

District I

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

District II

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

District III

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

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

Form C-101

August 1, 2011

Permit 296169

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

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077		2. OGRID Number 372417
		3. API Number 30-025-48900
4. Property Code 319601	5. Property Name DAGGER STATE COM	6. Well No. 556H

7. Surface Location

UL - Lot L	Section 30	Township 21S	Range 33E	Lot Idn L	Feet From 2370	N/S Line S	Feet From 770	E/W Line W	County Lea
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8. Proposed Bottom Hole Location

UL - Lot D	Section 19	Township 21S	Range 33E	Lot Idn D	Feet From 100	N/S Line N	Feet From 1210	E/W Line W	County Lea
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9. Pool Information

WC-025 G-06 S213326D;BONE SPRING	97929
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3816
16. Multiple N	17. Proposed Depth 19270	18. Formation Bone Spring	19. Contractor	20. Spud Date 5/24/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1600	500	0
Int1	12.25	9.625	40	5300	330	4000
Int1	12.25	9.625	40	4000	950	0
Prod	8.5	5.5	20	19270	2300	0

Casing/Cement Program: Additional Comments

--

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Braden Harris	Approved By: Paul F Kautz	
Title: Vice President	Title: Geologist	
Email Address: bharris@advanceenergypartners.com	Approved Date: 5/21/2021	Expiration Date: 5/21/2023
Date: 5/14/2021	Phone: 406-300-3310	Conditions of Approval Attached

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102

Revised August 4, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
319601	97929	WC-025 G-06 S213326D; BONE SPRING
Property Code	Property Name	Well Number
372417	DAGGER STATE COM	556H
OGRID No.	Operator Name	Elevation
372417	ADVANCE ENERGY PARTNERS HAT MESA	3816'

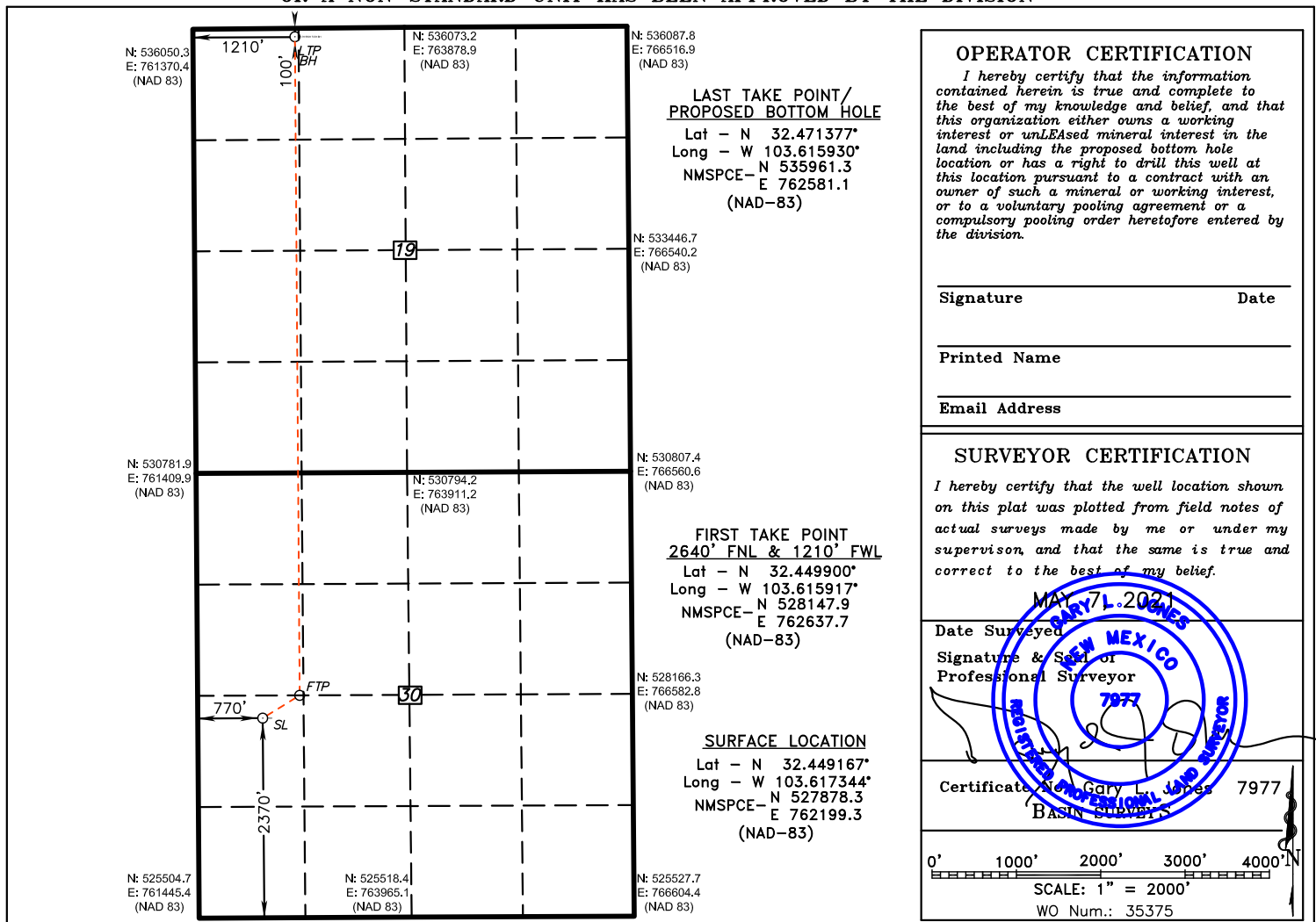
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
L	30	21 S	33 E		2370	SOUTH	770	WEST	LEA

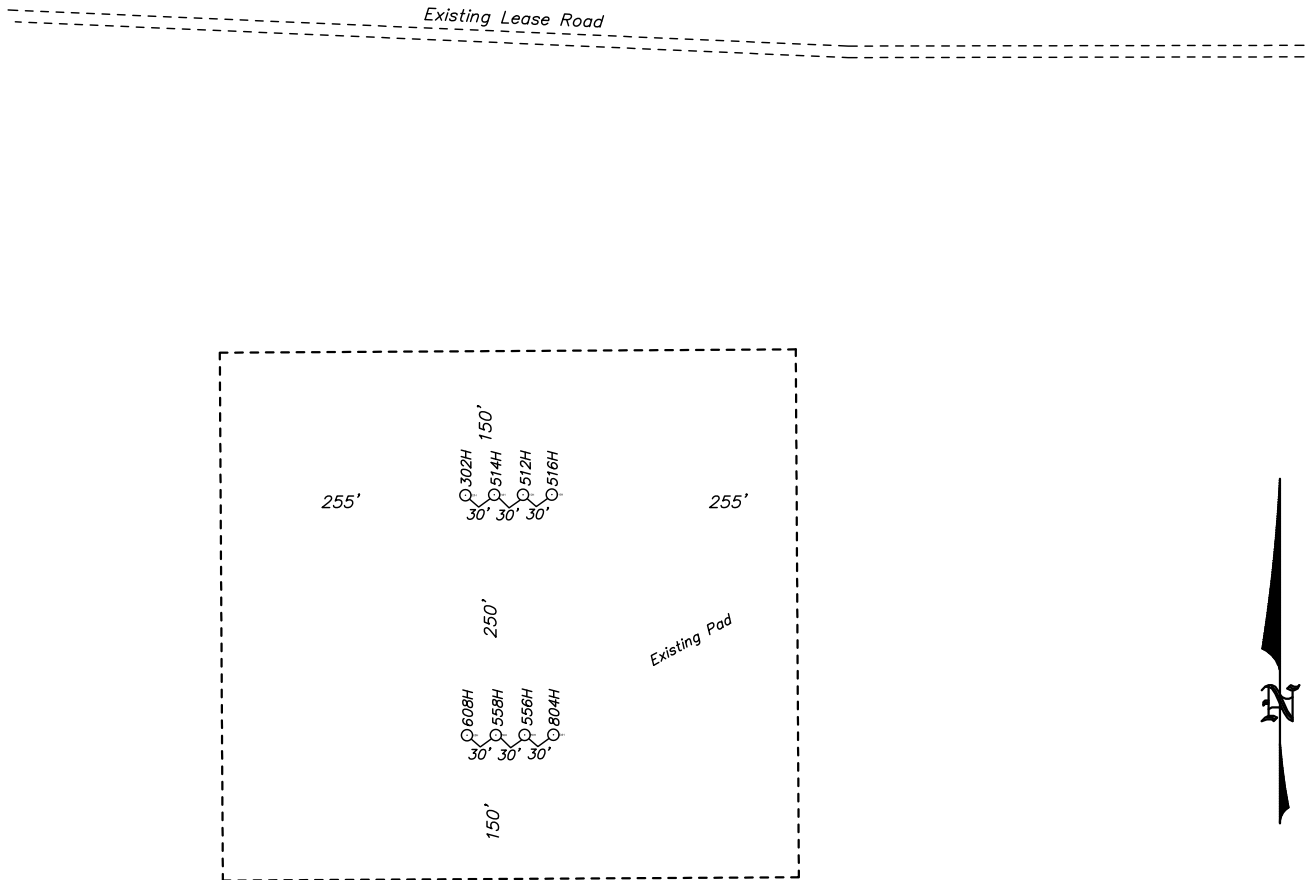
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
D	19	21 S	33 E		100	NORTH	1210	WEST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

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



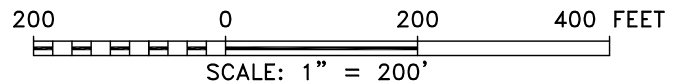
**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA
DAGGER STATE COM #556H
ELEV. - 3816'**

Lat - N 32.449167°
Long - W 103.617344°
NMSPC - N 527878.3
E 762199.3
(NAD-83)

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #556H / WELL PAD TOPO

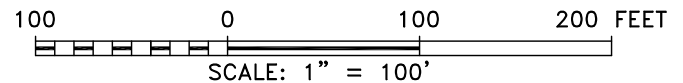
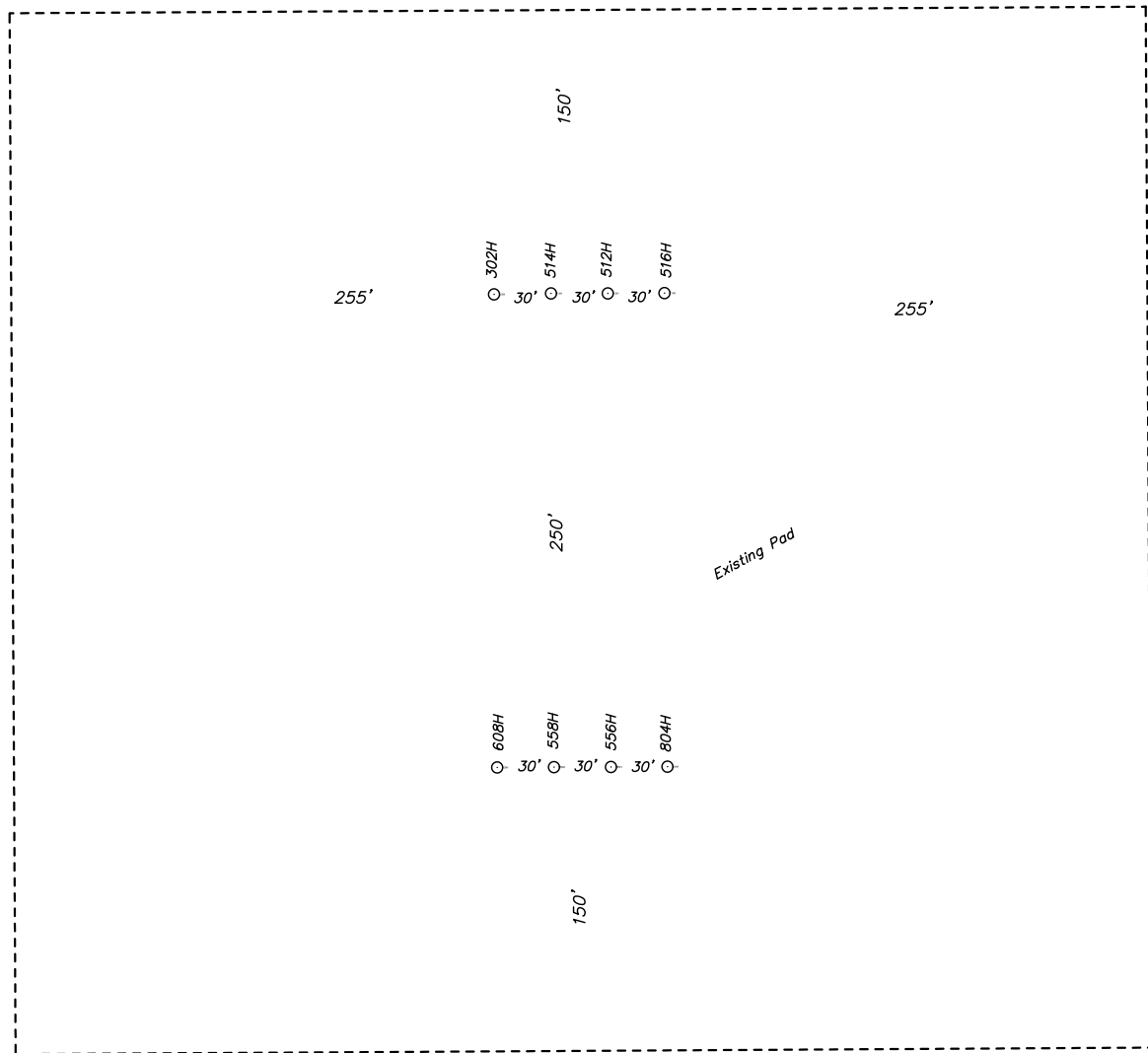
THE DAGGER STATE COM #556H LOCATED 2370' FROM
THE SOUTH LINE AND 770' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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

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

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #556H / WELL PAD TOPO

THE DAGGER STATE COM #556H LOCATED 2370' FROM
THE SOUTH LINE AND 770' FROM THE WEST LINE OF
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DAGGER STATE COM #556H

Located 2370' FSL and 770' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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0' 1000' 2000' 3000' 150'0"

SCALE: 1" = 2000'

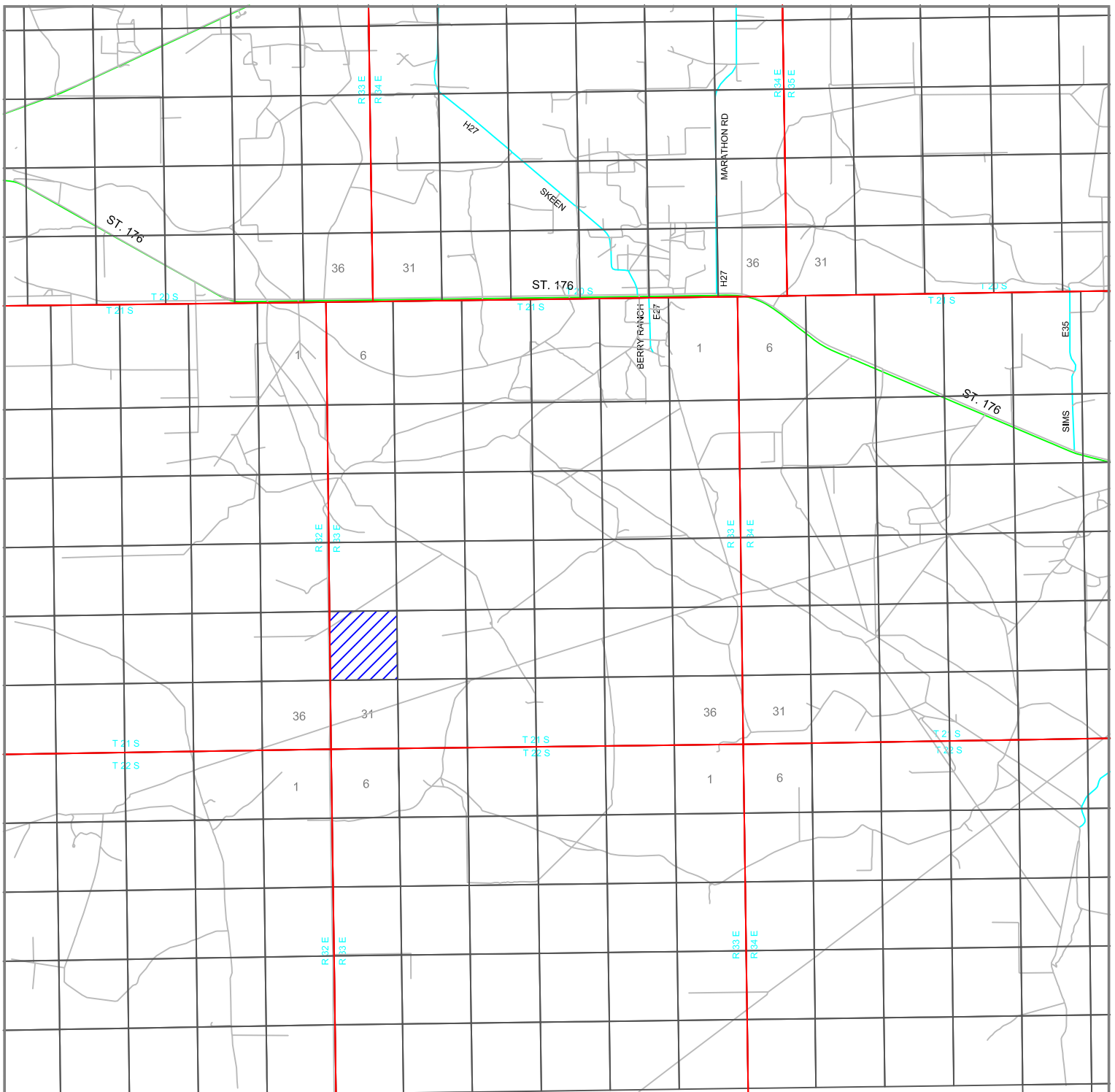
W.O. Number: KJG 35375

Survey Date: 05-07-2021

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**



DAGGER STATE COM #556H

Located 2370' FSL and 770' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

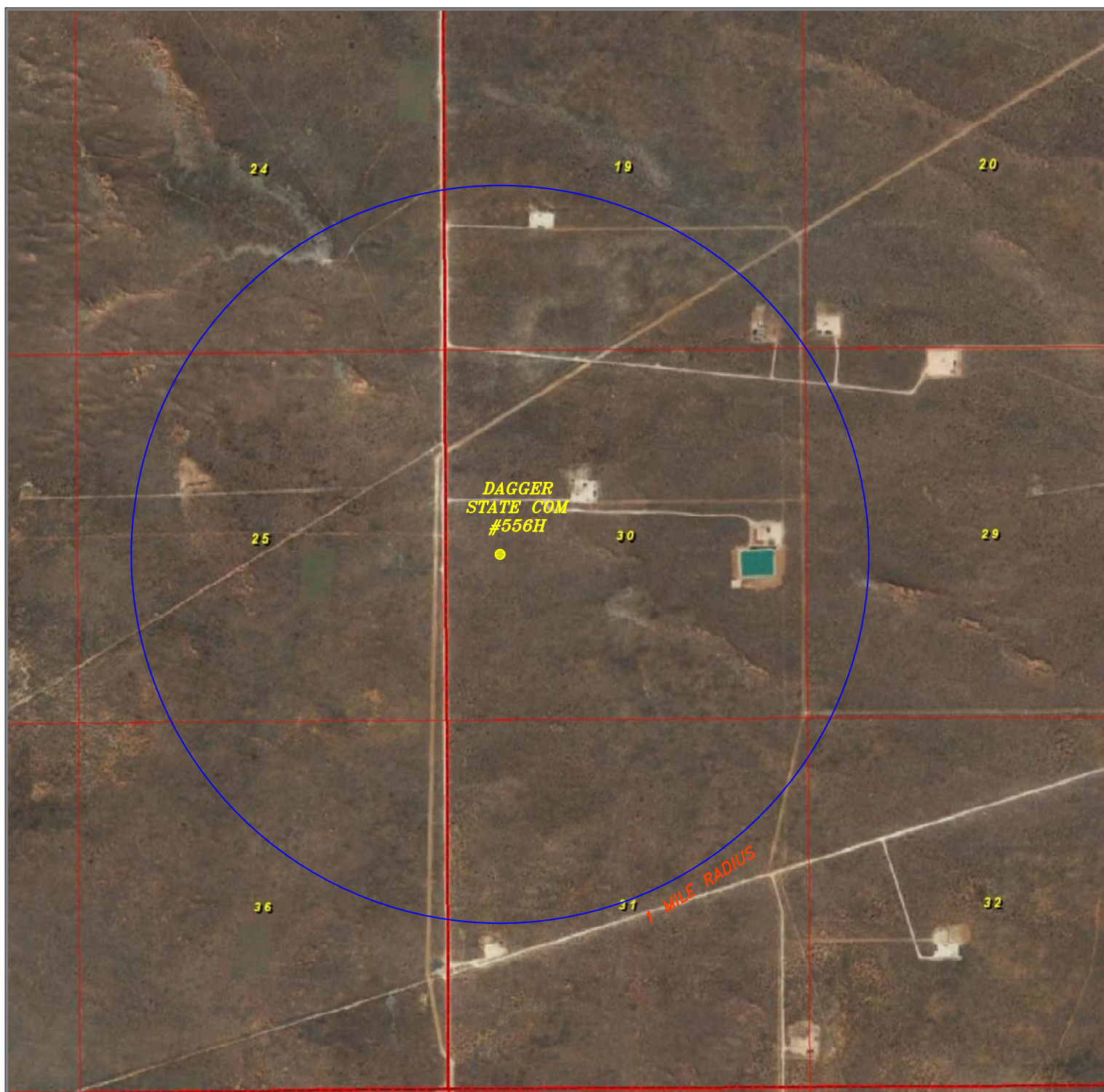
W.O. Number: KJG 35375

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**ADVANCE
 ENERGY
 PARTNERS
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Located 2370' FSL and 770' FWL
 Section 30, Township 21 South, Range 33 East,
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0' 1000' 2000' 3000' 1500'
 SCALE: 1" = 2000'

W.O. Number: KJG 35375

Survey Date: 05-07-2021

YELLOW TINT - USA LAND
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 NATURAL COLOR - FEE LAND



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 PARTNERS
 HAT MESA**

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

GAS CAPTURE PLAN

Date: 5/21/2021

☒ Original

Operator & OGRID No.: [372417] ADVANCE ENERGY PARTNERS HAT MESA, LLC

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
DAGGER STATE COM #556H	30-025-48900	L-30-21S-33E	2370S 0770W	1500	Flared	Flare during initial testing and cleanup

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to TARGA MIDSTREAM SERVICES LLC and will be connected to TARGA MIDSTREAM SERVICES LLC Low Pressure gathering system located in Lea County, New Mexico. It will require 200' of pipeline to connect the facility to Low Pressure gathering system. ADVANCE ENERGY PARTNERS HAT MESA, LLC provides (periodically) to TARGA MIDSTREAM SERVICES LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, ADVANCE ENERGY PARTNERS HAT MESA, LLC and TARGA MIDSTREAM SERVICES LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at TARGA MIDSTREAM SERVICES LLC Processing Plant located in Sec. 30, Twn. 21S, Rng. 33E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on TARGA MIDSTREAM SERVICES LLC system at that time. Based on current information, it is ADVANCE ENERGY PARTNERS HAT MESA, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Energy, Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

Form APD Comments

Permit 296169

PERMIT COMMENTS

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077		API Number: 30-025-48900
		Well: DAGGER STATE COM #556H
Created By	Comment	Comment Date
dmoughon	Property Code 319601 Could not find where to put it on the form.	5/14/2021

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Santa Fe, NM 87505

Form APD Conditions

Permit 296169

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077	API Number: 30-025-48900
	Well: DAGGER STATE COM #556H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Three String Casing Program - In accordance with R-111-P all strings shall be cemented to surface.
pkautz	Salt Protection String - If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or other survey and additional cementing shall be done until the cement is brought to the surface.
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary Designate

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, Division Director
Oil Conservation Division



May 20, 2021

BUREAU OF LAND MANAGEMENT
ATT: James S. Rutley
620 E Greene Street
Carlsbad, NM 88220

STATE LAND OFFICE
ATT: Niranjana Khalsa
PO BOX 1148
Santa Fe, NM 87505

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: ADVANCE ENERGY PARTNERS HAT MESA, LLC

LEASE NAME: DAGGER STATE COMT #556H

PROPOSED LOCATION: U/L L Sec 30 T21S R33E 2370 FSL 770 FWL

Lat. 32.449167 Long. -103.617344 NAD83

PROPOSED DEPTH: 19559' MD 11450' TVD

Gentleman:

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuant to the provisions of Oil Conservation Division Order R – 111 - P, please advise this office whether the location is within an established Life-of-Mine-Reserve that are filed with and approved by your office. If not, please advise whether it is within the buffer zone established by the order.

Thank you for your assistance. Please Return as soon as possible.

Very truly yours,

OIL CONSERVATION DIVISION

P. Kautz
Paul Kautz

Hobbs District Geologist, District I

RESPONSE:

The above referenced location is in LMR (2021 year) -----Yes ☒ No ☐

The above referenced location is within the Buffer Zone -----Yes ☒ No ☐

Signed _____

Printed Signature JAMES RUTLEY

Representing BLM CFO

*ON APPROVED DAGGER DRAW DRILL ISLAND w/in
APPROVED DAGGER DRAW DEVELOPMENT AREA*



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 556H

Dagger State Com 556H

Dagger State Com 556H - Prelim 1

Anticollision Report

14 May, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Dagger State Com 556H - Prelim 1		
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 5/14/2021			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	19,558.7	Dagger State Com 556H - Prelim 1 (Dagge	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						
Dagger State						
Dagger State Com 558H - Dagger State Com 558H - Da	5,200.0	5,199.0	29.9	3.2	1.119	Level 3, CC, ES, SF
Dagger State Com 608H - Dagger State Com 608H - Da	5,000.0	5,000.0	59.8	33.7	2.291	CC, ES, SF
Dagger State Com 804H - Dagger State Com 804H - Da	5,000.0	5,000.0	29.9	3.8	1.145	Level 3, CC, ES
Dagger State Com 804H - Dagger State Com 804H - Da	10,426.4	10,423.7	57.3	5.7	1.111	Level 3, SF
Dagger State Unit #003 - Dagger State Unit #003 - Dagg	16,294.0	11,410.5	170.2	39.1	1.298	Level 3, CC
Dagger State Unit #003 - Dagger State Unit #003 - Dagg	16,300.0	11,410.5	170.3	38.8	1.295	Level 3, ES, SF

