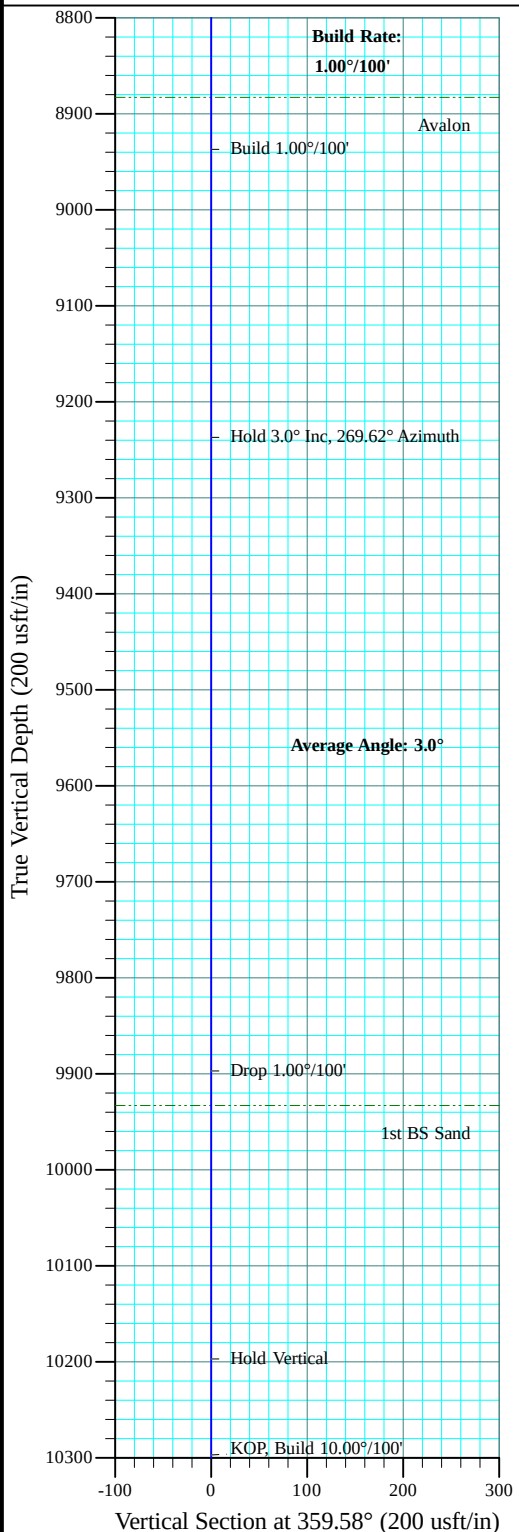
DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL r1 (Dagger5)	10830.00	8314.80	-111.60	525429.70	766935.10	32° 26' 32.454 N	103° 36' 7.369 W

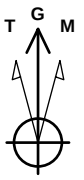


Drawn: JG
Date Created: 2/20/2019
Date Revised: 3/11/2019
File: Advance Energy - Dagger Lake 5 State #501H Plan 1.0.wpc

Advance Energy Partners, LLC

Dagger Lake 5 State 501H
Lea County, New Mexico
WT-19-031
H&P 620
Plan 1.0





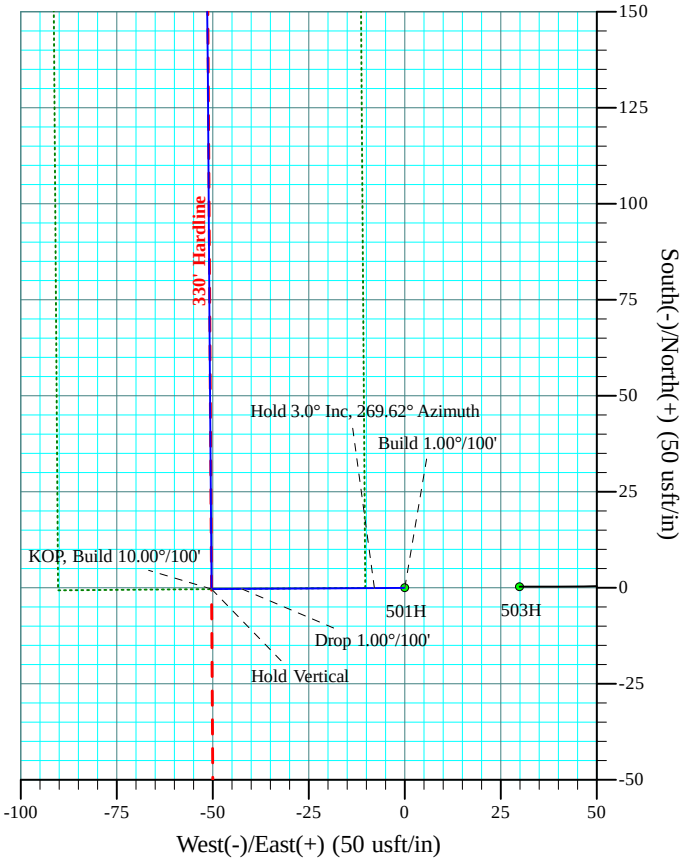
Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.29°

Magnetic Field
Strength: 48108.4nT
Dip Angle: 60.19°
Date: 3/11/2019
Model: MVHD

Magnetic North: 6.29° to Grid North

CASING DETAILS		
TVD	MD	Name
1160.00	1160.00	13 3/8"
4828.00	4828.00	9 5/8"

SLOTS		
Slot Name	+N/-S	+E/-W
501H	0.00	0.00
503H	0.30	29.90



SITE DETAILS: Dagger Lake 5 State 501H	
Site Centre Northing:	517114.90
Easting:	767046.70
Positional Uncertainity:	0.00
Convergence:	0.39
Local North:	Grid
Depth Reference:	3658'GL+26.5'KB @ 3684.50usft (H&P 620)

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

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

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL r1 (Dagger5)	10830.00	8314.80	-111.60	525429.70	766935.10	32° 26' 32.454 N	103° 36' 7.369 W

Drawn By: IG
Date Created: 2/20/2019
Date Revised: 3/11/2019
File: Advance Energy - Dagger Lake 5 State #501H Plan 1.0.wpc

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	8937.18	0.00	0.00	8937.18	0.00	0.00	0.00	0.00	0.00	Build 1.00°/100'
3	9237.18	3.00	269.62	9237.04	-0.05	-7.85	1.00	269.62	0.01	Hold 3.0° Inc, 269.62° Azimuth
4	9898.23	3.00	269.62	9897.19	-0.28	-42.45	0.00	0.00	0.03	Drop 1.00°/100'
5	10198.23	0.00	0.00	10197.05	-0.33	-50.30	1.00	180.00	0.04	Hold Vertical
6	10298.23	0.00	0.00	10297.05	-0.33	-50.30	0.00	0.00	0.04	KOP, Build 10.00°/100'
7	11170.73	90.30	359.58	11170.00	575.57	-54.55	10.00	359.58	575.96	LP, Hold 90.30° Inc, 359.58° Azimuth
8	18940.73	90.30	359.58	10830.00	8314.80	-111.60	0.00	0.00	8315.39	PBHL

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Lateral 1r2	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**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 Lake 5 State 501H

Site Position:		**Northing:**	517,114.90 usft	**Latitude:**	32° 25' 10.172 N
From:	Map	**Easting:**	767,046.70 usft	**Longitude:**	103° 36' 6.731 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.39 °

Well #501H - Slot 501H

Well Position	**+N/-S**	0.00 usft	**Northing:**	517,114.90 usft	**Latitude:**	32° 25' 10.172 N
	+E/-W	0.00 usft	**Easting:**	767,046.70 usft	**Longitude:**	103° 36' 6.731 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,658.00 usft

Wellbore Lateral 1r2

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	3/11/2019	6.69	60.19	48,108.36556889

Design Plan 1.0

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	359.58

Survey Tool Program **Date** 3/11/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	18,940.73	Plan 1.0 (Lateral 1r2)	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
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 Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Lateral 1r2	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**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
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,108.00	0.00	0.00	1,108.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,160.00	0.00	0.00	1,160.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8"									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,778.00	0.00	0.00	4,778.00	0.00	0.00	0.00	0.00	0.00	0.00
Limestone Base									

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Lateral 1r2	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**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)
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,828.00	0.00	0.00	4,828.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,393.00	0.00	0.00	8,393.00	0.00	0.00	0.00	0.00	0.00	0.00
Lower Brushy									
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	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 Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Lateral 1r2	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**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)
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,883.00	0.00	0.00	8,883.00	0.00	0.00	0.00	0.00	0.00	0.00
Avalon									
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,937.18	0.00	0.00	8,937.18	0.00	0.00	0.00	0.00	0.00	0.00
Build 1.00°/100'									
9,000.00	0.63	269.62	9,000.00	0.00	-0.34	0.00	1.00	1.00	0.00
9,100.00	1.63	269.62	9,099.98	-0.02	-2.31	0.00	1.00	1.00	0.00
9,200.00	2.63	269.62	9,199.91	-0.04	-6.03	0.00	1.00	1.00	0.00
9,237.18	3.00	269.62	9,237.04	-0.05	-7.85	0.01	1.00	1.00	0.00
Hold 3.0° Inc, 269.62° Azimuth									
9,300.00	3.00	269.62	9,299.78	-0.07	-11.14	0.01	0.00	0.00	0.00
9,400.00	3.00	269.62	9,399.64	-0.11	-16.37	0.01	0.00	0.00	0.00
9,500.00	3.00	269.62	9,499.50	-0.14	-21.61	0.02	0.00	0.00	0.00
9,600.00	3.00	269.62	9,599.37	-0.18	-26.84	0.02	0.00	0.00	0.00
9,700.00	3.00	269.62	9,699.23	-0.21	-32.07	0.02	0.00	0.00	0.00
9,800.00	3.00	269.62	9,799.09	-0.24	-37.31	0.03	0.00	0.00	0.00
9,898.23	3.00	269.62	9,897.19	-0.28	-42.45	0.03	0.00	0.00	0.00
Drop 1.00°/100'									
9,900.00	2.98	269.62	9,898.95	-0.28	-42.54	0.03	1.00	-1.00	0.00
9,934.09	2.64	269.62	9,933.00	-0.29	-44.21	0.03	1.00	-1.00	0.00
1st BS Sand									
10,000.00	1.98	269.62	9,998.86	-0.31	-46.87	0.04	1.00	-1.00	0.00
10,100.00	0.98	269.62	10,098.82	-0.32	-49.46	0.04	1.00	-1.00	0.00
10,198.23	0.00	0.00	10,197.05	-0.33	-50.30	0.04	1.00	-1.00	92.00
Hold Vertical									
10,200.00	0.00	0.00	10,198.82	-0.33	-50.30	0.04	0.00	0.00	0.00
10,298.23	0.00	0.00	10,297.05	-0.33	-50.30	0.04	0.00	0.00	0.00
KOP, Build 10.00°/100'									
10,300.00	0.18	359.58	10,298.82	-0.33	-50.30	0.04	10.00	10.00	0.00
10,350.00	5.18	359.58	10,348.75	2.01	-50.32	2.38	10.00	10.00	0.00
10,400.00	10.18	359.58	10,398.29	8.68	-50.37	9.05	10.00	10.00	0.00
10,450.00	15.18	359.58	10,447.05	19.65	-50.45	20.02	10.00	10.00	0.00
10,500.00	20.18	359.58	10,494.68	34.83	-50.56	35.20	10.00	10.00	0.00
10,550.00	25.18	359.58	10,540.80	54.10	-50.70	54.47	10.00	10.00	0.00
10,586.15	28.79	359.58	10,573.00	70.50	-50.82	70.87	10.00	10.00	0.00
2nd BS Sand									
10,600.00	30.18	359.58	10,585.06	77.32	-50.87	77.69	10.00	10.00	0.00
10,650.00	35.18	359.58	10,627.13	104.30	-51.07	104.67	10.00	10.00	0.00
10,700.00	40.18	359.58	10,666.69	134.85	-51.30	135.23	10.00	10.00	0.00
10,750.00	45.18	359.58	10,703.44	168.73	-51.55	169.11	10.00	10.00	0.00
10,800.00	50.18	359.58	10,737.10	205.69	-51.82	206.06	10.00	10.00	0.00
10,850.00	55.18	359.58	10,767.40	245.44	-52.11	245.81	10.00	10.00	0.00
10,900.00	60.18	359.58	10,794.13	287.68	-52.42	288.05	10.00	10.00	0.00
10,950.00	65.18	359.58	10,817.07	332.08	-52.75	332.46	10.00	10.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Lateral 1r2	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**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)
11,000.00	70.18	359.58	10,836.06	378.32	-53.09	378.70	10.00	10.00	0.00
11,050.00	75.18	359.58	10,850.94	426.03	-53.44	426.41	10.00	10.00	0.00
11,100.00	80.18	359.58	10,861.61	474.87	-53.80	475.25	10.00	10.00	0.00
11,150.00	85.18	359.58	10,867.98	524.44	-54.17	524.82	10.00	10.00	0.00
11,201.19	90.30	359.58	10,870.00	575.57	-54.55	575.96	10.00	10.00	0.00
LP, Hold 90.30° Inc, 359.58° Azimuth									
11,300.00	90.30	359.58	10,869.49	674.38	-55.27	674.77	0.00	0.00	0.00
11,400.00	90.30	359.58	10,868.97	774.37	-56.01	774.76	0.00	0.00	0.00
11,500.00	90.30	359.58	10,868.46	874.37	-56.75	874.76	0.00	0.00	0.00
11,600.00	90.30	359.58	10,867.94	974.37	-57.49	974.76	0.00	0.00	0.00
11,700.00	90.30	359.58	10,867.42	1,074.36	-58.22	1,074.76	0.00	0.00	0.00
11,800.00	90.30	359.58	10,866.91	1,174.36	-58.96	1,174.76	0.00	0.00	0.00
11,900.00	90.30	359.58	10,866.39	1,274.35	-59.70	1,274.76	0.00	0.00	0.00
12,000.00	90.30	359.58	10,865.87	1,374.35	-60.43	1,374.76	0.00	0.00	0.00
12,100.00	90.30	359.58	10,865.36	1,474.35	-61.17	1,474.75	0.00	0.00	0.00
12,200.00	90.30	359.58	10,864.84	1,574.34	-61.91	1,574.75	0.00	0.00	0.00
12,300.00	90.30	359.58	10,864.32	1,674.34	-62.65	1,674.75	0.00	0.00	0.00
12,400.00	90.30	359.58	10,863.80	1,774.33	-63.38	1,774.75	0.00	0.00	0.00
12,500.00	90.30	359.58	10,863.29	1,874.33	-64.12	1,874.75	0.00	0.00	0.00
12,600.00	90.30	359.58	10,862.77	1,974.33	-64.86	1,974.75	0.00	0.00	0.00
12,700.00	90.30	359.58	10,862.25	2,074.32	-65.59	2,074.75	0.00	0.00	0.00
12,800.00	90.30	359.58	10,861.74	2,174.32	-66.33	2,174.75	0.00	0.00	0.00
12,900.00	90.30	359.58	10,861.22	2,274.31	-67.07	2,274.74	0.00	0.00	0.00
13,000.00	90.30	359.58	10,860.70	2,374.31	-67.81	2,374.74	0.00	0.00	0.00
13,100.00	90.30	359.58	10,860.19	2,474.31	-68.54	2,474.74	0.00	0.00	0.00
13,200.00	90.30	359.58	10,859.67	2,574.30	-69.28	2,574.74	0.00	0.00	0.00
13,300.00	90.30	359.58	10,859.15	2,674.30	-70.02	2,674.74	0.00	0.00	0.00
13,400.00	90.30	359.58	10,858.64	2,774.29	-70.75	2,774.74	0.00	0.00	0.00
13,500.00	90.30	359.58	10,858.12	2,874.29	-71.49	2,874.74	0.00	0.00	0.00
13,600.00	90.30	359.58	10,857.60	2,974.28	-72.23	2,974.73	0.00	0.00	0.00
13,700.00	90.30	359.58	10,857.09	3,074.28	-72.97	3,074.73	0.00	0.00	0.00
13,800.00	90.30	359.58	10,856.57	3,174.28	-73.70	3,174.73	0.00	0.00	0.00
13,900.00	90.30	359.58	10,856.05	3,274.27	-74.44	3,274.73	0.00	0.00	0.00
14,000.00	90.30	359.58	10,855.54	3,374.27	-75.18	3,374.73	0.00	0.00	0.00
14,100.00	90.30	359.58	10,855.02	3,474.26	-75.92	3,474.73	0.00	0.00	0.00
14,200.00	90.30	359.58	10,854.50	3,574.26	-76.65	3,574.73	0.00	0.00	0.00
14,300.00	90.30	359.58	10,853.98	3,674.26	-77.39	3,674.73	0.00	0.00	0.00
14,400.00	90.30	359.58	10,853.47	3,774.25	-78.13	3,774.72	0.00	0.00	0.00
14,500.00	90.30	359.58	10,852.95	3,874.25	-78.86	3,874.72	0.00	0.00	0.00
14,600.00	90.30	359.58	10,852.43	3,974.24	-79.60	3,974.72	0.00	0.00	0.00
14,700.00	90.30	359.58	10,851.92	4,074.24	-80.34	4,074.72	0.00	0.00	0.00
14,800.00	90.30	359.58	10,851.40	4,174.24	-81.08	4,174.72	0.00	0.00	0.00
14,900.00	90.30	359.58	10,850.88	4,274.23	-81.81	4,274.72	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

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Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Lateral 1r2	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**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)
15,000.00	90.30	359.58	10,850.37	4,374.23	-82.55	4,374.72	0.00	0.00	0.00
15,100.00	90.30	359.58	10,849.85	4,474.22	-83.29	4,474.71	0.00	0.00	0.00
15,200.00	90.30	359.58	10,849.33	4,574.22	-84.02	4,574.71	0.00	0.00	0.00
15,300.00	90.30	359.58	10,848.82	4,674.22	-84.76	4,674.71	0.00	0.00	0.00
15,400.00	90.30	359.58	10,848.30	4,774.21	-85.50	4,774.71	0.00	0.00	0.00
15,500.00	90.30	359.58	10,847.78	4,874.21	-86.24	4,874.71	0.00	0.00	0.00
15,600.00	90.30	359.58	10,847.27	4,974.20	-86.97	4,974.71	0.00	0.00	0.00
15,700.00	90.30	359.58	10,846.75	5,074.20	-87.71	5,074.71	0.00	0.00	0.00
15,800.00	90.30	359.58	10,846.23	5,174.20	-88.45	5,174.71	0.00	0.00	0.00
15,900.00	90.30	359.58	10,845.72	5,274.19	-89.18	5,274.70	0.00	0.00	0.00
16,000.00	90.30	359.58	10,845.20	5,374.19	-89.92	5,374.70	0.00	0.00	0.00
16,100.00	90.30	359.58	10,844.68	5,474.18	-90.66	5,474.70	0.00	0.00	0.00
16,200.00	90.30	359.58	10,844.17	5,574.18	-91.40	5,574.70	0.00	0.00	0.00
16,300.00	90.30	359.58	10,843.65	5,674.18	-92.13	5,674.70	0.00	0.00	0.00
16,400.00	90.30	359.58	10,843.13	5,774.17	-92.87	5,774.70	0.00	0.00	0.00
16,500.00	90.30	359.58	10,842.61	5,874.17	-93.61	5,874.70	0.00	0.00	0.00
16,600.00	90.30	359.58	10,842.10	5,974.16	-94.34	5,974.69	0.00	0.00	0.00
16,700.00	90.30	359.58	10,841.58	6,074.16	-95.08	6,074.69	0.00	0.00	0.00
16,800.00	90.30	359.58	10,841.06	6,174.16	-95.82	6,174.69	0.00	0.00	0.00
16,900.00	90.30	359.58	10,840.55	6,274.15	-96.56	6,274.69	0.00	0.00	0.00
17,000.00	90.30	359.58	10,840.03	6,374.15	-97.29	6,374.69	0.00	0.00	0.00
17,100.00	90.30	359.58	10,839.51	6,474.14	-98.03	6,474.69	0.00	0.00	0.00
17,200.00	90.30	359.58	10,839.00	6,574.14	-98.77	6,574.69	0.00	0.00	0.00
17,300.00	90.30	359.58	10,838.48	6,674.14	-99.50	6,674.69	0.00	0.00	0.00
17,400.00	90.30	359.58	10,837.96	6,774.13	-100.24	6,774.68	0.00	0.00	0.00
17,500.00	90.30	359.58	10,837.45	6,874.13	-100.98	6,874.68	0.00	0.00	0.00
17,600.00	90.30	359.58	10,836.93	6,974.12	-101.72	6,974.68	0.00	0.00	0.00
17,700.00	90.30	359.58	10,836.41	7,074.12	-102.45	7,074.68	0.00	0.00	0.00
17,800.00	90.30	359.58	10,835.90	7,174.11	-103.19	7,174.68	0.00	0.00	0.00
17,900.00	90.30	359.58	10,835.38	7,274.11	-103.93	7,274.68	0.00	0.00	0.00
18,000.00	90.30	359.58	10,834.86	7,374.11	-104.67	7,374.68	0.00	0.00	0.00
18,100.00	90.30	359.58	10,834.35	7,474.10	-105.40	7,474.67	0.00	0.00	0.00
18,200.00	90.30	359.58	10,833.83	7,574.10	-106.14	7,574.67	0.00	0.00	0.00
18,300.00	90.30	359.58	10,833.31	7,674.09	-106.88	7,674.67	0.00	0.00	0.00
18,400.00	90.30	359.58	10,832.79	7,774.09	-107.61	7,774.67	0.00	0.00	0.00
18,500.00	90.30	359.58	10,832.28	7,874.09	-108.35	7,874.67	0.00	0.00	0.00
18,600.00	90.30	359.58	10,831.76	7,974.08	-109.09	7,974.67	0.00	0.00	0.00
18,700.00	90.30	359.58	10,831.24	8,074.08	-109.83	8,074.67	0.00	0.00	0.00
18,800.00	90.30	359.58	10,830.73	8,174.07	-110.56	8,174.67	0.00	0.00	0.00
18,900.00	90.30	359.58	10,830.21	8,274.07	-111.30	8,274.66	0.00	0.00	0.00
18,940.73	90.30	359.58	10,830.00	8,314.80	-111.60	8,315.39	0.00	0.00	0.00
PBHL - PBHL r1 (Dagger5)									

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Lateral 1r2	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**Database:**	EDM 5000.14 Single User Db

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL r1 (Dagger5)	0.00	0.00	10,830.00	8,314.80	-111.60	525,429.70	766,935.10	32° 26' 32.454 N	103° 36' 7.369 W
- plan hits target center - Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,160.00	1,160.00	13 3/8"	13-3/8	17-1/2
4,828.00	4,828.00	9 5/8"	9-5/8	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,108.00	1,108.00	Rustler		0.00	
4,778.00	4,778.00	Limestone Base		0.00	
8,393.00	8,393.00	Lower Brushy		0.00	
8,883.00	8,883.00	Avalon		0.00	
9,934.09	9,933.00	1st BS Sand		0.00	
10,586.15	10,573.00	2nd BS Sand		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8937	8937	0	0	Build 1.00°/100'
9237	9237	0	-8	Hold 3.0° Inc, 269.62° Azimuth
9898	9897	0	-42	Drop 1.00°/100'
10,198	10,197	0	-50	Hold Vertical
10,298	10,297	0	-50	KOP, Build 10.00°/100'
11,201	10,870	576	-55	LP, Hold 90.30° Inc, 359.58° Azimuth
18,941	10,830	8315	-112	PBHL

Advance Energy Partners, LLC

Dagger Lake 5 State 501H
Lea County, New Mexico
WT-19-031
H&P 620
Plan 2.0 Final PVA

SITE DETAILS: Dagger Lake 5 State 501H	
Site Centre Northing:	517114.90
Easting:	767046.70
Positional Uncertainity:	0.00
Convergence:	0.39
Local North:	Grid

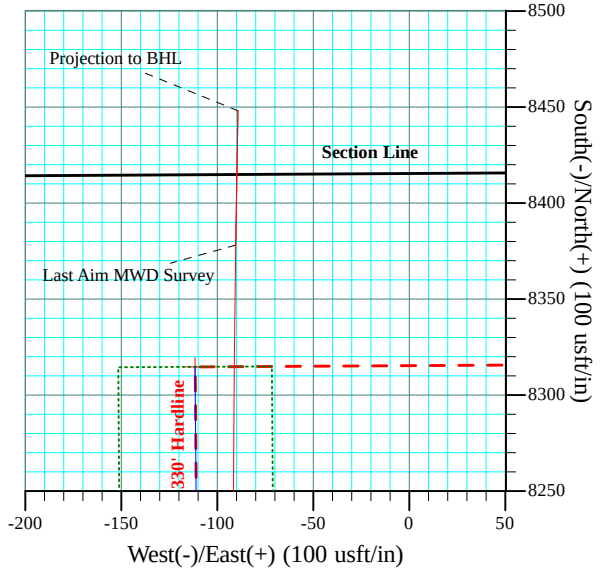
T G M

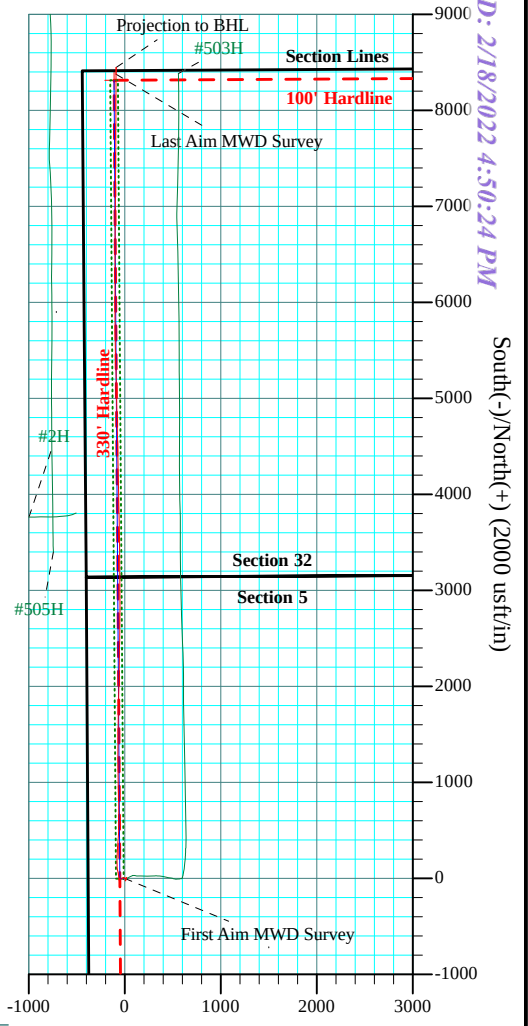
Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.29°

Magnetic Field
Strength: 48098.9nT
Dip Angle: 60.19°
Date: 4/10/2019
Model: MVHD

Magnetic North: 6.29° 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:	3658'GL+26.5'KB @ 3684.50usft (H&P 620)





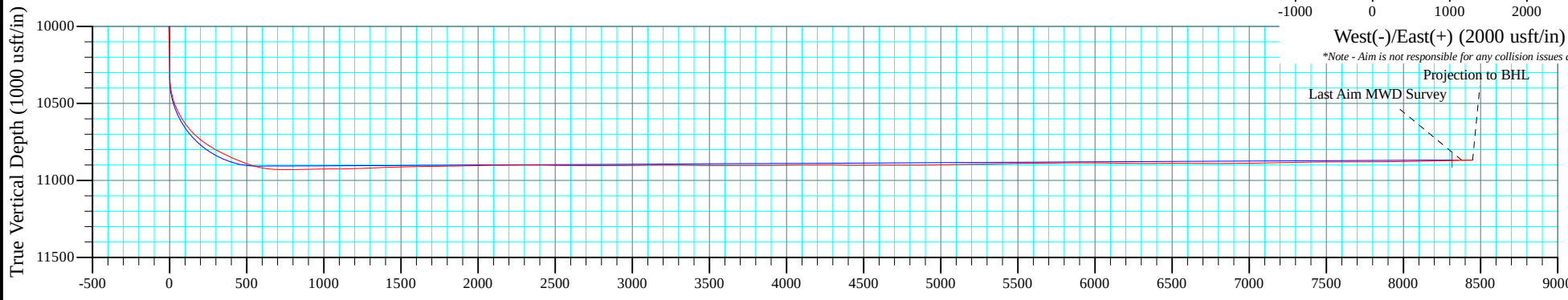
*Note - Aim is not responsible for any collision issues against unknown offset wells

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	19025.00	91.21	0.93	10869.96	8378.16	-90.34	0.00	0.00	8378.59	Last Aim MWD Survey
2	19095.00	91.21	0.93	10868.48	8448.13	-89.21	0.00	0.00	8448.56	Projection to BHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL r3 (Dagger5)	10868.00	8314.80	-111.60	525429.70	766935.10	32° 26' 32.454 N	103° 36' 7.369 W



Drawn By: IG
Date Created: 2/20/2019
Date Revised: 4/22/2019
File: Advance Energy - Dagger Lake 5 State #501H Plan 2.0 Final PVA.wpc

Survey Reports

Dagger Lake 5 State #501H (WT-19-031)

2019-03-12 to 2019-04-25

Lea, New Mexico, US (32.42, -103.60)

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**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 Lake 5 State 501H

Site Position:		**Northing:**	517,114.90 usft	**Latitude:**	32° 25' 10.172 N
From:	Map	**Easting:**	767,046.70 usft	**Longitude:**	103° 36' 6.731 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.39 °

Well #501H - Slot 501H

Well Position	**+N/-S**	0.00 usft	**Northing:**	517,114.90 usft	**Latitude:**	32° 25' 10.172 N
	+E/-W	0.00 usft	**Easting:**	767,046.70 usft	**Longitude:**	103° 36' 6.731 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,658.00 usft

Wellbore Aim MWD Surveys

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	3/13/2019	6.69	60.19	48,107.73413956

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	359.58

Survey Program **Date** 4/22/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
138.00	19,095.00	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
138.00	0.75	343.62	138.00	0.87	-0.25	0.87	0.54	0.54	0.00
First Aim MWD Survey									
230.00	1.01	90.06	229.99	1.44	0.39	1.44	1.54	0.28	115.70
322.00	0.70	102.10	321.98	1.32	1.75	1.31	0.39	-0.34	13.09
505.00	1.01	138.93	504.96	-0.13	3.90	-0.15	0.34	0.17	20.13
597.00	1.32	139.01	596.94	-1.54	5.13	-1.57	0.34	0.34	0.09
689.00	1.32	160.90	688.92	-3.34	6.17	-3.38	0.54	0.00	23.79
782.00	1.41	168.72	781.89	-5.47	6.74	-5.52	0.22	0.10	8.41
877.00	1.49	177.42	876.86	-7.85	7.03	-7.90	0.25	0.08	9.16
964.00	1.36	180.32	963.83	-10.01	7.07	-10.07	0.17	-0.15	3.33

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.14 Single User Db

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)
1,113.00	1.54	175.23	1,112.79	-13.78	7.23	-13.83	0.15	0.12	-3.42
1,219.00	1.76	200.27	1,218.74	-16.72	6.78	-16.77	0.70	0.21	23.62
1,310.00	1.63	192.54	1,309.70	-19.30	6.02	-19.34	0.29	-0.14	-8.49
1,402.00	1.14	171.89	1,401.68	-21.48	5.86	-21.52	0.75	-0.53	-22.45
1,493.00	0.88	143.67	1,492.66	-22.94	6.41	-22.99	0.61	-0.29	-31.01
1,587.00	1.32	106.32	1,586.65	-23.83	7.87	-23.88	0.87	0.47	-39.73
1,681.00	0.62	106.50	1,680.63	-24.28	9.40	-24.34	0.74	-0.74	0.19
1,776.00	1.05	15.70	1,775.63	-23.58	10.13	-23.66	1.29	0.45	-95.58
1,964.00	1.49	12.63	1,963.58	-19.54	11.13	-19.62	0.24	0.23	-1.63
2,058.00	1.45	5.68	2,057.55	-17.16	11.51	-17.25	0.19	-0.04	-7.39
2,152.00	1.27	20.27	2,151.52	-15.00	11.99	-15.09	0.41	-0.19	15.52
2,247.00	1.01	7.18	2,246.50	-13.19	12.46	-13.28	0.39	-0.27	-13.78
2,341.00	1.27	6.12	2,340.48	-11.33	12.68	-11.42	0.28	0.28	-1.13
2,435.00	1.63	354.52	2,434.45	-8.96	12.66	-9.05	0.49	0.38	-12.34
2,529.00	1.41	7.88	2,528.42	-6.48	12.69	-6.58	0.44	-0.23	14.21
2,623.00	1.54	22.47	2,622.39	-4.17	13.33	-4.27	0.42	0.14	15.52
2,717.00	2.11	34.42	2,716.34	-1.58	14.79	-1.69	0.73	0.61	12.71
2,811.00	1.49	22.30	2,810.30	0.98	16.23	0.86	0.77	-0.66	-12.89
2,905.00	1.10	8.23	2,904.27	3.00	16.83	2.88	0.53	-0.41	-14.97
3,000.00	1.67	23.09	2,999.24	5.18	17.50	5.05	0.70	0.60	15.64
3,094.00	0.88	337.65	3,093.22	7.11	17.76	6.98	1.30	-0.84	-48.34
3,188.00	0.92	311.02	3,187.21	8.27	16.92	8.15	0.44	0.04	-28.33
3,282.00	0.70	7.18	3,281.20	9.34	16.42	9.22	0.84	-0.23	59.74
3,377.00	1.58	58.59	3,376.19	10.59	17.61	10.47	1.33	0.93	54.12
3,471.00	0.97	95.16	3,470.16	11.20	19.51	11.06	1.05	-0.65	38.90
3,565.00	1.85	207.31	3,564.15	9.78	19.61	9.63	2.54	0.94	119.31
3,659.00	1.45	197.64	3,658.11	7.30	18.55	7.16	0.52	-0.43	-10.29
3,753.00	0.92	189.82	3,752.09	5.42	18.06	5.29	0.59	-0.56	-8.32
3,847.00	0.97	178.13	3,846.07	3.88	17.96	3.75	0.21	0.05	-12.44
3,941.00	0.75	176.90	3,940.06	2.47	18.02	2.34	0.23	-0.23	-1.31
4,036.00	0.66	116.16	4,035.06	1.61	18.54	1.47	0.75	-0.09	-63.94
4,130.00	0.70	254.15	4,129.05	1.21	18.48	1.08	1.35	0.04	146.80
4,224.00	1.49	274.45	4,223.04	1.15	16.70	1.03	0.92	0.84	21.60
4,413.00	1.32	278.50	4,411.98	1.66	12.10	1.58	0.10	-0.09	2.14
4,508.00	1.10	278.15	4,506.96	1.96	10.12	1.88	0.23	-0.23	-0.37
4,601.00	1.58	277.88	4,599.93	2.26	7.96	2.20	0.52	0.52	-0.29
4,696.00	1.54	290.01	4,694.90	2.87	5.47	2.83	0.35	-0.04	12.77
4,778.00	1.45	284.83	4,776.87	3.52	3.43	3.49	0.20	-0.11	-6.32
4,878.00	1.45	279.38	4,876.84	4.05	0.96	4.04	0.14	0.00	-5.45
4,972.00	1.27	283.86	4,970.81	4.49	-1.23	4.50	0.22	-0.19	4.77
5,067.00	1.54	281.49	5,065.78	5.00	-3.50	5.02	0.29	0.28	-2.49
5,161.00	1.45	296.78	5,159.75	5.78	-5.80	5.83	0.43	-0.10	16.27
5,255.00	1.41	295.46	5,253.72	6.82	-7.91	6.87	0.06	-0.04	-1.40

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.14 Single User Db

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)
5,350.00	1.71	283.51	5,348.69	7.65	-10.34	7.73	0.46	0.32	-12.58
5,444.00	1.80	282.28	5,442.64	8.29	-13.15	8.39	0.10	0.10	-1.31
5,538.00	1.58	290.89	5,536.60	9.07	-15.80	9.18	0.36	-0.23	9.16
5,633.00	1.23	252.83	5,631.58	9.23	-18.00	9.37	1.03	-0.37	-40.06
5,727.00	1.01	234.64	5,725.56	8.46	-19.64	8.60	0.44	-0.23	-19.35
5,821.00	1.27	209.59	5,819.54	7.07	-20.83	7.22	0.59	0.28	-26.65
5,916.00	1.63	204.84	5,914.51	4.93	-21.91	5.09	0.40	0.38	-5.00
6,010.00	1.27	206.16	6,008.48	2.78	-22.94	2.95	0.38	-0.38	1.40
6,104.00	1.63	205.72	6,102.45	0.64	-23.97	0.82	0.38	0.38	-0.47
6,199.00	1.63	241.14	6,197.41	-1.23	-25.74	-1.04	1.04	0.00	37.28
6,293.00	1.36	252.31	6,291.38	-2.21	-27.98	-2.01	0.42	-0.29	11.88
6,388.00	1.27	243.34	6,386.36	-3.03	-29.99	-2.81	0.24	-0.09	-9.44
6,482.00	1.14	249.32	6,480.34	-3.82	-31.80	-3.59	0.19	-0.14	6.36
6,576.00	1.32	236.40	6,574.31	-4.75	-33.58	-4.51	0.35	0.19	-13.74
6,670.00	1.58	275.07	6,668.29	-5.24	-35.77	-4.98	1.05	0.28	41.14
6,765.00	2.02	277.97	6,763.24	-4.89	-38.73	-4.61	0.47	0.46	3.05
6,860.00	1.89	276.83	6,858.18	-4.47	-41.94	-4.16	0.14	-0.14	-1.20
6,954.00	1.41	264.08	6,952.14	-4.41	-44.63	-4.08	0.64	-0.51	-13.56
7,049.00	1.36	258.11	7,047.12	-4.76	-46.90	-4.42	0.16	-0.05	-6.28
7,143.00	1.49	260.57	7,141.09	-5.19	-49.20	-4.83	0.15	0.14	2.62
7,237.00	1.45	254.85	7,235.06	-5.70	-51.55	-5.32	0.16	-0.04	-6.09
7,332.00	1.23	264.17	7,330.03	-6.12	-53.73	-5.72	0.33	-0.23	9.81
7,426.00	1.27	260.13	7,424.01	-6.40	-55.76	-5.99	0.10	0.04	-4.30
7,520.00	0.57	293.17	7,518.00	-6.39	-57.21	-5.97	0.91	-0.74	35.15
7,615.00	0.00	194.30	7,612.99	-6.21	-57.65	-5.79	0.60	-0.60	0.00
7,709.00	0.09	267.51	7,706.99	-6.21	-57.72	-5.79	0.10	0.10	0.00
7,803.00	0.40	200.27	7,800.99	-6.52	-57.91	-6.10	0.40	0.33	-71.53
7,897.00	0.66	192.80	7,894.99	-7.36	-58.14	-6.93	0.29	0.28	-7.95
7,992.00	0.57	160.72	7,989.98	-8.34	-58.11	-7.91	0.37	-0.09	-33.77
8,086.00	0.79	178.74	8,083.98	-9.43	-57.94	-9.00	0.32	0.23	19.17
8,181.00	0.97	181.29	8,178.97	-10.89	-57.94	-10.46	0.19	0.19	2.68
8,275.00	0.44	142.44	8,272.96	-11.97	-57.74	-11.54	0.73	-0.56	-41.33
8,370.00	0.44	93.49	8,367.96	-12.28	-57.15	-11.86	0.38	0.00	-51.53
8,464.00	0.66	100.26	8,461.95	-12.40	-56.26	-11.98	0.24	0.23	7.20
8,558.00	0.62	146.05	8,555.95	-12.91	-55.44	-12.51	0.53	-0.04	48.71
8,653.00	0.40	132.34	8,650.94	-13.56	-54.91	-13.16	0.26	-0.23	-14.43
8,747.00	0.48	216.36	8,744.94	-14.10	-54.90	-13.70	0.63	0.09	89.38
8,841.00	0.40	230.16	8,838.94	-14.63	-55.39	-14.22	0.14	-0.09	14.68
8,936.00	0.70	138.66	8,933.94	-15.28	-55.26	-14.87	0.86	0.32	-96.32
9,030.00	0.75	149.83	9,027.93	-16.24	-54.57	-15.84	0.16	0.05	11.88
9,124.00	0.31	158.26	9,121.92	-17.01	-54.17	-16.61	0.47	-0.47	8.97
9,219.00	0.66	239.83	9,216.92	-17.52	-54.54	-17.12	0.72	0.37	85.86
9,313.00	1.49	250.11	9,310.90	-18.21	-56.16	-17.80	0.90	0.88	10.94

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.14 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,407.00	0.97	246.68	9,404.88	-18.94	-58.04	-18.52	0.56	-0.55	-3.65
9,501.00	0.53	31.61	9,498.88	-18.89	-58.54	-18.46	1.53	-0.47	154.18
9,596.00	1.80	3.40	9,593.86	-17.02	-58.23	-16.60	1.43	1.34	-29.69
9,690.00	1.98	19.57	9,687.81	-14.02	-57.59	-13.60	0.60	0.19	17.20
9,784.00	1.49	6.74	9,781.76	-11.28	-56.91	-10.86	0.66	-0.52	-13.65
9,878.00	1.10	5.51	9,875.74	-9.16	-56.68	-8.75	0.42	-0.41	-1.31
9,972.00	1.76	3.58	9,969.71	-6.82	-56.50	-6.41	0.70	0.70	-2.05
10,066.00	1.45	4.37	10,063.67	-4.20	-56.32	-3.78	0.33	-0.33	0.84
10,161.00	1.41	347.58	10,158.64	-1.86	-56.48	-1.44	0.44	-0.04	-17.67
10,226.00	1.32	326.49	10,223.63	-0.45	-57.06	-0.03	0.78	-0.14	-32.45
10,334.00	1.54	317.07	10,331.59	1.65	-58.74	2.08	0.30	0.20	-8.72
10,429.00	10.24	353.81	10,426.01	11.00	-60.52	11.44	9.53	9.16	38.67
10,523.00	22.59	349.42	10,516.01	37.15	-64.76	37.63	13.20	13.14	-4.67
10,618.00	32.26	348.18	10,600.24	80.01	-73.32	80.54	10.20	10.18	-1.31
10,712.00	41.36	358.29	10,675.49	135.77	-79.40	136.35	11.60	9.68	10.76
10,807.00	52.40	0.23	10,740.32	205.00	-80.19	205.58	11.72	11.62	2.04
10,901.00	59.82	4.00	10,792.71	282.89	-77.20	283.45	8.56	7.89	4.01
10,996.00	65.93	4.00	10,836.01	367.20	-71.31	367.71	6.43	6.43	0.00
11,090.00	66.86	4.09	10,873.65	453.12	-65.23	453.58	0.99	0.99	0.10
11,185.00	73.41	1.63	10,905.92	542.30	-60.82	542.73	7.31	6.89	-2.59
11,279.00	83.43	358.64	10,924.76	634.26	-60.64	634.68	11.10	10.66	-3.18
11,374.00	89.41	359.35	10,930.69	729.01	-62.30	729.45	6.34	6.29	0.75
11,468.00	92.22	358.82	10,929.36	822.98	-63.80	823.43	3.04	2.99	-0.56
11,562.00	89.85	358.56	10,927.66	916.94	-65.95	917.39	2.54	-2.52	-0.28
11,657.00	90.11	358.38	10,927.69	1,011.90	-68.49	1,012.38	0.33	0.27	-0.19
11,752.00	91.47	359.52	10,926.38	1,106.87	-70.23	1,107.36	1.87	1.43	1.20
11,846.00	91.82	359.61	10,923.68	1,200.83	-70.94	1,201.32	0.38	0.37	0.10
11,941.00	92.22	359.61	10,920.34	1,295.77	-71.59	1,296.26	0.42	0.42	0.00
12,035.00	92.75	0.40	10,916.26	1,389.68	-71.58	1,390.17	1.01	0.56	0.84
12,164.00	90.51	1.02	10,912.59	1,518.61	-69.98	1,519.08	1.80	-1.74	0.48
12,258.00	90.99	1.02	10,911.36	1,612.59	-68.31	1,613.04	0.51	0.51	0.00
12,353.00	91.52	1.02	10,909.28	1,707.55	-66.62	1,707.99	0.56	0.56	0.00
12,446.00	90.73	1.28	10,907.45	1,800.51	-64.75	1,800.94	0.89	-0.85	0.28
12,541.00	90.59	1.10	10,906.36	1,895.48	-62.78	1,895.89	0.24	-0.15	-0.19
12,635.00	91.30	1.28	10,904.81	1,989.45	-60.83	1,989.84	0.78	0.76	0.19
12,730.00	90.99	1.37	10,902.91	2,084.41	-58.63	2,084.78	0.34	-0.33	0.09
12,825.00	89.89	0.75	10,902.18	2,179.38	-56.87	2,179.74	1.33	-1.16	-0.65
12,919.00	90.51	0.67	10,901.85	2,273.38	-55.71	2,273.72	0.67	0.66	-0.09
13,014.00	90.11	1.02	10,901.34	2,368.36	-54.31	2,368.70	0.56	-0.42	0.37
13,109.00	88.97	0.49	10,902.10	2,463.35	-53.06	2,463.67	1.32	-1.20	-0.56
13,203.00	89.32	0.67	10,903.50	2,557.34	-52.10	2,557.65	0.42	0.37	0.19
13,298.00	89.71	0.49	10,904.31	2,652.33	-51.14	2,652.63	0.45	0.41	-0.19
13,393.00	90.15	0.14	10,904.42	2,747.33	-50.62	2,747.62	0.59	0.46	-0.37
13,488.00	90.24	0.05	10,904.10	2,842.32	-50.46	2,842.62	0.13	0.09	-0.09

