

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		5. Lease Serial No.	
b. Type of Completion <input type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Zones <input type="checkbox"/> Hydraulic Fracturing Other: _____		6. If Indian, Allottee or Tribe Name	
2. Name of Operator		7. Unit or CA Agreement Name and No.	
3. Address		8. Well Name and Well No.	
3a. Phone No. (Include area code)		9. API Well No.	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface  At top prod. interval reported below  At total depth		10. Field and Pool or Exploratory	
		11. Sec., T., R., M., on Block and Survey or Area	
		12. County or Parish	13. State
14. Date Spudded	15. Date T.D. Reached	16. Date Completed <input type="checkbox"/> D & A <input type="checkbox"/> Ready to Prod.	17. Elevations (DF, RKB, RT, GL)*
18. Total Depth: MD TVD	19. Plug Back T.D.: MD TVD	20. Depth Bridge Plug Set: MD TVD	
21. Type Electric & Other Mechanical Logs Run (Submit copy of each)		22. Was well cored? <input type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) Directional Survey? <input type="checkbox"/> No <input type="checkbox"/> Yes (Submit copy)	

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled

24. Tubing Record

Size	Dept Set (MD)	Packer Dept (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

25. Producing Intervals			26. Perforation Record			
Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)						
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Post hydraulic fracturing chemical disclosures on FracFocus.org when required by state or federal regulation

Depth Interval	Amount, Type of Material and Date of Chemical Disclosure upload on FracFocus.org as applicable

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			➔						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➔						

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			➔						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➔						

\*(See instructions and spaces for additional data on page 2)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth

32. Additional remarks (include plugging procedure).

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- Electrical/Mechanical Logs (1 full set req'd.)
- Geologic Report
- DST Report
- Directional Survey
- Sundry Notice for plugging and cement verification
- Core Analysis
- Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) \_\_\_\_\_ Title \_\_\_\_\_  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting a complete and correct well completion/recompletion report and log on all types of wells on Federal and Indian leases to a Federal agency, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal office. If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, and all types electric), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal laws and regulations. All attachments should be listed on this form, see item 33.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal office for specific instructions.

**ITEM 17:** Indicate which reported elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**ITEM 23:** Show how reported top(s) of cement were determined, i.e. circulated (CIR), or calculated (CAL), or cement bond log (CBL), or temperature survey (TS).

## NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48 (d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. et seq.; 43 CFR 3160.

**PRINCIPAL PURPOSE:** The information is to be used to evaluate the actual operations performed in the drilling, completing and testing of a well on a Federal or Indian lease.

**ROUTINE USES:** (1) Evaluate the equipment and procedures used during the drilling and completing/recompleting of a well. (2) The review of geologic zones and formation encountered during drilling. (3) Analyze future applications to drill in light of data obtained and methods used. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this report and disclosure of the information is mandatory once a well drilled on a Federal or Indian lease is completed/recompleted.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling and completing/recompleting wells on Federal and Indian oil and gas leases.

This information will be used to analyze operations and to compare equipment and procedures actually used with those proposed and approved.

Response to this request is mandatory only if the operator elects to initiate drilling and completing/recompleting operations on an oil and gas lease.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Information

Location information: 00S1

SHL: NWNW / LOT: 4 / 180 FNL / 677 FWL / TWSP: 22S / RNG: 32E / SEC: 2 / LAT: 32.427525 / LONG: -103.651761

KOP: NWNW / LOT: 4 / 395 FNL / 397 FWL / TWSP: 22S / RNG: 32E / SEC: 2 / LAT: 32.426931 / LONG: -103.652666

PPP: SWNW / 2640 FSL / 343 FWL / TWSP: 21S / RNG: 32E / SEC: 35 / LAT: 32.4353019 / LONG: -103.6529

PPP: SWSW / 109 FSL / 361 FWL / TWSP: 21S / RNG: 32E / SEC: 35 / LAT: 32.428291 / LONG: -103.652787

PPP: SWNW / 0 FSL / 340 FWL / TWSP: 21S / RNG: 32E / SEC: 35 / LAT: 32.4425617 / LONG: -103.652833

EXIT: NWSW / 2541 FSL / 337 FWL / TWSP: 21S / RNG: 32E / SEC: 26 / LAT: 32.449523 / LONG: -103.652848

BHL: NWSW / 2559 FSL / 337 FWL / TWSP: 21S / RNG: 32E / SEC: 26 / LAT: 32.449574 / LONG: -103.652848

Summary of Porous Zones Information:

Formation: AVALON SAND, Descriptions, Contents, etc: null, Bottom: 8894

Formation: BONE SPRING 1ST, Descriptions, Contents, etc: null, Bottom: 9839

Formation: BONE SPRING 2ND, Descriptions, Contents, etc: null, Bottom: 10423

Attachments: 00S1

Log Attachments:

- 1) Anderson\_Fed\_Com\_551H\_\_\_As\_Drilled\_WBS\_20221124171856.pdf
- 2) C\_102\_ANDERSON\_FED\_COM\_551H\_AS DRILLED\_20221124171909.pdf
- 3) 19092\_Anderson\_Fed\_Com\_551H\_1inch\_20221124171707.pdf
- 4) Anderson\_Fed\_Com\_551H\_1\_Inch\_MD\_Gamma\_FINAL\_20221124171559.pdf
- 5) Advance\_Energy\_\_\_Anderson\_Fed\_Com\_\_551H\_End\_of\_Well\_Report\_20221124171813.pdf
- 6) Anderson\_Fed\_Com\_551H\_FINAL\_SVY\_RPT\_20221124171833.pdf

API: 30-025-48995

REGULATORY: NM Federal

OGRID # 372417

RIG: Nabors X50

KB: 3724.5'

GL: 3692'



AFE: NM0203

WELLHEAD  
13-3/8" x 9-5/8" x 5-1/2"  
MNDS

# Anderson Fed Com #551H

BONE SPRING

AS-DRILLED

Sec. 2; T- 22S; R- 32E, 180' FNL; 677' FWL

SHL:

Lat: 32.427525 Long: -103.651761 NAD83

HOLE	MD	FORMATION	TVD	MUD	CASING	CEMENT	SPECIAL INSTRUCTIONS
17 1/2"	120'	20" Conductor	120'	<b>FRESH</b>	13-3/8" 54.5 J-55 BTC 0' - 1275'	Top of Lead: Surface 12.8 ppg 50% Excess 520 sks Top of Tail: 1,020 14.8 ppg 20% Excess 215sks	MUD: Fresh water only CTS: 70bbls (206 sx)
	1,219	Rustler	1,219	TD MW 10 ppg			
12 1/4"	3,027	DV Tool	3,026	<b>DRLOUT</b> MW 10 ppg	COMPLETE STRING 9-5/8" 40# J-55 BTC 0' - 3775'	2 STAGE CEMENT LEAD: 12.8 ppg 825 sks 107% Excess TAIL: 14.8 ppg Top of Tail 3,844 315 sks 20% Excess	DV & PKR & FLOAT EQUIPMENT CTS: 31 bbls (95 sx)
	4,805	INTRM CSG PT	4,803	BRINE  Minimum Chlorides - 180k TD MW <10.5 ppg	9-5/8" 40# HCL-80 BTC 3775' - 4805'		
8-3/4"	4,791	Base of Limestone	4,790	<b>DRLOUT MW</b> 9 ppg	5-1/2" 20# HCP-110 GBCD 0' - 19073'	1st STAGE LEAD: 0 ppg Top of Lead 0 Not Pumped 96% Excess TAIL: 2580 ppg Top of Tail 2580 Not Pumped 0% Excess	CTS: 174 bbls (287 sx)
	8,468 8,894	Lower Bushy Avalon	8,458 8,882	CUT BRINE  KOP MW 9.2 ppg		2nd STAGE Top of Lead: Surface 10.7 ppg 50% Excess 985 sks Top of Tail: 10,111 14.5 ppg 20% Excess 2125 sks	
8-3/4"	10,528	KOP	10,514	CUT BRINE EOC MW 9.5 ppg		OBM TD MW 9.4-9.5 ppg	19,092 ' MD 7,727 ' VS 11,116 ' TVD
	9,839 10,423	1st BS Sand 2nd BS Sand	9,826 10,408			WET SHOE	
8-3/4"	11,346	EOC	11,072	12"/100 Marker Jts @: 10515'15211' EOC VS = 319' Lat. Azi = VS Azi. = 359.49 deg Est BHST = 227 F Est BHCT= 187 F			
		LATERAL		5-1/2" 20# HCP-110 GBCD NO FLOTATION SUB ALL PREMIUM CONNECTIONS 5.5" Wet Shoe (1) Guide Shoe			BHL: 2559' FNL 337' FWL LTP: LAT 32.449574 LON -103.652848

DIRECTIONS TO LOCATON:

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**DISTRICT I**  
1825 N. French Dr., Hobbs, NM 88240  
Phone (575) 393-8161 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 30-025-48995	Pool Code 51683	Pool Name RED TANK;BONE SPRING
Property Code 326484	Property Name ANDERSON FEDERAL COM	Well Number 551H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA, LLC	Elevation 3692'

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	677	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		2559	SOUTH	337	WEST	LEA
Dedicated Acres 240	Joint or Infill	Consolidation Code C	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

**BOTTOM HOLE LOCATION**  
Lat - N 32.449574°  
Long - W 103.652848°  
NMSPCE - N 527954.7  
                  E 751246.1  
(NAD-83)

**LAST TAKE POINT**  
2541' FSL & 337' FWL  
Lat - N 32.449523°  
Long - W 103.652848°  
NMSPCE - N 527936.5  
                  E 751246.2  
(NAD-83)

**FIRST TAKE POINT**  
109' FSL & 361' FWL  
Lat - N 32.428291°  
Long - W 103.652787°  
NMSPCE - N 520212.0  
                  E 751314.2  
(NAD-83)

**KICK OFF POINT**  
395' FNL & 397' FWL  
Lat - N 32.426931°  
Long - W 103.652666°  
NMSPCE - N 519717.6  
                  E 751354.8  
(NAD-83)

**SURFACE LOCATION**  
Lat - N 32.427525°  
Long - W 103.651761°  
NMSPCE - N 519935.6  
                  E 751632.6  
(NAD-83)

**OPERATOR CERTIFICATION**

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

*Eileen M Kosakowski* 11/14/22  
Signature Date

Eileen Kosakowski  
Printed Name  
ekosakowski@advanceenergypartners.com  
Email Address

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**SURVEYOR CERTIFICATION**

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

NOVEMBER 14 2022  
Date Surveyed

*[Signature]*  
Signature & Seal of  
Professional Surveyor  
7977

Certificate No. Gary L. Jones 7977  
BASIN SURVEYOR

0' 1500' 3000' 4500' 6000'  
SCALE: 1" = 3000'  
WO Num.: 35638



**MEASURED DEPTH  
FORMATION EVALUATION  
& GAS ANALYSIS  
LOG  
5" - 100'**

COUNTY Lea  
 FIELD Red Tank/Bone Spring  
 LOCATION 180 FNL 677 FWL SEC 2  
26 miles W Eunice, NM  
 WELL Anderson Fed Com 551H  
 COMPANY Advance Energy Partners, LLC

COMPANY Advance Energy Partners, LLC  
 GEOLOGIST Sarah Regen  
 WELL Anderson Fed Com 551H  
 FIELD Red Tank/Bone Spring  
 COUNTY Lea STATE New Mexico  
 LOCATION  
 X: 751632.4, Y: 519935.6  
 Lat: 32.427525°  
 Long: -103.651761° NAD 83  
 API SERIAL NO 30-025-48995 SEC 2 TWP 22S RANGE 32E  
 OTHER SERVICES 1" MD Log

SPUD DATE 11/22/2021 TOTAL DEPTH 19,092 ELEV: 3723.5  
 LOGGING STARTED 1/19/2022 @ 10,500 K.B. 3723.5  
 LOGGING FINISHED 01/28/22 @ 19,092' D.F. 32.5  
 @ 19,092' G.L. 3692

BORE HOLE RECORD		CASING RECORD				
HOLE SIZE	FROM	TO	SIZE	WGT.	FROM	TO
7.5	Surface	1244'	13.375"	54.5#	Surface	1234'
2.25	1244'	4747'	9.625"	40#	Surface	4734
1.75	4747'	19,330	5.5	20#	Surface	19,320'

DRILLING CONTRACTOR Nabors  
 REMARKS X50  
 JOB # #6198  
 AFE # NM  
 PERSONNEL Shanman Ash / Charlie Kerack

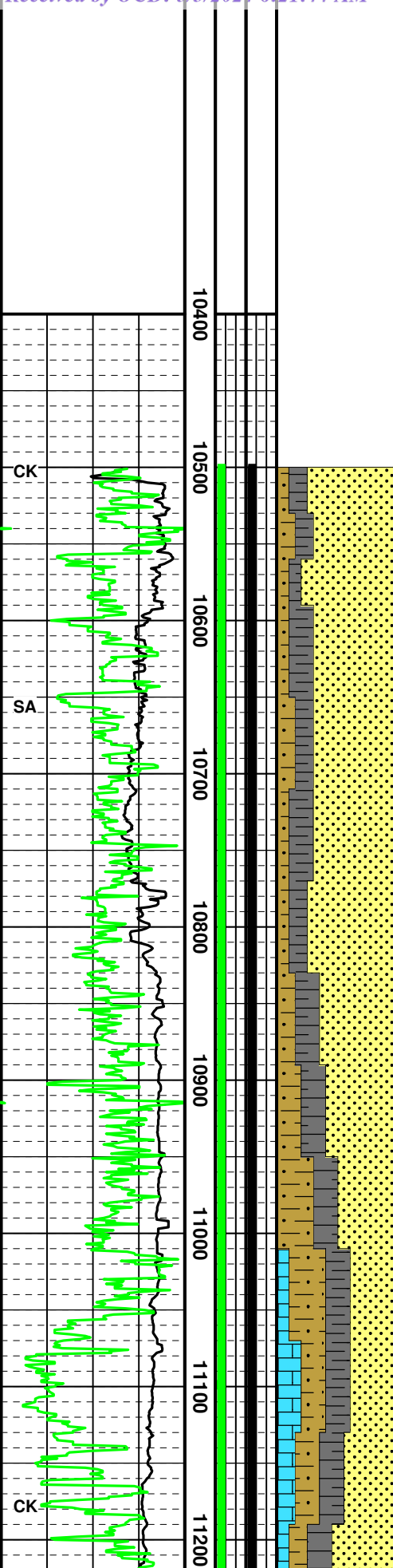
**Disclaimer: STRATAGRAPH, INC. will make every effort to render our services efficiently and accurately, but will not be liable for failure to report or interpret its analysis correctly.**

**LEGEND**

<p><b>Abbreviations</b></p> <p>BG Background Gas                  CB Corebit                  CG Connection Gas                  CK Filter Cake                  CKF Check For Flow                  CL Salinity ppm                  CO Circulate Out                  CR Circulate Returns                  CT Carbide Test                  DB Diamond Bit                  DBG Drilling Background Gas                  DC Depth correction                  DCB Diamond Corebit                  DF Derrick Floor                  DG Drilling Gas                  DS Directional Survey                  DST Drill Stem Test                  EL Electric Log                  E.M.A. Equivalent Methane Gas                  F Filtrates API cc's                  F/T Flowline Temperature                  FR Fair                  FV Funnel Viscosity API sec                  GCM Gas Cut Mud                  GCW Gas Cut Water                  GD Good                  G&amp;OCM Gas &amp; Oil Cut Mud                  GL Ground Level                  GTT Gas Trip Test                  KB Kelley bushing                  LAT Log After Trip</p>	<p>LAST Log After Short Trip                  MW Mud Weight in lbs/gal                  NCB New Corebit                  NB New Bit                  NR No Returns                  PDCB Polycrystalline Diamond Compact Bit                  PERF Perforated                  PPM Parts Per Million                  PR Poor                  PRT Poor Returns                  PV Plastic Viscosity                  RM Mud Resistivity OHM-METER                  RMC Mud-Cake Resistivity OHM-METER                  RMF Mud Filtrate Resistivity                  RPM Revolutions Per Minute                  RRB Return Bit                  RT Rotary Table                  SF Sea Floor                  SO Show Of Oil                  SOL Solids %                  SPP Stand Pipe Pressure                  STG Short Trip Gas                  SWG Swab Gas                  SVG Survey Gas                  S/T Suction Temperature                  TB Turbo Drill                  TD Total Depth                  TCL Trip Chlorides                  TG Trip Gas                  TVD Total Vertical Depth                  WOB Weight On Bit</p>	<p><b>Lithology Symbols</b></p> <p>CLAY                  MARL                  SILT                  LIMESTONE                  LIMONITE                  GYPSUM                  DOLOMITE                  ANHYDRITE                  CHERT                  SALT                  COAL                  SHALE                  SAND                  CHALK                  ASH                  NO SAMPLE</p>	<p><b>Other Symbols</b></p> <p>CASING SEAT                  CORED INTERVAL                  NO RECOVERY                  SIDEWALL CORE                  TEST INTERVAL                  WIRELINE TEST                  Oil Show                  Gas Show                  FLUORESCENCE                  Bright                  Dull                  Mineral</p>
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NOTE: All Lithological Symbols are as per the Shell Oil Exploration Training Manual, Acknowledged by the American Association of Petroleum Geologists.

Slide	ROP		Depth	Cut	Fluor	% Lith	Total Gas/Chromo		Drilling Parameters & Surveys	Descriptions	Images
	Average ROP	FPH					Total Gas	Unit			
	300		0			0.1		10000			
							Methane				
								100000			



10	Ethane	PPM	100000
10	Propane	PPM	100000
10	Iso-Butane	PPM	100000
10	Normal Butane	PPM	100000
10	Iso-Pentane	PPM	100000

MD 10431' Inc 0° Azm 204°  
TVD 10416.6' VS -192.34

Stratagraph on location and logging as of 1/19/2022 @ 11:00pm

TG 1868u  
MWi 9.4  
MWO 9.45

MD 10528' Inc 2° Azm 30°  
TVD 10513.6' VS -191.44

MWi 9.3  
MWO 9.3

WOB 14 RPM 150  
SPM 101 PP 2110

CG 74u  
MD 10618' Inc 10° Azm  
354°TVD 10603' VS -182.49

MWi 9.3  
MWO 9.3

WOB 22 RPM 161  
SPM 206 PP 1768

CG 123u  
MD 10707' Inc 19° Azm 351°  
TVD 10689' VS -160.08

MWi 9.3  
MWO 9.3

WOB 29 RPM 160  
SPM 205 PP 2110

CG 68u  
MD 10797' Inc 26° Azm 352°  
TVD 10772.1' VS -125.72

MWi 9.3  
MWO 9.3

WOB 33 RPM 144  
SPM 189 PP 1671

CG 232u  
CALIBRATE  
MD 10886' Inc 31° Azm 354°  
TVD 10850.2' VS -83.13

MWi 9.3  
MWO 9.3

WOB 24 RPM 144  
SPM 189 PP 1586

CG 31u  
MD 10976' Inc 42° Azm 356°  
TVD 10922.2' VS -29.42

MWi 9.25  
MWO 9.3

WOB 32 RPM 136  
SPM 178 PP 1585

CG 45u  
MD 11066' Inc 53° Azm 356°  
TVD 10982 VS 36.8

MWi 9.25  
MWO 9.3

WOB 34 RPM 137  
SPM 178 PP 1685

CG 48u  
MD 11155' Inc 64° Azm  
356°TVD 11029' VS 112.75

MWi 9.25  
MWO 9.3

WOB 36 RPM 135  
SPM 178 PP 1700

CG 55u  
MD 11245' Inc 76° Azm 353°  
TVD 11059.8' VS 197.11

SST: drk - lt gry, bu, f gr, sb ang-sb rnd, mod-wll srtd, calc cmnt, tr - mod pale yel fluor, slw stmg yel-grn cut, bri grn-yel res rng



SLT: lt gry - drk gry, rnd - sb ang, abd frm - occ hrd, arg, calc cmnt, pred mod consol, dull yel fluor, fst stmg br yel - grn cut



SH: dkgry- gry, frm, i.p. sft, i.p. hd, blk, calc cmt, slty - dns, lam, dull yel fluor, fst strng yel - grn cut, yel-grn res rng



SS: clr, gry, vf - f grn, unconc-fria, sbrnd-sbang, dul gn fluor, v slw diffuse bl-wh cut, bri bl-wh res rng

SLST: med - lt gry occ med dk gry, sb blk - blk - sb tab, hd - frm, sb ang-sb rnd, well srtd, consol, sil cmnt, bri grn-yel fluor, v slw diffuse yel-bl cut, dull yel res rng



SH: lt-drk gry gry, frm-mod hd, pty blk, aren ip, v calc, tr fluor, v slw yel-grn diffuse cut, fnt yel-grn res rng

SS: lt - med gry, vf gr, w srt, sb rnd-rnd, sl hd, arg mtx, tr dull yel - grn fluor, slw stmg bri yel - grn cut, thk br yel res rng



SLT: gry- drk gry, sub rnd, sft - frm, occ hrd, arg, calc cmnt, ip calc incl, consol, dull yel fluor, mod strng br yel - grn cut, yel grn res rng

SH: med-dk gry, frm- hd, blk-pty, v slty, sme vf lam, dull yel fluor, v slw strng yel - grn cut, yel-grn res rng



LS: wkst - mdst, gry, hd - frm, v f xln - microxln, chky - dl - ea, dns, occ arg, lam, dull yel, stmg yel-grn cut, yel res rng

SLT: gry- drk gry, sub rnd, sl sft - frm, tr hrd, arg, calc cmnt, occ calc incl, consol, tr dull yel fluor, strng br yel - grn cut, yel res rng

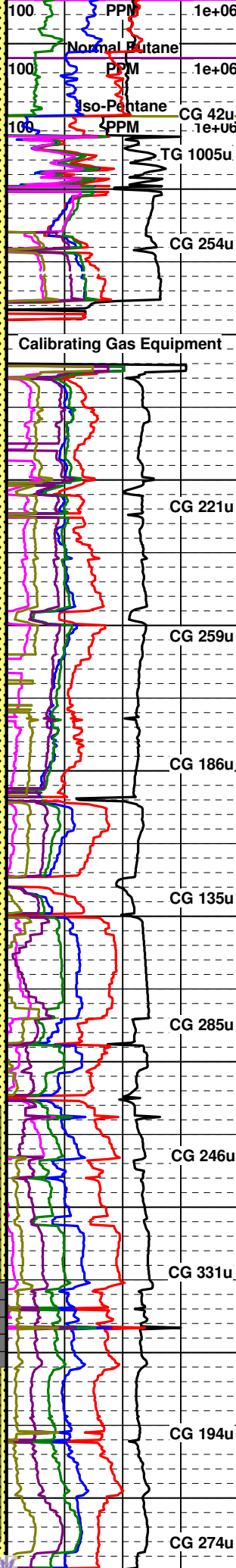
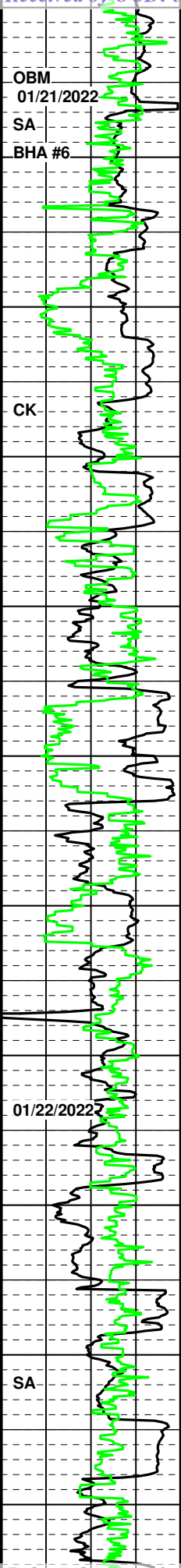


SS: drk gry - med gry, vf gr, w srt, sb rnd- sb ang, calc cmnt, arg mtx ip, tr dull yel - grn fluor, slw stmg bri yel - grn cut, thk br yel res rng

SH: pred med-dk gry, mod frm-sli hd ip, blk- sb pty, v slty, sme vf lam, dull yel fluor, fst strng yel - grn cut, yel-grn res rng



LS: wkst - mdst, v lt gry, mod frm



MWi 9.2  
MWo 9.25  
WOB 55 RPM 141  
SPM 178 PP 1656

MD 11305' Inc 85° Azm 350°  
TVD 11070.1' VS 255.88  
MWi 9.2  
MWo 9.25

MD 11366' Inc 93° Azm 350°  
TVD 11071.4' VS 316.36  
MWi 9.45  
MWo 9.55

MD 11456' Inc 92° Azm 353°  
TVD 11067.6' VS 405.82  
MWi 9.45  
MWo 9.55

MD 11546' Inc 91° Azm 356°  
TVD 11064.9' VS 495.66  
MWi 9.5  
MWo 9.55

MD 11635' Inc 90° Azm 359°  
TVD 11064' VS 584.64  
MWi 9.5  
MWo 9.5

MD 11725' Inc 91° Azm 359°  
TVD 11063.5' VS 674.59  
MWi 9.5  
MWo 9.5

MD 11815' Inc 89° Azm 359°  
TVD 11063.4' VS 764.55  
MWi 9.5  
MWo 9.5

MD 11904' Inc 90° Azm 358°  
TVD 11064.1' VS 853.52  
MWi 9.5  
MWo 9.5

MD 11994' Inc 90° Azm 358°  
TVD 11063.8' VS 943.5  
MWi 9.5  
MWo 9.5

MD 12083' Inc 91° Azm 357°  
TVD 11063.1' VS 1032.5  
MWi 9.5  
MWo 9.5

MD 12173' Inc 90° Azm 355°  
TVD 11062.9' VS 1122.48  
WOB 25 RPM 197  
SPM 222 PP 3923

MD 12262' Inc 90° Azm 357°  
TVD 11063.3' VS 1211.46  
WOB 27 RPM 209  
SPM 237 PP 4068

MD 12352' Inc 90° Azm 1°  
TVD 11063.1' VS 1301.39

- frm, v f xln - microxln, dns, chky ip, occ arg, lam, no fluor, stmg yel-grn cut, fnt yel res rng

SLT: lt gry- drk gry, sb rnd- rnd, sl sft - frm, tr hrd, arg/cly mtx, calc cmnt ip, consol, tr dull yel flour, strm br yel - grn cut, fnt wht - yel res rng

SS: drk gry - med gry, vf gr, w srt, sb rnd- sb ang, calc cmnt, arg mtx ip, tr dull yel - grn flour, slw strmg bri yel - grn cut, thk br yel res rng

SH: pred med-dk gry, mod frm- sli hd ip, blk- sb plty, v slty, sme vf lam, dull yel flour, fst strmg yel - grn cut, yel-grn res rng

LS: wkst - mdst, v lt gry, mod frm - frm, v f xln - microxln, dns, chky ip, occ arg, lam, no fluor, stmg yel-grn cut, fnt yel res rng

SLT: gry- drk gry, sb rnd- rnd, sl sft - frm, tr hrd, arg/cly mtx, calc cmnt ip, consol, tr dull yel flour, strm br yel - grn cut, fnt wht - yel res rng

SS: lt gry- med gry, mod consol, vf - frn gr, sub rnd - sub ang, occ vf lam slt, mod srtg, calc cmt, yel flour, mod - fst strmg yel - grn cut, bri yel grn res rng

SH: dk gry - med gry, blk, v frm - sl hd, blk- sbllky, slty - frac, mica incl, dissep pyr incl, occ carb inc, yel flour, stmg yel - grn cut, bri yel- gr res rng

LS: mdst - wkst, crm, lt tan, frm - v frm, vf xln -microxln, dns, frac, arg, v slty, tr flour, stmg yel-grn cut, yel-grn res rng

SLT: pred med gry - v dk gry, brn- dk brn, sb rnd - sb ang, v frn grn, v frm - sl hrd, lam, arg, calc cmnt, mod consol, tr yel flour, strm yel grb cut, yel - grn res rng.

SS: lt gry-drk gry, dk brn, occ lt grysh, p - mod consol, f - vf gr, sbrmd - sb ang, mod srtg, arg lam, calc cmt, occ mica incl, mod- dll yel flour, mod yel - grn strmg cut, bri yel grn res rng

SH: dk gry - gry, grysh brn, tr blk, v frm - sl hd, blk, slty - frac, lam, occ dissep pyr incl, carb incl, mod yel flour, fst strmg bl yel cut, mod yel res rng

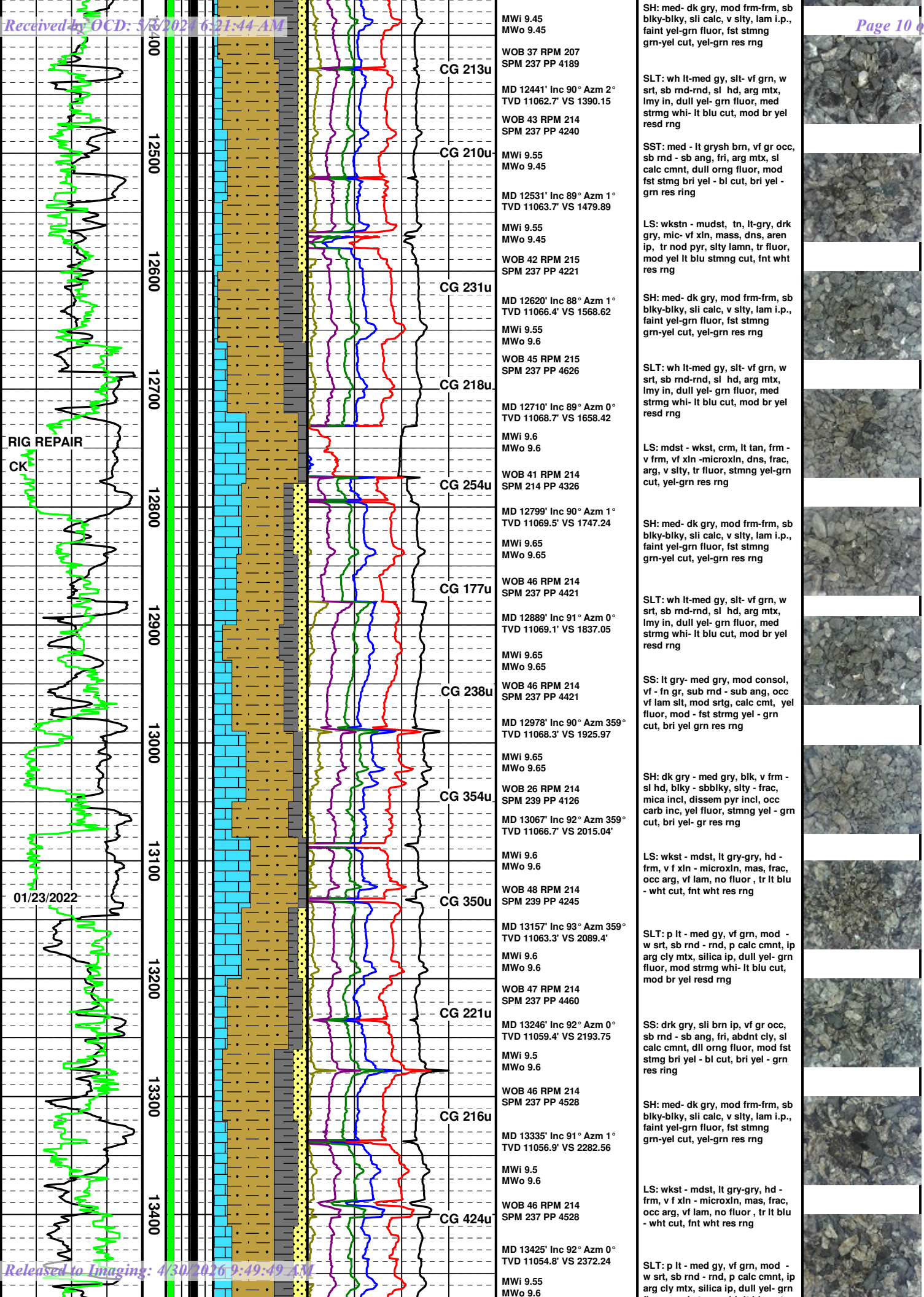
LS: wkst, wht, gry, mod frm, v f xln - microxln, chky - dl - ea, dns, occ arg, lam, dull yll flour, stmg lt blu - wht cut, fnt wht res rng

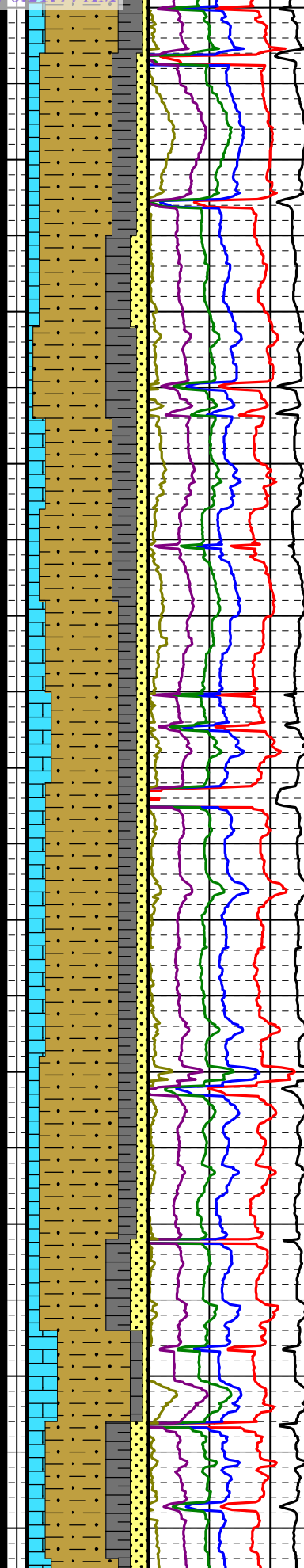
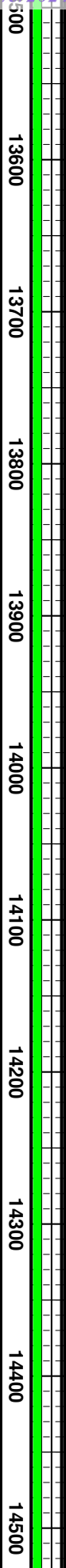
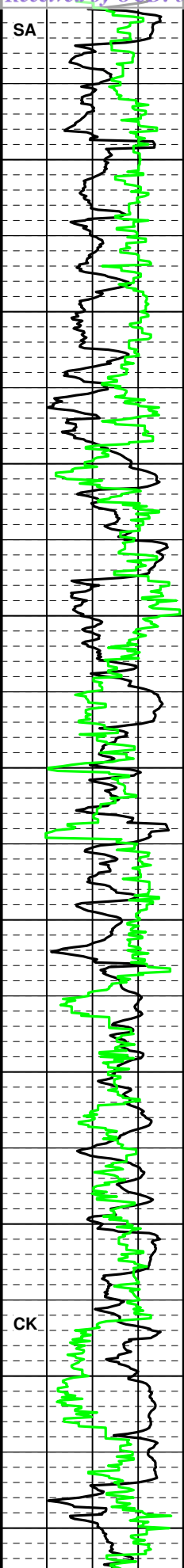
SLT: off wh, gry- lt gry, sb rnd, mod- wl srt, m cons, mrlly w/calc cmt, arg ip., dll yel flour, fst strmg yel blu cut, fnt wht res rng.

SST: med - lt grysh brn, vf gr occ, sb rnd - sb ang, fri, arg mtx, sl calc cmnt, dull omg flour, mod fst stmg bri yel - bl cut, bri yel - grn res rng

LS: wkstn - mudst, tn, lt-gry, drk gry, mic- vf xln, mass, dns, aren ip, tr nod pyr, slty lamn, mnr flour, mod yel lt blu stmg cut, fnt wht res rng







**CG 217u**  
 WOB 49 RPM 214  
 SPM 237 PP 4451  
 MD 13514' Inc 90° Azm 1°  
 TVD 11053.5' VS 2461.08  
 MWi 9.55  
 MWo 9.6

**CG 403u**  
 WOB 49 RPM 214  
 SPM 237 PP 4585  
 MD 13603' Inc 90° Azm 1°  
 TVD 11053.6' VS 2549.91  
 MWi 9.55  
 MWo 9.6

**CG 278u**  
 WOB 49 RPM 214  
 SPM 237 PP 4591  
 MD 13692' Inc 89° Azm 359°  
 TVD 11054.2' VS 2638.81  
 MWi 9.55  
 MWo 9.55

**CG 316u**  
 WOB 48 RPM 214  
 SPM 237 PP 4491  
 MD 13781' Inc 89° Azm 358°  
 TVD 11055.2' VS 2727.78  
 MWi 9.55  
 MWo 9.55

**CG 248u**  
 WOB 23 RPM 214  
 SPM 237 PP 4193  
 MD 13871' Inc 89° Azm 359°  
 TVD 11056' VS 2817.75  
 MWi 9.55  
 MWo 9.55

**CG 267u**  
 WOB 26 RPM 214  
 SPM 237 PP 4261  
 MD 13961' Inc 90° Azm 1°  
 TVD 11056.2' VS 2907.65  
 MWi 9.6  
 MWo 9.6

**CG 292u**  
 WOB 48 RPM 214  
 SPM 237 PP 4599  
 MD 14050' Inc 90° Azm 1°  
 TVD 11055.8' VS 2996.46  
 MWi 9.55  
 MWo 9.55

**CG 323u**  
 WOB 49 RPM 214  
 SPM 237 PP 4457  
 MD 14140' Inc 90° Azm 1°  
 TVD 11056' VS 3086.28  
 MWi 9.55  
 MWo 9.55

**CG 741u**  
 WOB 47 RPM 214  
 SPM 237 PP 4632  
 MD 14230' Inc 89° Azm 360°  
 TVD 11057' VS 3176.16  
 MWi 9.55  
 MWo 9.55

**CG 279u**  
 WOB 47 RPM 214  
 SPM 237 PP 4640  
 MD 14319' Inc 90° Azm 0°  
 TVD 11057.4' VS 3265.06  
 MWi 9.55  
 MWo 9.6

**CG 314u**  
 WOB 50 RPM 214  
 SPM 237 PP 4572  
 MD 14409' Inc 92° Azm 1°  
 TVD 11055.6' VS 3354.89  
 MWi 9.55  
 MWo 9.6

**CG 300u**  
 WOB 49 RPM 214  
 SPM 237 PP 4572  
 MD 14498' Inc 91° Azm 2°  
 TVD 11053.3' VS 3443.63  
 MWi 9.55  
 MWo 9.55

**CG 232u**  
 WOB 19 RPM 214  
 SPM 237 PP 4290

SST: gry-drk gry, mod-w consol, v f gr, sbrndd - rndd, sbang ip, mod srtg, calc cmt, mod yel fluor, fst strmg yel - grn cut, bri wht yel res rng

LS: wkst - mdst, lt gry-gry, hd - frm, v f xln - microxln, occ arg, i.p. lam, dull yll fluor, stmg lt blu - wht cut, fnt yel res rng

SH: med gry - dk gry, mod frm, tr sl sft, blkly-sbbkly, calc cmt, slty - frac, mod yel fluor, fast diffuse yel-grn cut, yel res rng

SLT: off wh gry - lt gry, sb ang-sb rnd, mod- wl srt, p - mod cons, frm, calc cmt, arg i.p., yel fluor, fst strmg yel cut, bri yel res rng.

SST: gry-drk gry, mod-w consol, v f gr, sbrndd - rndd, sbang i.p., mod srtg, calc cmt, mod yel fluor, fst strmg yel - grn cut, bri yel res rng

LS: wkst - mdst, lt gry-gry, hd - frm, v f xln - microxln, occ arg, vf lam, dull yel fluor, stmg lt blu - wht cut, fnt res rng

SH: med gry - dk gry, mod frm, tr sl sft, blkly-sbbkly, sil cmt, slty - frac, mod yel fluor, fast diffuse yel-grn cut, yel res rng

SLT: off wh gry-ly gry, sb ang-sb rnd, mod- wl srt, m cons-sl frm, mrlly wcalc cmt, arg ip., yel fluor, fst strmg yel cut, bri yel res rng.

SST: gry-drk gry, mod-w consol, v f gr, sbrndd - rndd, sbang ip, mod srtg, calc cmt, mod yel fluor, fst strmg yel - grn cut, bri wht yel res rng

LS: wkst - mdst, lt gry-gry, hd - frm, v f xln - microxln, mas, frac, occ arg, vf lam, no fluor, tr lt blu - wht cut, fnt wht res rng

SH: med gry - dk gry, mod frm, tr sl sft, blkly-sbbkly, slty-arg cly lamn ip, mod yel fluor, mod slw stmg yel-grn cut, wht res rng

SLT: lt - med gy, vf grn, mod - w srt, sb rnd - rnd, calc cmnt, ip arg/ cly mtx, dull yel- grn fluor, sl strmg whi- lt blu cut, mod br yel res rng

SST: drk gry, sli brn ip, vf gr occ, sb rnd - sb ang, fri, abndt cly, sl calc cmnt, tr yel fluor, sl stmg yel - bl cut, bri yel - grn res ring

LS: mdst - wkst, crm, bu, v lt dk gry, vf xln -microxln, dns ip, frac, clay incl, arg, slty thru, tr fluor, sl stmg yel cut, fnt yel - wht res rng

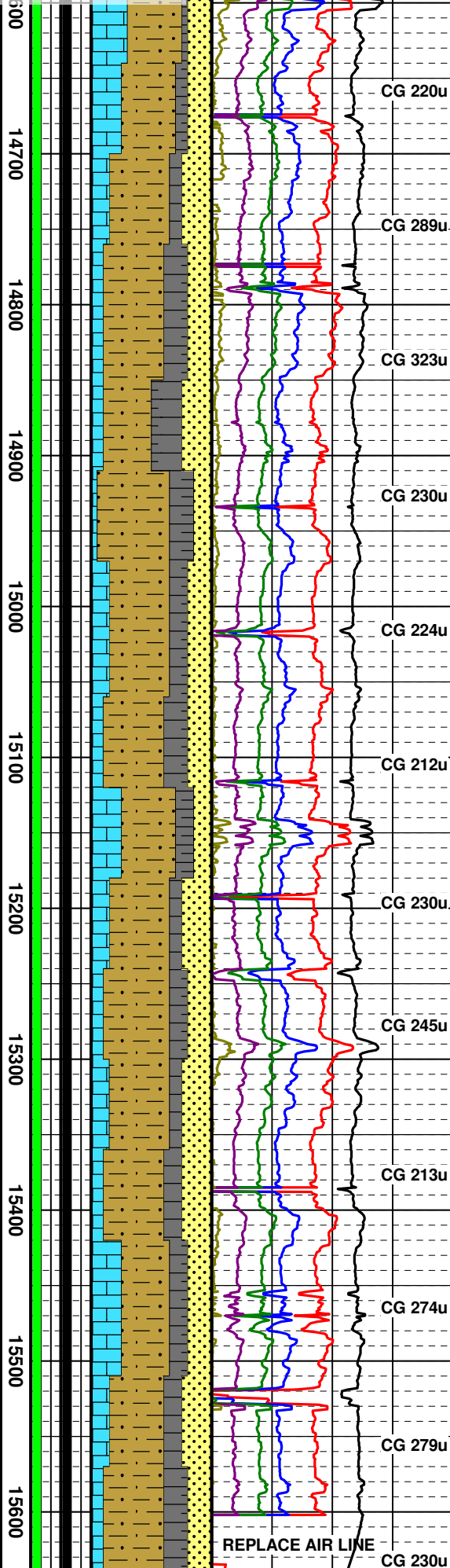
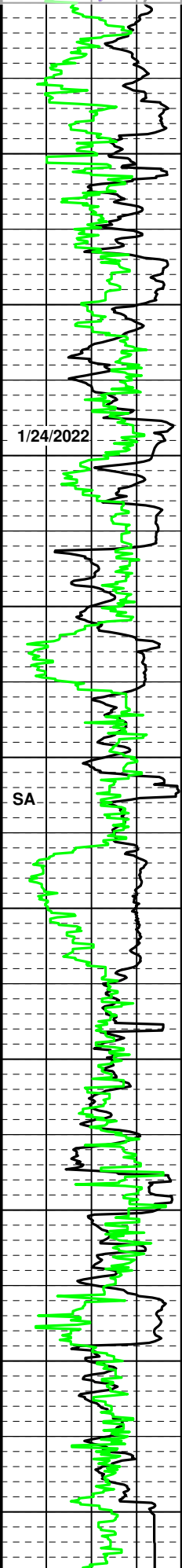
SH: med gry - dk gry, mod frm, tr sl sft, blkly-sbbkly, slty-arg cly lamn ip, mod yel fluor, mod slw stmg yel-grn cut, wht res rng

SLT: lt - med gy, vf grn, mod - w srt, sb rnd - rnd, calc cmnt, ip arg/ cly mtx, dull yel- grn fluor, sl strmg whi- lt blu cut, mod br yel res rng

SST: drk gry, sli brn ip, vf gr occ, sb rnd - sb ang, fri, abndt cly, sl calc cmnt, tr yel fluor, sl stmg yel - bl cut, bri yel - grn res ring

LS: wkst - mdst, lt gry-gry, hd -





MD 14588' Inc 86° Azm 3°  
TVD 11055.4' VS 3533.24

MWi 9.55  
MWO 9.55

WOB 58 RPM 174  
SPM 237 PP 4166

CG 220u

MD 14677' Inc 88° Azm  
2°TVD 11059.8' VS 3621.75

MWi 9.55  
MWO 9.55

WOB 46 RPM 214  
SPM 237 PP 4503

MD 14766' Inc 87° Azm  
2°TVD 11063.6' VS 3710.37

MWi 9.55  
MWO 9.55

WOB 44 RPM 214  
SPM 237 PP 4584

CG 323u

MD 14856' Inc 85° Azm  
360°TVD 11069.8' VS 3799.98

MWi 9.55  
MWO 9.55

WOB 46 RPM 178  
SPM 237 PP 4259

CG 230u

MD 14945' Inc 89° Azm 359°  
TVD 11074.7' VS 3888.74

MWi 9.55  
MWO 9.55

WOB 44 RPM 178  
SPM 237 PP 4255

CG 224u

MD 15034' Inc 89° Azm 0°  
TVD 11076.5' VS 3977.63

MWi 9.6  
MWO 9.6

WOB 49 RPM 214  
SPM 237 PP 4644

CG 212u

MD 15124' Inc 90° Azm 359°  
TVD 11077.2' VS 4067.54

MWi 9.6  
MWO 9.6

WOB 48 RPM 214  
SPM 237 PP 4735

CG 230u

MD 15213' Inc 90° Azm 359°  
TVD 11077' VS 4156.5

MWi 9.6  
MWO 9.6

WOB 49 RPM 214  
SPM 237 PP 4775

CG 245u

MD 15302' Inc 91° Azm 358°  
TVD 11076.2' VS 4245.47

MWi 9.6  
MWO 9.6

WOB 48 RPM 215  
SPM 237 PP 4635

CG 213u

MD 15391' Inc 90° Azm 359°  
TVD 11075.2' VS 4334.44

MWi 9.55  
MWO 9.6

WOB 48 RPM 214  
SPM 237 PP 4784

CG 274u

MD 15481' Inc 88° Azm 360°  
TVD 11076' VS 4424.37

MWi 9.55  
MWO 9.6

WOB 49 RPM 214  
SPM 237 PP 4680

CG 279u

MD 15570' Inc 89° Azm 0°  
TVD 11077.8' VS 4513.24

MWi 9.6  
MWO 9.6

REPLACE AIR LINE

CG 230u

WOB 49 RPM 214  
SPM 237 PP 4616

MD 15659' Inc 87° Azm 359°

frn, v f xln - microxln, mas, frac, occ arg, vf lam, no fluor, tr lt blu - wht cut, fnt wht res rng

SH: med- dk gry, mod frm-frm, sb blkly-blky, sli calc, v slty, lam i.p., faint yel-grn fluor, fst stmg grn-yel cut, yel-grn res rng

SLT: off wh gry-lt gry, sb ang-sb rnd, mod- wl srt, m cons-sl frm, mrlly wcalc cmt, arg ip., yel fluor, fst stmg yel cut, bri yel res rng.

SS: lt gry- med gry, mod consol, vf - fn gr, sub rnd - sub ang, occ vf lam slit, mod srtg, calc cmt, yel fluor, mod - fst stmg yel - grn cut, bri yel grn res rng

LS: wkst - mdst, gry, hd - frm, v f xln - microxln, chky - dl - ea, dns, occ arg, lam, dull yel, stmg yel-grn cut, yel res rng

SH: p med - dk gry, mod frm - sli hd ip, sb blkly- sb plty, sli calc, v slty, lam i.p., faint yel - grn fluor, fst stmg grn - yel cut, yel - grn res rng

SLT: wh lt-med gy, vf grn, mod srt, sb rnd, sl hd, calc cmnt, arg mtx ip, lmy incl, dull yel fluor, mod stmg whi- lt blu cut, fnt yel res rng

SS: drk- med gry, mod consol, vf - fn gr, sub rnd - sub ang, occ vf lam slit, mod srtg, calc cmt, yel fluor, mod - fst stmg yel - grn cut, bri yel grn res rng

LS: mdst - wkst, crm, bu, v lt gry - occ v lt brn/tan, sl frm - v frm, vf xln -microxln, dns, frac, clay incl, arg, slty, tr fluor, stmg yel-grn cut, yel-grn res rng

SH: dk gry - gry, grysh brn, tr blk, v frm - sl hd, blkly, slty - frac, lam, occ dissep pyr incl, carb incl, mod yel fluor, fst stmg bl yel cut, mod yel res rng

SLT: gry - v dk gry, dk brn, md - sub ang, v fn grn, frm - sl hrd, arg, calc cmnt, mod - wl consol, yel fluor, fst strm bl yel cut, thk yel - grn res rng.

SS: gry-drk gry, occ crm-dk brn, mod-w consol, v f gr, sbrndd - rdd, sbang ip, mod srtg, calc cmt, dissep pyr incl, occ mica incl, mod yel fluor, fst strm yel - bl cut, bri wht yel res rng

LS: mdst - wkst, crm, bu, v lt gry - tr v lt tan, frm - v frm, vf xln -microxln, dns, frac, arg, v slty, tr fluor, stmg yel-grn cut, yel-grn res rng

SH: dk gry - gry, grysh brn, frm, i.p. sl hd, blkly, slty - frac, lam, abd dissep pyr incl, occ carb incl, yel fluor, fst stmg bl yel cut, bri yel grn res rng

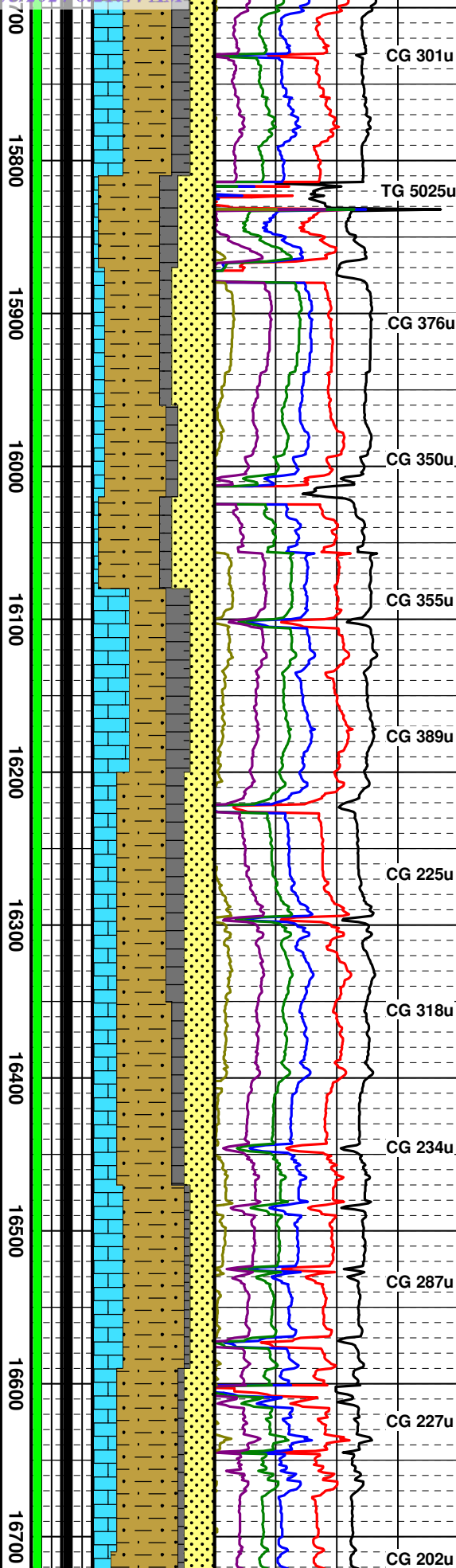
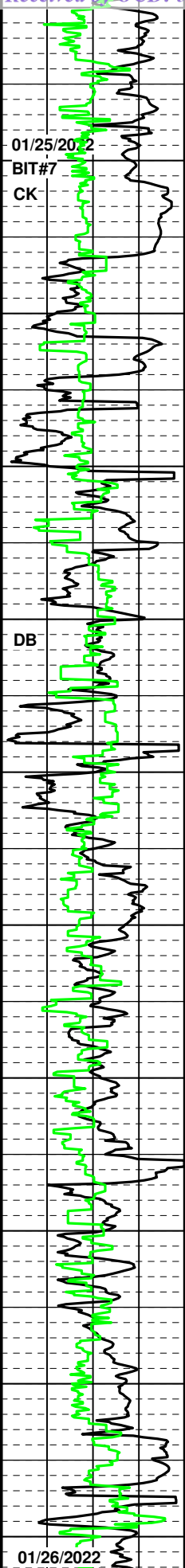
LS: mdst - wkst, crm, bu, v lt dk gry, vf xln -microxln, dns ip, frac, clay incl, arg, slty thru, no fluor, mod stmg yel cut, fnt yll - wht res rng

SST: gry-drk gry, dk brn, mod consol, vf gr, sbrndd - sb ang ip, mod srtg, arg mtx, calc cmt ip, mod yel fluor, fst strm yel - bl cut, bri wht yel res rng

SLT: dk gry - gry - occ v dk gry, rnd - sub ang, v fn grn, abd frm - occ hrd, arg, calc cmnt, mod consol, dil yll fluor, fst strm br yel cut, thk yel res rng.

SH: dk gry - gry, grysh brn, frm,





MWi 9.55  
MWo 9.6  
WOB 48 RPM 214  
SPM 237 PP 4538

MD 15748' Inc 86° Azm 359°  
TVD 11086.4' VS 4690.89

MWi 9.55  
MWo 9.6  
WOB 11 RPM 185  
SPM 237 PP 4556

MD 15838' Inc 88° Azm 0°  
TVD 11091.5' VS 4780.64

MWi 9.9  
MWo 9.9  
WOB 22 RPM 160  
SPM 237 PP 4686

MD 15927' Inc 91° Azm 1°  
TVD 11092.8' VS 4869.44

MWi 9.65  
MWo 9.8  
WOB 37 RPM 200  
SPM 237 PP 4963

MD 16017' Inc 91° Azm 1°  
TVD 11091' VS 4959.21

MWi 9.65  
MWo 9.65  
WOB 38 RPM 216  
SPM 237 PP 4860

MD 16106' Inc 91° Azm 1°  
TVD 11089.2' VS 5048.01

MWi 9.65  
MWo 9.65  
WOB 39k RPM 215  
SPM 237 PP 4629

MD 16196' Inc 90° Azm 360°  
TVD 11088.7' VS 5137.87

MWi 9.55  
MWo 9.6  
WOB 40k RPM 215  
SPM 237 PP 4982

MD 16285' Inc 90° Azm 360°  
TVD 11089.3' VS 5226.77

MWi 9.65  
MWo 9.8  
WOB 39k RPM 205  
SPM 237 PP 4842

MD 16375' Inc 91° Azm 359°  
TVD 11089.1' VS 5316.71

MWi 9.65  
MWo 9.65  
WOB 44k RPM 205  
SPM 237 PP 4809

MD 16464' Inc 89° Azm 358°  
TVD 11089.1' VS 5405.69

MWi 9.65  
MWo 9.65  
WOB 35k RPM 205  
SPM 237 PP 4235

MD 16554' Inc 88° Azm 357°  
TVD 11091.3' VS 5495.65

MWi 9.65  
MWo 9.65  
WOB 36k RPM 191  
SPM 232 PP 4276

MD 16644' Inc 88° Azm 356°  
TVD 11094.7' VS 5585.58

MWi 9.65  
MWo 9.65  
WOB 42k RPM 205  
SPM 238 PP 4758

MD 16733' Inc 89° Azm 356°  
TVD 11097.5' VS 5674.51

MWi 9.65

i.p. sl hd, blkly, slty - frac, lam, abd dissem pyr incl, occ carb incl, yel fluor, fst stmgng bl yel cut, bri yel grn res rng

LS: mdst - wkst, crm, bu, v lt gry - occ v lt brn/tan, sl frm - v frm, vf xln -microxln, dns, frac, clay incl, arg, slty, tr fluor, stmgng yel-grn cut, yel-grn res rng

SST: p gry-drk gry, dk brn, mod consol, vf gr, sbrndd - sb ang ip, mod srtg, arg mtx, calc cmt ip, mod yel fluor, fst strm yel - bl cut, bri wht yel res rng

SLT: dk gry - gry - occ v dk gry, rnd - sub ang, v fn grn, abd frm - occ hrd, arg, calc cmnt, mod consol, dll yll fluor, fst strm br yel cut, thk yel res rng.

SH: dk gry - gry, grysh brn, frm, i.p. sl hd, blkly, slty - frac, lam, abd dissem pyr incl, occ carb incl, yel fluor, fst stmgng bl yel cut, bri yel grn res rng

LS: mdst - wkst, crm, bu, v lt dk gry, vf xln -microxln, dns ip, frac, clay incl, arg, slty thru, no fluor, mod stmgng yel cut, fnt yll - wht res rng

SLT: brn - dk brn, rnd - sub ang, v fn grn, frm - v frm, arg, calc cmnt, mod - wl consol, yel fluor, strm yel -grn cut, yel - grn res rng.

SST: gry-drk gry, dk brn, occ grysh brn, mod consol, vf gr, sbrndd - sb ang, mod srtg, calc cmt, mod yel fluor, mod strm yel - grn cut, bri yel grn res rng

LS: Wht - off wht, lt tan - tan, cm, bf, gry - wht - bk mott, vf - mi xln, sub blkly - sub ang, mod hrd - v hrd, dns, sm arg inclus, no vis fluor, mod blming - tr strming blu - wht dry cut, fair brt yl res ring, sm vis degassing

SH: dk gry - gry, grysh brn, frm, i.p. sl hd, blkly, slty - frac, lam, abd dissem pyr incl, occ carb incl, yel fluor, fst stmgng bl yel cut, bri yel grn res rng

SST: gry-drk gry, dk brn, occ grysh brn, mod consol, vf gr, sbrndd - sb ang, mod srtg, calc cmt, mod yel fluor, mod strm yel - grn cut, bri yel grn res rng

SLT: brn - dk brn, rnd - sub ang, v fn grn, frm - v frm, arg, calc cmnt, mod - wl consol, yel fluor, strm yel -grn cut, yel - grn res rng.