Offset Design:	Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1											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		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	-90.38	-0.2	-29.9	29.9				
100.0	100.0	99.0	99.0	0.5	0.5	-90.38	-0.2	-29.9	29.9	28.9	1.06	28.363	
200.0	200.0	199.0	199.0	1.7	1.7	-90.38	-0.2	-29.9	29.9	26.5	3.41	8.771	
300.0	300.0	299.0	299.0	2.4	2.4	-90.38	-0.2	-29.9	29.9	25.1	4.82	6.213	
400.0	400.0	399.0	399.0	3.0	2.9	-90.38	-0.2	-29.9	29.9	24.0	5.90	5.069	
500.0	500.0	499.0	499.0	3.4	3.4	-90.38	-0.2	-29.9	29.9	23.1	6.83	4.384	
600.0	600.0	599.0	599.0	3.8	3.8	-90.38	-0.2	-29.9	29.9	22.3	7.64	3.914	
700.0	700.0	699.0	699.0	4.2	4.2	-90.38	-0.2	-29.9	29.9	21.5	8.39	3.566	
800.0	800.0	799.0	799.0	4.5	4.5	-90.38	-0.2	-29.9	29.9	20.8	9.08	3.295	
900.0	900.0	899.0	899.0	4.9	4.9	-90.38	-0.2	-29.9	29.9	20.2	9.73	3.076	
1,000.0	1,000.0	999.0	999.0	5.2	5.2	-90.38	-0.2	-29.9	29.9	19.6	10.34	2.894	
1,100.0	1,100.0	1,099.0	1,099.0	5.5	5.5	-90.38	-0.2	-29.9	29.9	19.0	10.92	2.740	
1,200.0	1,200.0	1,199.0	1,199.0	5.7	5.7	-90.38	-0.2	-29.9	29.9	18.4	11.48	2.607	
1,300.0	1,300.0	1,299.0	1,299.0	6.0	6.0	-90.38	-0.2	-29.9	29.9	17.9	12.01	2.491	
1,400.0	1,400.0	1,399.0	1,399.0	6.3	6.3	-90.38	-0.2	-29.9	29.9	17.4	12.53	2.388	
1,500.0	1,500.0	1,499.0	1,499.0	6.5	6.5	-90.38	-0.2	-29.9	29.9	16.9	13.03	2.297	
1,600.0	1,600.0	1,599.0	1,599.0	6.8	6.8	-90.38	-0.2	-29.9	29.9	16.4	13.51	2.214	
1,700.0	1,700.0	1,699.0	1,699.0	7.0	7.0	-90.38	-0.2	-29.9	29.9	15.9	13.99	2.139	
1,800.0	1,800.0	1,799.0	1,799.0	7.2	7.2	-90.38	-0.2	-29.9	29.9	15.5	14.45	2.071	
1,900.0	1,900.0	1,899.0	1,899.0	7.4	7.4	-90.38	-0.2	-29.9	29.9	15.0	14.90	2.009	
2,000.0	2,000.0	1,999.0	1,999.0	7.7	7.7	-90.38	-0.2	-29.9	29.9	14.6	15.34	1.951	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1													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		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)				
2,100.0	2,100.0	2,099.0	2,099.0	7.9	7.9	-90.38	-0.2	-29.9	29.9	14.2	15.77	1.898		
2,200.0	2,200.0	2,199.0	2,199.0	8.1	8.1	-90.38	-0.2	-29.9	29.9	13.7	16.19	1.848		
2,300.0	2,300.0	2,299.0	2,299.0	8.3	8.3	-90.38	-0.2	-29.9	29.9	13.3	16.61	1.802		
2,400.0	2,400.0	2,399.0	2,399.0	8.5	8.5	-90.38	-0.2	-29.9	29.9	12.9	17.01	1.759		
2,500.0	2,500.0	2,499.0	2,499.0	8.7	8.7	-90.38	-0.2	-29.9	29.9	12.5	17.42	1.718		
2,600.0	2,600.0	2,599.0	2,599.0	8.9	8.9	-90.38	-0.2	-29.9	29.9	12.1	17.81	1.680		
2,700.0	2,700.0	2,699.0	2,699.0	9.1	9.1	-90.38	-0.2	-29.9	29.9	11.7	18.20	1.644		
2,800.0	2,800.0	2,799.0	2,799.0	9.3	9.3	-90.38	-0.2	-29.9	29.9	11.3	18.58	1.610		
2,900.0	2,900.0	2,899.0	2,899.0	9.5	9.5	-90.38	-0.2	-29.9	29.9	11.0	18.96	1.578		
3,000.0	3,000.0	2,999.0	2,999.0	9.7	9.7	-90.38	-0.2	-29.9	29.9	10.6	19.34	1.547		
3,100.0	3,100.0	3,099.0	3,099.0	9.9	9.9	-90.38	-0.2	-29.9	29.9	10.2	19.71	1.518		
3,200.0	3,200.0	3,199.0	3,199.0	10.0	10.0	-90.38	-0.2	-29.9	29.9	9.9	20.07	1.491 Level 3		
3,300.0	3,300.0	3,299.0	3,299.0	10.2	10.2	-90.38	-0.2	-29.9	29.9	9.5	20.43	1.464 Level 3		
3,400.0	3,400.0	3,399.0	3,399.0	10.4	10.4	-90.38	-0.2	-29.9	29.9	9.1	20.79	1.439 Level 3		
3,500.0	3,500.0	3,499.0	3,499.0	10.6	10.6	-90.38	-0.2	-29.9	29.9	8.8	21.15	1.415 Level 3		
3,600.0	3,600.0	3,599.0	3,599.0	10.7	10.7	-90.38	-0.2	-29.9	29.9	8.4	21.50	1.392 Level 3		
3,700.0	3,700.0	3,699.0	3,699.0	10.9	10.9	-90.38	-0.2	-29.9	29.9	8.1	21.84	1.370 Level 3		
3,800.0	3,800.0	3,799.0	3,799.0	11.1	11.1	-90.38	-0.2	-29.9	29.9	7.7	22.19	1.349 Level 3		
3,900.0	3,900.0	3,899.0	3,899.0	11.3	11.3	-90.38	-0.2	-29.9	29.9	7.4	22.53	1.328 Level 3		
4,000.0	4,000.0	3,999.0	3,999.0	11.4	11.4	-90.38	-0.2	-29.9	29.9	7.1	22.87	1.308 Level 3		
4,100.0	4,100.0	4,099.0	4,099.0	11.6	11.6	-90.38	-0.2	-29.9	29.9	6.7	23.21	1.290 Level 3		
4,200.0	4,200.0	4,199.0	4,199.0	11.8	11.8	-90.38	-0.2	-29.9	29.9	6.4	23.54	1.271 Level 3		
4,300.0	4,300.0	4,299.0	4,299.0	11.9	11.9	-90.38	-0.2	-29.9	29.9	6.1	23.87	1.254 Level 3		
4,400.0	4,400.0	4,399.0	4,399.0	12.1	12.1	-90.38	-0.2	-29.9	29.9	5.7	24.20	1.237 Level 3		
4,500.0	4,500.0	4,499.0	4,499.0	12.3	12.3	-90.38	-0.2	-29.9	29.9	5.4	24.52	1.220 Level 3		
4,600.0	4,600.0	4,599.0	4,599.0	12.4	12.4	-90.38	-0.2	-29.9	29.9	5.1	24.85	1.204 Level 3		
4,700.0	4,700.0	4,699.0	4,699.0	12.6	12.6	-90.38	-0.2	-29.9	29.9	4.8	25.17	1.189 Level 3		
4,800.0	4,800.0	4,799.0	4,799.0	12.7	12.7	-90.38	-0.2	-29.9	29.9	4.4	25.49	1.174 Level 3		
4,900.0	4,900.0	4,899.0	4,899.0	12.9	12.9	-90.38	-0.2	-29.9	29.9	4.1	25.81	1.159 Level 3		
5,000.0	5,000.0	4,999.0	4,999.0	13.1	13.1	-90.38	-0.2	-29.9	29.9	3.8	26.12	1.145 Level 3		
5,100.0	5,100.0	5,099.0	5,099.0	13.2	13.2	-90.38	-0.2	-29.9	29.9	3.5	26.44	1.132 Level 3		
5,200.0	5,200.0	5,199.0	5,199.0	13.4	13.4	-90.38	-0.2	-29.9	29.9	3.2	26.75	1.119 Level 3, CC, ES, SF		
5,300.0	5,300.0	5,298.6	5,298.5	13.5	13.5	147.89	-0.7	-30.6	31.4	4.4	26.94	1.164 Level 3		
5,400.0	5,400.0	5,398.0	5,397.9	13.6	13.6	147.80	-2.1	-32.8	35.7	8.6	27.11	1.318 Level 3		
5,500.0	5,499.9	5,497.1	5,497.0	13.7	13.7	147.67	-4.5	-36.3	43.0	15.7	27.30	1.576		
5,600.0	5,599.7	5,595.9	5,595.6	13.8	13.8	147.53	-7.9	-41.2	53.2	25.7	27.51	1.934		
5,638.5	5,638.1	5,633.9	5,633.5	13.8	13.8	147.49	-9.4	-43.5	57.9	30.3	27.55	2.101		
5,700.0	5,699.4	5,694.9	5,694.3	13.9	13.9	147.49	-12.0	-47.3	65.7	38.0	27.65	2.375		
5,800.0	5,799.1	5,794.1	5,793.2	14.0	14.0	147.50	-16.1	-53.4	78.3	50.4	27.91	2.805		
5,900.0	5,898.8	5,893.3	5,892.2	14.2	14.2	147.51	-20.2	-59.5	90.9	62.7	28.22	3.223		
6,000.0	5,998.5	5,992.5	5,991.1	14.4	14.4	147.51	-24.4	-65.6	103.6	75.0	28.54	3.629		
6,100.0	6,098.2	6,091.7	6,090.0	14.6	14.6	147.51	-28.5	-71.7	116.2	87.3	28.89	4.022		
6,200.0	6,197.9	6,190.9	6,188.9	14.9	14.8	147.52	-32.6	-77.8	128.8	99.6	29.27	4.402		
6,300.0	6,297.6	6,290.1	6,287.9	15.1	15.1	147.52	-36.8	-83.9	141.5	111.8	29.67	4.769		
6,400.0	6,397.3	6,389.3	6,386.8	15.4	15.3	147.52	-40.9	-90.0	154.1	124.0	30.09	5.122		
6,500.0	6,497.1	6,488.5	6,485.7	15.6	15.6	147.52	-45.0	-96.1	166.7	136.2	30.53	5.462		
6,600.0	6,596.8	6,587.7	6,584.6	15.9	15.9	147.52	-49.2	-102.2	179.4	148.4	30.99	5.789		
6,700.0	6,696.5	6,686.9	6,683.6	16.2	16.1	147.53	-53.3	-108.3	192.0	160.5	31.47	6.102		
6,800.0	6,796.2	6,786.1	6,782.5	16.5	16.4	147.53	-57.4	-114.4	204.6	172.7	31.97	6.402		
6,900.0	6,895.9	6,885.3	6,881.4	16.8	16.8	147.53	-61.6	-120.5	217.3	184.8	32.48	6.689		
7,000.0	6,995.6	6,984.5	6,980.3	17.2	17.1	147.53	-65.7	-126.6	229.9	196.9	33.01	6.964		
7,100.0	7,095.3	7,083.7	7,079.3	17.5	17.4	147.53	-69.8	-132.7	242.6	209.0	33.56	7.227		

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1													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	
7,200.0	7,195.0	7,182.9	7,178.2	17.9	17.7	147.53	-74.0	-138.8	255.2	221.1	34.12	7.478	
7,300.0	7,294.7	7,282.1	7,277.1	18.2	18.1	147.53	-78.1	-144.9	267.8	233.1	34.70	7.718	
7,400.0	7,394.4	7,381.3	7,376.0	18.6	18.4	147.53	-82.3	-151.0	280.5	245.2	35.29	7.947	
7,500.0	7,494.1	7,480.5	7,475.0	18.9	18.8	147.53	-86.4	-157.2	293.1	257.2	35.90	8.165	
7,600.0	7,593.8	7,579.7	7,573.9	19.3	19.2	147.53	-90.5	-163.3	305.7	269.2	36.51	8.373	
7,700.0	7,693.5	7,678.9	7,672.8	19.7	19.6	147.53	-94.7	-169.4	318.4	281.2	37.14	8.572	
7,800.0	7,793.2	7,778.1	7,771.7	20.1	19.9	147.53	-98.8	-175.5	331.0	293.2	37.78	8.761	
7,900.0	7,893.0	7,877.3	7,870.7	20.5	20.3	147.53	-102.9	-181.6	343.6	305.2	38.43	8.942	
8,000.0	7,992.7	7,976.5	7,969.6	20.9	20.7	147.53	-107.1	-187.7	356.3	317.2	39.09	9.114	
8,100.0	8,092.4	8,075.7	8,068.5	21.3	21.1	147.53	-111.2	-193.8	368.9	329.1	39.76	9.279	
8,200.0	8,192.1	8,174.9	8,167.4	21.7	21.5	147.53	-115.3	-199.9	381.5	341.1	40.44	9.435	
8,300.0	8,291.8	8,274.1	8,266.3	22.1	21.9	147.53	-119.5	-206.0	394.2	353.0	41.12	9.585	
8,400.0	8,391.5	8,373.3	8,365.3	22.6	22.4	147.53	-123.6	-212.1	406.8	365.0	41.82	9.728	
8,500.0	8,491.2	8,472.5	8,464.2	23.0	22.8	147.54	-127.7	-218.2	419.4	376.9	42.52	9.864	
8,600.0	8,590.9	8,571.7	8,563.1	23.4	23.2	147.54	-131.9	-224.3	432.1	388.8	43.23	9.994	
8,700.0	8,690.6	8,670.9	8,662.0	23.9	23.6	147.54	-136.0	-230.4	444.7	400.8	43.95	10.118	
8,800.0	8,790.3	8,770.1	8,761.0	24.3	24.1	147.54	-140.1	-236.5	457.3	412.7	44.67	10.237	
8,900.0	8,890.0	8,869.3	8,859.9	24.7	24.5	147.54	-144.3	-242.6	470.0	424.6	45.40	10.351	
9,000.0	8,989.7	8,968.5	8,958.8	25.2	24.9	147.54	-148.4	-248.7	482.6	436.5	46.14	10.459	
9,100.0	9,089.4	9,067.7	9,057.7	25.6	25.4	147.54	-152.6	-254.8	495.2	448.4	46.88	10.563	
9,200.0	9,189.1	9,166.9	9,156.7	26.1	25.8	147.54	-156.7	-260.9	507.9	460.2	47.63	10.662	
9,300.0	9,288.9	9,266.1	9,255.6	26.5	26.2	147.54	-160.8	-267.0	520.5	472.1	48.39	10.757	
9,400.0	9,388.6	9,365.3	9,354.5	27.0	26.7	147.54	-165.0	-273.1	533.1	484.0	49.15	10.848	
9,500.0	9,488.3	9,464.5	9,453.4	27.4	27.1	147.54	-169.1	-279.2	545.8	495.9	49.91	10.936	
9,600.0	9,588.0	9,563.6	9,552.4	27.9	27.6	147.54	-173.2	-285.3	558.4	507.7	50.68	11.019	
9,700.0	9,687.7	9,662.8	9,651.3	28.4	28.1	147.54	-177.4	-291.5	571.1	519.6	51.45	11.099	
9,800.0	9,787.4	9,762.0	9,750.2	28.8	28.5	147.54	-181.5	-297.6	583.7	531.5	52.23	11.176	
9,900.0	9,887.1	9,861.2	9,849.1	29.3	29.0	147.54	-185.6	-303.7	596.3	543.3	53.01	11.250	
10,000.0	9,986.8	9,960.4	9,948.1	29.8	29.4	147.54	-189.8	-309.8	609.0	555.2	53.79	11.321	
10,100.0	10,086.5	10,059.6	10,047.0	30.2	29.9	147.54	-193.9	-315.9	621.6	567.0	54.58	11.389	
10,200.0	10,186.2	10,158.8	10,145.9	30.7	30.4	147.54	-198.0	-322.0	634.2	578.9	55.37	11.454	
10,300.0	10,285.9	10,260.2	10,247.0	31.2	30.8	147.54	-202.2	-328.2	646.8	590.7	56.16	11.518	
10,400.0	10,385.6	10,370.0	10,356.5	31.7	31.3	147.61	-206.0	-333.7	658.3	601.4	56.96	11.557	
10,426.4	10,411.9	10,398.9	10,385.5	31.8	31.4	147.65	-206.8	-334.9	661.1	603.9	57.17	11.565	
10,500.0	10,485.4	10,480.1	10,466.6	32.1	31.8	147.79	-208.6	-337.5	667.9	610.1	57.72	11.570	
10,600.0	10,585.2	10,590.6	10,577.1	32.6	32.2	147.99	-209.9	-339.5	674.4	615.9	58.43	11.541	
10,700.0	10,685.2	10,697.7	10,684.2	33.0	32.3	148.17	-210.2	-339.9	677.9	619.0	58.90	11.509	
10,800.0	10,785.1	10,797.7	10,784.1	33.3	32.3	148.26	-210.2	-339.9	679.6	620.4	59.25	11.469	
10,864.9	10,850.0	10,850.0	10,836.4	33.4	32.3	-89.81	-207.7	-340.3	680.4	621.0	59.37	11.460	
10,900.0	10,885.1	10,880.4	10,866.5	33.4	32.2	-89.47	-203.7	-340.9	681.1	621.7	59.40	11.467	
10,987.4	10,972.5	10,950.0	10,934.1	33.5	32.1	-88.11	-187.4	-343.3	684.7	625.2	59.48	11.510	
11,000.0	10,985.1	10,958.1	10,941.7	33.5	32.1	-95.53	-184.9	-343.6	685.4	625.9	59.49	11.521	
11,025.0	11,010.1	10,975.0	10,957.6	33.4	32.1	-94.91	-179.2	-344.5	687.2	627.7	59.52	11.546	
11,050.0	11,034.9	10,995.2	10,976.3	33.4	32.0	-94.19	-171.7	-345.6	689.4	629.9	59.54	11.578	
11,075.0	11,059.6	11,013.5	10,993.0	33.4	32.0	-93.50	-164.2	-346.7	691.9	632.4	59.57	11.616	
11,100.0	11,084.1	11,031.7	11,009.3	33.3	31.9	-92.79	-156.2	-347.9	694.8	635.2	59.59	11.659	
11,125.0	11,108.2	11,050.0	11,025.3	33.3	31.9	-92.06	-147.4	-349.2	698.0	638.3	59.62	11.707	
11,150.0	11,132.0	11,067.6	11,040.5	33.2	31.9	-91.34	-138.5	-350.5	701.4	641.8	59.65	11.760	
11,175.0	11,155.3	11,085.4	11,055.4	33.2	31.8	-90.60	-128.9	-351.9	705.2	645.5	59.67	11.818	
11,200.0	11,178.2	11,100.0	11,067.3	33.1	31.8	-89.90	-120.6	-353.1	709.3	649.6	59.71	11.879	
11,225.0	11,200.4	11,120.6	11,083.8	33.1	31.8	-89.11	-108.3	-354.9	713.5	653.8	59.74	11.945	
11,250.0	11,222.1	11,138.1	11,097.3	33.0	31.7	-88.37	-97.3	-356.5	718.1	658.3	59.77	12.013	

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Anticollision Report

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Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1												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		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)			
11,275.0	11,243.1	11,155.5	11,110.3	33.0	31.7	-87.62	-86.0	-358.2	722.8	663.0	59.81	12.085	
11,300.0	11,263.3	11,175.0	11,124.4	32.9	31.7	-86.86	-72.6	-360.2	727.7	667.9	59.85	12.160	
11,325.0	11,282.7	11,189.9	11,134.8	32.9	31.7	-86.14	-62.0	-361.7	732.8	672.9	59.90	12.235	
11,350.0	11,301.3	11,207.0	11,146.3	32.9	31.7	-85.41	-49.5	-363.6	738.1	678.1	59.94	12.313	
11,375.0	11,318.9	11,225.0	11,157.9	32.8	31.7	-84.69	-35.9	-365.6	743.5	683.5	59.99	12.393	
11,400.0	11,335.7	11,241.0	11,167.8	32.8	31.7	-83.99	-23.5	-367.4	749.0	689.0	60.05	12.474	
11,425.0	11,351.4	11,257.9	11,177.8	32.8	31.6	-83.29	-10.0	-369.4	754.7	694.6	60.10	12.556	
11,450.0	11,366.1	11,275.0	11,187.4	32.8	31.6	-82.61	4.0	-371.5	760.4	700.2	60.16	12.639	
11,475.0	11,379.7	11,291.6	11,196.2	32.8	31.7	-81.94	17.9	-373.5	766.2	706.0	60.22	12.722	
11,500.0	11,392.2	11,308.3	11,204.6	32.8	31.7	-81.30	32.2	-375.6	772.1	711.8	60.29	12.806	
11,525.0	11,403.5	11,325.0	11,212.5	32.8	31.7	-80.67	46.8	-377.8	778.0	717.6	60.36	12.890	
11,550.0	11,413.7	11,341.8	11,219.9	32.9	31.7	-80.06	61.7	-380.0	783.9	723.5	60.43	12.973	
11,575.0	11,422.6	11,358.5	11,226.7	32.9	31.7	-79.48	76.8	-382.2	789.9	729.4	60.50	13.056	
11,600.0	11,430.4	11,375.0	11,232.9	33.0	31.7	-78.91	91.9	-384.4	795.8	735.3	60.58	13.138	
11,625.0	11,436.8	11,391.9	11,238.7	33.0	31.8	-78.37	107.6	-386.7	801.8	741.1	60.66	13.218	
11,650.0	11,442.0	11,408.5	11,243.9	33.1	31.8	-77.86	123.2	-389.0	807.7	747.0	60.74	13.298	
11,675.0	11,445.9	11,425.0	11,248.5	33.2	31.9	-77.37	138.9	-391.3	813.7	752.8	60.83	13.376	
11,700.0	11,448.5	11,442.0	11,252.6	33.3	31.9	-76.91	155.2	-393.7	819.5	758.6	60.92	13.452	
11,725.0	11,449.8	11,458.8	11,256.1	33.4	32.0	-76.47	171.4	-396.1	825.3	764.3	61.02	13.526	
11,737.4	11,450.0	11,467.1	11,257.0	33.4	32.0	-76.26	179.5	-397.3	828.2	767.1	61.07	13.562	
11,744.0	11,450.0	11,475.0	11,259.0	33.4	32.0	-76.39	187.2	-398.4	829.7	768.6	61.12	13.575	
11,800.0	11,450.0	11,509.8	11,263.2	33.7	32.1	-76.90	221.4	-403.5	842.8	781.4	61.37	13.733	
11,900.0	11,450.0	11,606.2	11,265.0	34.4	32.6	-77.46	316.8	-417.0	865.5	803.1	62.39	13.872	
12,000.0	11,450.0	11,746.7	11,265.0	35.1	33.6	-77.86	456.5	-431.6	881.7	817.3	64.33	13.706	
12,100.0	11,450.0	11,889.6	11,265.0	36.0	34.9	-78.06	599.2	-439.3	889.7	823.1	66.55	13.368	
12,148.8	11,450.0	11,959.7	11,265.0	36.3	35.5	-78.08	669.3	-440.5	890.6	823.0	67.58	13.179	
12,149.5	11,450.0	11,960.7	11,265.0	36.3	35.5	-78.08	670.3	-440.5	890.6	823.0	67.59	13.176	
12,200.0	11,450.0	12,008.1	11,265.0	36.7	35.9	-78.08	717.7	-440.8	890.6	822.2	68.44	13.014	
12,300.0	11,450.0	12,108.1	11,265.0	37.6	36.8	-78.08	817.7	-441.6	890.8	820.5	70.30	12.670	
12,400.0	11,450.0	12,208.1	11,265.0	38.6	37.8	-78.08	917.7	-442.4	890.9	818.5	72.35	12.314	
12,500.0	11,450.0	12,308.1	11,265.0	39.6	38.8	-78.08	1,017.7	-443.2	891.0	816.4	74.55	11.952	
12,600.0	11,450.0	12,408.1	11,265.0	40.7	40.0	-78.08	1,117.7	-444.0	891.1	814.2	76.89	11.589	
12,700.0	11,450.0	12,508.1	11,265.0	41.8	41.2	-78.09	1,217.7	-444.7	891.2	811.9	79.36	11.230	
12,800.0	11,450.0	12,608.1	11,265.0	43.0	42.4	-78.09	1,317.7	-445.5	891.3	809.4	81.95	10.876	
12,900.0	11,450.0	12,708.1	11,265.0	44.3	43.7	-78.09	1,417.7	-446.3	891.5	806.8	84.65	10.531	
13,000.0	11,450.0	12,808.1	11,265.0	45.6	45.1	-78.09	1,517.7	-447.1	891.6	804.1	87.44	10.196	
13,100.0	11,450.0	12,908.1	11,265.0	47.0	46.5	-78.09	1,617.7	-447.9	891.7	801.4	90.33	9.872	
13,200.0	11,450.0	13,008.1	11,265.0	48.4	48.0	-78.09	1,717.7	-448.7	891.8	798.5	93.29	9.560	
13,300.0	11,450.0	13,108.1	11,265.0	49.9	49.5	-78.09	1,817.7	-449.4	891.9	795.6	96.33	9.259	
13,400.0	11,450.0	13,208.1	11,265.0	51.4	51.0	-78.10	1,917.7	-450.2	892.0	792.6	99.43	8.972	
13,500.0	11,450.0	13,308.1	11,265.0	52.9	52.6	-78.10	2,017.7	-451.0	892.2	789.6	102.59	8.696	
13,600.0	11,450.0	13,408.1	11,265.0	54.5	54.2	-78.10	2,117.7	-451.8	892.3	786.5	105.81	8.433	
13,700.0	11,450.0	13,508.1	11,265.0	56.1	55.9	-78.10	2,217.7	-452.6	892.4	783.3	109.08	8.181	
13,800.0	11,450.0	13,608.1	11,265.0	57.7	57.5	-78.10	2,317.7	-453.3	892.5	780.1	112.39	7.941	
13,900.0	11,450.0	13,708.1	11,265.0	59.4	59.2	-78.10	2,417.7	-454.1	892.6	776.9	115.74	7.712	
14,000.0	11,450.0	13,808.1	11,265.0	61.1	60.9	-78.11	2,517.6	-454.9	892.7	773.6	119.14	7.493	
14,100.0	11,450.0	13,908.1	11,265.0	62.8	62.6	-78.11	2,617.6	-455.7	892.9	770.3	122.56	7.285	
14,200.0	11,450.0	14,008.1	11,265.0	64.5	64.4	-78.11	2,717.6	-456.5	893.0	766.9	126.02	7.086	
14,300.0	11,450.0	14,108.1	11,265.0	66.2	66.1	-78.11	2,817.6	-457.2	893.1	763.6	129.51	6.896	
14,400.0	11,450.0	14,208.1	11,265.0	68.0	67.9	-78.11	2,917.6	-458.0	893.2	760.2	133.03	6.714	
14,500.0	11,450.0	14,308.1	11,265.0	69.7	69.7	-78.11	3,017.6	-458.8	893.3	756.8	136.57	6.541	
14,600.0	11,450.0	14,408.1	11,265.0	71.5	71.5	-78.12	3,117.6	-459.6	893.4	753.3	140.13	6.376	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1											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
14,700.0	11,450.0	14,508.1	11,265.0	73.3	73.3	-78.12	3,217.6	-460.4	893.6	749.8	143.72	6.217
14,800.0	11,450.0	14,608.1	11,265.0	75.1	75.1	-78.12	3,317.6	-461.1	893.7	746.3	147.33	6.066
14,900.0	11,450.0	14,708.1	11,265.0	76.9	77.0	-78.12	3,417.6	-461.9	893.8	742.8	150.95	5.921
15,000.0	11,450.0	14,808.1	11,265.0	78.7	78.8	-78.12	3,517.6	-462.7	893.9	739.3	154.59	5.782
15,100.0	11,450.0	14,908.1	11,265.0	80.6	80.7	-78.12	3,617.6	-463.5	894.0	735.8	158.25	5.649
15,200.0	11,450.0	15,008.1	11,265.0	82.4	82.5	-78.12	3,717.6	-464.3	894.1	732.2	161.92	5.522
15,300.0	11,450.0	15,108.1	11,265.0	84.3	84.4	-78.13	3,817.6	-465.0	894.3	728.6	165.61	5.400
15,400.0	11,450.0	15,208.1	11,265.0	86.1	86.3	-78.13	3,917.6	-465.8	894.4	725.1	169.31	5.283
15,500.0	11,450.0	15,308.1	11,265.0	88.0	88.1	-78.13	4,017.6	-466.6	894.5	721.5	173.02	5.170
15,600.0	11,450.0	15,408.1	11,265.0	89.9	90.0	-78.13	4,117.6	-467.4	894.6	717.9	176.74	5.062
15,700.0	11,450.0	15,508.1	11,265.0	91.7	91.9	-78.13	4,217.6	-468.2	894.7	714.2	180.48	4.958
15,800.0	11,450.0	15,608.1	11,265.0	93.6	93.8	-78.13	4,317.6	-468.9	894.8	710.6	184.22	4.857
15,900.0	11,450.0	15,708.1	11,265.0	95.5	95.7	-78.14	4,417.6	-469.7	895.0	707.0	187.97	4.761
16,000.0	11,450.0	15,808.1	11,265.0	97.4	97.6	-78.14	4,517.6	-470.5	895.1	703.3	191.73	4.668
16,100.0	11,450.0	15,908.1	11,265.0	99.3	99.5	-78.14	4,617.6	-471.3	895.2	699.7	195.50	4.579
16,200.0	11,450.0	16,008.1	11,265.0	101.2	101.5	-78.14	4,717.6	-472.1	895.3	696.0	199.28	4.493
16,300.0	11,450.0	16,108.1	11,265.0	103.1	103.4	-78.14	4,817.6	-472.9	895.4	692.4	203.07	4.409
16,400.0	11,450.0	16,208.1	11,265.0	105.0	105.3	-78.14	4,917.6	-473.6	895.5	688.7	206.86	4.329
16,500.0	11,450.0	16,308.1	11,265.0	107.0	107.2	-78.14	5,017.6	-474.4	895.7	685.0	210.66	4.252
16,600.0	11,450.0	16,408.1	11,265.0	108.9	109.2	-78.15	5,117.6	-475.2	895.8	681.3	214.47	4.177
16,700.0	11,450.0	16,508.1	11,265.0	110.8	111.1	-78.15	5,217.6	-476.0	895.9	677.6	218.28	4.104
16,800.0	11,450.0	16,608.1	11,265.0	112.7	113.0	-78.15	5,317.6	-476.8	896.0	673.9	222.09	4.034
16,900.0	11,450.0	16,708.1	11,265.0	114.7	115.0	-78.15	5,417.6	-477.5	896.1	670.2	225.92	3.967
17,000.0	11,450.0	16,808.1	11,265.0	116.6	116.9	-78.15	5,517.6	-478.3	896.2	666.5	229.74	3.901
17,100.0	11,450.0	16,908.1	11,265.0	118.5	118.9	-78.15	5,617.6	-479.1	896.4	662.8	233.58	3.838
17,200.0	11,450.0	17,008.1	11,265.0	120.5	120.8	-78.16	5,717.5	-479.9	896.5	659.1	237.41	3.776
17,300.0	11,450.0	17,108.1	11,265.0	122.4	122.8	-78.16	5,817.5	-480.7	896.6	655.3	241.26	3.716
17,400.0	11,450.0	17,208.1	11,265.0	124.4	124.7	-78.16	5,917.5	-481.4	896.7	651.6	245.10	3.659
17,500.0	11,450.0	17,308.1	11,265.0	126.3	126.7	-78.16	6,017.5	-482.2	896.8	647.9	248.95	3.602
17,600.0	11,450.0	17,408.1	11,265.0	128.3	128.6	-78.16	6,117.5	-483.0	896.9	644.1	252.80	3.548
17,700.0	11,450.0	17,508.1	11,265.0	130.2	130.6	-78.16	6,217.5	-483.8	897.1	640.4	256.66	3.495
17,800.0	11,450.0	17,608.1	11,265.0	132.2	132.5	-78.17	6,317.5	-484.6	897.2	636.7	260.52	3.444
17,900.0	11,450.0	17,708.1	11,265.0	134.1	134.5	-78.17	6,417.5	-485.3	897.3	632.9	264.39	3.394
18,000.0	11,450.0	17,808.1	11,265.0	136.1	136.5	-78.17	6,517.5	-486.1	897.4	629.2	268.25	3.345
18,100.0	11,450.0	17,908.1	11,265.0	138.0	138.4	-78.17	6,617.5	-486.9	897.5	625.4	272.13	3.298
18,200.0	11,450.0	18,008.1	11,265.0	140.0	140.4	-78.17	6,717.5	-487.7	897.6	621.6	276.00	3.252
18,300.0	11,450.0	18,108.1	11,265.0	142.0	142.4	-78.17	6,817.5	-488.5	897.8	617.9	279.87	3.208
18,400.0	11,450.0	18,208.1	11,265.0	143.9	144.3	-78.17	6,917.5	-489.2	897.9	614.1	283.75	3.164
18,500.0	11,450.0	18,308.1	11,265.0	145.9	146.3	-78.18	7,017.5	-490.0	898.0	610.4	287.64	3.122
18,600.0	11,450.0	18,408.1	11,265.0	147.9	148.3	-78.18	7,117.5	-490.8	898.1	606.6	291.52	3.081
18,700.0	11,450.0	18,508.1	11,265.0	149.8	150.2	-78.18	7,217.5	-491.6	898.2	602.8	295.41	3.041
18,800.0	11,450.0	18,608.1	11,265.0	151.8	152.2	-78.18	7,317.5	-492.4	898.3	599.0	299.29	3.002
18,900.0	11,450.0	18,708.1	11,265.0	153.8	154.2	-78.18	7,417.5	-493.1	898.5	595.3	303.19	2.963
19,000.0	11,450.0	18,808.1	11,265.0	155.7	156.2	-78.18	7,517.5	-493.9	898.6	591.5	307.08	2.926
19,100.0	11,450.0	18,908.1	11,265.0	157.7	158.1	-78.19	7,617.5	-494.7	898.7	587.7	310.97	2.890
19,200.0	11,450.0	19,008.1	11,265.0	159.7	160.1	-78.19	7,717.5	-495.5	898.8	583.9	314.87	2.855
19,300.0	11,450.0	19,108.1	11,265.0	161.7	162.1	-78.19	7,817.5	-496.3	898.9	580.2	318.77	2.820
19,400.0	11,450.0	19,208.1	11,265.0	163.6	164.1	-78.19	7,917.5	-497.1	899.0	576.4	322.67	2.786
19,500.0	11,450.0	19,308.1	11,265.0	165.6	166.1	-78.19	8,017.5	-497.8	899.2	572.6	326.57	2.753
19,558.7	11,450.0	19,366.3	11,265.0	166.8	167.2	-78.19	8,075.6	-498.3	899.2	570.4	328.85	2.734