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.14 Single User Db

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)
13,583.00	90.33	359.70	10,903.63	2,937.32	-50.67	2,937.62	0.38	0.09	-0.37
13,677.00	90.24	0.05	10,903.16	3,031.32	-50.88	3,031.61	0.38	-0.10	0.37
13,772.00	90.24	359.96	10,902.76	3,126.32	-50.87	3,126.61	0.09	0.00	-0.09
13,866.00	89.93	359.79	10,902.62	3,220.32	-51.07	3,220.61	0.38	-0.33	-0.18
13,961.00	89.93	359.52	10,902.74	3,315.32	-51.64	3,315.61	0.28	0.00	-0.28
14,056.00	89.85	359.43	10,902.92	3,410.31	-52.52	3,410.61	0.13	-0.08	-0.09
14,151.00	89.80	359.70	10,903.21	3,505.31	-53.24	3,505.61	0.29	-0.05	0.28
14,245.00	89.63	359.61	10,903.68	3,599.31	-53.80	3,599.61	0.20	-0.18	-0.10
14,340.00	88.84	358.82	10,904.95	3,694.29	-55.10	3,694.59	1.18	-0.83	-0.83
14,435.00	91.16	358.12	10,904.95	3,789.25	-57.64	3,789.57	2.55	2.44	-0.74
14,529.00	91.78	358.03	10,902.54	3,883.16	-60.80	3,883.50	0.67	0.66	-0.10
14,624.00	90.29	358.56	10,900.82	3,978.10	-63.62	3,978.46	1.66	-1.57	0.56
14,718.00	90.02	359.08	10,900.57	4,072.08	-65.56	4,072.45	0.62	-0.29	0.55
14,812.00	90.33	359.61	10,900.28	4,166.08	-66.63	4,166.45	0.65	0.33	0.56
14,907.00	90.29	359.70	10,899.77	4,261.07	-67.20	4,261.45	0.10	-0.04	0.09
15,001.00	88.26	358.91	10,900.96	4,355.05	-68.34	4,355.44	2.32	-2.16	-0.84
15,095.00	89.89	358.20	10,902.47	4,449.01	-70.71	4,449.41	1.89	1.73	-0.76
15,190.00	90.51	358.29	10,902.14	4,543.96	-73.62	4,544.38	0.66	0.65	0.09
15,284.00	90.42	358.38	10,901.38	4,637.92	-76.36	4,638.35	0.14	-0.10	0.10
15,378.00	90.07	358.38	10,900.98	4,731.88	-79.01	4,732.33	0.37	-0.37	0.00
15,473.00	89.49	358.64	10,901.34	4,826.85	-81.48	4,827.31	0.67	-0.61	0.27
15,567.00	90.29	359.00	10,901.52	4,920.82	-83.42	4,921.30	0.93	0.85	0.38
15,662.00	91.60	359.26	10,899.95	5,015.80	-84.86	5,016.29	1.41	1.38	0.27
15,756.00	91.52	358.91	10,897.40	5,109.75	-86.36	5,110.25	0.38	-0.09	-0.37
15,850.00	91.03	358.38	10,895.30	5,203.70	-88.58	5,204.21	0.77	-0.52	-0.56
15,945.00	91.12	358.29	10,893.52	5,298.64	-91.34	5,299.17	0.13	0.09	-0.09
16,039.00	90.99	358.03	10,891.79	5,392.58	-94.36	5,393.13	0.31	-0.14	-0.28
16,134.00	91.08	357.85	10,890.07	5,487.50	-97.78	5,488.07	0.21	0.09	-0.19
16,228.00	90.29	359.52	10,888.95	5,581.47	-99.93	5,582.05	1.97	-0.84	1.78
16,322.00	90.37	0.05	10,888.41	5,675.47	-100.29	5,676.05	0.57	0.09	0.56
16,417.00	90.59	359.96	10,887.61	5,770.46	-100.28	5,771.04	0.25	0.23	-0.09
16,511.00	90.29	359.79	10,886.89	5,864.46	-100.48	5,865.04	0.37	-0.32	-0.18
16,605.00	89.63	359.52	10,886.96	5,958.46	-101.05	5,959.04	0.76	-0.70	-0.29
16,700.00	89.85	0.14	10,887.39	6,053.45	-101.33	6,054.03	0.69	0.23	0.65
16,794.00	89.36	0.05	10,888.04	6,147.45	-101.17	6,148.03	0.53	-0.52	-0.10
16,888.00	88.70	359.70	10,889.63	6,241.44	-101.38	6,242.01	0.79	-0.70	-0.37
16,983.00	90.15	359.79	10,890.58	6,336.43	-101.80	6,337.01	1.53	1.53	0.09
17,077.00	90.55	0.23	10,890.01	6,430.43	-101.79	6,431.00	0.63	0.43	0.47
17,172.00	90.15	359.96	10,889.43	6,525.42	-101.63	6,525.99	0.51	-0.42	-0.28
17,266.00	89.80	0.23	10,889.47	6,619.42	-101.47	6,619.99	0.47	-0.37	0.29
17,361.00	89.14	0.14	10,890.35	6,714.42	-101.17	6,714.98	0.70	-0.69	-0.09
17,455.00	90.29	0.31	10,890.81	6,808.42	-100.80	6,808.97	1.24	1.22	0.18
17,549.00	90.59	0.40	10,890.09	6,902.41	-100.21	6,902.96	0.33	0.32	0.10

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Dagger Lake 5 State 501H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Site:	Dagger Lake 5 State 501H	**MD Reference:**	3658'GL+26.5'KB @ 3684.50usft (H&P 620)
Well:	#501H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.14 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,643.00	90.59	0.23	10,889.12	6,996.40	-99.70	6,996.95	0.18	0.00	-0.18
17,737.00	91.08	0.23	10,887.75	7,090.39	-99.32	7,090.93	0.52	0.52	0.00
17,831.00	91.25	1.02	10,885.84	7,184.37	-98.29	7,184.90	0.86	0.18	0.84
17,925.00	91.52	0.93	10,883.57	7,278.33	-96.70	7,278.84	0.30	0.29	-0.10
18,020.00	90.29	0.75	10,882.07	7,373.30	-95.30	7,373.80	1.31	-1.29	-0.19
18,114.00	90.51	0.84	10,881.41	7,467.29	-94.00	7,467.78	0.25	0.23	0.10
18,209.00	90.46	0.93	10,880.61	7,562.28	-92.53	7,562.75	0.11	-0.05	0.09
18,303.00	90.46	1.02	10,879.86	7,656.26	-90.93	7,656.72	0.10	0.00	0.10
18,397.00	90.11	359.70	10,879.39	7,750.25	-90.34	7,750.71	1.45	-0.37	-1.40
18,491.00	90.24	359.43	10,879.10	7,844.25	-91.06	7,844.71	0.32	0.14	-0.29
18,586.00	90.73	359.87	10,878.30	7,939.25	-91.64	7,939.70	0.69	0.52	0.46
18,680.00	90.77	359.96	10,877.07	8,033.24	-91.77	8,033.69	0.10	0.04	0.10
18,775.00	91.03	0.14	10,875.57	8,128.23	-91.69	8,128.68	0.33	0.27	0.19
18,869.00	91.43	359.96	10,873.56	8,222.20	-91.61	8,222.65	0.47	0.43	-0.19
18,962.00	91.30	0.58	10,871.34	8,315.18	-91.17	8,315.62	0.68	-0.14	0.67
19,025.00	91.21	0.93	10,869.96	8,378.16	-90.34	8,378.59	0.57	-0.14	0.56
Last Aim MWD Survey									
19,095.00	91.21	0.93	10,868.48	8,448.13	-89.21	8,448.56	0.00	0.00	0.00
Projection to BHL									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
138.00	138.00	0.87	-0.25	First Aim MWD Survey
19,025.00	10,869.96	8,378.16	-90.34	Last Aim MWD Survey
19,095.00	10,868.48	8,448.13	-89.21	Projection to BHL

BHA Reports

Dagger Lake 5 State #501H (WT-19-031)

2019-03-12 to 2019-04-25

Lea, New Mexico, US (32.42, -103.60)

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #1 - BHA #1 Surface (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	8.00	**Date In**	2019-03-13 18:45	**Downhole Hours**	18.75
Lobe/Stage	7/8, 4.0	**Depth In (ft)**	136.00	**Drilling/Circulating Hours**	7.58
Bend Angle	1.50	**Date Out**	2019-03-14 13:30	**Drilling Hours**	6.33
Speed (rev/gal)	0.15	**Depth Out (ft)**	1175.00	**Circulating Hours**	1.25
Wear Pad OD (in)	8.375	**Distance Slid (ft)**	0.00	**Sliding Hours**	0.00
Incident	No	**Distance Rotated (ft)**	1039.00	**Rotating Hours**	6.33
Motor Results		**% Distance Sliding**	0.00%	**% Hours Sliding**	0.00%
Average Total ROP (ft/h)	164.05	**% Distance Rotating**	100.00%	**% Hours Rotating**	100.00%
Average Slide ROP (ft/h)	0.00	**BHA Objective**			
Average Rotating ROP (ft/h)	164.05	Drill Surface to Casing Point			
Bit Details					
OD (in)	17.500				
Vendor	Baker	**POOH Reason/Notes**			
S/N	5294732	**Total Depth/Casing Point:** POOH For Casing			
Nozzles	9 x 12				
Total Flow Area (in²)	0.994				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional:			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 6.20 ft, **Survey (Bit to Survey):** 62.00 ft		Directional: Motor- 8" 7/8 4.0 FXD @ 1.50 W 17'NBS GPM=400-900 RPG=.15 Max Diff=900 Max Trq=14930 Bit - Baker DD606S Jets- 9 X 12's TFA=.994			
Mud Properties		**Parameters**			
Type	Water	**Flow Rate (gpm)**	500.00 - 895.00	**Motor RPM**	80.00 - 140.00
WT	9.90	**On Bottom Pressure (psi)**	1010.00 - 2600.00	**Surface RPM**	40.00 - 60.00
VIS	34.00	**Off Bottom Pressure (psi)**	600.00 - 2050.00	**Rotating WOB (klbs)**	10.00 - 17.00
PV	8.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	0.00 - 0.00
YP	8.00	**Stalls**	0	**Temp (ºF)**	68.00 - 95.00
		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: *DD606S*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *17.50*	Baker	5294732	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: *1.5° FBH 7/8 4.0 Stg Mtr w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	Aim	800-40-002	6 5/8" Reg Box	6 5/8" Reg Box		8.000		30.50	32.00
Stabilizer Description: *17" Stabilizer*	DTI	DR35060	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.250		7.56	39.56
UBHO Sub Description: *UBHO Sub*, Type: *Steel*	Aim	800213	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		3.33	42.89
Drill Collar Description: *8" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42380	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.05	73.94
Drill Collar Description: *8" NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42379	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.35	105.29
Crossover Sub Description: *X-Over (6 5/8 Reg Pin - 4 1/2 IF Box)*, Type: *Steel*	DTI	DR35390	4 1/2" IF Box	6 5/8" Reg Pin	2.875	8.125		3.96	109.25
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		920.55	1029.80

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #2 - BHA #2 1st Intermediate (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	8.00	**Date In**	2019-03-20 19:00	**Downhole Hours**	37.00
Lobe/Stage	7/8, 4.0	**Depth In (ft)**	1175.00	**Drilling/Circulating Hours**	26.17
Bend Angle	1.50	**Date Out**	2019-03-22 08:00	**Drilling Hours**	23.92
Speed (rev/gal)	0.15	**Depth Out (ft)**	4840.00	**Circulating Hours**	2.25
Wear Pad OD (in)	8.375	**Distance Slid (ft)**	170.00	**Sliding Hours**	2.50
Incident	No	**Distance Rotated (ft)**	3495.00	**Rotating Hours**	21.42
Motor Results		**% Distance Sliding**	4.64%	**% Hours Sliding**	10.45%
Average Total ROP (ft/h)	153.24	**% Distance Rotating**	95.36%	**% Hours Rotating**	89.55%
Average Slide ROP (ft/h)	68.00	**BHA Objective**			
Average Rotating ROP (ft/h)	163.19	Drill to Casing Point			
Bit Details					
OD (in)	12.250				
Vendor	Baker	**POOH Reason/Notes**			
S/N	7163483	**Total Depth/Casing Point:** TD / Casing Point 9 5/8 Casing			
Nozzles	6 x 12				
Total Flow Area (in²)	0.663				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: On surface motor drained good, with no visible damage			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 6.18 ft, **Survey (Bit to Survey):** 62.00 ft		Directional: 8" 7/8 4.0 FXD @ 1.50 W 12" NBS GPM=400-900 RPG=.16 Max Diff=900 Max Trq=14930 Bit - Baker T806FX Jets- 6 X 12's TFA=.663			
Mud Properties		**Parameters**			
Type	Brine	**Flow Rate (gpm)**	650.00 - 900.00	**Motor RPM**	104.00 - 144.00
WT	10.40	**On Bottom Pressure (psi)**	2500.00 - 4750.00	**Surface RPM**	30.00 - 80.00
VIS	29.00	**Off Bottom Pressure (psi)**	2000.00 - 3850.00	**Rotating WOB (klbs)**	20.00 - 50.00
PV	3.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	20.00 - 45.00
YP	4.00	**Stalls**	0	**Temp (ºF)**	92.00 - 141.00
		NPT	2.25		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *T806FX*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *12.25*	Baker	7163483	6 5/8" Reg Pin			12.250		1.21	1.21
Mud Motor Description: *1.5° FBH 7/8 4.0 Stg Mtr w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	Aim	800-40-009	6 5/8" Reg Box	6 5/8" Reg Box		8.000		30.04	31.25
Stabilizer Description: *12" Stabilizer*	DTI	DR38410	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.312		7.99	39.24
UBHO Sub Description: *UBHO Sub*, Type: *Steel*	Aim	800213	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		3.33	42.57
Drill Collar Description: *8" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42380	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.05	73.62
Drill Collar Description: *8" NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42379	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.35	104.97
Crossover Sub Description: *X-Over (6 5/8 Reg Pin - 4 1/2 IF Box)*, Type: *Steel*	DTI	DR32566	4 1/2" IF Box	6 5/8" Reg Pin	2.875	8.125		3.06	108.03
Drill Collar Description: *Rig*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	635.43
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38966	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		3.96	639.39
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1555.16

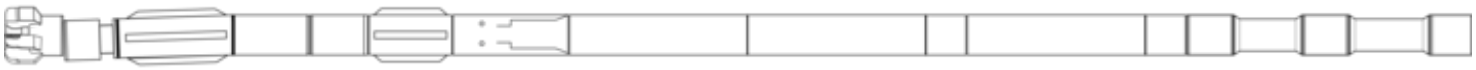
Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #3 - BHA #3 (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2019-03-23 03:15	**Downhole Hours**	11.50
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	4840.00	**Drilling/Circulating Hours**	2.25
Bend Angle	1.50	**Date Out**	2019-03-23 14:45	**Drilling Hours**	0.00
Speed (rev/gal)	0.26	**Depth Out (ft)**	4840.00	**Circulating Hours**	2.25
Wear Pad OD (in)	7.125	**Distance Slid (ft)**	0.00	**Sliding Hours**	0.00
Incident	No	**Distance Rotated (ft)**	0.00	**Rotating Hours**	0.00
Motor Results		**% Distance Sliding**	0%	**% Hours Sliding**	0.00%
Average Total ROP (ft/h)	0.00	**% Distance Rotating**	0%	**% Hours Rotating**	0.00%
Average Slide ROP (ft/h)	0.00	**BHA Objective**			
Average Rotating ROP (ft/h)	0.00	Drll Tangent Section to KOP			
Bit Details					
OD (in)	8.500				
Vendor	Halliburton	**POOH Reason/Notes**			
S/N	13117925	**Other:** Failed Casing Test, POOH for Paker			
Nozzles	6 x 12				
Total Flow Area (in²)	0.663				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional:			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft		Directional: Directional: 7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13117925, Jets: 6x12's, TFA: 0.663 Runs on Bit: 1			
Mud Properties		**Parameters**			
Type	Brine	**Flow Rate (gpm)**	0.00 - 0.00	**Motor RPM**	0.00 - 0.00
WT	10.30	**On Bottom Pressure (psi)**	0.00 - 0.00	**Surface RPM**	0.00 - 0.00
VIS	27.00	**Off Bottom Pressure (psi)**	1500.00 - 0.00	**Rotating WOB (klbs)**	0.00 - 0.00
PV	2.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	0.00 - 0.00
YP	4.00	**Stalls**	0	**Temp (ºF)**	-0.00 - -0.00
		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: *Security MM65DRM*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Halliburton	13117925	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Altitude	AEP7027SS	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.20	35.20
Stabilizer Description: *8 1/4" Stabilizer*	DTI	DR14156	4 1/2" IF Box	4 1/2" IF Pin	2.688	6.750		4.21	39.41
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-124NM	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		2.28	41.69
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR27268	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.35	72.04
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR4574	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		28.77	100.81
Crossover Sub Description: *X-Over (4 1/2 IF Pin - 4 1/2 XH Box)*, Type: *Steel*	DTI	DR33920	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.750		2.82	103.63
Drill Collar Description: *6.5" DC (18 DC)*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	631.03
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38967	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		4.02	635.05
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1550.82



Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #4 - BHA #4 (Packer Run) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	N/A	**Date In**	2019-03-23 14:45	**Downhole Hours**	6.75
Lobe/Stage	N/A	**Depth In (ft)**	4840.00	**Drilling/Circulating Hours**	1.00
Bend Angle	N/A	**Date Out**	2019-03-23 21:30	**Drilling Hours**	0.00
Speed (rev/gal)	N/A	**Depth Out (ft)**	4840.00	**Circulating Hours**	1.00
Wear Pad OD (in)	N/A	**Distance Slid (ft)**	0.00	**Sliding Hours**	0.00
Incident	No	**Distance Rotated (ft)**	0.00	**Rotating Hours**	0.00
Motor Results		**% Distance Sliding**	0%	**% Hours Sliding**	0.00%
Average Total ROP (ft/h)	0.00	**% Distance Rotating**	0%	**% Hours Rotating**	0.00%
Average Slide ROP (ft/h)	0.00	**BHA Objective**			
Average Rotating ROP (ft/h)	0.00	Run casing test packer			
Bit Details					
OD (in)	N/A				
Vendor	N/A	**POOH Reason/Notes**			
S/N	N/A	**Other:** POOH p/u directional tools			
Nozzles	N/A				
Total Flow Area (in²)	N/A				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: n/a			
		MWD:			
Bit Distances		**Comments**			
Bit To N/A		Directional: N/A			
Mud Properties		**Parameters**			
Type	Brine	**Flow Rate (gpm)**	0.00 - 0.00	**Motor RPM**	-
WT	10.30	**On Bottom Pressure (psi)**	0.00 - 0.00	**Surface RPM**	0.00 - 0.00
VIS	24.00	**Off Bottom Pressure (psi)**	0.00 - 0.00	**Rotating WOB (klbs)**	0.00 - 0.00
PV	4.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	0.00 - 0.00
YP	2.00	**Stalls**	0	**Temp (ºF)**	-0.00 - -0.00
		NPT	0.0		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Other Description: *Tension Packer*	BlackHawk	Rig1	2 7/8" IF Box		2.250	5.625		4.31	4.31
Crossover Sub Description: *Cross Over 3 1/2 IF Box X 2 7/8 If Pin*, Type: *Steel*	Black Hawk	TTRH1204	3 1/2" IF Box	2 7/8" IF Pin	3.250	5.625		1.34	5.65
Crossover Sub Description: *Crossover 4 1/2 IF Box x 3 1/2 If Pin*, Type: *Steel*	BlackHawk	TTRH933	4 1/2" IF Box	3 1/2" IF Pin	2.250	6.313		1.22	6.87

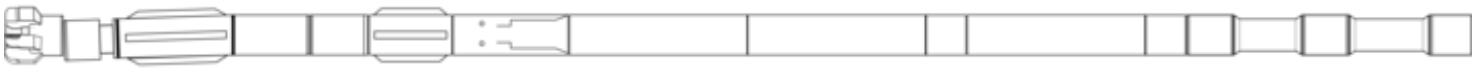
Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #5 - BHA #5 (2nd Intermediate) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2019-03-23 21:30	**Downhole Hours**	36.00
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	4840.00	**Drilling/Circulating Hours**	23.67
Bend Angle	1.50	**Date Out**	2019-03-25 09:30	**Drilling Hours**	22.42
Speed (rev/gal)	0.26	**Depth Out (ft)**	9486.00	**Circulating Hours**	1.25
Wear Pad OD (in)	7.125	**Distance Slid (ft)**	125.00	**Sliding Hours**	1.75
Incident	No	**Distance Rotated (ft)**	4521.00	**Rotating Hours**	20.67
Motor Results		**% Distance Sliding**	2.69%	**% Hours Sliding**	7.81%
Average Total ROP (ft/h)	207.26	**% Distance Rotating**	97.31%	**% Hours Rotating**	92.19%
Average Slide ROP (ft/h)	71.43	**BHA Objective**			
Average Rotating ROP (ft/h)	218.76	Drll Tangent Section to KOP			
Bit Details					
OD (in)	8.500				
Vendor	Halliburton	**POOH Reason/Notes**			
S/N	13117925	**Penetration Rate:** Low ROP, C/O Bit			
Nozzles	6 x 12				
Total Flow Area (in²)	0.663				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: On surface motor drained good, 1/4" squat on motor , no visible damage, bit ringed out, DBR			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft		Directional: 7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13117925, Jets: 6x12's, TFA: 0.663 Runs on Bit: 1			
Mud Properties		**Parameters**			
Type	Brine	**Flow Rate (gpm)**	733.00 - 750.00	**Motor RPM**	191.00 - 195.00
WT	9.00	**On Bottom Pressure (psi)**	350.00 - 3900.00	**Surface RPM**	40.00 - 80.00
VIS	29.00	**Off Bottom Pressure (psi)**	2900.00 - 3300.00	**Rotating WOB (klbs)**	25.00 - 50.00
PV	1.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	25.00 - 40.00
YP	4.00	**Stalls**	0	**Temp (ºF)**	131.00 - 143.00
		NPT	1.5		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *Security MM65DRM*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Halliburton	13117925	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Altitude	AEP7027SS	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.20	35.20
Stabilizer Description: *8 1/4" Stabilizer*	DTI	DR14156	4 1/2" IF Box	4 1/2" IF Pin	2.688	6.750		4.21	39.41
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-124NM	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		2.28	41.69
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR27268	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.35	72.04
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR4574	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		28.77	100.81
Crossover Sub Description: *X-Over (4 1/2 IF Pin - 4 1/2 XH Box)*, Type: *Steel*	DTI	DR33920	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.750		2.82	103.63
Drill Collar Description: *6.5" DC (18 DC)*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	631.03
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38967	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		4.02	635.05
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1550.82



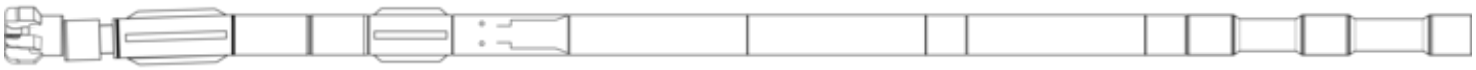
Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #6 - BHA #6 (2nd Intermediate) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2019-03-25 09:30	**Downhole Hours**	21.00
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	9486.00	**Drilling/Circulating Hours**	6.00
Bend Angle	1.50	**Date Out**	2019-03-26 06:30	**Drilling Hours**	4.83
Speed (rev/gal)	0.26	**Depth Out (ft)**	10290.00	**Circulating Hours**	1.17
Wear Pad OD (in)	7.125	**Distance Slid (ft)**	53.00	**Sliding Hours**	0.83
Incident	No	**Distance Rotated (ft)**	751.00	**Rotating Hours**	4.00
Motor Results		**% Distance Sliding**	6.59%	**% Hours Sliding**	17.24%
Average Total ROP (ft/h)	166.34	**% Distance Rotating**	93.41%	**% Hours Rotating**	82.76%
Average Slide ROP (ft/h)	63.60	**BHA Objective**			
Average Rotating ROP (ft/h)	187.75	Drll Tangent Section to KOP			
Bit Details					
OD (in)	8.500				
Vendor	Halliburton	**POOH Reason/Notes**			
S/N	13133077	**Total Depth/Casing Point:** DT @ KOP			
Nozzles	6 x 12				
Total Flow Area (in²)	0.663				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: On surface motor drained good, no visible damage			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft		Directional: 7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13133077, Jets: 6x12's, TFA: 0.663 Runs on Bit: 0			
Mud Properties		**Parameters**			
Type	Brine	**Flow Rate (gpm)**	730.00 - 750.00	**Motor RPM**	190.00 - 195.00
WT	9.00	**On Bottom Pressure (psi)**	3500.00 - 4000.00	**Surface RPM**	30.00 - 40.00
VIS	29.00	**Off Bottom Pressure (psi)**	3000.00 - 3300.00	**Rotating WOB (klbs)**	45.00 - 48.00
PV	1.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	35.00 - 35.00
YP	4.00	**Stalls**	0	**Temp (ºF)**	131.00 - 143.00
		NPT	1.17		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *Security MM65DRM*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Halliburton	13133077	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Altitude	AEP7027SS	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.20	35.20
Stabilizer Description: *8 1/4" Stabilizer*	DTI	DR14156	4 1/2" IF Box	4 1/2" IF Pin	2.688	6.750		4.21	39.41
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-124NM	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		2.28	41.69
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR27268	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.35	72.04
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR4574	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		28.77	100.81
Crossover Sub Description: *X-Over (4 1/2 IF Pin - 4 1/2 XH Box)*, Type: *Steel*	DTI	DR33920	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.750		2.82	103.63
Drill Collar Description: *6.5" DC (18 DC)*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	631.03
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38967	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		4.02	635.05
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1550.82



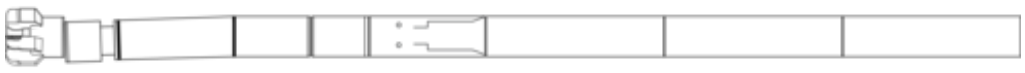
Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #7 - BHA #7 (Curve) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2019-04-13 05:30	**Downhole Hours**	66.00
Lobe/Stage	7/8, 6.9	**Depth In (ft)**	10290.00	**Drilling/Circulating Hours**	43.00
Bend Angle	2.00	**Date Out**	2019-04-15 23:30	**Drilling Hours**	41.17
Speed (rev/gal)	0.26	**Depth Out (ft)**	12185.00	**Circulating Hours**	1.83
Wear Pad OD (in)	7.188	**Distance Slid (ft)**	788.00	**Sliding Hours**	18.42
Incident	Yes	**Distance Rotated (ft)**	1107.00	**Rotating Hours**	22.75
Motor Results		**% Distance Sliding**	41.58%	**% Hours Sliding**	44.74%
Average Total ROP (ft/h)	46.03	**% Distance Rotating**	58.42%	**% Hours Rotating**	55.26%
Average Slide ROP (ft/h)	42.79	**BHA Objective**			
Average Rotating ROP (ft/h)	48.66	Drill Curve, Land on Target while Achieving Build Rates			
Bit Details					
OD (in)	8.500				
Vendor	Baker	**POOH Reason/Notes**			
S/N	528620	**Change Bottom Hole Assembly:** It wasn't drilling as fast as expected. The ROP had slowed way down so the decision was made to POOH and picked up a new bit and motor			
Nozzles	6x22				
Total Flow Area (in²)	2.227				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: There was 0.5" of play and 0.5" of squat in the motor. The bit had some chipped cutters on the shoulder and it was balled up.			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 4.38 ft, **Survey:** 60.00 ft, **Gamma:** 45.00 ft		Directional: 7" Crescent : 2.0 ° FBH 7/8 6.9 Stg. Mtr.T Slick .Protracted Angle: 2.03°, Flow Rate 300-700, Max Diff 1960 psi, Max Operating Torque: 19,010 ft/lbs, Rev/Gal: .25 / Bit Data: Baker 8.5", Type DD406TWX, SN: 5286260, Jets: 6x22's, TFA: 2.227 Runs on Bit: 4			
Mud Properties		**Parameters**			
Type	Oil Based	**Flow Rate (gpm)**	647.00 - 709.00	**Motor RPM**	175.00 - 175.00
WT	9.30	**On Bottom Pressure (psi)**	4070.00 - 4400.00	**Surface RPM**	20.00 - 3511.00
VIS	68.00	**Off Bottom Pressure (psi)**	3500.00 - 4500.00	**Rotating WOB (klbs)**	45.00 - 56.00
PV	14.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	45.00 - 48.00
YP	8.00	**Stalls**	0	**Temp (ºF)**	136.00 - 166.00
		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: *DD406TX*, Style: *PDC*, Gauge Length (in): *0.23*, Size (in): *8.50*	Baker	528620	4 1/2" Reg Pin			8.500		0.87	0.87
Mud Motor Description: *2.0 ° FBH 7/8 6.9 Stg Slick*, Size (in): *7.00*, Bend Angle (°): *2*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *6.9*	Crescent	CD700041	4 1/2" IF Box	4 1/2" Reg Box		7.000		33.04	33.91
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-128NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.55	37.46
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	68.26
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	99.47
Crossover Sub Description: *NMPC*, Type: *NM*	DTI	DR34915	4 1/2" XH Box	4 1/2" IF Pin	3.250	6.500		13.74	113.21



Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #8 - BHA #8 Lateral (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2019-04-15 22:15	**Downhole Hours**	39.50
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	12185.00	**Drilling/Circulating Hours**	19.33
Bend Angle	1.75	**Date Out**	2019-04-17 13:45	**Drilling Hours**	18.33
Speed (rev/gal)	0.26	**Depth Out (ft)**	13488.00	**Circulating Hours**	1.00
Wear Pad OD (in)	7.813	**Distance Slid (ft)**	85.00	**Sliding Hours**	3.58
Incident	Yes	**Distance Rotated (ft)**	1218.00	**Rotating Hours**	14.75
Motor Results		**% Distance Sliding**	6.52%	**% Hours Sliding**	19.55%
Average Total ROP (ft/h)	71.07	**% Distance Rotating**	93.48%	**% Hours Rotating**	80.45%
Average Slide ROP (ft/h)	23.72	**BHA Objective**			
Average Rotating ROP (ft/h)	82.58	Drill Lateral to TD.			
Bit Details					
OD (in)	8.500				
Vendor	Baker	**POOH Reason/Notes**			
S/N	5299085	**Downhole Motor Incident:** Pooh due to motor stalling.			
Nozzles	6x22				
Total Flow Area (in²)	2.227				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: Once on surface, motor was draining on its own with Bit box spinning as fluid drained out. Bearing squat was minimal, less than 1/4". Bit was in good shape with a couple chipped cutters.			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 4.38 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft		Directional: 7" Discovery : 1.75 ° FBH 7/8 8.5 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1960 psi, Max Operating Torque: 18710 ft/lbs, Rev/Gal: .26 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299085 Jets: 6x22's, TFA: 2.227 Runs on Bit:			
Mud Properties		**Parameters**			
Type	Oil Based	**Flow Rate (gpm)**	693.00 - 709.00	**Motor RPM**	177.00 - 182.00
WT	9.40	**On Bottom Pressure (psi)**	4070.00 - 5766.00	**Surface RPM**	35.00 - 49.00
VIS	68.00	**Off Bottom Pressure (psi)**	3870.00 - 5000.00	**Rotating WOB (klbs)**	38.00 - 48.00
PV	15.00	**Stall Pressure (psi)**	1709.99	**Sliding WOB (klbs)**	35.00 - 46.00
YP	9.00	**Stalls**	12	**Temp (ºF)**	155.00 - 171.00
		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: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299085	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Discovery	700DDS010	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.22	35.30
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	41.08
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	54.82
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	57.62
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	88.42
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	119.63
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2945.63
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2983.43

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #9 - BHA #9 (Second Lateral Run) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2019-04-17 15:45	**Downhole Hours**	82.50
Lobe/Stage	6/7, 8.4	**Depth In (ft)**	13488.00	**Drilling/Circulating Hours**	54.00
Bend Angle	1.83	**Date Out**	2019-04-21 02:15	**Drilling Hours**	52.58
Speed (rev/gal)	0.30	**Depth Out (ft)**	17665.00	**Circulating Hours**	1.42
Wear Pad OD (in)	7.500	**Distance Slid (ft)**	127.00	**Sliding Hours**	8.17
Incident	Yes	**Distance Rotated (ft)**	4050.00	**Rotating Hours**	44.42
Motor Results		**% Distance Sliding**	3.04%	**% Hours Sliding**	15.53%
Average Total ROP (ft/h)	79.44	**% Distance Rotating**	96.96%	**% Hours Rotating**	84.47%
Average Slide ROP (ft/h)	15.55	**BHA Objective**			
Average Rotating ROP (ft/h)	91.18	Drill Lateral to TD			
Bit Details					
OD (in)	8.500				
Vendor	Baker	**POOH Reason/Notes**			
S/N	5299299	**Downhole Tool Incident:** Once out of Hole we tried to Drain Motor. Motor Spinned Freely but didn't Drain			
Nozzles	6x22				
Total Flow Area (in²)	2.227				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: While drilling ahead in Lateral @ 17665' Diff Pressured up to 1000Psi, 450Psi over drilling Diff. Picked up off bottom and attempted to start drilling again when Diff spiked to 1000Psi. Picked up again but saw no Diff with 54K Wob, 30 Rpm. All Attempts Normal Off Bottom Psi was Observed			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 4.38 ft, **Survey:** 68.00 ft, **Gamma:** 64.00 ft		Directional: 7" Rubicon : 1.83° FBH 6/7 8.4 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299299 Jets: 6x22's, TFA: 2.227 Runs on Bit:			
Mud Properties		**Parameters**			
Type	Oil Based	**Flow Rate (gpm)**	688.00 - 748.00	**Motor RPM**	210.00 - 219.00
WT	9.40	**On Bottom Pressure (psi)**	5320.00 - 6169.00	**Surface RPM**	30.00 - 43.00
VIS	61.00	**Off Bottom Pressure (psi)**	4990.00 - 5600.00	**Rotating WOB (klbs)**	33.00 - 58.00
PV	18.00	**Stall Pressure (psi)**	1099.97	**Sliding WOB (klbs)**	24.00 - 33.00
YP	7.00	**Stalls**	4	**Temp (ºF)**	171.40 - 187.30
		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: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299299	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.83° FBH 6/7 8.4 Stg Mtr True Slick*, Size (in): *7.00*, Bend Angle (°): *1.83*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Rubicon	ROI 700-011	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.80
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	39.58
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	53.32
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	56.12
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	86.92
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	118.13
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2944.13
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2981.93

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #10 - BHA #10 (Third Lateral Run) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2019-04-21 02:30	**Downhole Hours**	47.00
Lobe/Stage	6/7, 8.4	**Depth In (ft)**	17665.00	**Drilling/Circulating Hours**	14.42
Bend Angle	1.75	**Date Out**	2019-04-23 01:30	**Drilling Hours**	10.08
Speed (rev/gal)	0.30	**Depth Out (ft)**	19095.00	**Circulating Hours**	4.33
Wear Pad OD (in)	7.625	**Distance Slid (ft)**	27.00	**Sliding Hours**	1.50
Incident	No	**Distance Rotated (ft)**	1403.00	**Rotating Hours**	8.58
Motor Results		**% Distance Sliding**	1.89%	**% Hours Sliding**	14.88%
Average Total ROP (ft/h)	141.82	**% Distance Rotating**	98.11%	**% Hours Rotating**	85.12%
Average Slide ROP (ft/h)	18.00	**BHA Objective**			
Average Rotating ROP (ft/h)	163.46	Drill Lateral to TD			
Bit Details					
OD (in)	8.500				
Vendor	Baker	**POOH Reason/Notes**			
S/N	5292993	**Total Depth/Casing Point:** Well TD			
Nozzles	6x22				
Total Flow Area (in²)	2.227				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: None			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 5.35 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft		Directional: 7" Contender : 1.75° FBH 6/7 8.4 Stg. W/ Slick Sleeve.Protracted Angle: 1.73°, Flow Rate 350-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5292993 Jets: 6x22's, TFA: 2.227 Runs on Bit: 0			
Mud Properties		**Parameters**			
Type	Oil Based	**Flow Rate (gpm)**	608.00 - 629.00	**Motor RPM**	180.00 - 185.00
WT	9.70	**On Bottom Pressure (psi)**	5139.00 - 6140.00	**Surface RPM**	30.00 - 40.00
VIS	86.00	**Off Bottom Pressure (psi)**	4980.00 - 5750.00	**Rotating WOB (klbs)**	43.00 - 52.00
PV	19.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	35.00 - 35.00
YP	7.00	**Stalls**	0	**Temp (ºF)**	179.00 - 181.00
		NPT	4.33		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *5.25*, Size (in): *8.50*	Baker	5292993	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.75° FBH 6/7 8.4 Stg W/Slick Sleeve*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Contender	700-40-014	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.04	35.12
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	40.90
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	54.64
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	57.44
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	88.24
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	119.45
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2945.45
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2983.25

Mud Motor Reports

Dagger Lake 5 State #501H (WT-19-031)

2019-03-12 to 2019-04-25

Lea, New Mexico, US (32.42, -103.60)

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 1 (BHA #1 Surface)

Motor Details		Date/Depth/Distances		Hours	
S/N	800-40-002	**Date In**	2019-03-13 18:45	**Downhole Hours**	18.75
Size (in)	8.0	**Depth In (ft)**	136.00	**Drilling/Circulating Hours**	7.58
Lobe/Stage	7/8, 4.00	**Date Out**	2019-03-14 13:30		
Bend Angle	1.5	**Depth Out (ft)**	1175.00	**Circulating Hours**	1.25
Speed (rev/gal)	0.15	**Total Drilled (ft)**	1039.00	**Drilling Hours**	6.33
Wear Pad OD (in)	8.375	**Distance Slid (ft)**	0.00	**Sliding Hours**	0.00
Manufacturer	N/A	**Distance Rotated (ft)**	1039.00	**Rotating Hours**	6.33
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)	164.05	**BHA Parameters**			
Average Slide ROP (ft/h)	0.00	**Flow Rate (gpm)**	500.00 - 895.00	**Motor RPM**	80.00 - 140.00
Average Rotating ROP (ft/h)	164.05	**Stalls**	0	**Surface RPM**	40.00 - 60.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	10.00 - 17.00
OD (in)	17.500	**On Bottom Pressure (psi)**	1010.00 - 2600.00	**Sliding WOB (klbs)**	0.00 - 0.00
Vendor	Baker	**Off Bottom Pressure (psi)**	600.00 - 2050.00	**Temp (ºF)**	68.00 - 95.00
S/N	5294732	**NPT**	0.0		
Nozzles	9 x 12	**BHA Objective**			
Total Flow Area (in²)	0.994	Drill Surface to Casing Point			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 6.20 ft, **Survey (Bit to Survey):** 62.00 ft					
Mud Properties					
Type	Water				
WT	9.90				
VIS	34.00				
PV	8.00				
YP	8.00				

POOH Reason/Notes

Total Depth/Casing Point: POOH For Casing

Incident Notes

Directional:

MWD:

Comments

Directional: Motor- 8" 7/8 4.0 FXD @ 1.50 W 17'NBS GPM=400-900 RPG=.15 Max Diff=900 Max Trq=14930 Bit - Baker DD606S Jets- 9 X 12's TFA=.994

MWD:

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 2 (BHA #2 1st Intermediate)

Motor Details		Date/Depth/Distances		Hours	
S/N	800-40-009	**Date In**	2019-03-20 19:00	**Downhole Hours**	37.00
Size (in)	8.0	**Depth In (ft)**	1175.00	**Drilling/Circulating Hours**	26.17
Lobe/Stage	7/8, 4.00	**Date Out**	2019-03-22 08:00		
Bend Angle	1.5	**Depth Out (ft)**	4840.00	**Circulating Hours**	2.25
Speed (rev/gal)	0.15	**Total Drilled (ft)**	3665.00	**Drilling Hours**	23.92
Wear Pad OD (in)	8.375	**Distance Slid (ft)**	170.00	**Sliding Hours**	2.50
Manufacturer	N/A	**Distance Rotated (ft)**	3495.00	**Rotating Hours**	21.42
Motor Results		**% Distance Sliding**	4.64%	**% Hours Rotating**	89.55%
Motor Incident	No	**% Distance Rotating**	95.36%	**% Hours Sliding**	10.45%
Average Total ROP (ft/h)	153.24	**BHA Parameters**			
Average Slide ROP (ft/h)	68.00	**Flow Rate (gpm)**	650.00 - 900.00	**Motor RPM**	104.00 - 144.00
Average Rotating ROP (ft/h)	163.19	**Stalls**	0	**Surface RPM**	30.00 - 80.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	20.00 - 50.00
OD (in)	12.250	**On Bottom Pressure (psi)**	2500.00 - 4750.00	**Sliding WOB (klbs)**	20.00 - 45.00
Vendor	Baker	**Off Bottom Pressure (psi)**	2000.00 - 3850.00	**Temp (ºF)**	92.00 - 141.00
S/N	7163483	**NPT**	2.25		
Nozzles	6 x 12	**BHA Objective**			
Total Flow Area (in²)	0.663	Drill to Casing Point			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 6.18 ft, **Survey (Bit to Survey):** 62.00 ft					
Mud Properties					
Type	Brine				
WT	10.40				
VIS	29.00				
PV	3.00				
YP	4.00				

POOH Reason/Notes

Total Depth/Casing Point: TD / Casing Point 9 5/8 Casing

Incident Notes

Directional: On surface motor drained good, with no visible damage

MWD:

Comments

Directional: 8" 7/8 4.0 FXD @ 1.50 W 12" NBS GPM=400-900 RPG=.16 Max Diff=900 Max Trq=14930 Bit - Baker T806FX Jets- 6 X 12's TFA=.663

MWD:

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 3 (BHA #3)

