

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

Form C-104  
Revised August 1, 2011

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

Submit one copy to appropriate District Office

AMENDED REPORT

**I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT**

<sup>1</sup> Operator name and Address Advance Energy Partners Hat Mesa, LLC 11490 Westheimer RD, Suite 950 Houston, TX		<sup>2</sup> OGRID Number 372417	<sup>3</sup> Reason for Filing Code/ Effective Date NW
<sup>4</sup> API Number 30-025-48996	<sup>5</sup> Pool Name Red Tank; Bone Spring	<sup>6</sup> Pool Code 51683	
<sup>7</sup> Property Code 326484	<sup>8</sup> Property Name Anderson Federal Com	<sup>9</sup> Well Number 552H	

**II. <sup>10</sup> Surface Location**

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
LOT 4	2	22S	32E		180	NORTH	743	WEST	Lea

**<sup>11</sup> 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
L	26	21S	32E		2553	SOUTH	1230	WEST	Lea
<sup>12</sup> Lse Code	<sup>13</sup> Producing Method Code	<sup>14</sup> Gas Connection Date	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

**III. Oil and Gas Transporters**

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> O/G/W
214984	Plains Marketing, LP 10 Desta Drive, Suite 200E Midland, TX 79705	O
330291	3 Bear Energy-Cottonwood, LLC 1512 Larimer Street, Suite 540 Denver, CO 80202	G

**IV. Well Completion Data**

<sup>21</sup> Spud Date 11/22/21	<sup>22</sup> Ready Date 5/31/22	<sup>23</sup> TD 19,330'	<sup>24</sup> PBTD 19,305'	<sup>25</sup> Perforations 11,601' – 19,295'	<sup>26</sup> DHC, MC
<sup>27</sup> Hole Size	<sup>28</sup> Casing & Tubing Size	<sup>29</sup> Depth Set	<sup>30</sup> Sacks Cement		
17.5"	13.375"	1262'	730		
12.25"	9.625"	3779'/4797'	1230		
8.5"	5.5"	19,315'	3185		

**V. Well Test Data**

<sup>31</sup> Date New Oil 5/31/22	<sup>32</sup> Gas Delivery Date 6/2/22	<sup>33</sup> Test Date 7/24/22	<sup>34</sup> Test Length 24 HRS	<sup>35</sup> Tbg. Pressure N/A	<sup>36</sup> Csg. Pressure 712
<sup>37</sup> Choke Size 42	<sup>38</sup> Oil 1032	<sup>39</sup> Water 1943	<sup>40</sup> Gas 1117	<sup>41</sup> Test Method FLOWING	

<sup>42</sup> 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: <i>Eileen M Kosakowski</i>	OIL CONSERVATION DIVISION				
Printed name: Eileen M Kosakowski	Approved by:				
Title: Sr. Eng. Tech	Title:				
E-mail Address: <a href="mailto:ekosakowski@advanceenergypartners.com">ekosakowski@advanceenergypartners.com</a>	Approval Date:				
Date: 11/25/22	Phone: 832-672-4604				

**DISTRICT I**  
1825 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) 476-3480 Fax: (505) 476-3482

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised August 4, 2011

Submit one copy to appropriate  
District Office

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

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

AMENDED REPORT  
As Drilled

API Number 30-025-48996	Pool Code 51683	Pool Name RED TANK;BONE SPRING
Property Code 326484	Property Name ANDERSON FEDERAL COM	Well Number 552H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA, LLC	Elevation 3690'

Surface Location

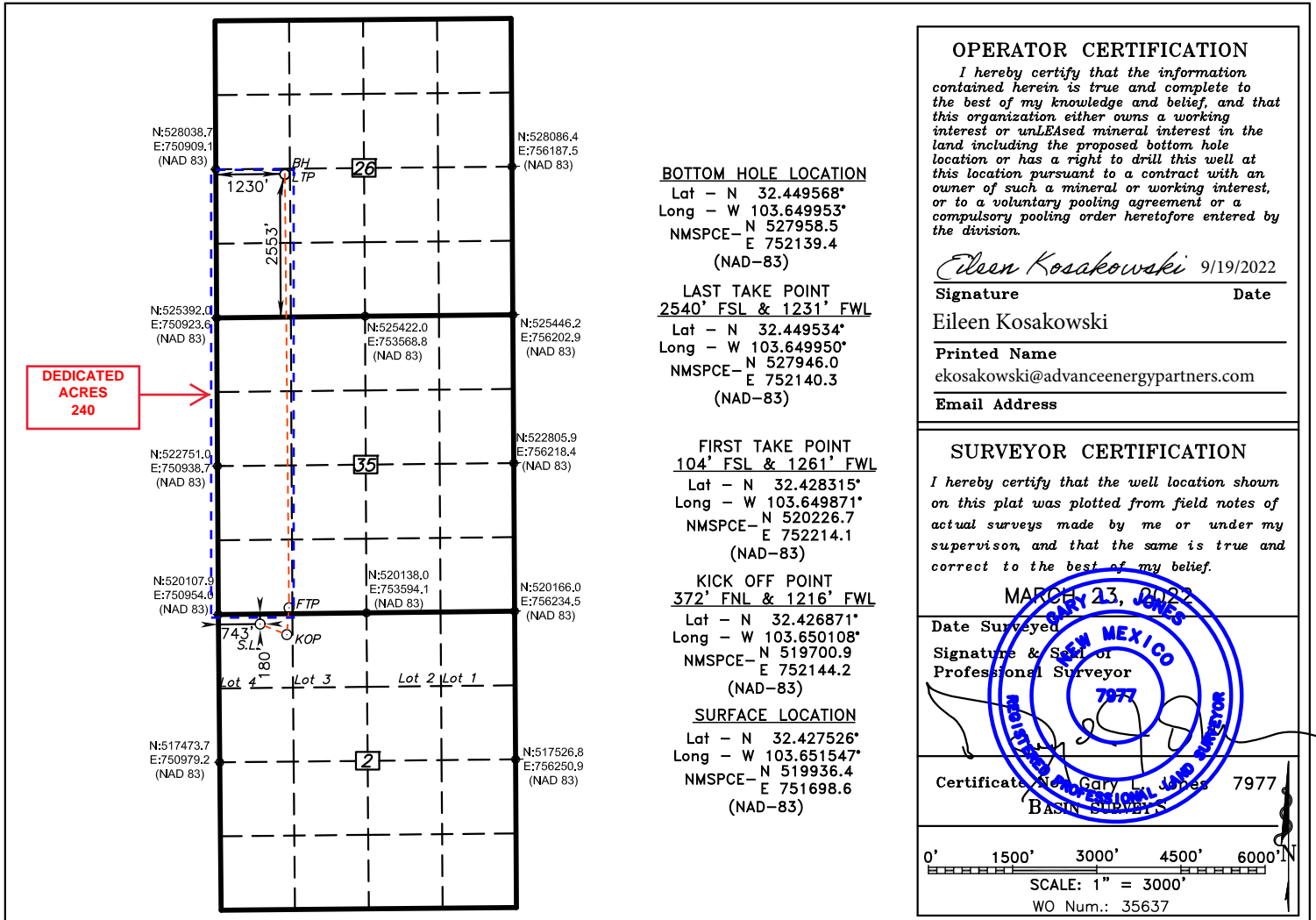
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 4	2	22 S	32 E		180	NORTH	743	WEST	LEA

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
L	26	21 S	32 E		2553	SOUTH	1230	WEST	LEA

Dedicated Acres 240	Joint or Infill	Consolidation Code C	Order No. NSL-8474
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION





**End of Well Report**

**Advance Energy Partners, LLC  
Anderson Fed Com, Well No. 552H  
Lea County, New Mexico**

**Rig: Nabors X50  
Job No.: WT-21-181**

Start Date: 11/22/2021  
End Date: 01/16/2022

Directional Drillers:  
**Advance Directional**

Office Support:  
**Javier Alvarez**

Directional Coordinator  
E-mail: [Javier.Alvarez@aimdir.com](mailto:Javier.Alvarez@aimdir.com)

**Keith Noack**  
Well Planner

E-mail: [Keith.Noack@aimdir.com](mailto:Keith.Noack@aimdir.com)

**Allison Reinert**  
Executive VP

E-mail: [Allison.Reinert@aimdir.com](mailto:Allison.Reinert@aimdir.com)

**Thomas Rinald**  
President

E-mail: [Thomas.Rinald@aimdir.com](mailto:Thomas.Rinald@aimdir.com)

P.O. Box 181015 • Corpus Christi, Texas 78480  
Phone: 361-653-6500 • Fax: 361-653-6599  
[www.aimdir.com](http://www.aimdir.com)





# Performance Overview

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## **Anderson Fed Com 552H (WT-21-181)**

2021-11-22 to 2022-01-16

Lea, New Mexico, US (32.43, -103.65)

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# BHA Performance

## BHA 1

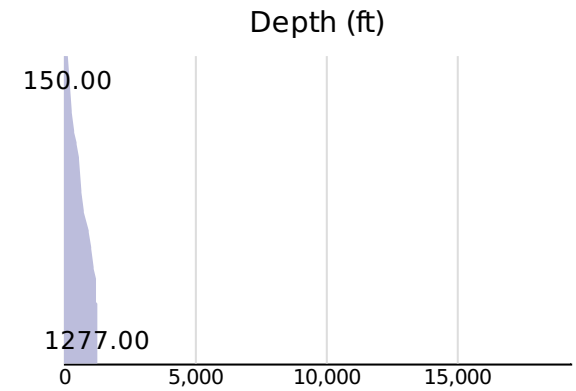
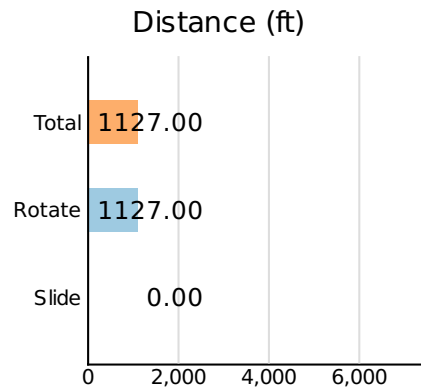
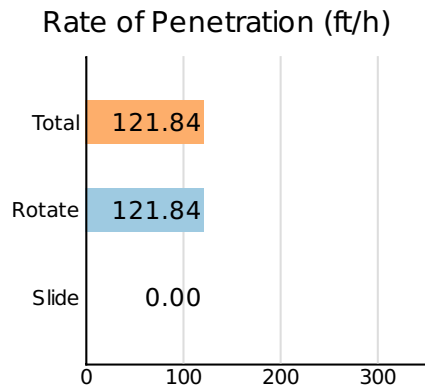
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Out: 11/22/2021

23:40



## BHA 2

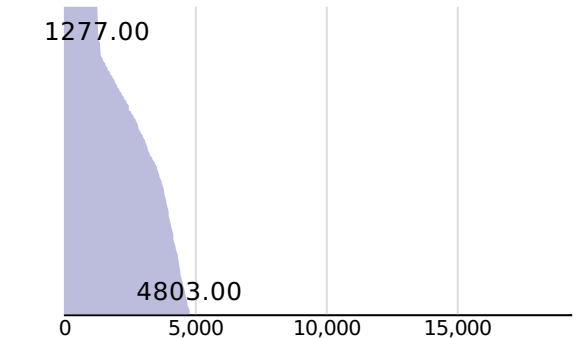
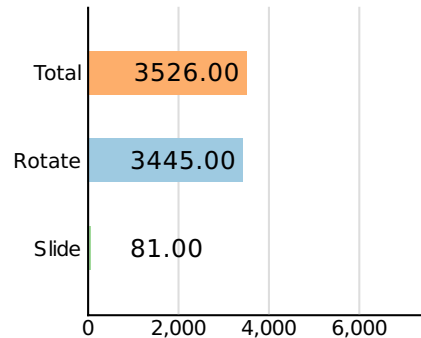
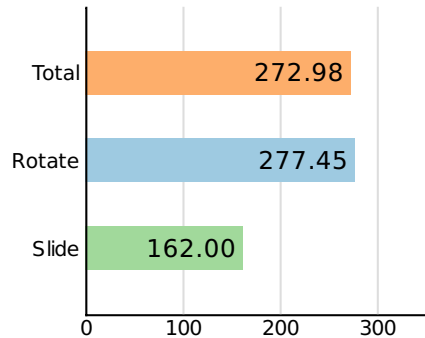
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13:00

Out: 12/04/2021

08:30



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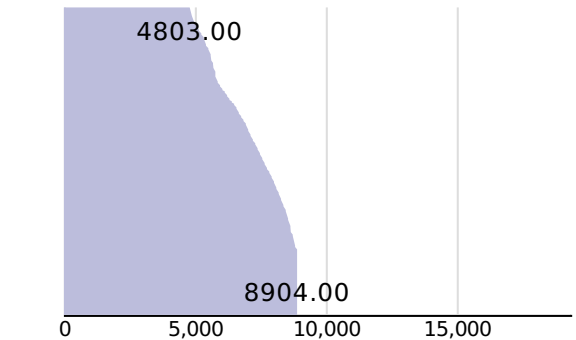
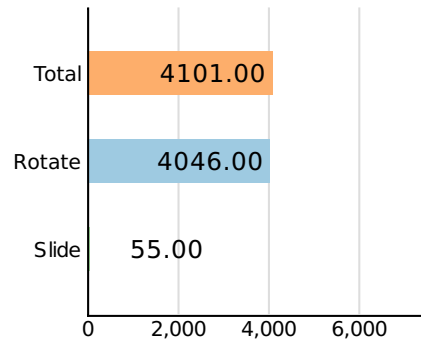
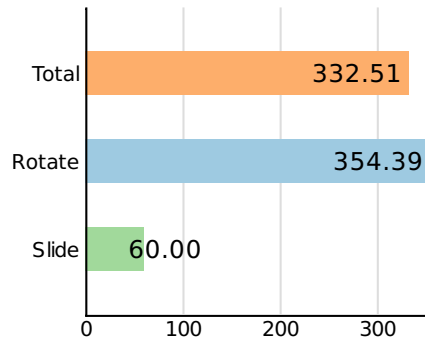
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23:30

Out: 01/04/2022

20:15



# BHA 4

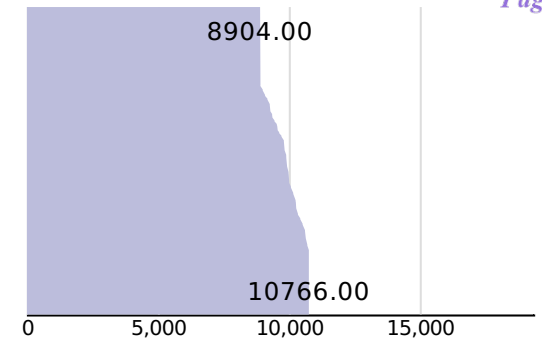
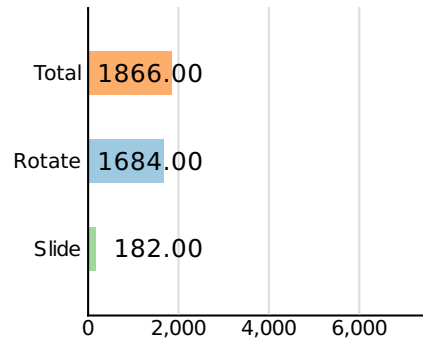
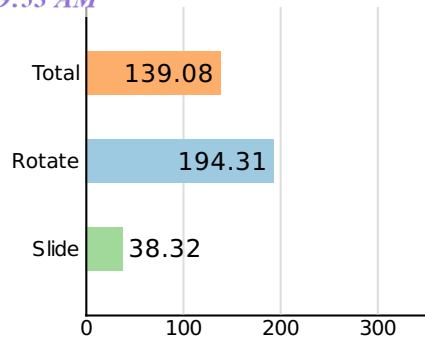
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Out: 01/06/2022

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# BHA 5

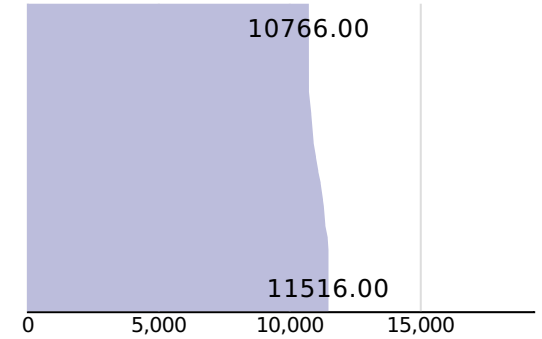
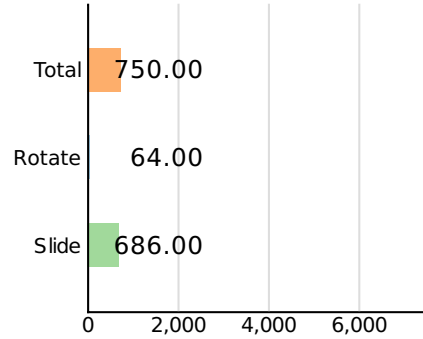
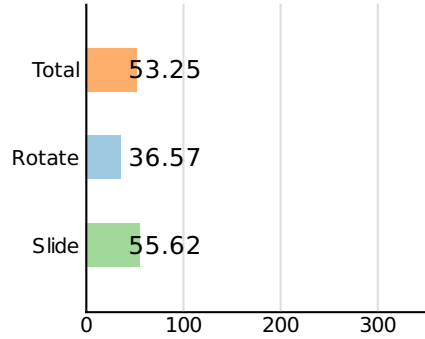
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Out: 01/07/2022

05:00



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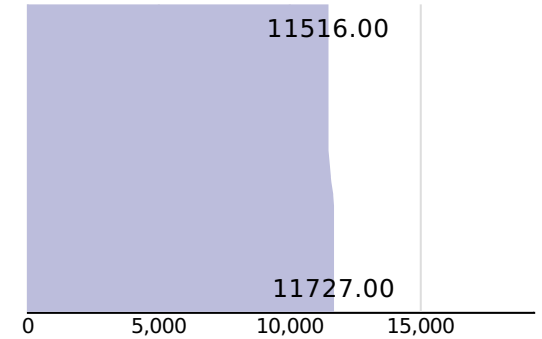
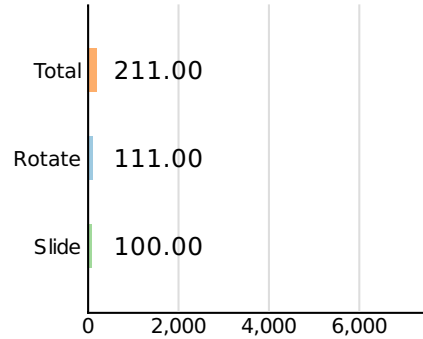
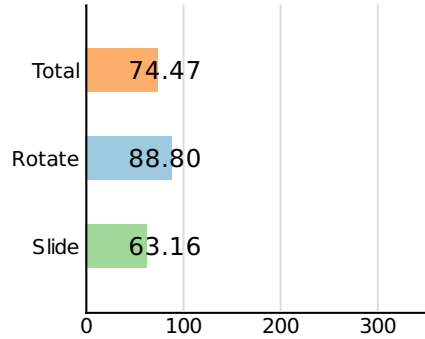
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07:15

Out: 01/08/2022

05:00



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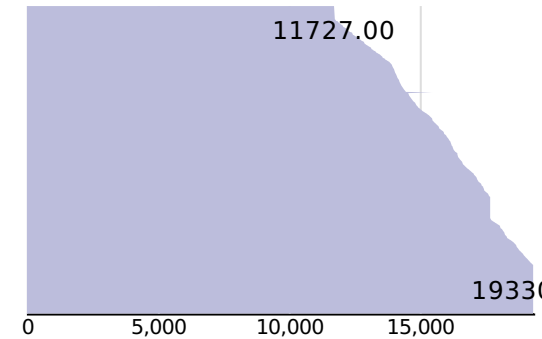
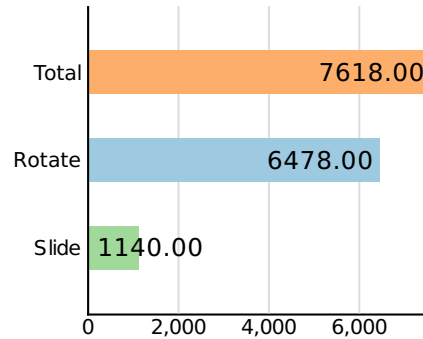
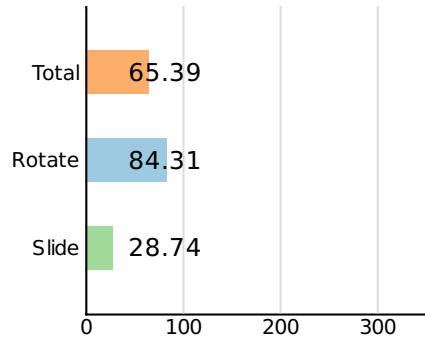
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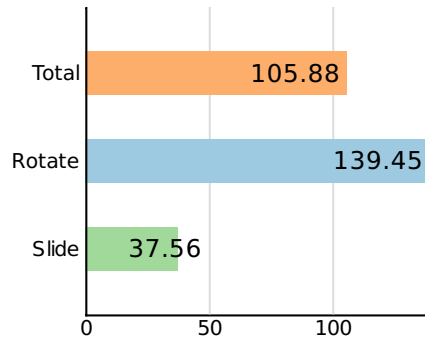
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10:00

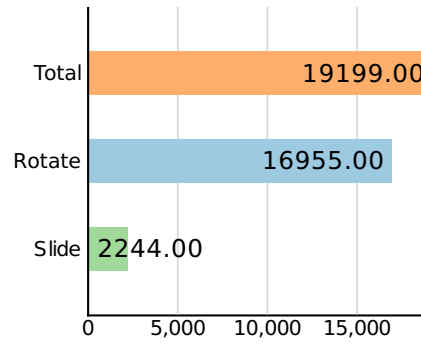


# Total

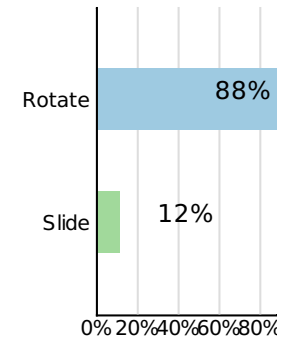
Rate of Penetration (ft/h)



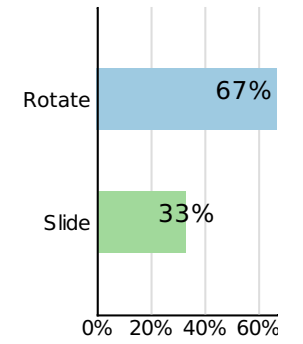
Distance (ft)



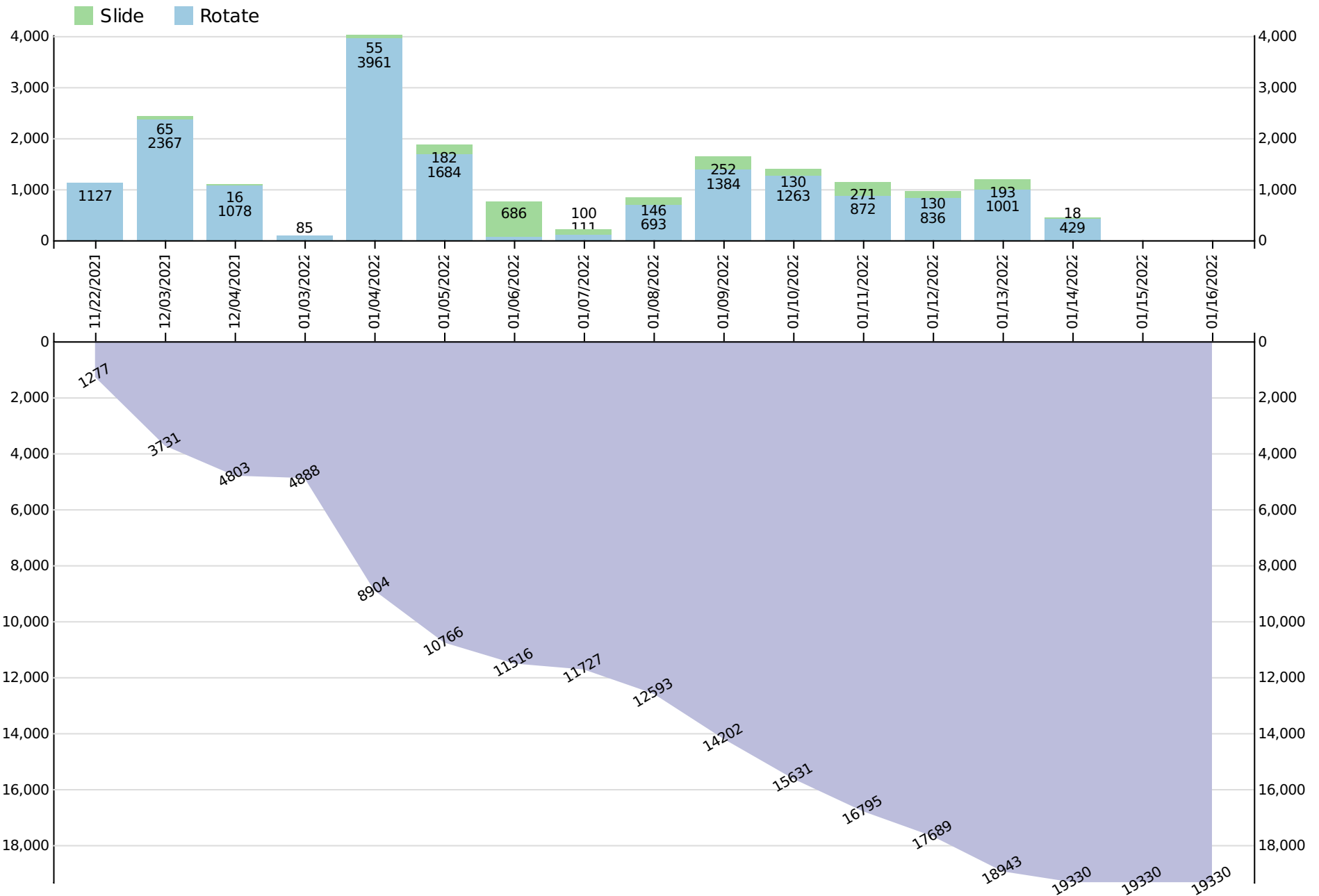
Distance Percentage



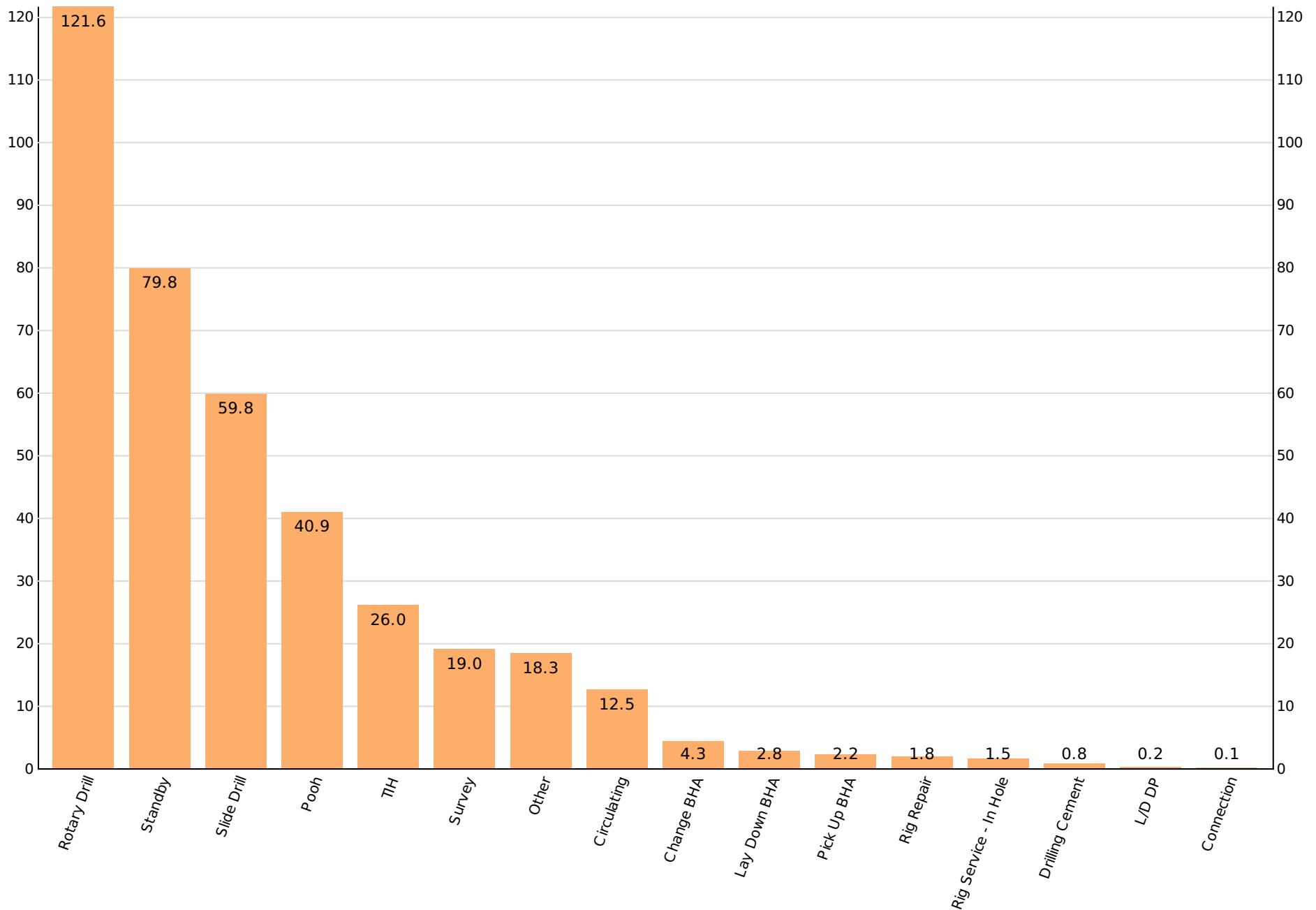
Time Percentage



# Days vs. Depth



# Directional Activity Hours





# Proposed vs. As Drilled

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## **Anderson Fed Com 552H (WT-21-181)**

2021-11-22 to 2022-01-16

Lea, New Mexico, US (32.43, -103.65)

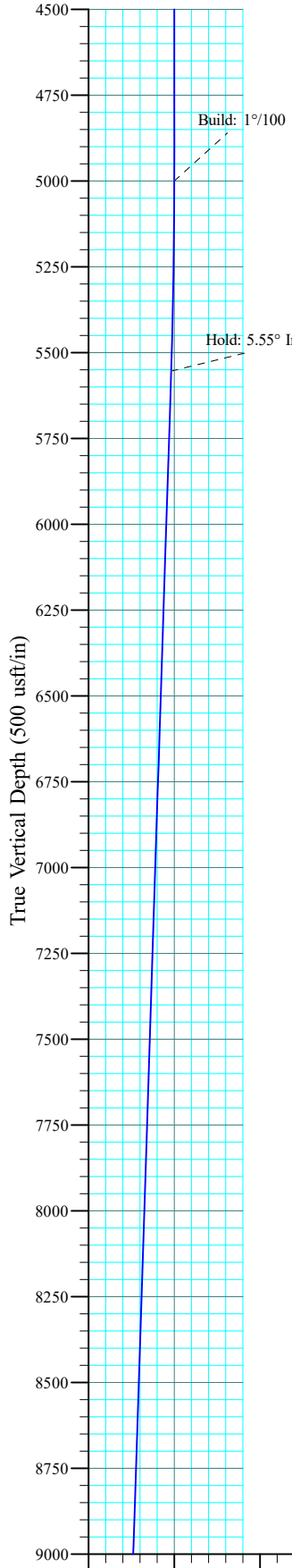
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Anderson Fed Com 552H  
Lea County, New Mexico  
Job No. WT-21-181  
Plan 1.0

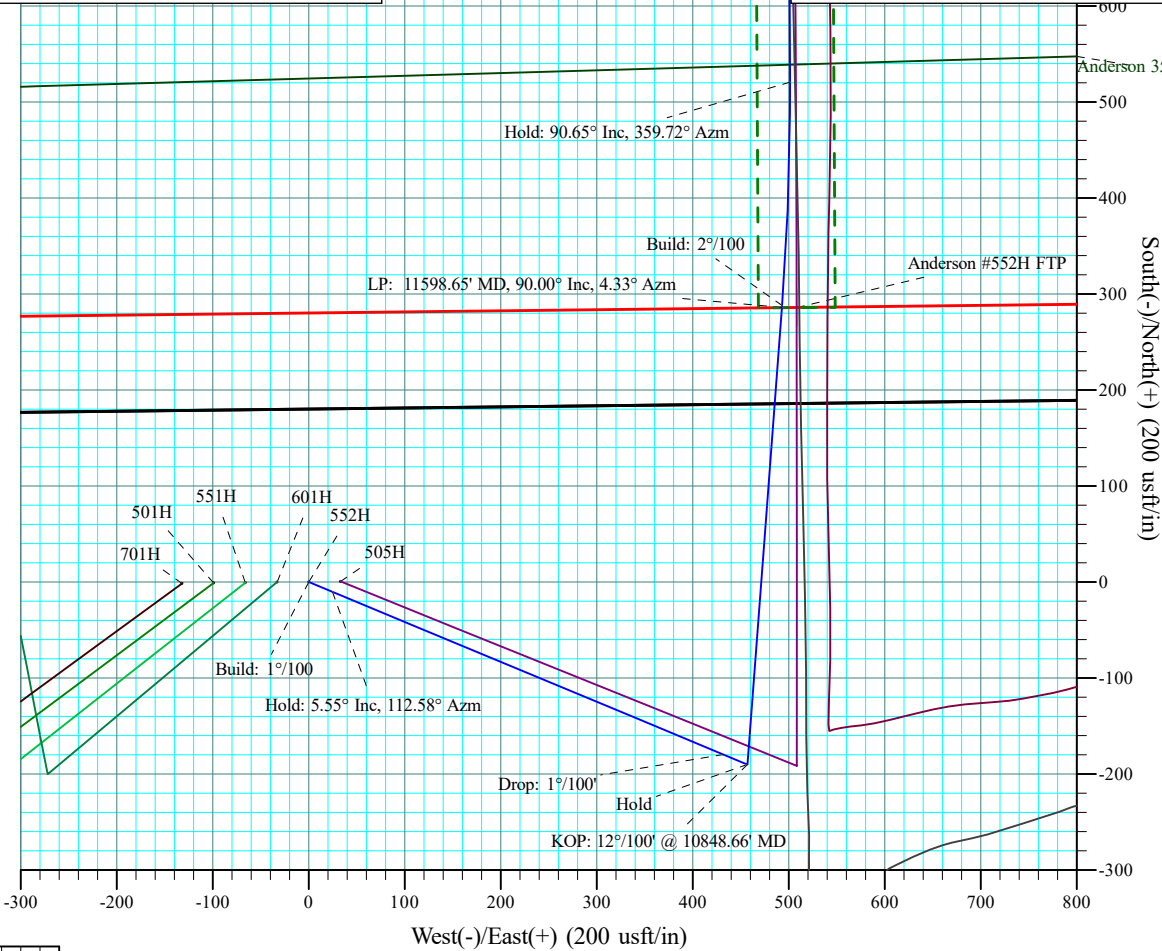


SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	
2	5000.00	0.00	0.00	5000.00	0.00	0.00	0.000	0.00	0.00	Build: 1°/100
3	5554.85	5.55	112.58	5553.99	-10.31	24.79	1.000	112.58	-8.85	Hold: 5.55° Inc, 112.58° Azm
4	10118.26	5.55	112.58	10096.01	-179.69	432.21	0.000	0.00	-154.36	Drop: 1°/100'
5	10673.12	0.00	0.00	10650.00	-190.00	457.00	1.000	180.00	-163.22	Hold
6	10848.66	0.00	0.00	10825.54	-190.00	457.00	0.000	0.00	-163.22	KOP: 12°/100' @ 10848.66' MD
7	11598.65	90.00	4.33	11303.00	286.10	493.05	12.000	4.33	314.17	LP: 11598.65' MD, 90.00° Inc, 4.33° Azm
8	11600.60	90.00	4.33	11303.00	288.04	493.20	0.000	0.00	316.12	Build: 2°/100
9	11833.53	90.65	359.72	11301.68	520.76	501.42	2.000	-81.93	548.93	Hold: 90.65° Inc, 359.72° Azm
10	13559.90	90.65	359.72	11282.00	2247.00	492.90	0.000	0.00	2271.77	Build: 2°/100
11	13628.25	92.02	359.72	11280.41	2315.32	492.57	2.000	0.19	2339.96	Hold: 92.02° Inc, 359.72° Azm
12	14774.65	92.02	359.72	11240.00	3461.00	487.00	0.000	0.00	3483.39	Drop: 2°/100'
13	14973.98	88.03	359.72	11239.91	3660.28	486.03	2.000	179.98	3682.29	Hold: 88.03° Inc, 359.72° Azm
14	17861.43	88.03	359.72	11339.00	6546.00	472.10	0.000	0.00	6562.35	Build: 2°/100
15	17909.68	89.00	359.72	11340.25	6594.24	471.86	2.000	-0.32	6610.50	Hold: 89.00° Inc, 359.72° Azm
16	19325.62	89.00	359.72	11365.00	8009.94	464.90	0.000	0.00	8023.42	PBHL @ 19325.62' MD/11365.00' TVD



DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Anderson #552H WP2	11240.00	3461.00	487.00	523397.26	752185.70	32° 26' 13.310 N	103° 38' 59.629 W
Anderson #552H WP1	11282.00	2247.00	492.90	522183.26	752191.60	32° 26' 1.297 N	103° 38' 59.651 W
Anderson #552H FTP	11303.00	285.94	508.60	520222.20	752207.30	32° 25' 41.891 N	103° 38' 59.614 W
Anderson #552H WP3	11339.00	6546.00	472.10	526482.26	752170.80	32° 26' 43.837 N	103° 38' 59.573 W
Anderson #552H PBHL	11365.00	8009.94	464.90	527946.20	752163.60	32° 26' 58.323 N	103° 38' 59.547 W

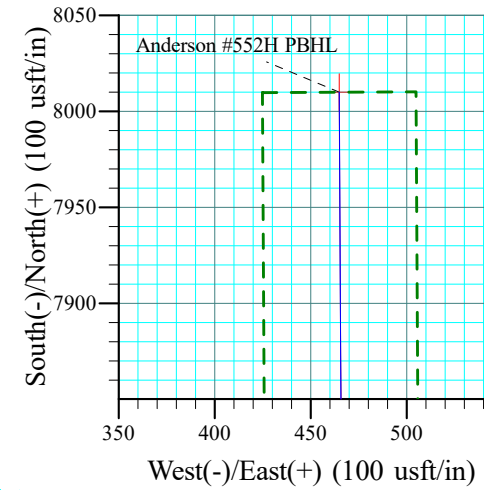
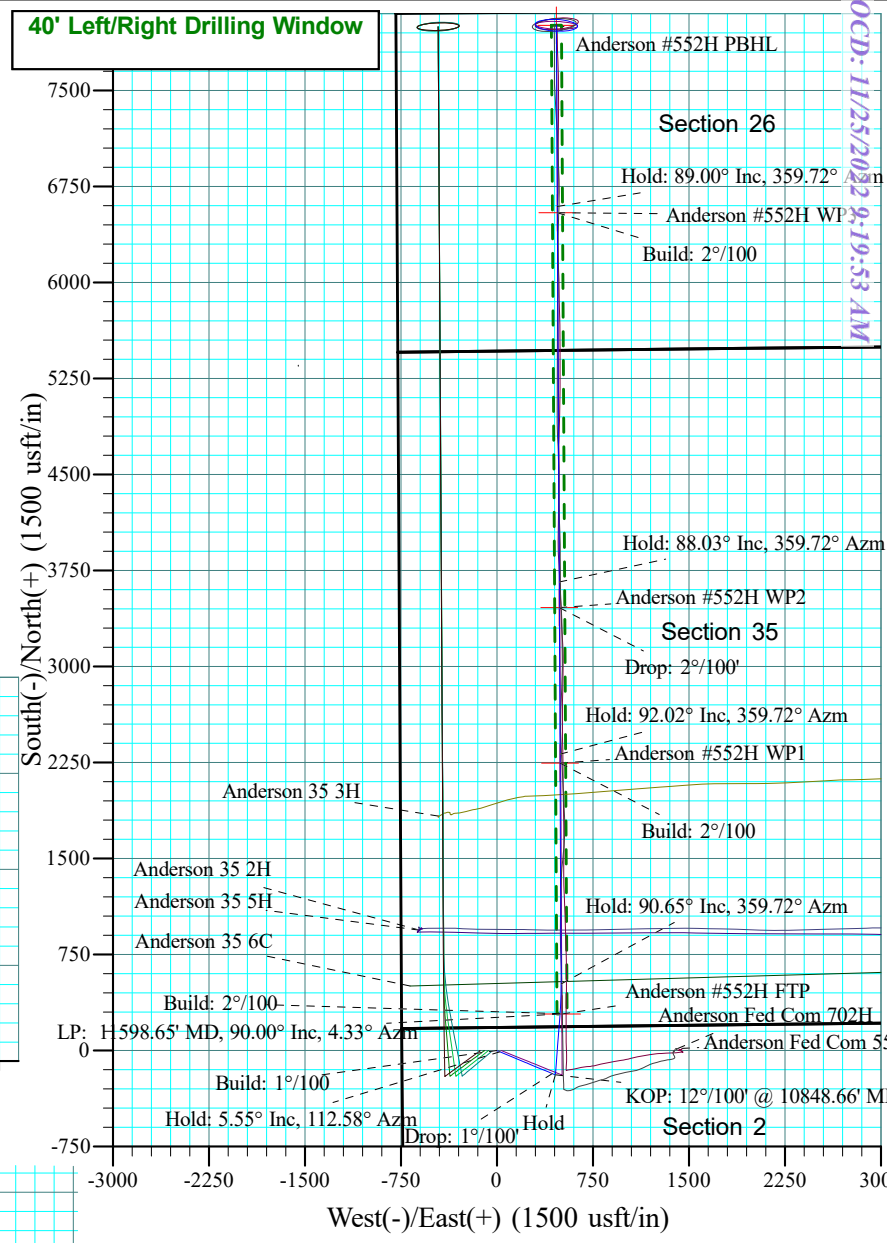
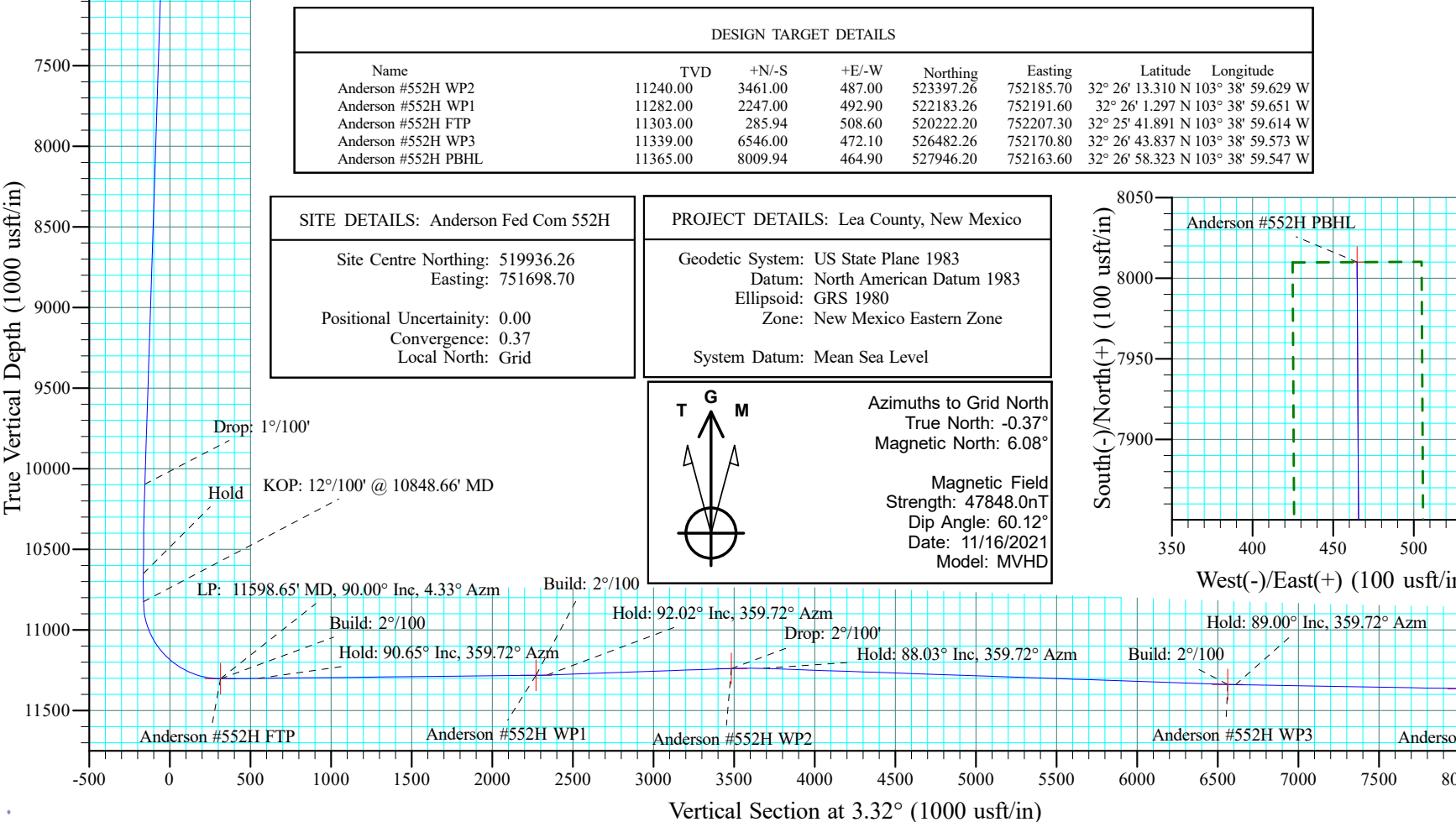
<p>PROJECT DETAILS: Lea County, New Mexico</p> <p>Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: New Mexico Eastern Zone</p> <p>System Datum: Mean Sea Level</p>	<p>Azimuths to Grid North True North: -0.37° Magnetic North: 6.08°</p> <p>Magnetic Field Strength: 47848.0nT Dip Angle: 60.12° Date: 11/16/2021 Model: MVHD</p>	<p>SITE DETAILS: Anderson Fed Com 552H</p> <p>Site Centre Northing: 519936.26 Easting: 751698.70</p> <p>Positional Uncertainty: 0.00 Convergence: 0.37 Local North: Grid</p>
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Revised to Imaging: 4/20/2026 11:17:41 AM