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1												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	-90.38	-0.4	-59.8	59.8				
100.0	100.0	100.0	100.0	0.5	0.5	-90.38	-0.4	-59.8	59.8	58.8	1.06	56.442	
200.0	200.0	200.0	200.0	1.7	1.7	-90.38	-0.4	-59.8	59.8	56.4	3.42	17.481	
300.0	300.0	300.0	300.0	2.4	2.4	-90.38	-0.4	-59.8	59.8	55.0	4.82	12.409	
400.0	400.0	400.0	400.0	3.0	3.0	-90.38	-0.4	-59.8	59.8	53.9	5.91	10.130	
500.0	500.0	500.0	500.0	3.4	3.4	-90.38	-0.4	-59.8	59.8	53.0	6.83	8.762	
524.8	524.8	524.8	524.8	3.5	3.5	-90.38	-0.4	-59.8	59.8	52.8	7.03	8.509	
600.0	600.0	600.0	600.0	3.8	3.8	-90.38	-0.4	-59.8	59.8	52.2	7.65	7.824	
633.3	633.3	633.3	633.3	3.9	3.9	-90.38	-0.4	-59.8	59.8	51.9	7.90	7.578	
700.0	700.0	700.0	700.0	4.2	4.2	-90.38	-0.4	-59.8	59.8	51.5	8.39	7.130	
800.0	800.0	800.0	800.0	4.5	4.5	-90.38	-0.4	-59.8	59.8	50.8	9.08	6.588	
900.0	900.0	900.0	900.0	4.9	4.9	-90.38	-0.4	-59.8	59.8	50.1	9.73	6.151	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	-90.38	-0.4	-59.8	59.8	49.5	10.34	5.787	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	-90.38	-0.4	-59.8	59.8	48.9	10.92	5.479	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-90.38	-0.4	-59.8	59.8	48.4	11.48	5.213	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	-90.38	-0.4	-59.8	59.8	47.8	12.01	4.981	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	-90.38	-0.4	-59.8	59.8	47.3	12.53	4.776	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	-90.38	-0.4	-59.8	59.8	46.8	13.03	4.592	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	-90.38	-0.4	-59.8	59.8	46.3	13.52	4.427	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	-90.38	-0.4	-59.8	59.8	45.9	13.99	4.278	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	-90.38	-0.4	-59.8	59.8	45.4	14.45	4.142	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	-90.38	-0.4	-59.8	59.8	44.9	14.90	4.017	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	-90.38	-0.4	-59.8	59.8	44.5	15.34	3.901	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	-90.38	-0.4	-59.8	59.8	44.1	15.77	3.795	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	-90.38	-0.4	-59.8	59.8	43.7	16.19	3.696	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	-90.38	-0.4	-59.8	59.8	43.2	16.61	3.603	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	-90.38	-0.4	-59.8	59.8	42.8	17.02	3.517	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-90.38	-0.4	-59.8	59.8	42.4	17.42	3.436	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	-90.38	-0.4	-59.8	59.8	42.0	17.81	3.360	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	-90.38	-0.4	-59.8	59.8	41.6	18.20	3.288	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	-90.38	-0.4	-59.8	59.8	41.3	18.59	3.220	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	-90.38	-0.4	-59.8	59.8	40.9	18.96	3.156	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	-90.38	-0.4	-59.8	59.8	40.5	19.34	3.095	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	-90.38	-0.4	-59.8	59.8	40.1	19.71	3.036	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	-90.38	-0.4	-59.8	59.8	39.8	20.07	2.981	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	-90.38	-0.4	-59.8	59.8	39.4	20.44	2.928	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	-90.38	-0.4	-59.8	59.8	39.1	20.79	2.878	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	-90.38	-0.4	-59.8	59.8	38.7	21.15	2.830	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	-90.38	-0.4	-59.8	59.8	38.3	21.50	2.784	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	-90.38	-0.4	-59.8	59.8	38.0	21.85	2.739	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	-90.38	-0.4	-59.8	59.8	37.7	22.19	2.697	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	-90.38	-0.4	-59.8	59.8	37.3	22.53	2.656	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	-90.38	-0.4	-59.8	59.8	37.0	22.87	2.617	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	-90.38	-0.4	-59.8	59.8	36.6	23.21	2.579	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-90.38	-0.4	-59.8	59.8	36.3	23.54	2.542	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	-90.38	-0.4	-59.8	59.8	36.0	23.87	2.507	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	-90.38	-0.4	-59.8	59.8	35.6	24.20	2.473	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	-90.38	-0.4	-59.8	59.8	35.3	24.53	2.440	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	-90.38	-0.4	-59.8	59.8	35.0	24.85	2.408	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	-90.38	-0.4	-59.8	59.8	34.7	25.17	2.378	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	-90.38	-0.4	-59.8	59.8	34.4	25.49	2.348	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	-90.38	-0.4	-59.8	59.8	34.0	25.81	2.319	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1													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		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)			
4,966.7	4,966.7	4,966.7	4,966.7	13.0	13.0	-90.38	-0.4	-59.8	59.8	33.8	26.02	2.300	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-90.38	-0.4	-59.8	59.8	33.7	26.12	2.291	CC, ES, SF
5,100.0	5,100.0	5,099.1	5,099.1	13.2	13.2	-90.78	-0.8	-60.6	60.6	34.2	26.38	2.297	
5,200.0	5,200.0	5,198.1	5,198.1	13.4	13.3	-91.92	-2.1	-62.8	62.9	36.3	26.62	2.362	
5,300.0	5,300.0	5,297.0	5,296.9	13.5	13.4	145.06	-4.2	-66.5	67.4	40.6	26.82	2.515	
5,400.0	5,400.0	5,395.6	5,395.3	13.6	13.5	144.10	-7.2	-71.7	75.0	48.0	27.02	2.776	
5,500.0	5,499.9	5,494.8	5,494.2	13.7	13.6	143.65	-10.8	-78.0	85.1	57.9	27.20	3.128	
5,600.0	5,599.7	5,594.1	5,593.3	13.8	13.8	143.87	-14.4	-84.3	96.6	69.2	27.46	3.519	
5,638.5	5,638.1	5,632.3	5,631.4	13.8	13.8	144.09	-15.8	-86.7	101.4	73.9	27.54	3.683	
5,700.0	5,699.4	5,693.3	5,692.2	13.9	13.9	144.51	-18.0	-90.6	109.3	81.6	27.69	3.947	
5,800.0	5,799.1	5,792.5	5,791.1	14.0	14.1	145.07	-21.6	-96.9	122.1	94.1	28.00	4.361	
5,900.0	5,898.8	5,891.7	5,890.0	14.2	14.4	145.53	-25.3	-103.2	134.9	106.6	28.34	4.760	
6,000.0	5,998.5	5,990.8	5,988.9	14.4	14.6	145.91	-28.9	-109.5	147.7	119.0	28.70	5.146	
6,100.0	6,098.2	6,090.0	6,087.8	14.6	14.8	146.23	-32.5	-115.8	160.5	131.4	29.09	5.518	
6,200.0	6,197.9	6,189.2	6,186.7	14.9	15.1	146.50	-36.1	-122.1	173.3	143.8	29.51	5.875	
6,300.0	6,297.6	6,288.3	6,285.6	15.1	15.4	146.73	-39.7	-128.4	186.2	156.2	29.94	6.218	
6,400.0	6,397.3	6,387.5	6,384.5	15.4	15.6	146.93	-43.3	-134.7	199.0	168.6	30.40	6.546	
6,500.0	6,497.1	6,486.7	6,483.4	15.6	15.9	147.11	-47.0	-141.0	211.8	180.9	30.88	6.861	
6,600.0	6,596.8	6,585.9	6,582.3	15.9	16.2	147.27	-50.6	-147.4	224.7	193.3	31.37	7.161	
6,700.0	6,696.5	6,685.0	6,681.2	16.2	16.6	147.41	-54.2	-153.7	237.5	205.6	31.89	7.447	
6,800.0	6,796.2	6,784.2	6,780.2	16.5	16.9	147.54	-57.8	-160.0	250.3	217.9	32.42	7.721	
6,900.0	6,895.9	6,883.4	6,879.1	16.8	17.2	147.65	-61.4	-166.3	263.2	230.2	32.97	7.981	
7,000.0	6,995.6	6,982.5	6,978.0	17.2	17.6	147.76	-65.0	-172.6	276.0	242.5	33.54	8.229	
7,100.0	7,095.3	7,081.7	7,076.9	17.5	17.9	147.85	-68.7	-178.9	288.8	254.7	34.12	8.465	
7,200.0	7,195.0	7,180.9	7,175.8	17.9	18.3	147.94	-72.3	-185.2	301.7	267.0	34.72	8.690	
7,300.0	7,294.7	7,280.1	7,274.7	18.2	18.6	148.02	-75.9	-191.5	314.5	279.2	35.33	8.903	
7,400.0	7,394.4	7,379.2	7,373.6	18.6	19.0	148.09	-79.5	-197.8	327.3	291.4	35.95	9.106	
7,500.0	7,494.1	7,478.4	7,472.5	18.9	19.4	148.16	-83.1	-204.1	340.2	303.6	36.58	9.299	
7,600.0	7,593.8	7,577.6	7,571.4	19.3	19.8	148.22	-86.7	-210.4	353.0	315.8	37.23	9.482	
7,700.0	7,693.5	7,676.7	7,670.3	19.7	20.2	148.28	-90.4	-216.7	365.9	328.0	37.89	9.656	
7,800.0	7,793.2	7,775.9	7,769.2	20.1	20.6	148.33	-94.0	-223.1	378.7	340.1	38.56	9.821	
7,900.0	7,893.0	7,875.1	7,868.1	20.5	21.0	148.38	-97.6	-229.4	391.5	352.3	39.24	9.979	
8,000.0	7,992.7	7,974.3	7,967.0	20.9	21.4	148.43	-101.2	-235.7	404.4	364.5	39.93	10.128	
8,100.0	8,092.4	8,073.4	8,065.9	21.3	21.8	148.48	-104.8	-242.0	417.2	376.6	40.62	10.270	
8,200.0	8,192.1	8,172.6	8,164.8	21.7	22.2	148.52	-108.4	-248.3	430.1	388.7	41.33	10.405	
8,300.0	8,291.8	8,271.8	8,263.7	22.1	22.6	148.56	-112.1	-254.6	442.9	400.9	42.05	10.534	
8,400.0	8,391.5	8,370.9	8,362.6	22.6	23.1	148.59	-115.7	-260.9	455.8	413.0	42.77	10.656	
8,500.0	8,491.2	8,470.1	8,461.5	23.0	23.5	148.63	-119.3	-267.2	468.6	425.1	43.50	10.773	
8,600.0	8,590.9	8,569.3	8,560.4	23.4	23.9	148.66	-122.9	-273.5	481.4	437.2	44.24	10.884	
8,700.0	8,690.6	8,668.5	8,659.3	23.9	24.4	148.69	-126.5	-279.8	494.3	449.3	44.98	10.989	
8,800.0	8,790.3	8,767.6	8,758.2	24.3	24.8	148.72	-130.1	-286.1	507.1	461.4	45.73	11.090	
8,900.0	8,890.0	8,866.8	8,857.2	24.7	25.2	148.75	-133.8	-292.4	520.0	473.5	46.49	11.186	
9,000.0	8,989.7	8,966.0	8,956.1	25.2	25.7	148.78	-137.4	-298.8	532.8	485.6	47.25	11.277	
9,100.0	9,089.4	9,065.1	9,055.0	25.6	26.1	148.81	-141.0	-305.1	545.6	497.6	48.01	11.364	
9,200.0	9,189.1	9,164.3	9,153.9	26.1	26.6	148.83	-144.6	-311.4	558.5	509.7	48.79	11.447	
9,300.0	9,288.9	9,263.5	9,252.8	26.5	27.0	148.85	-148.2	-317.7	571.3	521.8	49.56	11.527	
9,400.0	9,388.6	9,362.7	9,351.7	27.0	27.5	148.88	-151.8	-324.0	584.2	533.8	50.35	11.603	
9,500.0	9,488.3	9,461.8	9,450.6	27.4	27.9	148.90	-155.5	-330.3	597.0	545.9	51.13	11.675	
9,600.0	9,588.0	9,561.0	9,549.5	27.9	28.4	148.92	-159.1	-336.6	609.9	557.9	51.93	11.745	
9,700.0	9,687.7	9,660.2	9,648.4	28.4	28.9	148.94	-162.7	-342.9	622.7	570.0	52.72	11.811	
9,800.0	9,787.4	9,759.3	9,747.3	28.8	29.3	148.96	-166.3	-349.2	635.5	582.0	53.52	11.875	
9,900.0	9,887.1	9,858.5	9,846.2	29.3	29.8	148.98	-169.9	-355.5	648.4	594.1	54.32	11.936	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1											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		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)			
10,000.0	9,986.8	9,957.7	9,945.1	29.8	30.2	148.99	-173.5	-361.8	661.2	606.1	55.13	11.994	
10,100.0	10,086.5	10,056.9	10,044.0	30.2	30.7	149.01	-177.2	-368.1	674.1	618.1	55.94	12.050	
10,200.0	10,186.2	10,156.0	10,142.9	30.7	31.2	149.03	-180.8	-374.5	686.9	630.2	56.76	12.103	
10,300.0	10,285.9	10,255.2	10,241.8	31.2	31.7	149.04	-184.4	-380.8	699.8	642.2	57.57	12.154	
10,400.0	10,385.6	10,354.4	10,340.7	31.7	32.1	149.06	-188.0	-387.1	712.6	654.2	58.39	12.204	
10,426.4	10,411.9	10,380.5	10,366.8	31.8	32.2	149.06	-189.0	-388.7	716.0	657.4	58.60	12.218	
10,500.0	10,485.4	10,453.6	10,439.7	32.1	32.6	149.10	-191.6	-393.4	725.1	665.9	59.19	12.250	
10,600.0	10,585.2	10,553.0	10,538.8	32.6	33.1	149.08	-195.3	-399.7	736.1	676.1	59.98	12.272	
10,700.0	10,685.2	10,652.5	10,638.1	33.0	33.5	148.99	-198.9	-406.0	745.6	684.8	60.75	12.273	
10,800.0	10,785.1	10,752.2	10,737.4	33.3	34.0	148.83	-202.5	-412.4	753.6	692.1	61.47	12.260	
10,864.9	10,850.0	10,816.8	10,801.9	33.4	34.3	-89.61	-204.9	-416.5	758.0	696.2	61.84	12.259	
10,900.0	10,885.1	10,851.9	10,836.9	33.4	34.5	-89.71	-206.2	-418.7	760.3	698.3	61.99	12.264	
10,987.4	10,972.5	10,944.8	10,929.6	33.5	34.9	-89.96	-209.4	-424.4	765.7	703.2	62.41	12.267	
11,000.0	10,985.1	10,959.0	10,943.8	33.5	35.0	-97.64	-209.9	-425.2	766.4	703.9	62.48	12.267	
11,025.0	11,010.1	10,987.2	10,971.9	33.4	35.1	-97.63	-210.7	-426.7	767.8	705.2	62.61	12.265	
11,050.0	11,034.9	11,015.2	10,999.8	33.4	35.3	-97.72	-211.5	-428.0	769.4	706.7	62.73	12.265	
11,075.0	11,059.6	11,043.0	11,027.6	33.4	35.4	-97.90	-212.2	-429.2	771.0	708.2	62.86	12.267	
11,100.0	11,084.1	11,070.5	11,055.1	33.3	35.5	-98.16	-212.8	-430.3	772.8	709.8	62.98	12.271	
11,125.0	11,108.2	11,097.7	11,082.3	33.3	35.6	-98.49	-213.3	-431.3	774.7	711.6	63.10	12.277	
11,150.0	11,132.0	11,124.5	11,109.0	33.2	35.7	-98.88	-213.8	-432.1	776.7	713.5	63.21	12.288	
11,175.0	11,155.3	11,150.8	11,135.4	33.2	35.8	-99.33	-214.2	-432.8	779.0	715.7	63.32	12.303	
11,200.0	11,178.2	11,176.6	11,161.2	33.1	35.9	-99.82	-214.6	-433.4	781.5	718.1	63.42	12.322	
11,225.0	11,200.4	11,201.9	11,186.4	33.1	36.0	-100.33	-214.8	-433.9	784.2	720.7	63.52	12.347	
11,250.0	11,222.1	11,226.4	11,210.9	33.0	36.1	-100.86	-215.1	-434.2	787.3	723.8	63.59	12.382	
11,275.0	11,243.1	11,250.3	11,234.8	33.0	36.2	-101.39	-215.2	-434.5	790.8	727.2	63.65	12.424	
11,300.0	11,263.3	11,273.4	11,257.9	32.9	36.2	-101.91	-215.3	-434.7	794.7	731.0	63.71	12.474	
11,325.0	11,282.7	11,295.6	11,280.1	32.9	36.3	-102.39	-215.4	-434.8	799.1	735.3	63.76	12.533	
11,350.0	11,301.3	11,316.8	11,301.3	32.9	36.3	-102.81	-215.4	-434.8	803.9	740.2	63.76	12.609	
11,375.0	11,318.9	11,334.4	11,318.9	32.8	36.4	-103.05	-215.4	-434.8	809.4	745.7	63.73	12.701	
11,400.0	11,335.7	11,351.2	11,335.7	32.8	36.4	-103.19	-215.4	-434.8	815.5	751.9	63.68	12.806	
11,425.0	11,351.4	11,366.9	11,351.4	32.8	36.4	-103.23	-215.4	-434.8	822.3	758.7	63.62	12.925	
11,450.0	11,366.1	11,381.6	11,366.1	32.8	36.4	-103.15	-215.4	-434.8	829.8	766.3	63.55	13.058	
11,475.0	11,379.7	11,395.2	11,379.7	32.8	36.4	-102.94	-215.4	-434.8	838.1	774.6	63.46	13.206	
11,500.0	11,392.2	11,407.7	11,392.2	32.8	36.4	-102.59	-215.4	-434.8	847.0	783.6	63.36	13.369	
11,525.0	11,403.5	11,419.0	11,403.5	32.8	36.4	-102.08	-215.4	-434.8	856.7	793.5	63.24	13.547	
11,550.0	11,413.7	11,429.2	11,413.7	32.9	36.4	-101.40	-215.4	-434.8	867.1	804.0	63.10	13.741	
11,575.0	11,422.6	11,438.1	11,422.6	32.9	36.4	-100.53	-215.4	-434.8	878.2	815.3	62.95	13.950	
11,600.0	11,430.4	11,445.9	11,430.4	33.0	36.4	-99.48	-215.4	-434.8	890.0	827.2	62.79	14.175	
11,625.0	11,436.8	11,452.3	11,436.8	33.0	36.4	-98.23	-215.4	-434.8	902.5	839.9	62.62	14.414	
11,650.0	11,442.0	11,457.5	11,442.0	33.1	36.4	-96.77	-215.4	-434.8	915.6	853.2	62.43	14.667	
11,675.0	11,445.9	11,468.7	11,453.2	33.2	36.4	-95.63	-215.2	-434.8	929.3	867.1	62.24	14.931	
11,700.0	11,448.5	11,525.2	11,509.5	33.3	36.3	-97.67	-210.7	-434.9	943.4	881.3	62.11	15.189	
11,725.0	11,449.8	11,650.0	11,629.4	33.4	36.0	-104.06	-177.3	-435.1	957.7	895.3	62.39	15.350	
11,737.4	11,450.0	11,900.0	11,824.0	33.4	35.5	-115.22	-25.0	-436.3	964.0	899.7	64.27	15.000	
11,744.0	11,450.0	12,209.1	11,920.0	33.4	35.9	-119.37	263.2	-438.5	965.6	899.5	66.13	14.601	
11,800.0	11,450.0	12,264.7	11,920.0	33.7	36.1	-119.10	318.7	-438.9	972.1	905.6	66.52	14.615	
11,900.0	11,450.0	12,364.1	11,920.0	34.4	36.6	-118.71	418.2	-439.7	981.3	913.9	67.41	14.558	
12,000.0	11,450.0	12,463.9	11,920.0	35.1	37.2	-118.45	517.9	-440.5	987.5	919.0	68.54	14.407	
12,100.0	11,450.0	12,563.8	11,920.0	36.0	37.9	-118.33	617.8	-441.2	990.6	920.8	69.86	14.180	
12,148.8	11,450.0	12,612.6	11,920.0	36.3	38.2	-118.31	666.6	-441.6	991.0	920.5	70.52	14.053	
12,200.0	11,450.0	12,663.8	11,920.0	36.7	38.6	-118.31	717.8	-442.0	991.1	919.8	71.26	13.909	
12,300.0	11,450.0	12,763.8	11,920.0	37.6	39.4	-118.31	817.8	-442.8	991.2	918.4	72.80	13.615	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1												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	
12,400.0	11,450.0	12,863.8	11,920.0	38.6	40.4	-118.30	917.8	-443.5	991.3	916.8	74.50	13.306	
12,500.0	11,450.0	12,963.8	11,920.0	39.6	41.3	-118.30	1,017.8	-444.3	991.4	915.0	76.34	12.986	
12,600.0	11,450.0	13,063.8	11,920.0	40.7	42.4	-118.30	1,117.8	-445.0	991.5	913.1	78.31	12.661	
12,700.0	11,450.0	13,163.8	11,920.0	41.8	43.5	-118.29	1,217.8	-445.8	991.5	911.1	80.40	12.332	
12,800.0	11,450.0	13,263.8	11,920.0	43.0	44.7	-118.29	1,317.8	-446.6	991.6	909.0	82.61	12.004	
12,900.0	11,450.0	13,363.8	11,920.0	44.3	45.9	-118.29	1,417.8	-447.3	991.7	906.8	84.92	11.678	
13,000.0	11,450.0	13,463.8	11,920.0	45.6	47.2	-118.29	1,517.8	-448.1	991.8	904.5	87.33	11.357	
13,100.0	11,450.0	13,563.8	11,920.0	47.0	48.6	-118.28	1,617.8	-448.9	991.9	902.1	89.83	11.042	
13,200.0	11,450.0	13,663.8	11,920.0	48.4	50.0	-118.28	1,717.8	-449.6	992.0	899.6	92.41	10.735	
13,300.0	11,450.0	13,763.8	11,920.0	49.9	51.4	-118.28	1,817.8	-450.4	992.1	897.0	95.06	10.436	
13,400.0	11,450.0	13,863.8	11,920.0	51.4	52.9	-118.27	1,917.8	-451.2	992.2	894.4	97.79	10.147	
13,500.0	11,450.0	13,963.8	11,920.0	52.9	54.4	-118.27	2,017.8	-451.9	992.3	891.7	100.57	9.866	
13,600.0	11,450.0	14,063.8	11,920.0	54.5	55.9	-118.27	2,117.8	-452.7	992.4	889.0	103.42	9.596	
13,700.0	11,450.0	14,163.8	11,920.0	56.1	57.5	-118.27	2,217.8	-453.5	992.5	886.1	106.32	9.335	
13,800.0	11,450.0	14,263.8	11,920.0	57.7	59.1	-118.26	2,317.8	-454.2	992.6	883.3	109.27	9.084	
13,900.0	11,450.0	14,363.8	11,920.0	59.4	60.7	-118.26	2,417.8	-455.0	992.6	880.4	112.26	8.842	
14,000.0	11,450.0	14,463.8	11,920.0	61.1	62.4	-118.26	2,517.8	-455.8	992.7	877.4	115.29	8.610	
14,100.0	11,450.0	14,563.8	11,920.0	62.8	64.0	-118.25	2,617.8	-456.5	992.8	874.5	118.37	8.388	
14,200.0	11,450.0	14,663.8	11,920.0	64.5	65.7	-118.25	2,717.8	-457.3	992.9	871.4	121.48	8.174	
14,300.0	11,450.0	14,763.8	11,920.0	66.2	67.5	-118.25	2,817.8	-458.1	993.0	868.4	124.62	7.968	
14,400.0	11,450.0	14,863.8	11,920.0	68.0	69.2	-118.25	2,917.8	-458.8	993.1	865.3	127.80	7.771	
14,500.0	11,450.0	14,963.8	11,920.0	69.7	70.9	-118.24	3,017.8	-459.6	993.2	862.2	131.00	7.582	
14,600.0	11,450.0	15,063.8	11,920.0	71.5	72.7	-118.24	3,117.8	-460.3	993.3	859.1	134.23	7.400	
14,700.0	11,450.0	15,163.8	11,920.0	73.3	74.5	-118.24	3,217.8	-461.1	993.4	855.9	137.48	7.226	
14,800.0	11,450.0	15,263.8	11,920.0	75.1	76.3	-118.24	3,317.8	-461.9	993.5	852.7	140.76	7.058	
14,900.0	11,450.0	15,363.8	11,920.0	76.9	78.1	-118.23	3,417.7	-462.6	993.6	849.5	144.05	6.897	
15,000.0	11,450.0	15,463.8	11,920.0	78.7	79.9	-118.23	3,517.7	-463.4	993.7	846.3	147.37	6.743	
15,100.0	11,450.0	15,563.8	11,920.0	80.6	81.7	-118.23	3,617.7	-464.2	993.7	843.0	150.70	6.594	
15,200.0	11,450.0	15,663.8	11,920.0	82.4	83.5	-118.22	3,717.7	-464.9	993.8	839.8	154.06	6.451	
15,300.0	11,450.0	15,763.8	11,920.0	84.3	85.3	-118.22	3,817.7	-465.7	993.9	836.5	157.42	6.314	
15,400.0	11,450.0	15,863.8	11,920.0	86.1	87.2	-118.22	3,917.7	-466.5	994.0	833.2	160.81	6.181	
15,500.0	11,450.0	15,963.8	11,920.0	88.0	89.0	-118.22	4,017.7	-467.2	994.1	829.9	164.20	6.054	
15,600.0	11,450.0	16,063.8	11,920.0	89.9	90.9	-118.21	4,117.7	-468.0	994.2	826.6	167.61	5.931	
15,700.0	11,450.0	16,163.8	11,920.0	91.7	92.8	-118.21	4,217.7	-468.8	994.3	823.3	171.04	5.813	
15,800.0	11,450.0	16,263.8	11,920.0	93.6	94.6	-118.21	4,317.7	-469.5	994.4	819.9	174.47	5.699	
15,900.0	11,450.0	16,363.8	11,920.0	95.5	96.5	-118.20	4,417.7	-470.3	994.5	816.6	177.92	5.589	
16,000.0	11,450.0	16,463.8	11,920.0	97.4	98.4	-118.20	4,517.7	-471.1	994.6	813.2	181.37	5.483	
16,100.0	11,450.0	16,563.8	11,920.0	99.3	100.3	-118.20	4,617.7	-471.8	994.7	809.8	184.84	5.381	
16,200.0	11,450.0	16,663.8	11,920.0	101.2	102.2	-118.20	4,717.7	-472.6	994.7	806.4	188.32	5.282	
16,300.0	11,450.0	16,763.8	11,920.0	103.1	104.1	-118.19	4,817.7	-473.4	994.8	803.0	191.80	5.187	
16,400.0	11,450.0	16,863.8	11,920.0	105.0	106.0	-118.19	4,917.7	-474.1	994.9	799.6	195.29	5.095	
16,500.0	11,450.0	16,963.8	11,920.0	107.0	107.9	-118.19	5,017.7	-474.9	995.0	796.2	198.79	5.005	
16,600.0	11,450.0	17,063.8	11,920.0	108.9	109.8	-118.18	5,117.7	-475.7	995.1	792.8	202.30	4.919	
16,700.0	11,450.0	17,163.8	11,920.0	110.8	111.7	-118.18	5,217.7	-476.4	995.2	789.4	205.82	4.835	
16,800.0	11,450.0	17,263.8	11,920.0	112.7	113.7	-118.18	5,317.7	-477.2	995.3	786.0	209.34	4.754	
16,900.0	11,450.0	17,363.8	11,920.0	114.7	115.6	-118.18	5,417.7	-477.9	995.4	782.5	212.87	4.676	
17,000.0	11,450.0	17,463.8	11,920.0	116.6	117.5	-118.17	5,517.7	-478.7	995.5	779.1	216.40	4.600	
17,100.0	11,450.0	17,563.8	11,920.0	118.5	119.4	-118.17	5,617.7	-479.5	995.6	775.6	219.94	4.527	
17,200.0	11,450.0	17,663.8	11,920.0	120.5	121.4	-118.17	5,717.7	-480.2	995.7	772.2	223.49	4.455	
17,300.0	11,450.0	17,763.8	11,920.0	122.4	123.3	-118.16	5,817.7	-481.0	995.8	768.7	227.04	4.386	
17,400.0	11,450.0	17,863.8	11,920.0	124.4	125.3	-118.16	5,917.7	-481.8	995.8	765.3	230.60	4.319	
17,500.0	11,450.0	17,963.8	11,920.0	126.3	127.2	-118.16	6,017.7	-482.5	995.9	761.8	234.16	4.253	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1												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		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	
17,600.0	11,450.0	18,063.8	11,920.0	128.3	129.1	-118.16	6,117.7	-483.3	996.0	758.3	237.72	4.190	
17,700.0	11,450.0	18,163.8	11,920.0	130.2	131.1	-118.15	6,217.7	-484.1	996.1	754.8	241.29	4.128	
17,800.0	11,450.0	18,263.8	11,920.0	132.2	133.0	-118.15	6,317.7	-484.8	996.2	751.3	244.87	4.068	
17,900.0	11,450.0	18,363.8	11,920.0	134.1	135.0	-118.15	6,417.7	-485.6	996.3	747.9	248.45	4.010	
18,000.0	11,450.0	18,463.8	11,920.0	136.1	136.9	-118.14	6,517.7	-486.4	996.4	744.4	252.03	3.954	
18,100.0	11,450.0	18,563.8	11,920.0	138.0	138.9	-118.14	6,617.7	-487.1	996.5	740.9	255.61	3.898	
18,200.0	11,450.0	18,663.8	11,920.0	140.0	140.8	-118.14	6,717.7	-487.9	996.6	737.4	259.20	3.845	
18,300.0	11,450.0	18,763.8	11,920.0	142.0	142.8	-118.14	6,817.6	-488.7	996.7	733.9	262.80	3.793	
18,400.0	11,450.0	18,863.8	11,920.0	143.9	144.8	-118.13	6,917.6	-489.4	996.8	730.4	266.39	3.742	
18,500.0	11,450.0	18,963.8	11,920.0	145.9	146.7	-118.13	7,017.6	-490.2	996.9	726.9	269.99	3.692	
18,600.0	11,450.0	19,063.8	11,920.0	147.9	148.7	-118.13	7,117.6	-491.0	996.9	723.4	273.59	3.644	
18,700.0	11,450.0	19,163.8	11,920.0	149.8	150.6	-118.12	7,217.6	-491.7	997.0	719.8	277.20	3.597	
18,800.0	11,450.0	19,263.8	11,920.0	151.8	152.6	-118.12	7,317.6	-492.5	997.1	716.3	280.81	3.551	
18,900.0	11,450.0	19,363.8	11,920.0	153.8	154.6	-118.12	7,417.6	-493.3	997.2	712.8	284.42	3.506	
19,000.0	11,450.0	19,463.8	11,920.0	155.7	156.5	-118.12	7,517.6	-494.0	997.3	709.3	288.03	3.463	
19,100.0	11,450.0	19,563.8	11,920.0	157.7	158.5	-118.11	7,617.6	-494.8	997.4	705.8	291.65	3.420	
19,200.0	11,450.0	19,663.8	11,920.0	159.7	160.5	-118.11	7,717.6	-495.5	997.5	702.2	295.27	3.378	
19,300.0	11,450.0	19,763.8	11,920.0	161.7	162.4	-118.11	7,817.6	-496.3	997.6	698.7	298.89	3.338	
19,400.0	11,450.0	19,863.8	11,920.0	163.6	164.4	-118.11	7,917.6	-497.1	997.7	695.2	302.51	3.298	
19,500.0	11,450.0	19,963.8	11,920.0	165.6	166.4	-118.10	8,017.6	-497.8	997.8	691.6	306.14	3.259	
19,558.7	11,450.0	20,021.2	11,920.0	166.8	167.5	-118.10	8,075.0	-498.3	997.8	689.6	308.22	3.237	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1											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)			
0.0	0.0	0.0	0.0	0.0	0.0	90.31	-0.2	29.9	29.9				
100.0	100.0	100.0	100.0	0.5	0.5	90.31	-0.2	29.9	29.9	28.9	1.06	28.223	
200.0	200.0	200.0	200.0	1.7	1.7	90.31	-0.2	29.9	29.9	26.5	3.42	8.741	
300.0	300.0	300.0	300.0	2.4	2.4	90.31	-0.2	29.9	29.9	25.1	4.82	6.205	
400.0	400.0	400.0	400.0	3.0	3.0	90.31	-0.2	29.9	29.9	24.0	5.91	5.065	
500.0	500.0	500.0	500.0	3.4	3.4	90.31	-0.2	29.9	29.9	23.1	6.83	4.381	
524.1	524.1	524.1	524.1	3.5	3.5	90.31	-0.2	29.9	29.9	22.9	7.03	4.258	
600.0	600.0	600.0	600.0	3.8	3.8	90.31	-0.2	29.9	29.9	22.3	7.65	3.912	
633.3	633.3	633.3	633.3	3.9	3.9	90.31	-0.2	29.9	29.9	22.0	7.90	3.789	
700.0	700.0	700.0	700.0	4.2	4.2	90.31	-0.2	29.9	29.9	21.5	8.39	3.565	
800.0	800.0	800.0	800.0	4.5	4.5	90.31	-0.2	29.9	29.9	20.8	9.08	3.294	
900.0	900.0	900.0	900.0	4.9	4.9	90.31	-0.2	29.9	29.9	20.2	9.73	3.075	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	90.31	-0.2	29.9	29.9	19.6	10.34	2.894	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	90.31	-0.2	29.9	29.9	19.0	10.92	2.740	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	90.31	-0.2	29.9	29.9	18.4	11.48	2.607	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	90.31	-0.2	29.9	29.9	17.9	12.01	2.491	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	90.31	-0.2	29.9	29.9	17.4	12.53	2.388	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	90.31	-0.2	29.9	29.9	16.9	13.03	2.296	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	90.31	-0.2	29.9	29.9	16.4	13.52	2.214	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	90.31	-0.2	29.9	29.9	15.9	13.99	2.139	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	90.31	-0.2	29.9	29.9	15.5	14.45	2.071	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	90.31	-0.2	29.9	29.9	15.0	14.90	2.008	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	90.31	-0.2	29.9	29.9	14.6	15.34	1.951	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	90.31	-0.2	29.9	29.9	14.2	15.77	1.898	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	90.31	-0.2	29.9	29.9	13.7	16.19	1.848	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	90.31	-0.2	29.9	29.9	13.3	16.61	1.802	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	90.31	-0.2	29.9	29.9	12.9	17.02	1.759	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	90.31	-0.2	29.9	29.9	12.5	17.42	1.718	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	90.31	-0.2	29.9	29.9	12.1	17.81	1.680	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	90.31	-0.2	29.9	29.9	11.7	18.20	1.644	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	90.31	-0.2	29.9	29.9	11.3	18.59	1.610	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	90.31	-0.2	29.9	29.9	11.0	18.96	1.578	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	90.31	-0.2	29.9	29.9	10.6	19.34	1.547	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	90.31	-0.2	29.9	29.9	10.2	19.71	1.518	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	90.31	-0.2	29.9	29.9	9.9	20.07	1.491 Level 3	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	90.31	-0.2	29.9	29.9	9.5	20.44	1.464 Level 3	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	90.31	-0.2	29.9	29.9	9.1	20.79	1.439 Level 3	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	90.31	-0.2	29.9	29.9	8.8	21.15	1.415 Level 3	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	90.31	-0.2	29.9	29.9	8.4	21.50	1.392 Level 3	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	90.31	-0.2	29.9	29.9	8.1	21.85	1.370 Level 3	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	90.31	-0.2	29.9	29.9	7.7	22.19	1.349 Level 3	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	90.31	-0.2	29.9	29.9	7.4	22.53	1.328 Level 3	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	90.31	-0.2	29.9	29.9	7.1	22.87	1.308 Level 3	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	90.31	-0.2	29.9	29.9	6.7	23.21	1.290 Level 3	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	90.31	-0.2	29.9	29.9	6.4	23.54	1.271 Level 3	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	90.31	-0.2	29.9	29.9	6.1	23.87	1.254 Level 3	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	90.31	-0.2	29.9	29.9	5.7	24.20	1.237 Level 3	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	90.31	-0.2	29.9	29.9	5.4	24.53	1.220 Level 3	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	90.31	-0.2	29.9	29.9	5.1	24.85	1.204 Level 3	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	90.31	-0.2	29.9	29.9	4.8	25.17	1.189 Level 3	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	90.31	-0.2	29.9	29.9	4.4	25.49	1.174 Level 3	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	90.31	-0.2	29.9	29.9	4.1	25.81	1.159 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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1													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	
4,966.7	4,966.7	4,966.7	4,966.7	13.0	13.0	90.31	-0.2	29.9	29.9	3.9	26.02	1.150	Level 3
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	90.31	-0.2	29.9	29.9	3.8	26.12	1.145	Level 3, CC, ES
5,100.0	5,100.0	5,099.5	5,099.5	13.2	13.2	91.05	-0.6	30.7	30.7	4.3	26.38	1.164	Level 3
5,200.0	5,200.0	5,199.0	5,199.0	13.4	13.3	93.04	-1.8	33.0	33.1	6.4	26.63	1.241	Level 3
5,300.0	5,300.0	5,298.4	5,298.2	13.5	13.4	-26.49	-3.7	36.8	36.3	9.4	26.83	1.352	Level 3
5,400.0	5,400.0	5,397.7	5,397.4	13.6	13.5	-24.85	-6.5	42.2	39.6	12.5	27.03	1.464	Level 3
5,500.0	5,499.9	5,497.4	5,496.8	13.7	13.6	-23.79	-9.9	48.8	42.6	15.4	27.22	1.565	
5,600.0	5,599.7	5,597.4	5,596.5	13.8	13.8	-23.70	-13.4	55.5	44.1	16.7	27.49	1.606	
5,638.5	5,638.1	5,635.9	5,634.9	13.8	13.8	-23.91	-14.8	58.1	44.3	16.7	27.58	1.607	
5,700.0	5,699.4	5,697.4	5,696.2	13.9	13.9	-24.36	-16.9	62.2	44.4	16.7	27.74	1.600	
5,800.0	5,799.1	5,797.4	5,796.0	14.0	14.2	-25.08	-20.4	68.9	44.5	16.5	28.07	1.587	
5,900.0	5,898.8	5,897.4	5,895.7	14.2	14.4	-25.79	-23.9	75.6	44.7	16.2	28.43	1.572	
6,000.0	5,998.5	5,997.4	5,995.4	14.4	14.6	-26.50	-27.3	82.3	44.8	16.0	28.82	1.556	
6,100.0	6,098.2	6,097.4	6,095.1	14.6	14.9	-27.21	-30.8	89.0	45.0	15.8	29.23	1.539	
6,200.0	6,197.9	6,197.4	6,194.8	14.9	15.1	-27.91	-34.3	95.8	45.2	15.5	29.66	1.523	
6,300.0	6,297.6	6,297.4	6,294.5	15.1	15.4	-28.60	-37.8	102.5	45.3	15.2	30.11	1.506	
6,400.0	6,397.3	6,397.4	6,394.2	15.4	15.7	-29.29	-41.3	109.2	45.5	14.9	30.57	1.489	Level 3
6,500.0	6,497.1	6,497.4	6,493.9	15.6	16.0	-29.98	-44.7	115.9	45.7	14.7	31.05	1.472	Level 3
6,600.0	6,596.8	6,597.4	6,593.6	15.9	16.3	-30.66	-48.2	122.6	45.9	14.4	31.55	1.455	Level 3
6,700.0	6,696.5	6,697.4	6,693.4	16.2	16.6	-31.33	-51.7	129.3	46.1	14.0	32.05	1.438	Level 3
6,800.0	6,796.2	6,797.4	6,793.1	16.5	17.0	-31.99	-55.2	136.0	46.3	13.7	32.57	1.422	Level 3
6,900.0	6,895.9	6,897.4	6,892.8	16.8	17.3	-32.66	-58.7	142.7	46.5	13.4	33.10	1.406	Level 3
7,000.0	6,995.6	6,997.4	6,992.5	17.2	17.7	-33.31	-62.1	149.5	46.7	13.1	33.63	1.390	Level 3
7,100.0	7,095.3	7,097.4	7,092.2	17.5	18.0	-33.96	-65.6	156.2	47.0	12.8	34.17	1.374	Level 3
7,200.0	7,195.0	7,197.4	7,191.9	17.9	18.4	-34.60	-69.1	162.9	47.2	12.5	34.71	1.360	Level 3
7,300.0	7,294.7	7,297.4	7,291.6	18.2	18.8	-35.24	-72.6	169.6	47.4	12.2	35.26	1.345	Level 3
7,400.0	7,394.4	7,397.4	7,391.3	18.6	19.1	-35.87	-76.1	176.3	47.7	11.9	35.82	1.331	Level 3
7,500.0	7,494.1	7,497.4	7,491.1	18.9	19.5	-36.49	-79.5	183.0	47.9	11.6	36.37	1.318	Level 3
7,600.0	7,593.8	7,597.4	7,590.8	19.3	19.9	-37.10	-83.0	189.7	48.2	11.2	36.93	1.305	Level 3
7,700.0	7,693.5	7,697.4	7,690.5	19.7	20.3	-37.71	-86.5	196.4	48.4	11.0	37.49	1.292	Level 3
7,800.0	7,793.2	7,797.4	7,790.2	20.1	20.7	-38.32	-90.0	203.2	48.7	10.7	38.05	1.280	Level 3
7,900.0	7,893.0	7,897.4	7,889.9	20.5	21.2	-38.91	-93.5	209.9	49.0	10.4	38.60	1.269	Level 3
8,000.0	7,992.7	7,997.4	7,989.6	20.9	21.6	-39.50	-96.9	216.6	49.2	10.1	39.16	1.258	Level 3
8,100.0	8,092.4	8,097.4	8,089.3	21.3	22.0	-40.09	-100.4	223.3	49.5	9.8	39.72	1.247	Level 3
8,200.0	8,192.1	8,197.4	8,189.0	21.7	22.4	-40.66	-103.9	230.0	49.8	9.5	40.27	1.237	Level 3
8,300.0	8,291.8	8,297.4	8,288.8	22.1	22.8	-41.23	-107.4	236.7	50.1	9.3	40.82	1.227	Level 3
8,400.0	8,391.5	8,397.4	8,388.5	22.6	23.3	-41.80	-110.9	243.4	50.4	9.0	41.37	1.218	Level 3
8,500.0	8,491.2	8,497.4	8,488.2	23.0	23.7	-42.35	-114.3	250.1	50.7	8.8	41.92	1.210	Level 3
8,600.0	8,590.9	8,597.4	8,587.9	23.4	24.2	-42.90	-117.8	256.9	51.0	8.5	42.46	1.201	Level 3
8,700.0	8,690.6	8,697.4	8,687.6	23.9	24.6	-43.45	-121.3	263.6	51.3	8.3	43.00	1.193	Level 3
8,800.0	8,790.3	8,797.4	8,787.3	24.3	25.1	-43.99	-124.8	270.3	51.6	8.1	43.53	1.186	Level 3
8,900.0	8,890.0	8,897.4	8,887.0	24.7	25.5	-44.52	-128.3	277.0	52.0	7.9	44.07	1.179	Level 3
9,000.0	8,989.7	8,997.4	8,986.7	25.2	26.0	-45.04	-131.8	283.7	52.3	7.7	44.59	1.172	Level 3
9,100.0	9,089.4	9,097.4	9,086.4	25.6	26.4	-45.56	-135.2	290.4	52.6	7.5	45.12	1.166	Level 3
9,200.0	9,189.1	9,197.4	9,186.2	26.1	26.9	-46.07	-138.7	297.1	52.9	7.3	45.63	1.160	Level 3
9,300.0	9,288.9	9,297.3	9,285.9	26.5	27.3	-46.57	-142.2	303.8	53.3	7.1	46.15	1.154	Level 3
9,400.0	9,388.6	9,397.3	9,385.6	27.0	27.8	-47.07	-145.7	310.6	53.6	7.0	46.66	1.149	Level 3
9,500.0	9,488.3	9,497.3	9,485.3	27.4	28.3	-47.56	-149.2	317.3	54.0	6.8	47.16	1.144	Level 3
9,600.0	9,588.0	9,597.3	9,585.0	27.9	28.7	-48.05	-152.6	324.0	54.3	6.6	47.66	1.139	Level 3
9,700.0	9,687.7	9,697.3	9,684.7	28.4	29.2	-48.53	-156.1	330.7	54.7	6.5	48.16	1.135	Level 3
9,800.0	9,787.4	9,797.3	9,784.4	28.8	29.7	-49.00	-159.6	337.4	55.0	6.4	48.65	1.131	Level 3
9,900.0	9,887.1	9,897.3	9,884.1	29.3	30.1	-49.47	-163.1	344.1	55.4	6.2	49.13	1.127	Level 3