Motor Details		Date/Depth/Distances		Hours	
S/N	AEP7027SS	**Date In**	2019-03-23 03:15	**Downhole Hours**	11.50
Size (in)	7.0	**Depth In (ft)**	4840.00	**Drilling/Circulating Hours**	2.25
Lobe/Stage	7/8, 8.50	**Date Out**	2019-03-23 14:45		
Bend Angle	1.5	**Depth Out (ft)**	4840.00	**Circulating Hours**	2.25
Speed (rev/gal)	0.26	**Total Drilled (ft)**	0.00	**Drilling Hours**	0.00
Wear Pad OD (in)	7.125	**Distance Slid (ft)**	0.00	**Sliding Hours**	0.00
Manufacturer	N/A	**Distance Rotated (ft)**	0.00	**Rotating Hours**	0.00
Motor Results		**% Distance Sliding**	0	**% Hours Rotating**	0%
Motor Incident	No	**% Distance Rotating**	0	**% Hours Sliding**	0%
Average Total ROP (ft/h)	0.00	**BHA Parameters**			
Average Slide ROP (ft/h)	0.00	**Flow Rate (gpm)**	0.00 - 0.00	**Motor RPM**	0.00 - 0.00
Average Rotating ROP (ft/h)	0.00	**Stalls**	0	**Surface RPM**	0.00 - 0.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	0.00 - 0.00
OD (in)	8.500	**On Bottom Pressure (psi)**	0.00 - 0.00	**Sliding WOB (klbs)**	0.00 - 0.00
Vendor	Halliburton	**Off Bottom Pressure (psi)**	1500.00 - 0.00	**Temp (ºF)**	-0.00 - -0.00
S/N	13117925	**NPT**	0.0		
Nozzles	6 x 12	**BHA Objective**			
Total Flow Area (in²)	0.663	Drll Tangent Section to KOP			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft					
Mud Properties					
Type	Brine				
WT	10.30				
VIS	27.00				
PV	2.00				
YP	4.00				

POOH Reason/Notes

Other: Failed Casing Test, POOH for Paker

Incident Notes

Directional:

MWD:

Comments

Directional: Directional: 7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13117925, Jets: 6x12's, TFA: 0.663 Runs on Bit: 1

MWD:

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 4 (BHA #4 (Packer Run))

Motor Details		Date/Depth/Distances		Hours	
S/N		Date In	2019-03-23 14:45	Downhole Hours	6.75
Size (in)		Depth In (ft)	4840.00	Drilling/Circulating Hours	1.00
Lobe/Stage	N/A	Date Out	2019-03-23 21:30		
Bend Angle		Depth Out (ft)	4840.00	Circulating Hours	1.00
Speed (rev/gal)		Total Drilled (ft)	0.00	Drilling Hours	0.00
Wear Pad OD (in)	N/A	Distance Slid (ft)	0.00	Sliding Hours	0.00
Manufacturer		Distance Rotated (ft)	0.00	Rotating Hours	0.00
Motor Results		% Distance Sliding	0	% Hours Rotating	0%
Motor Incident	No	% Distance Rotating	0	% Hours Sliding	0%
Average Total ROP (ft/h)	0.00	**BHA Parameters**			
Average Slide ROP (ft/h)	0.00	Flow Rate (gpm)	0.00 - 0.00	Motor RPM	-
Average Rotating ROP (ft/h)	0.00	Stalls	0	Surface RPM	0.00 - 0.00
Bit Details		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	0.00 - 0.00
OD (in)	N/A	On Bottom Pressure (psi)	0.00 - 0.00	Sliding WOB (klbs)	0.00 - 0.00
Vendor	N/A	Off Bottom Pressure (psi)	0.00 - 0.00	Temp (ºF)	-0.00 - -0.00
S/N	N/A	NPT	0.0		
Nozzles	N/A	**BHA Objective**			
Total Flow Area (in²)	N/A	Run casing test packer			
Bit Type	N/A				
Bit Distances					
N/A					
Mud Properties					
Type	Brine				
WT	10.30				
VIS	24.00				
PV	4.00				
YP	2.00				

POOH Reason/Notes

Other: POOH p/u directional tools

Incident Notes

Directional: n/a

MWD:

Comments

Directional: N/A

MWD:

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 5 (BHA #5 (2nd Intermediate))

Motor Details		Date/Depth/Distances		Hours	
S/N	AEP7027SS	**Date In**	2019-03-23 21:30	**Downhole Hours**	36.00
Size (in)	7.0	**Depth In (ft)**	4840.00	**Drilling/Circulating Hours**	23.67
Lobe/Stage	7/8, 8.50	**Date Out**	2019-03-25 09:30		
Bend Angle	1.5	**Depth Out (ft)**	9486.00	**Circulating Hours**	1.25
Speed (rev/gal)	0.26	**Total Drilled (ft)**	4646.00	**Drilling Hours**	22.42
Wear Pad OD (in)	7.125	**Distance Slid (ft)**	125.00	**Sliding Hours**	1.75
Manufacturer	N/A	**Distance Rotated (ft)**	4521.00	**Rotating Hours**	20.67
Motor Results		**% Distance Sliding**	2.69%	**% Hours Rotating**	92.19%
Motor Incident	No	**% Distance Rotating**	97.31%	**% Hours Sliding**	7.81%
Average Total ROP (ft/h)	207.26	**BHA Parameters**			
Average Slide ROP (ft/h)	71.43	**Flow Rate (gpm)**	733.00 - 750.00	**Motor RPM**	191.00 - 195.00
Average Rotating ROP (ft/h)	218.76	**Stalls**	0	**Surface RPM**	40.00 - 80.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	25.00 - 50.00
OD (in)	8.500	**On Bottom Pressure (psi)**	350.00 - 3900.00	**Sliding WOB (klbs)**	25.00 - 40.00
Vendor	Halliburton	**Off Bottom Pressure (psi)**	2900.00 - 3300.00	**Temp (ºF)**	131.00 - 143.00
S/N	13117925	**NPT**	1.5		
Nozzles	6 x 12	**BHA Objective**			
Total Flow Area (in²)	0.663	Drll Tangent Section to KOP			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft					
Mud Properties					
Type	Brine				
WT	9.00				
VIS	29.00				
PV	1.00				
YP	4.00				

POOH Reason/Notes

Penetration Rate: Low ROP, C/O Bit

Incident Notes

Directional: On surface motor drained good, 1/4" squat on motor , no visible damage, bit ringed out, DBR

MWD:

Comments

Directional: 7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13117925, Jets: 6x12's, TFA: 0.663 Runs on Bit: 1

MWD:

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 6 (BHA #6 (2nd Intermediate))

Motor Details		Date/Depth/Distances		Hours	
S/N	AEP7027SS	**Date In**	2019-03-25 09:30	**Downhole Hours**	21.00
Size (in)	7.0	**Depth In (ft)**	9486.00	**Drilling/Circulating Hours**	6.00
Lobe/Stage	7/8, 8.50	**Date Out**	2019-03-26 06:30		
Bend Angle	1.5	**Depth Out (ft)**	10290.00	**Circulating Hours**	1.17
Speed (rev/gal)	0.26	**Total Drilled (ft)**	804.00	**Drilling Hours**	4.83
Wear Pad OD (in)	7.125	**Distance Slid (ft)**	53.00	**Sliding Hours**	0.83
Manufacturer	N/A	**Distance Rotated (ft)**	751.00	**Rotating Hours**	4.00
Motor Results		**% Distance Sliding**	6.59%	**% Hours Rotating**	82.76%
Motor Incident	No	**% Distance Rotating**	93.41%	**% Hours Sliding**	17.24%
Average Total ROP (ft/h)	166.34	**BHA Parameters**			
Average Slide ROP (ft/h)	63.60	**Flow Rate (gpm)**	730.00 - 750.00	**Motor RPM**	190.00 - 195.00
Average Rotating ROP (ft/h)	187.75	**Stalls**	0	**Surface RPM**	30.00 - 40.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	45.00 - 48.00
OD (in)	8.500	**On Bottom Pressure (psi)**	3500.00 - 4000.00	**Sliding WOB (klbs)**	35.00 - 35.00
Vendor	Halliburton	**Off Bottom Pressure (psi)**	3000.00 - 3300.00	**Temp (ºF)**	131.00 - 143.00
S/N	13133077	**NPT**	1.17		
Nozzles	6 x 12	**BHA Objective**			
Total Flow Area (in²)	0.663	Drll Tangent Section to KOP			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft					
Mud Properties					
Type	Brine				
WT	9.00				
VIS	29.00				
PV	1.00				
YP	4.00				

POOH Reason/Notes

Total Depth/Casing Point: DT @ KOP

Incident Notes

Directional: On surface motor drained good, no visible damage

MWD:

Comments

Directional: 7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13133077, Jets: 6x12's, TFA: 0.663 Runs on Bit: 0

MWD:

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 7 (BHA #7 (Curve))

Motor Details		Date/Depth/Distances		Hours	
S/N	CD700041	**Date In**	2019-04-13 05:30	**Downhole Hours**	66.00
Size (in)	7.0	**Depth In (ft)**	10290.00	**Drilling/Circulating Hours**	43.00
Lobe/Stage	7/8, 6.90	**Date Out**	2019-04-15 23:30		
Bend Angle	2.0	**Depth Out (ft)**	12185.00	**Circulating Hours**	1.83
Speed (rev/gal)	0.26	**Total Drilled (ft)**	1895.00	**Drilling Hours**	41.17
Wear Pad OD (in)	7.188	**Distance Slid (ft)**	788.00	**Sliding Hours**	18.42
Manufacturer	N/A	**Distance Rotated (ft)**	1107.00	**Rotating Hours**	22.75
Motor Results		**% Distance Sliding**	41.58%	**% Hours Rotating**	55.26%
Motor Incident	Yes	**% Distance Rotating**	58.42%	**% Hours Sliding**	44.74%
Average Total ROP (ft/h)	46.03	**BHA Parameters**			
Average Slide ROP (ft/h)	42.79	**Flow Rate (gpm)**	647.00 - 709.00	**Motor RPM**	175.00 - 175.00
Average Rotating ROP (ft/h)	48.66	**Stalls**	0	**Surface RPM**	20.00 - 3511.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	45.00 - 56.00
OD (in)	8.500	**On Bottom Pressure (psi)**	4070.00 - 4400.00	**Sliding WOB (klbs)**	45.00 - 48.00
Vendor	Baker	**Off Bottom Pressure (psi)**	3500.00 - 4500.00	**Temp (ºF)**	136.00 - 166.00
S/N	528620	**NPT**	0.0		
Nozzles	6x22	**BHA Objective**			
Total Flow Area (in²)	2.227	Drill Curve, Land on Target while Achieving Build Rates			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 4.38 ft, **Survey:** 60.00 ft, **Gamma:** 45.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.30				
VIS	68.00				
PV	14.00				
YP	8.00				

POOH Reason/Notes

Change Bottom Hole Assembly: It wasn't drilling as fast as expected. The ROP had slowed way down so the decision was made to POOH and picked up a new bit and motor

Incident Notes

Directional: There was 0.5" of play and 0.5" of squat in the motor. The bit had some chipped cutters on the shoulder and it was balled up.

MWD:

Comments

Directional: 7" Crescent : 2.0 ° FBH 7/8 6.9 Stg. Mtr.T Slick .Protracted Angle: 2.03°, Flow Rate 300-700, Max Diff 1960 psi, Max Operating Torque: 19,010 ft/lbs, Rev/Gal: .25 / Bit Data: Baker 8.5", Type DD406TWX, SN: 5286260, Jets: 6x22's, TFA: 2.227 Runs on Bit: 4

MWD:

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 8 (BHA #8 Lateral)

Motor Details		Date/Depth/Distances		Hours	
S/N	700DDS010	**Date In**	2019-04-15 22:15	**Downhole Hours**	39.50
Size (in)	7.0	**Depth In (ft)**	12185.00	**Drilling/Circulating Hours**	19.33
Lobe/Stage	7/8, 8.50	**Date Out**	2019-04-17 13:45		
Bend Angle	1.75	**Depth Out (ft)**	13488.00	**Circulating Hours**	1.00
Speed (rev/gal)	0.26	**Total Drilled (ft)**	1303.00	**Drilling Hours**	18.33
Wear Pad OD (in)	7.813	**Distance Slid (ft)**	85.00	**Sliding Hours**	3.58
Manufacturer	N/A	**Distance Rotated (ft)**	1218.00	**Rotating Hours**	14.75
Motor Results		**% Distance Sliding**	6.52%	**% Hours Rotating**	80.45%
Motor Incident	Yes	**% Distance Rotating**	93.48%	**% Hours Sliding**	19.55%
Average Total ROP (ft/h)	71.07	**BHA Parameters**			
Average Slide ROP (ft/h)	23.72	**Flow Rate (gpm)**	693.00 - 709.00	**Motor RPM**	177.00 - 182.00
Average Rotating ROP (ft/h)	82.58	**Stalls**	12	**Surface RPM**	35.00 - 49.00
Bit Details		**Stall Pressure (psi)**	1709.99	**Rotating WOB (klbs)**	38.00 - 48.00
OD (in)	8.500	**On Bottom Pressure (psi)**	4070.00 - 5766.00	**Sliding WOB (klbs)**	35.00 - 46.00
Vendor	Baker	**Off Bottom Pressure (psi)**	3870.00 - 5000.00	**Temp (ºF)**	155.00 - 171.00
S/N	5299085	**NPT**	0.0		
Nozzles	6x22	**BHA Objective**			
Total Flow Area (in²)	2.227	Drill Lateral to TD.			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 4.38 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.40				
VIS	68.00				
PV	15.00				
YP	9.00				

POOH Reason/Notes

Downhole Motor Incident: Pooh due to motor stalling.

Incident Notes

Directional: Once on surface, motor was draining on its own with Bit box spinning as fluid drained out. Bearing squat was minimal, less than 1/4". Bit was in good shape with a couple chipped cutters.

MWD:

Comments

Directional: 7" Discovery : 1.75 ° FBH 7/8 8.5 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1960 psi, Max Operating Torque: 18710 ft/lbs, Rev/Gal: .26 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299085 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD:

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 9 (BHA #9 (Second Lateral Run))

Motor Details		Date/Depth/Distances		Hours	
S/N	ROI 700-011	**Date In**	2019-04-17 15:45	**Downhole Hours**	82.50
Size (in)	7.0	**Depth In (ft)**	13488.00	**Drilling/Circulating Hours**	54.00
Lobe/Stage	6/7, 8.40	**Date Out**	2019-04-21 02:15		
Bend Angle	1.83	**Depth Out (ft)**	17665.00	**Circulating Hours**	1.42
Speed (rev/gal)	0.30	**Total Drilled (ft)**	4177.00	**Drilling Hours**	52.58
Wear Pad OD (in)	7.500	**Distance Slid (ft)**	127.00	**Sliding Hours**	8.17
Manufacturer	N/A	**Distance Rotated (ft)**	4050.00	**Rotating Hours**	44.42
Motor Results		**% Distance Sliding**	3.04%	**% Hours Rotating**	84.47%
Motor Incident	Yes	**% Distance Rotating**	96.96%	**% Hours Sliding**	15.53%
Average Total ROP (ft/h)	79.44	**BHA Parameters**			
Average Slide ROP (ft/h)	15.55	**Flow Rate (gpm)**	688.00 - 748.00	**Motor RPM**	210.00 - 219.00
Average Rotating ROP (ft/h)	91.18	**Stalls**	4	**Surface RPM**	30.00 - 43.00
Bit Details		**Stall Pressure (psi)**	1099.97	**Rotating WOB (klbs)**	33.00 - 58.00
OD (in)	8.500	**On Bottom Pressure (psi)**	5320.00 - 6169.00	**Sliding WOB (klbs)**	24.00 - 33.00
Vendor	Baker	**Off Bottom Pressure (psi)**	4990.00 - 5600.00	**Temp (ºF)**	171.40 - 187.30
S/N	5299299	**NPT**	0.0		
Nozzles	6x22	**BHA Objective**			
Total Flow Area (in²)	2.227	Drill Lateral to TD			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 4.38 ft, **Survey:** 68.00 ft, **Gamma:** 64.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.40				
VIS	61.00				
PV	18.00				
YP	7.00				

POOH Reason/Notes

Downhole Tool Incident: Once out of Hole we tried to Drain Motor. Motor Spinned Freely but didn't Drain

Incident Notes

Directional: While drilling ahead in Lateral @ 17665' Diff Pressured up to 1000Psi, 450Psi over drilling Diff. Picked up off bottom and attempted to start drilling again when Diff spiked to 1000Psi. Picked up again but saw no Diff with 54K Wob, 30 Rpm. All Attempts Normal Off Bottom Psi was Observed

MWD:

Comments

Directional: 7" Rubicon : 1.83° FBH 6/7 8.4 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299299 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD:

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 10 (BHA #10 (Third Lateral Run))

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-014	**Date In**	2019-04-21 02:30	**Downhole Hours**	47.00
Size (in)	7.0	**Depth In (ft)**	17665.00	**Drilling/Circulating Hours**	14.42
Lobe/Stage	6/7, 8.40	**Date Out**	2019-04-23 01:30		
Bend Angle	1.75	**Depth Out (ft)**	19095.00	**Circulating Hours**	4.33
Speed (rev/gal)	0.30	**Total Drilled (ft)**	1430.00	**Drilling Hours**	10.08
Wear Pad OD (in)	7.625	**Distance Slid (ft)**	27.00	**Sliding Hours**	1.50
Manufacturer	N/A	**Distance Rotated (ft)**	1403.00	**Rotating Hours**	8.58
Motor Results		**% Distance Sliding**	1.89%	**% Hours Rotating**	85.12%
Motor Incident	No	**% Distance Rotating**	98.11%	**% Hours Sliding**	14.88%
Average Total ROP (ft/h)	141.82	**BHA Parameters**			
Average Slide ROP (ft/h)	18.00	**Flow Rate (gpm)**	608.00 - 629.00	**Motor RPM**	180.00 - 185.00
Average Rotating ROP (ft/h)	163.46	**Stalls**	0	**Surface RPM**	30.00 - 40.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	43.00 - 52.00
OD (in)	8.500	**On Bottom Pressure (psi)**	5139.00 - 6140.00	**Sliding WOB (klbs)**	35.00 - 35.00
Vendor	Baker	**Off Bottom Pressure (psi)**	4980.00 - 5750.00	**Temp (ºF)**	179.00 - 181.00
S/N	5292993	**NPT**	4.33		
Nozzles	6x22	**BHA Objective**			
Total Flow Area (in²)	2.227	Drill Lateral to TD			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 5.35 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.70				
VIS	86.00				
PV	19.00				
YP	7.00				

POOH Reason/Notes

Total Depth/Casing Point: Well TD

Incident Notes

Directional: None

MWD:

Comments

Directional: 7" Contender : 1.75° FBH 6/7 8.4 Stg. W/ Slick Sleeve.Protracted Angle: 1.73°, Flow Rate 350-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5292993 Jets: 6x22's, TFA: 2.227 Runs on Bit: 0

MWD:

Slide/Rotate Reports

Dagger Lake 5 State #501H (WT-19-031)

2019-03-12 to 2019-04-25

Lea, New Mexico, US (32.42, -103.60)

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #1 (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	03-13	20:10	20:35	03-13	0.42	136.00	200.00	64.00	153.60	N/A	500.00	40.0	10.00	1010.00	600.00	
Rotate	03-13	20:50	21:10	03-13	0.33	200.00	292.00	92.00	276.00	N/A	650.00	50.0	15.00	1500.00	1000.00	
Rotate	03-13	21:20	22:05	03-13	0.75	292.00	384.00	92.00	122.67	N/A	767.00	60.0	17.00	1850.00	1750.00	
Rotate	03-13	22:15	22:40	03-13	0.42	384.00	476.00	92.00	220.80	N/A	767.00	60.0	17.00	1850.00	1750.00	
Rotate	03-13	23:15	23:35	03-13	0.33	476.00	567.00	91.00	273.00	N/A	895.00	60.0	17.00	2600.00	2050.00	
Rotate	03-13	23:45	00:00	03-14	0.25	567.00	634.00	67.00	268.00	N/A	895.00	60.0	17.00	2600.00	2050.00	
Rotate	03-14	00:00	00:10	03-14	0.17	634.00	659.00	25.00	150.00	N/A	895.00	60.0	17.00	2600.00	2050.00	
Rotate	03-14	00:20	00:50	03-14	0.5	659.00	751.00	92.00	184.00	N/A	895.00	60.0	17.00	2600.00	2050.00	
Rotate	03-14	01:00	01:35	03-14	0.58	751.00	844.00	93.00	159.43	N/A	895.00	60.0	17.00	2600.00	2050.00	
Rotate	03-14	01:50	02:00	03-14	0.17	844.00	869.00	25.00	150.00	N/A	895.00	60.0	17.00	2600.00	2050.00	
Rotate	03-14	06:15	06:30	03-14	0.25	869.00	939.00	70.00	280.00	N/A	895.00	60.0	17.00	2600.00	2050.00	
Rotate	03-14	06:40	06:55	03-14	0.25	939.00	1026.00	87.00	348.00	N/A	895.00	60.0	17.00	2600.00	2050.00	
Rotate	03-14	07:10	08:35	03-14	1.42	1026.00	1142.00	116.00	81.88	N/A	895.00	60.0	17.00	2600.00	2050.00	
Rotate	03-14	10:50	11:20	03-14	0.5	1142.00	1175.00	33.00	66.00	N/A	895.00	60.0	17.00	2600.00	2050.00	

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #2 (BHA #2 1st 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	03-20	21:45	22:55	03-20	1.17	1175.00	1281.00	106.00	90.86	N/A	650.00	30.0	20.00	2500.00	2000.00	
Rotate	03-20	23:00	23:20	03-20	0.33	1281.00	1372.00	91.00	273.00	N/A	900.00	60.0	28.00	4200.00	3500.00	
Rotate	03-20	23:25	23:40	03-20	0.25	1372.00	1464.00	92.00	368.00	N/A	900.00	60.0	28.00	4200.00	3500.00	
Rotate	03-20	23:45	00:00	03-21	0.25	1464.00	1555.00	91.00	364.00	N/A	900.00	70.0	28.00	4400.00	3600.00	
Rotate	03-21	00:05	00:15	03-21	0.17	1555.00	1649.00	94.00	564.00	N/A	900.00	70.0	28.00	4400.00	3600.00	
Rotate	03-21	00:20	00:35	03-21	0.25	1649.00	1743.00	94.00	376.00	N/A	900.00	70.0	28.00	4500.00	3700.00	
Slide	03-21	00:40	00:50	03-21	0.17	1743.00	1773.00	30.00	180.00	340.0	900.00	N/A	20.00	4000.00	3600.00	
Rotate	03-21	00:50	01:05	03-21	0.25	1773.00	1838.00	65.00	260.00	N/A	900.00	80.0	28.00	4500.00	3700.00	
Rotate	03-21	01:10	02:25	03-21	1.25	1838.00	2026.00	188.00	150.40	N/A	900.00	80.0	28.00	4500.00	3700.00	
Rotate	03-21	02:30	02:40	03-21	0.17	2026.00	2049.00	23.00	138.00	N/A	900.00	80.0	28.00	4500.00	3700.00	
Rotate	03-21	02:55	03:25	03-21	0.5	2049.00	2120.00	71.00	142.00	N/A	900.00	80.0	28.00	4500.00	3700.00	
Rotate	03-21	03:30	04:05	03-21	0.58	2120.00	2214.00	94.00	161.14	N/A	900.00	80.0	28.00	4500.00	3700.00	
Rotate	03-21	04:10	04:45	03-21	0.58	2214.00	2309.00	95.00	162.86	N/A	900.00	80.0	28.00	4500.00	3700.00	
Slide	03-21	04:50	05:10	03-21	0.33	2309.00	2319.00	10.00	30.00	315.0	900.00	N/A	20.00	4000.00	3600.00	
Rotate	03-21	05:10	05:50	03-21	0.67	2319.00	2403.00	84.00	126.00	N/A	900.00	80.0	28.00	4500.00	3700.00	
Rotate	03-21	05:55	06:25	03-21	0.5	2403.00	2497.00	94.00	188.00	N/A	900.00	80.0	35.00	4500.00	3700.00	
Rotate	03-21	06:30	06:50	03-21	0.33	2497.00	2591.00	94.00	282.00	N/A	900.00	80.0	35.00	4500.00	3700.00	
Rotate	03-21	06:55	07:25	03-21	0.5	2591.00	2685.00	94.00	188.00	N/A	765.00	80.0	40.00	3700.00	2850.00	
Rotate	03-21	07:30	07:50	03-21	0.33	2685.00	2779.00	94.00	282.00	N/A	765.00	80.0	40.00	3700.00	2850.00	
Rotate	03-21	07:55	08:00	03-21	0.08	2779.00	2793.00	14.00	168.00	N/A	765.00	80.0	40.00	3700.00	2850.00	
Slide	03-21	08:00	08:20	03-21	0.33	2793.00	2818.00	25.00	75.00	215.0	900.00	N/A	20.00	4000.00	3600.00	
Rotate	03-21	08:20	08:40	03-21	0.33	2818.00	2873.00	55.00	165.00	N/A	765.00	80.0	40.00	3700.00	2850.00	
Rotate	03-21	08:45	09:05	03-21	0.33	2873.00	2967.00	94.00	282.00	N/A	765.00	80.0	40.00	3700.00	2850.00	
Rotate	03-21	09:10	09:35	03-21	0.42	2967.00	3062.00	95.00	228.00	N/A	765.00	80.0	40.00	3700.00	2850.00	
Rotate	03-21	09:40	09:45	03-21	0.08	3062.00	3072.00	10.00	120.00	N/A	765.00	80.0	40.00	3700.00	2850.00	
Slide	03-21	09:45	10:10	03-21	0.42	3072.00	3102.00	30.00	72.00	203.0	900.00	N/A	20.00	4000.00	3600.00	
Rotate	03-21	10:10	10:25	03-21	0.25	3102.00	3156.00	54.00	216.00	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	10:30	10:55	03-21	0.42	3156.00	3250.00	94.00	225.60	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	11:00	11:20	03-21	0.33	3250.00	3344.00	94.00	282.00	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	11:25	11:40	03-21	0.25	3344.00	3439.00	95.00	380.00	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	11:45	11:55	03-21	0.17	3439.00	3450.00	11.00	66.00	N/A	900.00	80.0	40.00	4750.00	3850.00	
Slide	03-21	11:55	12:20	03-21	0.42	3450.00	3490.00	40.00	96.00	240.0	900.00	N/A	20.00	4000.00	3600.00	
Rotate	03-21	12:20	12:35	03-21	0.25	3490.00	3533.00	43.00	172.00	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	12:40	12:55	03-21	0.25	3533.00	3627.00	94.00	376.00	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	13:00	13:25	03-21	0.42	3627.00	3721.00	94.00	225.60	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	13:30	14:30	03-21	1.0	3721.00	3815.00	94.00	94.00	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	14:35	15:35	03-21	1.0	3815.00	3909.00	94.00	94.00	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	15:40	16:30	03-21	0.83	3909.00	4003.00	94.00	112.80	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	16:35	17:25	03-21	0.83	4003.00	4098.00	95.00	114.00	N/A	900.00	80.0	40.00	4750.00	3850.00	
Rotate	03-21	18:00	18:10	03-21	0.17	4098.00	4108.00	10.00	60.00	N/A	733.00	80.0	50.00	3800.00	2900.00	
Slide	03-21	18:10	19:00	03-21	0.83	4108.00	4143.00	35.00	42.00	270.0	733.00	N/A	45.00	3400.00	2900.00	
Rotate	03-21	19:00	19:20	03-21	0.33	4143.00	4192.00	49.00	147.00	N/A	733.00	80.0	50.00	3800.00	2900.00	
Rotate	03-21	19:25	20:10	03-21	0.75	4192.00	4286.00	94.00	125.33	N/A	733.00	80.0	50.00	3800.00	2900.00	
Rotate	03-21	20:15	21:50	03-21	1.58	4286.00	4475.00	189.00	119.37	N/A	733.00	80.0	50.00	3800.00	2900.00	
Rotate	03-21	21:55	22:45	03-21	0.83	4475.00	4570.00	95.00	114.00	N/A	733.00	80.0	50.00	3800.00	2900.00	
Rotate	03-21	22:50	23:35	03-21	0.75	4570.00	4663.00	93.00	124.00	N/A	733.00	80.0	50.00	3800.00	2900.00	
Rotate	03-21	23:40	00:00	03-22	0.33	4663.00	4695.00	32.00	96.00	N/A	733.00	80.0	50.00	3800.00	2900.00	
Rotate	03-22	00:00	00:35	03-22	0.58	4695.00	4758.00	63.00	108.00	N/A	733.00	80.0	50.00	3800.00	2900.00	
Rotate	03-22	00:40	01:25	03-22	0.75	4758.00	4840.00	82.00	109.33	N/A	733.00	80.0	50.00	3800.00	2900.00	

Aim Directional Services	**Job Number** WT-19-031	**Operator** Advance Energy Partners		**Rig Name** H&P #620
	Start Date 2019-03-12	**Well Name** Dagger Lake 5 State #501H		**Legal Well Name | AFE** Dagger Lake 5 State #501H
	Play Delaware Basin	**State/Province and Country** New Mexico, US	**County** Lea	**Company Man**

Slide/Rotate Report - BHA #3 (BHA #3)

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

	Job Number WT-19-031	**Operator** Advance Energy Partners		**Rig Name** H&P #620
	Start Date 2019-03-12	**Well Name** Dagger Lake 5 State #501H		**Legal Well Name | AFE** Dagger Lake 5 State #501H
	Play Delaware Basin	**State/Province and Country** New Mexico, US	**County** Lea	**Company Man**

Slide/Rotate Report - BHA #4 (BHA #4 (Packer Run))

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

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #5 (BHA #5 (2nd 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	03-24	00:45	01:15	03-24	0.5	4840.00	4942.00	102.00	204.00	N/A	750.00	50.0	25.00	3400.00	2900.00	
Rotate	03-24	01:20	01:40	03-24	0.33	4942.00	5036.00	94.00	282.00	N/A	750.00	50.0	25.00	3600.00	2900.00	
Rotate	03-24	01:45	02:05	03-24	0.33	5036.00	5131.00	95.00	285.00	N/A	750.00	50.0	25.00	3600.00	2900.00	
Rotate	03-24	02:10	02:30	03-24	0.33	5131.00	5225.00	94.00	282.00	N/A	750.00	50.0	25.00	3600.00	2900.00	
Rotate	03-24	02:35	02:55	03-24	0.33	5225.00	5319.00	94.00	282.00	N/A	750.00	50.0	25.00	3600.00	2900.00	
Rotate	03-24	03:00	03:20	03-24	0.33	5319.00	5414.00	95.00	285.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	03:25	03:45	03-24	0.33	5414.00	5508.00	94.00	282.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	03:50	04:10	03-24	0.33	5508.00	5602.00	94.00	282.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Slide	03-24	04:15	04:30	03-24	0.25	5602.00	5622.00	20.00	80.00	100.0	750.00	N/A	25.00	3500.00	3200.00	
Rotate	03-24	04:30	04:50	03-24	0.33	5622.00	5697.00	75.00	225.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	04:55	05:20	03-24	0.42	5697.00	5791.00	94.00	225.60	N/A	750.00	80.0	35.00	3600.00	2900.00	
Slide	03-24	05:25	05:35	03-24	0.17	5791.00	5811.00	20.00	120.00	90.0	750.00	N/A	25.00	3500.00	3200.00	
Rotate	03-24	05:35	05:55	03-24	0.33	5811.00	5885.00	74.00	222.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	06:00	06:30	03-24	0.5	5885.00	5980.00	95.00	190.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	06:35	07:00	03-24	0.42	5980.00	6074.00	94.00	225.60	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	07:05	07:45	03-24	0.67	6074.00	6168.00	94.00	141.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	07:50	07:55	03-24	0.08	6168.00	6181.00	13.00	156.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Slide	03-24	07:55	08:05	03-24	0.17	6181.00	6201.00	20.00	120.00	300.0	750.00	N/A	25.00	3500.00	3200.00	
Rotate	03-24	08:05	08:15	03-24	0.17	6201.00	6263.00	62.00	372.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	08:20	08:30	03-24	0.17	6263.00	6357.00	94.00	564.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	08:35	08:50	03-24	0.25	6357.00	6452.00	95.00	380.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	08:55	09:05	03-24	0.17	6452.00	6546.00	94.00	564.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	09:10	09:20	03-24	0.17	6546.00	6640.00	94.00	564.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	09:25	09:30	03-24	0.08	6640.00	6650.00	10.00	120.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Slide	03-24	09:30	09:40	03-24	0.17	6650.00	6665.00	15.00	90.00	325.0	750.00	N/A	25.00	3500.00	3200.00	
Rotate	03-24	09:40	09:50	03-24	0.17	6665.00	6734.00	69.00	414.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	09:55	10:05	03-24	0.17	6734.00	6829.00	95.00	570.00	N/A	750.00	80.0	35.00	3600.00	2900.00	
Rotate	03-24	10:10	10:20	03-24	0.17	6829.00	6924.00	95.00	570.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	10:25	10:45	03-24	0.33	6924.00	7018.00	94.00	282.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	10:50	11:05	03-24	0.25	7018.00	7113.00	95.00	380.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	11:10	11:20	03-24	0.17	7113.00	7207.00	94.00	564.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	11:25	11:35	03-24	0.17	7207.00	7301.00	94.00	564.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	11:40	11:55	03-24	0.25	7301.00	7396.00	95.00	380.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	12:00	12:15	03-24	0.25	7396.00	7490.00	94.00	376.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	12:20	12:25	03-24	0.08	7490.00	7500.00	10.00	120.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Slide	03-24	12:25	12:35	03-24	0.17	7500.00	7515.00	15.00	90.00	80.0	750.00	N/A	30.00	3450.00	3200.00	
Rotate	03-24	12:35	12:45	03-24	0.17	7515.00	7584.00	69.00	414.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	12:50	13:15	03-24	0.42	7584.00	7679.00	95.00	228.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	13:20	13:45	03-24	0.42	7679.00	7773.00	94.00	225.60	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	13:50	14:10	03-24	0.33	7773.00	7867.00	94.00	282.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	14:25	14:40	03-24	0.25	7867.00	7961.00	94.00	376.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	15:05	15:30	03-24	0.42	7961.00	8056.00	95.00	228.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	15:35	15:55	03-24	0.33	8056.00	8150.00	94.00	282.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	16:00	16:30	03-24	0.5	8150.00	8245.00	95.00	190.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	16:35	16:45	03-24	0.17	8245.00	8257.00	12.00	72.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Slide	03-24	16:45	17:00	03-24	0.25	8257.00	8272.00	15.00	60.00	45.0	733.00	N/A	40.00	350.00	3000.00	
Rotate	03-24	17:00	17:15	03-24	0.25	8272.00	8339.00	67.00	268.00	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	17:20	18:00	03-24	0.67	8339.00	8434.00	95.00	142.50	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	18:05	19:25	03-24	1.33	8434.00	8528.00	94.00	70.50	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	19:30	20:15	03-24	0.75	8528.00	8622.00	94.00	125.33	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	20:20	21:05	03-24	0.75	8622.00	8717.00	95.00	126.67	N/A	750.00	80.0	35.00	3900.00	3000.00	
Rotate	03-24	21:10	21:50	03-24	0.67	8717.00	8811.00	94.00	141.00	N/A	750.00	40.0	35.00	3900.00	3000.00	
Rotate	03-24	21:55	22:25	03-24	0.5	8811.00	8905.00	94.00	188.00	N/A	750.00	40.0	35.00	3900.00	3000.00	
Rotate	03-24	22:30	23:00	03-24	0.5	8905.00	9000.00	95.00	190.00	N/A	750.00	40.0	35.00	3900.00	3000.00	
Rotate	03-24	23:05	23:40	03-24	0.58	9000.00	9094.00	94.00	161.14	N/A	750.00	40.0	50.00	3900.00	3000.00	
Rotate	03-24	23:45	00:00	03-25	0.25	9094.00	9141.00	47.00	188.00	N/A	750.00	40.0	50.00	3900.00	3000.00	
Rotate	03-25	00:00	00:15	03-25	0.25	9141.00	9188.00	47.00	188.00	N/A	750.00	40.0	50.00	3900.00	3000.00	
Rotate	03-25	00:20	00:50	03-25	0.5	9188.00	9283.00	95.00	190.00	N/A	750.00	40.0	50.00	3900.00	3000.00	
Rotate	03-25	00:55	01:20	03-25	0.42	9283.00	9377.00	94.00	225.60	N/A	750.00	40.0	50.00	3900.00	3000.00	
Rotate	03-25	01:25	01:30	03-25	0.08	9377.00	9385.00	8.00	96.00	N/A	750.00	40.0	50.00	3900.00	3000.00	
Slide	03-25	01:30	02:05	03-25	0.58	9385.00	9405.00	20.00	34.29	70.0	750.00	N/A	35.00	3500.00	3300.00	
Rotate	03-25	02:05	03:05	03-25	1.0	9405.00	9471.00	66.00	66.00	N/A	750.00	40.0	50.00	3900.00	3000.00	
Rotate	03-25	03:10	03:45	03-25	0.58	9471.00	9486.00	15.00	25.71	N/A	750.00	40.0	50.00	3900.00	3000.00	

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #6 (BHA #6 (2nd 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
Slide	03-25	17:30	17:45	03-25	0.25	9486.00	9506.00	20.00	80.00	45.0	750.00	N/A	35.00	3500.00	3300.00	
Rotate	03-25	17:45	18:05	03-25	0.33	9506.00	9565.00	59.00	177.00	N/A	750.00	40.0	45.00	3900.00	3000.00	
Rotate	03-25	18:10	18:30	03-25	0.33	9565.00	9660.00	95.00	285.00	N/A	750.00	40.0	45.00	3900.00	3000.00	
Rotate	03-25	18:35	18:40	03-25	0.08	9660.00	9677.00	17.00	204.00	N/A	750.00	40.0	45.00	3900.00	3000.00	
Slide	03-25	18:40	18:55	03-25	0.25	9677.00	9687.00	10.00	40.00	60.0	750.00	N/A	35.00	3500.00	3300.00	
Rotate	03-25	18:55	19:10	03-25	0.25	9687.00	9754.00	67.00	268.00	N/A						
Rotate	03-25	19:15	19:35	03-25	0.33	9754.00	9848.00	94.00	282.00	N/A	730.00	30.0	48.00	4000.00	3200.00	
Rotate	03-25	19:40	20:00	03-25	0.33	9848.00	9942.00	94.00	282.00	N/A	730.00	30.0	48.00	4000.00	3200.00	
Rotate	03-25	20:05	20:10	03-25	0.08	9942.00	9964.00	22.00	264.00	N/A	730.00	30.0	48.00	4000.00	3200.00	
Slide	03-25	20:10	20:30	03-25	0.33	9964.00	9987.00	23.00	69.00	60.0	750.00	N/A	35.00	3500.00	3300.00	
Rotate	03-25	20:30	20:50	03-25	0.33	9987.00	10036.00	49.00	147.00	N/A	730.00	30.0	48.00	4000.00	3200.00	
Rotate	03-25	20:55	21:30	03-25	0.58	10036.00	10130.00	94.00	161.14	N/A	730.00	30.0	48.00	4000.00	3200.00	
Rotate	03-25	21:35	22:25	03-25	0.83	10130.00	10225.00	95.00	114.00	N/A	730.00	30.0	48.00	4000.00	3200.00	
Rotate	03-25	22:30	23:00	03-25	0.5	10225.00	10290.00	65.00	130.00	N/A	730.00	30.0	48.00	4000.00	3200.00	

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #7 (BHA #7 (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	04-13	19:00	19:50	04-13	0.83	10290.00	10345.00	55.00	66.00	N/A	647.00	3511.0	48.00	4350.00	4500.00	
Slide	04-13	19:50	20:35	04-13	0.75	10345.00	10394.00	49.00	65.33	0.0	647.00	N/A	45.00	4100.00	3500.00	
Slide	04-13	20:45	22:45	04-13	2.0	10394.00	10489.00	95.00	47.50	10.0	708.00	N/A	45.00	4105.00	3800.00	
Slide	04-13	22:55	00:00	04-14	1.08	10489.00	10560.00	71.00	65.54	355.0	708.00	N/A	45.00	4387.00	3860.00	
Slide	04-14	00:00	00:15	04-14	0.25	10560.00	10583.00	23.00	92.00	355.0	708.00	N/A	45.00	4387.00	3860.00	
Slide	04-14	00:25	01:35	04-14	1.17	10583.00	10678.00	95.00	81.43	22.0	706.00	N/A	45.00	4200.00	3880.00	
Slide	04-14	01:45	02:55	04-14	1.17	10678.00	10772.00	94.00	80.57	45.0	708.00	N/A	48.00	4280.00	3900.00	
Rotate	04-14	03:05	03:25	04-14	0.33	10772.00	10797.00	25.00	75.00	N/A	706.00	20.0	45.00	4400.00	3900.00	
Slide	04-14	03:25	04:50	04-14	1.42	10797.00	10867.00	70.00	49.41	20.0		N/A				
Rotate	04-14	05:00	06:00	04-14	1.0	10867.00	10917.00	50.00	50.00	N/A	707.00	20.0	50.00	4361.00	3830.00	
Slide	04-14	06:00	06:50	04-14	0.83	10917.00	10961.00	44.00	52.80	0.0	706.00	N/A	48.00	4179.00	3870.00	
Rotate	04-14	07:00	07:50	04-14	0.83	10961.00	11016.00	55.00	66.00	N/A	707.00	20.0	50.00	4361.00	3830.00	
Slide	04-14	07:50	08:20	04-14	0.5	11016.00	11028.00	12.00	24.00	0.0	706.00	N/A	48.00	4179.00	3870.00	
Rotate	04-14	08:20	09:05	04-14	0.75	11028.00	11056.00	28.00	37.33	N/A	707.00	20.0	50.00	4361.00	3830.00	
Rotate	04-14	09:15	10:20	04-14	1.08	11056.00	11119.00	63.00	58.15	N/A	707.00	20.0	50.00	4361.00	3830.00	
Slide	04-14	10:20	11:15	04-14	0.92	11119.00	11150.00	31.00	33.82	330.0	706.00	N/A	48.00	4179.00	3870.00	
Rotate	04-14	11:25	11:35	04-14	0.17	11150.00	11160.00	10.00	60.00	N/A	707.00	20.0	50.00	4361.00	3830.00	
Slide	04-14	11:35	14:10	04-14	2.58	11160.00	11245.00	85.00	32.90	345.0	706.00	N/A	48.00	4179.00	3870.00	
Rotate	04-14	14:15	14:25	04-14	0.17	11245.00	11255.00	10.00	60.00	N/A	707.00	20.0	50.00	4361.00	3830.00	
Slide	04-14	14:25	16:15	04-14	1.83	11255.00	11301.00	46.00	25.09	0.0	706.00	N/A	48.00	4179.00	3870.00	
Rotate	04-14	16:15	16:40	04-14	0.42	11301.00	11339.00	38.00	91.20	N/A	707.00	20.0	50.00	4361.00	3830.00	
Rotate	04-14	16:45	17:00	04-14	0.25	11339.00	11349.00	10.00	40.00	N/A	707.00	20.0	50.00	4361.00	3830.00	
Slide	04-14	17:00	18:00	04-14	1.0	11349.00	11370.00	21.00	21.00	20.0	706.00	N/A	48.00	4179.00	3870.00	
Rotate	04-14	18:00	19:20	04-14	1.33	11370.00	11434.00	64.00	48.00	N/A	707.00	40.0	50.00	4361.00	3830.00	
Rotate	04-14	19:25	19:35	04-14	0.17	11434.00	11446.00	12.00	72.00	N/A	707.00	40.0	50.00	4361.00	3830.00	
Slide	04-14	19:35	20:05	04-14	0.5	11446.00	11458.00	12.00	24.00	0.0	706.00	N/A	48.00	4179.00	3870.00	
Rotate	04-14	20:05	22:20	04-14	2.25	11458.00	11528.00	70.00	31.11	N/A	707.00	40.0	50.00	4361.00	3830.00	
Rotate	04-14	23:10	23:20	04-14	0.17	11528.00	11543.00	15.00	90.00	N/A	709.00	30.0	46.00	4180.00	3870.00	
Slide	04-14	23:20	00:00	04-15	0.67	11543.00	11550.00	7.00	10.50	170.0	707.00	N/A	46.00	4070.00	3870.00	
Slide	04-15	00:00	00:05	04-15	0.08	11550.00	11553.00	3.00	36.00	170.0	707.00	N/A	46.00	4070.00	3870.00	
Rotate	04-15	00:05	02:05	04-15	2.0	11553.00	11622.00	69.00	34.50	N/A	706.00	45.0	48.00	4100.00	3870.00	
Rotate	04-15	02:15	04:25	04-15	2.17	11622.00	11717.00	95.00	43.85	N/A	706.00	40.0	47.00	4243.00	3880.00	
Rotate	04-15	04:35	04:45	04-15	0.17	11717.00	11732.00	15.00	90.00	N/A	706.00	40.0	47.00	4243.00	3880.00	
Slide	04-15	04:45	05:00	04-15	0.25	11732.00	11737.00	5.00	20.00	10.0	707.00	N/A	46.00	4070.00	3870.00	
Slide	04-15	05:00	05:30	04-15	0.5	11737.00	11744.00	7.00	14.00	45.0	707.00	N/A	46.00	4070.00	3870.00	
Rotate	04-15	05:30	06:55	04-15	1.42	11744.00	11812.00	68.00	48.00	N/A	706.00	40.0	47.00	4243.00	3880.00	
Rotate	04-15	07:00	08:55	04-15	1.92	11812.00	11906.00	94.00	49.04	N/A	706.00	40.0	47.00	4243.00	3880.00	
Rotate	04-15	09:00	10:55	04-15	1.92	11906.00	12001.00	95.00	49.57	N/A	706.00	40.0	56.00	4243.00	3880.00	
Rotate	04-15	11:00	12:50	04-15	1.83	12001.00	12095.00	94.00	51.27	N/A	706.00	40.0	56.00	4243.00	3880.00	
Rotate	04-15	12:55	13:10	04-15	0.25	12095.00	12105.00	10.00	40.00	N/A	706.00	40.0	56.00	4243.00	3880.00	
Slide	04-15	13:10	14:05	04-15	0.92	12105.00	12123.00	18.00	19.64	180.0	707.00	N/A	46.00	4070.00	3870.00	
Rotate	04-15	14:05	15:25	04-15	1.33	12123.00	12185.00	62.00	46.50	N/A	706.00	40.0	56.00	4243.00	3880.00	

