

Well Name: ANDERSON FED COM	Well Location: T22S / R32E / SEC 2 / LOT 3 /	County or Parish/State:
Well Number: 602H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM120905	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002549002	Well Status: Approved Application for Permit to Drill	Operator: ADVANCE ENERGY PARTNERS HAT MESA LLC

Notice of Intent

Type of Submission: Notice of Intent	Type of Action Other
Date Sundry Submitted: 08/06/2021	Time Sundry Submitted: 11:34
Date proposed operation will begin: 08/13/2021	

Procedure Description: Request to move Surface Hole Location from 180' FNL & 2155' FWL, Section 2, T-22-S, R-32-E, Lot 3 to 180' FNL & 2287' FWL, Section 2, T-22-S, R-32-E, Lot 3 and the Bottom Hole Location from 1220' FSL & 1650' FWL, Section 26, T-21-S, R-32-E, SESW to 1220' FSL & 2178' FWL, Section 26, T-21-S, R-32-E, SESW. Please see attached drill plan, directional plan, and plats for detailed information regarding changes to casing, cement, and mud programs.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Anderson_602H_SHL_BHL_etc_Sundry_Attachment_20210806113335.pdf

Well Name: ANDERSON FED COM	Well Location: T22S / R32E / SEC 2 / LOT 3 /	County or Parish/State:
Well Number: 602H	Type of Well: OIL WELL	Allottee or Tribe Name:
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Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: BRIAN WOOD	Signed on: AUG 06, 2021 11:33 AM
Name: ADVANCE ENERGY PARTNERS HAT MESA LLC	
Title: President	
Street Address: 37 VERANO LOOP	
City: SANTA FE	State: NM
Phone: (505) 466-8120	
Email address: AFMSS@PERMITSWEST.COM	

Field Representative

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: Cody Layton	BLM POC Title: Assistant Field Manager Lands & Minerals
BLM POC Phone: 5752345959	BLM POC Email Address: clayton@blm.gov
Disposition: Approved	Disposition Date: 08/12/2021
Signature: Cody R. Layton	

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102

Revised August 4, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-49002	Pool Code 51683	Pool Name Red Tank; Bone Spring
Property Code 326484	Property Name ANDERSON FED COM	Well Number 602H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA, LLC	Elevation 3671'

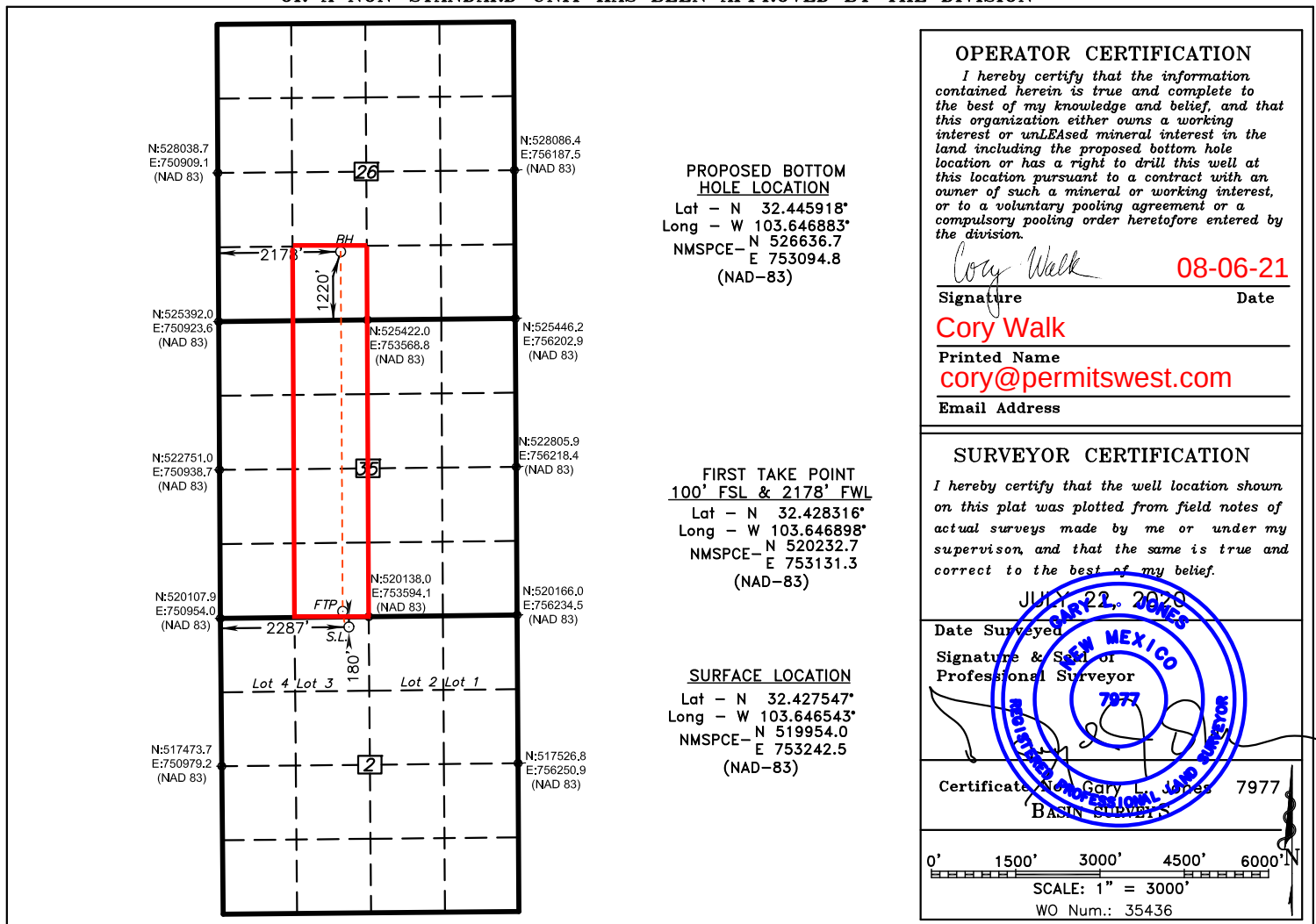
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 3	2	22 S	32 E		180	NORTH	2287	WEST	LEA

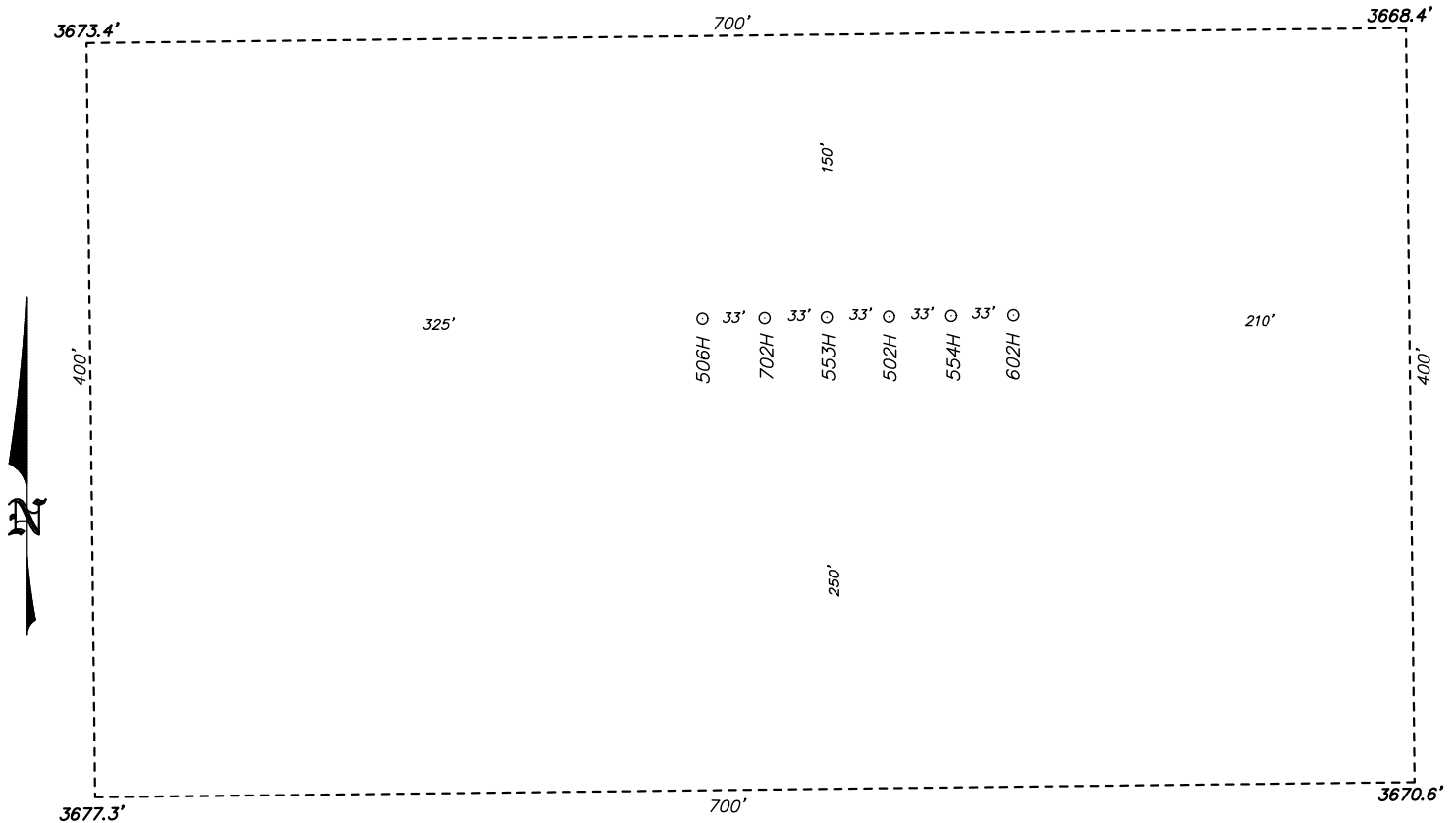
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
N	26	21 S	32 E		1220	SOUTH	2178	WEST	LEA
Dedicated Acres 200	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



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



basin
surveys
focused on excellence
in the oilfield

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

100 0 100 200 FEET
SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS HAT MESA, LLC

REF: ANDERSON FED COM 602H / WELL PAD TOPO

THE ANDERSON FED COM 602H LOCATED 180' FROM
THE NORTH LINE AND 2287' FROM THE WEST LINE OF
SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST.

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

W.O. Number: 35436	Drawn By: K. GOAD	Date: 07-23-2020	Survey Date: 07-22-2020	Sheet 1 of 1 Sheets
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CHANGE TO PLANS

Move Surface Hole Location

From: 180' FNL & 2155' FWL, Section 2, T-22-S, R-32-E, Lot 3

To: 180' FNL & 2287' FWL, Section 2, T-22-S, R-32-E, Lot 3

Move First Take Point

From: 100' FSL & 1650' FWL, Section 35, T-21-S, R-32-E, SESW

To: 100' FSL & 2178' FWL, Section 35, T-21-S, R-32-E, SESW

Move Bottom Hole Location

From: 1220' FSL & 1650' FWL, Section 26, T-21-S, R-32-E, SESW

To: 1220' FSL & 2178' FWL, Section 26, T-21-S, R-32-E, SESW

Please see attached drill plan, directional plan, and plats for additional information.

Advance Energy Partners Hat Mesa, LLC
 Anderson Fed Com 602H
 SHL 180' FNL & 2287' FWL Sec. 2, T. 22 S., R. 32 E.
 BHL 1220' FSL & 2178' FWL Sec. 26, T 21 S., R. 32 E.
 Lea County, NM

DRILL PLAN PAGE 1

"Anderson Fed Com pad C"

Drilling Program

1. ESTIMATED TOPS

Formation	TVD	MD	Bearing
Quaternary caliche	000'	000'	water
Rustler anhydrite (surf. casing set @ 1232')	1207'	1207'	N/A
Top salt	1262'	1262'	N/A
Tansil limestone (interm. casing set @ 4735')	3297'	3297'	N/A
Bell Canyon limestone	4785'	4785'	hydrocarbons
Cherry Canyon sandstone	5682'	5682'	hydrocarbons
Lower Brushy Canyon sandstone	8432'	8434'	hydrocarbons
Avalon shale	8952'	8954'	hydrocarbons
1 st Bone Spring sandstone	9819'	9822'	hydrocarbons
2 nd Bone Spring sandstone	10407'	10410'	hydrocarbons
3 rd Bone Spring carbonate	10985'	10989'	hydrocarbons
(KOP	11323'	11326'	hydrocarbons)
3 rd Bone Spring sandstone	11532'	11543'	hydrocarbons
TD	11800'	18490'	hydrocarbons

2. NOTABLE ZONES

Third Bone sandstone is the goal. Closest water well (CP 01701 POD 1) is 0.53-mile northwest. Water bearing strata were reported at 560' in this 840' deep well.

3. PRESSURE CONTROL

See attached 5000 psi Helmerich & Payne BOP Testing – BLM manual for equipment and procedures.

Advance Energy Partners Hat Mesa, LLC

DRILL PLAN PAGE 2

Anderson Fed Com 602H

SHL 180' FNL & 2287' FWL Sec. 2, T. 22 S., R. 32 E.

BHL 1220' FSL & 2178' FWL Sec. 26, T 21 S., R. 32 E.

Lea County, NM

"Anderson Fed Com pad C"

Variance is requested to use a co-flex hose between the BOP and choke instead of a steel line. See attached 3" I. D. x 10K test certificate. If this hose is unavailable, then a hose of equal or higher-pressure rating will be used.

Variance is requested to use a speed head (aka, multi-bowl wellhead). Diagram is attached.

4. CASING & CEMENT

All casing will be API and new. See attached casing assumption worksheet.

Hole OD	Set MD	Set TVD	Casing OD	Weight (lb/ft)	Grade	Joint	Collapse	Burst	Tension
17.5"	0' - 1232'	0' - 1232'	Surface 13.375"	54.5	J-55	BTC	1.125	1.125	1.6
12.25"	0' - 4000'	0' - 4000'	Intermed. 9.625"	40	J-55	LTC	1.125	1.125	1.6
12.25"	4000' - 4735'	4000' - 4735'	Intermed. 9.625"	40	HCL-80	LTC	1.125	1.125	1.6
8.5"	0' - 18490'	0' - 11800'	Product. 5.5"	20	HCP-110	CDC-HTQ	1.125	1.125	1.6

Single bow centralizer will be installed on every fourth joint of the surface and intermediate casing strings.

Single bow centralizers will be installed from 200' above the KOP up to 600' inside the previous casing shoe. Double bows will be installed from 200' above the KOP to 200' past the EOC. Solid bodies will be installed one per joint from 200' past EOC to TD.

Variance is requested for an option to use a surface rig to drill the surface hole and set and cement the surface casing. If time between rigs would not allow presetting the surface casing, then the primary rig will drill all of the well.

Advance Energy Partners Hat Mesa, LLC

DRILL PLAN PAGE 3

Anderson Fed Com 602H

SHL 180' FNL & 2287' FWL Sec. 2, T. 22 S., R. 32 E.

BHL 1220' FSL & 2178' FWL Sec. 26, T 21 S., R. 32 E.

Lea County, NM

"Anderson Fed Com pad C"

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	510	1.9	969	12.8	50%	B Poz + C	6% Gel + 5% SALT + 0.25PPS Pol-E-Flake + 0.005GPS NoFoam V1A
	Tail	932	215	1.35	290	14.8	20%	C	2% CaCl2 + 0.005GPS NoFoam V1A
1st Intermediate (stage 1)	Lead	2800	1380	1.84	2539	12.8	718%	B Poz + C	2% Gel + 5% SALT + 0.15% R-1300 + 0.25PPS Pol-E-Flake + 0.005GPS NoFoam V1A
	Tail	3788	275	1.37	377	14.8	20%	C	5% SALT + 0.005GPS NoFoam V1A
1st Intermediate (stage 2)	Lead	0	460	3.00	1380	11	153%	ProLite	5PPS Plexcrete STE + 2% SMS + 0.05% SuspendaCem 6302 + 0.5% C-47B + 3PPS Gilsonite + 0.005GPS NoFoam V1A
	Tail	2395	100	1.33	133	14.8	0%	C	0.005GPS NoFoam V1A
Production	Lead	0	1035	3.39	3509	10.7	50%	ProLite	5PPS Plexcrete STE + 2% SMS + 0.05% SuspendaCem 6302 + 0.4% R-1300 + 0.5% C-47B + 3PPS Gilsonite + 0.005GPS NoFoam V1A
	Tail	11326	1630	1.22	1989	14.5	20%	B Poz + H	5% SALT + 0.05% SuspendaCem 6302 + 0.65% C-20 + 0.5% C-47B + 0.005GPS NoFoam V1A

Note: Intermediate 1 is a two-stage cement job. DVT will be placed at approximately 2,800'.

5. MUD PROGRAM

An electronic pit volume totalizer (PVT) will be used to monitor volume, flow rate, pump pressure, and stroke rate. All necessary additives (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase needs will be on site at all times. Mud program may change due to hole conditions. A closed loop system will be used.

Advance Energy Partners Hat Mesa, LLC

DRILL PLAN PAGE 4

Anderson Fed Com 602H

SHL 180' FNL & 2287' FWL Sec. 2, T. 22 S., R. 32 E.

BHL 1220' FSL & 2178' FWL Sec. 26, T 21 S., R. 32 E.

Lea County, NM

"Anderson Fed Com pad C"

Type	Interval (MD)	lb/gal	Viscosity	Fluid Loss ml/30 mins
fresh water	0' - 1232'	8.4 – 10.0	28 - 36	N/C
Brine	1232' - 4735'	10.0 – 10.5	28 - 32	N/C
Cut Brine	4735' – 11326'	9.2 – 9.5	28 – 30	N/C
OBM	11326' – 18490'	9.5 – 9.8	55 - 65	<8

6. CORES, TESTS, & LOGS

No core, drill stem test, or open hole log is planned.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 5782 psi. Expected bottom hole temperature is $\approx 242^{\circ}$ F.

H2S monitors and detectors will be used from surface casing point to TD.

8. OTHER INFORMATION

Anticipated spud date is upon approval. It is expected it will take ≈ 3 months to drill and complete the well.

**WELL DETAILS: Anderson Fed Com 602H**

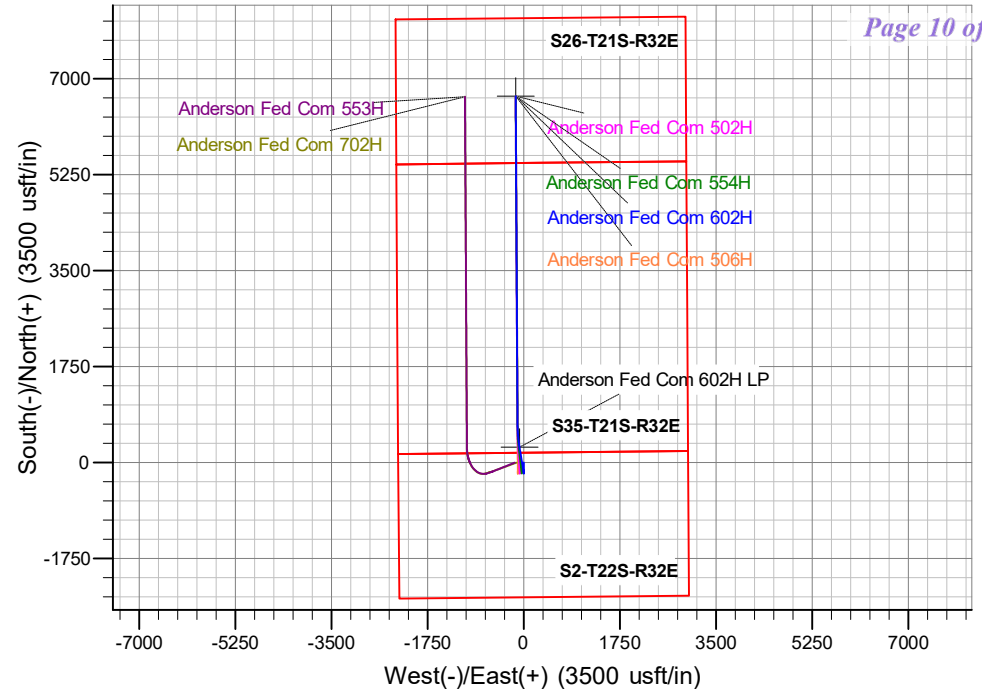
Ground Elev: 3672.0 KB: 3704.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	519953.79	753242.64	32° 25' 39.169 N	103° 38' 47.555 W

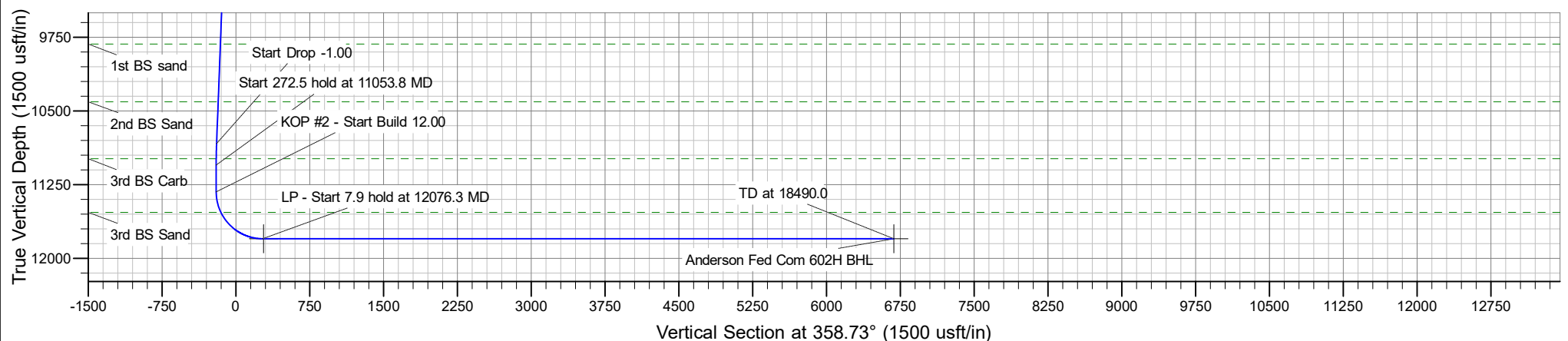
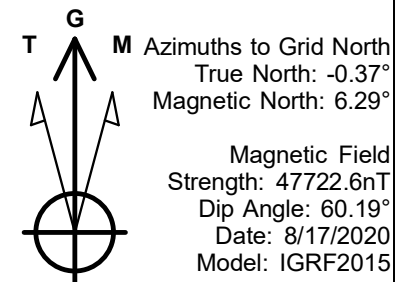
PROJECT DETAILS: Hat Mesa