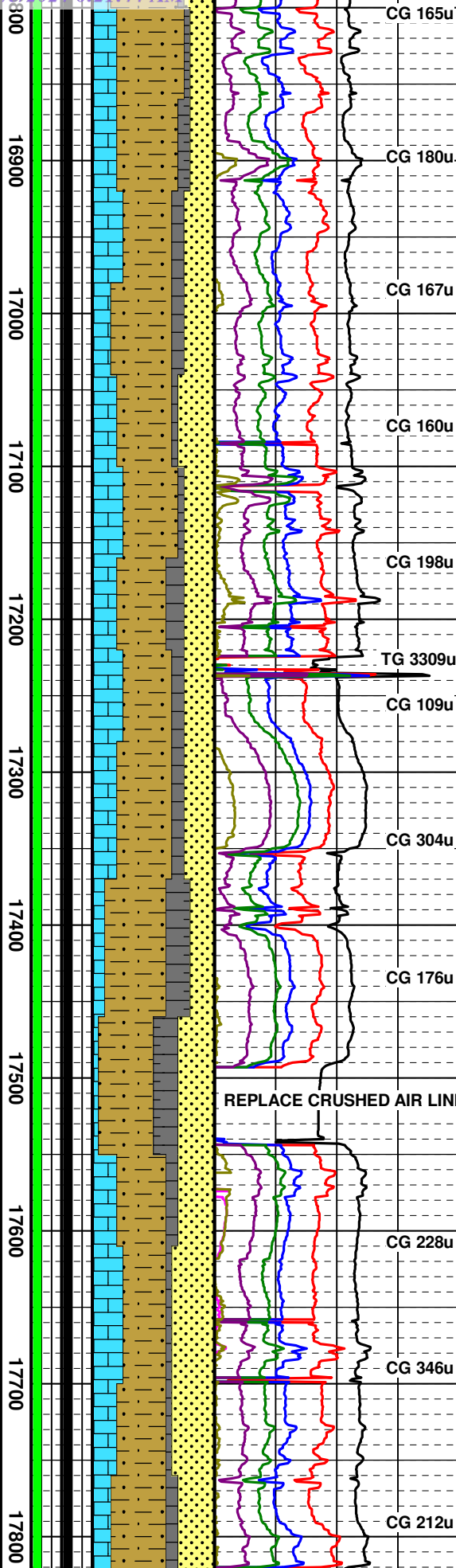
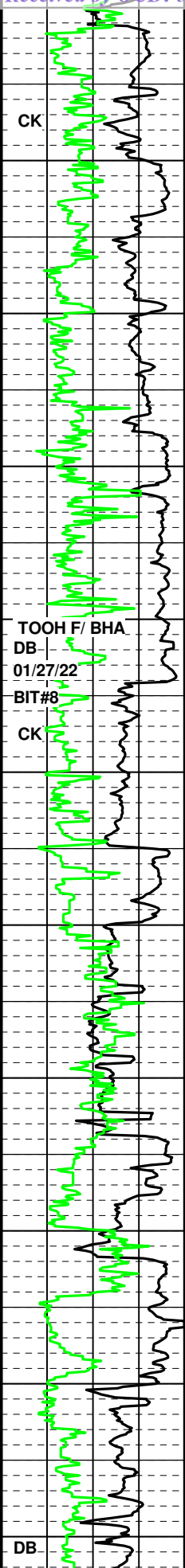
LS: mdst - wkst, crm, bu, v lt dk gry, vf xln -microxln, dns ip, frac, clay incl, arg, slty thru, no fluor, mod stmgng yel cut, fnt yll - wht res rng

SLT: brn - lt brn, lt tan - tan, cm, vf - f grn, v well - mod srtg, mostly calc cmnt w occ sil cmnt, tr pa yl fluor, mod blming - tr strming blu - wht dry cut, fair brt yl res ring, sm vis degassing

SST: gry-drk gry, dk brn, occ grysh brn, mod consol, vf gr, sbrndd - sb ang, mod srtg, calc cmt, mod yel fluor, mod strm yel - grn cut, bri yel grn res rng

SH: dk gry - gry, grysh brn, frm,





WOB 41k RPM 199  
SPM 228 PP 4612  
MWo 9.65

MD 16823' Inc 88° Azm 358°  
TVD 11099.7' VS 5764.48

WOB 43k RPM 199  
SPM 229 PP 4499

MD 16912' Inc 89° Azm 359°  
TVD 11101.5' VS 5853.44

WOB 42k RPM 199  
SPM 228 PP 4383

MD 17002' Inc 91° Azm 360°  
TVD 11101.4' VS 5943.38

WOB 44k RPM 199  
SPM 229 PP 4390

MD 17092' Inc 91° Azm 360°  
TVD 11099.7' VS 6033.28

WOB 49k RPM 210  
SPM 238 PP 4781

MD 17180' Inc 91° Azm 358°  
TVD 11097.8' VS 6121.21

WOB 30k RPM 221  
SPM 237 PP 4766

MD 17269' Inc 90° Azm 357°  
TVD 11096.9' VS 6210.2

WOB 15k RPM 221  
SPM 237 PP 4544

MD 17359' Inc 92° Azm 357°  
TVD 11095.3' VS 6300.18

WOB 41k RPM 220  
SPM 237 PP 4762

MD 17448' Inc 93° Azm 358°  
TVD 11091.5' VS 6389.1

WOB 42k RPM 221  
SPM 237 PP 4868

MD 17538' Inc 94° Azm 358°  
TVD 11086' VS 6478.91

WOB 21k RPM 242  
SPM 237 PP 4344

MD 17627' Inc 94° Azm 360°  
TVD 11079.6' VS 6567.65

WOB 61k RPM 181  
SPM 237 PP 4526

MD 17716' Inc 88° Azm 360°  
TVD 11078.3' VS 6656.51

WOB 41k RPM 221  
SPM 231 PP 4678

MD 17806' Inc 89° Azm 360°  
TVD 11080.8' VS 6746.39

WOB 39k RPM 224

i.p. sl hd, blk, slty - frac, lam, abd disse pyr incl, occ carb incl, yel fluor, fst stmg bl yel cut, bri yel grn res rng

LS: wkst - mdst, gry, hd - frm, v f xln - microxln, chky - dl - ea, dns, occ arg, lam, dull yel, stmg yel-grn cut, yel res rng

SLT: gry - v dk gry, dk brn, md - sub ang, v fn grn, frm - sl hrd, arg, calc cmnt, mod - wl consol, yel fluor, fst strm bl yel cut, thk yel - grn res rng.

SST: p gry-drk gry, dk brn, mod consol, vf gr, sbrnnd - sb ang ip, mod srtg, arg mtx, calc cmt ip, mod yel fluor, fst strm yel - bl cut, bri wht yel res rng

SH: dk gry - gry, grysh brn, frm, i.p. sl hd, blk, slty - frac, lam, abd disse pyr incl, occ carb incl, yel fluor, fst stmg bl yel cut, bri yel grn res rng

LS: mdst - wkst, crm, bu, v lt dk gry, vf xln -microxln, dns ip, frac, clay incl, arg, slty thru, no fluor, mod stmg yel cut, fnt yll - wht res rng

SLT: lt gry - v dk gry, sme crm, rnd - sb ang, v fn grn, frm - sl hrd, arg, calc cmnt, mod - wl consol, yel fluor, fst strm bl yel cut, thk yel - grn res rng.

SST: gry-drk gry, dk brn, mod consol, vf gr, sbrnnd - sb ang ip, mod srtg, cly/arg mtx, calc cmt ip, mod yel fluor, fst strm yel - bl cut, bri wht yel res rng

SH: p dk gry - gry - blk, frm - v frm, i.p. sl sft, blk-sbbiky, dl, abd slty, aren ip, brit, sl lam, tr mic incl, tr fluor, mod stmg bri yel- lt blu cut, fnt yel res ring

LS: mdst - wkst, off wht, bu, lt brn ip, vf xln -microxln, dns ip, frac, arg, slty thru, no fluor, mod stmg yel cut, fnt yll - wht res rng

SLT: med - v dk gry, sme crm, rnd - sb ang, v fn grn, frm - sl hrd, arg, calc cmnt, mod, tr yel - orng fluor, mod strm bl yel cut, med yel - grn res rng.

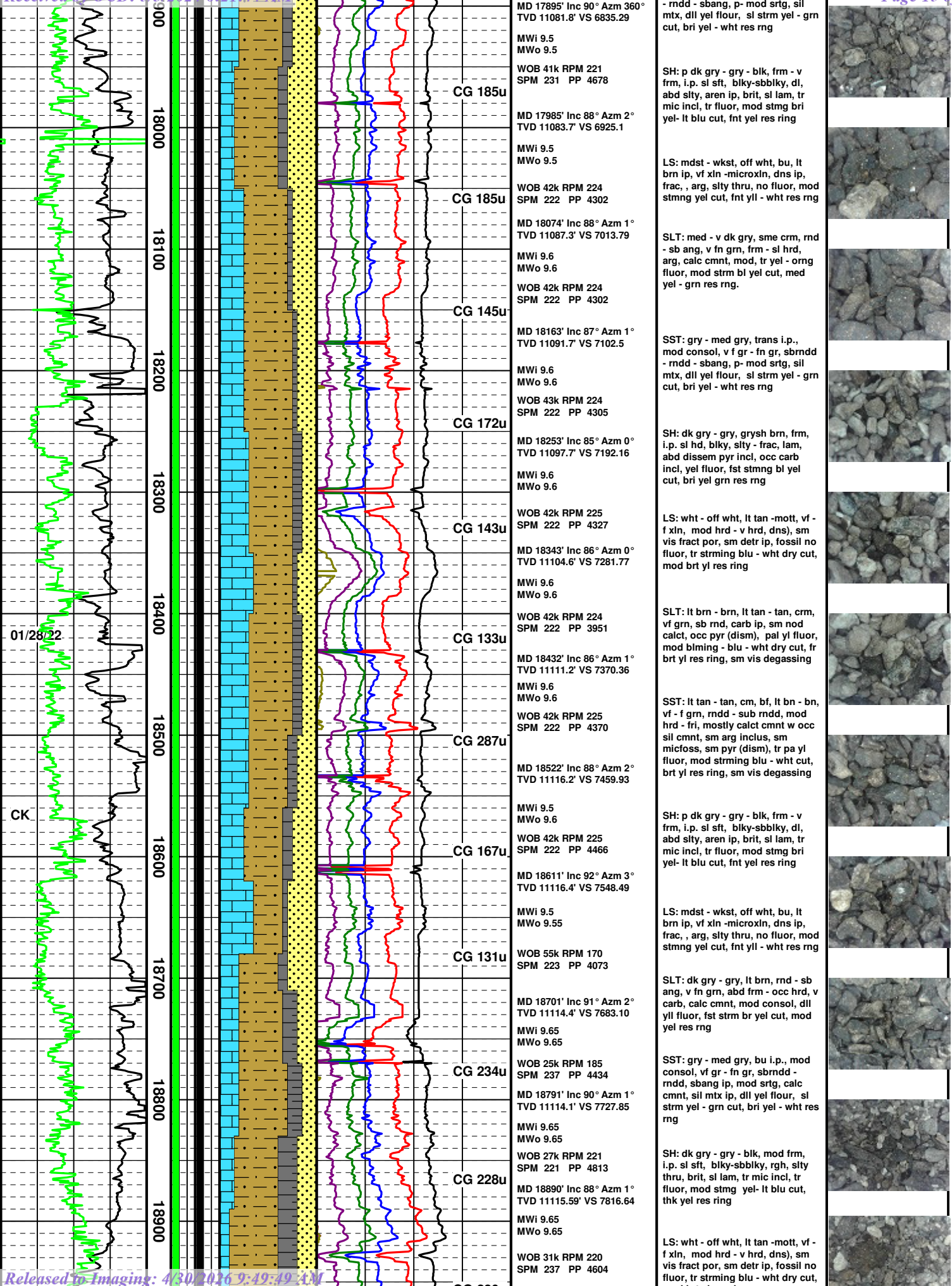
SST: gry - med gry, trans i.p., mod consol, v f gr - fn gr, sbrnnd - mdd - sbang, p- mod srtg, sil mtx, dll yel fluor, sl strm yel - grn cut, no ring

SH: p dk gry - gry - blk, frm - v frm, i.p. sl sft, blk-sbbiky, dl, abd slty, aren ip, brit, sl lam, tr mic incl, tr fluor, mod stmg bri yel- lt blu cut, fnt yel res ring

LS: mdst - wkst, off wht, bu, lt brn ip, vf xln -microxln, dns ip, frac, arg, slty thru, no fluor, mod stmg yel cut, fnt yll - wht res rng

SLT: med - v dk gry, sme crm, rnd - sb ang, v fn grn, frm - sl hrd, arg, calc cmnt, mod, tr yel - orng fluor, mod strm bl yel cut, med yel - grn res rng.





TD @ 19092' AT 4:19 PM 1/28/2022

000  
19100

Slide	Gamma Ray (MWD)	0	API	150
	Average ROP	300	FPH	0
	ROP			
	Depth			
	Cut			
	Fluor			
	Total Gas			

100	Iso-Pentane	PPM	1e+06
100	Normal Butane	PPM	1e+06
100	Iso-Butane	PPM	1e+06
100	Propane	PPM	1e+06
100	Ethane	PPM	1e+06
100	Methane	PPM	1e+06
1	Total Gas	Unit	10000

% Lith Total Gas/Chromo

360°TVD 11117' VS 7906.5  
MWi 9.65  
MWO 9.65  
WOB 45k RPM 220  
SPM 237 PP 5172  
MD 19023' Inc 90° Azm 359°  
TVD 11116.9' VS 7959.46  
MWi 9.65  
MWO 9.65

CG 114u

Drilling Parameters & Surveys

SLT: med - v dk gry, sme crm, rnd - sb ang, v fn grn, frm - sl hrd, arg, calc cmnt, mod, tr yel - org fluor, mod strm bl yel cut, med yel - grn res rng.  
SST: gry - med gry, bu i.p., mod consol, vf gr - fn gr, sbrnrd - rndd, sbang ip, mod srtg, calc cmnt, sil mtx ip, dll yel flour, sl strm yel - grn cut, bri yel - wht res

Descriptions



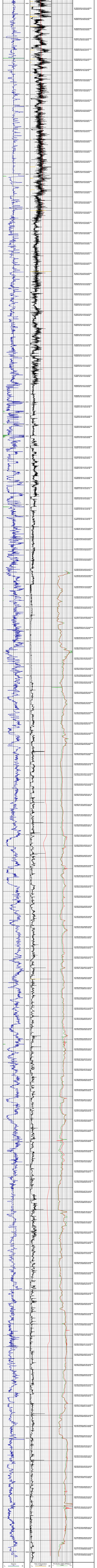
Images

**AIM** Anderson Fed Com 551H **MD 11"100'**

Company: Advance Energy Partners, LLC  
 Well Name: Anderson Fed Com 551H  
 APL: 30-02-4695  
 County/Parish: Lea  
 State: New Mexico  
 Field: USA  
 Job number: WT-21-163  
 Field: 3rd Bone Spring Carb  
 Rig Id: Nabors X50  
 Survey Company: AIM Directional Services, LLC

Run	Tool S/N	Gamma Cal	Bit Size	Survey	Offsets	Gamma	Reis	Mud Data	Weight	Depth	Dates
1	EN-007	N/A	12.25"	60.00 R		N/A ft	N/A ft	WBM	9.7	120 ft	11/20/2021 11:30 1/24/2022 22:30
2	EN-007	N/A	12.25"	60.00 R		N/A ft	N/A ft	WBM	9.7	120 ft	11/20/2021 11:30 1/24/2022 22:30
3	CO-01	3.85	8.75"	60.00 R		33.00 ft	N/A ft	WBM	9.7	483 ft	01/17/2022 17:10 1/15/2022 19:15
4	CO-01	3.85	8.75"	60.00 R		33.00 ft	N/A ft	WBM	9.7	956 ft	01/17/2022 16:30 1/15/2022 16:30
5	B32	5.028	8.75"	60.00 R		35.00 ft	45 ft	WBM	9.3	1050 ft	01/17/2022 20:00 1/20/2022 19:00
6	B32	5.028	8.75"	64.00 R		40.00 ft	50 ft	OBM	9.5	1136 ft	01/21/2022 01:30 01/24/2022 16:30
7	B32	5.028	8.75"	64.00 R		40.00 ft	50 ft	OBM	9.5	1529 ft	01/20/2022 01:35 01/26/2022 12:45
8	B32	5.028	8.75"	69.00 R		45.00 ft	55 ft	OBM	9.5	1726 ft	01/20/2022 21:30 01/28/2022 16:20

AIM Directional Services, LLC uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretations.





**End of Well Report**

**Advance Energy Partners, LLC  
Anderson Fed Com, Well No. 551H  
Lea County, New Mexico**

**Rig: Nabors X50  
Job No.: WT-21-183**

Start Date: 11/24/2021  
End Date: 01/29/2022

Directional Drillers:  
**Joseph Lanham, 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 551H (WT-21-183)**

2021-11-24 to 2022-01-29

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

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# BHA Performance

## BHA 1

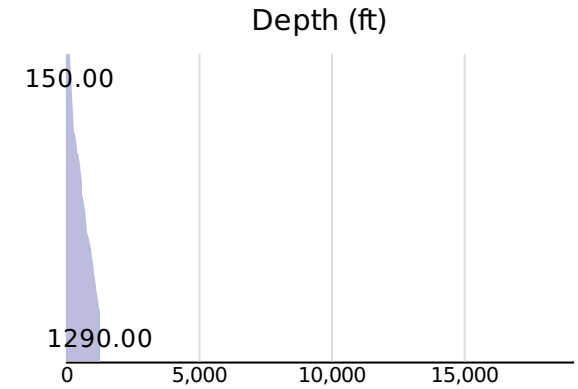
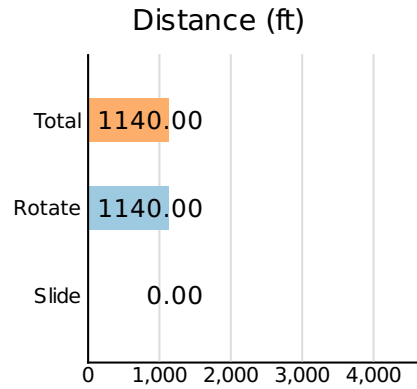
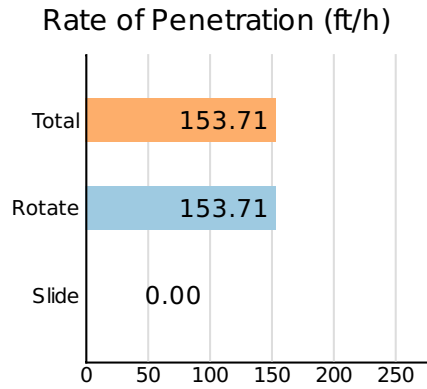
BHA #1 (17.5" Surface)

In: 11/24/2021

10:15

Out: 11/24/2021

22:30



## BHA 2

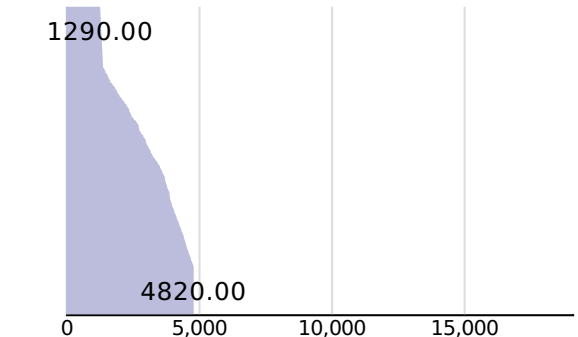
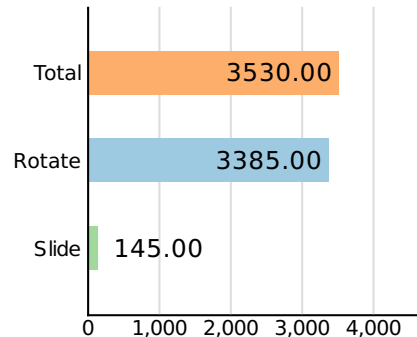
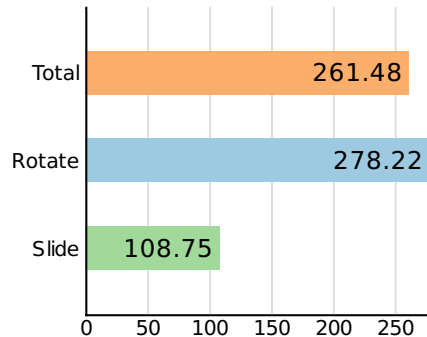
12.25" Intermediate

In: 11/30/2021

12:15

Out: 12/01/2021

12:30



## BHA 3

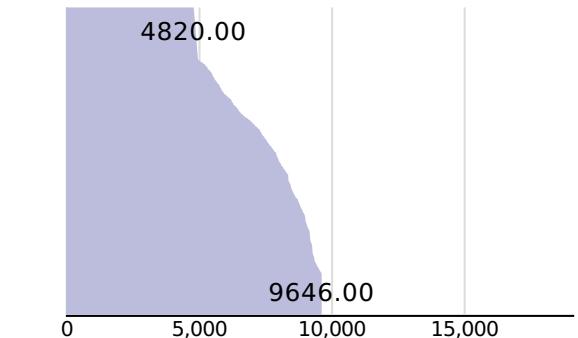
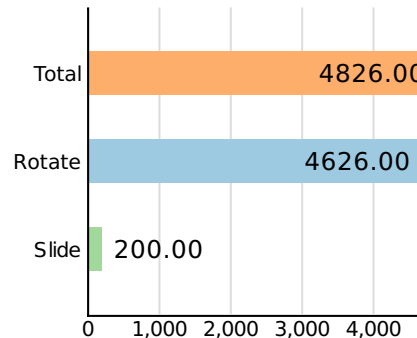
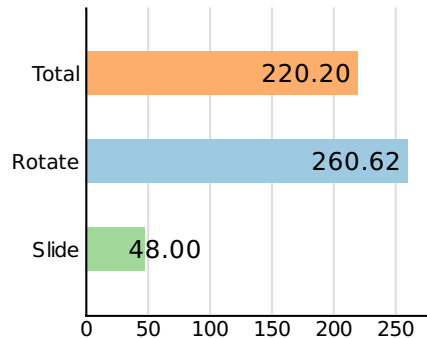
8.75" INTERMEDIATE

In: 01/17/2022

11:15

Out: 01/19/2022

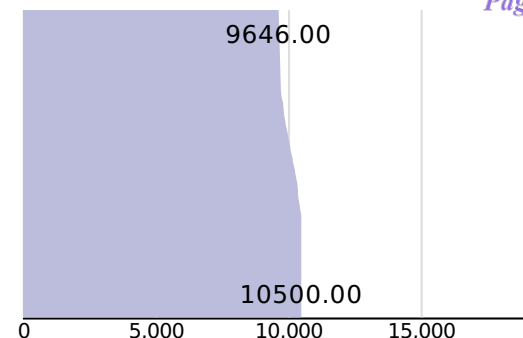
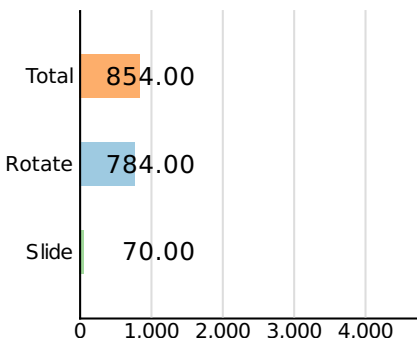
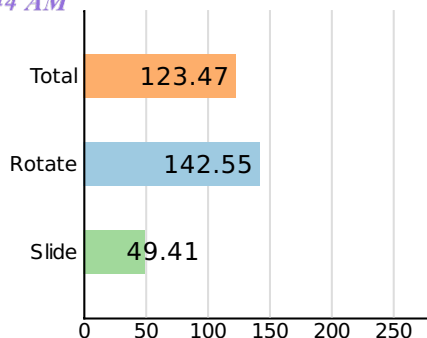
00:00



# BHA 4

8.75"  
INTERMEDIATE

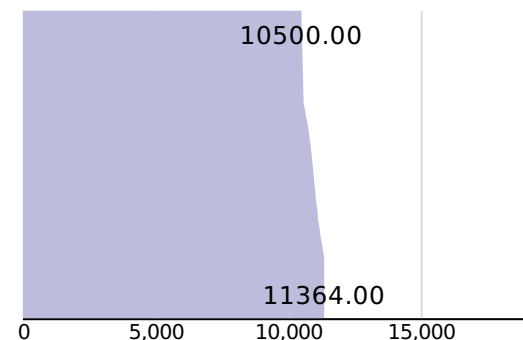
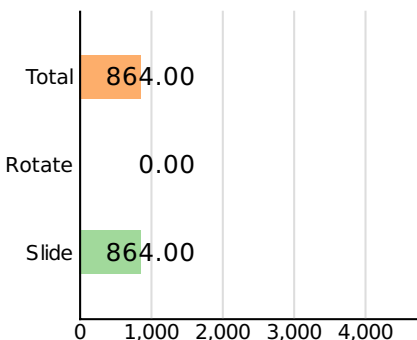
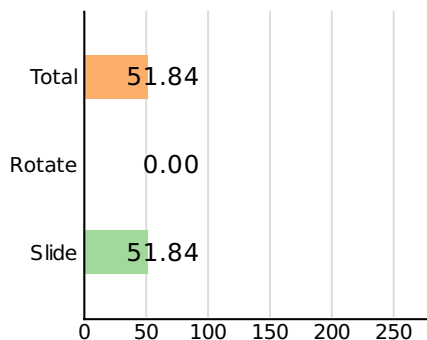
In: **01/19/2022**  
**00:30**  
Out: **01/19/2022**  
**18:00**



# BHA 5

BHA #5 ( Curve  
Assy)

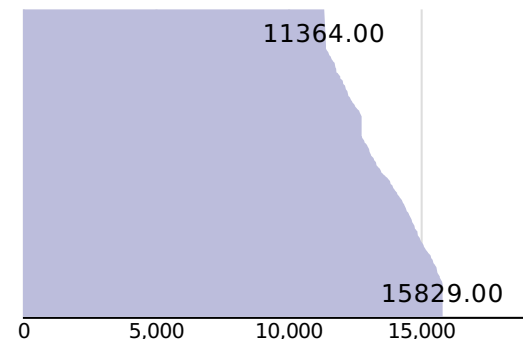
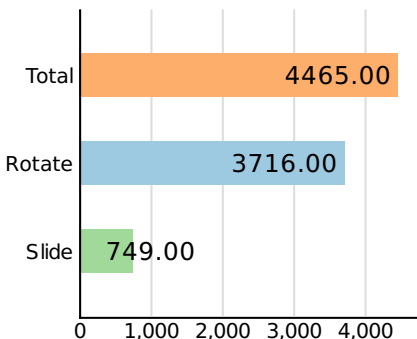
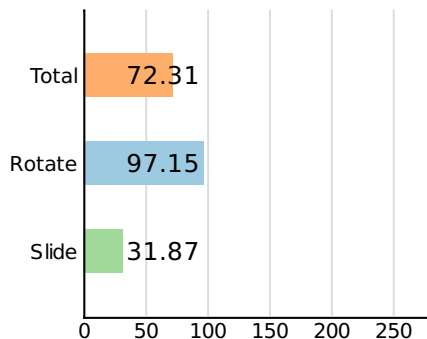
In: **01/19/2022**  
**18:00**  
Out: **01/21/2022**  
**01:00**



# BHA 6

8.75" LATERAL

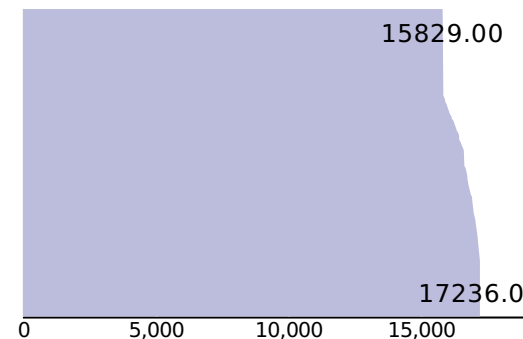
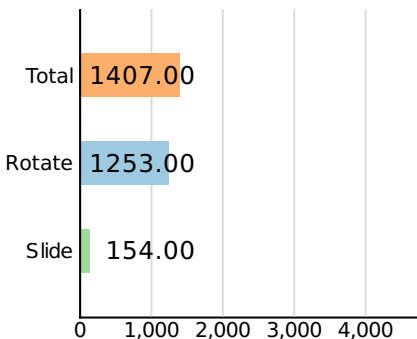
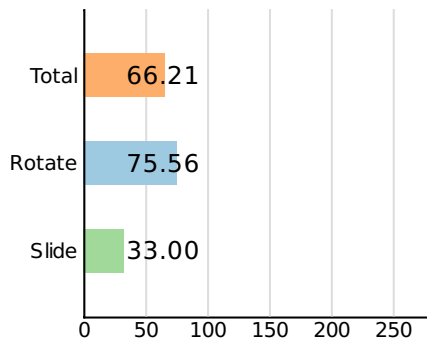
In: **01/21/2022**  
**02:30**  
Out: **01/25/2022**  
**02:00**



# BHA 7

8.75" LATERAL

In: **01/25/2022**  
**02:00**  
Out: **01/26/2022**  
**20:00**



# BHA 8

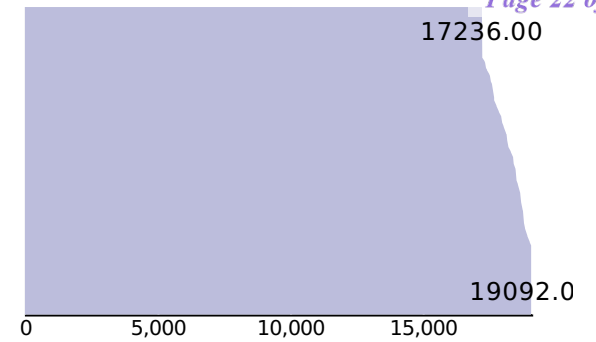
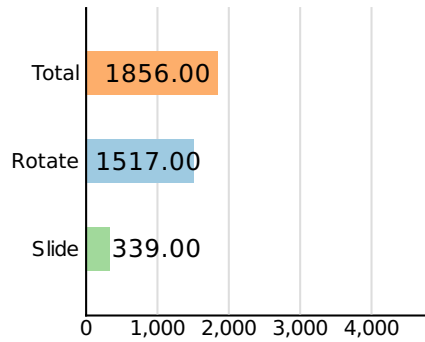
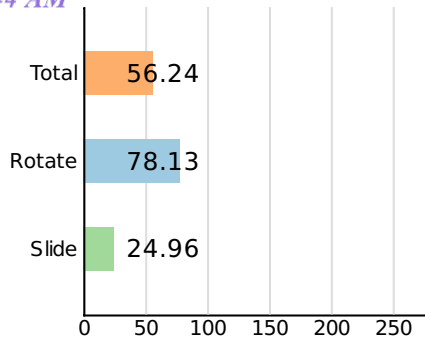
8.75" LATERAL

In: 01/26/2022

20:00

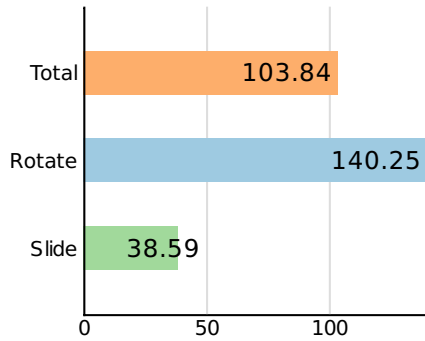
Out: 01/29/2022

05:10

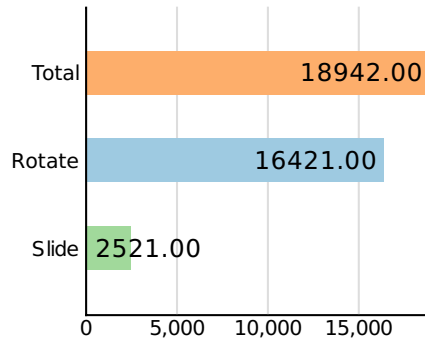


Rate of Penetration (ft/h)

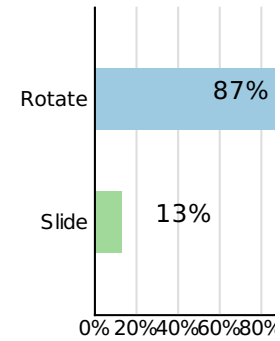
## Total



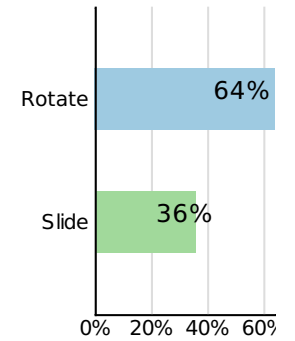
Distance (ft)



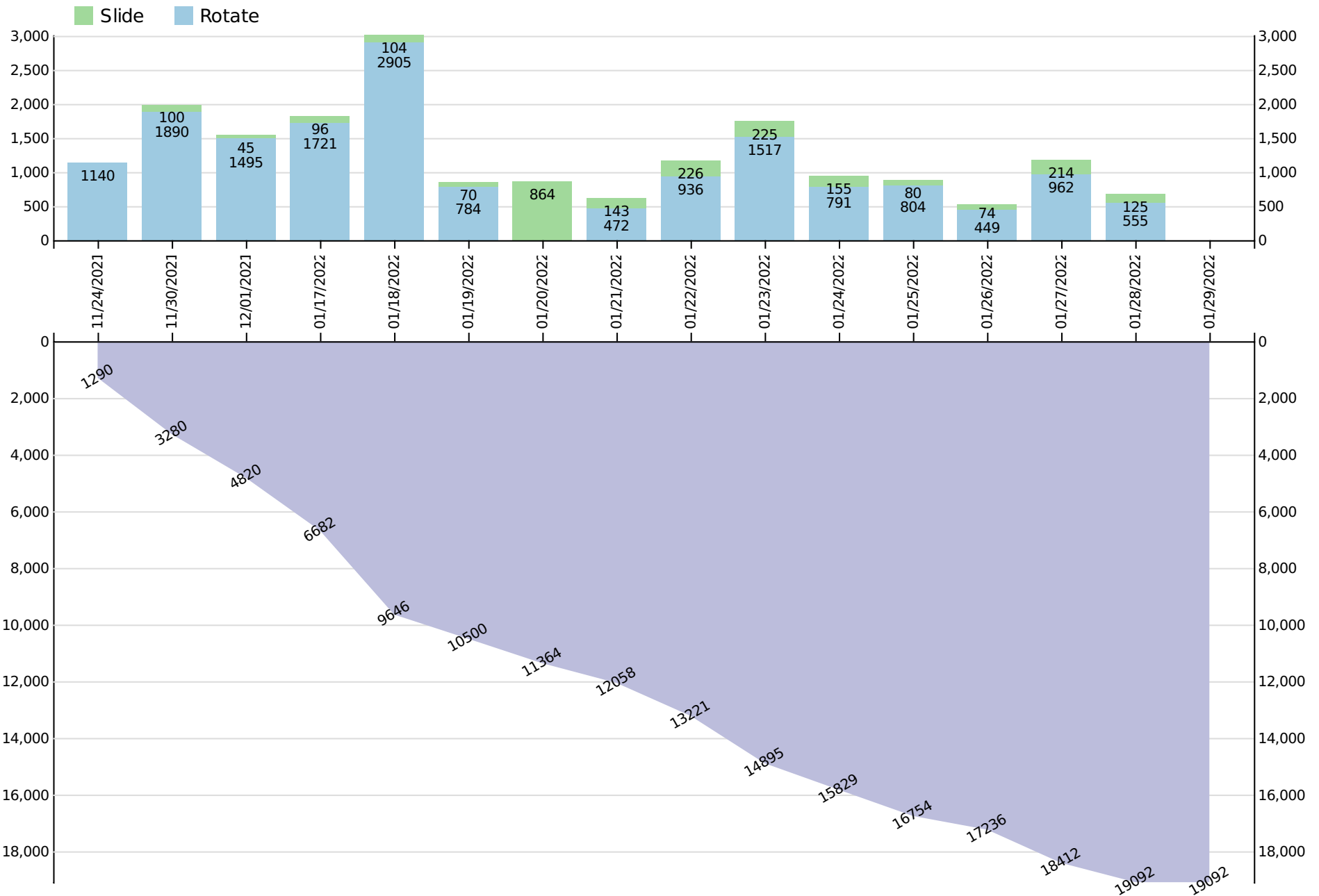
Distance Percentage



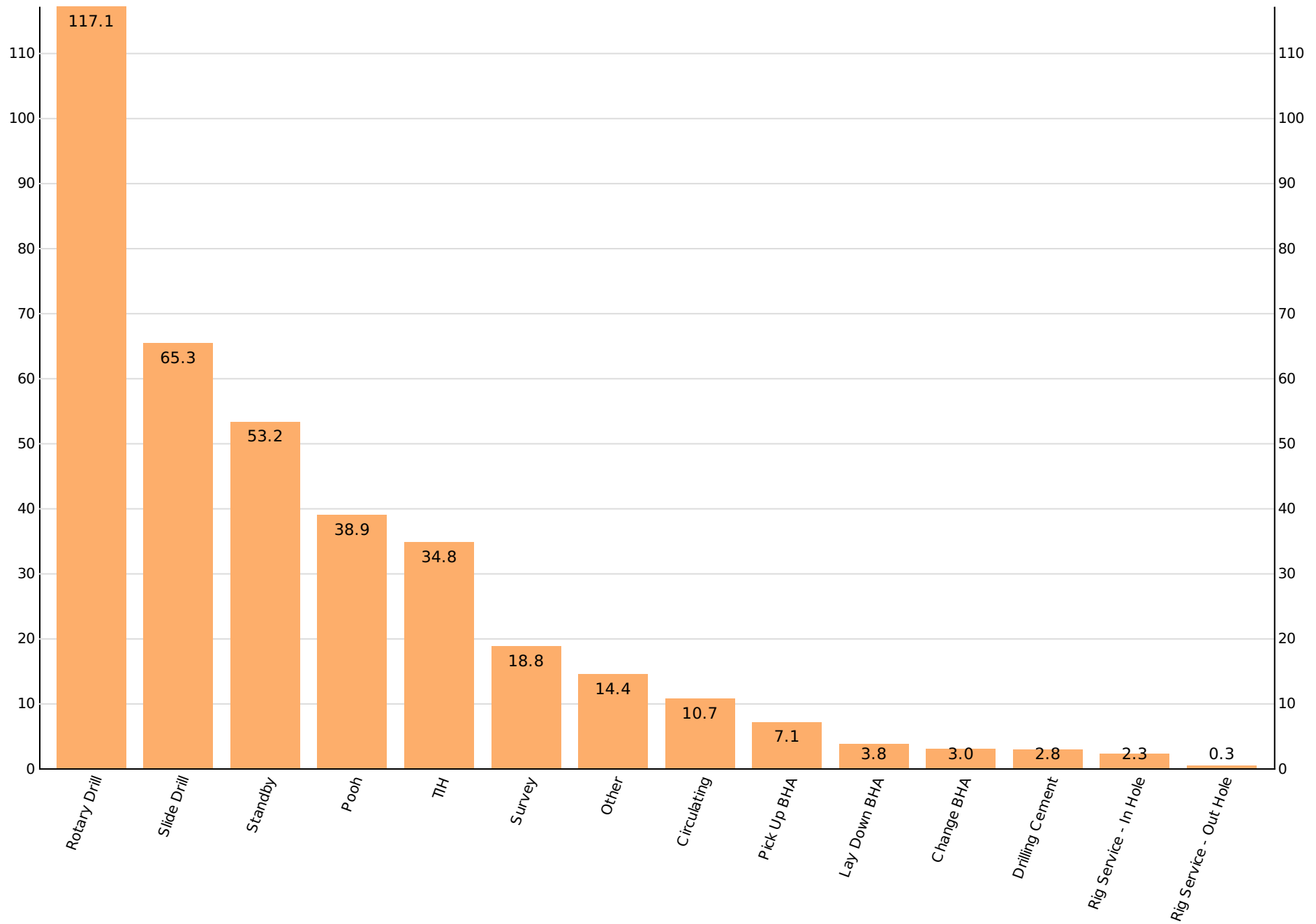
Time Percentage



# Days vs. Depth



# Directional Activity Hours





# Proposed vs. As Drilled

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## **Anderson Fed Com 551H (WT-21-183)**

2021-11-24 to 2022-01-29

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

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Anderson Fed Com 551H  
Lea County, New Mexico  
Job No. WT-21-183  
Plan 1.0



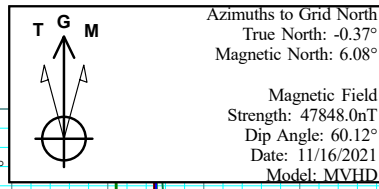
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	
2	5400.00	0.00	0.00	5400.00	0.00	0.00	0.000	0.00	0.00	Build: 1°/100
3	5803.29	4.03	231.89	5802.96	-8.76	-11.16	1.000	231.89	-8.20	Hold: 4.03° Inc, 231.89° Azm
4	10007.79	4.03	231.89	9997.04	-191.24	-243.84	0.000	0.00	-179.06	Drop: 1°/100'
5	10411.08	0.00	0.00	10400.00	-200.00	-255.00	1.000	180.00	-187.26	Hold
6	10602.62	0.00	0.00	10591.54	-200.00	-255.00	0.000	0.00	-187.26	KOP: 12°/100' @ 10602.62' MD
7	11352.62	90.00	351.99	11069.00	272.81	-321.53	12.000	351.99	288.24	LP: 11352.62' MD, 90.00° Inc, 351.99° Azm
8	11355.99	90.00	351.99	11069.00	276.15	-322.00	0.000	0.00	291.60	Build: 2°/100
9	11741.26	90.72	359.66	11066.59	660.10	-350.02	2.000	84.65	676.47	Hold: 90.72° Inc, 359.66° Azm
10	12908.07	90.72	359.66	11052.00	1826.80	-356.90	0.000	0.00	1842.10	Drop: 2°/100'
11	12916.53	90.55	359.66	11051.91	1835.26	-356.95	2.000	-179.98	1850.55	Hold: 90.55° Inc, 359.66° Azm
12	14791.09	90.55	359.66	11034.00	3709.70	-368.00	0.000	0.00	3723.28	Drop: 2°/100'
13	14830.63	89.76	359.66	11033.90	3749.24	-368.23	2.000	-179.71	3762.78	Hold: 89.76° Inc, 359.66° Azm
14	16032.03	89.76	359.66	11039.00	4950.60	-375.40	0.000	0.00	4963.05	Build: 2°/100
15	16051.79	90.15	359.67	11039.02	4970.36	-375.52	2.000	1.67	4982.79	Hold: 90.15° Inc, 359.67° Azm
16	19081.71	90.15	359.67	11031.00	8000.23	-392.98	0.000	0.00	8009.87	PBHL @ 19081.71' MD/11031.00' TVD

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Anderson #551H PBHL	11031.00	8000.23	-392.98	527935.70	751239.70	32° 26' 58.277 N	103° 39' 10.330 W
Anderson #551H WP2	11034.00	3709.70	-368.00	523645.17	751264.68	32° 26' 15.821 N	103° 39' 10.357 W
Anderson #551H WP3	11039.00	4950.60	-375.40	524886.07	751257.28	32° 26' 28.100 N	103° 39' 10.351 W
Anderson #551H WP1	11052.00	1826.80	-356.90	521762.27	751275.78	32° 25' 57.189 N	103° 39' 10.368 W
Anderson #551H FTP	11069.00	276.23	-349.28	520211.70	751283.40	32° 25' 41.845 N	103° 39' 10.394 W

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

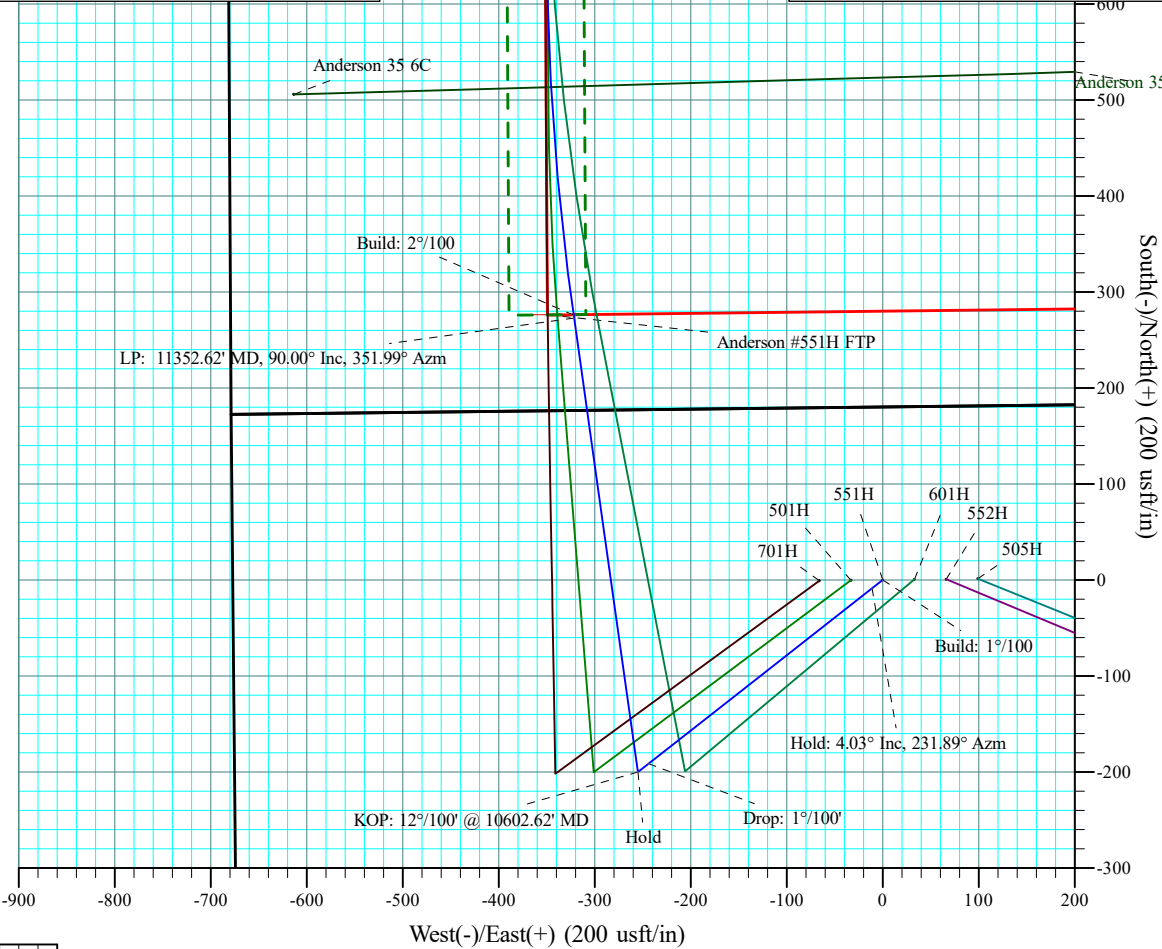
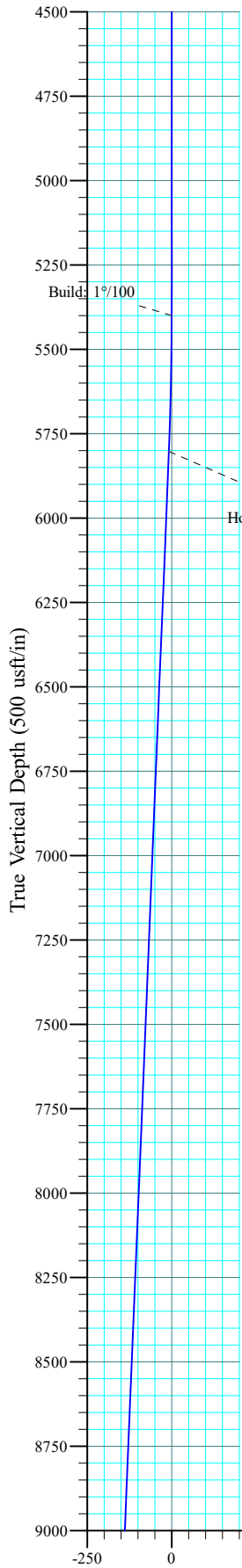
System Datum: Mean Sea Level



SITE DETAILS: Anderson Fed Com 551H

Site Centre Northing: 519935.47  
Easting: 751632.68

Positional Uncertainty: 0.00  
Convergence: 0.37  
Local North: Grid



Revised to Imaging: 4/20/2026 9:49:19 AM

Revised by OCD: 5/3/2024 6:21:44 AM

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**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	5400.00	0.00	0.00	5400.00	0.00	0.00	0.000	0.00	0.00		Build: 1°/100
3	5803.29	4.03	231.89	5802.96	-8.76	-11.16	1.000	231.89	-8.20		Hold: 4.03° Inc, 231.89° Azm
4	10007.79	4.03	231.89	9997.04	-191.24	-243.84	0.000	0.00	-179.06		Drop: 1°/100'
5	10411.08	0.00	0.00	10400.00	-200.00	-255.00	1.000	180.00	-187.26		Hold
6	10602.62	0.00	0.00	10591.54	-200.00	-255.00	0.000	0.00	-187.26		KOP: 12°/100' @ 10602.62' MD
7	11352.62	90.00	351.99	11069.00	272.81	-321.53	12.000	351.99	288.24		LP: 11352.62' MD, 90.00° Inc, 351.99° Azm
8	11355.99	90.00	351.99	11069.00	276.15	-322.00	0.000	0.00	291.60		Build: 2°/100
9	11741.26	90.72	359.66	11066.59	660.10	-350.02	2.000	84.65	676.47		Hold: 90.72° Inc, 359.66° Azm
10	12908.07	90.72	359.66	11052.00	1826.80	-356.90	0.000	0.00	1842.10	Anderson #551H WP1	Drop: 2°/100'
11	12916.53	90.55	359.66	11051.91	1835.26	-356.95	2.000	-179.98	1850.55		Hold: 90.55° Inc, 359.66° Azm
12	14791.09	90.55	359.66	11034.00	3709.70	-368.00	0.000	0.00	3723.28	Anderson #551H WP2	Drop: 2°/100'
13	14830.63	89.76	359.66	11033.90	3749.24	-368.23	2.000	-179.71	3762.78		Hold: 89.76° Inc, 359.66° Azm
14	16032.03	89.76	359.66	11039.00	4950.60	-375.40	0.000	0.00	4963.05	Anderson #551H WP3	Build: 2°/100
15	16051.79	90.15	359.67	11039.02	4970.36	-375.52	2.000	1.67	4982.79		Hold: 90.15° Inc, 359.67° Azm
16	19081.71	90.15	359.67	11031.00	8000.23	-392.98	0.000	0.00	8009.87	Anderson #551H PBHL	PBHL @ 19081.71' MD/11031.00' TVD

**DESIGN TARGET DETAILS**

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Anderson #551H PBHL	11031.00	8000.23	-392.98	527935.70	751239.70	32° 26' 58.277 N 103° 39' 10.330 W	
Anderson #551H WP2	11034.00	3709.70	-368.00	523645.17	751264.68	32° 26' 15.821 N 103° 39' 10.357 W	
Anderson #551H WP3	11039.00	4950.60	-375.40	524886.07	751257.28	32° 26' 28.100 N 103° 39' 10.351 W	
Anderson #551H WP1	11052.00	1826.80	-356.90	521762.27	751275.78	32° 25' 57.189 N 103° 39' 10.368 W	
Anderson #551H FTP	11069.00	276.23	-349.28	520211.70	751283.40	32° 25' 41.845 N 103° 39' 10.394 W	

**SITE DETAILS: Anderson Fed Com 551H**

Site Centre Northing: 519935.47  
Easting: 751632.68

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

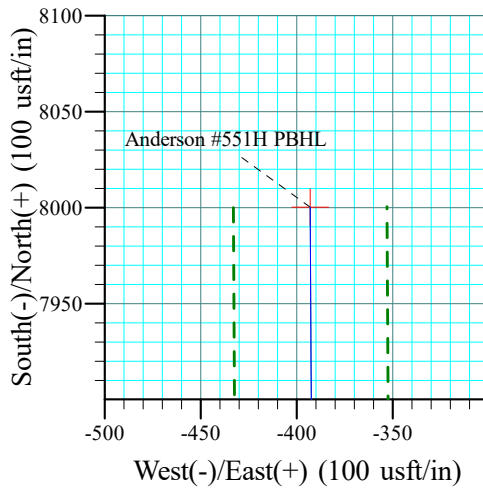
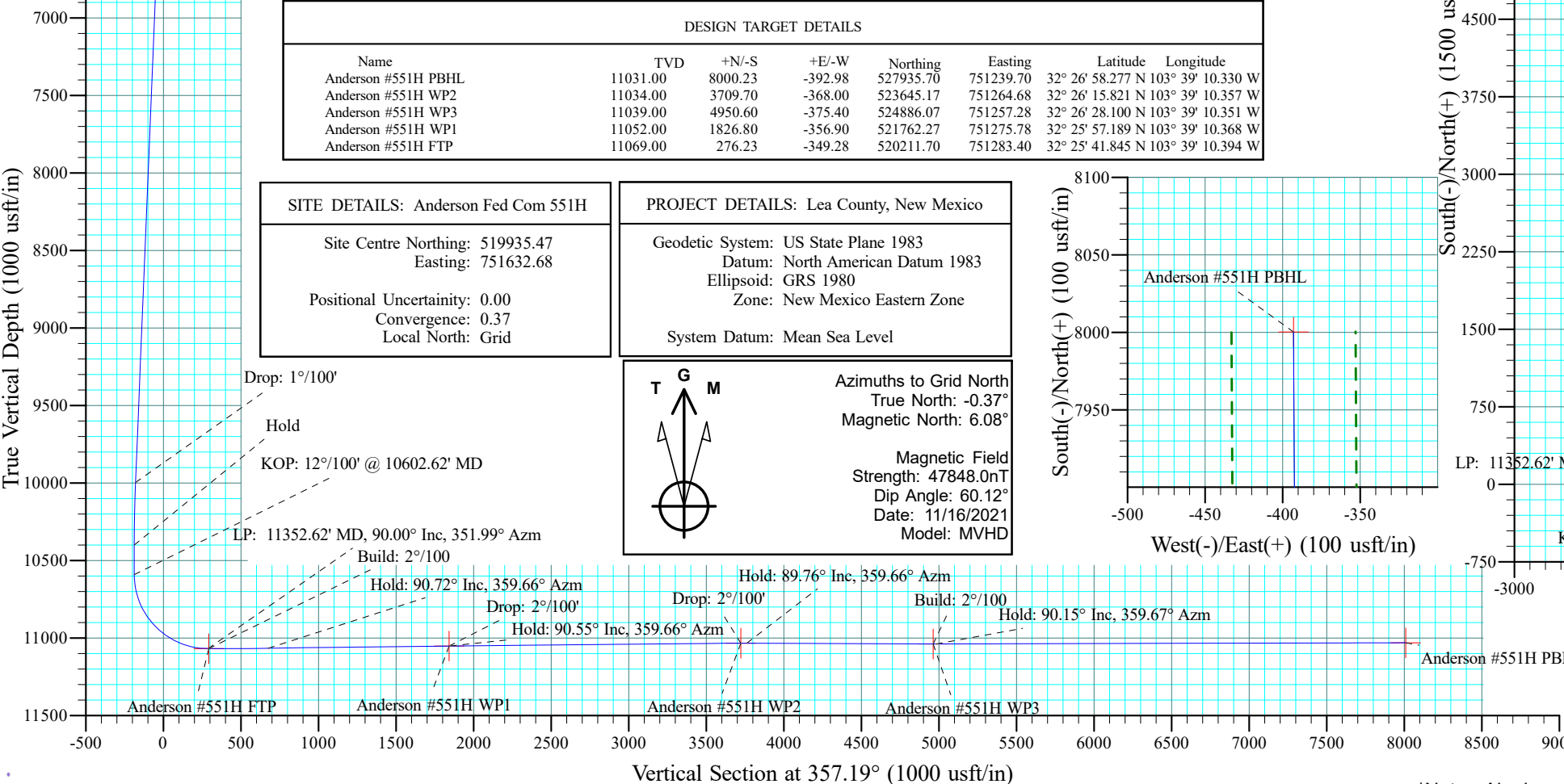
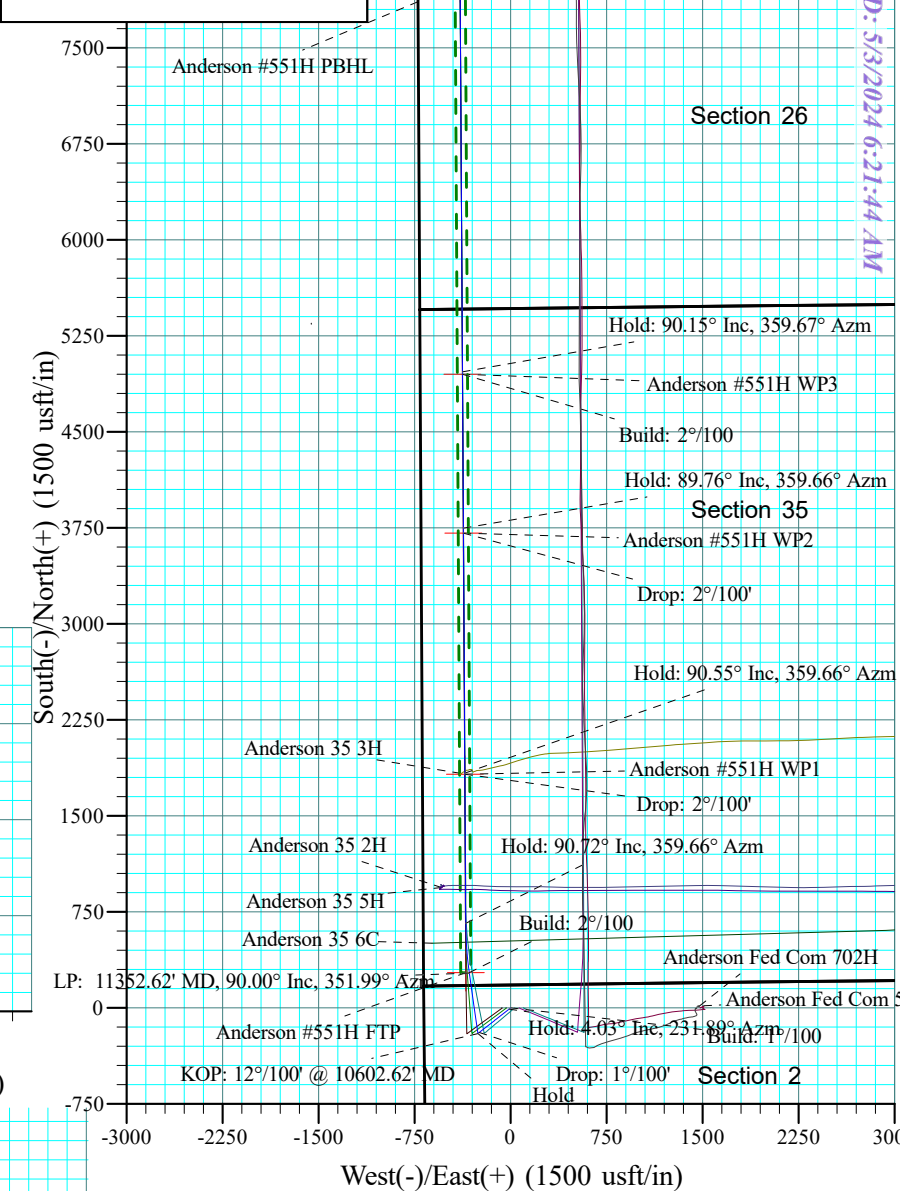
System Datum: Mean Sea Level



Azimuths to Grid North  
True North: -0.37°  
Magnetic North: 6.08°

Magnetic Field  
Strength: 47848.0nT  
Dip Angle: 60.12°  
Date: 11/16/2021  
Model: MVHD

**40' Left/Right Drilling Window**





**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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 551H				
<b>Site Position:</b>		<b>Northing:</b>	519,935.48 usft	<b>Latitude:</b>	32° 25' 39.090 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	751,632.67 usft	<b>Longitude:</b>	103° 39' 6.340 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 #551H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	519,935.48 usft	<b>Latitude:</b>	32° 25' 39.090 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	751,632.67 usft	<b>Longitude:</b>	103° 39' 6.340 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,692.00 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	6.45	60.12	47,848.033