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



Anticollision Report

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Site Error:	0.0 usft	North Reference:	Grid
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Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
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Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1													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	
10,000.0	9,986.8	9,997.3	9,983.9	29.8	30.6	-49.93	-166.6	350.8	55.7	6.1	49.61	1.123 Level 3	
10,100.0	10,086.5	10,097.3	10,083.6	30.2	31.1	-50.38	-170.0	357.5	56.1	6.0	50.09	1.120 Level 3	
10,200.0	10,186.2	10,197.3	10,183.3	30.7	31.6	-50.83	-173.5	364.3	56.5	5.9	50.56	1.117 Level 3	
10,300.0	10,285.9	10,297.3	10,283.0	31.2	32.0	-51.28	-177.0	371.0	56.8	5.8	51.02	1.114 Level 3	
10,400.0	10,385.6	10,397.3	10,382.7	31.7	32.5	-51.71	-180.5	377.7	57.2	5.7	51.48	1.111 Level 3	
10,426.4	10,411.9	10,423.7	10,409.0	31.8	32.6	-51.83	-181.4	379.4	57.3	5.7	51.59	1.111 Level 3, SF	
10,500.0	10,485.4	10,497.3	10,482.4	32.1	33.0	-51.78	-184.0	384.4	57.9	5.8	52.07	1.112 Level 3	
10,600.0	10,585.2	10,597.3	10,582.1	32.6	33.5	-50.58	-187.4	391.1	59.6	6.4	53.23	1.120 Level 3	
10,700.0	10,685.2	10,697.2	10,681.7	33.0	34.0	-48.25	-190.9	397.8	62.5	7.6	54.92	1.138 Level 3	
10,800.0	10,785.1	10,797.1	10,781.3	33.3	34.5	-45.05	-194.4	404.5	66.7	9.8	56.99	1.171 Level 3	
10,864.9	10,850.0	10,861.8	10,845.8	33.4	34.8	79.02	-196.6	408.9	70.3	11.9	58.38	1.203 Level 3	
10,900.0	10,885.1	10,896.8	10,880.8	33.4	34.9	80.33	-197.9	411.2	72.4	13.3	59.10	1.224 Level 3	
10,987.4	10,972.5	10,984.0	10,967.7	33.5	35.4	83.26	-200.9	417.1	77.7	17.0	60.74	1.280 Level 3	
11,000.0	10,985.1	10,996.5	10,980.2	33.5	35.4	75.97	-201.3	417.9	78.5	17.5	61.01	1.287 Level 3	
11,025.0	11,010.1	11,021.4	11,005.0	33.4	35.5	77.47	-202.2	419.6	79.8	18.0	61.81	1.291 Level 3	
11,050.0	11,034.9	11,046.3	11,029.8	33.4	35.7	79.85	-203.1	421.2	80.9	18.0	62.90	1.286 Level 3	
11,075.0	11,059.6	11,071.1	11,054.6	33.4	35.8	83.02	-203.9	422.8	81.9	17.7	64.21	1.275 Level 3	
11,100.0	11,084.1	11,095.7	11,079.1	33.3	35.9	86.90	-204.6	424.3	83.0	17.4	65.63	1.265 Level 3	
11,125.0	11,108.2	11,120.0	11,103.4	33.3	36.0	91.38	-205.3	425.6	84.4	17.4	67.03	1.260 Level 3	
11,150.0	11,132.0	11,143.9	11,127.2	33.2	36.1	96.34	-206.0	426.8	86.5	18.2	68.24	1.267 Level 3	
11,175.0	11,155.3	11,167.4	11,150.7	33.2	36.2	101.58	-206.6	428.0	89.4	20.3	69.11	1.293 Level 3	
11,200.0	11,178.2	11,190.4	11,173.7	33.1	36.3	106.90	-207.1	429.0	93.5	24.0	69.50	1.345 Level 3	
11,225.0	11,200.4	11,212.9	11,196.1	33.1	36.4	112.11	-207.6	429.9	98.9	29.6	69.34	1.427 Level 3	
11,250.0	11,222.1	11,234.7	11,217.9	33.0	36.5	117.04	-208.0	430.7	105.9	37.2	68.68	1.542	
11,275.0	11,243.1	11,255.9	11,239.0	33.0	36.6	121.55	-208.4	431.5	114.5	46.9	67.60	1.694	
11,300.0	11,263.3	11,276.3	11,259.5	32.9	36.7	125.57	-208.7	432.1	124.7	58.5	66.24	1.883	
11,325.0	11,282.7	11,295.9	11,279.1	32.9	36.8	129.08	-209.0	432.7	136.5	71.7	64.74	2.108	
11,350.0	11,301.3	11,314.7	11,297.9	32.9	36.8	132.07	-209.2	433.1	149.7	86.5	63.19	2.369	
11,375.0	11,318.9	11,332.7	11,315.8	32.8	36.9	134.55	-209.4	433.5	164.4	102.7	61.69	2.664	
11,400.0	11,335.7	11,349.7	11,332.8	32.8	37.0	136.55	-209.6	433.9	180.3	120.0	60.28	2.991	
11,425.0	11,351.4	11,365.7	11,348.8	32.8	37.0	138.08	-209.8	434.1	197.4	138.4	58.99	3.347	
11,450.0	11,366.1	11,380.6	11,363.8	32.8	37.1	139.15	-209.9	434.3	215.6	157.8	57.83	3.729	
11,475.0	11,379.7	11,394.5	11,377.7	32.8	37.1	139.78	-210.0	434.5	234.8	178.0	56.79	4.135	
11,500.0	11,392.2	11,407.3	11,390.4	32.8	37.2	139.93	-210.0	434.6	254.9	199.1	55.85	4.564	
11,525.0	11,403.5	11,418.9	11,402.1	32.8	37.2	139.59	-210.1	434.7	275.8	220.8	55.02	5.013	
11,550.0	11,413.7	11,429.3	11,412.5	32.9	37.2	138.67	-210.1	434.8	297.4	243.1	54.29	5.478	
11,575.0	11,422.6	11,438.6	11,421.7	32.9	37.2	137.06	-210.1	434.9	319.7	266.1	53.65	5.959	
11,600.0	11,430.4	11,446.5	11,429.7	33.0	37.2	134.62	-210.1	434.9	342.5	289.4	53.08	6.452	
11,625.0	11,436.8	11,453.2	11,436.3	33.0	37.2	131.07	-210.2	434.9	365.8	313.2	52.58	6.956	
11,650.0	11,442.0	11,458.6	11,441.7	33.1	37.2	126.06	-210.2	434.9	389.5	337.3	52.15	7.469	
11,675.0	11,445.9	11,462.6	11,445.8	33.2	37.2	119.08	-210.2	434.9	413.5	361.7	51.76	7.989	
11,700.0	11,448.5	11,465.3	11,448.5	33.3	37.2	109.54	-210.2	434.9	437.7	386.3	51.42	8.513	
11,725.0	11,449.8	11,466.7	11,449.8	33.4	37.3	97.12	-210.2	434.9	462.2	411.0	51.12	9.040	
11,737.4	11,450.0	11,466.9	11,450.0	33.4	37.3	90.00	-210.2	434.9	474.3	423.3	50.99	9.303	
11,744.0	11,450.0	11,466.9	11,450.0	33.4	37.3	90.00	-210.2	434.9	480.7	429.8	50.92	9.441	
11,800.0	11,450.0	11,466.9	11,450.0	33.7	37.3	90.00	-210.2	434.9	535.9	485.5	50.44	10.625	
11,900.0	11,450.0	12,506.9	12,060.0	34.4	37.6	179.15	424.8	430.9	610.1	538.5	71.54	8.528	
12,000.0	11,450.0	12,606.7	12,060.0	35.1	38.2	179.79	524.6	430.2	610.0	537.8	72.21	8.447	
12,052.0	11,450.0	12,658.6	12,060.0	35.5	38.5	-180.00	576.5	429.9	610.0	537.4	72.58	8.404	
12,100.0	11,450.0	12,706.6	12,060.0	36.0	38.8	-179.89	624.5	429.6	610.0	537.1	72.91	8.366	
12,148.8	11,450.0	12,755.4	12,060.0	36.3	39.2	-179.85	673.3	429.3	610.0	536.8	73.25	8.328	
12,200.0	11,450.0	12,806.6	12,060.0	36.7	39.6	-179.85	724.5	428.9	610.0	536.4	73.60	8.288	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1												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	
12,300.0	11,450.0	12,906.6	12,060.0	37.6	40.4	-179.85	824.5	428.3	610.0	535.7	74.35	8.204	
12,400.0	11,450.0	13,006.6	12,060.0	38.6	41.3	-179.85	924.5	427.7	610.0	534.8	75.16	8.116	
12,500.0	11,450.0	13,106.6	12,060.0	39.6	42.3	-179.86	1,024.5	427.0	610.0	534.0	76.02	8.024	
12,600.0	11,450.0	13,206.6	12,060.0	40.7	43.3	-179.86	1,124.5	426.4	610.0	533.1	76.93	7.929	
12,700.0	11,450.0	13,306.6	12,060.0	41.8	44.4	-179.86	1,224.5	425.7	610.0	532.1	77.90	7.831	
12,800.0	11,450.0	13,406.6	12,060.0	43.0	45.6	-179.86	1,324.5	425.1	610.0	531.1	78.91	7.730	
12,900.0	11,450.0	13,506.6	12,060.0	44.3	46.8	-179.86	1,424.5	424.5	610.0	530.0	79.97	7.628	
13,000.0	11,450.0	13,606.6	12,060.0	45.6	48.0	-179.87	1,524.5	423.8	610.0	528.9	81.08	7.524	
13,100.0	11,450.0	13,706.6	12,060.0	47.0	49.4	-179.87	1,624.5	423.2	610.0	527.8	82.23	7.418	
13,200.0	11,450.0	13,806.6	12,060.0	48.4	50.7	-179.87	1,724.5	422.6	610.0	526.6	83.42	7.312	
13,300.0	11,450.0	13,906.6	12,060.0	49.9	52.2	-179.87	1,824.5	421.9	610.0	525.4	84.65	7.206	
13,400.0	11,450.0	14,006.6	12,060.0	51.4	53.6	-179.87	1,924.5	421.3	610.0	524.1	85.92	7.100	
13,500.0	11,450.0	14,106.6	12,060.0	52.9	55.1	-179.88	2,024.5	420.6	610.0	522.8	87.22	6.993	
13,600.0	11,450.0	14,206.6	12,060.0	54.5	56.6	-179.88	2,124.5	420.0	610.0	521.4	88.56	6.888	
13,700.0	11,450.0	14,306.6	12,060.0	56.1	58.2	-179.88	2,224.5	419.4	610.0	520.1	89.94	6.782	
13,800.0	11,450.0	14,406.6	12,060.0	57.7	59.8	-179.88	2,324.5	418.7	610.0	518.7	91.34	6.678	
13,900.0	11,450.0	14,506.6	12,060.0	59.4	61.4	-179.88	2,424.5	418.1	610.0	517.2	92.78	6.575	
14,000.0	11,450.0	14,606.6	12,060.0	61.1	63.0	-179.89	2,524.5	417.4	610.0	515.8	94.24	6.473	
14,100.0	11,450.0	14,706.6	12,060.0	62.8	64.6	-179.89	2,624.5	416.8	610.0	514.3	95.73	6.372	
14,200.0	11,450.0	14,806.6	12,060.0	64.5	66.3	-179.89	2,724.5	416.2	610.0	512.7	97.25	6.272	
14,300.0	11,450.0	14,906.6	12,060.0	66.2	68.0	-179.89	2,824.5	415.5	610.0	511.2	98.80	6.174	
14,400.0	11,450.0	15,006.6	12,060.0	68.0	69.7	-179.89	2,924.5	414.9	610.0	509.6	100.36	6.078	
14,500.0	11,450.0	15,106.6	12,060.0	69.7	71.5	-179.90	3,024.4	414.2	610.0	508.0	101.95	5.983	
14,600.0	11,450.0	15,206.6	12,060.0	71.5	73.2	-179.90	3,124.4	413.6	610.0	506.4	103.57	5.890	
14,700.0	11,450.0	15,306.6	12,060.0	73.3	75.0	-179.90	3,224.4	413.0	610.0	504.8	105.20	5.799	
14,800.0	11,450.0	15,406.6	12,060.0	75.1	76.7	-179.90	3,324.4	412.3	610.0	503.2	106.85	5.709	
14,900.0	11,450.0	15,506.6	12,060.0	76.9	78.5	-179.90	3,424.4	411.7	610.0	501.5	108.52	5.621	
15,000.0	11,450.0	15,606.6	12,060.0	78.7	80.3	-179.91	3,524.4	411.0	610.0	499.8	110.21	5.535	
15,100.0	11,450.0	15,706.6	12,060.0	80.6	82.1	-179.91	3,624.4	410.4	610.0	498.1	111.92	5.450	
15,200.0	11,450.0	15,806.6	12,060.0	82.4	83.9	-179.91	3,724.4	409.8	610.0	496.4	113.64	5.368	
15,300.0	11,450.0	15,906.6	12,060.0	84.3	85.8	-179.91	3,824.4	409.1	610.0	494.6	115.38	5.287	
15,400.0	11,450.0	16,006.6	12,060.0	86.1	87.6	-179.91	3,924.4	408.5	610.0	492.9	117.13	5.208	
15,500.0	11,450.0	16,106.6	12,060.0	88.0	89.4	-179.92	4,024.4	407.8	610.0	491.1	118.90	5.130	
15,600.0	11,450.0	16,206.6	12,060.0	89.9	91.3	-179.92	4,124.4	407.2	610.0	489.3	120.68	5.054	
15,700.0	11,450.0	16,306.6	12,060.0	91.7	93.2	-179.92	4,224.4	406.6	610.0	487.5	122.48	4.980	
15,800.0	11,450.0	16,406.6	12,060.0	93.6	95.0	-179.92	4,324.4	405.9	610.0	485.7	124.29	4.908	
15,900.0	11,450.0	16,506.6	12,060.0	95.5	96.9	-179.93	4,424.4	405.3	610.0	483.9	126.11	4.837	
16,000.0	11,450.0	16,606.6	12,060.0	97.4	98.8	-179.93	4,524.4	404.6	610.0	482.1	127.94	4.768	
16,100.0	11,450.0	16,706.6	12,060.0	99.3	100.6	-179.93	4,624.4	404.0	610.0	480.2	129.78	4.700	
16,200.0	11,450.0	16,806.6	12,060.0	101.2	102.5	-179.93	4,724.4	403.4	610.0	478.4	131.63	4.634	
16,300.0	11,450.0	16,906.6	12,060.0	103.1	104.4	-179.93	4,824.4	402.7	610.0	476.5	133.50	4.569	
16,400.0	11,450.0	17,006.6	12,060.0	105.0	106.3	-179.94	4,924.4	402.1	610.0	474.6	135.37	4.506	
16,500.0	11,450.0	17,106.6	12,060.0	107.0	108.2	-179.94	5,024.4	401.4	610.0	472.7	137.25	4.444	
16,600.0	11,450.0	17,206.6	12,060.0	108.9	110.1	-179.94	5,124.4	400.8	610.0	470.9	139.14	4.384	
16,700.0	11,450.0	17,306.6	12,060.0	110.8	112.0	-179.94	5,224.4	400.2	610.0	469.0	141.04	4.325	
16,800.0	11,450.0	17,406.6	12,060.0	112.7	113.9	-179.94	5,324.4	399.5	610.0	467.0	142.95	4.267	
16,900.0	11,450.0	17,506.6	12,060.0	114.7	115.9	-179.95	5,424.4	398.9	610.0	465.1	144.87	4.211	
17,000.0	11,450.0	17,606.6	12,060.0	116.6	117.8	-179.95	5,524.4	398.2	610.0	463.2	146.79	4.156	
17,100.0	11,450.0	17,706.6	12,060.0	118.5	119.7	-179.95	5,624.4	397.6	610.0	461.3	148.72	4.102	
17,200.0	11,450.0	17,806.6	12,060.0	120.5	121.6	-179.95	5,724.4	397.0	610.0	459.3	150.66	4.049	
17,300.0	11,450.0	17,906.6	12,060.0	122.4	123.6	-179.95	5,824.4	396.3	610.0	457.4	152.60	3.997	
17,400.0	11,450.0	18,006.6	12,060.0	124.4	125.5	-179.96	5,924.4	395.7	610.0	455.4	154.55	3.947	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1													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		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		
17,500.0	11,450.0	18,106.6	12,060.0	126.3	127.4	-179.96	6,024.4	395.1	610.0	453.5	156.51	3.898		
17,600.0	11,450.0	18,206.6	12,060.0	128.3	129.4	-179.96	6,124.4	394.4	610.0	451.5	158.47	3.849		
17,700.0	11,450.0	18,306.6	12,060.0	130.2	131.3	-179.96	6,224.4	393.8	610.0	449.6	160.44	3.802		
17,800.0	11,450.0	18,406.6	12,060.0	132.2	133.2	-179.96	6,324.4	393.1	610.0	447.6	162.42	3.756		
17,900.0	11,450.0	18,506.6	12,060.0	134.1	135.2	-179.97	6,424.4	392.5	610.0	445.6	164.40	3.711		
18,000.0	11,450.0	18,606.6	12,060.0	136.1	137.1	-179.97	6,524.4	391.9	610.0	443.6	166.38	3.666		
18,100.0	11,450.0	18,706.6	12,060.0	138.0	139.1	-179.97	6,624.4	391.2	610.0	441.6	168.37	3.623		
18,200.0	11,450.0	18,806.6	12,060.0	140.0	141.0	-179.97	6,724.4	390.6	610.0	439.6	170.37	3.580		
18,300.0	11,450.0	18,906.6	12,060.0	142.0	143.0	-179.97	6,824.4	389.9	610.0	437.6	172.37	3.539		
18,400.0	11,450.0	19,006.6	12,060.0	143.9	144.9	-179.98	6,924.4	389.3	610.0	435.6	174.37	3.498		
18,500.0	11,450.0	19,106.6	12,060.0	145.9	146.9	-179.98	7,024.4	388.7	610.0	433.6	176.38	3.458		
18,600.0	11,450.0	19,206.6	12,060.0	147.9	148.9	-179.98	7,124.4	388.0	610.0	431.6	178.39	3.419		
18,700.0	11,450.0	19,306.6	12,060.0	149.8	150.8	-179.98	7,224.4	387.4	610.0	429.6	180.41	3.381		
18,800.0	11,450.0	19,406.6	12,060.0	151.8	152.8	-179.98	7,324.4	386.7	610.0	427.6	182.43	3.344		
18,900.0	11,450.0	19,506.6	12,060.0	153.8	154.7	-179.99	7,424.4	386.1	610.0	425.5	184.46	3.307		
19,000.0	11,450.0	19,606.6	12,060.0	155.7	156.7	-179.99	7,524.4	385.5	610.0	423.5	186.48	3.271		
19,100.0	11,450.0	19,706.6	12,060.0	157.7	158.7	-179.99	7,624.4	384.8	610.0	421.5	188.52	3.236		
19,200.0	11,450.0	19,806.6	12,060.0	159.7	160.6	-179.99	7,724.4	384.2	610.0	419.4	190.55	3.201		
19,300.0	11,450.0	19,906.6	12,060.0	161.7	162.6	-179.99	7,824.4	383.5	610.0	417.4	192.59	3.167		
19,400.0	11,450.0	20,006.6	12,060.0	163.6	164.6	-180.00	7,924.3	382.9	610.0	415.4	194.63	3.134		
19,500.0	11,450.0	20,106.6	12,060.0	165.6	166.5	-180.00	8,024.3	382.3	610.0	413.3	196.68	3.102		
19,558.7	11,450.0	20,165.3	12,060.0	166.8	167.7	180.00	8,083.1	381.9	610.0	412.1	197.88	3.083		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Unit #003 - Dagger State Unit #003 - Dagger State Unit #003													Offset Site Error:	0.0 usft
Survey Program: 14683-B001Mb. MWD+HRGM													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)				
15,400.0	11,450.0	11,410.5	11,410.5	86.1	28.5	90.00	4,819.5	573.7	910.0	855.5	54.51	16.694		
15,500.0	11,450.0	11,410.5	11,410.5	88.0	28.5	90.00	4,819.5	573.7	812.0	756.7	55.37	14.665		
15,600.0	11,450.0	11,410.5	11,410.5	89.9	28.5	90.00	4,819.5	573.7	714.6	657.9	56.66	12.610		
15,700.0	11,450.0	11,410.5	11,410.5	91.7	28.5	90.00	4,819.5	573.7	617.9	559.2	58.67	10.532		
15,800.0	11,450.0	11,410.5	11,410.5	93.6	28.5	90.00	4,819.5	573.7	522.5	460.6	61.86	8.447		
15,900.0	11,450.0	11,410.5	11,410.5	95.5	28.5	90.00	4,819.5	573.7	429.2	362.1	67.10	6.397		
16,000.0	11,450.0	11,410.5	11,410.5	97.4	28.5	90.00	4,819.5	573.7	339.7	263.8	75.93	4.474		
16,100.0	11,450.0	11,410.5	11,410.5	99.3	28.5	90.00	4,819.5	573.7	258.1	167.1	90.98	2.837		
16,200.0	11,450.0	11,410.5	11,410.5	101.2	28.5	90.00	4,819.5	573.7	194.5	80.5	113.93	1.707		
16,294.0	11,450.0	11,410.5	11,410.5	103.0	28.5	90.00	4,819.5	573.7	170.2	39.1	131.18	1.298 Level 3, CC		
16,300.0	11,450.0	11,410.5	11,410.5	103.1	28.5	90.00	4,819.5	573.7	170.3	38.8	131.51	1.295 Level 3, ES, SF		
16,400.0	11,450.0	11,410.5	11,410.5	105.0	28.5	90.00	4,819.5	573.7	200.6	77.9	122.62	1.636		
16,500.0	11,450.0	11,410.5	11,410.5	107.0	28.5	90.00	4,819.5	573.7	267.3	161.9	105.34	2.537		
16,600.0	11,450.0	11,410.5	11,410.5	108.9	28.5	90.00	4,819.5	573.7	350.2	257.5	92.65	3.780		
16,700.0	11,450.0	11,410.5	11,410.5	110.8	28.5	90.00	4,819.5	573.7	440.3	355.9	84.40	5.217		
16,800.0	11,450.0	11,410.5	11,410.5	112.7	28.5	90.00	4,819.5	573.7	533.9	454.9	78.94	6.763		
16,900.0	11,450.0	11,410.5	11,410.5	114.7	28.5	90.00	4,819.5	573.7	629.5	554.3	75.20	8.371		
17,000.0	11,450.0	11,410.5	11,410.5	116.6	28.5	90.00	4,819.5	573.7	726.3	653.7	72.54	10.012		
17,100.0	11,450.0	11,410.5	11,410.5	118.5	28.5	90.00	4,819.5	573.7	823.8	753.2	70.58	11.671		
17,200.0	11,450.0	11,410.5	11,410.5	120.5	28.5	90.00	4,819.5	573.7	921.9	852.8	69.12	13.338		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3848.5usft (Original Well Ele