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

System Datum: Mean Sea Level

**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5600.0	0.00	0.00	5600.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	5819.0	2.19	180.00	5818.9	-4.2	0.0	1.00	180.00	-4.2	Start 5015.9 hold at 5819.0 MD
4	10834.8	2.19	180.00	10831.1	-195.8	0.0	0.00	0.00	-195.8	Start Drop -1.00
5	11053.8	0.00	0.00	11050.0	-200.0	0.0	1.00	180.00	-200.0	Start 272.5 hold at 11053.8 MD
6	11326.3	0.00	0.00	11322.5	-200.0	0.0	0.00	0.00	-200.0	KOP #2 - Start Build 12.00
7	12076.3	90.00	350.75	11800.0	271.3	-76.7	12.00	350.75	272.9	LP - Start 7.9 hold at 12076.3 MD
8	12084.2	90.00	350.75	11800.0	279.1	-78.0	0.00	0.00	280.7	Start DLS 2.00 TFO 90.00
9	12530.9	90.00	359.69	11800.0	723.7	-115.2	2.00	90.00	726.1	Start 5959.1 hold at 12530.9 MD
10	18490.0	90.00	359.69	11800.0	6682.8	-147.9	0.00	0.00	6684.4	TD at 18490.0





Advance Energy Partners

Hat Mesa

Anderson Fed Com - Pad C

Anderson Fed Com 602H

Anderson Fed Com 602H

Plan: Anderson Fed Com 602H - Prelim 2

Standard Planning Report

28 July, 2021



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad C	North Reference:	Grid
Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 602H		
Design:	Anderson Fed Com 602H - Prelim 2		

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

Site		Anderson Fed Com - Pad C			
Site Position:		Northing:	519,952.78 usft	Latitude:	32° 25' 39.166 N
From:	Lat/Long	Easting:	753,142.98 usft	Longitude:	103° 38' 48.718 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	Anderson Fed Com 602H					
Well Position	+N/-S	0.0 usft	Northing:	519,953.79 usft	Latitude:	32° 25' 39.169 N
	+E/-W	0.0 usft	Easting:	753,242.64 usft	Longitude:	103° 38' 47.555 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,672.0 usft
Grid Convergence:		0.37 °				

Wellbore	Anderson Fed Com 602H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/17/2020	6.66	60.19	47,722.61586897

Design	Anderson Fed Com 602H - Prelim 2				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	358.73	

Plan Survey Tool Program	Date	7/28/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	18,490.0	Anderson Fed Com 602H - Prelim	MWD+HRGM	
			OWSG MWD + HRGM		



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad C	North Reference:	Grid
Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 602H		
Design:	Anderson Fed Com 602H - Prelim 2		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,819.0	2.19	180.00	5,818.9	-4.2	0.0	1.00	1.00	0.00	180.00	
10,834.8	2.19	180.00	10,831.1	-195.8	0.0	0.00	0.00	0.00	0.00	
11,053.8	0.00	0.00	11,050.0	-200.0	0.0	1.00	-1.00	0.00	180.00	
11,326.3	0.00	0.00	11,322.5	-200.0	0.0	0.00	0.00	0.00	0.00	
12,076.3	90.00	350.75	11,800.0	271.3	-76.7	12.00	12.00	0.00	350.75	
12,084.2	90.00	350.75	11,800.0	279.1	-78.0	0.00	0.00	0.00	0.00	Anderson Fed Com 602H
12,530.9	90.00	359.69	11,800.0	723.7	-115.2	2.00	0.00	2.00	90.00	
18,490.0	90.00	359.69	11,800.0	6,682.8	-147.9	0.00	0.00	0.00	0.00	Anderson Fed Com 602H



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Company:	Advance Energy Partners	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
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Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 602H		
Design:	Anderson Fed Com 602H - Prelim 2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,207.0	0.00	0.00	1,207.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,785.0	0.00	0.00	4,785.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Limestone									
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad C	North Reference:	Grid
Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 602H		
Design:	Anderson Fed Com 602H - Prelim 2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									
5,700.0	1.00	180.00	5,700.0	-0.9	0.0	-0.9	1.00	1.00	0.00
5,800.0	2.00	180.00	5,800.0	-3.5	0.0	-3.5	1.00	1.00	0.00
5,819.0	2.19	180.00	5,818.9	-4.2	0.0	-4.2	1.00	1.00	0.00
Start 5015.9 hold at 5819.0 MD									
5,900.0	2.19	180.00	5,899.9	-7.3	0.0	-7.3	0.00	0.00	0.00
6,000.0	2.19	180.00	5,999.8	-11.1	0.0	-11.1	0.00	0.00	0.00
6,100.0	2.19	180.00	6,099.7	-14.9	0.0	-14.9	0.00	0.00	0.00
6,200.0	2.19	180.00	6,199.7	-18.7	0.0	-18.7	0.00	0.00	0.00
6,300.0	2.19	180.00	6,299.6	-22.6	0.0	-22.6	0.00	0.00	0.00
6,400.0	2.19	180.00	6,399.5	-26.4	0.0	-26.4	0.00	0.00	0.00
6,500.0	2.19	180.00	6,499.4	-30.2	0.0	-30.2	0.00	0.00	0.00
6,600.0	2.19	180.00	6,599.4	-34.0	0.0	-34.0	0.00	0.00	0.00
6,700.0	2.19	180.00	6,699.3	-37.8	0.0	-37.8	0.00	0.00	0.00
6,800.0	2.19	180.00	6,799.2	-41.7	0.0	-41.7	0.00	0.00	0.00
6,900.0	2.19	180.00	6,899.2	-45.5	0.0	-45.5	0.00	0.00	0.00
7,000.0	2.19	180.00	6,999.1	-49.3	0.0	-49.3	0.00	0.00	0.00
7,100.0	2.19	180.00	7,099.0	-53.1	0.0	-53.1	0.00	0.00	0.00
7,200.0	2.19	180.00	7,198.9	-56.9	0.0	-56.9	0.00	0.00	0.00
7,300.0	2.19	180.00	7,298.9	-60.8	0.0	-60.8	0.00	0.00	0.00
7,400.0	2.19	180.00	7,398.8	-64.6	0.0	-64.6	0.00	0.00	0.00
7,500.0	2.19	180.00	7,498.7	-68.4	0.0	-68.4	0.00	0.00	0.00
7,600.0	2.19	180.00	7,598.6	-72.2	0.0	-72.2	0.00	0.00	0.00
7,700.0	2.19	180.00	7,698.6	-76.0	0.0	-76.0	0.00	0.00	0.00
7,800.0	2.19	180.00	7,798.5	-79.9	0.0	-79.9	0.00	0.00	0.00
7,900.0	2.19	180.00	7,898.4	-83.7	0.0	-83.7	0.00	0.00	0.00
8,000.0	2.19	180.00	7,998.4	-87.5	0.0	-87.5	0.00	0.00	0.00
8,100.0	2.19	180.00	8,098.3	-91.3	0.0	-91.3	0.00	0.00	0.00
8,200.0	2.19	180.00	8,198.2	-95.2	0.0	-95.1	0.00	0.00	0.00
8,300.0	2.19	180.00	8,298.1	-99.0	0.0	-98.9	0.00	0.00	0.00
8,400.0	2.19	180.00	8,398.1	-102.8	0.0	-102.8	0.00	0.00	0.00
8,434.0	2.19	180.00	8,432.0	-104.1	0.0	-104.1	0.00	0.00	0.00
Lower Brushy									
8,500.0	2.19	180.00	8,498.0	-106.6	0.0	-106.6	0.00	0.00	0.00
8,600.0	2.19	180.00	8,597.9	-110.4	0.0	-110.4	0.00	0.00	0.00
8,700.0	2.19	180.00	8,697.8	-114.3	0.0	-114.2	0.00	0.00	0.00
8,800.0	2.19	180.00	8,797.8	-118.1	0.0	-118.0	0.00	0.00	0.00
8,900.0	2.19	180.00	8,897.7	-121.9	0.0	-121.9	0.00	0.00	0.00
8,954.3	2.19	180.00	8,952.0	-124.0	0.0	-123.9	0.00	0.00	0.00
Avalon									
9,000.0	2.19	180.00	8,997.6	-125.7	0.0	-125.7	0.00	0.00	0.00
9,100.0	2.19	180.00	9,097.6	-129.5	0.0	-129.5	0.00	0.00	0.00
9,200.0	2.19	180.00	9,197.5	-133.4	0.0	-133.3	0.00	0.00	0.00
9,300.0	2.19	180.00	9,297.4	-137.2	0.0	-137.1	0.00	0.00	0.00
9,400.0	2.19	180.00	9,397.3	-141.0	0.0	-141.0	0.00	0.00	0.00
9,500.0	2.19	180.00	9,497.3	-144.8	0.0	-144.8	0.00	0.00	0.00



Planning Report

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Company:	Advance Energy Partners	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad C	North Reference:	Grid
Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 602H		
Design:	Anderson Fed Com 602H - Prelim 2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,600.0	2.19	180.00	9,597.2	-148.6	0.0	-148.6	0.00	0.00	0.00
9,700.0	2.19	180.00	9,697.1	-152.5	0.0	-152.4	0.00	0.00	0.00
9,800.0	2.19	180.00	9,797.0	-156.3	0.0	-156.2	0.00	0.00	0.00
9,822.0	2.19	180.00	9,819.0	-157.1	0.0	-157.1	0.00	0.00	0.00
1st BS sand									
9,900.0	2.19	180.00	9,897.0	-160.1	0.0	-160.1	0.00	0.00	0.00
10,000.0	2.19	180.00	9,996.9	-163.9	0.0	-163.9	0.00	0.00	0.00
10,100.0	2.19	180.00	10,096.8	-167.7	0.0	-167.7	0.00	0.00	0.00
10,200.0	2.19	180.00	10,196.7	-171.6	0.0	-171.5	0.00	0.00	0.00
10,300.0	2.19	180.00	10,296.7	-175.4	0.0	-175.3	0.00	0.00	0.00
10,400.0	2.19	180.00	10,396.6	-179.2	0.0	-179.2	0.00	0.00	0.00
10,410.4	2.19	180.00	10,407.0	-179.6	0.0	-179.6	0.00	0.00	0.00
2nd BS Sand									
10,500.0	2.19	180.00	10,496.5	-183.0	0.0	-183.0	0.00	0.00	0.00
10,600.0	2.19	180.00	10,596.5	-186.8	0.0	-186.8	0.00	0.00	0.00
10,700.0	2.19	180.00	10,696.4	-190.7	0.0	-190.6	0.00	0.00	0.00
10,800.0	2.19	180.00	10,796.3	-194.5	0.0	-194.4	0.00	0.00	0.00
10,834.8	2.19	180.00	10,831.1	-195.8	0.0	-195.8	0.00	0.00	0.00
Start Drop -1.00									
10,900.0	1.54	180.00	10,896.2	-197.9	0.0	-197.9	1.00	-1.00	0.00
10,988.8	0.65	180.00	10,985.0	-199.6	0.0	-199.6	1.00	-1.00	0.00
3rd BS Carb									
11,000.0	0.54	180.00	10,996.2	-199.7	0.0	-199.7	1.00	-1.00	0.00
11,053.8	0.00	0.00	11,050.0	-200.0	0.0	-200.0	1.00	-1.00	0.00
Start 272.5 hold at 11053.8 MD									
11,100.0	0.00	0.00	11,096.2	-200.0	0.0	-200.0	0.00	0.00	0.00
11,200.0	0.00	0.00	11,196.2	-200.0	0.0	-200.0	0.00	0.00	0.00
11,300.0	0.00	0.00	11,296.2	-200.0	0.0	-200.0	0.00	0.00	0.00
11,326.3	0.00	0.00	11,322.5	-200.0	0.0	-200.0	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
11,400.0	8.84	350.75	11,395.9	-194.4	-0.9	-194.3	12.00	12.00	0.00
11,500.0	20.84	350.75	11,492.4	-169.2	-5.0	-169.0	12.00	12.00	0.00
11,543.1	26.02	350.75	11,532.0	-152.2	-7.8	-152.0	12.00	12.00	0.00
3rd BS Sand									
11,600.0	32.84	350.75	11,581.5	-124.7	-12.3	-124.4	12.00	12.00	0.00
11,700.0	44.84	350.75	11,659.2	-62.9	-22.3	-62.4	12.00	12.00	0.00
11,800.0	56.84	350.75	11,722.3	13.5	-34.8	14.3	12.00	12.00	0.00
11,900.0	68.84	350.75	11,767.8	101.2	-49.0	102.2	12.00	12.00	0.00
12,000.0	80.84	350.75	11,793.9	196.3	-64.5	197.6	12.00	12.00	0.00
12,076.3	90.00	350.75	11,800.0	271.3	-76.7	272.9	12.00	12.00	0.00
LP - Start 7.9 hold at 12076.3 MD									
12,084.2	90.00	350.75	11,800.0	279.1	-78.0	280.7	0.00	0.00	0.00
Start DLS 2.00 TFO 90.00 - Anderson Fed Com 602H LP									
12,100.0	90.00	351.07	11,800.0	294.7	-80.5	296.4	2.00	0.00	2.00
12,200.0	90.00	353.07	11,800.0	393.7	-94.3	395.7	2.00	0.00	2.00
12,300.0	90.00	355.07	11,800.0	493.2	-104.6	495.3	2.00	0.00	2.00
12,400.0	90.00	357.07	11,800.0	592.9	-111.5	595.2	2.00	0.00	2.00
12,500.0	90.00	359.07	11,800.0	692.8	-114.9	695.2	2.00	0.00	2.00
12,530.9	90.00	359.69	11,800.0	723.7	-115.2	726.1	2.00	0.00	2.00
Start 5959.1 hold at 12530.9 MD									
12,600.0	90.00	359.69	11,800.0	792.8	-115.6	795.2	0.00	0.00	0.00
12,700.0	90.00	359.69	11,800.0	892.8	-116.1	895.2	0.00	0.00	0.00
12,800.0	90.00	359.69	11,800.0	992.8	-116.7	995.2	0.00	0.00	0.00



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad C	North Reference:	Grid
Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 602H		
Design:	Anderson Fed Com 602H - Prelim 2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,900.0	90.00	359.69	11,800.0	1,092.8	-117.2	1,095.2	0.00	0.00	0.00
13,000.0	90.00	359.69	11,800.0	1,192.8	-117.8	1,195.2	0.00	0.00	0.00
13,100.0	90.00	359.69	11,800.0	1,292.8	-118.3	1,295.1	0.00	0.00	0.00
13,200.0	90.00	359.69	11,800.0	1,392.8	-118.9	1,395.1	0.00	0.00	0.00
13,300.0	90.00	359.69	11,800.0	1,492.8	-119.4	1,495.1	0.00	0.00	0.00
13,400.0	90.00	359.69	11,800.0	1,592.8	-120.0	1,595.1	0.00	0.00	0.00
13,500.0	90.00	359.69	11,800.0	1,692.8	-120.5	1,695.1	0.00	0.00	0.00
13,600.0	90.00	359.69	11,800.0	1,792.8	-121.1	1,795.1	0.00	0.00	0.00
13,700.0	90.00	359.69	11,800.0	1,892.8	-121.6	1,895.1	0.00	0.00	0.00
13,800.0	90.00	359.69	11,800.0	1,992.8	-122.1	1,995.0	0.00	0.00	0.00
13,900.0	90.00	359.69	11,800.0	2,092.8	-122.7	2,095.0	0.00	0.00	0.00
14,000.0	90.00	359.69	11,800.0	2,192.8	-123.2	2,195.0	0.00	0.00	0.00
14,100.0	90.00	359.69	11,800.0	2,292.8	-123.8	2,295.0	0.00	0.00	0.00
14,200.0	90.00	359.69	11,800.0	2,392.8	-124.3	2,395.0	0.00	0.00	0.00
14,300.0	90.00	359.69	11,800.0	2,492.8	-124.9	2,495.0	0.00	0.00	0.00
14,400.0	90.00	359.69	11,800.0	2,592.8	-125.4	2,595.0	0.00	0.00	0.00
14,500.0	90.00	359.69	11,800.0	2,692.8	-126.0	2,694.9	0.00	0.00	0.00
14,600.0	90.00	359.69	11,800.0	2,792.8	-126.5	2,794.9	0.00	0.00	0.00
14,700.0	90.00	359.69	11,800.0	2,892.8	-127.1	2,894.9	0.00	0.00	0.00
14,800.0	90.00	359.69	11,800.0	2,992.8	-127.6	2,994.9	0.00	0.00	0.00
14,900.0	90.00	359.69	11,800.0	3,092.8	-128.2	3,094.9	0.00	0.00	0.00
15,000.0	90.00	359.69	11,800.0	3,192.8	-128.7	3,194.9	0.00	0.00	0.00
15,100.0	90.00	359.69	11,800.0	3,292.8	-129.3	3,294.9	0.00	0.00	0.00
15,200.0	90.00	359.69	11,800.0	3,392.8	-129.8	3,394.8	0.00	0.00	0.00
15,300.0	90.00	359.69	11,800.0	3,492.8	-130.4	3,494.8	0.00	0.00	0.00
15,400.0	90.00	359.69	11,800.0	3,592.8	-130.9	3,594.8	0.00	0.00	0.00
15,500.0	90.00	359.69	11,800.0	3,692.8	-131.5	3,694.8	0.00	0.00	0.00
15,600.0	90.00	359.69	11,800.0	3,792.8	-132.0	3,794.8	0.00	0.00	0.00
15,700.0	90.00	359.69	11,800.0	3,892.8	-132.6	3,894.8	0.00	0.00	0.00
15,800.0	90.00	359.69	11,800.0	3,992.8	-133.1	3,994.8	0.00	0.00	0.00
15,900.0	90.00	359.69	11,800.0	4,092.8	-133.7	4,094.8	0.00	0.00	0.00
16,000.0	90.00	359.69	11,800.0	4,192.8	-134.2	4,194.7	0.00	0.00	0.00
16,100.0	90.00	359.69	11,800.0	4,292.8	-134.8	4,294.7	0.00	0.00	0.00
16,200.0	90.00	359.69	11,800.0	4,392.8	-135.3	4,394.7	0.00	0.00	0.00
16,300.0	90.00	359.69	11,800.0	4,492.8	-135.9	4,494.7	0.00	0.00	0.00
16,400.0	90.00	359.69	11,800.0	4,592.8	-136.4	4,594.7	0.00	0.00	0.00
16,500.0	90.00	359.69	11,800.0	4,692.8	-136.9	4,694.7	0.00	0.00	0.00
16,600.0	90.00	359.69	11,800.0	4,792.8	-137.5	4,794.7	0.00	0.00	0.00
16,700.0	90.00	359.69	11,800.0	4,892.8	-138.0	4,894.6	0.00	0.00	0.00
16,800.0	90.00	359.69	11,800.0	4,992.8	-138.6	4,994.6	0.00	0.00	0.00
16,900.0	90.00	359.69	11,800.0	5,092.8	-139.1	5,094.6	0.00	0.00	0.00
17,000.0	90.00	359.69	11,800.0	5,192.8	-139.7	5,194.6	0.00	0.00	0.00
17,100.0	90.00	359.69	11,800.0	5,292.8	-140.2	5,294.6	0.00	0.00	0.00
17,200.0	90.00	359.69	11,800.0	5,392.8	-140.8	5,394.6	0.00	0.00	0.00
17,300.0	90.00	359.69	11,800.0	5,492.8	-141.3	5,494.6	0.00	0.00	0.00
17,400.0	90.00	359.69	11,800.0	5,592.8	-141.9	5,594.5	0.00	0.00	0.00
17,500.0	90.00	359.69	11,800.0	5,692.8	-142.4	5,694.5	0.00	0.00	0.00
17,600.0	90.00	359.69	11,800.0	5,792.8	-143.0	5,794.5	0.00	0.00	0.00
17,700.0	90.00	359.69	11,800.0	5,892.8	-143.5	5,894.5	0.00	0.00	0.00
17,800.0	90.00	359.69	11,800.0	5,992.8	-144.1	5,994.5	0.00	0.00	0.00
17,900.0	90.00	359.69	11,800.0	6,092.8	-144.6	6,094.5	0.00	0.00	0.00
18,000.0	90.00	359.69	11,800.0	6,192.8	-145.2	6,194.5	0.00	0.00	0.00
18,100.0	90.00	359.69	11,800.0	6,292.8	-145.7	6,294.4	0.00	0.00	0.00
18,200.0	90.00	359.69	11,800.0	6,392.8	-146.3	6,394.4	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad C	North Reference:	Grid
Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 602H		
Design:	Anderson Fed Com 602H - Prelim 2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
18,300.0	90.00	359.69	11,800.0	6,492.8	-146.8	6,494.4	0.00	0.00	0.00	
18,400.0	90.00	359.69	11,800.0	6,592.8	-147.4	6,594.4	0.00	0.00	0.00	
18,490.0	90.00	359.69	11,800.0	6,682.8	-147.9	6,684.4	0.00	0.00	0.00	
TD at 18490.0 - Anderson Fed Com 602H BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Anderson Fed Com 602I	0.00	0.00	11,800.0	279.1	-78.0	520,232.85	753,164.64	32° 25' 41.935 N	103° 38' 48.444 W	
- plan hits target center										
- Point										
Anderson Fed Com 602I	0.00	0.00	11,800.0	6,682.8	-147.9	526,636.57	753,094.78	32° 26' 45.305 N	103° 38' 48.779 W	
- plan hits target center										
- Point										

