

District I

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

District II

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

District III

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

District IV

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

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

Form C-101
August 1, 2011

Permit 296230

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 30-025-48898
4. Property Code 319601	5. Property Name DAGGER STATE COM	6. Well No. 514H

7. Surface Location

UL - Lot L	Section 30	Township 21S	Range 33E	Lot Idn	Feet From 2620	N/S Line S	Feet From 740	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 330	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 3815
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

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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: 5/17/2021	Phone: 406-300-3310	Conditions of Approval Attached

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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
	97929	WC-025 G-06 S213326D; BONE SPRING
Property Code	Property Name	Well Number
319601	DAGGER STATE COM	514H
OGRID No.	Operator Name	Elevation
37241732.47	ADVANCE ENERGY PARTNERS HAT MESA	3815'

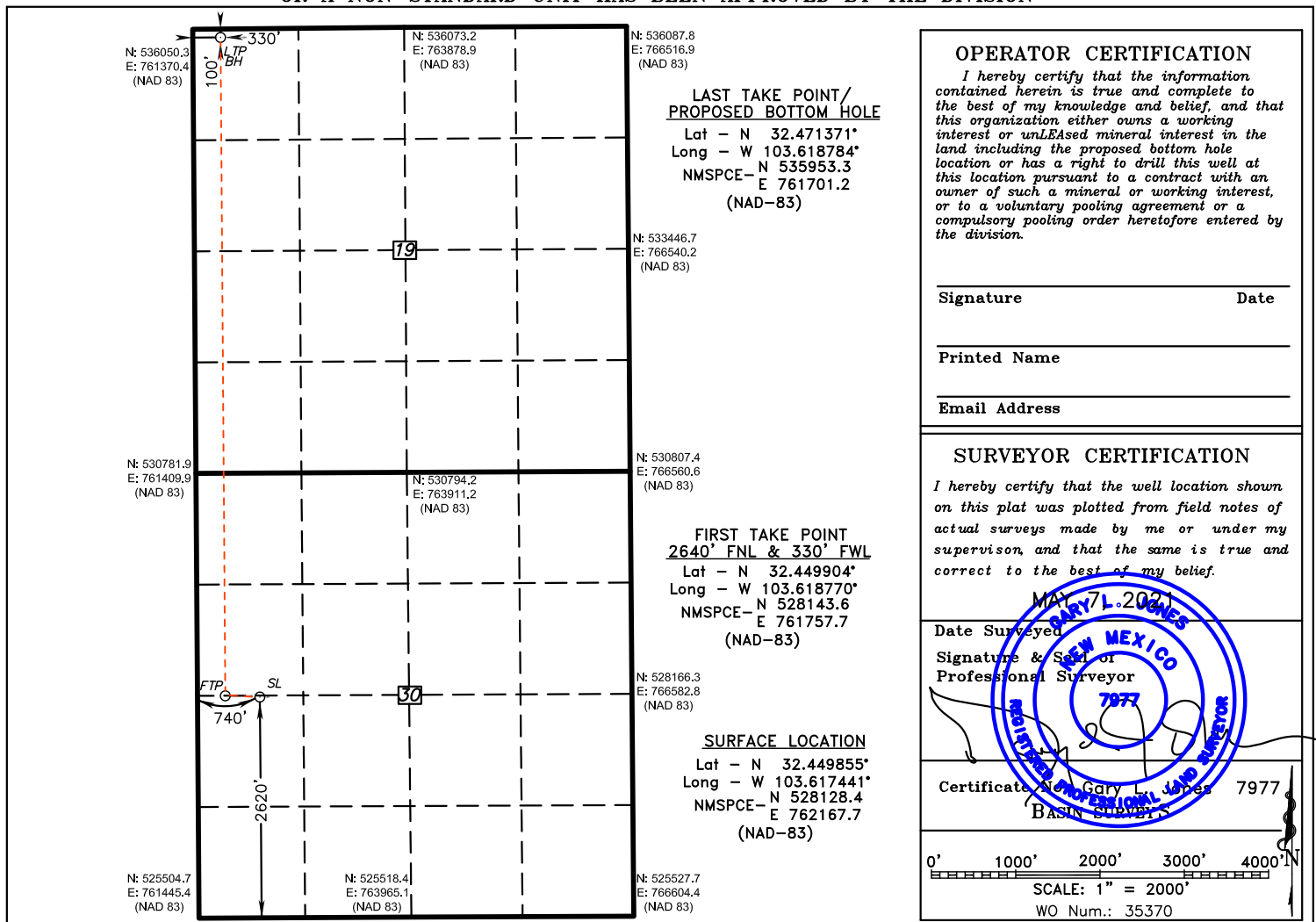
Surface Location

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		2620	SOUTH	740	WEST	LEA

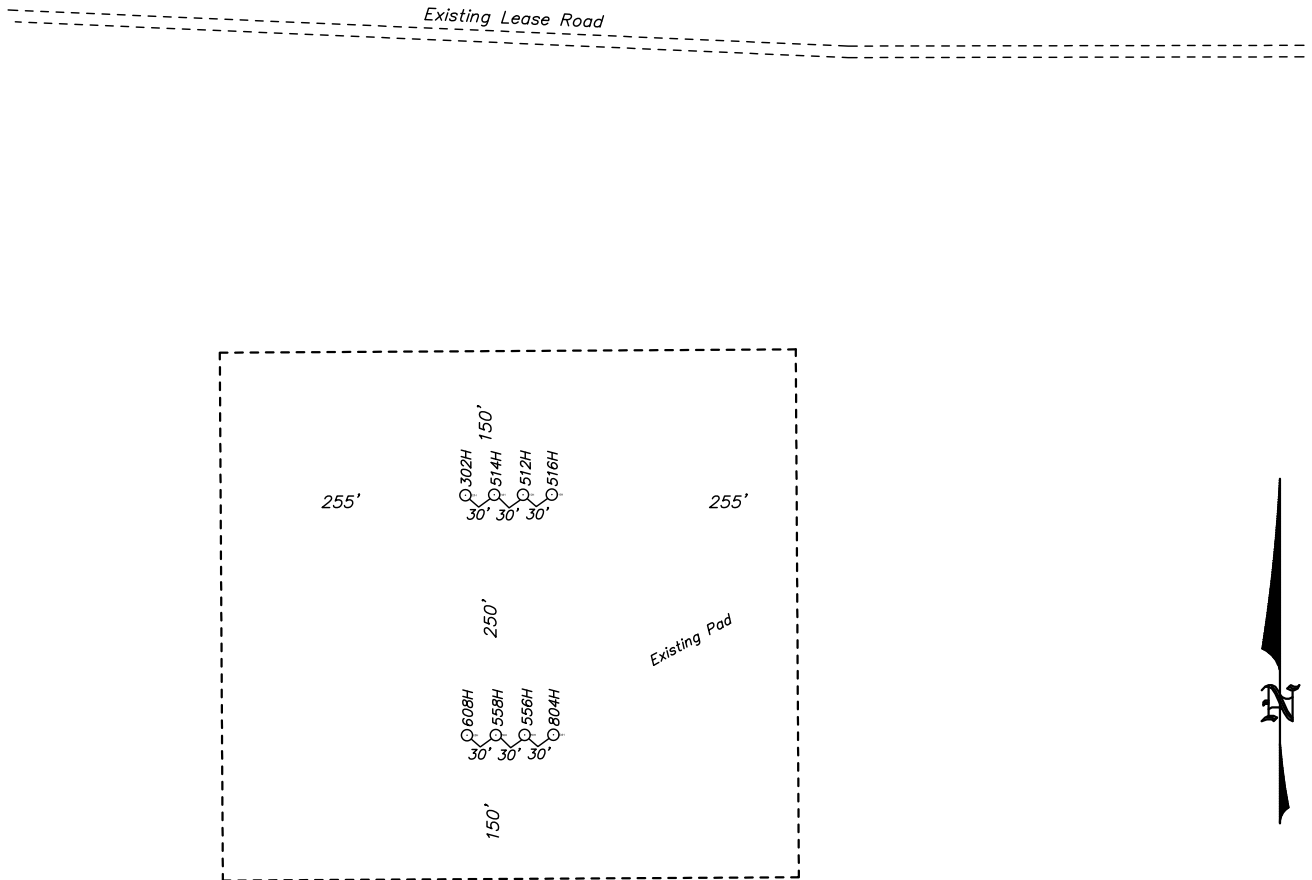
Bottom Hole Location If Different From Surface

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	330	WEST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

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



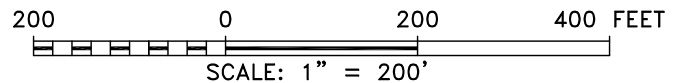
**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA
DAGGER STATE COM #514H
ELEV. - 3815'**

Lat - N 32.449855°
Long - W 103.617441°
NMSPCE - N 528128.4
E 762167.7
(NAD-83)