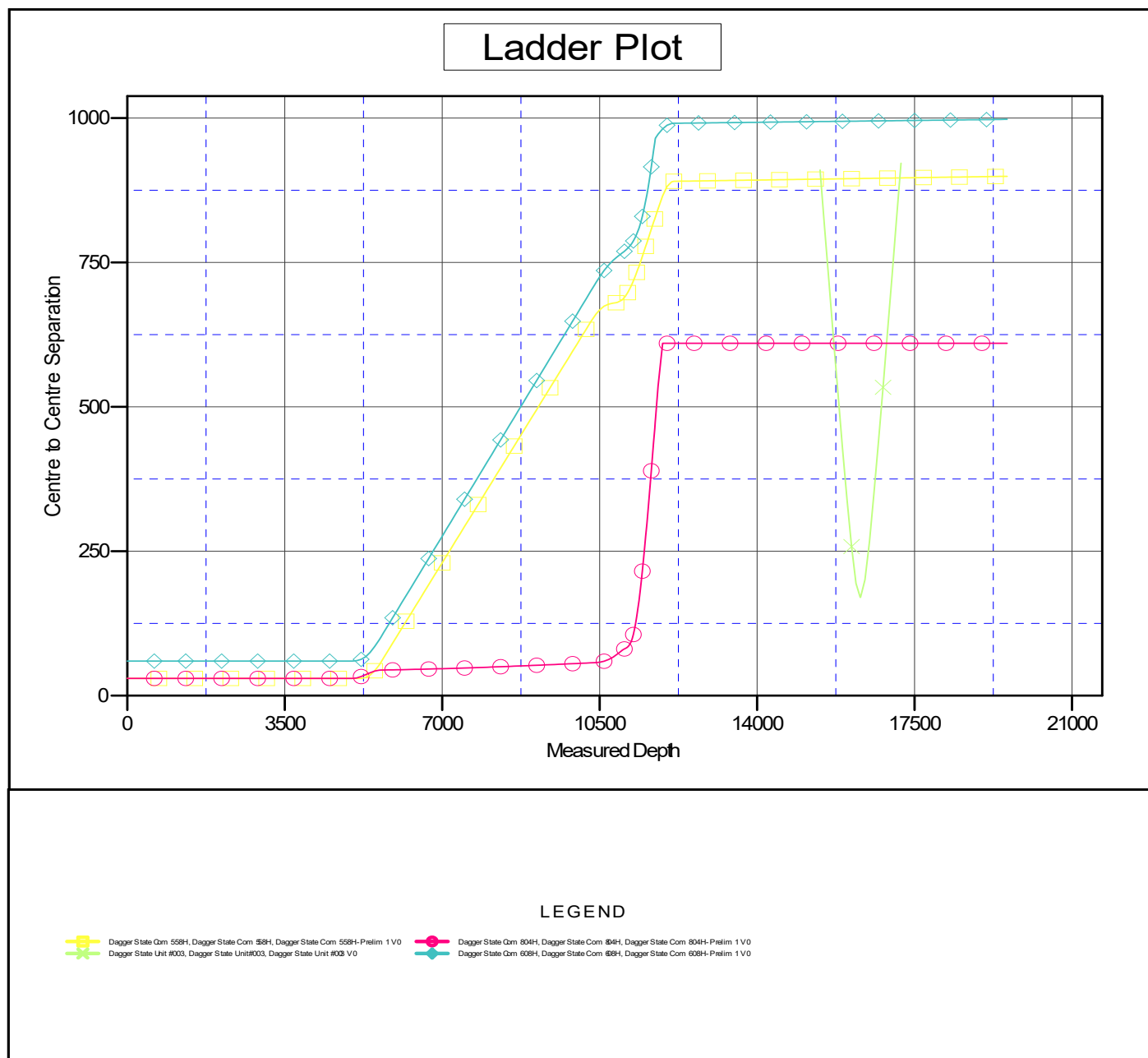
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 556H

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

Grid Convergence at Surface is: 0.38°



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



Anticollision Report

Company: Advance Energy Partners
Project: Hat Mesa
Reference Site: Dagger State
Site Error: 0.0 usft
Reference Well: Dagger State Com 556H
Well Error: 0.0 usft
Reference Wellbore: Dagger State Com 556H
Reference Design: Dagger State Com 556H - Prelim 1

Local Co-ordinate Reference: Well Dagger State Com 556H
TVD Reference: WELL @ 3848.5usft (Original Well Elev)
MD Reference: WELL @ 3848.5usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.79 sigma
Database: EDM 5000.16 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 3848.5usft (Original Well Ele

Offset Depths are relative to Offset Datum

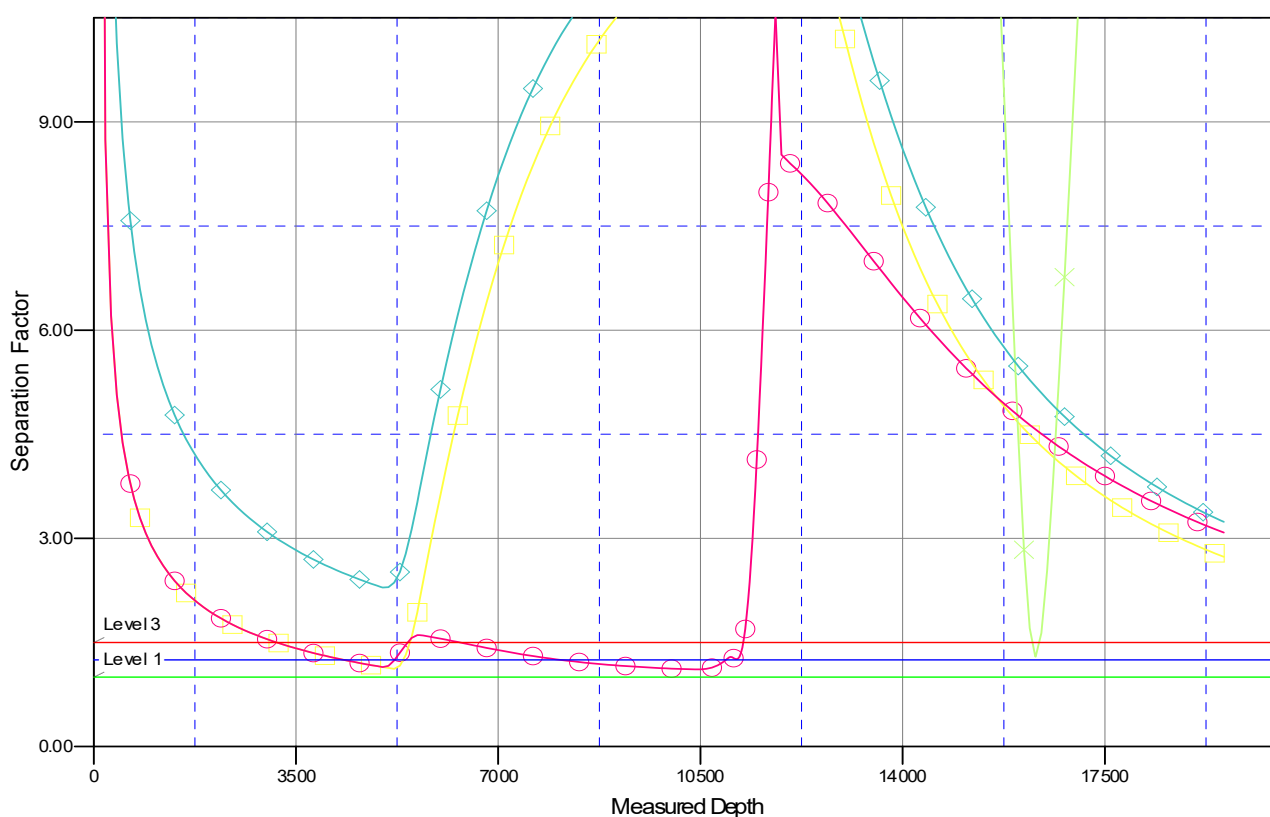
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 556H

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

Grid Convergence at Surface is: 0.38°

Separation Factor Plot



LEGEND

Dagger State Com 556H, Dagger State Com 556H, Dagger State Com 556H - Prelim 1 V0
 Dagger State Unit #003, Dagger State Unit #003, Dagger State Unit #003 V0

Dagger State Com 804H, Dagger State Com 804H, Dagger State Com 804H - Prelim 1 V0
 Dagger State Com 608H, Dagger State Com 608H, Dagger State Com 608H - Prelim 1 V0



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 556H

Dagger State Com 556H

Dagger State Com 556H - Prelim 1

Anticollision Report

14 May, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Dagger State Com 556H - Prelim 1		
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 5/14/2021			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	19,558.7	Dagger State Com 556H - Prelim 1 (Dagge	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						
Dagger State						
Dagger State Com 558H - Dagger State Com 558H - Da	5,200.0	5,199.0	29.9	3.2	1.119	Level 3, CC, ES, SF
Dagger State Com 608H - Dagger State Com 608H - Da	5,000.0	5,000.0	59.8	33.7	2.291	CC, ES, SF
Dagger State Com 804H - Dagger State Com 804H - Da	5,000.0	5,000.0	29.9	3.8	1.145	Level 3, CC, ES
Dagger State Com 804H - Dagger State Com 804H - Da	10,426.4	10,423.7	57.3	5.7	1.111	Level 3, SF
Dagger State Unit #003 - Dagger State Unit #003 - Dagg	16,294.0	11,410.5	170.2	-6,934.6	0.024	Level 3, CC, SF
Dagger State Unit #003 - Dagger State Unit #003 - Dagg	16,300.0	11,410.5	170.3	-6,934.9	0.024	Level 3, ES

Offset Design:	Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1											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		Rule Assigned:		Distance		Separation	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)	Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.38	-0.2	-29.9	29.9				
100.0	100.0	99.0	99.0	0.5	0.5	-90.38	-0.2	-29.9	29.9	28.9	1.06	28.363	
200.0	200.0	199.0	199.0	1.7	1.7	-90.38	-0.2	-29.9	29.9	26.5	3.41	8.771	
300.0	300.0	299.0	299.0	2.4	2.4	-90.38	-0.2	-29.9	29.9	25.1	4.82	6.213	
400.0	400.0	399.0	399.0	3.0	2.9	-90.38	-0.2	-29.9	29.9	24.0	5.90	5.069	
500.0	500.0	499.0	499.0	3.4	3.4	-90.38	-0.2	-29.9	29.9	23.1	6.83	4.384	
600.0	600.0	599.0	599.0	3.8	3.8	-90.38	-0.2	-29.9	29.9	22.3	7.64	3.914	
700.0	700.0	699.0	699.0	4.2	4.2	-90.38	-0.2	-29.9	29.9	21.5	8.39	3.566	
800.0	800.0	799.0	799.0	4.5	4.5	-90.38	-0.2	-29.9	29.9	20.8	9.08	3.295	
900.0	900.0	899.0	899.0	4.9	4.9	-90.38	-0.2	-29.9	29.9	20.2	9.73	3.076	
1,000.0	1,000.0	999.0	999.0	5.2	5.2	-90.38	-0.2	-29.9	29.9	19.6	10.34	2.894	
1,100.0	1,100.0	1,099.0	1,099.0	5.5	5.5	-90.38	-0.2	-29.9	29.9	19.0	10.92	2.740	
1,200.0	1,200.0	1,199.0	1,199.0	5.7	5.7	-90.38	-0.2	-29.9	29.9	18.4	11.48	2.607	
1,300.0	1,300.0	1,299.0	1,299.0	6.0	6.0	-90.38	-0.2	-29.9	29.9	17.9	12.01	2.491	
1,400.0	1,400.0	1,399.0	1,399.0	6.3	6.3	-90.38	-0.2	-29.9	29.9	17.4	12.53	2.388	
1,500.0	1,500.0	1,499.0	1,499.0	6.5	6.5	-90.38	-0.2	-29.9	29.9	16.9	13.03	2.297	
1,600.0	1,600.0	1,599.0	1,599.0	6.8	6.8	-90.38	-0.2	-29.9	29.9	16.4	13.51	2.214	
1,700.0	1,700.0	1,699.0	1,699.0	7.0	7.0	-90.38	-0.2	-29.9	29.9	15.9	13.99	2.139	
1,800.0	1,800.0	1,799.0	1,799.0	7.2	7.2	-90.38	-0.2	-29.9	29.9	15.5	14.45	2.071	
1,900.0	1,900.0	1,899.0	1,899.0	7.4	7.4	-90.38	-0.2	-29.9	29.9	15.0	14.90	2.009	
2,000.0	2,000.0	1,999.0	1,999.0	7.7	7.7	-90.38	-0.2	-29.9	29.9	14.6	15.34	1.951	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1													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		
2,100.0	2,100.0	2,099.0	2,099.0	7.9	7.9	-90.38	-0.2	-29.9	29.9	14.2	15.77	1.898		
2,200.0	2,200.0	2,199.0	2,199.0	8.1	8.1	-90.38	-0.2	-29.9	29.9	13.7	16.19	1.848		
2,300.0	2,300.0	2,299.0	2,299.0	8.3	8.3	-90.38	-0.2	-29.9	29.9	13.3	16.61	1.802		
2,400.0	2,400.0	2,399.0	2,399.0	8.5	8.5	-90.38	-0.2	-29.9	29.9	12.9	17.01	1.759		
2,500.0	2,500.0	2,499.0	2,499.0	8.7	8.7	-90.38	-0.2	-29.9	29.9	12.5	17.42	1.718		
2,600.0	2,600.0	2,599.0	2,599.0	8.9	8.9	-90.38	-0.2	-29.9	29.9	12.1	17.81	1.680		
2,700.0	2,700.0	2,699.0	2,699.0	9.1	9.1	-90.38	-0.2	-29.9	29.9	11.7	18.20	1.644		
2,800.0	2,800.0	2,799.0	2,799.0	9.3	9.3	-90.38	-0.2	-29.9	29.9	11.3	18.58	1.610		
2,900.0	2,900.0	2,899.0	2,899.0	9.5	9.5	-90.38	-0.2	-29.9	29.9	11.0	18.96	1.578		
3,000.0	3,000.0	2,999.0	2,999.0	9.7	9.7	-90.38	-0.2	-29.9	29.9	10.6	19.34	1.547		
3,100.0	3,100.0	3,099.0	3,099.0	9.9	9.9	-90.38	-0.2	-29.9	29.9	10.2	19.71	1.518		
3,200.0	3,200.0	3,199.0	3,199.0	10.0	10.0	-90.38	-0.2	-29.9	29.9	9.9	20.07	1.491 Level 3		
3,300.0	3,300.0	3,299.0	3,299.0	10.2	10.2	-90.38	-0.2	-29.9	29.9	9.5	20.43	1.464 Level 3		
3,400.0	3,400.0	3,399.0	3,399.0	10.4	10.4	-90.38	-0.2	-29.9	29.9	9.1	20.79	1.439 Level 3		
3,500.0	3,500.0	3,499.0	3,499.0	10.6	10.6	-90.38	-0.2	-29.9	29.9	8.8	21.15	1.415 Level 3		
3,600.0	3,600.0	3,599.0	3,599.0	10.7	10.7	-90.38	-0.2	-29.9	29.9	8.4	21.50	1.392 Level 3		
3,700.0	3,700.0	3,699.0	3,699.0	10.9	10.9	-90.38	-0.2	-29.9	29.9	8.1	21.84	1.370 Level 3		
3,800.0	3,800.0	3,799.0	3,799.0	11.1	11.1	-90.38	-0.2	-29.9	29.9	7.7	22.19	1.349 Level 3		
3,900.0	3,900.0	3,899.0	3,899.0	11.3	11.3	-90.38	-0.2	-29.9	29.9	7.4	22.53	1.328 Level 3		
4,000.0	4,000.0	3,999.0	3,999.0	11.4	11.4	-90.38	-0.2	-29.9	29.9	7.1	22.87	1.308 Level 3		
4,100.0	4,100.0	4,099.0	4,099.0	11.6	11.6	-90.38	-0.2	-29.9	29.9	6.7	23.21	1.290 Level 3		
4,200.0	4,200.0	4,199.0	4,199.0	11.8	11.8	-90.38	-0.2	-29.9	29.9	6.4	23.54	1.271 Level 3		
4,300.0	4,300.0	4,299.0	4,299.0	11.9	11.9	-90.38	-0.2	-29.9	29.9	6.1	23.87	1.254 Level 3		
4,400.0	4,400.0	4,399.0	4,399.0	12.1	12.1	-90.38	-0.2	-29.9	29.9	5.7	24.20	1.237 Level 3		
4,500.0	4,500.0	4,499.0	4,499.0	12.3	12.3	-90.38	-0.2	-29.9	29.9	5.4	24.52	1.220 Level 3		
4,600.0	4,600.0	4,599.0	4,599.0	12.4	12.4	-90.38	-0.2	-29.9	29.9	5.1	24.85	1.204 Level 3		
4,700.0	4,700.0	4,699.0	4,699.0	12.6	12.6	-90.38	-0.2	-29.9	29.9	4.8	25.17	1.189 Level 3		
4,800.0	4,800.0	4,799.0	4,799.0	12.7	12.7	-90.38	-0.2	-29.9	29.9	4.4	25.49	1.174 Level 3		
4,900.0	4,900.0	4,899.0	4,899.0	12.9	12.9	-90.38	-0.2	-29.9	29.9	4.1	25.81	1.159 Level 3		
5,000.0	5,000.0	4,999.0	4,999.0	13.1	13.1	-90.38	-0.2	-29.9	29.9	3.8	26.12	1.145 Level 3		
5,100.0	5,100.0	5,099.0	5,099.0	13.2	13.2	-90.38	-0.2	-29.9	29.9	3.5	26.44	1.132 Level 3		
5,200.0	5,200.0	5,199.0	5,199.0	13.4	13.4	-90.38	-0.2	-29.9	29.9	3.2	26.75	1.119 Level 3, CC, ES, SF		
5,300.0	5,300.0	5,298.6	5,298.5	13.5	13.5	147.89	-0.7	-30.6	31.4	4.4	26.94	1.164 Level 3		
5,400.0	5,400.0	5,398.0	5,397.9	13.6	13.6	147.80	-2.1	-32.8	35.7	8.6	27.11	1.318 Level 3		
5,500.0	5,499.9	5,497.1	5,497.0	13.7	13.7	147.67	-4.5	-36.3	43.0	15.7	27.30	1.576		
5,600.0	5,599.7	5,595.9	5,595.6	13.8	13.8	147.53	-7.9	-41.2	53.2	25.7	27.51	1.934		
5,638.5	5,638.1	5,633.9	5,633.5	13.8	13.8	147.49	-9.4	-43.5	57.9	30.3	27.55	2.101		
5,700.0	5,699.4	5,694.9	5,694.3	13.9	13.9	147.49	-12.0	-47.3	65.7	38.0	27.65	2.375		
5,800.0	5,799.1	5,794.1	5,793.2	14.0	14.0	147.50	-16.1	-53.4	78.3	50.4	27.91	2.805		
5,900.0	5,898.8	5,893.3	5,892.2	14.2	14.2	147.51	-20.2	-59.5	90.9	62.7	28.22	3.223		
6,000.0	5,998.5	5,992.5	5,991.1	14.4	14.4	147.51	-24.4	-65.6	103.6	75.0	28.54	3.629		
6,100.0	6,098.2	6,091.7	6,090.0	14.6	14.6	147.51	-28.5	-71.7	116.2	87.3	28.89	4.022		
6,200.0	6,197.9	6,190.9	6,188.9	14.9	14.8	147.52	-32.6	-77.8	128.8	99.6	29.27	4.402		
6,300.0	6,297.6	6,290.1	6,287.9	15.1	15.1	147.52	-36.8	-83.9	141.5	111.8	29.67	4.769		
6,400.0	6,397.3	6,389.3	6,386.8	15.4	15.3	147.52	-40.9	-90.0	154.1	124.0	30.09	5.122		
6,500.0	6,497.1	6,488.5	6,485.7	15.6	15.6	147.52	-45.0	-96.1	166.7	136.2	30.53	5.462		
6,600.0	6,596.8	6,587.7	6,584.6	15.9	15.9	147.52	-49.2	-102.2	179.4	148.4	30.99	5.789		
6,700.0	6,696.5	6,686.9	6,683.6	16.2	16.1	147.53	-53.3	-108.3	192.0	160.5	31.47	6.102		
6,800.0	6,796.2	6,786.1	6,782.5	16.5	16.4	147.53	-57.4	-114.4	204.6	172.7	31.97	6.402		
6,900.0	6,895.9	6,885.3	6,881.4	16.8	16.8	147.53	-61.6	-120.5	217.3	184.8	32.48	6.689		
7,000.0	6,995.6	6,984.5	6,980.3	17.2	17.1	147.53	-65.7	-126.6	229.9	196.9	33.01	6.964		
7,100.0	7,095.3	7,083.7	7,079.3	17.5	17.4	147.53	-69.8	-132.7	242.6	209.0	33.56	7.227		