<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	357.19

<b>Survey Tool Program</b>	<b>Date</b>	11/17/2021		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	19,081.67	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 #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.000	0.000	0.000
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.000	0.000	0.000
5,300.00	0.00	0.00	5,300.00	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 #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.000	0.000	0.000
<b>Build: 1°/100</b>									
5,500.00	1.00	231.89	5,500.00	-0.54	-0.69	-0.50	1.000	1.000	0.000
5,600.00	2.00	231.89	5,599.96	-2.15	-2.75	-2.02	1.000	1.000	0.000
5,700.00	3.00	231.89	5,699.86	-4.85	-6.18	-4.54	1.000	1.000	0.000
5,803.29	4.03	231.89	5,802.96	-8.76	-11.16	-8.20	1.000	1.000	0.000
<b>Hold: 4.03° Inc, 231.89° Azm</b>									
5,900.00	4.03	231.89	5,899.43	-12.95	-16.52	-12.13	0.000	0.000	0.000
6,000.00	4.03	231.89	5,999.18	-17.29	-22.05	-16.19	0.000	0.000	0.000
6,100.00	4.03	231.89	6,098.93	-21.63	-27.58	-20.26	0.000	0.000	0.000
6,200.00	4.03	231.89	6,198.68	-25.97	-33.12	-24.32	0.000	0.000	0.000
6,300.00	4.03	231.89	6,298.44	-30.31	-38.65	-28.38	0.000	0.000	0.000
6,400.00	4.03	231.89	6,398.19	-34.65	-44.18	-32.45	0.000	0.000	0.000
6,500.00	4.03	231.89	6,497.94	-39.00	-49.72	-36.51	0.000	0.000	0.000
6,600.00	4.03	231.89	6,597.69	-43.34	-55.25	-40.57	0.000	0.000	0.000
6,700.00	4.03	231.89	6,697.45	-47.68	-60.79	-44.64	0.000	0.000	0.000
6,800.00	4.03	231.89	6,797.20	-52.02	-66.32	-48.70	0.000	0.000	0.000
6,900.00	4.03	231.89	6,896.95	-56.36	-71.85	-52.77	0.000	0.000	0.000
7,000.00	4.03	231.89	6,996.70	-60.70	-77.39	-56.83	0.000	0.000	0.000
7,100.00	4.03	231.89	7,096.46	-65.04	-82.92	-60.89	0.000	0.000	0.000
7,200.00	4.03	231.89	7,196.21	-69.38	-88.46	-64.96	0.000	0.000	0.000
7,300.00	4.03	231.89	7,295.96	-73.72	-93.99	-69.02	0.000	0.000	0.000
7,400.00	4.03	231.89	7,395.71	-78.06	-99.52	-73.09	0.000	0.000	0.000
7,500.00	4.03	231.89	7,495.47	-82.40	-105.06	-77.15	0.000	0.000	0.000
7,600.00	4.03	231.89	7,595.22	-86.74	-110.59	-81.21	0.000	0.000	0.000
7,700.00	4.03	231.89	7,694.97	-91.08	-116.13	-85.28	0.000	0.000	0.000
7,800.00	4.03	231.89	7,794.72	-95.42	-121.66	-89.34	0.000	0.000	0.000
7,900.00	4.03	231.89	7,894.48	-99.76	-127.19	-93.40	0.000	0.000	0.000
8,000.00	4.03	231.89	7,994.23	-104.10	-132.73	-97.47	0.000	0.000	0.000
8,100.00	4.03	231.89	8,093.98	-108.44	-138.26	-101.53	0.000	0.000	0.000
8,200.00	4.03	231.89	8,193.73	-112.78	-143.80	-105.60	0.000	0.000	0.000
8,300.00	4.03	231.89	8,293.48	-117.12	-149.33	-109.66	0.000	0.000	0.000
8,400.00	4.03	231.89	8,393.24	-121.46	-154.86	-113.72	0.000	0.000	0.000
8,500.00	4.03	231.89	8,492.99	-125.80	-160.40	-117.79	0.000	0.000	0.000
8,600.00	4.03	231.89	8,592.74	-130.14	-165.93	-121.85	0.000	0.000	0.000
8,700.00	4.03	231.89	8,692.49	-134.48	-171.46	-125.91	0.000	0.000	0.000
8,800.00	4.03	231.89	8,792.25	-138.82	-177.00	-129.98	0.000	0.000	0.000
8,900.00	4.03	231.89	8,892.00	-143.16	-182.53	-134.04	0.000	0.000	0.000
9,000.00	4.03	231.89	8,991.75	-147.50	-188.07	-138.11	0.000	0.000	0.000
9,100.00	4.03	231.89	9,091.50	-151.84	-193.60	-142.17	0.000	0.000	0.000
9,200.00	4.03	231.89	9,191.26	-156.18	-199.13	-146.23	0.000	0.000	0.000
9,300.00	4.03	231.89	9,291.01	-160.52	-204.67	-150.30	0.000	0.000	0.000
9,400.00	4.03	231.89	9,390.76	-164.86	-210.20	-154.36	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 #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)	
9,500.00	4.03	231.89	9,490.51	-169.20	-215.74	-158.43	0.000	0.000	0.000	
9,600.00	4.03	231.89	9,590.27	-173.55	-221.27	-162.49	0.000	0.000	0.000	
9,700.00	4.03	231.89	9,690.02	-177.89	-226.80	-166.55	0.000	0.000	0.000	
9,800.00	4.03	231.89	9,789.77	-182.23	-232.34	-170.62	0.000	0.000	0.000	
9,900.00	4.03	231.89	9,889.52	-186.57	-237.87	-174.68	0.000	0.000	0.000	
10,007.79	4.03	231.89	9,997.04	-191.24	-243.84	-179.06	0.000	0.000	0.000	
<b>Drop: 1°/100'</b>										
10,100.00	3.11	231.89	10,089.08	-194.79	-248.36	-182.38	1.000	-1.000	0.000	
10,200.00	2.11	231.89	10,188.97	-197.60	-251.94	-185.01	1.000	-1.000	0.000	
10,300.00	1.11	231.89	10,288.93	-199.34	-254.15	-186.64	1.000	-1.000	0.000	
10,400.00	0.11	231.89	10,388.92	-199.99	-254.99	-187.25	1.000	-1.000	0.000	
10,411.08	0.00	0.00	10,400.00	-200.00	-255.00	-187.26	1.000	-1.000	0.000	
<b>Hold</b>										
10,500.00	0.00	0.00	10,488.92	-200.00	-255.00	-187.26	0.000	0.000	0.000	
10,602.62	0.00	0.00	10,591.54	-200.00	-255.00	-187.26	0.000	0.000	0.000	
<b>KOP: 12°/100' @ 10602.62' MD</b>										
10,625.00	2.69	351.99	10,613.92	-199.48	-255.07	-186.74	12.000	12.000	0.000	
10,650.00	5.69	351.99	10,638.85	-197.67	-255.33	-184.92	12.000	12.000	0.000	
10,675.00	8.69	351.99	10,663.65	-194.58	-255.76	-181.80	12.000	12.000	0.000	
10,700.00	11.69	351.99	10,688.25	-190.20	-256.38	-177.40	12.000	12.000	0.000	
10,725.00	14.69	351.99	10,712.59	-184.55	-257.17	-171.72	12.000	12.000	0.000	
10,750.00	17.69	351.99	10,736.59	-177.65	-258.14	-164.78	12.000	12.000	0.000	
10,775.00	20.69	351.99	10,760.20	-169.52	-259.29	-156.60	12.000	12.000	0.000	
10,800.00	23.69	351.99	10,783.35	-160.17	-260.60	-147.20	12.000	12.000	0.000	
10,825.00	26.69	351.99	10,805.97	-149.64	-262.09	-136.61	12.000	12.000	0.000	
10,850.00	29.69	351.99	10,828.00	-137.95	-263.73	-124.85	12.000	12.000	0.000	
10,875.00	32.69	351.99	10,849.39	-125.13	-265.54	-111.96	12.000	12.000	0.000	
10,900.00	35.69	351.99	10,870.07	-111.22	-267.49	-97.97	12.000	12.000	0.000	
10,925.00	38.69	351.99	10,889.98	-96.26	-269.60	-82.93	12.000	12.000	0.000	
10,950.00	41.69	351.99	10,909.08	-80.29	-271.85	-66.86	12.000	12.000	0.000	
10,975.00	44.69	351.99	10,927.30	-63.35	-274.23	-49.83	12.000	12.000	0.000	
11,000.00	47.69	351.99	10,944.61	-45.48	-276.74	-31.86	12.000	12.000	0.000	
11,025.00	50.69	351.99	10,960.95	-26.75	-279.38	-13.02	12.000	12.000	0.000	
11,050.00	53.69	351.99	10,976.27	-7.19	-282.13	6.65	12.000	12.000	0.000	
11,075.00	56.69	351.99	10,990.54	13.13	-284.99	27.08	12.000	12.000	0.000	
11,100.00	59.69	351.99	11,003.72	34.16	-287.95	48.24	12.000	12.000	0.000	
11,125.00	62.69	351.99	11,015.77	55.85	-291.00	70.05	12.000	12.000	0.000	
11,150.00	65.69	351.99	11,026.65	78.13	-294.14	92.46	12.000	12.000	0.000	
11,175.00	68.69	351.99	11,036.35	100.95	-297.35	115.41	12.000	12.000	0.000	
11,200.00	71.69	351.99	11,044.82	124.24	-300.63	138.83	12.000	12.000	0.000	
11,225.00	74.69	351.99	11,052.05	147.93	-303.96	162.66	12.000	12.000	0.000	
11,250.00	77.69	351.99	11,058.02	171.97	-307.34	186.83	12.000	12.000	0.000	
11,275.00	80.69	351.99	11,062.71	196.29	-310.76	211.28	12.000	12.000	0.000	
11,300.00	83.69	351.99	11,066.11	220.81	-314.22	235.95	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 #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)	
11,325.00	86.69	351.99	11,068.21	245.47	-317.69	260.75	12.000	12.000	0.000	
11,350.00	89.69	351.99	11,069.00	270.22	-321.17	285.64	12.000	12.000	0.000	
11,352.62	90.00	351.99	11,069.00	272.81	-321.53	288.24	12.000	12.000	0.000	
<b>LP: 11352.62' MD, 90.00° Inc, 351.99° Azm</b>										
11,355.99	90.00	351.99	11,069.00	276.15	-322.00	291.60	0.000	0.000	0.000	
<b>Build: 2°/100</b>										
11,400.00	90.08	352.87	11,068.97	319.77	-327.80	335.46	2.000	0.187	1.991	
11,500.00	90.27	354.86	11,068.67	419.19	-338.49	435.28	2.000	0.186	1.991	
11,600.00	90.45	356.85	11,068.04	518.93	-345.72	535.25	2.000	0.186	1.991	
11,700.00	90.64	358.84	11,067.08	618.85	-349.48	635.23	2.000	0.186	1.991	
11,741.26	90.72	359.66	11,066.59	660.10	-350.02	676.47	2.000	0.185	1.992	
<b>Hold: 90.72° Inc, 359.66° Azm</b>										
11,800.00	90.72	359.66	11,065.86	718.83	-350.37	735.14	0.000	0.000	0.000	
11,900.00	90.72	359.66	11,064.61	818.82	-350.96	835.04	0.000	0.000	0.000	
12,000.00	90.72	359.66	11,063.36	918.81	-351.55	934.94	0.000	0.000	0.000	
12,100.00	90.72	359.66	11,062.11	1,018.80	-352.14	1,034.84	0.000	0.000	0.000	
12,200.00	90.72	359.66	11,060.85	1,118.79	-352.73	1,134.74	0.000	0.000	0.000	
12,300.00	90.72	359.66	11,059.60	1,218.78	-353.32	1,234.64	0.000	0.000	0.000	
12,400.00	90.72	359.66	11,058.35	1,318.78	-353.91	1,334.54	0.000	0.000	0.000	
12,500.00	90.72	359.66	11,057.10	1,418.77	-354.50	1,434.44	0.000	0.000	0.000	
12,600.00	90.72	359.66	11,055.85	1,518.76	-355.08	1,534.34	0.000	0.000	0.000	
12,700.00	90.72	359.66	11,054.60	1,618.75	-355.67	1,634.24	0.000	0.000	0.000	
12,800.00	90.72	359.66	11,053.35	1,718.74	-356.26	1,734.14	0.000	0.000	0.000	
12,908.07	90.72	359.66	11,052.00	1,826.80	-356.90	1,842.10	0.000	0.000	0.000	
<b>Drop: 2°/100'</b>										
12,916.53	90.55	359.66	11,051.91	1,835.26	-356.95	1,850.55	2.000	-2.000	-0.001	
<b>Hold: 90.55° Inc, 359.66° Azm</b>										
13,000.00	90.55	359.66	11,051.11	1,918.72	-357.44	1,933.94	0.000	0.000	0.000	
13,100.00	90.55	359.66	11,050.15	2,018.71	-358.03	2,033.84	0.000	0.000	0.000	
13,200.00	90.55	359.66	11,049.20	2,118.71	-358.62	2,133.74	0.000	0.000	0.000	
13,300.00	90.55	359.66	11,048.24	2,218.70	-359.21	2,233.64	0.000	0.000	0.000	
13,400.00	90.55	359.66	11,047.29	2,318.70	-359.80	2,333.55	0.000	0.000	0.000	
13,500.00	90.55	359.66	11,046.33	2,418.69	-360.39	2,433.45	0.000	0.000	0.000	
13,600.00	90.55	359.66	11,045.38	2,518.68	-360.98	2,533.35	0.000	0.000	0.000	
13,700.00	90.55	359.66	11,044.42	2,618.68	-361.57	2,633.25	0.000	0.000	0.000	
13,800.00	90.55	359.66	11,043.47	2,718.67	-362.16	2,733.16	0.000	0.000	0.000	
13,900.00	90.55	359.66	11,042.51	2,818.66	-362.75	2,833.06	0.000	0.000	0.000	
14,000.00	90.55	359.66	11,041.56	2,918.66	-363.34	2,932.96	0.000	0.000	0.000	
14,100.00	90.55	359.66	11,040.60	3,018.65	-363.93	3,032.86	0.000	0.000	0.000	
14,200.00	90.55	359.66	11,039.65	3,118.65	-364.52	3,132.77	0.000	0.000	0.000	
14,300.00	90.55	359.66	11,038.69	3,218.64	-365.11	3,232.67	0.000	0.000	0.000	
14,400.00	90.55	359.66	11,037.74	3,318.63	-365.69	3,332.57	0.000	0.000	0.000	
14,500.00	90.55	359.66	11,036.78	3,418.63	-366.28	3,432.47	0.000	0.000	0.000	
14,600.00	90.55	359.66	11,035.83	3,518.62	-366.87	3,532.37	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 #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)
14,700.00	90.55	359.66	11,034.87	3,618.61	-367.46	3,632.28	0.000	0.000	0.000
14,791.09	90.55	359.66	11,034.00	3,709.70	-368.00	3,723.28	0.000	0.000	0.000
<b>Drop: 2°/100'</b>									
14,800.00	90.37	359.66	11,033.93	3,718.61	-368.05	3,732.18	2.000	-2.000	-0.010
14,830.63	89.76	359.66	11,033.90	3,749.24	-368.23	3,762.78	2.000	-2.000	-0.010
<b>Hold: 89.76° Inc, 359.66° Azm</b>									
14,900.00	89.76	359.66	11,034.19	3,818.61	-368.65	3,832.09	0.000	0.000	0.000
15,000.00	89.76	359.66	11,034.62	3,918.60	-369.24	3,931.99	0.000	0.000	0.000
15,100.00	89.76	359.66	11,035.04	4,018.60	-369.84	4,031.90	0.000	0.000	0.000
15,200.00	89.76	359.66	11,035.46	4,118.60	-370.44	4,131.81	0.000	0.000	0.000
15,300.00	89.76	359.66	11,035.89	4,218.59	-371.03	4,231.71	0.000	0.000	0.000
15,400.00	89.76	359.66	11,036.31	4,318.59	-371.63	4,331.62	0.000	0.000	0.000
15,500.00	89.76	359.66	11,036.74	4,418.59	-372.23	4,431.52	0.000	0.000	0.000
15,600.00	89.76	359.66	11,037.16	4,518.59	-372.82	4,531.43	0.000	0.000	0.000
15,700.00	89.76	359.66	11,037.59	4,618.58	-373.42	4,631.34	0.000	0.000	0.000
15,800.00	89.76	359.66	11,038.01	4,718.58	-374.02	4,731.24	0.000	0.000	0.000
15,900.00	89.76	359.66	11,038.44	4,818.58	-374.61	4,831.15	0.000	0.000	0.000
16,000.00	89.76	359.66	11,038.86	4,918.58	-375.21	4,931.06	0.000	0.000	0.000
16,032.03	89.76	359.66	11,039.00	4,950.60	-375.40	4,963.05	0.000	0.000	0.000
<b>Build: 2°/100</b>									
16,051.79	90.15	359.67	11,039.02	4,970.36	-375.52	4,982.79	2.000	1.999	0.058
<b>Hold: 90.15° Inc, 359.67° Azm</b>									
16,100.00	90.15	359.67	11,038.89	5,018.57	-375.79	5,030.96	0.000	0.000	0.000
16,200.00	90.15	359.67	11,038.62	5,118.57	-376.37	5,130.87	0.000	0.000	0.000
16,300.00	90.15	359.67	11,038.36	5,218.57	-376.95	5,230.77	0.000	0.000	0.000
16,400.00	90.15	359.67	11,038.09	5,318.57	-377.52	5,330.68	0.000	0.000	0.000
16,500.00	90.15	359.67	11,037.83	5,418.57	-378.10	5,430.59	0.000	0.000	0.000
16,600.00	90.15	359.67	11,037.57	5,518.56	-378.68	5,530.49	0.000	0.000	0.000
16,700.00	90.15	359.67	11,037.30	5,618.56	-379.25	5,630.40	0.000	0.000	0.000
16,800.00	90.15	359.67	11,037.04	5,718.56	-379.83	5,730.30	0.000	0.000	0.000
16,900.00	90.15	359.67	11,036.77	5,818.56	-380.40	5,830.21	0.000	0.000	0.000
17,000.00	90.15	359.67	11,036.51	5,918.56	-380.98	5,930.12	0.000	0.000	0.000
17,100.00	90.15	359.67	11,036.24	6,018.55	-381.56	6,030.02	0.000	0.000	0.000
17,200.00	90.15	359.67	11,035.98	6,118.55	-382.13	6,129.93	0.000	0.000	0.000
17,300.00	90.15	359.67	11,035.71	6,218.55	-382.71	6,229.83	0.000	0.000	0.000
17,400.00	90.15	359.67	11,035.45	6,318.55	-383.29	6,329.74	0.000	0.000	0.000
17,500.00	90.15	359.67	11,035.18	6,418.55	-383.86	6,429.65	0.000	0.000	0.000
17,600.00	90.15	359.67	11,034.92	6,518.54	-384.44	6,529.55	0.000	0.000	0.000
17,700.00	90.15	359.67	11,034.66	6,618.54	-385.01	6,629.46	0.000	0.000	0.000
17,800.00	90.15	359.67	11,034.39	6,718.54	-385.59	6,729.36	0.000	0.000	0.000
17,900.00	90.15	359.67	11,034.13	6,818.54	-386.17	6,829.27	0.000	0.000	0.000
18,000.00	90.15	359.67	11,033.86	6,918.54	-386.74	6,929.18	0.000	0.000	0.000
18,100.00	90.15	359.67	11,033.60	7,018.53	-387.32	7,029.08	0.000	0.000	0.000
18,200.00	90.15	359.67	11,033.33	7,118.53	-387.90	7,128.99	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 #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)	
18,300.00	90.15	359.67	11,033.07	7,218.53	-388.47	7,228.89	0.000	0.000	0.000	
18,400.00	90.15	359.67	11,032.80	7,318.53	-389.05	7,328.80	0.000	0.000	0.000	
18,500.00	90.15	359.67	11,032.54	7,418.53	-389.62	7,428.71	0.000	0.000	0.000	
18,600.00	90.15	359.67	11,032.27	7,518.52	-390.20	7,528.61	0.000	0.000	0.000	
18,700.00	90.15	359.67	11,032.01	7,618.52	-390.78	7,628.52	0.000	0.000	0.000	
18,800.00	90.15	359.67	11,031.75	7,718.52	-391.35	7,728.42	0.000	0.000	0.000	
18,900.00	90.15	359.67	11,031.48	7,818.52	-391.93	7,828.33	0.000	0.000	0.000	
19,000.00	90.15	359.67	11,031.22	7,918.52	-392.51	7,928.24	0.000	0.000	0.000	
19,081.71	90.15	359.67	11,031.00	8,000.23	-392.98	8,009.87	0.000	0.000	0.000	
<b>PBHL @ 19081.71' MD/11031.00' TVD</b>										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Anderson #551H PBH - plan hits target center - Point	0.00	0.00	11,031.00	8,000.23	-392.98	527,935.70	751,239.70	32° 26' 58.277 N	103° 39' 10.330 W	
Anderson #551H WP2 - plan hits target center - Point	0.00	0.00	11,034.00	3,709.70	-368.00	523,645.18	751,264.67	32° 26' 15.821 N	103° 39' 10.357 W	
Anderson #551H WP3 - plan hits target center - Point	0.00	0.00	11,039.00	4,950.60	-375.40	524,886.08	751,257.27	32° 26' 28.100 N	103° 39' 10.351 W	
Anderson #551H WP4 - plan hits target center - Point	0.00	0.00	11,052.00	1,826.80	-356.90	521,762.28	751,275.77	32° 25' 57.189 N	103° 39' 10.368 W	
Anderson #551H FTP - plan misses target center by 27.00usft at 11359.66usft MD (11069.00 TVD, 279.78 N, -322.51 E) - Point	0.00	0.00	11,069.00	276.23	-349.28	520,211.70	751,283.40	32° 25' 41.845 N	103° 39' 10.394 W	



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)	
5400	5400	0	0	Build: 1°/100
5803	5803	-9	-11	Hold: 4.03° Inc, 231.89° Azm
10,008	9997	-191	-244	Drop: 1°/100'
10,411	10,400	-200	-255	Hold
10,603	10,592	-200	-255	KOP: 12°/100' @ 10602.62' MD
11,353	11,069	273	-322	LP: 11352.62' MD, 90.00° Inc, 351.99° Azm
11,356	11,069	276	-322	Build: 2°/100
11,741	11,067	660	-350	Hold: 90.72° Inc, 359.66° Azm
12,908	11,052	1827	-357	Drop: 2°/100'
12,917	11,052	1835	-357	Hold: 90.55° Inc, 359.66° Azm
14,791	11,034	3710	-368	Drop: 2°/100'
14,831	11,034	3749	-368	Hold: 89.76° Inc, 359.66° Azm
16,032	11,039	4951	-375	Build: 2°/100
16,052	11,039	4970	-376	Hold: 90.15° Inc, 359.67° Azm
19,082	11,031	8000	-393	PBHL @ 19081.71' MD/11031.00' TVD

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	19023.00	90.37	359.49	11116.87	7950.09	-385.96	0.000	0.00	7959.45		Last Aim Svy
2	19092.00	90.37	359.49	11116.42	8019.09	-386.57	0.000	0.00	8028.40		Proj to BHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Anderson #551H PBHL	11031.00	8000.23	-392.98	527935.70	751239.70	32° 26' 58.277 N 103° 39' 10.330 W	
Anderson #551H WP2	11034.00	3709.70	-368.00	523645.17	751264.68	32° 26' 15.821 N 103° 39' 10.357 W	
Anderson #551H WP3	11039.00	4950.60	-375.40	524886.07	751257.28	32° 26' 28.100 N 103° 39' 10.351 W	
Anderson #551H WP1	11052.00	1826.80	-356.90	521762.27	751275.78	32° 25' 57.189 N 103° 39' 10.368 W	
Anderson #551H FTP	11069.00	276.23	-349.28	520211.70	751283.40	32° 25' 41.845 N 103° 39' 10.394 W	

SITE DETAILS: Anderson Fed Com 551H

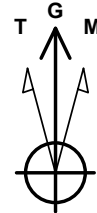
Site Centre Northing: 519935.47  
Easting: 751632.68

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

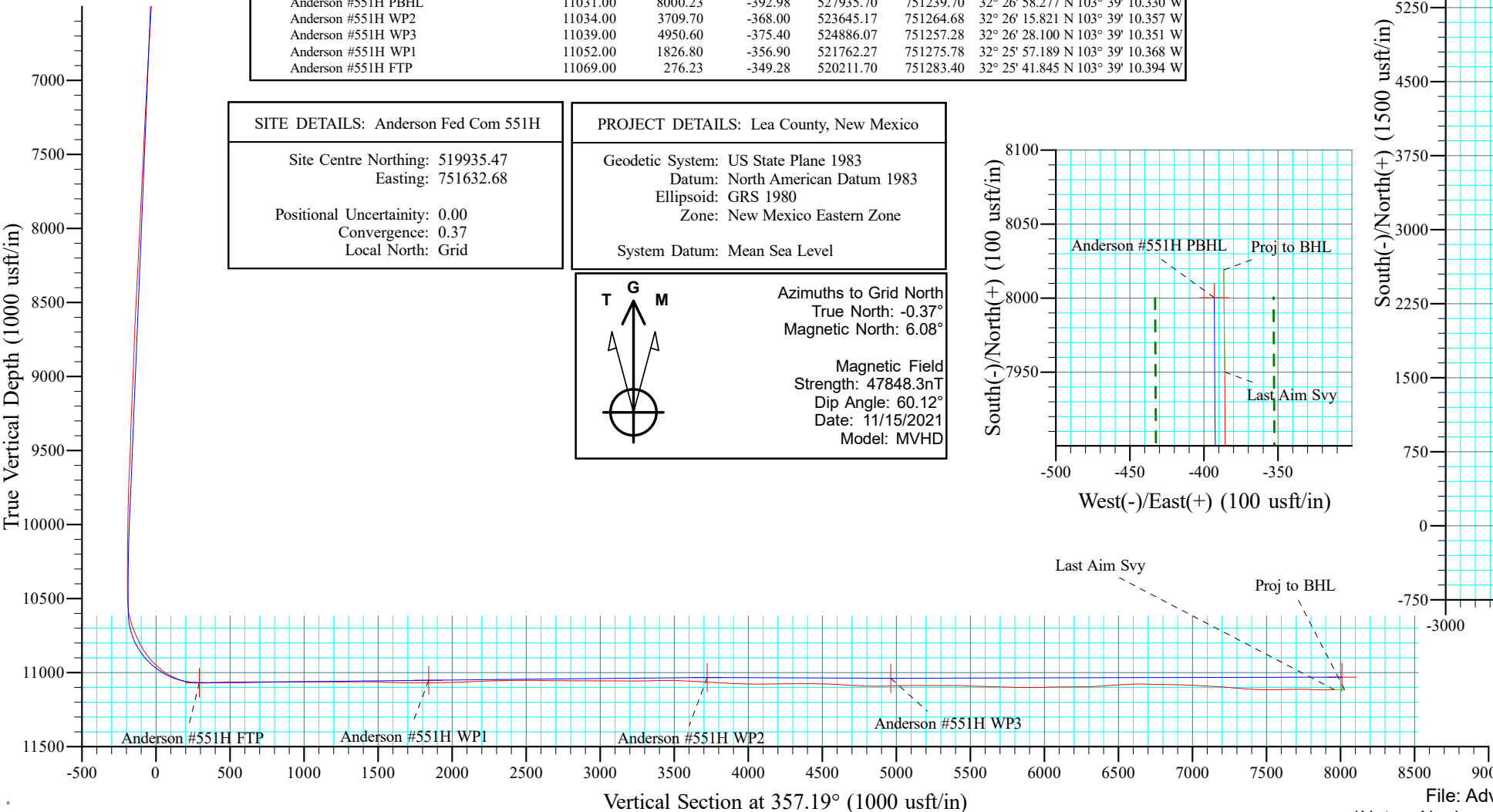
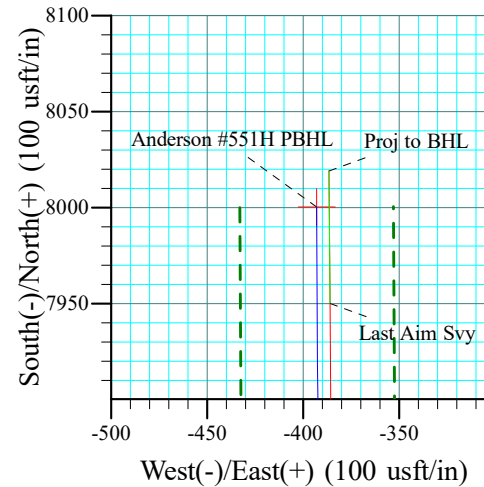
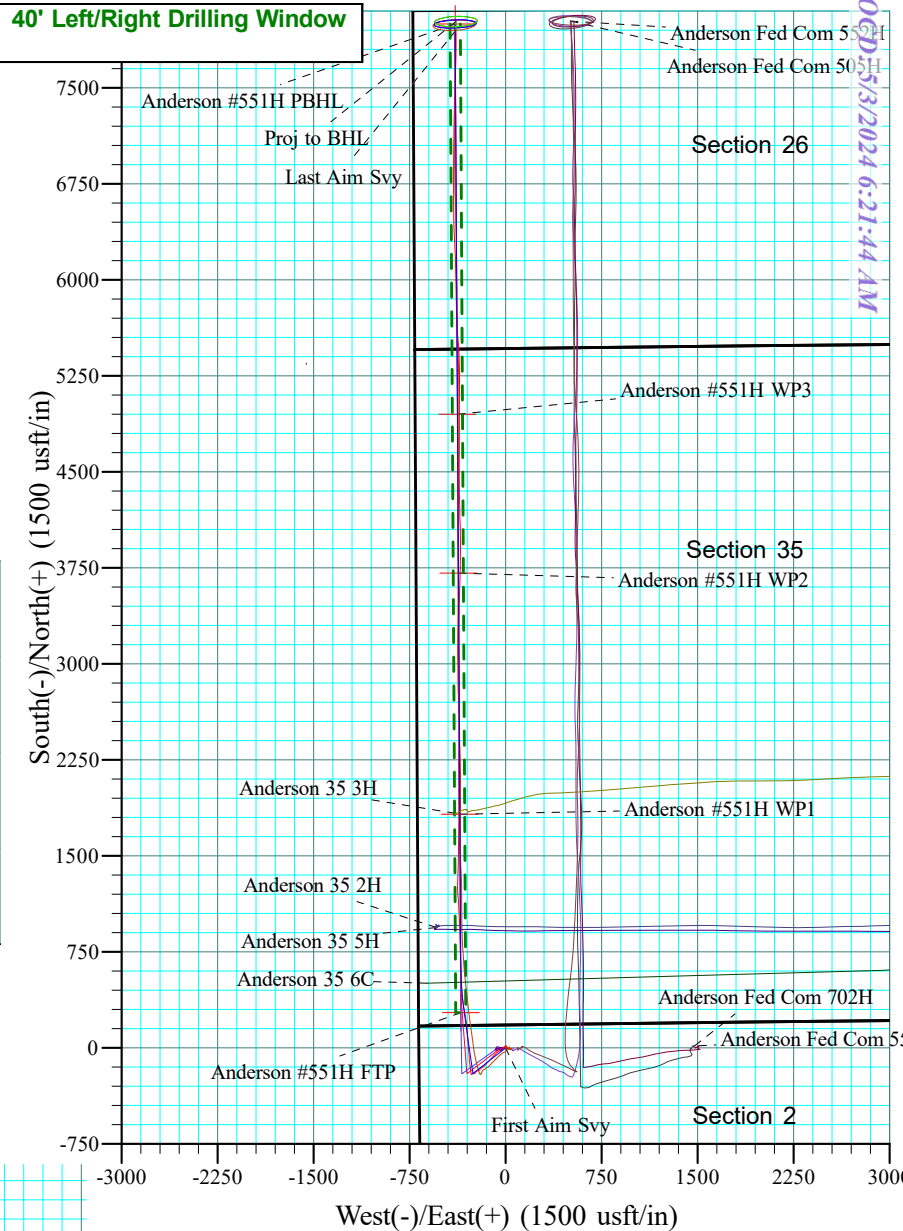
System Datum: Mean Sea Level



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



Revised to Imaging: 4/30/2026 9:49:49 AM

Revised by ODD: 5/3/2024 6:21:44 AM

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# Survey Reports

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## **Anderson Fed Com 551H (WT-21-183)**

2021-11-24 to 2022-01-29

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 #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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 551H				
<b>Site Position:</b>		<b>Northing:</b>	519,935.48 usft	<b>Latitude:</b>	32° 25' 39.090 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	751,632.67 usft	<b>Longitude:</b>	103° 39' 6.340 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 #551H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	519,935.48 usft	<b>Latitude:</b>	32° 25' 39.090 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	751,632.67 usft	<b>Longitude:</b>	103° 39' 6.340 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,692.00 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	47,848.322

<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	357.19	

<b>Survey Program</b>	<b>Date</b>	1/29/2022			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
229.00	19,092.00	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	
229.00	0.22	327.50	229.00	0.37	-0.24	0.38	0.096	0.096	0.000	
<b>First Aim Svy</b>										
291.00	0.22	239.69	291.00	0.41	-0.40	0.43	0.492	0.000	-141.629	
352.00	0.13	238.20	352.00	0.32	-0.56	0.34	0.148	-0.148	-2.443	
413.00	0.44	215.52	413.00	0.09	-0.76	0.13	0.531	0.508	-37.180	
475.00	0.31	212.10	475.00	-0.25	-0.99	-0.20	0.213	-0.210	-5.516	
536.00	0.35	228.79	536.00	-0.51	-1.21	-0.45	0.170	0.066	27.361	
597.00	0.40	211.39	596.99	-0.81	-1.46	-0.74	0.203	0.082	-28.525	
659.00	0.48	222.64	658.99	-1.19	-1.75	-1.10	0.189	0.129	18.145	
720.00	0.70	228.97	719.99	-1.62	-2.21	-1.51	0.376	0.361	10.377	



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)
816.00	0.92	230.46	815.98	-2.50	-3.24	-2.34	0.230	0.229	1.552
878.00	1.10	242.51	877.97	-3.09	-4.16	-2.88	0.448	0.290	19.435
973.00	1.41	242.86	972.95	-4.04	-6.00	-3.74	0.326	0.326	0.368
1,066.00	1.36	256.66	1,065.92	-4.82	-8.10	-4.42	0.362	-0.054	14.839
1,155.00	1.27	256.04	1,154.90	-5.30	-10.08	-4.80	0.102	-0.101	-0.697
1,220.00	1.23	258.41	1,219.88	-5.62	-11.46	-5.05	0.101	-0.062	3.646
1,335.00	0.75	275.03	1,334.86	-5.80	-13.42	-5.13	0.482	-0.417	14.452
1,424.00	0.53	289.53	1,423.86	-5.61	-14.39	-4.90	0.305	-0.247	16.292
1,514.00	0.31	273.71	1,513.86	-5.45	-15.03	-4.71	0.274	-0.244	-17.578
1,603.00	0.09	274.32	1,602.86	-5.43	-15.34	-4.68	0.247	-0.247	0.685
1,693.00	0.18	35.17	1,692.86	-5.31	-15.33	-4.56	0.266	0.100	134.278
1,783.00	0.35	18.56	1,782.85	-4.94	-15.16	-4.19	0.205	0.189	-18.456
1,872.00	0.53	25.06	1,871.85	-4.31	-14.90	-3.57	0.210	0.202	7.303
1,962.00	0.75	41.85	1,961.85	-3.49	-14.33	-2.78	0.319	0.244	18.656
2,052.00	0.79	38.16	2,051.84	-2.56	-13.55	-1.90	0.071	0.044	-4.100
2,141.00	1.14	41.06	2,140.83	-1.41	-12.59	-0.79	0.397	0.393	3.258
2,231.00	1.49	46.25	2,230.80	0.07	-11.16	0.62	0.410	0.389	5.767
2,320.00	1.93	52.13	2,319.76	1.79	-9.14	2.24	0.532	0.494	6.607
2,409.00	1.05	90.10	2,408.73	2.71	-7.14	3.06	1.435	-0.989	42.663
2,498.00	1.19	123.59	2,497.72	2.20	-5.55	2.47	0.741	0.157	37.629
2,588.00	1.67	108.38	2,587.69	1.27	-3.53	1.44	0.675	0.533	-16.900
2,677.00	2.42	101.71	2,676.63	0.48	-0.46	0.50	0.883	0.843	-7.494
2,766.00	1.67	105.13	2,765.57	-0.24	2.63	-0.37	0.853	-0.843	3.843
2,856.00	1.01	70.24	2,855.55	-0.32	4.65	-0.55	1.134	-0.733	-38.767
2,946.00	1.54	59.08	2,945.53	0.57	6.43	0.26	0.648	0.589	-12.400
3,036.00	0.66	132.38	3,035.51	0.84	7.85	0.46	1.657	-0.978	81.444
3,125.00	1.63	191.88	3,124.50	-0.74	7.97	-1.13	1.589	1.090	66.854
3,215.00	0.35	188.10	3,214.48	-2.27	7.67	-2.64	1.423	-1.422	-4.200
3,304.00	1.54	25.86	3,303.47	-1.46	8.15	-1.86	2.108	1.337	-182.292
3,394.00	1.54	64.97	3,393.44	0.14	9.77	-0.34	1.145	0.000	43.455
3,483.00	1.67	71.03	3,482.41	1.07	12.08	0.48	0.240	0.146	6.809
3,573.00	1.45	78.85	3,572.37	1.72	14.44	1.01	0.340	-0.244	8.689
3,663.00	1.41	87.73	3,662.35	1.98	16.66	1.16	0.250	-0.044	9.867
3,752.00	1.23	182.30	3,751.33	1.07	17.72	0.20	2.184	-0.202	106.258
3,842.00	2.42	207.17	3,841.29	-1.59	16.81	-2.41	1.559	1.322	27.633
3,932.00	1.27	247.08	3,931.24	-3.67	15.03	-4.40	1.844	-1.278	44.344
4,021.00	1.41	318.53	4,020.22	-3.23	13.39	-3.88	1.763	0.157	80.281
4,111.00	1.27	340.24	4,110.20	-1.46	12.32	-2.06	0.581	-0.156	24.122
4,200.00	1.01	335.67	4,199.18	0.18	11.67	-0.39	0.309	-0.292	-5.135
4,290.00	1.10	321.61	4,289.17	1.58	10.80	1.05	0.304	0.100	-15.622
4,379.00	1.01	325.12	4,378.15	2.89	9.82	2.41	0.124	-0.101	3.944
4,469.00	1.05	330.04	4,468.14	4.26	8.96	3.82	0.108	0.044	5.467
4,559.00	0.97	340.59	4,558.12	5.69	8.29	5.28	0.225	-0.089	11.722



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)
4,648.00	1.10	354.30	4,647.11	7.25	7.96	6.85	0.313	0.146	15.404
4,755.00	1.27	0.19	4,754.08	9.46	7.86	9.06	0.195	0.159	5.505
4,911.00	0.70	340.33	4,910.06	12.09	7.54	11.70	0.421	-0.365	-12.731
5,001.00	0.75	346.04	5,000.05	13.18	7.22	12.81	0.098	0.056	6.344
5,091.00	0.66	343.58	5,090.05	14.24	6.93	13.89	0.105	-0.100	-2.733
5,180.00	0.75	338.83	5,179.04	15.28	6.57	14.94	0.120	0.101	-5.337
5,270.00	0.18	339.71	5,269.04	15.96	6.31	15.63	0.633	-0.633	0.978
5,359.00	1.63	317.48	5,358.02	17.03	5.41	16.74	1.646	1.629	-24.977
5,448.00	2.68	258.59	5,446.97	17.55	2.51	17.40	2.592	1.180	-66.168
5,538.00	4.88	235.65	5,536.77	14.97	-2.71	15.09	2.920	2.444	-25.489
5,628.00	5.36	234.86	5,626.41	10.39	-9.31	10.83	0.539	0.533	-0.878
5,717.00	5.41	237.50	5,715.02	5.74	-16.25	6.53	0.284	0.056	2.966
5,807.00	4.79	227.39	5,804.67	0.92	-22.59	2.03	1.211	-0.689	-11.233
5,896.00	4.66	226.42	5,893.36	-4.09	-27.95	-2.71	0.171	-0.146	-1.090
5,986.00	4.75	226.51	5,983.06	-9.17	-33.30	-7.53	0.100	0.100	0.100
6,076.00	4.62	223.79	6,072.76	-14.35	-38.51	-12.45	0.286	-0.144	-3.022
6,165.00	4.66	222.29	6,161.47	-19.62	-43.42	-17.46	0.144	0.045	-1.685
6,255.00	4.18	237.50	6,251.20	-24.08	-48.65	-21.67	1.402	-0.533	16.900
6,344.00	4.40	240.66	6,339.95	-27.50	-54.36	-24.80	0.363	0.247	3.551
6,433.00	4.22	241.19	6,428.70	-30.75	-60.21	-27.76	0.207	-0.202	0.596
6,523.00	5.01	228.79	6,518.41	-34.93	-66.06	-31.65	1.409	0.878	-13.778
6,613.00	4.84	225.54	6,608.08	-40.18	-71.73	-36.62	0.363	-0.189	-3.611
6,702.00	4.40	223.52	6,696.79	-45.29	-76.76	-41.47	0.527	-0.494	-2.270
6,791.00	4.57	223.26	6,785.52	-50.35	-81.54	-46.29	0.192	0.191	-0.292
6,881.00	4.84	226.16	6,875.21	-55.59	-86.74	-51.27	0.400	0.300	3.222
6,970.00	4.62	224.49	6,963.91	-60.74	-91.96	-56.16	0.292	-0.247	-1.876
7,060.00	4.70	222.12	7,053.61	-66.06	-96.97	-61.23	0.232	0.089	-2.633
7,150.00	4.62	222.20	7,143.32	-71.48	-101.88	-66.40	0.089	-0.089	0.089
7,239.00	4.40	222.29	7,232.04	-76.67	-106.58	-71.35	0.247	-0.247	0.101
7,329.00	4.35	221.76	7,321.78	-81.77	-111.18	-76.22	0.071	-0.056	-0.589
7,419.00	4.40	222.47	7,411.52	-86.86	-115.78	-81.08	0.082	0.056	0.789
7,508.00	4.40	221.76	7,500.25	-91.92	-120.36	-85.91	0.061	0.000	-0.798
7,597.00	4.18	224.14	7,589.00	-96.80	-124.90	-90.56	0.318	-0.247	2.674
7,687.00	4.04	225.98	7,678.77	-101.35	-129.46	-94.89	0.214	-0.156	2.044
7,777.00	3.69	226.25	7,768.57	-105.56	-133.83	-98.87	0.389	-0.389	0.300
7,867.00	3.43	229.15	7,858.39	-109.32	-137.96	-102.43	0.351	-0.289	3.222
7,956.00	3.78	219.83	7,947.22	-113.32	-141.85	-106.23	0.766	0.393	-10.472
8,046.00	3.82	222.64	8,037.02	-117.80	-145.78	-110.51	0.212	0.044	3.122
8,136.00	3.69	219.82	8,126.83	-122.23	-149.67	-114.75	0.251	-0.144	-3.133
8,225.00	3.65	216.40	8,215.65	-126.71	-153.18	-119.05	0.250	-0.045	-3.843
8,314.00	3.65	215.26	8,304.46	-131.31	-156.50	-123.47	0.082	0.000	-1.281
8,404.00	4.75	220.09	8,394.22	-136.50	-160.55	-128.46	1.283	1.222	5.367
8,493.00	5.10	234.42	8,482.90	-141.62	-166.15	-133.30	1.433	0.393	16.101



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)	
8,583.00	5.23	236.27	8,572.53	-146.22	-172.81	-137.57	0.235	0.144	2.056	
8,672.00	4.84	238.73	8,661.19	-150.42	-179.39	-141.45	0.501	-0.438	2.764	
8,762.00	4.31	236.09	8,750.90	-154.28	-185.44	-145.00	0.634	-0.589	-2.933	
8,851.00	3.78	234.77	8,839.68	-157.84	-190.62	-148.30	0.605	-0.596	-1.483	
8,941.00	3.25	222.82	8,929.51	-161.42	-194.77	-151.68	1.002	-0.589	-13.278	
9,031.00	4.00	225.10	9,019.33	-165.51	-198.73	-155.57	0.848	0.833	2.533	
9,120.00	3.56	215.96	9,108.14	-169.94	-202.55	-159.80	0.837	-0.494	-10.270	
9,210.00	3.52	225.98	9,197.97	-174.12	-206.18	-163.80	0.688	-0.044	11.133	
9,300.00	4.97	249.71	9,287.72	-177.39	-211.82	-166.79	2.498	1.611	26.367	
9,390.00	4.79	251.12	9,377.40	-179.96	-219.04	-169.00	0.240	-0.200	1.567	
9,479.00	4.22	238.29	9,466.12	-182.88	-225.34	-171.61	1.297	-0.640	-14.416	
9,569.00	4.13	227.39	9,555.89	-186.82	-230.54	-175.29	0.886	-0.100	-12.111	
9,658.00	3.03	217.54	9,644.71	-190.85	-234.33	-179.13	1.412	-1.236	-11.067	
9,748.00	3.03	217.72	9,734.59	-194.62	-237.24	-182.75	0.011	0.000	0.200	
9,838.00	3.74	234.77	9,824.43	-198.19	-241.09	-186.14	1.360	0.789	18.944	
9,928.00	4.13	254.72	9,914.22	-200.74	-246.62	-188.41	1.573	0.433	22.167	
10,017.00	3.78	254.72	10,003.01	-202.36	-252.54	-189.74	0.393	-0.393	0.000	
10,107.00	3.56	255.60	10,092.83	-203.84	-258.11	-190.94	0.252	-0.244	0.978	
10,196.00	2.42	255.25	10,181.70	-205.00	-262.60	-191.88	1.281	-1.281	-0.393	
10,286.00	2.42	266.76	10,271.62	-205.59	-266.33	-192.29	0.539	0.000	12.789	
10,376.00	0.92	272.74	10,361.58	-205.67	-268.95	-192.23	1.676	-1.667	6.644	
10,431.00	0.35	204.10	10,416.58	-205.80	-269.46	-192.34	1.558	-1.036	-124.800	
10,528.00	1.63	29.90	10,513.57	-204.87	-268.90	-191.44	2.040	1.320	-179.587	
10,618.00	10.07	354.04	10,603.03	-195.92	-269.07	-182.49	9.778	9.378	-39.844	
10,707.00	19.25	351.40	10,689.05	-173.63	-272.08	-160.08	10.339	10.315	-2.966	
10,797.00	25.89	351.84	10,772.11	-139.47	-277.10	-125.72	7.380	7.378	0.489	
10,886.00	31.47	354.39	10,850.16	-97.08	-282.13	-83.13	6.417	6.270	2.865	
10,976.00	41.98	356.24	10,922.20	-43.51	-286.41	-29.42	11.741	11.678	2.056	
11,066.00	53.01	355.71	10,982.91	22.57	-291.09	36.81	12.263	12.256	-0.589	
11,155.00	64.48	356.41	11,029.01	98.35	-296.28	112.75	12.905	12.888	0.787	
11,245.00	75.52	353.42	11,059.75	182.44	-303.84	197.11	12.656	12.267	-3.322	
11,305.00	84.62	350.17	11,070.09	240.86	-312.29	255.88	16.076	15.167	-5.417	
11,346.14	90.16	350.23	11,071.96	281.34	-319.28	296.66	13.476	13.475	0.148	
<b>Anderson #551H FTP</b>										
11,366.00	92.84	350.26	11,071.44	300.91	-322.64	316.36	13.476	13.475	0.147	
11,456.00	92.00	352.54	11,067.64	389.81	-336.09	405.82	2.698	-0.933	2.533	
11,546.00	91.43	356.41	11,064.95	479.33	-344.75	495.66	4.344	-0.633	4.300	
11,635.00	89.76	359.05	11,064.02	568.25	-348.27	584.64	3.510	-1.876	2.966	
11,725.00	90.90	358.96	11,063.50	658.23	-349.83	674.59	1.271	1.267	-0.100	
11,815.00	89.23	358.79	11,063.40	748.21	-351.60	764.55	1.865	-1.856	-0.189	
11,904.00	89.89	358.26	11,064.09	837.18	-353.89	853.52	0.951	0.742	-0.596	
11,994.00	90.42	358.17	11,063.84	927.13	-356.70	943.50	0.597	0.589	-0.100	
12,083.00	90.55	357.20	11,063.09	1,016.06	-360.29	1,032.50	1.100	0.146	-1.090	
12,173.00	89.71	355.27	11,062.88	1,105.86	-366.20	1,122.48	2.339	-0.933	-2.144	



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)	
12,262.00	89.76	356.94	11,063.30	1,194.65	-372.24	1,211.46	1.877	0.056	1.876	
12,352.00	90.46	1.16	11,063.12	1,284.61	-373.74	1,301.39	4.753	0.778	4.689	
12,441.00	90.07	1.60	11,062.71	1,373.59	-371.59	1,390.15	0.661	-0.438	0.494	
12,531.00	88.62	1.42	11,063.74	1,463.55	-369.22	1,479.89	1.623	-1.611	-0.200	
12,620.00	88.00	1.16	11,066.37	1,552.48	-367.22	1,568.62	0.755	-0.697	-0.292	
12,710.00	88.97	0.28	11,068.74	1,642.44	-366.09	1,658.42	1.455	1.078	-0.978	
12,799.00	90.02	1.25	11,069.53	1,731.43	-364.90	1,747.24	1.606	1.180	1.090	
12,889.00	90.55	0.45	11,069.08	1,821.42	-363.57	1,837.05	1.066	0.589	-0.889	
12,894.49	90.54	0.35	11,069.03	1,826.91	-363.53	1,842.53	1.868	-0.101	-1.865	
<b>Anderson #551H WP1</b>										
12,978.00	90.46	358.79	11,068.30	1,910.41	-364.16	1,925.97	1.868	-0.101	-1.865	
13,067.00	91.60	359.14	11,066.70	1,999.38	-365.76	2,014.91	1.340	1.281	0.393	
13,157.00	92.66	359.31	11,063.35	2,089.31	-366.98	2,104.79	1.193	1.178	0.189	
13,246.00	92.35	0.02	11,059.46	2,178.22	-367.50	2,193.62	0.870	-0.348	0.798	
13,335.00	90.90	0.98	11,056.94	2,267.18	-366.72	2,282.43	1.954	-1.629	1.079	
13,425.00	91.82	0.28	11,054.80	2,357.15	-365.73	2,372.24	1.284	1.022	-0.778	
13,514.00	89.80	0.63	11,053.54	2,446.13	-365.03	2,461.08	2.303	-2.270	0.393	
13,603.00	90.11	0.81	11,053.61	2,535.12	-363.91	2,549.91	0.403	0.348	0.202	
13,692.00	89.19	358.96	11,054.16	2,624.12	-364.09	2,638.81	2.321	-1.034	-2.079	
13,781.00	89.45	357.99	11,055.21	2,713.08	-366.46	2,727.78	1.128	0.292	-1.090	
13,871.00	89.41	358.70	11,056.11	2,803.03	-369.05	2,817.76	0.790	-0.044	0.789	
13,961.00	90.37	0.89	11,056.28	2,893.03	-369.38	2,907.66	2.657	1.067	2.433	
14,050.00	90.11	1.07	11,055.91	2,982.01	-367.85	2,996.46	0.355	-0.292	0.202	
14,140.00	89.67	0.54	11,056.08	3,072.00	-366.59	3,086.28	0.765	-0.489	-0.589	
14,230.00	89.14	359.58	11,057.02	3,162.00	-366.50	3,176.16	1.218	-0.589	-1.067	
14,319.00	90.29	0.10	11,057.46	3,250.99	-366.74	3,265.06	1.418	1.292	0.584	
14,409.00	92.04	0.98	11,055.63	3,340.97	-365.90	3,354.89	2.176	1.944	0.978	
14,498.00	90.86	1.60	11,053.38	3,429.91	-363.89	3,443.63	1.498	-1.326	0.697	
14,588.00	86.46	2.74	11,055.48	3,519.80	-360.49	3,533.24	5.050	-4.889	1.267	
14,677.00	87.87	2.21	11,059.88	3,608.61	-356.65	3,621.75	1.692	1.584	-0.596	
14,766.00	87.25	1.60	11,063.67	3,697.48	-353.69	3,710.37	0.977	-0.697	-0.685	
14,775.99	86.99	1.41	11,064.17	3,707.45	-353.43	3,720.32	3.242	-2.591	-1.951	
<b>Anderson #551H WP2</b>										
14,856.00	84.92	359.84	11,069.82	3,787.25	-352.56	3,799.98	3.242	-2.589	-1.956	
14,945.00	88.66	359.49	11,074.80	3,876.09	-353.08	3,888.74	4.221	4.202	-0.393	
15,034.00	89.14	0.19	11,076.51	3,965.07	-353.33	3,977.63	0.954	0.539	0.787	
15,124.00	89.93	359.14	11,077.24	4,055.07	-353.86	4,067.54	1.460	0.878	-1.167	
15,213.00	90.33	358.70	11,077.04	4,144.05	-355.54	4,156.50	0.668	0.449	-0.494	
15,302.00	90.81	358.35	11,076.15	4,233.02	-357.83	4,245.47	0.667	0.539	-0.393	
15,391.00	90.46	358.79	11,075.17	4,321.98	-360.05	4,334.44	0.632	-0.393	0.494	
15,481.00	88.48	359.84	11,076.00	4,411.97	-361.12	4,424.37	2.490	-2.200	1.167	
15,570.00	89.19	0.19	11,077.81	4,500.95	-361.10	4,513.24	0.889	0.798	0.393	
15,659.00	86.86	358.70	11,080.88	4,589.88	-361.96	4,602.11	3.107	-2.618	-1.674	



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)
15,748.00	85.98	359.40	11,086.43	4,678.70	-363.43	4,690.89	1.262	-0.989	0.787
15,838.00	87.52	0.28	11,091.53	4,768.55	-363.68	4,780.64	1.970	1.711	0.978
15,927.00	90.86	1.33	11,092.79	4,857.51	-362.43	4,869.44	3.934	3.753	1.180
16,017.00	91.38	1.07	11,091.03	4,947.48	-360.55	4,959.20	0.646	0.578	-0.289
16,021.00	91.36	1.05	11,090.94	4,951.47	-360.48	4,963.19	0.632	-0.393	-0.494
<b>Anderson #551H WP3</b>									
16,106.00	91.03	0.63	11,089.16	5,036.45	-359.23	5,048.00	0.632	-0.393	-0.494
16,196.00	89.54	359.84	11,088.71	5,126.44	-358.86	5,137.87	1.874	-1.656	-0.878
16,285.00	89.67	359.93	11,089.33	5,215.44	-359.04	5,226.77	0.178	0.146	0.101
16,375.00	90.64	358.61	11,089.08	5,305.43	-360.19	5,316.71	1.820	1.078	-1.467
16,464.00	89.32	358.26	11,089.12	5,394.39	-362.62	5,405.69	1.534	-1.483	-0.393
16,554.00	87.87	356.85	11,091.32	5,484.28	-366.45	5,495.65	2.247	-1.611	-1.567
16,644.00	87.78	355.62	11,094.74	5,574.02	-372.36	5,585.57	1.369	-0.100	-1.367
16,733.00	88.66	356.15	11,097.50	5,662.75	-378.74	5,674.51	1.154	0.989	0.596
16,823.00	88.48	357.91	11,099.75	5,752.59	-383.40	5,764.47	1.965	-0.200	1.956
16,912.00	89.27	358.70	11,101.50	5,841.54	-386.04	5,853.44	1.255	0.888	0.888
17,002.00	90.81	359.66	11,101.43	5,931.52	-387.32	5,943.38	2.016	1.711	1.067
17,092.00	91.38	359.66	11,099.71	6,021.51	-387.86	6,033.28	0.633	0.633	0.000
17,180.00	91.12	358.43	11,097.79	6,109.47	-389.32	6,121.21	1.428	-0.295	-1.398
17,269.00	90.07	357.20	11,096.87	6,198.40	-392.72	6,210.20	1.817	-1.180	-1.382
17,359.00	91.96	357.29	11,095.28	6,288.28	-397.04	6,300.18	2.102	2.100	0.100
17,448.00	92.84	358.17	11,091.55	6,377.13	-400.56	6,389.10	1.398	0.989	0.989
17,538.00	94.29	357.91	11,085.95	6,466.90	-403.64	6,478.91	1.637	1.611	-0.289
17,627.00	93.85	359.75	11,079.63	6,555.65	-405.45	6,567.64	2.121	-0.494	2.067
17,716.00	87.91	359.75	11,078.27	6,644.60	-405.84	6,656.50	6.674	-6.674	0.000
17,806.00	88.92	359.66	11,080.76	6,734.56	-406.30	6,746.38	1.127	1.122	-0.100
17,895.00	89.71	359.75	11,081.82	6,823.55	-406.76	6,835.29	0.893	0.888	0.101
17,985.00	87.87	1.60	11,083.72	6,913.52	-405.70	6,925.10	2.899	-2.044	2.056
18,074.00	87.52	1.07	11,087.30	7,002.42	-403.63	7,013.79	0.713	-0.393	-0.596
18,163.00	86.86	0.72	11,091.67	7,091.30	-402.24	7,102.50	0.839	-0.742	-0.393
18,253.00	85.49	0.02	11,097.67	7,181.10	-401.66	7,192.16	1.709	-1.522	-0.778
18,343.00	85.67	0.28	11,104.61	7,270.83	-401.42	7,281.77	0.351	0.200	0.289
18,432.00	85.85	1.16	11,111.19	7,359.58	-400.31	7,370.36	1.007	0.202	0.989
18,522.00	87.78	2.39	11,116.19	7,449.39	-397.52	7,459.92	2.542	2.144	1.367
18,611.00	91.91	3.09	11,116.43	7,538.27	-393.27	7,548.49	4.707	4.640	0.787
18,701.00	90.64	1.60	11,114.42	7,628.17	-389.59	7,638.09	2.175	-1.411	-1.656
18,791.00	89.80	1.33	11,114.08	7,718.14	-387.29	7,727.84	0.980	-0.933	-0.300
18,880.00	88.26	0.54	11,115.58	7,807.11	-385.84	7,816.64	1.945	-1.730	-0.888
18,970.00	89.93	359.75	11,117.01	7,897.09	-385.61	7,906.50	2.053	1.856	-0.878
19,023.00	90.37	359.49	11,116.87	7,950.09	-385.96	7,959.45	0.964	0.830	-0.491
<b>Last Aiiim Svy</b>									
19,073.75	90.37	359.49	11,116.54	8,000.84	-386.41	8,010.16	0.000	0.000	0.000
<b>Anderson #551H PBHL</b>									
19,092.00	90.37	359.49	11,116.42	8,019.09	-386.57	8,028.40	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 #551H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Site:</b>	Anderson Fed Com 551H	<b>MD Reference:</b>	Well @ 3724.50usft (Nabors X50)
<b>Well:</b>	Anderson #551H	<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)		
229.00	229.00	0.37	-0.24	First Aim Svy	
19,023.00	11,116.87	7,950.09	-385.96	Last Aiim Svy	
19,092.00	11,116.42	8,019.09	-386.57	Proj to BHL	



# BHA Reports

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## **Anderson Fed Com 551H (WT-21-183)**

2021-11-24 to 2022-01-29

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

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<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	
Size (in)	8.00	Date In	2021-11-24 10:15	Downhole Hours	12.25
Lobe/Stage	7/8, 5.9	Depth In (ft)	150.00	Drilling/Circulating Hours	7.83
Bend Angle	1.75	Date Out	2021-11-24 22:30	Drilling Hours	7.42
Speed (rev/gal)	0.17	Depth Out (ft)	1290.00	Circulating Hours	0.42
Wear Pad OD (in)	8.437	Distance Slid (ft)	0.00	Sliding Hours	0.00
Incident	No	Distance Rotated (ft)	1140.00	Rotating Hours	7.42
<b>Motor Post Run/Notes</b>		% Distance Sliding	0.00%	% Hours Sliding	0.00%
Average Total ROP (ft/h)	153.71	% Distance Rotating	100.00%	% Hours Rotating	100.00%
Average Slide ROP (ft/h)	0.00	<b>BHA Objective</b>			
Average Rotating ROP (ft/h)	153.71	DRILL OUT SURFACE			

Notes: N/A

**Bit Details**

OD (in) 17.500

Vendor ULTERRA

**POOH Reason/Notes**

Nozzles 1x14 - 8x12's **Total Depth/Casing Point:** MOTOR LOOKED GREAT BIT HAD 1 CHIPPED CUTTER

Total Flow Area (in²) 1.034

**Bit Distances**

Bit To Survey: 70.00 ft

**Incident Notes**

Directional: NONE

MWD:

**Bit Post Run/Notes**

Dull Grading 1-1 **Comments**

Notes: N/A **Directional:** FLOW RANGE 400-900 GPM, REV PER GALLON .166, MAX DIFF 1330, MAX TORQUE 22020 BIT RUNS: 2

**MWD**

Max Downhole Temp (°F) N/A

**Mud Properties**

Type	Water Based	<b>Parameters</b>	
WT	9.90	Flow Rate (gpm)	601.00 - 897.00
VIS	31.00	On Bottom Pressure (psi)	1250.00 - 2350.00
PV	2.00	Off Bottom Pressure (psi)	700.00 - 1750.00
YP	5.00	Stall Pressure (psi)	0.00
		Stalls	0
		NPT	0.0

**Items (Directional)**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 6.00, Size (in): 17.50	ULTERRA	57377	6 5/8" Reg Pin			17.500		1.50	1.50
<b>Mud Motor</b> Description: 8" 7/8 5.9 Stg. 1.5° FBH w/17" NBS, Size (in): 8.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	Aim	800-40-011	6 5/8" Reg Box	6 5/8" Reg Box		8.000		40.21	41.71
<b>Stabilizer</b> Description: 17" STAB	JA	17635	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.250		7.17	48.88
<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	51.86
<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	82.38
<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	112.86
<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	116.09





<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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>	8.00	<b>Date In</b>	2021-11-30 12:15	<b>Downhole Hours</b>	24.25
<b>Lobe/Stage</b>	7/8, 5.9	<b>Depth In (ft)</b>	1290.00	<b>Drilling/Circulating Hours</b>	15.83
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2021-12-01 12:30	<b>Drilling Hours</b>	13.50
<b>Speed (rev/gal)</b>	0.15	<b>Depth Out (ft)</b>	4820.00	<b>Circulating Hours</b>	2.33
<b>Wear Pad OD (in)</b>	8.125	<b>Distance Slid (ft)</b>	145.00	<b>Sliding Hours</b>	1.33
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	3385.00	<b>Rotating Hours</b>	12.17
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	4.11%	<b>% Hours Sliding</b>	9.88%
<b>Average Total ROP (ft/h)</b>	261.48	<b>% Distance Rotating</b>	95.89%	<b>% Hours Rotating</b>	90.12%
<b>Average Slide ROP (ft/h)</b>	108.75	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	278.22	Drill 12.25" Intermediate section			

**Notes:** Good Motor Run

Bit Details	
<b>OD (in)</b>	12.250
<b>Vendor</b>	Reed
<b>Nozzles</b>	6 x 16
<b>Total Flow Area (in²)</b>	1.178

Bit Distances		Incident Notes	
<b>Bit To Survey:</b>	65.00 ft	<b>Directional:</b>	
		<b>MWD:</b>	
<b>Bit Post Run/Notes</b>		<b>Comments</b>	
<b>Dull Grading</b>	2-3	<b>Directional:</b> FLOW RANGE 400-900 GPM, REV PER GALLON .150, MAX DIFF 1330, MAX TORQUE 22020 BIT RUNS: 2 , Bit to Bend: 5.05	
<b>Notes:</b> Broken cutters on gauge. 1/16 under gauge			
<b>MWD</b>			
<b>Max Downhole Temp (°F)</b>	N/A		