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #514H / WELL PAD TOPO

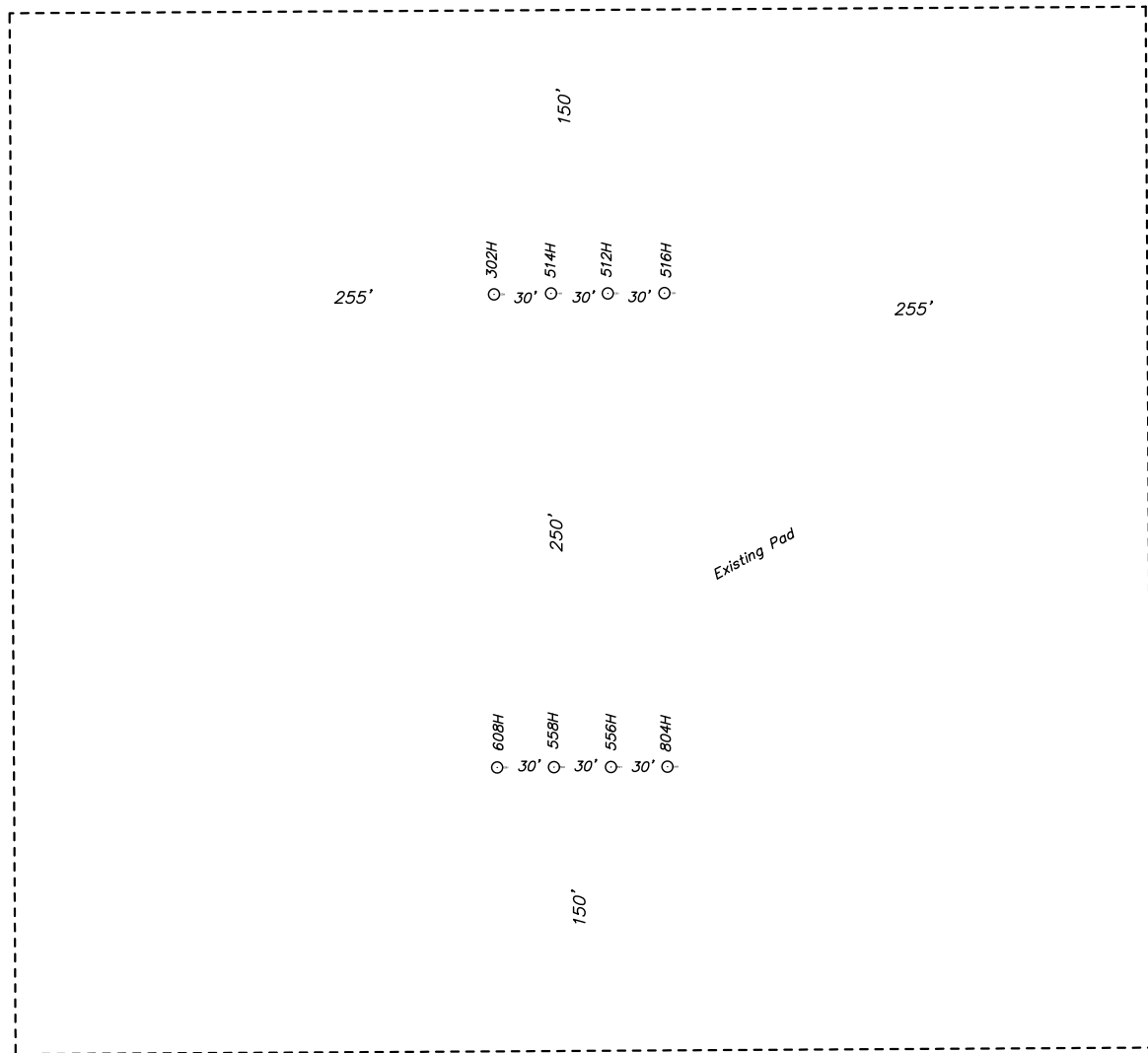
THE DAGGER STATE COM #514H LOCATED 2620' FROM
THE SOUTH LINE AND 740' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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

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in the oilfield

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

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



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

ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #514H / WELL PAD TOPO

THE DAGGER STATE COM #514H LOCATED 2620' FROM
THE SOUTH LINE AND 740' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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W.O. Number: 35370	Drawn By: K. GOAD	Date: 05-13-2021	Survey Date: 05-07-2021	Sheet 1 of 1 Sheets
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DAGGER STATE COM #514H

Located 2620' FSL and 740' 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' 1500'
 SCALE: 1" = 2000'

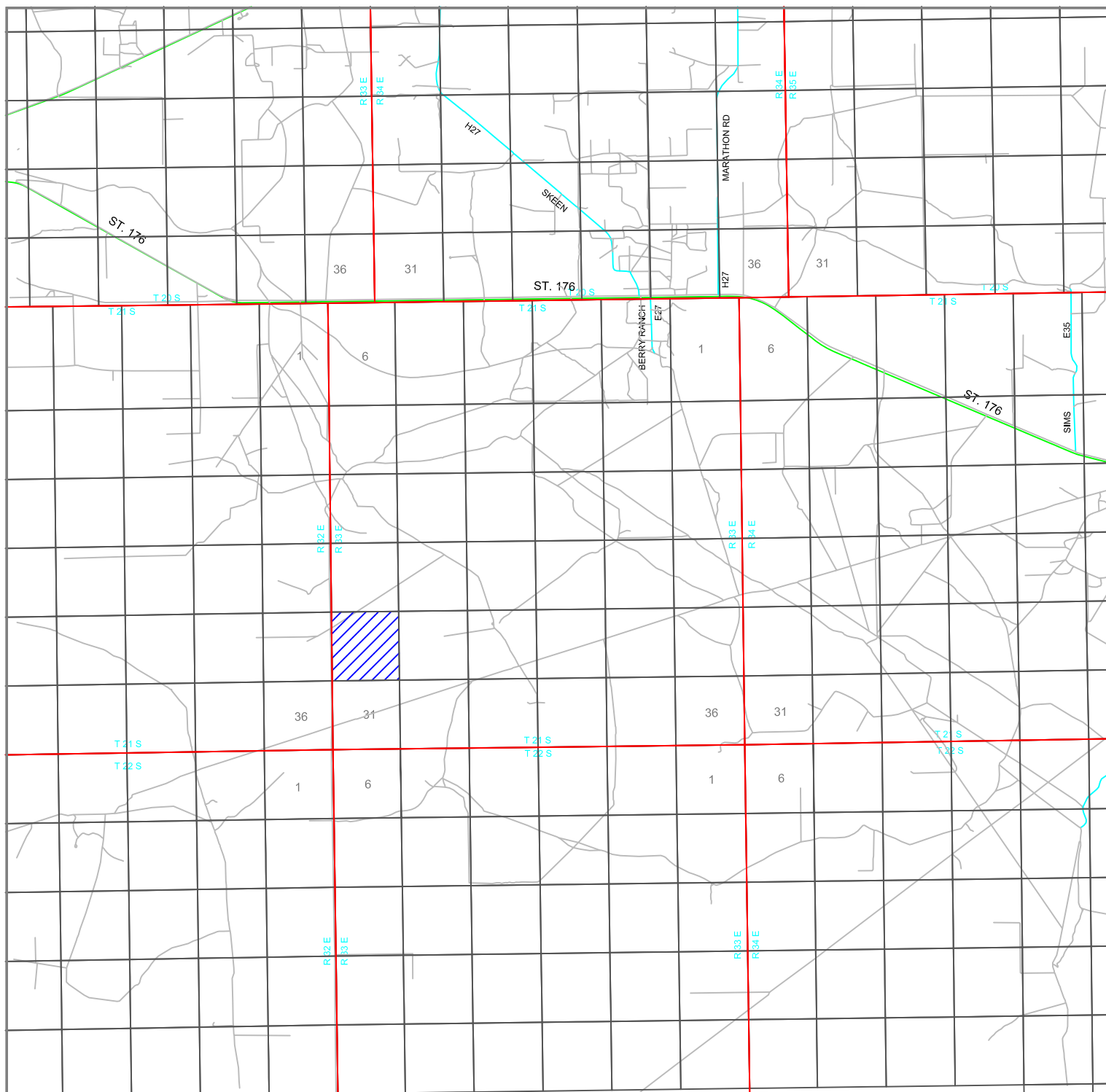
W.O. Number: KJG 35370

Survey Date: 05-07-2021

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**



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Located 2620' FSL and 740' FWL
 Section 30, Township 21 South, Range 33 East,
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0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

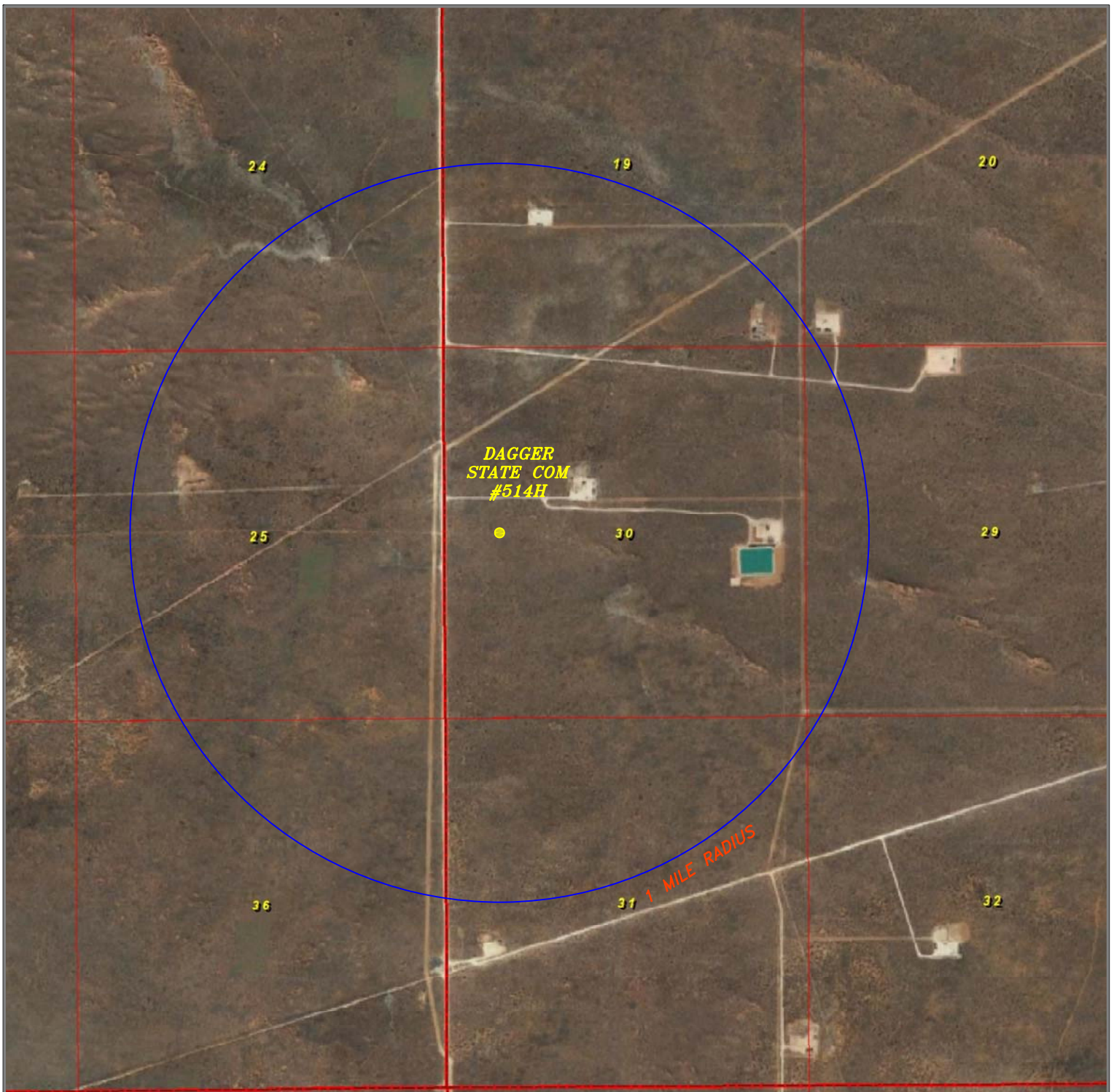
W.O. Number: KJG 35370

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**



DAGGER STATE COM #514H

Located 2620' FSL and 740' 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 35370