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1													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		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)			
7,200.0	7,195.0	7,182.9	7,178.2	17.9	17.7	147.53	-74.0	-138.8	255.2	221.1	34.12	7.478	
7,300.0	7,294.7	7,282.1	7,277.1	18.2	18.1	147.53	-78.1	-144.9	267.8	233.1	34.70	7.718	
7,400.0	7,394.4	7,381.3	7,376.0	18.6	18.4	147.53	-82.3	-151.0	280.5	245.2	35.29	7.947	
7,500.0	7,494.1	7,480.5	7,475.0	18.9	18.8	147.53	-86.4	-157.2	293.1	257.2	35.90	8.165	
7,600.0	7,593.8	7,579.7	7,573.9	19.3	19.2	147.53	-90.5	-163.3	305.7	269.2	36.51	8.373	
7,700.0	7,693.5	7,678.9	7,672.8	19.7	19.6	147.53	-94.7	-169.4	318.4	281.2	37.14	8.572	
7,800.0	7,793.2	7,778.1	7,771.7	20.1	19.9	147.53	-98.8	-175.5	331.0	293.2	37.78	8.761	
7,900.0	7,893.0	7,877.3	7,870.7	20.5	20.3	147.53	-102.9	-181.6	343.6	305.2	38.43	8.942	
8,000.0	7,992.7	7,976.5	7,969.6	20.9	20.7	147.53	-107.1	-187.7	356.3	317.2	39.09	9.114	
8,100.0	8,092.4	8,075.7	8,068.5	21.3	21.1	147.53	-111.2	-193.8	368.9	329.1	39.76	9.279	
8,200.0	8,192.1	8,174.9	8,167.4	21.7	21.5	147.53	-115.3	-199.9	381.5	341.1	40.44	9.435	
8,300.0	8,291.8	8,274.1	8,266.3	22.1	21.9	147.53	-119.5	-206.0	394.2	353.0	41.12	9.585	
8,400.0	8,391.5	8,373.3	8,365.3	22.6	22.4	147.53	-123.6	-212.1	406.8	365.0	41.82	9.728	
8,500.0	8,491.2	8,472.5	8,464.2	23.0	22.8	147.54	-127.7	-218.2	419.4	376.9	42.52	9.864	
8,600.0	8,590.9	8,571.7	8,563.1	23.4	23.2	147.54	-131.9	-224.3	432.1	388.8	43.23	9.994	
8,700.0	8,690.6	8,670.9	8,662.0	23.9	23.6	147.54	-136.0	-230.4	444.7	400.8	43.95	10.118	
8,800.0	8,790.3	8,770.1	8,761.0	24.3	24.1	147.54	-140.1	-236.5	457.3	412.7	44.67	10.237	
8,900.0	8,890.0	8,869.3	8,859.9	24.7	24.5	147.54	-144.3	-242.6	470.0	424.6	45.40	10.351	
9,000.0	8,989.7	8,968.5	8,958.8	25.2	24.9	147.54	-148.4	-248.7	482.6	436.5	46.14	10.459	
9,100.0	9,089.4	9,067.7	9,057.7	25.6	25.4	147.54	-152.6	-254.8	495.2	448.4	46.88	10.563	
9,200.0	9,189.1	9,166.9	9,156.7	26.1	25.8	147.54	-156.7	-260.9	507.9	460.2	47.63	10.662	
9,300.0	9,288.9	9,266.1	9,255.6	26.5	26.2	147.54	-160.8	-267.0	520.5	472.1	48.39	10.757	
9,400.0	9,388.6	9,365.3	9,354.5	27.0	26.7	147.54	-165.0	-273.1	533.1	484.0	49.15	10.848	
9,500.0	9,488.3	9,464.5	9,453.4	27.4	27.1	147.54	-169.1	-279.2	545.8	495.9	49.91	10.936	
9,600.0	9,588.0	9,563.6	9,552.4	27.9	27.6	147.54	-173.2	-285.3	558.4	507.7	50.68	11.019	
9,700.0	9,687.7	9,662.8	9,651.3	28.4	28.1	147.54	-177.4	-291.5	571.1	519.6	51.45	11.099	
9,800.0	9,787.4	9,762.0	9,750.2	28.8	28.5	147.54	-181.5	-297.6	583.7	531.5	52.23	11.176	
9,900.0	9,887.1	9,861.2	9,849.1	29.3	29.0	147.54	-185.6	-303.7	596.3	543.3	53.01	11.250	
10,000.0	9,986.8	9,960.4	9,948.1	29.8	29.4	147.54	-189.8	-309.8	609.0	555.2	53.79	11.321	
10,100.0	10,086.5	10,059.6	10,047.0	30.2	29.9	147.54	-193.9	-315.9	621.6	567.0	54.58	11.389	
10,200.0	10,186.2	10,158.8	10,145.9	30.7	30.4	147.54	-198.0	-322.0	634.2	578.9	55.37	11.454	
10,300.0	10,285.9	10,260.2	10,247.0	31.2	30.8	147.54	-202.2	-328.2	646.8	590.7	56.16	11.518	
10,400.0	10,385.6	10,370.0	10,356.5	31.7	31.3	147.61	-206.0	-333.7	658.3	601.4	56.96	11.557	
10,426.4	10,411.9	10,398.9	10,385.5	31.8	31.4	147.65	-206.8	-334.9	661.1	603.9	57.17	11.565	
10,500.0	10,485.4	10,480.1	10,466.6	32.1	31.8	147.79	-208.6	-337.5	667.9	610.1	57.72	11.570	
10,600.0	10,585.2	10,590.6	10,577.1	32.6	32.2	147.99	-209.9	-339.5	674.4	615.9	58.43	11.541	
10,700.0	10,685.2	10,697.7	10,684.2	33.0	32.3	148.17	-210.2	-339.9	677.9	619.0	58.90	11.509	
10,800.0	10,785.1	10,797.7	10,784.1	33.3	32.3	148.26	-210.2	-339.9	679.6	620.4	59.25	11.469	
10,864.9	10,850.0	10,850.0	10,836.4	33.4	32.3	-89.81	-207.7	-340.3	680.4	621.0	59.37	11.460	
10,900.0	10,885.1	10,880.4	10,866.5	33.4	32.2	-89.47	-203.7	-340.9	681.1	621.7	59.40	11.467	
10,987.4	10,972.5	10,950.0	10,934.1	33.5	32.1	-88.11	-187.4	-343.3	684.7	625.2	59.48	11.510	
11,000.0	10,985.1	10,958.1	10,941.7	33.5	32.1	-95.53	-184.9	-343.6	685.4	625.9	59.49	11.521	
11,025.0	11,010.1	10,975.0	10,957.6	33.4	32.1	-94.91	-179.2	-344.5	687.2	627.7	59.52	11.546	
11,050.0	11,034.9	10,995.2	10,976.3	33.4	32.0	-94.19	-171.7	-345.6	689.4	629.9	59.54	11.578	
11,075.0	11,059.6	11,013.5	10,993.0	33.4	32.0	-93.50	-164.2	-346.7	691.9	632.4	59.57	11.616	
11,100.0	11,084.1	11,031.7	11,009.3	33.3	31.9	-92.79	-156.2	-347.9	694.8	635.2	59.59	11.659	
11,125.0	11,108.2	11,050.0	11,025.3	33.3	31.9	-92.06	-147.4	-349.2	698.0	638.3	59.62	11.707	
11,150.0	11,132.0	11,067.6	11,040.5	33.2	31.9	-91.34	-138.5	-350.5	701.4	641.8	59.65	11.760	
11,175.0	11,155.3	11,085.4	11,055.4	33.2	31.8	-90.60	-128.9	-351.9	705.2	645.5	59.67	11.818	
11,200.0	11,178.2	11,100.0	11,067.3	33.1	31.8	-89.90	-120.6	-353.1	709.3	649.6	59.71	11.879	
11,225.0	11,200.4	11,120.6	11,083.8	33.1	31.8	-89.11	-108.3	-354.9	713.5	653.8	59.74	11.945	
11,250.0	11,222.1	11,138.1	11,097.3	33.0	31.7	-88.37	-97.3	-356.5	718.1	658.3	59.77	12.013	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1												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		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)			
11,275.0	11,243.1	11,155.5	11,110.3	33.0	31.7	-87.62	-86.0	-358.2	722.8	663.0	59.81	12.085	
11,300.0	11,263.3	11,175.0	11,124.4	32.9	31.7	-86.86	-72.6	-360.2	727.7	667.9	59.85	12.160	
11,325.0	11,282.7	11,189.9	11,134.8	32.9	31.7	-86.14	-62.0	-361.7	732.8	672.9	59.90	12.235	
11,350.0	11,301.3	11,207.0	11,146.3	32.9	31.7	-85.41	-49.5	-363.6	738.1	678.1	59.94	12.313	
11,375.0	11,318.9	11,225.0	11,157.9	32.8	31.7	-84.69	-35.9	-365.6	743.5	683.5	59.99	12.393	
11,400.0	11,335.7	11,241.0	11,167.8	32.8	31.7	-83.99	-23.5	-367.4	749.0	689.0	60.05	12.474	
11,425.0	11,351.4	11,257.9	11,177.8	32.8	31.6	-83.29	-10.0	-369.4	754.7	694.6	60.10	12.556	
11,450.0	11,366.1	11,275.0	11,187.4	32.8	31.6	-82.61	4.0	-371.5	760.4	700.2	60.16	12.639	
11,475.0	11,379.7	11,291.6	11,196.2	32.8	31.7	-81.94	17.9	-373.5	766.2	706.0	60.22	12.722	
11,500.0	11,392.2	11,308.3	11,204.6	32.8	31.7	-81.30	32.2	-375.6	772.1	711.8	60.29	12.806	
11,525.0	11,403.5	11,325.0	11,212.5	32.8	31.7	-80.67	46.8	-377.8	778.0	717.6	60.36	12.890	
11,550.0	11,413.7	11,341.8	11,219.9	32.9	31.7	-80.06	61.7	-380.0	783.9	723.5	60.43	12.973	
11,575.0	11,422.6	11,358.5	11,226.7	32.9	31.7	-79.48	76.8	-382.2	789.9	729.4	60.50	13.056	
11,600.0	11,430.4	11,375.0	11,232.9	33.0	31.7	-78.91	91.9	-384.4	795.8	735.3	60.58	13.138	
11,625.0	11,436.8	11,391.9	11,238.7	33.0	31.8	-78.37	107.6	-386.7	801.8	741.1	60.66	13.218	
11,650.0	11,442.0	11,408.5	11,243.9	33.1	31.8	-77.86	123.2	-389.0	807.7	747.0	60.74	13.298	
11,675.0	11,445.9	11,425.0	11,248.5	33.2	31.9	-77.37	138.9	-391.3	813.7	752.8	60.83	13.376	
11,700.0	11,448.5	11,442.0	11,252.6	33.3	31.9	-76.91	155.2	-393.7	819.5	758.6	60.92	13.452	
11,725.0	11,449.8	11,458.8	11,256.1	33.4	32.0	-76.47	171.4	-396.1	825.3	764.3	61.02	13.526	
11,737.4	11,450.0	11,467.1	11,257.6	33.4	32.0	-76.26	179.5	-397.3	828.2	767.1	61.07	13.562	
11,744.0	11,450.0	11,475.0	11,259.0	33.4	32.0	-76.39	187.2	-398.4	829.7	768.6	61.12	13.575	
11,800.0	11,450.0	11,509.8	11,263.2	33.7	32.1	-76.90	221.4	-403.5	842.8	781.4	61.37	13.733	
11,900.0	11,450.0	11,606.2	11,265.0	34.4	32.6	-77.46	316.8	-417.0	865.5	803.1	62.39	13.872	
12,000.0	11,450.0	11,746.7	11,265.0	35.1	33.6	-77.86	456.5	-431.6	881.7	817.3	64.33	13.706	
12,100.0	11,450.0	11,889.6	11,265.0	36.0	34.9	-78.06	599.2	-439.3	889.7	823.1	66.55	13.368	
12,148.8	11,450.0	11,959.7	11,265.0	36.3	35.5	-78.08	669.3	-440.5	890.6	823.0	67.58	13.179	
12,149.5	11,450.0	11,960.7	11,265.0	36.3	35.5	-78.08	670.3	-440.5	890.6	823.0	67.59	13.176	
12,200.0	11,450.0	12,008.1	11,265.0	36.7	35.9	-78.08	717.7	-440.8	890.6	822.2	68.44	13.014	
12,300.0	11,450.0	12,108.1	11,265.0	37.6	36.8	-78.08	817.7	-441.6	890.8	820.5	70.30	12.670	
12,400.0	11,450.0	12,208.1	11,265.0	38.6	37.8	-78.08	917.7	-442.4	890.9	818.5	72.35	12.314	
12,500.0	11,450.0	12,308.1	11,265.0	39.6	38.8	-78.08	1,017.7	-443.2	891.0	816.4	74.55	11.952	
12,600.0	11,450.0	12,408.1	11,265.0	40.7	40.0	-78.08	1,117.7	-444.0	891.1	814.2	76.89	11.589	
12,700.0	11,450.0	12,508.1	11,265.0	41.8	41.2	-78.09	1,217.7	-444.7	891.2	811.9	79.36	11.230	
12,800.0	11,450.0	12,608.1	11,265.0	43.0	42.4	-78.09	1,317.7	-445.5	891.3	809.4	81.95	10.876	
12,900.0	11,450.0	12,708.1	11,265.0	44.3	43.7	-78.09	1,417.7	-446.3	891.5	806.8	84.65	10.531	
13,000.0	11,450.0	12,808.1	11,265.0	45.6	45.1	-78.09	1,517.7	-447.1	891.6	804.1	87.44	10.196	
13,100.0	11,450.0	12,908.1	11,265.0	47.0	46.5	-78.09	1,617.7	-447.9	891.7	801.4	90.33	9.872	
13,200.0	11,450.0	13,008.1	11,265.0	48.4	48.0	-78.09	1,717.7	-448.7	891.8	798.5	93.29	9.560	
13,300.0	11,450.0	13,108.1	11,265.0	49.9	49.5	-78.09	1,817.7	-449.4	891.9	795.6	96.33	9.259	
13,400.0	11,450.0	13,208.1	11,265.0	51.4	51.0	-78.10	1,917.7	-450.2	892.0	792.6	99.43	8.972	
13,500.0	11,450.0	13,308.1	11,265.0	52.9	52.6	-78.10	2,017.7	-451.0	892.2	789.6	102.59	8.696	
13,600.0	11,450.0	13,408.1	11,265.0	54.5	54.2	-78.10	2,117.7	-451.8	892.3	786.5	105.81	8.433	
13,700.0	11,450.0	13,508.1	11,265.0	56.1	55.9	-78.10	2,217.7	-452.6	892.4	783.3	109.08	8.181	
13,800.0	11,450.0	13,608.1	11,265.0	57.7	57.5	-78.10	2,317.7	-453.3	892.5	780.1	112.39	7.941	
13,900.0	11,450.0	13,708.1	11,265.0	59.4	59.2	-78.10	2,417.7	-454.1	892.6	776.9	115.74	7.712	
14,000.0	11,450.0	13,808.1	11,265.0	61.1	60.9	-78.11	2,517.6	-454.9	892.7	773.6	119.14	7.493	
14,100.0	11,450.0	13,908.1	11,265.0	62.8	62.6	-78.11	2,617.6	-455.7	892.9	770.3	122.56	7.285	
14,200.0	11,450.0	14,008.1	11,265.0	64.5	64.4	-78.11	2,717.6	-456.5	893.0	766.9	126.02	7.086	
14,300.0	11,450.0	14,108.1	11,265.0	66.2	66.1	-78.11	2,817.6	-457.2	893.1	763.6	129.51	6.896	
14,400.0	11,450.0	14,208.1	11,265.0	68.0	67.9	-78.11	2,917.6	-458.0	893.2	760.2	133.03	6.714	
14,500.0	11,450.0	14,308.1	11,265.0	69.7	69.7	-78.11	3,017.6	-458.8	893.3	756.8	136.57	6.541	
14,600.0	11,450.0	14,408.1	11,265.0	71.5	71.5	-78.12	3,117.6	-459.6	893.4	753.3	140.13	6.376	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1											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
14,700.0	11,450.0	14,508.1	11,265.0	73.3	73.3	-78.12	3,217.6	-460.4	893.6	749.8	143.72	6.217
14,800.0	11,450.0	14,608.1	11,265.0	75.1	75.1	-78.12	3,317.6	-461.1	893.7	746.3	147.33	6.066
14,900.0	11,450.0	14,708.1	11,265.0	76.9	77.0	-78.12	3,417.6	-461.9	893.8	742.8	150.95	5.921
15,000.0	11,450.0	14,808.1	11,265.0	78.7	78.8	-78.12	3,517.6	-462.7	893.9	739.3	154.59	5.782
15,100.0	11,450.0	14,908.1	11,265.0	80.6	80.7	-78.12	3,617.6	-463.5	894.0	735.8	158.25	5.649
15,200.0	11,450.0	15,008.1	11,265.0	82.4	82.5	-78.12	3,717.6	-464.3	894.1	732.2	161.92	5.522
15,300.0	11,450.0	15,108.1	11,265.0	84.3	84.4	-78.13	3,817.6	-465.0	894.3	728.6	165.61	5.400
15,400.0	11,450.0	15,208.1	11,265.0	86.1	86.3	-78.13	3,917.6	-465.8	894.4	725.1	169.31	5.283
15,500.0	11,450.0	15,308.1	11,265.0	88.0	88.1	-78.13	4,017.6	-466.6	894.5	721.5	173.02	5.170
15,600.0	11,450.0	15,408.1	11,265.0	89.9	90.0	-78.13	4,117.6	-467.4	894.6	717.9	176.74	5.062
15,700.0	11,450.0	15,508.1	11,265.0	91.7	91.9	-78.13	4,217.6	-468.2	894.7	714.2	180.48	4.958
15,800.0	11,450.0	15,608.1	11,265.0	93.6	93.8	-78.13	4,317.6	-468.9	894.8	710.6	184.22	4.857
15,900.0	11,450.0	15,708.1	11,265.0	95.5	95.7	-78.14	4,417.6	-469.7	895.0	707.0	187.97	4.761
16,000.0	11,450.0	15,808.1	11,265.0	97.4	97.6	-78.14	4,517.6	-470.5	895.1	703.3	191.73	4.668
16,100.0	11,450.0	15,908.1	11,265.0	99.3	99.5	-78.14	4,617.6	-471.3	895.2	699.7	195.50	4.579
16,200.0	11,450.0	16,008.1	11,265.0	101.2	101.5	-78.14	4,717.6	-472.1	895.3	696.0	199.28	4.493
16,300.0	11,450.0	16,108.1	11,265.0	103.1	103.4	-78.14	4,817.6	-472.9	895.4	692.4	203.07	4.409
16,400.0	11,450.0	16,208.1	11,265.0	105.0	105.3	-78.14	4,917.6	-473.6	895.5	688.7	206.86	4.329
16,500.0	11,450.0	16,308.1	11,265.0	107.0	107.2	-78.14	5,017.6	-474.4	895.7	685.0	210.66	4.252
16,600.0	11,450.0	16,408.1	11,265.0	108.9	109.2	-78.15	5,117.6	-475.2	895.8	681.3	214.47	4.177
16,700.0	11,450.0	16,508.1	11,265.0	110.8	111.1	-78.15	5,217.6	-476.0	895.9	677.6	218.28	4.104
16,800.0	11,450.0	16,608.1	11,265.0	112.7	113.0	-78.15	5,317.6	-476.8	896.0	673.9	222.09	4.034
16,900.0	11,450.0	16,708.1	11,265.0	114.7	115.0	-78.15	5,417.6	-477.5	896.1	670.2	225.92	3.967
17,000.0	11,450.0	16,808.1	11,265.0	116.6	116.9	-78.15	5,517.6	-478.3	896.2	666.5	229.74	3.901
17,100.0	11,450.0	16,908.1	11,265.0	118.5	118.9	-78.15	5,617.6	-479.1	896.4	662.8	233.58	3.838
17,200.0	11,450.0	17,008.1	11,265.0	120.5	120.8	-78.16	5,717.5	-479.9	896.5	659.1	237.41	3.776
17,300.0	11,450.0	17,108.1	11,265.0	122.4	122.8	-78.16	5,817.5	-480.7	896.6	655.3	241.26	3.716
17,400.0	11,450.0	17,208.1	11,265.0	124.4	124.7	-78.16	5,917.5	-481.4	896.7	651.6	245.10	3.659
17,500.0	11,450.0	17,308.1	11,265.0	126.3	126.7	-78.16	6,017.5	-482.2	896.8	647.9	248.95	3.602
17,600.0	11,450.0	17,408.1	11,265.0	128.3	128.6	-78.16	6,117.5	-483.0	896.9	644.1	252.80	3.548
17,700.0	11,450.0	17,508.1	11,265.0	130.2	130.6	-78.16	6,217.5	-483.8	897.1	640.4	256.66	3.495
17,800.0	11,450.0	17,608.1	11,265.0	132.2	132.5	-78.17	6,317.5	-484.6	897.2	636.7	260.52	3.444
17,900.0	11,450.0	17,708.1	11,265.0	134.1	134.5	-78.17	6,417.5	-485.3	897.3	632.9	264.39	3.394
18,000.0	11,450.0	17,808.1	11,265.0	136.1	136.5	-78.17	6,517.5	-486.1	897.4	629.2	268.25	3.345
18,100.0	11,450.0	17,908.1	11,265.0	138.0	138.4	-78.17	6,617.5	-486.9	897.5	625.4	272.13	3.298
18,200.0	11,450.0	18,008.1	11,265.0	140.0	140.4	-78.17	6,717.5	-487.7	897.6	621.6	276.00	3.252
18,300.0	11,450.0	18,108.1	11,265.0	142.0	142.4	-78.17	6,817.5	-488.5	897.8	617.9	279.87	3.208
18,400.0	11,450.0	18,208.1	11,265.0	143.9	144.3	-78.17	6,917.5	-489.2	897.9	614.1	283.75	3.164
18,500.0	11,450.0	18,308.1	11,265.0	145.9	146.3	-78.18	7,017.5	-490.0	898.0	610.4	287.64	3.122
18,600.0	11,450.0	18,408.1	11,265.0	147.9	148.3	-78.18	7,117.5	-490.8	898.1	606.6	291.52	3.081
18,700.0	11,450.0	18,508.1	11,265.0	149.8	150.2	-78.18	7,217.5	-491.6	898.2	602.8	295.41	3.041
18,800.0	11,450.0	18,608.1	11,265.0	151.8	152.2	-78.18	7,317.5	-492.4	898.3	599.0	299.29	3.002
18,900.0	11,450.0	18,708.1	11,265.0	153.8	154.2	-78.18	7,417.5	-493.1	898.5	595.3	303.19	2.963
19,000.0	11,450.0	18,808.1	11,265.0	155.7	156.2	-78.18	7,517.5	-493.9	898.6	591.5	307.08	2.926
19,100.0	11,450.0	18,908.1	11,265.0	157.7	158.1	-78.19	7,617.5	-494.7	898.7	587.7	310.97	2.890
19,200.0	11,450.0	19,008.1	11,265.0	159.7	160.1	-78.19	7,717.5	-495.5	898.8	583.9	314.87	2.855
19,300.0	11,450.0	19,108.1	11,265.0	161.7	162.1	-78.19	7,817.5	-496.3	898.9	580.2	318.77	2.820
19,400.0	11,450.0	19,208.1	11,265.0	163.6	164.1	-78.19	7,917.5	-497.1	899.0	576.4	322.67	2.786
19,500.0	11,450.0	19,308.1	11,265.0	165.6	166.1	-78.19	8,017.5	-497.8	899.2	572.6	326.57	2.753
19,558.7	11,450.0	19,366.3	11,265.0	166.8	167.2	-78.19	8,075.6	-498.3	899.2	570.4	328.85	2.734

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1												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	-90.38	-0.4	-59.8	59.8				
100.0	100.0	100.0	100.0	0.5	0.5	-90.38	-0.4	-59.8	59.8	58.8	1.06	56.442	
200.0	200.0	200.0	200.0	1.7	1.7	-90.38	-0.4	-59.8	59.8	56.4	3.42	17.481	
300.0	300.0	300.0	300.0	2.4	2.4	-90.38	-0.4	-59.8	59.8	55.0	4.82	12.409	
400.0	400.0	400.0	400.0	3.0	3.0	-90.38	-0.4	-59.8	59.8	53.9	5.91	10.130	
500.0	500.0	500.0	500.0	3.4	3.4	-90.38	-0.4	-59.8	59.8	53.0	6.83	8.762	
524.8	524.8	524.8	524.8	3.5	3.5	-90.38	-0.4	-59.8	59.8	52.8	7.03	8.509	
600.0	600.0	600.0	600.0	3.8	3.8	-90.38	-0.4	-59.8	59.8	52.2	7.65	7.824	
633.3	633.3	633.3	633.3	3.9	3.9	-90.38	-0.4	-59.8	59.8	51.9	7.90	7.578	
700.0	700.0	700.0	700.0	4.2	4.2	-90.38	-0.4	-59.8	59.8	51.5	8.39	7.130	
800.0	800.0	800.0	800.0	4.5	4.5	-90.38	-0.4	-59.8	59.8	50.8	9.08	6.588	
900.0	900.0	900.0	900.0	4.9	4.9	-90.38	-0.4	-59.8	59.8	50.1	9.73	6.151	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	-90.38	-0.4	-59.8	59.8	49.5	10.34	5.787	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	-90.38	-0.4	-59.8	59.8	48.9	10.92	5.479	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-90.38	-0.4	-59.8	59.8	48.4	11.48	5.213	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	-90.38	-0.4	-59.8	59.8	47.8	12.01	4.981	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	-90.38	-0.4	-59.8	59.8	47.3	12.53	4.776	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	-90.38	-0.4	-59.8	59.8	46.8	13.03	4.592	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	-90.38	-0.4	-59.8	59.8	46.3	13.52	4.427	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	-90.38	-0.4	-59.8	59.8	45.9	13.99	4.278	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	-90.38	-0.4	-59.8	59.8	45.4	14.45	4.142	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	-90.38	-0.4	-59.8	59.8	44.9	14.90	4.017	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	-90.38	-0.4	-59.8	59.8	44.5	15.34	3.901	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	-90.38	-0.4	-59.8	59.8	44.1	15.77	3.795	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	-90.38	-0.4	-59.8	59.8	43.7	16.19	3.696	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	-90.38	-0.4	-59.8	59.8	43.2	16.61	3.603	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	-90.38	-0.4	-59.8	59.8	42.8	17.02	3.517	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-90.38	-0.4	-59.8	59.8	42.4	17.42	3.436	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	-90.38	-0.4	-59.8	59.8	42.0	17.81	3.360	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	-90.38	-0.4	-59.8	59.8	41.6	18.20	3.288	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	-90.38	-0.4	-59.8	59.8	41.3	18.59	3.220	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	-90.38	-0.4	-59.8	59.8	40.9	18.96	3.156	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	-90.38	-0.4	-59.8	59.8	40.5	19.34	3.095	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	-90.38	-0.4	-59.8	59.8	40.1	19.71	3.036	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	-90.38	-0.4	-59.8	59.8	39.8	20.07	2.981	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	-90.38	-0.4	-59.8	59.8	39.4	20.44	2.928	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	-90.38	-0.4	-59.8	59.8	39.1	20.79	2.878	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	-90.38	-0.4	-59.8	59.8	38.7	21.15	2.830	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	-90.38	-0.4	-59.8	59.8	38.3	21.50	2.784	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	-90.38	-0.4	-59.8	59.8	38.0	21.85	2.739	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	-90.38	-0.4	-59.8	59.8	37.7	22.19	2.697	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	-90.38	-0.4	-59.8	59.8	37.3	22.53	2.656	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	-90.38	-0.4	-59.8	59.8	37.0	22.87	2.617	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	-90.38	-0.4	-59.8	59.8	36.6	23.21	2.579	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-90.38	-0.4	-59.8	59.8	36.3	23.54	2.542	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	-90.38	-0.4	-59.8	59.8	36.0	23.87	2.507	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	-90.38	-0.4	-59.8	59.8	35.6	24.20	2.473	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	-90.38	-0.4	-59.8	59.8	35.3	24.53	2.440	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	-90.38	-0.4	-59.8	59.8	35.0	24.85	2.408	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	-90.38	-0.4	-59.8	59.8	34.7	25.17	2.378	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	-90.38	-0.4	-59.8	59.8	34.4	25.49	2.348	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	-90.38	-0.4	-59.8	59.8	34.0	25.81	2.319	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1													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		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)			
4,966.7	4,966.7	4,966.7	4,966.7	13.0	13.0	-90.38	-0.4	-59.8	59.8	33.8	26.02	2.300	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-90.38	-0.4	-59.8	59.8	33.7	26.12	2.291	CC, ES, SF
5,100.0	5,100.0	5,099.1	5,099.1	13.2	13.2	-90.78	-0.8	-60.6	60.6	34.2	26.38	2.297	
5,200.0	5,200.0	5,198.1	5,198.1	13.4	13.3	-91.92	-2.1	-62.8	62.9	36.3	26.62	2.362	
5,300.0	5,300.0	5,297.0	5,296.9	13.5	13.4	145.06	-4.2	-66.5	67.4	40.6	26.82	2.515	
5,400.0	5,400.0	5,395.6	5,395.3	13.6	13.5	144.10	-7.2	-71.7	75.0	48.0	27.02	2.776	
5,500.0	5,499.9	5,494.8	5,494.2	13.7	13.6	143.65	-10.8	-78.0	85.1	57.9	27.20	3.128	
5,600.0	5,599.7	5,594.1	5,593.3	13.8	13.8	143.87	-14.4	-84.3	96.6	69.2	27.46	3.519	
5,638.5	5,638.1	5,632.3	5,631.4	13.8	13.8	144.09	-15.8	-86.7	101.4	73.9	27.54	3.683	
5,700.0	5,699.4	5,693.3	5,692.2	13.9	13.9	144.51	-18.0	-90.6	109.3	81.6	27.69	3.947	
5,800.0	5,799.1	5,792.5	5,791.1	14.0	14.1	145.07	-21.6	-96.9	122.1	94.1	28.00	4.361	
5,900.0	5,898.8	5,891.7	5,890.0	14.2	14.4	145.53	-25.3	-103.2	134.9	106.6	28.34	4.760	
6,000.0	5,998.5	5,990.8	5,988.9	14.4	14.6	145.91	-28.9	-109.5	147.7	119.0	28.70	5.146	
6,100.0	6,098.2	6,090.0	6,087.8	14.6	14.8	146.23	-32.5	-115.8	160.5	131.4	29.09	5.518	
6,200.0	6,197.9	6,189.2	6,186.7	14.9	15.1	146.50	-36.1	-122.1	173.3	143.8	29.51	5.875	
6,300.0	6,297.6	6,288.3	6,285.6	15.1	15.4	146.73	-39.7	-128.4	186.2	156.2	29.94	6.218	
6,400.0	6,397.3	6,387.5	6,384.5	15.4	15.6	146.93	-43.3	-134.7	199.0	168.6	30.40	6.546	
6,500.0	6,497.1	6,486.7	6,483.4	15.6	15.9	147.11	-47.0	-141.0	211.8	180.9	30.88	6.861	
6,600.0	6,596.8	6,585.9	6,582.3	15.9	16.2	147.27	-50.6	-147.4	224.7	193.3	31.37	7.161	
6,700.0	6,696.5	6,685.0	6,681.2	16.2	16.6	147.41	-54.2	-153.7	237.5	205.6	31.89	7.447	
6,800.0	6,796.2	6,784.2	6,780.2	16.5	16.9	147.54	-57.8	-160.0	250.3	217.9	32.42	7.721	
6,900.0	6,895.9	6,883.4	6,879.1	16.8	17.2	147.65	-61.4	-166.3	263.2	230.2	32.97	7.981	
7,000.0	6,995.6	6,982.5	6,978.0	17.2	17.6	147.76	-65.0	-172.6	276.0	242.5	33.54	8.229	
7,100.0	7,095.3	7,081.7	7,076.9	17.5	17.9	147.85	-68.7	-178.9	288.8	254.7	34.12	8.465	
7,200.0	7,195.0	7,180.9	7,175.8	17.9	18.3	147.94	-72.3	-185.2	301.7	267.0	34.72	8.690	
7,300.0	7,294.7	7,280.1	7,274.7	18.2	18.6	148.02	-75.9	-191.5	314.5	279.2	35.33	8.903	
7,400.0	7,394.4	7,379.2	7,373.6	18.6	19.0	148.09	-79.5	-197.8	327.3	291.4	35.95	9.106	
7,500.0	7,494.1	7,478.4	7,472.5	18.9	19.4	148.16	-83.1	-204.1	340.2	303.6	36.58	9.299	
7,600.0	7,593.8	7,577.6	7,571.4	19.3	19.8	148.22	-86.7	-210.4	353.0	315.8	37.23	9.482	
7,700.0	7,693.5	7,676.7	7,670.3	19.7	20.2	148.28	-90.4	-216.7	365.9	328.0	37.89	9.656	
7,800.0	7,793.2	7,775.9	7,769.2	20.1	20.6	148.33	-94.0	-223.1	378.7	340.1	38.56	9.821	
7,900.0	7,893.0	7,875.1	7,868.1	20.5	21.0	148.38	-97.6	-229.4	391.5	352.3	39.24	9.979	
8,000.0	7,992.7	7,974.3	7,967.0	20.9	21.4	148.43	-101.2	-235.7	404.4	364.5	39.93	10.128	
8,100.0	8,092.4	8,073.4	8,065.9	21.3	21.8	148.48	-104.8	-242.0	417.2	376.6	40.62	10.270	
8,200.0	8,192.1	8,172.6	8,164.8	21.7	22.2	148.52	-108.4	-248.3	430.1	388.7	41.33	10.405	
8,300.0	8,291.8	8,271.8	8,263.7	22.1	22.6	148.56	-112.1	-254.6	442.9	400.9	42.05	10.534	
8,400.0	8,391.5	8,370.9	8,362.6	22.6	23.1	148.59	-115.7	-260.9	455.8	413.0	42.77	10.656	
8,500.0	8,491.2	8,470.1	8,461.5	23.0	23.5	148.63	-119.3	-267.2	468.6	425.1	43.50	10.773	
8,600.0	8,590.9	8,569.3	8,560.4	23.4	23.9	148.66	-122.9	-273.5	481.4	437.2	44.24	10.884	
8,700.0	8,690.6	8,668.5	8,659.3	23.9	24.4	148.69	-126.5	-279.8	494.3	449.3	44.98	10.989	
8,800.0	8,790.3	8,767.6	8,758.2	24.3	24.8	148.72	-130.1	-286.1	507.1	461.4	45.73	11.090	
8,900.0	8,890.0	8,866.8	8,857.2	24.7	25.2	148.75	-133.8	-292.4	520.0	473.5	46.49	11.186	
9,000.0	8,989.7	8,966.0	8,956.1	25.2	25.7	148.78	-137.4	-298.8	532.8	485.6	47.25	11.277	
9,100.0	9,089.4	9,065.1	9,055.0	25.6	26.1	148.81	-141.0	-305.1	545.6	497.6	48.01	11.364	
9,200.0	9,189.1	9,164.3	9,153.9	26.1	26.6	148.83	-144.6	-311.4	558.5	509.7	48.79	11.447	
9,300.0	9,288.9	9,263.5	9,252.8	26.5	27.0	148.85	-148.2	-317.7	571.3	521.8	49.56	11.527	
9,400.0	9,388.6	9,362.7	9,351.7	27.0	27.5	148.88	-151.8	-324.0	584.2	533.8	50.35	11.603	
9,500.0	9,488.3	9,461.8	9,450.6	27.4	27.9	148.90	-155.5	-330.3	597.0	545.9	51.13	11.675	
9,600.0	9,588.0	9,561.0	9,549.5	27.9	28.4	148.92	-159.1	-336.6	609.9	557.9	51.93	11.745	
9,700.0	9,687.7	9,660.2	9,648.4	28.4	28.9	148.94	-162.7	-342.9	622.7	570.0	52.72	11.811	
9,800.0	9,787.4	9,759.3	9,747.3	28.8	29.3	148.96	-166.3	-349.2	635.5	582.0	53.52	11.875	
9,900.0	9,887.1	9,858.5	9,846.2	29.3	29.8	148.98	-169.9	-355.5	648.4	594.1	54.32	11.936	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1											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		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)			
10,000.0	9,986.8	9,957.7	9,945.1	29.8	30.2	148.99	-173.5	-361.8	661.2	606.1	55.13	11.994	
10,100.0	10,086.5	10,056.9	10,044.0	30.2	30.7	149.01	-177.2	-368.1	674.1	618.1	55.94	12.050	
10,200.0	10,186.2	10,156.0	10,142.9	30.7	31.2	149.03	-180.8	-374.5	686.9	630.2	56.76	12.103	
10,300.0	10,285.9	10,255.2	10,241.8	31.2	31.7	149.04	-184.4	-380.8	699.8	642.2	57.57	12.154	
10,400.0	10,385.6	10,354.4	10,340.7	31.7	32.1	149.06	-188.0	-387.1	712.6	654.2	58.39	12.204	
10,426.4	10,411.9	10,380.5	10,366.8	31.8	32.2	149.06	-189.0	-388.7	716.0	657.4	58.60	12.218	
10,500.0	10,485.4	10,453.6	10,439.7	32.1	32.6	149.10	-191.6	-393.4	725.1	665.9	59.19	12.250	
10,600.0	10,585.2	10,553.0	10,538.8	32.6	33.1	149.08	-195.3	-399.7	736.1	676.1	59.98	12.272	
10,700.0	10,685.2	10,652.5	10,638.1	33.0	33.5	148.99	-198.9	-406.0	745.6	684.8	60.75	12.273	
10,800.0	10,785.1	10,752.2	10,737.4	33.3	34.0	148.83	-202.5	-412.4	753.6	692.1	61.47	12.260	
10,864.9	10,850.0	10,816.8	10,801.9	33.4	34.3	-89.61	-204.9	-416.5	758.0	696.2	61.84	12.259	
10,900.0	10,885.1	10,851.9	10,836.9	33.4	34.5	-89.71	-206.2	-418.7	760.3	698.3	61.99	12.264	
10,987.4	10,972.5	10,944.8	10,929.6	33.5	34.9	-89.96	-209.4	-424.4	765.7	703.2	62.41	12.267	
11,000.0	10,985.1	10,959.0	10,943.8	33.5	35.0	-97.64	-209.9	-425.2	766.4	703.9	62.48	12.267	
11,025.0	11,010.1	10,987.2	10,971.9	33.4	35.1	-97.63	-210.7	-426.7	767.8	705.2	62.61	12.265	
11,050.0	11,034.9	11,015.2	10,999.8	33.4	35.3	-97.72	-211.5	-428.0	769.4	706.7	62.73	12.265	
11,075.0	11,059.6	11,043.0	11,027.6	33.4	35.4	-97.90	-212.2	-429.2	771.0	708.2	62.86	12.267	
11,100.0	11,084.1	11,070.5	11,055.1	33.3	35.5	-98.16	-212.8	-430.3	772.8	709.8	62.98	12.271	
11,125.0	11,108.2	11,097.7	11,082.3	33.3	35.6	-98.49	-213.3	-431.3	774.7	711.6	63.10	12.277	
11,150.0	11,132.0	11,124.5	11,109.0	33.2	35.7	-98.88	-213.8	-432.1	776.7	713.5	63.21	12.288	
11,175.0	11,155.3	11,150.8	11,135.4	33.2	35.8	-99.33	-214.2	-432.8	779.0	715.7	63.32	12.303	
11,200.0	11,178.2	11,176.6	11,161.2	33.1	35.9	-99.82	-214.6	-433.4	781.5	718.1	63.42	12.322	
11,225.0	11,200.4	11,201.9	11,186.4	33.1	36.0	-100.33	-214.8	-433.9	784.2	720.7	63.51	12.347	
11,250.0	11,222.1	11,226.4	11,210.9	33.0	36.1	-100.86	-215.1	-434.2	787.3	723.8	63.59	12.382	
11,275.0	11,243.1	11,250.3	11,234.8	33.0	36.2	-101.39	-215.2	-434.5	790.8	727.2	63.65	12.424	
11,300.0	11,263.3	11,273.4	11,257.9	32.9	36.2	-101.91	-215.3	-434.7	794.7	731.0	63.71	12.474	
11,325.0	11,282.7	11,295.6	11,280.1	32.9	36.3	-102.39	-215.4	-434.8	799.1	735.3	63.76	12.533	
11,350.0	11,301.3	11,316.8	11,301.3	32.9	36.3	-102.81	-215.4	-434.8	803.9	740.2	63.76	12.609	
11,375.0	11,318.9	11,334.4	11,318.9	32.8	36.4	-103.05	-215.4	-434.8	809.4	745.7	63.73	12.701	
11,400.0	11,335.7	11,351.2	11,335.7	32.8	36.4	-103.19	-215.4	-434.8	815.5	751.9	63.68	12.806	
11,425.0	11,351.4	11,366.9	11,351.4	32.8	36.4	-103.23	-215.4	-434.8	822.3	758.7	63.62	12.925	
11,450.0	11,366.1	11,381.6	11,366.1	32.8	36.4	-103.15	-215.4	-434.8	829.8	766.3	63.55	13.058	
11,475.0	11,379.7	11,395.2	11,379.7	32.8	36.4	-102.94	-215.4	-434.8	838.1	774.6	63.46	13.206	
11,500.0	11,392.2	11,407.7	11,392.2	32.8	36.4	-102.59	-215.4	-434.8	847.0	783.6	63.36	13.369	
11,525.0	11,403.5	11,419.0	11,403.5	32.8	36.4	-102.08	-215.4	-434.8	856.7	793.5	63.24	13.547	
11,550.0	11,413.7	11,429.2	11,413.7	32.9	36.4	-101.40	-215.4	-434.8	867.1	804.0	63.10	13.741	
11,575.0	11,422.6	11,438.1	11,422.6	32.9	36.4	-100.53	-215.4	-434.8	878.2	815.3	62.95	13.950	
11,600.0	11,430.4	11,445.9	11,430.4	33.0	36.4	-99.48	-215.4	-434.8	890.0	827.2	62.79	14.175	
11,625.0	11,436.8	11,452.3	11,436.8	33.0	36.4	-98.23	-215.4	-434.8	902.5	839.9	62.62	14.414	
11,650.0	11,442.0	11,457.5	11,442.0	33.1	36.4	-96.77	-215.4	-434.8	915.6	853.2	62.43	14.667	
11,675.0	11,445.9	11,468.7	11,453.2	33.2	36.4	-95.63	-215.2	-434.8	929.3	867.1	62.24	14.931	
11,700.0	11,448.5	11,525.2	11,509.5	33.3	36.3	-97.67	-210.7	-434.9	943.4	881.3	62.11	15.189	
11,725.0	11,449.8	11,650.0	11,629.4	33.4	36.0	-104.06	-177.3	-435.1	957.7	895.3	62.39	15.350	
11,737.4	11,450.0	11,900.0	11,824.0	33.4	35.5	-115.22	-25.0	-436.3	964.0	899.7	64.27	15.000	
11,744.0	11,450.0	12,209.1	11,920.0	33.4	35.9	-119.37	263.2	-438.5	965.6	899.5	66.13	14.601	
11,800.0	11,450.0	12,264.7	11,920.0	33.7	36.1	-119.10	318.7	-438.9	972.1	905.6	66.52	14.615	
11,900.0	11,450.0	12,364.1	11,920.0	34.4	36.6	-118.71	418.2	-439.7	981.3	913.9	67.41	14.558	
12,000.0	11,450.0	12,463.9	11,920.0	35.1	37.2	-118.45	517.9	-440.5	987.5	919.0	68.54	14.407	
12,100.0	11,450.0	12,563.8	11,920.0	36.0	37.9	-118.33	617.8	-441.2	990.6	920.8	69.86	14.180	
12,148.8	11,450.0	12,612.6	11,920.0	36.3	38.2	-118.31	666.6	-441.6	991.0	920.5	70.52	14.053	
12,200.0	11,450.0	12,663.8	11,920.0	36.7	38.6	-118.31	717.8	-442.0	991.1	919.8	71.26	13.909	
12,300.0	11,450.0	12,763.8	11,920.0	37.6	39.4	-118.31	817.8	-442.8	991.2	918.4	72.80	13.615	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1												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	
12,400.0	11,450.0	12,863.8	11,920.0	38.6	40.4	-118.30	917.8	-443.5	991.3	916.8	74.50	13.306	
12,500.0	11,450.0	12,963.8	11,920.0	39.6	41.3	-118.30	1,017.8	-444.3	991.4	915.0	76.34	12.986	
12,600.0	11,450.0	13,063.8	11,920.0	40.7	42.4	-118.30	1,117.8	-445.0	991.5	913.1	78.31	12.661	
12,700.0	11,450.0	13,163.8	11,920.0	41.8	43.5	-118.29	1,217.8	-445.8	991.5	911.1	80.40	12.332	
12,800.0	11,450.0	13,263.8	11,920.0	43.0	44.7	-118.29	1,317.8	-446.6	991.6	909.0	82.61	12.004	
12,900.0	11,450.0	13,363.8	11,920.0	44.3	45.9	-118.29	1,417.8	-447.3	991.7	906.8	84.92	11.678	
13,000.0	11,450.0	13,463.8	11,920.0	45.6	47.2	-118.29	1,517.8	-448.1	991.8	904.5	87.33	11.357	
13,100.0	11,450.0	13,563.8	11,920.0	47.0	48.6	-118.28	1,617.8	-448.9	991.9	902.1	89.83	11.042	
13,200.0	11,450.0	13,663.8	11,920.0	48.4	50.0	-118.28	1,717.8	-449.6	992.0	899.6	92.41	10.735	
13,300.0	11,450.0	13,763.8	11,920.0	49.9	51.4	-118.28	1,817.8	-450.4	992.1	897.0	95.06	10.436	
13,400.0	11,450.0	13,863.8	11,920.0	51.4	52.9	-118.27	1,917.8	-451.2	992.2	894.4	97.79	10.147	
13,500.0	11,450.0	13,963.8	11,920.0	52.9	54.4	-118.27	2,017.8	-451.9	992.3	891.7	100.57	9.866	
13,600.0	11,450.0	14,063.8	11,920.0	54.5	55.9	-118.27	2,117.8	-452.7	992.4	889.0	103.42	9.596	
13,700.0	11,450.0	14,163.8	11,920.0	56.1	57.5	-118.27	2,217.8	-453.5	992.5	886.1	106.32	9.335	
13,800.0	11,450.0	14,263.8	11,920.0	57.7	59.1	-118.26	2,317.8	-454.2	992.6	883.3	109.27	9.084	
13,900.0	11,450.0	14,363.8	11,920.0	59.4	60.7	-118.26	2,417.8	-455.0	992.6	880.4	112.26	8.842	
14,000.0	11,450.0	14,463.8	11,920.0	61.1	62.4	-118.26	2,517.8	-455.8	992.7	877.4	115.29	8.610	
14,100.0	11,450.0	14,563.8	11,920.0	62.8	64.0	-118.25	2,617.8	-456.5	992.8	874.5	118.37	8.388	
14,200.0	11,450.0	14,663.8	11,920.0	64.5	65.7	-118.25	2,717.8	-457.3	992.9	871.4	121.48	8.174	
14,300.0	11,450.0	14,763.8	11,920.0	66.2	67.5	-118.25	2,817.8	-458.1	993.0	868.4	124.62	7.968	
14,400.0	11,450.0	14,863.8	11,920.0	68.0	69.2	-118.25	2,917.8	-458.8	993.1	865.3	127.80	7.771	
14,500.0	11,450.0	14,963.8	11,920.0	69.7	70.9	-118.24	3,017.8	-459.6	993.2	862.2	131.00	7.582	
14,600.0	11,450.0	15,063.8	11,920.0	71.5	72.7	-118.24	3,117.8	-460.3	993.3	859.1	134.23	7.400	
14,700.0	11,450.0	15,163.8	11,920.0	73.3	74.5	-118.24	3,217.8	-461.1	993.4	855.9	137.48	7.226	
14,800.0	11,450.0	15,263.8	11,920.0	75.1	76.3	-118.24	3,317.8	-461.9	993.5	852.7	140.76	7.058	
14,900.0	11,450.0	15,363.8	11,920.0	76.9	78.1	-118.23	3,417.7	-462.6	993.6	849.5	144.05	6.897	
15,000.0	11,450.0	15,463.8	11,920.0	78.7	79.9	-118.23	3,517.7	-463.4	993.7	846.3	147.37	6.743	
15,100.0	11,450.0	15,563.8	11,920.0	80.6	81.7	-118.23	3,617.7	-464.2	993.7	843.0	150.70	6.594	
15,200.0	11,450.0	15,663.8	11,920.0	82.4	83.5	-118.22	3,717.7	-464.9	993.8	839.8	154.06	6.451	
15,300.0	11,450.0	15,763.8	11,920.0	84.3	85.3	-118.22	3,817.7	-465.7	993.9	836.5	157.42	6.314	
15,400.0	11,450.0	15,863.8	11,920.0	86.1	87.2	-118.22	3,917.7	-466.5	994.0	833.2	160.81	6.181	
15,500.0	11,450.0	15,963.8	11,920.0	88.0	89.0	-118.22	4,017.7	-467.2	994.1	829.9	164.20	6.054	
15,600.0	11,450.0	16,063.8	11,920.0	89.9	90.9	-118.21	4,117.7	-468.0	994.2	826.6	167.61	5.931	
15,700.0	11,450.0	16,163.8	11,920.0	91.7	92.8	-118.21	4,217.7	-468.8	994.3	823.3	171.04	5.813	
15,800.0	11,450.0	16,263.8	11,920.0	93.6	94.6	-118.21	4,317.7	-469.5	994.4	819.9	174.47	5.699	
15,900.0	11,450.0	16,363.8	11,920.0	95.5	96.5	-118.20	4,417.7	-470.3	994.5	816.6	177.92	5.589	
16,000.0	11,450.0	16,463.8	11,920.0	97.4	98.4	-118.20	4,517.7	-471.1	994.6	813.2	181.37	5.483	
16,100.0	11,450.0	16,563.8	11,920.0	99.3	100.3	-118.20	4,617.7	-471.8	994.7	809.8	184.84	5.381	
16,200.0	11,450.0	16,663.8	11,920.0	101.2	102.2	-118.20	4,717.7	-472.6	994.7	806.4	188.32	5.282	
16,300.0	11,450.0	16,763.8	11,920.0	103.1	104.1	-118.19	4,817.7	-473.4	994.8	803.0	191.80	5.187	
16,400.0	11,450.0	16,863.8	11,920.0	105.0	106.0	-118.19	4,917.7	-474.1	994.9	799.6	195.29	5.095	
16,500.0	11,450.0	16,963.8	11,920.0	107.0	107.9	-118.19	5,017.7	-474.9	995.0	796.2	198.79	5.005	
16,600.0	11,450.0	17,063.8	11,920.0	108.9	109.8	-118.18	5,117.7	-475.7	995.1	792.8	202.30	4.919	
16,700.0	11,450.0	17,163.8	11,920.0	110.8	111.7	-118.18	5,217.7	-476.4	995.2	789.4	205.82	4.835	
16,800.0	11,450.0	17,263.8	11,920.0	112.7	113.7	-118.18	5,317.7	-477.2	995.3	786.0	209.34	4.754	
16,900.0	11,450.0	17,363.8	11,920.0	114.7	115.6	-118.18	5,417.7	-477.9	995.4	782.5	212.87	4.676	
17,000.0	11,450.0	17,463.8	11,920.0	116.6	117.5	-118.17	5,517.7	-478.7	995.5	779.1	216.40	4.600	
17,100.0	11,450.0	17,563.8	11,920.0	118.5	119.4	-118.17	5,617.7	-479.5	995.6	775.6	219.94	4.527	
17,200.0	11,450.0	17,663.8	11,920.0	120.5	121.4	-118.17	5,717.7	-480.2	995.7	772.2	223.49	4.455	
17,300.0	11,450.0	17,763.8	11,920.0	122.4	123.3	-118.16	5,817.7	-481.0	995.8	768.7	227.04	4.386	
17,400.0	11,450.0	17,863.8	11,920.0	124.4	125.3	-118.16	5,917.7	-481.8	995.8	765.3	230.60	4.319	
17,500.0	11,450.0	17,963.8	11,920.0	126.3	127.2	-118.16	6,017.7	-482.5	995.9	761.8	234.16	4.253	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1													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			
17,600.0	11,450.0	18,063.8	11,920.0	128.3	129.1	-118.16	6,117.7	-483.3	996.0	758.3	237.72	4.190			
17,700.0	11,450.0	18,163.8	11,920.0	130.2	131.1	-118.15	6,217.7	-484.1	996.1	754.8	241.29	4.128			
17,800.0	11,450.0	18,263.8	11,920.0	132.2	133.0	-118.15	6,317.7	-484.8	996.2	751.3	244.87	4.068			
17,900.0	11,450.0	18,363.8	11,920.0	134.1	135.0	-118.15	6,417.7	-485.6	996.3	747.9	248.45	4.010			
18,000.0	11,450.0	18,463.8	11,920.0	136.1	136.9	-118.14	6,517.7	-486.4	996.4	744.4	252.03	3.954			
18,100.0	11,450.0	18,563.8	11,920.0	138.0	138.9	-118.14	6,617.7	-487.1	996.5	740.9	255.61	3.898			
18,200.0	11,450.0	18,663.8	11,920.0	140.0	140.8	-118.14	6,717.7	-487.9	996.6	737.4	259.20	3.845			
18,300.0	11,450.0	18,763.8	11,920.0	142.0	142.8	-118.14	6,817.6	-488.7	996.7	733.9	262.80	3.793			
18,400.0	11,450.0	18,863.8	11,920.0	143.9	144.8	-118.13	6,917.6	-489.4	996.8	730.4	266.39	3.742			
18,500.0	11,450.0	18,963.8	11,920.0	145.9	146.7	-118.13	7,017.6	-490.2	996.9	726.9	269.99	3.692			
18,600.0	11,450.0	19,063.8	11,920.0	147.9	148.7	-118.13	7,117.6	-491.0	996.9	723.4	273.59	3.644			
18,700.0	11,450.0	19,163.8	11,920.0	149.8	150.6	-118.12	7,217.6	-491.7	997.0	719.8	277.20	3.597			
18,800.0	11,450.0	19,263.8	11,920.0	151.8	152.6	-118.12	7,317.6	-492.5	997.1	716.3	280.81	3.551			
18,900.0	11,450.0	19,363.8	11,920.0	153.8	154.6	-118.12	7,417.6	-493.3	997.2	712.8	284.42	3.506			
19,000.0	11,450.0	19,463.8	11,920.0	155.7	156.5	-118.12	7,517.6	-494.0	997.3	709.3	288.03	3.463			
19,100.0	11,450.0	19,563.8	11,920.0	157.7	158.5	-118.11	7,617.6	-494.8	997.4	705.8	291.65	3.420			
19,200.0	11,450.0	19,663.8	11,920.0	159.7	160.5	-118.11	7,717.6	-495.5	997.5	702.2	295.27	3.378			
19,300.0	11,450.0	19,763.8	11,920.0	161.7	162.4	-118.11	7,817.6	-496.3	997.6	698.7	298.89	3.338			
19,400.0	11,450.0	19,863.8	11,920.0	163.6	164.4	-118.11	7,917.6	-497.1	997.7	695.2	302.51	3.298			
19,500.0	11,450.0	19,963.8	11,920.0	165.6	166.4	-118.10	8,017.6	-497.8	997.8	691.6	306.14	3.259			
19,558.7	11,450.0	20,021.2	11,920.0	166.8	167.5	-118.10	8,075.0	-498.3	997.8	689.6	308.22	3.237			