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
12,076.3	11,800.0	LP	5-1/2	5-1/2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,207.0	1,207.0	Rustler		0.00		
4,785.0	4,785.0	Base of Limestone		0.00		
8,434.0	8,432.0	Lower Brushy		0.00		
8,954.3	8,952.0	Avalon		0.00		
9,822.0	9,819.0	1st BS sand		0.00		
10,410.4	10,407.0	2nd BS Sand		0.00		
10,988.8	10,985.0	3rd BS Carb		0.00		
11,543.1	11,532.0	3rd BS Sand		0.00		



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad C	North Reference:	Grid
Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 602H		
Design:	Anderson Fed Com 602H - Prelim 2		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,600.0	5,600.0	0.0	0.0	KOP - Start Build 1.00
5,819.0	5,818.9	-4.2	0.0	Start 5015.9 hold at 5819.0 MD
10,834.8	10,831.1	-195.8	0.0	Start Drop -1.00
11,053.8	11,050.0	-200.0	0.0	Start 272.5 hold at 11053.8 MD
11,326.3	11,322.5	-200.0	0.0	KOP #2 - Start Build 12.00
12,076.3	11,800.0	271.3	-76.7	LP - Start 7.9 hold at 12076.3 MD
12,084.2	11,800.0	279.1	-78.0	Start DLS 2.00 TFO 90.00
12,530.9	11,800.0	723.7	-115.2	Start 5959.1 hold at 12530.9 MD
18,490.0	11,800.0	6,682.8	-147.9	TD at 18490.0



Advance Energy Partners

Hat Mesa

Anderson Fed Com - Pad C

Anderson Fed Com 602H

Anderson Fed Com 602H

Anderson Fed Com 602H - Prelim 2

Anticollision Report

28 July, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Reference	Anderson Fed Com 602H - Prelim 2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,000.0usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.79 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	7/28/2021			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	18,490.0	Anderson Fed Com 602H - Prelim 2 (Ande	MWD+HRGM	OWSG MWD + HRGM	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Anderson Fed Com - Pad C						
Anderson Fed Com 502H - Anderson Fed Com 502H - A	5,200.0	5,200.0	66.0	39.3	2.468	CC
Anderson Fed Com 502H - Anderson Fed Com 502H - A	5,400.0	5,399.8	66.2	39.1	2.436	ES
Anderson Fed Com 502H - Anderson Fed Com 502H - A	10,000.0	10,001.4	80.8	42.3	2.099	SF
Anderson Fed Com 506H - Anderson Fed Com 506H - A	5,000.0	4,999.0	99.0	72.9	3.792	CC
Anderson Fed Com 506H - Anderson Fed Com 506H - A	5,200.0	5,198.7	99.3	72.7	3.737	ES
Anderson Fed Com 506H - Anderson Fed Com 506H - A	9,600.0	9,612.3	110.8	76.9	3.267	SF
Anderson Fed Com 553H - Anderson Fed Com 553H - A	5,000.0	5,000.0	165.2	139.0	6.322	CC, ES
Anderson Fed Com 553H - Anderson Fed Com 553H - A	5,100.0	5,097.4	166.0	139.6	6.290	SF
Anderson Fed Com 554H - Anderson Fed Com 554H - A	5,400.0	5,399.0	33.6	6.3	1.229	Level 3, CC
Anderson Fed Com 554H - Anderson Fed Com 554H - A	10,600.0	10,599.5	39.0	0.9	1.022	Level 3, ES, SF
Anderson Fed Com 702H - Anderson Fed Com 702H - A	5,400.0	5,395.0	132.1	104.7	4.826	CC, ES
Anderson Fed Com 702H - Anderson Fed Com 702H - A	18,490.0	18,884.0	958.5	689.7	3.566	SF