Survey Date: 05-07-2021

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



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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 #514H	30-025-48898	L-30-21S-33E	2620S 0740W	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 250' 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
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 296230

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: 30-025-48898
	Well: DAGGER STATE COM #514H

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 #514H

PROPOSED LOCATION: U/L L Sec 30 T21S R33E 2620 FSL 740 FWL

Lat. 32.449855 Long. -103.617441 NAD83

PROPOSED DEPTH: 18671' MD 10550' 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

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 S. RUTLEY

Representing BLM-CFO

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



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 514H

Dagger State Com 514H

Dagger State Com 514H - Prelim 1

Anticollision Report

17 May, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Dagger State Com 514H - 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 5/17/2021				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	18,671.2	Dagger State Com 514H - 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 302H - Dagger State Com 302H - Da	5,000.0	5,000.0	29.9	3.8	1.145	Level 3, CC, ES, SF
Dagger State Com 512H - Dagger State Com 512H - Da	5,200.0	5,200.0	29.9	3.2	1.119	Level 3, CC, ES, SF
Dagger State Com 516H - Dagger State Com 516H - Da	5,000.0	5,000.0	59.8	33.7	2.291	CC, ES, SF
Dagger State Com 556H - Dagger State Com 556H - Da	6,298.1	6,280.5	237.7	208.3	8.097	CC
Dagger State Com 556H - Dagger State Com 556H - Da	6,300.0	6,282.4	237.7	208.3	8.095	ES
Dagger State Com 556H - Dagger State Com 556H - Da	6,700.0	6,678.8	243.7	212.8	7.891	SF
Dagger State Com 558H - Dagger State Com 558H - Da	9,000.0	8,981.6	52.5	5.2	1.111	Level 3, ES, SF
Dagger State Com 558H - Dagger State Com 558H - Da	9,140.3	9,121.5	51.6	5.6	1.123	Level 3, CC
Dagger State Com 608H - Dagger State Com 608H - Da	8,800.0	8,780.6	98.9	53.8	2.193	ES, SF
Dagger State Com 608H - Dagger State Com 608H - Da	8,847.7	8,828.2	98.9	53.8	2.195	CC
Dagger State Com 804H - Dagger State Com 804H - Da	4,916.3	4,917.3	257.7	231.9	9.965	CC
Dagger State Com 804H - Dagger State Com 804H - Da	5,000.0	5,000.0	257.7	231.6	9.865	ES
Dagger State Com 804H - Dagger State Com 804H - Da	6,600.0	6,577.7	274.2	243.4	8.918	SF
Dagger State Unit #003 - Dagger State Unit #003 - Dagg						Out of range

Offset Design:	Dagger State - Dagger State Com 302H - Dagger State Com 302H - Dagger State Com 302H - Prelim 1										Offset Site Error:	0.0 usft
Survey Program:	0-MWD+HRGM										Offset Well Error:	0.0 usft
Reference	Vertical	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Minimum	Separation	Rule Assigned:			
Measured Depth (usft)	Depth (usft)	Depth (usft)	Reference (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	Warning	
0.0	0.0	0.0	0.0	-91.08	-0.6	-29.9	29.9					
100.0	100.0	100.0	0.5	-91.08	-0.6	-29.9	29.9	28.9	1.06	28.223		
200.0	200.0	200.0	1.7	-91.08	-0.6	-29.9	29.9	26.5	3.42	8.741		
300.0	300.0	300.0	2.4	-91.08	-0.6	-29.9	29.9	25.1	4.82	6.205		
400.0	400.0	400.0	3.0	-91.08	-0.6	-29.9	29.9	24.0	5.91	5.065		
500.0	500.0	500.0	3.4	-91.08	-0.6	-29.9	29.9	23.1	6.83	4.381		
524.1	524.1	524.1	3.5	-91.08	-0.6	-29.9	29.9	22.9	7.03	4.258		
600.0	600.0	600.0	3.8	-91.08	-0.6	-29.9	29.9	22.3	7.65	3.912		
633.3	633.3	633.3	3.9	-91.08	-0.6	-29.9	29.9	22.0	7.90	3.789		
700.0	700.0	700.0	4.2	-91.08	-0.6	-29.9	29.9	21.5	8.39	3.565		
800.0	800.0	800.0	4.5	-91.08	-0.6	-29.9	29.9	20.8	9.08	3.294		
900.0	900.0	900.0	4.9	-91.08	-0.6	-29.9	29.9	20.2	9.73	3.075		
1,000.0	1,000.0	1,000.0	5.2	-91.08	-0.6	-29.9	29.9	19.6	10.34	2.894		
1,100.0	1,100.0	1,100.0	5.5	-91.08	-0.6	-29.9	29.9	19.0	10.92	2.740		

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 302H - Dagger State Com 302H - Dagger State Com 302H - 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		Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-29.9	29.9	6.7	23.21	1.289 Level 3		
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-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	-91.08	-0.6	-29.9	29.9	4.1	25.81	1.159 Level 3		
4,966.7	4,966.7	4,966.7	4,966.7	13.0	13.0	-91.08	-0.6	-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	-91.08	-0.6	-29.9	29.9	3.8	26.12	1.145 Level 3, CC, ES, SF		
5,100.0	5,100.0	5,099.7	5,099.6	13.2	13.2	-92.32	-1.2	-30.5	30.5	4.1	26.37	1.156 Level 3		
5,200.0	5,200.0	5,199.2	5,199.2	13.4	13.2	-95.76	-3.2	-32.1	32.3	5.7	26.60	1.214 Level 3		
5,300.0	5,300.0	5,298.8	5,298.6	13.5	13.3	56.50	-6.6	-34.9	35.0	8.3	26.76	1.309 Level 3		
5,400.0	5,400.0	5,398.2	5,397.9	13.5	13.4	53.77	-11.2	-38.7	38.2	11.3	26.92	1.419 Level 3		
5,500.0	5,499.9	5,497.6	5,496.9	13.6	13.6	51.93	-17.2	-43.6	41.8	14.7	27.09	1.542		
5,600.0	5,599.7	5,596.9	5,595.8	13.7	13.7	50.82	-24.6	-49.6	45.7	18.4	27.29	1.675		
5,700.0	5,699.4	5,696.1	5,694.4	13.9	13.9	50.28	-33.2	-56.7	49.9	22.4	27.52	1.815		
5,800.0	5,798.9	5,795.3	5,792.7	14.0	14.1	50.19	-43.1	-64.9	54.5	26.7	27.77	1.962		
5,892.1	5,890.4	5,886.5	5,882.9	14.2	14.4	50.41	-53.4	-73.4	58.9	30.9	28.03	2.103		
5,900.0	5,898.3	5,894.3	5,890.7	14.2	14.4	50.44	-54.4	-74.2	59.3	31.3	28.04	2.116		
6,000.0	5,997.5	5,993.6	5,988.6	14.3	14.6	50.35	-66.9	-84.4	65.1	36.8	28.30	2.299		
6,100.0	6,096.8	6,093.4	6,087.0	14.6	14.9	50.09	-79.8	-95.0	71.1	42.5	28.67	2.481		