Revised by OCD: 11/25/2022 9:19:53 AM

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00		
2	5000.00	0.00	0.00	5000.00	0.00	0.00	0.000	0.00	0.00		Build: 1°/100
3	5554.85	5.55	112.58	5553.99	-10.31	24.79	1.000	112.58	-8.85		Hold: 5.55° Inc, 112.58° Azm
4	10118.26	5.55	112.58	10096.01	-179.69	432.21	0.000	0.00	-154.36		Drop: 1°/100'
5	10673.12	0.00	0.00	10650.00	-190.00	457.00	1.000	180.00	-163.22		Hold
6	10848.66	0.00	0.00	10825.54	-190.00	457.00	0.000	0.00	-163.22		KOP: 12°/100' @ 10848.66' MD
7	11598.65	90.00	4.33	11303.00	286.10	493.05	12.000	4.33	314.17		LP: 11598.65' MD, 90.00° Inc, 4.33° Azm
8	11600.60	90.00	4.33	11303.00	288.04	493.20	0.000	0.00	316.12		Build: 2°/100
9	11833.53	90.65	359.72	11301.68	520.76	501.42	2.000	-81.93	548.93		Hold: 90.65° Inc, 359.72° Azm
10	13559.90	90.65	359.72	11282.00	2247.00	492.90	0.000	0.00	2271.77	Anderson #552H WP1	Build: 2°/100
11	13628.25	92.02	359.72	11280.41	2315.32	492.57	2.000	0.19	2339.96		Hold: 92.02° Inc, 359.72° Azm
12	14774.65	92.02	359.72	11240.00	3461.00	487.00	0.000	0.00	3483.39	Anderson #552H WP2	Drop: 2°/100'
13	14973.98	88.03	359.72	11239.91	3660.28	486.03	2.000	179.98	3682.29		Hold: 88.03° Inc, 359.72° Azm
14	17861.43	88.03	359.72	11339.00	6546.00	472.10	0.000	0.00	6562.35	Anderson #552H WP3	Build: 2°/100
15	17909.68	89.00	359.72	11340.25	6594.24	471.86	2.000	-0.32	6610.50		Hold: 89.00° Inc, 359.72° Azm
16	19325.62	89.00	359.72	11365.00	8009.94	464.90	0.000	0.00	8023.42	Anderson #552H PBHL	PBHL @ 19325.62' MD/11365.00' TVD



Page 12 of 25



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

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

<b>Site</b>	Anderson Fed Com 552H				
<b>Site Position:</b>		<b>Northing:</b>	519,936.26 usft	<b>Latitude:</b>	32° 25' 39.094 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	751,698.70 usft	<b>Longitude:</b>	103° 39' 5.569 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.37 °

<b>Well</b>	Anderson #552H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	519,936.26 usft	<b>Latitude:</b>	32° 25' 39.094 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	751,698.70 usft	<b>Longitude:</b>	103° 39' 5.569 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,690.00 usft

<b>Wellbore</b>	Planning				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	MVHD	11/16/2021	6.44	60.12	47,848.023

<b>Design</b>	Plan 1.0			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	3.32

<b>Survey Tool Program</b>	<b>Date</b>	11/18/2021		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	19,325.07	Plan 1.0 (Planning)	MWD+HRGM Advance	OWSG MWD + HRGM

<b>Planned Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.000	0.000	0.000	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.000	0.000	0.000	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.000	0.000	0.000	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.000	0.000	0.000	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.000	0.000	0.000	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.000	0.000	0.000	



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.000	0.000	0.000	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.000	0.000	0.000	
<b>Build: 1°/100</b>										
5,100.00	1.00	112.58	5,100.00	-0.34	0.81	-0.29	1.000	1.000	0.000	
5,200.00	2.00	112.58	5,199.96	-1.34	3.22	-1.15	1.000	1.000	0.000	



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	3.00	112.58	5,299.86	-3.01	7.25	-2.59	1.000	1.000	0.000
5,400.00	4.00	112.58	5,399.68	-5.36	12.89	-4.60	1.000	1.000	0.000
5,500.00	5.00	112.58	5,499.37	-8.37	20.13	-7.19	1.000	1.000	0.000
5,554.86	5.55	112.58	5,553.99	-10.31	24.79	-8.85	1.000	1.000	0.000
<b>Hold: 5.55° Inc, 112.58° Azm</b>									
5,600.00	5.55	112.58	5,598.92	-11.98	28.82	-10.29	0.000	0.000	0.000
5,700.00	5.55	112.58	5,698.45	-15.69	37.75	-13.48	0.000	0.000	0.000
5,800.00	5.55	112.58	5,797.98	-19.41	46.67	-16.67	0.000	0.000	0.000
5,900.00	5.55	112.58	5,897.52	-23.12	55.60	-19.86	0.000	0.000	0.000
6,000.00	5.55	112.58	5,997.05	-26.83	64.53	-23.05	0.000	0.000	0.000
6,100.00	5.55	112.58	6,096.58	-30.54	73.46	-26.24	0.000	0.000	0.000
6,200.00	5.55	112.58	6,196.11	-34.25	82.39	-29.42	0.000	0.000	0.000
6,300.00	5.55	112.58	6,295.64	-37.96	91.32	-32.61	0.000	0.000	0.000
6,400.00	5.55	112.58	6,395.17	-41.68	100.24	-35.80	0.000	0.000	0.000
6,500.00	5.55	112.58	6,494.70	-45.39	109.17	-38.99	0.000	0.000	0.000
6,600.00	5.55	112.58	6,594.24	-49.10	118.10	-42.18	0.000	0.000	0.000
6,700.00	5.55	112.58	6,693.77	-52.81	127.03	-45.37	0.000	0.000	0.000
6,800.00	5.55	112.58	6,793.30	-56.52	135.96	-48.56	0.000	0.000	0.000
6,900.00	5.55	112.58	6,892.83	-60.24	144.88	-51.74	0.000	0.000	0.000
7,000.00	5.55	112.58	6,992.36	-63.95	153.81	-54.93	0.000	0.000	0.000
7,100.00	5.55	112.58	7,091.89	-67.66	162.74	-58.12	0.000	0.000	0.000
7,200.00	5.55	112.58	7,191.43	-71.37	171.67	-61.31	0.000	0.000	0.000
7,300.00	5.55	112.58	7,290.96	-75.08	180.60	-64.50	0.000	0.000	0.000
7,400.00	5.55	112.58	7,390.49	-78.80	189.52	-67.69	0.000	0.000	0.000
7,500.00	5.55	112.58	7,490.02	-82.51	198.45	-70.88	0.000	0.000	0.000
7,600.00	5.55	112.58	7,589.55	-86.22	207.38	-74.06	0.000	0.000	0.000
7,700.00	5.55	112.58	7,689.08	-89.93	216.31	-77.25	0.000	0.000	0.000
7,800.00	5.55	112.58	7,788.61	-93.64	225.24	-80.44	0.000	0.000	0.000
7,900.00	5.55	112.58	7,888.15	-97.35	234.16	-83.63	0.000	0.000	0.000
8,000.00	5.55	112.58	7,987.68	-101.07	243.09	-86.82	0.000	0.000	0.000
8,100.00	5.55	112.58	8,087.21	-104.78	252.02	-90.01	0.000	0.000	0.000
8,200.00	5.55	112.58	8,186.74	-108.49	260.95	-93.20	0.000	0.000	0.000
8,300.00	5.55	112.58	8,286.27	-112.20	269.88	-96.38	0.000	0.000	0.000
8,400.00	5.55	112.58	8,385.80	-115.91	278.80	-99.57	0.000	0.000	0.000
8,500.00	5.55	112.58	8,485.33	-119.63	287.73	-102.76	0.000	0.000	0.000
8,600.00	5.55	112.58	8,584.87	-123.34	296.66	-105.95	0.000	0.000	0.000
8,700.00	5.55	112.58	8,684.40	-127.05	305.59	-109.14	0.000	0.000	0.000
8,800.00	5.55	112.58	8,783.93	-130.76	314.52	-112.33	0.000	0.000	0.000
8,900.00	5.55	112.58	8,883.46	-134.47	323.44	-115.52	0.000	0.000	0.000
9,000.00	5.55	112.58	8,982.99	-138.19	332.37	-118.71	0.000	0.000	0.000
9,100.00	5.55	112.58	9,082.52	-141.90	341.30	-121.89	0.000	0.000	0.000
9,200.00	5.55	112.58	9,182.05	-145.61	350.23	-125.08	0.000	0.000	0.000
9,300.00	5.55	112.58	9,281.59	-149.32	359.16	-128.27	0.000	0.000	0.000



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,400.00	5.55	112.58	9,381.12	-153.03	368.09	-131.46	0.000	0.000	0.000
9,500.00	5.55	112.58	9,480.65	-156.75	377.01	-134.65	0.000	0.000	0.000
9,600.00	5.55	112.58	9,580.18	-160.46	385.94	-137.84	0.000	0.000	0.000
9,700.00	5.55	112.58	9,679.71	-164.17	394.87	-141.03	0.000	0.000	0.000
9,800.00	5.55	112.58	9,779.24	-167.88	403.80	-144.21	0.000	0.000	0.000
9,900.00	5.55	112.58	9,878.77	-171.59	412.73	-147.40	0.000	0.000	0.000
10,000.00	5.55	112.58	9,978.31	-175.30	421.65	-150.59	0.000	0.000	0.000
10,100.00	5.55	112.58	10,077.84	-179.02	430.58	-153.78	0.000	0.000	0.000
10,118.26	5.55	112.58	10,096.01	-179.69	432.21	-154.36	0.000	0.000	0.000
<b>Drop: 1°/100'</b>									
10,200.00	4.73	112.58	10,177.42	-182.51	438.97	-156.78	1.000	-1.000	0.000
10,300.00	3.73	112.58	10,277.15	-185.34	445.79	-159.21	1.000	-1.000	0.000
10,400.00	2.73	112.58	10,376.99	-187.50	450.99	-161.07	1.000	-1.000	0.000
10,500.00	1.73	112.58	10,476.91	-189.00	454.59	-162.35	1.000	-1.000	0.000
10,600.00	0.73	112.58	10,576.89	-189.82	456.57	-163.06	1.000	-1.000	0.000
10,673.12	0.00	0.00	10,650.00	-190.00	457.00	-163.22	1.000	-1.000	0.000
<b>Hold</b>									
10,700.00	0.00	0.00	10,676.89	-190.00	457.00	-163.22	0.000	0.000	0.000
10,800.00	0.00	0.00	10,776.89	-190.00	457.00	-163.22	0.000	0.000	0.000
10,848.66	0.00	0.00	10,825.54	-190.00	457.00	-163.22	0.000	0.000	0.000
<b>KOP: 12°/100' @ 10848.66' MD</b>									
10,850.00	0.16	4.33	10,826.89	-190.00	457.00	-163.21	12.000	12.000	0.000
10,875.00	3.16	4.33	10,851.87	-189.28	457.05	-162.49	12.000	12.000	0.000
10,900.00	6.16	4.33	10,876.79	-187.25	457.21	-160.46	12.000	12.000	0.000
10,925.00	9.16	4.33	10,901.56	-183.93	457.46	-157.13	12.000	12.000	0.000
10,950.00	12.16	4.33	10,926.13	-179.32	457.81	-152.50	12.000	12.000	0.000
10,975.00	15.16	4.33	10,950.42	-173.43	458.25	-146.60	12.000	12.000	0.000
11,000.00	18.16	4.33	10,974.36	-166.28	458.80	-139.43	12.000	12.000	0.000
11,025.00	21.16	4.33	10,997.90	-157.90	459.43	-131.02	12.000	12.000	0.000
11,050.00	24.16	4.33	11,020.97	-148.29	460.16	-121.39	12.000	12.000	0.000
11,075.00	27.16	4.33	11,043.50	-137.50	460.98	-110.57	12.000	12.000	0.000
11,100.00	30.16	4.33	11,065.44	-125.54	461.88	-98.58	12.000	12.000	0.000
11,125.00	33.16	4.33	11,086.71	-112.46	462.87	-85.46	12.000	12.000	0.000
11,150.00	36.16	4.33	11,107.27	-98.28	463.94	-71.25	12.000	12.000	0.000
11,175.00	39.16	4.33	11,127.06	-83.05	465.10	-55.98	12.000	12.000	0.000
11,200.00	42.16	4.33	11,146.02	-66.81	466.33	-39.69	12.000	12.000	0.000
11,225.00	45.16	4.33	11,164.11	-49.60	467.63	-22.44	12.000	12.000	0.000
11,250.00	48.16	4.33	11,181.26	-31.47	469.00	-4.26	12.000	12.000	0.000
11,275.00	51.16	4.33	11,197.44	-12.47	470.44	14.79	12.000	12.000	0.000
11,300.00	54.16	4.33	11,212.61	7.34	471.94	34.66	12.000	12.000	0.000
11,325.00	57.16	4.33	11,226.71	27.92	473.50	55.30	12.000	12.000	0.000
11,350.00	60.16	4.33	11,239.71	49.21	475.11	76.65	12.000	12.000	0.000
11,375.00	63.16	4.33	11,251.57	71.15	476.77	98.64	12.000	12.000	0.000
11,400.00	66.16	4.33	11,262.27	93.68	478.48	121.23	12.000	12.000	0.000



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,425.00	69.16	4.33	11,271.77	116.74	480.23	144.35	12.000	12.000	0.000
11,450.00	72.16	4.33	11,280.05	140.25	482.01	167.93	12.000	12.000	0.000
11,475.00	75.16	4.33	11,287.08	164.17	483.82	191.92	12.000	12.000	0.000
11,500.00	78.16	4.33	11,292.85	188.43	485.65	216.24	12.000	12.000	0.000
11,525.00	81.16	4.33	11,297.33	212.95	487.51	240.82	12.000	12.000	0.000
11,550.00	84.16	4.33	11,300.53	237.67	489.38	265.61	12.000	12.000	0.000
11,575.00	87.16	4.33	11,302.42	262.52	491.26	290.53	12.000	12.000	0.000
11,598.65	90.00	4.33	11,303.00	286.10	493.05	314.17	12.000	12.000	0.000
<b>LP: 11598.65' MD, 90.00° Inc, 4.33° Azm</b>									
11,600.60	90.00	4.33	11,303.00	288.04	493.20	316.12	0.000	0.000	0.000
<b>Build: 2°/100</b>									
11,700.00	90.28	2.36	11,302.76	387.27	499.00	415.52	2.000	0.281	-1.980
11,800.00	90.56	0.38	11,302.03	487.23	501.39	515.45	2.000	0.280	-1.980
11,833.53	90.65	359.72	11,301.68	520.76	501.42	548.93	2.000	0.280	-1.980
<b>Hold: 90.65° Inc, 359.72° Azm</b>									
11,900.00	90.65	359.72	11,300.92	587.22	501.09	615.26	0.000	0.000	0.000
12,000.00	90.65	359.72	11,299.78	687.22	500.60	715.05	0.000	0.000	0.000
12,100.00	90.65	359.72	11,298.64	787.21	500.10	814.85	0.000	0.000	0.000
12,200.00	90.65	359.72	11,297.50	887.20	499.61	914.65	0.000	0.000	0.000
12,300.00	90.65	359.72	11,296.36	987.19	499.12	1,014.44	0.000	0.000	0.000
12,400.00	90.65	359.72	11,295.22	1,087.19	498.62	1,114.24	0.000	0.000	0.000
12,500.00	90.65	359.72	11,294.08	1,187.18	498.13	1,214.03	0.000	0.000	0.000
12,600.00	90.65	359.72	11,292.94	1,287.17	497.64	1,313.83	0.000	0.000	0.000
12,700.00	90.65	359.72	11,291.80	1,387.16	497.14	1,413.62	0.000	0.000	0.000
12,800.00	90.65	359.72	11,290.66	1,487.15	496.65	1,513.42	0.000	0.000	0.000
12,900.00	90.65	359.72	11,289.52	1,587.15	496.16	1,613.22	0.000	0.000	0.000
13,000.00	90.65	359.72	11,288.38	1,687.14	495.66	1,713.01	0.000	0.000	0.000
13,100.00	90.65	359.72	11,287.24	1,787.13	495.17	1,812.81	0.000	0.000	0.000
13,200.00	90.65	359.72	11,286.10	1,887.12	494.68	1,912.60	0.000	0.000	0.000
13,300.00	90.65	359.72	11,284.96	1,987.12	494.18	2,012.40	0.000	0.000	0.000
13,400.00	90.65	359.72	11,283.82	2,087.11	493.69	2,112.20	0.000	0.000	0.000
13,500.00	90.65	359.72	11,282.68	2,187.10	493.20	2,211.99	0.000	0.000	0.000
13,559.90	90.65	359.72	11,282.00	2,247.00	492.90	2,271.77	0.000	0.000	0.000
<b>Build: 2°/100</b>									
13,600.00	91.45	359.72	11,281.26	2,287.09	492.70	2,311.78	2.000	2.000	0.006
13,628.25	92.02	359.72	11,280.41	2,315.32	492.57	2,339.96	2.000	2.000	0.006
<b>Hold: 92.02° Inc, 359.72° Azm</b>									
13,700.00	92.02	359.72	11,277.88	2,387.03	492.22	2,411.53	0.000	0.000	0.000
13,800.00	92.02	359.72	11,274.35	2,486.97	491.73	2,511.27	0.000	0.000	0.000
13,900.00	92.02	359.72	11,270.83	2,586.90	491.25	2,611.01	0.000	0.000	0.000
14,000.00	92.02	359.72	11,267.30	2,686.84	490.76	2,710.75	0.000	0.000	0.000
14,100.00	92.02	359.72	11,263.78	2,786.78	490.28	2,810.49	0.000	0.000	0.000
14,200.00	92.02	359.72	11,260.25	2,886.71	489.79	2,910.23	0.000	0.000	0.000
14,300.00	92.02	359.72	11,256.73	2,986.65	489.30	3,009.97	0.000	0.000	0.000



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,400.00	92.02	359.72	11,253.21	3,086.59	488.82	3,109.71	0.000	0.000	0.000
14,500.00	92.02	359.72	11,249.68	3,186.52	488.33	3,209.46	0.000	0.000	0.000
14,600.00	92.02	359.72	11,246.16	3,286.46	487.85	3,309.20	0.000	0.000	0.000
14,700.00	92.02	359.72	11,242.63	3,386.40	487.36	3,408.94	0.000	0.000	0.000
14,774.65	92.02	359.72	11,240.00	3,461.00	487.00	3,483.39	0.000	0.000	0.000
<b>Drop: 2°/100'</b>									
14,800.00	91.51	359.72	11,239.22	3,486.34	486.88	3,508.68	2.000	-2.000	0.001
14,900.00	89.51	359.72	11,238.32	3,586.33	486.39	3,608.48	2.000	-2.000	0.001
14,973.98	88.03	359.72	11,239.91	3,660.28	486.03	3,682.29	2.000	-2.000	0.001
<b>Hold: 88.03° Inc, 359.72° Azm</b>									
15,000.00	88.03	359.72	11,240.80	3,686.29	485.91	3,708.24	0.000	0.000	0.000
15,100.00	88.03	359.72	11,244.23	3,786.23	485.43	3,807.99	0.000	0.000	0.000
15,200.00	88.03	359.72	11,247.66	3,886.17	484.94	3,907.73	0.000	0.000	0.000
15,300.00	88.03	359.72	11,251.10	3,986.11	484.46	4,007.48	0.000	0.000	0.000
15,400.00	88.03	359.72	11,254.53	4,086.05	483.98	4,107.22	0.000	0.000	0.000
15,500.00	88.03	359.72	11,257.96	4,185.99	483.50	4,206.97	0.000	0.000	0.000
15,600.00	88.03	359.72	11,261.39	4,285.93	483.01	4,306.71	0.000	0.000	0.000
15,700.00	88.03	359.72	11,264.82	4,385.87	482.53	4,406.45	0.000	0.000	0.000
15,800.00	88.03	359.72	11,268.26	4,485.81	482.05	4,506.20	0.000	0.000	0.000
15,900.00	88.03	359.72	11,271.69	4,585.75	481.57	4,605.94	0.000	0.000	0.000
16,000.00	88.03	359.72	11,275.12	4,685.69	481.08	4,705.69	0.000	0.000	0.000
16,100.00	88.03	359.72	11,278.55	4,785.63	480.60	4,805.43	0.000	0.000	0.000
16,200.00	88.03	359.72	11,281.98	4,885.57	480.12	4,905.18	0.000	0.000	0.000
16,300.00	88.03	359.72	11,285.41	4,985.51	479.64	5,004.92	0.000	0.000	0.000
16,400.00	88.03	359.72	11,288.85	5,085.45	479.15	5,104.66	0.000	0.000	0.000
16,500.00	88.03	359.72	11,292.28	5,185.39	478.67	5,204.41	0.000	0.000	0.000
16,600.00	88.03	359.72	11,295.71	5,285.33	478.19	5,304.15	0.000	0.000	0.000
16,700.00	88.03	359.72	11,299.14	5,385.27	477.71	5,403.90	0.000	0.000	0.000
16,800.00	88.03	359.72	11,302.57	5,485.21	477.22	5,503.64	0.000	0.000	0.000
16,900.00	88.03	359.72	11,306.01	5,585.15	476.74	5,603.38	0.000	0.000	0.000
17,000.00	88.03	359.72	11,309.44	5,685.09	476.26	5,703.13	0.000	0.000	0.000
17,100.00	88.03	359.72	11,312.87	5,785.03	475.77	5,802.87	0.000	0.000	0.000
17,200.00	88.03	359.72	11,316.30	5,884.97	475.29	5,902.62	0.000	0.000	0.000
17,300.00	88.03	359.72	11,319.73	5,984.91	474.81	6,002.36	0.000	0.000	0.000
17,400.00	88.03	359.72	11,323.16	6,084.85	474.33	6,102.11	0.000	0.000	0.000
17,500.00	88.03	359.72	11,326.60	6,184.79	473.84	6,201.85	0.000	0.000	0.000
17,600.00	88.03	359.72	11,330.03	6,284.73	473.36	6,301.59	0.000	0.000	0.000
17,700.00	88.03	359.72	11,333.46	6,384.67	472.88	6,401.34	0.000	0.000	0.000
17,800.00	88.03	359.72	11,336.89	6,484.61	472.40	6,501.08	0.000	0.000	0.000
17,861.43	88.03	359.72	11,339.00	6,546.00	472.10	6,562.35	0.000	0.000	0.000
<b>Build: 2°/100'</b>									
17,909.69	89.00	359.72	11,340.25	6,594.24	471.86	6,610.50	2.000	2.000	-0.011
<b>Hold: 89.00° Inc, 359.72° Azm</b>									
18,000.00	89.00	359.72	11,341.83	6,684.54	471.42	6,700.62	0.000	0.000	0.000



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
18,100.00	89.00	359.72	11,343.58	6,784.52	470.93	6,800.41	0.000	0.000	0.000	
18,200.00	89.00	359.72	11,345.32	6,884.51	470.44	6,900.20	0.000	0.000	0.000	
18,300.00	89.00	359.72	11,347.07	6,984.49	469.94	6,999.98	0.000	0.000	0.000	
18,400.00	89.00	359.72	11,348.82	7,084.47	469.45	7,099.77	0.000	0.000	0.000	
18,500.00	89.00	359.72	11,350.57	7,184.46	468.96	7,199.56	0.000	0.000	0.000	
18,600.00	89.00	359.72	11,352.32	7,284.44	468.47	7,299.35	0.000	0.000	0.000	
18,700.00	89.00	359.72	11,354.06	7,384.42	467.97	7,399.13	0.000	0.000	0.000	
18,800.00	89.00	359.72	11,355.81	7,484.41	467.48	7,498.92	0.000	0.000	0.000	
18,900.00	89.00	359.72	11,357.56	7,584.39	466.99	7,598.71	0.000	0.000	0.000	
19,000.00	89.00	359.72	11,359.31	7,684.37	466.50	7,698.49	0.000	0.000	0.000	
19,100.00	89.00	359.72	11,361.06	7,784.36	466.01	7,798.28	0.000	0.000	0.000	
19,200.00	89.00	359.72	11,362.80	7,884.34	465.51	7,898.07	0.000	0.000	0.000	
19,300.00	89.00	359.72	11,364.55	7,984.33	465.02	7,997.86	0.000	0.000	0.000	
19,325.62	89.00	359.72	11,365.00	8,009.94	464.90	8,023.42	0.000	0.000	0.000	
<b>PBHL @ 19325.62' MD/11365.00' TVD</b>										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Anderson #552H WP2 - hit/miss target - Shape - Point	0.00	0.00	11,240.00	3,461.00	487.00	523,397.26	752,185.70	32° 26' 13.310 N	103° 38' 59.629 W	
Anderson #552H WP1 - plan hits target center - Point	0.00	0.00	11,282.00	2,247.00	492.90	522,183.26	752,191.60	32° 26' 1.297 N	103° 38' 59.651 W	
Anderson #552H FTP - plan misses target center by 15.51usft at 11599.67usft MD (11303.00 TVD, 287.11 N, 493.13 E) - Point	0.00	0.00	11,303.00	285.94	508.60	520,222.20	752,207.30	32° 25' 41.891 N	103° 38' 59.614 W	
Anderson #552H WP3 - plan hits target center - Point	0.00	0.00	11,339.00	6,546.00	472.10	526,482.26	752,170.80	32° 26' 43.837 N	103° 38' 59.573 W	
Anderson #552H PBH - plan hits target center - Point	0.00	0.00	11,365.00	8,009.94	464.90	527,946.20	752,163.60	32° 26' 58.323 N	103° 38' 59.547 W	



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Plan Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5000	5000	0	0	Build: 1°/100
5555	5554	-10	25	Hold: 5.55° Inc, 112.58° Azm
10,118	10,096	-180	432	Drop: 1°/100'
10,673	10,650	-190	457	Hold
10,849	10,826	-190	457	KOP: 12°/100' @ 10848.66' MD
11,599	11,303	286	493	LP: 11598.65' MD, 90.00° Inc, 4.33° Azm
11,601	11,303	288	493	Build: 2°/100
11,834	11,302	521	501	Hold: 90.65° Inc, 359.72° Azm
13,560	11,282	2247	493	Build: 2°/100
13,628	11,280	2315	493	Hold: 92.02° Inc, 359.72° Azm
14,775	11,240	3461	487	Drop: 2°/100'
14,974	11,240	3660	486	Hold: 88.03° Inc, 359.72° Azm
17,861	11,339	6546	472	Build: 2°/100
17,910	11,340	6594	472	Hold: 89.00° Inc, 359.72° Azm
19,326	11,365	8010	465	PBHL @ 19325.62' MD/11365.00' TVD

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target	Annotation
1	19267.00	91.91	355.45	11380.07	7959.33	445.72	0.000	0.00	7971.79		Last Aim Svy
2	19330.00	91.91	355.45	11377.97	8022.10	440.72	0.000	0.00	8034.16		Proj to BHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Anderson #552H WP2	11240.00	3461.00	487.00	523397.26	752185.70	32° 26' 13.310 N 103° 38' 59.629 W	
Anderson #552H WP1	11282.00	2247.00	492.90	522183.26	752191.60	32° 26' 1.297 N 103° 38' 59.651 W	
Anderson #552H FTP	11303.00	285.94	508.60	520222.20	752207.30	32° 25' 41.891 N 103° 38' 59.614 W	
Anderson #552H WP3	11339.00	6546.00	472.10	526482.26	752170.80	32° 26' 43.837 N 103° 38' 59.573 W	
Anderson #552H PBHL	11365.00	8009.94	464.90	527946.20	752163.60	32° 26' 58.323 N 103° 38' 59.547 W	

SITE DETAILS: Anderson Fed Com 552H

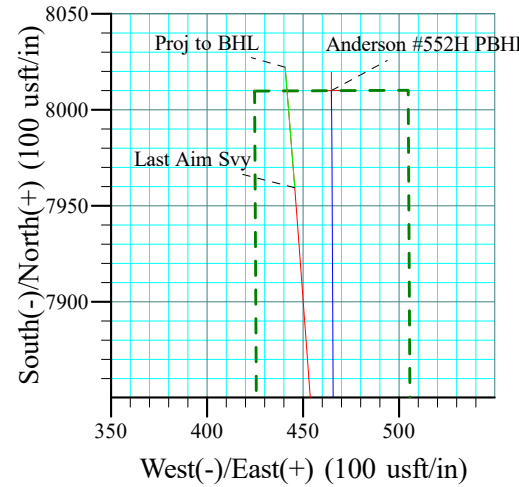
Site Centre Northing: 519936.26  
Easting: 751698.70  
Positional Uncertainty: 0.00  
Convergence: 0.37  
Local North: Grid

PROJECT DETAILS: Lea County, New Mexico

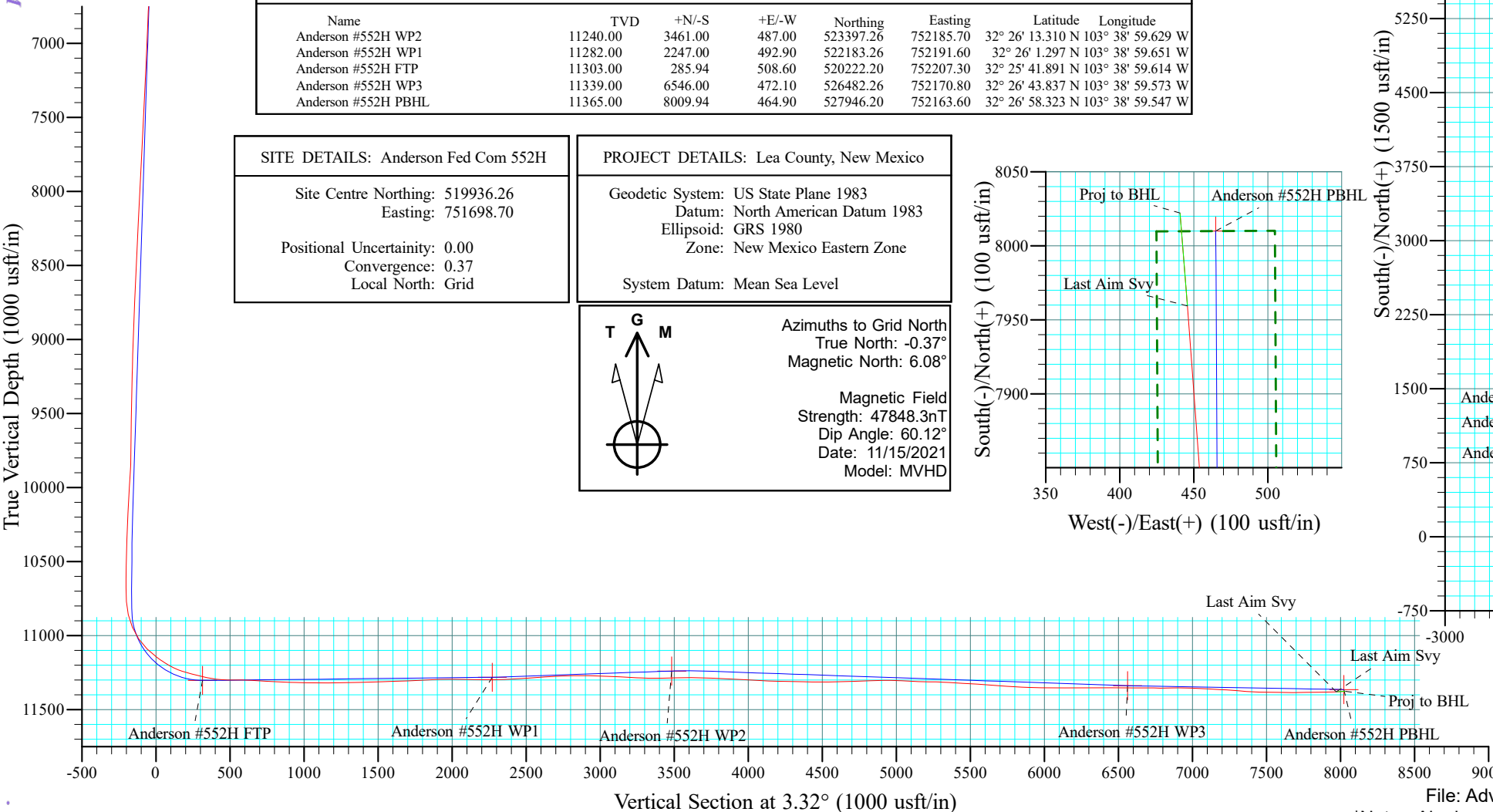
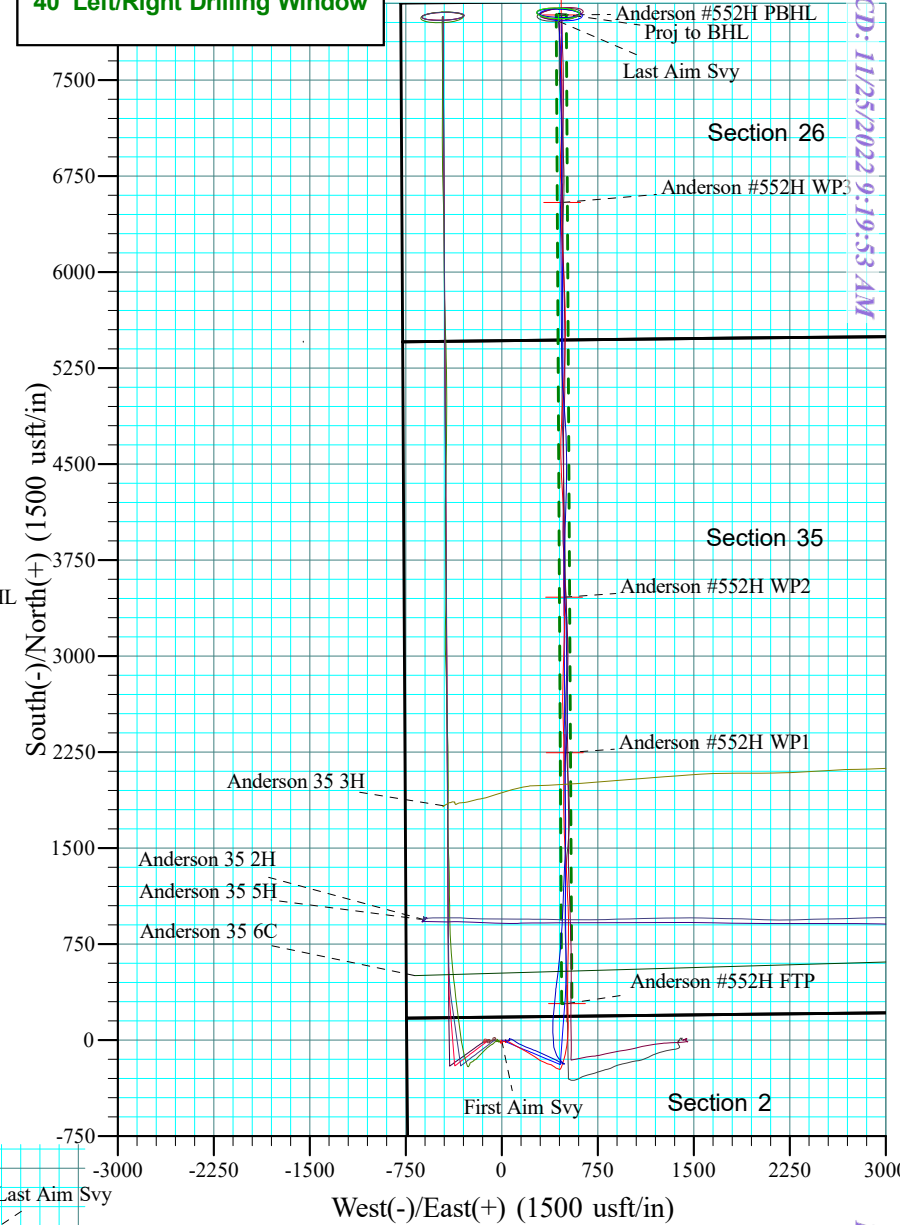
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level



Azimuths to Grid North  
True North: -0.37°  
Magnetic North: 6.08°  
Magnetic Field  
Strength: 47848.3nT  
Dip Angle: 60.12°  
Date: 11/15/2021  
Model: MVHD



40' Left/Right Drilling Window



Reviewed by: OCD: 1/12/2022 9:19:53 AM

Page 1/1 of 15



# Survey Reports

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## **Anderson Fed Com 552H (WT-21-181)**

2021-11-22 to 2022-01-16

Lea, New Mexico, US (32.43, -103.65)

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**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

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

<b>Site</b>	Anderson Fed Com 552H				
<b>Site Position:</b>		<b>Northing:</b>	519,936.26 usft	<b>Latitude:</b>	32° 25' 39.094 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	751,698.70 usft	<b>Longitude:</b>	103° 39' 5.569 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.37 °

<b>Well</b>	Anderson #552H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	519,936.26 usft	<b>Latitude:</b>	32° 25' 39.094 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	751,698.70 usft	<b>Longitude:</b>	103° 39' 5.569 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,690.00 usft

<b>Wellbore</b>	Drilling				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	MVHD	11/15/2021	6.45	60.12	47,848.312

<b>Design</b>	Surveys				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	3.32	

<b>Survey Program</b>	<b>Date</b>	1/15/2022			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
230.00	19,330.00	MWD Surveys (Drilling)	MWD+HRGM Advance	OWSG MWD + HRGM	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	
230.00	0.35	240.31	230.00	-0.35	-0.61	-0.38	0.152	0.152	0.000	
<b>First Aim Svy</b>										
322.00	0.44	199.09	322.00	-0.82	-0.97	-0.88	0.316	0.098	-44.804	
414.00	0.40	221.59	413.99	-1.39	-1.30	-1.47	0.183	-0.043	24.456	
506.00	0.31	193.02	505.99	-1.88	-1.57	-1.97	0.213	-0.098	-31.054	
598.00	0.44	201.46	597.99	-2.45	-1.75	-2.55	0.153	0.141	9.174	
690.00	0.26	221.32	689.99	-2.93	-2.02	-3.05	0.233	-0.196	21.587	
878.00	0.75	230.64	877.98	-4.04	-3.25	-4.22	0.263	0.261	4.957	
973.00	0.62	232.31	972.97	-4.74	-4.14	-4.98	0.138	-0.137	1.758	
1,066.00	0.75	242.33	1,065.97	-5.33	-5.08	-5.62	0.190	0.140	10.774	



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,156.00	0.84	235.21	1,155.96	-5.98	-6.14	-6.33	0.148	0.100	-7.911
1,207.00	1.05	235.30	1,206.95	-6.46	-6.83	-6.85	0.412	0.412	0.176
1,335.00	1.36	207.53	1,334.92	-8.48	-8.50	-8.96	0.509	0.242	-21.695
1,425.00	1.41	205.42	1,424.90	-10.43	-9.47	-10.96	0.079	0.056	-2.344
1,514.00	1.36	200.67	1,513.87	-12.40	-10.31	-12.98	0.141	-0.056	-5.337
1,604.00	1.19	189.07	1,603.85	-14.32	-10.84	-14.93	0.342	-0.189	-12.889
1,693.00	1.10	181.69	1,692.83	-16.09	-11.01	-16.70	0.194	-0.101	-8.292
1,783.00	0.92	176.59	1,782.82	-17.68	-10.99	-18.28	0.223	-0.200	-5.667
1,872.00	0.88	166.83	1,871.81	-19.05	-10.79	-19.65	0.178	-0.045	-10.966
1,962.00	0.79	151.80	1,961.80	-20.27	-10.34	-20.84	0.262	-0.100	-16.700
2,052.00	0.79	145.12	2,051.79	-21.33	-9.69	-21.86	0.102	0.000	-7.422
2,142.00	0.79	123.59	2,141.78	-22.18	-8.82	-22.66	0.328	0.000	-23.922
2,231.00	1.05	106.01	2,230.77	-22.75	-7.52	-23.14	0.428	0.292	-19.753
2,320.00	1.45	92.30	2,319.75	-23.02	-5.62	-23.30	0.558	0.449	-15.404
2,409.00	1.93	86.15	2,408.71	-22.96	-3.00	-23.10	0.576	0.539	-6.910
2,499.00	1.10	66.02	2,498.68	-22.51	-0.69	-22.51	1.082	-0.922	-22.367
2,588.00	0.92	24.45	2,587.67	-21.51	0.38	-21.45	0.827	-0.202	-46.708
2,677.00	1.49	40.18	2,676.65	-19.98	1.42	-19.86	0.735	0.640	17.674
2,767.00	2.07	44.22	2,766.60	-17.92	3.31	-17.70	0.659	0.644	4.489
2,857.00	1.23	41.24	2,856.56	-16.03	5.08	-15.70	0.938	-0.933	-3.311
2,946.00	0.97	38.78	2,945.55	-14.72	6.19	-14.34	0.297	-0.292	-2.764
3,036.00	1.49	45.89	3,035.53	-13.31	7.50	-12.86	0.601	0.578	7.900
3,125.00	2.07	46.51	3,124.48	-11.40	9.50	-10.83	0.652	0.652	0.697
3,215.00	1.36	55.74	3,214.44	-9.68	11.56	-8.99	0.844	-0.789	10.256
3,305.00	1.05	73.23	3,304.42	-8.84	13.23	-8.06	0.531	-0.344	19.433
3,394.00	1.49	93.53	3,393.40	-8.68	15.17	-7.78	0.700	0.494	22.809
3,484.00	1.76	98.10	3,483.36	-8.94	17.71	-7.90	0.333	0.300	5.078
3,573.00	1.85	105.04	3,572.32	-9.51	20.45	-8.31	0.265	0.101	7.798
3,663.00	1.93	112.60	3,662.27	-10.47	23.25	-9.10	0.291	0.089	8.400
3,753.00	2.11	116.38	3,752.22	-11.79	26.13	-10.25	0.249	0.200	4.200
3,842.00	1.05	135.19	3,841.18	-13.09	28.17	-11.44	1.310	-1.191	21.135
3,932.00	0.79	167.27	3,931.17	-14.28	28.89	-12.59	0.629	-0.289	35.644
4,022.00	0.75	161.20	4,021.16	-15.45	29.22	-13.73	0.101	-0.044	-6.744
4,111.00	0.62	144.42	4,110.16	-16.39	29.69	-14.64	0.267	-0.146	-18.854
4,200.00	0.53	129.04	4,199.15	-17.04	30.29	-15.26	0.200	-0.101	-17.281
4,290.00	0.44	112.87	4,289.15	-17.44	30.93	-15.62	0.181	-0.100	-17.967
4,380.00	0.44	108.30	4,379.15	-17.68	31.57	-15.82	0.039	0.000	-5.078
4,469.00	0.31	82.98	4,468.14	-17.76	32.14	-15.87	0.233	-0.146	-28.449
4,559.00	0.44	47.83	4,558.14	-17.50	32.64	-15.58	0.287	0.144	-39.055
4,648.00	0.66	26.73	4,647.14	-16.81	33.12	-14.86	0.332	0.247	-23.708
4,735.00	0.92	9.60	4,734.13	-15.67	33.46	-13.71	0.401	0.299	-19.690
4,822.00	1.05	359.14	4,821.12	-14.19	33.57	-12.22	0.254	0.149	-12.023
4,911.00	1.10	353.16	4,910.10	-12.52	33.45	-10.57	0.138	0.056	-6.719