Mud Properties		Parameters			
<b>Type</b>	Water Based	<b>Flow Rate (gpm)</b>	895.00 - 897.00	<b>Motor RPM</b>	40.00 - 70.00
<b>WT</b>	10.50	<b>On Bottom Pressure (psi)</b>	2350.00 - 2600.00	<b>Surface RPM</b>	60.00 - 70.00
<b>VIS</b>	29.00	<b>Off Bottom Pressure (psi)</b>	1750.00 - 2100.00	<b>Rotating WOB (klbs)</b>	25.00 - 50.00
<b>PV</b>	2.00	<b>Stall Pressure (psi)</b>	0.00	<b>Sliding WOB (klbs)</b>	50.00 - 50.00
<b>YP</b>	3.00	<b>Stalls</b>	0	<b>Temp (°F)</b>	90.00 - 120.00
		<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 66-H3</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 6.00, Size (in): 12.25	Reed	A280421	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: <i>8" 7/8 5.9 Stg. 1.75° FBH w/12" NBS</i> , Size (in): 8.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	Sniper	DR-800-01	6 5/8" Reg Box	6 5/8" Reg Box		8.000		35.66	37.16
<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	44.27
<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	47.25
<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	77.77
<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	108.25
<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	111.48
<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	847.11
<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	850.53
<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	1131.71





<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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>	2022-01-17 11:15	<b>Downhole Hours</b>	36.75
<b>Lobe/Stage</b>	7/8, 8.5	<b>Depth In (ft)</b>	4820.00	<b>Drilling/Circulating Hours</b>	23.17
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2022-01-19 00:00	<b>Drilling Hours</b>	21.92
<b>Speed (rev/gal)</b>	0.26	<b>Depth Out (ft)</b>	9646.00	<b>Circulating Hours</b>	1.25
<b>Wear Pad OD (in)</b>	7.375	<b>Distance Slid (ft)</b>	200.00	<b>Sliding Hours</b>	4.17
<b>Incident</b>	Yes	<b>Distance Rotated (ft)</b>	4626.00	<b>Rotating Hours</b>	17.75
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	4.14%	<b>% Hours Sliding</b>	19.01%
<b>Average Total ROP (ft/h)</b>	220.20	<b>% Distance Rotating</b>	95.86%	<b>% Hours Rotating</b>	80.99%
<b>Average Slide ROP (ft/h)</b>	48.00	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	260.62	Drill 8.75" Intermediate			

**Notes:** Motor was empty, Bit box spun freely by hand

Bit Details		POOH Reason/Notes	
<b>OD (in)</b>	8.750	<b>Downhole Motor Incident:</b> Motor Dropped Pressure And Stopped Drilling	
<b>Vendor</b>	Reed		
<b>Nozzles</b>	6 x15's		
<b>Total Flow Area (in<sup>2</sup>)</b>	1.035		

Bit Distances		Incident Notes	
<b>Bit To Survey:</b>	69.00 ft, <b>Gamma (Bit To Gamma ):</b> 53.00 ft	<b>Directional:</b> Upon Surface BHA Inspection Found Motor To be Dry no fluid say no visible sign of any issues. Bit min. wear. Bit box spun freely	
		<b>MWD:</b>	

Bit Post Run/Notes		Comments	
<b>Dull Grading</b>	1-1	<b>Directional:</b> FLOW RANGE: 500-750 GPM, REV PER GALLON .26, MAX DIFF: 1910, MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 5.30	
<b>Notes:</b>			
<b>MWD</b>			
<b>Max Downhole Temp (°F)</b>	N/A		

Mud Properties		Parameters			
<b>Type</b>	Water Based	<b>Flow Rate (gpm)</b>	597.00 - 700.00	<b>Motor RPM</b>	40.00 - 220.00
<b>WT</b>	9.20	<b>On Bottom Pressure (psi)</b>	1950.00 - 2800.00	<b>Surface RPM</b>	30.00 - 40.00
<b>VIS</b>	32.00	<b>Off Bottom Pressure (psi)</b>	1250.00 - 2100.00	<b>Rotating WOB (klbs)</b>	34.00 - 45.00
<b>PV</b>	2.00	<b>Stall Pressure (psi)</b>	4100.07	<b>Sliding WOB (klbs)</b>	25.00 - 30.00
<b>YP</b>	3.00	<b>Stalls</b>	4	<b>Temp (°F)</b>	85.00 - 138.00
		<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</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>4.00</i> , Size (in): <i>8.75</i>	Reed	A283351	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): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>8.5</i>	Aim	700-40-005	4 1/2" IF Box	4 1/2" Reg Box		7.000		37.46	38.46
<b>Stabilizer</b> Description: <i>8.5" STAB</i>	JA	JA085812	4 1/2" IF Box	4 1/2" IF Pin	2.563	6.750		6.37	44.83
<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		3.04	47.87
<b>Drill Collar</b> Description: <i>NMDC (MWD TOOL)</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	78.52
<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	107.96
<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	110.34
<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	845.97
<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	849.39
<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	1130.57





<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #4 - 8.75" INTERMEDIATE (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	7.00	<b>Date In</b>	2022-01-19 00:30	<b>Downhole Hours</b>	17.50
<b>Lobe/Stage</b>	7/8, 8.5	<b>Depth In (ft)</b>	9646.00	<b>Drilling/Circulating Hours</b>	7.83
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2022-01-19 18:00	<b>Drilling Hours</b>	6.92
<b>Speed (rev/gal)</b>	0.26	<b>Depth Out (ft)</b>	10500.00	<b>Circulating Hours</b>	0.92
<b>Wear Pad OD (in)</b>	7.375	<b>Distance Slid (ft)</b>	70.00	<b>Sliding Hours</b>	1.42
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	784.00	<b>Rotating Hours</b>	5.50
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	8.20%	<b>% Hours Sliding</b>	20.48%
<b>Average Total ROP (ft/h)</b>	123.47	<b>% Distance Rotating</b>	91.80%	<b>% Hours Rotating</b>	79.52%
<b>Average Slide ROP (ft/h)</b>	49.41	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	142.55	Drill 8.75" Intermediate			

**Notes:** Good Motor Run

**Bit Details**

<b>OD (in)</b>	8.750	<b>POOH Reason/Notes</b>
<b>Vendor</b>	ULTERRA	<b>Change Bottom Hole Assembly:</b> POOH for curve assembly
<b>Nozzles</b>	9 x12's	
<b>Total Flow Area (in<sup>2</sup>)</b>	1.035	

**Bit Distances**

<b>Bit To Survey:</b> 69.00 ft, <b>Gamma (Bit To Gamma ):</b> 53.00 ft	<b>Incident Notes</b>
	<b>Directional:</b>
	<b>MWD:</b>

**Bit Post Run/Notes**

<b>Dull Grading</b>	1-1	<b>Comments</b>
<b>Notes:</b>		<b>Directional:</b> FLOW RANGE: 500-750 GPM, REV PER GALLON .26, MAX DIFF: 1910, MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 5.37

**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>	700.00 - 700.00
<b>WT</b>	9.30	<b>Motor RPM</b>	182.00 - 222.00
<b>VIS</b>	29.00	<b>On Bottom Pressure (psi)</b>	2900.00 - 3200.00
<b>PV</b>	2.00	<b>Off Bottom Pressure (psi)</b>	2500.00 - 2500.00
<b>YP</b>	3.00	<b>Rotating WOB (klbs)</b>	40.00 - 40.00
		<b>Stall Pressure (psi)</b>	2199.93
		<b>Sliding WOB (klbs)</b>	20.00 - 20.00
		<b>Stalls</b>	0
		<b>Temp (°F)</b>	125.00 - 130.00
		<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: SPL616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	ULTERRA	55347	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	AIM	700-40-035	4 1/2" IF Box	4 1/2" Reg Box		7.000		37.72	38.72
<b>Stabilizer</b> Description: 8.5" STAB	JA	JA085812	4 1/2" IF Box	4 1/2" IF Pin	2.563	6.750		6.37	45.09
<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		3.04	48.13
<b>Drill Collar</b> Description: NMDC (MWD TOOL), 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	78.78
<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	108.22
<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	110.60
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET54 Box	CET54 Pin	4.000	5.500		735.63	846.23
<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	849.65
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1130.83





<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

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

Motor Details		Date/Depth/Distances		Hours	
Size (in)	6.75	Date In	2022-01-19 18:00	Downhole Hours	31.00
Lobe/Stage	7/8, 5.0	Depth In (ft)	10500.00	Drilling/Circulating Hours	18.33
Bend Angle	2.25	Date Out	2022-01-21 01:00	Drilling Hours	16.67
Speed (rev/gal)	0.27	Depth Out (ft)	11364.00	Circulating Hours	1.67
Wear Pad OD (in)	7.000	Distance Slid (ft)	864.00	Sliding Hours	16.67
Incident	No	Distance Rotated (ft)	0.00	Rotating Hours	0.00
<b>Motor Post Run/Notes</b>		% Distance Sliding	100.00%	% Hours Sliding	100.00%
Average Total ROP (ft/h)	51.84	% Distance Rotating	0.00%	% Hours Rotating	0.00%
Average Slide ROP (ft/h)	51.84	<b>BHA Objective</b>			
Average Rotating ROP (ft/h)	0.00	Drill 8.75" Curve section			

Notes: N/A

Bit Details		POOH Reason/Notes	
OD (in)	8.750	Change Bottom Hole Assembly: POOH At EOC	
Vendor	ULTERRA		
Nozzles	6x15's		
Total Flow Area (in <sup>2</sup> )	1.035		

Bit Distances		Incident Notes	
Bit To Survey: 59.00 ft, Gamma (Bit To Gamma ): 35.00 ft, Resistivity (Bit to Resistivity): 45.00 ft		Directional:	
		MWD:	

Bit Post Run/Notes		Comments	
Dull Grading	1-1	Directional: FLOW RANGE: 300-650 GPM, REV PER GALLON .27, MAX DIFF: 1860, MAX TORQUE : 16,770 BIT RUNS: 0 , Bit to Bend: 3.85	
Notes:			

MWD		Parameters	
Max Downhole Temp (°F)	N/A	Flow Rate (gpm)	550.00 - 600.00
		Motor RPM	149.00 - 149.00
		On Bottom Pressure (psi)	1700.00 - 2100.00
		Surface RPM	40.00 - 40.00
		Off Bottom Pressure (psi)	1350.00 - 1480.00
		Rotating WOB (klbs)	40.00 - 40.00
		Stall Pressure (psi)	0.00
		Sliding WOB (klbs)	23.00 - 25.00
		Stalls	0
		Temp (°F)	121.00 - 130.00
		NPT	0.0

Mud Properties		Parameters	
Type	Water Based	Flow Rate (gpm)	550.00 - 600.00
WT	9.30	Motor RPM	149.00 - 149.00
VIS	34.00	On Bottom Pressure (psi)	1700.00 - 2100.00
PV	2.00	Surface RPM	40.00 - 40.00
YP	1.00	Off Bottom Pressure (psi)	1350.00 - 1480.00
		Rotating WOB (klbs)	40.00 - 40.00
		Sliding WOB (klbs)	23.00 - 25.00
		Temp (°F)	121.00 - 130.00
		NPT	0.0

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	ULTERRA	556957	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 6.75" 7/8L, 5.0 Stg, 2.25° FBH (True Slick), Size (in): 6.75, Bend Angle (°): 2.25, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.0	Paradigm	675101SS	4 1/2" IF Box	4 1/2" Reg Box		6.750		25.66	26.66
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	57.92
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	75.25
<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	105.90
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrig54 Box	4 1/2" IF Pin	3.000	6.625		3.57	109.47





<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	
Size (in)	7.00	Date In	2022-01-21 02:30	Downhole Hours	95.50
Lobe/Stage	7/5, 9.0	Depth In (ft)	11364.00	Drilling/Circulating Hours	63.83
Bend Angle	1.83	Date Out	2022-01-25 02:00	Drilling Hours	61.75
Speed (rev/gal)	0.23	Depth Out (ft)	15829.00	Circulating Hours	2.08
Wear Pad OD (in)	7.375	Distance Slid (ft)	749.00	Sliding Hours	23.50
Incident	No	Distance Rotated (ft)	3716.00	Rotating Hours	38.25
<b>Motor Post Run/Notes</b>		% Distance Sliding	16.77%	% Hours Sliding	38.06%
Average Total ROP (ft/h)	72.31	% Distance Rotating	83.23%	% Hours Rotating	61.94%
Average Slide ROP (ft/h)	31.87	<b>BHA Objective</b>			
Average Rotating ROP (ft/h)	97.15	8.75" LATERAL Assembly			

<b>Notes:</b>	
<b>Bit Details</b>	
OD (in)	8.750
Vendor	Reed

<b>POOH Reason/Notes</b>	
Change Bottom Hole Assembly: Erratic Differential PSI. TF control was highly difficult.	
Nozzles	7x15's
Total Flow Area (in <sup>2</sup> )	1.208

<b>Bit Distances</b>		<b>Incident Notes</b>	
Bit To Survey: 64.00 ft, Gamma (Bit To Gamma ): 40.00 ft, Resistivity (Bit to Resistivity): 50.00 ft		Directional:	
<b>Bit Post Run/Notes</b>		MWD:	

<b>Comments</b>	
Dull Grading 1-2 Directional: FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 0 , Bit to Bend: 5.37	
Notes: 1 Broken outside cutter	

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

<b>Mud Properties</b>			
Type	Oil Based	Flow Rate (gpm)	493.00 - 695.00
WT	9.50	On Bottom Pressure (psi)	2850.00 - 4575.00
VIS	63.00	Off Bottom Pressure (psi)	2300.00 - 4100.00
PV	14.00	Stall Pressure (psi)	1580.04
YP	8.00	Stalls	0
		NPT	0.0
		Motor RPM	115.00 - 161.00
		Surface RPM	30.00 - 40.00
		Rotating WOB (klbs)	38.00 - 45.00
		Sliding WOB (klbs)	25.00 - 45.00
		Temp (°F)	-0.00 - 179.00

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	A28369	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 5.7 Stg. 1.83° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.83, Rotor Lobe: 7, Stator Lobe: 5, Stator Stage: 9	NOV	675-36-384	4 1/2" IF Box	4 1/2" Reg Box		7.000		31.43	32.43
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	63.69
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	81.02
<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	111.67
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	115.24
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: Slick	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2084.56
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2088.04
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	147-67001	4 1/2" FH Box	4 1/2" IF Pin		6.750		24.73	2112.77
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2116.15





<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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>	2022-01-25 02:00	<b>Downhole Hours</b>	42.00
<b>Lobe/Stage</b>	7/5, 9.0	<b>Depth In (ft)</b>	15829.00	<b>Drilling/Circulating Hours</b>	21.83
<b>Bend Angle</b>	1.83	<b>Date Out</b>	2022-01-26 20:00	<b>Drilling Hours</b>	21.25
<b>Speed (rev/gal)</b>	0.23	<b>Depth Out (ft)</b>	17236.00	<b>Circulating Hours</b>	0.58
<b>Wear Pad OD (in)</b>	7.375	<b>Distance Slid (ft)</b>	154.00	<b>Sliding Hours</b>	4.67
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	1253.00	<b>Rotating Hours</b>	16.58
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	10.95%	<b>% Hours Sliding</b>	21.96%
<b>Average Total ROP (ft/h)</b>	66.21	<b>% Distance Rotating</b>	89.05%	<b>% Hours Rotating</b>	78.04%
<b>Average Slide ROP (ft/h)</b>	33.00	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	75.56	Drill 8.75" Lateral section			

<b>Notes:</b>	
<b>Bit Details</b>	
<b>OD (in)</b>	8.750
<b>Vendor</b>	Reed
<b>Nozzles</b>	7x14's
<b>Total Flow Area (in²)</b>	1.052
<b>Bit Distances</b>	
<b>Bit To Survey:</b> 64.00 ft, <b>Gamma (Bit To Gamma):</b> 40.00 ft, <b>Resistivity (Bit to Resistivity):</b> 50.00 ft	
<b>Bit Post Run/Notes</b>	
<b>Dull Grading</b>	1-4
<b>Notes:</b> 1/8" Squat. Motor drained as expected. Bit was 1/16" under gauge.	
<b>MWD</b>	
<b>Max Downhole Temp (°F)</b>	N/A
<b>Mud Properties</b>	
<b>Type</b>	Oil Based
<b>WT</b>	9.60
<b>VIS</b>	61.00
<b>PV</b>	16.00
<b>YP</b>	8.00
<b>Parameters</b>	
<b>Flow Rate (gpm)</b>	694.00 - 695.00
<b>On Bottom Pressure (psi)</b>	4350.00 - 5250.00
<b>Off Bottom Pressure (psi)</b>	4000.00 - 4700.00
<b>Stall Pressure (psi)</b>	0.00
<b>Stalls</b>	0
<b>NPT</b>	0.0
<b>Motor RPM</b>	0.00 - 40.00
<b>Surface RPM</b>	40.00 - 40.00
<b>Rotating WOB (klbs)</b>	42.00 - 55.00
<b>Sliding WOB (klbs)</b>	45.00 - 45.00
<b>Temp (°F)</b>	122.00 - 134.00

<b>Incident Notes</b>	
<b>Directional:</b> Bit started to ring out. Bit grade 1-4 and 1/16 under gauge.	
<b>MWD:</b>	

<b>Comments</b>	
<b>Directional:</b> FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 1 , Bit to Bend: 5.35	

<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: <i>TKC 76</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 4.00, Size (in): 8.75	Reed	A285076	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 5.7 Stg. 1.83° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.83, Rotor Lobe: 7, Stator Lobe: 5, Stator Stage: 9	NOV	675-36-451	4 1/2" IF Box	4 1/2" Reg Box		7.000		31.71	32.71
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1005						31.26	63.97
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6002						17.33	81.30
<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	111.95
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	115.52
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: <i>Slick</i>	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2084.84
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2088.32
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	AGHF0675-0080	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.82	2113.14
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2116.52





<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #8 - 8.75" LATERAL (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	7.00	<b>Date In</b>	2022-01-26 20:00	<b>Downhole Hours</b>	57.17
<b>Lobe/Stage</b>	7/8, 8.5	<b>Depth In (ft)</b>	17236.00	<b>Drilling/Circulating Hours</b>	37.25
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2022-01-29 05:10	<b>Drilling Hours</b>	33.00
<b>Speed (rev/gal)</b>	0.24	<b>Depth Out (ft)</b>	19092.00	<b>Circulating Hours</b>	4.25
<b>Wear Pad OD (in)</b>	7.375	<b>Distance Slid (ft)</b>	339.00	<b>Sliding Hours</b>	13.58
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	1517.00	<b>Rotating Hours</b>	19.42
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	18.27%	<b>% Hours Sliding</b>	41.16%
<b>Average Total ROP (ft/h)</b>	56.24	<b>% Distance Rotating</b>	81.73%	<b>% Hours Rotating</b>	58.84%
<b>Average Slide ROP (ft/h)</b>	24.96	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	78.13	Drill 8.75" Lateral Section			

**Notes:** Motor drained good and had no visible damage.

**Bit Details**

<b>OD (in)</b>	8.750
<b>Vendor</b>	Reed
<b>Nozzles</b>	7x14's
<b>Total Flow Area (in<sup>2</sup>)</b>	1.052

**POOH Reason/Notes**

**Total Depth/Casing Point:** POOH for casing. Reached TD @ 19,092'

**Bit Distances**

**Bit To Survey:** 69.00 ft, **Gamma (Bit To Gamma):** 45.00 ft, **Resistivity (Bit to Resistivity):** 55.00 ft

**Incident Notes**

**Directional:**  
**MWD:**

**Bit Post Run/Notes**

**Dull Grading** 2 - 2  
**Notes:** 2 chipped cutters on face, 2 chipped cutters on gauge. In Gauge

**Comments**

**Directional:** FLOW RANGE: 500-750 GPM, REV PER GALLON 0.26, MAX DIFF: 1,910 MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 4.56

**MWD**

**Max Downhole Temp (°F)** N/A

**Mud Properties**

<b>Type</b>	Oil Based
<b>WT</b>	9.65
<b>VIS</b>	64.00
<b>PV</b>	17.00
<b>YP</b>	9.00

**Parameters**

<b>Flow Rate (gpm)</b>	652.00 - 695.00	<b>Motor RPM</b>	0.00 - 55.00
<b>On Bottom Pressure (psi)</b>	4300.00 - 4900.00	<b>Surface RPM</b>	40.00 - 40.00
<b>Off Bottom Pressure (psi)</b>	4000.00 - 4400.00	<b>Rotating WOB (klbs)</b>	45.00 - 55.00
<b>Stall Pressure (psi)</b>	0.00	<b>Sliding WOB (klbs)</b>	45.00 - 70.00
<b>Stalls</b>	0	<b>Temp (°F)</b>	125.00 - 136.00
<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>TKC76</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 4.00, Size (in): 8.75	Reed	A284576	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 8.5 Stg. 1.75° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SNIPER	DR70018	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1005						31.26	67.85
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6002						17.33	85.18
<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	115.83
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	119.40
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: <i>Slick</i>	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2088.72
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2092.20
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	AGHF0675-0080	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.82	2117.02
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2120.40





# Mud Motor Reports

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## **Anderson Fed Com 551H (WT-21-183)**

2021-11-24 to 2022-01-29

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

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<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	800-40-011	Date In	2021-11-24 10:15	Downhole Hours	12.25
Size (in)	8.0	Depth In (ft)	150.00	Drilling/Circulating Hours	7.83
Lobe/Stage	7/8, 5.90	Date Out	2021-11-24 22:30		
Bend Angle	1.75	Depth Out (ft)	1290.00	Circulating Hours	0.42
Speed (rev/gal)	0.17	Total Drilled (ft)	1140.00	Drilling Hours	7.42
Wear Pad OD (in)	8.437	Distance Slid (ft)	0.00	Sliding Hours	0.00
Manufacturer	Contender	Distance Rotated (ft)	1140.00	Rotating Hours	7.42
<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)	153.71	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	0.00	Flow Rate (gpm)	601.00 - 897.00	Motor RPM	65.00 - 65.00
Average Rotating ROP (ft/h)	153.71	Stalls	0	Surface RPM	40.00 - 60.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	25.00 - 25.00
OD (in)	17.500	On Bottom Pressure (psi)	1250.00 - 2350.00	Sliding WOB (klbs)	0.00 - 0.00
Vendor	ULTERRA	Off Bottom Pressure (psi)	700.00 - 1750.00	Temp (°F)	85.00 - 100.00
S/N	57377	NPT	0.0		
Nozzles	1x14 - 8x12's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.034	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	9.90				
VIS	31.00				
PV	2.00				
YP	5.00				
<b>POOH Reason/Notes</b>					
Total Depth/Casing Point: MOTOR LOOKED GREAT BIT HAD 1 CHIPPED CUTTER					
<b>Incident Notes</b>					
Directional: NONE					
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-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	DR-800-01	Date In	2021-11-30 12:15	Downhole Hours	24.25
Size (in)	8.0	Depth In (ft)	1290.00	Drilling/Circulating Hours	15.83
Lobe/Stage	7/8, 5.90	Date Out	2021-12-01 12:30		
Bend Angle	1.75	Depth Out (ft)	4820.00	Circulating Hours	2.33
Speed (rev/gal)	0.15	Total Drilled (ft)	3530.00	Drilling Hours	13.50
Wear Pad OD (in)	8.125	Distance Slid (ft)	145.00	Sliding Hours	1.33
Manufacturer	Sniper	Distance Rotated (ft)	3385.00	Rotating Hours	12.17
<b>Motor Results</b>		% Distance Sliding	4.11%	% Hours Rotating	90.12%
Motor Incident	No	% Distance Rotating	95.89%	% Hours Sliding	9.88%

Motor Results		BHA Parameters	
Average Total ROP (ft/h)	261.48	Flow Rate (gpm)	895.00 - 897.00
Average Slide ROP (ft/h)	108.75	Motor RPM	40.00 - 70.00
Average Rotating ROP (ft/h)	278.22	Stalls	0
<b>Bit Details</b>		Surface RPM	60.00 - 70.00
OD (in)	12.250	Stall Pressure (psi)	0.00
Vendor	Reed	Rotating WOB (klbs)	25.00 - 50.00
S/N	A280421	On Bottom Pressure (psi)	2350.00 - 2600.00
Nozzles	6 x 16	Off Bottom Pressure (psi)	1750.00 - 2100.00
Total Flow Area (in <sup>2</sup> )	1.178	Temp (°F)	90.00 - 120.00
Bit Type	PDC (Polycrystalline Diamond Compacts)	NPT	0.0

**BHA Objective**  
Drill 12.25" Intermediate section

Bit Distances	
Survey: 65.00 ft	
<b>Mud Properties</b>	
Type	Water Based
WT	10.50
VIS	29.00
PV	2.00
YP	3.00

**POOH Reason/Notes**

Total Depth/Casing Point: Good Run. POOH for Casing.

**Incident Notes**

Directional:  
MWD:

**Comments**

Directional: FLOW RANGE 400-900 GPM, REV PER GALLON .150, MAX DIFF 1330, MAX TORQUE 22020 BIT RUNS: 2 , Bit to Bend: 5.05

MWD:



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	700-40-005	Date In	2022-01-17 11:15	Downhole Hours	36.75
Size (in)	7.0	Depth In (ft)	4820.00	Drilling/Circulating Hours	23.17
Lobe/Stage	7/8, 8.50	Date Out	2022-01-19 00:00		
Bend Angle	1.75	Depth Out (ft)	9646.00	Circulating Hours	1.25
Speed (rev/gal)	0.26	Total Drilled (ft)	4826.00	Drilling Hours	21.92
Wear Pad OD (in)	7.375	Distance Slid (ft)	200.00	Sliding Hours	4.17
Manufacturer	Contender	Distance Rotated (ft)	4626.00	Rotating Hours	17.75
<b>Motor Results</b>		% Distance Sliding	4.14%	% Hours Rotating	80.99%
Motor Incident	Yes	% Distance Rotating	95.86%	% Hours Sliding	19.01%

Motor Results		BHA Parameters	
Average Total ROP (ft/h)	220.20	Flow Rate (gpm)	597.00 - 700.00
Average Slide ROP (ft/h)	48.00	Motor RPM	40.00 - 220.00
Average Rotating ROP (ft/h)	260.62	Stalls	4
<b>Bit Details</b>		Stall Pressure (psi)	4100.07
OD (in)	8.750	On Bottom Pressure (psi)	1950.00 - 2800.00
Vendor	Reed	Off Bottom Pressure (psi)	1250.00 - 2100.00
S/N	A283351	NPT	0.0
Nozzles	6 x15's		

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

**Bit Distances**  
Survey: 69.00 ft, Gamma (Bit To Gamma ): 53.00 ft

Mud Properties	
Type	Water Based
WT	9.20
VIS	32.00
PV	2.00
YP	3.00

**POOH Reason/Notes**  
Downhole Motor Incident: Motor Dropped Pressure And Stopped Drilling

**Incident Notes**  
Directional: Upon Surface BHA Inspection Found Motor To be Dry no fluid say no visible sign of any issues. Bit min. wear. Bit box spun freely  
MWD:

**Comments**  
Directional: FLOW RANGE: 500-750 GPM, REV PER GALLON .26, MAX DIFF: 1910, MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 5.30  
MWD:



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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 (8.75" INTERMEDIATE)**

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-035	Date In	2022-01-19 00:30	Downhole Hours	17.50
Size (in)	7.0	Depth In (ft)	9646.00	Drilling/Circulating Hours	7.83
Lobe/Stage	7/8, 8.50	Date Out	2022-01-19 18:00		
Bend Angle	1.75	Depth Out (ft)	10500.00	Circulating Hours	0.92
Speed (rev/gal)	0.26	Total Drilled (ft)	854.00	Drilling Hours	6.92
Wear Pad OD (in)	7.375	Distance Slid (ft)	70.00	Sliding Hours	1.42
Manufacturer	AIM	Distance Rotated (ft)	784.00	Rotating Hours	5.50
<b>Motor Results</b>		% Distance Sliding	8.20%	% Hours Rotating	79.52%
Motor Incident	No	% Distance Rotating	91.80%	% Hours Sliding	20.48%
Average Total ROP (ft/h)	123.47	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	49.41	Flow Rate (gpm)	700.00 - 700.00	Motor RPM	182.00 - 222.00
Average Rotating ROP (ft/h)	142.55	Stalls	0	Surface RPM	40.00 - 40.00
<b>Bit Details</b>		Stall Pressure (psi)	2199.93	Rotating WOB (klbs)	40.00 - 40.00
OD (in)	8.750	On Bottom Pressure (psi)	2900.00 - 3200.00	Sliding WOB (klbs)	20.00 - 20.00
Vendor	ULTERRA	Off Bottom Pressure (psi)	2500.00 - 2500.00	Temp (°F)	125.00 - 130.00
S/N	55347	NPT	0.0		
Nozzles	9 x12's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.035	Drill 8.75" Intermediate			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 69.00 ft, Gamma (Bit To Gamma ): 53.00 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	9.30				
VIS	29.00				
PV	2.00				
YP	3.00				
<b>POOH Reason/Notes</b>					
Change Bottom Hole Assembly: POOH for curve assembly					
<b>Incident Notes</b>					
Directional:					
MWD:					
<b>Comments</b>					
Directional: FLOW RANGE: 500-750 GPM, REV PER GALLON .26, MAX DIFF: 1910, MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 5.37					
MWD:					



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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 (BHA #5 ( Curve Assy))**

Motor Details		Date/Depth/Distances		Hours	
S/N	675101SS	Date In	2022-01-19 18:00	Downhole Hours	31.00
Size (in)	6.75	Depth In (ft)	10500.00	Drilling/Circulating Hours	18.33
Lobe/Stage	7/8, 5.00	Date Out	2022-01-21 01:00		
Bend Angle	2.25	Depth Out (ft)	11364.00	Circulating Hours	1.67
Speed (rev/gal)	0.27	Total Drilled (ft)	864.00	Drilling Hours	16.67
Wear Pad OD (in)	7.000	Distance Slid (ft)	864.00	Sliding Hours	16.67
Manufacturer	Paradigm	Distance Rotated (ft)	0.00	Rotating Hours	0.00
<b>Motor Results</b>		% Distance Sliding	100.00%	% Hours Rotating	0.00%
Motor Incident	No	% Distance Rotating	0.00%	% Hours Sliding	100.00%
Average Total ROP (ft/h)	51.84	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	51.84	Flow Rate (gpm)	550.00 - 600.00	Motor RPM	149.00 - 149.00
Average Rotating ROP (ft/h)	0.00	Stalls	0	Surface RPM	40.00 - 40.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	40.00 - 40.00
OD (in)	8.750	On Bottom Pressure (psi)	1700.00 - 2100.00	Sliding WOB (klbs)	23.00 - 25.00
Vendor	ULTERRA	Off Bottom Pressure (psi)	1350.00 - 1480.00	Temp (°F)	121.00 - 130.00
S/N	556957	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: 59.00 ft, Gamma (Bit To Gamma ): 35.00 ft, Resistivity (Bit to Resistivity): 45.00 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	9.30				
VIS	34.00				
PV	2.00				
YP	1.00				
<b>POOH Reason/Notes</b>					
Change Bottom Hole Assembly: POOH At EOC					
<b>Incident Notes</b>					
Directional:					
MWD:					
<b>Comments</b>					
Directional: FLOW RANGE: 300-650 GPM, REV PER GALLON .27, MAX DIFF: 1860, MAX TORQUE : 16,770 BIT RUNS: 0 , Bit to Bend: 3.85					
MWD:					



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	675-36-384	Date In	2022-01-21 02:30	Downhole Hours	95.50
Size (in)	7.0	Depth In (ft)	11364.00	Drilling/Circulating Hours	63.83
Lobe/Stage	7/5, 9.00	Date Out	2022-01-25 02:00		
Bend Angle	1.83	Depth Out (ft)	15829.00	Circulating Hours	2.08
Speed (rev/gal)	0.23	Total Drilled (ft)	4465.00	Drilling Hours	61.75
Wear Pad OD (in)	7.375	Distance Slid (ft)	749.00	Sliding Hours	23.50
Manufacturer	NOV	Distance Rotated (ft)	3716.00	Rotating Hours	38.25
<b>Motor Results</b>		% Distance Sliding	16.77%	% Hours Rotating	61.94%
Motor Incident	No	% Distance Rotating	83.23%	% Hours Sliding	38.06%
Average Total ROP (ft/h)	72.31	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	31.87	Flow Rate (gpm)	493.00 - 695.00	Motor RPM	115.00 - 161.00
Average Rotating ROP (ft/h)	97.15	Stalls	0	Surface RPM	30.00 - 40.00
<b>Bit Details</b>		Stall Pressure (psi)	1580.04	Rotating WOB (klbs)	38.00 - 45.00
OD (in)	8.750	On Bottom Pressure (psi)	2850.00 - 4575.00	Sliding WOB (klbs)	25.00 - 45.00
Vendor	Reed	Off Bottom Pressure (psi)	2300.00 - 4100.00	Temp (°F)	-0.00 - 179.00
S/N	A28369	NPT	0.0		
Nozzles	7x15's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.208	8.75" LATERAL Assembly			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 64.00 ft, Gamma (Bit To Gamma ): 40.00 ft, Resistivity (Bit to Resistivity): 50.00 ft					
<b>Mud Properties</b>					
Type	Oil Based				
WT	9.50				
VIS	63.00				
PV	14.00				
YP	8.00				
<b>POOH Reason/Notes</b>					
Change Bottom Hole Assembly: Erratic Differential PSI. TF control was highly difficult.					
<b>Incident Notes</b>					
Directional:					
MWD:					
<b>Comments</b>					
Directional: FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 0 , Bit to Bend: 5.37					
MWD:					



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	675-36-451	Date In	2022-01-25 02:00	Downhole Hours	42.00
Size (in)	7.0	Depth In (ft)	15829.00	Drilling/Circulating Hours	21.83
Lobe/Stage	7/5, 9.00	Date Out	2022-01-26 20:00		
Bend Angle	1.83	Depth Out (ft)	17236.00	Circulating Hours	0.58
Speed (rev/gal)	0.23	Total Drilled (ft)	1407.00	Drilling Hours	21.25
Wear Pad OD (in)	7.375	Distance Slid (ft)	154.00	Sliding Hours	4.67
Manufacturer	NOV	Distance Rotated (ft)	1253.00	Rotating Hours	16.58
<b>Motor Results</b>		% Distance Sliding	10.95%	% Hours Rotating	78.04%
Motor Incident	No	% Distance Rotating	89.05%	% Hours Sliding	21.96%
Average Total ROP (ft/h)	66.21	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	33.00	Flow Rate (gpm)	694.00 - 695.00	Motor RPM	0.00 - 40.00
Average Rotating ROP (ft/h)	75.56	Stalls	0	Surface RPM	40.00 - 40.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	42.00 - 55.00
OD (in)	8.750	On Bottom Pressure (psi)	4350.00 - 5250.00	Sliding WOB (klbs)	45.00 - 45.00
Vendor	Reed	Off Bottom Pressure (psi)	4000.00 - 4700.00	Temp (°F)	122.00 - 134.00
S/N	A285076	NPT	0.0		
Nozzles	7x14's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.052	Drill 8.75" Lateral section			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 64.00 ft, Gamma (Bit To Gamma ): 40.00 ft, Resistivity (Bit to Resistivity): 50.00 ft					
<b>Mud Properties</b>					
Type	Oil Based				
WT	9.60				
VIS	61.00				
PV	16.00				
YP	8.00				
<b>POOH Reason/Notes</b>					
Penetration Rate: POOH due to slow P Rate.					
<b>Incident Notes</b>					
Directional: Bit started to ring out. Bit grade 1-4 and 1/16 under gauge.					
MWD:					
<b>Comments</b>					
Directional: FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 1 , Bit to Bend: 5.35					
MWD:					



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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 8 (8.75" LATERAL)

Motor Details		Date/Depth/Distances		Hours	
S/N	DR70018	Date In	2022-01-26 20:00	Downhole Hours	57.17
Size (in)	7.0	Depth In (ft)	17236.00	Drilling/Circulating Hours	37.25
Lobe/Stage	7/8, 8.50	Date Out	2022-01-29 05:10		
Bend Angle	1.75	Depth Out (ft)	19092.00	Circulating Hours	4.25
Speed (rev/gal)	0.24	Total Drilled (ft)	1856.00	Drilling Hours	33.00
Wear Pad OD (in)	7.375	Distance Slid (ft)	339.00	Sliding Hours	13.58
Manufacturer	SNIPER	Distance Rotated (ft)	1517.00	Rotating Hours	19.42
<b>Motor Results</b>		% Distance Sliding	18.27%	% Hours Rotating	58.84%
Motor Incident	No	% Distance Rotating	81.73%	% Hours Sliding	41.16%
Average Total ROP (ft/h)	56.24	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	24.96	Flow Rate (gpm)	652.00 - 695.00	Motor RPM	0.00 - 55.00
Average Rotating ROP (ft/h)	78.13	Stalls	0	Surface RPM	40.00 - 40.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	45.00 - 55.00
OD (in)	8.750	On Bottom Pressure (psi)	4300.00 - 4900.00	Sliding WOB (klbs)	45.00 - 70.00
Vendor	Reed	Off Bottom Pressure (psi)	4000.00 - 4400.00	Temp (°F)	125.00 - 136.00
S/N	A284576	NPT	0.0		
Nozzles	7x14's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.052	Drill 8.75" Lateral Section			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey: 69.00 ft, Gamma (Bit To Gamma ): 45.00 ft, Resistivity (Bit to Resistivity): 55.00 ft					
<b>Mud Properties</b>					
Type	Oil Based				
WT	9.65				
VIS	64.00				
PV	17.00				
YP	9.00				
<b>POOH Reason/Notes</b>					
Total Depth/Casing Point: POOH for casing. Reached TD @ 19,092'					
<b>Incident Notes</b>					
Directional:					
MWD:					
<b>Comments</b>					
Directional: FLOW RANGE: 500-750 GPM, REV PER GALLON 0.26, MAX DIFF: 1,910 MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 4.56					
MWD:					



# Slide/Rotate Reports

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## **Anderson Fed Com 551H (WT-21-183)**

2021-11-24 to 2022-01-29

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

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<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	11-24	11:25	13:15	11-24	1.83	150.00	299.00	149.00	81.27	N/A	601.00	40.0	25.00	1250.00	700.00	Surface
Rotate	11-24	13:20	13:30	11-24	0.17	299.00	361.00	62.00	372.00	N/A	749.00	60.0	25.00	1900.00	1300.00	Surface
Rotate	11-24	13:35	14:00	11-24	0.42	361.00	422.00	61.00	146.40	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	14:10	14:15	11-24	0.08	422.00	483.00	61.00	732.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	14:20	14:45	11-24	0.42	483.00	545.00	62.00	148.80	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	14:50	15:20	11-24	0.5	545.00	606.00	61.00	122.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	15:50	16:05	11-24	0.25	606.00	667.00	61.00	244.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	16:10	16:30	11-24	0.33	667.00	729.00	62.00	186.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	16:35	17:15	11-24	0.67	729.00	790.00	61.00	91.50	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	17:20	17:40	11-24	0.33	790.00	886.00	96.00	288.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	17:45	18:00	11-24	0.25	886.00	948.00	62.00	248.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	18:05	18:45	11-24	0.67	948.00	1043.00	95.00	142.50	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	18:50	19:30	11-24	0.67	1043.00	1136.00	93.00	139.50	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	19:35	20:10	11-24	0.58	1136.00	1225.00	89.00	152.57	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface
Rotate	11-24	20:15	20:30	11-24	0.25	1225.00	1290.00	65.00	260.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Surface, Intermediate



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners		<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H		<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	11-30	16:05	16:55	11-30	0.83	1290.00	1400.00	110.00	132.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Intermediate
Rotate	11-30	17:00	17:20	11-30	0.33	1400.00	1489.00	89.00	267.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Intermediate
Rotate	11-30	17:25	17:40	11-30	0.25	1489.00	1579.00	90.00	360.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Intermediate
Rotate	11-30	17:45	18:05	11-30	0.33	1579.00	1668.00	89.00	267.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Intermediate
Rotate	11-30	18:10	18:20	11-30	0.17	1668.00	1758.00	90.00	540.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Intermediate
Rotate	11-30	18:25	18:35	11-30	0.17	1758.00	1848.00	90.00	540.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Intermediate
Rotate	11-30	18:40	18:55	11-30	0.25	1848.00	1937.00	89.00	356.00	N/A	897.00	60.0	25.00	2350.00	1750.00	Intermediate
Rotate	11-30	19:00	19:15	11-30	0.25	1937.00	2027.00	90.00	360.00	N/A	897.00	70.0	50.00	2600.00	2000.00	Intermediate
Rotate	11-30	19:20	19:30	11-30	0.17	2027.00	2117.00	90.00	540.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	19:35	19:45	11-30	0.17	2117.00	2206.00	89.00	534.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	19:50	20:00	11-30	0.17	2206.00	2296.00	90.00	540.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	20:05	20:20	11-30	0.25	2296.00	2385.00	89.00	356.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	20:25	20:30	11-30	0.08	2385.00	2395.00	10.00	120.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Slide	11-30	20:30	20:35	11-30	0.08	2395.00	2415.00	20.00	240.00	230.0	895.00	N/A	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	20:35	20:50	11-30	0.25	2415.00	2474.00	59.00	236.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	20:55	21:05	11-30	0.17	2474.00	2563.00	89.00	534.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	21:10	21:15	11-30	0.08	2563.00	2653.00	90.00	1080.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	21:20	21:35	11-30	0.25	2653.00	2742.00	89.00	356.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Slide	11-30	21:40	22:00	11-30	0.33	2742.00	2772.00	30.00	90.00	300.0	895.00	N/A	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	22:00	22:10	11-30	0.17	2772.00	2831.00	59.00	354.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	22:15	22:25	11-30	0.17	2831.00	2921.00	90.00	540.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	22:30	22:45	11-30	0.25	2921.00	3011.00	90.00	360.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	22:50	22:55	11-30	0.08	3011.00	3022.00	11.00	132.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Slide	11-30	22:55	23:05	11-30	0.17	3022.00	3047.00	25.00	150.00	240.0	895.00	N/A	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	23:05	23:15	11-30	0.17	3047.00	3101.00	54.00	324.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	23:20	23:35	11-30	0.25	3101.00	3190.00	89.00	356.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	23:40	23:45	11-30	0.08	3190.00	3202.00	12.00	144.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Slide	11-30	23:45	23:50	11-30	0.08	3202.00	3227.00	25.00	300.00	10.0	895.00	N/A	50.00	2600.00	2100.00	Intermediate
Rotate	11-30	23:50	00:00	12-01	0.17	3227.00	3280.00	53.00	318.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	00:05	00:15	12-01	0.17	3280.00	3369.00	89.00	534.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	00:20	00:30	12-01	0.17	3369.00	3459.00	90.00	540.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	00:35	00:50	12-01	0.25	3459.00	3548.00	89.00	356.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	00:55	01:15	12-01	0.33	3548.00	3638.00	90.00	270.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	01:20	01:40	12-01	0.33	3638.00	3728.00	90.00	270.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	01:45	01:50	12-01	0.08	3728.00	3735.00	7.00	84.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Slide	12-01	01:50	02:05	12-01	0.25	3735.00	3760.00	25.00	100.00	245.0	895.00	N/A	50.00	2600.00	2100.00	Intermediate

Rotate	12-01	02:05	02:25	12-01	0.33	3760.00	3817.00	57.00	171.00	N/A	897.00	70.0	50.00	2600.00	2100.00	intermediate
Rotate	12-01	02:30	02:55	12-01	0.42	3817.00	3907.00	90.00	216.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Slide	12-01	03:00	03:25	12-01	0.42	3907.00	3927.00	20.00	48.00	0.0	895.00	N/A	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	03:25	03:50	12-01	0.42	3927.00	3997.00	70.00	168.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	03:55	04:20	12-01	0.42	3997.00	4086.00	89.00	213.60	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	04:25	04:50	12-01	0.42	4086.00	4176.00	90.00	216.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	04:55	05:20	12-01	0.42	4176.00	4265.00	89.00	213.60	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	05:25	05:50	12-01	0.42	4265.00	4355.00	90.00	216.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	05:55	06:20	12-01	0.42	4355.00	4444.00	89.00	213.60	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	06:25	07:00	12-01	0.58	4444.00	4534.00	90.00	154.29	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	07:05	07:35	12-01	0.5	4534.00	4624.00	90.00	180.00	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	07:40	08:05	12-01	0.42	4624.00	4713.00	89.00	213.60	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate
Rotate	12-01	08:10	08:45	12-01	0.58	4713.00	4820.00	107.00	183.43	N/A	897.00	70.0	50.00	2600.00	2100.00	Intermediate



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	01-17	16:35	17:25	01-17	0.83	4820.00	4980.00	160.00	192.00	N/A	597.00	30.0	34.00	1950.00	1250.00	Intermediate
Rotate	01-17	17:30	17:40	01-17	0.17	4980.00	5070.00	90.00	540.00	N/A	597.00	30.0	34.00	1950.00	1250.00	Intermediate
Rotate	01-17	17:45	17:50	01-17	0.08	5070.00	5160.00	90.00	1080.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	17:55	18:05	01-17	0.17	5160.00	5249.00	89.00	534.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	18:10	18:25	01-17	0.25	5249.00	5339.00	90.00	360.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	18:30	18:35	01-17	0.08	5339.00	5345.00	6.00	72.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Slide	01-17	18:35	18:40	01-17	0.08	5345.00	5365.00	20.00	240.00	231.0	700.00	N/A	25.00	2200.00	1700.00	Intermediate
Rotate	01-17	18:40	18:45	01-17	0.08	5365.00	5428.00	63.00	756.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Slide	01-17	18:50	18:55	01-17	0.08	5428.00	5453.00	25.00	300.00	230.0	700.00	N/A	25.00	2200.00	1700.00	Intermediate
Rotate	01-17	18:55	19:10	01-17	0.25	5453.00	5517.00	64.00	256.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Slide	01-17	19:15	19:25	01-17	0.17	5517.00	5537.00	20.00	120.00	225.0	700.00	N/A	25.00	2200.00	1700.00	Intermediate
Rotate	01-17	19:25	19:45	01-17	0.33	5537.00	5607.00	70.00	210.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	19:50	20:10	01-17	0.33	5607.00	5697.00	90.00	270.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	20:15	20:30	01-17	0.25	5697.00	5786.00	89.00	356.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Slide	01-17	20:35	20:40	01-17	0.08	5786.00	5797.00	11.00	132.00	97.0	700.00	N/A	25.00	2200.00	1700.00	Intermediate
Rotate	01-17	20:40	21:05	01-17	0.42	5797.00	5876.00	79.00	189.60	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	21:10	21:30	01-17	0.33	5876.00	5965.00	89.00	267.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	21:35	21:45	01-17	0.17	5965.00	6055.00	90.00	540.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	21:50	22:00	01-17	0.17	6055.00	6145.00	90.00	540.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	22:05	22:15	01-17	0.17	6145.00	6234.00	89.00	534.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Slide	01-17	22:20	22:25	01-17	0.08	6234.00	6244.00	10.00	120.00	312.0	700.00	N/A	25.00	2200.00	1700.00	Intermediate
Rotate	01-17	22:25	22:50	01-17	0.42	6244.00	6324.00	80.00	192.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	22:55	23:05	01-17	0.17	6324.00	6413.00	89.00	534.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	23:10	23:25	01-17	0.25	6413.00	6502.00	89.00	356.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Slide	01-17	23:30	23:35	01-17	0.08	6502.00	6512.00	10.00	120.00	160.0	700.00	N/A	25.00	2200.00	1700.00	Intermediate
Rotate	01-17	23:35	23:50	01-17	0.25	6512.00	6592.00	80.00	320.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-17	23:55	00:05	01-18	0.17	6592.00	6682.00	90.00	540.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	00:10	00:20	01-18	0.17	6682.00	6771.00	89.00	534.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	00:25	00:30	01-18	0.08	6771.00	6860.00	89.00	1068.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	00:35	00:45	01-18	0.17	6860.00	6950.00	90.00	540.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	00:50	01:00	01-18	0.17	6950.00	7039.00	89.00	534.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	01:05	01:20	01-18	0.25	7039.00	7129.00	90.00	360.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	01:25	01:35	01-18	0.17	7129.00	7219.00	90.00	540.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	01:40	01:50	01-18	0.17	7219.00	7308.00	89.00	534.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	01:55	02:25	01-18	0.5	7308.00	7398.00	90.00	180.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	02:30	02:45	01-18	0.25	7398.00	7488.00	90.00	360.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate

Rotate	01-18	02:50	03:10	01-18	0.33	7488.00	7577.00	89.00	267.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	03:15	03:35	01-18	0.33	7577.00	7666.00	89.00	267.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	03:40	03:55	01-18	0.25	7666.00	7756.00	90.00	360.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	04:00	04:20	01-18	0.33	7756.00	7846.00	90.00	270.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Rotate	01-18	04:25	04:40	01-18	0.25	7846.00	7936.00	90.00	360.00	N/A	696.00	40.0	40.00	2650.00	1900.00	Intermediate
Slide	01-18	04:45	04:55	01-18	0.17	7936.00	7944.00	8.00	48.00	230.0	698.00	N/A	28.00	2350.00	2000.00	Intermediate
Rotate	01-18	04:55	05:30	01-18	0.58	7944.00	8025.00	81.00	138.86	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Rotate	01-18	05:35	06:00	01-18	0.42	8025.00	8115.00	90.00	216.00	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Rotate	01-18	06:05	06:25	01-18	0.33	8115.00	8205.00	90.00	270.00	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Rotate	01-18	06:30	06:50	01-18	0.33	8205.00	8294.00	89.00	267.00	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Rotate	01-18	06:55	07:15	01-18	0.33	8294.00	8383.00	89.00	267.00	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Slide	01-18	07:20	08:00	01-18	0.67	8383.00	8397.00	14.00	21.00	235.0	698.00	N/A	28.00	2350.00	2000.00	Intermediate
Rotate	01-18	08:00	08:25	01-18	0.42	8397.00	8473.00	76.00	182.40	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Rotate	01-18	08:30	08:35	01-18	0.08	8473.00	8480.00	7.00	84.00	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Slide	01-18	08:35	08:50	01-18	0.25	8480.00	8495.00	15.00	60.00	290.0	698.00	N/A	28.00	2350.00	2000.00	Intermediate
Rotate	01-18	08:50	09:15	01-18	0.42	8495.00	8562.00	67.00	160.80	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Rotate	01-18	09:20	09:50	01-18	0.5	8562.00	8652.00	90.00	180.00	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Rotate	01-18	09:55	10:10	01-18	0.25	8652.00	8741.00	89.00	356.00	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Rotate	01-18	10:15	10:55	01-18	0.67	8741.00	8831.00	90.00	135.00	N/A	696.00	40.0	40.00	2800.00	2100.00	Intermediate
Rotate	01-18	11:00	11:30	01-18	0.5	8831.00	8920.00	89.00	178.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Rotate	01-18	11:35	12:05	01-18	0.5	8920.00	9010.00	90.00	180.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Rotate	01-18	12:10	12:15	01-18	0.08	9010.00	9020.00	10.00	120.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Slide	01-18	12:15	12:50	01-18	0.58	9020.00	9042.00	22.00	37.71	260.0	698.00	N/A	30.00	2350.00	2000.00	Intermediate
Rotate	01-18	12:50	13:20	01-18	0.5	9042.00	9100.00	58.00	116.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Rotate	01-18	13:25	14:00	01-18	0.58	9100.00	9189.00	89.00	152.57	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Rotate	01-18	14:05	14:10	01-18	0.08	9189.00	9195.00	6.00	72.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Slide	01-18	14:10	15:10	01-18	1.0	9195.00	9220.00	25.00	25.00	280.0	698.00	N/A	30.00	2350.00	2000.00	Intermediate
Rotate	01-18	15:10	15:35	01-18	0.42	9220.00	9279.00	59.00	141.60	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Rotate	01-18	15:40	15:45	01-18	0.08	9279.00	9286.00	7.00	84.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Slide	01-18	15:45	16:40	01-18	0.92	9286.00	9306.00	20.00	21.82	260.0	698.00	N/A	30.00	2350.00	2000.00	Intermediate
Rotate	01-18	16:40	17:10	01-18	0.5	9306.00	9369.00	63.00	126.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Rotate	01-18	17:30	18:00	01-18	0.5	9369.00	9459.00	90.00	180.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Rotate	01-18	18:05	18:30	01-18	0.42	9459.00	9548.00	89.00	213.60	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Rotate	01-18	18:35	19:00	01-18	0.42	9548.00	9638.00	90.00	216.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate
Rotate	01-18	19:05	19:10	01-18	0.08	9638.00	9646.00	8.00	96.00	N/A	696.00	40.0	45.00	2800.00	2100.00	Intermediate



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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 (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	01-19	04:30	04:55	01-19	0.42	9646.00	9727.00	81.00	194.40	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Rotate	01-19	05:00	05:05	01-19	0.08	9727.00	9733.00	6.00	72.00	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Slide	01-19	05:05	05:25	01-19	0.33	9733.00	9753.00	20.00	60.00	270.0	700.00	N/A	20.00	2900.00	2500.00	Intermediate
Rotate	01-19	05:25	05:50	01-19	0.42	9753.00	9817.00	64.00	153.60	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Rotate	01-19	05:55	06:00	01-19	0.08	9817.00	9822.00	5.00	60.00	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Slide	01-19	06:00	06:30	01-19	0.5	9822.00	9852.00	30.00	60.00	270.0	700.00	N/A	20.00	2900.00	2500.00	Intermediate
Rotate	01-19	06:30	06:55	01-19	0.42	9852.00	9907.00	55.00	132.00	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Rotate	01-19	07:00	07:35	01-19	0.58	9907.00	9997.00	90.00	154.29	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Rotate	01-19	07:40	08:20	01-19	0.67	9997.00	10086.00	89.00	133.50	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Rotate	01-19	08:25	09:00	01-19	0.58	10086.00	10175.00	89.00	152.57	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Rotate	01-19	09:05	09:40	01-19	0.58	10175.00	10265.00	90.00	154.29	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Rotate	01-19	09:45	10:25	01-19	0.67	10265.00	10355.00	90.00	135.00	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Rotate	01-19	10:30	10:35	01-19	0.08	10355.00	10365.00	10.00	120.00	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Slide	01-19	10:35	11:10	01-19	0.58	10365.00	10385.00	20.00	34.29	90.0	700.00	N/A	20.00	2900.00	2500.00	Intermediate
Rotate	01-19	11:10	11:40	01-19	0.5	10385.00	10445.00	60.00	120.00	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate
Rotate	01-19	11:45	12:10	01-19	0.42	10445.00	10500.00	55.00	132.00	N/A	700.00	40.0	40.00	3200.00	2500.00	Intermediate, Curve



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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 (BHA #5 ( 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
Slide	01-20	01:05	03:10	01-20	2.08	10500.00	10587.00	87.00	41.76	352.0	550.00	N/A	23.00	1700.00	1350.00	Curve
Slide	01-20	03:15	04:35	01-20	1.33	10587.00	10677.00	90.00	67.50	321.0	600.00	N/A	23.00	1800.00	1480.00	Curve
Slide	01-20	04:40	05:50	01-20	1.17	10677.00	10766.00	89.00	76.29	0.0	600.00	N/A	25.00	2100.00	1480.00	Curve
Slide	01-20	05:55	07:40	01-20	1.75	10766.00	10856.00	90.00	51.43	0.0	600.00	N/A	25.00	2100.00	1480.00	Curve
Slide	01-20	07:45	10:00	01-20	2.25	10856.00	10945.00	89.00	39.56	0.0	600.00	N/A	25.00	2100.00	1480.00	Curve
Slide	01-20	10:05	12:30	01-20	2.42	10945.00	11035.00	90.00	37.24	0.0	600.00	N/A	25.00	2100.00	1480.00	Curve
Slide	01-20	12:40	14:30	01-20	1.83	11035.00	11125.00	90.00	49.09	340.0	600.00	N/A	25.00	2100.00	1480.00	Curve
Slide	01-20	14:55	16:25	01-20	1.5	11125.00	11214.00	89.00	59.33	345.0	600.00	N/A	25.00	2100.00	1480.00	Curve
Slide	01-20	16:35	17:50	01-20	1.25	11214.00	11304.00	90.00	72.00	330.0	600.00	N/A	25.00	2100.00	1480.00	Curve
Slide	01-20	17:55	19:00	01-20	1.08	11304.00	11364.00	60.00	55.38	0.0	600.00	N/A	25.00	2100.00	1480.00	Curve, Lateral



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners		<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H		<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	01-21	13:00	13:40	01-21	0.67	11364.00	11430.00	66.00	99.00	N/A	493.00	30.0	38.00	2850.00	2300.00	Lateral
Slide	01-21	14:40	15:10	01-21	0.5	11430.00	11458.00	28.00	56.00	120.0	545.00	N/A	25.00	3250.00	2800.00	Lateral
Rotate	01-21	15:10	15:50	01-21	0.67	11458.00	11520.00	62.00	93.00	N/A	546.00	40.0	42.00	2850.00	2300.00	Lateral
Slide	01-21	15:55	16:45	01-21	0.83	11520.00	11558.00	38.00	45.60	130.0	545.00	N/A	25.00	3250.00	2800.00	Lateral
Rotate	01-21	16:45	17:10	01-21	0.42	11558.00	11610.00	52.00	124.80	N/A	546.00	40.0	42.00	2850.00	2300.00	Lateral
Slide	01-21	17:15	18:00	01-21	0.75	11610.00	11645.00	35.00	46.67	140.0	545.00	N/A	25.00	3250.00	2800.00	Lateral
Rotate	01-21	18:00	18:35	01-21	0.58	11645.00	11699.00	54.00	92.57	N/A	546.00	40.0	42.00	2850.00	2300.00	Lateral
Rotate	01-21	18:40	19:05	01-21	0.42	11699.00	11754.00	55.00	132.00	N/A	546.00	40.0	42.00	2850.00	2300.00	Lateral
Slide	01-21	19:05	20:25	01-21	1.33	11754.00	11784.00	30.00	22.50	180.0		N/A				Lateral
Rotate	01-21	20:25	20:30	01-21	0.08	11784.00	11789.00	5.00	60.00	N/A	546.00	40.0	42.00	2850.00	2300.00	Lateral
Rotate	01-21	20:35	20:55	01-21	0.33	11789.00	11813.00	24.00	72.00	N/A	546.00	40.0	42.00	2850.00	2300.00	Lateral
Slide	01-21	20:55	22:05	01-21	1.17	11813.00	11825.00	12.00	10.29	150.0		N/A				Lateral
Rotate	01-21	22:05	22:20	01-21	0.25	11825.00	11879.00	54.00	216.00	N/A	546.00	40.0	42.00	2850.00	2300.00	Lateral
Rotate	01-21	22:25	23:20	01-21	0.92	11879.00	11968.00	89.00	97.09	N/A	546.00	40.0	42.00	2850.00	2300.00	Lateral
Rotate	01-21	23:55	00:35	01-22	0.67	11968.00	12058.00	90.00	135.00	N/A	615.00	40.0	42.00	3700.00	3200.00	Lateral
Rotate	01-22	00:40	00:45	01-22	0.08	12058.00	12062.00	4.00	48.00	N/A	615.00	40.0	42.00	3700.00	3200.00	Lateral
Slide	01-22	00:45	00:50	01-22	0.08	12062.00	12066.00	4.00	48.00	150.0		N/A				Lateral
Slide	01-22	01:05	01:40	01-22	0.58	12066.00	12082.00	16.00	27.43	150.0		N/A				Lateral
Rotate	01-22	01:40	02:10	01-22	0.5	12082.00	12147.00	65.00	130.00	N/A	615.00	40.0	42.00	3700.00	3200.00	Lateral
Rotate	01-22	02:15	02:20	01-22	0.08	12147.00	12152.00	5.00	60.00	N/A	615.00	40.0	42.00	3700.00	3200.00	Lateral
Slide	01-22	02:20	03:20	01-22	1.0	12152.00	12182.00	30.00	30.00	150.0		N/A				Lateral
Rotate	01-22	03:20	03:55	01-22	0.58	12182.00	12237.00	55.00	94.29	N/A	615.00	40.0	42.00	3700.00	3200.00	Lateral
Rotate	01-22	04:00	04:05	01-22	0.08	12237.00	12241.00	4.00	48.00	N/A	615.00	40.0	42.00	3700.00	3200.00	Lateral
Slide	01-22	04:05	05:25	01-22	1.33	12241.00	12276.00	35.00	26.25	120.0		N/A				Lateral
Rotate	01-22	05:25	05:45	01-22	0.33	12276.00	12326.00	50.00	150.00	N/A	615.00	40.0	42.00	3700.00	3200.00	Lateral
Rotate	01-22	05:50	05:55	01-22	0.08	12326.00	12335.00	9.00	108.00	N/A	615.00	40.0	42.00	3700.00	3200.00	Lateral
Slide	01-22	05:55	06:40	01-22	0.75	12335.00	12375.00	40.00	53.33	105.0	695.00	N/A	30.00	4475.00	3800.00	Lateral
Rotate	01-22	06:40	07:05	01-22	0.42	12375.00	12416.00	41.00	98.40	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-22	07:10	07:15	01-22	0.08	12416.00	12420.00	4.00	48.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Slide	01-22	07:15	07:25	01-22	0.17	12420.00	12430.00	10.00	60.00	180.0	695.00	N/A	30.00	4475.00	3800.00	Lateral
Rotate	01-22	07:25	08:05	01-22	0.67	12430.00	12505.00	75.00	112.50	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-22	08:10	08:20	01-22	0.17	12505.00	12517.00	12.00	72.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Slide	01-22	08:20	08:45	01-22	0.42	12517.00	12537.00	20.00	48.00	150.0	695.00	N/A	30.00	4475.00	3800.00	Lateral
Rotate	01-22	08:45	09:15	01-22	0.5	12537.00	12595.00	58.00	116.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-22	09:20	10:00	01-22	0.67	12595.00	12684.00	89.00	133.50	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-22	10:05	10:10	01-22	0.08	12684.00	12687.00	3.00	36.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Slide	01-22	10:10	10:40	01-22	0.5	12687.00	12711.00	24.00	48.00	0.0	695.00	N/A	30.00	4475.00	3800.00	Lateral
Rotate	01-22	10:40	11:45	01-22	1.08	12711.00	12774.00	63.00	58.15	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-22	17:50	17:55	01-22	0.08	12774.00	12786.00	12.00	144.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Slide	01-22	17:55	18:25	01-22	0.5	12786.00	12796.00	10.00	20.00	30.0	695.00	N/A	30.00	4475.00	3800.00	Lateral
Rotate	01-22	18:25	19:10	01-22	0.75	12796.00	12863.00	67.00	89.33	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-22	19:15	19:20	01-22	0.08	12863.00	12875.00	12.00	144.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Slide	01-22	19:20	19:50	01-22	0.5	12875.00	12885.00	10.00	20.00	0.0	694.00	N/A	35.00	4200.00	3700.00	Lateral
Rotate	01-22	19:50	20:20	01-22	0.5	12885.00	12953.00	68.00	136.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-22	20:25	20:40	01-22	0.25	12953.00	12982.00	29.00	116.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Slide	01-22	20:40	20:55	01-22	0.25	12982.00	12989.00	7.00	28.00	0.0	694.00	N/A	35.00	4200.00	3700.00	Lateral
Rotate	01-22	20:55	21:40	01-22	0.75	12989.00	13042.00	53.00	70.67	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-22	21:45	21:50	01-22	0.08	13042.00	13054.00	12.00	144.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Slide	01-22	21:55	22:45	01-22	0.83	13054.00	13074.00	20.00	24.00	45.0	694.00	N/A	35.00	4300.00	3800.00	Lateral
Rotate	01-22	22:45	23:45	01-22	1.0	13074.00	13131.00	57.00	57.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-22	23:55	00:40	01-23	0.75	13131.00	13221.00	90.00	120.00	N/A	695.00	40.0	42.00	4325.00	3800.00	Lateral
Rotate	01-23	00:45	00:50	01-23	0.08	13221.00	13231.00	10.00	120.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	00:50	01:20	01-23	0.5	13231.00	13247.00	16.00	32.00	160.0	694.00	N/A	35.00	4300.00	3800.00	Lateral
Rotate	01-23	01:20	01:55	01-23	0.58	13247.00	13310.00	63.00	108.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	02:00	02:10	01-23	0.17	13310.00	13320.00	10.00	60.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	02:10	02:55	01-23	0.75	13320.00	13335.00	15.00	20.00	170.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-23	02:55	03:30	01-23	0.58	13335.00	13399.00	64.00	109.71	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	03:35	03:45	01-23	0.17	13399.00	13437.00	38.00	228.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	03:55	04:25	01-23	0.5	13437.00	13489.00	52.00	104.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	04:30	04:40	01-23	0.17	13489.00	13501.00	12.00	72.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	04:40	05:10	01-23	0.5	13501.00	13519.00	18.00	36.00	180.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-23	05:10	05:35	01-23	0.42	13519.00	13578.00	59.00	141.60	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	05:40	06:15	01-23	0.58	13578.00	13667.00	89.00	152.57	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	06:20	06:55	01-23	0.58	13667.00	13756.00	89.00	152.57	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral