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 302H - Dagger State Com 302H - Dagger State Com 302H - 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)			
6,200.0	6,196.1	6,193.2	6,185.4	14.8	15.2	49.87	-92.7	-105.6	77.2	48.1	29.07	2.655	
6,300.0	6,295.3	6,293.0	6,283.9	15.1	15.5	49.68	-105.6	-116.2	83.2	53.7	29.51	2.821	
6,400.0	6,394.6	6,392.8	6,382.3	15.3	15.8	49.52	-118.4	-126.8	89.3	59.3	29.98	2.979	
6,500.0	6,493.9	6,492.7	6,480.7	15.6	16.2	49.37	-131.3	-137.4	95.4	64.9	30.47	3.130	
6,600.0	6,593.2	6,592.5	6,579.1	15.9	16.6	49.25	-144.2	-148.0	101.4	70.4	30.99	3.273	
6,700.0	6,692.4	6,692.3	6,677.5	16.3	17.0	49.14	-157.1	-158.6	107.5	76.0	31.54	3.409	
6,800.0	6,791.7	6,792.1	6,775.9	16.6	17.4	49.04	-170.0	-169.2	113.6	81.5	32.11	3.537	
6,900.0	6,891.0	6,891.9	6,874.3	17.0	17.8	48.95	-182.9	-179.8	119.6	86.9	32.70	3.659	
7,000.0	6,990.2	6,991.7	6,972.7	17.3	18.2	48.87	-195.8	-190.4	125.7	92.4	33.31	3.774	
7,100.0	7,089.5	7,091.6	7,071.1	17.7	18.7	48.79	-208.7	-201.0	131.8	97.8	33.94	3.883	
7,200.0	7,188.8	7,191.4	7,169.6	18.1	19.1	48.73	-221.6	-211.6	137.8	103.3	34.59	3.985	
7,300.0	7,288.1	7,291.2	7,268.0	18.5	19.6	48.67	-234.5	-222.2	143.9	108.7	35.25	4.082	
7,400.0	7,387.3	7,391.0	7,366.4	18.9	20.1	48.61	-247.4	-232.8	150.0	114.0	35.94	4.173	
7,500.0	7,486.6	7,490.8	7,464.8	19.3	20.6	48.56	-260.2	-243.4	156.0	119.4	36.64	4.259	
7,600.0	7,585.9	7,590.6	7,563.2	19.7	21.0	48.51	-273.1	-254.0	162.1	124.8	37.35	4.340	
7,700.0	7,685.1	7,690.4	7,661.6	20.2	21.5	48.47	-286.0	-264.6	168.2	130.1	38.08	4.417	
7,800.0	7,784.4	7,790.3	7,760.0	20.6	22.0	48.42	-298.9	-275.2	174.2	135.4	38.82	4.489	
7,900.0	7,883.7	7,890.1	7,858.4	21.0	22.6	48.39	-311.8	-285.8	180.3	140.7	39.57	4.557	
8,000.0	7,983.0	7,989.9	7,956.8	21.5	23.1	48.35	-324.7	-296.4	186.4	146.0	40.34	4.621	
8,100.0	8,082.2	8,089.7	8,055.2	22.0	23.6	48.32	-337.6	-307.0	192.5	151.3	41.11	4.681	
8,200.0	8,181.5	8,189.5	8,153.7	22.4	24.1	48.28	-350.5	-317.6	198.5	156.6	41.90	4.738	
8,300.0	8,280.8	8,289.3	8,252.1	22.9	24.7	48.25	-363.4	-328.2	204.6	161.9	42.70	4.792	
8,400.0	8,380.0	8,389.2	8,350.5	23.4	25.2	48.23	-376.3	-338.8	210.7	167.2	43.50	4.842	
8,500.0	8,479.3	8,489.2	8,449.1	23.9	25.7	48.20	-389.2	-349.5	216.7	172.4	44.30	4.892	
8,600.0	8,578.6	8,592.4	8,551.0	24.4	26.3	48.32	-401.7	-359.7	221.9	176.8	45.08	4.923	
8,700.0	8,677.9	8,695.7	8,653.3	24.8	26.8	48.70	-412.8	-368.9	225.6	179.8	45.80	4.927	
8,800.0	8,777.1	8,799.0	8,755.9	25.3	27.3	49.32	-422.5	-376.9	227.9	181.4	46.43	4.907	
8,900.0	8,876.4	8,902.4	8,858.7	25.8	27.9	50.20	-430.8	-383.6	228.6	181.6	46.96	4.868	
9,000.0	8,975.7	9,005.6	8,961.5	26.3	28.4	51.34	-437.6	-389.2	228.0	180.6	47.39	4.811	
9,100.0	9,074.9	9,108.7	9,064.4	26.8	28.8	52.77	-443.0	-393.7	226.0	178.3	47.68	4.739	
9,200.0	9,174.2	9,211.6	9,167.2	27.4	29.3	54.52	-446.9	-396.9	222.7	174.9	47.81	4.658	
9,286.0	9,259.6	9,299.9	9,255.4	27.8	29.6	56.31	-449.2	-398.8	219.0	171.2	47.77	4.583	
9,300.0	9,273.5	9,314.2	9,269.7	27.9	29.7	56.62	-449.4	-399.0	218.3	170.5	47.74	4.572	
9,400.0	9,372.9	9,416.6	9,372.1	28.3	30.0	58.84	-450.5	-399.9	213.4	165.9	47.51	4.492	
9,500.0	9,472.5	9,517.0	9,472.5	28.8	30.0	60.96	-450.6	-399.9	208.9	161.7	47.12	4.433	
9,600.0	9,572.2	9,617.5	9,572.9	29.3	30.0	63.24	-448.9	-399.9	205.3	158.6	46.62	4.403	
9,694.1	9,666.1	9,708.7	9,662.5	29.7	29.7	69.13	-432.5	-400.1	203.3	158.4	44.90	4.527	
9,700.0	9,672.0	9,714.1	9,667.8	29.7	29.7	69.62	-431.0	-400.1	203.3	158.5	44.76	4.541	
9,800.0	9,771.9	9,800.0	9,747.5	30.1	29.4	79.24	-399.5	-400.3	208.5	166.0	42.51	4.906	
9,900.0	9,871.9	9,871.8	9,808.9	30.5	29.1	89.25	-362.4	-400.6	227.8	186.0	41.81	5.448	
9,978.1	9,950.0	9,919.6	9,846.4	30.6	28.9	-59.76	-332.9	-400.9	254.5	211.9	42.65	5.968	
10,000.0	9,971.9	9,931.7	9,855.5	30.6	28.9	-58.07	-324.8	-400.9	263.8	220.8	43.04	6.130	
10,100.6	10,072.5	9,980.8	9,889.9	30.7	28.7	-51.47	-289.8	-401.2	315.5	270.3	45.18	6.982	
10,125.0	10,096.9	9,991.6	9,896.9	30.7	28.7	-34.48	-281.7	-401.3	329.5	283.8	45.70	7.210	
10,150.0	10,121.8	10,000.0	9,902.3	30.6	28.7	-32.38	-275.2	-401.3	343.8	297.5	46.30	7.425	
10,175.0	10,146.6	10,013.7	9,910.8	30.5	28.6	-29.94	-264.4	-401.4	357.7	311.0	46.73	7.655	
10,200.0	10,171.2	10,025.0	9,917.6	30.4	28.6	-27.96	-255.4	-401.5	371.4	324.2	47.22	7.866	
10,225.0	10,195.5	10,036.0	9,924.0	30.3	28.6	-26.19	-246.4	-401.6	384.8	337.1	47.70	8.066	
10,250.0	10,219.5	10,050.0	9,931.9	30.3	28.6	-24.36	-234.9	-401.7	397.8	349.7	48.10	8.269	
10,275.0	10,243.1	10,058.5	9,936.4	30.2	28.5	-23.07	-227.7	-401.7	410.3	361.7	48.63	8.438	
10,300.0	10,266.2	10,075.0	9,945.0	30.1	28.5	-21.40	-213.6	-401.8	422.5	373.6	48.96	8.630	
10,325.0	10,288.7	10,081.0	9,948.0	30.0	28.5	-20.48	-208.4	-401.9	434.1	384.6	49.53	8.765	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 302H - Dagger State Com 302H - Dagger State Com 302H - 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	
10,350.0	10,310.7	10,092.3	9,953.4	29.9	28.5	-19.35	-198.5	-402.0	445.3	395.3	49.97	8.912	
10,375.0	10,332.1	10,100.0	9,957.0	29.8	28.5	-18.50	-191.7	-402.0	456.0	405.5	50.48	9.033	
10,400.0	10,352.7	10,114.9	9,963.6	29.7	28.5	-17.37	-178.3	-402.1	466.1	415.3	50.84	9.169	
10,425.0	10,372.5	10,125.0	9,967.9	29.6	28.5	-16.55	-169.2	-402.2	475.8	424.5	51.30	9.275	
10,450.0	10,391.6	10,137.6	9,972.9	29.5	28.4	-15.70	-157.6	-402.3	484.8	433.1	51.70	9.378	
10,475.0	10,409.7	10,150.0	9,977.5	29.4	28.4	-14.92	-146.1	-402.4	493.3	441.2	52.10	9.468	
10,500.0	10,426.9	10,160.3	9,981.2	29.4	28.4	-14.27	-136.5	-402.5	501.2	448.7	52.55	9.537	
10,525.0	10,443.2	10,175.0	9,986.0	29.3	28.4	-13.52	-122.6	-402.6	508.6	455.7	52.91	9.611	
10,550.0	10,458.4	10,183.0	9,988.4	29.2	28.4	-13.06	-114.9	-402.6	515.3	461.9	53.41	9.648	
10,575.0	10,472.6	10,200.0	9,993.2	29.2	28.4	-12.33	-98.7	-402.8	521.4	467.7	53.72	9.706	
10,600.0	10,485.7	10,200.0	9,993.2	29.1	28.4	-12.19	-98.7	-402.8	526.9	472.6	54.37	9.692	
10,625.0	10,497.7	10,217.2	9,997.4	29.1	28.4	-11.53	-82.0	-402.9	531.7	477.1	54.68	9.724	
10,650.0	10,508.5	10,225.0	9,999.1	29.1	28.4	-11.20	-74.4	-403.0	536.0	480.8	55.17	9.715	
10,675.0	10,518.1	10,239.9	10,002.1	29.1	28.5	-10.68	-59.7	-403.1	539.6	484.1	55.53	9.717	
10,700.0	10,526.4	10,250.0	10,003.8	29.1	28.5	-10.33	-49.8	-403.2	542.6	486.6	55.97	9.693	
10,725.0	10,533.6	10,262.7	10,005.7	29.1	28.5	-9.93	-37.3	-403.3	544.9	488.5	56.37	9.666	
10,750.0	10,539.4	10,275.0	10,007.2	29.1	28.5	-9.57	-25.1	-403.4	546.6	489.8	56.77	9.628	
10,775.0	10,544.0	10,285.5	10,008.2	29.1	28.5	-9.28	-14.6	-403.4	547.6	490.4	57.20	9.573	
10,800.0	10,547.3	10,300.0	10,009.2	29.2	28.6	-8.89	-0.1	-403.6	548.0	490.4	57.55	9.521	
10,825.0	10,549.3	10,308.2	10,009.6	29.2	28.6	-8.69	8.1	-403.6	547.6	489.6	58.01	9.440	
10,850.6	10,550.0	10,327.0	10,010.0	29.3	28.6	-8.24	26.9	-403.8	546.8	488.5	58.31	9.377	
10,853.5	10,550.0	10,327.0	10,010.0	29.3	28.6	-8.24	26.9	-403.8	546.6	488.2	58.38	9.363	
10,900.0	10,550.0	10,359.8	10,010.0	29.5	28.7	-7.48	59.6	-404.0	544.9	486.0	58.89	9.252	
11,000.0	10,550.0	10,457.6	10,010.0	29.9	29.1	-5.38	157.4	-404.8	542.5	483.0	59.53	9.113	
11,100.0	10,550.0	10,556.0	10,010.0	30.5	29.5	-3.60	255.9	-405.6	541.1	480.9	60.14	8.997	
11,200.0	10,550.0	10,655.0	10,010.0	31.1	30.0	-2.14	354.9	-406.4	540.4	479.6	60.80	8.887	
11,300.0	10,550.0	10,754.5	10,010.0	31.8	30.6	-1.03	454.3	-407.2	540.1	478.6	61.54	8.777	
11,400.0	10,550.0	10,854.2	10,010.0	32.6	31.3	-0.28	554.0	-408.0	540.0	477.6	62.36	8.659	