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,001.00	1.27	341.03	5,000.08	-10.72	33.02	-8.79	0.336	0.189	-13.478	
5,091.00	1.41	342.26	5,090.06	-8.72	32.36	-6.84	0.159	0.156	1.367	
5,180.00	1.32	338.83	5,179.03	-6.73	31.66	-4.88	0.137	-0.101	-3.854	
5,270.00	1.32	336.90	5,269.01	-4.81	30.88	-3.01	0.049	0.000	-2.144	
5,359.00	1.45	336.29	5,357.98	-2.83	30.02	-1.09	0.147	0.146	-0.685	
5,449.00	1.54	335.14	5,447.95	-0.69	29.06	0.99	0.105	0.100	-1.278	
5,538.00	1.41	331.54	5,536.92	1.36	28.03	2.98	0.179	-0.146	-4.045	
5,628.00	1.98	96.61	5,626.90	2.15	29.05	3.83	3.355	0.633	138.966	
5,717.00	5.45	119.28	5,715.71	-0.09	34.27	1.89	4.160	3.899	25.472	
5,807.00	6.20	121.48	5,805.24	-4.72	42.14	-2.27	0.869	0.833	2.444	
5,896.00	6.29	121.66	5,893.71	-9.79	50.39	-6.86	0.103	0.101	0.202	
5,986.00	6.33	121.30	5,983.17	-14.96	58.82	-11.53	0.063	0.044	-0.400	
6,076.00	6.24	121.48	6,072.63	-20.09	67.23	-16.16	0.102	-0.100	0.200	
6,165.00	6.51	120.07	6,161.08	-25.14	75.72	-20.71	0.351	0.303	-1.584	
6,255.00	6.55	119.72	6,250.49	-30.24	84.60	-25.29	0.063	0.044	-0.389	
6,344.00	6.68	120.34	6,338.90	-35.37	93.47	-29.90	0.167	0.146	0.697	
6,434.00	6.77	119.63	6,428.28	-40.64	102.60	-34.63	0.136	0.100	-0.789	
6,523.00	6.51	118.40	6,516.68	-45.63	111.60	-39.10	0.333	-0.292	-1.382	
6,613.00	6.33	117.96	6,606.12	-50.39	120.47	-43.33	0.207	-0.200	-0.489	
6,702.00	6.33	118.67	6,694.58	-55.04	129.11	-47.47	0.088	0.000	0.798	
6,791.00	6.33	117.53	6,783.03	-59.66	137.76	-51.59	0.141	0.000	-1.281	
6,881.00	6.42	118.67	6,872.48	-64.37	146.58	-55.77	0.173	0.100	1.267	
6,971.00	6.20	117.00	6,961.93	-68.99	155.32	-59.88	0.318	-0.244	-1.856	
7,060.00	5.98	117.79	7,050.43	-73.33	163.71	-63.73	0.265	-0.247	0.888	
7,150.00	5.98	120.07	7,139.94	-77.87	171.91	-67.78	0.264	0.000	2.533	
7,240.00	5.80	117.88	7,229.46	-82.34	179.99	-71.78	0.320	-0.200	-2.433	
7,329.00	5.93	118.93	7,318.00	-86.67	187.99	-75.64	0.189	0.146	1.180	
7,419.00	5.85	119.90	7,407.52	-91.21	196.03	-79.70	0.142	-0.089	1.078	
7,508.00	5.93	119.55	7,496.05	-95.74	203.96	-83.76	0.099	0.090	-0.393	
7,598.00	5.93	121.22	7,585.57	-100.44	211.98	-87.99	0.192	0.000	1.856	
7,688.00	5.89	119.99	7,675.09	-105.16	219.96	-92.24	0.148	-0.044	-1.367	
7,777.00	5.85	121.48	7,763.63	-109.81	227.78	-96.43	0.177	-0.045	1.674	
7,867.00	5.71	122.54	7,853.17	-114.61	235.47	-100.78	0.196	-0.156	1.178	
7,956.00	5.76	123.06	7,941.72	-119.43	242.94	-105.16	0.081	0.056	0.584	
8,046.00	5.67	122.27	8,031.28	-124.27	250.49	-109.55	0.133	-0.100	-0.878	
8,136.00	5.71	123.68	8,120.83	-129.12	257.97	-113.97	0.162	0.044	1.567	
8,225.00	5.58	124.64	8,209.40	-134.04	265.22	-118.45	0.181	-0.146	1.079	
8,315.00	5.54	124.38	8,298.98	-138.98	272.40	-122.97	0.053	-0.044	-0.289	
8,404.00	5.67	125.17	8,387.55	-143.94	279.54	-127.51	0.170	0.146	0.888	
8,493.00	5.49	125.87	8,476.13	-148.96	286.59	-132.12	0.216	-0.202	0.787	
8,583.00	5.41	128.34	8,565.72	-154.12	293.40	-136.87	0.275	-0.089	2.744	
8,672.00	5.71	115.06	8,654.31	-158.60	300.71	-140.91	1.481	0.337	-14.921	
8,762.00	6.20	111.55	8,743.82	-162.28	309.28	-144.09	0.678	0.544	-3.900	



**Aim Directional Services, LLC**

Survey Report



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<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,851.00	5.85	113.66	8,832.33	-165.86	317.91	-147.17	0.465	-0.393	2.371	
8,941.00	5.27	113.39	8,921.91	-169.34	325.90	-150.19	0.645	-0.644	-0.300	
9,031.00	5.05	116.82	9,011.54	-172.77	333.23	-153.18	0.421	-0.244	3.811	
9,120.00	4.44	117.79	9,100.24	-176.15	339.77	-156.17	0.691	-0.685	1.090	
9,210.00	3.52	120.16	9,190.02	-179.16	345.24	-158.86	1.038	-1.022	2.633	
9,300.00	5.41	116.91	9,279.74	-182.47	351.42	-161.81	2.118	2.100	-3.611	
9,390.00	5.49	98.63	9,369.34	-185.03	359.46	-163.91	1.923	0.089	-20.311	
9,479.00	4.09	96.78	9,458.03	-186.05	366.82	-164.49	1.582	-1.573	-2.079	
9,569.00	4.53	109.35	9,547.78	-187.60	373.36	-165.67	1.155	0.489	13.967	
9,658.00	4.57	113.13	9,636.50	-190.16	379.93	-167.84	0.340	0.045	4.247	
9,748.00	3.21	92.30	9,726.29	-191.67	385.75	-169.01	2.156	-1.511	-23.144	
9,838.00	2.51	124.56	9,816.19	-192.89	389.89	-169.99	1.917	-0.778	35.844	
9,927.00	4.84	132.64	9,905.00	-196.54	394.26	-173.38	2.675	2.618	9.079	
10,017.00	7.16	123.59	9,994.50	-202.21	401.73	-178.61	2.776	2.578	-10.056	
10,107.00	6.46	125.17	10,083.86	-208.23	410.54	-184.11	0.805	-0.778	1.756	
10,196.00	5.41	122.97	10,172.39	-213.40	418.15	-188.83	1.207	-1.180	-2.472	
10,286.00	5.49	121.22	10,261.98	-217.94	425.39	-192.94	0.205	0.089	-1.944	
10,375.00	5.01	110.14	10,350.61	-221.49	432.68	-196.06	1.258	-0.539	-12.449	
10,465.00	4.44	109.62	10,440.30	-224.01	439.65	-198.17	0.635	-0.633	-0.578	
10,555.00	3.52	109.53	10,530.08	-226.10	445.54	-199.92	1.022	-1.022	-0.100	
10,644.00	3.21	103.81	10,618.93	-227.61	450.53	-201.14	0.513	-0.348	-6.427	
10,703.00	2.64	101.97	10,677.85	-228.29	453.46	-201.64	0.979	-0.966	-3.119	
10,796.00	4.48	44.14	10,770.70	-226.12	458.09	-199.22	4.085	1.978	-62.183	
10,886.00	13.67	24.45	10,859.49	-213.89	464.96	-186.61	10.633	10.211	-21.878	
10,975.00	24.22	18.03	10,943.56	-186.88	474.99	-159.06	12.066	11.854	-7.213	
11,065.00	34.15	14.52	11,022.04	-144.76	487.07	-116.31	11.192	11.033	-3.900	
11,154.00	44.88	12.06	11,090.60	-89.71	499.93	-60.61	12.182	12.056	-2.764	
11,244.00	54.24	5.64	11,148.95	-22.13	510.18	7.46	11.722	10.400	-7.133	
11,333.00	59.34	4.67	11,197.68	52.01	516.85	81.86	5.802	5.730	-1.090	
11,423.00	69.23	359.14	11,236.71	132.92	519.38	162.77	12.299	10.989	-6.144	
11,454.00	73.80	358.26	11,246.54	162.30	518.71	192.07	14.986	14.742	-2.839	
11,544.00	76.84	358.61	11,269.34	249.32	516.33	278.80	3.399	3.378	0.389	
11,587.19	77.45	358.87	11,278.95	291.42	515.41	320.78	1.524	1.411	0.590	
<b>Anderson #552H FTP</b>										
11,634.00	78.11	359.14	11,288.86	337.16	514.61	366.40	1.524	1.411	0.587	
11,724.00	88.48	0.02	11,299.35	426.42	513.96	455.47	11.563	11.522	0.978	
11,813.00	89.89	1.60	11,300.62	515.40	515.22	544.37	2.379	1.584	1.775	
11,903.00	87.34	2.21	11,302.79	605.31	518.21	634.31	2.913	-2.833	0.678	
11,993.00	86.37	1.33	11,307.73	695.13	520.99	724.14	1.454	-1.078	-0.978	
12,082.00	87.47	359.75	11,312.51	783.99	521.83	812.90	2.161	1.236	-1.775	
12,172.00	87.69	359.66	11,316.32	873.91	521.36	902.64	0.264	0.244	-0.100	
12,261.00	89.05	358.87	11,318.85	962.87	520.22	991.38	1.767	1.528	-0.888	
12,351.00	89.10	358.08	11,320.30	1,052.82	517.83	1,081.04	0.879	0.056	-0.878	
12,440.00	90.95	357.38	11,320.26	1,141.75	514.30	1,169.62	2.222	2.079	-0.787	



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
12,530.00	90.99	357.29	11,318.74	1,231.64	510.12	1,259.11	0.109	0.044	-0.100	
12,619.00	91.03	357.29	11,317.17	1,320.52	505.91	1,347.61	0.045	0.045	0.000	
12,709.00	91.38	356.85	11,315.28	1,410.39	501.31	1,437.05	0.625	0.389	-0.489	
12,798.00	92.26	355.88	11,312.45	1,499.16	495.67	1,525.35	1.471	0.989	-1.090	
12,888.00	91.74	357.99	11,309.31	1,588.97	490.86	1,614.73	2.413	-0.578	2.344	
12,977.00	92.00	358.52	11,306.40	1,677.88	488.15	1,703.34	0.663	0.292	0.596	
13,066.00	92.97	357.73	11,302.54	1,766.75	485.24	1,791.89	1.405	1.090	-0.888	
13,155.00	92.31	358.35	11,298.45	1,855.60	482.20	1,880.41	1.017	-0.742	0.697	
13,245.00	91.38	1.25	11,295.55	1,945.54	481.89	1,970.19	3.382	-1.033	3.222	
13,334.00	88.00	1.25	11,296.03	2,034.51	483.83	2,059.11	3.798	-3.798	0.000	
13,423.00	88.84	0.81	11,298.48	2,123.46	485.43	2,148.01	1.065	0.944	-0.494	
13,512.00	90.07	0.19	11,299.33	2,212.45	486.21	2,236.89	1.548	1.382	-0.697	
13,546.71	90.58	359.68	11,299.13	2,247.16	486.17	2,271.54	2.089	1.472	-1.483	
<b>Anderson #552H WP1</b>										
13,601.00	91.38	358.87	11,298.20	2,301.44	485.48	2,325.69	2.089	1.472	-1.483	
13,690.00	93.01	358.43	11,294.79	2,390.34	483.38	2,414.33	1.897	1.831	-0.494	
13,780.00	94.07	358.70	11,289.24	2,480.14	481.13	2,503.84	1.215	1.178	0.300	
13,870.00	94.64	357.73	11,282.40	2,569.84	478.34	2,593.23	1.247	0.633	-1.078	
13,959.00	93.05	359.40	11,276.43	2,658.60	476.12	2,681.71	2.588	-1.787	1.876	
14,049.00	91.52	0.72	11,272.85	2,748.53	476.21	2,771.49	2.244	-1.700	1.467	
14,139.00	90.46	2.56	11,271.29	2,838.47	478.79	2,861.44	2.359	-1.178	2.044	
14,228.00	87.69	2.39	11,272.73	2,927.37	482.63	2,950.41	3.118	-3.112	-0.191	
14,318.00	88.31	2.30	11,275.87	3,017.24	486.31	3,040.34	0.696	0.689	-0.100	
14,407.00	87.34	1.42	11,279.25	3,106.12	489.20	3,129.24	1.471	-1.090	-0.989	
14,497.00	86.59	0.98	11,284.01	3,195.98	491.08	3,219.05	0.966	-0.833	-0.489	
14,586.00	88.62	359.31	11,287.73	3,284.89	491.30	3,307.83	2.952	2.281	-1.876	
14,676.00	89.71	358.96	11,289.04	3,374.87	489.94	3,397.58	1.272	1.211	-0.389	
14,762.91	91.95	358.01	11,287.79	3,461.73	487.65	3,484.16	2.794	2.573	-1.090	
<b>Anderson #552H WP2</b>										
14,765.00	92.00	357.99	11,287.71	3,463.82	487.57	3,486.25	2.794	2.573	-1.091	
14,854.00	91.65	359.40	11,284.88	3,552.75	485.55	3,574.91	1.632	-0.393	1.584	
14,944.00	88.00	0.98	11,285.15	3,642.73	485.85	3,664.76	4.419	-4.056	1.756	
15,033.00	87.96	1.07	11,288.29	3,731.66	487.44	3,753.63	0.111	-0.045	0.101	
15,122.00	87.16	0.28	11,292.08	3,820.57	488.49	3,842.45	1.263	-0.899	-0.888	
15,212.00	86.59	359.75	11,296.99	3,910.44	488.51	3,932.17	0.864	-0.633	-0.589	
15,301.00	87.91	359.14	11,301.26	3,999.33	487.65	4,020.86	1.634	1.483	-0.685	
15,390.00	86.46	357.03	11,305.63	4,088.17	484.68	4,109.37	2.874	-1.629	-2.371	
15,479.00	88.97	357.12	11,309.18	4,176.97	480.14	4,197.77	2.822	2.820	0.101	
15,568.00	88.84	356.32	11,310.88	4,265.81	475.05	4,286.16	0.911	-0.146	-0.899	
15,657.00	88.48	356.41	11,312.96	4,354.61	469.41	4,374.48	0.417	-0.404	0.101	
15,747.00	89.49	357.82	11,314.55	4,444.48	464.88	4,463.94	1.927	1.122	1.567	
15,836.00	90.99	359.22	11,314.18	4,533.44	462.58	4,552.62	2.305	1.685	1.573	
15,925.00	91.78	359.84	11,312.03	4,622.41	461.85	4,641.40	1.128	0.888	0.697	



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
16,015.00	92.18	1.69	11,308.92	4,712.34	463.05	4,731.25	2.102	0.444	2.056	
16,104.00	91.60	3.00	11,305.98	4,801.22	466.69	4,820.19	1.609	-0.652	1.472	
16,194.00	91.38	2.39	11,303.64	4,891.09	470.92	4,910.15	0.720	-0.244	-0.678	
16,283.00	86.99	3.88	11,304.91	4,979.92	475.79	4,999.12	5.209	-4.933	1.674	
16,373.00	87.96	4.15	11,308.87	5,069.61	482.08	5,089.02	1.119	1.078	0.300	
16,463.00	88.04	2.12	11,312.02	5,159.42	487.00	5,178.96	2.256	0.089	-2.256	
16,552.00	89.45	1.51	11,313.96	5,248.35	489.82	5,267.91	1.726	1.584	-0.685	
16,642.00	86.20	1.42	11,317.38	5,338.24	492.12	5,357.78	3.612	-3.611	-0.100	
16,732.00	86.55	1.69	11,323.07	5,428.03	494.56	5,447.56	0.491	0.389	0.300	
16,821.00	86.33	0.98	11,328.60	5,516.83	496.63	5,536.34	0.834	-0.247	-0.798	
16,911.00	86.33	359.40	11,334.36	5,606.65	496.92	5,626.01	1.752	0.000	-1.756	
17,000.00	85.45	358.26	11,340.74	5,695.40	495.11	5,714.51	1.616	-0.989	-1.281	
17,090.00	86.81	357.82	11,346.81	5,785.14	492.04	5,803.92	1.588	1.511	-0.489	
17,179.00	88.18	358.35	11,350.70	5,874.00	489.07	5,892.46	1.650	1.539	0.596	
17,269.00	88.88	357.64	11,353.01	5,963.91	485.92	5,982.04	1.108	0.778	-0.789	
17,358.00	89.41	356.41	11,354.34	6,052.78	481.30	6,070.50	1.505	0.596	-1.382	
17,448.00	90.29	356.59	11,354.57	6,142.61	475.81	6,159.86	0.998	0.978	0.200	
17,537.00	90.55	356.68	11,353.92	6,231.46	470.58	6,248.25	0.309	0.292	0.101	
17,626.00	89.85	357.20	11,353.61	6,320.33	465.83	6,336.70	0.980	-0.787	0.584	
17,716.00	89.80	0.37	11,353.89	6,410.30	463.93	6,426.40	3.523	-0.056	3.522	
17,805.00	89.93	0.54	11,354.09	6,499.29	464.63	6,515.29	0.240	0.146	0.191	
17,851.64	89.75	359.95	11,354.23	6,545.93	464.83	6,561.86	1.325	-0.389	-1.267	
<b>Anderson #552H WP3</b>										
17,895.00	89.58	359.40	11,354.48	6,589.29	464.59	6,605.14	1.325	-0.389	-1.267	
17,984.00	90.33	357.64	11,354.55	6,678.26	462.29	6,693.82	2.150	0.843	-1.978	
18,073.00	89.01	358.08	11,355.06	6,767.19	458.96	6,782.41	1.563	-1.483	0.494	
18,163.00	91.21	1.07	11,354.89	6,857.17	458.30	6,872.20	4.124	2.444	3.322	
18,252.00	88.97	2.74	11,354.75	6,946.11	461.25	6,961.17	3.139	-2.517	1.876	
18,342.00	86.64	2.30	11,358.20	7,035.95	465.21	7,051.09	2.635	-2.589	-0.489	
18,432.00	87.43	1.16	11,362.85	7,125.79	467.92	7,140.93	1.540	0.878	-1.267	
18,521.00	85.98	0.19	11,367.97	7,214.63	468.97	7,229.69	1.959	-1.629	-1.090	
18,611.00	85.45	0.63	11,374.69	7,304.38	469.61	7,319.32	0.765	-0.589	0.489	
18,701.00	86.90	359.93	11,380.70	7,394.18	470.05	7,408.99	1.788	1.611	-0.778	
18,790.00	89.01	359.66	11,383.87	7,483.11	469.73	7,497.76	2.390	2.371	-0.303	
18,880.00	89.67	358.61	11,384.91	7,573.10	468.37	7,587.51	1.378	0.733	-1.167	
18,969.00	90.15	357.20	11,385.05	7,662.03	465.12	7,676.11	1.674	0.539	-1.584	
19,059.00	90.77	356.59	11,384.33	7,751.90	460.24	7,765.54	0.966	0.689	-0.678	
19,149.00	90.68	355.97	11,383.19	7,841.70	454.41	7,854.85	0.696	-0.100	-0.689	
19,238.00	92.04	355.71	11,381.07	7,930.44	447.95	7,943.07	1.556	1.528	-0.292	
19,267.00	91.91	355.45	11,380.07	7,959.33	445.72	7,971.79	1.002	-0.448	-0.897	
<b>Last Aim Svy</b>										
19,316.40	91.91	355.45	11,378.43	8,008.55	441.80	8,020.70	0.000	0.000	0.000	
<b>Anderson #552H PBHL</b>										
19,330.00	91.91	355.45	11,377.98	8,022.10	440.72	8,034.16	0.000	0.000	0.000	



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #552H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 552H	<b>MD Reference:</b>	Well @ 3722.50usft (Nabors X50)
<b>Well:</b>	Anderson #552H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Proj to BHL									

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
230.00	230.00	-0.35	-0.61	First Aim Svy	
19,267.00	11,380.07	7,959.33	445.72	Last Aim Svy	
19,330.00	11,377.98	8,022.10	440.72	Proj to BHL	



# BHA Reports

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## **Anderson Fed Com 552H (WT-21-181)**

2021-11-22 to 2022-01-16

Lea, New Mexico, US (32.43, -103.65)

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<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #1 - BHA #1 (17.5" Surface) (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	8.00	<b>Date In</b>	2021-11-22 08:15	<b>Downhole Hours</b>	15.42
<b>Lobe/Stage</b>	7/8, 5.9	<b>Depth In (ft)</b>	150.00	<b>Drilling/Circulating Hours</b>	10.00
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2021-11-22 23:40	<b>Drilling Hours</b>	9.25
<b>Speed (rev/gal)</b>	0.17	<b>Depth Out (ft)</b>	1277.00	<b>Circulating Hours</b>	0.75
<b>Wear Pad OD (in)</b>	8.313	<b>Distance Slid (ft)</b>	0.00	<b>Sliding Hours</b>	0.00
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	1127.00	<b>Rotating Hours</b>	9.25
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	0.00%	<b>% Hours Sliding</b>	0.00%
<b>Average Total ROP (ft/h)</b>	121.84	<b>% Distance Rotating</b>	100.00%	<b>% Hours Rotating</b>	100.00%
<b>Average Slide ROP (ft/h)</b>	0.00	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	121.84	DRILL OUT SURFACE			

**Notes:** N/A

**Bit Details**

<b>OD (in)</b>	17.500
<b>Vendor</b>	ULTERRA

<b>Nozzles</b>	9x12's	<b>Total Depth/Casing Point:</b>	Good run.
<b>Total Flow Area (in²)</b>	0.994		

<b>Bit Distances</b>		<b>Incident Notes</b>	
<b>Bit To Survey:</b>	70.00 ft	<b>Directional:</b>	
		<b>MWD:</b>	

<b>Bit Post Run/Notes</b>		<b>Comments</b>	
<b>Dull Grading</b>	1-1	<b>Directional:</b>	FLOW RANGE 400-900 GPM, REV PER GALLON .166, MAX DIFF 1330, MAX TORQUE 22020 BIT RUNS: 2
<b>Notes:</b>	Bit was in gauge.		

**MWD**

<b>Max Downhole Temp (°F)</b>	N/A
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Mud Properties		Parameters			
<b>Type</b>	Water Based	<b>Flow Rate (gpm)</b>	550.00 - 895.00	<b>Motor RPM</b>	40.00 - 70.00
<b>WT</b>	9.30	<b>On Bottom Pressure (psi)</b>	1000.00 - 2450.00	<b>Surface RPM</b>	50.00 - 70.00
<b>VIS</b>	33.00	<b>Off Bottom Pressure (psi)</b>	850.00 - 1850.00	<b>Rotating WOB (klbs)</b>	20.00 - 25.00
<b>PV</b>	3.00	<b>Stall Pressure (psi)</b>	0.00	<b>Sliding WOB (klbs)</b>	5.00 - 20.00
<b>YP</b>	6.00	<b>Stalls</b>	0	<b>Temp (°F)</b>	110.30 - 113.40
		<b>NPT</b>	0.0		

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 6.00, Size (in): 17.50	ULTERRA	57215	6 5/8" Reg Pin			17.500		1.50	1.50
<b>Mud Motor</b> Description: 8" 7/8 5.9 Stg. 1.75° FBH w/17" NBS, Size (in): 8.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	Aim	800-40-002	6 5/8" Reg Box	6 5/8" Reg Box		8.000		40.55	42.05
<b>Stabilizer</b> Description: 17" STAB	JA	17635	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.250		7.17	49.22
<b>UBHO Sub</b> Description: NM DAO SUB, Material: Non-Magnetic	AIM	800614	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		2.98	52.20
<b>Drill Collar</b> Description: NMDC (MWD TOOL), Material: Non-Magnetic, Type: Slick Drill	GATOR	GT 8030374	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.52	82.72
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	GT 8230395	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.375		30.48	113.20
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	JA	JA8610	CET54 Box	6 5/8" Reg Pin	2.500	6.625		3.23	116.43





<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #2 - 12.25" INTERMEDIATE (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	8.75	<b>Date In</b>	2021-12-03 13:00	<b>Downhole Hours</b>	19.50
<b>Lobe/Stage</b>	6/7, 6.6	<b>Depth In (ft)</b>	1277.00	<b>Drilling/Circulating Hours</b>	13.92
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2021-12-04 08:30	<b>Drilling Hours</b>	12.92
<b>Speed (rev/gal)</b>	0.13	<b>Depth Out (ft)</b>	4803.00	<b>Circulating Hours</b>	1.00
<b>Wear Pad OD (in)</b>	9.250	<b>Distance Slid (ft)</b>	81.00	<b>Sliding Hours</b>	0.50
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	3445.00	<b>Rotating Hours</b>	12.42
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	2.30%	<b>% Hours Sliding</b>	3.87%
<b>Average Total ROP (ft/h)</b>	272.98	<b>% Distance Rotating</b>	97.70%	<b>% Hours Rotating</b>	96.13%
<b>Average Slide ROP (ft/h)</b>	162.00	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	277.45	DRILL 12.25 TO CASING POINT			

**Notes:** Good Motor Run

**Bit Details**

<b>OD (in)</b>	12.250	<b>POOH Reason/Notes</b>	
<b>Vendor</b>	Reed	<b>Total Depth/Casing Point:</b> GOOD RUN. POOH FOR CASING	
<b>Nozzles</b>	6x16's		
<b>Total Flow Area (in<sup>2</sup>)</b>	1.178		

**Bit Distances**

<b>Bit To Survey:</b> 68.00 ft	<b>Incident Notes</b>
	<b>Directional:</b>
	<b>MWD:</b>

**Bit Post Run/Notes**

<b>Dull Grading</b>	1-2	<b>Comments</b>
<b>Notes:</b> Broken cutters on gauge. In Gauge		<b>Directional:</b> Flow Range 600-1300 GPM, REV PER GPM .13, Max Diff 1650, Max Torque 31480, Bit Runs: 2, Bit to Bend 5.62'

**MWD**

<b>Max Downhole Temp (°F)</b>	N/A
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**Mud Properties**

Mud Properties		Parameters	
<b>Type</b>	Water Based	<b>Flow Rate (gpm)</b>	705.00 - 895.00
<b>WT</b>	10.50	<b>Motor RPM</b>	30.00 - 70.00
<b>VIS</b>	29.00	<b>On Bottom Pressure (psi)</b>	1600.00 - 2400.00
<b>PV</b>	2.00	<b>Off Bottom Pressure (psi)</b>	1200.00 - 2000.00
<b>YP</b>	3.00	<b>Rotating WOB (klbs)</b>	40.00 - 48.00
		<b>Stall Pressure (psi)</b>	0.00
		<b>Sliding WOB (klbs)</b>	20.00 - 20.00
		<b>Stalls</b>	0
		<b>Temp (°F)</b>	125.00 - 135.00
		<b>NPT</b>	0.0

**Items (Directional)**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC66-H3</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>6.00</i> , Size (in): <i>12.25</i>	Reed	A281282	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: <i>8 3/4" 6/7L, 6.6 Stg. 1.75° FBH w/12" NBS</i> , Size (in): <i>8.75</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>6</i> , Stator Lobe: <i>7</i> , Stator Stage: <i>6.6</i>	Aim	CDM875-001	6 5/8" Reg Box	6 5/8" Reg Box		8.750		38.91	40.41
<b>Stabilizer</b> Description: <i>12" STAB</i>	JA	12502	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.250		7.11	47.52
<b>UBHO Sub</b> Description: <i>NM DAO SUB</i> , Material: <i>Non-Magnetic</i>	AIM	800614	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		2.98	50.50
<b>Drill Collar</b> Description: <i>NMDC (MWD TOOL)</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	GT 8030374	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.52	81.02
<b>Drill Collar</b> Description: <i>NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	GT 8230395	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.375		30.48	111.50
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	JA	JA8610	CET54 Box	6 5/8" Reg Pin	2.500	6.625		3.23	114.73
<b>HWDP</b> Description: <i>8 Stands 5.5" HWDP</i> , Type: <i>Slick</i>	Platinum		CET54 Box	CET54 Pin	4.000	5.500		735.63	850.36
<b>Crossover Sub</b> Description: <i>CET54 (P) x EverDrlg 54 (B)</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	853.78
<b>HWDP</b> Description: <i>3 Stands 5.5" HWDP</i> , Type: <i>Slick</i>	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1134.96





<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #3 - 8.75" INTERMEDIATE (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	7.00	<b>Date In</b>	2022-01-03 23:30	<b>Downhole Hours</b>	20.75
<b>Lobe/Stage</b>	7/8, 8.5	<b>Depth In (ft)</b>	4803.00	<b>Drilling/Circulating Hours</b>	12.75
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2022-01-04 20:15	<b>Drilling Hours</b>	12.33
<b>Speed (rev/gal)</b>	0.26	<b>Depth Out (ft)</b>	8904.00	<b>Circulating Hours</b>	0.42
<b>Wear Pad OD (in)</b>	6.938	<b>Distance Slid (ft)</b>	55.00	<b>Sliding Hours</b>	0.92
<b>Incident</b>	Yes	<b>Distance Rotated (ft)</b>	4046.00	<b>Rotating Hours</b>	11.42
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	1.34%	<b>% Hours Sliding</b>	7.43%
<b>Average Total ROP (ft/h)</b>	332.51	<b>% Distance Rotating</b>	98.66%	<b>% Hours Rotating</b>	92.57%
<b>Average Slide ROP (ft/h)</b>	60.00	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	354.39	Drill 8.75 Intermediate			

**Notes:** Experienced, Numerous Stalls ( Stall Diff 1900). No Rubber witnessed across the Shakers. At Surface Motor had lateral play in bit box.

**Bit Details**

<b>OD (in)</b>	8.750
<b>Vendor</b>	Reed
<b>Nozzles</b>	5-15's, 1-16
<b>Total Flow Area (in<sup>2</sup>)</b>	1.059

**POOH Reason/Notes**

**Downhole Tool Incident:** Mud Motor Stalled 4 times as soon as we would tag bottom. POOH for new motor.

**Bit Distances**

**Bit To Survey:** 66.00 ft, **Gamma:** 51.00 ft

**Incident Notes**

**Directional:** Drilling ahead with 1000 diff. and motor just stalled. Mud Motor Stalled 4 times as soon as we would tag bottom with rotary on and with no rotary.

**MWD:**

**Bit Post Run/Notes**

**Dull Grading** 2-2  
**Notes:** Broken cutters on face and gauge. In Gauge

**Comments**

**Directional:** Flow Range 500-750 GPM, REV PER GPM .26, Max Diff 1910, Max Torque 18710, Bit Runs: 1, Bit to Bend 4.30'

**MWD**

**Max Downhole Temp (°F)** N/A

**Mud Properties**

<b>Type</b>	Water Based
<b>WT</b>	9.25
<b>VIS</b>	28.00
<b>PV</b>	1.00
<b>YP</b>	3.00

**Parameters**

<b>Flow Rate (gpm)</b>	700.00 - 895.00	<b>Motor RPM</b>	30.00 - 50.00
<b>On Bottom Pressure (psi)</b>	2400.00 - 3000.00	<b>Surface RPM</b>	50.00 - 70.00
<b>Off Bottom Pressure (psi)</b>	1800.00 - 2300.00	<b>Rotating WOB (klbs)</b>	45.00 - 48.00
<b>Stall Pressure (psi)</b>	1899.99	<b>Sliding WOB (klbs)</b>	30.00 - 30.00
<b>Stalls</b>	4	<b>Temp (°F)</b>	120.00 - 128.00
<b>NPT</b>	0.0		

**Items (Directional)**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC66-AZZ</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 4.00, Size (in): 8.75	Reed	A283984	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" 7/8 8.5 Stg. 1.75° FBH w/8.5" NBS</i> , Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	Drilformance	DFM-700-004	4 1/2" IF Box	4 1/2" IF Box		7.000		35.87	36.87
<b>Stabilizer</b> Description: <i>8.5" STAB</i>	JA	85586	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		5.19	42.06
<b>UBHO Sub</b> Description: <i>NM DAO SUB</i> , Material: <i>Non-Magnetic</i>	AIM	AIM675-364	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.05	45.11
<b>Drill Collar</b> Description: <i>NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	67-30-296	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		30.65	75.76
<b>Drill Collar</b> Description: <i>NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	105.20
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	Platinum	PPR5372	CET54 Box	4 1/2" IF Pin	2.750	6.250		2.38	107.58
<b>HWDP</b> Description: <i>8 Stands 5.5" HWDP</i> , Type: <i>Slick</i>	Platinum		CET50 Box	CET54 Pin	3.625	5.500		735.63	843.21
<b>Crossover Sub</b> Description: <i>CET54 (P) x EverDrlg 54 (B)</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	846.63
<b>HWDP</b> Description: <i>3 Stands 5.5" HWDP</i> , Type: <i>Slick</i>	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1127.81





<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #4 - INTERMEDIATE (Directional)**

Motor Details		Date/Depth/Distances		Hours	
Size (in)	7.00	Date In	2022-01-04 20:15	Downhole Hours	28.25
Lobe/Stage	6/7, 6.5	Depth In (ft)	8904.00	Drilling/Circulating Hours	13.42
Bend Angle	1.75	Date Out	2022-01-06 00:30	Drilling Hours	13.42
Speed (rev/gal)	0.23	Depth Out (ft)	10766.00	Circulating Hours	0.00
Wear Pad OD (in)	7.580	Distance Slid (ft)	182.00	Sliding Hours	4.75
Incident	No	Distance Rotated (ft)	1684.00	Rotating Hours	8.67
<b>Motor Post Run/Notes</b>		% Distance Sliding	9.75%	% Hours Sliding	35.40%
Average Total ROP (ft/h)	139.08	% Distance Rotating	90.25%	% Hours Rotating	64.60%
Average Slide ROP (ft/h)	38.32	<b>BHA Objective</b>			
Average Rotating ROP (ft/h)	194.31	8.75 INTERMEDIATE			

Notes: N/A		<b>POOH Reason/Notes</b>			
<b>Bit Details</b>		Change Bottom Hole Assembly: POOH to P/U Curve Assy.			
OD (in)	8.750				
Vendor	Reed				
Nozzles	6-15's				
Total Flow Area (in <sup>2</sup> )	1.035				

<b>Bit Distances</b>		<b>Incident Notes</b>			
Bit To Survey: 63.00 ft, Gamma: 48.00 ft		Directional:			
		MWD:			
<b>Bit Post Run/Notes</b>		<b>Comments</b>			
Dull Grading	1-2	Directional: BUTCH'S 7" 6/7 6.5 W/ 8.5 NBS Flow Range 400-750 GPM, REV .23, Max Diff 1530, Max Torque 26280, Bit Runs: 0, Bit to Bend 4.80'			
Notes: In Gauge with worn cutters on shoulder.					

<b>MWD</b>					
Max Downhole Temp (°F)	N/A				
<b>Mud Properties</b>		<b>Parameters</b>			
Type	Water Based	Flow Rate (gpm)	700.00 - 750.00	Motor RPM	30.00 - 50.00
WT	9.20	On Bottom Pressure (psi)	2500.00 - 3000.00	Surface RPM	50.00 - 50.00
VIS	28.00	Off Bottom Pressure (psi)	2300.00 - 2300.00	Rotating WOB (klbs)	45.00 - 45.00
PV	1.00	Stall Pressure (psi)	0.00	Sliding WOB (klbs)	20.00 - 25.00
YP	3.00	Stalls	0	Temp (°F)	125.00 - 135.00
		NPT	0.0		

<b>Items (Directional)</b>									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC66-AZZ, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A284029	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" 6/7 6.5 Stg. 1.75° FBH w/8.5" NBS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 6.5	Butch's	BDT-700ML-006	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.74	33.74
<b>Stabilizer</b> Description: 8.5" STAB	JA	85586	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		5.19	38.93
<b>UBHO Sub</b> Description: NM DAO SUB, Material: Non-Magnetic	AIM	AIM675-364	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.05	41.98
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-296	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		30.65	72.63
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	102.07
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	Platinum	PPR5372	CET54 Box	4 1/2" IF Pin	2.750	6.250		2.38	104.45
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET50 Box	CET54 Pin	3.625	5.500		735.63	840.08
<b>Crossover Sub</b> Description: CET54 (P) x EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	843.50
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1124.68





<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #5 - 8.75 Curve Assy (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	7.00	<b>Date In</b>	2022-01-06 00:30	<b>Downhole Hours</b>	28.50
<b>Lobe/Stage</b>	7/8, 6.1	<b>Depth In (ft)</b>	10766.00	<b>Drilling/Circulating Hours</b>	15.75
<b>Bend Angle</b>	2.25	<b>Date Out</b>	2022-01-07 05:00	<b>Drilling Hours</b>	14.08
<b>Speed (rev/gal)</b>	0.25	<b>Depth Out (ft)</b>	11516.00	<b>Circulating Hours</b>	1.67
<b>Wear Pad OD (in)</b>	7.250	<b>Distance Slid (ft)</b>	686.00	<b>Sliding Hours</b>	12.33
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	64.00	<b>Rotating Hours</b>	1.75
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	91.47%	<b>% Hours Sliding</b>	87.57%
<b>Average Total ROP (ft/h)</b>	53.25	<b>% Distance Rotating</b>	8.53%	<b>% Hours Rotating</b>	12.43%
<b>Average Slide ROP (ft/h)</b>	55.62	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	36.57	Drill 8.75" Curve Section			

<b>Notes:</b> N/A	
<b>Bit Details</b>	
<b>OD (in)</b>	8.750
<b>Vendor</b>	ULTERRA

<b>Nozzles</b>	6x15's	<b>POOH Reason/Notes</b>	
<b>Total Flow Area (in²)</b>	1.035	<b>Curve Landed:</b>	POOH for Lateral Assy.