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1												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	90.31	-0.2	29.9	29.9				
100.0	100.0	100.0	100.0	0.5	0.5	90.31	-0.2	29.9	29.9	28.9	1.06	28.223	
200.0	200.0	200.0	200.0	1.7	1.7	90.31	-0.2	29.9	29.9	26.5	3.42	8.741	
300.0	300.0	300.0	300.0	2.4	2.4	90.31	-0.2	29.9	29.9	25.1	4.82	6.205	
400.0	400.0	400.0	400.0	3.0	3.0	90.31	-0.2	29.9	29.9	24.0	5.91	5.065	
500.0	500.0	500.0	500.0	3.4	3.4	90.31	-0.2	29.9	29.9	23.1	6.83	4.381	
524.1	524.1	524.1	524.1	3.5	3.5	90.31	-0.2	29.9	29.9	22.9	7.03	4.258	
600.0	600.0	600.0	600.0	3.8	3.8	90.31	-0.2	29.9	29.9	22.3	7.65	3.912	
633.3	633.3	633.3	633.3	3.9	3.9	90.31	-0.2	29.9	29.9	22.0	7.90	3.789	
700.0	700.0	700.0	700.0	4.2	4.2	90.31	-0.2	29.9	29.9	21.5	8.39	3.565	
800.0	800.0	800.0	800.0	4.5	4.5	90.31	-0.2	29.9	29.9	20.8	9.08	3.294	
900.0	900.0	900.0	900.0	4.9	4.9	90.31	-0.2	29.9	29.9	20.2	9.73	3.075	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	90.31	-0.2	29.9	29.9	19.6	10.34	2.894	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	90.31	-0.2	29.9	29.9	19.0	10.92	2.740	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	90.31	-0.2	29.9	29.9	18.4	11.48	2.607	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	90.31	-0.2	29.9	29.9	17.9	12.01	2.491	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	90.31	-0.2	29.9	29.9	17.4	12.53	2.388	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	90.31	-0.2	29.9	29.9	16.9	13.03	2.296	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	90.31	-0.2	29.9	29.9	16.4	13.52	2.214	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	90.31	-0.2	29.9	29.9	15.9	13.99	2.139	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	90.31	-0.2	29.9	29.9	15.5	14.45	2.071	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	90.31	-0.2	29.9	29.9	15.0	14.90	2.008	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	90.31	-0.2	29.9	29.9	14.6	15.34	1.951	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	90.31	-0.2	29.9	29.9	14.2	15.77	1.898	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	90.31	-0.2	29.9	29.9	13.7	16.19	1.848	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	90.31	-0.2	29.9	29.9	13.3	16.61	1.802	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	90.31	-0.2	29.9	29.9	12.9	17.02	1.759	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	90.31	-0.2	29.9	29.9	12.5	17.42	1.718	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	90.31	-0.2	29.9	29.9	12.1	17.81	1.680	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	90.31	-0.2	29.9	29.9	11.7	18.20	1.644	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	90.31	-0.2	29.9	29.9	11.3	18.59	1.610	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	90.31	-0.2	29.9	29.9	11.0	18.96	1.578	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	90.31	-0.2	29.9	29.9	10.6	19.34	1.547	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	90.31	-0.2	29.9	29.9	10.2	19.71	1.518	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	90.31	-0.2	29.9	29.9	9.9	20.07	1.491 Level 3	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	90.31	-0.2	29.9	29.9	9.5	20.44	1.464 Level 3	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	90.31	-0.2	29.9	29.9	9.1	20.79	1.439 Level 3	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	90.31	-0.2	29.9	29.9	8.8	21.15	1.415 Level 3	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	90.31	-0.2	29.9	29.9	8.4	21.50	1.392 Level 3	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	90.31	-0.2	29.9	29.9	8.1	21.85	1.370 Level 3	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	90.31	-0.2	29.9	29.9	7.7	22.19	1.349 Level 3	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	90.31	-0.2	29.9	29.9	7.4	22.53	1.328 Level 3	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	90.31	-0.2	29.9	29.9	7.1	22.87	1.308 Level 3	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	90.31	-0.2	29.9	29.9	6.7	23.21	1.290 Level 3	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	90.31	-0.2	29.9	29.9	6.4	23.54	1.271 Level 3	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	90.31	-0.2	29.9	29.9	6.1	23.87	1.254 Level 3	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	90.31	-0.2	29.9	29.9	5.7	24.20	1.237 Level 3	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	90.31	-0.2	29.9	29.9	5.4	24.53	1.220 Level 3	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	90.31	-0.2	29.9	29.9	5.1	24.85	1.204 Level 3	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	90.31	-0.2	29.9	29.9	4.8	25.17	1.189 Level 3	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	90.31	-0.2	29.9	29.9	4.4	25.49	1.174 Level 3	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	90.31	-0.2	29.9	29.9	4.1	25.81	1.159 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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1													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		
4,966.7	4,966.7	4,966.7	4,966.7	13.0	13.0	90.31	-0.2	29.9	29.9	3.9	26.02	1.150	Level 3	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	90.31	-0.2	29.9	29.9	3.8	26.12	1.145	Level 3, CC, ES	
5,100.0	5,100.0	5,099.5	5,099.5	13.2	13.2	91.05	-0.6	30.7	30.7	4.3	26.38	1.164	Level 3	
5,200.0	5,200.0	5,199.0	5,199.0	13.4	13.3	93.04	-1.8	33.0	33.1	6.4	26.63	1.241	Level 3	
5,300.0	5,300.0	5,298.4	5,298.2	13.5	13.4	-26.49	-3.7	36.8	36.3	9.4	26.83	1.352	Level 3	
5,400.0	5,400.0	5,397.7	5,397.4	13.6	13.5	-24.85	-6.5	42.2	39.6	12.5	27.03	1.464	Level 3	
5,500.0	5,499.9	5,497.4	5,496.8	13.7	13.6	-23.79	-9.9	48.8	42.6	15.4	27.22	1.565		
5,600.0	5,599.7	5,597.4	5,596.5	13.8	13.8	-23.70	-13.4	55.5	44.1	16.7	27.49	1.606		
5,638.5	5,638.1	5,635.9	5,634.9	13.8	13.8	-23.91	-14.8	58.1	44.3	16.7	27.58	1.607		
5,700.0	5,699.4	5,697.4	5,696.2	13.9	13.9	-24.36	-16.9	62.2	44.4	16.7	27.74	1.600		
5,800.0	5,799.1	5,797.4	5,796.0	14.0	14.2	-25.08	-20.4	68.9	44.5	16.5	28.07	1.587		
5,900.0	5,898.8	5,897.4	5,895.7	14.2	14.4	-25.79	-23.9	75.6	44.7	16.2	28.43	1.572		
6,000.0	5,998.5	5,997.4	5,995.4	14.4	14.6	-26.50	-27.3	82.3	44.8	16.0	28.82	1.556		
6,100.0	6,098.2	6,097.4	6,095.1	14.6	14.9	-27.21	-30.8	89.0	45.0	15.8	29.23	1.539		
6,200.0	6,197.9	6,197.4	6,194.8	14.9	15.1	-27.91	-34.3	95.8	45.2	15.5	29.66	1.523		
6,300.0	6,297.6	6,297.4	6,294.5	15.1	15.4	-28.60	-37.8	102.5	45.3	15.2	30.11	1.506		
6,400.0	6,397.3	6,397.4	6,394.2	15.4	15.7	-29.29	-41.3	109.2	45.5	14.9	30.57	1.489	Level 3	
6,500.0	6,497.1	6,497.4	6,493.9	15.6	16.0	-29.98	-44.7	115.9	45.7	14.7	31.05	1.472	Level 3	
6,600.0	6,596.8	6,597.4	6,593.6	15.9	16.3	-30.66	-48.2	122.6	45.9	14.4	31.55	1.455	Level 3	
6,700.0	6,696.5	6,697.4	6,693.4	16.2	16.6	-31.33	-51.7	129.3	46.1	14.0	32.05	1.438	Level 3	
6,800.0	6,796.2	6,797.4	6,793.1	16.5	17.0	-31.99	-55.2	136.0	46.3	13.7	32.57	1.422	Level 3	
6,900.0	6,895.9	6,897.4	6,892.8	16.8	17.3	-32.66	-58.7	142.7	46.5	13.4	33.10	1.406	Level 3	
7,000.0	6,995.6	6,997.4	6,992.5	17.2	17.7	-33.31	-62.1	149.5	46.7	13.1	33.63	1.390	Level 3	
7,100.0	7,095.3	7,097.4	7,092.2	17.5	18.0	-33.96	-65.6	156.2	47.0	12.8	34.17	1.374	Level 3	
7,200.0	7,195.0	7,197.4	7,191.9	17.9	18.4	-34.60	-69.1	162.9	47.2	12.5	34.71	1.360	Level 3	
7,300.0	7,294.7	7,297.4	7,291.6	18.2	18.8	-35.24	-72.6	169.6	47.4	12.2	35.26	1.345	Level 3	
7,400.0	7,394.4	7,397.4	7,391.3	18.6	19.1	-35.87	-76.1	176.3	47.7	11.9	35.82	1.331	Level 3	
7,500.0	7,494.1	7,497.4	7,491.1	18.9	19.5	-36.49	-79.5	183.0	47.9	11.6	36.37	1.318	Level 3	
7,600.0	7,593.8	7,597.4	7,590.8	19.3	19.9	-37.10	-83.0	189.7	48.2	11.2	36.93	1.305	Level 3	
7,700.0	7,693.5	7,697.4	7,690.5	19.7	20.3	-37.71	-86.5	196.4	48.4	11.0	37.49	1.292	Level 3	
7,800.0	7,793.2	7,797.4	7,790.2	20.1	20.7	-38.32	-90.0	203.2	48.7	10.7	38.05	1.280	Level 3	
7,900.0	7,893.0	7,897.4	7,889.9	20.5	21.2	-38.91	-93.5	209.9	49.0	10.4	38.60	1.269	Level 3	
8,000.0	7,992.7	7,997.4	7,989.6	20.9	21.6	-39.50	-96.9	216.6	49.2	10.1	39.16	1.258	Level 3	
8,100.0	8,092.4	8,097.4	8,089.3	21.3	22.0	-40.09	-100.4	223.3	49.5	9.8	39.72	1.247	Level 3	
8,200.0	8,192.1	8,197.4	8,189.0	21.7	22.4	-40.66	-103.9	230.0	49.8	9.5	40.27	1.237	Level 3	
8,300.0	8,291.8	8,297.4	8,288.8	22.1	22.8	-41.23	-107.4	236.7	50.1	9.3	40.82	1.227	Level 3	
8,400.0	8,391.5	8,397.4	8,388.5	22.6	23.3	-41.80	-110.9	243.4	50.4	9.0	41.37	1.218	Level 3	
8,500.0	8,491.2	8,497.4	8,488.2	23.0	23.7	-42.35	-114.3	250.1	50.7	8.8	41.92	1.210	Level 3	
8,600.0	8,590.9	8,597.4	8,587.9	23.4	24.2	-42.90	-117.8	256.9	51.0	8.5	42.46	1.201	Level 3	
8,700.0	8,690.6	8,697.4	8,687.6	23.9	24.6	-43.45	-121.3	263.6	51.3	8.3	43.00	1.193	Level 3	
8,800.0	8,790.3	8,797.4	8,787.3	24.3	25.1	-43.99	-124.8	270.3	51.6	8.1	43.53	1.186	Level 3	
8,900.0	8,890.0	8,897.4	8,887.0	24.7	25.5	-44.52	-128.3	277.0	52.0	7.9	44.07	1.179	Level 3	
9,000.0	8,989.7	8,997.4	8,986.7	25.2	26.0	-45.04	-131.8	283.7	52.3	7.7	44.59	1.172	Level 3	
9,100.0	9,089.4	9,097.4	9,086.4	25.6	26.4	-45.56	-135.2	290.4	52.6	7.5	45.12	1.166	Level 3	
9,200.0	9,189.1	9,197.4	9,186.2	26.1	26.9	-46.07	-138.7	297.1	52.9	7.3	45.63	1.160	Level 3	
9,300.0	9,288.9	9,297.3	9,285.9	26.5	27.3	-46.57	-142.2	303.8	53.3	7.1	46.15	1.154	Level 3	
9,400.0	9,388.6	9,397.3	9,385.6	27.0	27.8	-47.07	-145.7	310.6	53.6	7.0	46.66	1.149	Level 3	
9,500.0	9,488.3	9,497.3	9,485.3	27.4	28.3	-47.56	-149.2	317.3	54.0	6.8	47.16	1.144	Level 3	
9,600.0	9,588.0	9,597.3	9,585.0	27.9	28.7	-48.05	-152.6	324.0	54.3	6.6	47.66	1.139	Level 3	
9,700.0	9,687.7	9,697.3	9,684.7	28.4	29.2	-48.53	-156.1	330.7	54.7	6.5	48.16	1.135	Level 3	
9,800.0	9,787.4	9,797.3	9,784.4	28.8	29.7	-49.00	-159.6	337.4	55.0	6.4	48.65	1.131	Level 3	
9,900.0	9,887.1	9,897.3	9,884.1	29.3	30.1	-49.47	-163.1	344.1	55.4	6.2	49.13	1.127	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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1													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	
10,000.0	9,986.8	9,997.3	9,983.9	29.8	30.6	-49.93	-166.6	350.8	55.7	6.1	49.61	1.123 Level 3	
10,100.0	10,086.5	10,097.3	10,083.6	30.2	31.1	-50.38	-170.0	357.5	56.1	6.0	50.09	1.120 Level 3	
10,200.0	10,186.2	10,197.3	10,183.3	30.7	31.6	-50.83	-173.5	364.3	56.5	5.9	50.56	1.117 Level 3	
10,300.0	10,285.9	10,297.3	10,283.0	31.2	32.0	-51.28	-177.0	371.0	56.8	5.8	51.02	1.114 Level 3	
10,400.0	10,385.6	10,397.3	10,382.7	31.7	32.5	-51.71	-180.5	377.7	57.2	5.7	51.48	1.111 Level 3	
10,426.4	10,411.9	10,423.7	10,409.0	31.8	32.6	-51.83	-181.4	379.4	57.3	5.7	51.59	1.111 Level 3, SF	
10,500.0	10,485.4	10,497.3	10,482.4	32.1	33.0	-51.78	-184.0	384.4	57.9	5.8	52.07	1.112 Level 3	
10,600.0	10,585.2	10,597.3	10,582.1	32.6	33.5	-50.58	-187.4	391.1	59.6	6.4	53.23	1.120 Level 3	
10,700.0	10,685.2	10,697.2	10,681.7	33.0	34.0	-48.25	-190.9	397.8	62.5	7.6	54.92	1.138 Level 3	
10,800.0	10,785.1	10,797.1	10,781.3	33.3	34.5	-45.05	-194.4	404.5	66.7	9.8	56.99	1.171 Level 3	
10,864.9	10,850.0	10,861.8	10,845.8	33.4	34.8	79.02	-196.6	408.9	70.3	11.9	58.38	1.203 Level 3	
10,900.0	10,885.1	10,896.8	10,880.8	33.4	34.9	80.33	-197.9	411.2	72.4	13.3	59.10	1.224 Level 3	
10,987.4	10,972.5	10,984.0	10,967.7	33.5	35.4	83.26	-200.9	417.1	77.7	17.0	60.74	1.280 Level 3	
11,000.0	10,985.1	10,996.5	10,980.2	33.5	35.4	75.97	-201.3	417.9	78.5	17.5	61.01	1.287 Level 3	
11,025.0	11,010.1	11,021.4	11,005.0	33.4	35.5	77.47	-202.2	419.6	79.8	18.0	61.81	1.291 Level 3	
11,050.0	11,034.9	11,046.3	11,029.8	33.4	35.7	79.85	-203.1	421.2	80.9	18.0	62.90	1.286 Level 3	
11,075.0	11,059.6	11,071.1	11,054.6	33.4	35.8	83.02	-203.9	422.8	81.9	17.7	64.21	1.275 Level 3	
11,100.0	11,084.1	11,095.7	11,079.1	33.3	35.9	86.90	-204.6	424.3	83.0	17.4	65.63	1.265 Level 3	
11,125.0	11,108.2	11,120.0	11,103.4	33.3	36.0	91.38	-205.3	425.6	84.4	17.4	67.03	1.260 Level 3	
11,150.0	11,132.0	11,143.9	11,127.2	33.2	36.1	96.34	-206.0	426.8	86.5	18.2	68.24	1.267 Level 3	
11,175.0	11,155.3	11,167.4	11,150.7	33.2	36.2	101.58	-206.6	428.0	89.4	20.3	69.11	1.293 Level 3	
11,200.0	11,178.2	11,190.4	11,173.7	33.1	36.3	106.90	-207.1	429.0	93.5	24.0	69.50	1.345 Level 3	
11,225.0	11,200.4	11,212.9	11,196.1	33.1	36.4	112.11	-207.6	429.9	98.9	29.6	69.34	1.427 Level 3	
11,250.0	11,222.1	11,234.7	11,217.9	33.0	36.5	117.04	-208.0	430.7	105.9	37.2	68.68	1.542	
11,275.0	11,243.1	11,255.9	11,239.0	33.0	36.6	121.55	-208.4	431.5	114.5	46.9	67.60	1.694	
11,300.0	11,263.3	11,276.3	11,259.5	32.9	36.7	125.57	-208.7	432.1	124.7	58.5	66.24	1.883	
11,325.0	11,282.7	11,295.9	11,279.1	32.9	36.8	129.08	-209.0	432.7	136.5	71.7	64.74	2.108	
11,350.0	11,301.3	11,314.7	11,297.9	32.9	36.8	132.07	-209.2	433.1	149.7	86.5	63.19	2.369	
11,375.0	11,318.9	11,332.7	11,315.8	32.8	36.9	134.55	-209.4	433.5	164.4	102.7	61.69	2.664	
11,400.0	11,335.7	11,349.7	11,332.8	32.8	37.0	136.55	-209.6	433.9	180.3	120.0	60.28	2.991	
11,425.0	11,351.4	11,365.7	11,348.8	32.8	37.0	138.08	-209.8	434.1	197.4	138.4	58.99	3.347	
11,450.0	11,366.1	11,380.6	11,363.8	32.8	37.1	139.15	-209.9	434.3	215.6	157.8	57.83	3.729	
11,475.0	11,379.7	11,394.5	11,377.7	32.8	37.1	139.78	-210.0	434.5	234.8	178.0	56.79	4.135	
11,500.0	11,392.2	11,407.3	11,390.4	32.8	37.2	139.93	-210.0	434.6	254.9	199.1	55.85	4.564	
11,525.0	11,403.5	11,418.9	11,402.1	32.8	37.2	139.59	-210.1	434.7	275.8	220.8	55.02	5.013	
11,550.0	11,413.7	11,429.3	11,412.5	32.9	37.2	138.67	-210.1	434.8	297.4	243.1	54.29	5.478	
11,575.0	11,422.6	11,438.6	11,421.7	32.9	37.2	137.06	-210.1	434.9	319.7	266.1	53.65	5.959	
11,600.0	11,430.4	11,446.5	11,429.7	33.0	37.2	134.62	-210.1	434.9	342.5	289.4	53.08	6.452	
11,625.0	11,436.8	11,453.2	11,436.3	33.0	37.2	131.07	-210.2	434.9	365.8	313.2	52.58	6.956	
11,650.0	11,442.0	11,458.6	11,441.7	33.1	37.2	126.06	-210.2	434.9	389.5	337.3	52.15	7.469	
11,675.0	11,445.9	11,462.6	11,445.8	33.2	37.2	119.08	-210.2	434.9	413.5	361.7	51.76	7.989	
11,700.0	11,448.5	11,465.3	11,448.5	33.3	37.2	109.54	-210.2	434.9	437.7	386.3	51.42	8.513	
11,725.0	11,449.8	11,466.7	11,449.8	33.4	37.3	97.12	-210.2	434.9	462.2	411.0	51.12	9.040	
11,737.4	11,450.0	11,466.9	11,450.0	33.4	37.3	90.00	-210.2	434.9	474.3	423.3	50.99	9.303	
11,744.0	11,450.0	11,466.9	11,450.0	33.4	37.3	90.00	-210.2	434.9	480.7	429.8	50.92	9.441	
11,800.0	11,450.0	11,466.9	11,450.0	33.7	37.3	90.00	-210.2	434.9	535.9	485.5	50.44	10.625	
11,900.0	11,450.0	12,506.9	12,060.0	34.4	37.6	179.15	424.8	430.9	610.1	538.5	71.54	8.528	
12,000.0	11,450.0	12,606.7	12,060.0	35.1	38.2	179.79	524.6	430.2	610.0	537.8	72.21	8.447	
12,052.0	11,450.0	12,658.6	12,060.0	35.5	38.5	-180.00	576.5	429.9	610.0	537.4	72.58	8.404	
12,100.0	11,450.0	12,706.6	12,060.0	36.0	38.8	-179.89	624.5	429.6	610.0	537.1	72.91	8.366	
12,148.8	11,450.0	12,755.4	12,060.0	36.3	39.2	-179.85	673.3	429.3	610.0	536.8	73.25	8.328	
12,200.0	11,450.0	12,806.6	12,060.0	36.7	39.6	-179.85	724.5	428.9	610.0	536.4	73.60	8.288	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1												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	
12,300.0	11,450.0	12,906.6	12,060.0	37.6	40.4	-179.85	824.5	428.3	610.0	535.7	74.35	8.204	
12,400.0	11,450.0	13,006.6	12,060.0	38.6	41.3	-179.85	924.5	427.7	610.0	534.8	75.16	8.116	
12,500.0	11,450.0	13,106.6	12,060.0	39.6	42.3	-179.86	1,024.5	427.0	610.0	534.0	76.02	8.024	
12,600.0	11,450.0	13,206.6	12,060.0	40.7	43.3	-179.86	1,124.5	426.4	610.0	533.1	76.93	7.929	
12,700.0	11,450.0	13,306.6	12,060.0	41.8	44.4	-179.86	1,224.5	425.7	610.0	532.1	77.90	7.831	
12,800.0	11,450.0	13,406.6	12,060.0	43.0	45.6	-179.86	1,324.5	425.1	610.0	531.1	78.91	7.730	
12,900.0	11,450.0	13,506.6	12,060.0	44.3	46.8	-179.86	1,424.5	424.5	610.0	530.0	79.97	7.628	
13,000.0	11,450.0	13,606.6	12,060.0	45.6	48.0	-179.87	1,524.5	423.8	610.0	528.9	81.08	7.524	
13,100.0	11,450.0	13,706.6	12,060.0	47.0	49.4	-179.87	1,624.5	423.2	610.0	527.8	82.23	7.418	
13,200.0	11,450.0	13,806.6	12,060.0	48.4	50.7	-179.87	1,724.5	422.6	610.0	526.6	83.42	7.312	
13,300.0	11,450.0	13,906.6	12,060.0	49.9	52.2	-179.87	1,824.5	421.9	610.0	525.4	84.65	7.206	
13,400.0	11,450.0	14,006.6	12,060.0	51.4	53.6	-179.87	1,924.5	421.3	610.0	524.1	85.92	7.100	
13,500.0	11,450.0	14,106.6	12,060.0	52.9	55.1	-179.88	2,024.5	420.6	610.0	522.8	87.22	6.993	
13,600.0	11,450.0	14,206.6	12,060.0	54.5	56.6	-179.88	2,124.5	420.0	610.0	521.4	88.56	6.888	
13,700.0	11,450.0	14,306.6	12,060.0	56.1	58.2	-179.88	2,224.5	419.4	610.0	520.1	89.94	6.782	
13,800.0	11,450.0	14,406.6	12,060.0	57.7	59.8	-179.88	2,324.5	418.7	610.0	518.7	91.34	6.678	
13,900.0	11,450.0	14,506.6	12,060.0	59.4	61.4	-179.88	2,424.5	418.1	610.0	517.2	92.78	6.575	
14,000.0	11,450.0	14,606.6	12,060.0	61.1	63.0	-179.89	2,524.5	417.4	610.0	515.8	94.24	6.473	
14,100.0	11,450.0	14,706.6	12,060.0	62.8	64.6	-179.89	2,624.5	416.8	610.0	514.3	95.73	6.372	
14,200.0	11,450.0	14,806.6	12,060.0	64.5	66.3	-179.89	2,724.5	416.2	610.0	512.7	97.25	6.272	
14,300.0	11,450.0	14,906.6	12,060.0	66.2	68.0	-179.89	2,824.5	415.5	610.0	511.2	98.80	6.174	
14,400.0	11,450.0	15,006.6	12,060.0	68.0	69.7	-179.89	2,924.5	414.9	610.0	509.6	100.36	6.078	
14,500.0	11,450.0	15,106.6	12,060.0	69.7	71.5	-179.90	3,024.4	414.2	610.0	508.0	101.95	5.983	
14,600.0	11,450.0	15,206.6	12,060.0	71.5	73.2	-179.90	3,124.4	413.6	610.0	506.4	103.57	5.890	
14,700.0	11,450.0	15,306.6	12,060.0	73.3	75.0	-179.90	3,224.4	413.0	610.0	504.8	105.20	5.799	
14,800.0	11,450.0	15,406.6	12,060.0	75.1	76.7	-179.90	3,324.4	412.3	610.0	503.2	106.85	5.709	
14,900.0	11,450.0	15,506.6	12,060.0	76.9	78.5	-179.90	3,424.4	411.7	610.0	501.5	108.52	5.621	
15,000.0	11,450.0	15,606.6	12,060.0	78.7	80.3	-179.91	3,524.4	411.0	610.0	499.8	110.21	5.535	
15,100.0	11,450.0	15,706.6	12,060.0	80.6	82.1	-179.91	3,624.4	410.4	610.0	498.1	111.92	5.450	
15,200.0	11,450.0	15,806.6	12,060.0	82.4	83.9	-179.91	3,724.4	409.8	610.0	496.4	113.64	5.368	
15,300.0	11,450.0	15,906.6	12,060.0	84.3	85.8	-179.91	3,824.4	409.1	610.0	494.6	115.38	5.287	
15,400.0	11,450.0	16,006.6	12,060.0	86.1	87.6	-179.91	3,924.4	408.5	610.0	492.9	117.13	5.208	
15,500.0	11,450.0	16,106.6	12,060.0	88.0	89.4	-179.92	4,024.4	407.8	610.0	491.1	118.90	5.130	
15,600.0	11,450.0	16,206.6	12,060.0	89.9	91.3	-179.92	4,124.4	407.2	610.0	489.3	120.68	5.054	
15,700.0	11,450.0	16,306.6	12,060.0	91.7	93.2	-179.92	4,224.4	406.6	610.0	487.5	122.48	4.980	
15,800.0	11,450.0	16,406.6	12,060.0	93.6	95.0	-179.92	4,324.4	405.9	610.0	485.7	124.29	4.908	
15,900.0	11,450.0	16,506.6	12,060.0	95.5	96.9	-179.93	4,424.4	405.3	610.0	483.9	126.11	4.837	
16,000.0	11,450.0	16,606.6	12,060.0	97.4	98.8	-179.93	4,524.4	404.6	610.0	482.1	127.94	4.768	
16,100.0	11,450.0	16,706.6	12,060.0	99.3	100.6	-179.93	4,624.4	404.0	610.0	480.2	129.78	4.700	
16,200.0	11,450.0	16,806.6	12,060.0	101.2	102.5	-179.93	4,724.4	403.4	610.0	478.4	131.63	4.634	
16,300.0	11,450.0	16,906.6	12,060.0	103.1	104.4	-179.93	4,824.4	402.7	610.0	476.5	133.50	4.569	
16,400.0	11,450.0	17,006.6	12,060.0	105.0	106.3	-179.94	4,924.4	402.1	610.0	474.6	135.37	4.506	
16,500.0	11,450.0	17,106.6	12,060.0	107.0	108.2	-179.94	5,024.4	401.4	610.0	472.7	137.25	4.444	
16,600.0	11,450.0	17,206.6	12,060.0	108.9	110.1	-179.94	5,124.4	400.8	610.0	470.9	139.14	4.384	
16,700.0	11,450.0	17,306.6	12,060.0	110.8	112.0	-179.94	5,224.4	400.2	610.0	469.0	141.04	4.325	
16,800.0	11,450.0	17,406.6	12,060.0	112.7	113.9	-179.94	5,324.4	399.5	610.0	467.0	142.95	4.267	
16,900.0	11,450.0	17,506.6	12,060.0	114.7	115.9	-179.95	5,424.4	398.9	610.0	465.1	144.87	4.211	
17,000.0	11,450.0	17,606.6	12,060.0	116.6	117.8	-179.95	5,524.4	398.2	610.0	463.2	146.79	4.156	
17,100.0	11,450.0	17,706.6	12,060.0	118.5	119.7	-179.95	5,624.4	397.6	610.0	461.3	148.72	4.102	
17,200.0	11,450.0	17,806.6	12,060.0	120.5	121.6	-179.95	5,724.4	397.0	610.0	459.3	150.66	4.049	
17,300.0	11,450.0	17,906.6	12,060.0	122.4	123.6	-179.95	5,824.4	396.3	610.0	457.4	152.60	3.997	
17,400.0	11,450.0	18,006.6	12,060.0	124.4	125.5	-179.96	5,924.4	395.7	610.0	455.4	154.55	3.947	