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #8 (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	04-16	11:15	11:35	04-16	0.33	12185.00	12224.00	39.00	117.00	N/A	706.00	40.0	38.00	4243.00	3880.00	
Rotate	04-16	11:40	12:25	04-16	0.75	12224.00	12328.00	104.00	138.67	N/A	706.00	40.0	38.00	4243.00	3880.00	
Rotate	04-16	12:30	13:25	04-16	0.92	12328.00	12423.00	95.00	103.64	N/A	706.00	40.0	38.00	4243.00	3880.00	
Rotate	04-16	13:30	13:40	04-16	0.17	12423.00	12433.00	10.00	60.00	N/A	706.00	35.0	38.00	5650.00	5000.00	
Slide	04-16	13:40	14:25	04-16	0.75	12433.00	12455.00	22.00	29.33	180.0	707.00	N/A	46.00	4070.00	3870.00	
Rotate	04-16	14:25	15:00	04-16	0.58	12455.00	12516.00	61.00	104.57	N/A	706.00	35.0	38.00	5650.00	5000.00	
Rotate	04-16	15:05	15:40	04-16	0.58	12516.00	12611.00	95.00	162.86	N/A	706.00	35.0	38.00	5650.00	5000.00	
Rotate	04-16	15:45	16:20	04-16	0.58	12611.00	12705.00	94.00	161.14	N/A	706.00	35.0	38.00	5650.00	5000.00	
Rotate	04-16	16:25	16:35	04-16	0.17	12705.00	12715.00	10.00	60.00	N/A	706.00	35.0	38.00	5650.00	5000.00	
Slide	04-16	16:35	17:45	04-16	1.17	12715.00	12740.00	25.00	21.43	200.0	707.00	N/A	46.00	4070.00	3870.00	
Rotate	04-16	17:45	18:10	04-16	0.42	12740.00	12800.00	60.00	144.00	N/A	706.00	35.0	38.00	5650.00	5000.00	
Rotate	04-16	18:20	18:25	04-16	0.08	12800.00	12814.00	14.00	168.00	N/A	706.00	35.0	38.00	5650.00	5000.00	
Slide	04-16	18:25	18:40	04-16	0.25	12814.00	12826.00	12.00	48.00	200.0	707.00	N/A	46.00	4070.00	3870.00	
Rotate	04-16	18:40	19:25	04-16	0.75	12826.00	12895.00	69.00	92.00	N/A	706.00	45.0	45.00	5650.00	5000.00	
Rotate	04-16	19:30	20:35	04-16	1.08	12895.00	12989.00	94.00	86.77	N/A	706.00	45.0	45.00	5650.00	5000.00	
Rotate	04-16	20:40	20:50	04-16	0.17	12989.00	13003.00	14.00	84.00	N/A	693.00	44.0	48.00	5540.00	4920.00	
Slide	04-16	20:50	21:25	04-16	0.58	13003.00	13013.00	10.00	17.14	215.0	693.00	N/A	41.00	5100.00	4900.00	
Rotate	04-16	21:25	22:20	04-16	0.92	13013.00	13084.00	71.00	77.45	N/A	693.00	44.0	48.00	5540.00	4920.00	
Rotate	04-16	22:25	22:35	04-16	0.17	13084.00	13094.00	10.00	60.00	N/A	709.00	49.0	44.00	5766.00	4860.00	
Slide	04-16	22:35	23:25	04-16	0.83	13094.00	13110.00	16.00	19.20	180.0	707.00	N/A	35.00	5200.00	4900.00	
Rotate	04-16	23:25	00:00	04-17	0.58	13110.00	13170.00	60.00	102.86	N/A	709.00	49.0	44.00	5766.00	4860.00	
Rotate	04-17	00:00	00:05	04-17	0.08	13170.00	13179.00	9.00	108.00	N/A	709.00	49.0	44.00	5766.00	4860.00	
Rotate	04-17	00:10	02:15	04-17	2.08	13179.00	13273.00	94.00	45.12	N/A	709.00	45.0	48.00	5663.00	4840.00	
Rotate	04-17	02:25	04:10	04-17	1.75	13273.00	13368.00	95.00	54.29	N/A	709.00	43.0	42.00	5330.00	4906.00	
Rotate	04-17	04:20	06:15	04-17	1.92	13368.00	13463.00	95.00	49.57	N/A	709.00	40.0	42.00	5150.00	4800.00	
Rotate	04-17	06:20	07:00	04-17	0.67	13463.00	13488.00	25.00	37.50	N/A	709.00	40.0	42.00	5150.00	4800.00	

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #9 (BHA #9 (Second Lateral Run))

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	04-17	23:45	00:00	04-18	0.25	13488.00	13523.00	35.00	140.00	N/A	709.00	30.0	33.00	5900.00	5300.00	
Rotate	04-18	00:00	00:20	04-18	0.33	13523.00	13556.00	33.00	99.00	N/A	709.00	30.0	38.00	6000.00	5300.00	
Rotate	04-18	00:25	01:05	04-18	0.67	13556.00	13651.00	95.00	142.50	N/A	701.00	40.0	40.00	6020.00	5200.00	
Rotate	04-18	01:15	01:50	04-18	0.58	13651.00	13745.00	94.00	161.14	N/A	689.00	35.0	40.00	5800.00	5040.00	
Rotate	04-18	02:00	02:45	04-18	0.75	13745.00	13840.00	95.00	126.67	N/A	694.00	42.0	42.00	5840.00	5020.00	
Rotate	04-18	02:55	03:40	04-18	0.75	13840.00	13934.00	94.00	125.33	N/A	700.00	40.0	42.00	5840.00	5020.00	
Rotate	04-18	03:45	04:30	04-18	0.75	13934.00	14029.00	95.00	126.67	N/A	700.00	40.0	42.00	5840.00	5020.00	
Rotate	04-18	04:35	05:45	04-18	1.17	14029.00	14124.00	95.00	81.43	N/A	700.00	40.0	42.00	5840.00	5020.00	
Rotate	04-18	05:50	06:55	04-18	1.08	14124.00	14219.00	95.00	87.69	N/A	748.00	43.0	48.00	6169.00	5456.00	
Rotate	04-18	07:05	07:45	04-18	0.67	14219.00	14313.00	94.00	141.00	N/A	725.00	43.0	47.00	5880.00	5300.00	
Rotate	04-18	07:55	08:35	04-18	0.67	14313.00	14408.00	95.00	142.50	N/A	705.00	42.0	46.00	5950.00	5220.00	
Rotate	04-18	08:45	08:50	04-18	0.08	14408.00	14418.00	10.00	120.00	N/A	716.00	41.0	48.00	6128.00	5270.00	
Slide	04-18	08:50	09:35	04-18	0.75	14418.00	14438.00	20.00	26.67	0.0	715.00	N/A	33.00	5350.00	5270.00	
Rotate	04-18	09:35	10:00	04-18	0.42	14438.00	14503.00	65.00	156.00	N/A	716.00	41.0	48.00	6128.00	5270.00	
Rotate	04-18	10:10	11:00	04-18	0.83	14503.00	14597.00	94.00	112.80	N/A	714.00	40.0	48.00	5774.00	5220.00	
Rotate	04-18	11:10	11:15	04-18	0.08	14597.00	14609.00	12.00	144.00	N/A	714.00	40.0	48.00	5320.00	5280.00	
Slide	04-18	11:15	11:45	04-18	0.5	14609.00	14621.00	12.00	24.00	160.0	715.00	N/A	30.00	5420.00	5280.00	
Rotate	04-18	11:45	12:15	04-18	0.5	14621.00	14692.00	71.00	142.00	N/A	714.00	40.0	50.00	6100.00	5280.00	
Rotate	04-18	12:25	13:00	04-18	0.58	14692.00	14786.00	94.00	161.14	N/A	714.00	43.0	50.00	6100.00	5280.00	
Rotate	04-18	13:10	13:50	04-18	0.67	14786.00	14880.00	94.00	141.00	N/A	714.00	43.0	50.00	6100.00	5280.00	
Rotate	04-18	13:55	14:45	04-18	0.83	14880.00	14975.00	95.00	114.00	N/A	714.00	43.0	50.00	6100.00	5280.00	
Rotate	04-18	14:50	15:55	04-18	1.08	14975.00	15069.00	94.00	86.77	N/A	714.00	43.0	50.00	6100.00	5280.00	
Rotate	04-18	16:00	16:10	04-18	0.17	15069.00	15079.00	10.00	60.00	N/A	714.00	40.0	50.00	6100.00	5280.00	
Slide	04-18	16:10	17:05	04-18	0.92	15079.00	15099.00	20.00	21.82	0.0	715.00	N/A	30.00	5420.00	5280.00	
Rotate	04-18	17:05	18:00	04-18	0.92	15099.00	15163.00	64.00	69.82	N/A	714.00	40.0	50.00	6100.00	5280.00	
Rotate	04-18	18:20	19:40	04-18	1.33	15163.00	15258.00	95.00	71.25	N/A	714.00	40.0	50.00	6100.00	5280.00	
Rotate	04-18	19:55	20:50	04-18	0.92	15258.00	15352.00	94.00	102.55	N/A	727.00	41.0	56.00	5820.00	5124.00	
Rotate	04-18	21:00	21:55	04-18	0.92	15352.00	15446.00	94.00	102.55	N/A	729.00	40.0	56.00	5780.00	5100.00	
Rotate	04-18	22:05	22:50	04-18	0.75	15446.00	15541.00	95.00	126.67	N/A	731.00	40.0	56.00	6000.00	5040.00	
Rotate	04-18	23:00	23:05	04-18	0.08	15541.00	15551.00	10.00	120.00	N/A	731.00	43.0	56.00	5760.00	4990.00	
Slide	04-18	23:05	00:00	04-19	0.92	15551.00	15562.00	11.00	12.00	22.0	732.00	N/A	33.00	5491.00	4990.00	
Slide	04-19	00:00	00:45	04-19	0.75	15562.00	15574.00	12.00	16.00	22.0	732.00	N/A	33.00	5491.00	4990.00	
Rotate	04-19	00:45	01:40	04-19	0.92	15574.00	15635.00	61.00	66.55	N/A	731.00	43.0	56.00	5760.00	4990.00	
Rotate	04-19	01:45	02:45	04-19	1.0	15635.00	15730.00	95.00	95.00	N/A	731.00	43.0	56.00	5760.00	4990.00	
Rotate	04-19	02:50	03:50	04-19	1.0	15730.00	15824.00	94.00	94.00	N/A	731.00	43.0	56.00	5760.00	4990.00	
Rotate	04-19	03:55	05:35	04-19	1.67	15824.00	15918.00	94.00	56.40	N/A	731.00	43.0	56.00	5760.00	4990.00	
Rotate	04-19	05:40	06:45	04-19	1.08	15918.00	16013.00	95.00	87.69	N/A	731.00	43.0	56.00	5760.00	4990.00	
Rotate	04-19	06:55	08:00	04-19	1.08	16013.00	16107.00	94.00	86.77	N/A	735.00	40.0	57.00	5900.00	5260.00	
Rotate	04-19	08:10	09:10	04-19	1.0	16107.00	16202.00	95.00	95.00	N/A	731.00	41.0	57.00	6120.00	5280.00	
Rotate	04-19	09:40	09:45	04-19	0.08	16202.00	16212.00	10.00	120.00	N/A	722.00	40.0	55.00	6120.00	5400.00	
Slide	04-19	09:45	10:45	04-19	1.0	16212.00	16227.00	15.00	15.00	120.0	725.00	N/A	31.00	5580.00	5400.00	
Rotate	04-19	10:45	11:35	04-19	0.83	16227.00	16296.00	69.00	82.80	N/A	722.00	40.0	55.00	6120.00	5400.00	
Rotate	04-19	11:40	12:55	04-19	1.25	16296.00	16390.00	94.00	75.20	N/A	722.00	40.0	55.00	6120.00	5400.00	
Rotate	04-19	13:00	14:20	04-19	1.33	16390.00	16485.00	95.00	71.25	N/A	722.00	40.0	55.00	6120.00	5400.00	
Rotate	04-19	14:25	15:30	04-19	1.08	16485.00	16579.00	94.00	86.77	N/A	720.00	40.0	54.00	5733.00	5520.00	
Rotate	04-19	15:40	16:35	04-19	0.92	16579.00	16673.00	94.00	102.55	N/A	721.00	40.0	54.00	5886.00	5520.00	
Rotate	04-19	16:45	17:35	04-19	0.83	16673.00	16768.00	95.00	114.00	N/A	720.00	40.0	56.00	5920.00	5530.00	
Rotate	04-19	17:45	19:00	04-19	1.25	16768.00	16862.00	94.00	75.20	N/A	720.00	40.0	56.00	5920.00	5530.00	
Rotate	04-19	19:05	20:15	04-19	1.17	16862.00	16956.00	94.00	80.57	N/A	720.00	40.0	56.00	5920.00	5530.00	
Rotate	04-19	20:20	20:25	04-19	0.08	16956.00	16966.00	10.00	120.00	N/A	720.00	40.0	56.00	5920.00	5530.00	
Slide	04-19	20:25	21:10	04-19	0.75	16966.00	16988.00	22.00	29.33	0.0	721.00	N/A	24.00	5750.00	5600.00	
Rotate	04-19	21:10	21:55	04-19	0.75	16988.00	17051.00	63.00	84.00	N/A	720.00	40.0	56.00	5920.00	5530.00	
Rotate	04-19	22:00	23:05	04-19	1.08	17051.00	17145.00	94.00	86.77	N/A	720.00	40.0	56.00	5920.00	5530.00	
Rotate	04-19	23:10	00:00	04-20	0.83	17145.00	17205.00	60.00	72.00	N/A	720.00	40.0	56.00	5920.00	5530.00	
Rotate	04-20	02:45	03:10	04-20	0.42	17205.00	17240.00	35.00	84.00	N/A	720.00	40.0	56.00	5920.00	5530.00	
Rotate	04-20	03:15	03:20	04-20	0.08	17240.00	17248.00	8.00	96.00	N/A	720.00	40.0	56.00	5920.00	5530.00	
Rotate	04-20	04:25	05:40	04-20	1.25	17248.00	17334.00	86.00	68.80	N/A	720.00	40.0	56.00	5920.00	5530.00	
Rotate	04-20	05:45	07:15	04-20	1.5	17334.00	17429.00	95.00	63.33	N/A	705.00	40.0	56.00	5880.00	5520.00	
Rotate	04-20	07:25	07:30	04-20	0.08	17429.00	17439.00	10.00	120.00	N/A	706.00	42.0	58.00	5995.00	5600.00	
Slide	04-20	07:30	10:05	04-20	2.58	17439.00	17454.00	15.00	5.81	10.0	704.00	N/A	29.00	5594.00	5399.00	
Rotate	04-20	10:40	12:40	04-20	2.0	17454.00	17523.00	69.00	34.50	N/A	706.00	42.0	58.00	5995.00	5600.00	
Rotate	04-20	12:50	13:15	04-20	0.42	17523.00	17553.00	30.00	72.00	N/A	706.00	42.0	58.00	5995.00	5600.00	
Rotate	04-20	13:35	14:40	04-20	1.08	17553.00	17617.00	64.00	59.08	N/A	688.00	41.0	55.00	6010.00	5490.00	
Rotate	04-20	14:50	15:20	04-20	0.5	17617.00	17665.00	48.00	96.00	N/A	690.00	42.0	49.00	5997.00	5420.00	

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #10 (BHA #10 (Third Lateral Run))

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	04-21	12:35	12:50	04-21	0.25	17665.00	17713.00	48.00	192.00	N/A	625.00	30.0	43.00	6140.00	5750.00	
Rotate	04-21	13:00	13:25	04-21	0.42	17713.00	17807.00	94.00	225.60	N/A	629.00	37.0	50.00	6129.00	5170.00	
Rotate	04-21	13:35	14:10	04-21	0.58	17807.00	17901.00	94.00	161.14	N/A	608.00	38.0	50.00	5500.00	4980.00	
Rotate	04-21	14:20	14:45	04-21	0.42	17901.00	17995.00	94.00	225.60	N/A	611.00	32.0	49.00	5934.00	5140.00	
Rotate	04-21	14:55	15:00	04-21	0.08	17995.00	18006.00	11.00	132.00	N/A	617.00	35.0	45.00	5900.00	5140.00	
Slide	04-21	15:00	15:30	04-21	0.5	18006.00	18016.00	10.00	20.00	135.0	617.00	N/A	35.00	5139.00	5140.00	
Rotate	04-21	15:30	16:00	04-21	0.5	18016.00	18090.00	74.00	148.00	N/A	617.00	35.0	45.00	5900.00	5140.00	
Rotate	04-21	16:10	16:30	04-21	0.33	18090.00	18184.00	94.00	282.00	N/A	614.00	38.0	50.00	5980.00	5130.00	
Rotate	04-21	16:40	17:05	04-21	0.42	18184.00	18279.00	95.00	228.00	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-21	17:30	17:55	04-21	0.42	18279.00	18373.00	94.00	225.60	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-21	18:05	18:10	04-21	0.08	18373.00	18383.00	10.00	120.00	N/A	614.00	40.0	52.00	6066.00	5150.00	
Slide	04-21	18:10	19:10	04-21	1.0	18383.00	18400.00	17.00	17.00	260.0	617.00	N/A	35.00	5139.00	5140.00	
Rotate	04-21	19:10	19:50	04-21	0.67	18400.00	18467.00	67.00	100.50	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-21	19:55	20:30	04-21	0.58	18467.00	18561.00	94.00	161.14	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-21	20:35	21:10	04-21	0.58	18561.00	18656.00	95.00	162.86	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-21	21:15	22:10	04-21	0.92	18656.00	18750.00	94.00	102.55	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-21	22:15	22:50	04-21	0.58	18750.00	18845.00	95.00	162.86	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-21	22:55	23:35	04-21	0.67	18845.00	18939.00	94.00	141.00	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-21	23:40	00:00	04-22	0.33	18939.00	18983.00	44.00	132.00	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-22	00:00	00:30	04-22	0.5	18983.00	19034.00	51.00	102.00	N/A	614.00	40.0	52.00	6066.00	5150.00	
Rotate	04-22	00:45	01:00	04-22	0.25	19034.00	19095.00	61.00	244.00	N/A	614.00	40.0	52.00	6066.00	5150.00	

Daily Reports

Dagger Lake 5 State #501H (WT-19-031)

2019-03-12 to 2019-04-25

Lea, New Mexico, US (32.42, -103.60)

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Mar 12 00:00 - 23:59 (Day of 45)

Billing: $3,300.00 ($275,851.94 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
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	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	03-12	00:00	00:00	03-13			Standby while Rigging up

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Mar 13 00:00 - 23:59 (Day 1 of 45)

Billing: $21,487.50 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	136.00	**Downhole Hours**	5.25
Bit Depth (ft)	634.00	**Drilling Hours**	2.50
Bottom Hole Depth (ft)	634.00	**Hours Circulating**	0.50
Total Distance (ft)	498.00	**Hours Sliding**	0.00
Distance Rotated (ft)	498.00	**Hours Rotating**	2.50
Distance Slid (ft)	0.00		
Inclination In	0.75		
Inclination Out	1.01		
Azimuth In	343.62	**% Hours Rotating**	100%
Azimuth Out	138.93	**% Hours Sliding**	0%
AVG Total ROP (ft/h)	199.20	**% Distance Sliding**	0%
AVG Rotating ROP (ft/h)	199.20	**% Distance Rotating**	100%
AVG Sliding ROP (ft/h)	0.00		

Drilling Parameters

Rotating WOB (klbs)	10.00 - 17.00
Sliding WOB (klbs)	
Rotating SPM	153.00 - 276.00
Sliding SPM	
Motor RPM	80.00 - 140.00
Surface RPM	40.00 - 60.00
Flow Rate (gpm)	500.00 - 895.00
On Bottom Pressure (psi)	1010.00 - 2600.00
Off Bottom Pressure (psi)	600.00 - 2050.00

Personnel

Name	Position
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #1 - BHA #1 Surface

Date In: Mar 13, 2019, 18:45 Date Out: Mar 14, 2019, 13:30

Bit Details

OD (in)	17.500
Vendor	Baker
S/N	5294732
Nozzles	9 x 12
Total Flow Area (in²)	0.994
Drilling Hours for Day	2.50
Total Drilled for Day (ft)	498.00
Drilling Hours for BHA	6.33
Total Drilled for BHA (ft)	1039.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 4.0
Bend Angle	1.5
Speed (rev/gal)	0.15
Wear Pad OD (in)	8.375

Bit Distances

Bend (Bit to Bend): 6.20 ft, **Survey (Bit to Survey):** 62.00 ft

Directional Comments

Motor- 8" 7/8 4.0 FXD @ 1.50 W 17'NBS GPM=400-900 RPG=.15 Max Diff=900 Max Trq=14930 Bit - Baker DD606S Jets- 9 X 12's TFA=.994

MWD Comments

POOH Reason

Total Depth/Casing Point: POOH For Casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD606S*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *17.50*	Baker	5294732	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: *1.5° FBH 7/8 4.0 Stg Mtr w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	Aim	800-40-002	6 5/8" Reg Box	6 5/8" Reg Box		8.000		30.50	32.00
Stabilizer Description: *17" Stabilizer*	DTI	DR35060	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.250		7.56	39.56
UBHO Sub Description: *UBHO Sub*, Type: *Steel*	Aim	800213	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		3.33	42.89
Drill Collar Description: *8" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42380	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.05	73.94
Drill Collar Description: *8" NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42379	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.35	105.29
Crossover Sub Description: *X-Over (6 5/8 Reg Pin - 4 1/2 IF Box)*, Type: *Steel*	DTI	DR35390	4 1/2" IF Box	6 5/8" Reg Pin	2.875	8.125		3.96	109.25
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		920.55	1029.80

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	03-12	00:00	00:00	03-13			Standby while Rigging up

Standby	15	03-13	00:00	16:00	03-13			Standby while Rigging up
Change BHA	6	03-13	16:00	19:00	03-13			P/U BHA # 1 Tag up @ 136'
Circulating	3	03-13	19:00	19:30	03-13			Break Circulation
Other	16	03-13	19:30	20:10	03-13			Work on Transfer pump, Tighten Flowine
Rotary Drill	1	03-13	20:10	20:35	03-13	136.00	200.00	Pressure On (psi): *1010.00*, Pressure Off (psi): *600.00*, Weight On Bit (klbs): *10.00*, Surface RPM: *40*, Surface Torque (ft lbf): *5000.00*, Flow Rate (gpm): *500.00*, Strokes Per Minute: *153.00*
Survey	46	03-13	20:35	20:50	03-13	200.00	200.00	Inclination (°): *0.750*, Azimuth (°): *343.620*, TVD (ft): *138.00*, Dogleg (º/100 ft): *0.54*, Sensor Depth (ft): *138.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-13	20:50	21:10	03-13	200.00	292.00	Pressure On (psi): *1500.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *15.00*, Surface RPM: *50*, Surface Torque (ft lbf): *7000.00*, Flow Rate (gpm): *650.00*, Strokes Per Minute: *201.00*
Survey	46	03-13	21:10	21:20	03-13	292.00	292.00	Inclination (°): *1.010*, Azimuth (°): *90.060*, TVD (ft): *229.99*, Dogleg (º/100 ft): *1.54*, Sensor Depth (ft): *230.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-13	21:20	22:05	03-13	292.00	384.00	Pressure On (psi): *1850.00*, Pressure Off (psi): *1750.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *9000.00*, Flow Rate (gpm): *767.00*, Strokes Per Minute: *237.00*
Survey	46	03-13	22:05	22:15	03-13	384.00	384.00	Inclination (°): *0.700*, Azimuth (°): *102.100*, TVD (ft): *321.98*, Dogleg (º/100 ft): *0.39*, Sensor Depth (ft): *322.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-13	22:15	22:40	03-13	384.00	476.00	Pressure On (psi): *1850.00*, Pressure Off (psi): *1750.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *9000.00*, Flow Rate (gpm): *767.00*, Strokes Per Minute: *237.00*
Other	16	03-13	22:40	23:15	03-13			Change out Cellar Pump
Rotary Drill	1	03-13	23:15	23:35	03-13	476.00	567.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Survey	46	03-13	23:35	23:45	03-13	567.00	567.00	Inclination (°): *1.010*, Azimuth (°): *138.930*, TVD (ft): *504.96*, Dogleg (º/100 ft): *0.34*, Sensor Depth (ft): *505.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-13	23:45	00:00	03-14	567.00	634.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Mar 14 00:00 - 23:59 (Day 2 of 45)

Billing: $6,500.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	634.00	**Downhole Hours**	13.50
Bit Depth (ft)	1175.00	**Drilling Hours**	3.83
Bottom Hole Depth (ft)	1175.00	**Hours Circulating**	0.75
Total Distance (ft)	541.00	**Hours Sliding**	0.00
Distance Rotated (ft)	541.00	**Hours Rotating**	3.83
Distance Slid (ft)	0.00		
Inclination In	1.32		
Inclination Out	1.54		
Azimuth In	139.01	**% Hours Rotating**	100%
Azimuth Out	175.23	**% Hours Sliding**	0%
AVG Total ROP (ft/h)	148.90	**% Distance Sliding**	0%
AVG Rotating ROP (ft/h)	148.90	**% Distance Rotating**	100%
AVG Sliding ROP (ft/h)	0.00		

Drilling Parameters

Rotating WOB (klbs)	17.00 - 17.00
Sliding WOB (klbs)	
Rotating SPM	276.00 - 276.00
Sliding SPM	
Motor RPM	80.00 - 140.00
Surface RPM	60.00 - 60.00
Flow Rate (gpm)	895.00 - 895.00
On Bottom Pressure (psi)	2600.00 - 2600.00
Off Bottom Pressure (psi)	2050.00 - 2050.00

Personnel

Name	Position
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #1 - BHA #1 Surface

Date In: Mar 13, 2019, 18:45 Date Out: Mar 14, 2019, 13:30

Bit Details

OD (in)	17.500
Vendor	Baker
S/N	5294732
Nozzles	9 x 12
Total Flow Area (in²)	0.994
Drilling Hours for Day	3.83
Total Drilled for Day (ft)	541.00
Drilling Hours for BHA	6.33
Total Drilled for BHA (ft)	1039.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 4.0
Bend Angle	1.5
Speed (rev/gal)	0.15
Wear Pad OD (in)	8.375

Bit Distances

Bend (Bit to Bend): 6.20 ft, **Survey (Bit to Survey):** 62.00 ft

Directional Comments

Motor- 8" 7/8 4.0 FXD @ 1.50 W 17'NBS GPM=400-900 RPG=.15 Max Diff=900 Max Trq=14930 Bit - Baker DD606S Jets- 9 X 12's TFA=.994

MWD Comments

POOH Reason

Total Depth/Casing Point: POOH For Casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD606S*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *17.50*	Baker	5294732	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: *1.5° FBH 7/8 4.0 Stg Mtr w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	Aim	800-40-002	6 5/8" Reg Box	6 5/8" Reg Box		8.000		30.50	32.00
Stabilizer Description: *17" Stabilizer*	DTI	DR35060	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.250		7.56	39.56
UBHO Sub Description: *UBHO Sub*, Type: *Steel*	Aim	800213	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		3.33	42.89
Drill Collar Description: *8" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42380	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.05	73.94
Drill Collar Description: *8" NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42379	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.35	105.29
Crossover Sub Description: *X-Over (6 5/8 Reg Pin - 4 1/2 IF Box)*, Type: *Steel*	DTI	DR35390	4 1/2" IF Box	6 5/8" Reg Pin	2.875	8.125		3.96	109.25
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		920.55	1029.80

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	03-13	23:45	00:00	03-14	567.00	634.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Rotary Drill	1	03-14	00:00	00:10	03-14	634.00	659.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Survey	46	03-14	00:10	00:20	03-14	659.00	659.00	Inclination (°): *1.320*, Azimuth (°): *139.010*, TVD (ft): *596.94*, Dogleg (º/100 ft): *0.34*, Sensor Depth (ft): *597.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-14	00:20	00:50	03-14	659.00	751.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Survey	46	03-14	00:50	01:00	03-14	751.00	751.00	Inclination (°): *1.320*, Azimuth (°): *160.900*, TVD (ft): *688.92*, Dogleg (º/100 ft): *0.54*, Sensor Depth (ft): *689.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-14	01:00	01:35	03-14	751.00	844.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Survey	46	03-14	01:35	01:50	03-14	844.00	844.00	Inclination (°): *1.410*, Azimuth (°): *168.720*, TVD (ft): *781.89*, Dogleg (º/100 ft): *0.22*, Sensor Depth (ft): *782.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-14	01:50	02:00	03-14	844.00	869.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Rig Repair	14	03-14	02:00	06:15	03-14			Work On Generators
Rotary Drill	1	03-14	06:15	06:30	03-14	869.00	939.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Survey	46	03-14	06:30	06:40	03-14	939.00	939.00	Inclination (°): *1.490*, Azimuth (°): *177.420*, TVD (ft): *876.86*, Dogleg (º/100 ft): *0.25*, Sensor Depth (ft): *877.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-14	06:40	06:55	03-14	939.00	1026.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Survey	46	03-14	06:55	07:10	03-14	1026.00	1026.00	Inclination (°): *1.360*, Azimuth (°): *180.320*, TVD (ft): *963.83*, Dogleg (º/100 ft): *0.17*, Sensor Depth (ft): *964.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-14	07:10	08:35	03-14	1026.00	1142.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Rig Repair	14	03-14	08:35	10:50	03-14			Work on Electrical Issue.
Rotary Drill	1	03-14	10:50	11:20	03-14	1142.00	1175.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2050.00*, Weight On Bit (klbs): *17.00*, Surface RPM: *60*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *895.00*, Strokes Per Minute: *276.00*
Survey	46	03-14	11:20	11:25	03-14	1175.00	1175.00	Inclination (°): *1.540*, Azimuth (°): *175.230*, TVD (ft): *1112.79*, Dogleg (º/100 ft): *0.15*, Sensor Depth (ft): *1113.00*, Bit To Sensor (ft): *62.00*
Circulating	3	03-14	11:25	12:10	03-14			Circulate hole clean
Pooh	7	03-14	12:10	14:00	03-14			Pooh and Rack back BHA #1 to run Casing.
Standby	15	03-14	14:00	00:00	03-15			Standby while Runnig Casing, Cement

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Mar 15 00:00 - 23:59 (Day of 45)

Billing: N/A ($275,851.94 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
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	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	03-14	14:00	00:00	03-15			Standby while Runnig Casing, Cement
Standby	15	03-15	00:00	11:00	03-15			Standby while Runnig Casing, Cement

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Mar 16 00:00 - 23:59 (Day 3 of 45)

Billing: N/A ($275,851.94 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
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Mar 17 00:00 - 23:59 (Day 4 of 45)

Billing: N/A ($275,851.94 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
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Mar 18 00:00 - 23:59 (Day 5 of 45)

Billing: N/A ($275,851.94 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
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer
Joel Johnson	Directional Driller

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Mar 19 00:00 - 23:59 (Day 6 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Mar 20 00:00 - 23:59 (Day 7 of 45)

Billing: $14,073.75 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	1175.00	**Downhole Hours**	5.00
Bit Depth (ft)	1555.00	**Drilling Hours**	2.00
Bottom Hole Depth (ft)	1555.00	**Hours Circulating**	1.42
Total Distance (ft)	380.00	**Hours Sliding**	0.00
Distance Rotated (ft)	380.00	**Hours Rotating**	2.00
Distance Slid (ft)	0.00		
Inclination In	1.76		
Inclination Out	1.14		
Azimuth In	200.27	**% Hours Rotating**	100%
Azimuth Out	171.89	**% Hours Sliding**	0%
AVG Total ROP (ft/h)	190.00	**% Distance Sliding**	0%
AVG Rotating ROP (ft/h)	190.00	**% Distance Rotating**	100%
AVG Sliding ROP (ft/h)	0.00		

Drilling Parameters

Rotating WOB (klbs)	20.00 - 28.00
Sliding WOB (klbs)	
Rotating SPM	210.00 - 279.00
Sliding SPM	
Motor RPM	104.00 - 144.00
Surface RPM	30.00 - 70.00
Flow Rate (gpm)	650.00 - 900.00
On Bottom Pressure (psi)	2500.00 - 4400.00
Off Bottom Pressure (psi)	2000.00 - 3600.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #2 - BHA #2 1st Intermediate

Date In: Mar 20, 2019, 19:00 Date Out: Mar 22, 2019, 8:00

Bit Details

OD (in)	12.250
Vendor	Baker
S/N	7163483
Nozzles	6 x 12
Total Flow Area (in²)	0.663
Drilling Hours for Day	2.00
Total Drilled for Day (ft)	380.00
Drilling Hours for BHA	23.92
Total Drilled for BHA (ft)	3665.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 4.0
Bend Angle	1.5
Speed (rev/gal)	0.15
Wear Pad OD (in)	8.375

Bit Distances

Bend (Bit to Bend): 6.18 ft, **Survey (Bit to Survey):** 62.00 ft

Directional Comments

8" 7/8 4.0 FXD @ 1.50 W 12" NBS GPM=400-900 RPG=.16 Max Diff=900 Max Trq=14930 Bit - Baker T806FX Jets- 6 X 12's TFA=.663

MWD Comments

POOH Reason

Total Depth/Casing Point: TD / Casing Point 9 5/8 Casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *T806FX*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *12.25*	Baker	7163483	6 5/8" Reg Pin			12.250		1.21	1.21
Mud Motor Description: *1.5° FBH 7/8 4.0 Stg Mtr w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	Aim	800-40-009	6 5/8" Reg Box	6 5/8" Reg Box		8.000		30.04	31.25
Stabilizer Description: *12" Stabilizer*	DTI	DR38410	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.312		7.99	39.24
UBHO Sub Description: *UBHO Sub*, Type: *Steel*	Aim	800213	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		3.33	42.57
Drill Collar Description: *8" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42380	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.05	73.62
Drill Collar Description: *8" NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42379	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.35	104.97
Crossover Sub Description: *X-Over (6 5/8 Reg Pin - 4 1/2 IF Box)*, Type: *Steel*	DTI	DR32566	4 1/2" IF Box	6 5/8" Reg Pin	2.875	8.125		3.06	108.03
Drill Collar Description: *Rig*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	635.43
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38966	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		3.96	639.39
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1555.16

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	03-20	00:00	16:00	03-20			Standby while Skidding Rig
Change BHA	6	03-20	16:00	16:30	03-20			L/D Motor & Bit
TIH	8	03-20	16:30	17:30	03-20			M/U Motor, UBHO, & Bit
Rig Service - In Hole	19	03-20	17:30	18:00	03-20			Rig Service / C/O ST80 dies
Circulating	3	03-20	18:00	18:10	03-20			Test MWD
Change BHA	6	03-20	18:10	19:00	03-20			P/U BHA # 2
TIH	8	03-20	19:00	20:30	03-20			TIH W/ BHA #2
Reaming	4	03-20	20:30	21:45	03-20			Reaming F/ 1000 - T/ 1175 [GPM = 400, RPM = 30]
Rotary Drill	1	03-20	21:45	22:55	03-20	1175.00	1281.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Surface RPM: *30*, Surface Torque (ft lbf): *7500.00*, Flow Rate (gpm): *650.00*, Strokes Per Minute: *210.00*
Survey	46	03-20	22:55	23:00	03-20	1281.00	1281.00	Inclination (°): *1.760*, Azimuth (°): *200.270*, TVD (ft): *1218.74*, Dogleg (º/100 ft): *0.70*, Sensor Depth (ft): *1219.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-20	23:00	23:20	03-20	1281.00	1372.00	Pressure On (psi): *4200.00*, Pressure Off (psi): *3500.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *60*, Surface Torque (ft lbf): *9000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-20	23:20	23:25	03-20	1372.00	1372.00	Inclination (°): *1.630*, Azimuth (°): *192.540*, TVD (ft): *1309.70*, Dogleg (º/100 ft): *0.29*, Sensor Depth (ft): *1310.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-20	23:25	23:40	03-20	1372.00	1464.00	Pressure On (psi): *4200.00*, Pressure Off (psi): *3500.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *60*, Surface Torque (ft lbf): *9000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-20	23:40	23:45	03-20	1464.00	1464.00	Inclination (°): *1.140*, Azimuth (°): *171.890*, TVD (ft): *1401.68*, Dogleg (º/100 ft): *0.75*, Sensor Depth (ft): *1402.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-20	23:45	00:00	03-21	1464.00	1555.00	Pressure On (psi): *4400.00*, Pressure Off (psi): *3600.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *70*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Mar 21 00:00 - 23:59 (Day 8 of 45)

Billing: $7,500.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	1555.00	**Downhole Hours**	24.00
Bit Depth (ft)	4695.00	**Drilling Hours**	20.58
Bottom Hole Depth (ft)	4695.00	**Hours Circulating**	0.00
Total Distance (ft)	3140.00	**Hours Sliding**	2.50
Distance Rotated (ft)	2970.00	**Hours Rotating**	18.08
Distance Slid (ft)	170.00		
Inclination In	0.88		
Inclination Out	1.58		
Azimuth In	143.67	**% Hours Rotating**	88%
Azimuth Out	277.88	**% Hours Sliding**	12%
AVG Total ROP (ft/h)	155.09	**% Distance Sliding**	5%
AVG Rotating ROP (ft/h)	166.96	**% Distance Rotating**	95%
AVG Sliding ROP (ft/h)	68.00		

Drilling Parameters

Rotating WOB (klbs)	28.00 - 50.00
Sliding WOB (klbs)	20.00 - 45.00
Rotating SPM	228.00 - 279.00
Sliding SPM	228.00 - 276.00
Motor RPM	104.00 - 144.00
Surface RPM	70.00 - 80.00
Flow Rate (gpm)	733.00 - 900.00
On Bottom Pressure (psi)	3400.00 - 4750.00
Off Bottom Pressure (psi)	2850.00 - 3850.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #2 - BHA #2 1st Intermediate

Date In: Mar 20, 2019, 19:00 Date Out: Mar 22, 2019, 8:00

Bit Details

OD (in)	12.250
Vendor	Baker
S/N	7163483
Nozzles	6 x 12
Total Flow Area (in²)	0.663
Drilling Hours for Day	20.58
Total Drilled for Day (ft)	3140.00
Drilling Hours for BHA	23.92
Total Drilled for BHA (ft)	3665.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 4.0
Bend Angle	1.5
Speed (rev/gal)	0.15
Wear Pad OD (in)	8.375

Bit Distances

Bend (Bit to Bend): 6.18 ft, **Survey (Bit to Survey):** 62.00 ft

Directional Comments

8" 7/8 4.0 FXD @ 1.50 W 12" NBS GPM=400-900 RPG=.16 Max Diff=900 Max Trq=14930 Bit - Baker T806FX Jets- 6 X 12's TFA=.663

MWD Comments

POOH Reason

Total Depth/Casing Point: TD / Casing Point 9 5/8 Casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *T806FX*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *12.25*	Baker	7163483	6 5/8" Reg Pin			12.250		1.21	1.21
Mud Motor Description: *1.5° FBH 7/8 4.0 Stg Mtr w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	Aim	800-40-009	6 5/8" Reg Box	6 5/8" Reg Box		8.000		30.04	31.25
Stabilizer Description: *12" Stabilizer*	DTI	DR38410	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.312		7.99	39.24
UBHO Sub Description: *UBHO Sub*, Type: *Steel*	Aim	800213	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		3.33	42.57
Drill Collar Description: *8" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42380	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.05	73.62
Drill Collar Description: *8" NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42379	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.35	104.97
Crossover Sub Description: *X-Over (6 5/8 Reg Pin - 4 1/2 IF Box)*, Type: *Steel*	DTI	DR32566	4 1/2" IF Box	6 5/8" Reg Pin	2.875	8.125		3.06	108.03
Drill Collar Description: *Rig*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	635.43
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38966	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		3.96	639.39
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1555.16