<b>Bit Distances</b>		<b>Incident Notes</b>	
<b>Bit To Survey:</b> 63.00 ft, <b>Gamma:</b> 39.00 ft, <b>Resistivity:</b> 50.00 ft		<b>Directional:</b>	
		<b>MWD:</b>	

<b>Bit Post Run/Notes</b>		<b>Comments</b>	
<b>Dull Grading</b>	1-1	<b>Directional:</b>	Flow Range = 300-700 gpm's, Rev Per Gallon = .25, Max Diff = 1800, Max Torque = 17100, Bit Runs = 0, Bit to Bend = 4.85"
<b>Notes:</b>	N/A		

<b>MWD</b>	
<b>Max Downhole Temp (°F)</b>	N/A

<b>Mud Properties</b>		<b>Parameters</b>			
<b>Type</b>	Water Based	<b>Flow Rate (gpm)</b>	700.00 - 750.00	<b>Motor RPM</b>	0.00 - 30.00
<b>WT</b>	9.20	<b>On Bottom Pressure (psi)</b>	2600.00 - 3000.00	<b>Surface RPM</b>	30.00 - 50.00
<b>VIS</b>	28.00	<b>Off Bottom Pressure (psi)</b>	2300.00 - 2300.00	<b>Rotating WOB (klbs)</b>	30.00 - 45.00
<b>PV</b>	1.00	<b>Stall Pressure (psi)</b>	0.00	<b>Sliding WOB (klbs)</b>	30.00 - 60.00
<b>YP</b>	3.00	<b>Stalls</b>	0	<b>Temp (°F)</b>	125.00 - 135.00
		<b>NPT</b>	0.0		

<b>Items (Directional)</b>									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	ULTERRA	57710	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" 7/8 6.1 Stg. 2.25° FBH Slick, Size (in): 7.00, Bend Angle (°): 2.25, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0043	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.13	31.13
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.56
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.83
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.27
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrig54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.82





<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**BHA #6 - 8.75" LATERAL (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	7.00	<b>Date In</b>	2022-01-07 07:15	<b>Downhole Hours</b>	21.75
<b>Lobe/Stage</b>	7/8, 6.1	<b>Depth In (ft)</b>	11516.00	<b>Drilling/Circulating Hours</b>	5.00
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2022-01-08 05:00	<b>Drilling Hours</b>	2.83
<b>Speed (rev/gal)</b>	0.25	<b>Depth Out (ft)</b>	11727.00	<b>Circulating Hours</b>	2.17
<b>Wear Pad OD (in)</b>	7.230	<b>Distance Slid (ft)</b>	100.00	<b>Sliding Hours</b>	1.58
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	111.00	<b>Rotating Hours</b>	1.25
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	47.39%	<b>% Hours Sliding</b>	55.88%
<b>Average Total ROP (ft/h)</b>	74.47	<b>% Distance Rotating</b>	52.61%	<b>% Hours Rotating</b>	44.12%
<b>Average Slide ROP (ft/h)</b>	63.16	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	88.80	8.75" Lateral			
<b>Notes:</b> N/A					
<b>Bit Details</b>					
<b>OD (in)</b>	8.750	<b>POOH Reason/Notes</b>			
<b>Vendor</b>	REED	<b>Other:</b> Pressure up 700 psi. and held pressure.			
<b>Nozzles</b>	6x15's				
<b>Total Flow Area (in<sup>2</sup>)</b>	1.035				
<b>Bit Distances</b>					
<b>Bit To Survey:</b> 63.00 ft, <b>Gamma:</b> 39.00 ft, <b>Resistivity:</b> 50.00 ft		<b>Incident Notes</b>			
		<b>Directional:</b> POOH and found MWD lowerend packed off.			
		<b>MWD:</b>			
<b>Bit Post Run/Notes</b>					
<b>Dull Grading</b>		<b>Comments</b>			
2-2		<b>Directional:</b> Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 gpm's, Rev.25, Max Diff = 1800, Max Torque = 17100, Bit Runs = 0, Bit to Bend = 4.08			
<b>Notes:</b> No Squat motor drained like normal.					
<b>MWD</b>					
<b>Max Downhole Temp (°F)</b>	N/A				
<b>Mud Properties</b>					
<b>Type</b>	Oil Based	<b>Flow Rate (gpm)</b>		<b>Motor RPM</b>	
<b>WT</b>	9.50	550.00 - 700.00		0.00 - 30.00	
<b>VIS</b>	63.00	<b>On Bottom Pressure (psi)</b>	1800.00 - 4500.00	<b>Surface RPM</b>	
<b>PV</b>	22.00	<b>Off Bottom Pressure (psi)</b>	1500.00 - 3800.00	30.00 - 30.00	
<b>YP</b>	8.00	<b>Stall Pressure (psi)</b>	0.00	<b>Rotating WOB (klbs)</b>	
		<b>Stalls</b>	0	30.00 - 40.00	
		<b>NPT</b>	0.0	<b>Sliding WOB (klbs)</b>	
				20.00 - 55.00	
				<b>Temp (°F)</b>	
				125.00 - 130.00	

**Items (Directional)**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	REED	A282345	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: Bico 7" SSS100 Fixed @ 1.75 True Slick, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: 22 STDS 5" DP, Type: Slick	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: EverDRL54 Pin x 4 1/2 IF Box X-Over Sub, Material: Steel	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: NOV AGITATOR w/1.85 Plate Size, Size (in): 6.75	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: 4 1/2 IF (P) X EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79





<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #7 - 8.75" LATERAL (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	7.00	<b>Date In</b>	2022-01-08 07:00	<b>Downhole Hours</b>	171.00
<b>Lobe/Stage</b>	7/8, 6.1	<b>Depth In (ft)</b>	11727.00	<b>Drilling/Circulating Hours</b>	123.42
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2022-01-15 10:00	<b>Drilling Hours</b>	116.50
<b>Speed (rev/gal)</b>	0.25	<b>Depth Out (ft)</b>	19330.00	<b>Circulating Hours</b>	6.92
<b>Wear Pad OD (in)</b>	7.230	<b>Distance Slid (ft)</b>	1140.00	<b>Sliding Hours</b>	39.67
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	6478.00	<b>Rotating Hours</b>	76.83
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	14.96%	<b>% Hours Sliding</b>	34.05%
<b>Average Total ROP (ft/h)</b>	65.39	<b>% Distance Rotating</b>	85.04%	<b>% Hours Rotating</b>	65.95%
<b>Average Slide ROP (ft/h)</b>	28.74	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	84.31	Drill 8.75" LATERAL Section			
<b>Notes:</b> N/A					
<b>Bit Details</b>					
<b>OD (in)</b>	8.750	<b>POOH Reason/Notes</b>			
<b>Vendor</b>	REED	Total Depth/Casing Point			
<b>Nozzles</b>	6x15's				
<b>Total Flow Area (in<sup>2</sup>)</b>	1.035				
<b>Bit Distances</b>					
<b>Bit To Survey:</b> 63.00 ft, <b>Gamma:</b> 39.00 ft, <b>Resistivity:</b> 50.00 ft		<b>Incident Notes</b>			
		<b>Directional:</b>			
		<b>MWD:</b>			
<b>Bit Post Run/Notes</b>					
<b>Dull Grading</b>		<b>Comments</b>			
1-3 <b>Notes:</b> Worn/ Damaged Cutters on shoulders w/ 3/8 slack in bit box.		<b>Directional:</b> Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque = 17100, Bit Runs = 0, Bit to Bend = 4.08			
<b>MWD</b>					
<b>Max Downhole Temp (°F)</b>	N/A				
<b>Mud Properties</b>					
<b>Type</b>	Oil Based	<b>Flow Rate (gpm)</b>	696.00 - 700.00	<b>Motor RPM</b>	150.00 - 175.00
<b>WT</b>	9.65	<b>On Bottom Pressure (psi)</b>	4200.00 - 4600.00	<b>Surface RPM</b>	30.00 - 50.00
<b>VIS</b>	63.00	<b>Off Bottom Pressure (psi)</b>	3800.00 - 4000.00	<b>Rotating WOB (klbs)</b>	40.00 - 48.00
<b>PV</b>	17.00	<b>Stall Pressure (psi)</b>	1800.06	<b>Sliding WOB (klbs)</b>	10.00 - 60.00
<b>YP</b>	10.00	<b>Stalls</b>	0	<b>Temp (°F)</b>	-0.00 - 190.00
		<b>NPT</b>	0.0		

**Items (Directional)**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC 76</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 4.00, Size (in): 8.75	REED	A283089	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>Bico 7" SSS100 Fixed @ 1.75 True Slick</i> , Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: <i>NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: <i>22 STDS 5" DP</i> , Type: <i>Slick</i>	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: <i>EverDRL54 Pin x 4 1/2 IF Box X-Over Sub</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: <i>NOV AGITATOR w/1.85 Plate Size</i> , Size (in): 6.75	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: <i>4 1/2 IF (P) X EverDrlg 54 (B)</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79





# Mud Motor Reports

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## **Anderson Fed Com 552H (WT-21-181)**

2021-11-22 to 2022-01-16

Lea, New Mexico, US (32.43, -103.65)

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<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

### Mud Motor Report - BHA 1 (BHA #1 (17.5" Surface))

Motor Details		Date/Depth/Distances		Hours	
S/N	800-40-002	Date In	2021-11-22 08:15	Downhole Hours	15.42
Size (in)	8.0	Depth In (ft)	150.00	Drilling/Circulating Hours	10.00
Lobe/Stage	7/8, 5.90	Date Out	2021-11-22 23:40		
Bend Angle	1.75	Depth Out (ft)	1277.00	Circulating Hours	0.75
Speed (rev/gal)	0.17	Total Drilled (ft)	1127.00	Drilling Hours	9.25
Wear Pad OD (in)	8.313	Distance Slid (ft)	0.00	Sliding Hours	0.00
Manufacturer	Contender	Distance Rotated (ft)	1127.00	Rotating Hours	9.25
<b>Motor Results</b>		% Distance Sliding	0.00%	% Hours Rotating	100.00%
Motor Incident	No	% Distance Rotating	100.00%	% Hours Sliding	0.00%
Average Total ROP (ft/h)	121.84	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	0.00	Flow Rate (gpm)	550.00 - 895.00	Motor RPM	40.00 - 70.00
Average Rotating ROP (ft/h)	121.84	Stalls	0	Surface RPM	50.00 - 70.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	20.00 - 25.00
OD (in)	17.500	On Bottom Pressure (psi)	1000.00 - 2450.00	Sliding WOB (klbs)	5.00 - 20.00
Vendor	ULTERRA	Off Bottom Pressure (psi)	850.00 - 1850.00	Temp (°F)	110.30 - 113.40
S/N	57215	NPT	0.0		
Nozzles	9x12's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	0.994	DRILL OUT SURFACE			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 70.00 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	9.30				
VIS	33.00				
PV	3.00				
YP	6.00				
<b>POOH Reason/Notes</b>					
Total Depth/Casing Point: Good run.					
<b>Incident Notes</b>					
Directional:					
MWD:					
<b>Comments</b>					
Directional: FLOW RANGE 400-900 GPM, REV PER GALLON .166, MAX DIFF 1330, MAX TORQUE 22020 BIT RUNS: 2					
MWD:					



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

### Mud Motor Report - BHA 2 (12.25" INTERMEDIATE)

Motor Details		Date/Depth/Distances		Hours	
S/N	CDM875-001	Date In	2021-12-03 13:00	Downhole Hours	19.50
Size (in)	8.75	Depth In (ft)	1277.00	Drilling/Circulating Hours	13.92
Lobe/Stage	6/7, 6.60	Date Out	2021-12-04 08:30		
Bend Angle	1.75	Depth Out (ft)	4803.00	Circulating Hours	1.00
Speed (rev/gal)	0.13	Total Drilled (ft)	3526.00	Drilling Hours	12.92
Wear Pad OD (in)	9.250	Distance Slid (ft)	81.00	Sliding Hours	0.50
Manufacturer	Contender	Distance Rotated (ft)	3445.00	Rotating Hours	12.42
<b>Motor Results</b>		% Distance Sliding	2.30%	% Hours Rotating	96.13%
Motor Incident	No	% Distance Rotating	97.70%	% Hours Sliding	3.87%
Average Total ROP (ft/h)	272.98	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	162.00	Flow Rate (gpm)	705.00 - 895.00	Motor RPM	30.00 - 70.00
Average Rotating ROP (ft/h)	277.45	Stalls	0	Surface RPM	40.00 - 70.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	40.00 - 48.00
OD (in)	12.250	On Bottom Pressure (psi)	1600.00 - 2400.00	Sliding WOB (klbs)	20.00 - 20.00
Vendor	Reed	Off Bottom Pressure (psi)	1200.00 - 2000.00	Temp (°F)	125.00 - 135.00
S/N	A281282	NPT	0.0		
Nozzles	6x16's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.178	DRILL 12.25 TO CASING POINT			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 68.00 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	10.50				
VIS	29.00				
PV	2.00				
YP	3.00				
<b>POOH Reason/Notes</b>					
Total Depth/Casing Point: GOOD RUN. POOH FOR CASING					
<b>Incident Notes</b>					
Directional:					
MWD:					
<b>Comments</b>					
Directional: Flow Range 600-1300 GPM, REV PER GPM .13, Max Diff 1650, Max Torque 31480, Bit Runs: 2, Bit to Bend 5.62'					
MWD:					



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

### Mud Motor Report - BHA 3 (8.75" INTERMEDIATE)

Motor Details		Date/Depth/Distances		Hours	
S/N	DFM-700-004	Date In	2022-01-03 23:30	Downhole Hours	20.75
Size (in)	7.0	Depth In (ft)	4803.00	Drilling/Circulating Hours	12.75
Lobe/Stage	7/8, 8.50	Date Out	2022-01-04 20:15		
Bend Angle	1.75	Depth Out (ft)	8904.00	Circulating Hours	0.42
Speed (rev/gal)	0.26	Total Drilled (ft)	4101.00	Drilling Hours	12.33
Wear Pad OD (in)	6.938	Distance Slid (ft)	55.00	Sliding Hours	0.92
Manufacturer	Drilformance	Distance Rotated (ft)	4046.00	Rotating Hours	11.42
<b>Motor Results</b>		% Distance Sliding	1.34%	% Hours Rotating	92.57%
Motor Incident	Yes	% Distance Rotating	98.66%	% Hours Sliding	7.43%
Average Total ROP (ft/h)	332.51	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	60.00	Flow Rate (gpm)	700.00 - 895.00	Motor RPM	30.00 - 50.00
Average Rotating ROP (ft/h)	354.39	Stalls	4	Surface RPM	50.00 - 70.00
<b>Bit Details</b>		Stall Pressure (psi)	1899.99	Rotating WOB (klbs)	45.00 - 48.00
OD (in)	8.750	On Bottom Pressure (psi)	2400.00 - 3000.00	Sliding WOB (klbs)	30.00 - 30.00
Vendor	Reed	Off Bottom Pressure (psi)	1800.00 - 2300.00	Temp (°F)	120.00 - 128.00
S/N	A283984	NPT	0.0		
Nozzles	5-15's, 1-16	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.059	Drill 8.75 Intermediate			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 66.00 ft, Gamma: 51.00 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	9.25				
VIS	28.00				
PV	1.00				
YP	3.00				
<b>POOH Reason/Notes</b>					
Downhole Tool Incident: Mud Motor Stalled 4 times as soon as we would tag bottom. POOH for new motor.					
<b>Incident Notes</b>					
Directional: Drilling ahead with 1000 diff. and motor just stalled. Mud Motor Stalled 4 times as soon as we would tag bottom with rotary on and with no rotary.					
MWD:					
<b>Comments</b>					
Directional: Flow Range 500-750 GPM, REV PER GPM .26, Max Diff 1910, Max Torque 18710, Bit Runs: 1, Bit to Bend 4.30'					
MWD:					



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Mud Motor Report - BHA 4 (INTERMEDIATE)**

Motor Details		Date/Depth/Distances		Hours	
S/N	BDT-700ML-006	Date In	2022-01-04 20:15	Downhole Hours	28.25
Size (in)	7.0	Depth In (ft)	8904.00	Drilling/Circulating Hours	13.42
Lobe/Stage	6/7, 6.50	Date Out	2022-01-06 00:30		
Bend Angle	1.75	Depth Out (ft)	10766.00	Circulating Hours	0.00
Speed (rev/gal)	0.23	Total Drilled (ft)	1866.00	Drilling Hours	13.42
Wear Pad OD (in)	7.580	Distance Slid (ft)	182.00	Sliding Hours	4.75
Manufacturer	Butch's	Distance Rotated (ft)	1684.00	Rotating Hours	8.67
<b>Motor Results</b>		% Distance Sliding	9.75%	% Hours Rotating	64.60%
Motor Incident	No	% Distance Rotating	90.25%	% Hours Sliding	35.40%

Motor Results		BHA Parameters	
Average Total ROP (ft/h)	139.08	Flow Rate (gpm)	700.00 - 750.00
Average Slide ROP (ft/h)	38.32	Motor RPM	30.00 - 50.00
Average Rotating ROP (ft/h)	194.31	Stalls	0
<b>Bit Details</b>		Stall Pressure (psi)	0.00
OD (in)	8.750	On Bottom Pressure (psi)	2500.00 - 3000.00
Vendor	Reed	Off Bottom Pressure (psi)	2300.00 - 2300.00
S/N	A284029	NPT	0.0
Nozzles	6-15's		

Bit Details		BHA Objective	
Total Flow Area (in <sup>2</sup> )	1.035	8.75 INTERMEDIATE	
Bit Type	PDC (Polycrystalline Diamond Compacts)		

Bit Distances	
Survey: 63.00 ft, Gamma: 48.00 ft	

Mud Properties	
Type	Water Based
WT	9.20
VIS	28.00
PV	1.00
YP	3.00

**POOH Reason/Notes**  
Change Bottom Hole Assembly: POOH to P/U Curve Assy.

**Incident Notes**  
Directional:

MWD:

**Comments**  
Directional: BUTCH'S 7" 6/7 6.5 W/ 8.5 NBS Flow Range 400-750 GPM, REV .23, Max Diff 1530, Max Torque 26280, Bit Runs: 0, Bit to Bend 4.80'  
MWD:



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

### Mud Motor Report - BHA 5 (8.75 Curve Assy)

Motor Details		Date/Depth/Distances		Hours	
S/N	BPB5700-0043	Date In	2022-01-06 00:30	Downhole Hours	28.50
Size (in)	7.0	Depth In (ft)	10766.00	Drilling/Circulating Hours	15.75
Lobe/Stage	7/8, 6.10	Date Out	2022-01-07 05:00		
Bend Angle	2.25	Depth Out (ft)	11516.00	Circulating Hours	1.67
Speed (rev/gal)	0.25	Total Drilled (ft)	750.00	Drilling Hours	14.08
Wear Pad OD (in)	7.250	Distance Slid (ft)	686.00	Sliding Hours	12.33
Manufacturer	Bico	Distance Rotated (ft)	64.00	Rotating Hours	1.75
<b>Motor Results</b>		% Distance Sliding	91.47%	% Hours Rotating	12.43%
Motor Incident	No	% Distance Rotating	8.53%	% Hours Sliding	87.57%
Average Total ROP (ft/h)	53.25	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	55.62	Flow Rate (gpm)	700.00 - 750.00	Motor RPM	0.00 - 30.00
Average Rotating ROP (ft/h)	36.57	Stalls	0	Surface RPM	30.00 - 50.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	30.00 - 45.00
OD (in)	8.750	On Bottom Pressure (psi)	2600.00 - 3000.00	Sliding WOB (klbs)	30.00 - 60.00
Vendor	ULTERRA	Off Bottom Pressure (psi)	2300.00 - 2300.00	Temp (°F)	125.00 - 135.00
S/N	57710	NPT	0.0		
Nozzles	6x15's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.035	Drill 8.75" Curve Section			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 63.00 ft, Gamma: 39.00 ft, Resistivity: 50.00 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	9.20				
VIS	28.00				
PV	1.00				
YP	3.00				
<b>POOH Reason/Notes</b>					
Curve Landed: POOH for Lateral Assy.					
<b>Incident Notes</b>					
Directional:					
MWD:					
<b>Comments</b>					
Directional: Flow Range = 300-700 gpm's, Rev Per Gallon = .25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.85"					
MWD:					



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Mud Motor Report - BHA 6 (8.75" LATERAL)**

Motor Details		Date/Depth/Distances		Hours	
S/N	BPB5700-0072	Date In	2022-01-07 07:15	Downhole Hours	21.75
Size (in)	7.0	Depth In (ft)	11516.00	Drilling/Circulating Hours	5.00
Lobe/Stage	7/8, 6.10	Date Out	2022-01-08 05:00		
Bend Angle	1.75	Depth Out (ft)	11727.00	Circulating Hours	2.17
Speed (rev/gal)	0.25	Total Drilled (ft)	211.00	Drilling Hours	2.83
Wear Pad OD (in)	7.230	Distance Slid (ft)	100.00	Sliding Hours	1.58
Manufacturer	Bico	Distance Rotated (ft)	111.00	Rotating Hours	1.25
<b>Motor Results</b>		% Distance Sliding	47.39%	% Hours Rotating	44.12%
Motor Incident	No	% Distance Rotating	52.61%	% Hours Sliding	55.88%
Average Total ROP (ft/h)	74.47	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	63.16	Flow Rate (gpm)	550.00 - 700.00	Motor RPM	0.00 - 30.00
Average Rotating ROP (ft/h)	88.80	Stalls	0	Surface RPM	30.00 - 30.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	30.00 - 40.00
OD (in)	8.750	On Bottom Pressure (psi)	1800.00 - 4500.00	Sliding WOB (klbs)	20.00 - 55.00
Vendor	REED	Off Bottom Pressure (psi)	1500.00 - 3800.00	Temp (°F)	125.00 - 130.00
S/N	A282345	NPT	0.0		
Nozzles	6x15's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.035	8.75" Lateral			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 63.00 ft, Gamma: 39.00 ft, Resistivity: 50.00 ft					
<b>Mud Properties</b>					
Type	Oil Based				
WT	9.50				
VIS	63.00				
PV	22.00				
YP	8.00				
<b>POOH Reason/Notes</b>					
Other: Pressure up 700 psi. and held pressure.					
<b>Incident Notes</b>					
Directional: POOH and found MWD lowerend packed off.					
MWD:					
<b>Comments</b>					
Directional: Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 gpm's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08					
MWD:					



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Mud Motor Report - BHA 7 (8.75" LATERAL)**

Motor Details		Date/Depth/Distances		Hours	
S/N	BPB5700-0072	Date In	2022-01-08 07:00	Downhole Hours	171.00
Size (in)	7.0	Depth In (ft)	11727.00	Drilling/Circulating Hours	123.42
Lobe/Stage	7/8, 6.10	Date Out	2022-01-15 10:00		
Bend Angle	1.75	Depth Out (ft)	19330.00	Circulating Hours	6.92
Speed (rev/gal)	0.25	Total Drilled (ft)	7618.00	Drilling Hours	116.50
Wear Pad OD (in)	7.230	Distance Slid (ft)	1140.00	Sliding Hours	39.67
Manufacturer	Bico	Distance Rotated (ft)	6478.00	Rotating Hours	76.83
<b>Motor Results</b>		% Distance Sliding	14.96%	% Hours Rotating	65.95%
Motor Incident	No	% Distance Rotating	85.04%	% Hours Sliding	34.05%
Average Total ROP (ft/h)	65.39	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	28.74	Flow Rate (gpm)	696.00 - 700.00	Motor RPM	150.00 - 175.00
Average Rotating ROP (ft/h)	84.31	Stalls	0	Surface RPM	30.00 - 50.00
<b>Bit Details</b>		Stall Pressure (psi)	1800.06	Rotating WOB (klbs)	40.00 - 48.00
OD (in)	8.750	On Bottom Pressure (psi)	4200.00 - 4600.00	Sliding WOB (klbs)	10.00 - 60.00
Vendor	REED	Off Bottom Pressure (psi)	3800.00 - 4000.00	Temp (°F)	-0.00 - 190.00
S/N	A283089	NPT	0.0		
Nozzles	6x15's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.035	Drill 8.75" LATERAL Section			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 63.00 ft, Gamma: 39.00 ft, Resistivity: 50.00 ft					
<b>Mud Properties</b>					
Type	Oil Based				
WT	9.65				
VIS	63.00				
PV	17.00				
YP	10.00				
<b>POOH Reason/Notes</b>					
Total Depth/Casing Point					
<b>Incident Notes</b>					
Directional:					
MWD:					
<b>Comments</b>					
Directional: Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08					
MWD:					



# Slide/Rotate Reports

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## **Anderson Fed Com 552H (WT-21-181)**

2021-11-22 to 2022-01-16

Lea, New Mexico, US (32.43, -103.65)

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<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Slide/Rotate Report - BHA #1 (BHA #1 (17.5" 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	11-22	09:30	11:00	11-22	1.5	150.00	300.00	150.00	100.00	N/A	550.00	50.0	20.00	1000.00	850.00	Surface
Rotate	11-22	11:05	12:00	11-22	0.92	300.00	392.00	92.00	100.36	N/A	705.00	50.0	25.00	1575.00	1050.00	Surface
Rotate	11-22	12:05	12:35	11-22	0.5	392.00	484.00	92.00	184.00	N/A	705.00	50.0	25.00	1575.00	1050.00	Surface
Rotate	11-22	12:40	13:20	11-22	0.67	484.00	576.00	92.00	138.00	N/A	895.00	70.0	25.00	2450.00	1850.00	Surface
Rotate	11-22	13:25	15:00	11-22	1.58	576.00	668.00	92.00	58.11	N/A	895.00	70.0	25.00	2450.00	1850.00	Surface
Rotate	11-22	15:05	16:00	11-22	0.92	668.00	760.00	92.00	100.36	N/A	895.00	70.0	25.00	2450.00	1850.00	Surface
Rotate	11-22	16:05	17:00	11-22	0.92	760.00	948.00	188.00	205.09	N/A	895.00	70.0	25.00	2450.00	1850.00	Surface
Rotate	11-22	17:05	17:50	11-22	0.75	948.00	1043.00	95.00	126.67	N/A	895.00	70.0	25.00	2450.00	1850.00	Surface
Rotate	11-22	17:55	18:50	11-22	0.92	1043.00	1136.00	93.00	101.45	N/A	895.00	70.0	25.00	2450.00	1850.00	Surface
Rotate	11-22	18:55	19:25	11-22	0.5	1136.00	1226.00	90.00	180.00	N/A	895.00	70.0	25.00	2450.00	1850.00	Surface
Rotate	11-22	20:35	20:40	11-22	0.08	1226.00	1277.00	51.00	612.00	N/A	895.00	70.0	25.00	2450.00	1850.00	Surface, Intermediate



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Slide/Rotate Report - BHA #2 (12.25" 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	12-03	14:55	15:00	12-03	0.08	1277.00	1314.00	37.00	444.00	N/A	705.00	40.0	40.00	1600.00	1200.00	Intermediate
Rotate	12-03	15:05	15:20	12-03	0.25	1314.00	1378.00	64.00	256.00	N/A	705.00	40.0	40.00	1600.00	1200.00	Intermediate
Rotate	12-03	15:50	16:00	12-03	0.17	1378.00	1403.00	25.00	150.00	N/A	705.00	40.0	40.00	1600.00	1200.00	Intermediate
Rotate	12-03	16:05	16:20	12-03	0.25	1403.00	1493.00	90.00	360.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	16:25	16:35	12-03	0.17	1493.00	1582.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	16:40	16:55	12-03	0.25	1582.00	1672.00	90.00	360.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	17:00	17:10	12-03	0.17	1672.00	1761.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	17:15	17:25	12-03	0.17	1761.00	1851.00	90.00	540.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	17:30	17:40	12-03	0.17	1851.00	1940.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	17:45	18:00	12-03	0.25	1940.00	2030.00	90.00	360.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	18:05	18:15	12-03	0.17	2030.00	2120.00	90.00	540.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	18:20	18:30	12-03	0.17	2120.00	2210.00	90.00	540.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	18:35	18:45	12-03	0.17	2210.00	2299.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	18:50	19:00	12-03	0.17	2299.00	2388.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	19:05	19:15	12-03	0.17	2388.00	2477.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Slide	12-03	19:30	19:35	12-03	0.08	2477.00	2497.00	20.00	240.00	270.0	895.00	N/A	20.00	2400.00	2000.00	Intermediate
Rotate	12-03	19:35	19:40	12-03	0.08	2497.00	2567.00	70.00	840.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	19:45	19:55	12-03	0.17	2567.00	2656.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	20:00	20:10	12-03	0.17	2656.00	2745.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	20:15	20:30	12-03	0.25	2745.00	2835.00	90.00	360.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Slide	12-03	20:35	20:45	12-03	0.17	2835.00	2855.00	20.00	120.00	220.0	895.00	N/A	20.00	2400.00	2000.00	Intermediate
Rotate	12-03	20:45	20:55	12-03	0.17	2855.00	2925.00	70.00	420.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	21:00	21:10	12-03	0.17	2925.00	3014.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	21:15	21:30	12-03	0.25	3014.00	3104.00	90.00	360.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	21:35	21:55	12-03	0.33	3104.00	3193.00	89.00	267.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	22:00	22:05	12-03	0.08	3193.00	3202.00	9.00	108.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Slide	12-03	22:05	22:10	12-03	0.08	3202.00	3227.00	25.00	300.00	200.0	895.00	N/A	20.00	2400.00	2000.00	Intermediate
Rotate	12-03	22:10	22:20	12-03	0.17	3227.00	3283.00	56.00	336.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	22:25	22:35	12-03	0.17	3283.00	3373.00	90.00	540.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	22:40	22:50	12-03	0.17	3373.00	3462.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	22:55	23:10	12-03	0.25	3462.00	3552.00	90.00	360.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	23:15	23:40	12-03	0.42	3552.00	3641.00	89.00	213.60	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-03	23:45	00:05	12-04	0.33	3641.00	3731.00	90.00	270.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	00:10	00:35	12-04	0.42	3731.00	3821.00	90.00	216.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	00:40	00:45	12-04	0.08	3821.00	3826.00	5.00	60.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Slide	12-04	00:45	00:55	12-04	0.17	3826.00	3842.00	16.00	96.00	285.0		N/A				Intermediate
Rotate	12-04	00:55	01:20	12-04	0.42	3842.00	3910.00	68.00	163.20	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	01:25	02:00	12-04	0.58	3910.00	4000.00	90.00	154.29	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	02:15	02:50	12-04	0.58	4000.00	4090.00	90.00	154.29	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	02:55	03:25	12-04	0.5	4090.00	4179.00	89.00	178.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	03:45	04:15	12-04	0.5	4179.00	4268.00	89.00	178.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	04:20	04:50	12-04	0.5	4268.00	4358.00	90.00	180.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	04:55	05:50	12-04	0.92	4358.00	4448.00	90.00	98.18	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	06:00	06:30	12-04	0.5	4448.00	4537.00	89.00	178.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	06:35	07:05	12-04	0.5	4537.00	4627.00	90.00	180.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	07:10	07:50	12-04	0.67	4627.00	4716.00	89.00	133.50	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	12-04	07:55	08:15	12-04	0.33	4716.00	4803.00	87.00	261.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners		<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H		<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea	<b>Company Man</b>

**Slide/Rotate Report - BHA #3 (8.75" 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	01-03	23:30	00:00	01-04	0.5	4803.00	4888.00	85.00	170.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	01-04	00:05	00:30	01-04	0.42	4888.00	4977.00	89.00	213.60	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	01-04	00:35	00:45	01-04	0.17	4977.00	5067.00	90.00	540.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	01-04	00:50	01:00	01-04	0.17	5067.00	5157.00	90.00	540.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	01-04	01:05	01:15	01-04	0.17	5157.00	5246.00	89.00	534.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	01-04	01:20	01:30	01-04	0.17	5246.00	5336.00	90.00	540.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	01-04	01:35	02:00	01-04	0.42	5336.00	5425.00	89.00	213.60	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	01-04	02:05	02:15	01-04	0.17	5425.00	5515.00	90.00	540.00	N/A	895.00	70.0	48.00	2400.00	1800.00	Intermediate
Rotate	01-04	02:20	02:40	01-04	0.33	5515.00	5604.00	89.00	267.00	N/A						Intermediate
Slide	01-04	02:45	03:05	01-04	0.33	5604.00	5629.00	25.00	75.00	112.0		N/A				Intermediate
Rotate	01-04	03:05	03:15	01-04	0.17	5629.00	5694.00	65.00	390.00	N/A	700.00	50.0	45.00	2750.00	2000.00	Intermediate
Slide	01-04	03:20	03:35	01-04	0.25	5694.00	5709.00	15.00	60.00	115.0		N/A				Intermediate
Rotate	01-04	03:35	03:50	01-04	0.25	5709.00	5783.00	74.00	296.00	N/A	700.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	04:10	04:30	01-04	0.33	5783.00	5873.00	90.00	270.00	N/A	700.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	04:35	04:45	01-04	0.17	5873.00	5962.00	89.00	534.00	N/A	700.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	04:50	05:00	01-04	0.17	5962.00	6052.00	90.00	540.00	N/A	700.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	05:05	05:10	01-04	0.08	6052.00	6142.00	90.00	1080.00	N/A	700.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	05:15	05:25	01-04	0.17	6142.00	6231.00	89.00	534.00	N/A	700.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	05:30	05:40	01-04	0.17	6231.00	6321.00	90.00	540.00	N/A	700.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	05:45	05:50	01-04	0.08	6321.00	6410.00	89.00	1068.00	N/A	700.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	05:55	06:00	01-04	0.08	6410.00	6500.00	90.00	1080.00	N/A	750.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	06:05	06:15	01-04	0.17	6500.00	6589.00	89.00	534.00	N/A	750.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	06:20	06:35	01-04	0.25	6589.00	6679.00	90.00	360.00	N/A	750.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	06:40	06:50	01-04	0.17	6679.00	6768.00	89.00	534.00	N/A	750.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	06:55	07:05	01-04	0.17	6768.00	6857.00	89.00	534.00	N/A	750.00	50.0	45.00	2750.00	2000.00	Intermediate
Rotate	01-04	07:10	07:20	01-04	0.17	6857.00	6947.00	90.00	540.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	07:25	07:45	01-04	0.33	6947.00	7037.00	90.00	270.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	07:50	08:05	01-04	0.25	7037.00	7126.00	89.00	356.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	08:10	08:25	01-04	0.25	7126.00	7216.00	90.00	360.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	08:30	08:40	01-04	0.17	7216.00	7306.00	90.00	540.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	08:45	09:00	01-04	0.25	7306.00	7395.00	89.00	356.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	09:05	09:20	01-04	0.25	7395.00	7485.00	90.00	360.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	09:25	09:40	01-04	0.25	7485.00	7574.00	89.00	356.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	09:45	10:00	01-04	0.25	7574.00	7664.00	90.00	360.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	10:05	10:20	01-04	0.25	7664.00	7754.00	90.00	360.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	10:25	10:35	01-04	0.17	7754.00	7843.00	89.00	534.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate

Rotate	01-04	10:40	10:55	01-04	0.25	7843.00	7933.00	90.00	360.00	N/A	750.00	50.0	45.00	3000.00	2300.00	intermediate
Rotate	01-04	11:00	11:15	01-04	0.25	7933.00	8022.00	89.00	356.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	11:20	11:40	01-04	0.33	8022.00	8112.00	90.00	270.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	11:45	12:00	01-04	0.25	8112.00	8202.00	90.00	360.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	12:05	12:25	01-04	0.33	8202.00	8291.00	89.00	267.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	12:30	12:50	01-04	0.33	8291.00	8381.00	90.00	270.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	12:55	13:10	01-04	0.25	8381.00	8470.00	89.00	356.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	13:15	13:45	01-04	0.5	8470.00	8559.00	89.00	178.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	13:50	14:15	01-04	0.42	8559.00	8649.00	90.00	216.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Slide	01-04	14:20	14:40	01-04	0.33	8649.00	8664.00	15.00	45.00	40.0	705.00	N/A	30.00	2500.00	2100.00	Intermediate
Rotate	01-04	14:40	14:50	01-04	0.17	8664.00	8738.00	74.00	444.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	14:55	15:35	01-04	0.67	8738.00	8828.00	90.00	135.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-04	15:40	15:50	01-04	0.17	8828.00	8904.00	76.00	456.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners		<b>Rig Name</b> Nabors X50	
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H		<b>Legal Well Name   AFE</b> Anderson Fed Com 552H	
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea	<b>Company Man</b>	

**Slide/Rotate Report - BHA #4 (INTERMEDIATE)**

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	01-05	03:15	03:25	01-05	0.17	8904.00	8918.00	14.00	84.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	03:30	03:50	01-05	0.33	8914.00	9004.00	90.00	270.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	03:55	04:20	01-05	0.42	9004.00	9094.00	90.00	216.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	04:25	04:40	01-05	0.25	9094.00	9183.00	89.00	356.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	04:45	05:10	01-05	0.42	9183.00	9273.00	90.00	216.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Slide	01-05	05:15	05:50	01-05	0.58	9273.00	9298.00	25.00	42.86	75.0	700.00	N/A	20.00	2500.00	2300.00	Intermediate
Rotate	01-05	05:50	06:05	01-05	0.25	9298.00	9363.00	65.00	260.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	06:10	06:15	01-05	0.08	9363.00	9367.00	4.00	48.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Slide	01-05	06:15	06:25	01-05	0.17	9367.00	9377.00	10.00	60.00	30.0	750.00	N/A	25.00	2500.00	2300.00	Intermediate
Rotate	01-05	06:25	06:40	01-05	0.25	9377.00	9453.00	76.00	304.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	06:45	07:00	01-05	0.25	9453.00	9542.00	89.00	356.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	07:05	07:10	01-05	0.08	9542.00	9557.00	15.00	180.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Slide	01-05	07:10	07:35	01-05	0.42	9557.00	9577.00	20.00	48.00	120.0	750.00	N/A	25.00	2500.00	2300.00	Intermediate
Rotate	01-05	07:35	07:45	01-05	0.17	9577.00	9632.00	55.00	330.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	07:50	08:05	01-05	0.25	9632.00	9721.00	89.00	356.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	08:10	08:30	01-05	0.33	9721.00	9811.00	90.00	270.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Slide	01-05	08:35	09:25	01-05	0.83	9811.00	9841.00	30.00	36.00	140.0	750.00	N/A	25.00	2500.00	2300.00	Intermediate
Rotate	01-05	09:25	09:50	01-05	0.42	9841.00	9901.00	60.00	144.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	10:05	10:10	01-05	0.08	9901.00	9906.00	5.00	60.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Slide	01-05	10:10	10:55	01-05	0.75	9906.00	9936.00	30.00	40.00	120.0	750.00	N/A	25.00	2500.00	2300.00	Intermediate
Rotate	01-05	10:55	11:25	01-05	0.5	9936.00	9990.00	54.00	108.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	11:30	11:40	01-05	0.17	9990.00	9997.00	7.00	42.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Slide	01-05	11:40	12:25	01-05	0.75	9997.00	10017.00	20.00	26.67	110.0	750.00	N/A	25.00	2500.00	2300.00	Intermediate
Rotate	01-05	12:25	12:45	01-05	0.33	10017.00	10080.00	63.00	189.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	12:50	13:20	01-05	0.5	10080.00	10170.00	90.00	180.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	13:25	14:00	01-05	0.58	10170.00	10259.00	89.00	152.57	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	14:05	14:10	01-05	0.08	10259.00	10268.00	9.00	108.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Slide	01-05	14:10	14:45	01-05	0.58	10268.00	10284.00	16.00	27.43	100.0	750.00	N/A	25.00	2500.00	2300.00	Intermediate
Rotate	01-05	14:45	15:15	01-05	0.5	10284.00	10349.00	65.00	130.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	15:20	15:40	01-05	0.33	10349.00	10438.00	89.00	267.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	15:45	16:10	01-05	0.42	10438.00	10528.00	90.00	216.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	16:15	16:45	01-05	0.5	10528.00	10618.00	90.00	180.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Slide	01-05	16:50	17:30	01-05	0.67	10618.00	10649.00	31.00	46.50	330.0	750.00	N/A	25.00	2500.00	2300.00	Intermediate
Rotate	01-05	17:30	18:05	01-05	0.58	10649.00	10707.00	58.00	99.43	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate
Rotate	01-05	18:10	18:35	01-05	0.42	10707.00	10766.00	59.00	141.60	N/A	750.00	50.0	45.00	3000.00	2300.00	Intermediate, Curve



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Slide/Rotate Report - BHA #5 (8.75 Curve Assy)**

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	01-06	08:30	08:40	01-06	0.17	10766.00	10770.00	4.00	24.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Curve
Slide	01-06	08:40	10:40	01-06	2.0	10770.00	10859.00	89.00	44.50	0.0	700.00	N/A	30.00	2600.00	2300.00	Curve
Slide	01-06	10:45	13:20	01-06	2.58	10859.00	10949.00	90.00	34.84	315.0	700.00	N/A	30.00	2600.00	2300.00	Curve
Slide	01-06	13:25	14:40	01-06	1.25	10949.00	11038.00	89.00	71.20	330.0	700.00	N/A	30.00	2600.00	2300.00	Curve
Slide	01-06	14:45	16:00	01-06	1.25	11038.00	11128.00	90.00	72.00	310.0	700.00	N/A	30.00	2600.00	2300.00	Curve
Slide	01-06	16:05	17:05	01-06	1.0	11128.00	11217.00	89.00	89.00	330.0	700.00	N/A	30.00	2600.00	2300.00	Curve
Slide	01-06	17:10	18:40	01-06	1.5	11217.00	11307.00	90.00	60.00	280.0	700.00	N/A	60.00	2800.00	2300.00	Curve
Rotate	01-06	18:45	19:15	01-06	0.5	11307.00	11337.00	30.00	60.00	N/A	750.00	50.0	45.00	3000.00	2300.00	Curve
Slide	01-06	19:20	21:00	01-06	1.67	11337.00	11396.00	59.00	35.40	330.0	700.00	N/A	60.00	2800.00	2300.00	Curve
Slide	01-06	21:05	22:10	01-06	1.08	11396.00	11486.00	90.00	83.08	320.0	700.00	N/A	60.00	2800.00	2300.00	Curve
Rotate	01-06	22:15	23:20	01-06	1.08	11486.00	11516.00	30.00	27.69	N/A	700.00	30.0	30.00	3000.00	2300.00	Curve



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Slide/Rotate Report - BHA #6 (8.75" 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	01-07	17:00	17:30	01-07	0.5	11516.00	11517.00	1.00	2.00	N/A	550.00	30.0	30.00	1800.00	1500.00	Curve
Rotate	01-07	19:00	19:25	01-07	0.42	11517.00	11607.00	90.00	216.00	N/A	550.00	30.0	30.00	1800.00	1500.00	Curve
Rotate	01-07	19:30	19:50	01-07	0.33	11607.00	11627.00	20.00	60.00	N/A	700.00	30.0	40.00	4500.00	3800.00	Curve
Slide	01-07	19:50	20:40	01-07	0.83	11627.00	11697.00	70.00	84.00	20.0		N/A				Curve
Slide	01-07	20:45	21:30	01-07	0.75	11697.00	11727.00	30.00	40.00	0.0		N/A				Curve, Lateral



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners		<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H		<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea	<b>Company Man</b>

**Slide/Rotate Report - BHA #7 (8.75" LATERAL)**

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Slide	01-08	13:40	14:25	01-08	0.75	11727.00	11758.00	31.00	41.33	0.0	700.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-08	14:25	14:40	01-08	0.25	11758.00	11787.00	29.00	116.00	N/A	700.00	30.0	40.00	4500.00	3800.00	Lateral
Rotate	01-08	14:45	15:00	01-08	0.25	11787.00	11794.00	7.00	28.00	N/A	700.00	30.0	40.00	4500.00	3800.00	Lateral
Slide	01-08	15:00	15:15	01-08	0.25	11794.00	11809.00	15.00	60.00	170.0	700.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-08	15:15	15:30	01-08	0.25	11809.00	11876.00	67.00	268.00	N/A	700.00	30.0	40.00	4500.00	3800.00	Lateral
Slide	01-08	15:35	16:00	01-08	0.42	11876.00	11891.00	15.00	36.00	190.0	700.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-08	16:00	16:55	01-08	0.92	11891.00	11966.00	75.00	81.82	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-08	17:00	17:45	01-08	0.75	11966.00	12056.00	90.00	120.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-08	17:50	18:40	01-08	0.83	12056.00	12086.00	30.00	36.00	330.0		N/A				Lateral
Rotate	01-08	18:40	19:00	01-08	0.33	12086.00	12145.00	59.00	177.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-08	19:05	19:40	01-08	0.58	12145.00	12235.00	90.00	154.29	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-08	19:55	20:00	01-08	0.08	12235.00	12240.00	5.00	60.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-08	20:00	20:50	01-08	0.83	12240.00	12265.00	25.00	30.00	330.0		N/A				Lateral
Rotate	01-08	20:50	21:15	01-08	0.42	12265.00	12324.00	59.00	141.60	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-08	21:20	21:45	01-08	0.42	12324.00	12414.00	90.00	216.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-08	21:50	21:55	01-08	0.08	12414.00	12419.00	5.00	60.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-08	21:55	23:00	01-08	1.08	12419.00	12449.00	30.00	27.69	20.0		N/A				Lateral
Rotate	01-08	23:00	23:20	01-08	0.33	12449.00	12503.00	54.00	162.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-08	23:25	00:15	01-09	0.83	12503.00	12593.00	90.00	108.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	00:20	01:00	01-09	0.67	12593.00	12682.00	89.00	133.50	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	01:05	01:20	01-09	0.25	12682.00	12702.00	20.00	80.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	01:40	02:10	01-09	0.5	12702.00	12772.00	70.00	140.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	02:15	02:50	01-09	0.58	12772.00	12861.00	89.00	152.57	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	02:55	03:00	01-09	0.08	12861.00	12866.00	5.00	60.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-09	03:00	04:00	01-09	1.0	12866.00	12901.00	35.00	35.00	120.0		N/A				Lateral
Rotate	01-09	04:00	04:25	01-09	0.42	12901.00	12951.00	50.00	120.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	04:30	05:15	01-09	0.75	12951.00	13040.00	89.00	118.67	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	05:20	06:00	01-09	0.67	13040.00	13129.00	89.00	133.50	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	06:05	06:10	01-09	0.08	13129.00	13134.00	5.00	60.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-09	06:10	07:05	01-09	0.92	13134.00	13169.00	35.00	38.18	140.0	700.00	N/A	50.00	4300.00	3800.00	Lateral
Rotate	01-09	07:05	07:20	01-09	0.25	13169.00	13218.00	49.00	196.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	07:25	07:30	01-09	0.08	13218.00	13223.00	5.00	60.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-09	07:30	07:45	01-09	0.25	13223.00	13240.00	17.00	68.00	140.0	700.00	N/A	50.00	4300.00	3800.00	Lateral
Rotate	01-09	07:45	08:10	01-09	0.42	13240.00	13308.00	68.00	163.20	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-09	08:15	08:50	01-09	0.58	13308.00	13338.00	30.00	51.43	180.0	700.00	N/A	50.00	4300.00	3800.00	Lateral
Rotate	01-09	08:50	09:15	01-09	0.42	13338.00	13397.00	59.00	141.60	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	09:20	10:00	01-09	0.67	13397.00	13486.00	89.00	133.50	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	10:05	11:15	01-09	1.17	13486.00	13575.00	89.00	76.29	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-09	11:20	11:45	01-09	0.42	13575.00	13585.00	10.00	24.00	20.0	700.00	N/A	50.00	4300.00	3800.00	Lateral
Rotate	01-09	11:45	12:15	01-09	0.5	13585.00	13664.00	79.00	158.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	12:20	12:25	01-09	0.08	13664.00	13675.00	11.00	132.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-09	12:25	12:50	01-09	0.42	13675.00	13690.00	15.00	36.00	35.0	700.00	N/A	50.00	4300.00	3800.00	Lateral
Rotate	01-09	12:50	13:15	01-09	0.42	13690.00	13753.00	63.00	151.20	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	13:20	14:05	01-09	0.75	13753.00	13843.00	90.00	120.00	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Rotate	01-09	14:10	15:35	01-09	1.42	13843.00	13933.00	90.00	63.53	N/A	700.00	50.0	45.00	4500.00	3800.00	Lateral
Slide	01-09	15:40	16:55	01-09	1.25	13933.00	13968.00	35.00	28.00	145.0	700.00	N/A	60.00	4200.00	3800.00	Lateral
Rotate	01-09	16:55	18:15	01-09	1.33	13968.00	14022.00	54.00	40.50	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Slide	01-09	18:20	19:55	01-09	1.58	14022.00	14057.00	35.00	22.11	150.0	700.00	N/A	60.00	4200.00	3800.00	Lateral
Rotate	01-09	19:55	21:25	01-09	1.5	14057.00	14112.00	55.00	36.67	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Slide	01-09	21:30	23:00	01-09	1.5	14112.00	14152.00	40.00	26.67	150.0		N/A				Lateral
Rotate	01-09	23:00	00:00	01-10	1.0	14152.00	14202.00	50.00	50.00	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Rotate	01-10	00:05	00:10	01-10	0.08	14202.00	14207.00	5.00	60.00	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Slide	01-10	00:10	01:10	01-10	1.0	14207.00	14227.00	20.00	20.00	210.0		N/A				Lateral
Rotate	01-10	01:10	03:00	01-10	1.83	14227.00	14291.00	64.00	34.91	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Rotate	01-10	03:05	05:00	01-10	1.92	14291.00	14381.00	90.00	46.96	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Rotate	01-10	05:05	06:40	01-10	1.58	14381.00	14470.00	89.00	56.21	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Rotate	01-10	06:45	07:00	01-10	0.25	15454.00	15469.00	15.00	60.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-10	07:00	07:25	01-10	0.42	14470.00	14560.00	90.00	216.00	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Rotate	01-10	07:30	07:35	01-10	0.08	14560.00	14565.00	5.00	60.00	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Slide	01-10	07:35	08:55	01-10	1.33	14565.00	14600.00	35.00	26.25	0.0		N/A				Lateral
Rotate	01-10	08:55	09:50	01-10	0.92	14600.00	14649.00	49.00	53.45	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Rotate	01-10	09:55	11:40	01-10	1.75	14649.00	14739.00	90.00	51.43	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Rotate	01-10	11:45	12:50	01-10	1.08	14739.00	14828.00	89.00	82.15	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral
Rotate	01-10	12:55	13:35	01-10	0.67	14828.00	14850.00	22.00	33.00	N/A	700.00	50.0	48.00	4200.00	3800.00	Lateral