Offset Design:	Anderson Fed Com - Pad C - Anderson Fed Com 502H - Anderson Fed Com 502H - Anderson Fed Com 502H - Prelim 2											Offset Site Error:	0.0 usft
Survey Program:	0-MWD+HRGM											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.37	-0.4	-66.0	66.0				
100.0	100.0	100.0	100.0	0.5	0.5	-90.37	-0.4	-66.0	66.0	65.0	1.06	62.276	
200.0	200.0	200.0	200.0	1.7	1.7	-90.37	-0.4	-66.0	66.0	62.6	3.42	19.287	
300.0	300.0	300.0	300.0	2.4	2.4	-90.37	-0.4	-66.0	66.0	61.2	4.82	13.691	
400.0	400.0	400.0	400.0	3.0	3.0	-90.37	-0.4	-66.0	66.0	60.1	5.91	11.177	
500.0	500.0	500.0	500.0	3.4	3.4	-90.37	-0.4	-66.0	66.0	59.2	6.83	9.668	
600.0	600.0	600.0	600.0	3.8	3.8	-90.37	-0.4	-66.0	66.0	58.4	7.65	8.633	
700.0	700.0	700.0	700.0	4.2	4.2	-90.37	-0.4	-66.0	66.0	57.6	8.39	7.867	
800.0	800.0	800.0	800.0	4.5	4.5	-90.37	-0.4	-66.0	66.0	56.9	9.08	7.269	
900.0	900.0	900.0	900.0	4.9	4.9	-90.37	-0.4	-66.0	66.0	56.3	9.73	6.786	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	-90.37	-0.4	-66.0	66.0	55.7	10.34	6.385	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	-90.37	-0.4	-66.0	66.0	55.1	10.92	6.045	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-90.37	-0.4	-66.0	66.0	54.6	11.48	5.752	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	-90.37	-0.4	-66.0	66.0	54.0	12.01	5.496	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	-90.37	-0.4	-66.0	66.0	53.5	12.53	5.269	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	-90.37	-0.4	-66.0	66.0	53.0	13.03	5.067	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 502H - Anderson Fed Com 502H - Anderson Fed Com 502H - Prelim 2												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	-90.37	-0.4	-66.0	66.0	52.5	13.52	4.885	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	-90.37	-0.4	-66.0	66.0	52.0	13.99	4.720	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	-90.37	-0.4	-66.0	66.0	51.6	14.45	4.570	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	-90.37	-0.4	-66.0	66.0	51.1	14.90	4.432	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	-90.37	-0.4	-66.0	66.0	50.7	15.34	4.305	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	-90.37	-0.4	-66.0	66.0	50.3	15.77	4.187	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	-90.37	-0.4	-66.0	66.0	49.8	16.19	4.078	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	-90.37	-0.4	-66.0	66.0	49.4	16.61	3.976	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	-90.37	-0.4	-66.0	66.0	49.0	17.02	3.881	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-90.37	-0.4	-66.0	66.0	48.6	17.42	3.791	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	-90.37	-0.4	-66.0	66.0	48.2	17.81	3.707	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	-90.37	-0.4	-66.0	66.0	47.8	18.20	3.628	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	-90.37	-0.4	-66.0	66.0	47.4	18.59	3.553	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	-90.37	-0.4	-66.0	66.0	47.1	18.96	3.482	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	-90.37	-0.4	-66.0	66.0	46.7	19.34	3.414	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	-90.37	-0.4	-66.0	66.0	46.3	19.71	3.350	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	-90.37	-0.4	-66.0	66.0	46.0	20.07	3.289	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	-90.37	-0.4	-66.0	66.0	45.6	20.44	3.231	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	-90.37	-0.4	-66.0	66.0	45.2	20.79	3.175	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	-90.37	-0.4	-66.0	66.0	44.9	21.15	3.122	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	-90.37	-0.4	-66.0	66.0	44.5	21.50	3.071	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	-90.37	-0.4	-66.0	66.0	44.2	21.85	3.023	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	-90.37	-0.4	-66.0	66.0	43.8	22.19	2.976	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	-90.37	-0.4	-66.0	66.0	43.5	22.53	2.931	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	-90.37	-0.4	-66.0	66.0	43.2	22.87	2.887	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	-90.37	-0.4	-66.0	66.0	42.8	23.21	2.845	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-90.37	-0.4	-66.0	66.0	42.5	23.54	2.805	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	-90.37	-0.4	-66.0	66.0	42.2	23.87	2.766	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	-90.37	-0.4	-66.0	66.0	41.8	24.20	2.729	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	-90.37	-0.4	-66.0	66.0	41.5	24.53	2.692	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	-90.37	-0.4	-66.0	66.0	41.2	24.85	2.657	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	-90.37	-0.4	-66.0	66.0	40.9	25.17	2.623	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	-90.37	-0.4	-66.0	66.0	40.5	25.49	2.590	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	-90.37	-0.4	-66.0	66.0	40.2	25.81	2.558	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-90.37	-0.4	-66.0	66.0	39.9	26.12	2.528	
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	-90.37	-0.4	-66.0	66.0	39.6	26.44	2.497	
5,166.7	5,166.7	5,166.7	5,166.7	13.3	13.3	-90.37	-0.4	-66.0	66.0	39.4	26.65	2.478	
5,200.0	5,200.0	5,200.0	5,200.0	13.4	13.4	-90.37	-0.4	-66.0	66.0	39.3	26.75	2.468 CC	
5,300.0	5,300.0	5,299.9	5,299.9	13.5	13.5	-91.12	-1.3	-66.1	66.1	39.1	26.99	2.448	
5,400.0	5,400.0	5,399.8	5,399.8	13.7	13.5	-93.38	-3.9	-66.1	66.2	39.1	27.19	2.436 ES	
5,500.0	5,500.0	5,499.7	5,499.5	13.8	13.6	-97.01	-8.1	-66.3	66.8	39.4	27.35	2.441	
5,600.0	5,600.0	5,599.6	5,599.3	14.0	13.6	-100.87	-12.7	-66.4	67.6	40.1	27.55	2.455	
5,700.0	5,700.0	5,699.5	5,699.1	14.1	13.8	76.08	-17.4	-66.5	68.6	40.9	27.69	2.476	
5,800.0	5,800.0	5,799.5	5,799.0	14.1	13.9	74.50	-22.0	-66.7	69.2	41.4	27.80	2.489	
5,819.0	5,818.9	5,818.4	5,817.9	14.1	13.9	74.36	-22.8	-66.7	69.3	41.5	27.81	2.491	
5,900.0	5,899.9	5,899.5	5,898.9	14.2	14.0	73.88	-26.6	-66.8	69.5	41.7	27.88	2.495	
6,000.0	5,999.8	5,999.5	5,998.8	14.2	14.2	73.29	-31.2	-67.0	69.9	41.9	28.00	2.497	
6,100.0	6,099.7	6,099.5	6,098.7	14.3	14.3	72.71	-35.8	-67.1	70.3	42.1	28.13	2.498	
6,200.0	6,199.7	6,199.5	6,198.6	14.5	14.5	72.13	-40.4	-67.2	70.6	42.4	28.27	2.498	
6,300.0	6,299.6	6,299.4	6,298.5	14.6	14.7	71.56	-45.0	-67.4	71.0	42.6	28.42	2.499	
6,400.0	6,399.5	6,399.4	6,398.4	14.7	14.9	70.99	-49.6	-67.5	71.4	42.8	28.58	2.498	
6,500.0	6,499.4	6,499.4	6,498.2	14.9	15.2	70.43	-54.2	-67.6	71.8	43.0	28.74	2.498	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 502H - Anderson Fed Com 502H - Anderson Fed Com 502H - Prelim 2													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference	Offset	Rule Assigned:											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
6,600.0	6,599.4	6,599.4	6,598.1	15.0	15.4	69.88	-58.8	-67.8	72.2	43.3	28.92	2.496	
6,700.0	6,699.3	6,699.4	6,698.0	15.2	15.6	69.34	-63.4	-67.9	72.6	43.5	29.10	2.495	
6,800.0	6,799.2	6,799.4	6,797.9	15.4	15.9	68.80	-68.0	-68.1	73.0	43.7	29.29	2.492	
6,900.0	6,899.2	6,899.4	6,897.8	15.6	16.1	68.26	-72.6	-68.2	73.4	43.9	29.49	2.489	
7,000.0	6,999.1	6,999.4	6,997.7	15.8	16.4	67.73	-77.3	-68.3	73.8	44.1	29.70	2.486	
7,100.0	7,099.0	7,099.4	7,097.6	16.0	16.7	67.21	-81.9	-68.5	74.3	44.3	29.93	2.482	
7,200.0	7,198.9	7,199.4	7,197.5	16.2	17.0	66.69	-86.5	-68.6	74.7	44.5	30.16	2.477	
7,300.0	7,298.9	7,299.4	7,297.4	16.5	17.3	66.18	-91.1	-68.7	75.1	44.7	30.41	2.472	
7,400.0	7,398.8	7,399.4	7,397.3	16.7	17.6	65.68	-95.7	-68.9	75.6	44.9	30.66	2.466	
7,500.0	7,498.7	7,499.4	7,497.2	17.0	17.9	65.18	-100.3	-69.0	76.1	45.1	30.93	2.459	
7,600.0	7,598.6	7,599.4	7,597.0	17.2	18.2	64.69	-104.9	-69.2	76.5	45.3	31.21	2.452	
7,700.0	7,698.6	7,699.4	7,696.9	17.5	18.5	64.20	-109.5	-69.3	77.0	45.5	31.50	2.444	
7,800.0	7,798.5	7,799.4	7,796.8	17.8	18.8	63.72	-114.1	-69.4	77.4	45.6	31.80	2.435	
7,900.0	7,898.4	7,899.4	7,896.7	18.1	19.2	63.25	-118.7	-69.6	77.9	45.8	32.12	2.426	
8,000.0	7,998.4	7,999.4	7,996.6	18.3	19.5	62.78	-123.3	-69.7	78.4	46.0	32.44	2.417	
8,100.0	8,098.3	8,099.4	8,096.5	18.6	19.8	62.32	-127.9	-69.9	78.9	46.1	32.78	2.406	
8,200.0	8,198.2	8,199.4	8,196.4	18.9	20.2	61.86	-132.5	-70.0	79.4	46.2	33.13	2.396	
8,300.0	8,298.1	8,299.4	8,296.3	19.2	20.5	61.41	-137.2	-70.1	79.9	46.4	33.50	2.385	
8,400.0	8,398.1	8,399.4	8,396.2	19.6	20.9	60.96	-141.8	-70.3	80.4	46.5	33.87	2.373	
8,500.0	8,498.0	8,499.4	8,496.1	19.9	21.3	60.52	-146.4	-70.4	80.9	46.6	34.26	2.361	
8,600.0	8,597.9	8,599.4	8,595.9	20.2	21.6	60.09	-151.0	-70.5	81.4	46.7	34.66	2.348	
8,700.0	8,697.8	8,699.4	8,695.8	20.5	22.0	59.66	-155.6	-70.7	81.9	46.8	35.07	2.335	
8,800.0	8,797.8	8,799.4	8,795.7	20.8	22.4	59.23	-160.2	-70.8	82.4	46.9	35.50	2.322	
8,900.0	8,897.7	8,899.4	8,895.6	21.2	22.8	58.81	-164.8	-71.0	82.9	47.0	35.93	2.309	
9,000.0	8,997.6	8,999.4	8,995.5	21.5	23.1	58.40	-169.4	-71.1	83.5	47.1	36.38	2.295	
9,100.0	9,097.6	9,099.4	9,095.4	21.9	23.5	57.99	-174.0	-71.2	84.0	47.2	36.84	2.281	
9,200.0	9,197.5	9,199.4	9,195.3	22.2	23.9	57.59	-178.6	-71.4	84.5	47.2	37.31	2.266	
9,300.0	9,297.4	9,299.4	9,295.2	22.6	24.3	57.19	-183.2	-71.5	85.1	47.3	37.79	2.252	
9,400.0	9,397.3	9,399.3	9,395.1	22.9	24.7	56.80	-187.8	-71.7	85.6	47.4	38.28	2.237	
9,500.0	9,497.3	9,499.3	9,495.0	23.3	25.1	56.41	-192.4	-71.8	86.2	47.4	38.79	2.222	
9,600.0	9,597.2	9,599.9	9,595.4	23.6	25.4	56.19	-196.8	-71.9	86.6	47.3	39.21	2.207	
9,700.0	9,697.1	9,700.7	9,696.2	24.0	25.8	56.85	-199.5	-72.0	86.0	46.6	39.42	2.182	
9,800.0	9,797.0	9,801.5	9,797.0	24.3	26.0	56.52	-200.4	-72.0	84.5	45.2	39.25	2.152	
9,900.0	9,897.0	9,901.5	9,897.0	24.7	26.0	60.78	-200.4	-72.0	82.5	43.7	38.87	2.123	
10,000.0	9,996.9	10,001.4	9,996.9	25.1	26.1	63.14	-200.4	-72.0	80.8	42.3	38.47	2.099 SF	
10,100.0	10,096.8	10,105.7	10,100.4	25.5	25.8	73.66	-189.2	-72.8	76.0	39.9	36.09	2.107	
10,155.7	10,152.5	10,159.7	10,152.3	25.7	25.6	86.24	-174.7	-73.9	74.1	39.7	34.37	2.155	
10,200.0	10,196.7	10,199.5	10,189.4	25.8	25.5	98.35	-160.3	-75.0	76.2	41.3	34.84	2.186	
10,300.0	10,296.7	10,278.4	10,258.7	26.2	25.1	123.31	-122.8	-77.7	101.2	58.7	42.44	2.384	
10,400.0	10,396.6	10,342.5	10,309.8	26.6	24.9	138.62	-84.4	-80.5	151.6	103.2	48.41	3.132	
10,500.0	10,496.5	10,393.7	10,346.7	27.0	24.7	147.06	-49.0	-83.1	217.5	166.1	51.43	4.229	
10,600.0	10,596.5	10,434.8	10,373.4	27.3	24.6	151.97	-17.9	-85.3	292.5	239.3	53.23	5.496	
10,700.0	10,696.4	10,468.0	10,393.0	27.7	24.5	155.07	8.9	-87.3	373.5	319.0	54.52	6.850	
10,800.0	10,796.3	10,500.0	10,410.0	28.1	24.4	157.49	35.9	-89.3	458.6	403.1	55.49	8.264	
10,834.8	10,831.1	10,500.0	10,410.0	28.2	24.4	157.49	35.9	-89.3	488.9	432.9	55.94	8.740	
10,900.0	10,896.2	10,517.7	10,418.7	28.5	24.4	159.07	51.4	-90.4	546.3	489.8	56.46	9.676	
11,000.0	10,996.2	10,537.3	10,427.5	28.8	24.3	160.80	68.8	-91.7	635.6	578.3	57.27	11.098	
11,053.8	11,050.0	10,550.0	10,432.9	28.9	24.3	-18.27	80.2	-92.5	684.0	626.4	57.63	11.869	
11,100.0	11,096.2	10,550.0	10,432.9	28.9	24.3	-18.27	80.2	-92.5	726.0	668.0	58.03	12.510	
11,200.0	11,196.2	10,575.0	10,442.5	28.9	24.3	-17.26	103.2	-94.2	817.8	759.2	58.63	13.948	
11,300.0	11,296.2	10,575.0	10,442.5	29.0	24.3	-17.26	103.2	-94.2	910.8	851.4	59.40	15.333	
11,326.3	11,322.5	10,585.4	10,446.2	29.0	24.2	-16.87	112.9	-94.9	935.3	875.8	59.52	15.714	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 502H - Anderson Fed Com 502H - Anderson Fed Com 502H - Prelim 2													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
11,350.0	11,346.2	10,588.3	10,447.2	28.9	24.2	-6.64	115.6	-95.1	957.4	897.7	59.67	16.044	
11,375.0	11,371.1	10,591.6	10,448.3	28.9	24.2	-5.83	118.7	-95.3	980.2	920.3	59.83	16.384	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 506H - Anderson Fed Com 506H - Anderson Fed Com 506H - Prelim 2												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
				(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-90.58	-1.0	-99.0	99.1				
100.0	100.0	99.0	99.0	0.5	0.5	-90.58	-1.0	-99.0	99.0	98.0	1.06	93.883	
200.0	200.0	199.0	199.0	1.7	1.7	-90.58	-1.0	-99.0	99.0	95.6	3.41	29.031	
300.0	300.0	299.0	299.0	2.4	2.4	-90.58	-1.0	-99.0	99.0	94.2	4.82	20.567	
400.0	400.0	399.0	399.0	3.0	2.9	-90.58	-1.0	-99.0	99.0	93.1	5.90	16.780	
500.0	500.0	499.0	499.0	3.4	3.4	-90.58	-1.0	-99.0	99.0	92.2	6.83	14.511	
600.0	600.0	599.0	599.0	3.8	3.8	-90.58	-1.0	-99.0	99.0	91.4	7.64	12.956	
700.0	700.0	699.0	699.0	4.2	4.2	-90.58	-1.0	-99.0	99.0	90.7	8.39	11.805	
800.0	800.0	799.0	799.0	4.5	4.5	-90.58	-1.0	-99.0	99.0	90.0	9.08	10.908	
900.0	900.0	899.0	899.0	4.9	4.9	-90.58	-1.0	-99.0	99.0	89.3	9.73	10.183	
1,000.0	1,000.0	999.0	999.0	5.2	5.2	-90.58	-1.0	-99.0	99.0	88.7	10.34	9.581	
1,100.0	1,100.0	1,099.0	1,099.0	5.5	5.5	-90.58	-1.0	-99.0	99.0	88.1	10.92	9.070	
1,200.0	1,200.0	1,199.0	1,199.0	5.7	5.7	-90.58	-1.0	-99.0	99.0	87.6	11.48	8.630	
1,300.0	1,300.0	1,299.0	1,299.0	6.0	6.0	-90.58	-1.0	-99.0	99.0	87.0	12.01	8.245	
1,400.0	1,400.0	1,399.0	1,399.0	6.3	6.3	-90.58	-1.0	-99.0	99.0	86.5	12.53	7.905	
1,500.0	1,500.0	1,499.0	1,499.0	6.5	6.5	-90.58	-1.0	-99.0	99.0	86.0	13.03	7.602	
1,600.0	1,600.0	1,599.0	1,599.0	6.8	6.8	-90.58	-1.0	-99.0	99.0	85.5	13.51	7.329	
1,700.0	1,700.0	1,699.0	1,699.0	7.0	7.0	-90.58	-1.0	-99.0	99.0	85.1	13.99	7.081	
1,800.0	1,800.0	1,799.0	1,799.0	7.2	7.2	-90.58	-1.0	-99.0	99.0	84.6	14.45	6.856	
1,900.0	1,900.0	1,899.0	1,899.0	7.4	7.4	-90.58	-1.0	-99.0	99.0	84.2	14.90	6.649	
2,000.0	2,000.0	1,999.0	1,999.0	7.7	7.7	-90.58	-1.0	-99.0	99.0	83.7	15.34	6.458	
2,100.0	2,100.0	2,099.0	2,099.0	7.9	7.9	-90.58	-1.0	-99.0	99.0	83.3	15.77	6.282	
2,200.0	2,200.0	2,199.0	2,199.0	8.1	8.1	-90.58	-1.0	-99.0	99.0	82.9	16.19	6.118	
2,300.0	2,300.0	2,299.0	2,299.0	8.3	8.3	-90.58	-1.0	-99.0	99.0	82.4	16.61	5.965	
2,400.0	2,400.0	2,399.0	2,399.0	8.5	8.5	-90.58	-1.0	-99.0	99.0	82.0	17.01	5.822	
2,500.0	2,500.0	2,499.0	2,499.0	8.7	8.7	-90.58	-1.0	-99.0	99.0	81.6	17.42	5.687	
2,600.0	2,600.0	2,599.0	2,599.0	8.9	8.9	-90.58	-1.0	-99.0	99.0	81.2	17.81	5.561	
2,700.0	2,700.0	2,699.0	2,699.0	9.1	9.1	-90.58	-1.0	-99.0	99.0	80.8	18.20	5.442	
2,800.0	2,800.0	2,799.0	2,799.0	9.3	9.3	-90.58	-1.0	-99.0	99.0	80.5	18.58	5.330	
2,900.0	2,900.0	2,899.0	2,899.0	9.5	9.5	-90.58	-1.0	-99.0	99.0	80.1	18.96	5.223	
3,000.0	3,000.0	2,999.0	2,999.0	9.7	9.7	-90.58	-1.0	-99.0	99.0	79.7	19.34	5.122	
3,100.0	3,100.0	3,099.0	3,099.0	9.9	9.9	-90.58	-1.0	-99.0	99.0	79.3	19.71	5.026	
3,200.0	3,200.0	3,199.0	3,199.0	10.0	10.0	-90.58	-1.0	-99.0	99.0	79.0	20.07	4.934	
3,300.0	3,300.0	3,299.0	3,299.0	10.2	10.2	-90.58	-1.0	-99.0	99.0	78.6	20.43	4.847	
3,400.0	3,400.0	3,399.0	3,399.0	10.4	10.4	-90.58	-1.0	-99.0	99.0	78.3	20.79	4.764	
3,500.0	3,500.0	3,499.0	3,499.0	10.6	10.6	-90.58	-1.0	-99.0	99.0	77.9	21.15	4.684	
3,600.0	3,600.0	3,599.0	3,599.0	10.7	10.7	-90.58	-1.0	-99.0	99.0	77.6	21.50	4.607	
3,700.0	3,700.0	3,699.0	3,699.0	10.9	10.9	-90.58	-1.0	-99.0	99.0	77.2	21.84	4.534	
3,800.0	3,800.0	3,799.0	3,799.0	11.1	11.1	-90.58	-1.0	-99.0	99.0	76.9	22.19	4.464	
3,900.0	3,900.0	3,899.0	3,899.0	11.3	11.3	-90.58	-1.0	-99.0	99.0	76.5	22.53	4.396	
4,000.0	4,000.0	3,999.0	3,999.0	11.4	11.4	-90.58	-1.0	-99.0	99.0	76.2	22.87	4.331	
4,100.0	4,100.0	4,099.0	4,099.0	11.6	11.6	-90.58	-1.0	-99.0	99.0	75.8	23.21	4.268	
4,200.0	4,200.0	4,199.0	4,199.0	11.8	11.8	-90.58	-1.0	-99.0	99.0	75.5	23.54	4.208	
4,300.0	4,300.0	4,299.0	4,299.0	11.9	11.9	-90.58	-1.0	-99.0	99.0	75.2	23.87	4.150	
4,400.0	4,400.0	4,399.0	4,399.0	12.1	12.1	-90.58	-1.0	-99.0	99.0	74.8	24.20	4.093	
4,500.0	4,500.0	4,499.0	4,499.0	12.3	12.3	-90.58	-1.0	-99.0	99.0	74.5	24.52	4.039	
4,600.0	4,600.0	4,599.0	4,599.0	12.4	12.4	-90.58	-1.0	-99.0	99.0	74.2	24.85	3.986	
4,700.0	4,700.0	4,699.0	4,699.0	12.6	12.6	-90.58	-1.0	-99.0	99.0	73.9	25.17	3.935	
4,800.0	4,800.0	4,799.0	4,799.0	12.7	12.7	-90.58	-1.0	-99.0	99.0	73.6	25.49	3.886	
4,900.0	4,900.0	4,899.0	4,899.0	12.9	12.9	-90.58	-1.0	-99.0	99.0	73.2	25.81	3.838	
5,000.0	5,000.0	4,999.0	4,999.0	13.1	13.1	-90.58	-1.0	-99.0	99.0	72.9	26.12	3.792 CC	
5,100.0	5,100.0	5,098.9	5,098.9	13.2	13.1	-91.07	-1.9	-99.1	99.1	72.7	26.36	3.759	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 506H - Anderson Fed Com 506H - Anderson Fed Com 506H - Prelim 2													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference	Offset	Rule Assigned:											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.0	5,200.0	5,198.7	5,198.7	13.4	13.2	-92.56	-4.4	-99.2	99.3	72.7	26.58	3.737 ES	
5,300.0	5,300.0	5,298.5	5,298.3	13.5	13.3	-95.03	-8.7	-99.4	99.8	73.1	26.76	3.730	
5,400.0	5,400.0	5,398.3	5,398.1	13.7	13.4	-97.84	-13.7	-99.7	100.6	73.7	26.96	3.733	
5,500.0	5,500.0	5,498.2	5,497.8	13.8	13.5	-100.59	-18.7	-99.9	101.7	74.5	27.18	3.741	
5,600.0	5,600.0	5,598.1	5,597.6	14.0	13.6	-103.29	-23.7	-100.2	102.9	75.5	27.40	3.757	
5,700.0	5,700.0	5,698.0	5,697.4	14.1	13.8	74.54	-28.6	-100.4	104.2	76.6	27.55	3.782	
5,800.0	5,800.0	5,798.0	5,797.2	14.1	13.9	73.33	-33.6	-100.7	105.1	77.4	27.68	3.796	
5,819.0	5,818.9	5,816.9	5,816.1	14.1	14.0	73.20	-34.5	-100.7	105.2	77.5	27.69	3.799	
5,900.0	5,899.9	5,898.0	5,897.1	14.2	14.1	72.75	-38.6	-100.9	105.7	77.9	27.77	3.805	
6,000.0	5,999.8	5,997.9	5,996.9	14.2	14.3	72.19	-43.6	-101.2	106.3	78.4	27.91	3.808	
6,100.0	6,099.7	6,097.9	6,096.8	14.3	14.5	71.64	-48.5	-101.4	106.9	78.8	28.06	3.809	
6,200.0	6,199.7	6,197.9	6,196.7	14.5	14.7	71.10	-53.5	-101.7	107.5	79.2	28.22	3.809	
6,300.0	6,299.6	6,297.9	6,296.6	14.6	14.9	70.56	-58.5	-101.9	108.1	79.7	28.38	3.808	
6,400.0	6,399.5	6,397.9	6,396.4	14.7	15.2	70.03	-63.5	-102.2	108.7	80.1	28.56	3.807	
6,500.0	6,499.4	6,497.9	6,496.3	14.9	15.4	69.50	-68.4	-102.4	109.3	80.6	28.74	3.804	
6,600.0	6,599.4	6,597.9	6,596.2	15.0	15.7	68.98	-73.4	-102.7	110.0	81.0	28.93	3.801	
6,700.0	6,699.3	6,697.9	6,696.0	15.2	16.0	68.47	-78.4	-102.9	110.6	81.5	29.14	3.797	
6,800.0	6,799.2	6,797.9	6,795.9	15.4	16.3	67.97	-83.4	-103.2	111.3	81.9	29.35	3.792	
6,900.0	6,899.2	6,897.9	6,895.8	15.6	16.5	67.46	-88.3	-103.4	112.0	82.4	29.57	3.786	
7,000.0	6,999.1	6,997.9	6,995.6	15.8	16.8	66.97	-93.3	-103.7	112.6	82.8	29.81	3.779	
7,100.0	7,099.0	7,097.9	7,095.5	16.0	17.1	66.48	-98.3	-103.9	113.3	83.3	30.05	3.771	
7,200.0	7,198.9	7,197.9	7,195.4	16.2	17.5	66.00	-103.3	-104.2	114.0	83.7	30.31	3.762	
7,300.0	7,298.9	7,297.9	7,295.2	16.5	17.8	65.52	-108.2	-104.4	114.7	84.1	30.58	3.751	
7,400.0	7,398.8	7,397.9	7,395.1	16.7	18.1	65.05	-113.2	-104.7	115.4	84.6	30.86	3.740	
7,500.0	7,498.7	7,497.8	7,495.0	17.0	18.4	64.58	-118.2	-104.9	116.1	85.0	31.15	3.728	
7,600.0	7,598.6	7,597.8	7,594.8	17.2	18.8	64.12	-123.2	-105.2	116.9	85.4	31.45	3.716	
7,700.0	7,698.6	7,697.8	7,694.7	17.5	19.1	63.67	-128.1	-105.4	117.6	85.8	31.77	3.702	
7,800.0	7,798.5	7,797.8	7,794.6	17.8	19.5	63.22	-133.1	-105.6	118.3	86.2	32.10	3.687	
7,900.0	7,898.4	7,897.8	7,894.5	18.1	19.8	62.78	-138.1	-105.9	119.1	86.7	32.44	3.672	
8,000.0	7,998.4	7,997.8	7,994.3	18.3	20.2	62.34	-143.1	-106.1	119.8	87.1	32.79	3.655	
8,100.0	8,098.3	8,097.8	8,094.2	18.6	20.6	61.91	-148.0	-106.4	120.6	87.5	33.15	3.638	
8,200.0	8,198.2	8,197.8	8,194.1	18.9	20.9	61.48	-153.0	-106.6	121.4	87.8	33.53	3.620	
8,300.0	8,298.1	8,297.8	8,293.9	19.2	21.3	61.06	-158.0	-106.9	122.1	88.2	33.91	3.602	
8,400.0	8,398.1	8,397.8	8,393.8	19.6	21.7	60.65	-163.0	-107.1	122.9	88.6	34.31	3.583	
8,500.0	8,498.0	8,497.8	8,493.7	19.9	22.1	60.24	-167.9	-107.4	123.7	89.0	34.72	3.563	
8,600.0	8,597.9	8,597.8	8,593.5	20.2	22.4	59.83	-172.9	-107.6	124.5	89.4	35.14	3.543	
8,700.0	8,697.8	8,697.8	8,693.4	20.5	22.8	59.43	-177.9	-107.9	125.3	89.7	35.58	3.522	
8,800.0	8,797.8	8,797.8	8,793.3	20.8	23.2	59.04	-182.9	-108.1	126.1	90.1	36.02	3.501	
8,900.0	8,897.7	8,897.7	8,893.1	21.2	23.6	58.65	-187.8	-108.4	126.9	90.4	36.48	3.479	
9,000.0	8,997.6	8,997.7	8,993.0	21.5	24.0	58.26	-192.8	-108.6	127.7	90.8	36.95	3.457	
9,100.0	9,097.6	9,098.7	9,093.9	21.9	24.4	58.08	-197.3	-108.9	128.3	90.9	37.34	3.434	
9,200.0	9,197.5	9,200.0	9,195.2	22.2	24.7	58.54	-200.0	-109.0	127.8	90.2	37.60	3.398	
9,300.0	9,297.4	9,301.2	9,296.4	22.6	24.9	59.68	-201.0	-109.0	126.3	88.7	37.61	3.359	
9,400.0	9,397.3	9,401.2	9,396.3	22.9	25.0	61.20	-201.0	-109.0	124.5	87.0	37.48	3.321	
9,500.0	9,497.3	9,510.0	9,504.7	23.3	24.8	65.94	-193.9	-109.1	119.9	83.4	36.55	3.280	
9,600.0	9,597.2	9,612.3	9,602.9	23.6	24.4	81.29	-165.6	-109.2	110.8	76.9	33.90	3.267 SF	
9,639.7	9,636.8	9,648.5	9,635.8	23.8	24.3	89.70	-150.7	-109.3	109.3	76.0	33.28	3.285	
9,700.0	9,697.1	9,698.2	9,679.0	24.0	24.1	103.13	-126.3	-109.5	113.8	79.4	34.47	3.303	
9,800.0	9,797.0	9,767.1	9,734.3	24.3	23.9	122.04	-85.2	-109.7	144.6	104.2	40.40	3.579	
9,900.0	9,897.0	9,821.4	9,773.3	24.7	23.7	134.46	-47.5	-109.9	199.5	154.5	45.04	4.430	
10,000.0	9,996.9	9,864.4	9,801.0	25.1	23.5	142.16	-14.6	-110.1	269.1	221.4	47.66	5.646	
10,100.0	10,096.8	9,900.0	9,821.7	25.5	23.4	147.27	14.4	-110.3	347.1	297.9	49.27	7.045	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 506H - Anderson Fed Com 506H - Anderson Fed Com 506H - Prelim 2													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance			Rule Assigned:			Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,200.0	10,196.7	9,925.0	9,834.8	25.8	23.4	150.27	35.6	-110.4	430.6	380.1	50.48	8.529		
10,300.0	10,296.7	9,950.0	9,846.9	26.2	23.3	152.87	57.6	-110.5	517.6	466.2	51.40	10.069		
10,400.0	10,396.6	9,975.0	9,857.7	26.6	23.3	155.12	80.1	-110.6	607.3	555.1	52.17	11.640		
10,500.0	10,496.5	9,984.0	9,861.4	27.0	23.2	155.85	88.3	-110.7	698.6	645.6	52.96	13.191		
10,600.0	10,596.5	10,000.0	9,867.4	27.3	23.2	157.08	103.1	-110.8	791.4	737.8	53.63	14.758		
10,700.0	10,696.4	10,009.3	9,870.7	27.7	23.2	157.74	111.8	-110.8	885.4	831.1	54.29	16.308		
10,800.0	10,796.3	10,025.0	9,875.9	28.1	23.2	158.79	126.6	-110.9	980.2	925.3	54.88	17.860		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 553H - Anderson Fed Com 553H - Anderson Fed Com 553H - Prelim 2											Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM											Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	-90.45	-1.3	-165.2	165.2			
100.0	100.0	100.0	100.0	0.5	0.5	-90.45	-1.3	-165.2	165.2	164.1	1.06	155.770
200.0	200.0	200.0	200.0	1.7	1.7	-90.45	-1.3	-165.2	165.2	161.7	3.42	48.244
300.0	300.0	300.0	300.0	2.4	2.4	-90.45	-1.3	-165.2	165.2	160.3	4.82	34.246
400.0	400.0	400.0	400.0	3.0	3.0	-90.45	-1.3	-165.2	165.2	159.3	5.91	27.956
500.0	500.0	500.0	500.0	3.4	3.4	-90.45	-1.3	-165.2	165.2	158.3	6.83	24.181
600.0	600.0	600.0	600.0	3.8	3.8	-90.45	-1.3	-165.2	165.2	157.5	7.65	21.594
700.0	700.0	700.0	700.0	4.2	4.2	-90.45	-1.3	-165.2	165.2	156.8	8.39	19.677
800.0	800.0	800.0	800.0	4.5	4.5	-90.45	-1.3	-165.2	165.2	156.1	9.08	18.182
900.0	900.0	900.0	900.0	4.9	4.9	-90.45	-1.3	-165.2	165.2	155.4	9.73	16.974
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	-90.45	-1.3	-165.2	165.2	154.8	10.34	15.971
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	-90.45	-1.3	-165.2	165.2	154.2	10.92	15.121
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-90.45	-1.3	-165.2	165.2	153.7	11.48	14.388
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	-90.45	-1.3	-165.2	165.2	153.1	12.01	13.747
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	-90.45	-1.3	-165.2	165.2	152.6	12.53	13.180
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	-90.45	-1.3	-165.2	165.2	152.1	13.03	12.674
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	-90.45	-1.3	-165.2	165.2	151.6	13.52	12.219
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	-90.45	-1.3	-165.2	165.2	151.2	13.99	11.806
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	-90.45	-1.3	-165.2	165.2	150.7	14.45	11.430
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	-90.45	-1.3	-165.2	165.2	150.3	14.90	11.085
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	-90.45	-1.3	-165.2	165.2	149.8	15.34	10.767
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	-90.45	-1.3	-165.2	165.2	149.4	15.77	10.473
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	-90.45	-1.3	-165.2	165.2	149.0	16.19	10.200
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	-90.45	-1.3	-165.2	165.2	148.6	16.61	9.945
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	-90.45	-1.3	-165.2	165.2	148.1	17.02	9.707
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-90.45	-1.3	-165.2	165.2	147.7	17.42	9.483
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	-90.45	-1.3	-165.2	165.2	147.4	17.81	9.272
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	-90.45	-1.3	-165.2	165.2	147.0	18.20	9.074
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	-90.45	-1.3	-165.2	165.2	146.6	18.59	8.887
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	-90.45	-1.3	-165.2	165.2	146.2	18.96	8.709
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	-90.45	-1.3	-165.2	165.2	145.8	19.34	8.540
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	-90.45	-1.3	-165.2	165.2	145.5	19.71	8.380
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	-90.45	-1.3	-165.2	165.2	145.1	20.07	8.228
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	-90.45	-1.3	-165.2	165.2	144.7	20.44	8.082
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	-90.45	-1.3	-165.2	165.2	144.4	20.79	7.943
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	-90.45	-1.3	-165.2	165.2	144.0	21.15	7.810
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	-90.45	-1.3	-165.2	165.2	143.7	21.50	7.682
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	-90.45	-1.3	-165.2	165.2	143.3	21.85	7.560
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	-90.45	-1.3	-165.2	165.2	143.0	22.19	7.443
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	-90.45	-1.3	-165.2	165.2	142.6	22.53	7.330
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	-90.45	-1.3	-165.2	165.2	142.3	22.87	7.222
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	-90.45	-1.3	-165.2	165.2	142.0	23.21	7.117
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-90.45	-1.3	-165.2	165.2	141.6	23.54	7.016
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	-90.45	-1.3	-165.2	165.2	141.3	23.87	6.919
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	-90.45	-1.3	-165.2	165.2	141.0	24.20	6.825
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	-90.45	-1.3	-165.2	165.2	140.6	24.53	6.734
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	-90.45	-1.3	-165.2	165.2	140.3	24.85	6.647
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	-90.45	-1.3	-165.2	165.2	140.0	25.17	6.562
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	-90.45	-1.3	-165.2	165.2	139.7	25.49	6.479
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	-90.45	-1.3	-165.2	165.2	139.4	25.81	6.400
4,966.7	4,966.7	4,966.7	4,966.7	13.0	13.0	-90.45	-1.3	-165.2	165.2	139.1	26.02	6.348
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-90.45	-1.3	-165.2	165.2	139.0	26.12	6.322 CC, ES