11,461.5	10,550.0	10,915.7	10,010.0	33.1	31.7	0.00	615.5	-408.5	540.0	477.1	62.93	8.582	
11,500.0	10,550.0	10,954.1	10,010.0	33.5	32.1	0.10	654.0	-408.8	540.0	476.7	63.30	8.531	
11,554.3	10,550.0	11,008.5	10,010.0	33.9	32.5	0.16	708.3	-409.3	540.0	476.1	63.85	8.457	
11,600.0	10,550.0	11,054.1	10,010.0	34.3	33.0	0.16	754.0	-409.6	540.0	475.7	64.34	8.392	
11,700.0	10,550.0	11,154.1	10,010.0	35.3	34.0	0.15	854.0	-410.4	540.0	474.5	65.46	8.249	
11,800.0	10,550.0	11,254.1	10,010.0	36.3	35.1	0.15	953.9	-411.3	540.0	473.4	66.63	8.104	
11,900.0	10,550.0	11,354.1	10,010.0	37.5	36.3	0.15	1,053.9	-412.1	540.0	472.1	67.86	7.958	
12,000.0	10,550.0	11,454.1	10,010.0	38.7	37.6	0.15	1,153.9	-412.9	540.0	470.9	69.13	7.811	
12,100.0	10,550.0	11,554.1	10,010.0	40.0	38.9	0.15	1,253.9	-413.7	540.0	469.6	70.45	7.665	
12,200.0	10,550.0	11,654.1	10,010.0	41.4	40.3	0.14	1,353.9	-414.5	540.0	468.2	71.81	7.520	
12,300.0	10,550.0	11,754.1	10,010.0	42.8	41.8	0.14	1,453.9	-415.3	540.0	466.8	73.21	7.376	
12,400.0	10,550.0	11,854.1	10,010.0	44.3	43.3	0.14	1,553.9	-416.1	540.0	465.4	74.64	7.234	
12,500.0	10,550.0	11,954.1	10,010.0	45.9	44.9	0.14	1,653.9	-416.9	540.0	463.9	76.12	7.094	
12,600.0	10,550.0	12,054.1	10,010.0	47.5	46.5	0.13	1,753.9	-417.7	540.0	462.4	77.63	6.956	
12,700.0	10,550.0	12,154.1	10,010.0	49.1	48.2	0.13	1,853.9	-418.5	540.0	460.8	79.17	6.821	
12,800.0	10,550.0	12,254.1	10,010.0	50.8	49.8	0.13	1,953.9	-419.3	540.0	459.3	80.74	6.689	
12,900.0	10,550.0	12,354.1	10,010.0	52.5	51.6	0.13	2,053.9	-420.1	540.0	457.7	82.33	6.559	
13,000.0	10,550.0	12,454.1	10,010.0	54.2	53.3	0.13	2,153.9	-420.9	540.0	456.0	83.96	6.432	
13,100.0	10,550.0	12,554.1	10,010.0	56.0	55.0	0.12	2,253.9	-421.7	540.0	454.4	85.61	6.308	
13,200.0	10,550.0	12,654.1	10,010.0	57.8	56.8	0.12	2,353.9	-422.5	540.0	452.7	87.28	6.187	
13,300.0	10,550.0	12,754.1	10,010.0	59.6	58.6	0.12	2,453.9	-423.4	540.0	451.0	88.98	6.069	
13,400.0	10,550.0	12,854.1	10,010.0	61.4	60.4	0.12	2,553.9	-424.2	540.0	449.3	90.69	5.954	
13,500.0	10,550.0	12,954.1	10,010.0	63.2	62.2	0.11	2,653.9	-425.0	540.0	447.6	92.43	5.842	
13,600.0	10,550.0	13,054.1	10,010.0	65.0	64.1	0.11	2,753.9	-425.8	540.0	445.8	94.19	5.733	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 302H - Dagger State Com 302H - Dagger State Com 302H - 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)			
13,700.0	10,550.0	13,154.1	10,010.0	66.9	65.9	0.11	2,853.9	-426.6	540.0	444.0	95.96	5.627	
13,800.0	10,550.0	13,254.1	10,010.0	68.7	67.8	0.11	2,953.9	-427.4	540.0	442.2	97.75	5.524	
13,900.0	10,550.0	13,354.1	10,010.0	70.6	69.6	0.11	3,053.9	-428.2	540.0	440.4	99.56	5.424	
14,000.0	10,550.0	13,454.1	10,010.0	72.5	71.5	0.10	3,153.9	-429.0	540.0	438.6	101.38	5.326	
14,100.0	10,550.0	13,554.1	10,010.0	74.3	73.4	0.10	3,253.9	-429.8	540.0	436.8	103.22	5.232	
14,200.0	10,550.0	13,654.1	10,010.0	76.2	75.3	0.10	3,353.9	-430.6	540.0	434.9	105.07	5.140	
14,300.0	10,550.0	13,754.1	10,010.0	78.1	77.2	0.10	3,453.9	-431.4	540.0	433.1	106.93	5.050	
14,400.0	10,550.0	13,854.1	10,010.0	80.0	79.1	0.09	3,553.9	-432.2	540.0	431.2	108.80	4.963	
14,500.0	10,550.0	13,954.1	10,010.0	82.0	81.0	0.09	3,653.9	-433.0	540.0	429.3	110.69	4.878	
14,600.0	10,550.0	14,054.1	10,010.0	83.9	82.9	0.09	3,753.9	-433.8	540.0	427.4	112.59	4.796	
14,700.0	10,550.0	14,154.1	10,010.0	85.8	84.8	0.09	3,853.9	-434.6	540.0	425.5	114.50	4.716	
14,800.0	10,550.0	14,254.1	10,010.0	87.7	86.8	0.09	3,953.9	-435.5	540.0	423.6	116.41	4.639	
14,900.0	10,550.0	14,354.1	10,010.0	89.6	88.7	0.08	4,053.8	-436.3	540.0	421.7	118.34	4.563	
15,000.0	10,550.0	14,454.1	10,010.0	91.6	90.6	0.08	4,153.8	-437.1	540.0	419.7	120.28	4.490	
15,100.0	10,550.0	14,554.1	10,010.0	93.5	92.6	0.08	4,253.8	-437.9	540.0	417.8	122.22	4.418	
15,200.0	10,550.0	14,654.1	10,010.0	95.5	94.5	0.08	4,353.8	-438.7	540.0	415.8	124.18	4.349	
15,300.0	10,550.0	14,754.1	10,010.0	97.4	96.4	0.07	4,453.8	-439.5	540.0	413.9	126.14	4.281	
15,400.0	10,550.0	14,854.1	10,010.0	99.4	98.4	0.07	4,553.8	-440.3	540.0	411.9	128.11	4.215	
15,500.0	10,550.0	14,954.1	10,010.0	101.3	100.3	0.07	4,653.8	-441.1	540.0	409.9	130.08	4.151	
15,600.0	10,550.0	15,054.1	10,010.0	103.3	102.3	0.07	4,753.8	-441.9	540.0	407.9	132.06	4.089	
15,700.0	10,550.0	15,154.1	10,010.0	105.2	104.3	0.07	4,853.8	-442.7	540.0	405.9	134.05	4.028	
15,800.0	10,550.0	15,254.1	10,010.0	107.2	106.2	0.06	4,953.8	-443.5	540.0	404.0	136.05	3.969	
15,900.0	10,550.0	15,354.1	10,010.0	109.1	108.2	0.06	5,053.8	-444.3	540.0	402.0	138.05	3.912	
16,000.0	10,550.0	15,454.1	10,010.0	111.1	110.1	0.06	5,153.8	-445.1	540.0	399.9	140.05	3.856	
16,100.0	10,550.0	15,554.1	10,010.0	113.1	112.1	0.06	5,253.8	-445.9	540.0	397.9	142.07	3.801	
16,200.0	10,550.0	15,654.1	10,010.0	115.0	114.1	0.05	5,353.8	-446.7	540.0	395.9	144.08	3.748	
16,300.0	10,550.0	15,754.1	10,010.0	117.0	116.0	0.05	5,453.8	-447.6	540.0	393.9	146.11	3.696	
16,400.0	10,550.0	15,854.1	10,010.0	119.0	118.0	0.05	5,553.8	-448.4	540.0	391.9	148.13	3.645	
16,500.0	10,550.0	15,954.1	10,010.0	120.9	120.0	0.05	5,653.8	-449.2	540.0	389.8	150.16	3.596	
16,600.0	10,550.0	16,054.1	10,010.0	122.9	121.9	0.05	5,753.8	-450.0	540.0	387.8	152.20	3.548	
16,700.0	10,550.0	16,154.1	10,010.0	124.9	123.9	0.04	5,853.8	-450.8	540.0	385.8	154.24	3.501	
16,800.0	10,550.0	16,254.1	10,010.0	126.9	125.9	0.04	5,953.8	-451.6	540.0	383.7	156.28	3.455	
16,900.0	10,550.0	16,354.1	10,010.0	128.8	127.9	0.04	6,053.8	-452.4	540.0	381.7	158.33	3.411	
17,000.0	10,550.0	16,454.1	10,010.0	130.8	129.9	0.04	6,153.8	-453.2	540.0	379.6	160.38	3.367	
17,100.0	10,550.0	16,554.1	10,010.0	132.8	131.8	0.03	6,253.8	-454.0	540.0	377.6	162.44	3.324	
17,200.0	10,550.0	16,654.1	10,010.0	134.8	133.8	0.03	6,353.8	-454.8	540.0	375.5	164.50	3.283	
17,300.0	10,550.0	16,754.1	10,010.0	136.8	135.8	0.03	6,453.8	-455.6	540.0	373.4	166.56	3.242	
17,400.0	10,550.0	16,854.1	10,010.0	138.7	137.8	0.03	6,553.8	-456.4	540.0	371.4	168.63	3.202	
17,500.0	10,550.0	16,954.1	10,010.0	140.7	139.8	0.03	6,653.8	-457.2	540.0	369.3	170.70	3.164	
17,600.0	10,550.0	17,054.1	10,010.0	142.7	141.7	0.02	6,753.8	-458.0	540.0	367.2	172.77	3.126	
17,700.0	10,550.0	17,154.1	10,010.0	144.7	143.7	0.02	6,853.8	-458.8	540.0	365.2	174.84	3.089	
17,800.0	10,550.0	17,254.1	10,010.0	146.7	145.7	0.02	6,953.8	-459.7	540.0	363.1	176.92	3.052	
17,900.0	10,550.0	17,354.1	10,010.0	148.7	147.7	0.02	7,053.8	-460.5	540.0	361.0	179.00	3.017	
18,000.0	10,550.0	17,454.1	10,010.0	150.7	149.7	0.01	7,153.7	-461.3	540.0	358.9	181.08	2.982	
18,100.0	10,550.0	17,554.1	10,010.0	152.6	151.7	0.01	7,253.7	-462.1	540.0	356.8	183.17	2.948	
18,200.0	10,550.0	17,654.1	10,010.0	154.6	153.7	0.01	7,353.7	-462.9	540.0	354.7	185.25	2.915	
18,300.0	10,550.0	17,754.1	10,010.0	156.6	155.7	0.01	7,453.7	-463.7	540.0	352.7	187.34	2.882	
18,400.0	10,550.0	17,854.1	10,010.0	158.6	157.6	0.01	7,553.7	-464.5	540.0	350.6	189.44	2.851	
18,500.0	10,550.0	17,954.1	10,010.0	160.6	159.6	0.00	7,653.7	-465.3	540.0	348.5	191.53	2.819	
18,600.0	10,550.0	18,054.1	10,010.0	162.6	161.6	0.00	7,753.7	-466.1	540.0	346.4	193.63	2.789	
18,671.2	10,550.0	18,125.3	10,010.0	164.0	163.1	0.00	7,824.9	-466.7	540.0	344.9	195.12	2.768	
18,671.5	10,550.0	18,125.3	10,010.0	164.0	163.1	0.00	7,824.9	-466.7	540.0	344.8	195.15	2.767	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 512H - Dagger State Com 512H - Dagger State Com 512H - Prelim 1													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Offset Well Error: 0.0 usft	