Slide	01-10	13:35	14:25	01-10	0.83	14850.00	14885.00	35.00	42.00	160.0	700.00	N/A	50.00	4200.00	3800.00	Lateral
Rotate	01-10	14:25	14:50	01-10	0.42	14885.00	14917.00	32.00	76.80	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-10	14:55	15:00	01-10	0.08	14917.00	14927.00	10.00	120.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-10	15:00	15:30	01-10	0.5	14927.00	14947.00	20.00	40.00	175.0	700.00	N/A	50.00	4200.00	3800.00	Lateral
Rotate	01-10	15:30	16:05	01-10	0.58	14947.00	15007.00	60.00	102.86	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-10	16:10	17:15	01-10	1.08	15007.00	15096.00	89.00	82.15	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-10	17:20	18:05	01-10	0.75	15096.00	15185.00	89.00	118.67	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-10	18:10	18:55	01-10	0.75	15185.00	15275.00	90.00	120.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-10	19:00	19:55	01-10	0.92	15275.00	15364.00	89.00	97.09	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-10	20:00	21:15	01-10	1.25	15364.00	15454.00	90.00	72.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-10	21:20	21:25	01-10	0.08	15454.00	15469.00	15.00	180.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-10	21:25	22:40	01-10	1.25	15469.00	15489.00	20.00	16.00	40.0		N/A				Lateral
Rotate	01-10	22:40	23:25	01-10	0.75	15489.00	15542.00	53.00	70.67	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-10	23:30	00:40	01-11	1.17	15542.00	15631.00	89.00	76.29	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	00:45	01:55	01-11	1.17	15631.00	15720.00	89.00	76.29	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	02:00	02:15	01-11	0.25	15720.00	15725.00	5.00	20.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-11	02:15	03:15	01-11	1.0	15725.00	15755.00	30.00	30.00	70.0		N/A				Lateral
Rotate	01-11	03:15	03:45	01-11	0.5	15755.00	15810.00	55.00	110.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	03:50	04:45	01-11	0.92	15810.00	15899.00	89.00	97.09	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	04:50	05:10	01-11	0.33	15899.00	15916.00	17.00	51.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-11	05:10	06:10	01-11	1.0	15916.00	15936.00	20.00	20.00	150.0	700.00	N/A	60.00	4300.00	3800.00	Lateral
Rotate	01-11	06:10	06:40	01-11	0.5	15936.00	15988.00	52.00	104.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	06:45	06:55	01-11	0.17	15988.00	16005.00	17.00	102.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-11	06:55	07:45	01-11	0.83	16005.00	16036.00	31.00	37.20	150.0		N/A				Lateral
Rotate	01-11	07:45	08:30	01-11	0.75	16036.00	16078.00	42.00	56.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	08:35	08:45	01-11	0.17	16078.00	16095.00	17.00	102.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-11	08:45	09:40	01-11	0.92	16095.00	16127.00	32.00	34.91	170.0		N/A				Lateral
Rotate	01-11	09:40	10:15	01-11	0.58	16127.00	16167.00	40.00	68.57	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-11	10:20	12:05	01-11	1.75	16167.00	16210.00	43.00	24.57	180.0	700.00	N/A	10.00	4200.00	4000.00	Lateral
Slide	01-11	12:05	12:35	01-11	0.5	16210.00	16218.00	8.00	16.00	180.0	700.00	N/A	10.00	4200.00	4000.00	Lateral
Rotate	01-11	12:35	13:00	01-11	0.42	16218.00	16248.00	30.00	72.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-11	13:00	13:20	01-11	0.33	16248.00	16255.00	7.00	21.00	200.0	700.00	N/A	10.00	4200.00	4000.00	Lateral
Rotate	01-11	13:20	13:25	01-11	0.08	16255.00	16257.00	2.00	24.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-11	13:30	15:00	01-11	1.5	16257.00	16297.00	40.00	26.67	180.0	700.00	N/A	60.00	4400.00	4000.00	Lateral
Rotate	01-11	15:00	15:50	01-11	0.83	16297.00	16346.00	49.00	58.80	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	15:55	16:50	01-11	0.92	16346.00	16436.00	90.00	98.18	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-11	17:25	19:00	01-11	1.58	16436.00	16466.00	30.00	18.95	230.0		N/A				Lateral
Rotate	01-11	19:00	20:05	01-11	1.08	16466.00	16526.00	60.00	55.38	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	20:10	21:35	01-11	1.42	16526.00	16615.00	89.00	62.82	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	21:40	21:45	01-11	0.08	16615.00	16620.00	5.00	60.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-11	21:45	23:00	01-11	1.25	16620.00	16650.00	30.00	24.00	160.0		N/A				Lateral
Rotate	01-11	23:00	23:40	01-11	0.67	16650.00	16705.00	55.00	82.50	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-11	23:45	01:00	01-12	1.25	16705.00	16795.00	90.00	72.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-12	01:05	02:00	01-12	0.92	16795.00	16884.00	89.00	97.09	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-12	02:05	03:10	01-12	1.08	16884.00	16974.00	90.00	83.08	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Rotate	01-12	03:15	04:15	01-12	1.0	16974.00	17063.00	89.00	89.00	N/A	700.00	50.0	48.00	4600.00	3800.00	Lateral
Slide	01-12	04:30	04:50	01-12	0.33	17063.00	17075.00	12.00	36.00	30.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-12	04:50	06:00	01-12	1.17	17075.00	17153.00	78.00	66.86	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-12	06:05	06:15	01-12	0.17	17153.00	17165.00	12.00	72.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Slide	01-12	06:15	07:30	01-12	1.25	17165.00	17196.00	31.00	24.80	50.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-12	07:30	08:35	01-12	1.08	17196.00	17242.00	46.00	42.46	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-12	08:40	09:40	01-12	1.0	17242.00	17332.00	90.00	90.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-12	09:45	09:55	01-12	0.17	17332.00	17345.00	13.00	78.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Slide	01-12	09:55	10:50	01-12	0.92	17345.00	17365.00	20.00	21.82	40.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-12	10:50	11:30	01-12	0.67	17365.00	17421.00	56.00	84.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-12	11:55	12:05	01-12	0.17	17421.00	17435.00	14.00	84.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Slide	01-12	12:05	13:40	01-12	1.58	17435.00	17467.00	32.00	20.21	115.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-12	13:40	14:10	01-12	0.5	17467.00	17511.00	44.00	88.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-12	14:15	15:15	01-12	1.0	17511.00	17600.00	89.00	89.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-12	15:20	15:30	01-12	0.17	17600.00	17612.00	12.00	72.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Slide	01-12	15:30	16:40	01-12	1.17	17612.00	17647.00	35.00	30.00	105.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-12	16:40	17:10	01-12	0.5	17647.00	17689.00	42.00	84.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-13	05:00	05:05	01-13	0.08	17689.00	17697.00	8.00	96.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Slide	01-13	05:05	06:05	01-13	1.0	17697.00	17732.00	35.00	35.00	110.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-13	06:05	06:30	01-13	0.42	17732.00	17779.00	47.00	112.80	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-13	06:35	07:20	01-13	0.75	17779.00	17868.00	89.00	118.67	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-13	07:25	08:10	01-13	0.75	17868.00	17958.00	90.00	120.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-13	08:15	09:00	01-13	0.75	17958.00	18047.00	89.00	118.67	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-13	09:05	09:15	01-13	0.17	18047.00	18059.00	12.00	72.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Slide	01-13	09:45	10:35	01-13	0.83	18059.00	18087.00	28.00	33.60	140.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-13	10:35	11:00	01-13	0.42	18087.00	18136.00	49.00	117.60	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-13	11:05	11:15	01-13	0.17	18136.00	18148.00	12.00	72.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Slide	01-13	11:15														

Rotate	01-13	14:15	15:05	01-13	0.83	18256.00	18315.00	59.00	70.80	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-13	15:10	15:20	01-13	0.17	18315.00	18322.00	7.00	42.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Slide	01-13	15:20	16:05	01-13	0.75	18322.00	18342.00	20.00	26.67	195.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-13	16:05	16:35	01-13	0.5	18342.00	18405.00	63.00	126.00	N/A	696.00	50.0	48.00	4600.00	3900.00	Lateral
Rotate	01-13	16:40	17:25	01-13	0.75	18405.00	18495.00	90.00	120.00	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-13	17:30	18:25	01-13	0.92	18495.00	18584.00	89.00	97.09	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-13	18:30	19:50	01-13	1.33	18584.00	18674.00	90.00	67.50	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-13	19:55	20:05	01-13	0.17	18674.00	18684.00	10.00	60.00	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Slide	01-13	20:05	21:00	01-13	0.92	18684.00	18704.00	20.00	21.82	0.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-13	21:00	22:00	01-13	1.0	18704.00	18764.00	60.00	60.00	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-13	22:05	22:15	01-13	0.17	18764.00	18774.00	10.00	60.00	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Slide	01-13	22:15	22:50	01-13	0.58	18774.00	18799.00	25.00	42.86	20.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-13	22:50	23:30	01-13	0.67	18799.00	18853.00	54.00	81.00	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-13	23:35	00:50	01-14	1.25	18853.00	18943.00	90.00	72.00	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-14	00:55	01:05	01-14	0.17	18943.00	18953.00	10.00	60.00	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Slide	01-14	01:05	01:35	01-14	0.5	18953.00	18971.00	18.00	36.00	50.0	696.00	N/A	40.00	4400.00	3900.00	Lateral
Rotate	01-14	01:35	02:30	01-14	0.92	18971.00	19032.00	61.00	66.55	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-14	02:35	03:50	01-14	1.25	19032.00	19122.00	90.00	72.00	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-14	03:55	05:20	01-14	1.42	19122.00	19212.00	90.00	63.53	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-14	05:25	06:35	01-14	1.17	19212.00	19301.00	89.00	76.29	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral
Rotate	01-14	06:40	07:00	01-14	0.33	19301.00	19330.00	29.00	87.00	N/A	696.00	50.0	48.00	4600.00	4000.00	Lateral



# Daily Reports

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## **Anderson Fed Com 552H (WT-21-181)**

2021-11-22 to 2022-01-16

Lea, New Mexico, US (32.43, -103.65)

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<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Monday, Nov 22 00:00 - 23:59 (Day 1 of 17)

Billing: \$13,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	150.00	Downhole Hours	15.42	Rotating WOB (klbs)	20.00 - 25.00		
Bit Depth (ft)	1277.00	Drilling Hours	9.25	Sliding WOB (klbs)			
Bottom Hole Depth (ft)	1277.00	Hours Circulating	0.75	Rotating SPM	189.00 - 309.00		
Total Distance (ft)	1127.00	Hours Sliding	0.00	Sliding SPM			
Distance Rotated (ft)	1127.00	Hours Rotating	9.25	Motor RPM	40.00 - 70.00		
Distance Slid (ft)	0.00			Surface RPM	50.00 - 70.00		
Inclination In	0.35			Flow Rate (gpm)	550.00 - 895.00		
Inclination Out	1.05			On Bottom Pressure (psi)	1000.00 - 2450.00		
Azimuth In	240.31	% Hours Rotating	100%	Off Bottom Pressure (psi)	850.00 - 1850.00		
Azimuth Out	235.30	% Hours Sliding	0%				
AVG Total ROP (ft/h)	121.84	% Distance Sliding	0%				
AVG Rotating ROP (ft/h)	121.84	% Distance Rotating	100%				
AVG Sliding ROP (ft/h)	0.00						

**Personnel**

Name	Position
Advance Directional	Directional Driller
Francisco DeLeon	MWD Engineer

**BHA #1 - BHA #1 (17.5" Surface)** Date In: Nov 22, 2021, 8:15 Date Out: Nov 22, 2021, 23:40

Bit Details		Motor Details		Directional Comments	
OD (in)	17.500	Size (in)	8.0	FLOW RANGE 400-900 GPM, REV PER GALLON .166, MAX DIFF 1330, MAX TORQUE 22020 BIT RUNS: 2	
Vendor	ULTERRA	Lobe/Stage	7/8, 5.9		
S/N	57215	Bend Angle	1.75		
Nozzles	9x12's	Speed (rev/gal)	0.17	MWD Comments	
Total Flow Area (in <sup>2</sup> )	0.994	Wear Pad OD (in)	8.313		
Drilling Hours for Day	9.25	Bit Distances			
Total Drilled for Day (ft)	1127.00	Survey: 70.00 ft			
Drilling Hours for BHA	9.25	POOH Reason			
Total Drilled for BHA (ft)	1127.00	Total Depth/Casing Point: Good run.			

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 6.00, Size (in): 1.750	ULTERRA	57215	6 5/8" Reg Pin			17.500		1.50	1.50
<b>Mud Motor</b> Description: 8" 7/8 5.9 Stg. 1.75° FBH w/17" NBS, Size (in): 8.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	Aim	800-40-002	6 5/8" Reg Box	6 5/8" Reg Box		8.000		40.55	42.05
<b>Stabilizer</b> Description: 17" STAB	JA	17635	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.250		7.17	49.22
<b>UBHO Sub</b> Description: NM DAO SUB, Material: Non-Magnetic	AIM	800614	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		2.98	52.20
<b>Drill Collar</b> Description: NMDC (MWD TOOL), Material: Non-Magnetic, Type: Slick Drill	GATOR	GT 8030374	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.52	82.72
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	GT 8230395	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.375		30.48	113.20
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	JA	JA8610	CET54 Box	6 5/8" Reg Pin	2.500	6.625		3.23	116.43

**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	11-22	00:00	03:45	11-22			Standby
Standby	15	11-22	03:45	07:25	11-22			Standby - R/U over well
Pick Up BHA	64	11-22	07:25	08:15	11-22			P/U BHA #1

Rig Service - In Hole	19	11-22	08:15	09:30	11-22			Rig Service
Rotary Drill	1	11-22	09:30	11:00	11-22	150.00	300.00	Pressure On (psi): 1000.00, Pressure Off (psi): 850.00, Weight On Bit (klbs): 20.00, Surface RPM: 50, Surface Torque (ft lbf): 14000.00, Flow Rate (gpm): 550.00, Strokes Per Minute: 189.00
Survey	46	11-22	11:00	11:05	11-22	300.00	300.00	Inclination (°): 0.350, Azimuth (°): 240.310, TVD (ft): 230.00, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 230.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	11:05	12:00	11-22	300.00	392.00	Pressure On (psi): 1575.00, Pressure Off (psi): 1050.00, Weight On Bit (klbs): 25.00, Surface RPM: 50, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 705.00, Strokes Per Minute: 243.00
Survey	46	11-22	12:00	12:05	11-22	392.00	392.00	Inclination (°): 0.440, Azimuth (°): 199.090, TVD (ft): 322.00, Dogleg (°/100 ft): 0.32, Sensor Depth (ft): 322.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	12:05	12:35	11-22	392.00	484.00	Pressure On (psi): 1575.00, Pressure Off (psi): 1050.00, Weight On Bit (klbs): 25.00, Surface RPM: 50, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 705.00, Strokes Per Minute: 243.00
Survey	46	11-22	12:35	12:40	11-22	484.00	484.00	Inclination (°): 0.400, Azimuth (°): 221.590, TVD (ft): 413.99, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 414.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	12:40	13:20	11-22	484.00	576.00	Pressure On (psi): 2450.00, Pressure Off (psi): 1850.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	11-22	13:20	13:25	11-22	576.00	576.00	Inclination (°): 0.310, Azimuth (°): 193.020, TVD (ft): 505.99, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 506.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	13:25	15:00	11-22	576.00	668.00	Pressure On (psi): 2450.00, Pressure Off (psi): 1850.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	11-22	15:00	15:05	11-22	668.00	668.00	Inclination (°): 0.440, Azimuth (°): 201.460, TVD (ft): 597.99, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 598.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	15:05	16:00	11-22	668.00	760.00	Pressure On (psi): 2450.00, Pressure Off (psi): 1850.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	11-22	16:00	16:05	11-22	760.00	760.00	Inclination (°): 0.260, Azimuth (°): 221.320, TVD (ft): 689.99, Dogleg (°/100 ft): 0.23, Sensor Depth (ft): 690.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	16:05	17:00	11-22	760.00	948.00	Pressure On (psi): 2450.00, Pressure Off (psi): 1850.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	11-22	17:00	17:05	11-22	948.00	948.00	Inclination (°): 0.750, Azimuth (°): 230.610, TVD (ft): 877.98, Dogleg (°/100 ft): 0.26, Sensor Depth (ft): 878.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	17:05	17:50	11-22	948.00	1043.00	Pressure On (psi): 2450.00, Pressure Off (psi): 1850.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	11-22	17:50	17:55	11-22	1043.00	1043.00	Inclination (°): 0.620, Azimuth (°): 232.310, TVD (ft): 972.97, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 973.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	17:55	18:50	11-22	1043.00	1136.00	Pressure On (psi): 2450.00, Pressure Off (psi): 1850.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	11-22	18:50	18:55	11-22	1136.00	1136.00	Inclination (°): 0.750, Azimuth (°): 242.330, TVD (ft): 1065.97, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 1066.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	18:55	19:25	11-22	1136.00	1226.00	Pressure On (psi): 2450.00, Pressure Off (psi): 1850.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Rig Repair	14	11-22	19:25	20:30	11-22			Work on Top Drive.
Survey	46	11-22	20:30	20:35	11-22	1226.00	1226.00	Inclination (°): 0.840, Azimuth (°): 235.210, TVD (ft): 1155.96, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 1156.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-22	20:35	20:40	11-22	1226.00	1277.00	Pressure On (psi): 2450.00, Pressure Off (psi): 1850.00, Weight On Bit (klbs): 25.00, Surface RPM: 70, Surface Torque (ft lbf): 15750.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	11-22	20:40	20:45	11-22	1277.00	1277.00	Inclination (°): 1.050, Azimuth (°): 235.300, TVD (ft): 1206.95, Dogleg (°/100 ft): 0.41, Sensor Depth (ft): 1207.00, Bit To Sensor (ft): 70.00
Circulating	3	11-22	20:45	21:30	11-22			Circulating.
Pooh	7	11-22	21:30	22:40	11-22			POOH for Casing.
Lay Down BHA	65	11-22	22:40	23:40	11-22			R/B BHA #1
Standby	15	11-22	23:40	23:55	11-22			Standby while Running Casing.

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Friday, Dec 03 00:00 - 23:59 (Day 2 of 17)

Billing: \$9,000.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	1277.00	Downhole Hours	11.00	Rotating WOB (klbs)	40.00 - 48.00
Bit Depth (ft)	3641.00	Drilling Hours	5.92	Sliding WOB (klbs)	20.00 - 20.00
Bottom Hole Depth (ft)	3641.00	Hours Circulating	1.00	Rotating SPM	243.00 - 309.00
Total Distance (ft)	2364.00	Hours Sliding	0.33	Sliding SPM	309.00 - 309.00
Distance Rotated (ft)	2299.00	Hours Rotating	5.58	Motor RPM	30.00 - 70.00
Distance Slid (ft)	65.00			Surface RPM	40.00 - 70.00
Inclination In	1.36			Flow Rate (gpm)	705.00 - 895.00
Inclination Out	1.85			On Bottom Pressure (psi)	1600.00 - 2400.00
Azimuth In	207.53	% Hours Rotating	94%	Off Bottom Pressure (psi)	1200.00 - 2000.00
Azimuth Out	105.04	% Hours Sliding	6%		
AVG Total ROP (ft/h)	392.64	% Distance Sliding	3%		
AVG Rotating ROP (ft/h)	403.77	% Distance Rotating	97%		
AVG Sliding ROP (ft/h)	195.00				

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #2 - 12.25" INTERMEDIATE

Date In: Dec 3, 2021, 13:00 Date Out: Dec 4, 2021, 8:30

Bit Details		Motor Details		Directional Comments
OD (in)	12.250	Size (in)	8.75	Flow Range 600-1300 GPM, REV PER GPM .13, Max Diff 1650, Max Torque 31480, Bit Runs: 2, Bit to Bend 5.62'
Vendor	Reed	Lobe/Stage	6/7, 6.6	
S/N	A281282	Bend Angle	1.75	<b>MWD Comments</b>
Nozzles	6x16's	Speed (rev/gal)	0.13	
Total Flow Area (in <sup>2</sup> )	1.178	Wear Pad OD (in)	9.250	
Drilling Hours for Day	5.92	<b>Bit Distances</b>		
Total Drilled for Day (ft)	2364.00	Survey: 68.00 ft		<b>POOH Reason</b> Total Depth/Casing Point: GOOD RUN. POOH FOR CASING
Drilling Hours for BHA	12.92			
Total Drilled for BHA (ft)	3526.00			

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC66-H3, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 6.00, Size (in): 12.25	Reed	A281282	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: 8 3/4" 6/7L, 6.6 Stg. 1.75° FBH w/12" NBS, Size (in): 8.75, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 6.6	Aim	CDM875-001	6 5/8" Reg Box	6 5/8" Reg Box		8.750		38.91	40.41
<b>Stabilizer</b> Description: 12" STAB	JA	12502	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.250		7.11	47.52
<b>UBHO Sub</b> Description: NM DAO SUB, Material: Non-Magnetic	AIM	800614	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		2.98	50.50
<b>Drill Collar</b> Description: NMDC (MWD TOOL), Material: Non-Magnetic, Type: Slick Drill	GATOR	GT 8030374	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.52	81.02
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	GT 8230395	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.375		30.48	111.50
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	JA	JA8610	CET54 Box	6 5/8" Reg Pin	2.500	6.625		3.23	114.73
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET54 Box	CET54 Pin	4.000	5.500		735.63	850.36
<b>Crossover Sub</b> Description: CET54 (P) x EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	853.78
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1134.96

**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	12-03	00:00	11:40	12-03			Standby while RUNNING CASING AND WALKING RIG.
Pick Up BHA	64	12-03	11:40	13:00	12-03			P/U BHA #2
TIH	8	12-03	13:00	13:30	12-03			TIH W/ BHA #2
Circulating	3	12-03	13:30	13:45	12-03			TEST MWD & MOTOR.
Drilling Cement	17	12-03	13:45	14:30	12-03	1277.00	1277.00	Drilling Cement and Float Equipment F/ 1216 - T/ 1275 [ GPM = 505, RPM = 30, WOB = 10-30, DIFF = 200 ]
Other	16	12-03	14:30	14:55	12-03			FIT
Rotary Drill	1	12-03	14:55	15:00	12-03	1277.00	1314.00	Pressure On (psi): 1600.00, Pressure Off (psi): 1200.00, Weight On Bit (kbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 705.00, Strokes Per Minute: 243.00
Connection	33	12-03	15:00	15:05	12-03			CONNECTION @ 1246
Rotary Drill	1	12-03	15:05	15:20	12-03	1314.00	1378.00	Pressure On (psi): 1600.00, Pressure Off (psi): 1200.00, Weight On Bit (kbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 705.00, Strokes Per Minute: 243.00
Rig Repair	14	12-03	15:20	15:50	12-03			RIG REPAIR
Rotary Drill	1	12-03	15:50	16:00	12-03	1378.00	1403.00	Pressure On (psi): 1600.00, Pressure Off (psi): 1200.00, Weight On Bit (kbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 705.00, Strokes Per Minute: 243.00
Survey	46	12-03	16:00	16:05	12-03	1403.00	1403.00	Inclination (°): 1.360, Azimuth (°): 207.530, TVD (ft): 1334.92, Dogleg (°/100 ft): 0.51, Sensor Depth (ft): 1335.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	16:05	16:20	12-03	1403.00	1493.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	16:20	16:25	12-03	1493.00	1493.00	Inclination (°): 1.410, Azimuth (°): 205.420, TVD (ft): 1424.90, Dogleg (°/100 ft): 0.08, Sensor Depth (ft): 1425.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	16:25	16:35	12-03	1493.00	1582.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	16:35	16:40	12-03	1582.00	1582.00	Inclination (°): 1.360, Azimuth (°): 200.670, TVD (ft): 1513.87, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 1514.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	16:40	16:55	12-03	1582.00	1672.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	16:55	17:00	12-03	1672.00	1672.00	Inclination (°): 1.190, Azimuth (°): 189.070, TVD (ft): 1603.85, Dogleg (°/100 ft): 0.34, Sensor Depth (ft): 1604.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	17:00	17:10	12-03	1672.00	1761.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	17:10	17:15	12-03	1761.00	1761.00	Inclination (°): 1.100, Azimuth (°): 181.690, TVD (ft): 1692.83, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 1693.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	17:15	17:25	12-03	1761.00	1851.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	17:25	17:30	12-03	1851.00	1851.00	Inclination (°): 0.920, Azimuth (°): 176.590, TVD (ft): 1782.82, Dogleg (°/100 ft): 0.22, Sensor Depth (ft): 1783.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	17:30	17:40	12-03	1851.00	1940.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	17:40	17:45	12-03	1940.00	1940.00	Inclination (°): 0.880, Azimuth (°): 166.830, TVD (ft): 1871.81, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 1872.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	17:45	18:00	12-03	1940.00	2030.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	18:00	18:05	12-03	2030.00	2030.00	Inclination (°): 0.790, Azimuth (°): 151.800, TVD (ft): 1961.80, Dogleg (°/100 ft): 0.26, Sensor Depth (ft): 1962.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	18:05	18:15	12-03	2030.00	2120.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	18:15	18:20	12-03	2120.00	2120.00	Inclination (°): 0.790, Azimuth (°): 145.120, TVD (ft): 2051.79, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 2052.00, Bit To Sensor (ft): 68.00

Rotary Drill	1	12-03	18:20	18:30	12-03	2120.00	2210.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	18:30	18:35	12-03	2210.00	2210.00	Inclination (°): 0.790, Azimuth (°): 123.590, TVD (ft): 2141.78, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 2142.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	18:35	18:45	12-03	2210.00	2299.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	18:45	18:50	12-03	2299.00	2299.00	Inclination (°): 1.050, Azimuth (°): 106.010, TVD (ft): 2230.77, Dogleg (°/100 ft): 0.43, Sensor Depth (ft): 2231.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	18:50	19:00	12-03	2299.00	2388.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	19:00	19:05	12-03	2388.00	2388.00	Inclination (°): 1.450, Azimuth (°): 92.300, TVD (ft): 2319.75, Dogleg (°/100 ft): 0.56, Sensor Depth (ft): 2320.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	19:05	19:15	12-03	2388.00	2477.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	19:15	19:30	12-03	2477.00	2477.00	Inclination (°): 1.930, Azimuth (°): 86.150, TVD (ft): 2408.71, Dogleg (°/100 ft): 0.58, Sensor Depth (ft): 2409.00, Bit To Sensor (ft): 68.00
Slide Drill	2	12-03	19:30	19:35	12-03	2477.00	2497.00	Pressure On (psi): 2400.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309, Toolface: 270, Toolface Type: magnetic
Rotary Drill	1	12-03	19:35	19:40	12-03	2497.00	2567.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	19:40	19:45	12-03	2567.00	2567.00	Inclination (°): 1.100, Azimuth (°): 66.020, TVD (ft): 2498.68, Dogleg (°/100 ft): 1.08, Sensor Depth (ft): 2499.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	19:45	19:55	12-03	2567.00	2656.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	19:55	20:00	12-03	2656.00	2656.00	Inclination (°): 0.920, Azimuth (°): 24.450, TVD (ft): 2587.67, Dogleg (°/100 ft): 0.83, Sensor Depth (ft): 2588.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	20:00	20:10	12-03	2656.00	2745.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	20:10	20:15	12-03	2745.00	2745.00	Inclination (°): 1.490, Azimuth (°): 40.180, TVD (ft): 2676.65, Dogleg (°/100 ft): 0.73, Sensor Depth (ft): 2677.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	20:15	20:30	12-03	2745.00	2835.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	20:30	20:35	12-03	2835.00	2835.00	Inclination (°): 2.070, Azimuth (°): 44.220, TVD (ft): 2766.60, Dogleg (°/100 ft): 0.66, Sensor Depth (ft): 2767.00, Bit To Sensor (ft): 68.00
Slide Drill	2	12-03	20:35	20:45	12-03	2835.00	2855.00	Pressure On (psi): 2400.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309, Toolface: 220, Toolface Type: magnetic
Rotary Drill	1	12-03	20:45	20:55	12-03	2855.00	2925.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	20:55	21:00	12-03	2925.00	2925.00	Inclination (°): 1.230, Azimuth (°): 41.240, TVD (ft): 2856.56, Dogleg (°/100 ft): 0.94, Sensor Depth (ft): 2857.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	21:00	21:10	12-03	2925.00	3014.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	21:10	21:15	12-03	3014.00	3014.00	Inclination (°): 0.970, Azimuth (°): 38.780, TVD (ft): 2945.55, Dogleg (°/100 ft): 0.30, Sensor Depth (ft): 2946.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	21:15	21:30	12-03	3014.00	3104.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	21:30	21:35	12-03	3104.00	3104.00	Inclination (°): 1.490, Azimuth (°): 45.890, TVD (ft): 3035.53, Dogleg (°/100 ft): 0.60, Sensor Depth (ft): 3036.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	21:35	21:55	12-03	3104.00	3193.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	21:55	22:00	12-03	3193.00	3193.00	Inclination (°): 2.070, Azimuth (°): 46.510, TVD (ft): 3124.48, Dogleg (°/100 ft): 0.65, Sensor Depth (ft): 3125.00, Bit To Sensor (ft): 68.00

Rotary Drill	1	12-03	22:00	22:05	12-03	3193.00	3202.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Slide Drill	2	12-03	22:05	22:10	12-03	3202.00	3227.00	Pressure On (psi): 2400.00, Pressure Off (psi): 2000.00, Weight On Bit (kbs): 20.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309, Toolface: 200, Toolface Type: magnetic
Rotary Drill	1	12-03	22:10	22:20	12-03	3227.00	3283.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	22:20	22:25	12-03	3283.00	3283.00	Inclination (°): 1.360, Azimuth (°): 55.740, TVD (ft): 3214.44, Dogleg (°/100 ft): 0.84, Sensor Depth (ft): 3215.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	22:25	22:35	12-03	3283.00	3373.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	22:35	22:40	12-03	3373.00	3373.00	Inclination (°): 1.050, Azimuth (°): 73.230, TVD (ft): 3304.42, Dogleg (°/100 ft): 0.53, Sensor Depth (ft): 3305.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	22:40	22:50	12-03	3373.00	3462.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	22:50	22:55	12-03	3462.00	3462.00	Inclination (°): 1.490, Azimuth (°): 93.530, TVD (ft): 3393.40, Dogleg (°/100 ft): 0.70, Sensor Depth (ft): 3394.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	22:55	23:10	12-03	3462.00	3552.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	23:10	23:15	12-03	3552.00	3552.00	Inclination (°): 1.760, Azimuth (°): 98.100, TVD (ft): 3483.36, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 3484.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	23:15	23:40	12-03	3552.00	3641.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-03	23:40	23:45	12-03	3641.00	3641.00	Inclination (°): 1.850, Azimuth (°): 105.040, TVD (ft): 3572.32, Dogleg (°/100 ft): 0.27, Sensor Depth (ft): 3573.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-03	23:45	00:05	12-04	3641.00	3731.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (kbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Saturday, Dec 04 00:00 - 23:59 (Day 3 of 17)

Billing: N/A (\$156,865.75 total)

Drilling Summary		Drilling Parameters	
Start Depth (ft)	3641.00	Downhole Hours	8.50
Bit Depth (ft)	4803.00	Rotating WOB (klbs)	48.00 - 48.00
Bottom Hole Depth (ft)	4803.00	Drilling Hours	7.00
Total Distance (ft)	1162.00	Hours Circulating	0.00
Distance Rotated (ft)	1146.00	Hours Sliding	0.17
Distance Slid (ft)	16.00	Hours Rotating	6.83
Inclination In	1.93	Motor RPM	30.00 - 70.00
Inclination Out	0.92	Surface RPM	70.00 - 70.00
Azimuth In	112.60	Flow Rate (gpm)	895.00 - 895.00
Azimuth Out	9.60	On Bottom Pressure (psi)	2400.00 - 2400.00
AVG Total ROP (ft/h)	166.00	Off Bottom Pressure (psi)	1800.00 - 1800.00
AVG Rotating ROP (ft/h)	167.71	% Hours Rotating	98%
AVG Sliding ROP (ft/h)	96.00	% Hours Sliding	2%
		% Distance Sliding	1%
		% Distance Rotating	99%

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #2 - 12.25" INTERMEDIATE

Date In: Dec 3, 2021, 13:00 Date Out: Dec 4, 2021, 8:30

Bit Details		Motor Details		Directional Comments
OD (in)	12.250	Size (in)	8.75	Flow Range 600-1300 GPM, REV PER GPM .13, Max Diff 1650, Max Torque 31480, Bit Runs: 2, Bit to Bend 5.62'
Vendor	Reed	Lobe/Stage	6/7, 6.6	
S/N	A281282	Bend Angle	1.75	<b>MWD Comments</b>
Nozzles	6x16's	Speed (rev/gal)	0.13	
Total Flow Area (in <sup>2</sup> )	1.178	Wear Pad OD (in)	9.250	
Drilling Hours for Day	7.00	<b>Bit Distances</b>		
Total Drilled for Day (ft)	1162.00	Survey: 68.00 ft		<b>POOH Reason</b> Total Depth/Casing Point: GOOD RUN. POOH FOR CASING
Drilling Hours for BHA	12.92			
Total Drilled for BHA (ft)	3526.00			

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC66-H3, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 6.00, Size (in): 12.25	Reed	A281282	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: 8 3/4" 6/7L, 6.6 Stg. 1.75° FBH w/12" NBS, Size (in): 8.75, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 6.6	Aim	CDM875-001	6 5/8" Reg Box	6 5/8" Reg Box		8.750		38.91	40.41
<b>Stabilizer</b> Description: 12" STAB	JA	12502	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.250		7.11	47.52
<b>UBHO Sub</b> Description: NM DAO SUB, Material: Non-Magnetic	AIM	800614	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		2.98	50.50
<b>Drill Collar</b> Description: NMDC (MWD TOOL), Material: Non-Magnetic, Type: Slick Drill	GATOR	GT 8030374	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.52	81.02
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	GT 8230395	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.375		30.48	111.50
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	JA	JA8610	CET54 Box	6 5/8" Reg Pin	2.500	6.625		3.23	114.73
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET54 Box	CET54 Pin	4.000	5.500		735.63	850.36
<b>Crossover Sub</b> Description: CET54 (P) x EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	853.78
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1134.96

**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	12-03	23:45	00:05	12-04	3641.00	3731.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	00:05	00:10	12-04	3731.00	3731.00	Inclination (°): 1.930, Azimuth (°): 112.600, TVD (ft): 3662.27, Dogleg (°/100 ft): 0.29, Sensor Depth (ft): 3663.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	00:10	00:35	12-04	3731.00	3821.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	00:35	00:40	12-04	3821.00	3821.00	Inclination (°): 2.110, Azimuth (°): 116.380, TVD (ft): 3752.22, Dogleg (°/100 ft): 0.25, Sensor Depth (ft): 3753.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	00:40	00:45	12-04	3821.00	3826.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Slide Drill	2	12-04	00:45	00:55	12-04	3826.00	3842.00	Toolface: 285, Toolface Type: magnetic
Rotary Drill	1	12-04	00:55	01:20	12-04	3842.00	3910.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	01:20	01:25	12-04	3910.00	3910.00	Inclination (°): 1.050, Azimuth (°): 135.190, TVD (ft): 3841.18, Dogleg (°/100 ft): 1.31, Sensor Depth (ft): 3842.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	01:25	02:00	12-04	3910.00	4000.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	02:00	02:15	12-04	4000.00	4000.00	Inclination (°): 0.790, Azimuth (°): 167.270, TVD (ft): 3931.17, Dogleg (°/100 ft): 0.63, Sensor Depth (ft): 3932.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	02:15	02:50	12-04	4000.00	4090.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	02:50	02:55	12-04	4090.00	4090.00	Inclination (°): 0.750, Azimuth (°): 161.200, TVD (ft): 4021.16, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 4022.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	02:55	03:25	12-04	4090.00	4179.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	03:25	03:45	12-04	4179.00	4179.00	Inclination (°): 0.620, Azimuth (°): 144.420, TVD (ft): 4110.16, Dogleg (°/100 ft): 0.27, Sensor Depth (ft): 4111.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	03:45	04:15	12-04	4179.00	4268.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	04:15	04:20	12-04	4268.00	4268.00	Inclination (°): 0.530, Azimuth (°): 129.040, TVD (ft): 4199.15, Dogleg (°/100 ft): 0.20, Sensor Depth (ft): 4200.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	04:20	04:50	12-04	4268.00	4358.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	04:50	04:55	12-04	4358.00	4358.00	Inclination (°): 0.440, Azimuth (°): 112.870, TVD (ft): 4289.15, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 4290.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	04:55	05:50	12-04	4358.00	4448.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	05:50	06:00	12-04	4448.00	4448.00	Inclination (°): 0.440, Azimuth (°): 108.300, TVD (ft): 4379.15, Dogleg (°/100 ft): 0.04, Sensor Depth (ft): 4380.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	06:00	06:30	12-04	4448.00	4537.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	06:30	06:35	12-04	4537.00	4537.00	Inclination (°): 0.310, Azimuth (°): 82.980, TVD (ft): 4468.14, Dogleg (°/100 ft): 0.23, Sensor Depth (ft): 4469.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	06:35	07:05	12-04	4537.00	4627.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	07:05	07:10	12-04	4627.00	4627.00	Inclination (°): 0.440, Azimuth (°): 47.830, TVD (ft): 4558.14, Dogleg (°/100 ft): 0.29, Sensor Depth (ft): 4559.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	07:10	07:50	12-04	4627.00	4716.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	07:50	07:55	12-04	4716.00	4716.00	Inclination (°): 0.660, Azimuth (°): 26.730, TVD (ft): 4647.14, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 4648.00, Bit To Sensor (ft): 68.00
Rotary Drill	1	12-04	07:55	08:15	12-04	4716.00	4803.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	12-04	08:15	08:30	12-04	4803.00	4803.00	Inclination (°): 0.920, Azimuth (°): 9.600, TVD (ft): 4734.13, Dogleg (°/100 ft): 0.40, Sensor Depth (ft): 4735.00, Bit To Sensor (ft): 68.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Monday, Jan 03 00:00 - 23:59 (Day 4 of 17)

Billing: \$12,055.25 (\$156,865.75 total)

Drilling Summary		Drilling Parameters	
Start Depth (ft)	4803.00	Downhole Hours	0.50
Bit Depth (ft)	4888.00	Drilling Hours	0.50
Bottom Hole Depth (ft)	4888.00	Hours Circulating	0.00
Total Distance (ft)	85.00	Hours Sliding	0.00
Distance Rotated (ft)	85.00	Hours Rotating	0.50
Distance Slid (ft)	0.00	Motor RPM	30.00 - 50.00
Inclination In		Surface RPM	70.00 - 70.00
Inclination Out		Flow Rate (gpm)	895.00 - 895.00
Azimuth In		On Bottom Pressure (psi)	2400.00 - 2400.00
Azimuth Out		Off Bottom Pressure (psi)	1800.00 - 1800.00
AVG Total ROP (ft/h)	170.00	% Hours Rotating	100%
AVG Rotating ROP (ft/h)	170.00	% Hours Sliding	0%
AVG Sliding ROP (ft/h)	0.00	% Distance Sliding	0%
		% Distance Rotating	100%

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #3 - 8.75" INTERMEDIATE

Date In: Jan 3, 2022, 23:30 Date Out: Jan 4, 2022, 20:15

Bit Details	Motor Details	Directional Comments		
OD (in)	8.750	Size (in)	7.0	Flow Range 500-750 GPM, REV PER GPM .26, Max Diff 1910, Max Torque 18710, Bit Runs: 1, Bit to Bend 4.30'
Vendor	Reed	Lobe/Stage	7/8, 8.5	
S/N	A283984	Bend Angle	1.75	MWD Comments
Nozzles	5-15's, 1-16	Speed (rev/gal)	0.26	
Total Flow Area (in <sup>2</sup> )	1.059	Wear Pad OD (in)	6.938	POOH Reason
Drilling Hours for Day	0.50	Bit Distances		
Total Drilled for Day (ft)	85.00	Survey: 66.00 ft, Gamma:	51.00 ft	Downhole Tool Incident: Mud Motor Stalled 4 times as soon as we would tag bottom. POOH for new motor.
Drilling Hours for BHA	12.33			
Total Drilled for BHA (ft)	4101.00			

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC66-AZZ, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A283984	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" 7/8 8.5 Stg. 1.75° FBH w/8.5" NBS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	Drilformance	DFM-700-004	4 1/2" IF Box	4 1/2" IF Box		7.000		35.87	36.87
<b>Stabilizer</b> Description: 8.5" STAB	JA	85586	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		5.19	42.06
<b>UBHO Sub</b> Description: NM DAO SUB, Material: Non-Magnetic	AIM	AIM675-364	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.05	45.11
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-296	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		30.65	75.76
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	105.20
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	Platinum	PPR5372	CET54 Box	4 1/2" IF Pin	2.750	6.250		2.38	107.58
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET50 Box	CET54 Pin	3.625	5.500		735.63	843.21
<b>Crossover Sub</b> Description: CET54 (P) x EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	846.63
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1127.81

## 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	01-03	00:00	23:30	01-03			Standby
Rotary Drill	1	01-03	23:30	00:00	01-04	4803.00	4888.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Tuesday, Jan 04 00:00 - 23:59 (Day 5 of 17)

Billing: \$12,055.25 (\$156,865.75 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	4888.00	Downhole Hours	24.00	Rotating WOB (klbs)	45.00 - 48.00
Bit Depth (ft)	8904.00	Drilling Hours	11.83	Sliding WOB (klbs)	30.00 - 30.00
Bottom Hole Depth (ft)	8904.00	Hours Circulating	0.42	Rotating SPM	240.00 - 309.00
Total Distance (ft)	4016.00	Hours Sliding	0.92	Sliding SPM	243.00 - 243.00
Distance Rotated (ft)	3961.00	Hours Rotating	10.92	Motor RPM	30.00 - 50.00
Distance Slid (ft)	55.00			Surface RPM	50.00 - 70.00
Inclination In	1.05			Flow Rate (gpm)	700.00 - 895.00
Inclination Out	6.20			On Bottom Pressure (psi)	2400.00 - 3000.00
Azimuth In	359.14	% Hours Rotating	92%	Off Bottom Pressure (psi)	1800.00 - 2300.00
Azimuth Out	111.55	% Hours Sliding	8%		
AVG Total ROP (ft/h)	332.51	% Distance Sliding	1%		
AVG Rotating ROP (ft/h)	354.39	% Distance Rotating	99%		
AVG Sliding ROP (ft/h)	60.00				

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #3 - 8.75" INTERMEDIATE

Date In: Jan 3, 2022, 23:30 Date Out: Jan 4, 2022, 20:15

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	Flow Range 500-750 GPM, REV PER GPM .26, Max Diff 1910, Max Torque 18710, Bit Runs: 1, Bit to Bend 4.30'
Vendor	Reed	Lobe/Stage	7/8, 8.5	
S/N	A283984	Bend Angle	1.75	MWD Comments
Nozzles	5-15's, 1-16	Speed (rev/gal)	0.26	
Total Flow Area (in <sup>2</sup> )	1.059	Wear Pad OD (in)	6.938	
Drilling Hours for Day	11.83	Bit Distances		POOH Reason Downhole Tool Incident: Mud Motor Stalled 4 times as soon as we would tag bottom. POOH for new motor.
Total Drilled for Day (ft)	4016.00	Survey: 66.00 ft, Gamma: 51.00 ft		
Drilling Hours for BHA	12.33			
Total Drilled for BHA (ft)	4101.00			

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC66-AZZ, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A283984	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" 7/8 8.5 Stg. 1.75° FBH w/8.5" NBS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	Drilformance	DFM-700-004	4 1/2" IF Box	4 1/2" IF Box		7.000		35.87	36.87
<b>Stabilizer</b> Description: 8.5" STAB	JA	85586	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		5.19	42.06
<b>UBHO Sub</b> Description: NM DAO SUB, Material: Non-Magnetic	AIM	AIM675-364	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.05	45.11
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-296	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		30.65	75.76
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	105.20
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	Platinum	PPR5372	CET54 Box	4 1/2" IF Pin	2.750	6.250		2.38	107.58
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET50 Box	CET54 Pin	3.625	5.500		735.63	843.21
<b>Crossover Sub</b> Description: CET54 (P) x EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	846.63
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1127.81

## MWD Items

No Items

**BHA #4 - INTERMEDIATE**

Date In: Jan 4, 2022, 20:15 Date Out: Jan 6, 2022, 0:30

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	BUTCH'S 7" 6/7 6.5 W/ 8.5 NBS Flow Range 400-750 GPM, REV	
Vendor	Reed	Lobe/Stage	6/7, 6.5	.23, Max Diff 1530, Max Torque 26280, Bit Runs: 0, Bit to Bend	
S/N	A284029	Bend Angle	1.75	4.80'	
Nozzles	6-15's	Speed (rev/gal)	0.23	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.580		
Drilling Hours for Day	0.00	<b>Bit Distances</b>			
Total Drilled for Day (ft)		Survey: 63.00 ft, Gamma: 48.00			
Drilling Hours for BHA	13.42			<b>POOH Reason</b>	
Total Drilled for BHA (ft)	1862.00			Change Bottom Hole Assembly: POOH to P/U Curve Assy.	