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	03-20	23:45	00:00	03-21	1464.00	1555.00	Pressure On (psi): *4400.00*, Pressure Off (psi): *3600.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *70*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	00:00	00:05	03-21	1555.00	1555.00	Inclination (°): *0.880*, Azimuth (°): *143.670*, TVD (ft): *1492.66*, Dogleg (º/100 ft): *0.61*, Sensor Depth (ft): *1493.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	00:05	00:15	03-21	1555.00	1649.00	Pressure On (psi): *4400.00*, Pressure Off (psi): *3600.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *70*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	00:15	00:20	03-21	1649.00	1649.00	Inclination (°): *1.320*, Azimuth (°): *106.320*, TVD (ft): *1586.65*, Dogleg (º/100 ft): *0.87*, Sensor Depth (ft): *1587.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	00:20	00:35	03-21	1649.00	1743.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *70*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	00:35	00:40	03-21	1743.00	1743.00	Inclination (°): *0.620*, Azimuth (°): *106.500*, TVD (ft): *1680.63*, Dogleg (º/100 ft): *0.74*, Sensor Depth (ft): *1681.00*, Bit To Sensor (ft): *62.00*
Slide Drill	2	03-21	00:40	00:50	03-21	1743.00	1773.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3600.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *276*, Toolface: *340*, Toolface Type: *magnetic*
Rotary Drill	1	03-21	00:50	01:05	03-21	1773.00	1838.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	01:05	01:10	03-21	1838.00	1838.00	Inclination (°): *1.050*, Azimuth (°): *15.700*, TVD (ft): *1775.63*, Dogleg (º/100 ft): *1.29*, Sensor Depth (ft): *1776.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	01:10	02:25	03-21	1838.00	2026.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	02:25	02:30	03-21	2026.00	2026.00	Inclination (°): *1.490*, Azimuth (°): *12.630*, TVD (ft): *1963.58*, Dogleg (º/100 ft): *0.24*, Sensor Depth (ft): *1964.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	02:30	02:40	03-21	2026.00	2049.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Other	16	03-21	02:40	02:55	03-21			Lost Gen
Rotary Drill	1	03-21	02:55	03:25	03-21	2049.00	2120.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	03:25	03:30	03-21	2120.00	2120.00	Inclination (°): *1.450*, Azimuth (°): *5.680*, TVD (ft): *2057.55*, Dogleg (º/100 ft): *0.19*, Sensor Depth (ft): *2058.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	03:30	04:05	03-21	2120.00	2214.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	04:05	04:10	03-21	2214.00	2214.00	Inclination (°): *1.270*, Azimuth (°): *20.270*, TVD (ft): *2151.52*, Dogleg (º/100 ft): *0.41*, Sensor Depth (ft): *2152.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	04:10	04:45	03-21	2214.00	2309.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	04:45	04:50	03-21	2309.00	2309.00	Inclination (°): *1.010*, Azimuth (°): *7.180*, TVD (ft): *2246.50*, Dogleg (º/100 ft): *0.39*, Sensor Depth (ft): *2247.00*, Bit To Sensor (ft): *62.00*
Slide Drill	2	03-21	04:50	05:10	03-21	2309.00	2319.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3600.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *276*, Toolface: *315*, Toolface Type: *magnetic*
Rotary Drill	1	03-21	05:10	05:50	03-21	2319.00	2403.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *28.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	05:50	05:55	03-21	2403.00	2403.00	Inclination (°): *1.270*, Azimuth (°): *6.120*, TVD (ft): *2340.48*, Dogleg (º/100 ft): *0.28*, Sensor Depth (ft): *2341.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	05:55	06:25	03-21	2403.00	2497.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	06:25	06:30	03-21	2497.00	2497.00	Inclination (°): *1.630*, Azimuth (°): *354.520*, TVD (ft): *2434.45*, Dogleg (º/100 ft): *0.49*, Sensor Depth (ft): *2435.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	06:30	06:50	03-21	2497.00	2591.00	Pressure On (psi): *4500.00*, Pressure Off (psi): *3700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	06:50	06:55	03-21	2591.00	2591.00	Inclination (°): *1.410*, Azimuth (°): *7.880*, TVD (ft): *2528.42*, Dogleg (º/100 ft): *0.44*, Sensor Depth (ft): *2529.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	06:55	07:25	03-21	2591.00	2685.00	Pressure On (psi): *3700.00*, Pressure Off (psi): *2850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *765.00*, Strokes Per Minute: *237.00*
Survey	46	03-21	07:25	07:30	03-21	2685.00	2685.00	Inclination (°): *1.540*, Azimuth (°): *22.470*, TVD (ft): *2622.39*, Dogleg (º/100 ft): *0.42*, Sensor Depth (ft): *2623.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	07:30	07:50	03-21	2685.00	2779.00	Pressure On (psi): *3700.00*, Pressure Off (psi): *2850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *765.00*, Strokes Per Minute: *237.00*
Survey	46	03-21	07:50	07:55	03-21	2779.00	2779.00	Inclination (°): *2.110*, Azimuth (°): *34.420*, TVD (ft): *2716.34*, Dogleg (º/100 ft): *0.73*, Sensor Depth (ft): *2717.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	07:55	08:00	03-21	2779.00	2793.00	Pressure On (psi): *3700.00*, Pressure Off (psi): *2850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *765.00*, Strokes Per Minute: *237.00*
Slide Drill	2	03-21	08:00	08:20	03-21	2793.00	2818.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3600.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *276*, Toolface: *215*, Toolface Type: *magnetic*

Rotary Drill	1	03-21	08:20	08:40	03-21	2818.00	2873.00	Pressure On (psi): *3700.00*, Pressure Off (psi): *2850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *765.00*, Strokes Per Minute: *237.00*
Survey	46	03-21	08:40	08:45	03-21	2873.00	2873.00	Inclination (°): *1.490*, Azimuth (°): *22.300*, TVD (ft): *2810.30*, Dogleg (º/100 ft): *0.77*, Sensor Depth (ft): *2811.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	08:45	09:05	03-21	2873.00	2967.00	Pressure On (psi): *3700.00*, Pressure Off (psi): *2850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *765.00*, Strokes Per Minute: *237.00*
Survey	46	03-21	09:05	09:10	03-21	2967.00	2967.00	Inclination (°): *1.100*, Azimuth (°): *8.230*, TVD (ft): *2904.27*, Dogleg (º/100 ft): *0.53*, Sensor Depth (ft): *2905.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	09:10	09:35	03-21	2967.00	3062.00	Pressure On (psi): *3700.00*, Pressure Off (psi): *2850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *765.00*, Strokes Per Minute: *237.00*
Survey	46	03-21	09:35	09:40	03-21	3062.00	3062.00	Inclination (°): *1.670*, Azimuth (°): *23.090*, TVD (ft): *2999.24*, Dogleg (º/100 ft): *0.70*, Sensor Depth (ft): *3000.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	09:40	09:45	03-21	3062.00	3072.00	Pressure On (psi): *3700.00*, Pressure Off (psi): *2850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *765.00*, Strokes Per Minute: *237.00*
Slide Drill	2	03-21	09:45	10:10	03-21	3072.00	3102.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3600.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *276*, Toolface: *203*, Toolface Type: *magnetic*
Rotary Drill	1	03-21	10:10	10:25	03-21	3102.00	3156.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	10:25	10:30	03-21	3156.00	3156.00	Inclination (°): *0.880*, Azimuth (°): *337.650*, TVD (ft): *3093.22*, Dogleg (º/100 ft): *1.30*, Sensor Depth (ft): *3094.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	10:30	10:55	03-21	3156.00	3250.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	10:55	11:00	03-21	3250.00	3250.00	Inclination (°): *0.920*, Azimuth (°): *311.020*, TVD (ft): *3187.21*, Dogleg (º/100 ft): *0.44*, Sensor Depth (ft): *3188.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	11:00	11:20	03-21	3250.00	3344.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	11:20	11:25	03-21	3344.00	3344.00	Inclination (°): *0.700*, Azimuth (°): *7.180*, TVD (ft): *3281.20*, Dogleg (º/100 ft): *0.84*, Sensor Depth (ft): *3282.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	11:25	11:40	03-21	3344.00	3439.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	11:40	11:45	03-21	3439.00	3439.00	Inclination (°): *1.580*, Azimuth (°): *58.590*, TVD (ft): *3376.19*, Dogleg (º/100 ft): *1.33*, Sensor Depth (ft): *3377.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	11:45	11:55	03-21	3439.00	3450.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Slide Drill	2	03-21	11:55	12:20	03-21	3450.00	3490.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3600.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *276*, Toolface: *240*, Toolface Type: *magnetic*
Rotary Drill	1	03-21	12:20	12:35	03-21	3490.00	3533.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	12:35	12:40	03-21	3533.00	3533.00	Inclination (°): *0.970*, Azimuth (°): *95.160*, TVD (ft): *3470.16*, Dogleg (º/100 ft): *1.05*, Sensor Depth (ft): *3471.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	12:40	12:55	03-21	3533.00	3627.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	12:55	13:00	03-21	3627.00	3627.00	Inclination (°): *1.850*, Azimuth (°): *207.310*, TVD (ft): *3564.15*, Dogleg (º/100 ft): *2.54*, Sensor Depth (ft): *3565.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	13:00	13:25	03-21	3627.00	3721.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	13:25	13:30	03-21	3721.00	3721.00	Inclination (°): *1.450*, Azimuth (°): *197.640*, TVD (ft): *3658.11*, Dogleg (º/100 ft): *0.52*, Sensor Depth (ft): *3659.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	13:30	14:30	03-21	3721.00	3815.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	14:30	14:35	03-21	3815.00	3815.00	Inclination (°): *0.920*, Azimuth (°): *189.820*, TVD (ft): *3752.09*, Dogleg (º/100 ft): *0.59*, Sensor Depth (ft): *3753.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	14:35	15:35	03-21	3815.00	3909.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	15:35	15:40	03-21	3909.00	3909.00	Inclination (°): *0.970*, Azimuth (°): *178.130*, TVD (ft): *3846.07*, Dogleg (º/100 ft): *0.21*, Sensor Depth (ft): *3847.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	15:40	16:30	03-21	3909.00	4003.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Survey	46	03-21	16:30	16:35	03-21	4003.00	4003.00	Inclination (°): *0.750*, Azimuth (°): *176.900*, TVD (ft): *3940.06*, Dogleg (º/100 ft): *0.23*, Sensor Depth (ft): *3941.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	16:35	17:25	03-21	4003.00	4098.00	Pressure On (psi): *4750.00*, Pressure Off (psi): *3850.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *900.00*, Strokes Per Minute: *279.00*
Rig Service - In Hole	19	03-21	17:25	17:55	03-21			Rig Service
Survey	46	03-21	17:55	18:00	03-21	4098.00	4098.00	Inclination (°): *0.660*, Azimuth (°): *116.160*, TVD (ft): *4035.06*, Dogleg (º/100 ft): *0.75*, Sensor Depth (ft): *4036.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	18:00	18:10	03-21	4098.00	4108.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*

Slide Drill	2	03-21	18:10	19:00	03-21	4108.00	4143.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *45.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228*, Toolface: *270*, Toolface Type: *magnetic*
Rotary Drill	1	03-21	19:00	19:20	03-21	4143.00	4192.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*
Survey	46	03-21	19:20	19:25	03-21	4192.00	4192.00	Inclination (°): *0.700*, Azimuth (°): *254.150*, TVD (ft): *4129.05*, Dogleg (º/100 ft): *1.35*, Sensor Depth (ft): *4130.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	19:25	20:10	03-21	4192.00	4286.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*
Survey	46	03-21	20:10	20:15	03-21	4286.00	4286.00	Inclination (°): *1.490*, Azimuth (°): *274.450*, TVD (ft): *4223.04*, Dogleg (º/100 ft): *0.92*, Sensor Depth (ft): *4224.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	20:15	21:50	03-21	4286.00	4475.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*
Survey	46	03-21	21:50	21:55	03-21	4475.00	4475.00	Inclination (°): *1.320*, Azimuth (°): *278.500*, TVD (ft): *4411.98*, Dogleg (º/100 ft): *0.10*, Sensor Depth (ft): *4413.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	21:55	22:45	03-21	4475.00	4570.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*
Survey	46	03-21	22:45	22:50	03-21	4570.00	4570.00	Inclination (°): *1.100*, Azimuth (°): *278.150*, TVD (ft): *4506.96*, Dogleg (º/100 ft): *0.23*, Sensor Depth (ft): *4508.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	22:50	23:35	03-21	4570.00	4663.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*
Survey	46	03-21	23:35	23:40	03-21	4663.00	4663.00	Inclination (°): *1.580*, Azimuth (°): *277.880*, TVD (ft): *4599.93*, Dogleg (º/100 ft): *0.52*, Sensor Depth (ft): *4601.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-21	23:40	00:00	03-22	4663.00	4695.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Mar 22 00:00 - 23:59 (Day 9 of 45)

Billing: $7,500.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	4695.00	**Downhole Hours**	8.00
Bit Depth (ft)	4840.00	**Drilling Hours**	1.33
Bottom Hole Depth (ft)	4840.00	**Hours Circulating**	1.00
Total Distance (ft)	145.00	**Hours Sliding**	0.00
Distance Rotated (ft)	145.00	**Hours Rotating**	1.33
Distance Slid (ft)	0.00		
Inclination In	1.54		
Inclination Out	1.45		
Azimuth In	290.01	**% Hours Rotating**	100%
Azimuth Out	284.83	**% Hours Sliding**	0%
AVG Total ROP (ft/h)	106.20	**% Distance Sliding**	0%
AVG Rotating ROP (ft/h)	106.20	**% Distance Rotating**	100%
AVG Sliding ROP (ft/h)	0.00		

Drilling Parameters

Rotating WOB (klbs)	50.00 - 50.00
Sliding WOB (klbs)	
Rotating SPM	228.00 - 228.00
Sliding SPM	
Motor RPM	104.00 - 144.00
Surface RPM	80.00 - 80.00
Flow Rate (gpm)	733.00 - 733.00
On Bottom Pressure (psi)	3800.00 - 3800.00
Off Bottom Pressure (psi)	2900.00 - 2900.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #2 - BHA #2 1st Intermediate

Date In: Mar 20, 2019, 19:00 Date Out: Mar 22, 2019, 8:00

Bit Details

OD (in)	12.250
Vendor	Baker
S/N	7163483
Nozzles	6 x 12
Total Flow Area (in²)	0.663
Drilling Hours for Day	1.33
Total Drilled for Day (ft)	145.00
Drilling Hours for BHA	23.92
Total Drilled for BHA (ft)	3665.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 4.0
Bend Angle	1.5
Speed (rev/gal)	0.15
Wear Pad OD (in)	8.375

Bit Distances

Bend (Bit to Bend): 6.18 ft, **Survey (Bit to Survey):** 62.00 ft

Directional Comments

8" 7/8 4.0 FXD @ 1.50 W 12" NBS GPM=400-900 RPG=.16 Max Diff=900 Max Trq=14930 Bit - Baker T806FX Jets- 6 X 12's TFA=.663

MWD Comments

POOH Reason

Total Depth/Casing Point: TD / Casing Point 9 5/8 Casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *T806FX*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *12.25*	Baker	7163483	6 5/8" Reg Pin			12.250		1.21	1.21
Mud Motor Description: *1.5° FBH 7/8 4.0 Stg Mtr w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	Aim	800-40-009	6 5/8" Reg Box	6 5/8" Reg Box		8.000		30.04	31.25
Stabilizer Description: *12" Stabilizer*	DTI	DR38410	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.312		7.99	39.24
UBHO Sub Description: *UBHO Sub*, Type: *Steel*	Aim	800213	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		3.33	42.57
Drill Collar Description: *8" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42380	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.05	73.62
Drill Collar Description: *8" NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR42379	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.125		31.35	104.97
Crossover Sub Description: *X-Over (6 5/8 Reg Pin - 4 1/2 IF Box)*, Type: *Steel*	DTI	DR32566	4 1/2" IF Box	6 5/8" Reg Pin	2.875	8.125		3.06	108.03
Drill Collar Description: *Rig*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	635.43
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38966	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		3.96	639.39
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1555.16

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	03-21	23:40	00:00	03-22	4663.00	4695.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*
Rotary Drill	1	03-22	00:00	00:35	03-22	4695.00	4758.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*
Survey	46	03-22	00:35	00:40	03-22	4758.00	4758.00	Inclination (°): *1.540*, Azimuth (°): *290.010*, TVD (ft): *4694.90*, Dogleg (º/100 ft): *0.35*, Sensor Depth (ft): *4696.00*, Bit To Sensor (ft): *62.00*
Rotary Drill	1	03-22	00:40	01:25	03-22	4758.00	4840.00	Pressure On (psi): *3800.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *80*, Surface Torque (ft lbf): *25000.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228.00*
Survey	46	03-22	01:25	01:30	03-22	4840.00	4840.00	Inclination (°): *1.450*, Azimuth (°): *284.830*, TVD (ft): *4776.87*, Dogleg (º/100 ft): *0.20*, Sensor Depth (ft): *4778.00*, Bit To Sensor (ft): *62.00*
Circulating	3	03-22	01:30	02:30	03-22			Circulate to POOH
Pooh	7	03-22	02:30	06:30	03-22			POOH for Casing
Change BHA	6	03-22	06:30	08:00	03-22			L/D BHA #2
Standby	15	03-22	08:00	00:00	03-23			Standby while Running 9 5/8 Casing, Cementing

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Mar 23 00:00 - 23:59 (Day 10 of 45)

Billing: $24,697.50 ($275,851.94 total)

Drilling Summary

Start Depth (ft)		**Downhole Hours**	20.75
Bit Depth (ft)		**Drilling Hours**	0.00
Bottom Hole Depth (ft)		**Hours Circulating**	2.25
Total Distance (ft)	0.00	**Hours Sliding**	0.00
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00
Distance Slid (ft)	0.00		
Inclination In			
Inclination Out			
Azimuth In		**% Hours Rotating**	
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		

Drilling Parameters

Rotating WOB (klbs)	
Sliding WOB (klbs)	
Rotating SPM	
Sliding SPM	
Motor RPM	0.00 - 195.00
Surface RPM	
Flow Rate (gpm)	
On Bottom Pressure (psi)	
Off Bottom Pressure (psi)	

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #3 - BHA #3

Date In: Mar 23, 2019, 3:15 Date Out: Mar 23, 2019, 14:45

Bit Details

OD (in)	8.500
Vendor	Halliburton
S/N	13117925
Nozzles	6 x 12
Total Flow Area (in²)	0.663
Drilling Hours for Day	0.00
Total Drilled for Day (ft)	
Drilling Hours for BHA	0.00
Total Drilled for BHA (ft)	

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.5
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.125

Bit Distances

Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft

Directional Comments

Directional: 7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13117925, Jets: 6x12's, TFA: 0.663 Runs on Bit: 1

MWD Comments

POOH Reason

Other: Failed Casing Test, POOH for Paker

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *Security MM65DRM*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Halliburton	13117925	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Altitude	AEP7027SS	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.20	35.20
Stabilizer Description: *8 1/4" Stabilizer*	DTI	DR14156	4 1/2" IF Box	4 1/2" IF Pin	2.688	6.750		4.21	39.41
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-124NM	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		2.28	41.69
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR27268	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.35	72.04
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR4574	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		28.77	100.81
Crossover Sub Description: *X-Over (4 1/2 IF Pin - 4 1/2 XH Box)*, Type: *Steel*	DTI	DR33920	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.750		2.82	103.63
Drill Collar Description: *6.5" DC (18 DC)*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	631.03
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38967	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		4.02	635.05

HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1550.82

MWD Items

No Items

BHA #4 - BHA #4 (Packer Run)

Date In: Mar 23, 2019, 14:45 Date Out: Mar 23, 2019, 21:30

Bit Details		Motor Details		Directional Comments
OD (in)		**Size (in)**		N/A
Vendor		**Lobe/Stage**		
S/N		**Bend Angle**		
Nozzles		**Speed (rev/gal)**		**MWD Comments**
Total Flow Area (in²)	N/A	**Wear Pad OD (in)**	N/A	
Drilling Hours for Day	0.00	**Bit Distances**		
Total Drilled for Day (ft)		N/A		
Drilling Hours for BHA	0.00			**POOH Reason**
Total Drilled for BHA (ft)				**Other:** POOH p/u directional tools

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Other Description: *Tension Packer*	BlackHawk	Rig1	2 7/8" IF Box		2.250	5.625		4.31	4.31
Crossover Sub Description: *Cross Over 3 1/2 IF Box X 2 7/8 If Pin*, Type: *Steel*	Black Hawk	TTRH1204	3 1/2" IF Box	2 7/8" IF Pin	3.250	5.625		1.34	5.65
Crossover Sub Description: *Crossover 4 1/2 IF Box x 3 1/2 If Pin*, Type: *Steel*	BlackHawk	TTRH933	4 1/2" IF Box	3 1/2" IF Pin	2.250	6.313		1.22	6.87

MWD Items

No Items

BHA #5 - BHA #5 (2nd Intermediate)

Date In: Mar 23, 2019, 21:30 Date Out: Mar 25, 2019, 9:30

Bit Details		Motor Details		Directional Comments
OD (in)	8.500	**Size (in)**	7.0	7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13117925, Jets: 6x12's, TFA: 0.663 Runs on Bit: 1
Vendor	Halliburton	**Lobe/Stage**	7/8, 8.5	
S/N	13117925	**Bend Angle**	1.5	
Nozzles	6 x 12	**Speed (rev/gal)**	0.26	**MWD Comments**
Total Flow Area (in²)	0.663	**Wear Pad OD (in)**	7.125	
Drilling Hours for Day	0.00	**Bit Distances**		
Total Drilled for Day (ft)		**Bend (Bit to Bend):** 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft		**POOH Reason**
Drilling Hours for BHA	22.42			**Penetration Rate:** Low ROP, C/O Bit
Total Drilled for BHA (ft)	4646.00			

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *Security MM65DRM*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Halliburton	13117925	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Altitude	AEP7027SS	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.20	35.20
Stabilizer Description: *8 1/4" Stabilizer*	DTI	DR14156	4 1/2" IF Box	4 1/2" IF Pin	2.688	6.750		4.21	39.41
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-124NM	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		2.28	41.69
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR27268	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.35	72.04
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR4574	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		28.77	100.81
Crossover Sub Description: *X-Over (4 1/2 IF Pin - 4 1/2 XH Box)*, Type: *Steel*	DTI	DR33920	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.750		2.82	103.63
Drill Collar Description: *6.5" DC (18 DC)*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	631.03
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38967	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		4.02	635.05
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1550.82

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	03-22	08:00	00:00	03-23			Standby while Running 9 5/8 Casing, Cementing
Standby	15	03-23	00:00	01:30	03-23			Standby while Rigging Down Cementers
Change BHA	6	03-23	01:30	03:15	03-23			P/U BHA # 3
TIH	8	03-23	03:15	05:30	03-23			TIH W/ BHA #3
Other	16	03-23	05:30	05:45	03-23			Test Casing
Circulating	3	03-23	05:45	06:00	03-23			Drilled DV Tool f/2376 t/2378
Circulating	3	03-23	06:00	08:00	03-23			Attempt to test casing after drilling DV tool, bad test
Other	16	03-23	08:00	09:00	03-23			Wait on orders
Other	16	03-23	09:00	12:30	03-23			Clean pits/ trans brine out / fill pits with fresh water
Pooh	7	03-23	12:30	14:30	03-23			POOH to Packer test casing
Pooh	7	03-23	14:30	14:40	03-23			Rack BHA #3 in derrick
Standby	15	03-23	14:40	20:00	03-23			Run Test Packer in hole
Pooh	7	03-23	20:00	21:20	03-23			POOH For BHA
Change BHA	6	03-23	21:20	22:00	03-23			P/U BHA # 4
TIH	8	03-23	22:00	00:00	03-24			TIH W/ BHA #4

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Mar 24 00:00 - 23:59 (Day 11 of 45)

Billing: $9,100.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	4840.00	**Downhole Hours**	24.00
Bit Depth (ft)	9141.00	**Drilling Hours**	19.00
Bottom Hole Depth (ft)	9141.00	**Hours Circulating**	0.50
Total Distance (ft)	4301.00	**Hours Sliding**	1.17
Distance Rotated (ft)	4196.00	**Hours Rotating**	17.83
Distance Slid (ft)	105.00		
Inclination In	1.45		
Inclination Out	0.75		
Azimuth In	279.38	**% Hours Rotating**	94%
Azimuth Out	149.83	**% Hours Sliding**	6%
AVG Total ROP (ft/h)	226.37	**% Distance Sliding**	2%
AVG Rotating ROP (ft/h)	235.29	**% Distance Rotating**	98%
AVG Sliding ROP (ft/h)	90.00		

Drilling Parameters

Rotating WOB (klbs)	25.00 - 50.00
Sliding WOB (klbs)	25.00 - 40.00
Rotating SPM	234.00 - 234.00
Sliding SPM	228.00 - 234.00
Motor RPM	191.00 - 195.00
Surface RPM	40.00 - 80.00
Flow Rate (gpm)	733.00 - 750.00
On Bottom Pressure (psi)	350.00 - 3900.00
Off Bottom Pressure (psi)	2900.00 - 3200.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #5 - BHA #5 (2nd Intermediate)

Date In: Mar 23, 2019, 21:30 Date Out: Mar 25, 2019, 9:30

Bit Details

OD (in)	8.500
Vendor	Halliburton
S/N	13117925
Nozzles	6 x 12
Total Flow Area (in²)	0.663
Drilling Hours for Day	19.00
Total Drilled for Day (ft)	4301.00
Drilling Hours for BHA	22.42
Total Drilled for BHA (ft)	4646.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.5
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.125

Bit Distances

Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft

Directional Comments

7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13117925, Jets: 6x12's, TFA: 0.663 Runs on Bit: 1

MWD Comments

POOH Reason

Penetration Rate: Low ROP, C/O Bit

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *Security MM65DRM*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Halliburton	13117925	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Altitude	AEP7027SS	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.20	35.20
Stabilizer Description: *8 1/4" Stabilizer*	DTI	DR14156	4 1/2" IF Box	4 1/2" IF Pin	2.688	6.750		4.21	39.41
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-124NM	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		2.28	41.69
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR27268	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.35	72.04
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR4574	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		28.77	100.81
Crossover Sub Description: *X-Over (4 1/2 IF Pin - 4 1/2 XH Box)*, Type: *Steel*	DTI	DR33920	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.750		2.82	103.63
Drill Collar Description: *6.5" DC (18 DC)*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	631.03
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38967	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		4.02	635.05
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1550.82

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	03-23	22:00	00:00	03-24			TIH W/ BHA #4
TIH	8	03-24	00:00	00:15	03-24			TIH W/ BHA #4
Reaming	4	03-24	00:15	00:45	03-24			Reaming Cement, Float, Shoe Track F/ 4771 - T/ 4840 [GPM = 500, RPM = 30]
Rotary Drill	1	03-24	00:45	01:15	03-24	4840.00	4942.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *25.00*, Surface RPM: *50*, Surface Torque (ft lbf): *9000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	01:15	01:20	03-24	4942.00	4942.00	Inclination (°): *1.450*, Azimuth (°): *279.380*, TVD (ft): *4876.84*, Dogleg (º/100 ft): *0.14*, Sensor Depth (ft): *4878.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	01:20	01:40	03-24	4942.00	5036.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *25.00*, Surface RPM: *50*, Surface Torque (ft lbf): *9000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	01:40	01:45	03-24	5036.00	5036.00	Inclination (°): *1.270*, Azimuth (°): *283.860*, TVD (ft): *4970.81*, Dogleg (º/100 ft): *0.22*, Sensor Depth (ft): *4972.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	01:45	02:05	03-24	5036.00	5131.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *25.00*, Surface RPM: *50*, Surface Torque (ft lbf): *9000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	02:05	02:10	03-24	5131.00	5131.00	Inclination (°): *1.540*, Azimuth (°): *281.490*, TVD (ft): *5065.78*, Dogleg (º/100 ft): *0.29*, Sensor Depth (ft): *5067.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	02:10	02:30	03-24	5131.00	5225.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *25.00*, Surface RPM: *50*, Surface Torque (ft lbf): *9000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	02:30	02:35	03-24	5225.00	5225.00	Inclination (°): *1.450*, Azimuth (°): *296.780*, TVD (ft): *5159.75*, Dogleg (º/100 ft): *0.43*, Sensor Depth (ft): *5161.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	02:35	02:55	03-24	5225.00	5319.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *25.00*, Surface RPM: *50*, Surface Torque (ft lbf): *9000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	02:55	03:00	03-24	5319.00	5319.00	Inclination (°): *1.410*, Azimuth (°): *295.460*, TVD (ft): *5253.72*, Dogleg (º/100 ft): *0.06*, Sensor Depth (ft): *5255.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	03:00	03:20	03-24	5319.00	5414.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	03:20	03:25	03-24	5414.00	5414.00	Inclination (°): *1.710*, Azimuth (°): *283.510*, TVD (ft): *5348.69*, Dogleg (º/100 ft): *0.46*, Sensor Depth (ft): *5350.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	03:25	03:45	03-24	5414.00	5508.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	03:45	03:50	03-24	5508.00	5508.00	Inclination (°): *1.800*, Azimuth (°): *282.280*, TVD (ft): *5442.64*, Dogleg (º/100 ft): *0.10*, Sensor Depth (ft): *5444.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	03:50	04:10	03-24	5508.00	5602.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	04:10	04:15	03-24	5602.00	5602.00	Inclination (°): *1.580*, Azimuth (°): *290.890*, TVD (ft): *5536.60*, Dogleg (º/100 ft): *0.36*, Sensor Depth (ft): *5538.00*, Bit To Sensor (ft): *64.00*
Slide Drill	2	03-24	04:15	04:30	03-24	5602.00	5622.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *231*, Toolface: *100*, Toolface Type: *magnetic*
Rotary Drill	1	03-24	04:30	04:50	03-24	5622.00	5697.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	04:50	04:55	03-24	5697.00	5697.00	Inclination (°): *1.230*, Azimuth (°): *252.830*, TVD (ft): *5631.58*, Dogleg (º/100 ft): *1.03*, Sensor Depth (ft): *5633.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	04:55	05:20	03-24	5697.00	5791.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	05:20	05:25	03-24	5791.00	5791.00	Inclination (°): *1.010*, Azimuth (°): *234.640*, TVD (ft): *5725.56*, Dogleg (º/100 ft): *0.44*, Sensor Depth (ft): *5727.00*, Bit To Sensor (ft): *64.00*
Slide Drill	2	03-24	05:25	05:35	03-24	5791.00	5811.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *231*, Toolface: *90*, Toolface Type: *magnetic*
Rotary Drill	1	03-24	05:35	05:55	03-24	5811.00	5885.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	05:55	06:00	03-24	5885.00	5885.00	Inclination (°): *1.270*, Azimuth (°): *209.590*, TVD (ft): *5819.54*, Dogleg (º/100 ft): *0.59*, Sensor Depth (ft): *5821.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	06:00	06:30	03-24	5885.00	5980.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	06:30	06:35	03-24	5980.00	5980.00	Inclination (°): *1.630*, Azimuth (°): *204.840*, TVD (ft): *5914.51*, Dogleg (º/100 ft): *0.40*, Sensor Depth (ft): *5916.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	06:35	07:00	03-24	5980.00	6074.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	07:00	07:05	03-24	6074.00	6074.00	Inclination (°): *1.270*, Azimuth (°): *206.160*, TVD (ft): *6008.48*, Dogleg (º/100 ft): *0.38*, Sensor Depth (ft): *6010.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	07:05	07:45	03-24	6074.00	6168.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	07:45	07:50	03-24	6168.00	6168.00	Inclination (°): *1.630*, Azimuth (°): *205.720*, TVD (ft): *6102.45*, Dogleg (º/100 ft): *0.38*, Sensor Depth (ft): *6104.00*, Bit To Sensor (ft): *64.00*

Rotary Drill	1	03-24	07:50	07:55	03-24	6168.00	6181.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Slide Drill	2	03-24	07:55	08:05	03-24	6181.00	6201.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *231*, Toolface: *300*, Toolface Type: *magnetic*
Rotary Drill	1	03-24	08:05	08:15	03-24	6201.00	6263.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	08:15	08:20	03-24	6263.00	6263.00	Inclination (°): *1.630*, Azimuth (°): *241.140*, TVD (ft): *6197.41*, Dogleg (º/100 ft): *1.04*, Sensor Depth (ft): *6199.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	08:20	08:30	03-24	6263.00	6357.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	08:30	08:35	03-24	6357.00	6357.00	Inclination (°): *1.360*, Azimuth (°): *252.310*, TVD (ft): *6291.38*, Dogleg (º/100 ft): *0.42*, Sensor Depth (ft): *6293.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	08:35	08:50	03-24	6357.00	6452.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	08:50	08:55	03-24	6452.00	6452.00	Inclination (°): *1.270*, Azimuth (°): *243.340*, TVD (ft): *6386.36*, Dogleg (º/100 ft): *0.24*, Sensor Depth (ft): *6388.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	08:55	09:05	03-24	6452.00	6546.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	09:05	09:10	03-24	6546.00	6546.00	Inclination (°): *1.140*, Azimuth (°): *249.320*, TVD (ft): *6480.34*, Dogleg (º/100 ft): *0.19*, Sensor Depth (ft): *6482.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	09:10	09:20	03-24	6546.00	6640.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	09:20	09:25	03-24	6640.00	6640.00	Inclination (°): *1.320*, Azimuth (°): *236.400*, TVD (ft): *6574.31*, Dogleg (º/100 ft): *0.35*, Sensor Depth (ft): *6576.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	09:25	09:30	03-24	6640.00	6650.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Slide Drill	2	03-24	09:30	09:40	03-24	6650.00	6665.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *231*, Toolface: *325*, Toolface Type: *magnetic*
Rotary Drill	1	03-24	09:40	09:50	03-24	6665.00	6734.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	09:50	09:55	03-24	6734.00	6734.00	Inclination (°): *1.580*, Azimuth (°): *275.070*, TVD (ft): *6668.29*, Dogleg (º/100 ft): *1.05*, Sensor Depth (ft): *6670.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	09:55	10:05	03-24	6734.00	6829.00	Pressure On (psi): *3600.00*, Pressure Off (psi): *2900.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	10:05	10:10	03-24	6829.00	6829.00	Inclination (°): *2.020*, Azimuth (°): *277.970*, TVD (ft): *6763.24*, Dogleg (º/100 ft): *0.47*, Sensor Depth (ft): *6765.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	10:10	10:20	03-24	6829.00	6924.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	10:20	10:25	03-24	6924.00	6924.00	Inclination (°): *1.890*, Azimuth (°): *276.830*, TVD (ft): *6858.18*, Dogleg (º/100 ft): *0.14*, Sensor Depth (ft): *6860.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	10:25	10:45	03-24	6924.00	7018.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	10:45	10:50	03-24	7018.00	7018.00	Inclination (°): *1.410*, Azimuth (°): *264.080*, TVD (ft): *6952.14*, Dogleg (º/100 ft): *0.64*, Sensor Depth (ft): *6954.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	10:50	11:05	03-24	7018.00	7113.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	11:05	11:10	03-24	7113.00	7113.00	Inclination (°): *1.360*, Azimuth (°): *258.110*, TVD (ft): *7047.12*, Dogleg (º/100 ft): *0.16*, Sensor Depth (ft): *7049.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	11:10	11:20	03-24	7113.00	7207.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	11:20	11:25	03-24	7207.00	7207.00	Inclination (°): *1.490*, Azimuth (°): *260.570*, TVD (ft): *7141.09*, Dogleg (º/100 ft): *0.15*, Sensor Depth (ft): *7143.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	11:25	11:35	03-24	7207.00	7301.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	11:35	11:40	03-24	7301.00	7301.00	Inclination (°): *1.450*, Azimuth (°): *254.850*, TVD (ft): *7235.06*, Dogleg (º/100 ft): *0.16*, Sensor Depth (ft): *7237.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	11:40	11:55	03-24	7301.00	7396.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	11:55	12:00	03-24	7396.00	7396.00	Inclination (°): *1.230*, Azimuth (°): *264.170*, TVD (ft): *7330.03*, Dogleg (º/100 ft): *0.33*, Sensor Depth (ft): *7332.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	12:00	12:15	03-24	7396.00	7490.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	12:15	12:20	03-24	7490.00	7490.00	Inclination (°): *1.270*, Azimuth (°): *260.130*, TVD (ft): *7424.01*, Dogleg (º/100 ft): *0.10*, Sensor Depth (ft): *7426.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	12:20	12:25	03-24	7490.00	7500.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Slide Drill	2	03-24	12:25	12:35	03-24	7500.00	7515.00	Pressure On (psi): *3450.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234*, Toolface: *80*, Toolface Type: *magnetic*

Rotary Drill	1	03-24	12:35	12:45	03-24	7515.00	7584.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	12:45	12:50	03-24	7584.00	7584.00	Inclination (°): *0.570*, Azimuth (°): *293.170*, TVD (ft): *7518.00*, Dogleg (º/100 ft): *0.91*, Sensor Depth (ft): *7520.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	12:50	13:15	03-24	7584.00	7679.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	13:15	13:20	03-24	7679.00	7679.00	Inclination (°): *0.000*, Azimuth (°): *194.300*, TVD (ft): *7612.99*, Dogleg (º/100 ft): *0.60*, Sensor Depth (ft): *7615.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	13:20	13:45	03-24	7679.00	7773.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	13:45	13:50	03-24	7773.00	7773.00	Inclination (°): *0.090*, Azimuth (°): *267.510*, TVD (ft): *7706.99*, Dogleg (º/100 ft): *0.10*, Sensor Depth (ft): *7709.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	13:50	14:10	03-24	7773.00	7867.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	14:10	14:25	03-24	7867.00	7867.00	Inclination (°): *0.400*, Azimuth (°): *200.270*, TVD (ft): *7800.99*, Dogleg (º/100 ft): *0.40*, Sensor Depth (ft): *7803.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	14:25	14:40	03-24	7867.00	7961.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Rig Service - In Hole	19	03-24	14:40	15:00	03-24			Rig Service
Survey	46	03-24	15:00	15:05	03-24	7961.00	7961.00	Inclination (°): *0.660*, Azimuth (°): *192.800*, TVD (ft): *7894.99*, Dogleg (º/100 ft): *0.29*, Sensor Depth (ft): *7897.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	15:05	15:30	03-24	7961.00	8056.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	15:30	15:35	03-24	8056.00	8056.00	Inclination (°): *0.570*, Azimuth (°): *160.720*, TVD (ft): *7989.98*, Dogleg (º/100 ft): *0.37*, Sensor Depth (ft): *7992.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	15:35	15:55	03-24	8056.00	8150.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	15:55	16:00	03-24	8150.00	8150.00	Inclination (°): *0.790*, Azimuth (°): *178.740*, TVD (ft): *8083.98*, Dogleg (º/100 ft): *0.32*, Sensor Depth (ft): *8086.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	16:00	16:30	03-24	8150.00	8245.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	16:30	16:35	03-24	8245.00	8245.00	Inclination (°): *0.970*, Azimuth (°): *181.290*, TVD (ft): *8178.97*, Dogleg (º/100 ft): *0.19*, Sensor Depth (ft): *8181.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	16:35	16:45	03-24	8245.00	8257.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Slide Drill	2	03-24	16:45	17:00	03-24	8257.00	8272.00	Pressure On (psi): *350.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *40.00*, Flow Rate (gpm): *733.00*, Strokes Per Minute: *228*, Toolface: *45*, Toolface Type: *magnetic*
Rotary Drill	1	03-24	17:00	17:15	03-24	8272.00	8339.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	17:15	17:20	03-24	8339.00	8339.00	Inclination (°): *0.440*, Azimuth (°): *142.440*, TVD (ft): *8272.96*, Dogleg (º/100 ft): *0.73*, Sensor Depth (ft): *8275.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	17:20	18:00	03-24	8339.00	8434.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	18:00	18:05	03-24	8434.00	8434.00	Inclination (°): *0.440*, Azimuth (°): *93.490*, TVD (ft): *8367.96*, Dogleg (º/100 ft): *0.38*, Sensor Depth (ft): *8370.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	18:05	19:25	03-24	8434.00	8528.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	19:25	19:30	03-24	8528.00	8528.00	Inclination (°): *0.660*, Azimuth (°): *100.260*, TVD (ft): *8461.95*, Dogleg (º/100 ft): *0.24*, Sensor Depth (ft): *8464.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	19:30	20:15	03-24	8528.00	8622.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	20:15	20:20	03-24	8622.00	8622.00	Inclination (°): *0.620*, Azimuth (°): *146.050*, TVD (ft): *8555.95*, Dogleg (º/100 ft): *0.53*, Sensor Depth (ft): *8558.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	20:20	21:05	03-24	8622.00	8717.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *80*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	21:05	21:10	03-24	8717.00	8717.00	Inclination (°): *0.400*, Azimuth (°): *132.340*, TVD (ft): *8650.94*, Dogleg (º/100 ft): *0.26*, Sensor Depth (ft): *8653.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	21:10	21:50	03-24	8717.00	8811.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	21:50	21:55	03-24	8811.00	8811.00	Inclination (°): *0.480*, Azimuth (°): *216.360*, TVD (ft): *8744.94*, Dogleg (º/100 ft): *0.63*, Sensor Depth (ft): *8747.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	21:55	22:25	03-24	8811.00	8905.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	22:25	22:30	03-24	8905.00	8905.00	Inclination (°): *0.400*, Azimuth (°): *230.160*, TVD (ft): *8838.94*, Dogleg (º/100 ft): *0.14*, Sensor Depth (ft): *8841.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	22:30	23:00	03-24	8905.00	9000.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*

Survey	46	03-24	23:00	23:05	03-24	9000.00	9000.00	Inclination (°): *0.700*, Azimuth (°): *138.660*, TVD (ft): *8933.94*, Dogleg (º/100 ft): *0.86*, Sensor Depth (ft): *8936.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	23:05	23:40	03-24	9000.00	9094.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-24	23:40	23:45	03-24	9094.00	9094.00	Inclination (°): *0.750*, Azimuth (°): *149.830*, TVD (ft): *9027.93*, Dogleg (º/100 ft): *0.16*, Sensor Depth (ft): *9030.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-24	23:45	00:00	03-25	9094.00	9141.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Mar 25 00:00 - 23:59 (Day 12 of 45)

Billing: $9,100.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	9141.00	**Downhole Hours**	24.00
Bit Depth (ft)	10290.00	**Drilling Hours**	8.25
Bottom Hole Depth (ft)	10290.00	**Hours Circulating**	1.92
Total Distance (ft)	1149.00	**Hours Sliding**	1.42
Distance Rotated (ft)	1076.00	**Hours Rotating**	6.83
Distance Slid (ft)	73.00		
Inclination In	0.31		
Inclination Out	1.32		
Azimuth In	158.26	**% Hours Rotating**	83%
Azimuth Out	326.49	**% Hours Sliding**	17%
AVG Total ROP (ft/h)	140.71	**% Distance Sliding**	6%
AVG Rotating ROP (ft/h)	158.54	**% Distance Rotating**	94%
AVG Sliding ROP (ft/h)	51.53		

Drilling Parameters

Rotating WOB (klbs)	45.00 - 50.00
Sliding WOB (klbs)	35.00 - 35.00
Rotating SPM	227.00 - 234.00
Sliding SPM	231.00 - 231.00
Motor RPM	190.00 - 195.00
Surface RPM	30.00 - 40.00
Flow Rate (gpm)	730.00 - 750.00
On Bottom Pressure (psi)	3500.00 - 4000.00
Off Bottom Pressure (psi)	3000.00 - 3300.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #5 - BHA #5 (2nd Intermediate)

Date In: Mar 23, 2019, 21:30 Date Out: Mar 25, 2019, 9:30

Bit Details

OD (in)	8.500
Vendor	Halliburton
S/N	13117925
Nozzles	6 x 12
Total Flow Area (in²)	0.663
Drilling Hours for Day	3.42
Total Drilled for Day (ft)	345.00
Drilling Hours for BHA	22.42
Total Drilled for BHA (ft)	4646.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.5
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.125

Bit Distances

Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft

Directional Comments

7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13117925, Jets: 6x12's, TFA: 0.663 Runs on Bit: 1

MWD Comments

POOH Reason

Penetration Rate: Low ROP, C/O Bit

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *Security MM65DRM*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Halliburton	13117925	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Altitude	AEP7027SS	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.20	35.20
Stabilizer Description: *8 1/4" Stabilizer*	DTI	DR14156	4 1/2" IF Box	4 1/2" IF Pin	2.688	6.750		4.21	39.41
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-124NM	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		2.28	41.69
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR27268	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.35	72.04
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR4574	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		28.77	100.81
Crossover Sub Description: *X-Over (4 1/2 IF Pin - 4 1/2 XH Box)*, Type: *Steel*	DTI	DR33920	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.750		2.82	103.63
Drill Collar Description: *6.5" DC (18 DC)*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	631.03
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38967	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		4.02	635.05
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1550.82

MWD Items

No Items

BHA #6 - BHA #6 (2nd Intermediate)

Date In: Mar 25, 2019, 9:30 Date Out: Mar 26, 2019, 6:30

Bit Details

OD (in)	8.500
Vendor	Halliburton
S/N	13133077
Nozzles	6 x 12
Total Flow Area (in²)	0.663
Drilling Hours for Day	4.83
Total Drilled for Day (ft)	804.00
Drilling Hours for BHA	4.83
Total Drilled for BHA (ft)	804.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.5
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.125

Bit Distances

Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft

Directional Comments

7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13133077, Jets: 6x12's, TFA: 0.663 Runs on Bit: 0

MWD Comments

POOH Reason

Total Depth/Casing Point: DT @ KOP

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *Security MM65DRM*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Halliburton	13133077	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Altitude	AEP7027SS	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.20	35.20
Stabilizer Description: *8 1/4" Stabilizer*	DTI	DR14156	4 1/2" IF Box	4 1/2" IF Pin	2.688	6.750		4.21	39.41
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-124NM	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		2.28	41.69
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR27268	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.35	72.04
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR4574	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		28.77	100.81
Crossover Sub Description: *X-Over (4 1/2 IF Pin - 4 1/2 XH Box)*, Type: *Steel*	DTI	DR33920	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.750		2.82	103.63
Drill Collar Description: *6.5" DC (18 DC)*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	631.03
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38967	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		4.02	635.05
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1550.82