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 553H - Anderson Fed Com 553H - Anderson Fed Com 553H - Prelim 2												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,100.0	5,097.4	5,097.4	13.2	13.2	-90.55	-1.6	-165.9	166.0	139.6	26.38	6.290 SF	
5,200.0	5,200.0	5,194.7	5,194.7	13.4	13.3	-90.86	-2.5	-168.2	168.3	141.7	26.63	6.320	
5,300.0	5,300.0	5,291.9	5,291.8	13.5	13.4	-91.36	-4.1	-172.1	172.3	145.4	26.89	6.407	
5,400.0	5,400.0	5,389.0	5,388.7	13.7	13.5	-92.01	-6.2	-177.4	177.9	150.7	27.16	6.549	
5,500.0	5,500.0	5,485.8	5,485.2	13.8	13.7	-92.80	-9.0	-184.2	185.1	157.6	27.45	6.743	
5,600.0	5,600.0	5,585.0	5,584.0	14.0	13.8	-93.64	-12.2	-192.2	193.3	165.5	27.76	6.962	
5,700.0	5,700.0	5,684.6	5,683.3	14.1	14.0	85.75	-15.5	-200.3	201.5	173.5	28.02	7.191	
5,800.0	5,800.0	5,784.3	5,782.6	14.1	14.2	85.65	-18.7	-208.3	209.6	181.4	28.27	7.414	
5,819.0	5,818.9	5,803.2	5,801.4	14.1	14.3	85.69	-19.4	-209.9	211.1	182.8	28.31	7.459	
5,900.0	5,899.9	5,883.9	5,881.9	14.2	14.5	85.93	-22.0	-216.4	217.6	189.2	28.50	7.638	
6,000.0	5,999.8	5,983.6	5,981.1	14.2	14.7	86.22	-25.2	-224.5	225.7	196.9	28.77	7.844	
6,100.0	6,099.7	6,083.3	6,080.4	14.3	15.0	86.48	-28.5	-232.5	233.7	204.6	29.07	8.040	
6,200.0	6,199.7	6,183.0	6,179.7	14.5	15.2	86.73	-31.8	-240.6	241.7	212.4	29.38	8.228	
6,300.0	6,299.6	6,282.6	6,279.0	14.6	15.5	86.96	-35.0	-248.6	249.8	220.1	29.70	8.409	
6,400.0	6,399.5	6,382.3	6,378.3	14.7	15.8	87.17	-38.3	-256.7	257.8	227.8	30.04	8.583	
6,500.0	6,499.4	6,482.0	6,477.6	14.9	16.1	87.37	-41.5	-264.7	265.9	235.5	30.39	8.749	
6,600.0	6,599.4	6,581.6	6,576.9	15.0	16.5	87.57	-44.8	-272.8	273.9	243.2	30.75	8.908	
6,700.0	6,699.3	6,681.3	6,676.2	15.2	16.8	87.75	-48.0	-280.8	282.0	250.8	31.12	9.060	
6,800.0	6,799.2	6,781.0	6,775.5	15.4	17.1	87.92	-51.3	-288.9	290.0	258.5	31.50	9.206	
6,900.0	6,899.2	6,880.7	6,874.8	15.6	17.5	88.08	-54.5	-296.9	298.1	266.2	31.90	9.345	
7,000.0	6,999.1	6,980.3	6,974.1	15.8	17.9	88.23	-57.8	-305.0	306.1	273.8	32.30	9.479	
7,100.0	7,099.0	7,080.0	7,073.4	16.0	18.2	88.37	-61.0	-313.1	314.2	281.5	32.71	9.606	
7,200.0	7,198.9	7,179.7	7,172.6	16.2	18.6	88.51	-64.3	-321.1	322.3	289.1	33.13	9.728	
7,300.0	7,298.9	7,279.3	7,271.9	16.5	19.0	88.64	-67.5	-329.2	330.3	296.8	33.55	9.845	
7,400.0	7,398.8	7,379.0	7,371.2	16.7	19.4	88.77	-70.8	-337.2	338.4	304.4	33.99	9.957	
7,500.0	7,498.7	7,478.7	7,470.5	17.0	19.8	88.88	-74.1	-345.3	346.5	312.0	34.43	10.063	
7,600.0	7,598.6	7,578.4	7,569.8	17.2	20.2	89.00	-77.3	-353.3	354.5	319.7	34.88	10.165	
7,700.0	7,698.6	7,678.0	7,669.1	17.5	20.6	89.11	-80.6	-361.4	362.6	327.3	35.33	10.263	
7,800.0	7,798.5	7,777.7	7,768.4	17.8	21.1	89.21	-83.8	-369.4	370.7	334.9	35.79	10.357	
7,900.0	7,898.4	7,877.4	7,867.7	18.1	21.5	89.31	-87.1	-377.5	378.8	342.5	36.26	10.446	
8,000.0	7,998.4	7,977.0	7,967.0	18.3	21.9	89.40	-90.3	-385.5	386.8	350.1	36.73	10.532	
8,100.0	8,098.3	8,076.7	8,066.3	18.6	22.4	89.49	-93.6	-393.6	394.9	357.7	37.21	10.614	
8,200.0	8,198.2	8,176.4	8,165.6	18.9	22.8	89.58	-96.8	-401.7	403.0	365.3	37.69	10.692	
8,300.0	8,298.1	8,276.1	8,264.9	19.2	23.2	89.67	-100.1	-409.7	411.1	372.9	38.18	10.768	
8,400.0	8,398.1	8,375.7	8,364.2	19.6	23.7	89.75	-103.3	-417.8	419.1	380.5	38.67	10.840	
8,500.0	8,498.0	8,475.4	8,463.4	19.9	24.1	89.82	-106.6	-425.8	427.2	388.1	39.16	10.909	
8,600.0	8,597.9	8,575.1	8,562.7	20.2	24.6	89.90	-109.9	-433.9	435.3	395.6	39.66	10.975	
8,700.0	8,697.8	8,674.7	8,662.0	20.5	25.1	89.97	-113.1	-441.9	443.4	403.2	40.17	11.038	
8,800.0	8,797.8	8,774.4	8,761.3	20.8	25.5	90.04	-116.4	-450.0	451.5	410.8	40.67	11.099	
8,900.0	8,897.7	8,874.1	8,860.6	21.2	26.0	90.11	-119.6	-458.0	459.5	418.4	41.19	11.158	
9,000.0	8,997.6	8,973.8	8,959.9	21.5	26.5	90.17	-122.9	-466.1	467.6	425.9	41.70	11.214	
9,100.0	9,097.6	9,073.4	9,059.2	21.9	26.9	90.24	-126.1	-474.1	475.7	433.5	42.22	11.268	
9,200.0	9,197.5	9,173.1	9,158.5	22.2	27.4	90.30	-129.4	-482.2	483.8	441.0	42.74	11.319	
9,300.0	9,297.4	9,272.8	9,257.8	22.6	27.9	90.35	-132.6	-490.3	491.9	448.6	43.26	11.369	
9,400.0	9,397.3	9,372.4	9,357.1	22.9	28.4	90.41	-135.9	-498.3	500.0	456.2	43.79	11.417	
9,500.0	9,497.3	9,472.1	9,456.4	23.3	28.8	90.47	-139.1	-506.4	508.0	463.7	44.32	11.463	
9,600.0	9,597.2	9,571.8	9,555.7	23.6	29.3	90.52	-142.4	-514.4	516.1	471.3	44.85	11.507	
9,700.0	9,697.1	9,671.5	9,655.0	24.0	29.8	90.57	-145.6	-522.5	524.2	478.8	45.39	11.549	
9,800.0	9,797.0	9,771.1	9,754.2	24.3	30.3	90.62	-148.9	-530.5	532.3	486.4	45.93	11.590	
9,900.0	9,897.0	9,870.8	9,853.5	24.7	30.8	90.67	-152.2	-538.6	540.4	493.9	46.47	11.629	
10,000.0	9,996.9	9,970.5	9,952.8	25.1	31.3	90.71	-155.4	-546.6	548.5	501.5	47.01	11.667	
10,100.0	10,096.8	10,070.1	10,052.1	25.5	31.8	90.76	-158.7	-554.7	556.6	509.0	47.56	11.703	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 553H - Anderson Fed Com 553H - Anderson Fed Com 553H - Prelim 2													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,200.0	10,196.7	10,156.9	10,138.5	25.8	32.2	90.79	-161.5	-561.8	564.9	516.8	48.09	11.747		
10,300.0	10,296.7	10,200.0	10,181.1	26.2	32.4	90.72	-163.8	-568.1	579.9	531.1	48.80	11.882		
10,400.0	10,396.6	10,250.0	10,229.5	26.6	32.8	90.48	-168.0	-580.0	603.7	554.0	49.70	12.146		
10,500.0	10,496.5	10,289.9	10,267.0	27.0	33.1	90.19	-172.3	-592.9	635.9	585.1	50.76	12.528		
10,600.0	10,596.5	10,325.0	10,298.9	27.3	33.3	89.86	-176.9	-606.7	675.8	623.9	51.89	13.023		
10,700.0	10,696.4	10,365.8	10,334.6	27.7	33.6	89.42	-183.2	-625.5	722.6	669.6	53.02	13.627		
10,800.0	10,796.3	10,400.0	10,363.1	28.1	33.9	89.01	-189.1	-643.3	775.6	721.5	54.16	14.322		
10,834.8	10,831.1	10,410.2	10,371.3	28.2	33.9	88.88	-190.9	-649.1	795.4	740.9	54.53	14.586		
10,900.0	10,896.2	10,425.0	10,383.0	28.5	34.0	89.17	-193.7	-657.7	834.2	779.0	55.24	15.101		
11,000.0	10,996.2	10,482.0	10,426.6	28.8	34.4	89.23	-203.7	-693.0	897.0	840.8	56.21	15.958		
11,053.8	11,050.0	10,523.6	10,458.7	28.9	34.6	-90.56	-207.1	-719.3	931.2	874.5	56.65	16.436		
11,100.0	11,096.2	10,559.5	10,486.4	28.9	34.9	-90.55	-207.1	-742.1	960.5	903.5	57.01	16.848		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 2													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference	Offset	Rule Assigned:											Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-90.37	-0.2	-33.6	33.6				
100.0	100.0	99.0	99.0	0.5	0.5	-90.37	-0.2	-33.6	33.6	32.6	1.06	31.879	
200.0	200.0	199.0	199.0	1.7	1.7	-90.37	-0.2	-33.6	33.6	30.2	3.41	9.858	
300.0	300.0	299.0	299.0	2.4	2.4	-90.37	-0.2	-33.6	33.6	28.8	4.82	6.984	
400.0	400.0	399.0	399.0	3.0	2.9	-90.37	-0.2	-33.6	33.6	27.7	5.90	5.698	
500.0	500.0	499.0	499.0	3.4	3.4	-90.37	-0.2	-33.6	33.6	26.8	6.83	4.927	
600.0	600.0	599.0	599.0	3.8	3.8	-90.37	-0.2	-33.6	33.6	26.0	7.64	4.400	
700.0	700.0	699.0	699.0	4.2	4.2	-90.37	-0.2	-33.6	33.6	25.2	8.39	4.009	
800.0	800.0	799.0	799.0	4.5	4.5	-90.37	-0.2	-33.6	33.6	24.6	9.08	3.704	
900.0	900.0	899.0	899.0	4.9	4.9	-90.37	-0.2	-33.6	33.6	23.9	9.73	3.458	
1,000.0	1,000.0	999.0	999.0	5.2	5.2	-90.37	-0.2	-33.6	33.6	23.3	10.34	3.253	
1,100.0	1,100.0	1,099.0	1,099.0	5.5	5.5	-90.37	-0.2	-33.6	33.6	22.7	10.92	3.080	
1,200.0	1,200.0	1,199.0	1,199.0	5.7	5.7	-90.37	-0.2	-33.6	33.6	22.2	11.48	2.930	
1,300.0	1,300.0	1,299.0	1,299.0	6.0	6.0	-90.37	-0.2	-33.6	33.6	21.6	12.01	2.800	
1,400.0	1,400.0	1,399.0	1,399.0	6.3	6.3	-90.37	-0.2	-33.6	33.6	21.1	12.53	2.684	
1,500.0	1,500.0	1,499.0	1,499.0	6.5	6.5	-90.37	-0.2	-33.6	33.6	20.6	13.03	2.581	
1,600.0	1,600.0	1,599.0	1,599.0	6.8	6.8	-90.37	-0.2	-33.6	33.6	20.1	13.51	2.489	
1,700.0	1,700.0	1,699.0	1,699.0	7.0	7.0	-90.37	-0.2	-33.6	33.6	19.6	13.99	2.405	
1,800.0	1,800.0	1,799.0	1,799.0	7.2	7.2	-90.37	-0.2	-33.6	33.6	19.2	14.45	2.328	
1,900.0	1,900.0	1,899.0	1,899.0	7.4	7.4	-90.37	-0.2	-33.6	33.6	18.7	14.90	2.258	
2,000.0	2,000.0	1,999.0	1,999.0	7.7	7.7	-90.37	-0.2	-33.6	33.6	18.3	15.34	2.193	
2,100.0	2,100.0	2,099.0	2,099.0	7.9	7.9	-90.37	-0.2	-33.6	33.6	17.9	15.77	2.133	
2,200.0	2,200.0	2,199.0	2,199.0	8.1	8.1	-90.37	-0.2	-33.6	33.6	17.4	16.19	2.077	
2,300.0	2,300.0	2,299.0	2,299.0	8.3	8.3	-90.37	-0.2	-33.6	33.6	17.0	16.61	2.025	
2,400.0	2,400.0	2,399.0	2,399.0	8.5	8.5	-90.37	-0.2	-33.6	33.6	16.6	17.01	1.977	
2,500.0	2,500.0	2,499.0	2,499.0	8.7	8.7	-90.37	-0.2	-33.6	33.6	16.2	17.42	1.931	
2,600.0	2,600.0	2,599.0	2,599.0	8.9	8.9	-90.37	-0.2	-33.6	33.6	15.8	17.81	1.888	
2,700.0	2,700.0	2,699.0	2,699.0	9.1	9.1	-90.37	-0.2	-33.6	33.6	15.4	18.20	1.848	
2,800.0	2,800.0	2,799.0	2,799.0	9.3	9.3	-90.37	-0.2	-33.6	33.6	15.0	18.58	1.810	
2,900.0	2,900.0	2,899.0	2,899.0	9.5	9.5	-90.37	-0.2	-33.6	33.6	14.7	18.96	1.774	
3,000.0	3,000.0	2,999.0	2,999.0	9.7	9.7	-90.37	-0.2	-33.6	33.6	14.3	19.34	1.739	
3,100.0	3,100.0	3,099.0	3,099.0	9.9	9.9	-90.37	-0.2	-33.6	33.6	13.9	19.71	1.707	
3,200.0	3,200.0	3,199.0	3,199.0	10.0	10.0	-90.37	-0.2	-33.6	33.6	13.6	20.07	1.676	
3,300.0	3,300.0	3,299.0	3,299.0	10.2	10.2	-90.37	-0.2	-33.6	33.6	13.2	20.43	1.646	
3,400.0	3,400.0	3,399.0	3,399.0	10.4	10.4	-90.37	-0.2	-33.6	33.6	12.8	20.79	1.618	
3,500.0	3,500.0	3,499.0	3,499.0	10.6	10.6	-90.37	-0.2	-33.6	33.6	12.5	21.15	1.590	
3,600.0	3,600.0	3,599.0	3,599.0	10.7	10.7	-90.37	-0.2	-33.6	33.6	12.1	21.50	1.565	
3,700.0	3,700.0	3,699.0	3,699.0	10.9	10.9	-90.37	-0.2	-33.6	33.6	11.8	21.84	1.540	
3,800.0	3,800.0	3,799.0	3,799.0	11.1	11.1	-90.37	-0.2	-33.6	33.6	11.4	22.19	1.516	
3,900.0	3,900.0	3,899.0	3,899.0	11.3	11.3	-90.37	-0.2	-33.6	33.6	11.1	22.53	1.493 Level 3	
4,000.0	4,000.0	3,999.0	3,999.0	11.4	11.4	-90.37	-0.2	-33.6	33.6	10.8	22.87	1.471 Level 3	
4,100.0	4,100.0	4,099.0	4,099.0	11.6	11.6	-90.37	-0.2	-33.6	33.6	10.4	23.21	1.449 Level 3	
4,200.0	4,200.0	4,199.0	4,199.0	11.8	11.8	-90.37	-0.2	-33.6	33.6	10.1	23.54	1.429 Level 3	
4,300.0	4,300.0	4,299.0	4,299.0	11.9	11.9	-90.37	-0.2	-33.6	33.6	9.8	23.87	1.409 Level 3	
4,400.0	4,400.0	4,399.0	4,399.0	12.1	12.1	-90.37	-0.2	-33.6	33.6	9.4	24.20	1.390 Level 3	
4,500.0	4,500.0	4,499.0	4,499.0	12.3	12.3	-90.37	-0.2	-33.6	33.6	9.1	24.52	1.371 Level 3	
4,600.0	4,600.0	4,599.0	4,599.0	12.4	12.4	-90.37	-0.2	-33.6	33.6	8.8	24.85	1.354 Level 3	
4,700.0	4,700.0	4,699.0	4,699.0	12.6	12.6	-90.37	-0.2	-33.6	33.6	8.5	25.17	1.336 Level 3	
4,800.0	4,800.0	4,799.0	4,799.0	12.7	12.7	-90.37	-0.2	-33.6	33.6	8.1	25.49	1.319 Level 3	
4,900.0	4,900.0	4,899.0	4,899.0	12.9	12.9	-90.37	-0.2	-33.6	33.6	7.8	25.81	1.303 Level 3	
5,000.0	5,000.0	4,999.0	4,999.0	13.1	13.1	-90.37	-0.2	-33.6	33.6	7.5	26.12	1.287 Level 3	
5,100.0	5,100.0	5,099.0	5,099.0	13.2	13.2	-90.37	-0.2	-33.6	33.6	7.2	26.44	1.272 Level 3	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 2													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,200.0	5,199.0	5,199.0	13.4	13.4	-90.37	-0.2	-33.6	33.6	6.9	26.75	1.257 Level 3	
5,300.0	5,300.0	5,299.0	5,299.0	13.5	13.5	-90.37	-0.2	-33.6	33.6	6.6	27.06	1.243 Level 3	
5,400.0	5,400.0	5,399.0	5,399.0	13.7	13.7	-90.37	-0.2	-33.6	33.6	6.3	27.37	1.229 Level 3, CC	
5,500.0	5,500.0	5,499.0	5,499.0	13.8	13.8	-91.82	-1.1	-33.6	33.7	6.1	27.60	1.220 Level 3	
5,600.0	5,600.0	5,598.9	5,598.9	14.0	13.8	-96.21	-3.7	-33.7	33.9	6.1	27.81	1.219 Level 3	
5,700.0	5,700.0	5,698.8	5,698.7	14.1	13.9	78.63	-7.7	-33.7	34.4	6.5	27.88	1.235 Level 3	
5,800.0	5,800.0	5,798.8	5,798.6	14.1	13.9	76.24	-11.8	-33.8	34.8	6.8	27.97	1.244 Level 3	
5,819.0	5,818.9	5,817.8	5,817.5	14.1	14.0	76.10	-12.5	-33.8	34.8	6.9	27.98	1.245 Level 3	
5,900.0	5,899.9	5,898.8	5,898.5	14.2	14.0	75.75	-15.9	-33.9	34.9	6.9	28.04	1.246 Level 3	
6,000.0	5,999.8	5,998.8	5,998.4	14.2	14.2	75.32	-20.0	-33.9	35.1	6.9	28.15	1.246 Level 3	
6,100.0	6,099.7	6,098.8	6,098.3	14.3	14.3	74.89	-24.1	-34.0	35.2	6.9	28.27	1.246 Level 3	
6,200.0	6,199.7	6,198.8	6,198.3	14.5	14.4	74.47	-28.2	-34.1	35.3	7.0	28.39	1.245 Level 3	
6,300.0	6,299.6	6,298.8	6,298.2	14.6	14.6	74.05	-32.3	-34.1	35.5	7.0	28.52	1.244 Level 3	
6,400.0	6,399.5	6,398.8	6,398.1	14.7	14.8	73.63	-36.4	-34.2	35.6	7.0	28.65	1.243 Level 3	
6,500.0	6,499.4	6,498.8	6,498.0	14.9	15.0	73.22	-40.5	-34.2	35.8	7.0	28.80	1.242 Level 3	
6,600.0	6,599.4	6,598.8	6,597.9	15.0	15.2	72.81	-44.6	-34.3	35.9	7.0	28.94	1.240 Level 3	
6,700.0	6,699.3	6,698.8	6,697.8	15.2	15.4	72.40	-48.7	-34.4	36.0	6.9	29.10	1.239 Level 3	
6,800.0	6,799.2	6,798.8	6,797.7	15.4	15.6	71.99	-52.8	-34.4	36.2	6.9	29.26	1.237 Level 3	
6,900.0	6,899.2	6,898.8	6,897.7	15.6	15.8	71.59	-57.0	-34.5	36.3	6.9	29.43	1.235 Level 3	
7,000.0	6,999.1	6,998.8	6,997.6	15.8	16.0	71.20	-61.1	-34.5	36.5	6.9	29.60	1.233 Level 3	
7,100.0	7,099.0	7,098.8	7,097.5	16.0	16.3	70.80	-65.2	-34.6	36.6	6.9	29.79	1.230 Level 3	
7,200.0	7,198.9	7,198.8	7,197.4	16.2	16.5	70.41	-69.3	-34.7	36.8	6.8	29.98	1.227 Level 3	
7,300.0	7,298.9	7,298.8	7,297.3	16.5	16.8	70.02	-73.4	-34.7	37.0	6.8	30.18	1.225 Level 3	
7,400.0	7,398.8	7,398.8	7,397.2	16.7	17.1	69.64	-77.5	-34.8	37.1	6.7	30.39	1.221 Level 3	
7,500.0	7,498.7	7,498.8	7,497.2	17.0	17.3	69.25	-81.6	-34.9	37.3	6.7	30.60	1.218 Level 3	
7,600.0	7,598.6	7,598.8	7,597.1	17.2	17.6	68.88	-85.7	-34.9	37.4	6.6	30.82	1.214 Level 3	
7,700.0	7,698.6	7,698.8	7,697.0	17.5	17.9	68.50	-89.8	-35.0	37.6	6.5	31.06	1.210 Level 3	
7,800.0	7,798.5	7,798.8	7,796.9	17.8	18.2	68.13	-93.9	-35.0	37.8	6.5	31.30	1.206 Level 3	
7,900.0	7,898.4	7,898.8	7,896.8	18.1	18.5	67.76	-98.0	-35.1	37.9	6.4	31.55	1.202 Level 3	
8,000.0	7,998.4	7,998.8	7,996.7	18.3	18.8	67.40	-102.1	-35.2	38.1	6.3	31.81	1.197 Level 3	
8,100.0	8,098.3	8,098.8	8,096.6	18.6	19.2	67.03	-106.2	-35.2	38.3	6.2	32.08	1.193 Level 3	
8,200.0	8,198.2	8,198.8	8,196.6	18.9	19.5	66.67	-110.4	-35.3	38.4	6.1	32.36	1.188 Level 3	
8,300.0	8,298.1	8,298.8	8,296.5	19.2	19.8	66.32	-114.5	-35.3	38.6	6.0	32.64	1.182 Level 3	
8,400.0	8,398.1	8,398.8	8,396.4	19.6	20.1	65.97	-118.6	-35.4	38.8	5.8	32.94	1.177 Level 3	
8,500.0	8,498.0	8,498.8	8,496.3	19.9	20.5	65.62	-122.7	-35.5	38.9	5.7	33.25	1.171 Level 3	
8,600.0	8,597.9	8,598.8	8,596.2	20.2	20.8	65.27	-126.8	-35.5	39.1	5.6	33.56	1.166 Level 3	
8,700.0	8,697.8	8,698.8	8,696.1	20.5	21.2	64.93	-130.9	-35.6	39.3	5.4	33.89	1.160 Level 3	
8,800.0	8,797.8	8,798.8	8,796.1	20.8	21.5	64.59	-135.0	-35.7	39.5	5.3	34.22	1.154 Level 3	
8,900.0	8,897.7	8,898.8	8,896.0	21.2	21.9	64.25	-139.1	-35.7	39.7	5.1	34.56	1.147 Level 3	
9,000.0	8,997.6	8,998.8	8,995.9	21.5	22.2	63.91	-143.2	-35.8	39.8	4.9	34.92	1.141 Level 3	
9,100.0	9,097.6	9,098.8	9,095.8	21.9	22.6	63.58	-147.3	-35.8	40.0	4.7	35.28	1.134 Level 3	
9,200.0	9,197.5	9,198.8	9,195.7	22.2	22.9	63.26	-151.4	-35.9	40.2	4.5	35.65	1.128 Level 3	
9,300.0	9,297.4	9,298.8	9,295.6	22.6	23.3	62.93	-155.5	-36.0	40.4	4.4	36.04	1.121 Level 3	
9,400.0	9,397.3	9,398.8	9,395.5	22.9	23.7	62.61	-159.6	-36.0	40.6	4.1	36.43	1.114 Level 3	
9,500.0	9,497.3	9,498.8	9,495.5	23.3	24.1	62.29	-163.8	-36.1	40.8	3.9	36.83	1.107 Level 3	
9,600.0	9,597.2	9,598.8	9,595.4	23.6	24.4	61.97	-167.9	-36.1	40.9	3.7	37.24	1.100 Level 3	
9,700.0	9,697.1	9,698.8	9,695.3	24.0	24.8	61.66	-172.0	-36.2	41.1	3.5	37.66	1.093 Level 3	
9,800.0	9,797.0	9,798.8	9,795.2	24.3	25.2	61.35	-176.1	-36.3	41.3	3.2	38.08	1.085 Level 3	
9,900.0	9,897.0	9,898.8	9,895.1	24.7	25.6	61.04	-180.2	-36.3	41.5	3.0	38.52	1.078 Level 3	
10,000.0	9,996.9	9,998.8	9,995.0	25.1	26.0	60.74	-184.3	-36.4	41.7	2.8	38.97	1.071 Level 3	
10,100.0	10,096.8	10,098.8	10,094.9	25.5	26.3	60.44	-188.4	-36.5	41.9	2.5	39.42	1.063 Level 3	
10,200.0	10,196.7	10,198.8	10,194.9	25.8	26.7	60.14	-192.5	-36.5	42.1	2.2	39.88	1.056 Level 3	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 2													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference	Offset	Rule Assigned:											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