Rotate	01-23	07:00	07:50	01-23	0.83	13756.00	13845.00	89.00	106.80	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	07:55	08:00	01-23	0.08	13845.00	13848.00	3.00	36.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	08:00	08:45	01-23	0.75	13848.00	13870.00	22.00	29.33	70.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-23	08:45	09:10	01-23	0.42	13870.00	13935.00	65.00	156.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	09:15	09:30	01-23	0.25	13935.00	13947.00	12.00	48.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	09:30	10:00	01-23	0.5	13947.00	13969.00	22.00	44.00	75.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-23	10:00	10:35	01-23	0.58	13969.00	14025.00	56.00	96.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	10:40	11:30	01-23	0.83	14025.00	14114.00	89.00	106.80	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	11:50	12:45	01-23	0.92	14114.00	14204.00	90.00	98.18	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	12:50	13:45	01-23	0.92	14204.00	14294.00	90.00	98.18	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	13:50	14:00	01-23	0.17	14294.00	14306.00	12.00	72.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	14:00	14:30	01-23	0.5	14306.00	14328.00	22.00	44.00	30.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-23	14:30	15:10	01-23	0.67	14328.00	14383.00	55.00	82.50	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	15:15	16:15	01-23	1.0	14383.00	14440.00	57.00	57.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	16:15	16:55	01-23	0.67	14440.00	14468.00	28.00	42.00	155.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-23	16:55	17:00	01-23	0.08	14468.00	14473.00	5.00	60.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	17:10	17:35	01-23	0.42	14473.00	14528.00	55.00	132.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	17:35	18:10	01-23	0.58	14528.00	14562.00	34.00	58.29	180.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-23	18:15	19:40	01-23	1.42	14562.00	14652.00	90.00	63.53	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	19:45	19:50	01-23	0.08	14652.00	14662.00	10.00	120.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	19:50	20:35	01-23	0.75	14662.00	14682.00	20.00	26.67	330.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-23	20:35	21:20	01-23	0.75	14682.00	14741.00	59.00	78.67	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	21:25	21:40	01-23	0.25	14741.00	14765.00	24.00	96.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	21:40	22:35	01-23	0.92	14765.00	14785.00	20.00	21.82	270.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-23	22:35	23:00	01-23	0.42	14785.00	14830.00	45.00	108.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-23	23:05	23:25	01-23	0.33	14830.00	14875.00	45.00	135.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-23	23:30	00:45	01-24	1.25	14875.00	14895.00	20.00	16.00	0.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-24	00:45	01:00	01-24	0.25	14895.00	14930.00	35.00	140.00	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Slide	01-24	01:05	01:20	01-24	0.25	14930.00	14955.00	25.00	100.00	0.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-24	01:20	02:25	01-24	1.08	14955.00	15009.00	54.00	49.85	N/A	695.00	40.0	45.00	4325.00	3800.00	Lateral
Rotate	01-24	02:30	03:30	01-24	1.0	15009.00	15098.00	89.00	89.00	N/A	695.00	40.0	45.00	4475.00	3950.00	Lateral
Rotate	01-24	03:35	03:40	01-24	0.08	15098.00	15108.00	10.00	120.00	N/A	695.00	40.0	45.00	4475.00	3950.00	Lateral
Slide	01-24	03:40	04:10	01-24	0.5	15108.00	15123.00	15.00	30.00	0.0	694.00	N/A	45.00	4300.00	3800.00	Lateral
Rotate	01-24	04:10	05:00	01-24	0.83	15123.00	15188.00	65.00	78.00	N/A	695.00	40.0	45.00	4475.00	3950.00	Lateral
Rotate	01-24	05:05	06:00	01-24	0.92	15188.00	15277.00	89.00	97.09	N/A	695.00	40.0	45.00	4475.00	3950.00	Lateral
Rotate	01-24	06:05	06:50	01-24	0.75	15277.00	15366.00	89.00	118.67	N/A	695.00	40.0	45.00	4475.00	3950.00	Lateral
Rotate	01-24	06:55	07:00	01-24	0.08	15366.00	15378.00	12.00	144.00	N/A	695.00	40.0	45.00	4475.00	3950.00	Lateral
Slide	01-24	07:00	07:45	01-24	0.75	15378.00	15398.00	20.00	26.67	135.0	694.00	N/A	45.00	4400.00	4100.00	Lateral
Rotate	01-24	07:45	08:20	01-24	0.58	15398.00	15455.00	57.00	97.71	N/A	695.00	40.0	45.00	4475.00	3950.00	Lateral
Slide	01-24	08:25	09:20	01-24	0.92	15455.00	15485.00	30.00	32.73	150.0	694.00	N/A	45.00	4400.00	4100.00	Lateral
Rotate	01-24	09:20	09:55	01-24	0.58	15485.00	15545.00	60.00	102.86	N/A	695.00	40.0	45.00	4575.00	4100.00	Lateral
Rotate	01-24	10:00	10:35	01-24	0.58	15545.00	15594.00	49.00	84.00	N/A	695.00	40.0	45.00	4575.00	4100.00	Lateral
Slide	01-24	10:35	10:50	01-24	0.25	15594.00	15600.00	6.00	24.00	250.0	694.00	N/A	45.00	4400.00	4100.00	Lateral
Slide	01-24	11:10	12:10	01-24	1.0	15600.00	15630.00	30.00	30.00	205.0	694.00	N/A	45.00	4400.00	4100.00	Lateral
Rotate	01-24	12:10	12:15	01-24	0.08	15630.00	15634.00	4.00	48.00	N/A	695.00	40.0	45.00	4575.00	4100.00	Lateral
Rotate	01-24	12:20	13:30	01-24	1.17	15634.00	15723.00	89.00	76.29	N/A	695.00	40.0	45.00	4575.00	4100.00	Lateral
Rotate	01-24	13:50	15:10	01-24	1.33	15723.00	15812.00	89.00	66.75	N/A	695.00	40.0	45.00	4575.00	4100.00	Lateral
Slide	01-24	15:15	15:55	01-24	0.67	15812.00	15829.00	17.00	25.50	50.0	694.00	N/A	45.00	4400.00	4100.00	Lateral



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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	01-25	13:05	13:50	01-25	0.75	15829.00	15857.00	28.00	37.33	15.0	694.00	N/A	45.00	4750.00	4300.00	Lateral
Rotate	01-25	13:50	14:10	01-25	0.33	15857.00	15902.00	45.00	135.00	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	14:15	14:20	01-25	0.08	15902.00	15915.00	13.00	156.00	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Slide	01-25	14:20	14:45	01-25	0.42	15915.00	15937.00	22.00	52.80	15.0	694.00	N/A	45.00	4750.00	4300.00	Lateral
Rotate	01-25	14:45	15:05	01-25	0.33	15937.00	15991.00	54.00	162.00	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	15:10	16:05	01-25	0.92	15991.00	16081.00	90.00	98.18	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	16:10	16:45	01-25	0.58	16081.00	16170.00	89.00	152.57	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	16:55	17:25	01-25	0.5	16170.00	16260.00	90.00	180.00	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	17:30	18:25	01-25	0.92	16260.00	16349.00	89.00	97.09	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	18:30	19:05	01-25	0.58	16349.00	16439.00	90.00	154.29	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	19:10	19:15	01-25	0.08	16439.00	16449.00	10.00	120.00	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Slide	01-25	19:15	19:50	01-25	0.58	16449.00	16457.00	8.00	13.71	150.0	694.00	N/A	45.00	4750.00	4300.00	Lateral
Rotate	01-25	19:50	20:20	01-25	0.5	16457.00	16528.00	71.00	142.00	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	20:25	21:10	01-25	0.75	16528.00	16618.00	90.00	120.00	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	21:15	21:20	01-25	0.08	16618.00	16628.00	10.00	120.00	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Slide	01-25	22:00	23:25	01-25	1.42	16628.00	16650.00	22.00	15.53	50.0	694.00	N/A	45.00	4750.00	4300.00	Lateral
Rotate	01-25	23:25	23:50	01-25	0.42	16650.00	16708.00	58.00	139.20	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Rotate	01-25	23:55	00:40	01-26	0.75	16708.00	16754.00	46.00	61.33	N/A	695.00	40.0	42.00	5250.00	4300.00	Lateral
Slide	01-26	00:40	01:25	01-26	0.75	16754.00	16775.00	21.00	28.00	60.0	694.00	N/A	45.00	4750.00	4300.00	Lateral
Rotate	01-26	01:25	01:50	01-26	0.42	16775.00	16797.00	22.00	52.80	N/A	695.00	40.0	42.00	5250.00	4700.00	Lateral
Rotate	01-26	01:55	03:15	01-26	1.33	16797.00	16887.00	90.00	67.50	N/A	695.00	40.0	42.00	4350.00	4000.00	Lateral
Slide	01-26	03:20	03:35	01-26	0.25	16887.00	16930.00	43.00	172.00	60.0	694.00	N/A	45.00	4350.00	4000.00	Lateral
Rotate	01-26	03:35	05:05	01-26	1.5	16930.00	16976.00	46.00	30.67	N/A	695.00	40.0	42.00	4350.00	4000.00	Lateral
Rotate	01-26	05:10	05:15	01-26	0.08	16976.00	16986.00	10.00	120.00	N/A	695.00	40.0	42.00	4350.00	4000.00	Lateral
Slide	01-26	05:15	05:45	01-26	0.5	16986.00	16996.00	10.00	20.00	60.0	694.00	N/A	45.00	4350.00	4000.00	Lateral
Rotate	01-26	05:45	06:50	01-26	1.08	16996.00	17066.00	70.00	64.62	N/A	695.00	40.0	42.00	4350.00	4000.00	Lateral
Rotate	01-26	06:55	09:20	01-26	2.42	17066.00	17156.00	90.00	37.24	N/A	695.00	40.0	50.00	4350.00	4000.00	Lateral
Rotate	01-26	09:30	12:25	01-26	2.92	17156.00	17236.00	80.00	27.43	N/A	695.00	40.0	55.00	4350.00	4000.00	Lateral



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<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 #8 (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	01-27	05:00	05:10	01-27	0.17	17236.00	17249.00	13.00	78.00	N/A	695.00	40.0	55.00	4350.00	4000.00	Lateral
Rotate	01-27	05:25	06:05	01-27	0.67	17249.00	17338.00	89.00	133.50	N/A	695.00	40.0	55.00	4350.00	4000.00	Lateral
Rotate	01-27	06:10	06:20	01-27	0.17	17338.00	17355.00	17.00	102.00	N/A	695.00	40.0	55.00	4350.00	4000.00	Lateral
Slide	01-27	06:20	07:20	01-27	1.0	17355.00	17390.00	35.00	35.00	80.0	694.00	N/A	45.00	4450.00	4200.00	Lateral
Rotate	01-27	07:20	07:40	01-27	0.33	17390.00	17428.00	38.00	114.00	N/A	695.00	40.0	55.00	4350.00	4000.00	Lateral
Rotate	01-27	07:45	08:30	01-27	0.75	17428.00	17517.00	89.00	118.67	N/A	695.00	40.0	55.00	4350.00	4000.00	Lateral
Rotate	01-27	08:35	08:45	01-27	0.17	17517.00	17537.00	20.00	120.00	N/A	695.00	40.0	55.00	4500.00	4200.00	Lateral
Slide	01-27	08:45	09:55	01-27	1.17	17537.00	17576.00	39.00	33.43	140.0	694.00	N/A	45.00	4450.00	4200.00	Lateral
Rotate	01-27	09:55	10:10	01-27	0.25	17576.00	17607.00	31.00	124.00	N/A	695.00	40.0	55.00	4500.00	4200.00	Lateral
Rotate	01-27	10:15	10:25	01-27	0.17	17607.00	17617.00	10.00	60.00	N/A	695.00	40.0	55.00	4500.00	4300.00	Lateral
Slide	01-27	10:25	12:50	01-27	2.42	17617.00	17696.00	79.00	32.69	170.0	694.00	N/A	60.00	4400.00	4200.00	Lateral
Rotate	01-27	13:20	14:20	01-27	1.0	17696.00	17785.00	89.00	89.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-27	14:25	15:25	01-27	1.0	17785.00	17875.00	90.00	90.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-27	15:30	16:20	01-27	0.83	17875.00	17964.00	89.00	106.80	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Slide	01-27	16:25	17:30	01-27	1.08	17964.00	18000.00	36.00	33.23	150.0	694.00	N/A	60.00	4400.00	4200.00	Lateral
Rotate	01-27	17:30	18:10	01-27	0.67	18000.00	18054.00	54.00	81.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-27	18:15	19:25	01-27	1.17	18054.00	18143.00	89.00	76.29	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-27	19:30	19:40	01-27	0.17	18143.00	18165.00	22.00	132.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Slide	01-27	19:40	20:50	01-27	1.17	18165.00	18190.00	25.00	21.43	180.0		N/A				Lateral
Rotate	01-27	20:50	21:55	01-27	1.08	18190.00	18232.00	42.00	38.77	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-27	22:00	22:50	01-27	0.83	18232.00	18322.00	90.00	108.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-27	22:55	23:55	01-27	1.0	18322.00	18412.00	90.00	90.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-28	00:00	00:25	01-28	0.42	18412.00	18420.00	8.00	19.20	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Slide	01-28	00:25	01:10	01-28	0.75	18420.00	18435.00	15.00	20.00	50.0		N/A				Lateral
Rotate	01-28	01:10	02:05	01-28	0.92	18435.00	18501.00	66.00	72.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-28	02:10	02:15	01-28	0.08	18501.00	18506.00	5.00	60.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Slide	01-28	02:15	04:15	01-28	2.0	18506.00	18541.00	35.00	17.50	0.0		N/A				Lateral
Rotate	01-28	04:15	04:55	01-28	0.67	18541.00	18591.00	50.00	75.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-28	05:00	06:35	01-28	1.58	18591.00	18680.00	89.00	56.21	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Slide	01-28	06:40	08:20	01-28	1.67	18680.00	18715.00	35.00	21.00	200.0	652.00	N/A	70.00	4300.00	4000.00	Lateral
Rotate	01-28	08:20	09:40	01-28	1.33	18715.00	18770.00	55.00	41.25	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-28	09:45	09:50	01-28	0.08	18770.00	18782.00	12.00	144.00	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Slide	01-28	09:50	12:10	01-28	2.33	18782.00	18822.00	40.00	17.14	190.0	652.00	N/A	70.00	4300.00	4000.00	Lateral
Rotate	01-28	12:10	13:05	01-28	0.92	18822.00	18860.00	38.00	41.45	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-28	13:10	14:30	01-28	1.33	18860.00	18949.00	89.00	66.75	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-28	14:35	15:40	01-28	1.08	18949.00	19039.00	90.00	83.08	N/A	695.00	40.0	45.00	4800.00	4400.00	Lateral
Rotate	01-28	15:45	16:20	01-28	0.58	19039.00	19092.00	53.00	90.86	N/A	695.00	40.0	48.00	4900.00	4400.00	Lateral



# Daily Reports

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## **Anderson Fed Com 551H (WT-21-183)**

2021-11-24 to 2022-01-29

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

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<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Wednesday, Nov 24 00:00 - 23:59 (Day 1 of 16)

Billing: \$17,400.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	150.00	Downhole Hours	12.25	Rotating WOB (klbs)	25.00 - 25.00		
Bit Depth (ft)	1290.00	Drilling Hours	7.42	Sliding WOB (klbs)			
Bottom Hole Depth (ft)	1290.00	Hours Circulating	0.42	Rotating SPM	207.00 - 309.00		
Total Distance (ft)	1140.00	Hours Sliding	0.00	Sliding SPM			
Distance Rotated (ft)	1140.00	Hours Rotating	7.42	Motor RPM	65.00 - 65.00		
Distance Slid (ft)	0.00			Surface RPM	40.00 - 60.00		
Inclination In	0.22			Flow Rate (gpm)	601.00 - 897.00		
Inclination Out	1.23			On Bottom Pressure (psi)	1250.00 - 2350.00		
Azimuth In	327.50	% Hours Rotating	100%	Off Bottom Pressure (psi)	700.00 - 1750.00		
Azimuth Out	258.41	% Hours Sliding	0%				
AVG Total ROP (ft/h)	153.71	% Distance Sliding	0%				
AVG Rotating ROP (ft/h)	153.71	% 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 24, 2021, 10:15 Date Out: Nov 24, 2021, 22:30

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	57377	Bend Angle	1.75		
Nozzles	1x14 - 8x12's	Speed (rev/gal)	0.17	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.034	Wear Pad OD (in)	8.437		
Drilling Hours for Day	7.42	Bit Distances			
Total Drilled for Day (ft)	1140.00	Survey: 70.00 ft			
Drilling Hours for BHA	7.42	POOH Reason			
Total Drilled for BHA (ft)	1140.00	Total Depth/Casing Point: MOTOR LOOKED GREAT BIT HAD 1 CHIPPED CUTTER			

**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): 17.50	ULTERRA	57377	6 5/8" Reg Pin			17.500		1.50	1.50
<b>Mud Motor</b> Description: 8" 7/8 5.9 Stg. 1.5° FBH w/17" NBS, Size (in): 8.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	Aim	800-40-011	6 5/8" Reg Box	6 5/8" Reg Box		8.000		40.21	41.71
<b>Stabilizer</b> Description: 17" STAB	JA	17635	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.250		7.17	48.88
<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	51.86
<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	82.38
<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	112.86
<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	116.09

**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	11-24	00:00	10:15	11-24			Standby- Skid Rig & R/U
Pick Up BHA	64	11-24	10:15	11:25	11-24			L/D Used motor & P/U BHA #1

Rotary Drill	1	11-24	11:25	13:15	11-24	150.00	299.00	Pressure On (psi): 1250.00, Pressure Off (psi): 700.00, Weight On Bit (klbs): 25.00, Surface RPM: 40, Surface Torque (ft lbf): 14000.00, Flow Rate (gpm): 601.00, Strokes Per Minute: 207.00
Survey	46	11-24	13:15	13:20	11-24	299.00	299.00	Inclination (°): 0.220, Azimuth (°): 327.500, TVD (ft): 229.00, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 229.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	13:20	13:30	11-24	299.00	361.00	Pressure On (psi): 1900.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 749.00, Strokes Per Minute: 258.00
Survey	46	11-24	13:30	13:35	11-24	361.00	361.00	Inclination (°): 0.220, Azimuth (°): 239.690, TVD (ft): 291.00, Dogleg (°/100 ft): 0.49, Sensor Depth (ft): 291.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	13:35	14:00	11-24	361.00	422.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	14:00	14:10	11-24	422.00	422.00	Inclination (°): 0.130, Azimuth (°): 238.200, TVD (ft): 352.00, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 352.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	14:10	14:15	11-24	422.00	483.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	14:15	14:20	11-24	483.00	483.00	Inclination (°): 0.440, Azimuth (°): 215.520, TVD (ft): 413.00, Dogleg (°/100 ft): 0.53, Sensor Depth (ft): 413.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	14:20	14:45	11-24	483.00	545.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	14:45	14:50	11-24	545.00	545.00	Inclination (°): 0.310, Azimuth (°): 212.100, TVD (ft): 475.00, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 475.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	14:50	15:20	11-24	545.00	606.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Rig Service - In Hole	19	11-24	15:20	15:45	11-24			Rig Service
Survey	46	11-24	15:45	15:50	11-24	606.00	606.00	Inclination (°): 0.350, Azimuth (°): 228.790, TVD (ft): 536.00, Dogleg (°/100 ft): 0.17, Sensor Depth (ft): 536.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	15:50	16:05	11-24	606.00	667.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	16:05	16:10	11-24	667.00	667.00	Inclination (°): 0.400, Azimuth (°): 211.390, TVD (ft): 596.99, Dogleg (°/100 ft): 0.20, Sensor Depth (ft): 597.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	16:10	16:30	11-24	667.00	729.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	16:30	16:35	11-24	729.00	729.00	Inclination (°): 0.480, Azimuth (°): 222.640, TVD (ft): 658.99, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 659.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	16:35	17:15	11-24	729.00	790.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	17:15	17:20	11-24	790.00	790.00	Inclination (°): 0.700, Azimuth (°): 228.970, TVD (ft): 719.99, Dogleg (°/100 ft): 0.38, Sensor Depth (ft): 720.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	17:20	17:40	11-24	790.00	886.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	17:40	17:45	11-24	886.00	886.00	Inclination (°): 0.920, Azimuth (°): 230.460, TVD (ft): 815.98, Dogleg (°/100 ft): 0.23, Sensor Depth (ft): 816.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	17:45	18:00	11-24	886.00	948.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	18:00	18:05	11-24	948.00	948.00	Inclination (°): 1.100, Azimuth (°): 242.510, TVD (ft): 877.97, Dogleg (°/100 ft): 0.45, Sensor Depth (ft): 878.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	18:05	18:45	11-24	948.00	1043.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	18:45	18:50	11-24	1043.00	1043.00	Inclination (°): 1.410, Azimuth (°): 242.860, TVD (ft): 972.95, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 973.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	18:50	19:30	11-24	1043.00	1136.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00

Survey	46	11-24	19:30	19:35	11-24	1136.00	1136.00	Inclination (°): 1.360, Azimuth (°): 256.660, TVD (ft): 1065.92, Dogleg (°/100 ft): 0.36, Sensor Depth (ft): 1066.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	19:35	20:10	11-24	1136.00	1225.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	20:10	20:15	11-24	1225.00	1225.00	Inclination (°): 1.270, Azimuth (°): 256.040, TVD (ft): 1154.90, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 1155.00, Bit To Sensor (ft): 70.00
Rotary Drill	1	11-24	20:15	20:30	11-24	1225.00	1290.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-24	20:30	20:35	11-24	1290.00	1290.00	Inclination (°): 1.230, Azimuth (°): 258.410, TVD (ft): 1219.88, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 1220.00, Bit To Sensor (ft): 70.00
Circulating	3	11-24	20:35	21:00	11-24			cir btms up
Pooh	7	11-24	21:00	22:00	11-24			POOH
Lay Down BHA	65	11-24	22:00	22:30	11-24			rack back bha
Standby	15	11-24	22:30	23:59	11-24			Standby

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Tuesday, Nov 30 00:00 - 23:59 (Day 2 of 16)

Billing: \$9,500.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	1290.00	Downhole Hours	11.75	Rotating WOB (klbs)	25.00 - 50.00
Bit Depth (ft)	3280.00	Drilling Hours	6.17	Sliding WOB (klbs)	50.00 - 50.00
Bottom Hole Depth (ft)	3280.00	Hours Circulating	1.75	Rotating SPM	309.00 - 309.00
Total Distance (ft)	1990.00	Hours Sliding	0.67	Sliding SPM	309.00 - 309.00
Distance Rotated (ft)	1890.00	Hours Rotating	5.50	Motor RPM	40.00 - 70.00
Distance Slid (ft)	100.00			Surface RPM	60.00 - 70.00
Inclination In	0.75			Flow Rate (gpm)	895.00 - 897.00
Inclination Out	1.63			On Bottom Pressure (psi)	2350.00 - 2600.00
Azimuth In	275.03	% Hours Rotating	89%	Off Bottom Pressure (psi)	1750.00 - 2100.00
Azimuth Out	191.88	% Hours Sliding	11%		
AVG Total ROP (ft/h)	322.70	% Distance Sliding	5%		
AVG Rotating ROP (ft/h)	343.64	% Distance Rotating	95%		
AVG Sliding ROP (ft/h)	150.00				

## Personnel

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

## BHA #2 - 12.25" Intermediate

Date In: Nov 30, 2021, 12:15 Date Out: Dec 1, 2021, 12:30

Bit Details		Motor Details		Directional Comments	
OD (in)	12.250	Size (in)	8.0	FLOW RANGE 400-900 GPM, REV PER GALLON .150, MAX DIFF 1330, MAX TORQUE 22020 BIT RUNS: 2, Bit to Bend: 5.05	
Vendor	Reed	Lobe/Stage	7/8, 5.9		
S/N	A280421	Bend Angle	1.75		
Nozzles	6 x 16	Speed (rev/gal)	0.15	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.178	Wear Pad OD (in)	8.125		
Drilling Hours for Day	6.17	Bit Distances		POOH Reason	
Total Drilled for Day (ft)	1990.00	Survey: 65.00 ft		Total Depth/Casing Point: Good Run. POOH for Casing.	
Drilling Hours for BHA	13.50				
Total Drilled for BHA (ft)	3530.00				

## 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>TKC66-H3</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>6.00</i> , Size (in): <i>12.25</i>	Reed	A280421	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: <i>8" 7/8 5.9 Stg. 1.75° FBH w/12" NBS</i> , Size (in): <i>8.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>5.9</i>	Sniper	DR-800-01	6 5/8" Reg Box	6 5/8" Reg Box		8.000		35.66	37.16
<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	44.27
<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	47.25
<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	77.77
<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	108.25
<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	111.48
<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	847.11
<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	850.53
<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	1131.71

**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	11-30	00:00	12:15	11-30			Standby- Casing run / Rig skid
Pick Up BHA	64	11-30	12:15	13:40	11-30			P/U BHA #2 , Shallow test
TIH	8	11-30	13:40	14:20	11-30			TIH W/ BHA #2
Drilling Cement	17	11-30	14:20	16:05	11-30	1290.00	1290.00	Drilling Cement and Float Equipment F/ 1220' - T/ 1290 [ GPM = 500, RPM = 25, WOB = 20, DIFF = 150 ]
Rotary Drill	1	11-30	16:05	16:55	11-30	1290.00	1400.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	16:55	17:00	11-30	1400.00	1400.00	Inclination (°): 0.750, Azimuth (°): 275.030, TVD (ft): 1334.86, Dogleg (°/100 ft): 0.48, Sensor Depth (ft): 1335.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	17:00	17:20	11-30	1400.00	1489.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	17:20	17:25	11-30	1489.00	1489.00	Inclination (°): 0.530, Azimuth (°): 289.530, TVD (ft): 1423.86, Dogleg (°/100 ft): 0.31, Sensor Depth (ft): 1424.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	17:25	17:40	11-30	1489.00	1579.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	17:40	17:45	11-30	1579.00	1579.00	Inclination (°): 0.310, Azimuth (°): 273.710, TVD (ft): 1513.86, Dogleg (°/100 ft): 0.27, Sensor Depth (ft): 1514.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	17:45	18:05	11-30	1579.00	1668.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	18:05	18:10	11-30	1668.00	1668.00	Inclination (°): 0.090, Azimuth (°): 274.320, TVD (ft): 1602.86, Dogleg (°/100 ft): 0.25, Sensor Depth (ft): 1603.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	18:10	18:20	11-30	1668.00	1758.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	18:20	18:25	11-30	1758.00	1758.00	Inclination (°): 0.180, Azimuth (°): 35.170, TVD (ft): 1692.86, Dogleg (°/100 ft): 0.27, Sensor Depth (ft): 1693.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	18:25	18:35	11-30	1758.00	1848.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	18:35	18:40	11-30	1848.00	1848.00	Inclination (°): 0.350, Azimuth (°): 18.560, TVD (ft): 1782.85, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 1783.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	18:40	18:55	11-30	1848.00	1937.00	Pressure On (psi): 2350.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 25.00, Surface RPM: 60, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	18:55	19:00	11-30	1937.00	1937.00	Inclination (°): 0.530, Azimuth (°): 25.060, TVD (ft): 1871.85, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 1872.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	19:00	19:15	11-30	1937.00	2027.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	19:15	19:20	11-30	2027.00	2027.00	Inclination (°): 0.750, Azimuth (°): 41.850, TVD (ft): 1961.85, Dogleg (°/100 ft): 0.32, Sensor Depth (ft): 1962.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	19:20	19:30	11-30	2027.00	2117.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	19:30	19:35	11-30	2117.00	2117.00	Inclination (°): 0.790, Azimuth (°): 38.160, TVD (ft): 2051.84, Dogleg (°/100 ft): 0.07, Sensor Depth (ft): 2052.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	19:35	19:45	11-30	2117.00	2206.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	19:45	19:50	11-30	2206.00	2206.00	Inclination (°): 1.140, Azimuth (°): 41.060, TVD (ft): 2140.83, Dogleg (°/100 ft): 0.40, Sensor Depth (ft): 2141.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	19:50	20:00	11-30	2206.00	2296.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	20:00	20:05	11-30	2296.00	2296.00	Inclination (°): 1.490, Azimuth (°): 46.250, TVD (ft): 2230.80, Dogleg (°/100 ft): 0.41, Sensor Depth (ft): 2231.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	20:05	20:20	11-30	2296.00	2385.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	20:20	20:25	11-30	2385.00	2385.00	Inclination (°): 1.930, Azimuth (°): 52.130, TVD (ft): 2319.76, Dogleg (°/100 ft): 0.53, Sensor Depth (ft): 2320.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	20:25	20:30	11-30	2385.00	2395.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00

Slide Drill	2	11-30	20:30	20:35	11-30	2395.00	2415.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309, Toolface: 230, Toolface Type: magnetic
Rotary Drill	1	11-30	20:35	20:50	11-30	2415.00	2474.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	20:50	20:55	11-30	2474.00	2474.00	Inclination (°): 1.050, Azimuth (°): 90.100, TVD (ft): 2408.73, Dogleg (°/100 ft): 1.44, Sensor Depth (ft): 2409.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	20:55	21:05	11-30	2474.00	2563.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	21:05	21:10	11-30	2563.00	2563.00	Inclination (°): 1.190, Azimuth (°): 123.590, TVD (ft): 2497.72, Dogleg (°/100 ft): 0.74, Sensor Depth (ft): 2498.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	21:10	21:15	11-30	2563.00	2653.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	21:15	21:20	11-30	2653.00	2653.00	Inclination (°): 1.670, Azimuth (°): 108.380, TVD (ft): 2587.69, Dogleg (°/100 ft): 0.68, Sensor Depth (ft): 2588.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	21:20	21:35	11-30	2653.00	2742.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	21:35	21:40	11-30	2742.00	2742.00	Inclination (°): 2.420, Azimuth (°): 101.710, TVD (ft): 2676.63, Dogleg (°/100 ft): 0.88, Sensor Depth (ft): 2677.00, Bit To Sensor (ft): 65.00
Slide Drill	2	11-30	21:40	22:00	11-30	2742.00	2772.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309, Toolface: 300, Toolface Type: magnetic
Rotary Drill	1	11-30	22:00	22:10	11-30	2772.00	2831.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	22:10	22:15	11-30	2831.00	2831.00	Inclination (°): 1.670, Azimuth (°): 105.130, TVD (ft): 2765.57, Dogleg (°/100 ft): 0.85, Sensor Depth (ft): 2766.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	22:15	22:25	11-30	2831.00	2921.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	22:25	22:30	11-30	2921.00	2921.00	Inclination (°): 1.010, Azimuth (°): 70.240, TVD (ft): 2855.55, Dogleg (°/100 ft): 1.13, Sensor Depth (ft): 2856.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	22:30	22:45	11-30	2921.00	3011.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	22:45	22:50	11-30	3011.00	3011.00	Inclination (°): 1.540, Azimuth (°): 59.080, TVD (ft): 2945.53, Dogleg (°/100 ft): 0.65, Sensor Depth (ft): 2946.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	22:50	22:55	11-30	3011.00	3022.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Slide Drill	2	11-30	22:55	23:05	11-30	3022.00	3047.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309, Toolface: 240, Toolface Type: magnetic
Rotary Drill	1	11-30	23:05	23:15	11-30	3047.00	3101.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	23:15	23:20	11-30	3101.00	3101.00	Inclination (°): 0.660, Azimuth (°): 132.380, TVD (ft): 3035.51, Dogleg (°/100 ft): 1.66, Sensor Depth (ft): 3036.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	23:20	23:35	11-30	3101.00	3190.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	11-30	23:35	23:40	11-30	3190.00	3190.00	Inclination (°): 1.630, Azimuth (°): 191.880, TVD (ft): 3124.50, Dogleg (°/100 ft): 1.59, Sensor Depth (ft): 3125.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	11-30	23:40	23:45	11-30	3190.00	3202.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Slide Drill	2	11-30	23:45	23:50	11-30	3202.00	3227.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309, Toolface: 10, Toolface Type: magnetic
Rotary Drill	1	11-30	23:50	00:00	12-01	3227.00	3280.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Wednesday, Dec 01 00:00 - 23:59 (Day 3 of 16)

Billing: \$5,600.00 (\$226,970.50 total)

Drilling Summary		Drilling Parameters	
Start Depth (ft)	3280.00	Downhole Hours	12.50
Bit Depth (ft)	4820.00	Drilling Hours	7.33
Bottom Hole Depth (ft)	4820.00	Hours Circulating	0.58
Total Distance (ft)	1540.00	Hours Sliding	0.67
Distance Rotated (ft)	1495.00	Hours Rotating	6.67
Distance Slid (ft)	45.00	Rotating WOB (klbs)	50.00 - 50.00
Inclination In	0.35	Sliding WOB (klbs)	50.00 - 50.00
Inclination Out	1.27	Rotating SPM	309.00 - 309.00
Azimuth In	188.10	Sliding SPM	309.00 - 309.00
Azimuth Out	0.19	Motor RPM	40.00 - 70.00
AVG Total ROP (ft/h)	212.40	Surface RPM	70.00 - 70.00
AVG Rotating ROP (ft/h)	226.54	Flow Rate (gpm)	895.00 - 897.00
AVG Sliding ROP (ft/h)	67.50	On Bottom Pressure (psi)	2600.00 - 2600.00
		Off Bottom Pressure (psi)	2100.00 - 2100.00

## Personnel

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

## BHA #2 - 12.25" Intermediate

Date In: Nov 30, 2021, 12:15 Date Out: Dec 1, 2021, 12:30

Bit Details		Motor Details		Directional Comments
OD (in)	12.250	Size (in)	8.0	FLOW RANGE 400-900 GPM, REV PER GALLON .150, MAX DIFF 1330, MAX TORQUE 22020 BIT RUNS: 2, Bit to Bend: 5.05
Vendor	Reed	Lobe/Stage	7/8, 5.9	
S/N	A280421	Bend Angle	1.75	MWD Comments
Nozzles	6 x 16	Speed (rev/gal)	0.15	
Total Flow Area (in <sup>2</sup> )	1.178	Wear Pad OD (in)	8.125	POOH Reason
Drilling Hours for Day	7.33	Bit Distances		
Total Drilled for Day (ft)	1540.00	Survey: 65.00 ft		Total Depth/Casing Point: Good Run. POOH for Casing.
Drilling Hours for BHA	13.50			
Total Drilled for BHA (ft)	3530.00			

## 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>TKC66-H3</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>6.00</i> , Size (in): <i>12.25</i>	Reed	A280421	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: <i>8" 7/8 5.9 Stg. 1.75° FBH w/12" NBS</i> , Size (in): <i>8.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>5.9</i>	Sniper	DR-800-01	6 5/8" Reg Box	6 5/8" Reg Box		8.000		35.66	37.16
<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	44.27
<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	47.25
<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	77.77
<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	108.25
<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	111.48
<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	847.11
<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	850.53
<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	1131.71

**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	11-30	23:50	00:00	12-01	3227.00	3280.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	00:00	00:05	12-01	3280.00	3280.00	Inclination (°): 0.350, Azimuth (°): 188.100, TVD (ft): 3214.48, Dogleg (°/100 ft): 1.42, Sensor Depth (ft): 3215.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	00:05	00:15	12-01	3280.00	3369.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	00:15	00:20	12-01	3369.00	3369.00	Inclination (°): 1.540, Azimuth (°): 25.860, TVD (ft): 3303.47, Dogleg (°/100 ft): 2.11, Sensor Depth (ft): 3304.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	00:20	00:30	12-01	3369.00	3459.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	00:30	00:35	12-01	3459.00	3459.00	Inclination (°): 1.540, Azimuth (°): 64.970, TVD (ft): 3393.44, Dogleg (°/100 ft): 1.15, Sensor Depth (ft): 3394.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	00:35	00:50	12-01	3459.00	3548.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	00:50	00:55	12-01	3548.00	3548.00	Inclination (°): 1.670, Azimuth (°): 71.030, TVD (ft): 3482.41, Dogleg (°/100 ft): 0.24, Sensor Depth (ft): 3483.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	00:55	01:15	12-01	3548.00	3638.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	01:15	01:20	12-01	3638.00	3638.00	Inclination (°): 1.450, Azimuth (°): 78.850, TVD (ft): 3572.37, Dogleg (°/100 ft): 0.34, Sensor Depth (ft): 3573.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	01:20	01:40	12-01	3638.00	3728.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	01:40	01:45	12-01	3728.00	3728.00	Inclination (°): 1.410, Azimuth (°): 87.730, TVD (ft): 3662.35, Dogleg (°/100 ft): 0.25, Sensor Depth (ft): 3663.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	01:45	01:50	12-01	3728.00	3735.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Slide Drill	2	12-01	01:50	02:05	12-01	3735.00	3760.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309, Toolface: 245, Toolface Type: magnetic
Rotary Drill	1	12-01	02:05	02:25	12-01	3760.00	3817.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	02:25	02:30	12-01	3817.00	3817.00	Inclination (°): 1.230, Azimuth (°): 182.300, TVD (ft): 3751.33, Dogleg (°/100 ft): 2.18, Sensor Depth (ft): 3752.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	02:30	02:55	12-01	3817.00	3907.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	02:55	03:00	12-01	3907.00	3907.00	Inclination (°): 2.420, Azimuth (°): 207.170, TVD (ft): 3841.29, Dogleg (°/100 ft): 1.56, Sensor Depth (ft): 3842.00, Bit To Sensor (ft): 65.00
Slide Drill	2	12-01	03:00	03:25	12-01	3907.00	3927.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Flow Rate (gpm): 895.00, Strokes Per Minute: 309, Toolface: 0, Toolface Type: magnetic
Rotary Drill	1	12-01	03:25	03:50	12-01	3927.00	3997.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	03:50	03:55	12-01	3997.00	3997.00	Inclination (°): 1.270, Azimuth (°): 247.080, TVD (ft): 3931.24, Dogleg (°/100 ft): 1.84, Sensor Depth (ft): 3932.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	03:55	04:20	12-01	3997.00	4086.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	04:20	04:25	12-01	4086.00	4086.00	Inclination (°): 1.410, Azimuth (°): 318.530, TVD (ft): 4020.22, Dogleg (°/100 ft): 1.76, Sensor Depth (ft): 4021.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	04:25	04:50	12-01	4086.00	4176.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00

Survey	46	12-01	04:50	04:55	12-01	4176.00	4176.00	Inclination (°): 1.270, Azimuth (°): 340.240, TVD (ft): 4110.20, Dogleg (°/100 ft): 0.58, Sensor Depth (ft): 4111.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	04:55	05:20	12-01	4176.00	4265.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	05:20	05:25	12-01	4265.00	4265.00	Inclination (°): 1.010, Azimuth (°): 335.670, TVD (ft): 4199.18, Dogleg (°/100 ft): 0.31, Sensor Depth (ft): 4200.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	05:25	05:50	12-01	4265.00	4355.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	05:50	05:55	12-01	4355.00	4355.00	Inclination (°): 1.100, Azimuth (°): 321.610, TVD (ft): 4289.17, Dogleg (°/100 ft): 0.30, Sensor Depth (ft): 4290.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	05:55	06:20	12-01	4355.00	4444.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	06:20	06:25	12-01	4444.00	4444.00	Inclination (°): 1.010, Azimuth (°): 325.120, TVD (ft): 4378.15, Dogleg (°/100 ft): 0.12, Sensor Depth (ft): 4379.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	06:25	07:00	12-01	4444.00	4534.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	07:00	07:05	12-01	4534.00	4534.00	Inclination (°): 1.050, Azimuth (°): 330.040, TVD (ft): 4468.14, Dogleg (°/100 ft): 0.11, Sensor Depth (ft): 4469.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	07:05	07:35	12-01	4534.00	4624.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	07:35	07:40	12-01	4624.00	4624.00	Inclination (°): 0.970, Azimuth (°): 340.590, TVD (ft): 4558.12, Dogleg (°/100 ft): 0.22, Sensor Depth (ft): 4559.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	07:40	08:05	12-01	4624.00	4713.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	08:05	08:10	12-01	4713.00	4713.00	Inclination (°): 1.100, Azimuth (°): 354.300, TVD (ft): 4647.11, Dogleg (°/100 ft): 0.31, Sensor Depth (ft): 4648.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	12-01	08:10	08:45	12-01	4713.00	4820.00	Pressure On (psi): 2600.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 50.00, Surface RPM: 70, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 897.00, Strokes Per Minute: 309.00
Survey	46	12-01	08:45	08:50	12-01	4820.00	4820.00	Inclination (°): 1.270, Azimuth (°): 0.190, TVD (ft): 4754.08, Dogleg (°/100 ft): 0.20, Sensor Depth (ft): 4755.00, Bit To Sensor (ft): 65.00
Circulating	3	12-01	08:50	09:25	12-01			cir btms up
Pooh	7	12-01	09:25	11:30	12-01			POOH
Lay Down BHA	65	12-01	11:30	12:30	12-01			l/d bha

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Monday, Jan 17 00:00 - 23:59 (Day 4 of 16)

Billing: \$12,555.25 (\$226,970.50 total)

Drilling Summary		Drilling Parameters	
Start Depth (ft)	4820.00	Downhole Hours	12.75
Bit Depth (ft)	6592.00	Drilling Hours	5.75
Bottom Hole Depth (ft)	6592.00	Hours Circulating	1.08
Total Distance (ft)	1772.00	Hours Sliding	0.58
Distance Rotated (ft)	1676.00	Hours Rotating	5.17
Distance Slid (ft)	96.00	Motor RPM	40.00 - 220.00
Inclination In	0.70	Surface RPM	30.00 - 40.00
Inclination Out	5.01	Flow Rate (gpm)	597.00 - 700.00
Azimuth In	340.33	On Bottom Pressure (psi)	1950.00 - 2650.00
Azimuth Out	228.79	Off Bottom Pressure (psi)	1250.00 - 1900.00
AVG Total ROP (ft/h)	314.70	% Hours Rotating	90%
AVG Rotating ROP (ft/h)	331.13	% Hours Sliding	10%
AVG Sliding ROP (ft/h)	164.57	% Distance Sliding	5%
		% Distance Rotating	95%

## Personnel

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

## BHA #3 - 8.75" INTERMEDIATE

Date In: Jan 17, 2022, 11:15 Date Out: Jan 19, 2022, 0:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 500-750 GPM, REV PER GALLON .26, MAX DIFF: 1910, MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 5.30
Vendor	Reed	Lobe/Stage	7/8, 8.5	
S/N	A283351	Bend Angle	1.75	MWD Comments
Nozzles	6 x15's	Speed (rev/gal)	0.26	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.375	POOH Reason
Drilling Hours for Day	5.75	Bit Distances		
Total Drilled for Day (ft)	1772.00	Survey: 69.00 ft, Gamma (Bit To Gamma ):	53.00 ft	Downhole Motor Incident: Motor Dropped Pressure And Stopped Drilling
Drilling Hours for BHA	21.92			
Total Drilled for BHA (ft)	4826.00			

## 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, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A283351	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	Aim	700-40-005	4 1/2" IF Box	4 1/2" Reg Box		7.000		37.46	38.46
<b>Stabilizer</b> Description: 8.5" STAB	JA	JAO85812	4 1/2" IF Box	4 1/2" IF Pin	2.563	6.750		6.37	44.83
<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		3.04	47.87
<b>Drill Collar</b> Description: NMDC (MWD TOOL), 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	78.52
<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	107.96
<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	110.34
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET54 Box	CET54 Pin	4.000	5.500		735.63	845.97
<b>Crossover Sub</b> Description: CET54 (P) x EverDrg 54 (B), Material: Steel	BLACK DIAMOND	BD18238	EverDrg54 Box	CET54 Pin	4.000	6.938		3.42	849.39
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrg54 Box	EverDrg54 Pin	3.625	5.500		281.18	1130.57

## 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	01-17	00:00	10:30	01-17			Standby- R/D, Skid Rig , Test BOP & R/U
Pick Up BHA	64	01-17	10:30	11:15	01-17			P/U BHA #3
TIH	8	01-17	11:15	13:00	01-17			TIH W/ BHA #3
Other	16	01-17	13:00	14:30	01-17			Slip & Cut Drill line
TIH	8	01-17	14:30	15:30	01-17			TIH W/ BHA #3
Drilling Cement	17	01-17	15:30	16:35	01-17	4820.00	4820.00	Drilling Cement and Float Equipment F/ 4712' - T/ 4820' [ GPM = 499, RPM = 20, WOB = 15, DIFF = 150 ]
Rotary Drill	1	01-17	16:35	17:25	01-17	4820.00	4980.00	Pressure On (psi): 1950.00, Pressure Off (psi): 1250.00, Weight On Bit (klbs): 34.00, Surface RPM: 30, Surface Torque (ft lbf): 11750.00, Flow Rate (gpm): 597.00, Strokes Per Minute: 206.00
Survey	46	01-17	17:25	17:30	01-17	4980.00	4980.00	Inclination (°): 0.700, Azimuth (°): 340.330, TVD (ft): 4910.06, Dogleg (°/100 ft): 0.42, Sensor Depth (ft): 4911.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	17:30	17:40	01-17	4980.00	5070.00	Pressure On (psi): 1950.00, Pressure Off (psi): 1250.00, Weight On Bit (klbs): 34.00, Surface RPM: 30, Surface Torque (ft lbf): 11750.00, Flow Rate (gpm): 597.00, Strokes Per Minute: 206.00
Survey	46	01-17	17:40	17:45	01-17	5066.00	5066.00	Inclination (°): 0.750, Azimuth (°): 346.040, TVD (ft): 5000.05, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 5001.00, Bit To Sensor (ft): 65.00
Rotary Drill	1	01-17	17:45	17:50	01-17	5070.00	5160.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	17:50	17:55	01-17	5160.00	5160.00	Inclination (°): 0.660, Azimuth (°): 343.580, TVD (ft): 5090.05, Dogleg (°/100 ft): 0.11, Sensor Depth (ft): 5091.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	17:55	18:05	01-17	5160.00	5249.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	18:05	18:10	01-17	5249.00	5249.00	Inclination (°): 0.750, Azimuth (°): 338.830, TVD (ft): 5179.04, Dogleg (°/100 ft): 0.12, Sensor Depth (ft): 5180.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	18:10	18:25	01-17	5249.00	5339.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	18:25	18:30	01-17	5339.00	5339.00	Inclination (°): 0.180, Azimuth (°): 339.710, TVD (ft): 5269.04, Dogleg (°/100 ft): 0.63, Sensor Depth (ft): 5270.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	18:30	18:35	01-17	5339.00	5345.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Slide Drill	2	01-17	18:35	18:40	01-17	5345.00	5365.00	Pressure On (psi): 2200.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 231, Toolface Type: magnetic
Rotary Drill	1	01-17	18:40	18:45	01-17	5365.00	5428.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	18:45	18:50	01-17	5428.00	5428.00	Inclination (°): 1.630, Azimuth (°): 317.480, TVD (ft): 5358.02, Dogleg (°/100 ft): 1.65, Sensor Depth (ft): 5359.00, Bit To Sensor (ft): 69.00
Slide Drill	2	01-17	18:50	18:55	01-17	5428.00	5453.00	Pressure On (psi): 2200.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 230, Toolface Type: magnetic
Rotary Drill	1	01-17	18:55	19:10	01-17	5453.00	5517.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	19:10	19:15	01-17	5517.00	5517.00	Inclination (°): 2.680, Azimuth (°): 258.590, TVD (ft): 5446.97, Dogleg (°/100 ft): 2.59, Sensor Depth (ft): 5448.00, Bit To Sensor (ft): 69.00
Slide Drill	2	01-17	19:15	19:25	01-17	5517.00	5537.00	Pressure On (psi): 2200.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 225, Toolface Type: magnetic
Rotary Drill	1	01-17	19:25	19:45	01-17	5537.00	5607.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	19:45	19:50	01-17	5607.00	5607.00	Inclination (°): 4.880, Azimuth (°): 235.650, TVD (ft): 5536.77, Dogleg (°/100 ft): 2.92, Sensor Depth (ft): 5538.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	19:50	20:10	01-17	5607.00	5697.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	20:10	20:15	01-17	5697.00	5697.00	Inclination (°): 5.360, Azimuth (°): 234.860, TVD (ft): 5626.41, Dogleg (°/100 ft): 0.54, Sensor Depth (ft): 5628.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	20:15	20:30	01-17	5697.00	5786.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	20:30	20:35	01-17	5786.00	5786.00	Inclination (°): 5.410, Azimuth (°): 237.500, TVD (ft): 5715.02, Dogleg (°/100 ft): 0.28, Sensor Depth (ft): 5717.00, Bit To Sensor (ft): 69.00
Slide Drill	2	01-17	20:35	20:40	01-17	5786.00	5797.00	Pressure On (psi): 2200.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 97, Toolface Type: magnetic

Rotary Drill	1	01-17	20:40	21:05	01-17	5797.00	5876.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	21:05	21:10	01-17	5876.00	5876.00	Inclination (°): 4.790, Azimuth (°): 227.390, TVD (ft): 5804.67, Dogleg (°/100 ft): 1.21, Sensor Depth (ft): 5807.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	21:10	21:30	01-17	5876.00	5965.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	21:30	21:35	01-17	5965.00	5965.00	Inclination (°): 4.660, Azimuth (°): 226.420, TVD (ft): 5893.36, Dogleg (°/100 ft): 0.17, Sensor Depth (ft): 5896.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	21:35	21:45	01-17	5965.00	6055.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	21:45	21:50	01-17	6055.00	6055.00	Inclination (°): 4.750, Azimuth (°): 226.510, TVD (ft): 5983.06, Dogleg (°/100 ft): 0.10, Sensor Depth (ft): 5986.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	21:50	22:00	01-17	6055.00	6145.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	22:00	22:05	01-17	6145.00	6145.00	Inclination (°): 4.620, Azimuth (°): 223.790, TVD (ft): 6072.76, Dogleg (°/100 ft): 0.29, Sensor Depth (ft): 6076.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	22:05	22:15	01-17	6145.00	6234.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	22:15	22:20	01-17	6234.00	6234.00	Inclination (°): 4.660, Azimuth (°): 222.290, TVD (ft): 6161.47, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 6165.00, Bit To Sensor (ft): 69.00
Slide Drill	2	01-17	22:20	22:25	01-17	6234.00	6244.00	Pressure On (psi): 2200.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 312, Toolface Type: magnetic
Rotary Drill	1	01-17	22:25	22:50	01-17	6244.00	6324.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	22:50	22:55	01-17	6324.00	6324.00	Inclination (°): 4.180, Azimuth (°): 237.500, TVD (ft): 6251.20, Dogleg (°/100 ft): 1.40, Sensor Depth (ft): 6255.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	22:55	23:05	01-17	6324.00	6413.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	23:05	23:10	01-17	6413.00	6413.00	Inclination (°): 4.400, Azimuth (°): 240.660, TVD (ft): 6339.95, Dogleg (°/100 ft): 0.36, Sensor Depth (ft): 6344.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	23:10	23:25	01-17	6413.00	6502.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	23:25	23:30	01-17	6502.00	6502.00	Inclination (°): 4.220, Azimuth (°): 241.190, TVD (ft): 6428.70, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 6433.00, Bit To Sensor (ft): 69.00
Slide Drill	2	01-17	23:30	23:35	01-17	6502.00	6512.00	Pressure On (psi): 2200.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 240, Toolface: 160, Toolface Type: magnetic
Rotary Drill	1	01-17	23:35	23:50	01-17	6512.00	6592.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-17	23:50	23:55	01-17	6592.00	6592.00	Inclination (°): 5.010, Azimuth (°): 228.790, TVD (ft): 6518.41, Dogleg (°/100 ft): 1.41, Sensor Depth (ft): 6523.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-17	23:55	00:05	01-18	6592.00	6682.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Tuesday, Jan 18 00:00 - 23:59 (Day 5 of 16)

Billing: \$8,855.25 (\$226,970.50 total)

Drilling Summary		Drilling Parameters	
Start Depth (ft)	6592.00	Downhole Hours	24.00
Bit Depth (ft)	9646.00	Drilling Hours	16.17
Bottom Hole Depth (ft)	9646.00	Hours Circulating	0.17
Total Distance (ft)	3054.00	Hours Sliding	3.58
Distance Rotated (ft)	2950.00	Hours Rotating	12.58
Distance Slid (ft)	104.00	Motor RPM	40.00 - 220.00
Inclination In	4.84	Surface RPM	40.00 - 40.00
Inclination Out	4.13	Flow Rate (gpm)	696.00 - 698.00
Azimuth In	225.54	On Bottom Pressure (psi)	2350.00 - 2800.00
Azimuth Out	227.39	Off Bottom Pressure (psi)	1900.00 - 2100.00
AVG Total ROP (ft/h)	188.91	% Hours Rotating	78%
AVG Rotating ROP (ft/h)	234.44	% Hours Sliding	22%
AVG Sliding ROP (ft/h)	29.02	% Distance Sliding	3%
		% Distance Rotating	97%

**Personnel**

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

**BHA #3 - 8.75" INTERMEDIATE**

Date In: Jan 17, 2022, 11:15 Date Out: Jan 19, 2022, 0:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 500-750 GPM, REV PER GALLON .26, MAX DIFF: 1910, MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 5.30
Vendor	Reed	Lobe/Stage	7/8, 8.5	
S/N	A283351	Bend Angle	1.75	
Nozzles	6 x15's	Speed (rev/gal)	0.26	<b>MWD Comments</b>
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.375	<b>POOH Reason</b> Downhole Motor Incident: Motor Dropped Pressure And Stopped Drilling
Drilling Hours for Day	16.17	<b>Bit Distances</b>		
Total Drilled for Day (ft)	3054.00	Survey: 69.00 ft, Gamma (Bit To Gamma ): 53.00 ft		
Drilling Hours for BHA	21.92			
Total Drilled for BHA (ft)	4826.00			

**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, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A283351	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	Aim	700-40-005	4 1/2" IF Box	4 1/2" Reg Box		7.000		37.46	38.46
<b>Stabilizer</b> Description: 8.5" STAB	JA	JAO85812	4 1/2" IF Box	4 1/2" IF Pin	2.563	6.750		6.37	44.83
<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		3.04	47.87
<b>Drill Collar</b> Description: NMDC (MWD TOOL), 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	78.52
<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	107.96
<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	110.34
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET54 Box	CET54 Pin	4.000	5.500		735.63	845.97
<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	849.39
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1130.57

**MWD Items**

No Items

## Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	01-17	23:55	00:05	01-18	6592.00	6682.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	00:05	00:10	01-18	6682.00	6682.00	Inclination (°): 4.840, Azimuth (°): 225.540, TVD (ft): 6608.08, Dogleg (°/100 ft): 0.36, Sensor Depth (ft): 6613.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	00:10	00:20	01-18	6682.00	6771.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	00:20	00:25	01-18	6771.00	6771.00	Inclination (°): 4.400, Azimuth (°): 223.520, TVD (ft): 6696.79, Dogleg (°/100 ft): 0.53, Sensor Depth (ft): 6702.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	00:25	00:30	01-18	6771.00	6860.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	00:30	00:35	01-18	6860.00	6860.00	Inclination (°): 4.570, Azimuth (°): 223.260, TVD (ft): 6785.52, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 6791.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	00:35	00:45	01-18	6860.00	6950.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	00:45	00:50	01-18	6950.00	6950.00	Inclination (°): 4.840, Azimuth (°): 226.160, TVD (ft): 6875.21, Dogleg (°/100 ft): 0.40, Sensor Depth (ft): 6881.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	00:50	01:00	01-18	6950.00	7039.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	01:00	01:05	01-18	7039.00	7039.00	Inclination (°): 4.620, Azimuth (°): 224.490, TVD (ft): 6963.91, Dogleg (°/100 ft): 0.29, Sensor Depth (ft): 6970.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	01:05	01:20	01-18	7039.00	7129.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	01:20	01:25	01-18	7129.00	7129.00	Inclination (°): 4.700, Azimuth (°): 222.120, TVD (ft): 7053.61, Dogleg (°/100 ft): 0.23, Sensor Depth (ft): 7060.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	01:25	01:35	01-18	7129.00	7219.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	01:35	01:40	01-18	7219.00	7219.00	Inclination (°): 4.620, Azimuth (°): 222.200, TVD (ft): 7143.32, Dogleg (°/100 ft): 0.09, Sensor Depth (ft): 7150.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	01:40	01:50	01-18	7219.00	7308.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	01:50	01:55	01-18	7308.00	7308.00	Inclination (°): 4.400, Azimuth (°): 222.290, TVD (ft): 7232.04, Dogleg (°/100 ft): 0.25, Sensor Depth (ft): 7239.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	01:55	02:25	01-18	7308.00	7398.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	02:25	02:30	01-18	7398.00	7398.00	Inclination (°): 4.350, Azimuth (°): 221.760, TVD (ft): 7321.78, Dogleg (°/100 ft): 0.07, Sensor Depth (ft): 7329.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	02:30	02:45	01-18	7398.00	7488.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	02:45	02:50	01-18	7488.00	7488.00	Inclination (°): 4.400, Azimuth (°): 222.470, TVD (ft): 7411.52, Dogleg (°/100 ft): 0.08, Sensor Depth (ft): 7419.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	02:50	03:10	01-18	7488.00	7577.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	03:10	03:15	01-18	7577.00	7577.00	Inclination (°): 4.400, Azimuth (°): 221.760, TVD (ft): 7500.25, Dogleg (°/100 ft): 0.06, Sensor Depth (ft): 7508.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	03:15	03:35	01-18	7577.00	7666.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	03:35	03:40	01-18	7666.00	7666.00	Inclination (°): 4.180, Azimuth (°): 224.140, TVD (ft): 7589.00, Dogleg (°/100 ft): 0.32, Sensor Depth (ft): 7597.00, Bit To Sensor (ft): 69.00