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	03-24	23:45	00:00	03-25	9094.00	9141.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Rotary Drill	1	03-25	00:00	00:15	03-25	9141.00	9188.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-25	00:15	00:20	03-25	9188.00	9188.00	Inclination (°): *0.310*, Azimuth (°): *158.260*, TVD (ft): *9121.92*, Dogleg (º/100 ft): *0.47*, Sensor Depth (ft): *9124.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	00:20	00:50	03-25	9188.00	9283.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-25	00:50	00:55	03-25	9283.00	9283.00	Inclination (°): *0.660*, Azimuth (°): *239.830*, TVD (ft): *9216.92*, Dogleg (º/100 ft): *0.72*, Sensor Depth (ft): *9219.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	00:55	01:20	03-25	9283.00	9377.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-25	01:20	01:25	03-25	9377.00	9377.00	Inclination (°): *1.490*, Azimuth (°): *250.110*, TVD (ft): *9310.90*, Dogleg (º/100 ft): *0.90*, Sensor Depth (ft): *9313.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	01:25	01:30	03-25	9377.00	9385.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Slide Drill	2	03-25	01:30	02:05	03-25	9385.00	9405.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3300.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *231*, Toolface: *70*, Toolface Type: *magnetic*
Rotary Drill	1	03-25	02:05	03:05	03-25	9405.00	9471.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-25	03:05	03:10	03-25	9471.00	9471.00	Inclination (°): *0.970*, Azimuth (°): *246.680*, TVD (ft): *9404.88*, Dogleg (º/100 ft): *0.56*, Sensor Depth (ft): *9407.00*, Bit To Sensor (ft): *64.00*

Rotary Drill	1	03-25	03:10	03:45	03-25	9471.00	9486.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Circulating	3	03-25	03:45	04:30	03-25			Circulate
Pooh	7	03-25	04:30	09:00	03-25			POOH for New Bit
Change BHA	6	03-25	09:00	09:30	03-25			C/O Bit , Rerun motor
Circulating	3	03-25	09:30	09:45	03-25			Shallow Test MWD (good)
TIH	8	03-25	09:45	12:45	03-25			TIH to 4750'
Other	16	03-25	12:45	15:00	03-25			Slip & Cut Drill Line
TIH	8	03-25	15:00	17:30	03-25			TIH W/ BHA #5
Slide Drill	2	03-25	17:30	17:45	03-25	9486.00	9506.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3300.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *231*, Toolface: *45*, Toolface Type: *magnetic*
Rotary Drill	1	03-25	17:45	18:05	03-25	9506.00	9565.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-25	18:05	18:10	03-25	9565.00	9565.00	Inclination (°): *0.530*, Azimuth (°): *31.610*, TVD (ft): *9498.88*, Dogleg (º/100 ft): *1.53*, Sensor Depth (ft): *9501.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	18:10	18:30	03-25	9565.00	9660.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Survey	46	03-25	18:30	18:35	03-25	9660.00	9660.00	Inclination (°): *1.800*, Azimuth (°): *3.400*, TVD (ft): *9593.86*, Dogleg (º/100 ft): *1.43*, Sensor Depth (ft): *9596.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	18:35	18:40	03-25	9660.00	9677.00	Pressure On (psi): *3900.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *234.00*
Slide Drill	2	03-25	18:40	18:55	03-25	9677.00	9687.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3300.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *231*, Toolface: *60*, Toolface Type: *magnetic*
Rotary Drill	1	03-25	18:55	19:10	03-25	9687.00	9754.00	
Survey	46	03-25	19:10	19:15	03-25	9754.00	9754.00	Inclination (°): *1.980*, Azimuth (°): *19.570*, TVD (ft): *9687.81*, Dogleg (º/100 ft): *0.60*, Sensor Depth (ft): *9690.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	19:15	19:35	03-25	9754.00	9848.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *30*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *730.00*, Strokes Per Minute: *227.00*
Survey	46	03-25	19:35	19:40	03-25	9848.00	9848.00	Inclination (°): *1.490*, Azimuth (°): *6.740*, TVD (ft): *9781.76*, Dogleg (º/100 ft): *0.66*, Sensor Depth (ft): *9784.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	19:40	20:00	03-25	9848.00	9942.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *30*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *730.00*, Strokes Per Minute: *227.00*
Survey	46	03-25	20:00	20:05	03-25	9942.00	9942.00	Inclination (°): *1.100*, Azimuth (°): *5.510*, TVD (ft): *9875.74*, Dogleg (º/100 ft): *0.42*, Sensor Depth (ft): *9878.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	20:05	20:10	03-25	9942.00	9964.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *30*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *730.00*, Strokes Per Minute: *227.00*
Slide Drill	2	03-25	20:10	20:30	03-25	9964.00	9987.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3300.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *231*, Toolface: *60*, Toolface Type: *magnetic*
Rotary Drill	1	03-25	20:30	20:50	03-25	9987.00	10036.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *30*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *730.00*, Strokes Per Minute: *227.00*
Survey	46	03-25	20:50	20:55	03-25	10036.00	10036.00	Inclination (°): *1.760*, Azimuth (°): *3.580*, TVD (ft): *9969.71*, Dogleg (º/100 ft): *0.70*, Sensor Depth (ft): *9972.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	20:55	21:30	03-25	10036.00	10130.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *30*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *730.00*, Strokes Per Minute: *227.00*
Survey	46	03-25	21:30	21:35	03-25	10130.00	10130.00	Inclination (°): *1.450*, Azimuth (°): *4.370*, TVD (ft): *10063.67*, Dogleg (º/100 ft): *0.33*, Sensor Depth (ft): *10066.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	21:35	22:25	03-25	10130.00	10225.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *30*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *730.00*, Strokes Per Minute: *227.00*
Survey	46	03-25	22:25	22:30	03-25	10225.00	10225.00	Inclination (°): *1.410*, Azimuth (°): *347.580*, TVD (ft): *10158.64*, Dogleg (º/100 ft): *0.44*, Sensor Depth (ft): *10161.00*, Bit To Sensor (ft): *64.00*
Rotary Drill	1	03-25	22:30	23:00	03-25	10225.00	10290.00	Pressure On (psi): *4000.00*, Pressure Off (psi): *3200.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *30*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *730.00*, Strokes Per Minute: *227.00*
Survey	46	03-25	23:00	23:05	03-25	10290.00	10290.00	Inclination (°): *1.320*, Azimuth (°): *326.490*, TVD (ft): *10223.63*, Dogleg (º/100 ft): *0.78*, Sensor Depth (ft): *10226.00*, Bit To Sensor (ft): *64.00*
Circulating	3	03-25	23:05	00:00	03-26			Circulate to POOH

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Mar 26 00:00 - 23:59 (Day 13 of 45)

Billing: $9,100.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)		**Downhole Hours**	6.50
Bit Depth (ft)		**Drilling Hours**	0.00
Bottom Hole Depth (ft)		**Hours Circulating**	0.00
Total Distance (ft)	0.00	**Hours Sliding**	0.00
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00
Distance Slid (ft)	0.00		
Inclination In			
Inclination Out			
Azimuth In		**% Hours Rotating**	
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		

Drilling Parameters

Rotating WOB (klbs)	
Sliding WOB (klbs)	
Rotating SPM	
Sliding SPM	
Motor RPM	190.00 - 195.00
Surface RPM	
Flow Rate (gpm)	
On Bottom Pressure (psi)	
Off Bottom Pressure (psi)	

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #6 - BHA #6 (2nd Intermediate)

Date In: Mar 25, 2019, 9:30 Date Out: Mar 26, 2019, 6:30

Bit Details

OD (in)	8.500
Vendor	Halliburton
S/N	13133077
Nozzles	6 x 12
Total Flow Area (in²)	0.663
Drilling Hours for Day	0.00
Total Drilled for Day (ft)	
Drilling Hours for BHA	4.83
Total Drilled for BHA (ft)	804.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.5
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.125

Bit Distances

Bend (Bit to Bend): 4.05 ft, **Survey:** 64.00 ft, **Gamma:** 50.00 ft

Directional Comments

7" Altitude: 1.5 ° FBH 7/8 8.5 Stg. Mtr. w/ 8.25 NBS.Protracted Angle: 1.51°, Flow Rate 500-750, Max Diff 1910 psi, Max Operating Torque: 18,710 ft/lbs, Rev/Gal: .26 / Bit Data: Halliburton 8.5", Type MM65DRM, SN: 13133077, Jets: 6x12's, TFA: 0.663 Runs on Bit: 0

MWD Comments

POOH Reason

Total Depth/Casing Point: DT @ KOP

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *Security MM65DRM*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Halliburton	13133077	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Altitude	AEP7027SS	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.20	35.20
Stabilizer Description: *8 1/4" Stabilizer*	DTI	DR14156	4 1/2" IF Box	4 1/2" IF Pin	2.688	6.750		4.21	39.41
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-124NM	4 1/2" IF Box	4 1/2" IF Pin	2.875	6.750		2.28	41.69
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR27268	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.35	72.04
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR4574	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		28.77	100.81
Crossover Sub Description: *X-Over (4 1/2 IF Pin - 4 1/2 XH Box)*, Type: *Steel*	DTI	DR33920	4 1/2" XH Box	4 1/2" IF Pin	2.875	6.750		2.82	103.63
Drill Collar Description: *6.5" DC (18 DC)*, Style: *Spiral Drill*, Type: *Steel*	Rig	Rig	4 1/2" XH Box	4 1/2" XH Pin	2.875	6.500		527.40	631.03
Crossover Sub Description: *X-Over (4 1/2 XH Pin x 4 1/2 IF Box)*, Type: *Steel*	DTI	DR38967	4 1/2" IF Box	4 1/2" XH Pin	2.875	6.750		4.02	635.05
HWDP Description: *10 Stands HWDP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	2.875	5.000		915.77	1550.82

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	03-25	23:05	00:00	03-26			Circulate to POOH
Pooh	7	03-26	00:00	05:15	03-26			POOH To set Packer
Change BHA	6	03-26	05:15	06:30	03-26			C/O Bit & Motor , Rack back in derrick
Standby	15	03-26	06:30	23:55	03-26			Install Packer, Nipple Down, Skid Rig to Dagger State 503H

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Mar 27 00:00 - 23:59 (Day 14 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Mar 28 00:00 - 23:59 (Day 15 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Mar 29 00:00 - 23:59 (Day 16 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Mar 30 00:00 - 23:59 (Day 17 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Mar 31 00:00 - 23:59 (Day 18 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Apr 01 00:00 - 23:59 (Day 19 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Apr 02 00:00 - 23:59 (Day 20 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Apr 03 00:00 - 23:59 (Day 21 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Apr 04 00:00 - 23:59 (Day 22 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Apr 05 00:00 - 23:59 (Day 23 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Apr 06 00:00 - 23:59 (Day 24 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Apr 07 00:00 - 23:59 (Day 25 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Apr 08 00:00 - 23:59 (Day 26 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Apr 09 00:00 - 23:59 (Day 27 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Apr 10 00:00 - 23:59 (Day 28 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Apr 11 00:00 - 23:59 (Day 29 of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

No BHAs

Directional Activities

No Activities

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Apr 12 00:00 - 23:59 (Day of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	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	04-12	00:00	13:00	04-12			Standby on the 503H
Standby	15	04-12	13:00	13:30	04-12			Standby while Skid Rig
N/U BOP's	25	04-12	13:30	19:00	04-12			
Test BOP's	30	04-12	19:00	00:30	04-13			Finished rigging up BOP then tested BOP

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Apr 13 00:00 - 23:59 (Day 30 of 45)

Billing: $24,100.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	10290.00	**Downhole Hours**	18.50
Bit Depth (ft)	10560.00	**Drilling Hours**	4.67
Bottom Hole Depth (ft)	10560.00	**Hours Circulating**	1.00
Total Distance (ft)	270.00	**Hours Sliding**	3.83
Distance Rotated (ft)	55.00	**Hours Rotating**	0.83
Distance Slid (ft)	215.00		
Inclination In	1.54		
Inclination Out	10.24		
Azimuth In	317.07	**% Hours Rotating**	18%
Azimuth Out	353.81	**% Hours Sliding**	82%
AVG Total ROP (ft/h)	57.86	**% Distance Sliding**	80%
AVG Rotating ROP (ft/h)	66.00	**% Distance Rotating**	20%
AVG Sliding ROP (ft/h)	56.09		

Drilling Parameters

Rotating WOB (klbs)	48.00 - 48.00
Sliding WOB (klbs)	45.00 - 45.00
Rotating SPM	201.00 - 201.00
Sliding SPM	201.00 - 219.00
Motor RPM	175.00 - 175.00
Surface RPM	3511.00 - 3511.00
Flow Rate (gpm)	647.00 - 708.00
On Bottom Pressure (psi)	4100.00 - 4387.00
Off Bottom Pressure (psi)	3500.00 - 4500.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #7 - BHA #7 (Curve)

Date In: Apr 13, 2019, 5:30 Date Out: Apr 15, 2019, 23:30

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	528620
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	4.67
Total Drilled for Day (ft)	270.00
Drilling Hours for BHA	41.17
Total Drilled for BHA (ft)	1895.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 6.9
Bend Angle	2.0
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.188

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 60.00 ft, **Gamma:** 45.00 ft

Directional Comments

7" Crescent : 2.0 ° FBH 7/8 6.9 Stg. Mtr.T Slick .Protracted Angle: 2.03°, Flow Rate 300-700, Max Diff 1960 psi, Max Operating Torque: 19,010 ft/lbs, Rev/Gal: .25 / Bit Data: Baker 8.5", Type DD406TWX, SN: 5286260, Jets: 6x22's, TFA: 2.227 Runs on Bit: 4

MWD Comments

POOH Reason

Change Bottom Hole Assembly: It wasn't drilling as fast as expected. The ROP had slowed way down so the decision was made to POOH and picked up a new bit and motor

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD406TX*, Style: *PDC*, Gauge Length (in): *0.23*, Size (in): *8.50*	Baker	528620	4 1/2" Reg Pin			8.500		0.87	0.87
Mud Motor Description: *2.0° FBH 7/8 6.9 Stg Slick*, Size (in): *7.00*, Bend Angle (°): *2*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *6.9*	Crescent	CD700041	4 1/2" IF Box	4 1/2" Reg Box		7.000		33.04	33.91
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-128NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.55	37.46
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	68.26
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	99.47
Crossover Sub Description: *NMPC*, Type: *NM*	DTI	DR34915	4 1/2" XH Box	4 1/2" IF Pin	3.250	6.500		13.74	113.21

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Test BOP's	30	04-12	19:00	00:30	04-13			Finished rigging up BOP then tested BOP
Standby	15	04-13	00:30	01:00	04-13			Standby while Installing Wear Bushings
Standby	15	04-13	01:00	03:30	04-13			Standby while Retrieving Packer
Change BHA	6	04-13	03:30	05:30	04-13			P/U BHA # 7
TIH	8	04-13	05:30	10:05	04-13			

								TIH W/ BHA #7
Rig Service - In Hole	19	04-13	10:05	11:55	04-13			Cut & Slip Drill Line
TIH	8	04-13	11:55	18:00	04-13			TIH W/ BHA #7
Circulating	3	04-13	18:00	19:00	04-13			Relog Gamma
Rotary Drill	1	04-13	19:00	19:50	04-13	10290.00	10345.00	Pressure On (psi): *4350.00*, Pressure Off (psi): *4500.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *3511*, Surface Torque (ft lbf): *11000.00*, Flow Rate (gpm): *647.00*, Strokes Per Minute: *201.00*
Slide Drill	2	04-13	19:50	20:35	04-13	10345.00	10394.00	Pressure On (psi): *4100.00*, Pressure Off (psi): *3500.00*, Weight On Bit (klbs): *45.00*, Flow Rate (gpm): *647.00*, Strokes Per Minute: *201*, Toolface: *0*, Toolface Type: *magnetic*
Survey	46	04-13	20:35	20:45	04-13	10394.00	10394.00	Inclination (°): *1.540*, Azimuth (°): *317.070*, TVD (ft): *10331.59*, Dogleg (º/100 ft): *0.30*, Sensor Depth (ft): *10334.00*, Bit To Sensor (ft): *60.00*
Slide Drill	2	04-13	20:45	22:45	04-13	10394.00	10489.00	Pressure On (psi): *4105.00*, Pressure Off (psi): *3800.00*, Weight On Bit (klbs): *45.00*, Flow Rate (gpm): *708.00*, Strokes Per Minute: *219*, Toolface: *10*, Toolface Type: *magnetic*
Survey	46	04-13	22:45	22:55	04-13	10489.00	10489.00	Inclination (°): *10.240*, Azimuth (°): *353.810*, TVD (ft): *10426.01*, Dogleg (º/100 ft): *9.53*, Sensor Depth (ft): *10429.00*, Bit To Sensor (ft): *60.00*
Slide Drill	2	04-13	22:55	00:00	04-14	10489.00	10560.00	Pressure On (psi): *4387.00*, Pressure Off (psi): *3860.00*, Weight On Bit (klbs): *45.00*, Flow Rate (gpm): *708.00*, Strokes Per Minute: *219*, Toolface: *355*, Toolface Type: *gravity*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Apr 14 00:00 - 23:59 (Day 31 of 45)

Billing: $8,100.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	10560.00	**Downhole Hours**	24.00
Bit Depth (ft)	11550.00	**Drilling Hours**	21.75
Bottom Hole Depth (ft)	11550.00	**Hours Circulating**	0.00
Total Distance (ft)	990.00	**Hours Sliding**	12.83
Distance Rotated (ft)	450.00	**Hours Rotating**	8.92
Distance Slid (ft)	540.00		
Inclination In	22.59		
Inclination Out	92.22		
Azimuth In	349.42	**% Hours Rotating**	41%
Azimuth Out	358.82	**% Hours Sliding**	59%
AVG Total ROP (ft/h)	46.47	**% Distance Sliding**	55%
AVG Rotating ROP (ft/h)	50.47	**% Distance Rotating**	45%
AVG Sliding ROP (ft/h)	43.90		

Drilling Parameters

Rotating WOB (klbs)	45.00 - 50.00
Sliding WOB (klbs)	45.00 - 48.00
Rotating SPM	219.00 - 219.00
Sliding SPM	219.00 - 219.00
Motor RPM	175.00 - 175.00
Surface RPM	20.00 - 40.00
Flow Rate (gpm)	706.00 - 709.00
On Bottom Pressure (psi)	4070.00 - 4400.00
Off Bottom Pressure (psi)	3830.00 - 3900.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #7 - BHA #7 (Curve)

Date In: Apr 13, 2019, 5:30 Date Out: Apr 15, 2019, 23:30

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	528620
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	21.75
Total Drilled for Day (ft)	990.00
Drilling Hours for BHA	41.17
Total Drilled for BHA (ft)	1895.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 6.9
Bend Angle	2.0
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.188

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 60.00 ft, **Gamma:** 45.00 ft

Directional Comments

7" Crescent : 2.0 ° FBH 7/8 6.9 Stg. Mtr.T Slick .Protracted Angle: 2.03°, Flow Rate 300-700, Max Diff 1960 psi, Max Operating Torque: 19,010 ft/lbs, Rev/Gal: .25 / Bit Data: Baker 8.5", Type DD406TWX, SN: 5286260, Jets: 6x22's, TFA: 2.227 Runs on Bit: 4

MWD Comments

POOH Reason

Change Bottom Hole Assembly: It wasn't drilling as fast as expected. The ROP had slowed way down so the decision was made to POOH and picked up a new bit and motor

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD406TX*, Style: *PDC*, Gauge Length (in): *0.23*, Size (in): *8.50*	Baker	528620	4 1/2" Reg Pin			8.500		0.87	0.87
Mud Motor Description: *2.0° FBH 7/8 6.9 Stg Slick*, Size (in): *7.00*, Bend Angle (°): *2*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *6.9*	Crescent	CD700041	4 1/2" IF Box	4 1/2" Reg Box		7.000		33.04	33.91
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-128NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.55	37.46
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	68.26
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	99.47
Crossover Sub Description: *NMPC*, Type: *NM*	DTI	DR34915	4 1/2" XH Box	4 1/2" IF Pin	3.250	6.500		13.74	113.21

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Slide Drill	2	04-13	22:55	00:00	04-14	10489.00	10560.00	Pressure On (psi): *4387.00*, Pressure Off (psi): *3860.00*, Weight On Bit (klbs): *45.00*, Flow Rate (gpm): *708.00*, Strokes Per Minute: *219*, Toolface: *355*, Toolface Type: *gravity*

Slide Drill	2	04-14	00:00	00:15	04-14	10560.00	10583.00	Pressure On (psi): *4387.00*, Pressure Off (psi): *3860.00*, Weight On Bit (klbs): *45.00*, Flow Rate (gpm): *708.00*, Strokes Per Minute: *219*, Toolface: *355*, Toolface Type: *gravity*
Survey	46	04-14	00:15	00:25	04-14	10583.00	10583.00	Inclination (°): *22.590*, Azimuth (°): *349.420*, TVD (ft): *10516.01*, Dogleg (º/100 ft): *13.20*, Sensor Depth (ft): *10523.00*, Bit To Sensor (ft): *60.00*
Slide Drill	2	04-14	00:25	01:35	04-14	10583.00	10678.00	Pressure On (psi): *4200.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *45.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219*, Toolface: *22*, Toolface Type: *gravity*
Survey	46	04-14	01:35	01:45	04-14	10678.00	10678.00	Inclination (°): *32.260*, Azimuth (°): *348.180*, TVD (ft): *10600.24*, Dogleg (º/100 ft): *10.20*, Sensor Depth (ft): *10618.00*, Bit To Sensor (ft): *60.00*
Slide Drill	2	04-14	01:45	02:55	04-14	10678.00	10772.00	Pressure On (psi): *4280.00*, Pressure Off (psi): *3900.00*, Weight On Bit (klbs): *48.00*, Flow Rate (gpm): *708.00*, Strokes Per Minute: *219*, Toolface: *45*, Toolface Type: *gravity*
Survey	46	04-14	02:55	03:05	04-14	10772.00	10772.00	Inclination (°): *41.360*, Azimuth (°): *358.290*, TVD (ft): *10675.48*, Dogleg (º/100 ft): *11.60*, Sensor Depth (ft): *10712.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-14	03:05	03:25	04-14	10772.00	10797.00	Pressure On (psi): *4400.00*, Pressure Off (psi): *3900.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *20*, Surface Torque (ft lbf): *12.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-14	03:25	04:50	04-14	10797.00	10867.00	Toolface: *20*, Toolface Type: *gravity*
Survey	46	04-14	04:50	05:00	04-14	10867.00	10867.00	Inclination (°): *52.400*, Azimuth (°): *0.230*, TVD (ft): *10740.32*, Dogleg (º/100 ft): *11.72*, Sensor Depth (ft): *10807.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-14	05:00	06:00	04-14	10867.00	10917.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *20*, Surface Torque (ft lbf): *13.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-14	06:00	06:50	04-14	10917.00	10961.00	Pressure On (psi): *4179.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *48.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219*, Toolface: *0*, Toolface Type: *gravity*
Survey	46	04-14	06:50	07:00	04-14	10961.00	10961.00	Inclination (°): *59.820*, Azimuth (°): *4.000*, TVD (ft): *10792.71*, Dogleg (º/100 ft): *8.56*, Sensor Depth (ft): *10901.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-14	07:00	07:50	04-14	10961.00	11016.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *20*, Surface Torque (ft lbf): *13.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-14	07:50	08:20	04-14	11016.00	11028.00	Pressure On (psi): *4179.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *48.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	04-14	08:20	09:05	04-14	11028.00	11056.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *20*, Surface Torque (ft lbf): *13.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Survey	46	04-14	09:05	09:15	04-14	11056.00	11056.00	Inclination (°): *65.930*, Azimuth (°): *4.000*, TVD (ft): *10836.01*, Dogleg (º/100 ft): *6.43*, Sensor Depth (ft): *10996.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-14	09:15	10:20	04-14	11056.00	11119.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *20*, Surface Torque (ft lbf): *13.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-14	10:20	11:15	04-14	11119.00	11150.00	Pressure On (psi): *4179.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *48.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219*, Toolface: *330*, Toolface Type: *gravity*
Survey	46	04-14	11:15	11:25	04-14	11150.00	11150.00	Inclination (°): *66.860*, Azimuth (°): *4.090*, TVD (ft): *10873.65*, Dogleg (º/100 ft): *0.99*, Sensor Depth (ft): *11090.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-14	11:25	11:35	04-14	11150.00	11160.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *20*, Surface Torque (ft lbf): *13.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-14	11:35	14:10	04-14	11160.00	11245.00	Pressure On (psi): *4179.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *48.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219*, Toolface: *345*, Toolface Type: *gravity*
Survey	46	04-14	14:10	14:15	04-14	11245.00	11245.00	Inclination (°): *73.410*, Azimuth (°): *1.630*, TVD (ft): *10905.92*, Dogleg (º/100 ft): *7.31*, Sensor Depth (ft): *11185.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-14	14:15	14:25	04-14	11245.00	11255.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *20*, Surface Torque (ft lbf): *13.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-14	14:25	16:15	04-14	11255.00	11301.00	Pressure On (psi): *4179.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *48.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	04-14	16:15	16:40	04-14	11301.00	11339.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *20*, Surface Torque (ft lbf): *13.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Survey	46	04-14	16:40	16:45	04-14	11339.00	11339.00	Inclination (°): *83.430*, Azimuth (°): *358.640*, TVD (ft): *10924.76*, Dogleg (º/100 ft): *11.10*, Sensor Depth (ft): *11279.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-14	16:45	17:00	04-14	11339.00	11349.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *20*, Surface Torque (ft lbf): *13.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-14	17:00	18:00	04-14	11349.00	11370.00	Pressure On (psi): *4179.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *48.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219*, Toolface: *20*, Toolface Type: *gravity*
Rotary Drill	1	04-14	18:00	19:20	04-14	11370.00	11434.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Survey	46	04-14	19:20	19:25	04-14	11434.00	11434.00	Inclination (°): *89.410*, Azimuth (°): *359.350*, TVD (ft): *10930.69*, Dogleg (º/100 ft): *6.34*, Sensor Depth (ft): *11374.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-14	19:25	19:35	04-14	11434.00	11446.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-14	19:35	20:05	04-14	11446.00	11458.00	Pressure On (psi): *4179.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *48.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	04-14	20:05	22:20	04-14	11458.00	11528.00	Pressure On (psi): *4361.00*, Pressure Off (psi): *3830.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219.00*

Rig Service - In Hole	19	04-14	22:20	23:00	04-14			Rlg Service
Survey	46	04-14	23:00	23:10	04-14	11528.00	11528.00	Inclination (°): *92.220*, Azimuth (°): *358.820*, TVD (ft): *10929.36*, Dogleg (º/100 ft): *3.04*, Sensor Depth (ft): *11468.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-14	23:10	23:20	04-14	11528.00	11543.00	Pressure On (psi): *4180.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *30*, Surface Torque (ft lbf): *14.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-14	23:20	00:00	04-15	11543.00	11550.00	Pressure On (psi): *4070.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *170*, Toolface Type: *gravity*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Apr 15 00:00 - 23:59 (Day 32 of 45)

Billing: $8,100.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	11550.00	**Downhole Hours**	25.25
Bit Depth (ft)	12185.00	**Drilling Hours**	14.75
Bottom Hole Depth (ft)	12185.00	**Hours Circulating**	0.83
Total Distance (ft)	635.00	**Hours Sliding**	1.75
Distance Rotated (ft)	602.00	**Hours Rotating**	13.00
Distance Slid (ft)	33.00		
Inclination In	89.85		
Inclination Out	92.75		
Azimuth In	358.56	**% Hours Rotating**	88%
Azimuth Out	0.40	**% Hours Sliding**	12%
AVG Total ROP (ft/h)	41.64	**% Distance Sliding**	5%
AVG Rotating ROP (ft/h)	46.31	**% Distance Rotating**	95%
AVG Sliding ROP (ft/h)	16.55		

Drilling Parameters

Rotating WOB (klbs)	47.00 - 56.00
Sliding WOB (klbs)	46.00 - 46.00
Rotating SPM	219.00 - 219.00
Sliding SPM	219.00 - 219.00
Motor RPM	175.00 - 182.00
Surface RPM	40.00 - 45.00
Flow Rate (gpm)	706.00 - 707.00
On Bottom Pressure (psi)	4070.00 - 4243.00
Off Bottom Pressure (psi)	3870.00 - 3880.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #7 - BHA #7 (Curve)

Date In: Apr 13, 2019, 5:30 Date Out: Apr 15, 2019, 23:30

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	528620
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	14.75
Total Drilled for Day (ft)	635.00
Drilling Hours for BHA	41.17
Total Drilled for BHA (ft)	1895.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 6.9
Bend Angle	2.0
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.188

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 60.00 ft, **Gamma:** 45.00 ft

Directional Comments

7" Crescent : 2.0 ° FBH 7/8 6.9 Stg. Mtr.T Slick .Protracted Angle: 2.03°, Flow Rate 300-700, Max Diff 1960 psi, Max Operating Torque: 19,010 ft/lbs, Rev/Gal: .25 / Bit Data: Baker 8.5", Type DD406TWX, SN: 5286260, Jets: 6x22's, TFA: 2.227 Runs on Bit: 4

MWD Comments

POOH Reason

Change Bottom Hole Assembly: It wasn't drilling as fast as expected. The ROP had slowed way down so the decision was made to POOH and picked up a new bit and motor

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD406TX*, Style: *PDC*, Gauge Length (in): *0.23*, Size (in): *8.50*	Baker	528620	4 1/2" Reg Pin			8.500		0.87	0.87
Mud Motor Description: *2.0 ° FBH 7/8 6.9 Stg Slick*, Size (in): *7.00*, Bend Angle (°): *2*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *6.9*	Crescent	CD700041	4 1/2" IF Box	4 1/2" Reg Box		7.000		33.04	33.91
UBHO Sub Description: *UBHO Sub NM*, Type: *NM*	Aim	675-128NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.55	37.46
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	68.26
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	99.47
Crossover Sub Description: *NMPC*, Type: *NM*	DTI	DR34915	4 1/2" XH Box	4 1/2" IF Pin	3.250	6.500		13.74	113.21

MWD Items

No Items

BHA #8 - BHA #8 Lateral

Date In: Apr 15, 2019, 22:15 Date Out: Apr 17, 2019, 13:45

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5299085
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	
Total Drilled for Day (ft)	
Drilling Hours for BHA	18.33
Total Drilled for BHA (ft)	1303.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.813

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft

Directional Comments

7" Discovery : 1.75 ° FBH 7/8 8.5 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1960 psi, Max Operating Torque: 18710 ft/lbs, Rev/Gal: .26 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299085 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD Comments

POOH Reason

Downhole Motor Incident: Pooh due to motor stalling.

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299085	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.75 ° FBH 7/8 8.5 Stg Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Discovery	700DDS010	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.22	35.30
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	41.08
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	54.82
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	57.62
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	88.42
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	119.63
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2945.63
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2983.43

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Slide Drill	2	04-14	23:20	00:00	04-15	11543.00	11550.00	Pressure On (psi): *4070.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *170*, Toolface Type: *gravity*
Slide Drill	2	04-15	00:00	00:05	04-15	11550.00	11553.00	Pressure On (psi): *4070.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *170*, Toolface Type: *gravity*
Rotary Drill	1	04-15	00:05	02:05	04-15	11553.00	11622.00	Pressure On (psi): *4100.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *45*, Surface Torque (ft lbf): *13.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-15	02:05	02:15	04-15	11622.00	11622.00	Inclination (°): *89.850*, Azimuth (°): *358.560*, TVD (ft): *10927.66*, Dogleg (º/100 ft): *2.54*, Sensor Depth (ft): *11562.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-15	02:15	04:25	04-15	11622.00	11717.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *47.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-15	04:25	04:35	04-15	11717.00	11717.00	Inclination (°): *90.110*, Azimuth (°): *358.380*, TVD (ft): *10927.69*, Dogleg (º/100 ft): *0.33*, Sensor Depth (ft): *11657.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-15	04:35	04:45	04-15	11717.00	11732.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *47.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-15	04:45	05:00	04-15	11732.00	11737.00	Pressure On (psi): *4070.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *10*, Toolface Type: *gravity*
Slide Drill	2	04-15	05:00	05:30	04-15	11737.00	11744.00	Pressure On (psi): *4070.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *45*, Toolface Type: *gravity*
Rotary Drill	1	04-15	05:30	06:55	04-15	11744.00	11812.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *47.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-15	06:55	07:00	04-15	11812.00	11812.00	Inclination (°): *91.470*, Azimuth (°): *359.520*, TVD (ft): *10926.38*, Dogleg (º/100 ft): *1.87*, Sensor Depth (ft): *11752.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-15	07:00	08:55	04-15	11812.00	11906.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *47.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*

Survey	46	04-15	08:55	09:00	04-15	11906.00	11906.00	Inclination (°): *91.820*, Azimuth (°): *359.610*, TVD (ft): *10923.68*, Dogleg (º/100 ft): *0.38*, Sensor Depth (ft): *11846.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-15	09:00	10:55	04-15	11906.00	12001.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-15	10:55	11:00	04-15	12001.00	12001.00	Inclination (°): *92.220*, Azimuth (°): *359.610*, TVD (ft): *10920.34*, Dogleg (º/100 ft): *0.42*, Sensor Depth (ft): *11941.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-15	11:00	12:50	04-15	12001.00	12095.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-15	12:50	12:55	04-15	12095.00	12095.00	Inclination (°): *92.750*, Azimuth (°): *0.400*, TVD (ft): *10916.26*, Dogleg (º/100 ft): *1.01*, Sensor Depth (ft): *12035.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-15	12:55	13:10	04-15	12095.00	12105.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-15	13:10	14:05	04-15	12105.00	12123.00	Pressure On (psi): *4070.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *180*, Toolface Type: *gravity*
Rotary Drill	1	04-15	14:05	15:25	04-15	12123.00	12185.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Circulating	3	04-15	15:25	16:15	04-15			Circ. to POOH for Lateral Assembly / Flow Check
Pooh	7	04-15	16:15	22:10	04-15			Change Bit and Motor
Change BHA	6	04-15	22:10	01:55	04-16			L/D BHA #7 & P/U BHA #8

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Apr 16 00:00 - 23:59 (Day 33 of 45)

Billing: $22,645.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	12185.00	**Downhole Hours**	24.00
Bit Depth (ft)	13170.00	**Drilling Hours**	11.83
Bottom Hole Depth (ft)	13170.00	**Hours Circulating**	0.00
Total Distance (ft)	985.00	**Hours Sliding**	3.58
Distance Rotated (ft)	900.00	**Hours Rotating**	8.25
Distance Slid (ft)	85.00		
Inclination In	90.51		
Inclination Out	90.11		
Azimuth In	1.02	**% Hours Rotating**	70%
Azimuth Out	1.02	**% Hours Sliding**	30%
AVG Total ROP (ft/h)	83.24	**% Distance Sliding**	9%
AVG Rotating ROP (ft/h)	109.09	**% Distance Rotating**	91%
AVG Sliding ROP (ft/h)	23.72		

Drilling Parameters

Rotating WOB (klbs)	38.00 - 48.00
Sliding WOB (klbs)	35.00 - 46.00
Rotating SPM	215.00 - 219.00
Sliding SPM	214.00 - 219.00
Motor RPM	177.00 - 182.00
Surface RPM	35.00 - 49.00
Flow Rate (gpm)	693.00 - 709.00
On Bottom Pressure (psi)	4070.00 - 5766.00
Off Bottom Pressure (psi)	3870.00 - 5000.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #8 - BHA #8 Lateral

Date In: Apr 15, 2019, 22:15 Date Out: Apr 17, 2019, 13:45

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5299085
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	11.83
Total Drilled for Day (ft)	985.00
Drilling Hours for BHA	18.33
Total Drilled for BHA (ft)	1303.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.813

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft

Directional Comments

7" Discovery : 1.75 ° FBH 7/8 8.5 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1960 psi, Max Operating Torque: 18710 ft/lbs, Rev/Gal: .26 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299085 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD Comments

POOH Reason

Downhole Motor Incident: Pooh due to motor stalling.

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299085	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.75 ° FBH 7/8 8.5 Stg Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Discovery	700DDS010	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.22	35.30
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	41.08
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	54.82
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	57.62
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	88.42
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	119.63
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2945.63
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2983.43

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Change BHA	6	04-15	22:10	01:55	04-16			L/D BHA #7 & P/U BHA #8
TIH	8	04-16	01:55	02:20	04-16			TIH W/ BHA #8
Other	16	04-16	02:20	03:00	04-16			Test Agitator
TIH	8	04-16	03:00	11:15	04-16			TIH W/ BHA #8
Rotary Drill	1	04-16	11:15	11:35	04-16	12185.00	12224.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-16	11:35	11:40	04-16	12224.00	12224.00	Inclination (°): *90.510*, Azimuth (°): *1.020*, TVD (ft): *10912.59*, Dogleg (º/100 ft): *1.80*, Sensor Depth (ft): *12164.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	04-16	11:40	12:25	04-16	12224.00	12328.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-16	12:25	12:30	04-16	12328.00	12328.00	Inclination (°): *90.990*, Azimuth (°): *1.020*, TVD (ft): *10911.36*, Dogleg (º/100 ft): *0.51*, Sensor Depth (ft): *12258.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-16	12:30	13:25	04-16	12328.00	12423.00	Pressure On (psi): *4243.00*, Pressure Off (psi): *3880.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *40*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-16	13:25	13:30	04-16	12423.00	12423.00	Inclination (°): *91.520*, Azimuth (°): *1.020*, TVD (ft): *10909.28*, Dogleg (º/100 ft): *0.56*, Sensor Depth (ft): *12353.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-16	13:30	13:40	04-16	12423.00	12433.00	Pressure On (psi): *5650.00*, Pressure Off (psi): *5000.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *35*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-16	13:40	14:25	04-16	12433.00	12455.00	Pressure On (psi): *4070.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *180*, Toolface Type: *gravity*
Rotary Drill	1	04-16	14:25	15:00	04-16	12455.00	12516.00	Pressure On (psi): *5650.00*, Pressure Off (psi): *5000.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *35*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-16	15:00	15:05	04-16	12516.00	12516.00	Inclination (°): *90.730*, Azimuth (°): *1.280*, TVD (ft): *10907.45*, Dogleg (º/100 ft): *0.89*, Sensor Depth (ft): *12446.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-16	15:05	15:40	04-16	12516.00	12611.00	Pressure On (psi): *5650.00*, Pressure Off (psi): *5000.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *35*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-16	15:40	15:45	04-16	12611.00	12611.00	Inclination (°): *90.590*, Azimuth (°): *1.100*, TVD (ft): *10906.36*, Dogleg (º/100 ft): *0.24*, Sensor Depth (ft): *12541.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-16	15:45	16:20	04-16	12611.00	12705.00	Pressure On (psi): *5650.00*, Pressure Off (psi): *5000.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *35*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-16	16:20	16:25	04-16	12705.00	12705.00	Inclination (°): *91.300*, Azimuth (°): *1.280*, TVD (ft): *10904.81*, Dogleg (º/100 ft): *0.78*, Sensor Depth (ft): *12635.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-16	16:25	16:35	04-16	12705.00	12715.00	Pressure On (psi): *5650.00*, Pressure Off (psi): *5000.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *35*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-16	16:35	17:45	04-16	12715.00	12740.00	Pressure On (psi): *4070.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *200*, Toolface Type: *gravity*
Rotary Drill	1	04-16	17:45	18:10	04-16	12740.00	12800.00	Pressure On (psi): *5650.00*, Pressure Off (psi): *5000.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *35*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-16	18:10	18:20	04-16	12800.00	12800.00	Inclination (°): *90.990*, Azimuth (°): *1.370*, TVD (ft): *10902.91*, Dogleg (º/100 ft): *0.34*, Sensor Depth (ft): *12730.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-16	18:20	18:25	04-16	12800.00	12814.00	Pressure On (psi): *5650.00*, Pressure Off (psi): *5000.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *35*, Surface Torque (ft lbf): *16.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-16	18:25	18:40	04-16	12814.00	12826.00	Pressure On (psi): *4070.00*, Pressure Off (psi): *3870.00*, Weight On Bit (klbs): *46.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *200*, Toolface Type: *gravity*
Rotary Drill	1	04-16	18:40	19:25	04-16	12826.00	12895.00	Pressure On (psi): *5650.00*, Pressure Off (psi): *5000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *45*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-16	19:25	19:30	04-16	12895.00	12895.00	Inclination (°): *89.890*, Azimuth (°): *0.750*, TVD (ft): *10902.18*, Dogleg (º/100 ft): *1.33*, Sensor Depth (ft): *12825.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-16	19:30	20:35	04-16	12895.00	12989.00	Pressure On (psi): *5650.00*, Pressure Off (psi): *5000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *45*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-16	20:35	20:40	04-16	12989.00	12989.00	Inclination (°): *90.510*, Azimuth (°): *0.670*, TVD (ft): *10901.85*, Dogleg (º/100 ft): *0.67*, Sensor Depth (ft): *12919.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-16	20:40	20:50	04-16	12989.00	13003.00	Pressure On (psi): *5540.00*, Pressure Off (psi): *4920.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *44*, Surface Torque (ft lbf): *18.00*, Flow Rate (gpm): *693.00*, Strokes Per Minute: *215.00*
Slide Drill	2	04-16	20:50	21:25	04-16	13003.00	13013.00	Pressure On (psi): *5100.00*, Pressure Off (psi): *4900.00*, Weight On Bit (klbs): *41.00*, Flow Rate (gpm): *693.00*, Strokes Per Minute: *214*, Toolface: *215*, Toolface Type: *gravity*
Rotary Drill	1	04-16	21:25	22:20	04-16	13013.00	13084.00	Pressure On (psi): *5540.00*, Pressure Off (psi): *4920.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *44*, Surface Torque (ft lbf): *18.00*, Flow Rate (gpm): *693.00*, Strokes Per Minute: *215.00*
Survey	46	04-16	22:20	22:25	04-16	13084.00	13084.00	Inclination (°): *90.110*, Azimuth (°): *1.020*, TVD (ft): *10901.34*, Dogleg (º/100 ft): *0.56*, Sensor Depth (ft): *13014.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-16	22:25	22:35	04-16	13084.00	13094.00	Pressure On (psi): *5766.00*, Pressure Off (psi): *4860.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *49*, Surface Torque (ft lbf): *17.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*

Slide Drill	2	04-16	22:35	23:25	04-16	13094.00	13110.00	Pressure On (psi): *5200.00*, Pressure Off (psi): *4900.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *707.00*, Strokes Per Minute: *219*, Toolface: *180*, Toolface Type: *gravity*
Rotary Drill	1	04-16	23:25	00:00	04-17	13110.00	13170.00	Pressure On (psi): *5766.00*, Pressure Off (psi): *4860.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *49*, Surface Torque (ft lbf): *17.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Apr 17 00:00 - 23:59 (Day 34 of 45)

Billing: $20,050.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	13170.00	**Downhole Hours**	22.00
Bit Depth (ft)	13523.00	**Drilling Hours**	6.75
Bottom Hole Depth (ft)	13523.00	**Hours Circulating**	1.08
Total Distance (ft)	353.00	**Hours Sliding**	0.00
Distance Rotated (ft)	353.00	**Hours Rotating**	6.75
Distance Slid (ft)	0.00		
Inclination In	88.97		
Inclination Out	90.15		
Azimuth In	0.49	**% Hours Rotating**	100%
Azimuth Out	0.14	**% Hours Sliding**	0%
AVG Total ROP (ft/h)	56.32	**% Distance Sliding**	0%
AVG Rotating ROP (ft/h)	56.32	**% Distance Rotating**	100%
AVG Sliding ROP (ft/h)	0.00		

Drilling Parameters

Rotating WOB (klbs)	33.00 - 48.00
Sliding WOB (klbs)	
Rotating SPM	219.00 - 219.00
Sliding SPM	
Motor RPM	177.00 - 219.00
Surface RPM	30.00 - 49.00
Flow Rate (gpm)	709.00 - 709.00
On Bottom Pressure (psi)	5150.00 - 5900.00
Off Bottom Pressure (psi)	4800.00 - 5300.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #8 - BHA #8 Lateral

Date In: Apr 15, 2019, 22:15 Date Out: Apr 17, 2019, 13:45

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5299085
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	6.50
Total Drilled for Day (ft)	318.00
Drilling Hours for BHA	18.33
Total Drilled for BHA (ft)	1303.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.813

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft

Directional Comments

7" Discovery : 1.75 ° FBH 7/8 8.5 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1960 psi, Max Operating Torque: 18710 ft/lbs, Rev/Gal: .26 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299085 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD Comments

POOH Reason

Downhole Motor Incident: Pooh due to motor stalling.