10,300.0	10,296.7	10,298.9	10,294.9	26.2	27.1	59.93	-196.5	-36.6	42.3	2.0	40.29	1.049	Level 3
10,400.0	10,396.6	10,399.3	10,395.2	26.6	27.4	61.29	-199.3	-36.6	41.8	1.5	40.22	1.038	Level 3
10,500.0	10,496.5	10,499.6	10,495.5	27.0	27.6	64.88	-200.2	-36.6	40.5	1.1	39.38	1.028	Level 3
10,600.0	10,596.5	10,599.5	10,595.5	27.3	27.7	69.96	-200.2	-36.6	39.0	0.9	38.14	1.022	Level 3, ES, SF
10,700.0	10,696.4	10,699.7	10,695.6	27.7	27.7	76.25	-199.7	-36.7	37.8	1.0	36.81	1.026	Level 3
10,742.7	10,739.0	10,742.1	10,737.9	27.9	27.6	84.68	-195.8	-37.2	37.3	1.7	35.59	1.049	Level 3
10,800.0	10,796.3	10,797.1	10,791.8	28.1	27.4	103.39	-185.2	-38.4	39.7	2.8	36.91	1.075	Level 3
10,834.8	10,831.1	10,828.8	10,822.2	28.2	27.2	115.90	-176.3	-39.5	44.7	4.0	40.72	1.098	Level 3
10,900.0	10,896.2	10,884.2	10,873.7	28.5	27.0	134.56	-156.1	-41.9	63.0	14.9	48.16	1.308	Level 3
11,000.0	10,996.2	10,958.6	10,938.4	28.8	26.7	149.79	-119.9	-46.2	108.3	54.4	53.89	2.010	
11,053.8	11,050.0	10,993.4	10,966.6	28.9	26.6	-25.83	-99.6	-48.6	138.7	83.2	55.43	2.501	
11,100.0	11,096.2	11,020.5	10,987.5	28.9	26.5	-23.30	-82.4	-50.6	167.3	110.9	56.41	2.966	
11,200.0	11,196.2	11,075.0	11,026.3	28.9	26.3	-19.53	-44.5	-55.2	236.1	178.2	57.88	4.079	
11,300.0	11,296.2	11,112.3	11,050.2	29.0	26.1	-17.66	-16.1	-58.5	311.9	252.5	59.34	5.255	
11,326.3	11,322.5	11,125.0	11,057.9	29.0	26.1	-17.12	-6.0	-59.7	332.7	273.2	59.55	5.587	
11,350.0	11,346.2	11,125.0	11,057.9	28.9	26.1	-7.38	-6.0	-59.7	351.4	291.4	60.06	5.852	
11,375.0	11,371.1	11,139.2	11,066.1	28.9	26.1	-6.48	5.5	-61.1	370.6	310.4	60.17	6.160	
11,400.0	11,395.9	11,150.0	11,072.1	28.8	26.0	-5.84	14.4	-62.2	389.3	328.9	60.38	6.448	
11,425.0	11,420.5	11,157.8	11,076.3	28.7	26.0	-5.36	20.9	-62.9	407.4	346.8	60.68	6.715	
11,450.0	11,444.9	11,167.2	11,081.3	28.6	26.0	-4.91	28.9	-63.9	425.0	364.1	60.93	6.975	
11,475.0	11,468.8	11,175.0	11,085.2	28.5	26.0	-4.55	35.5	-64.7	442.0	380.8	61.23	7.219	
11,500.0	11,492.4	11,186.5	11,090.9	28.4	25.9	-4.18	45.4	-65.8	458.4	397.0	61.45	7.461	
11,525.0	11,515.5	11,200.0	11,097.2	28.3	25.9	-3.83	57.3	-67.3	474.3	412.7	61.62	7.697	
11,550.0	11,538.1	11,200.0	11,097.2	28.2	25.9	-3.68	57.3	-67.3	489.5	427.4	62.11	7.882	
11,575.0	11,560.1	11,216.1	11,104.3	28.1	25.9	-3.38	71.6	-69.0	504.0	441.8	62.24	8.098	
11,600.0	11,581.5	11,225.0	11,108.1	28.0	25.8	-3.18	79.6	-69.9	517.9	455.4	62.53	8.283	
11,625.0	11,602.1	11,236.2	11,112.5	27.9	25.8	-2.98	89.8	-71.1	531.2	468.4	62.77	8.462	
11,650.0	11,622.0	11,250.0	11,117.7	27.8	25.8	-2.78	102.5	-72.6	543.8	480.8	62.97	8.636	
11,675.0	11,641.1	11,250.0	11,117.7	27.7	25.8	-2.70	102.5	-72.6	555.8	492.3	63.44	8.761	
11,700.0	11,659.2	11,266.8	11,123.5	27.6	25.8	-2.52	118.2	-74.5	566.9	503.4	63.59	8.916	
11,725.0	11,676.5	11,275.0	11,126.1	27.5	25.8	-2.40	125.9	-75.4	577.5	513.6	63.90	9.037	
11,750.0	11,692.8	11,287.4	11,129.9	27.4	25.7	-2.27	137.7	-76.8	587.4	523.2	64.14	9.157	
11,775.0	11,708.0	11,300.0	11,133.3	27.3	25.7	-2.16	149.7	-78.2	596.5	532.1	64.39	9.265	
11,800.0	11,722.3	11,308.2	11,135.4	27.2	25.7	-2.07	157.6	-79.2	604.9	540.2	64.70	9.350	
11,825.0	11,735.4	11,325.0	11,139.2	27.2	25.7	-1.95	173.8	-81.1	612.7	547.9	64.88	9.444	
11,850.0	11,747.4	11,325.0	11,139.2	27.1	25.7	-1.92	173.8	-81.1	619.7	554.4	65.32	9.487	
11,875.0	11,758.2	11,339.6	11,142.1	27.0	25.7	-1.83	188.0	-82.8	625.9	560.4	65.53	9.551	
11,900.0	11,767.8	11,350.0	11,143.9	27.0	25.7	-1.76	198.2	-84.0	631.4	565.6	65.81	9.594	
11,925.0	11,776.2	11,360.7	11,145.5	27.0	25.7	-1.69	208.7	-85.3	636.2	570.1	66.09	9.627	
11,950.0	11,783.4	11,375.0	11,147.2	26.9	25.7	-1.62	222.8	-86.9	640.3	574.0	66.31	9.655	
11,975.0	11,789.3	11,375.0	11,147.2	26.9	25.7	-1.60	222.8	-86.9	643.6	576.9	66.71	9.648	
12,000.0	11,793.9	11,392.3	11,148.8	26.9	25.7	-1.52	239.9	-89.0	646.1	579.2	66.90	9.657	
12,025.0	11,797.2	11,400.0	11,149.3	26.9	25.7	-1.49	247.5	-89.9	647.9	580.7	67.20	9.642	
12,050.0	11,799.3	11,413.5	11,149.8	26.9	25.7	-1.43	260.9	-91.5	648.9	581.5	67.43	9.623	
12,076.3	11,800.0	11,426.6	11,150.0	26.9	25.7	-1.38	273.9	-93.0	649.2	581.5	67.69	9.590	
12,084.2	11,800.0	11,429.9	11,150.0	26.9	25.7	-1.37	277.2	-93.4	649.2	581.4	67.77	9.580	
12,100.0	11,800.0	11,445.8	11,150.0	26.9	25.7	-1.31	293.0	-95.3	649.2	581.3	67.83	9.571	
12,200.0	11,800.0	11,546.1	11,150.0	26.9	25.7	-0.94	392.9	-104.9	649.1	580.8	68.24	9.512	
12,300.0	11,800.0	11,646.3	11,150.0	27.0	25.8	-0.56	492.9	-111.0	649.0	580.3	68.73	9.443	
12,400.0	11,800.0	11,746.4	11,150.0	27.1	25.9	-0.18	592.9	-113.6	649.0	579.7	69.28	9.367	
12,460.0	11,800.0	11,806.3	11,150.0	27.2	25.9	0.00	652.8	-113.9	649.0	579.4	69.65	9.318	
12,500.0	11,800.0	11,846.4	11,150.0	27.3	26.0	0.06	692.9	-114.1	649.0	579.1	69.90	9.284	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 2													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM				Rule Assigned:									Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance			Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor	
12,530.9	11,800.0	11,877.2	11,150.0	27.4	26.1	0.08	723.7	-114.3	649.0	578.9	70.10	9.258		
12,600.0	11,800.0	11,946.4	11,150.0	27.7	26.4	0.08	792.9	-114.7	649.0	578.4	70.58	9.196		
12,700.0	11,800.0	12,046.4	11,150.0	28.4	27.3	0.07	892.8	-115.3	649.0	577.7	71.32	9.100		
12,800.0	11,800.0	12,146.4	11,150.0	29.6	28.6	0.07	992.8	-115.8	649.0	576.9	72.13	8.998		
12,900.0	11,800.0	12,246.4	11,150.0	31.0	30.2	0.07	1,092.8	-116.4	649.0	576.0	72.99	8.892		
13,000.0	11,800.0	12,346.4	11,150.0	32.5	31.8	0.07	1,192.8	-117.0	649.0	575.1	73.91	8.781		
13,100.0	11,800.0	12,446.4	11,150.0	34.1	33.4	0.07	1,292.8	-117.5	649.0	574.1	74.88	8.668		
13,200.0	11,800.0	12,546.4	11,150.0	35.8	35.1	0.07	1,392.8	-118.1	649.0	573.1	75.90	8.551		
13,300.0	11,800.0	12,646.4	11,150.0	37.5	36.8	0.07	1,492.8	-118.7	649.0	572.0	76.97	8.432		
13,400.0	11,800.0	12,746.4	11,150.0	39.2	38.6	0.07	1,592.8	-119.2	649.0	570.9	78.08	8.312		
13,500.0	11,800.0	12,846.4	11,150.0	41.0	40.4	0.06	1,692.8	-119.8	649.0	569.8	79.24	8.190		
13,600.0	11,800.0	12,946.4	11,150.0	42.8	42.2	0.06	1,792.8	-120.3	649.0	568.6	80.45	8.067		
13,700.0	11,800.0	13,046.4	11,150.0	44.6	44.0	0.06	1,892.8	-120.9	649.0	567.3	81.69	7.945		
13,800.0	11,800.0	13,146.4	11,150.0	46.4	45.9	0.06	1,992.8	-121.5	649.0	566.0	82.98	7.822		
13,900.0	11,800.0	13,246.4	11,150.0	48.2	47.7	0.06	2,092.8	-122.0	649.0	564.7	84.30	7.699		
14,000.0	11,800.0	13,346.4	11,150.0	50.1	49.6	0.06	2,192.8	-122.6	649.0	563.3	85.65	7.577		
14,100.0	11,800.0	13,446.4	11,150.0	52.0	51.5	0.06	2,292.8	-123.2	649.0	562.0	87.04	7.456		
14,200.0	11,800.0	13,546.4	11,150.0	53.8	53.4	0.06	2,392.8	-123.7	649.0	560.5	88.47	7.336		
14,300.0	11,800.0	13,646.4	11,150.0	55.7	55.3	0.05	2,492.8	-124.3	649.0	559.1	89.92	7.217		
14,400.0	11,800.0	13,746.4	11,150.0	57.6	57.2	0.05	2,592.8	-124.8	649.0	557.6	91.40	7.100		
14,500.0	11,800.0	13,846.4	11,150.0	59.5	59.1	0.05	2,692.8	-125.4	649.0	556.1	92.92	6.985		
14,600.0	11,800.0	13,946.4	11,150.0	61.4	61.0	0.05	2,792.8	-126.0	649.0	554.5	94.45	6.871		
14,700.0	11,800.0	14,046.4	11,150.0	63.3	62.9	0.05	2,892.8	-126.5	649.0	553.0	96.02	6.759		
14,800.0	11,800.0	14,146.4	11,150.0	65.3	64.9	0.05	2,992.8	-127.1	649.0	551.4	97.60	6.649		
14,900.0	11,800.0	14,246.4	11,150.0	67.2	66.8	0.05	3,092.8	-127.7	649.0	549.8	99.21	6.542		
15,000.0	11,800.0	14,346.4	11,150.0	69.1	68.7	0.04	3,192.8	-128.2	649.0	548.2	100.84	6.436		
15,100.0	11,800.0	14,446.4	11,150.0	71.1	70.7	0.04	3,292.8	-128.8	649.0	546.5	102.50	6.332		
15,200.0	11,800.0	14,546.4	11,150.0	73.0	72.6	0.04	3,392.8	-129.3	649.0	544.8	104.17	6.230		
15,300.0	11,800.0	14,646.4	11,150.0	75.0	74.6	0.04	3,492.8	-129.9	649.0	543.1	105.86	6.131		
15,400.0	11,800.0	14,746.4	11,150.0	76.9	76.5	0.04	3,592.8	-130.5	649.0	541.4	107.57	6.033		
15,500.0	11,800.0	14,846.4	11,150.0	78.9	78.5	0.04	3,692.8	-131.0	649.0	539.7	109.29	5.938		
15,600.0	11,800.0	14,946.4	11,150.0	80.8	80.5	0.04	3,792.8	-131.6	649.0	538.0	111.04	5.845		
15,700.0	11,800.0	15,046.4	11,150.0	82.8	82.4	0.04	3,892.8	-132.2	649.0	536.2	112.80	5.754		
15,800.0	11,800.0	15,146.4	11,150.0	84.7	84.4	0.03	3,992.8	-132.7	649.0	534.4	114.57	5.665		
15,900.0	11,800.0	15,246.4	11,150.0	86.7	86.4	0.03	4,092.8	-133.3	649.0	532.6	116.36	5.578		
16,000.0	11,800.0	15,346.4	11,150.0	88.7	88.3	0.03	4,192.8	-133.8	649.0	530.8	118.16	5.493		
16,100.0	11,800.0	15,446.4	11,150.0	90.6	90.3	0.03	4,292.8	-134.4	649.0	529.0	119.97	5.410		
16,200.0	11,800.0	15,546.4	11,150.0	92.6	92.3	0.03	4,392.8	-135.0	649.0	527.2	121.80	5.329		
16,300.0	11,800.0	15,646.4	11,150.0	94.6	94.3	0.03	4,492.8	-135.5	649.0	525.4	123.63	5.249		
16,400.0	11,800.0	15,746.4	11,150.0	96.6	96.2	0.03	4,592.8	-136.1	649.0	523.5	125.48	5.172		
16,500.0	11,800.0	15,846.4	11,150.0	98.5	98.2	0.03	4,692.8	-136.7	649.0	521.7	127.34	5.097		
16,600.0	11,800.0	15,946.4	11,150.0	100.5	100.2	0.02	4,792.8	-137.2	649.0	519.8	129.21	5.023		
16,700.0	11,800.0	16,046.4	11,150.0	102.5	102.2	0.02	4,892.8	-137.8	649.0	517.9	131.09	4.951		
16,800.0	11,800.0	16,146.4	11,150.0	104.5	104.2	0.02	4,992.8	-138.3	649.0	516.0	132.98	4.880		
16,900.0	11,800.0	16,246.4	11,150.0	106.5	106.2	0.02	5,092.8	-138.9	649.0	514.1	134.88	4.812		
17,000.0	11,800.0	16,346.4	11,150.0	108.4	108.1	0.02	5,192.8	-139.5	649.0	512.2	136.79	4.745		
17,100.0	11,800.0	16,446.4	11,150.0	110.4	110.1	0.02	5,292.8	-140.0	649.0	510.3	138.70	4.679		
17,200.0	11,800.0	16,546.4	11,150.0	112.4	112.1	0.02	5,392.8	-140.6	649.0	508.4	140.63	4.615		
17,300.0	11,800.0	16,646.4	11,150.0	114.4	114.1	0.02	5,492.8	-141.2	649.0	506.4	142.56	4.553		
17,400.0	11,800.0	16,746.4	11,150.0	116.4	116.1	0.01	5,592.8	-141.7	649.0	504.5	144.50	4.491		
17,500.0	11,800.0	16,846.4	11,150.0	118.4	118.1	0.01	5,692.8	-142.3	649.0	502.6	146.44	4.432		
17,600.0	11,800.0	16,946.4	11,150.0	120.4	120.1	0.01	5,792.8	-142.8	649.0	500.6	148.39	4.373		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 554H - Anderson Fed Com 554H - Anderson Fed Com 554H - Prelim 2													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,700.0	11,800.0	17,046.4	11,150.0	122.3	122.1	0.01	5,892.8	-143.4	649.0	498.6	150.35	4.317		
17,800.0	11,800.0	17,146.4	11,150.0	124.3	124.1	0.01	5,992.8	-144.0	649.0	496.7	152.32	4.261		
17,900.0	11,800.0	17,246.4	11,150.0	126.3	126.1	0.01	6,092.8	-144.5	649.0	494.7	154.29	4.206		
18,000.0	11,800.0	17,346.4	11,150.0	128.3	128.1	0.01	6,192.8	-145.1	649.0	492.7	156.27	4.153		
18,100.0	11,800.0	17,446.4	11,150.0	130.3	130.0	0.01	6,292.8	-145.7	649.0	490.8	158.25	4.101		
18,200.0	11,800.0	17,546.4	11,150.0	132.3	132.0	0.00	6,392.8	-146.2	649.0	488.8	160.24	4.050		
18,300.0	11,800.0	17,646.4	11,150.0	134.3	134.0	0.00	6,492.8	-146.8	649.0	486.8	162.23	4.000		
18,400.0	11,800.0	17,746.4	11,150.0	136.3	136.0	0.00	6,592.8	-147.4	649.0	484.8	164.23	3.952		
18,490.0	11,800.0	17,836.4	11,150.0	138.1	137.8	0.00	6,682.8	-147.9	649.0	483.0	166.03	3.909		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 702H - Anderson Fed Com 702H - Anderson Fed Com 702H - Prelim 2											Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM											Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	-90.53	-1.2	-132.1	132.2			
100.0	100.0	95.0	95.0	0.5	0.5	-90.53	-1.2	-132.1	132.1	131.0	1.03	127.745
200.0	200.0	195.0	195.0	1.7	1.7	-90.53	-1.2	-132.1	132.1	128.7	3.36	39.252
300.0	300.0	295.0	295.0	2.4	2.4	-90.53	-1.2	-132.1	132.1	127.3	4.79	27.582
400.0	400.0	395.0	395.0	3.0	2.9	-90.53	-1.2	-132.1	132.1	126.2	5.88	22.456
500.0	500.0	495.0	495.0	3.4	3.4	-90.53	-1.2	-132.1	132.1	125.3	6.81	19.401
600.0	600.0	595.0	595.0	3.8	3.8	-90.53	-1.2	-132.1	132.1	124.4	7.63	17.312
700.0	700.0	695.0	695.0	4.2	4.2	-90.53	-1.2	-132.1	132.1	123.7	8.38	15.768
800.0	800.0	795.0	795.0	4.5	4.5	-90.53	-1.2	-132.1	132.1	123.0	9.07	14.566
900.0	900.0	895.0	895.0	4.9	4.8	-90.53	-1.2	-132.1	132.1	122.3	9.71	13.595
1,000.0	1,000.0	995.0	995.0	5.2	5.2	-90.53	-1.2	-132.1	132.1	121.7	10.33	12.789
1,100.0	1,100.0	1,095.0	1,095.0	5.5	5.4	-90.53	-1.2	-132.1	132.1	121.2	10.91	12.106
1,200.0	1,200.0	1,195.0	1,195.0	5.7	5.7	-90.53	-1.2	-132.1	132.1	120.6	11.47	11.518
1,300.0	1,300.0	1,295.0	1,295.0	6.0	6.0	-90.53	-1.2	-132.1	132.1	120.1	12.00	11.004
1,400.0	1,400.0	1,395.0	1,395.0	6.3	6.3	-90.53	-1.2	-132.1	132.1	119.5	12.52	10.549
1,500.0	1,500.0	1,495.0	1,495.0	6.5	6.5	-90.53	-1.2	-132.1	132.1	119.0	13.02	10.144
1,600.0	1,600.0	1,595.0	1,595.0	6.8	6.7	-90.53	-1.2	-132.1	132.1	118.6	13.50	9.779
1,700.0	1,700.0	1,695.0	1,695.0	7.0	7.0	-90.53	-1.2	-132.1	132.1	118.1	13.98	9.448
1,800.0	1,800.0	1,795.0	1,795.0	7.2	7.2	-90.53	-1.2	-132.1	132.1	117.6	14.44	9.147
1,900.0	1,900.0	1,895.0	1,895.0	7.4	7.4	-90.53	-1.2	-132.1	132.1	117.2	14.89	8.870
2,000.0	2,000.0	1,995.0	1,995.0	7.7	7.7	-90.53	-1.2	-132.1	132.1	116.7	15.33	8.616
2,100.0	2,100.0	2,095.0	2,095.0	7.9	7.9	-90.53	-1.2	-132.1	132.1	116.3	15.76	8.380
2,200.0	2,200.0	2,195.0	2,195.0	8.1	8.1	-90.53	-1.2	-132.1	132.1	115.9	16.18	8.161
2,300.0	2,300.0	2,295.0	2,295.0	8.3	8.3	-90.53	-1.2	-132.1	132.1	115.5	16.60	7.957
2,400.0	2,400.0	2,395.0	2,395.0	8.5	8.5	-90.53	-1.2	-132.1	132.1	115.1	17.01	7.766
2,500.0	2,500.0	2,495.0	2,495.0	8.7	8.7	-90.53	-1.2	-132.1	132.1	114.7	17.41	7.587
2,600.0	2,600.0	2,595.0	2,595.0	8.9	8.9	-90.53	-1.2	-132.1	132.1	114.3	17.80	7.418
2,700.0	2,700.0	2,695.0	2,695.0	9.1	9.1	-90.53	-1.2	-132.1	132.1	113.9	18.19	7.259
2,800.0	2,800.0	2,795.0	2,795.0	9.3	9.3	-90.53	-1.2	-132.1	132.1	113.5	18.58	7.109
2,900.0	2,900.0	2,895.0	2,895.0	9.5	9.5	-90.53	-1.2	-132.1	132.1	113.1	18.96	6.967
3,000.0	3,000.0	2,995.0	2,995.0	9.7	9.7	-90.53	-1.2	-132.1	132.1	112.7	19.33	6.832
3,100.0	3,100.0	3,095.0	3,095.0	9.9	9.8	-90.53	-1.2	-132.1	132.1	112.4	19.70	6.704
3,200.0	3,200.0	3,195.0	3,195.0	10.0	10.0	-90.53	-1.2	-132.1	132.1	112.0	20.07	6.582
3,300.0	3,300.0	3,295.0	3,295.0	10.2	10.2	-90.53	-1.2	-132.1	132.1	111.6	20.43	6.465
3,400.0	3,400.0	3,395.0	3,395.0	10.4	10.4	-90.53	-1.2	-132.1	132.1	111.3	20.79	6.354
3,500.0	3,500.0	3,495.0	3,495.0	10.6	10.6	-90.53	-1.2	-132.1	132.1	110.9	21.14	6.247
3,600.0	3,600.0	3,595.0	3,595.0	10.7	10.7	-90.53	-1.2	-132.1	132.1	110.6	21.49	6.145
3,700.0	3,700.0	3,695.0	3,695.0	10.9	10.9	-90.53	-1.2	-132.1	132.1	110.2	21.84	6.047
3,800.0	3,800.0	3,795.0	3,795.0	11.1	11.1	-90.53	-1.2	-132.1	132.1	109.9	22.18	5.954
3,900.0	3,900.0	3,895.0	3,895.0	11.3	11.3	-90.53	-1.2	-132.1	132.1	109.5	22.52	5.863
4,000.0	4,000.0	3,995.0	3,995.0	11.4	11.4	-90.53	-1.2	-132.1	132.1	109.2	22.86	5.776
4,100.0	4,100.0	4,095.0	4,095.0	11.6	11.6	-90.53	-1.2	-132.1	132.1	108.9	23.20	5.693
4,200.0	4,200.0	4,195.0	4,195.0	11.8	11.8	-90.53	-1.2	-132.1	132.1	108.5	23.53	5.612
4,300.0	4,300.0	4,295.0	4,295.0	11.9	11.9	-90.53	-1.2	-132.1	132.1	108.2	23.86	5.534
4,400.0	4,400.0	4,395.0	4,395.0	12.1	12.1	-90.53	-1.2	-132.1	132.1	107.9	24.19	5.459
4,500.0	4,500.0	4,495.0	4,495.0	12.3	12.3	-90.53	-1.2	-132.1	132.1	107.5	24.52	5.387
4,600.0	4,600.0	4,595.0	4,595.0	12.4	12.4	-90.53	-1.2	-132.1	132.1	107.2	24.84	5.316
4,700.0	4,700.0	4,695.0	4,695.0	12.6	12.6	-90.53	-1.2	-132.1	132.1	106.9	25.16	5.248
4,800.0	4,800.0	4,795.0	4,795.0	12.7	12.7	-90.53	-1.2	-132.1	132.1	106.6	25.48	5.182
4,900.0	4,900.0	4,895.0	4,895.0	12.9	12.9	-90.53	-1.2	-132.1	132.1	106.3	25.80	5.119
5,000.0	5,000.0	4,995.0	4,995.0	13.1	13.1	-90.53	-1.2	-132.1	132.1	105.9	26.12	5.057
5,100.0	5,100.0	5,095.0	5,095.0	13.2	13.2	-90.53	-1.2	-132.1	132.1	105.6	26.43	4.996