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC66-AZ2</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>4.00</i> , Size (in): <i>8.75</i>	Reed	A284029	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" 6/7 6.5 Stg. 1.75° FBH w/8.5" NBS</i> , Size (in): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>6</i> , Stator Lobe: <i>7</i> , Stator Stage: <i>6.5</i>	Butch's	BDT-700ML-006	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.74	33.74
<b>Stabilizer</b> Description: <i>8.5" STAB</i>	JA	85586	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		5.19	38.93
<b>UBHO Sub</b> Description: <i>NM DAO SUB</i> , Material: <i>Non-Magnetic</i>	AIM	AIM675-364	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.05	41.98
<b>Drill Collar</b> Description: <i>NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	67-30-296	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		30.65	72.63
<b>Drill Collar</b> Description: <i>NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	102.07
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	Platinum	PPR5372	CET54 Box	4 1/2" IF Pin	2.750	6.250		2.38	104.45
<b>HWDP</b> Description: <i>8 Stands 5.5" HWDP</i> , Type: <i>Slick</i>	Platinum		CET50 Box	CET54 Pin	3.625	5.500		735.63	840.08
<b>Crossover Sub</b> Description: <i>CET54 (P) x EverDrlg 54 (B)</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	843.50
<b>HWDP</b> Description: <i>3 Stands 5.5" HWDP</i> , Type: <i>Slick</i>	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1124.68

**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	01-03	23:30	00:00	01-04	4803.00	4888.00	Pressure On (psi): <i>2400.00</i> , Pressure Off (psi): <i>1800.00</i> , Weight On Bit (klbs): <i>48.00</i> , Surface RPM: <i>70</i> , Surface Torque (ft lbf): <i>16000.00</i> , Flow Rate (gpm): <i>895.00</i> , Strokes Per Minute: <i>309.00</i>
Survey	46	01-04	00:00	00:05	01-04	4888.00	4888.00	Inclination (°): <i>1.050</i> , Azimuth (°): <i>359.140</i> , TVD (ft): <i>4821.12</i> , Dogleg (°/100 ft): <i>0.25</i> , Sensor Depth (ft): <i>4822.00</i> , Bit To Sensor (ft): <i>66.00</i>
Rotary Drill	1	01-04	00:05	00:30	01-04	4888.00	4977.00	Pressure On (psi): <i>2400.00</i> , Pressure Off (psi): <i>1800.00</i> , Weight On Bit (klbs): <i>48.00</i> , Surface RPM: <i>70</i> , Surface Torque (ft lbf): <i>16000.00</i> , Flow Rate (gpm): <i>895.00</i> , Strokes Per Minute: <i>309.00</i>
Survey	46	01-04	00:30	00:35	01-04	4977.00	4977.00	Inclination (°): <i>1.100</i> , Azimuth (°): <i>353.160</i> , TVD (ft): <i>4910.10</i> , Dogleg (°/100 ft): <i>0.14</i> , Sensor Depth (ft): <i>4911.00</i> , Bit To Sensor (ft): <i>66.00</i>
Rotary Drill	1	01-04	00:35	00:45	01-04	4977.00	5067.00	Pressure On (psi): <i>2400.00</i> , Pressure Off (psi): <i>1800.00</i> , Weight On Bit (klbs): <i>48.00</i> , Surface RPM: <i>70</i> , Surface Torque (ft lbf): <i>16000.00</i> , Flow Rate (gpm): <i>895.00</i> , Strokes Per Minute: <i>309.00</i>
Survey	46	01-04	00:45	00:50	01-04	5067.00	5067.00	Inclination (°): <i>1.270</i> , Azimuth (°): <i>341.030</i> , TVD (ft): <i>5000.08</i> , Dogleg (°/100 ft): <i>0.34</i> , Sensor Depth (ft): <i>5001.00</i> , Bit To Sensor (ft): <i>66.00</i>
Rotary Drill	1	01-04	00:50	01:00	01-04	5067.00	5157.00	Pressure On (psi): <i>2400.00</i> , Pressure Off (psi): <i>1800.00</i> , Weight On Bit (klbs): <i>48.00</i> , Surface RPM: <i>70</i> , Surface Torque (ft lbf): <i>16000.00</i> , Flow Rate (gpm): <i>895.00</i> , Strokes Per Minute: <i>309.00</i>
Survey	46	01-04	01:00	01:05	01-04	5157.00	5157.00	Inclination (°): <i>1.410</i> , Azimuth (°): <i>342.260</i> , TVD (ft): <i>5090.06</i> , Dogleg (°/100 ft): <i>0.16</i> , Sensor Depth (ft): <i>5091.00</i> , Bit To Sensor (ft): <i>66.00</i>

Rotary Drill	1	01-04	01:05	01:15	01-04	5157.00	5246.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	01-04	01:15	01:20	01-04	5246.00	5246.00	Inclination (°): 1.320, Azimuth (°): 338.830, TVD (ft): 5179.03, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 5180.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	01:20	01:30	01-04	5246.00	5336.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	01-04	01:30	01:35	01-04	5336.00	5336.00	Inclination (°): 1.320, Azimuth (°): 336.900, TVD (ft): 5269.01, Dogleg (°/100 ft): 0.05, Sensor Depth (ft): 5270.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	01:35	02:00	01-04	5336.00	5425.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	01-04	02:00	02:05	01-04	5425.00	5425.00	Inclination (°): 1.450, Azimuth (°): 336.290, TVD (ft): 5357.98, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 5359.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	02:05	02:15	01-04	5425.00	5515.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1800.00, Weight On Bit (klbs): 48.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309.00
Survey	46	01-04	02:15	02:20	01-04	5515.00	5515.00	Inclination (°): 1.540, Azimuth (°): 335.140, TVD (ft): 5447.95, Dogleg (°/100 ft): 0.11, Sensor Depth (ft): 5449.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	02:20	02:40	01-04	5515.00	5604.00	
Survey	46	01-04	02:40	02:45	01-04	5604.00	5604.00	Inclination (°): 1.410, Azimuth (°): 331.540, TVD (ft): 5536.92, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 5538.00, Bit To Sensor (ft): 66.00
Slide Drill	2	01-04	02:45	03:05	01-04	5604.00	5629.00	Toolface: 112, Toolface Type: magnetic
Rotary Drill	1	01-04	03:05	03:15	01-04	5629.00	5694.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00
Survey	46	01-04	03:15	03:20	01-04	5694.00	5694.00	Inclination (°): 1.980, Azimuth (°): 96.610, TVD (ft): 5626.90, Dogleg (°/100 ft): 3.35, Sensor Depth (ft): 5628.00, Bit To Sensor (ft): 66.00
Slide Drill	2	01-04	03:20	03:35	01-04	5694.00	5709.00	Toolface: 115, Toolface Type: magnetic
Rotary Drill	1	01-04	03:35	03:50	01-04	5709.00	5783.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00
Rig Repair	14	01-04	03:50	04:05	01-04			Replace 4" on Mud Pump
Survey	46	01-04	04:05	04:10	01-04	5783.00	5783.00	Inclination (°): 5.450, Azimuth (°): 119.280, TVD (ft): 5715.71, Dogleg (°/100 ft): 4.16, Sensor Depth (ft): 5717.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	04:10	04:30	01-04	5783.00	5873.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00
Survey	46	01-04	04:30	04:35	01-04	5873.00	5873.00	Inclination (°): 6.200, Azimuth (°): 121.480, TVD (ft): 5805.24, Dogleg (°/100 ft): 0.87, Sensor Depth (ft): 5807.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	04:35	04:45	01-04	5873.00	5962.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00
Survey	46	01-04	04:45	04:50	01-04	5962.00	5962.00	Inclination (°): 6.290, Azimuth (°): 121.660, TVD (ft): 5893.71, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 5896.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	04:50	05:00	01-04	5962.00	6052.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00
Survey	46	01-04	05:00	05:05	01-04	6052.00	6052.00	Inclination (°): 6.330, Azimuth (°): 121.300, TVD (ft): 5983.17, Dogleg (°/100 ft): 0.06, Sensor Depth (ft): 5986.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	05:05	05:10	01-04	6052.00	6142.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00
Survey	46	01-04	05:10	05:15	01-04	6142.00	6142.00	Inclination (°): 6.240, Azimuth (°): 121.480, TVD (ft): 6072.63, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 6076.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	05:15	05:25	01-04	6142.00	6231.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00
Survey	46	01-04	05:25	05:30	01-04	6231.00	6231.00	Inclination (°): 6.510, Azimuth (°): 120.070, TVD (ft): 6161.08, Dogleg (°/100 ft): 0.35, Sensor Depth (ft): 6165.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	05:30	05:40	01-04	6231.00	6321.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00

Survey	46	01-04	05:40	05:45	01-04	6321.00	6321.00	Inclination (°): 6.550, Azimuth (°): 119.720, TVD (ft): 6250.49, Dogleg (°/100 ft): 0.06, Sensor Depth (ft): 6255.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	05:45	05:50	01-04	6321.00	6410.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00
Survey	46	01-04	05:50	05:55	01-04	6410.00	6410.00	Inclination (°): 6.680, Azimuth (°): 120.340, TVD (ft): 6338.90, Dogleg (°/100 ft): 0.17, Sensor Depth (ft): 6344.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	05:55	06:00	01-04	6410.00	6500.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	06:00	06:05	01-04	6500.00	6500.00	Inclination (°): 6.770, Azimuth (°): 119.630, TVD (ft): 6428.28, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 6434.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	06:05	06:15	01-04	6500.00	6589.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	06:15	06:20	01-04	6589.00	6589.00	Inclination (°): 6.510, Azimuth (°): 118.400, TVD (ft): 6516.68, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 6523.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	06:20	06:35	01-04	6589.00	6679.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	06:35	06:40	01-04	6679.00	6679.00	Inclination (°): 6.330, Azimuth (°): 117.960, TVD (ft): 6606.12, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 6613.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	06:40	06:50	01-04	6679.00	6768.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	06:50	06:55	01-04	6768.00	6768.00	Inclination (°): 6.330, Azimuth (°): 118.670, TVD (ft): 6694.58, Dogleg (°/100 ft): 0.09, Sensor Depth (ft): 6702.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	06:55	07:05	01-04	6768.00	6857.00	Pressure On (psi): 2750.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	07:05	07:10	01-04	6857.00	6857.00	Inclination (°): 6.330, Azimuth (°): 117.530, TVD (ft): 6783.03, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 6791.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	07:10	07:20	01-04	6857.00	6947.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 15500.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	07:20	07:25	01-04	6947.00	6947.00	Inclination (°): 6.420, Azimuth (°): 118.670, TVD (ft): 6872.48, Dogleg (°/100 ft): 0.17, Sensor Depth (ft): 6881.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	07:25	07:45	01-04	6947.00	7037.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	07:45	07:50	01-04	7037.00	7037.00	Inclination (°): 6.200, Azimuth (°): 117.000, TVD (ft): 6961.93, Dogleg (°/100 ft): 0.32, Sensor Depth (ft): 6971.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	07:50	08:05	01-04	7037.00	7126.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	08:05	08:10	01-04	7126.00	7126.00	Inclination (°): 5.980, Azimuth (°): 117.790, TVD (ft): 7050.43, Dogleg (°/100 ft): 0.26, Sensor Depth (ft): 7060.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	08:10	08:25	01-04	7126.00	7216.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	08:25	08:30	01-04	7216.00	7216.00	Inclination (°): 5.980, Azimuth (°): 120.070, TVD (ft): 7139.94, Dogleg (°/100 ft): 0.26, Sensor Depth (ft): 7150.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	08:30	08:40	01-04	7216.00	7306.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	08:40	08:45	01-04	7306.00	7306.00	Inclination (°): 5.800, Azimuth (°): 117.880, TVD (ft): 7229.46, Dogleg (°/100 ft): 0.32, Sensor Depth (ft): 7240.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	08:45	09:00	01-04	7306.00	7395.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	09:00	09:05	01-04	7395.00	7395.00	Inclination (°): 5.930, Azimuth (°): 118.930, TVD (ft): 7318.00, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 7329.00, Bit To Sensor (ft): 66.00

Rotary Drill	1	01-04	09:05	09:20	01-04	7395.00	7485.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	09:20	09:25	01-04	7485.00	7485.00	Inclination (°): 5.850, Azimuth (°): 119.900, TVD (ft): 7407.52, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 7419.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	09:25	09:40	01-04	7485.00	7574.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	09:40	09:45	01-04	7574.00	7574.00	Inclination (°): 5.930, Azimuth (°): 119.550, TVD (ft): 7496.05, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 7508.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	09:45	10:00	01-04	7574.00	7664.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	10:00	10:05	01-04	7664.00	7664.00	Inclination (°): 5.930, Azimuth (°): 121.220, TVD (ft): 7585.57, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 7598.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	10:05	10:20	01-04	7664.00	7754.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	10:20	10:25	01-04	7754.00	7754.00	Inclination (°): 5.890, Azimuth (°): 119.990, TVD (ft): 7675.09, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 7688.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	10:25	10:35	01-04	7754.00	7843.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	10:35	10:40	01-04	7843.00	7843.00	Inclination (°): 5.850, Azimuth (°): 121.480, TVD (ft): 7763.63, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 7777.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	10:40	10:55	01-04	7843.00	7933.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	10:55	11:00	01-04	7933.00	7933.00	Inclination (°): 5.710, Azimuth (°): 122.540, TVD (ft): 7853.17, Dogleg (°/100 ft): 0.20, Sensor Depth (ft): 7867.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	11:00	11:15	01-04	7933.00	8022.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	11:15	11:20	01-04	8022.00	8022.00	Inclination (°): 5.760, Azimuth (°): 123.060, TVD (ft): 7941.72, Dogleg (°/100 ft): 0.08, Sensor Depth (ft): 7956.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	11:20	11:40	01-04	8022.00	8112.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	11:40	11:45	01-04	8112.00	8112.00	Inclination (°): 5.670, Azimuth (°): 122.270, TVD (ft): 8031.28, Dogleg (°/100 ft): 0.13, Sensor Depth (ft): 8046.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	11:45	12:00	01-04	8112.00	8202.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	12:00	12:05	01-04	8202.00	8202.00	Inclination (°): 5.710, Azimuth (°): 123.680, TVD (ft): 8120.83, Dogleg (°/100 ft): 0.16, Sensor Depth (ft): 8136.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	12:05	12:25	01-04	8202.00	8291.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	12:25	12:30	01-04	8291.00	8291.00	Inclination (°): 5.580, Azimuth (°): 124.640, TVD (ft): 8209.40, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 8225.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	12:30	12:50	01-04	8291.00	8381.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	12:50	12:55	01-04	8381.00	8381.00	Inclination (°): 5.540, Azimuth (°): 124.380, TVD (ft): 8298.98, Dogleg (°/100 ft): 0.05, Sensor Depth (ft): 8315.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	12:55	13:10	01-04	8381.00	8470.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	13:10	13:15	01-04	8470.00	8470.00	Inclination (°): 5.670, Azimuth (°): 125.170, TVD (ft): 8387.55, Dogleg (°/100 ft): 0.17, Sensor Depth (ft): 8404.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	13:15	13:45	01-04	8470.00	8559.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00

Survey	46	01-04	13:45	13:50	01-04	8559.00	8559.00	Inclination (°): 5.490, Azimuth (°): 125.870, TVD (ft): 8476.13, Dogleg (%/100 ft): 0.22, Sensor Depth (ft): 8493.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	13:50	14:15	01-04	8559.00	8649.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	14:15	14:20	01-04	8649.00	8649.00	Inclination (°): 5.410, Azimuth (°): 128.340, TVD (ft): 8565.72, Dogleg (%/100 ft): 0.28, Sensor Depth (ft): 8583.00, Bit To Sensor (ft): 66.00
Slide Drill	2	01-04	14:20	14:40	01-04	8649.00	8664.00	Pressure On (psi): 2500.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 705.00, Strokes Per Minute: 243, Toolface: 40, Toolface Type: magnetic
Rotary Drill	1	01-04	14:40	14:50	01-04	8664.00	8738.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	14:50	14:55	01-04	8738.00	8738.00	Inclination (°): 5.710, Azimuth (°): 115.060, TVD (ft): 8654.31, Dogleg (%/100 ft): 1.48, Sensor Depth (ft): 8672.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	14:55	15:35	01-04	8738.00	8828.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-04	15:35	15:40	01-04	8828.00	8828.00	Inclination (°): 6.200, Azimuth (°): 111.550, TVD (ft): 8743.82, Dogleg (%/100 ft): 0.68, Sensor Depth (ft): 8762.00, Bit To Sensor (ft): 66.00
Rotary Drill	1	01-04	15:40	15:50	01-04	8828.00	8904.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Circulating	3	01-04	15:50	16:15	01-04			Trouble shoot stalling out when tagging bottom.
Pooh	7	01-04	16:15	20:15	01-04			Motor stalling when tagging bottom.
Change BHA	6	01-04	20:15	21:00	01-04			P/U BHA #4
TIH	8	01-04	21:00	00:00	01-05			TIH W/ BHA #4

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Wednesday, Jan 05 00:00 - 23:59 (Day 6 of 17)

Billing: \$12,055.25 (\$156,865.75 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	8904.00	Downhole Hours	24.00	Rotating WOB (klbs)	45.00 - 45.00
Bit Depth (ft)	10766.00	Drilling Hours	13.42	Sliding WOB (klbs)	20.00 - 25.00
Bottom Hole Depth (ft)	10766.00	Hours Circulating	0.00	Rotating SPM	256.00 - 256.00
Total Distance (ft)	1866.00	Hours Sliding	4.75	Sliding SPM	240.00 - 258.00
Distance Rotated (ft)	1684.00	Hours Rotating	8.67	Motor RPM	30.00 - 50.00
Distance Slid (ft)	182.00			Surface RPM	50.00 - 50.00
Inclination In	5.85			Flow Rate (gpm)	700.00 - 750.00
Inclination Out	2.64			On Bottom Pressure (psi)	2500.00 - 3000.00
Azimuth In	113.66	% Hours Rotating	65%	Off Bottom Pressure (psi)	2300.00 - 2300.00
Azimuth Out	101.97	% Hours Sliding	35%		
AVG Total ROP (ft/h)	139.08	% Distance Sliding	10%		
AVG Rotating ROP (ft/h)	194.31	% Distance Rotating	90%		
AVG Sliding ROP (ft/h)	38.32				

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #4 - INTERMEDIATE

Date In: Jan 4, 2022, 20:15 Date Out: Jan 6, 2022, 0:30

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	BUTCH'S 7" 6/7 6.5 W/ 8.5 NBS Flow Range 400-750 GPM, REV .23, Max Diff 1530, Max Torque 26280, Bit Runs: 0, Bit to Bend 4.80'
Vendor	Reed	Lobe/Stage	6/7, 6.5	
S/N	A284029	Bend Angle	1.75	
Nozzles	6-15's	Speed (rev/gal)	0.23	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.580	
Drilling Hours for Day	13.42	Bit Distances		
Total Drilled for Day (ft)	1862.00	Survey: 63.00 ft, Gamma: 48.00 ft		
Drilling Hours for BHA	13.42	POOH Reason		
Total Drilled for BHA (ft)	1862.00	Change Bottom Hole Assembly: POOH to P/U Curve Assy.		

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC66-AZZ, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A284029	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" 6/7 6.5 Stg. 1.75° FBH w/8.5" NBS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 6.5	Butch's	BDT-700ML-006	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.74	33.74
<b>Stabilizer</b> Description: 8.5" STAB	JA	85586	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		5.19	38.93
<b>UBHO Sub</b> Description: NM DAO SUB, Material: Non-Magnetic	AIM	AIM675-364	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.05	41.98
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-296	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		30.65	72.63
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	102.07
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	Platinum	PPR5372	CET54 Box	4 1/2" IF Pin	2.750	6.250		2.38	104.45
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET50 Box	CET54 Pin	3.625	5.500		735.63	840.08
<b>Crossover Sub</b> Description: CET54 (P) x EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	843.50
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1124.68

## 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	01-04	21:00	00:00	01-05			TIH W/ BHA #4
TIH	8	01-05	00:00	03:15	01-05			TIH W/ BHA #4
Rotary Drill	1	01-05	03:15	03:25	01-05	8904.00	8918.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	03:25	03:30	01-05	8914.00	8914.00	Inclination (°): 5.850, Azimuth (°): 113.660, TVD (ft): 8832.33, Dogleg (°/100 ft): 0.47, Sensor Depth (ft): 8851.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	03:30	03:50	01-05	8914.00	9004.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	03:50	03:55	01-05	9004.00	9004.00	Inclination (°): 5.270, Azimuth (°): 113.390, TVD (ft): 8921.91, Dogleg (°/100 ft): 0.65, Sensor Depth (ft): 8941.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	03:55	04:20	01-05	9004.00	9094.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	04:20	04:25	01-05	9094.00	9094.00	Inclination (°): 5.050, Azimuth (°): 116.820, TVD (ft): 9011.54, Dogleg (°/100 ft): 0.42, Sensor Depth (ft): 9031.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	04:25	04:40	01-05	9094.00	9183.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	04:40	04:45	01-05	9183.00	9183.00	Inclination (°): 4.440, Azimuth (°): 117.790, TVD (ft): 9100.24, Dogleg (°/100 ft): 0.69, Sensor Depth (ft): 9120.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	04:45	05:10	01-05	9183.00	9273.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	05:10	05:15	01-05	9273.00	9273.00	Inclination (°): 3.520, Azimuth (°): 120.160, TVD (ft): 9190.02, Dogleg (°/100 ft): 1.04, Sensor Depth (ft): 9210.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-05	05:15	05:50	01-05	9273.00	9298.00	Pressure On (psi): 2500.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 75, Toolface Type: magnetic
Rotary Drill	1	01-05	05:50	06:05	01-05	9298.00	9363.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	06:05	06:10	01-05	9363.00	9363.00	Inclination (°): 5.410, Azimuth (°): 116.910, TVD (ft): 9279.74, Dogleg (°/100 ft): 2.12, Sensor Depth (ft): 9300.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	06:10	06:15	01-05	9363.00	9367.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Slide Drill	2	01-05	06:15	06:25	01-05	9367.00	9377.00	Pressure On (psi): 2500.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 258, Toolface: 30, Toolface Type: magnetic
Rotary Drill	1	01-05	06:25	06:40	01-05	9377.00	9453.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	06:40	06:45	01-05	9453.00	9453.00	Inclination (°): 5.490, Azimuth (°): 98.630, TVD (ft): 9369.34, Dogleg (°/100 ft): 1.92, Sensor Depth (ft): 9390.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	06:45	07:00	01-05	9453.00	9542.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	07:00	07:05	01-05	9542.00	9542.00	Inclination (°): 4.090, Azimuth (°): 96.780, TVD (ft): 9458.03, Dogleg (°/100 ft): 1.58, Sensor Depth (ft): 9479.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	07:05	07:10	01-05	9542.00	9557.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Slide Drill	2	01-05	07:10	07:35	01-05	9557.00	9577.00	Pressure On (psi): 2500.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 258, Toolface: 120, Toolface Type: magnetic
Rotary Drill	1	01-05	07:35	07:45	01-05	9577.00	9632.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	07:45	07:50	01-05	9632.00	9632.00	Inclination (°): 4.530, Azimuth (°): 109.350, TVD (ft): 9547.78, Dogleg (°/100 ft): 1.15, Sensor Depth (ft): 9569.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	07:50	08:05	01-05	9632.00	9721.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00

Survey	46	01-05	08:05	08:10	01-05	9721.00	9721.00	Inclination (°): 4.570, Azimuth (°): 113.130, TVD (ft): 9636.50, Dogleg (°/100 ft): 0.34, Sensor Depth (ft): 9658.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	08:10	08:30	01-05	9721.00	9811.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	08:30	08:35	01-05	9811.00	9811.00	Inclination (°): 3.210, Azimuth (°): 92.300, TVD (ft): 9726.29, Dogleg (°/100 ft): 2.16, Sensor Depth (ft): 9748.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-05	08:35	09:25	01-05	9811.00	9841.00	Pressure On (psi): 2500.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 258, Toolface: 140, Toolface Type: magnetic
Rotary Drill	1	01-05	09:25	09:50	01-05	9841.00	9901.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	09:50	09:55	01-05	9901.00	9901.00	Inclination (°): 2.510, Azimuth (°): 124.560, TVD (ft): 9816.18, Dogleg (°/100 ft): 1.92, Sensor Depth (ft): 9838.00, Bit To Sensor (ft): 63.00
L/D DP	28	01-05	09:55	10:05	01-05			L/D 3 joints of bent DP.
Rotary Drill	1	01-05	10:05	10:10	01-05	9901.00	9906.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 17000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Slide Drill	2	01-05	10:10	10:55	01-05	9906.00	9936.00	Pressure On (psi): 2500.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 258, Toolface: 120, Toolface Type: magnetic
Rotary Drill	1	01-05	10:55	11:25	01-05	9936.00	9990.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	11:25	11:30	01-05	9990.00	9990.00	Inclination (°): 4.840, Azimuth (°): 132.640, TVD (ft): 9905.00, Dogleg (°/100 ft): 2.68, Sensor Depth (ft): 9927.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	11:30	11:40	01-05	9990.00	9997.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Slide Drill	2	01-05	11:40	12:25	01-05	9997.00	10017.00	Pressure On (psi): 2500.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 258, Toolface: 110, Toolface Type: magnetic
Rotary Drill	1	01-05	12:25	12:45	01-05	10017.00	10080.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	12:45	12:50	01-05	10080.00	10080.00	Inclination (°): 7.160, Azimuth (°): 123.590, TVD (ft): 9994.50, Dogleg (°/100 ft): 2.78, Sensor Depth (ft): 10017.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	12:50	13:20	01-05	10080.00	10170.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	13:20	13:25	01-05	10170.00	10170.00	Inclination (°): 6.460, Azimuth (°): 125.170, TVD (ft): 10083.86, Dogleg (°/100 ft): 0.81, Sensor Depth (ft): 10107.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	13:25	14:00	01-05	10170.00	10259.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	14:00	14:05	01-05	10259.00	10259.00	Inclination (°): 5.410, Azimuth (°): 122.970, TVD (ft): 10172.39, Dogleg (°/100 ft): 1.21, Sensor Depth (ft): 10196.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	14:05	14:10	01-05	10259.00	10268.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Slide Drill	2	01-05	14:10	14:45	01-05	10268.00	10284.00	Pressure On (psi): 2500.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 258, Toolface: 100, Toolface Type: magnetic
Rotary Drill	1	01-05	14:45	15:15	01-05	10284.00	10349.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	15:15	15:20	01-05	10349.00	10349.00	Inclination (°): 5.490, Azimuth (°): 121.220, TVD (ft): 10261.98, Dogleg (°/100 ft): 0.20, Sensor Depth (ft): 10286.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	15:20	15:40	01-05	10349.00	10438.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	15:40	15:45	01-05	10438.00	10438.00	Inclination (°): 5.010, Azimuth (°): 110.140, TVD (ft): 10350.61, Dogleg (°/100 ft): 1.26, Sensor Depth (ft): 10375.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	15:45	16:10	01-05	10438.00	10528.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00

Survey	46	01-05	16:10	16:15	01-05	10528.00	10528.00	Inclination (°): 4.440, Azimuth (°): 109.620, TVD (ft): 10440.30, Dogleg (°/100 ft): 0.64, Sensor Depth (ft): 10465.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	16:15	16:45	01-05	10528.00	10618.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	16:45	16:50	01-05	10618.00	10618.00	Inclination (°): 3.520, Azimuth (°): 109.530, TVD (ft): 10530.08, Dogleg (°/100 ft): 1.02, Sensor Depth (ft): 10555.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-05	16:50	17:30	01-05	10618.00	10649.00	Pressure On (psi): 2500.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 258, Toolface: 330, Toolface Type: magnetic
Rotary Drill	1	01-05	17:30	18:05	01-05	10649.00	10707.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	18:05	18:10	01-05	10707.00	10707.00	Inclination (°): 3.210, Azimuth (°): 103.810, TVD (ft): 10618.93, Dogleg (°/100 ft): 0.51, Sensor Depth (ft): 10644.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-05	18:10	18:35	01-05	10707.00	10766.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Survey	46	01-05	18:35	18:40	01-05	10766.00	10766.00	Inclination (°): 2.640, Azimuth (°): 101.970, TVD (ft): 10677.85, Dogleg (°/100 ft): 0.98, Sensor Depth (ft): 10703.00, Bit To Sensor (ft): 63.00
Pooh	7	01-05	18:40	23:00	01-05			POOH for Curve Assy
Change BHA	6	01-05	23:00	00:30	01-06			P/U BHA # 5

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Thursday, Jan 06 00:00 - 23:59 (Day 7 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	10766.00	Downhole Hours	24.00	Rotating WOB (klbs)	30.00 - 45.00		
Bit Depth (ft)	11516.00	Drilling Hours	14.08	Sliding WOB (klbs)	30.00 - 60.00		
Bottom Hole Depth (ft)	11516.00	Hours Circulating	1.67	Rotating SPM	240.00 - 256.00		
Total Distance (ft)	750.00	Hours Sliding	12.33	Sliding SPM	240.00 - 240.00		
Distance Rotated (ft)	64.00	Hours Rotating	1.75	Motor RPM	0.00 - 50.00		
Distance Slid (ft)	686.00			Surface RPM	30.00 - 50.00		
Inclination In	4.48			Flow Rate (gpm)	700.00 - 750.00		
Inclination Out	69.23			On Bottom Pressure (psi)	2600.00 - 3000.00		
Azimuth In	44.14	% Hours Rotating	12%	Off Bottom Pressure (psi)	2300.00 - 2300.00		
Azimuth Out	359.14	% Hours Sliding	88%				
AVG Total ROP (ft/h)	53.25	% Distance Sliding	91%				
AVG Rotating ROP (ft/h)	36.57	% Distance Rotating	9%				
AVG Sliding ROP (ft/h)	55.62						

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #4 - INTERMEDIATE

Date In: Jan 4, 2022, 20:15 Date Out: Jan 6, 2022, 0:30

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	BUTCH'S 7" 6/7 6.5 W/ 8.5 NBS Flow Range 400-750 GPM, REV	
Vendor	Reed	Lobe/Stage	6/7, 6.5	.23, Max Diff 1530, Max Torque 26280, Bit Runs: 0, Bit to Bend	
S/N	A284029	Bend Angle	1.75	4.80'	
Nozzles	6-15's	Speed (rev/gal)	0.23	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.580		
Drilling Hours for Day	0.00	<b>Bit Distances</b>			
Total Drilled for Day (ft)		Survey: 63.00 ft, Gamma: 48.00			
Drilling Hours for BHA	13.42			<b>POOH Reason</b>	
Total Drilled for BHA (ft)	1862.00			Change Bottom Hole Assembly: POOH to P/U Curve Assy.	

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC66-AZZ, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A284029	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" 6/7 6.5 Stg. 1.75° FBH w/8.5" NBS, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 6.5	Butch's	BDT-700ML-006	4 1/2" IF Box	4 1/2" Reg Box		7.000		32.74	33.74
<b>Stabilizer</b> Description: 8.5" STAB	JA	85586	4 1/2" IF Box	4 1/2" IF Pin	2.250	6.500		5.19	38.93
<b>UBHO Sub</b> Description: NM DAO SUB, Material: Non-Magnetic	AIM	AIM675-364	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		3.05	41.98
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-296	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		30.65	72.63
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	102.07
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	Platinum	PPR5372	CET54 Box	4 1/2" IF Pin	2.750	6.250		2.38	104.45
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET50 Box	CET54 Pin	3.625	5.500		735.63	840.08
<b>Crossover Sub</b> Description: CET54 (P) x EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD18238	EverDrlg54 Box	CET54 Pin	4.000	6.938		3.42	843.50
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1124.68

## MWD Items

No Items

**BHA #5 - 8.75 Curve Assy**

Date In: Jan 6, 2022, 0:30 Date Out: Jan 7, 2022, 5:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	Flow Range = 300-700 gpm's, Rev Per Gallon = .25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.85"	
Vendor	ULTERRA	Lobe/Stage	7/8, 6.1		
S/N	57710	Bend Angle	2.25		
Nozzles	6x15's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.250	<b>POOH Reason</b> Curve Landed: POOH for Lateral Assy.	
Drilling Hours for Day	14.08	Bit Distances			
Total Drilled for Day (ft)	750.00	Survey: 63.00 ft, Gamma: 39.00 ft,			
Drilling Hours for BHA	14.08	Resistivity: 50.00 ft			
Total Drilled for BHA (ft)	750.00				

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	ULTERRA	57710	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" 7/8 6.1 Stg. 2.25° FBH Slick, Size (in): 7.00, Bend Angle (°): 2.25, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0043	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.13	31.13
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.56
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.83
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.27
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.82

**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	01-05	23:00	00:30	01-06			P/U BHA # 5
Other	16	01-06	00:30	01:00	01-06			Program Res.
Circulating	3	01-06	01:00	01:15	01-06			Test MWD & Motor
TIH	8	01-06	01:15	07:00	01-06			TIH W/ BHA #5
Circulating	3	01-06	07:00	08:15	01-06			Relog
Rig Service - In Hole	19	01-06	08:15	08:30	01-06			Grease Packing
Rotary Drill	1	01-06	08:30	08:40	01-06	10766.00	10770.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Slide Drill	2	01-06	08:40	10:40	01-06	10770.00	10859.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 0, Toolface Type: magnetic
Survey	46	01-06	10:40	10:45	01-06	10859.00	10859.00	Inclination (°): 4.480, Azimuth (°): 44.140, TVD (ft): 10770.70, Dogleg (°/100 ft): 4.09, Sensor Depth (ft): 10796.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-06	10:45	13:20	01-06	10859.00	10949.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 315, Toolface Type: gravity
Survey	46	01-06	13:20	13:25	01-06	10949.00	10949.00	Inclination (°): 13.670, Azimuth (°): 24.450, TVD (ft): 10859.49, Dogleg (°/100 ft): 10.63, Sensor Depth (ft): 10886.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-06	13:25	14:40	01-06	10949.00	11038.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 330, Toolface Type: gravity
Survey	46	01-06	14:40	14:45	01-06	11038.00	11038.00	Inclination (°): 24.220, Azimuth (°): 18.030, TVD (ft): 10943.56, Dogleg (°/100 ft): 12.07, Sensor Depth (ft): 10975.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-06	14:45	16:00	01-06	11038.00	11128.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 310, Toolface Type: gravity
Survey	46	01-06	16:00	16:05	01-06	11128.00	11128.00	Inclination (°): 34.150, Azimuth (°): 14.520, TVD (ft): 11022.04, Dogleg (°/100 ft): 11.19, Sensor Depth (ft): 11065.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-06	16:05	17:05	01-06	11128.00	11217.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 330, Toolface Type: gravity
Survey	46	01-06	17:05	17:10	01-06	11217.00	11217.00	Inclination (°): 44.880, Azimuth (°): 12.060, TVD (ft): 11090.60, Dogleg (°/100 ft): 12.18, Sensor Depth (ft): 11154.00, Bit To Sensor (ft): 63.00

Slide Drill	2	01-06	17:10	18:40	01-06	11217.00	11307.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 60.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 280, Toolface Type: gravity
Survey	46	01-06	18:40	18:45	01-06	11307.00	11307.00	Inclination (°): 54.240, Azimuth (°): 5.640, TVD (ft): 11148.95, Dogleg (°/100 ft): 11.72, Sensor Depth (ft): 11244.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-06	18:45	19:15	01-06	11307.00	11337.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 750.00, Strokes Per Minute: 256.00
Circulating	3	01-06	19:15	19:20	01-06			MWD Check Shot
Slide Drill	2	01-06	19:20	21:00	01-06	11337.00	11396.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 60.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 330, Toolface Type: gravity
Survey	46	01-06	21:00	21:05	01-06	11396.00	11396.00	Inclination (°): 59.340, Azimuth (°): 4.670, TVD (ft): 11197.68, Dogleg (°/100 ft): 5.80, Sensor Depth (ft): 11333.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-06	21:05	22:10	01-06	11396.00	11486.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 60.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 320, Toolface Type: gravity
Survey	46	01-06	22:10	22:15	01-06	11486.00	11486.00	Inclination (°): 69.230, Azimuth (°): 359.140, TVD (ft): 11236.71, Dogleg (°/100 ft): 12.30, Sensor Depth (ft): 11423.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-06	22:15	23:20	01-06	11486.00	11516.00	Pressure On (psi): 3000.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 30.00, Surface RPM: 30, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240.00
Circulating	3	01-06	23:20	23:25	01-06			MWD Check Shot
Pooh	7	01-06	23:25	05:00	01-07			POOH for Lateral Assy.

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Friday, Jan 07 00:00 - 23:59 (Day 8 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	11516.00	Downhole Hours	21.75	Rotating WOB (klbs)	30.00 - 40.00
Bit Depth (ft)	11727.00	Drilling Hours	2.83	Sliding WOB (klbs)	
Bottom Hole Depth (ft)	11727.00	Hours Circulating	2.17	Rotating SPM	192.00 - 243.00
Total Distance (ft)	211.00	Hours Sliding	1.58	Sliding SPM	
Distance Rotated (ft)	111.00	Hours Rotating	1.25	Motor RPM	0.00 - 30.00
Distance Slid (ft)	100.00			Surface RPM	30.00 - 30.00
Inclination In	73.80			Flow Rate (gpm)	550.00 - 700.00
Inclination Out	78.11			On Bottom Pressure (psi)	1800.00 - 4500.00
Azimuth In	358.26	% Hours Rotating	44%	Off Bottom Pressure (psi)	1500.00 - 3800.00
Azimuth Out	359.14	% Hours Sliding	56%		
AVG Total ROP (ft/h)	74.47	% Distance Sliding	47%		
AVG Rotating ROP (ft/h)	88.80	% Distance Rotating	53%		
AVG Sliding ROP (ft/h)	63.16				

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #5 - 8.75 Curve Assy

Date In: Jan 6, 2022, 0:30 Date Out: Jan 7, 2022, 5:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	Flow Range = 300-700 gpm's, Rev Per Gallon = .25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.85"
Vendor	ULTERRA	Lobe/Stage	7/8, 6.1	
S/N	57710	Bend Angle	2.25	
Nozzles	6x15's	Speed (rev/gal)	0.25	MWD Comments
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.250	
Drilling Hours for Day	0.00	Bit Distances		
Total Drilled for Day (ft)		Survey: 63.00 ft, Gamma: 39.00 ft,		
Drilling Hours for BHA	14.08	Resistivity: 50.00 ft		POOH Reason
Total Drilled for BHA (ft)	750.00			Curve Landed: POOH for Lateral Assy.

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	ULTERRA	57710	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" 7/8 6.1 Stg. 2.25° FBH Slick, Size (in): 7.00, Bend Angle (°): 2.25, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0043	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.13	31.13
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.56
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.83
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.27
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.82

## MWD Items

No Items

## BHA #6 - 8.75" LATERAL

Date In: Jan 7, 2022, 7:15 Date Out: Jan 8, 2022, 5:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 gpm's, Rev.25, Max Diff = 1800, Max Torque = 17100, Bit Runs = 0, Bit to Bend = 4.08	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A282345	Bend Angle	1.75		
Nozzles	6x15's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230		
Drilling Hours for Day	2.83	Bit Distances			
Total Drilled for Day (ft)	211.00	Survey: 63.00 ft, Gamma: 39.00 ft,			
Drilling Hours for BHA	2.83	Resistivity: 50.00 ft		POOH Reason	
Total Drilled for BHA (ft)	211.00			Other: Pressure up 700 psi. and held pressure.	