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299085	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.75 ° FBH 7/8 8.5 Stg Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	Discovery	700DDS010	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.22	35.30
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	41.08
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	54.82
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	57.62
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	88.42
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	119.63
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2945.63
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2983.43

MWD Items

No Items

BHA #9 - BHA #9 (Second Lateral Run)

Date In: Apr 17, 2019, 15:45 Date Out: Apr 21, 2019, 2:15

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5299299
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	0.25
Total Drilled for Day (ft)	35.00
Drilling Hours for BHA	52.58
Total Drilled for BHA (ft)	4177.00

Motor Details

Size (in)	7.0
Lobe/Stage	6/7, 8.4
Bend Angle	1.83
Speed (rev/gal)	0.30
Wear Pad OD (in)	7.500

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 68.00 ft, **Gamma:** 64.00 ft

Directional Comments

7" Rubicon : 1.83° FBH 6/7 8.4 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299299 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD Comments

POOH Reason

Downhole Tool Incident: Once out of Hole we tried to Drain Motor. Motor Spinned Freely but didn't Drain

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299299	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.83° FBH 6/7 8.4 Stg Mtr True Slick*, Size (in): *7.00*, Bend Angle (°): *1.83*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Rubicon	ROI 700-011	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.80
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	39.58
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	53.32
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	56.12
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	86.92
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	118.13
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2944.13
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2981.93

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	04-16	23:25	00:00	04-17	13110.00	13170.00	Pressure On (psi): *5766.00*, Pressure Off (psi): *4860.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *49*, Surface Torque (ft lbf): *17.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*
Rotary Drill	1	04-17	00:00	00:05	04-17	13170.00	13179.00	Pressure On (psi): *5766.00*, Pressure Off (psi): *4860.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *49*, Surface Torque (ft lbf): *17.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*
Survey	46	04-17	00:05	00:10	04-17	13179.00	13179.00	Inclination (°): *88.970*, Azimuth (°): *0.490*, TVD (ft): *10902.10*, Dogleg (º/100 ft): *1.32*, Sensor Depth (ft): *13109.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-17	00:10	02:15	04-17	13179.00	13273.00	Pressure On (psi): *5663.00*, Pressure Off (psi): *4840.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *45*, Surface Torque (ft lbf): *18.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*
Survey	46	04-17	02:15	02:25	04-17	13273.00	13273.00	Inclination (°): *89.320*, Azimuth (°): *0.670*, TVD (ft): *10903.50*, Dogleg (º/100 ft): *0.42*, Sensor Depth (ft): *13203.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-17	02:25	04:10	04-17	13273.00	13368.00	Pressure On (psi): *5330.00*, Pressure Off (psi): *4906.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *43*, Surface Torque (ft lbf): *17.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*
Survey	46	04-17	04:10	04:20	04-17	13368.00	13368.00	Inclination (°): *89.710*, Azimuth (°): *0.490*, TVD (ft): *10904.31*, Dogleg (º/100 ft): *0.45*, Sensor Depth (ft): *13298.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-17	04:20	06:15	04-17	13368.00	13463.00	Pressure On (psi): *5150.00*, Pressure Off (psi): *4800.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*
Survey	46	04-17	06:15	06:20	04-17	13463.00	13463.00	Inclination (°): *90.150*, Azimuth (°): *0.140*, TVD (ft): *10904.42*, Dogleg (º/100 ft): *0.59*, Sensor Depth (ft): *13393.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-17	06:20	07:00	04-17	13463.00	13488.00	Pressure On (psi): *5150.00*, Pressure Off (psi): *4800.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *17.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*
Circulating	3	04-17	07:00	08:00	04-17			Circ. to Pooh for Motor Stalls
Pooh	7	04-17	08:00	13:45	04-17			POOH for due to Motor Failure. Repeatedly stalling while drilling.
Change BHA	6	04-17	13:45	15:40	04-17			P/U BHA #9 / L/D Motor & bit. P/u Motor, bit, scribe. Insert MWD tool.
Circulating	3	04-17	15:40	15:45	04-17			Test Motor & Mwd tool (Test Good)
TIH	8	04-17	15:45	23:45	04-17			TIH W/ BHA #9
Rotary Drill	1	04-17	23:45	00:00	04-18	13488.00	13523.00	Pressure On (psi): *5900.00*, Pressure Off (psi): *5300.00*, Weight On Bit (klbs): *33.00*, Surface RPM: *30*, Surface Torque (ft lbf): *17.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Apr 18 00:00 - 23:59 (Day 35 of 45)

Billing: $9,350.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	13523.00	**Downhole Hours**	24.00
Bit Depth (ft)	15562.00	**Drilling Hours**	20.67
Bottom Hole Depth (ft)	15562.00	**Hours Circulating**	0.00
Total Distance (ft)	2039.00	**Hours Sliding**	3.08
Distance Rotated (ft)	1976.00	**Hours Rotating**	17.58
Distance Slid (ft)	63.00		
Inclination In	90.24		
Inclination Out	89.49		
Azimuth In	0.05	**% Hours Rotating**	85%
Azimuth Out	358.64	**% Hours Sliding**	15%
AVG Total ROP (ft/h)	99.16	**% Distance Sliding**	3%
AVG Rotating ROP (ft/h)	112.77	**% Distance Rotating**	97%
AVG Sliding ROP (ft/h)	20.43		

Drilling Parameters

Rotating WOB (klbs)	38.00 - 56.00
Sliding WOB (klbs)	30.00 - 33.00
Rotating SPM	214.00 - 227.00
Sliding SPM	222.00 - 227.00
Motor RPM	210.00 - 219.00
Surface RPM	30.00 - 43.00
Flow Rate (gpm)	689.00 - 748.00
On Bottom Pressure (psi)	5320.00 - 6169.00
Off Bottom Pressure (psi)	4990.00 - 5456.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #9 - BHA #9 (Second Lateral Run)

Date In: Apr 17, 2019, 15:45 Date Out: Apr 21, 2019, 2:15

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5299299
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	20.67
Total Drilled for Day (ft)	2039.00
Drilling Hours for BHA	52.58
Total Drilled for BHA (ft)	4177.00

Motor Details

Size (in)	7.0
Lobe/Stage	6/7, 8.4
Bend Angle	1.83
Speed (rev/gal)	0.30
Wear Pad OD (in)	7.500

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 68.00 ft, **Gamma:** 64.00 ft

Directional Comments

7" Rubicon : 1.83° FBH 6/7 8.4 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299299 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD Comments

POOH Reason

Downhole Tool Incident: Once out of Hole we tried to Drain Motor. Motor Spinned Freely but didn't Drain

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299299	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.83° FBH 6/7 8.4 Stg Mtr True Slick*, Size (in): *7.00*, Bend Angle (°): *1.83*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Rubicon	ROI 700-011	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.80
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	39.58
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	53.32
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	56.12
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	86.92
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	118.13
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2944.13
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2981.93

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	04-17	23:45	00:00	04-18	13488.00	13523.00	Pressure On (psi): *5900.00*, Pressure Off (psi): *5300.00*, Weight On Bit (klbs): *33.00*, Surface RPM: *30*, Surface Torque (ft lbf): *17.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*
Rotary Drill	1	04-18	00:00	00:20	04-18	13523.00	13556.00	Pressure On (psi): *6000.00*, Pressure Off (psi): *5300.00*, Weight On Bit (klbs): *38.00*, Surface RPM: *30*, Surface Torque (ft lbf): *18000.00*, Flow Rate (gpm): *709.00*, Strokes Per Minute: *219.00*
Survey	46	04-18	00:20	00:25	04-18	13556.00	13556.00	Inclination (°): *90.240*, Azimuth (°): *0.050*, TVD (ft): *10904.10*, Dogleg (º/100 ft): *0.13*, Sensor Depth (ft): *13488.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	00:25	01:05	04-18	13556.00	13651.00	Pressure On (psi): *6020.00*, Pressure Off (psi): *5200.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *701.00*, Strokes Per Minute: *219.00*
Survey	46	04-18	01:05	01:15	04-18	13651.00	13651.00	Inclination (°): *90.330*, Azimuth (°): *359.700*, TVD (ft): *10903.63*, Dogleg (º/100 ft): *0.38*, Sensor Depth (ft): *13583.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	01:15	01:50	04-18	13651.00	13745.00	Pressure On (psi): *5800.00*, Pressure Off (psi): *5040.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *35*, Surface Torque (ft lbf): *19.00*, Flow Rate (gpm): *689.00*, Strokes Per Minute: *214.00*
Survey	46	04-18	01:50	02:00	04-18	13745.00	13745.00	Inclination (°): *90.240*, Azimuth (°): *0.050*, TVD (ft): *10903.16*, Dogleg (º/100 ft): *0.38*, Sensor Depth (ft): *13677.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	02:00	02:45	04-18	13745.00	13840.00	Pressure On (psi): *5840.00*, Pressure Off (psi): *5020.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *42*, Surface Torque (ft lbf): *19.00*, Flow Rate (gpm): *694.00*, Strokes Per Minute: *215.00*
Survey	46	04-18	02:45	02:55	04-18	13840.00	13840.00	Inclination (°): *90.240*, Azimuth (°): *359.960*, TVD (ft): *10902.76*, Dogleg (º/100 ft): *0.09*, Sensor Depth (ft): *13772.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	02:55	03:40	04-18	13840.00	13934.00	Pressure On (psi): *5840.00*, Pressure Off (psi): *5020.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *19.00*, Flow Rate (gpm): *700.00*, Strokes Per Minute: *219.00*
Survey	46	04-18	03:40	03:45	04-18	13934.00	13934.00	Inclination (°): *89.930*, Azimuth (°): *359.790*, TVD (ft): *10902.62*, Dogleg (º/100 ft): *0.38*, Sensor Depth (ft): *13866.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	03:45	04:30	04-18	13934.00	14029.00	Pressure On (psi): *5840.00*, Pressure Off (psi): *5020.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *19.00*, Flow Rate (gpm): *700.00*, Strokes Per Minute: *219.00*
Survey	46	04-18	04:30	04:35	04-18	14029.00	14029.00	Inclination (°): *89.930*, Azimuth (°): *359.520*, TVD (ft): *10902.74*, Dogleg (º/100 ft): *0.28*, Sensor Depth (ft): *13961.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	04:35	05:45	04-18	14029.00	14124.00	Pressure On (psi): *5840.00*, Pressure Off (psi): *5020.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *19.00*, Flow Rate (gpm): *700.00*, Strokes Per Minute: *219.00*
Survey	46	04-18	05:45	05:50	04-18	14124.00	14124.00	Inclination (°): *89.850*, Azimuth (°): *359.430*, TVD (ft): *10902.92*, Dogleg (º/100 ft): *0.13*, Sensor Depth (ft): *14056.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	05:50	06:55	04-18	14124.00	14219.00	Pressure On (psi): *6169.00*, Pressure Off (psi): *5456.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *43*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *748.00*, Strokes Per Minute: *225.00*
Survey	46	04-18	06:55	07:05	04-18	14219.00	14219.00	Inclination (°): *89.800*, Azimuth (°): *359.700*, TVD (ft): *10903.21*, Dogleg (º/100 ft): *0.29*, Sensor Depth (ft): *14151.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	07:05	07:45	04-18	14219.00	14313.00	Pressure On (psi): *5880.00*, Pressure Off (psi): *5300.00*, Weight On Bit (klbs): *47.00*, Surface RPM: *43*, Surface Torque (ft lbf): *22.00*, Flow Rate (gpm): *725.00*, Strokes Per Minute: *225.00*
Survey	46	04-18	07:45	07:55	04-18	14313.00	14313.00	Inclination (°): *89.630*, Azimuth (°): *359.610*, TVD (ft): *10903.68*, Dogleg (º/100 ft): *0.20*, Sensor Depth (ft): *14245.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	07:55	08:35	04-18	14313.00	14408.00	Pressure On (psi): *5950.00*, Pressure Off (psi): *5220.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *42*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *705.00*, Strokes Per Minute: *219.00*
Survey	46	04-18	08:35	08:45	04-18	14408.00	14408.00	Inclination (°): *88.840*, Azimuth (°): *358.820*, TVD (ft): *10904.95*, Dogleg (º/100 ft): *1.18*, Sensor Depth (ft): *14340.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	08:45	08:50	04-18	14408.00	14418.00	Pressure On (psi): *6128.00*, Pressure Off (psi): *5270.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *41*, Surface Torque (ft lbf): *24.00*, Flow Rate (gpm): *716.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-18	08:50	09:35	04-18	14418.00	14438.00	Pressure On (psi): *5350.00*, Pressure Off (psi): *5270.00*, Weight On Bit (klbs): *33.00*, Flow Rate (gpm): *715.00*, Strokes Per Minute: *222*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	04-18	09:35	10:00	04-18	14438.00	14503.00	Pressure On (psi): *6128.00*, Pressure Off (psi): *5270.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *41*, Surface Torque (ft lbf): *24.00*, Flow Rate (gpm): *716.00*, Strokes Per Minute: *219.00*
Survey	46	04-18	10:00	10:10	04-18	14503.00	14503.00	Inclination (°): *91.160*, Azimuth (°): *358.120*, TVD (ft): *10904.95*, Dogleg (º/100 ft): *2.55*, Sensor Depth (ft): *14435.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	10:10	11:00	04-18	14503.00	14597.00	Pressure On (psi): *5774.00*, Pressure Off (psi): *5220.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *219.00*
Survey	46	04-18	11:00	11:10	04-18	14597.00	14597.00	Inclination (°): *91.780*, Azimuth (°): *358.030*, TVD (ft): *10902.54*, Dogleg (º/100 ft): *0.67*, Sensor Depth (ft): *14529.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	11:10	11:15	04-18	14597.00	14609.00	Pressure On (psi): *5320.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *48.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-18	11:15	11:45	04-18	14609.00	14621.00	Pressure On (psi): *5420.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *715.00*, Strokes Per Minute: *222*, Toolface: *160*, Toolface Type: *gravity*
Rotary Drill	1	04-18	11:45	12:15	04-18	14621.00	14692.00	Pressure On (psi): *6100.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *24.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *219.00*
Survey	46	04-18	12:15	12:25	04-18	14692.00	14692.00	Inclination (°): *90.290*, Azimuth (°): *358.560*, TVD (ft): *10900.82*, Dogleg (º/100 ft): *1.66*, Sensor Depth (ft): *14624.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	12:25	13:00	04-18	14692.00	14786.00	Pressure On (psi): *6100.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *43*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *222.00*
Survey	46	04-18	13:00	13:10	04-18	14786.00	14786.00	Inclination (°): *90.020*, Azimuth (°): *359.080*, TVD (ft): *10900.57*, Dogleg (º/100 ft): *0.62*, Sensor Depth (ft): *14718.00*, Bit To Sensor (ft): *68.00*

Rotary Drill	1	04-18	13:10	13:50	04-18	14786.00	14880.00	Pressure On (psi): *6100.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *43*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *222.00*
Survey	46	04-18	13:50	13:55	04-18	14880.00	14880.00	Inclination (°): *90.330*, Azimuth (°): *359.610*, TVD (ft): *10900.28*, Dogleg (º/100 ft): *0.65*, Sensor Depth (ft): *14812.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	13:55	14:45	04-18	14880.00	14975.00	Pressure On (psi): *6100.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *43*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *222.00*
Survey	46	04-18	14:45	14:50	04-18	14975.00	14975.00	Inclination (°): *90.290*, Azimuth (°): *359.700*, TVD (ft): *10899.77*, Dogleg (º/100 ft): *0.10*, Sensor Depth (ft): *14907.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	14:50	15:55	04-18	14975.00	15069.00	Pressure On (psi): *6100.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *43*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *222.00*
Survey	46	04-18	15:55	16:00	04-18	15069.00	15069.00	Inclination (°): *88.260*, Azimuth (°): *358.910*, TVD (ft): *10900.95*, Dogleg (º/100 ft): *2.32*, Sensor Depth (ft): *15001.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	16:00	16:10	04-18	15069.00	15079.00	Pressure On (psi): *6100.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *222.00*
Slide Drill	2	04-18	16:10	17:05	04-18	15079.00	15099.00	Pressure On (psi): *5420.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *715.00*, Strokes Per Minute: *222*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	04-18	17:05	18:00	04-18	15099.00	15163.00	Pressure On (psi): *6100.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *222.00*
Rig Service - In Hole	19	04-18	18:00	18:15	04-18			Rig Service
Survey	46	04-18	18:15	18:20	04-18	15163.00	15163.00	Inclination (°): *89.890*, Azimuth (°): *358.200*, TVD (ft): *10902.47*, Dogleg (º/100 ft): *1.89*, Sensor Depth (ft): *15095.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	18:20	19:40	04-18	15163.00	15258.00	Pressure On (psi): *6100.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *714.00*, Strokes Per Minute: *222.00*
Survey	46	04-18	19:40	19:55	04-18	15258.00	15258.00	Inclination (°): *90.510*, Azimuth (°): *358.290*, TVD (ft): *10902.14*, Dogleg (º/100 ft): *0.66*, Sensor Depth (ft): *15190.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	19:55	20:50	04-18	15258.00	15352.00	Pressure On (psi): *5820.00*, Pressure Off (psi): *5124.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *41*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *727.00*, Strokes Per Minute: *226.00*
Survey	46	04-18	20:50	21:00	04-18	15352.00	15352.00	Inclination (°): *90.420*, Azimuth (°): *358.380*, TVD (ft): *10901.38*, Dogleg (º/100 ft): *0.14*, Sensor Depth (ft): *15284.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	21:00	21:55	04-18	15352.00	15446.00	Pressure On (psi): *5780.00*, Pressure Off (psi): *5100.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *729.00*, Strokes Per Minute: *226.00*
Survey	46	04-18	21:55	22:05	04-18	15446.00	15446.00	Inclination (°): *90.070*, Azimuth (°): *358.380*, TVD (ft): *10900.98*, Dogleg (º/100 ft): *0.37*, Sensor Depth (ft): *15378.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	22:05	22:50	04-18	15446.00	15541.00	Pressure On (psi): *6000.00*, Pressure Off (psi): *5040.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *731.00*, Strokes Per Minute: *227.00*
Survey	46	04-18	22:50	23:00	04-18	15541.00	15541.00	Inclination (°): *89.490*, Azimuth (°): *358.640*, TVD (ft): *10901.34*, Dogleg (º/100 ft): *0.67*, Sensor Depth (ft): *15473.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-18	23:00	23:05	04-18	15541.00	15551.00	Pressure On (psi): *5760.00*, Pressure Off (psi): *4990.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *43*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *731.00*, Strokes Per Minute: *227.00*
Slide Drill	2	04-18	23:05	00:00	04-19	15551.00	15562.00	Pressure On (psi): *5491.00*, Pressure Off (psi): *4990.00*, Weight On Bit (klbs): *33.00*, Flow Rate (gpm): *732.00*, Strokes Per Minute: *227*, Toolface: *22*, Toolface Type: *gravity*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Apr 19 00:00 - 23:59 (Day 36 of 45)

Billing: $9,350.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	15562.00	**Downhole Hours**	24.00
Bit Depth (ft)	17205.00	**Drilling Hours**	21.75
Bottom Hole Depth (ft)	17205.00	**Hours Circulating**	0.00
Total Distance (ft)	1643.00	**Hours Sliding**	2.50
Distance Rotated (ft)	1594.00	**Hours Rotating**	19.25
Distance Slid (ft)	49.00		
Inclination In	90.29		
Inclination Out	90.55		
Azimuth In	359.00	**% Hours Rotating**	89%
Azimuth Out	0.23	**% Hours Sliding**	11%
AVG Total ROP (ft/h)	72.97	**% Distance Sliding**	3%
AVG Rotating ROP (ft/h)	82.81	**% Distance Rotating**	97%
AVG Sliding ROP (ft/h)	17.56		

Drilling Parameters

Rotating WOB (klbs)	54.00 - 57.00
Sliding WOB (klbs)	24.00 - 33.00
Rotating SPM	224.00 - 228.00
Sliding SPM	224.00 - 227.00
Motor RPM	210.00 - 219.00
Surface RPM	40.00 - 43.00
Flow Rate (gpm)	720.00 - 735.00
On Bottom Pressure (psi)	5491.00 - 6120.00
Off Bottom Pressure (psi)	4990.00 - 5600.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #9 - BHA #9 (Second Lateral Run)

Date In: Apr 17, 2019, 15:45 Date Out: Apr 21, 2019, 2:15

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5299299
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	21.75
Total Drilled for Day (ft)	1643.00
Drilling Hours for BHA	52.58
Total Drilled for BHA (ft)	4177.00

Motor Details

Size (in)	7.0
Lobe/Stage	6/7, 8.4
Bend Angle	1.83
Speed (rev/gal)	0.30
Wear Pad OD (in)	7.500

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 68.00 ft, **Gamma:** 64.00 ft

Directional Comments

7" Rubicon : 1.83° FBH 6/7 8.4 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299299 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD Comments

POOH Reason

Downhole Tool Incident: Once out of Hole we tried to Drain Motor. Motor Spinned Freely but didn't Drain

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299299	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.83° FBH 6/7 8.4 Stg Mtr True Slick*, Size (in): *7.00*, Bend Angle (°): *1.83*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Rubicon	ROI 700-011	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.80
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	39.58
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	53.32
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	56.12
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	86.92
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	118.13
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2944.13
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2981.93

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details

Slide Drill	2	04-18	23:05	00:00	04-19	15551.00	15562.00	Pressure On (psi): *5491.00*, Pressure Off (psi): *4990.00*, Weight On Bit (klbs): *33.00*, Flow Rate (gpm): *732.00*, Strokes Per Minute: *227*, Toolface: *22*, Toolface Type: *gravity*
Slide Drill	2	04-19	00:00	00:45	04-19	15562.00	15574.00	Pressure On (psi): *5491.00*, Pressure Off (psi): *4990.00*, Weight On Bit (klbs): *33.00*, Flow Rate (gpm): *732.00*, Strokes Per Minute: *227*, Toolface: *22*, Toolface Type: *gravity*
Rotary Drill	1	04-19	00:45	01:40	04-19	15574.00	15635.00	Pressure On (psi): *5760.00*, Pressure Off (psi): *4990.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *43*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *731.00*, Strokes Per Minute: *227.00*
Survey	46	04-19	01:40	01:45	04-19	15635.00	15635.00	Inclination (°): *90.290*, Azimuth (°): *359.000*, TVD (ft): *10901.52*, Dogleg (º/100 ft): *0.93*, Sensor Depth (ft): *15567.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	01:45	02:45	04-19	15635.00	15730.00	Pressure On (psi): *5760.00*, Pressure Off (psi): *4990.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *43*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *731.00*, Strokes Per Minute: *227.00*
Survey	46	04-19	02:45	02:50	04-19	15730.00	15730.00	Inclination (°): *91.600*, Azimuth (°): *359.260*, TVD (ft): *10899.95*, Dogleg (º/100 ft): *1.41*, Sensor Depth (ft): *15662.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	02:50	03:50	04-19	15730.00	15824.00	Pressure On (psi): *5760.00*, Pressure Off (psi): *4990.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *43*, Surface Torque (ft lbf): *20.00*, Flow Rate (gpm): *731.00*, Strokes Per Minute: *227.00*
Survey	46	04-19	03:50	03:55	04-19	15824.00	15824.00	Inclination (°): *91.520*, Azimuth (°): *358.910*, TVD (ft): *10897.40*, Dogleg (º/100 ft): *0.38*, Sensor Depth (ft): *15756.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	03:55	05:35	04-19	15824.00	15918.00	Pressure On (psi): *5760.00*, Pressure Off (psi): *4990.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *43*, Surface Torque (ft lbf): *22.00*, Flow Rate (gpm): *731.00*, Strokes Per Minute: *227.00*
Survey	46	04-19	05:35	05:40	04-19	15918.00	15918.00	Inclination (°): *91.030*, Azimuth (°): *358.380*, TVD (ft): *10895.30*, Dogleg (º/100 ft): *0.77*, Sensor Depth (ft): *15850.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	05:40	06:45	04-19	15918.00	16013.00	Pressure On (psi): *5760.00*, Pressure Off (psi): *4990.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *43*, Surface Torque (ft lbf): *22.00*, Flow Rate (gpm): *731.00*, Strokes Per Minute: *227.00*
Survey	46	04-19	06:45	06:55	04-19	16013.00	16013.00	Inclination (°): *91.120*, Azimuth (°): *358.290*, TVD (ft): *10893.52*, Dogleg (º/100 ft): *0.13*, Sensor Depth (ft): *15945.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	06:55	08:00	04-19	16013.00	16107.00	Pressure On (psi): *5900.00*, Pressure Off (psi): *5260.00*, Weight On Bit (klbs): *57.00*, Surface RPM: *40*, Surface Torque (ft lbf): *18.00*, Flow Rate (gpm): *735.00*, Strokes Per Minute: *228.00*
Survey	46	04-19	08:00	08:10	04-19	16107.00	16107.00	Inclination (°): *90.990*, Azimuth (°): *358.030*, TVD (ft): *10891.79*, Dogleg (º/100 ft): *0.31*, Sensor Depth (ft): *16039.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	08:10	09:10	04-19	16107.00	16202.00	Pressure On (psi): *6120.00*, Pressure Off (psi): *5280.00*, Weight On Bit (klbs): *57.00*, Surface RPM: *41*, Surface Torque (ft lbf): *21.00*, Flow Rate (gpm): *731.00*, Strokes Per Minute: *228.00*
Rig Service - In Hole	19	04-19	09:10	09:30	04-19			
Survey	46	04-19	09:30	09:40	04-19	16202.00	16202.00	Inclination (°): *91.080*, Azimuth (°): *357.850*, TVD (ft): *10890.07*, Dogleg (º/100 ft): *0.21*, Sensor Depth (ft): *16134.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	09:40	09:45	04-19	16202.00	16212.00	Pressure On (psi): *6120.00*, Pressure Off (psi): *5400.00*, Weight On Bit (klbs): *55.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *722.00*, Strokes Per Minute: *225.00*
Slide Drill	2	04-19	09:45	10:45	04-19	16212.00	16227.00	Pressure On (psi): *5580.00*, Pressure Off (psi): *5400.00*, Weight On Bit (klbs): *31.00*, Flow Rate (gpm): *725.00*, Strokes Per Minute: *225*, Toolface: *120*, Toolface Type: *gravity*
Rotary Drill	1	04-19	10:45	11:35	04-19	16227.00	16296.00	Pressure On (psi): *6120.00*, Pressure Off (psi): *5400.00*, Weight On Bit (klbs): *55.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *722.00*, Strokes Per Minute: *225.00*
Survey	46	04-19	11:35	11:40	04-19	16296.00	16296.00	Inclination (°): *90.290*, Azimuth (°): *359.520*, TVD (ft): *10888.95*, Dogleg (º/100 ft): *1.97*, Sensor Depth (ft): *16228.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	11:40	12:55	04-19	16296.00	16390.00	Pressure On (psi): *6120.00*, Pressure Off (psi): *5400.00*, Weight On Bit (klbs): *55.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *722.00*, Strokes Per Minute: *225.00*
Survey	46	04-19	12:55	13:00	04-19	16390.00	16390.00	Inclination (°): *90.370*, Azimuth (°): *0.050*, TVD (ft): *10888.41*, Dogleg (º/100 ft): *0.57*, Sensor Depth (ft): *16322.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	13:00	14:20	04-19	16390.00	16485.00	Pressure On (psi): *6120.00*, Pressure Off (psi): *5400.00*, Weight On Bit (klbs): *55.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *722.00*, Strokes Per Minute: *225.00*
Survey	46	04-19	14:20	14:25	04-19	16485.00	16485.00	Inclination (°): *90.590*, Azimuth (°): *359.960*, TVD (ft): *10887.61*, Dogleg (º/100 ft): *0.25*, Sensor Depth (ft): *16417.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	14:25	15:30	04-19	16485.00	16579.00	Pressure On (psi): *5733.00*, Pressure Off (psi): *5520.00*, Weight On Bit (klbs): *54.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Survey	46	04-19	15:30	15:40	04-19	16579.00	16579.00	Inclination (°): *90.290*, Azimuth (°): *359.790*, TVD (ft): *10886.89*, Dogleg (º/100 ft): *0.37*, Sensor Depth (ft): *16511.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	15:40	16:35	04-19	16579.00	16673.00	Pressure On (psi): *5886.00*, Pressure Off (psi): *5520.00*, Weight On Bit (klbs): *54.00*, Surface RPM: *40*, Surface Torque (ft lbf): *22.00*, Flow Rate (gpm): *721.00*, Strokes Per Minute: *224.00*
Survey	46	04-19	16:35	16:45	04-19	16673.00	16673.00	Inclination (°): *89.630*, Azimuth (°): *359.520*, TVD (ft): *10886.96*, Dogleg (º/100 ft): *0.76*, Sensor Depth (ft): *16605.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	16:45	17:35	04-19	16673.00	16768.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *21.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Survey	46	04-19	17:35	17:45	04-19	16768.00	16768.00	Inclination (°): *89.850*, Azimuth (°): *0.140*, TVD (ft): *10887.39*, Dogleg (º/100 ft): *0.69*, Sensor Depth (ft): *16700.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	17:45	19:00	04-19	16768.00	16862.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *21.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Survey	46	04-19	19:00	19:05	04-19	16862.00	16862.00	Inclination (°): *89.360*, Azimuth (°): *0.050*, TVD (ft): *10888.04*, Dogleg (º/100 ft): *0.53*, Sensor Depth (ft): *16794.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	19:05	20:15	04-19	16862.00	16956.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *21.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*

Survey	46	04-19	20:15	20:20	04-19	16956.00	16956.00	Inclination (°): *88.700*, Azimuth (°): *359.700*, TVD (ft): *10889.63*, Dogleg (º/100 ft): *0.79*, Sensor Depth (ft): *16888.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	20:20	20:25	04-19	16956.00	16966.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *21.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Slide Drill	2	04-19	20:25	21:10	04-19	16966.00	16988.00	Pressure On (psi): *5750.00*, Pressure Off (psi): *5600.00*, Weight On Bit (klbs): *24.00*, Flow Rate (gpm): *721.00*, Strokes Per Minute: *224*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	04-19	21:10	21:55	04-19	16988.00	17051.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *21.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Survey	46	04-19	21:55	22:00	04-19	17051.00	17051.00	Inclination (°): *90.150*, Azimuth (°): *359.790*, TVD (ft): *10890.58*, Dogleg (º/100 ft): *1.53*, Sensor Depth (ft): *16983.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	22:00	23:05	04-19	17051.00	17145.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *21.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Survey	46	04-19	23:05	23:10	04-19	17145.00	17145.00	Inclination (°): *90.550*, Azimuth (°): *0.230*, TVD (ft): *10890.01*, Dogleg (º/100 ft): *0.63*, Sensor Depth (ft): *17077.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-19	23:10	00:00	04-20	17145.00	17205.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Apr 20 00:00 - 23:59 (Day 37 of 45)

Billing: $9,350.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	17205.00	**Downhole Hours**	24.00
Bit Depth (ft)	17665.00	**Drilling Hours**	9.92
Bottom Hole Depth (ft)	17665.00	**Hours Circulating**	1.42
Total Distance (ft)	460.00	**Hours Sliding**	2.58
Distance Rotated (ft)	445.00	**Hours Rotating**	7.33
Distance Slid (ft)	15.00		
Inclination In	90.15		
Inclination Out	90.59		
Azimuth In	359.96	**% Hours Rotating**	74%
Azimuth Out	0.40	**% Hours Sliding**	26%
AVG Total ROP (ft/h)	48.37	**% Distance Sliding**	3%
AVG Rotating ROP (ft/h)	61.84	**% Distance Rotating**	97%
AVG Sliding ROP (ft/h)	5.81		

Drilling Parameters

Rotating WOB (klbs)	49.00 - 58.00
Sliding WOB (klbs)	29.00 - 29.00
Rotating SPM	214.00 - 224.00
Sliding SPM	218.00 - 218.00
Motor RPM	210.00 - 219.00
Surface RPM	40.00 - 42.00
Flow Rate (gpm)	688.00 - 720.00
On Bottom Pressure (psi)	5594.00 - 6010.00
Off Bottom Pressure (psi)	5399.00 - 5600.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #9 - BHA #9 (Second Lateral Run)

Date In: Apr 17, 2019, 15:45 Date Out: Apr 21, 2019, 2:15

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5299299
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	9.92
Total Drilled for Day (ft)	460.00
Drilling Hours for BHA	52.58
Total Drilled for BHA (ft)	4177.00

Motor Details

Size (in)	7.0
Lobe/Stage	6/7, 8.4
Bend Angle	1.83
Speed (rev/gal)	0.30
Wear Pad OD (in)	7.500

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 68.00 ft, **Gamma:** 64.00 ft

Directional Comments

7" Rubicon : 1.83° FBH 6/7 8.4 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299299 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD Comments

POOH Reason

Downhole Tool Incident: Once out of Hole we tried to Drain Motor. Motor Spinned Freely but didn't Drain

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299299	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.83° FBH 6/7 8.4 Stg Mtr True Slick*, Size (in): *7.00*, Bend Angle (°): *1.83*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Rubicon	ROI 700-011	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.80
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	39.58
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	53.32
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	56.12
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	86.92
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	118.13
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2944.13
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2981.93

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	04-19	23:10	00:00	04-20	17145.00	17205.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Rig Repair	14	04-20	00:00	02:45	04-20			Work On Pumps
Rotary Drill	1	04-20	02:45	03:10	04-20	17205.00	17240.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Survey	46	04-20	03:10	03:15	04-20	17240.00	17240.00	Inclination (°): *90.150*, Azimuth (°): *359.960*, TVD (ft): *10889.43*, Dogleg (º/100 ft): *0.51*, Sensor Depth (ft): *17172.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-20	03:15	03:20	04-20	17240.00	17248.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Rig Repair	14	04-20	03:20	04:25	04-20			Work on Pumps
Rotary Drill	1	04-20	04:25	05:40	04-20	17248.00	17334.00	Pressure On (psi): *5920.00*, Pressure Off (psi): *5530.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *720.00*, Strokes Per Minute: *224.00*
Survey	46	04-20	05:40	05:45	04-20	17334.00	17334.00	Inclination (°): *89.800*, Azimuth (°): *0.230*, TVD (ft): *10889.47*, Dogleg (º/100 ft): *0.47*, Sensor Depth (ft): *17266.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-20	05:45	07:15	04-20	17334.00	17429.00	Pressure On (psi): *5880.00*, Pressure Off (psi): *5520.00*, Weight On Bit (klbs): *56.00*, Surface RPM: *40*, Surface Torque (ft lbf): *22.00*, Flow Rate (gpm): *705.00*, Strokes Per Minute: *219.00*
Survey	46	04-20	07:15	07:25	04-20	17429.00	17429.00	Inclination (°): *89.140*, Azimuth (°): *0.140*, TVD (ft): *10890.35*, Dogleg (º/100 ft): *0.70*, Sensor Depth (ft): *17361.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-20	07:25	07:30	04-20	17429.00	17439.00	Pressure On (psi): *5995.00*, Pressure Off (psi): *5600.00*, Weight On Bit (klbs): *58.00*, Surface RPM: *42*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Slide Drill	2	04-20	07:30	10:05	04-20	17439.00	17454.00	Pressure On (psi): *5594.00*, Pressure Off (psi): *5399.00*, Weight On Bit (klbs): *29.00*, Flow Rate (gpm): *704.00*, Strokes Per Minute: *218*, Toolface: *10*, Toolface Type: *gravity*
Circulating	3	04-20	10:05	10:40	04-20			Work on Pump 2&3
Rotary Drill	1	04-20	10:40	12:40	04-20	17454.00	17523.00	Pressure On (psi): *5995.00*, Pressure Off (psi): *5600.00*, Weight On Bit (klbs): *58.00*, Surface RPM: *42*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Survey	46	04-20	12:40	12:50	04-20	17523.00	17523.00	Inclination (°): *90.290*, Azimuth (°): *0.310*, TVD (ft): *10890.81*, Dogleg (º/100 ft): *1.24*, Sensor Depth (ft): *17455.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-20	12:50	13:15	04-20	17523.00	17553.00	Pressure On (psi): *5995.00*, Pressure Off (psi): *5600.00*, Weight On Bit (klbs): *58.00*, Surface RPM: *42*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *706.00*, Strokes Per Minute: *219.00*
Rig Repair	14	04-20	13:15	13:35	04-20			Work on Pumps 2&3
Rotary Drill	1	04-20	13:35	14:40	04-20	17553.00	17617.00	Pressure On (psi): *6010.00*, Pressure Off (psi): *5490.00*, Weight On Bit (klbs): *55.00*, Surface RPM: *41*, Surface Torque (ft lbf): *23.00*, Flow Rate (gpm): *688.00*, Strokes Per Minute: *214.00*
Survey	46	04-20	14:40	14:50	04-20	17617.00	17617.00	Inclination (°): *90.590*, Azimuth (°): *0.400*, TVD (ft): *10890.09*, Dogleg (º/100 ft): *0.33*, Sensor Depth (ft): *17549.00*, Bit To Sensor (ft): *68.00*
Rotary Drill	1	04-20	14:50	15:20	04-20	17617.00	17665.00	Pressure On (psi): *5997.00*, Pressure Off (psi): *5420.00*, Weight On Bit (klbs): *49.00*, Surface RPM: *42*, Surface Torque (ft lbf): *24.00*, Flow Rate (gpm): *690.00*, Strokes Per Minute: *214.00*
Circulating	3	04-20	15:20	16:10	04-20			Get ready to POOH
Pooh	7	04-20	16:10	00:00	04-21			POOH for Motor and Bit

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Apr 21 00:00 - 23:59 (Day 38 of 45)

Billing: $21,050.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	17665.00	**Downhole Hours**	23.75
Bit Depth (ft)	18983.00	**Drilling Hours**	9.33
Bottom Hole Depth (ft)	18983.00	**Hours Circulating**	0.75
Total Distance (ft)	1318.00	**Hours Sliding**	1.50
Distance Rotated (ft)	1291.00	**Hours Rotating**	7.83
Distance Slid (ft)	27.00		
Inclination In	90.59		
Inclination Out	91.43		
Azimuth In	0.23	**% Hours Rotating**	84%
Azimuth Out	359.96	**% Hours Sliding**	16%
AVG Total ROP (ft/h)	141.21	**% Distance Sliding**	2%
AVG Rotating ROP (ft/h)	164.81	**% Distance Rotating**	98%
AVG Sliding ROP (ft/h)	18.00		

Drilling Parameters

Rotating WOB (klbs)	43.00 - 52.00
Sliding WOB (klbs)	35.00 - 35.00
Rotating SPM	189.00 - 195.00
Sliding SPM	192.00 - 192.00
Motor RPM	180.00 - 219.00
Surface RPM	30.00 - 40.00
Flow Rate (gpm)	608.00 - 629.00
On Bottom Pressure (psi)	5139.00 - 6140.00
Off Bottom Pressure (psi)	4980.00 - 5750.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #9 - BHA #9 (Second Lateral Run)

Date In: Apr 17, 2019, 15:45 Date Out: Apr 21, 2019, 2:15

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5299299
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	0.00
Total Drilled for Day (ft)	
Drilling Hours for BHA	52.58
Total Drilled for BHA (ft)	4177.00

Motor Details

Size (in)	7.0
Lobe/Stage	6/7, 8.4
Bend Angle	1.83
Speed (rev/gal)	0.30
Wear Pad OD (in)	7.500

Bit Distances

Bend (Bit to Bend): 4.38 ft, **Survey:** 68.00 ft, **Gamma:** 64.00 ft

Directional Comments

7" Rubicon : 1.83° FBH 6/7 8.4 Stg. Mtr.T Slick .Protracted Angle: 1.77°, Flow Rate 300-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5299299 Jets: 6x22's, TFA: 2.227 Runs on Bit:

MWD Comments

POOH Reason

Downhole Tool Incident: Once out of Hole we tried to Drain Motor. Motor Spinned Freely but didn't Drain

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *0.44*, Size (in): *8.50*	Baker	5299299	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.83° FBH 6/7 8.4 Stg Mtr True Slick*, Size (in): *7.00*, Bend Angle (°): *1.83*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Rubicon	ROI 700-011	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.72	33.80
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	39.58
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	53.32
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	56.12
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	86.92
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	118.13
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2944.13
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2981.93

MWD Items

No Items

BHA #10 - BHA #10 (Third Lateral Run)

Date In: Apr 21, 2019, 2:30 Date Out: Apr 23, 2019, 1:30

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5292993
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	9.33
Total Drilled for Day (ft)	1318.00
Drilling Hours for BHA	10.08
Total Drilled for BHA (ft)	1430.00

Motor Details

Size (in)	7.0
Lobe/Stage	6/7, 8.4
Bend Angle	1.75
Speed (rev/gal)	0.30
Wear Pad OD (in)	7.625

Bit Distances

Bend (Bit to Bend): 5.35 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft

Directional Comments

7" Contender : 1.75° FBH 6/7 8.4 Stg. W/ Slick Sleeve.Protracted Angle: 1.73°, Flow Rate 350-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5292993 Jets: 6x22's, TFA: 2.227 Runs on Bit: 0

MWD Comments

POOH Reason

Total Depth/Casing Point: Well TD

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *5.25*, Size (in): *8.50*	Baker	5292993	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.75° FBH 6/7 8.4 Stg W/Slick Sleeve*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Contender	700-40-014	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.04	35.12
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	40.90
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	54.64
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	57.44
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	88.24
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	119.45
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2945.45
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2983.25

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Pooh	7	04-20	16:10	00:00	04-21			POOH for Motor and Bit
Pooh	7	04-21	00:00	01:30	04-21			POOH for Motor And Bit
Change BHA	6	04-21	01:30	03:15	04-21			P/U BHA # 10
TIH	8	04-21	03:15	04:30	04-21			TIH W/ BHA #10
Circulating	3	04-21	04:30	05:00	04-21			Test Agitator. 342 Pressure Drop
TIH	8	04-21	05:00	12:20	04-21			TIH W/ BHA #10
Circulating	3	04-21	12:20	12:35	04-21			Relog Gamma from 17630'-17665'
Rotary Drill	1	04-21	12:35	12:50	04-21	17665.00	17713.00	Pressure On (psi): *6140.00*, Pressure Off (psi): *5750.00*, Weight On Bit (klbs): *43.00*, Surface RPM: *30*, Surface Torque (ft lbf): *26.00*, Flow Rate (gpm): *625.00*, Strokes Per Minute: *195.00*
Survey	46	04-21	12:50	13:00	04-21	17713.00	17713.00	Inclination (°): *90.590*, Azimuth (°): *0.230*, TVD (ft): *10889.12*, Dogleg (º/100 ft): *0.18*, Sensor Depth (ft): *17643.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	13:00	13:25	04-21	17713.00	17807.00	Pressure On (psi): *6129.00*, Pressure Off (psi): *5170.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *37*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *629.00*, Strokes Per Minute: *194.00*
Survey	46	04-21	13:25	13:35	04-21	17807.00	17807.00	Inclination (°): *91.080*, Azimuth (°): *0.230*, TVD (ft): *10887.75*, Dogleg (º/100 ft): *0.52*, Sensor Depth (ft): *17737.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	13:35	14:10	04-21	17807.00	17901.00	Pressure On (psi): *5500.00*, Pressure Off (psi): *4980.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *38*, Surface Torque (ft lbf): *26.00*, Flow Rate (gpm): *608.00*, Strokes Per Minute: *189.00*
Survey	46	04-21	14:10	14:20	04-21	17901.00	17901.00	Inclination (°): *91.250*, Azimuth (°): *1.020*, TVD (ft): *10885.84*, Dogleg (º/100 ft): *0.86*, Sensor Depth (ft): *17831.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	14:20	14:45	04-21	17901.00	17995.00	Pressure On (psi): *5934.00*, Pressure Off (psi): *5140.00*, Weight On Bit (klbs): *49.00*, Surface RPM: *32*, Surface Torque (ft lbf): *25.00*, Flow Rate (gpm): *611.00*, Strokes Per Minute: *189.00*
Survey	46	04-21	14:45	14:55	04-21	17995.00	17995.00	Inclination (°): *91.520*, Azimuth (°): *0.930*, TVD (ft): *10883.57*, Dogleg (º/100 ft): *0.30*, Sensor Depth (ft): *17925.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	14:55	15:00	04-21	17995.00	18006.00	Pressure On (psi): *5900.00*, Pressure Off (psi): *5140.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *35*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *617.00*, Strokes Per Minute: *192.00*
Slide Drill	2	04-21	15:00	15:30	04-21	18006.00	18016.00	Pressure On (psi): *5139.00*, Pressure Off (psi): *5140.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *617.00*, Strokes Per Minute: *192*, Toolface: *135*, Toolface Type: *gravity*
Rotary Drill	1	04-21	15:30	16:00	04-21	18016.00	18090.00	Pressure On (psi): *5900.00*, Pressure Off (psi): *5140.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *35*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *617.00*, Strokes Per Minute: *192.00*