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 702H - Anderson Fed Com 702H - Anderson Fed Com 702H - Prelim 2												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
				(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.0	5,200.0	5,195.0	5,195.0	13.4	13.4	-90.53	-1.2	-132.1	132.1	105.3	26.74	4.938	
5,300.0	5,300.0	5,295.0	5,295.0	13.5	13.5	-90.53	-1.2	-132.1	132.1	105.0	27.05	4.881	
5,400.0	5,400.0	5,395.0	5,395.0	13.7	13.7	-90.53	-1.2	-132.1	132.1	104.7	27.36	4.826 CC, ES	
5,500.0	5,500.0	5,493.0	5,493.0	13.8	13.8	-90.63	-1.5	-132.8	132.8	105.2	27.62	4.808	
5,600.0	5,600.0	5,590.8	5,590.7	14.0	13.9	-90.98	-2.3	-135.0	135.1	107.3	27.86	4.850	
5,700.0	5,700.0	5,688.5	5,688.4	14.1	14.0	88.79	-3.7	-138.9	139.1	111.0	28.04	4.960	
5,800.0	5,800.0	5,786.1	5,785.8	14.1	14.1	89.01	-5.7	-144.3	144.6	116.4	28.20	5.127	
5,819.0	5,818.9	5,804.5	5,804.2	14.1	14.1	89.10	-6.1	-145.5	145.8	117.6	28.21	5.168	
5,900.0	5,899.9	5,883.4	5,882.8	14.2	14.3	89.48	-8.2	-151.2	151.7	123.4	28.33	5.354	
6,000.0	5,999.8	5,982.7	5,981.7	14.2	14.4	89.81	-11.1	-159.3	159.9	131.3	28.53	5.603	
6,100.0	6,099.7	6,082.3	6,081.0	14.3	14.6	90.10	-14.1	-167.5	168.0	139.3	28.76	5.843	
6,200.0	6,199.7	6,182.0	6,180.3	14.5	14.8	90.36	-17.1	-175.6	176.2	147.2	29.00	6.077	
6,300.0	6,299.6	6,281.6	6,279.6	14.6	15.0	90.60	-20.0	-183.8	184.4	155.2	29.26	6.304	
6,400.0	6,399.5	6,381.3	6,378.8	14.7	15.3	90.82	-23.0	-192.0	192.6	163.1	29.53	6.523	
6,500.0	6,499.4	6,481.0	6,478.1	14.9	15.5	91.03	-26.0	-200.1	200.8	171.0	29.82	6.735	
6,600.0	6,599.4	6,580.6	6,577.4	15.0	15.8	91.21	-29.0	-208.3	209.0	178.9	30.12	6.940	
6,700.0	6,699.3	6,680.3	6,676.7	15.2	16.0	91.39	-31.9	-216.5	217.2	186.8	30.44	7.137	
6,800.0	6,799.2	6,779.9	6,776.0	15.4	16.3	91.55	-34.9	-224.6	225.5	194.7	30.77	7.328	
6,900.0	6,899.2	6,879.6	6,875.2	15.6	16.6	91.69	-37.9	-232.8	233.7	202.6	31.11	7.512	
7,000.0	6,999.1	6,979.3	6,974.5	15.8	17.0	91.83	-40.8	-240.9	241.9	210.4	31.46	7.689	
7,100.0	7,099.0	7,078.9	7,073.8	16.0	17.3	91.96	-43.8	-249.1	250.1	218.3	31.82	7.859	
7,200.0	7,198.9	7,178.6	7,173.1	16.2	17.6	92.08	-46.8	-257.3	258.3	226.1	32.20	8.023	
7,300.0	7,298.9	7,278.3	7,272.4	16.5	18.0	92.20	-49.8	-265.4	266.5	233.9	32.58	8.180	
7,400.0	7,398.8	7,377.9	7,371.7	16.7	18.3	92.30	-52.7	-273.6	274.7	241.8	32.97	8.332	
7,500.0	7,498.7	7,477.6	7,470.9	17.0	18.7	92.41	-55.7	-281.7	283.0	249.6	33.38	8.478	
7,600.0	7,598.6	7,577.2	7,570.2	17.2	19.1	92.50	-58.7	-289.9	291.2	257.4	33.79	8.618	
7,700.0	7,698.6	7,676.9	7,669.5	17.5	19.4	92.59	-61.6	-298.1	299.4	265.2	34.21	8.752	
7,800.0	7,798.5	7,776.6	7,768.8	17.8	19.8	92.67	-64.6	-306.2	307.6	273.0	34.63	8.882	
7,900.0	7,898.4	7,876.2	7,868.1	18.1	20.2	92.76	-67.6	-314.4	315.8	280.8	35.07	9.006	
8,000.0	7,998.4	7,975.9	7,967.3	18.3	20.6	92.83	-70.5	-322.6	324.0	288.5	35.51	9.126	
8,100.0	8,098.3	8,075.5	8,066.6	18.6	21.0	92.90	-73.5	-330.7	332.3	296.3	35.96	9.241	
8,200.0	8,198.2	8,175.2	8,165.9	18.9	21.4	92.97	-76.5	-338.9	340.5	304.1	36.41	9.351	
8,300.0	8,298.1	8,274.9	8,265.2	19.2	21.9	93.04	-79.5	-347.0	348.7	311.8	36.87	9.457	
8,400.0	8,398.1	8,374.5	8,364.5	19.6	22.3	93.10	-82.4	-355.2	356.9	319.6	37.34	9.559	
8,500.0	8,498.0	8,474.2	8,463.8	19.9	22.7	93.16	-85.4	-363.4	365.2	327.4	37.81	9.658	
8,600.0	8,597.9	8,573.8	8,563.0	20.2	23.2	93.22	-88.4	-371.5	373.4	335.1	38.29	9.752	
8,700.0	8,697.8	8,673.5	8,662.3	20.5	23.6	93.28	-91.3	-379.7	381.6	342.8	38.77	9.843	
8,800.0	8,797.8	8,773.2	8,761.6	20.8	24.0	93.33	-94.3	-387.9	389.8	350.6	39.26	9.930	
8,900.0	8,897.7	8,872.8	8,860.9	21.2	24.5	93.38	-97.3	-396.0	398.1	358.3	39.75	10.014	
9,000.0	8,997.6	8,972.5	8,960.2	21.5	24.9	93.43	-100.3	-404.2	406.3	366.0	40.25	10.095	
9,100.0	9,097.6	9,072.1	9,059.4	21.9	25.4	93.47	-103.2	-412.3	414.5	373.8	40.75	10.173	
9,200.0	9,197.5	9,171.8	9,158.7	22.2	25.8	93.52	-106.2	-420.5	422.7	381.5	41.25	10.248	
9,300.0	9,297.4	9,271.5	9,258.0	22.6	26.3	93.56	-109.2	-428.7	431.0	389.2	41.76	10.320	
9,400.0	9,397.3	9,371.1	9,357.3	22.9	26.8	93.60	-112.1	-436.8	439.2	396.9	42.27	10.390	
9,500.0	9,497.3	9,470.8	9,456.6	23.3	27.2	93.64	-115.1	-445.0	447.4	404.6	42.79	10.457	
9,600.0	9,597.2	9,570.4	9,555.8	23.6	27.7	93.68	-118.1	-453.2	455.6	412.3	43.31	10.521	
9,700.0	9,697.1	9,670.1	9,655.1	24.0	28.2	93.72	-121.1	-461.3	463.9	420.0	43.83	10.584	
9,800.0	9,797.0	9,769.8	9,754.4	24.3	28.6	93.75	-124.0	-469.5	472.1	427.7	44.35	10.644	
9,900.0	9,897.0	9,869.4	9,853.7	24.7	29.1	93.79	-127.0	-477.6	480.3	435.4	44.88	10.702	
10,000.0	9,996.9	9,969.1	9,953.0	25.1	29.6	93.82	-130.0	-485.8	488.5	443.1	45.41	10.758	
10,100.0	10,096.8	10,068.8	10,052.3	25.5	30.1	93.85	-132.9	-494.0	496.8	450.8	45.95	10.812	
10,200.0	10,196.7	10,168.4	10,151.5	25.8	30.6	93.88	-135.9	-502.1	505.0	458.5	46.48	10.864	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 702H - Anderson Fed Com 702H - Anderson Fed Com 702H - Prelim 2													Offset Site Error:	0.0 usft	
Survey Program: 0-MWD+HRGM				Rule Assigned:										Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
10,300.0	10,296.7	10,268.1	10,250.8	26.2	31.1	93.91	-138.9	-510.3	513.2	466.2	47.02	10.914			
10,400.0	10,396.6	10,367.7	10,350.1	26.6	31.5	93.94	-141.8	-518.5	521.4	473.9	47.57	10.962			
10,500.0	10,496.5	10,467.4	10,449.4	27.0	32.0	93.97	-144.8	-526.6	529.7	481.6	48.11	11.009			
10,600.0	10,596.5	10,567.1	10,548.7	27.3	32.5	94.00	-147.8	-534.8	537.9	489.2	48.66	11.055			
10,700.0	10,696.4	10,666.7	10,647.9	27.7	33.0	94.03	-150.8	-542.9	546.1	496.9	49.21	11.098			
10,800.0	10,796.3	10,766.4	10,747.2	28.1	33.5	94.05	-153.7	-551.1	554.4	504.6	49.76	11.141			
10,834.8	10,831.1	10,801.1	10,781.8	28.2	33.7	94.06	-154.8	-553.9	557.2	507.3	49.93	11.159			
10,900.0	10,896.2	10,866.0	10,846.5	28.5	34.0	94.09	-156.7	-559.3	562.6	512.3	50.27	11.190			
11,000.0	10,996.2	10,965.7	10,945.8	28.8	34.5	94.00	-159.7	-567.4	570.6	519.8	50.84	11.225			
11,053.8	11,050.0	11,019.3	10,999.1	28.9	34.8	-86.13	-161.3	-571.8	575.0	523.8	51.12	11.246			
11,100.0	11,096.2	11,065.3	11,045.0	28.9	35.0	-86.29	-162.6	-575.6	578.6	527.3	51.37	11.264			
11,200.0	11,196.2	11,164.9	11,144.3	28.9	35.5	-86.63	-165.6	-583.7	586.6	534.7	51.95	11.293			
11,300.0	11,296.2	11,264.6	11,243.5	29.0	36.0	-86.96	-168.6	-591.9	594.7	542.1	52.54	11.319			
11,326.3	11,322.5	11,290.8	11,269.6	29.0	36.1	-87.05	-169.4	-594.0	596.8	544.1	52.67	11.329			
11,350.0	11,346.2	11,314.3	11,293.1	28.9	36.2	-77.72	-170.1	-596.0	598.5	545.7	52.80	11.335			
11,375.0	11,371.1	11,339.1	11,317.8	28.9	36.4	-77.79	-170.8	-598.0	600.2	547.2	52.95	11.335			
11,400.0	11,395.9	11,363.8	11,342.4	28.8	36.5	-78.00	-171.5	-600.0	601.5	548.4	53.11	11.326			
11,425.0	11,420.5	11,375.0	11,353.5	28.7	36.5	-78.06	-171.9	-600.9	602.8	549.5	53.31	11.307			
11,450.0	11,444.9	11,391.0	11,369.5	28.6	36.6	-78.27	-172.4	-602.6	604.2	550.7	53.53	11.288			
11,475.0	11,468.8	11,400.0	11,378.4	28.5	36.7	-78.33	-172.8	-603.7	606.1	552.3	53.80	11.265			
11,500.0	11,492.4	11,412.1	11,390.3	28.4	36.7	-78.49	-173.4	-605.5	608.3	554.2	54.11	11.242			
11,525.0	11,515.5	11,425.0	11,403.0	28.3	36.8	-78.71	-174.1	-607.7	610.9	556.4	54.43	11.223			
11,550.0	11,538.1	11,425.0	11,403.0	28.2	36.8	-78.35	-174.1	-607.7	613.9	559.0	54.86	11.191			
11,575.0	11,560.1	11,441.2	11,418.8	28.1	36.9	-78.73	-175.1	-610.9	617.2	562.0	55.21	11.179			
11,600.0	11,581.5	11,450.0	11,427.4	28.0	37.0	-78.74	-175.7	-612.9	621.0	565.4	55.63	11.163			
11,625.0	11,602.1	11,458.6	11,435.7	27.9	37.1	-78.73	-176.4	-615.0	625.3	569.2	56.07	11.152			
11,650.0	11,622.0	11,466.7	11,443.5	27.8	37.1	-78.65	-177.0	-617.1	630.0	573.5	56.52	11.146			
11,675.0	11,641.1	11,475.0	11,451.5	27.7	37.2	-78.56	-177.7	-619.4	635.2	578.2	56.98	11.148			
11,700.0	11,659.2	11,475.0	11,451.5	27.6	37.2	-77.87	-177.7	-619.4	640.9	583.4	57.52	11.143			
11,725.0	11,676.5	11,488.1	11,464.0	27.5	37.3	-78.03	-178.9	-623.3	647.0	589.1	57.93	11.169			
11,750.0	11,692.8	11,500.0	11,475.1	27.4	37.3	-78.09	-180.0	-627.1	653.7	595.4	58.34	11.206			
11,775.0	11,708.0	11,500.0	11,475.1	27.3	37.3	-77.22	-180.0	-627.1	660.8	602.0	58.85	11.229			
11,800.0	11,722.3	11,500.0	11,475.1	27.2	37.3	-76.28	-180.0	-627.1	668.5	609.2	59.35	11.264			
11,825.0	11,735.4	11,509.9	11,484.4	27.2	37.4	-76.06	-181.0	-630.4	676.5	616.8	59.72	11.328			
11,850.0	11,747.4	11,514.0	11,488.2	27.1	37.4	-75.34	-181.4	-631.9	685.1	625.0	60.13	11.394			
11,875.0	11,758.2	11,525.0	11,498.4	27.0	37.5	-75.13	-182.6	-635.9	694.2	633.7	60.44	11.486			
11,900.0	11,767.8	11,525.0	11,498.4	27.0	37.5	-73.97	-182.6	-635.9	703.5	642.7	60.82	11.567			
11,925.0	11,776.2	11,525.0	11,498.4	27.0	37.5	-72.75	-182.6	-635.9	713.3	652.1	61.16	11.662			
11,950.0	11,783.4	11,525.0	11,498.4	26.9	37.5	-71.48	-182.6	-635.9	723.4	661.9	61.47	11.769			
11,975.0	11,789.3	11,525.0	11,498.4	26.9	37.5	-70.17	-182.6	-635.9	733.9	672.1	61.74	11.887			
12,000.0	11,793.9	11,525.0	11,498.4	26.9	37.5	-68.83	-182.6	-635.9	744.6	682.7	61.97	12.016			
12,025.0	11,797.2	11,525.0	11,498.4	26.9	37.5	-67.47	-182.6	-635.9	755.7	693.5	62.16	12.156			
12,050.0	11,799.3	11,525.0	11,498.4	26.9	37.5	-66.08	-182.6	-635.9	766.9	704.6	62.32	12.305			
12,076.3	11,800.0	11,525.0	11,498.4	26.9	37.5	-64.61	-182.6	-635.9	778.9	716.5	62.45	12.472			
12,084.2	11,800.0	11,525.0	11,498.4	26.9	37.5	-64.61	-182.6	-635.9	782.6	720.1	62.48	12.525			
12,100.0	11,800.0	11,525.0	11,498.4	26.9	37.5	-64.53	-182.6	-635.9	790.1	727.6	62.54	12.633			
12,200.0	11,800.0	11,525.0	11,498.4	26.9	37.5	-63.96	-182.6	-635.9	844.7	781.9	62.80	13.451			
12,300.0	11,800.0	11,525.0	11,498.4	27.0	37.5	-63.21	-182.6	-635.9	909.4	846.5	62.88	14.462			
12,400.0	11,800.0	12,799.1	12,050.0	27.1	44.3	-105.42	587.7	-1,037.2	960.2	896.1	64.10	14.981			
12,500.0	11,800.0	12,899.1	12,050.0	27.3	45.1	-105.45	687.6	-1,037.8	957.5	891.6	65.91	14.528			
12,530.3	11,800.0	12,929.4	12,050.0	27.4	45.3	-105.45	717.9	-1,038.0	957.4	890.9	66.44	14.409			
12,530.9	11,800.0	12,930.0	12,050.0	27.4	45.3	-105.45	718.5	-1,038.0	957.4	890.9	66.45	14.407			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 702H - Anderson Fed Com 702H - Anderson Fed Com 702H - Prelim 2													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,600.0	11,800.0	12,999.1	12,050.0	27.7	45.9	-105.45	787.6	-1,038.4	957.4	889.7	67.70	14.142	
12,700.0	11,800.0	13,099.1	12,050.0	28.4	46.8	-105.45	887.6	-1,038.9	957.4	887.7	69.66	13.745	
12,800.0	11,800.0	13,199.1	12,050.0	29.6	47.7	-105.45	987.6	-1,039.5	957.4	885.6	71.77	13.339	
12,900.0	11,800.0	13,299.1	12,050.0	31.0	48.7	-105.45	1,087.6	-1,040.1	957.4	883.4	74.03	12.933	
13,000.0	11,800.0	13,399.1	12,050.0	32.5	49.8	-105.45	1,187.6	-1,040.6	957.5	881.0	76.41	12.530	
13,100.0	11,800.0	13,499.1	12,050.0	34.1	50.9	-105.45	1,287.6	-1,041.2	957.5	878.6	78.91	12.133	
13,200.0	11,800.0	13,599.1	12,050.0	35.8	52.0	-105.45	1,387.6	-1,041.8	957.5	876.0	81.52	11.745	
13,300.0	11,800.0	13,699.1	12,050.0	37.5	53.2	-105.45	1,487.6	-1,042.3	957.5	873.3	84.22	11.369	
13,400.0	11,800.0	13,799.1	12,050.0	39.2	54.5	-105.44	1,587.6	-1,042.9	957.5	870.5	87.01	11.005	
13,500.0	11,800.0	13,899.1	12,050.0	41.0	55.7	-105.44	1,687.6	-1,043.5	957.5	867.7	89.88	10.654	
13,600.0	11,800.0	13,999.1	12,050.0	42.8	57.1	-105.44	1,787.6	-1,044.0	957.6	864.7	92.82	10.316	
13,700.0	11,800.0	14,099.1	12,050.0	44.6	58.4	-105.44	1,887.6	-1,044.6	957.6	861.8	95.83	9.992	
13,800.0	11,800.0	14,199.1	12,050.0	46.4	59.8	-105.44	1,987.6	-1,045.2	957.6	858.7	98.90	9.682	
13,900.0	11,800.0	14,299.1	12,050.0	48.2	61.2	-105.44	2,087.6	-1,045.7	957.6	855.6	102.03	9.386	
14,000.0	11,800.0	14,399.1	12,050.0	50.1	62.7	-105.44	2,187.6	-1,046.3	957.6	852.4	105.21	9.103	
14,100.0	11,800.0	14,499.1	12,050.0	52.0	64.1	-105.44	2,287.6	-1,046.9	957.7	849.2	108.43	8.832	
14,200.0	11,800.0	14,599.1	12,050.0	53.8	65.6	-105.44	2,387.6	-1,047.4	957.7	846.0	111.70	8.574	
14,300.0	11,800.0	14,699.1	12,050.0	55.7	67.2	-105.44	2,487.6	-1,048.0	957.7	842.7	115.00	8.328	
14,400.0	11,800.0	14,799.1	12,050.0	57.6	68.7	-105.44	2,587.6	-1,048.6	957.7	839.4	118.35	8.093	
14,500.0	11,800.0	14,899.1	12,050.0	59.5	70.3	-105.44	2,687.6	-1,049.1	957.7	836.0	121.72	7.868	
14,600.0	11,800.0	14,999.1	12,050.0	61.4	71.9	-105.44	2,787.6	-1,049.7	957.8	832.6	125.13	7.654	
14,700.0	11,800.0	15,099.1	12,050.0	63.3	73.5	-105.44	2,887.6	-1,050.3	957.8	829.2	128.57	7.450	
14,800.0	11,800.0	15,199.1	12,050.0	65.3	75.2	-105.44	2,987.6	-1,050.8	957.8	825.8	132.03	7.254	
14,900.0	11,800.0	15,299.1	12,050.0	67.2	76.8	-105.44	3,087.6	-1,051.4	957.8	822.3	135.52	7.068	
15,000.0	11,800.0	15,399.1	12,050.0	69.1	78.5	-105.44	3,187.6	-1,052.0	957.8	818.8	139.03	6.889	
15,100.0	11,800.0	15,499.1	12,050.0	71.1	80.2	-105.44	3,287.6	-1,052.5	957.8	815.3	142.56	6.719	
15,200.0	11,800.0	15,599.1	12,050.0	73.0	81.9	-105.44	3,387.6	-1,053.1	957.9	811.8	146.11	6.556	
15,300.0	11,800.0	15,699.1	12,050.0	75.0	83.6	-105.44	3,487.6	-1,053.7	957.9	808.2	149.68	6.399	
15,400.0	11,800.0	15,799.1	12,050.0	76.9	85.3	-105.44	3,587.6	-1,054.2	957.9	804.6	153.27	6.250	
15,500.0	11,800.0	15,899.1	12,050.0	78.9	87.0	-105.44	3,687.6	-1,054.8	957.9	801.0	156.88	6.106	
15,600.0	11,800.0	15,999.1	12,050.0	80.8	88.8	-105.44	3,787.6	-1,055.4	957.9	797.4	160.49	5.969	
15,700.0	11,800.0	16,099.1	12,050.0	82.8	90.6	-105.44	3,887.6	-1,055.9	958.0	793.8	164.13	5.837	
15,800.0	11,800.0	16,199.1	12,050.0	84.7	92.3	-105.44	3,987.6	-1,056.5	958.0	790.2	167.77	5.710	
15,900.0	11,800.0	16,299.1	12,050.0	86.7	94.1	-105.44	4,087.6	-1,057.1	958.0	786.6	171.43	5.588	
16,000.0	11,800.0	16,399.1	12,050.0	88.7	95.9	-105.44	4,187.6	-1,057.6	958.0	782.9	175.10	5.471	
16,100.0	11,800.0	16,499.1	12,050.0	90.6	97.7	-105.44	4,287.6	-1,058.2	958.0	779.3	178.78	5.359	
16,200.0	11,800.0	16,599.1	12,050.0	92.6	99.5	-105.44	4,387.6	-1,058.8	958.1	775.6	182.47	5.250	
16,300.0	11,800.0	16,699.1	12,050.0	94.6	101.3	-105.44	4,487.5	-1,059.3	958.1	771.9	186.17	5.146	
16,400.0	11,800.0	16,799.1	12,050.0	96.6	103.2	-105.44	4,587.5	-1,059.9	958.1	768.2	189.88	5.046	
16,500.0	11,800.0	16,899.1	12,050.0	98.5	105.0	-105.44	4,687.5	-1,060.5	958.1	764.5	193.60	4.949	
16,600.0	11,800.0	16,999.1	12,050.0	100.5	106.8	-105.43	4,787.5	-1,061.1	958.1	760.8	197.33	4.856	
16,700.0	11,800.0	17,099.1	12,050.0	102.5	108.7	-105.43	4,887.5	-1,061.6	958.1	757.1	201.06	4.765	
16,800.0	11,800.0	17,199.1	12,050.0	104.5	110.5	-105.43	4,987.5	-1,062.2	958.2	753.4	204.80	4.678	
16,900.0	11,800.0	17,299.1	12,050.0	106.5	112.4	-105.43	5,087.5	-1,062.8	958.2	749.6	208.55	4.594	
17,000.0	11,800.0	17,399.1	12,050.0	108.4	114.3	-105.43	5,187.5	-1,063.3	958.2	745.9	212.31	4.513	
17,100.0	11,800.0	17,499.1	12,050.0	110.4	116.1	-105.43	5,287.5	-1,063.9	958.2	742.2	216.07	4.435	
17,200.0	11,800.0	17,599.1	12,050.0	112.4	118.0	-105.43	5,387.5	-1,064.5	958.2	738.4	219.83	4.359	
17,300.0	11,800.0	17,699.1	12,050.0	114.4	119.9	-105.43	5,487.5	-1,065.0	958.3	734.7	223.61	4.285	
17,400.0	11,800.0	17,799.1	12,050.0	116.4	121.8	-105.43	5,587.5	-1,065.6	958.3	730.9	227.38	4.214	
17,500.0	11,800.0	17,899.1	12,050.0	118.4	123.6	-105.43	5,687.5	-1,066.2	958.3	727.1	231.17	4.145	
17,600.0	11,800.0	17,999.1	12,050.0	120.4	125.5	-105.43	5,787.5	-1,066.7	958.3	723.4	234.95	4.079	
17,700.0	11,800.0	18,099.1	12,050.0	122.3	127.4	-105.43	5,887.5	-1,067.3	958.3	719.6	238.75	4.014	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad C - Anderson Fed Com 702H - Anderson Fed Com 702H - Anderson Fed Com 702H - Prelim 2													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,800.0	11,800.0	18,199.1	12,050.0	124.3	129.3	-105.43	5,987.5	-1,067.9	958.4	715.8	242.54	3.951		
17,900.0	11,800.0	18,299.1	12,050.0	126.3	131.2	-105.43	6,087.5	-1,068.4	958.4	712.0	246.34	3.890		
18,000.0	11,800.0	18,399.1	12,050.0	128.3	133.1	-105.43	6,187.5	-1,069.0	958.4	708.2	250.15	3.831		
18,100.0	11,800.0	18,499.1	12,050.0	130.3	135.0	-105.43	6,287.5	-1,069.6	958.4	704.5	253.96	3.774		
18,200.0	11,800.0	18,599.1	12,050.0	132.3	136.9	-105.43	6,387.5	-1,070.1	958.4	700.7	257.77	3.718		
18,300.0	11,800.0	18,699.1	12,050.0	134.3	138.9	-105.43	6,487.5	-1,070.7	958.4	696.9	261.58	3.664		
18,400.0	11,800.0	18,799.1	12,050.0	136.3	140.8	-105.43	6,587.5	-1,071.3	958.5	693.1	265.40	3.611		
18,406.5	11,800.0	18,805.5	12,050.0	136.4	140.9	-105.43	6,594.0	-1,071.3	958.5	692.8	265.65	3.608		
18,490.0	11,800.0	18,884.0	12,050.0	138.1	142.4	-105.43	6,672.5	-1,071.8	958.5	689.7	268.80	3.566 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