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC76</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>4.00</i> , Size (in): <i>8.75</i>	REED	A282345	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>Bico 7" SSS100 Fixed @ 1.75 True Slick</i> , Size (in): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>6.1</i>	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: <i>NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: <i>22 STDS 5" DP</i> , Type: <i>Slick</i>	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: <i>EverDRL54 Pin x 4 1/2 IF Box X-Over Sub</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: <i>NOV AGITATOR w/1.85 Plate Size</i> , Size (in): <i>6.75</i>	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: <i>4 1/2 IF (P) X EverDrlg 54 (B)</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

## 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	01-06	23:25	05:00	01-07			POOH for Lateral Assy.
Lay Down BHA	65	01-07	05:00	05:15	01-07			
Change BHA	6	01-07	05:15	07:15	01-07			P/U BHA # 6
Circulating	3	01-07	07:15	07:45	01-07			Test MWD and Motor
TIH	8	01-07	07:45	12:00	01-07			TIH W/ BHA #6
Other	16	01-07	12:00	14:00	01-07			Slip & Cut Drill Line
TIH	8	01-07	14:00	17:00	01-07			TIH W/ BHA #6
Rotary Drill	1	01-07	17:00	17:30	01-07	11516.00	11517.00	Pressure On (psi): <i>1800.00</i> , Pressure Off (psi): <i>1500.00</i> , Weight On Bit (klbs): <i>30.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>20000.00</i> , Flow Rate (gpm): <i>550.00</i> , Strokes Per Minute: <i>192.00</i>
Survey	46	01-07	17:30	17:35	01-07	11517.00	11517.00	Inclination (°): <i>73.800</i> , Azimuth (°): <i>358.260</i> , TVD (ft): <i>11246.54</i> , Dogleg (°/100 ft): <i>14.99</i> , Sensor Depth (ft): <i>11454.00</i> , Bit To Sensor (ft): <i>63.00</i>
Circulating	3	01-07	17:35	19:00	01-07			Displace with OBM.
Rotary Drill	1	01-07	19:00	19:25	01-07	11517.00	11607.00	Pressure On (psi): <i>1800.00</i> , Pressure Off (psi): <i>1500.00</i> , Weight On Bit (klbs): <i>30.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>20000.00</i> , Flow Rate (gpm): <i>550.00</i> , Strokes Per Minute: <i>192.00</i>
Survey	46	01-07	19:25	19:30	01-07	11607.00	11607.00	Inclination (°): <i>76.840</i> , Azimuth (°): <i>358.610</i> , TVD (ft): <i>11269.34</i> , Dogleg (°/100 ft): <i>3.40</i> , Sensor Depth (ft): <i>11544.00</i> , Bit To Sensor (ft): <i>63.00</i>
Rotary Drill	1	01-07	19:30	19:50	01-07	11607.00	11627.00	Pressure On (psi): <i>4500.00</i> , Pressure Off (psi): <i>3800.00</i> , Weight On Bit (klbs): <i>40.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>20000.00</i> , Flow Rate (gpm): <i>700.00</i> , Strokes Per Minute: <i>243.00</i>
Slide Drill	2	01-07	19:50	20:40	01-07	11627.00	11697.00	Toolface: <i>20</i> , Toolface Type: <i>gravity</i>

Survey	46	01-07	20:40	20:45	01-07	11697.00	11697.00	Inclination (°): 78.110, Azimuth (°): 359.140, TVD (ft): 11288.86, Dogleg (°/100 ft): 1.52, Sensor Depth (ft): 11634.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-07	20:45	21:30	01-07	11697.00	11727.00	Toolface: 0, Toolface Type: gravity
Circulating	3	01-07	21:30	21:45	01-07			Circulate to POOH
Pooh	7	01-07	21:45	03:50	01-08			POOH for pressure increase

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Saturday, Jan 08 00:00 - 23:59 (Day 9 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	11727.00	Downhole Hours	22.00	Rotating WOB (klbs)	40.00 - 45.00
Bit Depth (ft)	12503.00	Drilling Hours	8.83	Sliding WOB (klbs)	40.00 - 40.00
Bottom Hole Depth (ft)	12503.00	Hours Circulating	0.75	Rotating SPM	243.00 - 243.00
Total Distance (ft)	776.00	Hours Sliding	4.17	Sliding SPM	240.00 - 240.00
Distance Rotated (ft)	630.00	Hours Rotating	4.67	Motor RPM	0.00 - 175.00
Distance Slid (ft)	146.00			Surface RPM	30.00 - 50.00
Inclination In	88.48			Flow Rate (gpm)	700.00 - 700.00
Inclination Out	90.95			On Bottom Pressure (psi)	4400.00 - 4500.00
Azimuth In	0.02	% Hours Rotating	53%	Off Bottom Pressure (psi)	3800.00 - 3900.00
Azimuth Out	357.38	% Hours Sliding	47%		
AVG Total ROP (ft/h)	89.59	% Distance Sliding	19%		
AVG Rotating ROP (ft/h)	130.91	% Distance Rotating	81%		
AVG Sliding ROP (ft/h)	35.04				

**Personnel**

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

**BHA #6 - 8.75" LATERAL**

Date In: Jan 7, 2022, 7:15 Date Out: Jan 8, 2022, 5:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 gpm's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08
Vendor	REED	Lobe/Stage	7/8, 6.1	
S/N	A282345	Bend Angle	1.75	
Nozzles	6x15's	Speed (rev/gal)	0.25	<b>MWD Comments</b>
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230	
Drilling Hours for Day	0.00	<b>Bit Distances</b>		
Total Drilled for Day (ft)		Survey: 63.00 ft, Gamma: 39.00 ft, Resistivity: 50.00 ft		
Drilling Hours for BHA	2.83			<b>POOH Reason</b>
Total Drilled for BHA (ft)	211.00			Other: Pressure up 700 psi. and held pressure.

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	REED	A282345	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: Bico 7" SSS100 Fixed @ 1.75 True Slick, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: 22 STDS 5" DP, Type: Slick	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: EverDRL54 Pin x 4 1/2 IF Box X-Over Sub, Material: Steel	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: NOV AGITATOR w/1.85 Plate Size, Size (in): 6.75	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: 4 1/2 IF (P) X EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

**MWD Items**

No Items

## BHA #7 - 8.75" LATERAL

Date In: Jan 8, 2022, 7:00 Date Out: Jan 15, 2022, 10:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A283089	Bend Angle	1.75		
Nozzles	6x15's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230		
Drilling Hours for Day	8.83	Bit Distances			
Total Drilled for Day (ft)	776.00	Survey: 63.00 ft, Gamma: 39.00 ft,			
Drilling Hours for BHA	116.50	Resistivity: 50.00 ft		POOH Reason	
Total Drilled for BHA (ft)	7603.00			Total Depth/Casing Point	

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC76</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>4.00</i> , Size (in): <i>8.75</i>	REED	A283089	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>Bico 7" SSS100 Fixed @ 1.75 True Slick</i> , Size (in): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>6.1</i>	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: <i>NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: <i>22 STDS 5" DP</i> , Type: <i>Slick</i>	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: <i>EverDRL54 Pin x 4 1/2 IF Box X-Over Sub</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: <i>NOV AGITATOR w/1.85 Plate Size</i> , Size (in): <i>6.75</i>	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: <i>4 1/2 IF (P) X EverDrlg 54 (B)</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

## 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	01-07	21:45	03:50	01-08			POOH for pressure increase
Other	16	01-08	03:50	05:00	01-08			Inspect BHA and found MWD lowerend packed off.
Other	16	01-08	05:00	06:40	01-08			Changed MWD lowerend and muleshoe sleeve.
Circulating	3	01-08	06:40	07:00	01-08			Test MWD & Motor
TIH	8	01-08	07:00	13:15	01-08			TIH W/ BHA #7
Circulating	3	01-08	13:15	13:40	01-08			Circulating gas out.
Slide Drill	2	01-08	13:40	14:25	01-08	11727.00	11758.00	Pressure On (psi): <i>4400.00</i> , Pressure Off (psi): <i>3900.00</i> , Weight On Bit (klbs): <i>40.00</i> , Flow Rate (gpm): <i>700.00</i> , Strokes Per Minute: <i>240</i> , Toolface: <i>0</i> , Toolface Type: <i>gravity</i>
Rotary Drill	1	01-08	14:25	14:40	01-08	11758.00	11787.00	Pressure On (psi): <i>4500.00</i> , Pressure Off (psi): <i>3800.00</i> , Weight On Bit (klbs): <i>40.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>20000.00</i> , Flow Rate (gpm): <i>700.00</i> , Strokes Per Minute: <i>243.00</i>
Survey	46	01-08	14:40	14:45	01-08	11787.00	11787.00	Inclination (°): <i>88.480</i> , Azimuth (°): <i>0.020</i> , TVD (ft): <i>11299.35</i> , Dogleg (°/100 ft): <i>11.56</i> , Sensor Depth (ft): <i>11724.00</i> , Bit To Sensor (ft): <i>63.00</i>
Rotary Drill	1	01-08	14:45	15:00	01-08	11787.00	11794.00	Pressure On (psi): <i>4500.00</i> , Pressure Off (psi): <i>3800.00</i> , Weight On Bit (klbs): <i>40.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>20000.00</i> , Flow Rate (gpm): <i>700.00</i> , Strokes Per Minute: <i>243.00</i>
Slide Drill	2	01-08	15:00	15:15	01-08	11794.00	11809.00	Pressure On (psi): <i>4400.00</i> , Pressure Off (psi): <i>3900.00</i> , Weight On Bit (klbs): <i>40.00</i> , Flow Rate (gpm): <i>700.00</i> , Strokes Per Minute: <i>240</i> , Toolface: <i>170</i> , Toolface Type: <i>gravity</i>
Rotary Drill	1	01-08	15:15	15:30	01-08	11809.00	11876.00	Pressure On (psi): <i>4500.00</i> , Pressure Off (psi): <i>3800.00</i> , Weight On Bit (klbs): <i>40.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>20000.00</i> , Flow Rate (gpm): <i>700.00</i> , Strokes Per Minute: <i>243.00</i>
Survey	46	01-08	15:30	15:35	01-08	11876.00	11876.00	Inclination (°): <i>89.890</i> , Azimuth (°): <i>1.600</i> , TVD (ft): <i>11300.62</i> , Dogleg (°/100 ft): <i>2.38</i> , Sensor Depth (ft): <i>11813.00</i> , Bit To Sensor (ft): <i>63.00</i>

Slide Drill	2	01-08	15:35	16:00	01-08	11876.00	11891.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 190, Toolface Type: gravity
Rotary Drill	1	01-08	16:00	16:55	01-08	11891.00	11966.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-08	16:55	17:00	01-08	11966.00	11966.00	Inclination (°): 87.340, Azimuth (°): 2.210, TVD (ft): 11302.79, Dogleg (°/100 ft): 2.91, Sensor Depth (ft): 11903.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-08	17:00	17:45	01-08	11966.00	12056.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-08	17:45	17:50	01-08	12056.00	12056.00	Inclination (°): 86.370, Azimuth (°): 1.330, TVD (ft): 11307.73, Dogleg (°/100 ft): 1.45, Sensor Depth (ft): 11993.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-08	17:50	18:40	01-08	12056.00	12086.00	Toolface: 330, Toolface Type: gravity
Rotary Drill	1	01-08	18:40	19:00	01-08	12086.00	12145.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-08	19:00	19:05	01-08	12145.00	12145.00	Inclination (°): 87.470, Azimuth (°): 359.750, TVD (ft): 11312.51, Dogleg (°/100 ft): 2.16, Sensor Depth (ft): 12082.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-08	19:05	19:40	01-08	12145.00	12235.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-08	19:40	19:55	01-08	12235.00	12235.00	Inclination (°): 87.690, Azimuth (°): 359.660, TVD (ft): 11316.31, Dogleg (°/100 ft): 0.26, Sensor Depth (ft): 12172.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-08	19:55	20:00	01-08	12235.00	12240.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-08	20:00	20:50	01-08	12240.00	12265.00	Toolface: 330, Toolface Type: gravity
Rotary Drill	1	01-08	20:50	21:15	01-08	12265.00	12324.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-08	21:15	21:20	01-08	12324.00	12324.00	Inclination (°): 89.050, Azimuth (°): 358.870, TVD (ft): 11318.85, Dogleg (°/100 ft): 1.77, Sensor Depth (ft): 12261.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-08	21:20	21:45	01-08	12324.00	12414.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-08	21:45	21:50	01-08	12414.00	12414.00	Inclination (°): 89.100, Azimuth (°): 358.080, TVD (ft): 11320.30, Dogleg (°/100 ft): 0.88, Sensor Depth (ft): 12351.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-08	21:50	21:55	01-08	12414.00	12419.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-08	21:55	23:00	01-08	12419.00	12449.00	Toolface: 20, Toolface Type: gravity
Rotary Drill	1	01-08	23:00	23:20	01-08	12449.00	12503.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-08	23:20	23:25	01-08	12503.00	12503.00	Inclination (°): 90.950, Azimuth (°): 357.380, TVD (ft): 11320.26, Dogleg (°/100 ft): 2.22, Sensor Depth (ft): 12440.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-08	23:25	00:15	01-09	12503.00	12593.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Sunday, Jan 09 00:00 - 23:59 (Day 10 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	12503.00	Downhole Hours	24.00	Rotating WOB (klbs)	45.00 - 48.00
Bit Depth (ft)	14202.00	Drilling Hours	22.75	Sliding WOB (klbs)	50.00 - 60.00
Bottom Hole Depth (ft)	14202.00	Hours Circulating	0.33	Rotating SPM	243.00 - 243.00
Total Distance (ft)	1699.00	Hours Sliding	7.92	Sliding SPM	242.00 - 242.00
Distance Rotated (ft)	1447.00	Hours Rotating	14.83	Motor RPM	150.00 - 175.00
Distance Slid (ft)	252.00			Surface RPM	50.00 - 50.00
Inclination In	90.99			Flow Rate (gpm)	700.00 - 700.00
Inclination Out	91.52			On Bottom Pressure (psi)	4200.00 - 4500.00
Azimuth In	357.29	% Hours Rotating	65%	Off Bottom Pressure (psi)	3800.00 - 3800.00
Azimuth Out	0.72	% Hours Sliding	35%		
AVG Total ROP (ft/h)	74.68	% Distance Sliding	15%		
AVG Rotating ROP (ft/h)	97.55	% Distance Rotating	85%		
AVG Sliding ROP (ft/h)	31.83				

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #7 - 8.75" LATERAL

Date In: Jan 8, 2022, 7:00 Date Out: Jan 15, 2022, 10:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08
Vendor	REED	Lobe/Stage	7/8, 6.1	
S/N	A283089	Bend Angle	1.75	
Nozzles	6x15's	Speed (rev/gal)	0.25	MWD Comments
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230	
Drilling Hours for Day	22.75	Bit Distances		
Total Drilled for Day (ft)	1699.00	Survey: 63.00 ft, Gamma: 39.00 ft,		
Drilling Hours for BHA	116.50	Resistivity: 50.00 ft		POOH Reason
Total Drilled for BHA (ft)	7603.00			Total Depth/Casing Point

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	REED	A283089	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: Bico 7" SSS100 Fixed @ 1.75 True Slick, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: 22 STDS 5" DP, Type: Slick	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: EverDRL54 Pin x 4 1/2 IF Box X-Over Sub, Material: Steel	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: NOV AGITATOR w/1.85 Plate Size, Size (in): 6.75	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: 4 1/2 IF (P) X EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

## 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	01-08	23:25	00:15	01-09	12503.00	12593.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	00:15	00:20	01-09	12593.00	12593.00	Inclination (°): 90.990, Azimuth (°): 357.290, TVD (ft): 11318.74, Dogleg (°/100 ft): 0.11, Sensor Depth (ft): 12530.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	00:20	01:00	01-09	12593.00	12682.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	01:00	01:05	01-09	12682.00	12682.00	Inclination (°): 91.030, Azimuth (°): 357.290, TVD (ft): 11317.17, Dogleg (°/100 ft): 0.04, Sensor Depth (ft): 12619.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	01:05	01:20	01-09	12682.00	12702.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Circulating	3	01-09	01:20	01:40	01-09			Downlink MWD Tool
Rotary Drill	1	01-09	01:40	02:10	01-09	12702.00	12772.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	02:10	02:15	01-09	12772.00	12772.00	Inclination (°): 91.380, Azimuth (°): 356.850, TVD (ft): 11315.28, Dogleg (°/100 ft): 0.62, Sensor Depth (ft): 12709.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	02:15	02:50	01-09	12772.00	12861.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	02:50	02:55	01-09	12861.00	12861.00	Inclination (°): 92.260, Azimuth (°): 355.880, TVD (ft): 11312.45, Dogleg (°/100 ft): 1.47, Sensor Depth (ft): 12798.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	02:55	03:00	01-09	12861.00	12866.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-09	03:00	04:00	01-09	12866.00	12901.00	Toolface: 120, Toolface Type: gravity
Rotary Drill	1	01-09	04:00	04:25	01-09	12901.00	12951.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	04:25	04:30	01-09	12951.00	12951.00	Inclination (°): 91.740, Azimuth (°): 357.990, TVD (ft): 11309.31, Dogleg (°/100 ft): 2.41, Sensor Depth (ft): 12888.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	04:30	05:15	01-09	12951.00	13040.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	05:15	05:20	01-09	13040.00	13040.00	Inclination (°): 92.000, Azimuth (°): 358.520, TVD (ft): 11306.40, Dogleg (°/100 ft): 0.66, Sensor Depth (ft): 12977.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	05:20	06:00	01-09	13040.00	13129.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	06:00	06:05	01-09	13129.00	13129.00	Inclination (°): 92.970, Azimuth (°): 357.730, TVD (ft): 11302.54, Dogleg (°/100 ft): 1.41, Sensor Depth (ft): 13066.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	06:05	06:10	01-09	13129.00	13134.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-09	06:10	07:05	01-09	13134.00	13169.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 242, Toolface: 140, Toolface Type: gravity
Rotary Drill	1	01-09	07:05	07:20	01-09	13169.00	13218.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	07:20	07:25	01-09	13218.00	13218.00	Inclination (°): 92.310, Azimuth (°): 358.350, TVD (ft): 11298.44, Dogleg (°/100 ft): 1.02, Sensor Depth (ft): 13155.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	07:25	07:30	01-09	13218.00	13223.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-09	07:30	07:45	01-09	13223.00	13240.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 242, Toolface: 140, Toolface Type: gravity
Rotary Drill	1	01-09	07:45	08:10	01-09	13240.00	13308.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	08:10	08:15	01-09	13308.00	13308.00	Inclination (°): 91.380, Azimuth (°): 1.250, TVD (ft): 11295.55, Dogleg (°/100 ft): 3.38, Sensor Depth (ft): 13245.00, Bit To Sensor (ft): 63.00

Slide Drill	2	01-09	08:15	08:50	01-09	13308.00	13338.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 242, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	01-09	08:50	09:15	01-09	13338.00	13397.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	09:15	09:20	01-09	13397.00	13397.00	Inclination (°): 88.000, Azimuth (°): 1.250, TVD (ft): 11296.03, Dogleg (°/100 ft): 3.80, Sensor Depth (ft): 13334.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	09:20	10:00	01-09	13397.00	13486.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	10:00	10:05	01-09	13486.00	13486.00	Inclination (°): 88.840, Azimuth (°): 0.810, TVD (ft): 11298.48, Dogleg (°/100 ft): 1.07, Sensor Depth (ft): 13423.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	10:05	11:15	01-09	13486.00	13575.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	11:15	11:20	01-09	13575.00	13575.00	Inclination (°): 90.070, Azimuth (°): 0.190, TVD (ft): 11299.33, Dogleg (°/100 ft): 1.55, Sensor Depth (ft): 13512.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-09	11:20	11:45	01-09	13575.00	13585.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 242, Toolface: 20, Toolface Type: gravity
Rotary Drill	1	01-09	11:45	12:15	01-09	13585.00	13664.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	12:15	12:20	01-09	13664.00	13664.00	Inclination (°): 91.380, Azimuth (°): 358.870, TVD (ft): 11298.20, Dogleg (°/100 ft): 2.09, Sensor Depth (ft): 13601.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	12:20	12:25	01-09	13664.00	13675.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-09	12:25	12:50	01-09	13675.00	13690.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 242, Toolface: 35, Toolface Type: gravity
Rotary Drill	1	01-09	12:50	13:15	01-09	13690.00	13753.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	13:15	13:20	01-09	13753.00	13753.00	Inclination (°): 93.010, Azimuth (°): 358.430, TVD (ft): 11294.79, Dogleg (°/100 ft): 1.90, Sensor Depth (ft): 13690.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	13:20	14:05	01-09	13753.00	13843.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	14:05	14:10	01-09	13843.00	13843.00	Inclination (°): 94.070, Azimuth (°): 358.700, TVD (ft): 11289.24, Dogleg (°/100 ft): 1.22, Sensor Depth (ft): 13780.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-09	14:10	15:35	01-09	13843.00	13933.00	Pressure On (psi): 4500.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	15:35	15:40	01-09	13933.00	13933.00	Inclination (°): 94.640, Azimuth (°): 357.730, TVD (ft): 11282.40, Dogleg (°/100 ft): 1.25, Sensor Depth (ft): 13870.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-09	15:40	16:55	01-09	13933.00	13968.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 60.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 242, Toolface: 145, Toolface Type: gravity
Rotary Drill	1	01-09	16:55	18:15	01-09	13968.00	14022.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	18:15	18:20	01-09	14022.00	14022.00	Inclination (°): 93.050, Azimuth (°): 359.400, TVD (ft): 11276.43, Dogleg (°/100 ft): 2.59, Sensor Depth (ft): 13959.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-09	18:20	19:55	01-09	14022.00	14057.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 60.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 242, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-09	19:55	21:25	01-09	14057.00	14112.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-09	21:25	21:30	01-09	14112.00	14112.00	Inclination (°): 91.520, Azimuth (°): 0.720, TVD (ft): 11272.85, Dogleg (°/100 ft): 2.24, Sensor Depth (ft): 14049.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-09	21:30	23:00	01-09	14112.00	14152.00	Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-09	23:00	00:00	01-10	14152.00	14202.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00

**MWD Activities**





<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Monday, Jan 10 00:00 - 23:59 (Day 11 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	14202.00	Downhole Hours	24.00	Rotating WOB (klbs)	48.00 - 48.00		
Bit Depth (ft)	15542.00	Drilling Hours	22.17	Sliding WOB (klbs)	50.00 - 50.00		
Bottom Hole Depth (ft)	15542.00	Hours Circulating	0.00	Rotating SPM	243.00 - 243.00		
Total Distance (ft)	1355.00	Hours Sliding	4.92	Sliding SPM	240.00 - 240.00		
Distance Rotated (ft)	1225.00	Hours Rotating	17.25	Motor RPM	150.00 - 175.00		
Distance Slid (ft)	130.00			Surface RPM	50.00 - 50.00		
Inclination In	90.46			Flow Rate (gpm)	700.00 - 700.00		
Inclination Out	88.97			On Bottom Pressure (psi)	4200.00 - 4600.00		
Azimuth In	2.56	% Hours Rotating	78%	Off Bottom Pressure (psi)	3800.00 - 3800.00		
Azimuth Out	357.12	% Hours Sliding	22%				
AVG Total ROP (ft/h)	61.40	% Distance Sliding	10%				
AVG Rotating ROP (ft/h)	70.25	% Distance Rotating	90%				
AVG Sliding ROP (ft/h)	26.44						

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #7 - 8.75" LATERAL

Date In: Jan 8, 2022, 7:00 Date Out: Jan 15, 2022, 10:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A283089	Bend Angle	1.75		
Nozzles	6x15's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230		
Drilling Hours for Day	22.17	Bit Distances			
Total Drilled for Day (ft)	1340.00	Survey: 63.00 ft, Gamma: 39.00 ft,		POOH Reason	
Drilling Hours for BHA	116.50	Resistivity: 50.00 ft		Total Depth/Casing Point	
Total Drilled for BHA (ft)	7603.00				

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	REED	A283089	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: Bico 7" SSS100 Fixed @ 1.75 True Slick, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: 22 STDS 5" DP, Type: Slick	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: EverDRL54 Pin x 4 1/2 IF Box X-Over Sub, Material: Steel	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: NOV AGITATOR w/1.85 Plate Size, Size (in): 6.75	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: 4 1/2 IF (P) X EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

## 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	01-09	23:00	00:00	01-10	14152.00	14202.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	00:00	00:05	01-10	14202.00	14202.00	Inclination (°): 90.460, Azimuth (°): 2.560, TVD (ft): 11271.29, Dogleg (°/100 ft): 2.36, Sensor Depth (ft): 14139.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	00:05	00:10	01-10	14202.00	14207.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-10	00:10	01:10	01-10	14207.00	14227.00	Toolface: 210, Toolface Type: gravity
Rotary Drill	1	01-10	01:10	03:00	01-10	14227.00	14291.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	03:00	03:05	01-10	14291.00	14291.00	Inclination (°): 87.690, Azimuth (°): 2.390, TVD (ft): 11272.73, Dogleg (°/100 ft): 3.12, Sensor Depth (ft): 14228.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	03:05	05:00	01-10	14291.00	14381.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	05:00	05:05	01-10	14381.00	14381.00	Inclination (°): 88.310, Azimuth (°): 2.300, TVD (ft): 11275.87, Dogleg (°/100 ft): 0.70, Sensor Depth (ft): 14318.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	05:05	06:40	01-10	14381.00	14470.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	06:40	06:45	01-10	14470.00	14470.00	Inclination (°): 87.340, Azimuth (°): 1.420, TVD (ft): 11279.25, Dogleg (°/100 ft): 1.47, Sensor Depth (ft): 14407.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	06:45	07:00	01-10	15454.00	15469.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Rotary Drill	1	01-10	07:00	07:25	01-10	14470.00	14560.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	07:25	07:30	01-10	14560.00	14560.00	Inclination (°): 86.590, Azimuth (°): 0.980, TVD (ft): 11284.01, Dogleg (°/100 ft): 0.97, Sensor Depth (ft): 14497.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	07:30	07:35	01-10	14560.00	14565.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-10	07:35	08:55	01-10	14565.00	14600.00	Toolface: 0, Toolface Type: gravity
Rotary Drill	1	01-10	08:55	09:50	01-10	14600.00	14649.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	09:50	09:55	01-10	14649.00	14649.00	Inclination (°): 88.620, Azimuth (°): 359.310, TVD (ft): 11287.73, Dogleg (°/100 ft): 2.95, Sensor Depth (ft): 14586.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	09:55	11:40	01-10	14649.00	14739.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	11:40	11:45	01-10	14739.00	14739.00	Inclination (°): 89.710, Azimuth (°): 358.960, TVD (ft): 11289.04, Dogleg (°/100 ft): 1.27, Sensor Depth (ft): 14676.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	11:45	12:50	01-10	14739.00	14828.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	12:50	12:55	01-10	14828.00	14828.00	Inclination (°): 92.000, Azimuth (°): 357.990, TVD (ft): 11287.71, Dogleg (°/100 ft): 2.79, Sensor Depth (ft): 14765.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	12:55	13:35	01-10	14828.00	14850.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-10	13:35	14:25	01-10	14850.00	14885.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 160, Toolface Type: gravity
Rotary Drill	1	01-10	14:25	14:50	01-10	14885.00	14917.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	14:50	14:55	01-10	14917.00	14917.00	Inclination (°): 91.650, Azimuth (°): 359.400, TVD (ft): 11284.88, Dogleg (°/100 ft): 1.63, Sensor Depth (ft): 14854.00, Bit To Sensor (ft): 63.00

Rotary Drill	1	01-10	14:55	15:00	01-10	14917.00	14927.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-10	15:00	15:30	01-10	14927.00	14947.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 50.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 175, Toolface Type: gravity
Rotary Drill	1	01-10	15:30	16:05	01-10	14947.00	15007.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	16:05	16:10	01-10	15007.00	15007.00	Inclination (°): 88.000, Azimuth (°): 0.980, TVD (ft): 11285.15, Dogleg (°/100 ft): 4.42, Sensor Depth (ft): 14944.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	16:10	17:15	01-10	15007.00	15096.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	17:15	17:20	01-10	15096.00	15096.00	Inclination (°): 87.960, Azimuth (°): 1.070, TVD (ft): 11288.29, Dogleg (°/100 ft): 0.11, Sensor Depth (ft): 15033.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	17:20	18:05	01-10	15096.00	15185.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	18:05	18:10	01-10	15185.00	15185.00	Inclination (°): 87.160, Azimuth (°): 0.280, TVD (ft): 11292.08, Dogleg (°/100 ft): 1.26, Sensor Depth (ft): 15122.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	18:10	18:55	01-10	15185.00	15275.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	18:55	19:00	01-10	15275.00	15275.00	Inclination (°): 86.590, Azimuth (°): 359.750, TVD (ft): 11296.99, Dogleg (°/100 ft): 0.86, Sensor Depth (ft): 15212.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	19:00	19:55	01-10	15275.00	15364.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	19:55	20:00	01-10	15364.00	15364.00	Inclination (°): 87.910, Azimuth (°): 359.140, TVD (ft): 11301.26, Dogleg (°/100 ft): 1.63, Sensor Depth (ft): 15301.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	20:00	21:15	01-10	15364.00	15454.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	21:15	21:20	01-10	15453.00	15453.00	Inclination (°): 86.460, Azimuth (°): 357.030, TVD (ft): 11305.63, Dogleg (°/100 ft): 2.87, Sensor Depth (ft): 15390.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	21:20	21:25	01-10	15454.00	15469.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-10	21:25	22:40	01-10	15469.00	15489.00	Toolface: 40, Toolface Type: gravity
Rotary Drill	1	01-10	22:40	23:25	01-10	15489.00	15542.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-10	23:25	23:30	01-10	15542.00	15542.00	Inclination (°): 88.970, Azimuth (°): 357.120, TVD (ft): 11309.18, Dogleg (°/100 ft): 2.82, Sensor Depth (ft): 15479.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-10	23:30	00:40	01-11	15542.00	15631.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Tuesday, Jan 11 00:00 - 23:59 (Day 12 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	15542.00	Downhole Hours	24.00	Rotating WOB (klbs)	48.00 - 48.00		
Bit Depth (ft)	16705.00	Drilling Hours	22.67	Sliding WOB (klbs)	10.00 - 60.00		
Bottom Hole Depth (ft)	16705.00	Hours Circulating	0.50	Rotating SPM	243.00 - 243.00		
Total Distance (ft)	1163.00	Hours Sliding	10.67	Sliding SPM	240.00 - 240.00		
Distance Rotated (ft)	892.00	Hours Rotating	12.00	Motor RPM	150.00 - 175.00		
Distance Slid (ft)	271.00			Surface RPM	50.00 - 50.00		
Inclination In	88.84			Flow Rate (gpm)	700.00 - 700.00		
Inclination Out	86.20			On Bottom Pressure (psi)	4200.00 - 4600.00		
Azimuth In	356.32	% Hours Rotating	53%	Off Bottom Pressure (psi)	3800.00 - 4000.00		
Azimuth Out	1.42	% Hours Sliding	47%				
AVG Total ROP (ft/h)	52.39	% Distance Sliding	23%				
AVG Rotating ROP (ft/h)	74.11	% Distance Rotating	77%				
AVG Sliding ROP (ft/h)	25.41						

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #7 - 8.75" LATERAL

Date In: Jan 8, 2022, 7:00 Date Out: Jan 15, 2022, 10:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A283089	Bend Angle	1.75		
Nozzles	6x15's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230		
Drilling Hours for Day	22.67	Bit Distances			
Total Drilled for Day (ft)	1163.00	Survey: 63.00 ft, Gamma: 39.00 ft,		POOH Reason	
Drilling Hours for BHA	116.50	Resistivity: 50.00 ft		Total Depth/Casing Point	
Total Drilled for BHA (ft)	7603.00				

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75</i>	REED	A283089	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>Bico 7" SSS100 Fixed @ 1.75 True Slick, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1</i>	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: <i>NMDC, Material: Non-Magnetic, Type: Slick Drill</i>	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: <i>X-O SUB, Material: Steel</i>	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: <i>22 STDS 5" DP, Type: Slick</i>	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: <i>EverDRL54 Pin x 4 1/2 IF Box X-Over Sub, Material: Steel</i>	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: <i>NOV AGITATOR w/1.85 Plate Size, Size (in): 6.75</i>	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: <i>4 1/2 IF (P) X EverDrlg 54 (B), Material: Steel</i>	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

## 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	01-10	23:30	00:40	01-11	15542.00	15631.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	00:40	00:45	01-11	15631.00	15631.00	Inclination (°): 88.840, Azimuth (°): 356.320, TVD (ft): 11310.88, Dogleg (°/100 ft): 0.91, Sensor Depth (ft): 15568.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	00:45	01:55	01-11	15631.00	15720.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	01:55	02:00	01-11	15720.00	15720.00	Inclination (°): 88.480, Azimuth (°): 356.410, TVD (ft): 11312.96, Dogleg (°/100 ft): 0.42, Sensor Depth (ft): 15657.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	02:00	02:15	01-11	15720.00	15725.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-11	02:15	03:15	01-11	15725.00	15755.00	Toolface: 70, Toolface Type: gravity
Rotary Drill	1	01-11	03:15	03:45	01-11	15755.00	15810.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	03:45	03:50	01-11	15810.00	15810.00	Inclination (°): 89.490, Azimuth (°): 357.820, TVD (ft): 11314.55, Dogleg (°/100 ft): 1.93, Sensor Depth (ft): 15747.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	03:50	04:45	01-11	15810.00	15899.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	04:45	04:50	01-11	15899.00	15899.00	Inclination (°): 90.990, Azimuth (°): 359.220, TVD (ft): 11314.18, Dogleg (°/100 ft): 2.31, Sensor Depth (ft): 15836.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	04:50	05:10	01-11	15899.00	15916.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-11	05:10	06:10	01-11	15916.00	15936.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 60.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-11	06:10	06:40	01-11	15936.00	15988.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	06:40	06:45	01-11	15988.00	15988.00	Inclination (°): 91.780, Azimuth (°): 359.840, TVD (ft): 11312.03, Dogleg (°/100 ft): 1.13, Sensor Depth (ft): 15925.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	06:45	06:55	01-11	15988.00	16005.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-11	06:55	07:45	01-11	16005.00	16036.00	Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-11	07:45	08:30	01-11	16036.00	16078.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	08:30	08:35	01-11	16078.00	16078.00	Inclination (°): 92.180, Azimuth (°): 1.690, TVD (ft): 11308.92, Dogleg (°/100 ft): 2.10, Sensor Depth (ft): 16015.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	08:35	08:45	01-11	16078.00	16095.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-11	08:45	09:40	01-11	16095.00	16127.00	Toolface: 170, Toolface Type: gravity
Rotary Drill	1	01-11	09:40	10:15	01-11	16127.00	16167.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	10:15	10:20	01-11	16167.00	16167.00	Inclination (°): 91.600, Azimuth (°): 3.000, TVD (ft): 11305.98, Dogleg (°/100 ft): 1.61, Sensor Depth (ft): 16104.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-11	10:20	12:05	01-11	16167.00	16210.00	Pressure On (psi): 4200.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 10.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 180, Toolface Type: gravity
Slide Drill	2	01-11	12:05	12:35	01-11	16210.00	16218.00	Not able to hold a TF Pressure On (psi): 4200.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 10.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	01-11	12:35	13:00	01-11	16218.00	16248.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-11	13:00	13:20	01-11	16248.00	16255.00	Pressure On (psi): 4200.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 10.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 200, Toolface Type: gravity

Rotary Drill	1	01-11	13:20	13:25	01-11	16255.00	16257.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	13:25	13:30	01-11	16257.00	16257.00	Inclination (°): 91.380, Azimuth (°): 2.390, TVD (ft): 11303.64, Dogleg (°/100 ft): 0.72, Sensor Depth (ft): 16194.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-11	13:30	15:00	01-11	16257.00	16297.00	Pressure On (psi): 4400.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 60.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	01-11	15:00	15:50	01-11	16297.00	16346.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	15:50	15:55	01-11	16346.00	16346.00	Inclination (°): 86.990, Azimuth (°): 3.880, TVD (ft): 11304.91, Dogleg (°/100 ft): 5.21, Sensor Depth (ft): 16283.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	15:55	16:50	01-11	16346.00	16436.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Circulating	3	01-11	16:50	17:20	01-11			Rig Service
Survey	46	01-11	17:20	17:25	01-11	16436.00	16436.00	Inclination (°): 87.960, Azimuth (°): 4.150, TVD (ft): 11308.87, Dogleg (°/100 ft): 1.12, Sensor Depth (ft): 16373.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-11	17:25	19:00	01-11	16436.00	16466.00	Toolface: 230, Toolface Type: gravity
Rotary Drill	1	01-11	19:00	20:05	01-11	16466.00	16526.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	20:05	20:10	01-11	16526.00	16526.00	Inclination (°): 88.040, Azimuth (°): 2.120, TVD (ft): 11312.01, Dogleg (°/100 ft): 2.26, Sensor Depth (ft): 16463.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	20:10	21:35	01-11	16526.00	16615.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	21:35	21:40	01-11	16615.00	16615.00	Inclination (°): 89.450, Azimuth (°): 1.510, TVD (ft): 11313.96, Dogleg (°/100 ft): 1.73, Sensor Depth (ft): 16552.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	21:40	21:45	01-11	16615.00	16620.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-11	21:45	23:00	01-11	16620.00	16650.00	Toolface: 160, Toolface Type: gravity
Rotary Drill	1	01-11	23:00	23:40	01-11	16650.00	16705.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-11	23:40	23:45	01-11	16705.00	16705.00	Inclination (°): 86.200, Azimuth (°): 1.420, TVD (ft): 11317.38, Dogleg (°/100 ft): 3.61, Sensor Depth (ft): 16642.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-11	23:45	01:00	01-12	16705.00	16795.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Wednesday, Jan 12 00:00 - 23:59 (Day 13 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	16705.00	Downhole Hours	24.00	Rotating WOB (klbs)	48.00 - 48.00		
Bit Depth (ft)	17689.00	Drilling Hours	16.08	Sliding WOB (klbs)	40.00 - 40.00		
Bottom Hole Depth (ft)	17689.00	Hours Circulating	0.00	Rotating SPM	239.00 - 243.00		
Total Distance (ft)	984.00	Hours Sliding	5.25	Sliding SPM	139.00 - 139.00		
Distance Rotated (ft)	854.00	Hours Rotating	10.83	Motor RPM	150.00 - 175.00		
Distance Slid (ft)	130.00			Surface RPM	50.00 - 50.00		
Inclination In	86.55			Flow Rate (gpm)	696.00 - 700.00		
Inclination Out	90.55			On Bottom Pressure (psi)	4400.00 - 4600.00		
Azimuth In	1.69	% Hours Rotating	67%	Off Bottom Pressure (psi)	3800.00 - 3900.00		
Azimuth Out	356.68	% Hours Sliding	33%				
AVG Total ROP (ft/h)	61.18	% Distance Sliding	13%				
AVG Rotating ROP (ft/h)	78.83	% Distance Rotating	87%				
AVG Sliding ROP (ft/h)	24.76						

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #7 - 8.75" LATERAL

Date In: Jan 8, 2022, 7:00 Date Out: Jan 15, 2022, 10:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A283089	Bend Angle	1.75		
Nozzles	6x15's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230		
Drilling Hours for Day	16.08	Bit Distances			
Total Drilled for Day (ft)	984.00	Survey: 63.00 ft, Gamma: 39.00 ft,		POOH Reason	
Drilling Hours for BHA	116.50	Resistivity: 50.00 ft		Total Depth/Casing Point	
Total Drilled for BHA (ft)	7603.00				

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	REED	A283089	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: Bico 7" SSS100 Fixed @ 1.75 True Slick, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: 22 STDS 5" DP, Type: Slick	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: EverDRL54 Pin x 4 1/2 IF Box X-Over Sub, Material: Steel	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: NOV AGITATOR w/1.85 Plate Size, Size (in): 6.75	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: 4 1/2 IF (P) X EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

## 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	01-11	23:45	01:00	01-12	16705.00	16795.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-12	01:00	01:05	01-12	16795.00	16795.00	Inclination (°): 86.550, Azimuth (°): 1.690, TVD (ft): 11323.07, Dogleg (°/100 ft): 0.49, Sensor Depth (ft): 16732.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-12	01:05	02:00	01-12	16795.00	16884.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-12	02:00	02:05	01-12	16884.00	16884.00	Inclination (°): 86.330, Azimuth (°): 0.980, TVD (ft): 11328.60, Dogleg (°/100 ft): 0.83, Sensor Depth (ft): 16821.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-12	02:05	03:10	01-12	16884.00	16974.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-12	03:10	03:15	01-12	16974.00	16974.00	Inclination (°): 86.330, Azimuth (°): 359.400, TVD (ft): 11334.36, Dogleg (°/100 ft): 1.75, Sensor Depth (ft): 16911.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-12	03:15	04:15	01-12	16974.00	17063.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-12	04:15	04:30	01-12	17063.00	17063.00	Inclination (°): 85.450, Azimuth (°): 358.260, TVD (ft): 11340.74, Dogleg (°/100 ft): 1.62, Sensor Depth (ft): 17000.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-12	04:30	04:50	01-12	17063.00	17075.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 30, Toolface Type: gravity
Rotary Drill	1	01-12	04:50	06:00	01-12	17075.00	17153.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-12	06:00	06:05	01-12	17153.00	17153.00	Inclination (°): 86.810, Azimuth (°): 357.820, TVD (ft): 11346.81, Dogleg (°/100 ft): 1.59, Sensor Depth (ft): 17090.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-12	06:05	06:15	01-12	17153.00	17165.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-12	06:15	07:30	01-12	17165.00	17196.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 50, Toolface Type: gravity
Rotary Drill	1	01-12	07:30	08:35	01-12	17196.00	17242.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-12	08:35	08:40	01-12	17242.00	17242.00	Inclination (°): 88.180, Azimuth (°): 358.350, TVD (ft): 11350.70, Dogleg (°/100 ft): 1.65, Sensor Depth (ft): 17179.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-12	08:40	09:40	01-12	17242.00	17332.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-12	09:40	09:45	01-12	17332.00	17332.00	Inclination (°): 88.880, Azimuth (°): 357.640, TVD (ft): 11353.01, Dogleg (°/100 ft): 1.11, Sensor Depth (ft): 17269.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-12	09:45	09:55	01-12	17332.00	17345.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-12	09:55	10:50	01-12	17345.00	17365.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 40, Toolface Type: gravity
Rotary Drill	1	01-12	10:50	11:30	01-12	17365.00	17421.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Other	16	01-12	11:30	11:50	01-12			Downlinl Res/ MWD tool
Survey	46	01-12	11:50	11:55	01-12	17421.00	17421.00	Inclination (°): 89.410, Azimuth (°): 356.410, TVD (ft): 11354.34, Dogleg (°/100 ft): 1.50, Sensor Depth (ft): 17358.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-12	11:55	12:05	01-12	17421.00	17435.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-12	12:05	13:40	01-12	17435.00	17467.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 115, Toolface Type: gravity
Rotary Drill	1	01-12	13:40	14:10	01-12	17467.00	17511.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-12	14:10	14:15	01-12	17511.00	17511.00	Inclination (°): 90.290, Azimuth (°): 356.590, TVD (ft): 11354.57, Dogleg (°/100 ft): 1.00, Sensor Depth (ft): 17448.00, Bit To Sensor (ft): 63.00

Rotary Drill	1	01-12	14:15	15:15	01-12	17511.00	17600.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-12	15:15	15:20	01-12	17600.00	17600.00	Inclination (°): 90.550, Azimuth (°): 356.680, TVD (ft): 11353.92, Dogleg (°/100 ft): 0.31, Sensor Depth (ft): 17537.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-12	15:20	15:30	01-12	17600.00	17612.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-12	15:30	16:40	01-12	17612.00	17647.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 105, Toolface Type: gravity
Rotary Drill	1	01-12	16:40	17:10	01-12	17647.00	17689.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Other	16	01-12	17:10	04:55	01-13			Work On Top Drive

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Thursday, Jan 13 00:00 - 23:59 (Day 14 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	17689.00	Downhole Hours	24.00	Rotating WOB (klbs)	48.00 - 48.00
Bit Depth (ft)	18853.00	Drilling Hours	17.00	Sliding WOB (klbs)	40.00 - 40.00
Bottom Hole Depth (ft)	18853.00	Hours Circulating	0.00	Rotating SPM	239.00 - 239.00
Total Distance (ft)	1164.00	Hours Sliding	6.25	Sliding SPM	139.00 - 139.00
Distance Rotated (ft)	971.00	Hours Rotating	10.75	Motor RPM	150.00 - 175.00
Distance Slid (ft)	193.00			Surface RPM	50.00 - 50.00
Inclination In	89.85			Flow Rate (gpm)	696.00 - 696.00
Inclination Out	89.01			On Bottom Pressure (psi)	4400.00 - 4600.00
Azimuth In	357.20	% Hours Rotating	63%	Off Bottom Pressure (psi)	3900.00 - 4000.00
Azimuth Out	359.66	% Hours Sliding	37%		
AVG Total ROP (ft/h)	68.71	% Distance Sliding	17%		
AVG Rotating ROP (ft/h)	88.42	% Distance Rotating	83%		
AVG Sliding ROP (ft/h)	30.88				

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #7 - 8.75" LATERAL

Date In: Jan 8, 2022, 7:00 Date Out: Jan 15, 2022, 10:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08
Vendor	REED	Lobe/Stage	7/8, 6.1	
S/N	A283089	Bend Angle	1.75	
Nozzles	6x15's	Speed (rev/gal)	0.25	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230	MWD Comments
Drilling Hours for Day	17.00	<b>Bit Distances</b>		
Total Drilled for Day (ft)	1164.00	Survey: 63.00 ft, Gamma: 39.00 ft,		
Drilling Hours for BHA	116.50	Resistivity: 50.00 ft		POOH Reason
Total Drilled for BHA (ft)	7603.00			Total Depth/Casing Point

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	REED	A283089	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: Bico 7" SSS100 Fixed @ 1.75 True Slick, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: 22 STDS 5" DP, Type: Slick	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: EverDRL54 Pin x 4 1/2 IF Box X-Over Sub, Material: Steel	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: NOV AGITATOR w/1.85 Plate Size, Size (in): 6.75	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: 4 1/2 IF (P) X EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