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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1													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		
17,500.0	11,450.0	18,106.6	12,060.0	126.3	127.4	-179.96	6,024.4	395.1	610.0	453.5	156.51	3.898		
17,600.0	11,450.0	18,206.6	12,060.0	128.3	129.4	-179.96	6,124.4	394.4	610.0	451.5	158.47	3.849		
17,700.0	11,450.0	18,306.6	12,060.0	130.2	131.3	-179.96	6,224.4	393.8	610.0	449.6	160.44	3.802		
17,800.0	11,450.0	18,406.6	12,060.0	132.2	133.2	-179.96	6,324.4	393.1	610.0	447.6	162.42	3.756		
17,900.0	11,450.0	18,506.6	12,060.0	134.1	135.2	-179.97	6,424.4	392.5	610.0	445.6	164.40	3.711		
18,000.0	11,450.0	18,606.6	12,060.0	136.1	137.1	-179.97	6,524.4	391.9	610.0	443.6	166.38	3.666		
18,100.0	11,450.0	18,706.6	12,060.0	138.0	139.1	-179.97	6,624.4	391.2	610.0	441.6	168.37	3.623		
18,200.0	11,450.0	18,806.6	12,060.0	140.0	141.0	-179.97	6,724.4	390.6	610.0	439.6	170.37	3.580		
18,300.0	11,450.0	18,906.6	12,060.0	142.0	143.0	-179.97	6,824.4	389.9	610.0	437.6	172.37	3.539		
18,400.0	11,450.0	19,006.6	12,060.0	143.9	144.9	-179.98	6,924.4	389.3	610.0	435.6	174.37	3.498		
18,500.0	11,450.0	19,106.6	12,060.0	145.9	146.9	-179.98	7,024.4	388.7	610.0	433.6	176.38	3.458		
18,600.0	11,450.0	19,206.6	12,060.0	147.9	148.9	-179.98	7,124.4	388.0	610.0	431.6	178.39	3.419		
18,700.0	11,450.0	19,306.6	12,060.0	149.8	150.8	-179.98	7,224.4	387.4	610.0	429.6	180.41	3.381		
18,800.0	11,450.0	19,406.6	12,060.0	151.8	152.8	-179.98	7,324.4	386.7	610.0	427.6	182.43	3.344		
18,900.0	11,450.0	19,506.6	12,060.0	153.8	154.7	-179.99	7,424.4	386.1	610.0	425.5	184.46	3.307		
19,000.0	11,450.0	19,606.6	12,060.0	155.7	156.7	-179.99	7,524.4	385.5	610.0	423.5	186.48	3.271		
19,100.0	11,450.0	19,706.6	12,060.0	157.7	158.7	-179.99	7,624.4	384.8	610.0	421.5	188.52	3.236		
19,200.0	11,450.0	19,806.6	12,060.0	159.7	160.6	-179.99	7,724.4	384.2	610.0	419.4	190.55	3.201		
19,300.0	11,450.0	19,906.6	12,060.0	161.7	162.6	-179.99	7,824.4	383.5	610.0	417.4	192.59	3.167		
19,400.0	11,450.0	20,006.6	12,060.0	163.6	164.6	-180.00	7,924.3	382.9	610.0	415.4	194.63	3.134		
19,500.0	11,450.0	20,106.6	12,060.0	165.6	166.5	-180.00	8,024.3	382.3	610.0	413.3	196.68	3.102		
19,558.7	11,450.0	20,165.3	12,060.0	166.8	167.7	180.00	8,083.1	381.9	610.0	412.1	197.88	3.083		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Unit #003 - Dagger State Unit #003 - Dagger State Unit #003													Offset Site Error:	0.0 usft
Survey Program: 14683-MWD+HRGM													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)				
15,400.0	11,450.0	11,410.5	11,410.5	86.1	7,002.2	90.00	4,819.5	573.7	910.0	-6,118.2	7,028.23	0.129	Level 3	
15,500.0	11,450.0	11,410.5	11,410.5	88.0	7,002.2	90.00	4,819.5	573.7	812.0	-6,217.1	7,029.08	0.116	Level 3	
15,600.0	11,450.0	11,410.5	11,410.5	89.9	7,002.2	90.00	4,819.5	573.7	714.6	-6,315.8	7,030.38	0.102	Level 3	
15,700.0	11,450.0	11,410.5	11,410.5	91.7	7,002.2	90.00	4,819.5	573.7	617.9	-6,414.5	7,032.38	0.088	Level 3	
15,800.0	11,450.0	11,410.5	11,410.5	93.6	7,002.2	90.00	4,819.5	573.7	522.5	-6,513.1	7,035.57	0.074	Level 3	
15,900.0	11,450.0	11,410.5	11,410.5	95.5	7,002.2	90.00	4,819.5	573.7	429.2	-6,611.6	7,040.81	0.061	Level 3	
16,000.0	11,450.0	11,410.5	11,410.5	97.4	7,002.2	90.00	4,819.5	573.7	339.7	-6,709.9	7,049.65	0.048	Level 3	
16,100.0	11,450.0	11,410.5	11,410.5	99.3	7,002.2	90.00	4,819.5	573.7	258.1	-6,806.6	7,064.70	0.037	Level 3	
16,200.0	11,450.0	11,410.5	11,410.5	101.2	7,002.2	90.00	4,819.5	573.7	194.5	-6,893.2	7,087.64	0.027	Level 3	
16,294.0	11,450.0	11,410.5	11,410.5	103.0	7,002.2	90.00	4,819.5	573.7	170.2	-6,934.6	7,104.89	0.024	Level 3, CC, SF	
16,300.0	11,450.0	11,410.5	11,410.5	103.1	7,002.2	90.00	4,819.5	573.7	170.3	-6,934.9	7,105.22	0.024	Level 3, ES	
16,400.0	11,450.0	11,410.5	11,410.5	105.0	7,002.2	90.00	4,819.5	573.7	200.6	-6,895.8	7,096.34	0.028	Level 3	
16,500.0	11,450.0	11,410.5	11,410.5	107.0	7,002.2	90.00	4,819.5	573.7	267.3	-6,811.8	7,079.05	0.038	Level 3	
16,600.0	11,450.0	11,410.5	11,410.5	108.9	7,002.2	90.00	4,819.5	573.7	350.2	-6,716.2	7,066.36	0.050	Level 3	
16,700.0	11,450.0	11,410.5	11,410.5	110.8	7,002.2	90.00	4,819.5	573.7	440.3	-6,617.8	7,058.11	0.062	Level 3	
16,800.0	11,450.0	11,410.5	11,410.5	112.7	7,002.2	90.00	4,819.5	573.7	533.9	-6,518.8	7,052.66	0.076	Level 3	
16,900.0	11,450.0	11,410.5	11,410.5	114.7	7,002.2	90.00	4,819.5	573.7	629.5	-6,419.4	7,048.91	0.089	Level 3	
17,000.0	11,450.0	11,410.5	11,410.5	116.6	7,002.2	90.00	4,819.5	573.7	726.3	-6,320.0	7,046.25	0.103	Level 3	
17,100.0	11,450.0	11,410.5	11,410.5	118.5	7,002.2	90.00	4,819.5	573.7	823.8	-6,220.5	7,044.30	0.117	Level 3	
17,200.0	11,450.0	11,410.5	11,410.5	120.5	7,002.2	90.00	4,819.5	573.7	921.9	-6,121.0	7,042.83	0.131	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 Dagger State Com 556H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 556H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 556H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 556H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3848.5usft (Original Well Ele

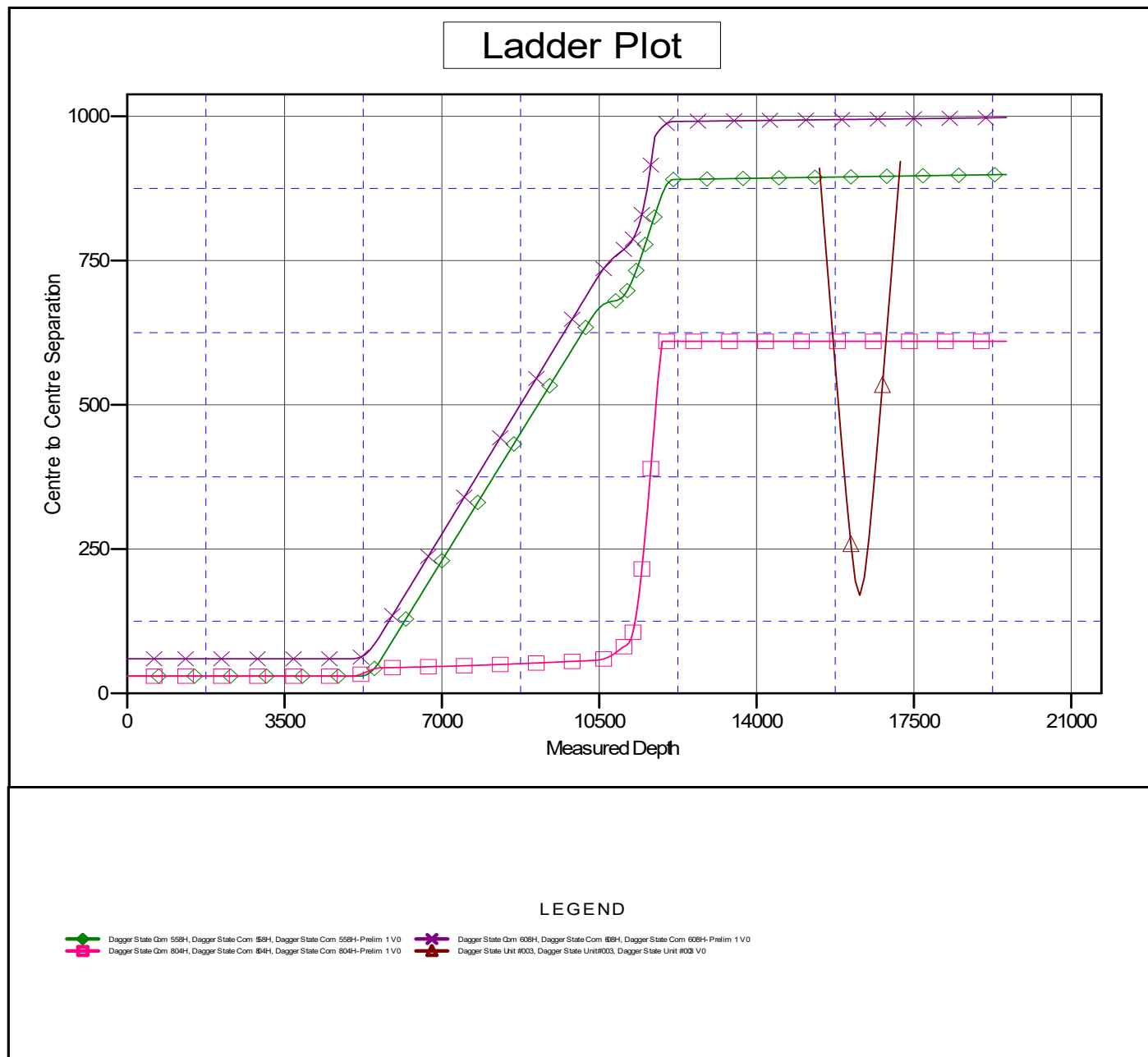
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 556H

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

Grid Convergence at Surface is: 0.38°



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



Anticollision Report

Company: Advance Energy Partners
Project: Hat Mesa
Reference Site: Dagger State
Site Error: 0.0 usft
Reference Well: Dagger State Com 556H
Well Error: 0.0 usft
Reference Wellbore: Dagger State Com 556H
Reference Design: Dagger State Com 556H - Prelim 1

Local Co-ordinate Reference: Well Dagger State Com 556H
TVD Reference: WELL @ 3848.5usft (Original Well Elev)
MD Reference: WELL @ 3848.5usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.79 sigma
Database: EDM 5000.16 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 3848.5usft (Original Well Ele

Offset Depths are relative to Offset Datum

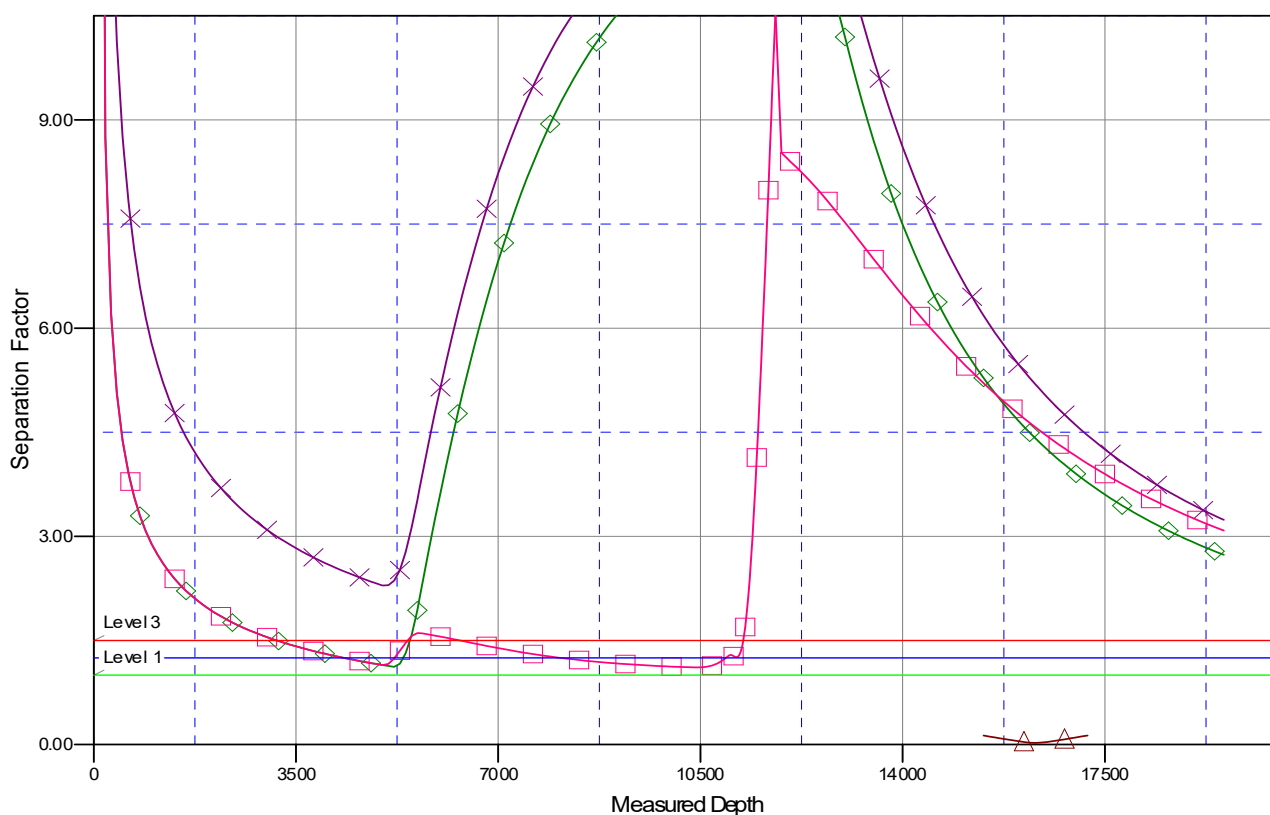
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 556H

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

Grid Convergence at Surface is: 0.38°

Separation Factor Plot



LEGEND

◆ Dagger State Com 556H, Dagger State Com 556H, Dagger State Com 556H-Prelim 1 V0
 ◆ Dagger State Com 608H, Dagger State Com 608H, Dagger State Com 608H-Prelim 1 V0
 ◆ Dagger State Unit #003, Dagger State Unit #003, Dagger State Unit #003 V0

**WELL DETAILS: Dagger State Com 556H**

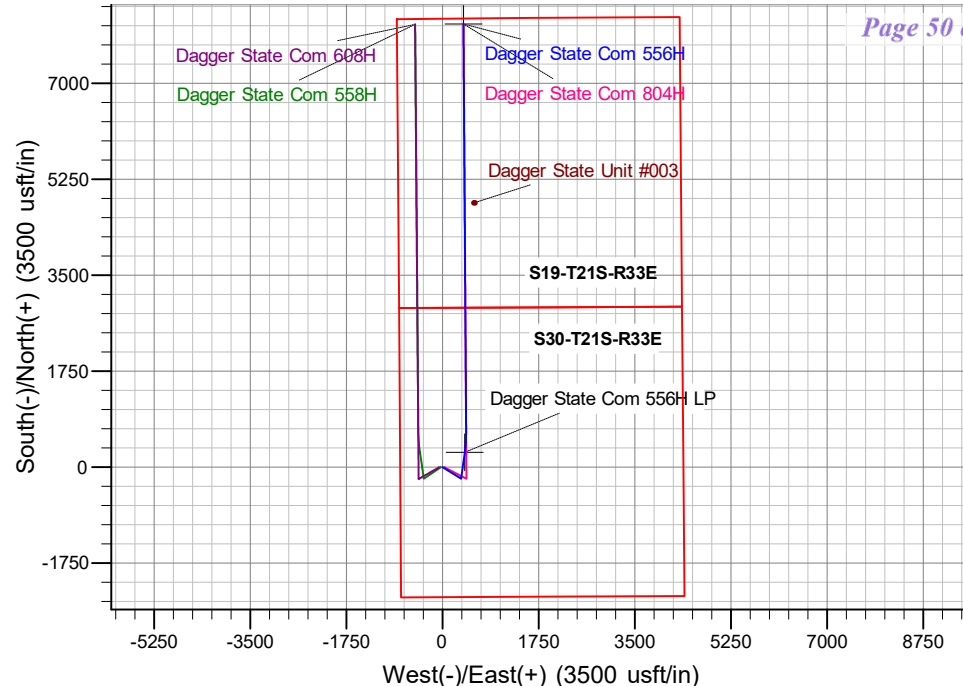
Ground Elev: 3816.0 KB: 3848.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	527878.41	762199.30	32° 26' 57.001 N	103° 37' 2.438 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	5200.0	0.00	0.00	5200.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	5638.5	4.39	121.70	5638.1	-8.8	14.3	1.00	121.70	-8.1	Start 4787.8 hold at 5638.5 MD
4	10426.4	4.39	121.70	10411.9	-201.2	325.7	0.00	0.00	-185.6	Start Drop -1.00
5	10864.9	0.00	0.00	10850.0	-210.0	340.0	1.00	180.00	-193.7	Start 122.5 hold at 10864.9 MD
6	10987.4	0.00	0.00	10972.5	-210.0	340.0	0.00	0.00	-193.7	KOP #2 - Start Build 12.00
7	11737.4	90.00	7.72	11450.0	263.1	404.1	12.00	7.72	281.9	LP - Start 6.5 hold at 11737.4 MD
8	11744.0	90.00	7.72	11450.0	269.6	405.0	0.00	0.00	288.4	Start DLS 2.00 TFO -90.00
9	12148.8	90.00	359.62	11450.0	673.3	430.9	2.00	-90.00	692.9	Start 7409.9 hold at 12148.8 MD
10	19558.7	90.00	359.62	11450.0	8083.1	381.9	0.00	0.00	8092.1	TD at 19558.7