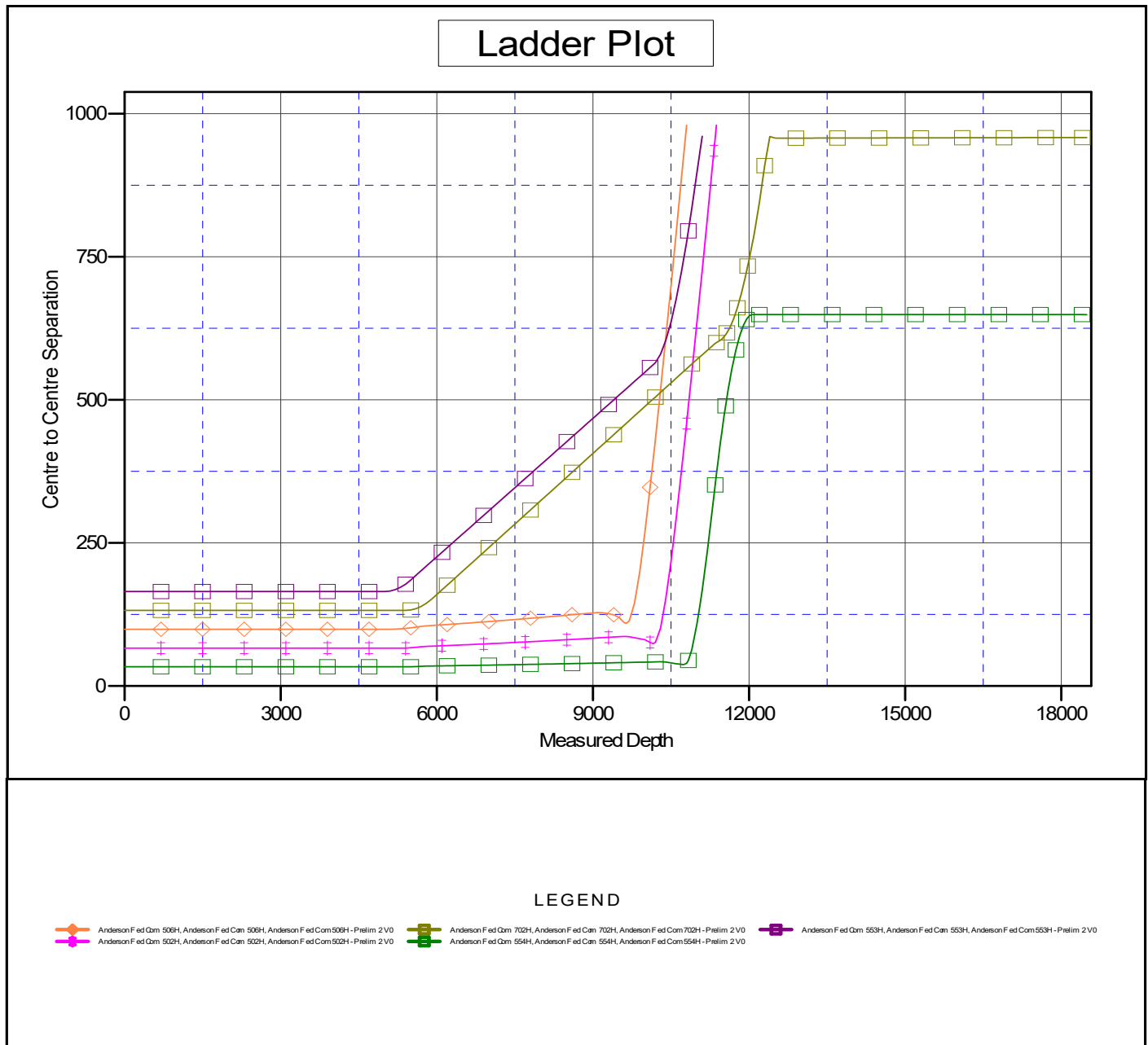


Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3704.5usft (Original Well Ele)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Anderson Fed Com 602H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.37°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 602H
Project:	Hat Mesa	TVD Reference:	WELL @ 3704.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad C	MD Reference:	WELL @ 3704.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 602H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 602H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 602H - Prelim 2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3704.5usft (Original Well Ele

Offset Depths are relative to Offset Datum

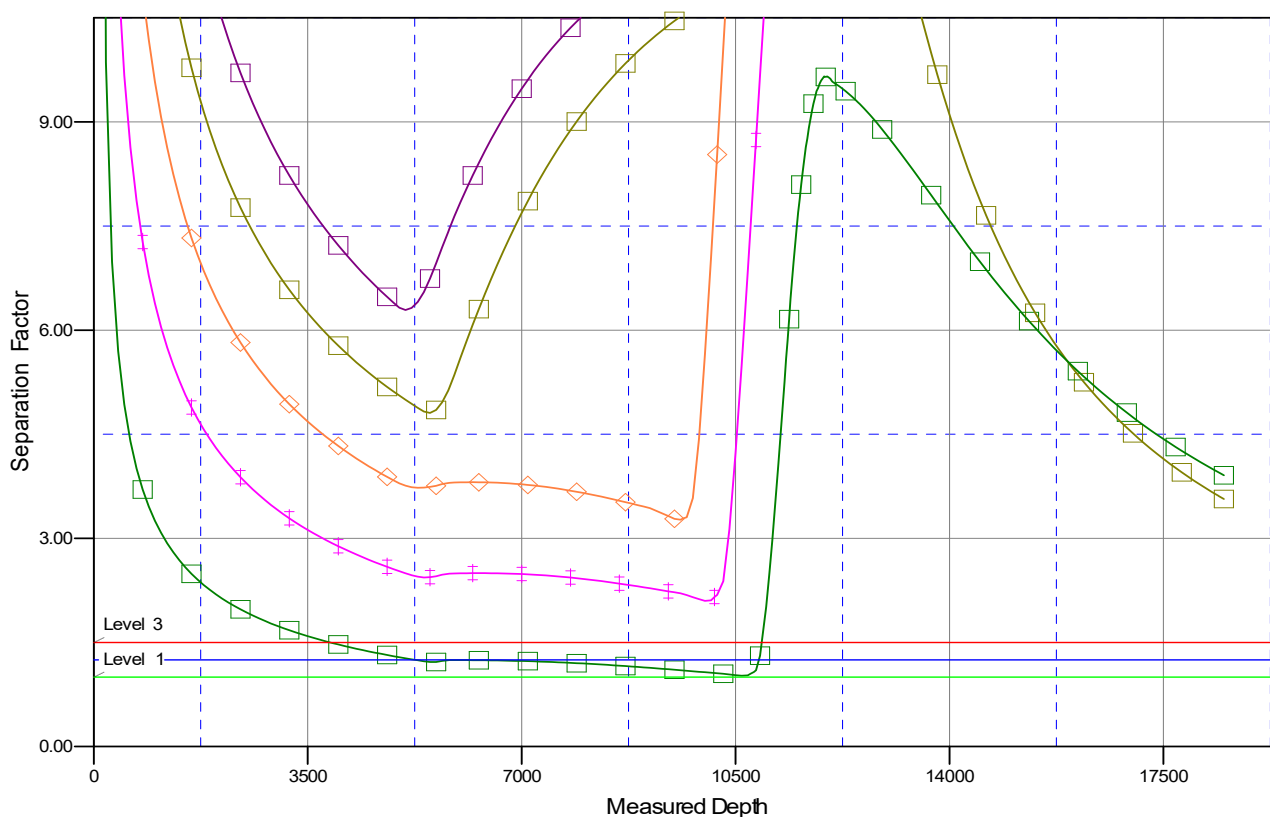
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Anderson Fed Com 602H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.37°

Separation Factor Plot



LEGEND

◆ Anderson Fed Com 506H, Anderson Fed Com 506H, Anderson Fed Com 506H - Prelim 2 V/O
 ■ Anderson Fed Com 702H, Anderson Fed Com 702H, Anderson Fed Com 702H - Prelim 2 V/O
 ■ Anderson Fed Com 553H, Anderson Fed Com 553H, Anderson Fed Com 553H - Prelim 2 V/O

■ Anderson Fed Com 502H, Anderson Fed Com 502H, Anderson Fed Com 502H - Prelim 2 V/O
 ■ Anderson Fed Com 554H, Anderson Fed Com 554H, Anderson Fed Com 554H - Prelim 2 V/O

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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COMPASS 5000.16 Build 96

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Advance Energy Partners Hat Mesa, LLC **OGRID:** 372417 **Date:** 8/12/21

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Anderson Fed Com 502H	30-025-48993	C-2-22S-32E	180 FNL & 2221 FWL	1000	1260	2900
Anderson Fed Com 553H	30-025-48997	C-2-22S-32E	180 FNL & 2188 FWL	1000	1260	2900
Anderson Fed Com 554H	30-025-48998	C-2-22S-32E	180 FNL & 2254 FWL	1000	1260	2900
Anderson Fed Com 602H	30-025-49002	C-2-22S-32E	180 FNL & 2287 FWL	1000	1260	29008

IV. Central Delivery Point Name: Anderson Fed Com Pad C [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Anderson Fed Com 502H	30-025-48993	8/21/21	9/12/21	1/5/222	2/15/22	3/20/22
Anderson Fed Com 553H	30-025-48997	8/25/21	9/3/21	1/5/22	2/15/22	3/20/22
Anderson Fed Com 554H	30-025-48998	8/18/21	9/22/21	1/5/22	2/15/22	3/20/22
Anderson Fed Com 602H	30-025-49002	8/15/21	10/1/21	1/5/22	2/15/22	3/20/22

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan **EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

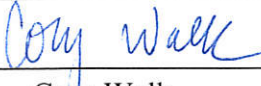
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Cory Walk
Title: Consultant
E-mail Address: cory@permitswest.com
Date: 8/12/21
Phone: (505) 466-8120
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan - Attachment

- VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Advance Energy Partners Hat Mesa, LLC (AEP) will take the following actions to comply with the regulations listed in 19.15.27.8:
- A. AEP will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. AEP will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
 - B. All drilling operations will be equipped with a rig flare located at least 100' from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
 - C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flowback will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, AEP will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. AEP will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will be analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
 - D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.
 - E. AEP will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. Production storage tanks constructed after May 25, 2021, will be equipped with automatic gauging system. Flares constructed after May 25, 2021, will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. AEP will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
 - F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. AEP will install equipment to measure

the volume of natural gas flared from existing process piping, or a flowline piped from equipment such as high-pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021, that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, AEP will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

- VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

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1625 N. French Dr., Hobbs, NM 88240
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 41665

CONDITIONS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	OGRID: 372417
	Action Number: 41665
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	8/12/2021