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	Warning	
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	1.289	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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 512H - Dagger State Com 512H - Dagger State Com 512H - 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	
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
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	90.31	-0.2	29.9	29.9	3.5	26.44	1.132	Level 3
5,200.0	5,200.0	5,200.0	5,200.0	13.4	13.4	90.31	-0.2	29.9	29.9	3.2	26.75	1.119	Level 3, CC, ES, SF
5,300.0	5,300.0	5,299.7	5,299.7	13.5	13.5	-113.72	-0.9	30.3	30.7	3.8	26.92	1.140	Level 3
5,400.0	5,400.0	5,399.4	5,399.4	13.5	13.5	-113.89	-3.2	31.6	33.0	6.0	27.04	1.221	Level 3
5,500.0	5,499.9	5,499.1	5,498.9	13.6	13.6	-114.13	-7.0	33.7	36.9	9.7	27.17	1.358	Level 3
5,600.0	5,599.7	5,598.6	5,598.3	13.7	13.7	-114.39	-12.3	36.6	42.3	15.0	27.31	1.549	
5,700.0	5,699.4	5,698.0	5,697.4	13.9	13.9	-114.63	-19.1	40.3	49.2	21.8	27.45	1.794	
5,800.0	5,798.9	5,797.2	5,796.1	14.0	14.0	-114.84	-27.4	44.9	57.7	30.1	27.61	2.090	
5,892.1	5,890.4	5,888.5	5,886.9	14.2	14.1	-115.08	-36.3	49.8	66.8	39.1	27.72	2.411	
5,900.0	5,898.3	5,896.4	5,894.7	14.2	14.1	-115.14	-37.1	50.2	67.7	39.9	27.72	2.441	
6,000.0	5,997.5	5,995.9	5,993.6	14.3	14.3	-115.75	-46.9	55.6	78.0	50.1	27.89	2.798	
6,100.0	6,096.8	6,095.4	6,092.4	14.6	14.5	-116.22	-56.8	61.1	88.4	60.3	28.10	3.146	
6,200.0	6,196.1	6,194.8	6,191.2	14.8	14.8	-116.59	-66.7	66.5	98.8	70.4	28.33	3.487	
6,300.0	6,295.3	6,294.3	6,290.0	15.1	15.0	-116.89	-76.6	71.9	109.2	80.6	28.58	3.820	
6,400.0	6,394.6	6,393.7	6,388.8	15.3	15.3	-117.14	-86.5	77.4	119.5	90.7	28.84	4.145	
6,500.0	6,493.9	6,493.2	6,487.6	15.6	15.6	-117.34	-96.4	82.8	129.9	100.8	29.11	4.463	
6,600.0	6,593.2	6,592.6	6,586.5	15.9	15.9	-117.52	-106.3	88.2	140.3	110.9	29.40	4.772	
6,700.0	6,692.4	6,692.1	6,685.3	16.3	16.2	-117.67	-116.1	93.7	150.7	121.0	29.71	5.073	
6,800.0	6,791.7	6,791.6	6,784.1	16.6	16.5	-117.81	-126.0	99.1	161.1	131.1	30.02	5.366	
6,900.0	6,891.0	6,891.0	6,882.9	17.0	16.9	-117.92	-135.9	104.5	171.5	141.1	30.35	5.650	
7,000.0	6,990.2	6,990.5	6,981.7	17.3	17.2	-118.03	-145.8	109.9	181.9	151.2	30.70	5.925	
7,100.0	7,089.5	7,089.9	7,080.5	17.7	17.6	-118.12	-155.7	115.4	192.3	161.2	31.05	6.192	
7,200.0	7,188.8	7,189.4	7,179.4	18.1	18.0	-118.20	-165.6	120.8	202.7	171.3	31.42	6.450	
7,300.0	7,288.1	7,288.9	7,278.2	18.5	18.4	-118.28	-175.5	126.2	213.1	181.3	31.80	6.700	
7,400.0	7,387.3	7,388.3	7,377.0	18.9	18.8	-118.35	-185.3	131.7	223.5	191.3	32.19	6.942	
7,500.0	7,486.6	7,487.8	7,475.8	19.3	19.2	-118.41	-195.2	137.1	233.9	201.3	32.59	7.176	
7,600.0	7,585.9	7,587.2	7,574.6	19.7	19.6	-118.46	-205.1	142.5	244.2	211.2	33.00	7.402	
7,700.0	7,685.1	7,686.7	7,673.4	20.2	20.0	-118.52	-215.0	148.0	254.6	221.2	33.42	7.620	
7,800.0	7,784.4	7,786.1	7,772.3	20.6	20.4	-118.56	-224.9	153.4	265.0	231.2	33.85	7.830	
7,900.0	7,883.7	7,885.6	7,871.1	21.0	20.9	-118.61	-234.8	158.8	275.4	241.1	34.29	8.033	
8,000.0	7,983.0	7,985.1	7,969.9	21.5	21.3	-118.65	-244.7	164.3	285.8	251.1	34.73	8.229	
8,100.0	8,082.2	8,084.5	8,068.7	22.0	21.8	-118.69	-254.5	169.7	296.2	261.0	35.19	8.418	
8,200.0	8,181.5	8,184.0	8,167.5	22.4	22.2	-118.72	-264.4	175.1	306.6	271.0	35.65	8.600	
8,300.0	8,280.8	8,283.4	8,266.3	22.9	22.7	-118.76	-274.3	180.6	317.0	280.9	36.13	8.775	
8,400.0	8,380.0	8,382.9	8,365.2	23.4	23.2	-118.79	-284.2	186.0	327.4	290.8	36.60	8.944	
8,500.0	8,479.3	8,482.3	8,464.0	23.9	23.6	-118.82	-294.1	191.4	337.8	300.7	37.09	9.107	
8,600.0	8,578.6	8,581.8	8,562.8	24.4	24.1	-118.84	-304.0	196.9	348.2	310.6	37.58	9.264	
8,700.0	8,677.9	8,681.3	8,661.6	24.8	24.6	-118.87	-313.9	202.3	358.6	320.5	38.08	9.416	
8,800.0	8,777.1	8,780.7	8,760.4	25.3	25.1	-118.89	-323.7	207.7	369.0	330.4	38.59	9.561	
8,900.0	8,876.4	8,880.2	8,859.2	25.8	25.6	-118.92	-333.6	213.1	379.4	340.3	39.10	9.702	
9,000.0	8,975.7	8,979.6	8,958.1	26.3	26.0	-118.94	-343.5	218.6	389.8	350.2	39.62	9.837	
9,100.0	9,074.9	9,079.1	9,056.9	26.8	26.5	-118.96	-353.4	224.0	400.2	360.0	40.15	9.968	
9,200.0	9,174.2	9,178.6	9,155.7	27.4	27.0	-118.98	-363.3	229.4	410.6	369.9	40.68	10.093	
9,286.0	9,259.6	9,264.1	9,240.7	27.8	27.5	-119.00	-371.8	234.1	419.5	378.4	41.13	10.200	
9,300.0	9,273.5	9,278.0	9,254.5	27.9	27.5	-119.01	-373.2	234.9	421.0	379.8	41.19	10.219	
9,400.0	9,372.9	9,377.5	9,353.4	28.3	28.0	-118.98	-383.1	240.3	430.8	389.1	41.71	10.329	
9,500.0	9,472.5	9,477.1	9,452.3	28.8	28.6	-118.75	-393.0	245.7	439.8	397.6	42.22	10.417	
9,600.0	9,572.2	9,576.7	9,551.2	29.3	29.1	-118.34	-402.9	251.2	448.0	405.3	42.72	10.488	
9,700.0	9,672.0	9,676.3	9,650.2	29.7	29.6	-117.73	-412.8	256.6	455.5	412.3	43.20	10.544	
9,800.0	9,771.9	9,775.8	9,749.1	30.1	30.1	-116.95	-422.7	262.1	462.2	418.5	43.65	10.588	
9,900.0	9,871.9	9,879.0	9,851.8	30.5	30.6	-116.06	-432.1	267.3	467.8	423.7	44.07	10.615	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 512H - Dagger State Com 512H - Dagger State Com 512H - 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)			
9,978.1	9,950.0	9,959.9	9,932.3	30.6	31.0	88.59	-438.4	270.7	471.2	426.9	44.34	10.627	
10,000.0	9,971.9	9,982.6	9,954.9	30.6	31.1	88.78	-440.0	271.6	472.0	427.6	44.40	10.630	
10,100.6	10,072.5	10,087.0	10,059.1	30.7	31.6	89.55	-446.3	275.0	475.2	430.5	44.72	10.626	
10,125.0	10,096.9	10,112.3	10,084.3	30.7	31.7	104.15	-447.5	275.7	476.1	431.3	44.80	10.627	
10,150.0	10,121.8	10,138.1	10,110.1	30.6	31.8	104.40	-448.7	276.4	477.2	432.3	44.87	10.634	
10,175.0	10,146.6	10,163.8	10,135.8	30.5	31.9	104.75	-449.8	277.0	478.6	433.6	44.96	10.646	
10,200.0	10,171.2	10,189.2	10,161.2	30.4	32.0	105.19	-450.8	277.5	480.3	435.3	45.04	10.664	
10,225.0	10,195.5	10,214.4	10,186.3	30.3	32.1	105.72	-451.7	278.0	482.4	437.3	45.13	10.689	
10,250.0	10,219.5	10,239.2	10,211.1	30.3	32.2	106.32	-452.4	278.4	484.9	439.7	45.23	10.722	
10,275.0	10,243.1	10,263.6	10,235.5	30.2	32.3	106.97	-453.1	278.8	487.9	442.5	45.33	10.763	
10,300.0	10,266.2	10,287.6	10,259.4	30.1	32.4	107.66	-453.7	279.1	491.3	445.9	45.45	10.810	
10,325.0	10,288.7	10,311.0	10,282.9	30.0	32.5	108.38	-454.1	279.3	495.3	449.7	45.58	10.867	
10,350.0	10,310.7	10,334.0	10,305.9	29.9	32.6	109.09	-454.5	279.6	499.9	454.2	45.71	10.935	
10,375.0	10,332.1	10,356.3	10,328.2	29.8	32.6	109.79	-454.8	279.7	505.1	459.2	45.87	11.011	
10,400.0	10,352.7	10,378.0	10,349.8	29.7	32.7	110.46	-455.0	279.8	511.0	465.0	46.05	11.098	
10,425.0	10,372.5	10,398.9	10,370.8	29.6	32.8	111.07	-455.1	279.9	517.7	471.5	46.24	11.195	
10,450.0	10,391.6	10,419.1	10,391.0	29.5	32.8	111.60	-455.2	279.9	525.2	478.8	46.43	11.311	
10,475.0	10,409.7	10,437.8	10,409.7	29.4	32.8	111.99	-455.2	279.9	533.5	486.9	46.63	11.440	
10,500.0	10,426.9	10,455.1	10,426.9	29.4	32.8	112.21	-455.2	279.9	542.7	495.8	46.85	11.584	
10,525.0	10,443.2	10,471.3	10,443.2	29.3	32.8	112.29	-455.2	279.9	552.8	505.7	47.08	11.742	
10,550.0	10,458.4	10,486.6	10,458.4	29.2	32.8	112.20	-455.2	279.9	563.9	516.5	47.33	11.914	
10,575.0	10,472.6	10,500.8	10,472.6	29.2	32.8	111.93	-455.2	279.9	575.8	528.2	47.59	12.101	
10,600.0	10,485.7	10,513.8	10,485.7	29.1	32.8	111.44	-455.2	279.9	588.7	540.9	47.85	12.302	
10,625.0	10,497.7	10,525.8	10,497.7	29.1	32.8	110.72	-455.2	279.9	602.5	554.4	48.13	12.518	
10,650.0	10,508.5	10,536.6	10,508.5	29.1	32.8	109.74	-455.2	279.9	617.2	568.7	48.41	12.748	
10,675.0	10,518.1	10,549.3	10,521.1	29.1	32.8	108.79	-455.1	279.9	632.6	583.9	48.68	12.995	