Survey	46	04-21	16:00	16:10	04-21	18090.00	18090.00	Inclination (°): *90.290*, Azimuth (°): *0.750*, TVD (ft): *10882.07*, Dogleg (º/100 ft): *1.31*, Sensor Depth (ft): *18020.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	16:10	16:30	04-21	18090.00	18184.00	Pressure On (psi): *5980.00*, Pressure Off (psi): *5130.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *38*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-21	16:30	16:40	04-21	18184.00	18184.00	Inclination (°): *90.510*, Azimuth (°): *0.840*, TVD (ft): *10881.41*, Dogleg (º/100 ft): *0.25*, Sensor Depth (ft): *18114.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	16:40	17:05	04-21	18184.00	18279.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Rig Service - In Hole	19	04-21	17:05	17:20	04-21			
Survey	46	04-21	17:20	17:30	04-21	18279.00	18279.00	Inclination (°): *90.460*, Azimuth (°): *0.930*, TVD (ft): *10880.61*, Dogleg (º/100 ft): *0.11*, Sensor Depth (ft): *18209.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	17:30	17:55	04-21	18279.00	18373.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-21	17:55	18:05	04-21	18373.00	18373.00	Inclination (°): *90.460*, Azimuth (°): *1.020*, TVD (ft): *10879.86*, Dogleg (º/100 ft): *0.10*, Sensor Depth (ft): *18303.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	18:05	18:10	04-21	18373.00	18383.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Slide Drill	2	04-21	18:10	19:10	04-21	18383.00	18400.00	Pressure On (psi): *5139.00*, Pressure Off (psi): *5140.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *617.00*, Strokes Per Minute: *192*, Toolface: *260*, Toolface Type: *gravity*
Rotary Drill	1	04-21	19:10	19:50	04-21	18400.00	18467.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-21	19:50	19:55	04-21	18467.00	18467.00	Inclination (°): *90.110*, Azimuth (°): *359.700*, TVD (ft): *10879.39*, Dogleg (º/100 ft): *1.45*, Sensor Depth (ft): *18397.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	19:55	20:30	04-21	18467.00	18561.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-21	20:30	20:35	04-21	18561.00	18561.00	Inclination (°): *90.240*, Azimuth (°): *359.430*, TVD (ft): *10879.10*, Dogleg (º/100 ft): *0.32*, Sensor Depth (ft): *18491.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	20:35	21:10	04-21	18561.00	18656.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-21	21:10	21:15	04-21	18656.00	18656.00	Inclination (°): *90.730*, Azimuth (°): *359.870*, TVD (ft): *10878.30*, Dogleg (º/100 ft): *0.69*, Sensor Depth (ft): *18586.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	21:15	22:10	04-21	18656.00	18750.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-21	22:10	22:15	04-21	18750.00	18750.00	Inclination (°): *90.770*, Azimuth (°): *359.960*, TVD (ft): *10877.07*, Dogleg (º/100 ft): *0.10*, Sensor Depth (ft): *18680.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	22:15	22:50	04-21	18750.00	18845.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-21	22:50	22:55	04-21	18845.00	18845.00	Inclination (°): *91.030*, Azimuth (°): *0.140*, TVD (ft): *10875.57*, Dogleg (º/100 ft): *0.33*, Sensor Depth (ft): *18775.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	22:55	23:35	04-21	18845.00	18939.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-21	23:35	23:40	04-21	18939.00	18939.00	Inclination (°): *91.430*, Azimuth (°): *359.960*, TVD (ft): *10873.56*, Dogleg (º/100 ft): *0.47*, Sensor Depth (ft): *18869.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-21	23:40	00:00	04-22	18939.00	18983.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Apr 22 00:00 - 23:59 (Day 39 of 45)

Billing: $9,350.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)	18983.00	**Downhole Hours**	24.00
Bit Depth (ft)	19095.00	**Drilling Hours**	0.75
Bottom Hole Depth (ft)	19095.00	**Hours Circulating**	3.58
Total Distance (ft)	112.00	**Hours Sliding**	0.00
Distance Rotated (ft)	112.00	**Hours Rotating**	0.75
Distance Slid (ft)	0.00		
Inclination In	91.30		
Inclination Out	91.21		
Azimuth In	0.58	**% Hours Rotating**	100%
Azimuth Out	0.93	**% Hours Sliding**	0%
AVG Total ROP (ft/h)	144.00	**% Distance Sliding**	0%
AVG Rotating ROP (ft/h)	144.00	**% Distance Rotating**	100%
AVG Sliding ROP (ft/h)	0.00		

Drilling Parameters

Rotating WOB (klbs)	52.00 - 52.00
Sliding WOB (klbs)	
Rotating SPM	192.00 - 192.00
Sliding SPM	
Motor RPM	180.00 - 185.00
Surface RPM	40.00 - 40.00
Flow Rate (gpm)	614.00 - 614.00
On Bottom Pressure (psi)	6066.00 - 6066.00
Off Bottom Pressure (psi)	5150.00 - 5150.00

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #10 - BHA #10 (Third Lateral Run)

Date In: Apr 21, 2019, 2:30 Date Out: Apr 23, 2019, 1:30

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5292993
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	0.75
Total Drilled for Day (ft)	112.00
Drilling Hours for BHA	10.08
Total Drilled for BHA (ft)	1430.00

Motor Details

Size (in)	7.0
Lobe/Stage	6/7, 8.4
Bend Angle	1.75
Speed (rev/gal)	0.30
Wear Pad OD (in)	7.625

Bit Distances

Bend (Bit to Bend): 5.35 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft

Directional Comments

7" Contender : 1.75° FBH 6/7 8.4 Stg. W/ Slick Sleeve.Protracted Angle: 1.73°, Flow Rate 350-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5292993 Jets: 6x22's, TFA: 2.227 Runs on Bit: 0

MWD Comments

POOH Reason

Total Depth/Casing Point: Well TD

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *5.25*, Size (in): *8.50*	Baker	5292993	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.75° FBH 6/7 8.4 Stg W/Slick Sleeve*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Contender	700-40-014	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.04	35.12
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	40.90
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	54.64
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	57.44
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	88.24
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	119.45
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2945.45
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2983.25

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	04-21	23:40	00:00	04-22	18939.00	18983.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Rotary Drill	1	04-22	00:00	00:30	04-22	18983.00	19034.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-22	00:30	00:45	04-22	19032.00	19032.00	Inclination (°): *91.300*, Azimuth (°): *0.580*, TVD (ft): *10871.34*, Dogleg (º/100 ft): *0.68*, Sensor Depth (ft): *18962.00*, Bit To Sensor (ft): *70.00*
Rotary Drill	1	04-22	00:45	01:00	04-22	19034.00	19095.00	Pressure On (psi): *6066.00*, Pressure Off (psi): *5150.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *40*, Surface Torque (ft lbf): *27.00*, Flow Rate (gpm): *614.00*, Strokes Per Minute: *192.00*
Survey	46	04-22	01:00	01:15	04-22	19095.00	19095.00	Inclination (°): *91.210*, Azimuth (°): *0.930*, TVD (ft): *10869.96*, Dogleg (º/100 ft): *0.57*, Sensor Depth (ft): *19025.00*, Bit To Sensor (ft): *70.00*
Circulating	3	04-22	01:15	04:50	04-22			Circulate @ TD
Other	16	04-22	04:50	05:40	04-22			Change out Elevators
Pooh	7	04-22	05:40	00:00	04-23			L/D Drill Pipe

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Apr 23 00:00 - 23:59 (Day 40 of 45)

Billing: $4,300.00 ($275,851.94 total)

Drilling Summary

Start Depth (ft)		**Downhole Hours**	1.50
Bit Depth (ft)		**Drilling Hours**	0.00
Bottom Hole Depth (ft)		**Hours Circulating**	0.00
Total Distance (ft)	0.00	**Hours Sliding**	0.00
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00
Distance Slid (ft)	0.00		
Inclination In			
Inclination Out			
Azimuth In		**% Hours Rotating**	
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		

Drilling Parameters

Rotating WOB (klbs)	
Sliding WOB (klbs)	
Rotating SPM	
Sliding SPM	
Motor RPM	180.00 - 185.00
Surface RPM	
Flow Rate (gpm)	
On Bottom Pressure (psi)	
Off Bottom Pressure (psi)	

Personnel

Name	Position
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	MWD Engineer

BHA #10 - BHA #10 (Third Lateral Run)

Date In: Apr 21, 2019, 2:30 Date Out: Apr 23, 2019, 1:30

Bit Details

OD (in)	8.500
Vendor	Baker
S/N	5292993
Nozzles	6x22
Total Flow Area (in²)	2.227
Drilling Hours for Day	0.00
Total Drilled for Day (ft)	
Drilling Hours for BHA	10.08
Total Drilled for BHA (ft)	1430.00

Motor Details

Size (in)	7.0
Lobe/Stage	6/7, 8.4
Bend Angle	1.75
Speed (rev/gal)	0.30
Wear Pad OD (in)	7.625

Bit Distances

Bend (Bit to Bend): 5.35 ft, **Survey:** 70.00 ft, **Gamma:** 66.00 ft

Directional Comments

7" Contender : 1.75° FBH 6/7 8.4 Stg. W/ Slick Sleeve.Protracted Angle: 1.73°, Flow Rate 350-750, Max Diff 1980 psi, Max Operating Torque: 16,550 ft/lbs, Rev/Gal: .30 / Bit Data: Baker 8.5", Type DD506TWX, SN: 5292993 Jets: 6x22's, TFA: 2.227 Runs on Bit: 0

MWD Comments

POOH Reason

Total Depth/Casing Point: Well TD

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *5.25*, Size (in): *8.50*	Baker	5292993	4 1/2" Reg Pin			8.500		1.08	1.08
Mud Motor Description: *1.75° FBH 6/7 8.4 Stg W/Slick Sleeve*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *6*, Stator Lobe: *7*, Stator Stage: *8.4*	Contender	700-40-014	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.04	35.12
Stabilizer Description: *8 1/4 Nortrac Stab*	DTI	DR37942	4 1/2" IF Box	4 1/2" IF Pin	2.500	6.500		5.78	40.90
Drill Collar Description: *NMPC*, Style: *Pony*, Type: *NM*	DTI	DR34915	4 1/2" IF Box	4 1/2" IF Pin	2.750	6.500		13.74	54.64
UBHO Sub Description: *Shockmiser*, Type: *Steel*	Gordon Tech	GT650-110	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		2.80	57.44
Drill Collar Description: *6 1/2" NMDC (MWD)*, Style: *Slick Drill*, Type: *NM*	DTI	DR36758	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		30.80	88.24
Drill Collar Description: *6 1/2 " NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	DTI	DR38641	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.21	119.45
Drill Pipe Description: *30 Stands DP*, Style: *Slick*			4 1/2" IF Box	4 1/2" IF Pin	3.185	5.000		2826.00	2945.45
Agitator Description: *Agitator*, Size (in): *6.50*	Rubicon	XT-ST-650-115	4 1/2" IF Box	4 1/2" IF Pin		6.500		37.80	2983.25

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details

Poon	7	04-22	05:40	00:00	04-23			L/D Drill Pipe
Change BHA	6	04-23	00:00	01:00	04-23			L/D BHA #10
Standby	15	04-23	01:00	06:00	04-24			Rig up and Run Casing & Cement

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Apr 24 00:00 - 23:59 (Day of 45)

Billing: $17,748.19 ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	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	04-23	01:00	06:00	04-24			Rig up and Run Casing & Cement
Standby	15	04-24	06:00	00:00	04-25			Standby while Cement, Nipple Down, Skid Rig

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-19-031	Advance Energy Partners		H&P #620
Start Date	**Well Name**		**Legal Well Name | AFE**
2019-03-12	Dagger Lake 5 State #501H		Dagger Lake 5 State #501H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Apr 25 00:00 - 23:59 (Day of 45)

Billing: N/A ($275,851.94 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
Joel Johnson	Directional Driller
Josh Cockrell	Directional Driller
Shawn Flores	MWD Engineer
Chris Carroll	MWD Engineer
Omar Alaniz	Directional Driller
Chris Carroll	MWD Engineer
Kyle Kusak	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	04-24	06:00	00:00	04-25			Standby while Cement, Nipple Down, Skid Rig
Standby	15	04-25	00:00	01:00	04-25			Skid rig over the Dagger Lake 5 State 601H
Standby	15	04-25	01:00	06:00	04-25			Standby while Rigging up

MWD Activities

No Activities

Surface Plat

Dagger Lake 5 State #501H (WT-19-031)

2019-03-12 to 2019-04-25

Lea, New Mexico, US (32.42, -103.60)

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	DAGGER LAKE 5 STATE	501H
OGRID No.	**Operator Name**	**Elevation**
	ADVANCE ENERGY PARTNERS HAT MESA	3658'

Surface Location

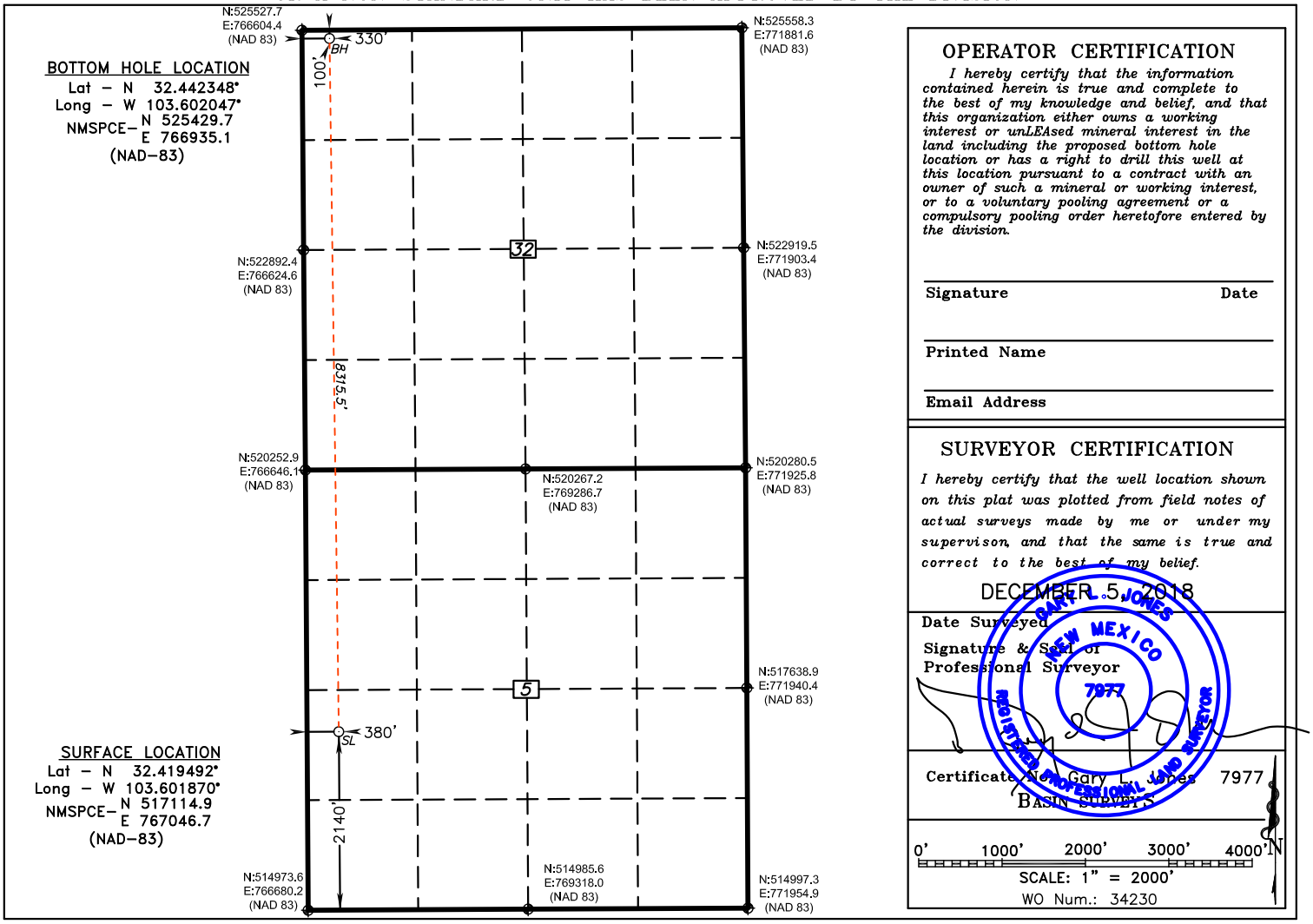
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
L	5	22 S	33 E		2140	SOUTH	380	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
D	32	21 S	33 E		100	NORTH	330	WEST	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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unLEAsed mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Printed Name

Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

DECEMBER 5, 2018
Date Surveyed

Signature & Seal of Professional Surveyor

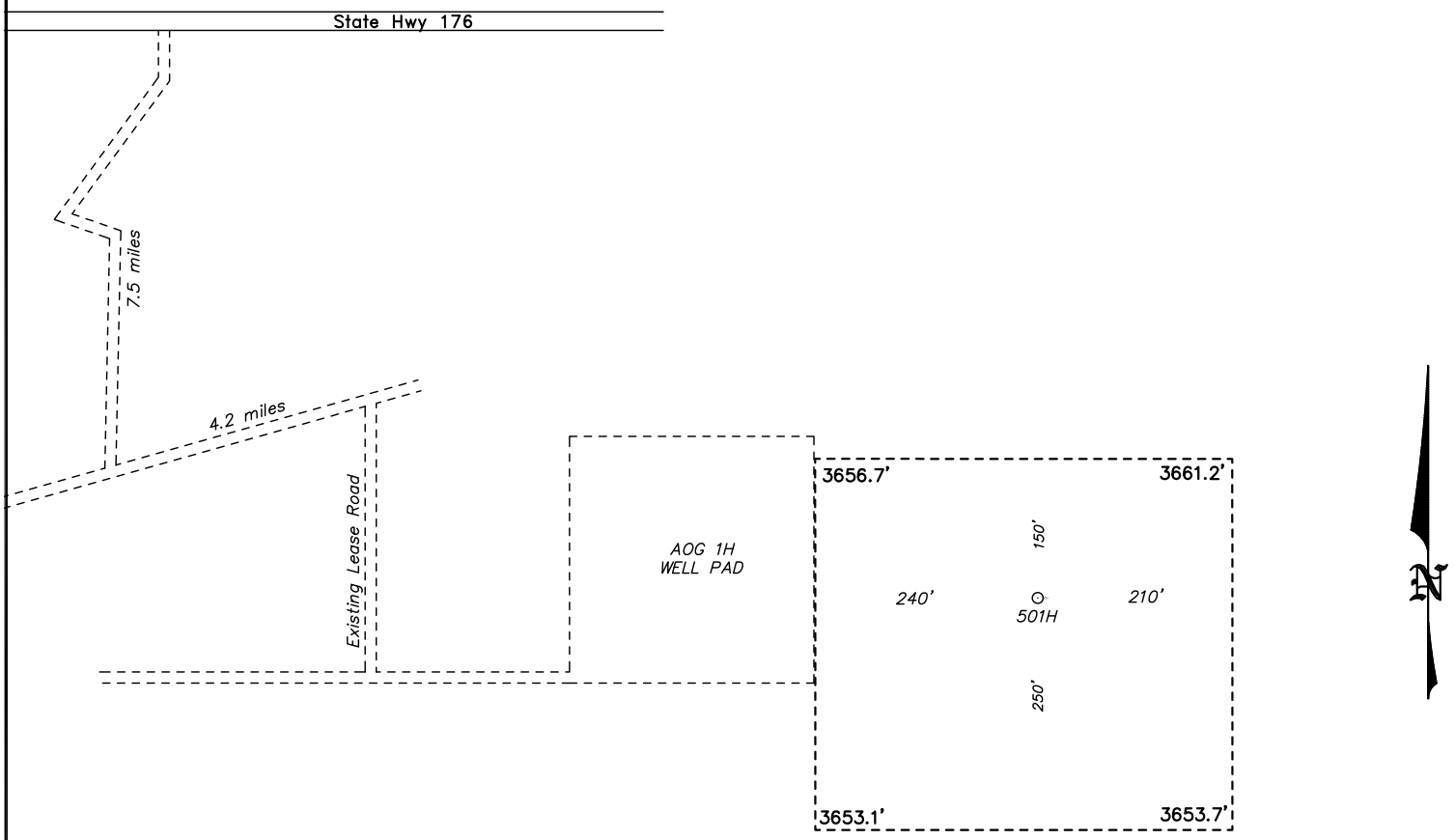
GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977
BASIN SURVEYS

0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'
WO Num.: 34230

SECTION 5, TOWNSHIP 22 SOUTH, RANGE 33 EAST. N.M.P.M.,

LEA COUNTY, NEW MEXICO.



ADVANCE ENERGY PARTNERS HAT MESA
DAGGER LAKE 501H
ELEV. – 3656'

Lat – N 32.442115°
Long – W 103.536406°
NMSPCE– N 525489.6
E 787186.1
(NAD–83)

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

200 0 200 400 FEET

SCALE: 1" = 200'

ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER LAKE 501H / WELL PAD TOPO

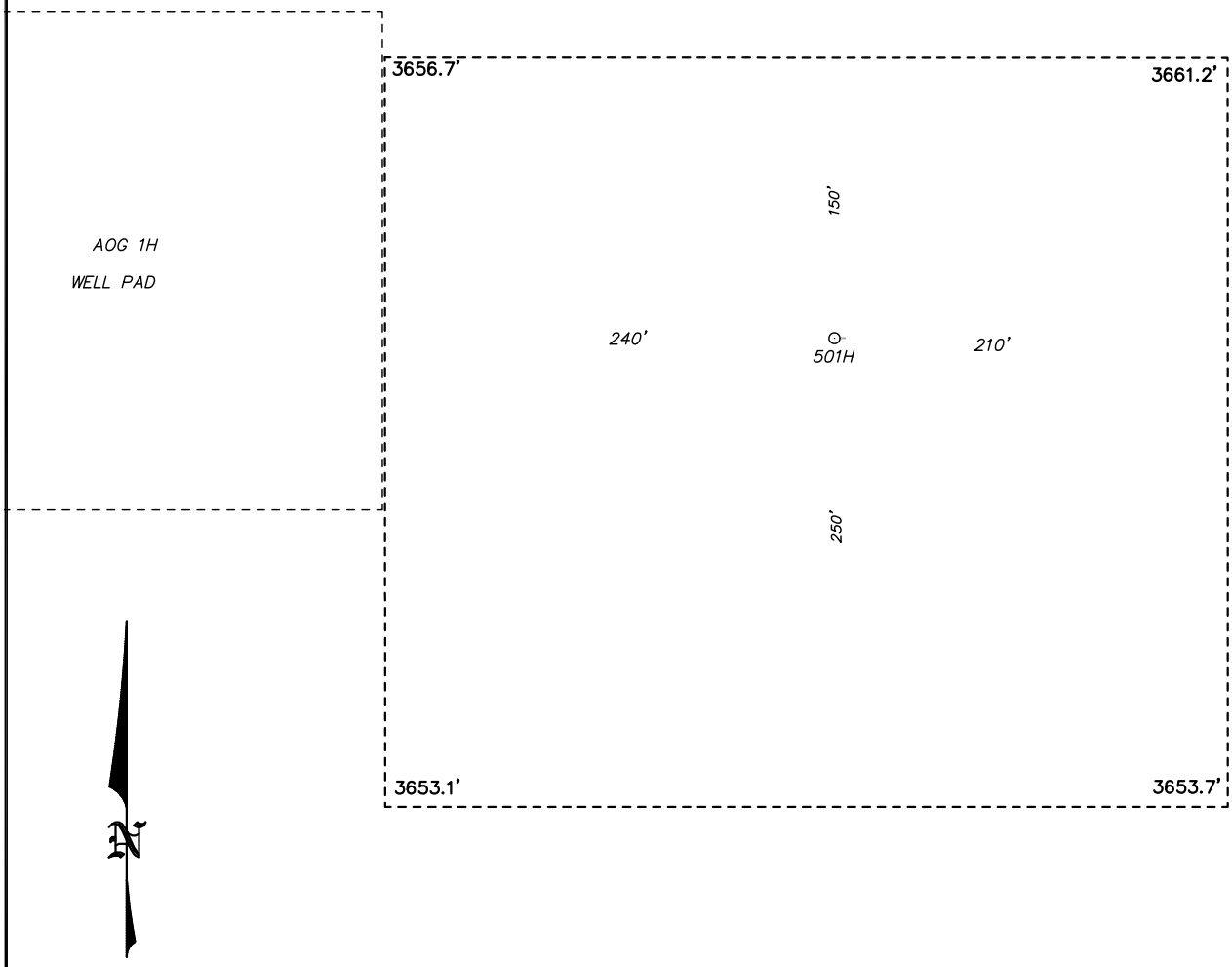
THE DAGGER LAKE 501H LOCATED 2140' FROM THE SOUTH LINE AND 380' FROM THE WEST LINE OF SECTION 5, TOWNSHIP 22 SOUTH, RANGE 33 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393–7316 – Office
(575) 392–2206 – Fax
basinsurveys.com

W.O. Number: 34230	Drawn By: K. GOAD	Date: 12–06–2018	Survey Date: 12–05–2018	Sheet 1 of 1 Sheets

SECTION 5, TOWNSHIP 22 SOUTH, RANGE 33 EAST. N.M.P.M.,

LEA COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER LAKE 501H / WELL PAD TOPO

THE DAGGER LAKE 501H LOCATED 2140' FROM THE SOUTH LINE AND 380' FROM THE WEST LINE OF SECTION 5, TOWNSHIP 22 SOUTH, RANGE 33 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

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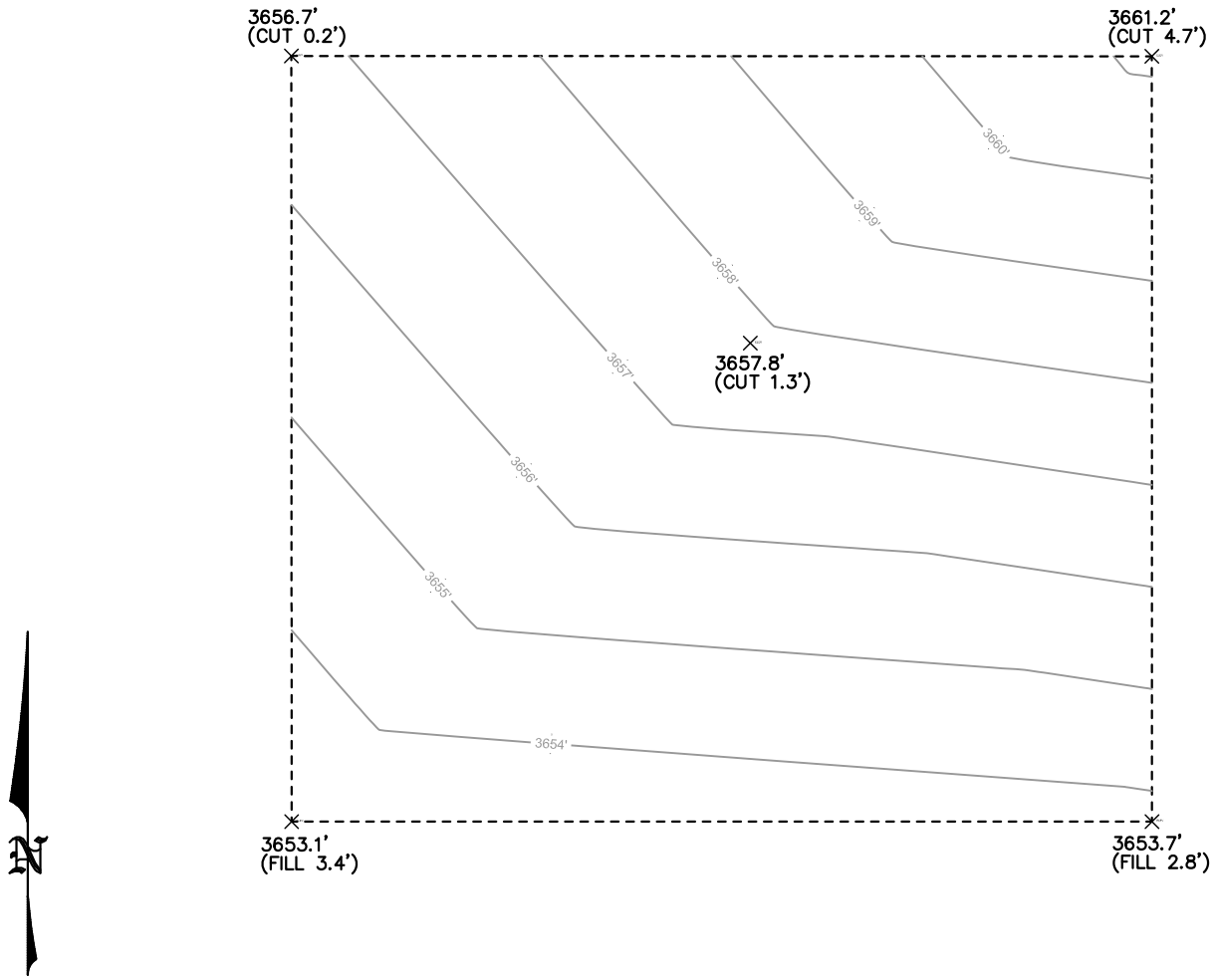
W.O. Number: 34230	Drawn By: K. GOAD	Date: 12-06-2018	Survey Date: 12-05-2018	Sheet 1 of 1 Sheets

SECTION 5, TOWNSHIP 22 SOUTH, RANGE 33 EAST. N.M.P.M.,

LEA COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER LAKE 501H / CUT & FILL

THE DAGGER LAKE 501H LOCATED 2140' FROM THE SOUTH LINE AND 380' FROM THE WEST LINE OF SECTION 5, TOWNSHIP 22 SOUTH, RANGE 33 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

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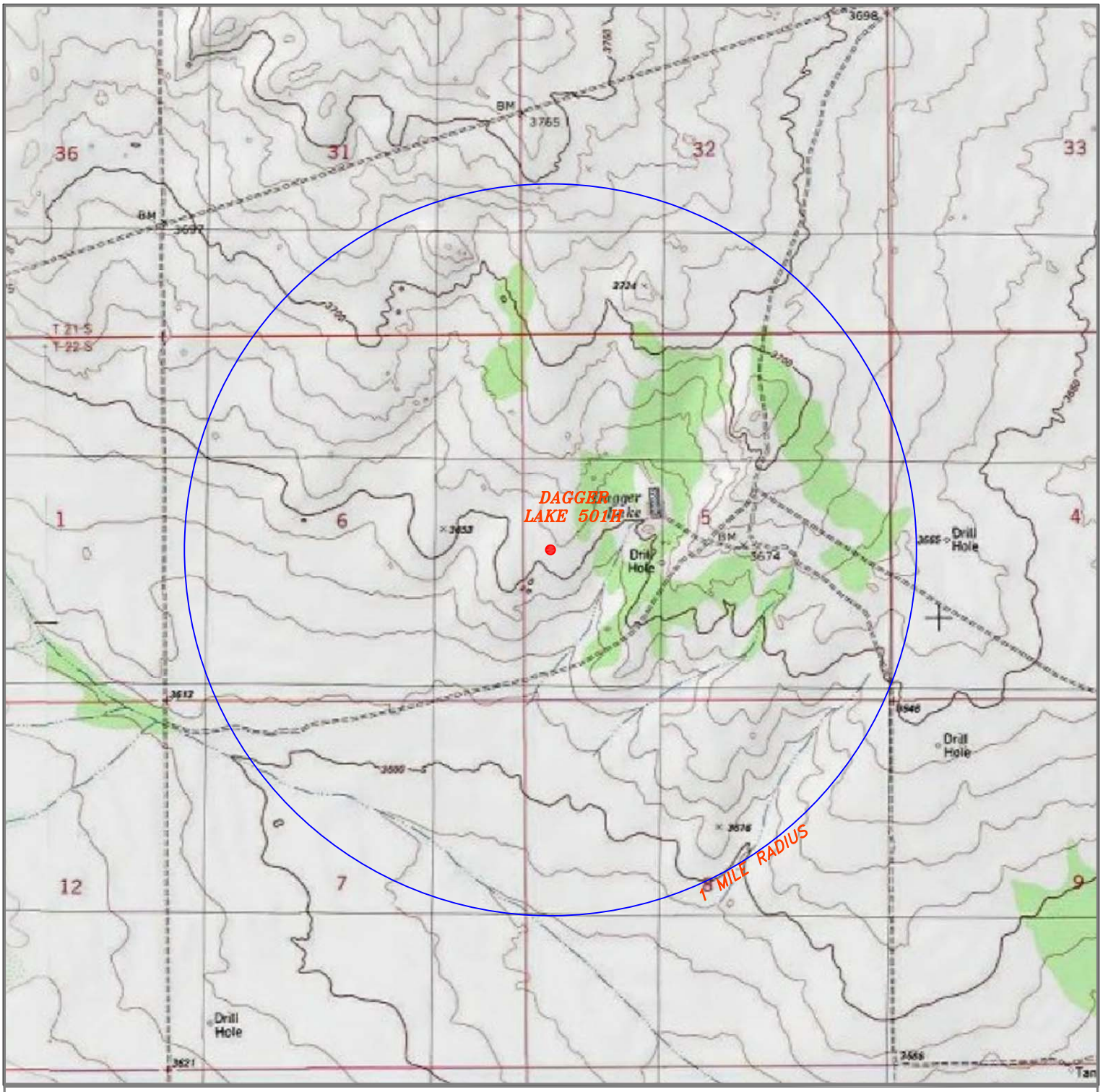
W.O. Number: 34230	Drawn By: K. GOAD	Date: 12-06-2018	Survey Date: 12-05-2018	Sheet 1 of 1 Sheets



DAGGER LAKE 501H

Located 2140' FSL and 380' FWL
Section 5, Township 22 South, Range 33 East,
N.M.P.M., Lea County, New Mexico.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 – Office
(575) 392-2206 – Fax
basinsurveys.com

0' 1000' 2000' 3000' 150'0'
SCALE: 1" = 2000'

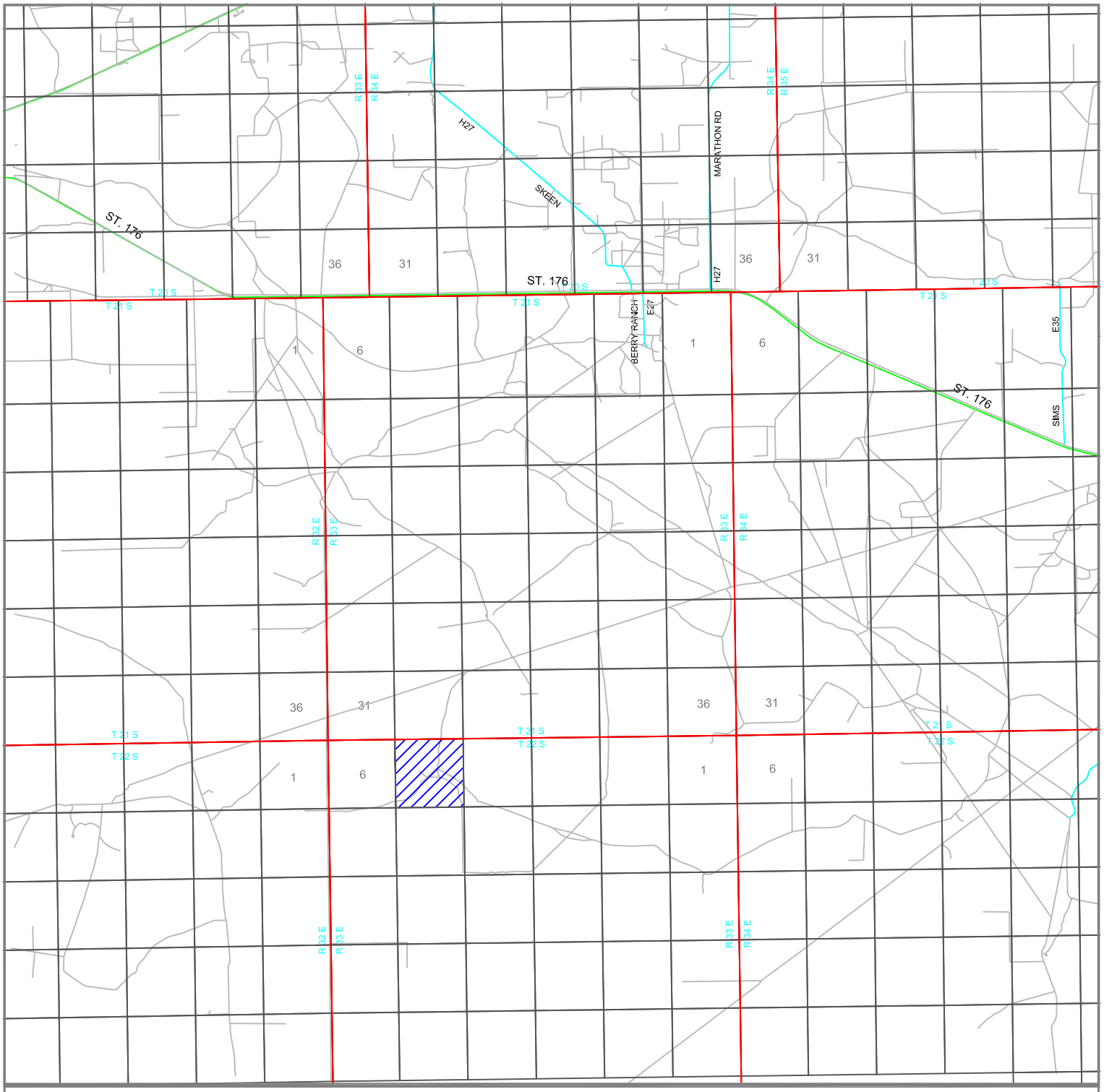
W.O. Number: JG 34230

Survey Date: 12-06-2018

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

N

ADVANCE ENERGY PARTNERS HAT MESA



DAGGER LAKE 501H

Located 2140' FSL and 380' FWL
Section 5, Township 22 South, Range 33 East,
N.M.P.M., Lea County, New Mexico.

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focused on excellence in the oilfield

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basinsurveys.com

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

W.O. Number: JG 34230

Survey Date: 12-06-2018

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

N

ADVANCE ENERGY PARTNERS HAT MESA

DAGGER LAKE 501H

Located 2140' FSL and 380' FWL
Section 5, Township 22 South, Range 33 East,
N.M.P.M., Lea County, New Mexico.

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basinsurveys.com

0' 1000' 2000' 3000' 150'0'
SCALE: 1" = 2000'

W.O. Number: JG 34230

Survey Date: 12-06-2018

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

N

ADVANCE ENERGY PARTNERS HAT MESA

Submit 1 Copy To Appropriate District 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

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-45579

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name: Dagger Lake 5 State Com

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

8. Well Number: 501H

2. Name of Operator: Advance Energy Partners Hat Mesa

9. OGRID Number: 372417

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

10. Pool name or Wildcat: LEGG;BONE SPRING

4. Well Location
Unit Letter L : 2140 feet from the S line and 380 feet from the W line
Section 5 Township 22S Range 33E NMPM County LEA

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*: 3658'

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			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.

- 6/11/19: Pressure test casing to 9800 psi for 30 minutes.
- 7/10/19 – 7/21/19: Perforate from 11,281' – 18,916' (2280). Frac with 19,157,235 lbs sand and 20,758,144 gal fluid.
- 7/23/19 – 7/26/19: Drill all plugs out and clean out to a PBTD of 18,931'.
- 8/2/19 – Set packer at 10,367'. Run 2-7/8" production tubing and gas lift valves. EOT @ 10,379'
- 8/7/19: Begin flowback – Ready to produce.
- 2/18/22 – **CORRECTION to Casing Depths filed on 6/12/19. CORRECT depths are as follows:**
  - 13.375" Surface Casing set at 1,165'
  - 9.625" Intermediate Casing set at 3,866'/4,830'
  - 5.5" Production Casing set at 19,012'

Spud Date: 03/13/2019 Rig Release Date: 04/24/2019

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

SIGNATURE: Eileen M Kosakowski TITLE: Sr. Eng. Tech. DATE: 2/18/22
PRINT NAME: Eileen M Kosakowski E-mail address: ekosakowski@advanceenergypartners.com PHONE: (832) 672-4604

For State Use Only

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

Submit Electronically
Via E-permitting

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. 30-025-46679
2. Type of Lease ☒ STATE ☐ FEE ☐ FED/INDIAN
3. State Oil & Gas Lease No.

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 Lake 5 State Com

6. Well Number: 501H

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: LEGG;BONE SPRING

12.Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	L	5	22S	33E		2140	S	380	W	Lea
BH:	D	32	21S	33E		50	N	351	W	Lea

13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released	16. Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc.)
03/13/2019	04/22/2019	04/24/2019	08/07/2019	3,685'

18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run
19,095	18,946	YES	Gamma Ray

22. Producing Interval(s), of this completion - Top, Bottom, Name
11,281' – 18,916' Bone Springs

23. **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#	1165	17.5"	635	
9.625"	40#	3866/4830	12.25"	970	
5.5"	20#	19,012	8.5"	3070	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2 7/8	10,379'	10,367'

26. Perforation record (interval, size, and number)
11,281-18,916' –2280 holes

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
11,281'- 18,916'	19,157,235 lbs sand, 20,758,144 bbls water

28. **PRODUCTION**

Date First Production	Production Method *(Flowing, gas lift, pumping - Size and type pump)*	Well Status *(Prod. or Shut-in)*
8/15/2019	Flowing	Prod

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
08/25/2019	24 Hrs	38		850	793	3474	934

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas – MCF	Water - Bbl.	Oil Gravity - API - *(Corr.)*
890	1000		850	793	3474	43.6

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*: Sold

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: 04/24/19

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: Eileen M Kosakowski Date: 2/18/22

Printed Name Eileen M Kosakowski Title: Sr. Eng Tech. E-mail Address: ekosakowski@advanceenergypartners.com

INSTRUCTIONS

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 8913	T.Todilto	
T. Abo	T.	T. Entrada	
T. Wolfcamp	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	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

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	OGRID: 372417
	Action Number: 82760
	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.
Santa Fe, NM 87505

CONDITIONS

Action 82760

CONDITIONS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	OGRID: 372417
	Action Number: 82760
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	None	7/25/2024