Rotary Drill	1	01-18	03:40	03:55	01-18	7666.00	7756.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	03:55	04:00	01-18	7756.00	7756.00	Inclination (°): 4.040, Azimuth (°): 225.980, TVD (ft): 7678.77, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 7687.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	04:00	04:20	01-18	7756.00	7846.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	04:20	04:25	01-18	7846.00	7846.00	Inclination (°): 3.690, Azimuth (°): 226.250, TVD (ft): 7768.57, Dogleg (°/100 ft): 0.39, Sensor Depth (ft): 7777.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	04:25	04:40	01-18	7846.00	7936.00	Pressure On (psi): 2650.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 13750.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	04:40	04:45	01-18	7936.00	7936.00	Inclination (°): 3.430, Azimuth (°): 229.150, TVD (ft): 7858.39, Dogleg (°/100 ft): 0.35, Sensor Depth (ft): 7867.00, Bit To Sensor (ft): 69.00
Slide Drill	2	01-18	04:45	04:55	01-18	7936.00	7944.00	Pressure On (psi): 2350.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 28.00, Flow Rate (gpm): 698.00, Strokes Per Minute: 240, Toolface: 230, Toolface Type: magnetic
Rotary Drill	1	01-18	04:55	05:30	01-18	7944.00	8025.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	05:30	05:35	01-18	8025.00	8025.00	Inclination (°): 3.780, Azimuth (°): 219.830, TVD (ft): 7947.22, Dogleg (°/100 ft): 0.77, Sensor Depth (ft): 7956.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	05:35	06:00	01-18	8025.00	8115.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	06:00	06:05	01-18	8115.00	8115.00	Inclination (°): 3.820, Azimuth (°): 222.640, TVD (ft): 8037.02, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 8046.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	06:05	06:25	01-18	8115.00	8205.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	06:25	06:30	01-18	8205.00	8205.00	Inclination (°): 3.690, Azimuth (°): 219.820, TVD (ft): 8126.83, Dogleg (°/100 ft): 0.25, Sensor Depth (ft): 8136.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	06:30	06:50	01-18	8205.00	8294.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	06:50	06:55	01-18	8294.00	8294.00	Inclination (°): 3.650, Azimuth (°): 216.400, TVD (ft): 8215.65, Dogleg (°/100 ft): 0.25, Sensor Depth (ft): 8225.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	06:55	07:15	01-18	8294.00	8383.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	07:15	07:20	01-18	8383.00	8383.00	Inclination (°): 3.650, Azimuth (°): 215.260, TVD (ft): 8304.46, Dogleg (°/100 ft): 0.08, Sensor Depth (ft): 8314.00, Bit To Sensor (ft): 69.00
Slide Drill	2	01-18	07:20	08:00	01-18	8383.00	8397.00	Pressure On (psi): 2350.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 28.00, Flow Rate (gpm): 698.00, Strokes Per Minute: 240, Toolface: 235, Toolface Type: magnetic
Rotary Drill	1	01-18	08:00	08:25	01-18	8397.00	8473.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	08:25	08:30	01-18	8473.00	8473.00	Inclination (°): 4.750, Azimuth (°): 220.090, TVD (ft): 8394.22, Dogleg (°/100 ft): 1.28, Sensor Depth (ft): 8404.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	08:30	08:35	01-18	8473.00	8480.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Slide Drill	2	01-18	08:35	08:50	01-18	8480.00	8495.00	Pressure On (psi): 2350.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 28.00, Flow Rate (gpm): 698.00, Strokes Per Minute: 240, Toolface: 290, Toolface Type: magnetic
Rotary Drill	1	01-18	08:50	09:15	01-18	8495.00	8562.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	09:15	09:20	01-18	8562.00	8562.00	Inclination (°): 5.100, Azimuth (°): 234.420, TVD (ft): 8482.90, Dogleg (°/100 ft): 1.43, Sensor Depth (ft): 8493.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	09:20	09:50	01-18	8562.00	8652.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00

Survey	46	01-18	09:50	09:55	01-18	8652.00	8652.00	Inclination (°): 5.230, Azimuth (°): 236.270, TVD (ft): 8572.53, Dogleg (°/100 ft): 0.23, Sensor Depth (ft): 8583.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	09:55	10:10	01-18	8652.00	8741.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	10:10	10:15	01-18	8741.00	8741.00	Inclination (°): 4.840, Azimuth (°): 238.730, TVD (ft): 8661.19, Dogleg (°/100 ft): 0.50, Sensor Depth (ft): 8672.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	10:15	10:55	01-18	8741.00	8831.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	10:55	11:00	01-18	8831.00	8831.00	Inclination (°): 4.310, Azimuth (°): 236.090, TVD (ft): 8750.90, Dogleg (°/100 ft): 0.63, Sensor Depth (ft): 8762.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	11:00	11:30	01-18	8831.00	8920.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	11:30	11:35	01-18	8920.00	8920.00	Inclination (°): 3.780, Azimuth (°): 234.770, TVD (ft): 8839.68, Dogleg (°/100 ft): 0.60, Sensor Depth (ft): 8851.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	11:35	12:05	01-18	8920.00	9010.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	12:05	12:10	01-18	9010.00	9010.00	Inclination (°): 3.250, Azimuth (°): 222.820, TVD (ft): 8929.51, Dogleg (°/100 ft): 1.00, Sensor Depth (ft): 8941.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	12:10	12:15	01-18	9010.00	9020.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Slide Drill	2	01-18	12:15	12:50	01-18	9020.00	9042.00	Pressure On (psi): 2350.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 698.00, Strokes Per Minute: 240, Toolface: 260, Toolface Type: magnetic
Rotary Drill	1	01-18	12:50	13:20	01-18	9042.00	9100.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	13:20	13:25	01-18	9100.00	9100.00	Inclination (°): 4.000, Azimuth (°): 225.100, TVD (ft): 9019.33, Dogleg (°/100 ft): 0.85, Sensor Depth (ft): 9031.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	13:25	14:00	01-18	9100.00	9189.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	14:00	14:05	01-18	9189.00	9189.00	Inclination (°): 3.560, Azimuth (°): 215.960, TVD (ft): 9108.14, Dogleg (°/100 ft): 0.84, Sensor Depth (ft): 9120.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	14:05	14:10	01-18	9189.00	9195.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Slide Drill	2	01-18	14:10	15:10	01-18	9195.00	9220.00	Pressure On (psi): 2350.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 698.00, Strokes Per Minute: 240, Toolface: 280, Toolface Type: magnetic
Rotary Drill	1	01-18	15:10	15:35	01-18	9220.00	9279.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	15:35	15:40	01-18	9279.00	9279.00	Inclination (°): 3.520, Azimuth (°): 225.980, TVD (ft): 9197.97, Dogleg (°/100 ft): 0.69, Sensor Depth (ft): 9210.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	15:40	15:45	01-18	9279.00	9286.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Slide Drill	2	01-18	15:45	16:40	01-18	9286.00	9306.00	Pressure On (psi): 2350.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 698.00, Strokes Per Minute: 240, Toolface: 260, Toolface Type: magnetic
Rotary Drill	1	01-18	16:40	17:10	01-18	9306.00	9369.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Rig Service - In Hole	19	01-18	17:10	17:25	01-18			Rig Service
Survey	46	01-18	17:25	17:30	01-18	9369.00	9369.00	Inclination (°): 4.970, Azimuth (°): 249.710, TVD (ft): 9287.72, Dogleg (°/100 ft): 2.50, Sensor Depth (ft): 9300.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	17:30	18:00	01-18	9369.00	9459.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00

Survey	46	01-18	18:00	18:05	01-18	9459.00	9459.00	Inclination (°): 4.790, Azimuth (°): 251.120, TVD (ft): 9377.40, Dogleg (°/100 ft): 0.24, Sensor Depth (ft): 9390.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	18:05	18:30	01-18	9459.00	9548.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	18:30	18:35	01-18	9548.00	9548.00	Inclination (°): 4.220, Azimuth (°): 238.290, TVD (ft): 9466.12, Dogleg (°/100 ft): 1.30, Sensor Depth (ft): 9479.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	18:35	19:00	01-18	9548.00	9638.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Survey	46	01-18	19:00	19:05	01-18	9638.00	9638.00	Inclination (°): 4.130, Azimuth (°): 227.390, TVD (ft): 9555.89, Dogleg (°/100 ft): 0.89, Sensor Depth (ft): 9569.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-18	19:05	19:10	01-18	9638.00	9646.00	Pressure On (psi): 2800.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 16500.00, Flow Rate (gpm): 696.00, Strokes Per Minute: 240.00
Circulating	3	01-18	19:10	19:20	01-18			Circulate And Condition Hole
Pooh	7	01-18	19:20	23:30	01-18			POOH for Motor Issue
Lay Down BHA	65	01-18	23:30	00:00	01-19			L/D Bit, Motor

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Wednesday, Jan 19 00:00 - 23:59 (Day 6 of 16)

Billing: \$20,965.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	9646.00	Downhole Hours	23.50	Rotating WOB (klbs)	40.00 - 40.00
Bit Depth (ft)	10500.00	Drilling Hours	6.92	Sliding WOB (klbs)	20.00 - 20.00
Bottom Hole Depth (ft)	10500.00	Hours Circulating	0.92	Rotating SPM	243.00 - 243.00
Total Distance (ft)	854.00	Hours Sliding	1.42	Sliding SPM	243.00 - 243.00
Distance Rotated (ft)	784.00	Hours Rotating	5.50	Motor RPM	40.00 - 222.00
Distance Slid (ft)	70.00			Surface RPM	40.00 - 40.00
Inclination In	3.03			Flow Rate (gpm)	700.00 - 700.00
Inclination Out	0.35			On Bottom Pressure (psi)	2900.00 - 3200.00
Azimuth In	217.54	% Hours Rotating	80%	Off Bottom Pressure (psi)	2500.00 - 2500.00
Azimuth Out	204.10	% Hours Sliding	20%		
AVG Total ROP (ft/h)	123.47	% Distance Sliding	8%		
AVG Rotating ROP (ft/h)	142.55	% Distance Rotating	92%		
AVG Sliding ROP (ft/h)	49.41				

## Personnel

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

## BHA #3 - 8.75" INTERMEDIATE

Date In: Jan 17, 2022, 11:15 Date Out: Jan 19, 2022, 0:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 500-750 GPM, REV PER GALLON .26, MAX DIFF: 1910, MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 5.30
Vendor	Reed	Lobe/Stage	7/8, 8.5	
S/N	A283351	Bend Angle	1.75	
Nozzles	6 x15's	Speed (rev/gal)	0.26	MWD Comments
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.375	
Drilling Hours for Day		Bit Distances		
Total Drilled for Day (ft)		Survey: 69.00 ft, Gamma (Bit To Gamma ): 53.00 ft		
Drilling Hours for BHA	21.92			POOH Reason
Total Drilled for BHA (ft)	4826.00			Downhole Motor Incident: Motor Dropped Pressure And Stopped Drilling

## 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, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A283351	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	Aim	700-40-005	4 1/2" IF Box	4 1/2" Reg Box		7.000		37.46	38.46
<b>Stabilizer</b> Description: 8.5" STAB	JA	JAO85812	4 1/2" IF Box	4 1/2" IF Pin	2.563	6.750		6.37	44.83
<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		3.04	47.87
<b>Drill Collar</b> Description: NMDC (MWD TOOL), 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	78.52
<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	107.96
<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	110.34
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET54 Box	CET54 Pin	4.000	5.500		735.63	845.97
<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	849.39
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1130.57

## MWD Items

No Items

**BHA #4 - 8.75" INTERMEDIATE**

Date In: Jan 19, 2022, 0:30 Date Out: Jan 19, 2022, 18:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 500-750 GPM, REV PER GALLON .26, MAX DIFF: 1910, MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 5.37	
Vendor	ULTERRA	Lobe/Stage	7/8, 8.5		
S/N	55347	Bend Angle	1.75		
Nozzles	9 x12's	Speed (rev/gal)	0.26	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.375		
Drilling Hours for Day	6.92	Bit Distances			
Total Drilled for Day (ft)	854.00	Survey: 69.00 ft, Gamma (Bit To Gamma ) : 53.00 ft		POOH Reason	
Drilling Hours for BHA	6.92			Change Bottom Hole Assembly: POOH for curve assembly	
Total Drilled for BHA (ft)	854.00				

**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: SPL616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	ULTERRA	55347	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	AIM	700-40-035	4 1/2" IF Box	4 1/2" Reg Box		7.000		37.72	38.72
<b>Stabilizer</b> Description: 8.5" STAB	JA	JAO85812	4 1/2" IF Box	4 1/2" IF Pin	2.563	6.750		6.37	45.09
<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		3.04	48.13
<b>Drill Collar</b> Description: NMDC (MWD TOOL), 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	78.78
<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	108.22
<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	110.60
<b>HWDP</b> Description: 8 Stands 5.5" HWDP, Type: Slick	Platinum		CET54 Box	CET54 Pin	4.000	5.500		735.63	846.23
<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	849.65
<b>HWDP</b> Description: 3 Stands 5.5" HWDP, Type: Slick	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.625	5.500		281.18	1130.83

**MWD Items**

No Items

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

Date In: Jan 19, 2022, 18:00 Date Out: Jan 21, 2022, 1:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	6.75	FLOW RANGE: 300-650 GPM, REV PER GALLON .27, MAX DIFF: 1860, MAX TORQUE : 16,770 BIT RUNS: 0 , Bit to Bend: 3.85	
Vendor	ULTERRA	Lobe/Stage	7/8, 5.0		
S/N	556957	Bend Angle	2.25		
Nozzles	6x15's	Speed (rev/gal)	0.27	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.000		
Drilling Hours for Day	0.00	Bit Distances			
Total Drilled for Day (ft)		Survey: 59.00 ft, Gamma (Bit To Gamma ) : 35.00 ft, Resistivity (Bit to Resistivity): 45.00 ft		POOH Reason	
Drilling Hours for BHA	16.67			Change Bottom Hole Assembly: POOH At EOC	
Total Drilled for BHA (ft)	864.00				

**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	556957	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 6.75" 7/8L, 5.0 Stg. 2.25° FBH (True Slick), Size (in): 6.75, Bend Angle (°): 2.25, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.0	Paradigm	675101SS	4 1/2" IF Box	4 1/2" Reg Box		6.750		25.66	26.66
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	57.92
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	75.25

<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	105.90
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	109.47

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Lay Down BHA	65	01-18	23:30	00:00	01-19			L/D Bit, Motor
Pick Up BHA	64	01-19	00:00	00:30	01-19			P/U BHA #4
TIH	8	01-19	00:30	04:30	01-19			TIH W/ BHA #4
Rotary Drill	1	01-19	04:30	04:55	01-19	9646.00	9727.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	04:55	05:00	01-19	9727.00	9727.00	Inclination (°): 3.030, Azimuth (°): 217.540, TVD (ft): 9644.71, Dogleg (°/100 ft): 1.41, Sensor Depth (ft): 9658.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-19	05:00	05:05	01-19	9727.00	9733.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-19	05:05	05:25	01-19	9733.00	9753.00	Pressure On (psi): 2900.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 270, Toolface Type: magnetic
Rotary Drill	1	01-19	05:25	05:50	01-19	9753.00	9817.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	05:50	05:55	01-19	9817.00	9817.00	Inclination (°): 3.030, Azimuth (°): 217.720, TVD (ft): 9734.59, Dogleg (°/100 ft): 0.01, Sensor Depth (ft): 9748.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-19	05:55	06:00	01-19	9817.00	9822.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-19	06:00	06:30	01-19	9822.00	9852.00	Pressure On (psi): 2900.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 270, Toolface Type: magnetic
Rotary Drill	1	01-19	06:30	06:55	01-19	9852.00	9907.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	06:55	07:00	01-19	9907.00	9907.00	Inclination (°): 3.740, Azimuth (°): 234.770, TVD (ft): 9824.43, Dogleg (°/100 ft): 1.36, Sensor Depth (ft): 9838.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-19	07:00	07:35	01-19	9907.00	9997.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	07:35	07:40	01-19	9997.00	9997.00	Inclination (°): 4.130, Azimuth (°): 254.720, TVD (ft): 9914.22, Dogleg (°/100 ft): 1.57, Sensor Depth (ft): 9928.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-19	07:40	08:20	01-19	9997.00	10086.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	08:20	08:25	01-19	10086.00	10086.00	Inclination (°): 3.780, Azimuth (°): 254.720, TVD (ft): 10003.01, Dogleg (°/100 ft): 0.39, Sensor Depth (ft): 10017.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-19	08:25	09:00	01-19	10086.00	10175.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	09:00	09:05	01-19	10175.00	10175.00	Inclination (°): 3.560, Azimuth (°): 255.600, TVD (ft): 10091.83, Dogleg (°/100 ft): 0.26, Sensor Depth (ft): 10106.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-19	09:05	09:40	01-19	10175.00	10265.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	09:40	09:45	01-19	10265.00	10265.00	Inclination (°): 2.420, Azimuth (°): 255.250, TVD (ft): 10181.70, Dogleg (°/100 ft): 1.27, Sensor Depth (ft): 10196.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-19	09:45	10:25	01-19	10265.00	10355.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	10:25	10:30	01-19	10355.00	10355.00	Inclination (°): 2.420, Azimuth (°): 266.760, TVD (ft): 10271.62, Dogleg (°/100 ft): 0.54, Sensor Depth (ft): 10286.00, Bit To Sensor (ft): 69.00

Rotary Drill	1	01-19	10:30	10:35	01-19	10355.00	10365.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	01-19	10:35	11:10	01-19	10365.00	10385.00	Pressure On (psi): 2900.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 20.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 90, Toolface Type: magnetic
Rotary Drill	1	01-19	11:10	11:40	01-19	10385.00	10445.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	11:40	11:45	01-19	10445.00	10445.00	Inclination (°): 0.920, Azimuth (°): 272.740, TVD (ft): 10361.58, Dogleg (°/100 ft): 1.68, Sensor Depth (ft): 10376.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-19	11:45	12:10	01-19	10445.00	10500.00	Pressure On (psi): 3200.00, Pressure Off (psi): 2500.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	01-19	12:10	12:15	01-19	10500.00	10500.00	Inclination (°): 0.350, Azimuth (°): 204.100, TVD (ft): 10416.58, Dogleg (°/100 ft): 1.56, Sensor Depth (ft): 10431.00, Bit To Sensor (ft): 69.00
Circulating	3	01-19	12:15	13:10	01-19			Circulate @ KOP
Pooh	7	01-19	13:10	17:35	01-19			POOH for KOP
Lay Down BHA	65	01-19	17:35	18:00	01-19			L/D BHA #4
Pick Up BHA	64	01-19	18:00	19:45	01-19			P/U Curve Assembly And Resistivity Tool Program Tool
TIH	8	01-19	19:45	00:30	01-20			TIH W/ BHA #5

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Thursday, Jan 20 00:00 - 23:59 (Day 7 of 16)

Billing: \$12,700.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	10500.00	Downhole Hours	24.00	Rotating WOB (klbs)			
Bit Depth (ft)	11364.00	Drilling Hours	16.67	Sliding WOB (klbs)	23.00 - 25.00		
Bottom Hole Depth (ft)	11364.00	Hours Circulating	1.67	Rotating SPM			
Total Distance (ft)	864.00	Hours Sliding	16.67	Sliding SPM	190.00 - 206.00		
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	149.00 - 149.00		
Distance Slid (ft)	864.00			Surface RPM			
Inclination In	1.63			Flow Rate (gpm)	550.00 - 600.00		
Inclination Out	84.62			On Bottom Pressure (psi)	1700.00 - 2100.00		
Azimuth In	29.90	% Hours Rotating	0%	Off Bottom Pressure (psi)	1350.00 - 1480.00		
Azimuth Out	350.17	% Hours Sliding	100%				
AVG Total ROP (ft/h)	51.84	% Distance Sliding	100%				
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating	0%				
AVG Sliding ROP (ft/h)	51.84						

**Personnel**

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

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

Date In: Jan 19, 2022, 18:00 Date Out: Jan 21, 2022, 1:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	6.75	FLOW RANGE: 300-650 GPM, REV PER GALLON .27, MAX DIFF: 1860, MAX TORQUE : 16,770 BIT RUNS: 0 , Bit to Bend: 3.85	
Vendor	ULTERRA	Lobe/Stage	7/8, 5.0		
S/N	556957	Bend Angle	2.25		
Nozzles	6x15's	Speed (rev/gal)	0.27	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.000		
Drilling Hours for Day	16.67	<b>Bit Distances</b>			
Total Drilled for Day (ft)	864.00	Survey: 59.00 ft, Gamma (Bit To Gamma ): 35.00 ft, Resistivity (Bit to Resistivity): 45.00 ft		<b>POOH Reason</b>	
Drilling Hours for BHA	16.67			Change Bottom Hole Assembly: POOH At EOC	
Total Drilled for BHA (ft)	864.00				

**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	556957	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 6.75" 7/8L, 5.0 Stg. 2.25° FBH (True Slick), Size (in): 6.75, Bend Angle (°): 2.25, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.0	Paradigm	675101SS	4 1/2" IF Box	4 1/2" Reg Box		6.750		25.66	26.66
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	57.92
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	75.25
<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	105.90
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	109.47

**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	01-19	19:45	00:30	01-20			TIH W/ BHA #5
Circulating	3	01-20	00:30	01:05	01-20			Relog Gamma F/ 10,432 T/ 10,482
Slide Drill	2	01-20	01:05	03:10	01-20	10500.00	10587.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1350.00, Weight On Bit (klbs): 23.00, Flow Rate (gpm): 550.00, Strokes Per Minute: 190, Toolface: 352, Toolface Type: magnetic
Survey	46	01-20	03:10	03:15	01-20	10587.00	10587.00	Inclination (°): 1.630, Azimuth (°): 29.900, TVD (ft): 10513.57, Dogleg (°/100 ft): 2.04, Sensor Depth (ft): 10528.00, Bit To Sensor (ft): 59.00

Slide Drill	2	01-20	03:15	04:35	01-20	10587.00	10677.00	Pressure On (psi): 1800.00, Pressure Off (psi): 1480.00, Weight On Bit (klbs): 23.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 206, Toolface: 321, Toolface Type: magnetic
Survey	46	01-20	04:35	04:40	01-20	10677.00	10677.00	Inclination (°): 10.070, Azimuth (°): 354.040, TVD (ft): 10603.03, Dogleg (°/100 ft): 9.78, Sensor Depth (ft): 10618.00, Bit To Sensor (ft): 59.00
Slide Drill	2	01-20	04:40	05:50	01-20	10677.00	10766.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1480.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 206, Toolface: 0, Toolface Type: gravity
Survey	46	01-20	05:50	05:55	01-20	10766.00	10766.00	Inclination (°): 19.250, Azimuth (°): 351.400, TVD (ft): 10689.05, Dogleg (°/100 ft): 10.34, Sensor Depth (ft): 10707.00, Bit To Sensor (ft): 59.00
Slide Drill	2	01-20	05:55	07:40	01-20	10766.00	10856.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1480.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 206, Toolface: 0, Toolface Type: gravity
Survey	46	01-20	07:40	07:45	01-20	10856.00	10856.00	Inclination (°): 25.890, Azimuth (°): 351.840, TVD (ft): 10772.11, Dogleg (°/100 ft): 7.38, Sensor Depth (ft): 10797.00, Bit To Sensor (ft): 59.00
Slide Drill	2	01-20	07:45	10:00	01-20	10856.00	10945.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1480.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 206, Toolface: 0, Toolface Type: gravity
Survey	46	01-20	10:00	10:05	01-20	10945.00	10945.00	Inclination (°): 31.470, Azimuth (°): 354.390, TVD (ft): 10850.16, Dogleg (°/100 ft): 6.42, Sensor Depth (ft): 10886.00, Bit To Sensor (ft): 59.00
Slide Drill	2	01-20	10:05	12:30	01-20	10945.00	11035.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1480.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 206, Toolface: 0, Toolface Type: gravity
Survey	46	01-20	12:30	12:40	01-20	11035.00	11035.00	Inclination (°): 41.980, Azimuth (°): 356.240, TVD (ft): 10922.20, Dogleg (°/100 ft): 11.74, Sensor Depth (ft): 10976.00, Bit To Sensor (ft): 59.00
Slide Drill	2	01-20	12:40	14:30	01-20	11035.00	11125.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1480.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 206, Toolface: 340, Toolface Type: gravity
Rig Service - In Hole	19	01-20	14:30	14:45	01-20			Rig Service
Survey	46	01-20	14:45	14:55	01-20	11125.00	11125.00	Inclination (°): 53.010, Azimuth (°): 355.710, TVD (ft): 10982.91, Dogleg (°/100 ft): 12.26, Sensor Depth (ft): 11066.00, Bit To Sensor (ft): 59.00
Slide Drill	2	01-20	14:55	16:25	01-20	11125.00	11214.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1480.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 206, Toolface: 345, Toolface Type: gravity
Survey	46	01-20	16:25	16:35	01-20	11214.00	11214.00	Inclination (°): 64.480, Azimuth (°): 356.410, TVD (ft): 11029.01, Dogleg (°/100 ft): 12.91, Sensor Depth (ft): 11155.00, Bit To Sensor (ft): 59.00
Slide Drill	2	01-20	16:35	17:50	01-20	11214.00	11304.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1480.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 206, Toolface: 330, Toolface Type: gravity
Survey	46	01-20	17:50	17:55	01-20	11304.00	11304.00	Inclination (°): 75.520, Azimuth (°): 353.420, TVD (ft): 11059.75, Dogleg (°/100 ft): 12.66, Sensor Depth (ft): 11245.00, Bit To Sensor (ft): 59.00
Slide Drill	2	01-20	17:55	19:00	01-20	11304.00	11364.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1480.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 206, Toolface: 0, Toolface Type: gravity
Survey	46	01-20	19:00	19:05	01-20	11364.00	11364.00	Inclination (°): 84.620, Azimuth (°): 350.170, TVD (ft): 11070.09, Dogleg (°/100 ft): 16.08, Sensor Depth (ft): 11305.00, Bit To Sensor (ft): 59.00
Circulating	3	01-20	19:05	20:10	01-20			Circulate And Condition Hole Clean
Pooh	7	01-20	20:10	00:45	01-21			POOH for Lateral Assembly

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Friday, Jan 21 00:00 - 23:59 (Day 8 of 16)

Billing: \$25,925.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	11364.00	Downhole Hours	22.50	Rotating WOB (klbs)	38.00 - 42.00
Bit Depth (ft)	11968.00	Drilling Hours	8.92	Sliding WOB (klbs)	25.00 - 25.00
Bottom Hole Depth (ft)	11968.00	Hours Circulating	1.67	Rotating SPM	170.00 - 188.00
Total Distance (ft)	604.00	Hours Sliding	4.58	Sliding SPM	188.00 - 188.00
Distance Rotated (ft)	461.00	Hours Rotating	4.33	Motor RPM	115.00 - 161.00
Distance Slid (ft)	143.00			Surface RPM	30.00 - 40.00
Inclination In	92.84			Flow Rate (gpm)	493.00 - 546.00
Inclination Out	89.89			On Bottom Pressure (psi)	2850.00 - 3250.00
Azimuth In	350.26	% Hours Rotating	49%	Off Bottom Pressure (psi)	2300.00 - 2800.00
Azimuth Out	358.26	% Hours Sliding	51%		
AVG Total ROP (ft/h)	72.42	% Distance Sliding	24%		
AVG Rotating ROP (ft/h)	110.20	% Distance Rotating	76%		
AVG Sliding ROP (ft/h)	31.20				

**Personnel**

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

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

Date In: Jan 19, 2022, 18:00 Date Out: Jan 21, 2022, 1:00

Bit Details		Motor Details		Directional Comments
OD (in)	8.750	Size (in)	6.75	FLOW RANGE: 300-650 GPM, REV PER GALLON .27, MAX DIFF: 1860, MAX TORQUE : 16,770 BIT RUNS: 0 , Bit to Bend: 3.85
Vendor	ULTERRA	Lobe/Stage	7/8, 5.0	
S/N	556957	Bend Angle	2.25	
Nozzles	6x15's	Speed (rev/gal)	0.27	<b>MWD Comments</b>
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.000	<b>POOH Reason</b> Change Bottom Hole Assembly: POOH At EOC
Drilling Hours for Day	0.00	<b>Bit Distances</b>		
Total Drilled for Day (ft)		Survey: 59.00 ft, Gamma (Bit To Gamma ): 35.00 ft, Resistivity (Bit to Resistivity): 45.00 ft		
Drilling Hours for BHA	16.67			
Total Drilled for BHA (ft)	864.00			

**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	556957	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 6.75" 7/8L, 5.0 Stg. 2.25° FBH (True Slick), Size (in): 6.75, Bend Angle (°): 2.25, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.0	Paradigm	675101SS	4 1/2" IF Box	4 1/2" Reg Box		6.750		25.66	26.66
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	57.92
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	75.25
<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	105.90
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	109.47

**MWD Items**

No Items

**BHA #6 - 8.75" LATERAL**

Date In: Jan 21, 2022, 2:30 Date Out: Jan 25, 2022, 2:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 0 , Bit to Bend: 5.37	
Vendor	Reed	Lobe/Stage	7/5, 9.0		
S/N	A28369	Bend Angle	1.83		
Nozzles	7x15's	Speed (rev/gal)	0.23	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.208	Wear Pad OD (in)	7.375		
Drilling Hours for Day	8.92	<b>Bit Distances</b>			
Total Drilled for Day (ft)	604.00	Survey: 64.00 ft, Gamma (Bit To Gamma ):		<b>POOH Reason</b>	
Drilling Hours for BHA	61.75	40.00 ft, Resistivity (Bit to Resistivity):			
Total Drilled for BHA (ft)	4465.00	50.00 ft		Change Bottom Hole Assembly: Erratic Differential PSI. TF control was highly difficult.	

**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): 4.00, Size (in): 8.75	Reed	A28369	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 5.7 Stg, 1.83° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.83, Rotor Lobe: 7, Stator Lobe: 5, Stator Stage: 9	NOV	675-36-384	4 1/2" IF Box	4 1/2" Reg Box		7.000		31.43	32.43
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1005						31.26	63.69
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6002						17.33	81.02
<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	111.67
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	115.24
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: <i>Slick</i>	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2084.56
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2088.04
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	147-67001	4 1/2" FH Box	4 1/2" IF Pin		6.750		24.73	2112.77
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2116.15

**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	01-20	20:10	00:45	01-21			POOH for Lateral Assembly
Lay Down BHA	65	01-21	00:45	01:00	01-21			L/D BHA #5
Pick Up BHA	64	01-21	01:00	02:30	01-21			P/U BHA #6 Program Res Tool
TIH	8	01-21	02:30	05:15	01-21			TIH W/ BHA #6
Other	16	01-21	05:15	07:45	01-21			Slip & Cut Drill line
TIH	8	01-21	07:45	11:20	01-21			TIH W/ BHA #6
Circulating	3	01-21	11:20	13:00	01-21			Displace w/ OBM
Rotary Drill	1	01-21	13:00	13:40	01-21	11364.00	11430.00	Pressure On (psi): 2850.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 38.00, Surface RPM: 30, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 493.00, Strokes Per Minute: 170.00
Other	16	01-21	13:40	14:35	01-21			Troubleshoot Resistivity/ MWD
Survey	46	01-21	14:35	14:40	01-21	11430.00	11430.00	Inclination (°): 92.840, Azimuth (°): 350.260, TVD (ft): 11071.44, Dogleg (°/100 ft): 13.48, Sensor Depth (ft): 11366.00, Bit To Sensor (ft): 64.00
Slide Drill	2	01-21	14:40	15:10	01-21	11430.00	11458.00	Pressure On (psi): 3250.00, Pressure Off (psi): 2800.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 545.00, Strokes Per Minute: 188, Toolface: 120, Toolface Type: gravity
Rotary Drill	1	01-21	15:10	15:50	01-21	11458.00	11520.00	Pressure On (psi): 2850.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 18500.00, Flow Rate (gpm): 546.00, Strokes Per Minute: 188.00
Survey	46	01-21	15:50	15:55	01-21	11520.00	11520.00	Inclination (°): 92.000, Azimuth (°): 352.540, TVD (ft): 11067.64, Dogleg (°/100 ft): 2.70, Sensor Depth (ft): 11456.00, Bit To Sensor (ft): 64.00
Slide Drill	2	01-21	15:55	16:45	01-21	11520.00	11558.00	Pressure On (psi): 3250.00, Pressure Off (psi): 2800.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 545.00, Strokes Per Minute: 188, Toolface: 130, Toolface Type: gravity

Rotary Drill	1	01-21	16:45	17:10	01-21	11558.00	11610.00	Pressure On (psi): 2850.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 18500.00, Flow Rate (gpm): 546.00, Strokes Per Minute: 188.00
Survey	46	01-21	17:10	17:15	01-21	11610.00	11610.00	Inclination (°): 91.430, Azimuth (°): 356.410, TVD (ft): 11064.95, Dogleg (°/100 ft): 4.34, Sensor Depth (ft): 11546.00, Bit To Sensor (ft): 64.00
Slide Drill	2	01-21	17:15	18:00	01-21	11610.00	11645.00	Pressure On (psi): 3250.00, Pressure Off (psi): 2800.00, Weight On Bit (klbs): 25.00, Flow Rate (gpm): 545.00, Strokes Per Minute: 188, Toolface: 140, Toolface Type: gravity
Rotary Drill	1	01-21	18:00	18:35	01-21	11645.00	11699.00	Pressure On (psi): 2850.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 18500.00, Flow Rate (gpm): 546.00, Strokes Per Minute: 188.00
Survey	46	01-21	18:35	18:40	01-21	11699.00	11699.00	Inclination (°): 89.760, Azimuth (°): 359.050, TVD (ft): 11064.02, Dogleg (°/100 ft): 3.51, Sensor Depth (ft): 11635.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-21	18:40	19:05	01-21	11699.00	11754.00	Pressure On (psi): 2850.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 18500.00, Flow Rate (gpm): 546.00, Strokes Per Minute: 188.00
Slide Drill	2	01-21	19:05	20:25	01-21	11754.00	11784.00	Toolface: 180, Toolface Type: gravity
Rotary Drill	1	01-21	20:25	20:30	01-21	11784.00	11789.00	Pressure On (psi): 2850.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 18500.00, Flow Rate (gpm): 546.00, Strokes Per Minute: 188.00
Survey	46	01-21	20:30	20:35	01-21	11789.00	11789.00	Inclination (°): 90.900, Azimuth (°): 358.960, TVD (ft): 11063.50, Dogleg (°/100 ft): 1.27, Sensor Depth (ft): 11725.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-21	20:35	20:55	01-21	11789.00	11813.00	Pressure On (psi): 2850.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 18500.00, Flow Rate (gpm): 546.00, Strokes Per Minute: 188.00
Slide Drill	2	01-21	20:55	22:05	01-21	11813.00	11825.00	Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-21	22:05	22:20	01-21	11825.00	11879.00	Pressure On (psi): 2850.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 18500.00, Flow Rate (gpm): 546.00, Strokes Per Minute: 188.00
Survey	46	01-21	22:20	22:25	01-21	11879.00	11879.00	Inclination (°): 89.230, Azimuth (°): 358.790, TVD (ft): 11063.40, Dogleg (°/100 ft): 1.87, Sensor Depth (ft): 11815.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-21	22:25	23:20	01-21	11879.00	11968.00	Pressure On (psi): 2850.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 18500.00, Flow Rate (gpm): 546.00, Strokes Per Minute: 188.00
Rig Service - In Hole	19	01-21	23:20	23:50	01-21			Rig Service @ 11968'
Survey	46	01-21	23:50	23:55	01-21	11968.00	11968.00	Inclination (°): 89.890, Azimuth (°): 358.260, TVD (ft): 11064.09, Dogleg (°/100 ft): 0.95, Sensor Depth (ft): 11904.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-21	23:55	00:35	01-22	11968.00	12058.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 615.00, Strokes Per Minute: 210.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Saturday, Jan 22 00:00 - 23:59 (Day 9 of 16)

Billing: \$10,500.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	11968.00	Downhole Hours	24.00	Rotating WOB (klbs)	42.00 - 42.00		
Bit Depth (ft)	13131.00	Drilling Hours	16.50	Sliding WOB (klbs)	30.00 - 35.00		
Bottom Hole Depth (ft)	13131.00	Hours Circulating	0.00	Rotating SPM	210.00 - 240.00		
Total Distance (ft)	1163.00	Hours Sliding	6.92	Sliding SPM	237.00 - 240.00		
Distance Rotated (ft)	937.00	Hours Rotating	9.58	Motor RPM	115.00 - 161.00		
Distance Slid (ft)	226.00			Surface RPM	40.00 - 40.00		
Inclination In	90.42			Flow Rate (gpm)	615.00 - 695.00		
Inclination Out	91.60			On Bottom Pressure (psi)	3700.00 - 4475.00		
Azimuth In	358.17	% Hours Rotating	58%	Off Bottom Pressure (psi)	3200.00 - 3800.00		
Azimuth Out	359.14	% Hours Sliding	42%				
AVG Total ROP (ft/h)	72.64	% Distance Sliding	19%				
AVG Rotating ROP (ft/h)	99.39	% Distance Rotating	81%				
AVG Sliding ROP (ft/h)	32.67						

## Personnel

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

## BHA #6 - 8.75" LATERAL

Date In: Jan 21, 2022, 2:30 Date Out: Jan 25, 2022, 2:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 0 , Bit to Bend: 5.37	
Vendor	Reed	Lobe/Stage	7/5, 9.0	<b>MWD Comments</b>	
S/N	A28369	Bend Angle	1.83		
Nozzles	7x15's	Speed (rev/gal)	0.23	<b>POOH Reason</b> Change Bottom Hole Assembly: Erratic Differential PSI. TF control was highly difficult.	
Total Flow Area (in <sup>2</sup> )	1.208	Wear Pad OD (in)	7.375		
Drilling Hours for Day	16.50	<b>Bit Distances</b>			
Total Drilled for Day (ft)	1163.00	Survey: 64.00 ft, Gamma (Bit To Gamma ): 40.00 ft, Resistivity (Bit to Resistivity): 50.00 ft			
Drilling Hours for BHA	61.75				
Total Drilled for BHA (ft)	4465.00				

## 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: TKC 76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A28369	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 5.7 Stg. 1.83° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.83, Rotor Lobe: 7, Stator Lobe: 5, Stator Stage: 9	NOV	675-36-384	4 1/2" IF Box	4 1/2" Reg Box		7.000		31.43	32.43
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	63.69
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	81.02
<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	111.67
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	115.24
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: Slick	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2084.56
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2088.04
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	147-67001	4 1/2" FH Box	4 1/2" IF Pin		6.750		24.73	2112.77
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2116.15

## 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	01-21	23:55	00:35	01-22	11968.00	12058.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 615.00, Strokes Per Minute: 210.00
Survey	46	01-22	00:35	00:40	01-22	12058.00	12058.00	Inclination (°): 90.420, Azimuth (°): 358.170, TVD (ft): 11063.84, Dogleg (°/100 ft): 0.60, Sensor Depth (ft): 11994.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	00:40	00:45	01-22	12058.00	12062.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 615.00, Strokes Per Minute: 210.00
Slide Drill	2	01-22	00:45	00:50	01-22	12062.00	12066.00	Toolface: 150, Toolface Type: gravity
Other	16	01-22	00:50	01:05	01-22			Took Pump 1 off the Hole @ 12066'
Slide Drill	2	01-22	01:05	01:40	01-22	12066.00	12082.00	Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-22	01:40	02:10	01-22	12082.00	12147.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 615.00, Strokes Per Minute: 210.00
Survey	46	01-22	02:10	02:15	01-22	12147.00	12147.00	Inclination (°): 90.550, Azimuth (°): 357.200, TVD (ft): 11063.09, Dogleg (°/100 ft): 1.10, Sensor Depth (ft): 12083.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	02:15	02:20	01-22	12147.00	12152.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 615.00, Strokes Per Minute: 210.00
Slide Drill	2	01-22	02:20	03:20	01-22	12152.00	12182.00	Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-22	03:20	03:55	01-22	12182.00	12237.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 615.00, Strokes Per Minute: 210.00
Survey	46	01-22	03:55	04:00	01-22	12237.00	12237.00	Inclination (°): 89.710, Azimuth (°): 355.270, TVD (ft): 11062.89, Dogleg (°/100 ft): 2.34, Sensor Depth (ft): 12173.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	04:00	04:05	01-22	12237.00	12241.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 615.00, Strokes Per Minute: 210.00
Slide Drill	2	01-22	04:05	05:25	01-22	12241.00	12276.00	Toolface: 120, Toolface Type: gravity
Rotary Drill	1	01-22	05:25	05:45	01-22	12276.00	12326.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 615.00, Strokes Per Minute: 210.00
Survey	46	01-22	05:45	05:50	01-22	12326.00	12326.00	Inclination (°): 89.760, Azimuth (°): 356.940, TVD (ft): 11063.30, Dogleg (°/100 ft): 1.88, Sensor Depth (ft): 12262.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	05:50	05:55	01-22	12326.00	12335.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 615.00, Strokes Per Minute: 210.00
Slide Drill	2	01-22	05:55	06:40	01-22	12335.00	12375.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 30.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240, Toolface: 105, Toolface Type: gravity
Rotary Drill	1	01-22	06:40	07:05	01-22	12375.00	12416.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-22	07:05	07:10	01-22	12416.00	12416.00	Inclination (°): 90.460, Azimuth (°): 1.160, TVD (ft): 11063.12, Dogleg (°/100 ft): 4.75, Sensor Depth (ft): 12352.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	07:10	07:15	01-22	12416.00	12420.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-22	07:15	07:25	01-22	12420.00	12430.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 30.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	01-22	07:25	08:05	01-22	12430.00	12505.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-22	08:05	08:10	01-22	12505.00	12505.00	Inclination (°): 90.070, Azimuth (°): 1.600, TVD (ft): 11062.71, Dogleg (°/100 ft): 0.66, Sensor Depth (ft): 12441.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	08:10	08:20	01-22	12505.00	12517.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-22	08:20	08:45	01-22	12517.00	12537.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 30.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-22	08:45	09:15	01-22	12537.00	12595.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00

Survey	46	01-22	09:15	09:20	01-22	12595.00	12595.00	Inclination (°): 88.620, Azimuth (°): 1.420, TVD (ft): 11063.74, Dogleg (°/100 ft): 1.62, Sensor Depth (ft): 12531.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	09:20	10:00	01-22	12595.00	12684.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-22	10:00	10:05	01-22	12684.00	12684.00	Inclination (°): 88.000, Azimuth (°): 1.160, TVD (ft): 11066.37, Dogleg (°/100 ft): 0.76, Sensor Depth (ft): 12620.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	10:05	10:10	01-22	12684.00	12687.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-22	10:10	10:40	01-22	12687.00	12711.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	01-22	10:40	11:45	01-22	12711.00	12774.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Other	16	01-22	11:45	17:45	01-22			TOP DRIVE DOWN @ 12774'
Survey	46	01-22	17:45	17:50	01-22	12774.00	12774.00	Inclination (°): 88.970, Azimuth (°): 0.280, TVD (ft): 11068.75, Dogleg (°/100 ft): 1.45, Sensor Depth (ft): 12710.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	17:50	17:55	01-22	12774.00	12786.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-22	17:55	18:25	01-22	12786.00	12796.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240, Toolface: 30, Toolface Type: gravity
Rotary Drill	1	01-22	18:25	19:10	01-22	12796.00	12863.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-22	19:10	19:15	01-22	12863.00	12863.00	Inclination (°): 90.020, Azimuth (°): 1.250, TVD (ft): 11069.53, Dogleg (°/100 ft): 1.61, Sensor Depth (ft): 12799.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	19:15	19:20	01-22	12863.00	12875.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-22	19:20	19:50	01-22	12875.00	12885.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3700.00, Weight On Bit (klbs): 35.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	01-22	19:50	20:20	01-22	12885.00	12953.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-22	20:20	20:25	01-22	12953.00	12953.00	Inclination (°): 90.550, Azimuth (°): 0.450, TVD (ft): 11069.08, Dogleg (°/100 ft): 1.07, Sensor Depth (ft): 12889.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	20:25	20:40	01-22	12953.00	12982.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-22	20:40	20:55	01-22	12982.00	12989.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3700.00, Weight On Bit (klbs): 35.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	01-22	20:55	21:40	01-22	12989.00	13042.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-22	21:40	21:45	01-22	13042.00	13042.00	Inclination (°): 90.460, Azimuth (°): 358.790, TVD (ft): 11068.30, Dogleg (°/100 ft): 1.87, Sensor Depth (ft): 12978.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	21:45	21:50	01-22	13042.00	13054.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Other	16	01-22	21:50	21:55	01-22			CHECK SHOT @ 12990'
Slide Drill	2	01-22	21:55	22:45	01-22	13054.00	13074.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 35.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 45, Toolface Type: gravity
Rotary Drill	1	01-22	22:45	23:45	01-22	13074.00	13131.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-22	23:45	23:55	01-22	13131.00	13131.00	Inclination (°): 91.600, Azimuth (°): 359.140, TVD (ft): 11066.70, Dogleg (°/100 ft): 1.34, Sensor Depth (ft): 13067.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-22	23:55	00:40	01-23	13131.00	13221.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Sunday, Jan 23 00:00 - 23:59 (Day 10 of 16)

Billing: \$10,500.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	13131.00	Downhole Hours	24.00	Rotating WOB (klbs)	42.00 - 45.00		
Bit Depth (ft)	14875.00	Drilling Hours	21.42	Sliding WOB (klbs)	35.00 - 45.00		
Bottom Hole Depth (ft)	14875.00	Hours Circulating	0.00	Rotating SPM	240.00 - 240.00		
Total Distance (ft)	1744.00	Hours Sliding	6.42	Sliding SPM	237.00 - 237.00		
Distance Rotated (ft)	1527.00	Hours Rotating	15.00	Motor RPM	115.00 - 161.00		
Distance Slid (ft)	217.00			Surface RPM	40.00 - 40.00		
Inclination In	92.66			Flow Rate (gpm)	694.00 - 695.00		
Inclination Out	87.25			On Bottom Pressure (psi)	4300.00 - 4325.00		
Azimuth In	359.31	% Hours Rotating	70%	Off Bottom Pressure (psi)	3800.00 - 3800.00		
Azimuth Out	1.60	% Hours Sliding	30%				
AVG Total ROP (ft/h)	77.82	% Distance Sliding	12%				
AVG Rotating ROP (ft/h)	101.80	% Distance Rotating	88%				
AVG Sliding ROP (ft/h)	30.91						

## Personnel

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

## BHA #6 - 8.75" LATERAL

Date In: Jan 21, 2022, 2:30 Date Out: Jan 25, 2022, 2:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 0 , Bit to Bend: 5.37	
Vendor	Reed	Lobe/Stage	7/5, 9.0		
S/N	A28369	Bend Angle	1.83		
Nozzles	7x15's	Speed (rev/gal)	0.23	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.208	Wear Pad OD (in)	7.375		
Drilling Hours for Day	21.42	<b>Bit Distances</b>			
Total Drilled for Day (ft)	1744.00	Survey: 64.00 ft, Gamma (Bit To Gamma ):			
Drilling Hours for BHA	61.75	40.00 ft, Resistivity (Bit to Resistivity):			
Total Drilled for BHA (ft)	4465.00	50.00 ft		<b>POOH Reason</b>	
				Change Bottom Hole Assembly: Erratic Differential PSI. TF control was highly difficult.	

## 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: TKC 76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A28369	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 5.7 Stg. 1.83° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.83, Rotor Lobe: 7, Stator Lobe: 5, Stator Stage: 9	NOV	675-36-384	4 1/2" IF Box	4 1/2" Reg Box		7.000		31.43	32.43
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	63.69
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	81.02
<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	111.67
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	115.24
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: Slick	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2084.56
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2088.04
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	147-67001	4 1/2" FH Box	4 1/2" IF Pin		6.750		24.73	2112.77
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2116.15

## 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	01-22	23:55	00:40	01-23	13131.00	13221.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	00:40	00:45	01-23	13221.00	13221.00	Inclination (°): 92.660, Azimuth (°): 359.310, TVD (ft): 11063.35, Dogleg (°/100 ft): 1.19, Sensor Depth (ft): 13157.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	00:45	00:50	01-23	13221.00	13231.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-23	00:50	01:20	01-23	13231.00	13247.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 35.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 160, Toolface Type: gravity
Rotary Drill	1	01-23	01:20	01:55	01-23	13247.00	13310.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	01:55	02:00	01-23	13310.00	13310.00	Inclination (°): 92.350, Azimuth (°): 0.020, TVD (ft): 11059.46, Dogleg (°/100 ft): 0.87, Sensor Depth (ft): 13246.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	02:00	02:10	01-23	13310.00	13320.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-23	02:10	02:55	01-23	13320.00	13335.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 170, Toolface Type: gravity
Rotary Drill	1	01-23	02:55	03:30	01-23	13335.00	13399.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	03:30	03:35	01-23	13399.00	13399.00	Inclination (°): 90.900, Azimuth (°): 0.980, TVD (ft): 11056.94, Dogleg (°/100 ft): 1.95, Sensor Depth (ft): 13335.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	03:35	03:45	01-23	13399.00	13437.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Other	16	01-23	03:45	03:55	01-23			DONWLINK MWD TOOL
Rotary Drill	1	01-23	03:55	04:25	01-23	13437.00	13489.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	04:25	04:30	01-23	13489.00	13489.00	Inclination (°): 91.820, Azimuth (°): 0.280, TVD (ft): 11054.80, Dogleg (°/100 ft): 1.28, Sensor Depth (ft): 13425.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	04:30	04:40	01-23	13489.00	13501.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-23	04:40	05:10	01-23	13501.00	13519.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	01-23	05:10	05:35	01-23	13519.00	13578.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	05:35	05:40	01-23	13578.00	13578.00	Inclination (°): 89.800, Azimuth (°): 0.630, TVD (ft): 11053.55, Dogleg (°/100 ft): 2.30, Sensor Depth (ft): 13514.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	05:40	06:15	01-23	13578.00	13667.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	06:15	06:20	01-23	13667.00	13667.00	Inclination (°): 90.110, Azimuth (°): 0.810, TVD (ft): 11053.61, Dogleg (°/100 ft): 0.40, Sensor Depth (ft): 13603.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	06:20	06:55	01-23	13667.00	13756.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	06:55	07:00	01-23	13756.00	13756.00	Inclination (°): 89.190, Azimuth (°): 358.960, TVD (ft): 11054.16, Dogleg (°/100 ft): 2.32, Sensor Depth (ft): 13692.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	07:00	07:50	01-23	13756.00	13845.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	07:50	07:55	01-23	13845.00	13845.00	Inclination (°): 89.450, Azimuth (°): 357.990, TVD (ft): 11055.21, Dogleg (°/100 ft): 1.13, Sensor Depth (ft): 13781.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	07:55	08:00	01-23	13845.00	13848.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (kbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00

Slide Drill	2	01-23	08:00	08:45	01-23	13848.00	13870.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 70, Toolface Type: gravity
Rotary Drill	1	01-23	08:45	09:10	01-23	13870.00	13935.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	09:10	09:15	01-23	13935.00	13935.00	Inclination (°): 89.410, Azimuth (°): 358.700, TVD (ft): 11056.11, Dogleg (°/100 ft): 0.79, Sensor Depth (ft): 13871.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	09:15	09:30	01-23	13935.00	13947.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-23	09:30	10:00	01-23	13947.00	13969.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 75, Toolface Type: gravity
Rotary Drill	1	01-23	10:00	10:35	01-23	13969.00	14025.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	10:35	10:40	01-23	14025.00	14025.00	Inclination (°): 90.370, Azimuth (°): 0.890, TVD (ft): 11056.28, Dogleg (°/100 ft): 2.66, Sensor Depth (ft): 13961.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	10:40	11:30	01-23	14025.00	14114.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Rig Service - In Hole	19	01-23	11:30	11:45	01-23			Rig Service
Survey	46	01-23	11:45	11:50	01-23	14114.00	14114.00	Inclination (°): 90.110, Azimuth (°): 1.070, TVD (ft): 11055.91, Dogleg (°/100 ft): 0.36, Sensor Depth (ft): 14050.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	11:50	12:45	01-23	14114.00	14204.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	12:45	12:50	01-23	14204.00	14204.00	Inclination (°): 89.670, Azimuth (°): 0.540, TVD (ft): 11056.08, Dogleg (°/100 ft): 0.77, Sensor Depth (ft): 14140.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	12:50	13:45	01-23	14204.00	14294.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	13:45	13:50	01-23	14294.00	14294.00	Inclination (°): 89.140, Azimuth (°): 359.580, TVD (ft): 11057.02, Dogleg (°/100 ft): 1.22, Sensor Depth (ft): 14230.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	13:50	14:00	01-23	14294.00	14306.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-23	14:00	14:30	01-23	14306.00	14328.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 30, Toolface Type: gravity
Rotary Drill	1	01-23	14:30	15:10	01-23	14328.00	14383.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	15:10	15:15	01-23	14383.00	14383.00	Inclination (°): 90.290, Azimuth (°): 0.100, TVD (ft): 11057.46, Dogleg (°/100 ft): 1.42, Sensor Depth (ft): 14319.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	15:15	16:15	01-23	14383.00	14440.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-23	16:15	16:55	01-23	14440.00	14468.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 155, Toolface Type: gravity
Rotary Drill	1	01-23	16:55	17:00	01-23	14468.00	14473.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	17:00	17:10	01-23	14473.00	14473.00	Inclination (°): 92.040, Azimuth (°): 0.980, TVD (ft): 11055.63, Dogleg (°/100 ft): 2.18, Sensor Depth (ft): 14409.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	17:10	17:35	01-23	14473.00	14528.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-23	17:35	18:10	01-23	14528.00	14562.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 180, Toolface Type: gravity
Survey	46	01-23	18:10	18:15	01-23	14562.00	14562.00	Inclination (°): 90.860, Azimuth (°): 1.600, TVD (ft): 11053.38, Dogleg (°/100 ft): 1.50, Sensor Depth (ft): 14498.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	18:15	19:40	01-23	14562.00	14652.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00

Survey	46	01-23	19:40	19:45	01-23	14652.00	14652.00	Inclination (°): 86.460, Azimuth (°): 2.740, TVD (ft): 11055.48, Dogleg (°/100 ft): 5.05, Sensor Depth (ft): 14588.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	19:45	19:50	01-23	14652.00	14662.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-23	19:50	20:35	01-23	14662.00	14682.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 330, Toolface Type: gravity
Rotary Drill	1	01-23	20:35	21:20	01-23	14682.00	14741.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	21:20	21:25	01-23	14741.00	14741.00	Inclination (°): 87.870, Azimuth (°): 2.210, TVD (ft): 11059.88, Dogleg (°/100 ft): 1.69, Sensor Depth (ft): 14677.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	21:25	21:40	01-23	14741.00	14765.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-23	21:40	22:35	01-23	14765.00	14785.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 270, Toolface Type: gravity
Rotary Drill	1	01-23	22:35	23:00	01-23	14785.00	14830.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-23	23:00	23:05	01-23	14830.00	14830.00	Inclination (°): 87.250, Azimuth (°): 1.600, TVD (ft): 11063.67, Dogleg (°/100 ft): 0.98, Sensor Depth (ft): 14766.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-23	23:05	23:25	01-23	14830.00	14875.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Other	16	01-23	23:25	23:30	01-23			CHECK SHOT @ 14875'
Slide Drill	2	01-23	23:30	00:45	01-24	14875.00	14895.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 0, Toolface Type: gravity

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Monday, Jan 24 00:00 - 23:59 (Day 11 of 16)

Billing: \$10,500.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	14875.00	Downhole Hours	24.00	Rotating WOB (klbs)	45.00 - 45.00
Bit Depth (ft)	15829.00	Drilling Hours	14.92	Sliding WOB (klbs)	45.00 - 45.00
Bottom Hole Depth (ft)	15829.00	Hours Circulating	0.42	Rotating SPM	240.00 - 240.00
Total Distance (ft)	954.00	Hours Sliding	5.58	Sliding SPM	237.00 - 237.00
Distance Rotated (ft)	791.00	Hours Rotating	9.33	Motor RPM	115.00 - 161.00
Distance Slid (ft)	163.00			Surface RPM	40.00 - 40.00
Inclination In	84.92			Flow Rate (gpm)	694.00 - 695.00
Inclination Out	85.98			On Bottom Pressure (psi)	4300.00 - 4575.00
Azimuth In	359.84	% Hours Rotating	63%	Off Bottom Pressure (psi)	3800.00 - 4100.00
Azimuth Out	359.40	% Hours Sliding	37%		
AVG Total ROP (ft/h)	63.96	% Distance Sliding	17%		
AVG Rotating ROP (ft/h)	84.75	% Distance Rotating	83%		
AVG Sliding ROP (ft/h)	29.19				

## Personnel

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

## BHA #6 - 8.75" LATERAL

Date In: Jan 21, 2022, 2:30 Date Out: Jan 25, 2022, 2:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 0 , Bit to Bend: 5.37	
Vendor	Reed	Lobe/Stage	7/5, 9.0		
S/N	A28369	Bend Angle	1.83		
Nozzles	7x15's	Speed (rev/gal)	0.23	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.208	Wear Pad OD (in)	7.375		
Drilling Hours for Day	14.92	<b>Bit Distances</b>			
Total Drilled for Day (ft)	954.00	Survey: 64.00 ft, Gamma (Bit To Gamma ):			
Drilling Hours for BHA	61.75	40.00 ft, Resistivity (Bit to Resistivity):			
Total Drilled for BHA (ft)	4465.00	50.00 ft		<b>POOH Reason</b>	
				Change Bottom Hole Assembly: Erratic Differential PSI. TF control was highly difficult.	

## 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: TKC 76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A28369	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 5.7 Stg. 1.83° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.83, Rotor Lobe: 7, Stator Lobe: 5, Stator Stage: 9	NOV	675-36-384	4 1/2" IF Box	4 1/2" Reg Box		7.000		31.43	32.43
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	63.69
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	81.02
<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	111.67
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	115.24
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: Slick	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2084.56
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2088.04
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	147-67001	4 1/2" FH Box	4 1/2" IF Pin		6.750		24.73	2112.77
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2116.15

## MWD Items

No Items

## Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Slide Drill	2	01-23	23:30	00:45	01-24	14875.00	14895.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	01-24	00:45	01:00	01-24	14895.00	14930.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	01:00	01:05	01-24	14920.00	14920.00	Inclination (°): 84.920, Azimuth (°): 359.840, TVD (ft): 11069.82, Dogleg (°/100 ft): 3.24, Sensor Depth (ft): 14856.00, Bit To Sensor (ft): 64.00
Slide Drill	2	01-24	01:05	01:20	01-24	14930.00	14955.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	01-24	01:20	02:25	01-24	14955.00	15009.00	Pressure On (psi): 4325.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 21500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	02:25	02:30	01-24	15009.00	15009.00	Inclination (°): 88.660, Azimuth (°): 359.490, TVD (ft): 11074.80, Dogleg (°/100 ft): 4.22, Sensor Depth (ft): 14945.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-24	02:30	03:30	01-24	15009.00	15098.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3950.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	03:30	03:35	01-24	15098.00	15098.00	Inclination (°): 89.140, Azimuth (°): 0.190, TVD (ft): 11076.51, Dogleg (°/100 ft): 0.95, Sensor Depth (ft): 15034.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-24	03:35	03:40	01-24	15098.00	15108.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3950.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-24	03:40	04:10	01-24	15108.00	15123.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	01-24	04:10	05:00	01-24	15123.00	15188.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3950.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	05:00	05:05	01-24	15188.00	15188.00	Inclination (°): 89.930, Azimuth (°): 359.140, TVD (ft): 11077.24, Dogleg (°/100 ft): 1.46, Sensor Depth (ft): 15124.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-24	05:05	06:00	01-24	15188.00	15277.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3950.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	06:00	06:05	01-24	15277.00	15277.00	Inclination (°): 90.330, Azimuth (°): 358.700, TVD (ft): 11077.04, Dogleg (°/100 ft): 0.67, Sensor Depth (ft): 15213.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-24	06:05	06:50	01-24	15277.00	15366.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3950.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	06:50	06:55	01-24	15366.00	15366.00	Inclination (°): 90.810, Azimuth (°): 358.350, TVD (ft): 11076.15, Dogleg (°/100 ft): 0.67, Sensor Depth (ft): 15302.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-24	06:55	07:00	01-24	15366.00	15378.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3950.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-24	07:00	07:45	01-24	15378.00	15398.00	Pressure On (psi): 4400.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 135, Toolface Type: gravity
Rotary Drill	1	01-24	07:45	08:20	01-24	15398.00	15455.00	Pressure On (psi): 4475.00, Pressure Off (psi): 3950.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	08:20	08:25	01-24	15455.00	15455.00	Inclination (°): 90.460, Azimuth (°): 358.790, TVD (ft): 11075.17, Dogleg (°/100 ft): 0.63, Sensor Depth (ft): 15391.00, Bit To Sensor (ft): 64.00
Slide Drill	2	01-24	08:25	09:20	01-24	15455.00	15485.00	Pressure On (psi): 4400.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-24	09:20	09:55	01-24	15485.00	15545.00	Pressure On (psi): 4575.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	09:55	10:00	01-24	15545.00	15545.00	Inclination (°): 88.480, Azimuth (°): 359.840, TVD (ft): 11076.00, Dogleg (°/100 ft): 2.49, Sensor Depth (ft): 15481.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-24	10:00	10:35	01-24	15545.00	15594.00	Pressure On (psi): 4575.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-24	10:35	10:50	01-24	15594.00	15600.00	Pressure On (psi): 4400.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 250, Toolface Type: gravity

Other	16	01-24	10:50	11:10	01-24			Downlink Res/MWD tool
Slide Drill	2	01-24	11:10	12:10	01-24	15600.00	15630.00	Pressure On (psi): 4400.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 205, Toolface Type: gravity
Rotary Drill	1	01-24	12:10	12:15	01-24	15630.00	15634.00	Pressure On (psi): 4575.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	12:15	12:20	01-24	15634.00	15634.00	Inclination (°): 89.190, Azimuth (°): 0.190, TVD (ft): 11077.81, Dogleg (°/100 ft): 0.89, Sensor Depth (ft): 15570.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-24	12:20	13:30	01-24	15634.00	15723.00	Pressure On (psi): 4575.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Rig Service - In Hole	19	01-24	13:30	13:45	01-24			Rig Service
Survey	46	01-24	13:45	13:50	01-24	15723.00	15723.00	Inclination (°): 86.860, Azimuth (°): 358.700, TVD (ft): 11080.88, Dogleg (°/100 ft): 3.11, Sensor Depth (ft): 15659.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-24	13:50	15:10	01-24	15723.00	15812.00	Pressure On (psi): 4575.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 26500.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-24	15:10	15:15	01-24	15812.00	15812.00	Inclination (°): 85.980, Azimuth (°): 359.400, TVD (ft): 11086.43, Dogleg (°/100 ft): 1.26, Sensor Depth (ft): 15748.00, Bit To Sensor (ft): 64.00
Slide Drill	2	01-24	15:15	15:55	01-24	15812.00	15829.00	Pressure On (psi): 4400.00, Pressure Off (psi): 4100.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 50, Toolface Type: gravity
Circulating	3	01-24	15:55	16:20	01-24			Circulate T/ POOH
Pooh	7	01-24	16:20	00:00	01-25			POOH to change out BHA

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Tuesday, Jan 25 00:00 - 23:59 (Day 12 of 16)

Billing: \$25,925.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	15829.00	Downhole Hours	24.00	Rotating WOB (klbs)	42.00 - 42.00		
Bit Depth (ft)	16708.00	Drilling Hours	9.25	Sliding WOB (klbs)	45.00 - 45.00		
Bottom Hole Depth (ft)	16708.00	Hours Circulating	0.00	Rotating SPM	240.00 - 240.00		
Total Distance (ft)	879.00	Hours Sliding	3.17	Sliding SPM	237.00 - 237.00		
Distance Rotated (ft)	799.00	Hours Rotating	6.08	Motor RPM	0.00 - 161.00		
Distance Slid (ft)	80.00			Surface RPM	40.00 - 40.00		
Inclination In	87.52			Flow Rate (gpm)	694.00 - 695.00		
Inclination Out	87.78			On Bottom Pressure (psi)	4750.00 - 5250.00		
Azimuth In	0.28	% Hours Rotating	66%	Off Bottom Pressure (psi)	4300.00 - 4300.00		
Azimuth Out	355.62	% Hours Sliding	34%				
AVG Total ROP (ft/h)	92.50	% Distance Sliding	9%				
AVG Rotating ROP (ft/h)	123.66	% Distance Rotating	91%				
AVG Sliding ROP (ft/h)	25.26						

## Personnel

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

## BHA #6 - 8.75" LATERAL

Date In: Jan 21, 2022, 2:30 Date Out: Jan 25, 2022, 2:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 300-750 GPM, REV PER GALLON	
Vendor	Reed	Lobe/Stage	7/5, 9.0	0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT	
S/N	A28369	Bend Angle	1.83	RUNS: 0 , Bit to Bend: 5.37	
Nozzles	7x15's	Speed (rev/gal)	0.23	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.208	Wear Pad OD (in)	7.375		
Drilling Hours for Day	0.00	<b>Bit Distances</b>			
Total Drilled for Day (ft)		Survey: 64.00 ft, Gamma (Bit To Gamma ):		<b>POOH Reason</b>	
Drilling Hours for BHA	61.75	40.00 ft, Resistivity (Bit to Resistivity):		Change Bottom Hole Assembly: Erratic	
Total Drilled for BHA (ft)	4465.00	50.00 ft		Differential PSI. TF control was highly difficult.	