10,700.0	10,526.4	10,563.8	10,535.7	29.1	32.8	107.88	-454.6	280.0	648.8	599.9	48.93	13.260	
10,725.0	10,533.6	10,578.5	10,550.3	29.1	32.8	106.81	-453.7	280.3	665.6	616.5	49.16	13.541	
10,750.0	10,539.4	10,593.2	10,565.0	29.1	32.7	105.58	-452.3	280.6	683.0	633.7	49.37	13.836	
10,775.0	10,544.0	10,608.1	10,579.7	29.1	32.7	104.19	-450.5	281.0	701.0	651.4	49.56	14.145	
10,800.0	10,547.3	10,623.1	10,594.6	29.2	32.6	102.65	-448.2	281.5	719.4	669.7	49.73	14.467	
10,825.0	10,549.3	10,638.3	10,609.5	29.2	32.6	100.95	-445.5	282.1	738.3	688.5	49.89	14.801	
10,850.6	10,550.0	10,654.2	10,625.0	29.3	32.5	99.08	-442.1	282.9	758.1	708.1	50.03	15.154	
10,853.5	10,550.0	10,643.6	10,614.6	29.3	32.6	97.85	-444.3	282.4	760.3	710.2	50.12	15.171	
10,900.0	10,550.0	10,696.7	10,665.8	29.5	32.4	103.44	-430.5	285.5	796.7	746.5	50.17	15.879	
11,000.0	10,550.0	11,055.1	10,933.1	29.9	31.2	122.51	-210.1	335.7	869.7	819.8	49.82	17.455	
11,100.0	10,550.0	11,386.1	10,990.0	30.5	31.7	120.70	103.8	405.8	905.8	854.7	51.18	17.701	
11,200.0	10,550.0	11,518.3	10,990.0	31.1	32.3	119.07	234.0	428.2	933.4	880.9	52.59	17.751	
11,300.0	10,550.0	11,655.5	10,990.0	31.8	33.0	117.91	370.2	445.1	954.3	899.7	54.59	17.482	
11,400.0	10,550.0	11,796.3	10,990.0	32.6	33.9	117.18	510.6	455.7	967.9	910.9	57.01	16.977	
11,500.0	10,550.0	11,939.3	10,990.0	33.5	34.9	116.86	653.5	459.3	974.2	914.4	59.80	16.290	
11,554.3	10,550.0	11,999.7	10,990.0	33.9	35.3	116.83	713.9	459.0	974.7	913.7	61.01	15.976	
11,600.0	10,550.0	12,045.3	10,990.0	34.3	35.7	116.83	759.5	458.7	974.8	912.8	61.98	15.728	
11,700.0	10,550.0	12,145.3	10,990.0	35.3	36.5	116.83	859.5	458.1	974.9	910.7	64.18	15.191	
11,800.0	10,550.0	12,245.3	10,990.0	36.3	37.4	116.82	959.5	457.4	975.0	908.5	66.53	14.657	
11,900.0	10,550.0	12,345.3	10,990.0	37.5	38.4	116.82	1,059.5	456.8	975.2	906.2	69.00	14.134	
12,000.0	10,550.0	12,445.3	10,990.0	38.7	39.5	116.82	1,159.5	456.1	975.3	903.7	71.58	13.626	
12,100.0	10,550.0	12,545.3	10,990.0	40.0	40.7	116.81	1,259.5	455.5	975.4	901.2	74.26	13.136	
12,200.0	10,550.0	12,645.3	10,990.0	41.4	41.9	116.81	1,359.5	454.9	975.6	898.5	77.02	12.666	
12,300.0	10,550.0	12,745.3	10,990.0	42.8	43.2	116.81	1,459.5	454.2	975.7	895.8	79.87	12.216	
12,400.0	10,550.0	12,845.3	10,990.0	44.3	44.6	116.80	1,559.5	453.6	975.8	893.0	82.79	11.787	
12,500.0	10,550.0	12,945.3	10,990.0	45.9	46.1	116.80	1,659.5	452.9	976.0	890.2	85.77	11.379	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 512H - Dagger State Com 512H - Dagger State Com 512H - 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		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
12,600.0	10,550.0	13,045.3	10,990.0	47.5	47.6	116.79	1,759.5	452.3	976.1	887.3	88.81	10.991
12,700.0	10,550.0	13,145.3	10,990.0	49.1	49.1	116.79	1,859.5	451.7	976.2	884.3	91.90	10.622
12,800.0	10,550.0	13,245.3	10,990.0	50.8	50.7	116.79	1,959.5	451.0	976.4	881.3	95.04	10.273
12,900.0	10,550.0	13,345.3	10,990.0	52.5	52.4	116.78	2,059.5	450.4	976.5	878.3	98.22	9.942
13,000.0	10,550.0	13,445.3	10,990.0	54.2	54.0	116.78	2,159.5	449.8	976.6	875.2	101.44	9.628
13,100.0	10,550.0	13,545.3	10,990.0	56.0	55.7	116.77	2,259.5	449.1	976.7	872.1	104.69	9.330
13,200.0	10,550.0	13,645.3	10,990.0	57.8	57.4	116.77	2,359.5	448.5	976.9	868.9	107.98	9.047
13,300.0	10,550.0	13,745.3	10,990.0	59.6	59.2	116.77	2,459.5	447.8	977.0	865.7	111.29	8.779
13,400.0	10,550.0	13,845.3	10,990.0	61.4	60.9	116.76	2,559.5	447.2	977.1	862.5	114.63	8.524
13,500.0	10,550.0	13,945.3	10,990.0	63.2	62.7	116.76	2,659.5	446.6	977.3	859.3	117.99	8.283
13,600.0	10,550.0	14,045.3	10,990.0	65.0	64.5	116.75	2,759.5	445.9	977.4	856.0	121.38	8.053
13,700.0	10,550.0	14,145.3	10,990.0	66.9	66.3	116.75	2,859.5	445.3	977.5	852.8	124.78	7.834
13,800.0	10,550.0	14,245.3	10,990.0	68.7	68.1	116.75	2,959.5	444.6	977.7	849.5	128.21	7.626
13,900.0	10,550.0	14,345.3	10,990.0	70.6	70.0	116.74	3,059.5	444.0	977.8	846.1	131.65	7.427
14,000.0	10,550.0	14,445.3	10,990.0	72.5	71.8	116.74	3,159.5	443.4	977.9	842.8	135.10	7.238
14,100.0	10,550.0	14,545.3	10,990.0	74.3	73.7	116.74	3,259.5	442.7	978.1	839.5	138.58	7.058
14,200.0	10,550.0	14,645.3	10,990.0	76.2	75.5	116.73	3,359.4	442.1	978.2	836.1	142.06	6.886
14,300.0	10,550.0	14,745.3	10,990.0	78.1	77.4	116.73	3,459.4	441.4	978.3	832.8	145.56	6.721
14,400.0	10,550.0	14,845.3	10,990.0	80.0	79.3	116.72	3,559.4	440.8	978.5	829.4	149.07	6.564
14,500.0	10,550.0	14,945.3	10,990.0	82.0	81.2	116.72	3,659.4	440.2	978.6	826.0	152.59	6.413
14,600.0	10,550.0	15,045.3	10,990.0	83.9	83.1	116.72	3,759.4	439.5	978.7	822.6	156.12	6.269
14,700.0	10,550.0	15,145.3	10,990.0	85.8	85.0	116.71	3,859.4	438.9	978.8	819.2	159.66	6.131
14,800.0	10,550.0	15,245.3	10,990.0	87.7	86.9	116.71	3,959.4	438.2	979.0	815.8	163.21	5.998
14,900.0	10,550.0	15,345.3	10,990.0	89.6	88.8	116.70	4,059.4	437.6	979.1	812.3	166.77	5.871
15,000.0	10,550.0	15,445.3	10,990.0	91.6	90.7	116.70	4,159.4	437.0	979.2	808.9	170.33	5.749
15,100.0	10,550.0	15,545.3	10,990.0	93.5	92.7	116.70	4,259.4	436.3	979.4	805.5	173.90	5.632
15,200.0	10,550.0	15,645.3	10,990.0	95.5	94.6	116.69	4,359.4	435.7	979.5	802.0	177.48	5.519
15,300.0	10,550.0	15,745.3	10,990.0	97.4	96.5	116.69	4,459.4	435.1	979.6	798.6	181.07	5.410
15,400.0	10,550.0	15,845.3	10,990.0	99.4	98.5	116.69	4,559.4	434.4	979.8	795.1	184.66	5.306
15,500.0	10,550.0	15,945.3	10,990.0	101.3	100.4	116.68	4,659.4	433.8	979.9	791.6	188.26	5.205
15,600.0	10,550.0	16,045.3	10,990.0	103.3	102.3	116.68	4,759.4	433.1	980.0	788.2	191.87	5.108
15,700.0	10,550.0	16,145.3	10,990.0	105.2	104.3	116.67	4,859.4	432.5	980.2	784.7	195.47	5.014
15,800.0	10,550.0	16,245.3	10,990.0	107.2	106.2	116.67	4,959.4	431.9	980.3	781.2	199.09	4.924
15,900.0	10,550.0	16,345.3	10,990.0	109.1	108.2	116.67	5,059.4	431.2	980.4	777.7	202.71	4.837
16,000.0	10,550.0	16,445.3	10,990.0	111.1	110.1	116.66	5,159.4	430.6	980.5	774.2	206.33	4.752
16,100.0	10,550.0	16,545.3	10,990.0	113.1	112.1	116.66	5,259.4	429.9	980.7	770.7	209.96	4.671
16,200.0	10,550.0	16,645.3	10,990.0	115.0	114.0	116.65	5,359.4	429.3	980.8	767.2	213.59	4.592
16,300.0	10,550.0	16,745.3	10,990.0	117.0	116.0	116.65	5,459.4	428.7	980.9	763.7	217.22	4.516
16,400.0	10,550.0	16,845.3	10,990.0	119.0	118.0	116.65	5,559.4	428.0	981.1	760.2	220.86	4.442
16,500.0	10,550.0	16,945.3	10,990.0	120.9	119.9	116.64	5,659.4	427.4	981.2	756.7	224.50	4.371
16,600.0	10,550.0	17,045.3	10,990.0	122.9	121.9	116.64	5,759.4	426.7	981.3	753.2	228.15	4.301
16,700.0	10,550.0	17,145.3	10,990.0	124.9	123.9	116.64	5,859.4	426.1	981.5	749.7	231.80	4.234
16,800.0	10,550.0	17,245.3	10,990.0	126.9	125.8	116.63	5,959.4	425.5	981.6	746.1	235.45	4.169
16,900.0	10,550.0	17,345.3	10,990.0	128.8	127.8	116.63	6,059.4	424.8	981.7	742.6	239.10	4.106
17,000.0	10,550.0	17,445.3	10,990.0	130.8	129.8	116.62	6,159.4	424.2	981.9	739.1	242.76	4.045
17,100.0	10,550.0	17,545.3	10,990.0	132.8	131.7	116.62	6,259.4	423.5	982.0	735.6	246.42	3.985
17,200.0	10,550.0	17,645.3	10,990.0	134.8	133.7	116.62	6,359.4	422.9	982.1	732.0	250.08	3.927
17,300.0	10,550.0	17,745.3	10,990.0	136.8	135.7	116.61	6,459.4	422.3	982.2	728.5	253.75	3.871
17,400.0	10,550.0	17,845.3	10,990.0	138.7	137.7	116.61	6,559.4	421.6	982.4	725.0	257.41	3.816
17,500.0	10,550.0	17,945.3	10,990.0	140.7	139.7	116.60	6,659.4	421.0	982.5	721.4	261.08	3.763
17,600.0	10,550.0	18,045.3	10,990.0	142.7	141.6	116.60	6,759.4	420.3	982.6	717.9	264.75	3.712
17,700.0	10,550.0	18,145.3	10,990.0	144.7	143.6	116.60	6,859.4	419.7	982.8	714.3	268.43	3.661