## MWD Items

No Items

## Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Other	16	01-12	17:10	04:55	01-13			Work On Top Drive
Survey	46	01-13	04:55	05:00	01-13	17689.00	17689.00	Inclination (°): 89.850, Azimuth (°): 357.200, TVD (ft): 11353.61, Dogleg (°/100 ft): 0.98, Sensor Depth (ft): 17626.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	05:00	05:05	01-13	17689.00	17697.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-13	05:05	06:05	01-13	17697.00	17732.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 110, Toolface Type: gravity
Rotary Drill	1	01-13	06:05	06:30	01-13	17732.00	17779.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	06:30	06:35	01-13	17779.00	17779.00	Inclination (°): 89.800, Azimuth (°): 0.370, TVD (ft): 11353.88, Dogleg (°/100 ft): 3.52, Sensor Depth (ft): 17716.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	06:35	07:20	01-13	17779.00	17868.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	07:20	07:25	01-13	17868.00	17868.00	Inclination (°): 89.930, Azimuth (°): 0.540, TVD (ft): 11354.09, Dogleg (°/100 ft): 0.24, Sensor Depth (ft): 17805.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	07:25	08:10	01-13	17868.00	17958.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	08:10	08:15	01-13	17958.00	17958.00	Inclination (°): 89.580, Azimuth (°): 359.400, TVD (ft): 11354.48, Dogleg (°/100 ft): 1.33, Sensor Depth (ft): 17895.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	08:15	09:00	01-13	17958.00	18047.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	09:00	09:05	01-13	18047.00	18047.00	Inclination (°): 90.330, Azimuth (°): 357.640, TVD (ft): 11354.55, Dogleg (°/100 ft): 2.15, Sensor Depth (ft): 17984.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	09:05	09:15	01-13	18047.00	18059.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Other	16	01-13	09:15	09:45	01-13			Troubleshoot communication issue with MWD surface equip
Slide Drill	2	01-13	09:45	10:35	01-13	18059.00	18087.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 140, Toolface Type: gravity
Rotary Drill	1	01-13	10:35	11:00	01-13	18087.00	18136.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	11:00	11:05	01-13	18136.00	18136.00	Inclination (°): 89.010, Azimuth (°): 358.080, TVD (ft): 11355.06, Dogleg (°/100 ft): 1.56, Sensor Depth (ft): 18073.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	11:05	11:15	01-13	18136.00	18148.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-13	11:15	12:05	01-13	18148.00	18183.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 110, Toolface Type: gravity
Rotary Drill	1	01-13	12:05	12:50	01-13	18183.00	18226.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	12:50	12:55	01-13	18226.00	18226.00	Inclination (°): 91.210, Azimuth (°): 1.070, TVD (ft): 11354.89, Dogleg (°/100 ft): 4.12, Sensor Depth (ft): 18163.00, Bit To Sensor (ft): 63.00
Slide Drill	2	01-13	12:55	14:15	01-13	18226.00	18256.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-13	14:15	15:05	01-13	18256.00	18315.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	15:05	15:10	01-13	18315.00	18315.00	Inclination (°): 88.970, Azimuth (°): 2.740, TVD (ft): 11354.75, Dogleg (°/100 ft): 3.14, Sensor Depth (ft): 18252.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	15:10	15:20	01-13	18315.00	18322.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-13	15:20	16:05	01-13	18322.00	18342.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 195, Toolface Type: gravity

Rotary Drill	1	01-13	16:05	16:35	01-13	18342.00	18405.00	Pressure On (psi): 4600.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 23500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	16:35	16:40	01-13	18405.00	18405.00	Inclination (°): 86.640, Azimuth (°): 2.300, TVD (ft): 11358.20, Dogleg (°/100 ft): 2.63, Sensor Depth (ft): 18342.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	16:40	17:25	01-13	18405.00	18495.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	17:25	17:30	01-13	18495.00	18495.00	Inclination (°): 87.430, Azimuth (°): 1.160, TVD (ft): 11362.85, Dogleg (°/100 ft): 1.54, Sensor Depth (ft): 18432.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	17:30	18:25	01-13	18495.00	18584.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	18:25	18:30	01-13	18584.00	18584.00	Inclination (°): 85.980, Azimuth (°): 0.190, TVD (ft): 11367.97, Dogleg (°/100 ft): 1.96, Sensor Depth (ft): 18521.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	18:30	19:50	01-13	18584.00	18674.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	19:50	19:55	01-13	18674.00	18674.00	Inclination (°): 85.450, Azimuth (°): 0.630, TVD (ft): 11374.69, Dogleg (°/100 ft): 0.76, Sensor Depth (ft): 18611.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	19:55	20:05	01-13	18674.00	18684.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-13	20:05	21:00	01-13	18684.00	18704.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	01-13	21:00	22:00	01-13	18704.00	18764.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	22:00	22:05	01-13	18764.00	18764.00	Inclination (°): 86.900, Azimuth (°): 359.930, TVD (ft): 11380.70, Dogleg (°/100 ft): 1.79, Sensor Depth (ft): 18701.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	22:05	22:15	01-13	18764.00	18774.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-13	22:15	22:50	01-13	18774.00	18799.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 20, Toolface Type: gravity
Rotary Drill	1	01-13	22:50	23:30	01-13	18799.00	18853.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-13	23:30	23:35	01-13	18853.00	18853.00	Inclination (°): 89.010, Azimuth (°): 359.660, TVD (ft): 11383.87, Dogleg (°/100 ft): 2.39, Sensor Depth (ft): 18790.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-13	23:35	00:50	01-14	18853.00	18943.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Friday, Jan 14 00:00 - 23:59 (Day 15 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	18853.00	Downhole Hours	24.00	Rotating WOB (klbs)	48.00 - 48.00		
Bit Depth (ft)	19330.00	Drilling Hours	7.00	Sliding WOB (klbs)	40.00 - 40.00		
Bottom Hole Depth (ft)	19330.00	Hours Circulating	5.67	Rotating SPM	239.00 - 239.00		
Total Distance (ft)	477.00	Hours Sliding	0.50	Sliding SPM	139.00 - 139.00		
Distance Rotated (ft)	459.00	Hours Rotating	6.50	Motor RPM	150.00 - 175.00		
Distance Slid (ft)	18.00			Surface RPM	50.00 - 50.00		
Inclination In	89.67			Flow Rate (gpm)	696.00 - 696.00		
Inclination Out	91.91			On Bottom Pressure (psi)	4400.00 - 4600.00		
Azimuth In	358.61	% Hours Rotating	93%	Off Bottom Pressure (psi)	3900.00 - 4000.00		
Azimuth Out	355.45	% Hours Sliding	7%				
AVG Total ROP (ft/h)	68.14	% Distance Sliding	4%				
AVG Rotating ROP (ft/h)	70.62	% Distance Rotating	96%				
AVG Sliding ROP (ft/h)	36.00						

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #7 - 8.75" LATERAL

Date In: Jan 8, 2022, 7:00 Date Out: Jan 15, 2022, 10:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A283089	Bend Angle	1.75		
Nozzles	6x15's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230		
Drilling Hours for Day	7.00	Bit Distances			
Total Drilled for Day (ft)	477.00	Survey: 63.00 ft, Gamma: 39.00 ft,		POOH Reason	
Drilling Hours for BHA	116.50	Resistivity: 50.00 ft		Total Depth/Casing Point	
Total Drilled for BHA (ft)	7603.00				

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC76</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>4.00</i> , Size (in): <i>8.75</i>	REED	A283089	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>Bico 7" SSS100 Fixed @ 1.75 True Slick</i> , Size (in): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>6.1</i>	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: <i>NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: <i>22 STDS 5" DP</i> , Type: <i>Slick</i>	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: <i>EverDRL54 Pin x 4 1/2 IF Box X-Over Sub</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: <i>NOV AGITATOR w/1.85 Plate Size</i> , Size (in): <i>6.75</i>	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: <i>4 1/2 IF (P) X EverDrlg 54 (B)</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

## 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	01-13	23:35	00:50	01-14	18853.00	18943.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-14	00:50	00:55	01-14	18943.00	18943.00	Inclination (°): 89.670, Azimuth (°): 358.610, TVD (ft): 11384.91, Dogleg (°/100 ft): 1.38, Sensor Depth (ft): 18880.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-14	00:55	01:05	01-14	18943.00	18953.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Slide Drill	2	01-14	01:05	01:35	01-14	18953.00	18971.00	Pressure On (psi): 4400.00, Pressure Off (psi): 3900.00, Weight On Bit (klbs): 40.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 139, Toolface: 50, Toolface Type: gravity
Rotary Drill	1	01-14	01:35	02:30	01-14	18971.00	19032.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-14	02:30	02:35	01-14	19032.00	19032.00	Inclination (°): 90.150, Azimuth (°): 357.200, TVD (ft): 11385.05, Dogleg (°/100 ft): 1.67, Sensor Depth (ft): 18969.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-14	02:35	03:50	01-14	19032.00	19122.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-14	03:50	03:55	01-14	19122.00	19122.00	Inclination (°): 90.770, Azimuth (°): 356.590, TVD (ft): 11384.33, Dogleg (°/100 ft): 0.97, Sensor Depth (ft): 19059.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-14	03:55	05:20	01-14	19122.00	19212.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-14	05:20	05:25	01-14	19212.00	19212.00	Inclination (°): 90.680, Azimuth (°): 355.970, TVD (ft): 11383.19, Dogleg (°/100 ft): 0.70, Sensor Depth (ft): 19149.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-14	05:25	06:35	01-14	19212.00	19301.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-14	06:35	06:40	01-14	19301.00	19301.00	Inclination (°): 92.040, Azimuth (°): 355.710, TVD (ft): 11381.07, Dogleg (°/100 ft): 1.56, Sensor Depth (ft): 19238.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	01-14	06:40	07:00	01-14	19301.00	19330.00	Pressure On (psi): 4600.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 48.00, Surface RPM: 50, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 239.00
Survey	46	01-14	07:00	07:05	01-14	19330.00	19330.00	Inclination (°): 91.910, Azimuth (°): 355.450, TVD (ft): 11380.07, Dogleg (°/100 ft): 1.00, Sensor Depth (ft): 19267.00, Bit To Sensor (ft): 63.00
Circulating	3	01-14	07:05	11:00	01-14			Circulate @ TD
Pooh	7	01-14	11:00	15:30	01-14			POOH - TD of well . Work thru Tight spots
Circulating	3	01-14	15:30	17:15	01-14			Circulate & Condition
Pooh	7	01-14	17:15	08:30	01-15			POOH To BHA
<b>MWD Activities</b>								
No Activities								



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Saturday, Jan 15 00:00 - 23:59 (Day 16 of 17)

Billing: \$9,500.00 (\$156,865.75 total)

Drilling Summary		Drilling Parameters	
Start Depth (ft)	Downhole Hours	10.00	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
Distance Rotated (ft)	0.00	Hours Rotating	0.00
Distance Slid (ft)	0.00	Motor RPM	150.00 - 175.00
Inclination In		Surface RPM	
Inclination Out		Flow Rate (gpm)	
Azimuth In	% Hours Rotating	On Bottom Pressure (psi)	
Azimuth Out	% Hours Sliding	Off Bottom Pressure (psi)	
AVG Total ROP (ft/h)	0.00	% Distance Sliding	
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating	
AVG Sliding ROP (ft/h)	0.00		

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	MWD Engineer

## BHA #7 - 8.75" LATERAL

Date In: Jan 8, 2022, 7:00 Date Out: Jan 15, 2022, 10:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	Bico 7" SSS100 7/8 6.1 1.75 BTB 300-700 GPM's, Rev.25, Max Diff = 1800, Max Torque =17100, Bit Runs = 0, Bit to Bend = 4.08
Vendor	REED	Lobe/Stage	7/8, 6.1	
S/N	A283089	Bend Angle	1.75	
Nozzles	6x15's	Speed (rev/gal)	0.25	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.230	MWD Comments
Drilling Hours for Day	0.00	Bit Distances		POOH Reason Total Depth/Casing Point
Total Drilled for Day (ft)		Survey: 63.00 ft, Gamma: 39.00 ft,		
Drilling Hours for BHA	116.50	Resistivity: 50.00 ft		
Total Drilled for BHA (ft)	7603.00			

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	REED	A283089	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: Bico 7" SSS100 Fixed @ 1.75 True Slick, Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0072	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.22	31.22
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1009						31.43	62.65
<b>Battery</b> Description: BATTERY	Bench Tree	B6008X						17.27	79.92
<b>Drill Collar</b> Description: NMDC, Material: Non-Magnetic, Type: Slick Drill	GATOR	67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.750		29.44	109.36
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13750	EverDrlg54 Box	4 1/2" IF Pin	3.125	6.610		3.55	112.91
<b>Drill Pipe</b> Description: 22 STDS 5" DP, Type: Slick	Rig		EverDrlg54 Box	EverDrlg54 Pin	2.500	5.000		1969.32	2082.23
<b>Crossover Sub</b> Description: EverDRL54 Pin x 4 1/2 IF Box X-Over Sub, Material: Steel	BLACK DIAMOND	BD22522	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.750		3.44	2085.67
<b>Agitator</b> Description: NOV AGITATOR w/1.85 Plate Size, Size (in): 6.75	NOV	AGHF0675-0018	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.71	2110.38
<b>Crossover Sub</b> Description: 4 1/2 IF (P) X EverDrlg 54 (B), Material: Steel	BLACK DIAMOND	BD11961	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.41	2113.79

## 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	01-14	17:15	08:30	01-15			POOH To BHA
Lay Down BHA	65	01-15	08:30	10:00	01-15			L/D BHA #7
Standby	15	01-15	10:00	23:00	01-16			Standby Run And Cement Production Casing, Rig Skid To 551 H

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-181	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-22	<b>Well Name</b> Anderson Fed Com 552H	<b>Legal Well Name   AFE</b> Anderson Fed Com 552H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Sunday, Jan 16 00:00 - 23:59 (Day 17 of 17)**

**Billing: \$3,200.00 (\$156,865.75 total)**

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

**Personnel**

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Francisco DeLeon	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	01-15	10:00	23:00	01-16			Standby Run And Cement Production Casing, Rig Skid To 551 H

**MWD Activities**

No Activities



# Surface Plat

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## **Anderson Fed Com 552H (WT-21-181)**

2021-11-22 to 2022-01-16

Lea, New Mexico, US (32.43, -103.65)

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**DISTRICT I**  
1825 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) 476-3480 Fax: (505) 476-3482

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised August 4, 2011

Submit one copy to appropriate  
District Office

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

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number	Pool Code	Pool Name
Property Code	Property Name ANDERSON FED COM	Well Number 552H
OGRID No.	Operator Name ADVANCE ENERGY PARTNERS HAT MESA, LLC	Elevation 3690'

Surface Location

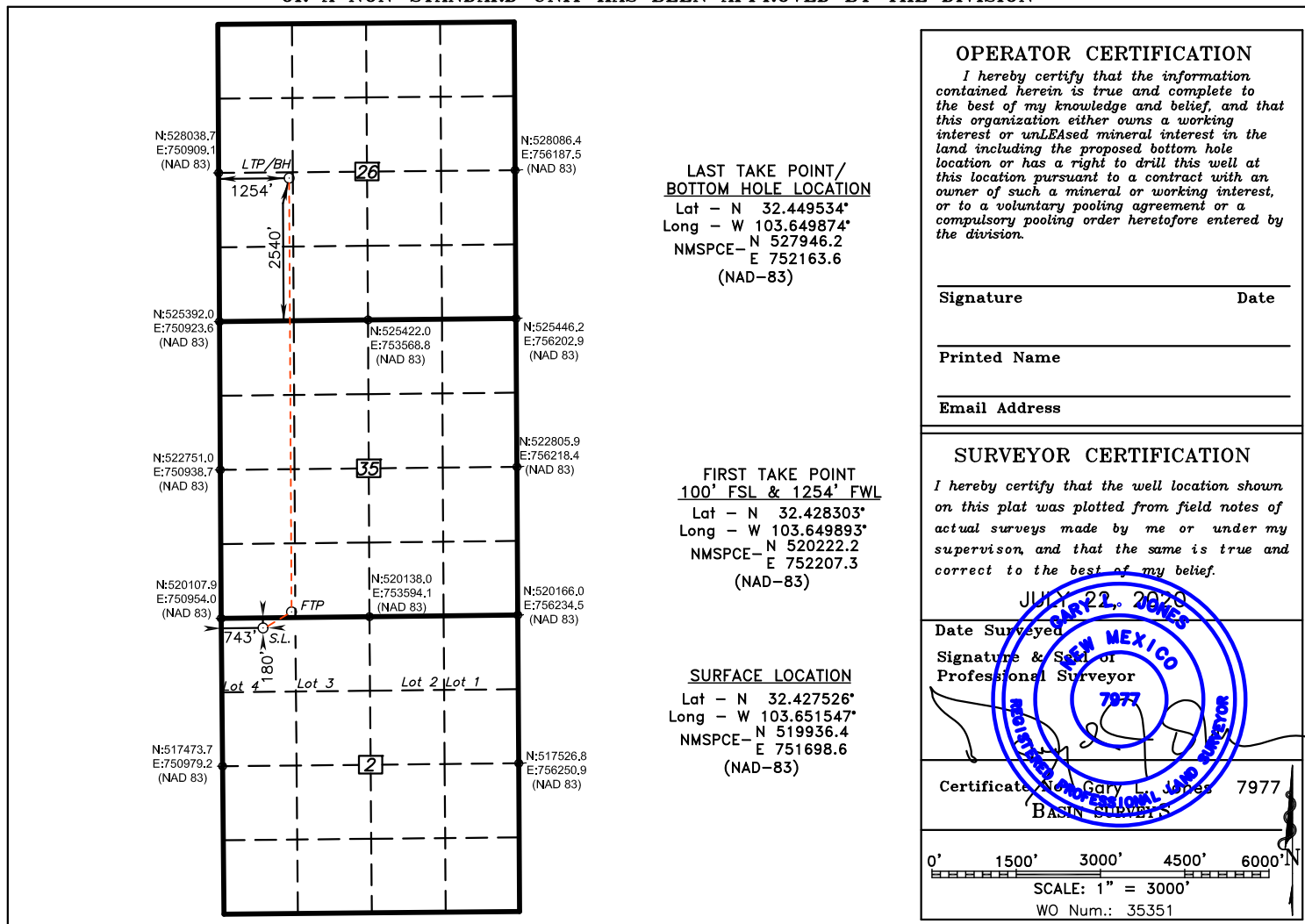
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 4	2	22 S	32 E		180	NORTH	743	WEST	LEA

Bottom Hole Location If Different From Surface

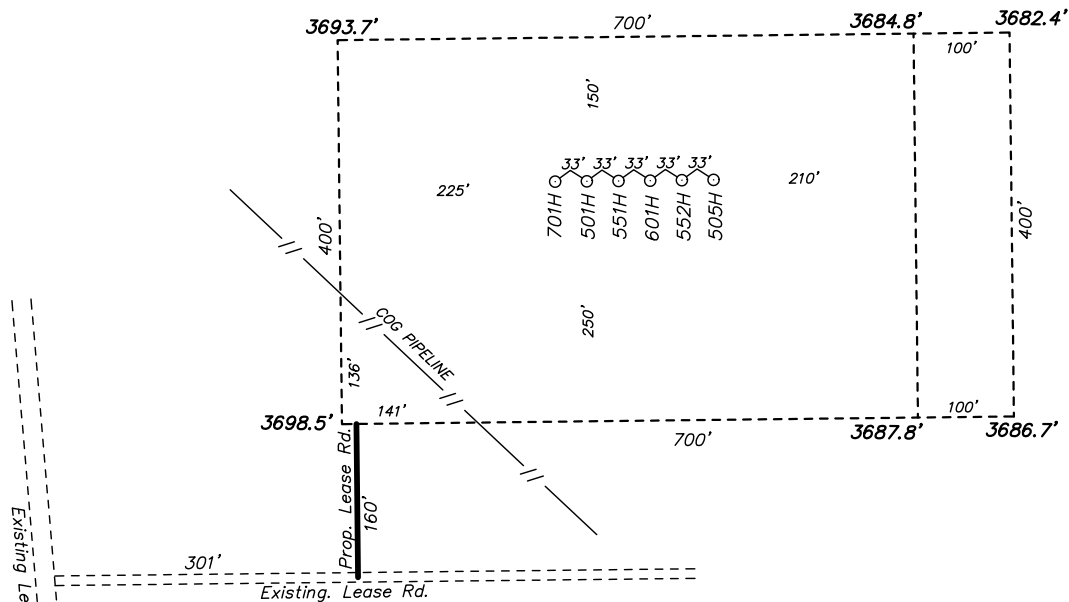
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
L	26	21 S	32 E		2540	SOUTH	1254	WEST	LEA

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

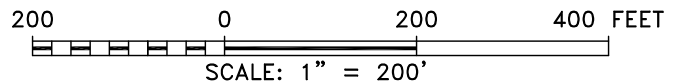


**SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,  
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA, LLC  
ANDERSON FED COM 552H  
ELEV. - 3690'**  
 Lat - N 32.427526°  
 Long - W 103.651547°  
 NMSPCE - N 519936.4  
 E 751698.6  
 (NAD-83)

EUNICE, NM IS ±28 MILES TO THE EAST OF LOCATION.



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

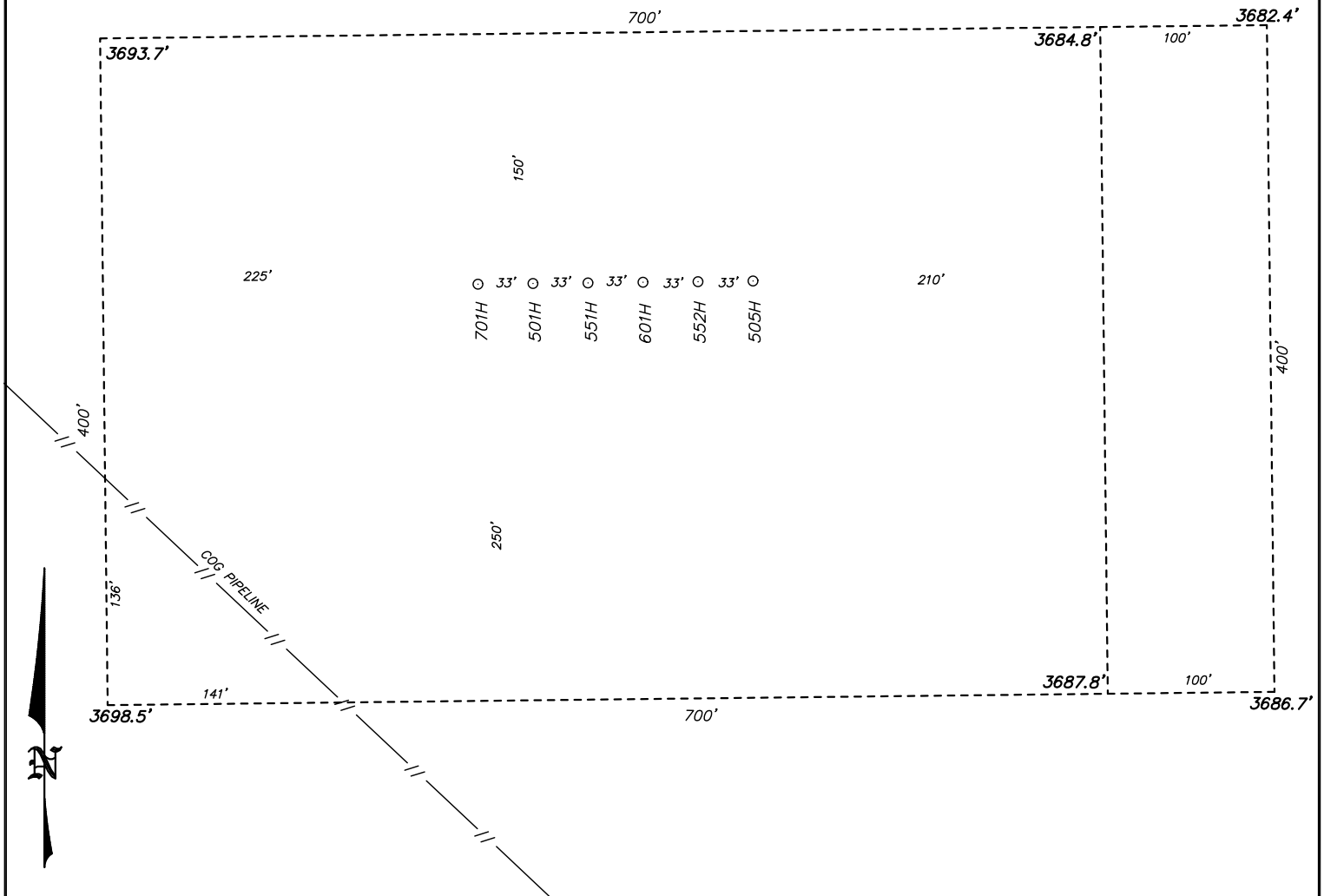
**ADVANCE ENERGY PARTNERS HAT MESA, LLC**

REF: ANDERSON FED COM 552H / WELL PAD TOPO

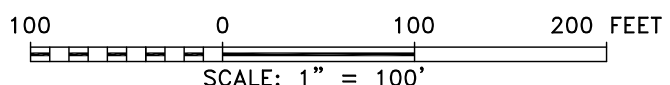
THE ANDERSON FED COM 552H LOCATED 180' FROM  
 THE NORTH LINE AND 743' FROM THE WEST LINE OF  
 SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST.

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

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



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

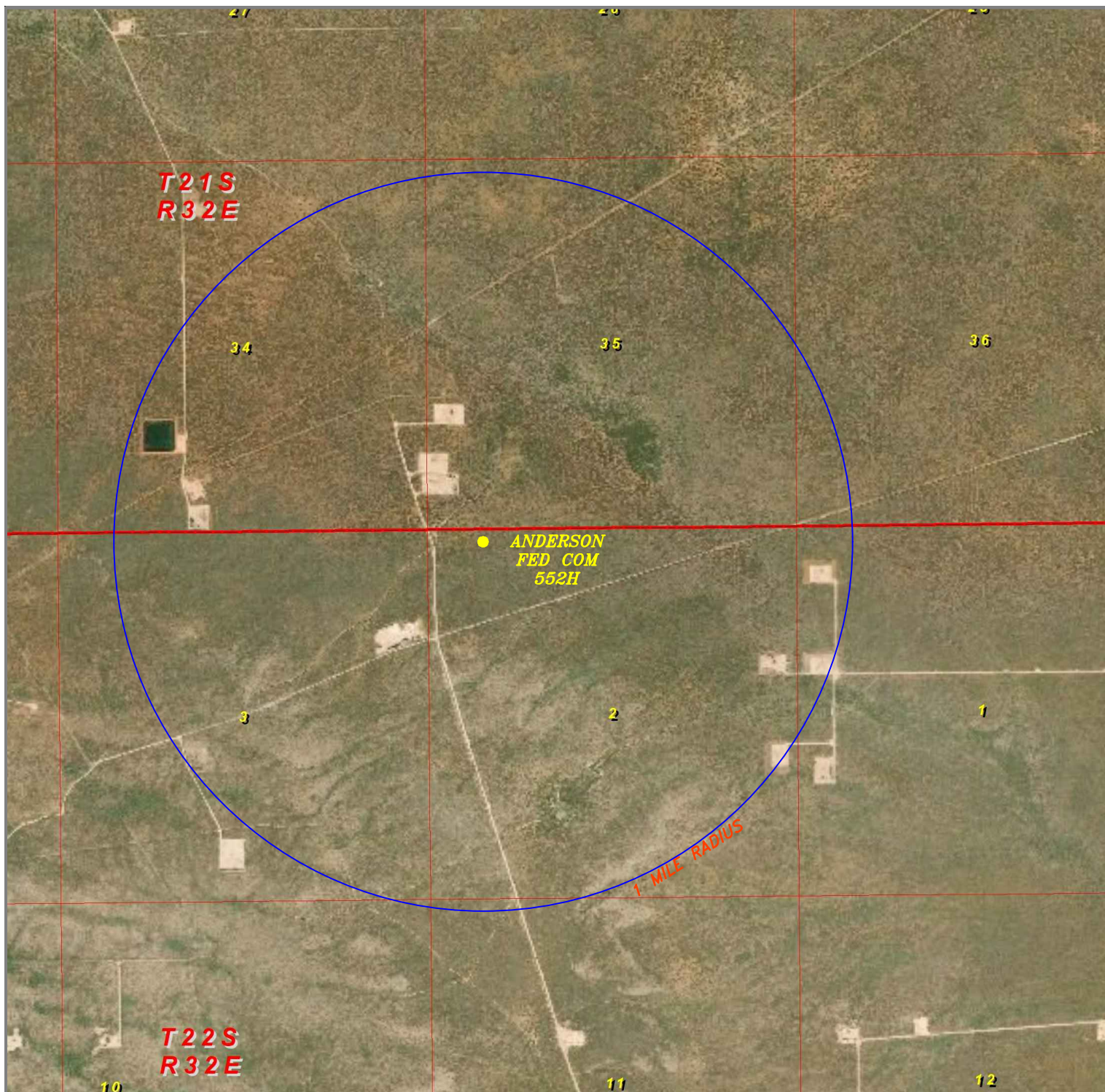


**ADVANCE ENERGY PARTNERS HAT MESA, LLC**

REF: ANDERSON FED COM 552H / WELL PAD TOPO

THE ANDERSON FED COM 552H LOCATED 180' FROM  
 THE NORTH LINE AND 743' FROM THE WEST LINE OF  
 SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST.  
 N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 35351	Drawn By: K. GOAD	Date: 07-30-2020	Survey Date: 06-10-2021	Sheet 1 of 1 Sheets
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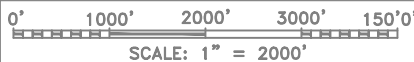


**ANDERSON FED COM 552H**

Located 180' FNL and 743' FWL  
Section 2, Township 22 South, Range 32 East,  
N.M.P.M., Lea County, New Mexico.



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



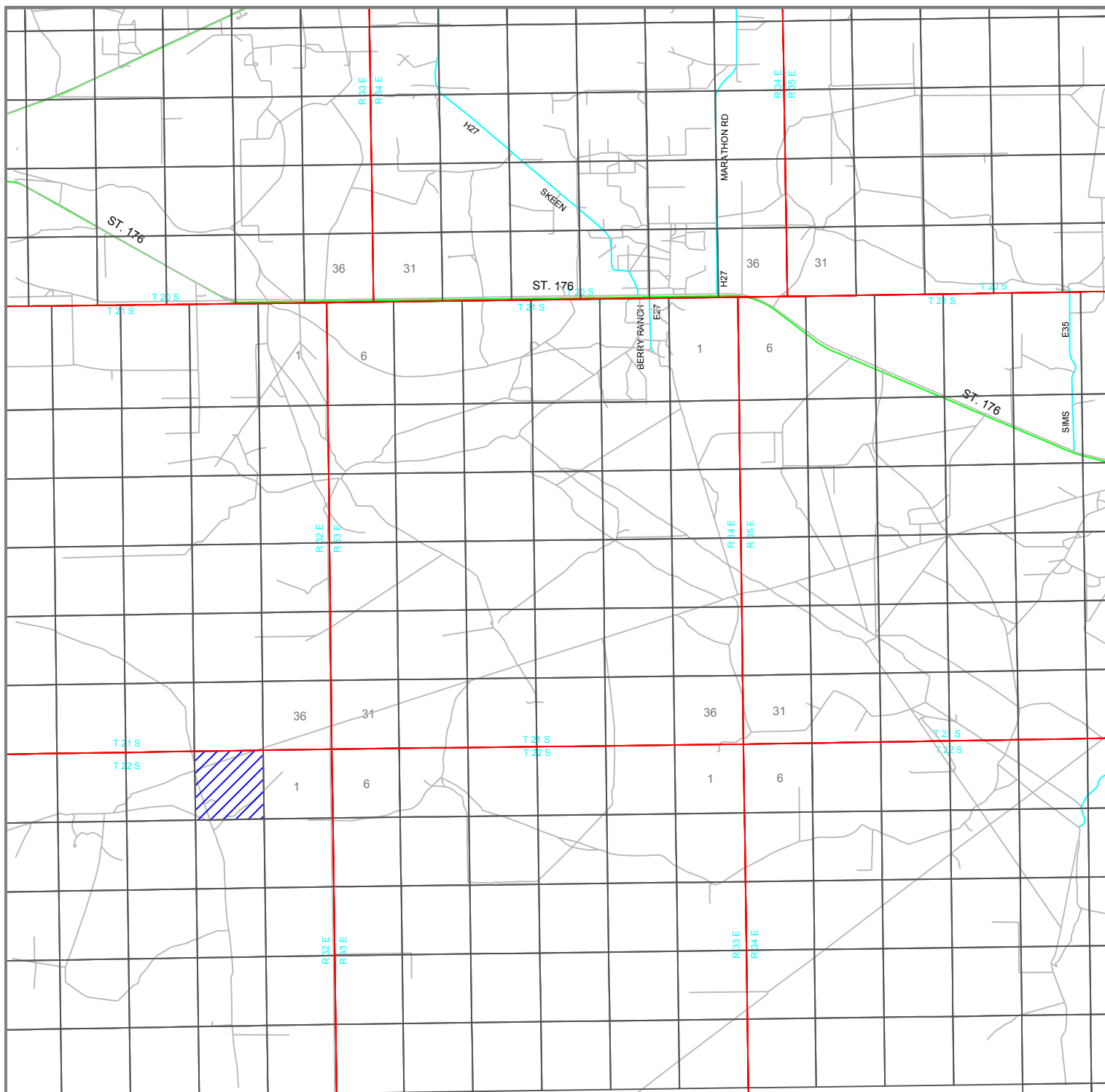
W.O. Number: KJG 35351

Survey Date: 06-10-2021

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



**ADVANCE  
ENERGY  
PARTNERS HAT  
MESA, LLC**

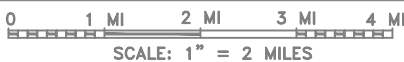


### ANDERSON FED COM 552H

Located 180' FNL and 743' FWL  
 Section 2, Township 22 South, Range 32 East,  
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
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 basinsurveys.com



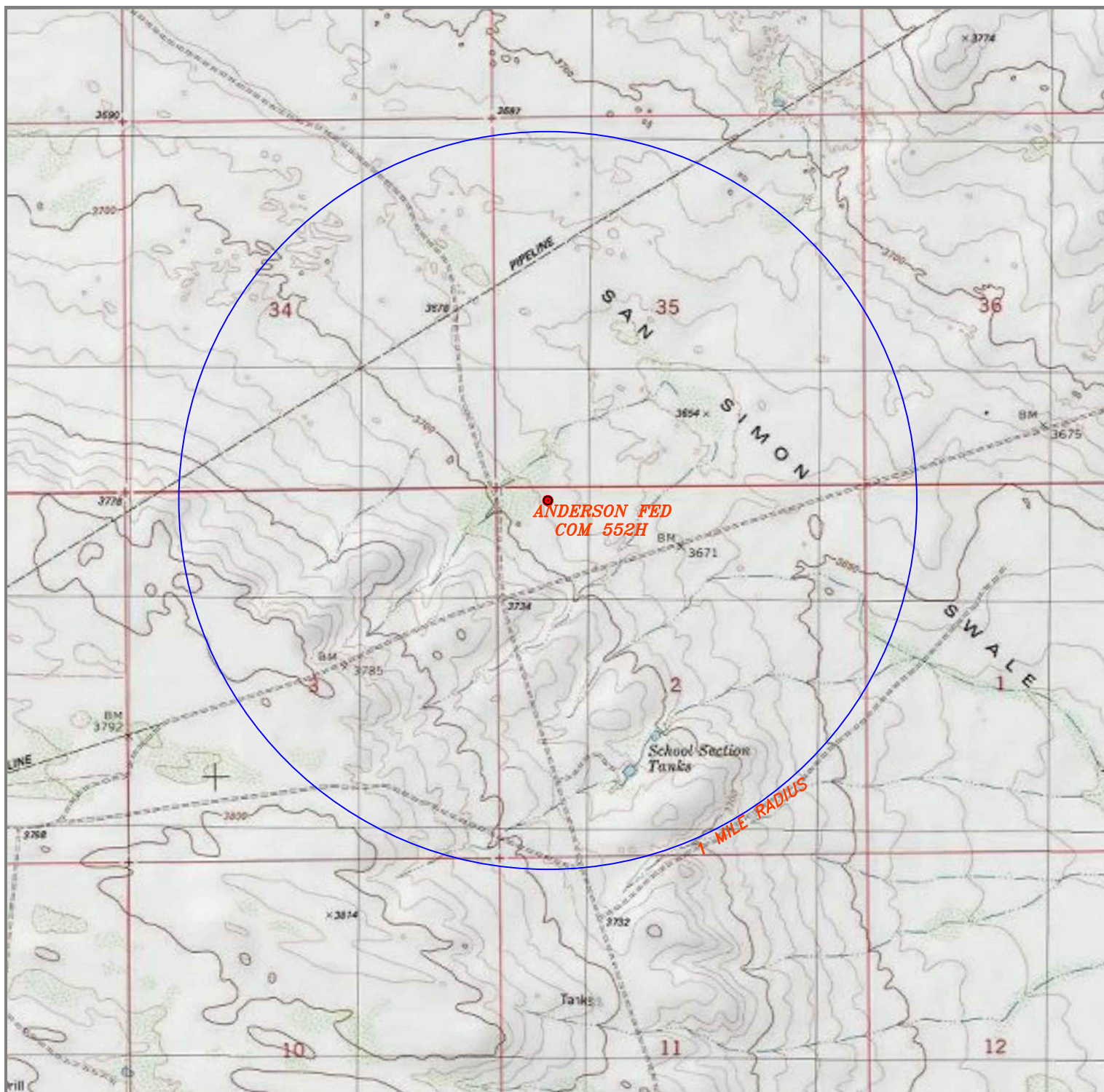
W.O. Number: KJG 35351

Survey Date: 06-10-2021

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




**ADVANCE  
 ENERGY  
 PARTNERS HAT  
 MESA, LLC**



### ANDERSON FED COM 552H

Located 180' FNL and 743' FWL  
 Section 2, Township 22 South, Range 32 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' 1500'

SCALE: 1" = 2000'

W.O. Number: KJG 35351

Survey Date: 06-10-2021

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



**ADVANCE  
 ENERGY  
 PARTNERS HAT  
 MESA, LLC**

Intent  As Drilled

API #

Operator Name:	Property Name:	Well Number
<input type="text"/>	<input type="text"/>	<input type="text"/>

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit?

Is this well an infill well?

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number
<input type="text"/>	<input type="text"/>	<input type="text"/>

KZ 06/29/2018

Submit a 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

Form C-103
Revised July 18, 2013

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

WELL API NO.
30-025-48996
5. Indicate Type of Lease FEDERAL [X]
STATE [ ] FEE [ ]
6. State Oil & Gas Lease No.
NMNM120905
7. Lease Name or Unit Agreement Name
ANDERSON FEDERAL COM
8. Well Number
552H
9. OGRID Number
372417
10. Pool name or Wildcat
RED TANK;BONE SPRING
11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3690'

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)
1. Type of Well: Oil Well [X] Gas Well [ ] Other [ ]
2. Name of Operator
Advance Energy Partners Hat Mesa
3. Address of Operator
11490 Westheimer Rd, Houston, TX 77077
4. Well Location
Unit Letter LOT 4 : 180 feet from the North line and 743 feet from the West line
Section 2 Township 22S Range 32E NMPM County LEA
11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3690'

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

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

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.

- 4/4/22: Pressure test casing to 9500 psi for 30 minutes
4/5-4/24/22: Perforate from 11,601' - 19,295' (2450). Frac with 19,378,744 lbs sand and 21,903,570 gal fluid.
5/25-26/22: Drill all plugs out and clean out to a PBTD of 19,305'
5/31/2022: Begin flowback operations

Spud Date: 11/22/21

Rig Release Date: 1/16/22

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: 11/25/22
PRINT NAME: Eileen M Koskowski E-mail address: ekosakowski@advanceenergypartners.com PHONE: 832-672-4604

For State Use Only

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

Submit To Appropriate District Office 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	<b>State of New Mexico</b> <b>Energy, Minerals and Natural Resources</b>  <b>Oil Conservation Division</b> <b>1220 South St. Francis Dr.</b> <b>Santa Fe, NM 87505</b>	<b>Form C-105</b> Revised April 3, 2017
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**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

4. Reason for filing: <input checked="" type="checkbox"/> <b>COMPLETION REPORT</b> (Fill in boxes #1 through #31 for State and Fee wells only) <input type="checkbox"/> <b>C-144 CLOSURE ATTACHMENT</b> (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 <p style="text-align: center;">ANDERSON FEDERAL COM</p> 6. Well Number: <p style="text-align: center;">552H</p>
---	--

7. Type of Completion:  
 NEW WELL  
 WORKOVER  
 DEEPENING  
 PLUGBACK  
 DIFFERENT RESERVOIR  
 OTHER

8. Name of Operator <p style="text-align: center;">Advance Energy Partners Hat Mesa, LLC</p>	9. OGRID <p style="text-align: center;">372417</p>
---	---

10. Address of Operator <p style="text-align: center;">11490 Westheimer RD, Suite 950 Houston, TX 77077</p>	11. Pool name or Wildcat <p style="text-align: center;">RED TANK;BONE SPRING</p>
--	---

12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
<b>Surface:</b>	LOT 4	2	22S	32E		180	N	743	W	LEA
<b>BH:</b>	L	26	21S	32E		2553	S	1230	W	LEA

13. Date Spudded 11/22/21	14. Date T.D. Reached 1/14/22	15. Date Rig Released 1/16/22	16. Date Completed (Ready to Produce) 5/31/22	17. Elevations (DF and RKB, RT, GR, etc.) 3690'
18. Total Measured Depth of Well 19,330'		19. Plug Back Measured Depth 19,305'		20. Was Directional Survey Made? YES
				21. Type Electric and Other Logs Run GAMMA

22. Producing Interval(s), of this completion - Top, Bottom, Name  
 11,601' - 19,295' RED TANK;BONE SPRING

**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#	1262'	17.5"	730 SXS	
9.625"	40#	3779'/4797'	12.25"	1230 SXS	
5.5"	20#	19,315'	8.5"	3185 SXS	

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number) <p style="text-align: center;">11,601' - 19,295' - 2450 holes</p>	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL      AMOUNT AND KIND MATERIAL USED 11,601' - 19,295'      19,378,744 lbs sand, 21,903,570 bbls water
--	---

**28. PRODUCTION**

Date First Production 5/31/22	Production Method ( <i>Flowing, gas lift, pumping - Size and type pump</i> ) FLOWING	Well Status ( <i>Prod. or Shut-in</i> ) PROD					
Date of Test 7/24/22	Hours Tested 24	Choke Size 42	Prod'n For Test Period	Oil - Bbl 1032	Gas - MCF 1117	Water - Bbl. 1943	Gas - Oil Ratio 1082
Flow Tubing Press. N/A	Casing Pressure 712	Calculated 24-Hour Rate	Oil - Bbl. 1032	Gas - MCF 1117	Water - Bbl. 1943	Oil Gravity - API - ( <i>Corr.</i> ) 41.7	

29. Disposition of Gas ( <i>Sold, used for fuel, vented, etc.</i> )	30. Test Witnessed By AMIT KUMAR
---	-------------------------------------

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: 1/16/22
--	-------------------------------

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: 11/25/22  
 Printed Name: Eileen M Kosakowski      Title: Sr. Eng. Tech      E-mail Address: [ekosakowski@advanceenergypartners.com](mailto: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 6913'MD/6905'TVD	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta 8476'MD/8459'TVD	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock 8896'MD/8877'TVD	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand 4836'MD/4835'TVD	T. Morrison	
T. Drinkard	T. Bone Springs	T. Todilto	
T. Abo	T. 1SS 9874'MD/9853'TVD	T. Entrada	
T. Wolfcamp	T. 2SS 10,289'MD/10,265'TVD	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

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

ACKNOWLEDGMENTS

Action 161349

**ACKNOWLEDGMENTS**

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	OGRID: 372417
	Action Number: 161349
	Action Type: [C-104] Completion Packet (C-104C)

**ACKNOWLEDGMENTS**

<input checked="" type="checkbox"/>	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
<input checked="" type="checkbox"/>	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

Sante Fe Main Office  
Phone: (505) 476-3441

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**Oil Conservation Division**  
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CONDITIONS

Action 161349

**CONDITIONS**

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	OGRID: 372417
	Action Number: 161349
	Action Type: [C-104] Completion Packet (C-104C)

**CONDITIONS**

Created By	Condition	Condition Date
raul.robles	None	4/30/2026