## 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: TKC 76, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 4.00, Size (in): 8.75	Reed	A28369	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 5.7 Stg. 1.83° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.83, Rotor Lobe: 7, Stator Lobe: 5, Stator Stage: 9	NOV	675-36-384	4 1/2" IF Box	4 1/2" Reg Box		7.000		31.43	32.43
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	63.69
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	81.02
<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	111.67
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	115.24
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: Slick	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2084.56
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2088.04
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	147-67001	4 1/2" FH Box	4 1/2" IF Pin		6.750		24.73	2112.77
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2116.15

## MWD Items

No Items

**BHA #7 - 8.75" LATERAL**

Date In: Jan 25, 2022, 2:00 Date Out: Jan 26, 2022, 20:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 1 , Bit to Bend: 5.35	
Vendor	Reed	Lobe/Stage	7/5, 9.0		
S/N	A285076	Bend Angle	1.83		
Nozzles	7x14's	Speed (rev/gal)	0.23	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.052	Wear Pad OD (in)	7.375		
Drilling Hours for Day	9.25	<b>Bit Distances</b>			
Total Drilled for Day (ft)	879.00	Survey: 64.00 ft, Gamma (Bit To Gamma ):		<b>POOH Reason</b>	
Drilling Hours for BHA	21.25	40.00 ft, Resistivity (Bit to Resistivity):		Penetration Rate: POOH due to slow P Rate.	
Total Drilled for BHA (ft)	1407.00	50.00 ft			

**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): 4.00, Size (in): 8.75	Reed	A285076	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 5.7 Stg, 1.83° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.83, Rotor Lobe: 7, Stator Lobe: 5, Stator Stage: 9	NOV	675-36-451	4 1/2" IF Box	4 1/2" Reg Box		7.000		31.71	32.71
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1005						31.26	63.97
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6002						17.33	81.30
<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	111.95
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	115.52
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: <i>Slick</i>	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2084.84
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2088.32
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	AGHF0675-0080	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.82	2113.14
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2116.52

**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	01-24	16:20	00:00	01-25			POOH to change out BHA
Change BHA	6	01-25	00:00	02:00	01-25			P/U BHA # 7
TIH	8	01-25	02:00	05:00	01-25			TIH W/ BHA # 7
Other	16	01-25	05:00	06:45	01-25			Slip & Cut Drill line
TIH	8	01-25	06:45	08:30	01-25			TIH W/ BHA #7
Rig Service - Out Hole	20	01-25	08:30	08:50	01-25			Rig Service
TIH	8	01-25	08:50	12:55	01-25			TIH W/ BHA #7
Other	16	01-25	12:55	13:05	01-25			Downlink Res./MWD
Slide Drill	2	01-25	13:05	13:50	01-25	15829.00	15857.00	Pressure On (psi): 4750.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 15, Toolface Type: gravity
Rotary Drill	1	01-25	13:50	14:10	01-25	15857.00	15902.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	14:10	14:15	01-25	15902.00	15902.00	Inclination (°): 87.520, Azimuth (°): 0.280, TVD (ft): 11091.54, Dogleg (%/100 ft): 1.97, Sensor Depth (ft): 15838.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	14:15	14:20	01-25	15902.00	15915.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-25	14:20	14:45	01-25	15915.00	15937.00	Pressure On (psi): 4750.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 15, Toolface Type: gravity

Rotary Drill	1	01-25	14:45	15:05	01-25	15937.00	15991.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	15:05	15:10	01-25	15991.00	15991.00	Inclination (°): 90.860, Azimuth (°): 1.330, TVD (ft): 11092.79, Dogleg (°/100 ft): 3.93, Sensor Depth (ft): 15927.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	15:10	16:05	01-25	15991.00	16081.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	16:05	16:10	01-25	16081.00	16081.00	Inclination (°): 91.380, Azimuth (°): 1.070, TVD (ft): 11091.03, Dogleg (°/100 ft): 0.65, Sensor Depth (ft): 16017.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	16:10	16:45	01-25	16081.00	16170.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	16:45	16:55	01-25	16170.00	16170.00	Inclination (°): 91.030, Azimuth (°): 0.630, TVD (ft): 11089.16, Dogleg (°/100 ft): 0.63, Sensor Depth (ft): 16106.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	16:55	17:25	01-25	16170.00	16260.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	17:25	17:30	01-25	16260.00	16260.00	Inclination (°): 89.540, Azimuth (°): 359.840, TVD (ft): 11088.71, Dogleg (°/100 ft): 1.87, Sensor Depth (ft): 16196.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	17:30	18:25	01-25	16260.00	16349.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	18:25	18:30	01-25	16349.00	16349.00	Inclination (°): 89.670, Azimuth (°): 359.930, TVD (ft): 11089.33, Dogleg (°/100 ft): 0.18, Sensor Depth (ft): 16285.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	18:30	19:05	01-25	16349.00	16439.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	19:05	19:10	01-25	16439.00	16439.00	Inclination (°): 90.640, Azimuth (°): 358.610, TVD (ft): 11089.09, Dogleg (°/100 ft): 1.82, Sensor Depth (ft): 16375.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	19:10	19:15	01-25	16439.00	16449.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-25	19:15	19:50	01-25	16449.00	16457.00	Pressure On (psi): 4750.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-25	19:50	20:20	01-25	16457.00	16528.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	20:20	20:25	01-25	16528.00	16528.00	Inclination (°): 89.320, Azimuth (°): 358.260, TVD (ft): 11089.12, Dogleg (°/100 ft): 1.53, Sensor Depth (ft): 16464.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	20:25	21:10	01-25	16528.00	16618.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	21:10	21:15	01-25	16618.00	16618.00	Inclination (°): 87.870, Azimuth (°): 356.850, TVD (ft): 11091.32, Dogleg (°/100 ft): 2.25, Sensor Depth (ft): 16554.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	21:15	21:20	01-25	16618.00	16628.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Other	16	01-25	21:20	21:30	01-25			Recycle Pumps
Other	16	01-25	21:30	21:45	01-25			Take Pump off the hole
Other	16	01-25	21:45	22:00	01-25			Check all Pumps
Slide Drill	2	01-25	22:00	23:25	01-25	16628.00	16650.00	Pressure On (psi): 4750.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 50, Toolface Type: gravity
Rotary Drill	1	01-25	23:25	23:50	01-25	16650.00	16708.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-25	23:50	23:55	01-25	16708.00	16708.00	Inclination (°): 87.780, Azimuth (°): 355.620, TVD (ft): 11094.74, Dogleg (°/100 ft): 1.37, Sensor Depth (ft): 16644.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-25	23:55	00:40	01-26	16708.00	16754.00	Pressure On (psi): 5250.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Wednesday, Jan 26 00:00 - 23:59 (Day 13 of 16)

Billing: \$24,545.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters	
<b>Start Depth (ft)</b>	16708.00	<b>Downhole Hours</b>	24.00	<b>Rotating WOB (klbs)</b>	42.00 - 55.00
<b>Bit Depth (ft)</b>	17236.00	<b>Drilling Hours</b>	12.00	<b>Sliding WOB (klbs)</b>	45.00 - 45.00
<b>Bottom Hole Depth (ft)</b>	17236.00	<b>Hours Circulating</b>	1.17	<b>Rotating SPM</b>	240.00 - 240.00
<b>Total Distance (ft)</b>	528.00	<b>Hours Sliding</b>	1.50	<b>Sliding SPM</b>	237.00 - 237.00
<b>Distance Rotated (ft)</b>	454.00	<b>Hours Rotating</b>	10.50	<b>Motor RPM</b>	0.00 - 55.00
<b>Distance Slid (ft)</b>	74.00			<b>Surface RPB</b>	40.00 - 40.00
<b>Inclination In</b>	88.66			<b>Flow Rate (gpm)</b>	694.00 - 695.00
<b>Inclination Out</b>	91.38			<b>On Bottom Pressure (psi)</b>	4350.00 - 5250.00
<b>Azimuth In</b>	356.15	<b>% Hours Rotating</b>	88%	<b>Off Bottom Pressure (psi)</b>	4000.00 - 4700.00
<b>Azimuth Out</b>	359.66	<b>% Hours Sliding</b>	12%		
<b>AVG Total ROP (ft/h)</b>	44.00	<b>% Distance Sliding</b>	14%		
<b>AVG Rotating ROP (ft/h)</b>	43.24	<b>% Distance Rotating</b>	86%		
<b>AVG Sliding ROP (ft/h)</b>	49.33				

## Personnel

Name	Position
<b>Advance Directional</b>	Directional Driller
<b>Robert Olivarez</b>	MWD Engineer
<b>Michael Saliba</b>	Directional Driller
<b>Francisco DeLeon</b>	MWD Engineer

## BHA #7 - 8.75" LATERAL

Date In: Jan 25, 2022, 2:00 Date Out: Jan 26, 2022, 20:00

Bit Details		Motor Details		Directional Comments	
<b>OD (in)</b>	8.750	<b>Size (in)</b>	7.0	FLOW RANGE: 300-750 GPM, REV PER GALLON 0.23, MAX DIFF: 1,580, MAX TORQUE : 17,950 BIT RUNS: 1 , Bit to Bend: 5.35	
<b>Vendor</b>	Reed	<b>Lobe/Stage</b>	7/5, 9.0		
<b>S/N</b>	A285076	<b>Bend Angle</b>	1.83		
<b>Nozzles</b>	7x14's	<b>Speed (rev/gal)</b>	0.23		
<b>Total Flow Area (in<sup>2</sup>)</b>	1.052	<b>Wear Pad OD (in)</b>	7.375	<b>MWD Comments</b>	
<b>Drilling Hours for Day</b>	12.00	<b>Bit Distances</b>		<b>POOH Reason</b> Penetration Rate: POOH due to slow P Rate.	
<b>Total Drilled for Day (ft)</b>	528.00	<b>Survey: 64.00 ft, Gamma (Bit To Gamma ):</b>			
<b>Drilling Hours for BHA</b>	21.25	<b>40.00 ft, Resistivity (Bit to Resistivity):</b>			
<b>Total Drilled for BHA (ft)</b>	1407.00	<b>50.00 ft</b>			

## 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>TKC 76</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 4.00, Size (in): 8.75	Reed	A285076	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7.0" 7/8L, 5.7 Stg. 1.83° FBH (True Slick)</i> , Size (in): 7.00, Bend Angle (°): 1.83, Rotor Lobe: 7, Stator Lobe: 5, Stator Stage: 9	NOV	675-36-451	4 1/2" IF Box	4 1/2" Reg Box		7.000		31.71	32.71
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1005						31.26	63.97
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6002						17.33	81.30
<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	111.95
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	115.52
<b>Drill Pipe</b> Description: <i>22 Stands 5 1/2 Drill Pipe</i> , Type: <i>Slick</i>	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2084.84
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2088.32
<b>Agitator</b> Description: <i>6.75" Agitator</i> , Size (in): 6.75	NOV	AGHF0675-0080	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.82	2113.14
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2116.52

## MWD Items

No Items

**BHA #8 - 8.75" LATERAL**

Date In: Jan 26, 2022, 20:00 Date Out: Jan 29, 2022, 5:10

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 500-750 GPM, REV PER GALLON 0.26, MAX DIFF: 1,910 MAX TORQUE : 18,710 BIT RUNS: 0 , Bit to Bend: 4.56	
Vendor	Reed	Lobe/Stage	7/8, 8.5		
S/N	A284576	Bend Angle	1.75		
Nozzles	7x14's	Speed (rev/gal)	0.24	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.052	Wear Pad OD (in)	7.375		
Drilling Hours for Day	0.00	<b>Bit Distances</b>			
Total Drilled for Day (ft)		Survey: 69.00 ft, Gamma (Bit To Gamma ): 45.00 ft, Resistivity (Bit to Resistivity): 55.00 ft		<b>POOH Reason</b>	
Drilling Hours for BHA	33.00			Total Depth/Casing Point: POOH for casing. Reached TD @ 19,092'	
Total Drilled for BHA (ft)	1856.00				

**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	A284576	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7.0" 7/8L, 8.5 Stg, 1.75° FBH (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>8.5</i>	SNIPER	DR70018	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1005						31.26	67.85
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6002						17.33	85.18
<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	115.83
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	119.40
<b>Drill Pipe</b> Description: <i>22 Stands 5 1/2 Drill Pipe</i> , Type: <i>Slick</i>	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2088.72
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2092.20
<b>Agitator</b> Description: <i>6.75" Agitator</i> , Size (in): <i>6.75</i>	NOV	AGHF0675-0080	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.82	2117.02
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2120.40

**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	01-25	23:55	00:40	01-26	16708.00	16754.00	Pressure On (psi): <i>5250.00</i> , Pressure Off (psi): <i>4300.00</i> , Weight On Bit (klbs): <i>42.00</i> , Surface RPM: <i>40</i> , Surface Torque (ft lbf): <i>27000.00</i> , Flow Rate (gpm): <i>695.00</i> , Strokes Per Minute: <i>240.00</i>
Slide Drill	2	01-26	00:40	01:25	01-26	16754.00	16775.00	Pressure On (psi): <i>4750.00</i> , Pressure Off (psi): <i>4300.00</i> , Weight On Bit (klbs): <i>45.00</i> , Flow Rate (gpm): <i>694.00</i> , Strokes Per Minute: <i>237</i> , Toolface: <i>60</i> , Toolface Type: <i>gravity</i>
Rotary Drill	1	01-26	01:25	01:50	01-26	16775.00	16797.00	Pressure On (psi): <i>5250.00</i> , Pressure Off (psi): <i>4700.00</i> , Weight On Bit (klbs): <i>42.00</i> , Surface RPM: <i>40</i> , Surface Torque (ft lbf): <i>27000.00</i> , Flow Rate (gpm): <i>695.00</i> , Strokes Per Minute: <i>240.00</i>
Survey	46	01-26	01:50	01:55	01-26	16797.00	16797.00	Inclination (°): <i>88.660</i> , Azimuth (°): <i>356.150</i> , TVD (ft): <i>11097.50</i> , Dogleg (°/100 ft): <i>1.15</i> , Sensor Depth (ft): <i>16733.00</i> , Bit To Sensor (ft): <i>64.00</i>
Rotary Drill	1	01-26	01:55	03:15	01-26	16797.00	16887.00	Pressure On (psi): <i>4350.00</i> , Pressure Off (psi): <i>4000.00</i> , Weight On Bit (klbs): <i>42.00</i> , Surface RPM: <i>40</i> , Surface Torque (ft lbf): <i>27000.00</i> , Flow Rate (gpm): <i>695.00</i> , Strokes Per Minute: <i>240.00</i>
Survey	46	01-26	03:15	03:20	01-26	16887.00	16887.00	Inclination (°): <i>88.480</i> , Azimuth (°): <i>357.910</i> , TVD (ft): <i>11099.75</i> , Dogleg (°/100 ft): <i>1.97</i> , Sensor Depth (ft): <i>16823.00</i> , Bit To Sensor (ft): <i>64.00</i>
Slide Drill	2	01-26	03:20	03:35	01-26	16887.00	16930.00	Pressure On (psi): <i>4350.00</i> , Pressure Off (psi): <i>4000.00</i> , Weight On Bit (klbs): <i>45.00</i> , Flow Rate (gpm): <i>694.00</i> , Strokes Per Minute: <i>237</i> , Toolface: <i>60</i> , Toolface Type: <i>gravity</i>
Rotary Drill	1	01-26	03:35	05:05	01-26	16930.00	16976.00	Pressure On (psi): <i>4350.00</i> , Pressure Off (psi): <i>4000.00</i> , Weight On Bit (klbs): <i>42.00</i> , Surface RPM: <i>40</i> , Surface Torque (ft lbf): <i>27000.00</i> , Flow Rate (gpm): <i>695.00</i> , Strokes Per Minute: <i>240.00</i>
Survey	46	01-26	05:05	05:10	01-26	16976.00	16976.00	Inclination (°): <i>89.270</i> , Azimuth (°): <i>358.700</i> , TVD (ft): <i>11101.50</i> , Dogleg (°/100 ft): <i>1.26</i> , Sensor Depth (ft): <i>16912.00</i> , Bit To Sensor (ft): <i>64.00</i>

Rotary Drill	1	01-26	05:10	05:15	01-26	16976.00	16986.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-26	05:15	05:45	01-26	16986.00	16996.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 60, Toolface Type: gravity
Rotary Drill	1	01-26	05:45	06:50	01-26	16996.00	17066.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 27000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-26	06:50	06:55	01-26	17066.00	17066.00	Inclination (°): 90.810, Azimuth (°): 359.660, TVD (ft): 11101.43, Dogleg (°/100 ft): 2.02, Sensor Depth (ft): 17002.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-26	06:55	09:20	01-26	17066.00	17156.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 50.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-26	09:20	09:30	01-26	17156.00	17156.00	Inclination (°): 91.380, Azimuth (°): 359.660, TVD (ft): 11099.71, Dogleg (°/100 ft): 0.63, Sensor Depth (ft): 17092.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	01-26	09:30	12:25	01-26	17156.00	17236.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Circulating	3	01-26	12:25	13:00	01-26			Pump Slug to POOH due to slow ROP.
Pooh	7	01-26	13:00	20:00	01-26			POOH for slow P Rate.
Change BHA	6	01-26	20:00	21:00	01-26			P/U BHA #8 New Bit & Motor.
Circulating	3	01-26	21:00	21:15	01-26			Test Bit & Motor.
TIH	8	01-26	21:15	21:50	01-26			TIH W/ BHA #8
Circulating	3	01-26	21:50	22:10	01-26			Test Agitator
TIH	8	01-26	22:10	05:00	01-27			TIH W/ BHA #8

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Thursday, Jan 27 00:00 - 23:59 (Day 14 of 16)

Billing: \$10,500.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	17236.00	Downhole Hours	24.00	Rotating WOB (klbs)	45.00 - 55.00		
Bit Depth (ft)	18412.00	Drilling Hours	17.25	Sliding WOB (klbs)	45.00 - 60.00		
Bottom Hole Depth (ft)	18412.00	Hours Circulating	0.00	Rotating SPM	240.00 - 240.00		
Total Distance (ft)	1176.00	Hours Sliding	6.83	Sliding SPM	237.00 - 237.00		
Distance Rotated (ft)	962.00	Hours Rotating	10.42	Motor RPM	0.00 - 55.00		
Distance Slid (ft)	214.00			Surface RPM	40.00 - 40.00		
Inclination In	91.12			Flow Rate (gpm)	694.00 - 695.00		
Inclination Out	85.67			On Bottom Pressure (psi)	4350.00 - 4800.00		
Azimuth In	358.43	% Hours Rotating	60%	Off Bottom Pressure (psi)	4000.00 - 4400.00		
Azimuth Out	0.28	% Hours Sliding	40%				
AVG Total ROP (ft/h)	68.17	% Distance Sliding	18%				
AVG Rotating ROP (ft/h)	92.35	% Distance Rotating	82%				
AVG Sliding ROP (ft/h)	31.32						

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Michael Saliba	Directional Driller
Francisco DeLeon	MWD Engineer
Joseph Lanham	Directional Driller

## BHA #8 - 8.75" LATERAL

Date In: Jan 26, 2022, 20:00 Date Out: Jan 29, 2022, 5:10

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 500-750 GPM, REV PER GALLON	
Vendor	Reed	Lobe/Stage	7/8, 8.5	0.26, MAX DIFF: 1,910 MAX TORQUE : 18,710 BIT	
S/N	A284576	Bend Angle	1.75	RUNS: 0 , Bit to Bend: 4.56	
Nozzles	7x14's	Speed (rev/gal)	0.24	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.052	Wear Pad OD (in)	7.375		
Drilling Hours for Day	17.25	<b>Bit Distances</b>			
Total Drilled for Day (ft)	1176.00	Survey: 69.00 ft, Gamma (Bit To Gamma) :		<b>POOH Reason</b>	
Drilling Hours for BHA	33.00	45.00 ft, Resistivity (Bit to Resistivity):		Total Depth/Casing Point: POOH for casing.	
Total Drilled for BHA (ft)	1856.00	55.00 ft		Reached TD @ 19,092'	

## 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	A284576	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 8.5 Stg. 1.75° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SNIPER	DR70018	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	67.85
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	85.18
<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	115.83
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	119.40
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: Slick	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2088.72
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2092.20
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	AGHF0675-0080	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.82	2117.02
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2120.40

## 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	01-26	22:10	05:00	01-27			TIH W/ BHA #8
Rotary Drill	1	01-27	05:00	05:10	01-27	17236.00	17249.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	05:10	05:25	01-27	17249.00	17249.00	Inclination (°): 91.120, Azimuth (°): 358.430, TVD (ft): 11097.79, Dogleg (°/100 ft): 1.43, Sensor Depth (ft): 17180.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	05:25	06:05	01-27	17249.00	17338.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	06:05	06:10	01-27	17338.00	17338.00	Inclination (°): 90.070, Azimuth (°): 357.200, TVD (ft): 11096.87, Dogleg (°/100 ft): 1.82, Sensor Depth (ft): 17269.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	06:10	06:20	01-27	17338.00	17355.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-27	06:20	07:20	01-27	17355.00	17390.00	Pressure On (psi): 4450.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 80, Toolface Type: gravity
Rotary Drill	1	01-27	07:20	07:40	01-27	17390.00	17428.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	07:40	07:45	01-27	17428.00	17428.00	Inclination (°): 91.960, Azimuth (°): 357.290, TVD (ft): 11095.28, Dogleg (°/100 ft): 2.10, Sensor Depth (ft): 17359.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	07:45	08:30	01-27	17428.00	17517.00	Pressure On (psi): 4350.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	08:30	08:35	01-27	17517.00	17517.00	Inclination (°): 92.840, Azimuth (°): 358.170, TVD (ft): 11091.55, Dogleg (°/100 ft): 1.40, Sensor Depth (ft): 17448.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	08:35	08:45	01-27	17517.00	17537.00	Pressure On (psi): 4500.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-27	08:45	09:55	01-27	17537.00	17576.00	Pressure On (psi): 4450.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 140, Toolface Type: gravity
Rotary Drill	1	01-27	09:55	10:10	01-27	17576.00	17607.00	Pressure On (psi): 4500.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	10:10	10:15	01-27	17607.00	17607.00	Inclination (°): 94.290, Azimuth (°): 357.910, TVD (ft): 11085.95, Dogleg (°/100 ft): 1.64, Sensor Depth (ft): 17538.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	10:15	10:25	01-27	17607.00	17617.00	Pressure On (psi): 4500.00, Pressure Off (psi): 4300.00, Weight On Bit (klbs): 55.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-27	10:25	12:50	01-27	17617.00	17696.00	Pressure On (psi): 4400.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 60.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 170, Toolface Type: gravity
Rig Service - In Hole	19	01-27	12:50	13:10	01-27			
Survey	46	01-27	13:10	13:20	01-27	17696.00	17696.00	Inclination (°): 93.850, Azimuth (°): 359.750, TVD (ft): 11079.64, Dogleg (°/100 ft): 2.12, Sensor Depth (ft): 17627.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	13:20	14:20	01-27	17696.00	17785.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	14:20	14:25	01-27	17785.00	17785.00	Inclination (°): 87.910, Azimuth (°): 359.750, TVD (ft): 11078.27, Dogleg (°/100 ft): 6.67, Sensor Depth (ft): 17716.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	14:25	15:25	01-27	17785.00	17875.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	15:25	15:30	01-27	17875.00	17875.00	Inclination (°): 88.920, Azimuth (°): 359.660, TVD (ft): 11080.76, Dogleg (°/100 ft): 1.13, Sensor Depth (ft): 17806.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	15:30	16:20	01-27	17875.00	17964.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	16:20	16:25	01-27	17964.00	17964.00	Inclination (°): 89.710, Azimuth (°): 359.750, TVD (ft): 11081.82, Dogleg (°/100 ft): 0.89, Sensor Depth (ft): 17895.00, Bit To Sensor (ft): 69.00

Slide Drill	2	01-27	16:25	17:30	01-27	17964.00	18000.00	Pressure On (psi): 4400.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 60.00, Flow Rate (gpm): 694.00, Strokes Per Minute: 237, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	01-27	17:30	18:10	01-27	18000.00	18054.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	18:10	18:15	01-27	18054.00	18054.00	Inclination (°): 87.870, Azimuth (°): 1.600, TVD (ft): 11083.72, Dogleg (°/100 ft): 2.90, Sensor Depth (ft): 17985.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	18:15	19:25	01-27	18054.00	18143.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	19:25	19:30	01-27	18143.00	18143.00	Inclination (°): 87.520, Azimuth (°): 1.070, TVD (ft): 11087.30, Dogleg (°/100 ft): 0.71, Sensor Depth (ft): 18074.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	19:30	19:40	01-27	18143.00	18165.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-27	19:40	20:50	01-27	18165.00	18190.00	Toolface: 180, Toolface Type: gravity
Rotary Drill	1	01-27	20:50	21:55	01-27	18190.00	18232.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	21:55	22:00	01-27	18232.00	18232.00	Inclination (°): 86.860, Azimuth (°): 0.720, TVD (ft): 11091.67, Dogleg (°/100 ft): 0.84, Sensor Depth (ft): 18163.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	22:00	22:50	01-27	18232.00	18322.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	22:50	22:55	01-27	18322.00	18322.00	Inclination (°): 85.490, Azimuth (°): 0.020, TVD (ft): 11097.67, Dogleg (°/100 ft): 1.71, Sensor Depth (ft): 18253.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-27	22:55	23:55	01-27	18322.00	18412.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-27	23:55	00:00	01-28	18412.00	18412.00	Inclination (°): 85.670, Azimuth (°): 0.280, TVD (ft): 11104.61, Dogleg (°/100 ft): 0.35, Sensor Depth (ft): 18343.00, Bit To Sensor (ft): 69.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Friday, Jan 28 00:00 - 23:59 (Day 15 of 16)

Billing: \$10,500.00 (\$226,970.50 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	18412.00	Downhole Hours	24.00	Rotating WOB (klbs)	45.00 - 48.00		
Bit Depth (ft)	19092.00	Drilling Hours	15.75	Sliding WOB (klbs)	70.00 - 70.00		
Bottom Hole Depth (ft)	19092.00	Hours Circulating	3.67	Rotating SPM	240.00 - 240.00		
Total Distance (ft)	680.00	Hours Sliding	6.75	Sliding SPM	224.00 - 224.00		
Distance Rotated (ft)	555.00	Hours Rotating	9.00	Motor RPM	0.00 - 55.00		
Distance Slid (ft)	125.00			Surface RPM	40.00 - 40.00		
Inclination In	85.85			Flow Rate (gpm)	652.00 - 695.00		
Inclination Out	90.37			On Bottom Pressure (psi)	4300.00 - 4900.00		
Azimuth In	1.16	% Hours Rotating	57%	Off Bottom Pressure (psi)	4000.00 - 4400.00		
Azimuth Out	359.49	% Hours Sliding	43%				
AVG Total ROP (ft/h)	43.17	% Distance Sliding	18%				
AVG Rotating ROP (ft/h)	61.67	% Distance Rotating	82%				
AVG Sliding ROP (ft/h)	18.52						

## Personnel

Name	Position
Advance Directional	Directional Driller
Robert Olivarez	MWD Engineer
Michael Saliba	Directional Driller
Francisco DeLeon	MWD Engineer
Joseph Lanham	Directional Driller

## BHA #8 - 8.75" LATERAL

Date In: Jan 26, 2022, 20:00 Date Out: Jan 29, 2022, 5:10

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 500-750 GPM, REV PER GALLON	
Vendor	Reed	Lobe/Stage	7/8, 8.5	0.26, MAX DIFF: 1,910 MAX TORQUE : 18,710 BIT	
S/N	A284576	Bend Angle	1.75	RUNS: 0 , Bit to Bend: 4.56	
Nozzles	7x14's	Speed (rev/gal)	0.24	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.052	Wear Pad OD (in)	7.375		
Drilling Hours for Day	15.75	<b>Bit Distances</b>			
Total Drilled for Day (ft)	680.00	Survey: 69.00 ft, Gamma (Bit To Gamma) :		<b>POOH Reason</b>	
Drilling Hours for BHA	33.00	45.00 ft, Resistivity (Bit to Resistivity):		Total Depth/Casing Point: POOH for casing.	
Total Drilled for BHA (ft)	1856.00	55.00 ft		Reached TD @ 19,092'	

## 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): 4.00, Size (in): 8.75	Reed	A284576	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7.0" 7/8L, 8.5 Stg. 1.75° FBH (True Slick)</i> , Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SNIPER	DR70018	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
<b>Resistivity</b> Description: <i>RESISTIVITY MWD</i>	Bench Tree	650-1005						31.26	67.85
<b>Battery</b> Description: <i>BATTERY</i>	Bench Tree	B6002						17.33	85.18
<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	115.83
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	119.40
<b>Drill Pipe</b> Description: <i>22 Stands 5 1/2 Drill Pipe</i> , Type: <i>Slick</i>	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2088.72
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2092.20
<b>Agitator</b> Description: <i>6.75" Agitator</i> , Size (in): 6.75	NOV	AGHF0675-0080	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.82	2117.02
<b>Crossover Sub</b> Description: <i>X-O SUB</i> , Material: <i>Steel</i>	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2120.40

## MWD Items

No items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Survey	46	01-27	23:55	00:00	01-28	18412.00	18412.00	Inclination (°): 85.670, Azimuth (°): 0.280, TVD (ft): 11104.61, Dogleg (°/100 ft): 0.35, Sensor Depth (ft): 18343.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-28	00:00	00:25	01-28	18412.00	18420.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-28	00:25	01:10	01-28	18420.00	18435.00	Toolface: 50, Toolface Type: gravity
Rotary Drill	1	01-28	01:10	02:05	01-28	18435.00	18501.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-28	02:05	02:10	01-28	18501.00	18501.00	Inclination (°): 85.850, Azimuth (°): 1.160, TVD (ft): 11111.19, Dogleg (°/100 ft): 1.01, Sensor Depth (ft): 18432.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-28	02:10	02:15	01-28	18501.00	18506.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-28	02:15	04:15	01-28	18506.00	18541.00	Toolface: 0, Toolface Type: gravity
Rotary Drill	1	01-28	04:15	04:55	01-28	18541.00	18591.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-28	04:55	05:00	01-28	18591.00	18591.00	Inclination (°): 87.780, Azimuth (°): 2.390, TVD (ft): 11116.19, Dogleg (°/100 ft): 2.54, Sensor Depth (ft): 18522.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-28	05:00	06:35	01-28	18591.00	18680.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-28	06:35	06:40	01-28	18680.00	18680.00	Inclination (°): 91.910, Azimuth (°): 3.090, TVD (ft): 11116.43, Dogleg (°/100 ft): 4.71, Sensor Depth (ft): 18611.00, Bit To Sensor (ft): 69.00
Slide Drill	2	01-28	06:40	08:20	01-28	18680.00	18715.00	Pressure On (psi): 4300.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 70.00, Flow Rate (gpm): 652.00, Strokes Per Minute: 224, Toolface: 200, Toolface Type: gravity
Rotary Drill	1	01-28	08:20	09:40	01-28	18715.00	18770.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-28	09:40	09:45	01-28	18770.00	18770.00	Inclination (°): 90.640, Azimuth (°): 1.600, TVD (ft): 11114.42, Dogleg (°/100 ft): 2.18, Sensor Depth (ft): 18701.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-28	09:45	09:50	01-28	18770.00	18782.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Slide Drill	2	01-28	09:50	12:10	01-28	18782.00	18822.00	Pressure On (psi): 4300.00, Pressure Off (psi): 4000.00, Weight On Bit (klbs): 70.00, Flow Rate (gpm): 652.00, Strokes Per Minute: 224, Toolface: 190, Toolface Type: gravity
Rotary Drill	1	01-28	12:10	13:05	01-28	18822.00	18860.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-28	13:05	13:10	01-28	18860.00	18860.00	Inclination (°): 89.800, Azimuth (°): 1.330, TVD (ft): 11114.08, Dogleg (°/100 ft): 0.98, Sensor Depth (ft): 18791.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-28	13:10	14:30	01-28	18860.00	18949.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-28	14:30	14:35	01-28	18949.00	18949.00	Inclination (°): 88.260, Azimuth (°): 0.540, TVD (ft): 11115.59, Dogleg (°/100 ft): 1.94, Sensor Depth (ft): 18880.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-28	14:35	15:40	01-28	18949.00	19039.00	Pressure On (psi): 4800.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 45.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-28	15:40	15:45	01-28	19039.00	19039.00	Inclination (°): 89.930, Azimuth (°): 359.750, TVD (ft): 11117.01, Dogleg (°/100 ft): 2.05, Sensor Depth (ft): 18970.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	01-28	15:45	16:20	01-28	19039.00	19092.00	Pressure On (psi): 4900.00, Pressure Off (psi): 4400.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 30000.00, Flow Rate (gpm): 695.00, Strokes Per Minute: 240.00
Survey	46	01-28	16:20	16:25	01-28	19092.00	19092.00	Inclination (°): 90.370, Azimuth (°): 359.490, TVD (ft): 11116.87, Dogleg (°/100 ft): 0.96, Sensor Depth (ft): 19023.00, Bit To Sensor (ft): 69.00
Circulating Pooh	3	01-28	16:25	20:05	01-28			Circulate
	7	01-28	20:05	04:05	01-29			POOH forTD

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-183	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X50
<b>Start Date</b> 2021-11-24	<b>Well Name</b> Anderson Fed Com 551H	<b>Legal Well Name   AFE</b> Anderson Fed Com 551H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Saturday, Jan 29 00:00 - 23:59 (Day 16 of 16)

Billing: \$10,500.00 (\$226,970.50 total)

Drilling Summary		Drilling Parameters	
Start Depth (ft)	Downhole Hours	5.17	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
Inclination In			0.00 - 55.00
Inclination Out			Surface RPM
Azimuth In	% Hours Rotating		Flow Rate (gpm)
Azimuth Out	% Hours Sliding		On Bottom Pressure (psi)
AVG Total ROP (ft/h)	0.00	% Distance Sliding	Off Bottom Pressure (psi)
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
Michael Saliba	Directional Driller
Francisco DeLeon	MWD Engineer
Joseph Lanham	Directional Driller

**BHA #8 - 8.75" LATERAL**

Date In: Jan 26, 2022, 20:00 Date Out: Jan 29, 2022, 5:10

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	FLOW RANGE: 500-750 GPM, REV PER GALLON	
Vendor	Reed	Lobe/Stage	7/8, 8.5	0.26, MAX DIFF: 1,910 MAX TORQUE : 18,710 BIT	
S/N	A284576	Bend Angle	1.75	RUNS: 0 , Bit to Bend: 4.56	
Nozzles	7x14's	Speed (rev/gal)	0.24	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.052	Wear Pad OD (in)	7.375		
Drilling Hours for Day	0.00	<b>Bit Distances</b>			
Total Drilled for Day (ft)		Survey: 69.00 ft, Gamma (Bit To Gamma ):		<b>POOH Reason</b>	
Drilling Hours for BHA	33.00	45.00 ft, Resistivity (Bit to Resistivity):		Total Depth/Casing Point: POOH for casing.	
Total Drilled for BHA (ft)	1856.00	55.00 ft		Reached TD @ 19,092'	

**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	A284576	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7.0" 7/8L, 8.5 Stg. 1.75° FBH (True Slick), Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	SNIPER	DR70018	4 1/2" IF Box	4 1/2" Reg Box		7.000		35.59	36.59
<b>Resistivity</b> Description: RESISTIVITY MWD	Bench Tree	650-1005						31.26	67.85
<b>Battery</b> Description: BATTERY	Bench Tree	B6002						17.33	85.18
<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	115.83
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD15201	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.625		3.57	119.40
<b>Drill Pipe</b> Description: 22 Stands 5 1/2 Drill Pipe, Type: Slick	Black Diamond		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		1969.32	2088.72
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD 22523	4 1/2" IF Box	EverDrlg54 Box	3.000	6.750		3.48	2092.20
<b>Agitator</b> Description: 6.75" Agitator, Size (in): 6.75	NOV	AGHF0675-0080	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.82	2117.02
<b>Crossover Sub</b> Description: X-O SUB, Material: Steel	BLACK DIAMOND	BD13511	EverDrlg54 Box	4 1/2" FH Pin	3.000	6.750		3.38	2120.40

**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	01-28	20:05	04:05	01-29			POOH forTD
Lay Down BHA	65	01-29	04:05	05:10	01-29			LD BHA
Standby	15	01-29	05:10	23:55	01-29			Standby for casing Ops.

**MWD Activities**

No Activities



# Surface Plat

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## **Anderson Fed Com 551H (WT-21-183)**

2021-11-24 to 2022-01-29

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

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**DISTRICT I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone (575) 393-8161 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) 478-3480 Fax: (505) 478-3482

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 551H
OGRID No.	Operator Name ADVANCE ENERGY PARTNERS HAT MESA, LLC	Elevation 3692'

Surface Location

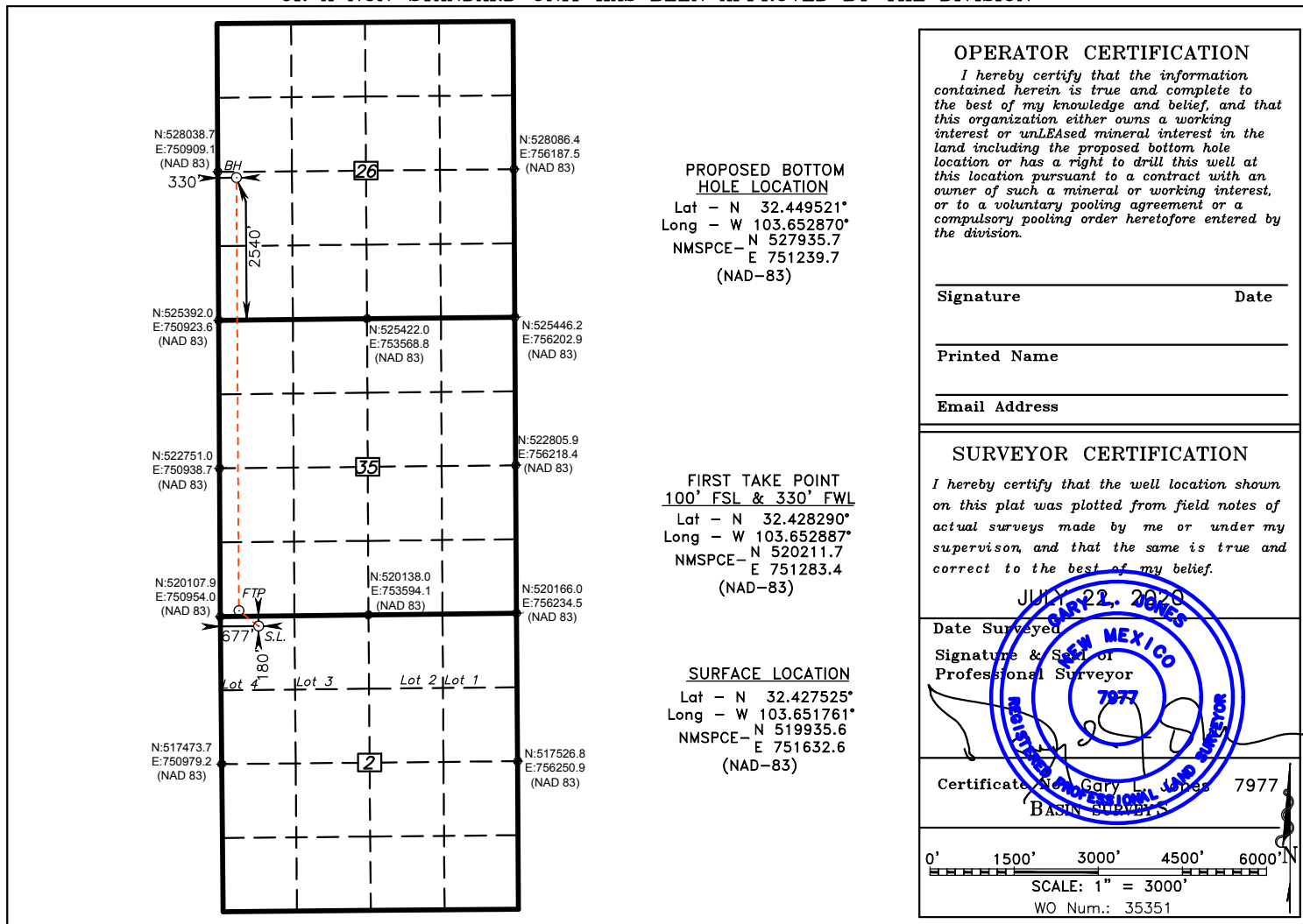
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 4	2	22 S	32 E		180	NORTH	677	WEST	LEA

Bottom Hole Location If Different From Surface

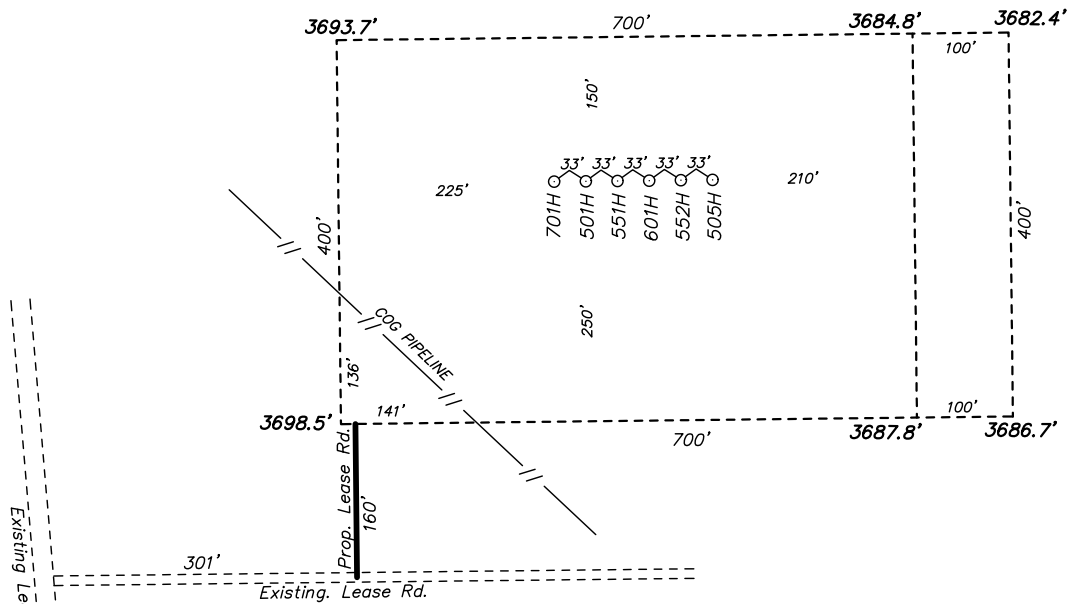
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
L	26	21 S	32 E		2540	SOUTH	330	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
 OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



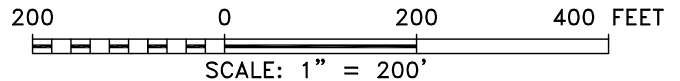
**SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,  
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA, LLC  
ANDERSON FED COM 551H  
ELEV. - 3692'**

Lat - N 32.427525°  
Long - W 103.651975°  
NMSPCE - N 519934.9  
E 751566.6  
(NAD-83)

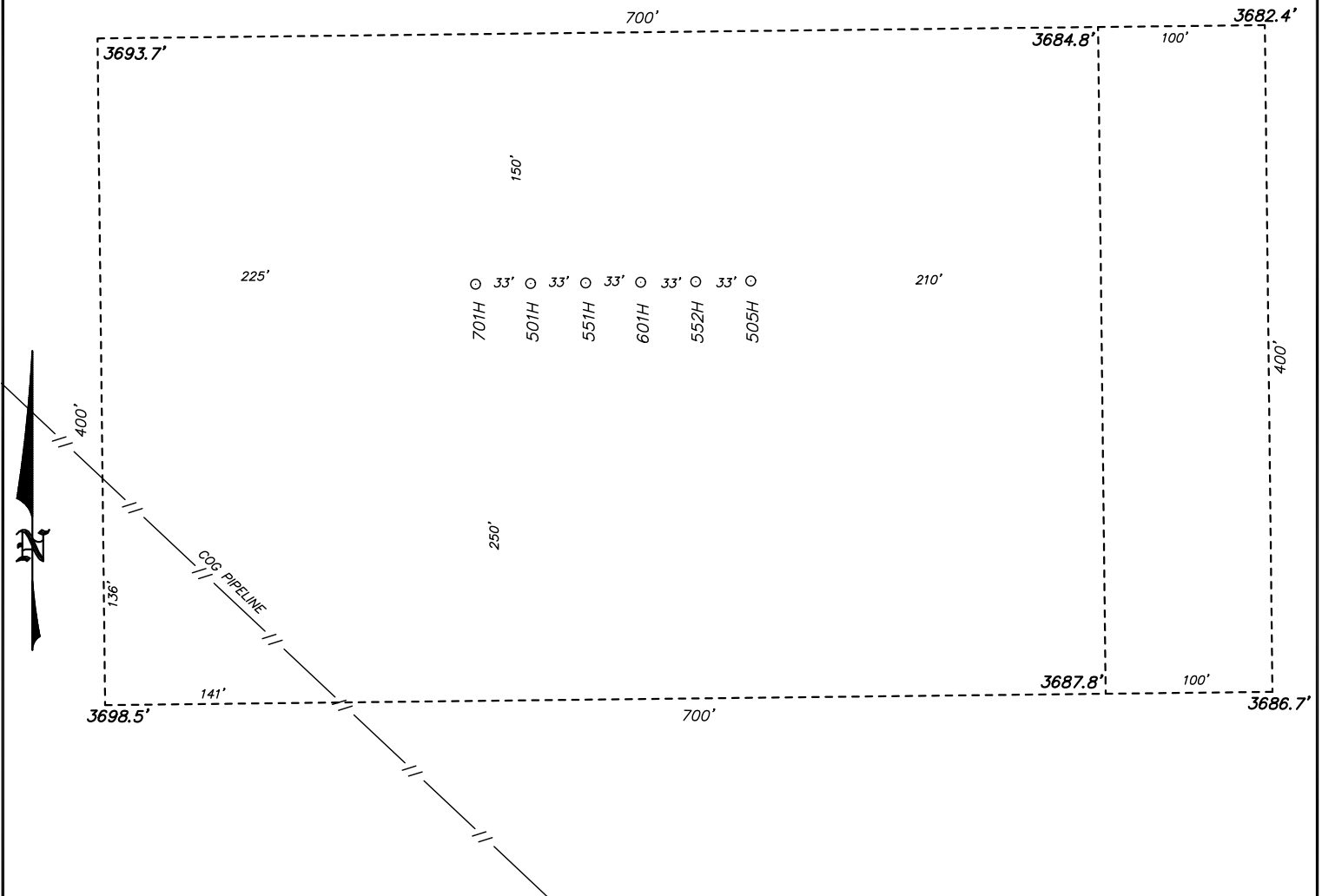
EUNICE, NM IS ±28 MILES TO THE EAST OF LOCATION.



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

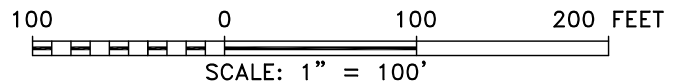
**ADVANCE ENERGY PARTNERS HAT MESA, LLC**  
REF: ANDERSON FED COM 551H / WELL PAD TOPO  
THE ANDERSON FED COM 551H LOCATED 180' FROM  
THE NORTH LINE AND 677' FROM THE WEST LINE OF  
SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST.  
N.M.P.M., LEA COUNTY, NEW MEXICO.

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



**basin**  
**surveys**  
focused on excellence  
in the oilfield

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1120 N. West County Rd. (575) 392-2206 - Fax  
Hobbs, New Mexico 88241 basin-surveys.com

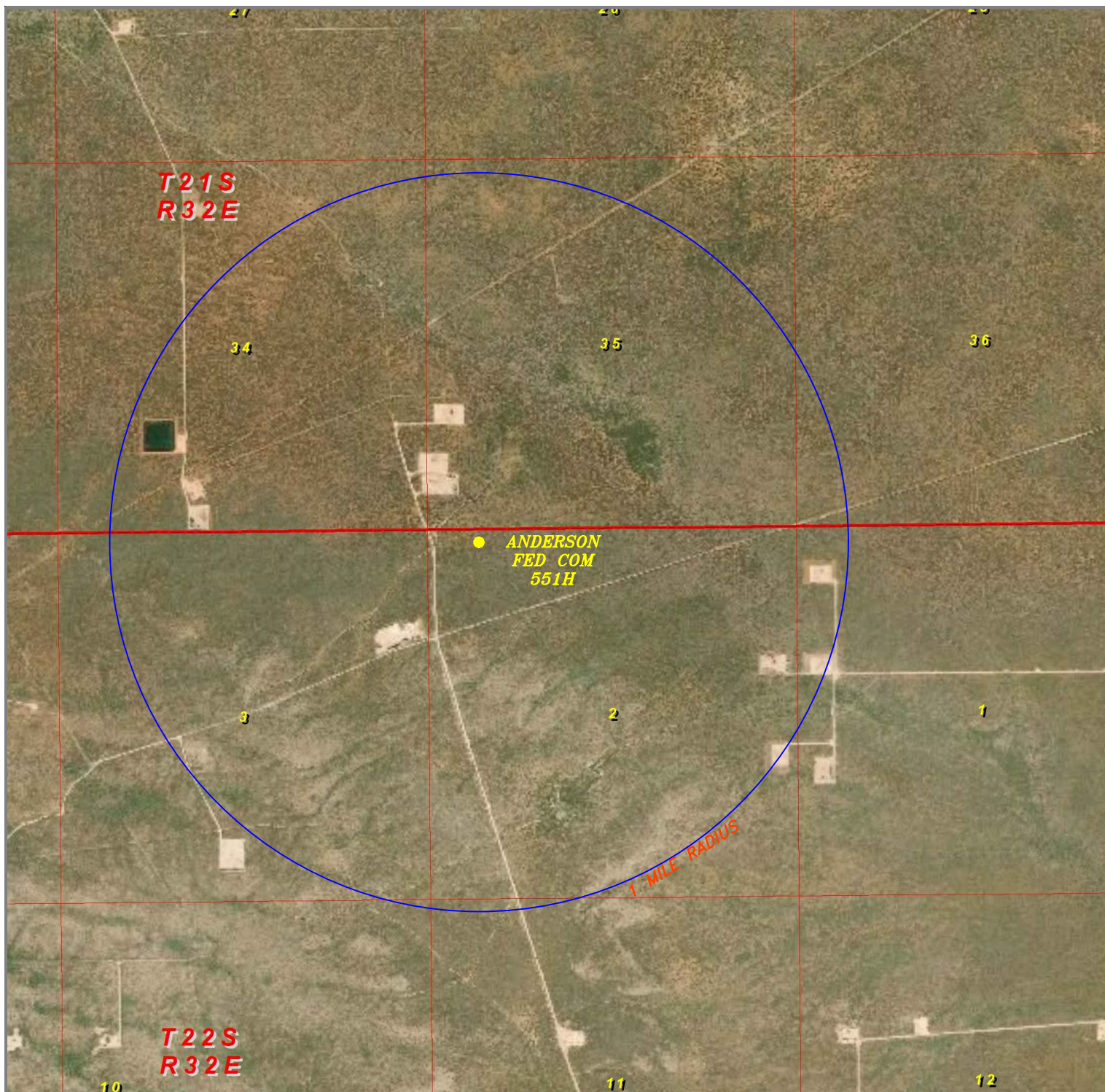


**ADVANCE ENERGY PARTNERS HAT MESA, LLC**

REF: ANDERSON FED COM 551H / WELL PAD TOPO

THE ANDERSON FED COM 551H LOCATED 180' FROM  
THE NORTH LINE AND 677' 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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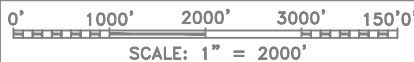


### ANDERSON FED COM 551H

Located 180' FNL and 677' 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



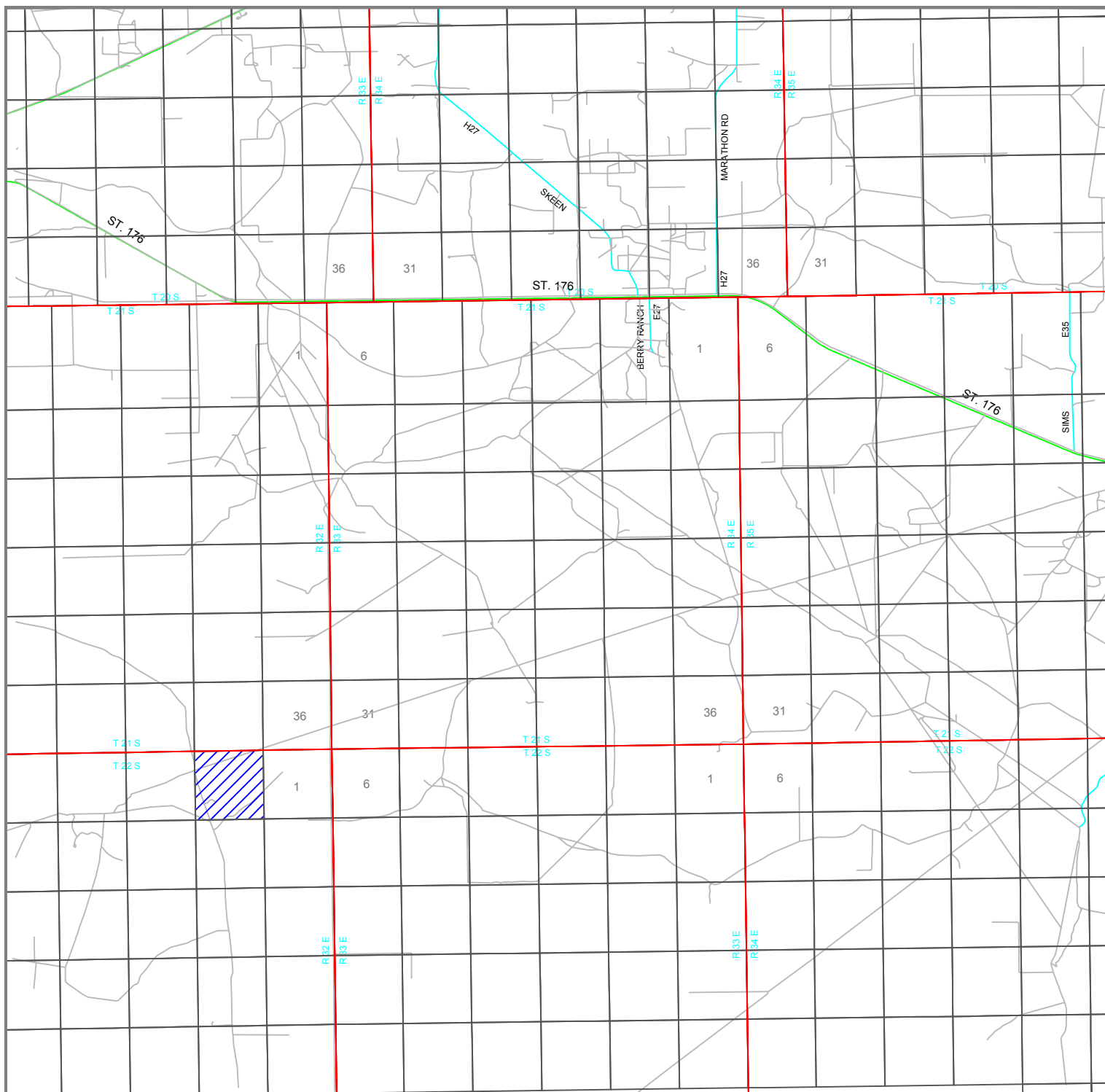
W.O. Number: KJG 35351

Survey Date: 06-10-2021

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



**ADVANCE  
ENERGY  
PARTNERS HAT  
MESA, LLC**

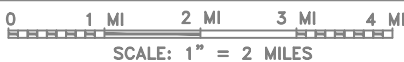


### ANDERSON FED COM 551H

Located 180' FNL and 677' 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



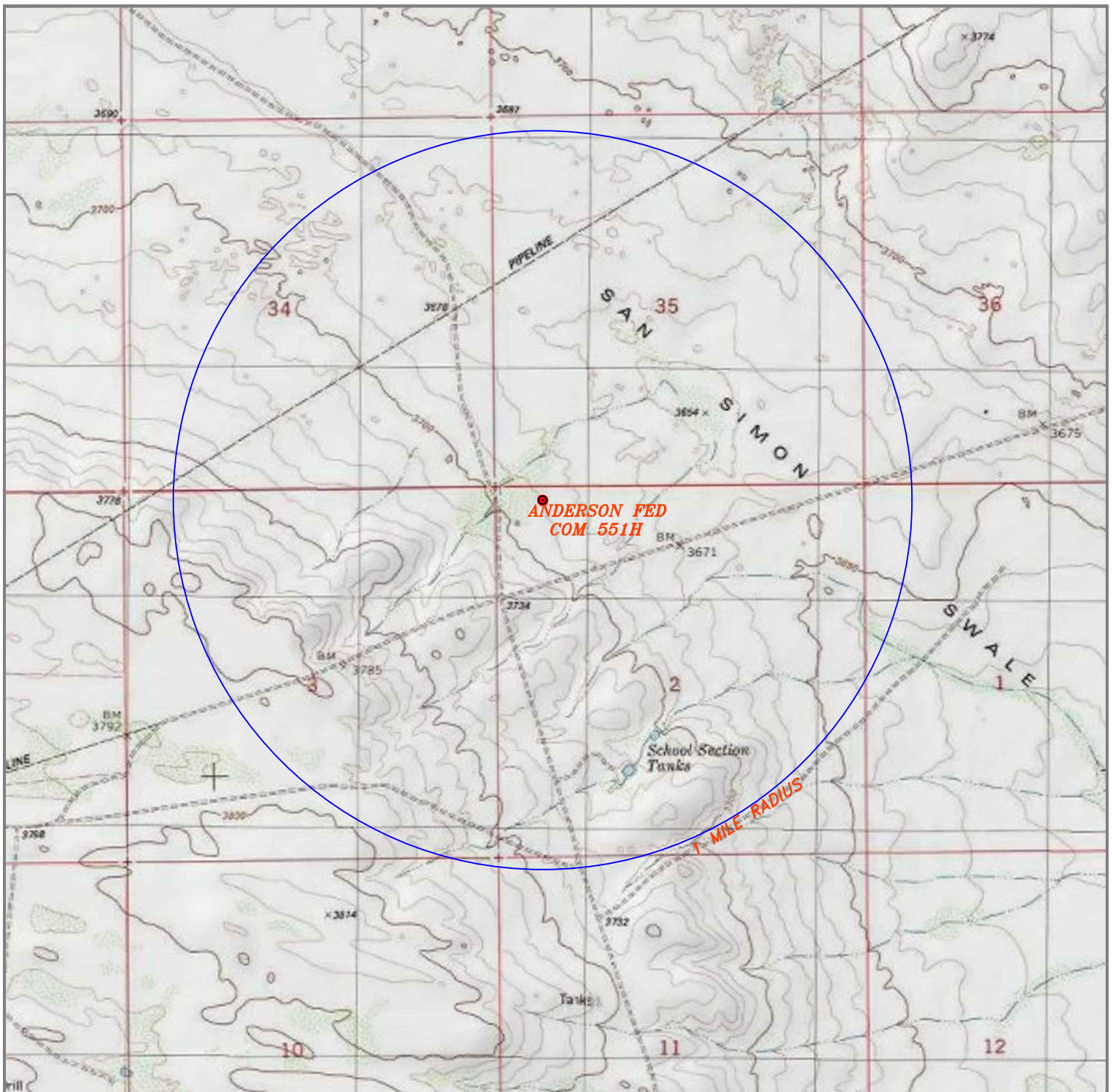
W.O. Number: KJG 35351

Survey Date: 06-10-2021

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



**ADVANCE  
 ENERGY  
 PARTNERS HAT  
 MESA, LLC**

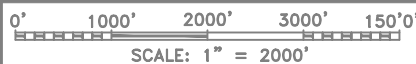


### ANDERSON FED COM 551H

Located 180' FNL and 677' FWL  
Section 2, Township 22 South, Range 32 East,  
N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
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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**



## **Advance Energy Partners, LLC**

**Hat Mesa  
Anderson Fed Com - Pad D  
Anderson Fed Com 551H**

**Anderson Fed Com 551H**

**Plan: FINAL AD**

## **Survey Report - Geographic**

**01 November, 2022**



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 551H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad D	<b>MD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 551H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 551H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

<b>Project</b>	Hat Mesa, Lea County, NM		
<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 - Pad D				
<b>Site Position:</b>		<b>Northing:</b>	519,935.48 usft	<b>Latitude:</b>	32.4275250
<b>From:</b>	Lat/Long	<b>Easting:</b>	751,632.67 usft	<b>Longitude:</b>	-103.6517610
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.37 °

<b>Well</b>	Anderson Fed Com 551H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	519,935.48 usft	<b>Latitude:</b>	32.4275250
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	751,632.67 usft	<b>Longitude:</b>	-103.6517610
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,692.0 usft

<b>Wellbore</b>	Anderson Fed Com 551H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	8/17/2020	6.66	60.19	47,721.93959032

<b>Design</b>	FINAL AD				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	357.24	

<b>Survey Tool Program</b>	<b>Date</b>	11/1/2022			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.0	19,092.0	FINAL AD (Anderson Fed Com 551H)	MWD	OWSG MWD - Standard	

<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>Map Northing (usft)</b>	<b>Map Easting (usft)</b>	<b>Latitude</b>	<b>Longitude</b>	
0.0	0.00	0.00	0.0	0.0	0.0	519,935.48	751,632.67	32.4275250	-103.6517610	
100.0	0.10	327.50	100.0	0.1	0.0	519,935.55	751,632.63	32.4275252	-103.6517611	
200.0	0.19	327.50	200.0	0.3	-0.2	519,935.76	751,632.49	32.4275258	-103.6517616	
229.0	0.22	327.50	229.0	0.4	-0.2	519,935.85	751,632.44	32.4275260	-103.6517617	
291.0	0.22	239.69	291.0	0.4	-0.4	519,935.89	751,632.27	32.4275262	-103.6517623	
300.0	0.21	239.55	300.0	0.4	-0.4	519,935.87	751,632.24	32.4275261	-103.6517624	
352.0	0.13	238.20	352.0	0.3	-0.6	519,935.79	751,632.11	32.4275259	-103.6517628	
400.0	0.37	217.17	400.0	0.2	-0.7	519,935.64	751,631.97	32.4275255	-103.6517633	
413.0	0.44	215.52	413.0	0.1	-0.8	519,935.56	751,631.92	32.4275253	-103.6517634	
475.0	0.31	212.10	475.0	-0.2	-1.0	519,935.23	751,631.69	32.4275244	-103.6517642	
500.0	0.32	219.43	500.0	-0.4	-1.1	519,935.12	751,631.61	32.4275241	-103.6517645	
536.0	0.35	228.79	536.0	-0.5	-1.2	519,934.97	751,631.46	32.4275236	-103.6517649	



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 551H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad D	<b>MD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 551H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 551H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
597.0	0.40	211.39	597.0	-0.8	-1.5	519,934.66	751,631.21	32.4275228	-103.6517658	
600.0	0.40	212.03	600.0	-0.8	-1.5	519,934.64	751,631.20	32.4275228	-103.6517658	
659.0	0.48	222.64	659.0	-1.2	-1.8	519,934.29	751,630.92	32.4275218	-103.6517667	
700.0	0.63	227.38	700.0	-1.5	-2.0	519,934.01	751,630.64	32.4275210	-103.6517676	
720.0	0.70	228.97	720.0	-1.6	-2.2	519,933.85	751,630.47	32.4275206	-103.6517682	
800.0	0.88	230.26	800.0	-2.3	-3.0	519,933.14	751,629.62	32.4275186	-103.6517709	
816.0	0.92	230.46	816.0	-2.5	-3.2	519,932.98	751,629.43	32.4275182	-103.6517716	
878.0	1.10	242.51	878.0	-3.1	-4.2	519,932.39	751,628.52	32.4275166	-103.6517745	
900.0	1.17	242.61	900.0	-3.3	-4.5	519,932.18	751,628.13	32.4275161	-103.6517758	
973.0	1.41	242.86	972.9	-4.0	-6.0	519,931.43	751,626.67	32.4275140	-103.6517805	
1,000.0	1.39	246.75	999.9	-4.3	-6.6	519,931.15	751,626.07	32.4275133	-103.6517825	
1,066.0	1.36	256.66	1,065.9	-4.8	-8.1	519,930.65	751,624.58	32.4275119	-103.6517873	
1,100.0	1.33	256.43	1,099.9	-5.0	-8.9	519,930.47	751,623.80	32.4275114	-103.6517898	
1,155.0	1.27	256.04	1,154.9	-5.3	-10.1	519,930.17	751,622.59	32.4275106	-103.6517938	
1,200.0	1.24	257.66	1,199.9	-5.5	-11.0	519,929.95	751,621.63	32.4275100	-103.6517969	
1,220.0	1.23	258.41	1,219.9	-5.6	-11.5	519,929.86	751,621.21	32.4275098	-103.6517983	
1,300.0	0.89	268.10	1,299.9	-5.8	-12.9	519,929.67	751,619.75	32.4275093	-103.6518030	
1,335.0	0.75	275.03	1,334.9	-5.8	-13.4	519,929.68	751,619.25	32.4275093	-103.6518046	
1,400.0	0.59	284.56	1,399.9	-5.7	-14.2	519,929.80	751,618.51	32.4275097	-103.6518070	
1,424.0	0.53	289.53	1,423.9	-5.6	-14.4	519,929.87	751,618.28	32.4275099	-103.6518077	
1,500.0	0.34	277.48	1,499.9	-5.5	-14.9	519,930.01	751,617.73	32.4275103	-103.6518095	
1,514.0	0.31	273.71	1,513.9	-5.5	-15.0	519,930.02	751,617.65	32.4275103	-103.6518098	
1,603.0	0.09	274.32	1,602.9	-5.4	-15.3	519,930.04	751,617.34	32.4275104	-103.6518108	
1,693.0	0.18	35.17	1,692.9	-5.3	-15.3	519,930.16	751,617.35	32.4275107	-103.6518108	
1,700.0	0.19	32.85	1,699.9	-5.3	-15.3	519,930.18	751,617.36	32.4275107	-103.6518107	
1,783.0	0.35	18.56	1,782.9	-4.9	-15.2	519,930.54	751,617.52	32.4275117	-103.6518102	
1,800.0	0.38	20.27	1,799.9	-4.8	-15.1	519,930.64	751,617.55	32.4275120	-103.6518101	
1,872.0	0.53	25.06	1,871.9	-4.3	-14.9	519,931.17	751,617.78	32.4275134	-103.6518094	
1,900.0	0.59	31.59	1,899.9	-4.1	-14.8	519,931.41	751,617.91	32.4275141	-103.6518089	
1,962.0	0.75	41.85	1,961.8	-3.5	-14.3	519,931.99	751,618.35	32.4275157	-103.6518075	
2,000.0	0.77	40.25	1,999.8	-3.1	-14.0	519,932.36	751,618.68	32.4275167	-103.6518064	
2,052.0	0.79	38.16	2,051.8	-2.6	-13.5	519,932.91	751,619.12	32.4275182	-103.6518050	
2,100.0	0.98	39.98	2,099.8	-2.0	-13.1	519,933.49	751,619.59	32.4275198	-103.6518034	
2,141.0	1.14	41.06	2,140.8	-1.4	-12.6	519,934.06	751,620.08	32.4275214	-103.6518018	
2,200.0	1.37	44.76	2,199.8	-0.5	-11.7	519,935.00	751,620.97	32.4275239	-103.6517989	
2,231.0	1.49	46.25	2,230.8	0.1	-11.2	519,935.55	751,621.52	32.4275254	-103.6517971	
2,300.0	1.83	51.06	2,299.8	1.4	-9.7	519,936.86	751,623.02	32.4275290	-103.6517922	
2,320.0	1.93	52.13	2,319.8	1.8	-9.1	519,937.27	751,623.54	32.4275301	-103.6517906	
2,409.0	1.05	90.10	2,408.7	2.7	-7.1	519,938.18	751,625.54	32.4275326	-103.6517841	
2,498.0	1.19	123.59	2,497.7	2.2	-5.6	519,937.67	751,627.12	32.4275312	-103.6517789	
2,500.0	1.20	123.12	2,499.7	2.2	-5.5	519,937.65	751,627.16	32.4275311	-103.6517788	
2,588.0	1.67	108.38	2,587.7	1.3	-3.5	519,936.74	751,629.14	32.4275286	-103.6517724	
2,600.0	1.77	107.15	2,599.7	1.2	-3.2	519,936.63	751,629.49	32.4275283	-103.6517713	
2,677.0	2.42	101.71	2,676.6	0.5	-0.5	519,935.95	751,632.21	32.4275263	-103.6517625	
2,700.0	2.23	102.37	2,699.6	0.3	0.5	519,935.76	751,633.13	32.4275258	-103.6517595	
2,766.0	1.67	105.13	2,765.6	-0.2	2.6	519,935.23	751,635.31	32.4275243	-103.6517525	
2,800.0	1.37	95.96	2,799.6	-0.4	3.5	519,935.06	751,636.19	32.4275238	-103.6517496	
2,856.0	1.01	70.24	2,855.6	-0.3	4.6	519,935.16	751,637.32	32.4275241	-103.6517459	
2,900.0	1.26	63.62	2,899.5	0.0	5.4	519,935.50	751,638.12	32.4275250	-103.6517433	
2,946.0	1.54	59.08	2,945.5	0.6	6.4	519,936.05	751,639.10	32.4275265	-103.6517401	
3,000.0	0.82	86.54	2,999.5	1.0	7.4	519,936.44	751,640.11	32.4275276	-103.6517369	
3,036.0	0.66	132.38	3,035.5	0.8	7.8	519,936.32	751,640.52	32.4275272	-103.6517355	
3,100.0	1.28	184.69	3,099.5	-0.1	8.1	519,935.36	751,640.74	32.4275246	-103.6517349	
3,125.0	1.63	191.88	3,124.5	-0.7	8.0	519,934.73	751,640.64	32.4275228	-103.6517352	
3,200.0	0.56	189.92	3,199.5	-2.1	7.7	519,933.33	751,640.36	32.4275190	-103.6517361	



Survey Report - Geographic

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<b>Wellbore:</b>	Anderson Fed Com 551H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
3,215.0	0.35	188.10	3,214.5	-2.3	7.7	519,933.21	751,640.34	32.4275187	-103.6517362	
3,304.0	1.54	25.86	3,303.5	-1.5	8.1	519,934.02	751,640.82	32.4275209	-103.6517346	
3,394.0	1.54	64.97	3,393.4	0.1	9.8	519,935.62	751,642.45	32.4275252	-103.6517293	
3,400.0	1.55	65.41	3,399.4	0.2	9.9	519,935.68	751,642.59	32.4275254	-103.6517288	
3,483.0	1.67	71.03	3,482.4	1.1	12.1	519,936.54	751,644.76	32.4275277	-103.6517218	
3,500.0	1.63	72.34	3,499.4	1.2	12.5	519,936.70	751,645.22	32.4275282	-103.6517203	
3,573.0	1.45	78.85	3,572.4	1.7	14.4	519,937.19	751,647.11	32.4275295	-103.6517142	
3,600.0	1.43	81.46	3,599.4	1.8	15.1	519,937.31	751,647.78	32.4275298	-103.6517120	
3,663.0	1.41	87.73	3,662.3	2.0	16.7	519,937.46	751,649.34	32.4275302	-103.6517069	
3,700.0	0.93	120.79	3,699.3	1.8	17.4	519,937.32	751,650.05	32.4275298	-103.6517046	
3,752.0	1.23	182.30	3,751.3	1.1	17.7	519,936.54	751,650.39	32.4275276	-103.6517035	
3,800.0	1.83	199.58	3,799.3	-0.2	17.4	519,935.31	751,650.12	32.4275243	-103.6517045	
3,842.0	2.42	207.17	3,841.3	-1.6	16.8	519,933.89	751,649.49	32.4275204	-103.6517065	
3,900.0	1.58	226.61	3,899.3	-3.2	15.7	519,932.25	751,648.35	32.4275159	-103.6517103	
3,932.0	1.27	247.08	3,931.2	-3.7	15.0	519,931.81	751,647.70	32.4275147	-103.6517124	
4,000.0	1.21	304.91	3,999.2	-3.6	13.7	519,931.93	751,646.42	32.4275150	-103.6517165	
4,021.0	1.41	318.53	4,020.2	-3.2	13.4	519,932.25	751,646.07	32.4275159	-103.6517177	
4,100.0	1.28	337.38	4,099.2	-1.7	12.4	519,933.79	751,645.08	32.4275202	-103.6517208	
4,111.0	1.27	340.24	4,110.2	-1.5	12.3	519,934.01	751,645.00	32.4275208	-103.6517211	
4,200.0	1.01	335.67	4,199.2	0.2	11.7	519,935.66	751,644.34	32.4275253	-103.6517232	
4,290.0	1.10	321.61	4,289.2	1.6	10.8	519,937.06	751,643.48	32.4275292	-103.6517259	
4,300.0	1.09	321.98	4,299.2	1.7	10.7	519,937.21	751,643.36	32.4275296	-103.6517263	
4,379.0	1.01	325.12	4,378.1	2.9	9.8	519,938.37	751,642.50	32.4275328	-103.6517291	
4,400.0	1.02	326.30	4,399.1	3.2	9.6	519,938.68	751,642.29	32.4275337	-103.6517298	
4,469.0	1.05	330.04	4,468.1	4.3	9.0	519,939.73	751,641.63	32.4275366	-103.6517319	
4,500.0	1.02	333.48	4,499.1	4.8	8.7	519,940.23	751,641.37	32.4275379	-103.6517327	
4,559.0	0.97	340.59	4,558.1	5.7	8.3	519,941.17	751,640.97	32.4275405	-103.6517340	
4,600.0	1.02	347.34	4,599.1	6.4	8.1	519,941.85	751,640.77	32.4275424	-103.6517346	
4,648.0	1.10	354.30	4,647.1	7.3	8.0	519,942.73	751,640.63	32.4275448	-103.6517350	
4,700.0	1.18	357.37	4,699.1	8.3	7.9	519,943.76	751,640.56	32.4275477	-103.6517353	
4,755.0	1.27	0.19	4,754.1	9.5	7.9	519,944.94	751,640.53	32.4275509	-103.6517353	
4,800.0	1.10	356.60	4,799.1	10.4	7.8	519,945.86	751,640.51	32.4275534	-103.6517354	
4,900.0	0.74	342.70	4,899.1	12.0	7.6	519,947.43	751,640.26	32.4275578	-103.6517362	
4,911.0	0.70	340.33	4,910.1	12.1	7.5	519,947.56	751,640.22	32.4275581	-103.6517363	
5,001.0	0.75	346.04	5,000.1	13.2	7.2	519,948.65	751,639.89	32.4275611	-103.6517373	
5,091.0	0.66	343.58	5,090.0	14.2	6.9	519,949.72	751,639.60	32.4275641	-103.6517382	
5,100.0	0.67	343.04	5,099.0	14.3	6.9	519,949.82	751,639.57	32.4275643	-103.6517383	
5,180.0	0.75	338.83	5,179.0	15.3	6.6	519,950.76	751,639.25	32.4275669	-103.6517394	
5,200.0	0.62	338.89	5,199.0	15.5	6.5	519,950.98	751,639.16	32.4275675	-103.6517396	
5,270.0	0.18	339.71	5,269.0	16.0	6.3	519,951.44	751,638.99	32.4275688	-103.6517402	
5,300.0	0.66	321.39	5,299.0	16.1	6.2	519,951.62	751,638.86	32.4275693	-103.6517406	
5,359.0	1.63	317.48	5,358.0	17.0	5.4	519,952.50	751,638.08	32.4275717	-103.6517431	
5,400.0	1.85	282.61	5,399.0	17.6	4.4	519,953.08	751,637.04	32.4275733	-103.6517465	
5,448.0	2.68	258.59	5,447.0	17.5	2.5	519,953.02	751,635.19	32.4275732	-103.6517525	
5,500.0	3.89	242.17	5,498.9	16.5	-0.2	519,951.96	751,632.44	32.4275703	-103.6517614	
5,538.0	4.88	235.65	5,536.8	15.0	-2.7	519,950.45	751,629.96	32.4275662	-103.6517695	
5,600.0	5.21	235.09	5,598.5	11.9	-7.2	519,947.35	751,625.48	32.4275578	-103.6517841	
5,628.0	5.36	234.86	5,626.4	10.4	-9.3	519,945.87	751,623.36	32.4275537	-103.6517909	
5,700.0	5.40	237.00	5,698.1	6.6	-14.9	519,942.09	751,617.77	32.4275435	-103.6518091	
5,717.0	5.41	237.50	5,715.0	5.7	-16.2	519,941.22	751,616.43	32.4275411	-103.6518135	
5,807.0	4.79	227.39	5,804.7	0.9	-22.6	519,936.40	751,610.08	32.4275279	-103.6518342	
5,896.0	4.66	226.42	5,893.4	-4.1	-27.9	519,931.39	751,604.73	32.4275143	-103.6518516	
5,900.0	4.66	226.42	5,897.3	-4.3	-28.2	519,931.16	751,604.49	32.4275137	-103.6518524	
5,986.0	4.75	226.51	5,983.1	-9.2	-33.3	519,926.30	751,599.38	32.4275004	-103.6518691	
6,000.0	4.73	226.10	5,997.0	-10.0	-34.1	519,925.50	751,598.54	32.4274982	-103.6518718	



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 551H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad D	<b>MD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 551H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 551H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
6,076.0	4.62	223.79	6,072.8	-14.4	-38.5	519,921.12	751,594.17	32.4274862	-103.6518861	
6,100.0	4.63	223.38	6,096.7	-15.8	-39.8	519,919.72	751,592.83	32.4274824	-103.6518904	
6,165.0	4.66	222.29	6,161.5	-19.6	-43.4	519,915.86	751,589.25	32.4274719	-103.6519021	
6,200.0	4.44	227.81	6,196.4	-21.6	-45.4	519,913.90	751,587.29	32.4274665	-103.6519085	
6,255.0	4.18	237.50	6,251.2	-24.1	-48.6	519,911.39	751,584.03	32.4274597	-103.6519191	
6,300.0	4.29	239.14	6,296.1	-25.8	-51.5	519,909.65	751,581.20	32.4274549	-103.6519283	
6,344.0	4.40	240.66	6,340.0	-27.5	-54.4	519,907.98	751,578.31	32.4274504	-103.6519377	
6,400.0	4.29	240.99	6,395.8	-29.6	-58.1	519,905.91	751,574.61	32.4274448	-103.6519498	
6,433.0	4.22	241.19	6,428.7	-30.7	-60.2	519,904.73	751,572.47	32.4274416	-103.6519567	
6,500.0	4.79	231.56	6,495.5	-33.7	-64.6	519,901.80	751,568.12	32.4274336	-103.6519709	
6,523.0	5.01	228.79	6,518.4	-34.9	-66.1	519,900.54	751,566.61	32.4274302	-103.6519758	
6,600.0	4.86	226.02	6,595.1	-39.4	-70.9	519,896.06	751,561.73	32.4274179	-103.6519917	
6,613.0	4.84	225.54	6,608.1	-40.2	-71.7	519,895.29	751,560.94	32.4274158	-103.6519943	
6,702.0	4.40	223.52	6,696.8	-45.3	-76.8	519,890.19	751,555.91	32.4274019	-103.6520107	
6,791.0	4.57	223.26	6,785.5	-50.3	-81.5	519,885.13	751,551.13	32.4273881	-103.6520263	
6,800.0	4.60	223.57	6,794.5	-50.9	-82.0	519,884.61	751,550.64	32.4273866	-103.6520279	
6,881.0	4.84	226.16	6,875.2	-55.6	-86.7	519,879.89	751,545.94	32.4273738	-103.6520432	
6,900.0	4.79	225.82	6,894.1	-56.7	-87.9	519,878.78	751,544.79	32.4273707	-103.6520470	
6,970.0	4.62	224.49	6,963.9	-60.7	-92.0	519,874.73	751,540.72	32.4273597	-103.6520603	
7,000.0	4.65	223.69	6,993.8	-62.5	-93.6	519,872.99	751,539.03	32.4273549	-103.6520658	
7,060.0	4.70	222.12	7,053.6	-66.1	-97.0	519,869.41	751,535.70	32.4273451	-103.6520766	
7,100.0	4.66	222.16	7,093.5	-68.5	-99.2	519,866.99	751,533.51	32.4273385	-103.6520838	
7,150.0	4.62	222.20	7,143.3	-71.5	-101.9	519,863.99	751,530.80	32.4273303	-103.6520926	
7,200.0	4.50	222.25	7,193.2	-74.4	-104.5	519,861.05	751,528.13	32.4273223	-103.6521014	
7,239.0	4.40	222.29	7,232.0	-76.7	-106.6	519,858.81	751,526.09	32.4273162	-103.6521080	
7,300.0	4.37	221.93	7,292.9	-80.1	-109.7	519,855.35	751,522.96	32.4273067	-103.6521182	
7,329.0	4.35	221.76	7,321.8	-81.8	-111.2	519,853.71	751,521.49	32.4273022	-103.6521230	
7,400.0	4.39	222.32	7,392.6	-85.8	-114.8	519,849.69	751,517.87	32.4272912	-103.6521348	
7,419.0	4.40	222.47	7,411.5	-86.9	-115.8	519,848.62	751,516.89	32.4272883	-103.6521380	
7,508.0	4.40	221.76	7,500.3	-91.9	-120.4	519,843.55	751,512.31	32.4272745	-103.6521530	
7,597.0	4.18	224.14	7,589.0	-96.8	-124.9	519,838.68	751,507.78	32.4272612	-103.6521678	
7,600.0	4.18	224.20	7,592.0	-97.0	-125.0	519,838.52	751,507.63	32.4272607	-103.6521682	
7,687.0	4.04	225.98	7,678.8	-101.4	-129.5	519,834.12	751,503.21	32.4272487	-103.6521826	
7,700.0	3.99	226.02	7,691.7	-102.0	-130.1	519,833.49	751,502.56	32.4272470	-103.6521848	
7,777.0	3.69	226.25	7,768.6	-105.6	-133.8	519,829.92	751,498.84	32.4272372	-103.6521969	
7,800.0	3.62	226.95	7,791.5	-106.6	-134.9	519,828.91	751,497.78	32.4272345	-103.6522004	
7,867.0	3.43	229.15	7,858.4	-109.3	-138.0	519,826.15	751,494.71	32.4272269	-103.6522104	
7,900.0	3.55	225.48	7,891.3	-110.7	-139.4	519,824.79	751,493.24	32.4272232	-103.6522152	
7,956.0	3.78	219.83	7,947.2	-113.3	-141.9	519,822.16	751,490.82	32.4272160	-103.6522231	
8,000.0	3.80	221.21	7,991.1	-115.5	-143.7	519,819.95	751,488.93	32.4272100	-103.6522292	
8,046.0	3.82	222.64	8,037.0	-117.8	-145.8	519,817.67	751,486.89	32.4272038	-103.6522359	
8,100.0	3.74	220.97	8,090.9	-120.5	-148.2	519,815.02	751,484.52	32.4271965	-103.6522436	
8,136.0	3.69	219.82	8,126.8	-122.2	-149.7	519,813.24	751,483.00	32.4271917	-103.6522486	
8,200.0	3.66	217.37	8,190.7	-125.4	-152.2	519,810.04	751,480.45	32.4271829	-103.6522569	
8,225.0	3.65	216.40	8,215.6	-126.7	-153.2	519,808.76	751,479.49	32.4271794	-103.6522601	
8,300.0	3.65	215.44	8,290.5	-130.6	-156.0	519,804.90	751,476.69	32.4271688	-103.6522692	
8,314.0	3.65	215.26	8,304.5	-131.3	-156.5	519,804.17	751,476.17	32.4271669	-103.6522709	
8,404.0	4.75	220.09	8,394.2	-136.5	-160.6	519,798.98	751,472.12	32.4271527	-103.6522841	
8,493.0	5.10	234.42	8,482.9	-141.6	-166.1	519,793.86	751,466.53	32.4271387	-103.6523024	
8,500.0	5.11	234.57	8,489.9	-142.0	-166.7	519,793.50	751,466.02	32.4271377	-103.6523040	
8,583.0	5.23	236.27	8,572.5	-146.2	-172.8	519,789.25	751,459.86	32.4271261	-103.6523241	
8,600.0	5.15	236.71	8,589.5	-147.1	-174.1	519,788.40	751,458.58	32.4271238	-103.6523282	
8,672.0	4.84	238.73	8,661.2	-150.4	-179.4	519,785.05	751,453.28	32.4271147	-103.6523455	
8,700.0	4.67	237.97	8,689.1	-151.6	-181.4	519,783.83	751,451.30	32.4271114	-103.6523519	
8,762.0	4.31	236.09	8,750.9	-154.3	-185.4	519,781.20	751,447.23	32.4271042	-103.6523652	



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 551H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad D	<b>MD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 551H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 551H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,800.0	4.08	235.57	8,788.8	-155.8	-187.7	519,779.63	751,444.93	32.4271000	-103.6523727
8,851.0	3.78	234.77	8,839.7	-157.8	-190.6	519,777.64	751,442.06	32.4270945	-103.6523820
8,900.0	3.47	228.71	8,888.6	-159.7	-193.1	519,775.73	751,439.62	32.4270893	-103.6523899
8,941.0	3.25	222.82	8,929.5	-161.4	-194.8	519,774.05	751,437.90	32.4270847	-103.6523956
9,000.0	3.74	224.42	8,988.4	-164.0	-197.3	519,771.45	751,435.42	32.4270776	-103.6524037
9,031.0	4.00	225.10	9,019.3	-165.5	-198.7	519,769.97	751,433.94	32.4270736	-103.6524085
9,100.0	3.65	218.20	9,088.2	-168.9	-201.8	519,766.54	751,430.88	32.4270642	-103.6524185
9,120.0	3.56	215.96	9,108.1	-169.9	-202.6	519,765.54	751,430.12	32.4270615	-103.6524209
9,210.0	3.52	225.98	9,198.0	-174.1	-206.2	519,761.36	751,426.49	32.4270501	-103.6524328
9,300.0	4.97	249.71	9,287.7	-177.4	-211.8	519,758.09	751,420.85	32.4270412	-103.6524511
9,390.0	4.79	251.12	9,377.4	-180.0	-219.0	519,755.52	751,413.64	32.4270342	-103.6524746
9,400.0	4.72	249.84	9,387.4	-180.2	-219.8	519,755.24	751,412.86	32.4270335	-103.6524771
9,479.0	4.22	238.29	9,466.1	-182.9	-225.3	519,752.59	751,407.34	32.4270263	-103.6524951
9,500.0	4.19	235.79	9,487.1	-183.7	-226.6	519,751.76	751,406.04	32.4270240	-103.6524993
9,569.0	4.13	227.39	9,555.9	-186.8	-230.5	519,748.66	751,402.13	32.4270156	-103.6525120
9,600.0	3.74	224.62	9,586.8	-188.3	-232.1	519,747.18	751,400.60	32.4270115	-103.6525170
9,658.0	3.03	217.54	9,644.7	-190.9	-234.3	519,744.62	751,398.34	32.4270045	-103.6525244
9,700.0	3.03	217.62	9,686.7	-192.6	-235.7	519,742.86	751,396.99	32.4269997	-103.6525288
9,748.0	3.03	217.72	9,734.6	-194.6	-237.2	519,740.86	751,395.44	32.4269942	-103.6525339
9,800.0	3.40	228.44	9,786.5	-196.7	-239.2	519,738.75	751,393.44	32.4269885	-103.6525404
9,838.0	3.74	234.77	9,824.4	-198.2	-241.1	519,737.28	751,391.58	32.4269845	-103.6525464
9,900.0	3.96	248.96	9,886.3	-200.1	-244.7	519,735.35	751,387.93	32.4269792	-103.6525583
9,928.0	4.13	254.72	9,914.2	-200.7	-246.6	519,734.73	751,386.06	32.4269776	-103.6525644
10,000.0	3.85	254.72	9,986.0	-202.1	-251.4	519,733.41	751,381.23	32.4269740	-103.6525801
10,017.0	3.78	254.72	10,003.0	-202.4	-252.5	519,733.12	751,380.14	32.4269732	-103.6525836
10,107.0	3.56	255.60	10,092.8	-203.8	-258.1	519,731.64	751,374.57	32.4269693	-103.6526017
10,196.0	2.42	255.25	10,181.7	-205.0	-262.6	519,730.47	751,370.08	32.4269662	-103.6526163
10,200.0	2.42	255.76	10,185.7	-205.0	-262.8	519,730.43	751,369.91	32.4269660	-103.6526168
10,286.0	2.42	266.76	10,271.6	-205.6	-266.3	519,729.88	751,366.34	32.4269646	-103.6526284
10,300.0	2.19	267.15	10,285.6	-205.6	-266.9	519,729.85	751,365.78	32.4269645	-103.6526302
10,376.0	0.92	272.74	10,361.6	-205.7	-269.0	519,729.81	751,363.72	32.4269644	-103.6526369
10,400.0	0.59	258.83	10,385.6	-205.7	-269.3	519,729.80	751,363.41	32.4269644	-103.6526379
10,431.0	0.35	204.10	10,416.6	-205.8	-269.5	519,729.68	751,363.21	32.4269641	-103.6526385
10,500.0	1.06	30.45	10,485.6	-205.4	-269.2	519,730.04	751,363.45	32.4269651	-103.6526377
10,528.0	1.63	29.90	10,513.6	-204.9	-268.9	519,730.60	751,363.78	32.4269666	-103.6526367
10,550.0	3.53	5.84	10,535.5	-203.9	-268.7	519,731.55	751,364.00	32.4269692	-103.6526359
10,600.0	8.32	355.36	10,585.3	-198.8	-268.8	519,736.69	751,363.87	32.4269834	-103.6526362
10,618.0	10.07	354.04	10,603.0	-195.9	-269.1	519,739.56	751,363.60	32.4269912	-103.6526371
10,650.0	13.37	352.68	10,634.4	-189.5	-269.8	519,746.01	751,362.84	32.4270090	-103.6526394
10,700.0	18.53	351.51	10,682.4	-175.9	-271.7	519,759.61	751,360.93	32.4270464	-103.6526453
10,707.0	19.25	351.40	10,689.0	-173.6	-272.1	519,761.85	751,360.59	32.4270526	-103.6526463
10,750.0	22.42	351.64	10,729.2	-158.5	-274.3	519,776.98	751,358.34	32.4270942	-103.6526533
10,797.0	25.89	351.84	10,772.1	-139.5	-277.1	519,796.01	751,355.58	32.4271465	-103.6526619
10,800.0	26.08	351.94	10,774.8	-138.2	-277.3	519,797.31	751,355.39	32.4271501	-103.6526625
10,850.0	29.21	353.47	10,819.1	-115.2	-280.2	519,820.32	751,352.46	32.4272134	-103.6526715
10,886.0	31.47	354.39	10,850.2	-97.1	-282.1	519,838.40	751,350.55	32.4272631	-103.6526773
10,900.0	33.10	354.74	10,862.0	-89.6	-282.8	519,845.84	751,349.84	32.4272836	-103.6526795
10,925.0	36.02	355.31	10,882.6	-75.5	-284.1	519,859.97	751,348.61	32.4273225	-103.6526831
10,950.0	38.94	355.79	10,902.4	-60.3	-285.2	519,875.13	751,347.43	32.4273642	-103.6526867
10,976.0	41.98	356.24	10,922.2	-43.5	-286.4	519,891.96	751,346.26	32.4274104	-103.6526901
11,000.0	44.92	356.08	10,939.6	-27.0	-287.5	519,908.43	751,345.16	32.4274557	-103.6526933
11,025.0	47.98	355.93	10,956.8	-9.0	-288.8	519,926.50	751,343.89	32.4275054	-103.6526971
11,050.0	51.05	355.79	10,973.1	10.0	-290.2	519,945.47	751,342.52	32.4275576	-103.6527011
11,066.0	53.01	355.71	10,982.9	22.6	-291.1	519,958.04	751,341.59	32.4275922	-103.6527039
11,075.0	54.17	355.79	10,988.3	29.8	-291.6	519,965.27	751,341.05	32.4276120	-103.6527055



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 551H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad D	<b>MD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 551H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 551H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
11,100.0	57.39	356.00	11,002.3	50.4	-293.1	519,985.88	751,339.57	32.4276687	-103.6527099	
11,125.0	60.61	356.19	11,015.2	71.8	-294.6	520,007.26	751,338.11	32.4277275	-103.6527141	
11,150.0	63.84	356.37	11,026.8	93.9	-296.0	520,029.33	751,336.68	32.4277882	-103.6527183	
11,155.0	64.48	356.41	11,029.0	98.3	-296.3	520,033.82	751,336.39	32.4278005	-103.6527191	
11,175.0	66.93	355.71	11,037.2	116.5	-297.5	520,052.01	751,335.14	32.4278505	-103.6527228	
11,200.0	69.99	354.86	11,046.4	139.7	-299.4	520,075.18	751,333.23	32.4279143	-103.6527286	
11,225.0	73.06	354.05	11,054.3	163.3	-301.7	520,098.78	751,330.94	32.4279792	-103.6527355	
11,245.0	75.52	353.42	11,059.8	182.4	-303.8	520,117.91	751,328.83	32.4280318	-103.6527419	
11,250.0	76.28	353.14	11,061.0	187.3	-304.4	520,122.73	751,328.27	32.4280450	-103.6527437	
11,253.0	76.73	352.98	11,061.7	190.1	-304.8	520,125.60	751,327.92	32.4280529	-103.6527447	
<b>NMM 10669 6 Exit at 11253.0 MD</b>										
11,275.0	80.07	351.77	11,066.1	211.5	-307.6	520,146.98	751,325.05	32.4281118	-103.6527536	
11,300.0	83.86	350.43	11,069.6	236.0	-311.4	520,171.43	751,321.22	32.4281790	-103.6527655	
11,305.0	84.62	350.17	11,070.1	240.9	-312.3	520,176.34	751,320.39	32.4281925	-103.6527681	
11,325.0	87.31	350.20	11,071.5	260.5	-315.7	520,195.99	751,316.99	32.4282466	-103.6527787	
FTP 11,341.0	89.47	350.22	11,071.9	276.3	-318.4	520,211.75	751,314.27	32.4282900	-103.6527872	
11,341.4	89.53	350.22	11,072.0	276.7	-318.5	520,212.18	751,314.19	32.4282912	-103.6527874	
<b>Anderson Fed Com 551H LP</b>										
11,350.0	90.68	350.23	11,071.9	285.1	-319.9	520,220.62	751,312.74	32.4283144	-103.6527920	
11,366.0	92.84	350.26	11,071.4	300.9	-322.6	520,236.38	751,310.03	32.4283578	-103.6528004	
11,400.0	92.52	351.12	11,069.9	334.4	-328.1	520,269.90	751,304.54	32.4284500	-103.6528175	
11,456.0	92.00	352.54	11,067.6	389.8	-336.1	520,325.28	751,296.58	32.4286023	-103.6528422	
11,500.0	91.72	354.43	11,066.2	433.5	-341.1	520,368.97	751,291.60	32.4287225	-103.6528574	
11,546.0	91.43	356.41	11,064.9	479.3	-344.7	520,414.81	751,287.93	32.4288486	-103.6528684	
11,600.0	90.42	358.01	11,064.1	533.3	-347.4	520,468.73	751,285.30	32.4289968	-103.6528758	
11,635.0	89.76	359.05	11,064.0	568.2	-348.3	520,503.72	751,284.40	32.4290930	-103.6528780	
11,700.0	90.58	358.99	11,063.8	633.2	-349.4	520,568.71	751,283.29	32.4292717	-103.6528802	
11,725.0	90.90	358.96	11,063.5	658.2	-349.8	520,593.71	751,282.84	32.4293404	-103.6528812	
11,800.0	89.51	358.82	11,063.2	733.2	-351.3	520,668.69	751,281.38	32.4295465	-103.6528843	
11,815.0	89.23	358.79	11,063.4	748.2	-351.6	520,683.69	751,281.07	32.4295877	-103.6528850	
11,904.0	89.89	358.26	11,064.1	837.2	-353.9	520,772.65	751,278.78	32.4298323	-103.6528906	
11,994.0	90.42	358.17	11,063.8	927.1	-356.7	520,862.61	751,275.98	32.4300796	-103.6528978	
12,000.0	90.43	358.10	11,063.8	933.1	-356.9	520,868.60	751,275.78	32.4300961	-103.6528984	
12,083.0	90.55	357.20	11,063.1	1,016.1	-360.3	520,951.53	751,272.38	32.4303241	-103.6529077	
12,100.0	90.39	356.84	11,062.9	1,033.0	-361.2	520,968.51	751,271.50	32.4303708	-103.6529102	
12,173.0	89.71	355.27	11,062.9	1,105.9	-366.2	521,041.33	751,266.47	32.4305710	-103.6529250	
12,200.0	89.73	355.78	11,063.0	1,132.8	-368.3	521,068.25	751,264.37	32.4306450	-103.6529312	
12,262.0	89.76	356.94	11,063.3	1,194.6	-372.2	521,130.12	751,260.43	32.4308152	-103.6529427	
12,300.0	90.06	358.72	11,063.4	1,232.6	-373.7	521,168.09	751,258.99	32.4309196	-103.6529466	
12,352.0	90.46	1.16	11,063.1	1,284.6	-373.7	521,220.09	751,258.94	32.4310625	-103.6529457	
12,400.0	90.25	1.40	11,062.8	1,332.6	-372.7	521,268.08	751,260.01	32.4311944	-103.6529412	
12,441.0	90.07	1.60	11,062.7	1,373.6	-371.6	521,309.06	751,261.08	32.4313070	-103.6529369	
12,500.0	89.12	1.48	11,063.1	1,432.6	-370.0	521,368.04	751,262.67	32.4314691	-103.6529306	
12,531.0	88.62	1.42	11,063.7	1,463.5	-369.2	521,399.02	751,263.45	32.4315542	-103.6529274	
12,600.0	88.14	1.22	11,065.7	1,532.5	-367.6	521,467.98	751,265.04	32.4317437	-103.6529208	
12,620.0	88.00	1.16	11,066.4	1,552.5	-367.2	521,487.96	751,265.45	32.4317986	-103.6529190	
12,710.0	88.97	0.28	11,068.7	1,642.4	-366.1	521,577.92	751,266.58	32.4320459	-103.6529135	
12,799.0	90.02	1.25	11,069.5	1,731.4	-364.9	521,666.91	751,267.77	32.4322905	-103.6529078	
12,800.0	90.03	1.24	11,069.5	1,732.4	-364.9	521,667.91	751,267.79	32.4322932	-103.6529077	
12,889.0	90.55	0.45	11,069.1	1,821.4	-363.6	521,756.89	751,269.11	32.4325378	-103.6529017	
12,894.6	90.54	0.35	11,069.0	1,827.0	-363.5	521,762.48	751,269.15	32.4325531	-103.6529014	
<b>Anderson Fed Com 551H WP1</b>										
12,900.0	90.54	0.24	11,069.0	1,832.4	-363.5	521,767.89	751,269.17	32.4325680	-103.6529012	
12,978.0	90.46	358.79	11,068.3	1,910.4	-364.2	521,845.89	751,268.52	32.4327824	-103.6529017	
13,000.0	90.74	358.88	11,068.1	1,932.4	-364.6	521,867.88	751,268.07	32.4328429	-103.6529027	



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 551H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad D	<b>MD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 551H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 551H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,067.0	91.60	359.14	11,066.7	1,999.4	-365.8	521,934.85	751,266.91	32.4330270	-103.6529051
13,100.0	91.99	359.20	11,065.7	2,032.4	-366.2	521,967.83	751,266.43	32.4331176	-103.6529060
13,157.0	92.66	359.31	11,063.4	2,089.3	-367.0	522,024.78	751,265.69	32.4332742	-103.6529072
13,200.0	92.51	359.65	11,061.4	2,132.3	-367.4	522,067.74	751,265.30	32.4333922	-103.6529076
13,246.0	92.35	0.02	11,059.5	2,178.2	-367.5	522,113.70	751,265.17	32.4335186	-103.6529070
13,300.0	91.47	0.60	11,057.7	2,232.2	-367.2	522,167.66	751,265.47	32.4336669	-103.6529050
13,335.0	90.90	0.98	11,056.9	2,267.2	-366.7	522,202.65	751,265.95	32.4337631	-103.6529027
13,400.0	91.56	0.47	11,055.5	2,332.2	-365.9	522,267.63	751,266.77	32.4339416	-103.6528987
13,425.0	91.82	0.28	11,054.8	2,357.1	-365.7	522,292.62	751,266.94	32.4340103	-103.6528976
13,500.0	90.12	0.57	11,053.5	2,432.1	-365.2	522,367.61	751,267.50	32.4342164	-103.6528943
13,514.0	89.80	0.63	11,053.5	2,446.1	-365.0	522,381.60	751,267.65	32.4342549	-103.6528935
13,603.0	90.11	0.81	11,053.6	2,535.1	-363.9	522,470.60	751,268.76	32.4344995	-103.6528880
13,692.0	89.19	358.96	11,054.2	2,624.1	-364.1	522,559.59	751,268.59	32.4347441	-103.6528868
13,700.0	89.21	358.87	11,054.3	2,632.1	-364.2	522,567.59	751,268.43	32.4347661	-103.6528871
13,781.0	89.45	357.99	11,055.2	2,713.1	-366.5	522,648.55	751,266.22	32.4349887	-103.6528926
13,800.0	89.44	358.14	11,055.4	2,732.1	-367.1	522,667.54	751,265.58	32.4350409	-103.6528943
13,871.0	89.41	358.70	11,056.1	2,803.0	-369.1	522,738.51	751,263.62	32.4352360	-103.6528992
13,895.0	89.67	359.28	11,056.3	2,827.0	-369.5	522,762.48	751,263.20	32.4353019	-103.6529000
<b>NMM 120905 Entry at 13895.0 MD</b>									
13,900.0	89.72	359.41	11,056.3	2,832.0	-369.5	522,767.50	751,263.14	32.4353157	-103.6529001
13,961.0	90.37	0.89	11,056.3	2,893.0	-369.4	522,828.50	751,263.30	32.4354833	-103.6528984
14,000.0	90.26	0.97	11,056.1	2,932.0	-368.7	522,867.50	751,263.93	32.4355905	-103.6528955
14,050.0	90.11	1.07	11,055.9	2,982.0	-367.9	522,917.49	751,264.82	32.4357279	-103.6528916
14,100.0	89.87	0.78	11,055.9	3,032.0	-367.1	522,967.48	751,265.62	32.4358653	-103.6528880
14,140.0	89.67	0.54	11,056.1	3,072.0	-366.6	523,007.48	751,266.08	32.4359752	-103.6528856
14,200.0	89.32	359.90	11,056.6	3,132.0	-366.4	523,067.47	751,266.31	32.4361401	-103.6528837
14,230.0	89.14	359.58	11,057.0	3,162.0	-366.5	523,097.47	751,266.18	32.4362226	-103.6528835
14,300.0	90.04	359.99	11,057.5	3,232.0	-366.8	523,167.47	751,265.91	32.4364150	-103.6528829
14,319.0	90.29	0.10	11,057.5	3,251.0	-366.7	523,186.47	751,265.93	32.4364672	-103.6528824
14,409.0	92.04	0.98	11,055.6	3,341.0	-365.9	523,276.44	751,266.78	32.4367145	-103.6528778
14,498.0	90.86	1.60	11,053.4	3,429.9	-363.9	523,365.39	751,268.78	32.4369589	-103.6528695
14,500.0	90.76	1.63	11,053.3	3,431.9	-363.8	523,367.39	751,268.84	32.4369644	-103.6528693
14,588.0	86.46	2.74	11,055.5	3,519.8	-360.5	523,455.28	751,272.18	32.4372059	-103.6528566
14,600.0	86.65	2.67	11,056.2	3,531.8	-359.9	523,467.24	751,272.75	32.4372388	-103.6528545
14,677.0	87.87	2.21	11,059.9	3,608.6	-356.7	523,544.08	751,276.02	32.4374500	-103.6528423
14,700.0	87.71	2.05	11,060.8	3,631.6	-355.8	523,567.05	751,276.88	32.4375131	-103.6528391
14,766.0	87.25	1.60	11,063.7	3,697.5	-353.7	523,632.95	751,278.98	32.4376942	-103.6528309
14,776.2	86.98	1.40	11,064.2	3,707.7	-353.4	523,643.17	751,279.25	32.4377223	-103.6528298
<b>Anderson Fed Com 551H WP2</b>									
14,800.0	86.37	0.94	11,065.6	3,731.4	-352.9	523,666.89	751,279.73	32.4377874	-103.6528278
14,856.0	84.92	359.84	11,069.8	3,787.2	-352.6	523,722.72	751,280.11	32.4379409	-103.6528254
14,900.0	86.77	359.67	11,073.0	3,831.1	-352.8	523,766.61	751,279.92	32.4380615	-103.6528251
14,945.0	88.66	359.49	11,074.8	3,876.1	-353.1	523,811.57	751,279.59	32.4381851	-103.6528253
15,000.0	88.96	359.92	11,075.9	3,931.1	-353.4	523,866.55	751,279.31	32.4383363	-103.6528250
15,034.0	89.14	0.19	11,076.5	3,965.1	-353.3	523,900.55	751,279.34	32.4384297	-103.6528242
15,100.0	89.72	359.42	11,077.2	4,031.1	-353.6	523,966.54	751,279.12	32.4386111	-103.6528236
15,124.0	89.93	359.14	11,077.2	4,055.1	-353.9	523,990.54	751,278.81	32.4386771	-103.6528241
15,200.0	90.27	358.76	11,077.1	4,131.1	-355.2	524,066.53	751,277.42	32.4388859	-103.6528270
15,213.0	90.33	358.70	11,077.0	4,144.1	-355.5	524,079.53	751,277.14	32.4389217	-103.6528277
15,302.0	90.81	358.35	11,076.2	4,233.0	-357.8	524,168.49	751,274.85	32.4391662	-103.6528333
15,391.0	90.46	358.79	11,075.2	4,322.0	-360.0	524,257.46	751,272.63	32.4394108	-103.6528386
15,400.0	90.26	358.89	11,075.1	4,331.0	-360.2	524,266.46	751,272.44	32.4394356	-103.6528390
15,481.0	88.48	359.84	11,076.0	4,412.0	-361.1	524,347.44	751,271.55	32.4396582	-103.6528403
15,500.0	88.63	359.91	11,076.5	4,431.0	-361.2	524,366.44	751,271.51	32.4397104	-103.6528400
15,570.0	89.19	0.19	11,077.8	4,500.9	-361.1	524,436.42	751,271.57	32.4399027	-103.6528383



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 551H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad D	<b>MD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 551H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 551H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
15,600.0	88.40	359.69	11,078.4	4,530.9	-361.1	524,466.42	751,271.54	32.4399852	-103.6528378	
15,659.0	86.86	358.70	11,080.9	4,589.9	-362.0	524,525.36	751,270.71	32.4401472	-103.6528393	
15,700.0	86.45	359.02	11,083.3	4,630.8	-362.8	524,566.28	751,269.90	32.4402597	-103.6528411	
15,748.0	85.98	359.40	11,086.4	4,678.7	-363.4	524,614.17	751,269.24	32.4403913	-103.6528422	
15,800.0	86.87	359.91	11,089.7	4,730.6	-363.7	524,666.07	751,268.93	32.4405340	-103.6528422	
15,838.0	87.52	0.28	11,091.5	4,768.5	-363.7	524,704.02	751,268.99	32.4406383	-103.6528412	
15,900.0	89.85	1.01	11,093.0	4,830.5	-363.0	524,766.00	751,269.69	32.4408087	-103.6528376	
15,927.0	90.86	1.33	11,092.8	4,857.5	-362.4	524,792.99	751,270.24	32.4408828	-103.6528353	
16,000.0	91.28	1.12	11,091.4	4,930.5	-360.9	524,865.96	751,271.80	32.4410834	-103.6528287	
16,017.0	91.38	1.07	11,091.0	4,947.5	-360.6	524,882.95	751,272.12	32.4411301	-103.6528273	
16,021.0	91.36	1.05	11,090.9	4,951.5	-360.5	524,886.95	751,272.20	32.4411411	-103.6528270	
<b>Anderson Fed Com 551H WP3</b>										
16,106.0	91.03	0.63	11,089.2	5,036.4	-359.2	524,971.92	751,273.44	32.4413746	-103.6528212	
16,196.0	89.54	359.84	11,088.7	5,126.4	-358.9	525,061.92	751,273.81	32.4416220	-103.6528182	
16,200.0	89.55	359.84	11,088.7	5,130.4	-358.9	525,065.92	751,273.80	32.4416329	-103.6528181	
16,285.0	89.67	359.93	11,089.3	5,215.4	-359.0	525,150.92	751,273.63	32.4418666	-103.6528169	
16,300.0	89.83	359.71	11,089.4	5,230.4	-359.1	525,165.92	751,273.59	32.4419078	-103.6528167	
16,375.0	90.64	358.61	11,089.1	5,305.4	-360.2	525,240.90	751,272.49	32.4421139	-103.6528188	
16,400.0	90.27	358.51	11,088.9	5,330.4	-360.8	525,265.90	751,271.86	32.4421826	-103.6528203	
16,464.0	89.32	358.26	11,089.1	5,394.4	-362.6	525,329.87	751,270.06	32.4423585	-103.6528248	
16,500.0	88.74	357.70	11,089.7	5,430.4	-363.9	525,365.84	751,268.79	32.4424574	-103.6528282	
16,538.0	88.13	357.10	11,090.8	5,468.3	-365.6	525,403.76	751,267.06	32.4425617	-103.6528330	
<b>NMNM 120905 Exit at 16538.0 MD</b>										
16,554.0	87.87	356.85	11,091.3	5,484.3	-366.5	525,419.76	751,266.22	32.4426056	-103.6528354	
16,600.0	87.82	356.22	11,093.1	5,530.2	-369.2	525,465.64	751,263.44	32.4427318	-103.6528434	
16,644.0	87.78	355.62	11,094.7	5,574.0	-372.4	525,509.50	751,260.31	32.4428524	-103.6528527	
16,700.0	88.33	355.95	11,096.6	5,629.8	-376.5	525,565.31	751,256.20	32.4430059	-103.6528648	
16,733.0	88.66	356.15	11,097.5	5,662.7	-378.7	525,598.22	751,253.93	32.4430964	-103.6528715	
16,800.0	88.53	357.46	11,099.1	5,729.6	-382.5	525,665.10	751,250.20	32.4432803	-103.6528822	
16,823.0	88.48	357.91	11,099.7	5,752.6	-383.4	525,688.07	751,249.27	32.4433434	-103.6528848	
16,900.0	89.16	358.59	11,101.3	5,829.5	-385.8	525,765.02	751,246.92	32.4435550	-103.6528908	
16,912.0	89.27	358.70	11,101.5	5,841.5	-386.0	525,777.01	751,246.64	32.4435879	-103.6528915	
17,002.0	90.81	359.66	11,101.4	5,931.5	-387.3	525,867.00	751,245.35	32.4438353	-103.6528938	
17,092.0	91.38	359.66	11,099.7	6,021.5	-387.9	525,956.98	751,244.81	32.4440826	-103.6528937	
17,100.0	91.36	359.55	11,099.5	6,029.5	-387.9	525,964.98	751,244.76	32.4441046	-103.6528937	
17,180.0	91.12	358.43	11,097.8	6,109.5	-389.3	526,044.95	751,243.35	32.4443245	-103.6528966	
17,200.0	90.88	358.15	11,097.4	6,129.5	-389.9	526,064.93	751,242.75	32.4443794	-103.6528981	
17,269.0	90.07	357.20	11,096.9	6,198.4	-392.7	526,133.87	751,239.96	32.4445689	-103.6529058	
17,300.0	90.72	357.23	11,096.7	6,229.4	-394.2	526,164.84	751,238.45	32.4446541	-103.6529100	
17,359.0	91.96	357.29	11,095.3	6,288.3	-397.0	526,223.75	751,235.63	32.4448161	-103.6529179	
17,400.0	92.37	357.70	11,093.7	6,329.2	-398.8	526,264.68	751,233.84	32.4449286	-103.6529229	
17,448.0	92.84	358.17	11,091.5	6,377.1	-400.6	526,312.60	751,232.11	32.4450603	-103.6529275	
17,500.0	93.68	358.02	11,088.6	6,429.0	-402.3	526,364.49	751,230.38	32.4452030	-103.6529320	
17,538.0	94.29	357.91	11,086.0	6,466.9	-403.6	526,402.37	751,229.04	32.4453071	-103.6529356	
17,600.0	93.98	359.19	11,081.5	6,528.7	-405.2	526,464.19	751,227.47	32.4454771	-103.6529394	
17,627.0	93.85	359.75	11,079.6	6,555.6	-405.5	526,491.13	751,227.22	32.4455511	-103.6529397	
17,650.0	92.31	359.75	11,078.4	6,578.6	-405.6	526,514.09	751,227.12	32.4456142	-103.6529395	
17,700.0	88.98	359.75	11,077.8	6,628.6	-405.8	526,564.08	751,226.91	32.4457516	-103.6529392	
17,716.0	87.91	359.75	11,078.3	6,644.6	-405.8	526,580.07	751,226.84	32.4457956	-103.6529391	
17,806.0	88.92	359.66	11,080.8	6,734.6	-406.3	526,670.04	751,226.37	32.4460429	-103.6529387	
17,895.0	89.71	359.75	11,081.8	6,823.6	-406.8	526,759.03	751,225.91	32.4462875	-103.6529384	
17,900.0	89.61	359.85	11,081.9	6,828.6	-406.8	526,764.03	751,225.90	32.4463012	-103.6529383	
17,985.0	87.87	1.60	11,083.7	6,913.5	-405.7	526,848.99	751,226.97	32.4465348	-103.6529331	
18,000.0	87.81	1.51	11,084.3	6,928.5	-405.3	526,863.98	751,227.38	32.4465759	-103.6529314	
18,074.0	87.52	1.07	11,087.3	7,002.4	-403.6	526,937.90	751,229.05	32.4467791	-103.6529245	



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 551H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad D	<b>MD Reference:</b>	WELL @ 3724.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 551H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 551H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
18,100.0	87.33	0.97	11,088.5	7,028.4	-403.2	526,963.87	751,229.51	32.4468505	-103.6529225	
18,163.0	86.86	0.72	11,091.7	7,091.3	-402.2	527,026.78	751,230.43	32.4470234	-103.6529182	
18,200.0	86.30	0.43	11,093.9	7,128.2	-401.9	527,063.71	751,230.81	32.4471249	-103.6529162	
18,253.0	85.49	0.02	11,097.7	7,181.1	-401.7	527,116.57	751,231.01	32.4472702	-103.6529144	
18,300.0	85.58	0.16	11,101.3	7,228.0	-401.6	527,163.43	751,231.09	32.4473990	-103.6529132	
18,343.0	85.67	0.28	11,104.6	7,270.8	-401.4	527,206.31	751,231.25	32.4475168	-103.6529118	
18,400.0	85.79	0.84	11,108.9	7,327.7	-400.9	527,263.15	751,231.81	32.4476730	-103.6529089	
18,432.0	85.85	1.16	11,111.2	7,359.6	-400.3	527,295.06	751,232.37	32.4477607	-103.6529064	
18,500.0	87.31	2.09	11,115.2	7,427.4	-398.4	527,362.90	751,234.29	32.4479472	-103.6528987	
18,522.0	87.78	2.39	11,116.2	7,449.4	-397.5	527,384.87	751,235.15	32.4480075	-103.6528955	
18,600.0	91.40	3.00	11,116.7	7,527.3	-393.9	527,462.77	751,238.82	32.4482216	-103.6528820	
18,611.0	91.91	3.09	11,116.4	7,538.3	-393.3	527,473.75	751,239.40	32.4482517	-103.6528799	
18,701.0	90.64	1.60	11,114.4	7,628.2	-389.6	527,563.64	751,243.08	32.4484988	-103.6528661	
18,791.0	89.80	1.33	11,114.1	7,718.1	-387.3	527,653.61	751,245.38	32.4487460	-103.6528568	
18,800.0	89.64	1.25	11,114.1	7,727.1	-387.1	527,662.61	751,245.59	32.4487707	-103.6528559	
18,880.0	88.26	0.54	11,115.6	7,807.1	-385.8	527,742.58	751,246.84	32.4489905	-103.6528502	
18,900.0	88.63	0.36	11,116.1	7,827.1	-385.7	527,762.58	751,246.99	32.4490455	-103.6528493	
18,970.0	89.93	359.75	11,117.0	7,897.1	-385.6	527,832.57	751,247.06	32.4492379	-103.6528476	
19,000.0	90.18	359.60	11,117.0	7,927.1	-385.8	527,862.57	751,246.90	32.4493203	-103.6528476	
19,023.0	90.37	359.49	11,116.9	7,950.1	-386.0	527,885.57	751,246.71	32.4493836	-103.6528477	
<b>LTP</b>	<b>19,073.0</b>	<b>90.37</b>	<b>359.49</b>	<b>11,116.5</b>	<b>8,000.1</b>	<b>-386.4</b>	<b>527,935.61</b>	<b>751,246.27</b>	<b>32.4495211</b>	<b>-103.6528481</b>
<b>Anderson Fed Com 551H BHL</b>										
	19,092.0	90.37	359.49	11,116.4	8,019.1	-386.6	527,954.56	751,246.10	32.4495732	-103.6528482

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
11,253	11,062	190	-305	NMNM 10669 6 Exit at 11253.0 MD	
13,895	11,056	2827	-369	NMNM 120905 Entry at 13895.0 MD	
16,538	11,091	5468	-366	NMNM 120905 Exit at 16538.0 MD	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
229.00	229.00	0.37	-0.24	First Aim Svy	
11,341.00	11,071.95	276.28	-318.41	Actual FTP	
19,023.00	11,116.87	7,950.09	-385.96	Last Aiim Svy	
19,073.05	11,116.54	8,000.14	-386.40	Actual LTP	
19,092.00	11,116.42	8,019.09	-386.57	Proj to BHL	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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 340545

**ACKNOWLEDGMENTS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 340545
	Action Type: [C-105] Well (Re)Completion (C-105)

**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.
<input type="checkbox"/>	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.
<input type="checkbox"/>	I hereby certify that no additives containing PFAS chemicals were added to the fluid used in the completion or recompletion of this well.

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

CONDITIONS

Action 340545

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 340545
	Action Type: [C-105] Well (Re)Completion (C-105)

**CONDITIONS**

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