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 512H - Dagger State Com 512H - Dagger State Com 512H - 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		Separation Factor	Rule Assigned:	
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)		Warning	
17,800.0	10,550.0	18,245.3	10,990.0	146.7	145.6	116.59	6,959.4	419.1	982.9	710.8	272.10	3.612	
17,900.0	10,550.0	18,345.3	10,990.0	148.7	147.6	116.59	7,059.4	418.4	983.0	707.3	275.78	3.565	
18,000.0	10,550.0	18,445.3	10,990.0	150.7	149.6	116.59	7,159.4	417.8	983.2	703.7	279.46	3.518	
18,100.0	10,550.0	18,545.3	10,990.0	152.6	151.5	116.58	7,259.4	417.2	983.3	700.2	283.14	3.473	
18,200.0	10,550.0	18,645.3	10,990.0	154.6	153.5	116.58	7,359.4	416.5	983.4	696.6	286.82	3.429	
18,300.0	10,550.0	18,745.3	10,990.0	156.6	155.5	116.57	7,459.4	415.9	983.6	693.1	290.51	3.386	
18,400.0	10,550.0	18,845.3	10,990.0	158.6	157.5	116.57	7,559.4	415.2	983.7	689.5	294.20	3.344	
18,500.0	10,550.0	18,945.3	10,990.0	160.6	159.5	116.57	7,659.4	414.6	983.8	685.9	297.88	3.303	
18,600.0	10,550.0	19,045.3	10,990.0	162.6	161.5	116.56	7,759.4	414.0	984.0	682.4	301.57	3.263	
18,671.2	10,550.0	19,116.5	10,990.0	164.0	162.9	116.56	7,830.5	413.5	984.0	679.9	304.20	3.235	
18,671.5	10,550.0	19,116.9	10,990.0	164.0	162.9	116.56	7,830.9	413.5	984.0	679.8	304.21	3.235	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - Prelim 1											Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM											Offset Well Error:	0.0 usft
Reference	Offset	Rule Assigned:										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
0.0	0.0	0.0	0.0	0.0	0.0	89.96	0.0	59.8	59.8			
100.0	100.0	100.0	100.0	0.5	0.5	89.96	0.0	59.8	59.8	58.8	1.06	56.443
200.0	200.0	200.0	200.0	1.7	1.7	89.96	0.0	59.8	59.8	56.4	3.42	17.481
300.0	300.0	300.0	300.0	2.4	2.4	89.96	0.0	59.8	59.8	55.0	4.82	12.409
400.0	400.0	400.0	400.0	3.0	3.0	89.96	0.0	59.8	59.8	53.9	5.91	10.130
500.0	500.0	500.0	500.0	3.4	3.4	89.96	0.0	59.8	59.8	53.0	6.83	8.762
524.8	524.8	524.8	524.8	3.5	3.5	89.96	0.0	59.8	59.8	52.8	7.03	8.509
600.0	600.0	600.0	600.0	3.8	3.8	89.96	0.0	59.8	59.8	52.2	7.65	7.824
633.3	633.3	633.3	633.3	3.9	3.9	89.96	0.0	59.8	59.8	51.9	7.90	7.578
700.0	700.0	700.0	700.0	4.2	4.2	89.96	0.0	59.8	59.8	51.5	8.39	7.130
800.0	800.0	800.0	800.0	4.5	4.5	89.96	0.0	59.8	59.8	50.8	9.08	6.588
900.0	900.0	900.0	900.0	4.9	4.9	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	59.8	59.8	46.3	13.52	4.428
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	59.8	59.8	44.5	15.34	3.902
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	89.96	0.0	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	89.96	0.0	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	89.96	0.0	59.8	59.8	43.2	16.61	3.604
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	59.8	59.8	40.1	19.71	3.037
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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	89.96	0.0	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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - Prelim 1													Offset Site Error:	0.0 usft	
Survey Program:		0-MWD+HRGM		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0.0 usft
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)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
4,966.7	4,966.7	4,966.7	4,966.7	13.0	13.0	89.96	0.0	59.8	59.8	33.8	26.02	2.300	CC, ES, SF		
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	89.96	0.0	59.8	59.8	33.7	26.12	2.291			
5,100.0	5,100.0	5,099.3	5,099.3	13.2	13.2	90.56	-0.6	60.4	60.4	34.1	26.37	2.292			
5,200.0	5,200.0	5,198.5	5,198.5	13.4	13.2	92.29	-2.5	62.2	62.2	35.6	26.60	2.340			
5,300.0	5,300.0	5,297.6	5,297.5	13.5	13.3	-109.69	-5.6	65.1	65.7	38.9	26.77	2.453			
5,400.0	5,400.0	5,396.6	5,396.3	13.5	13.5	-108.30	-10.1	69.1	71.0	44.1	26.92	2.637			
5,500.0	5,499.9	5,495.4	5,494.8	13.6	13.6	-107.48	-15.7	74.3	78.2	51.1	27.08	2.886			
5,600.0	5,599.7	5,593.9	5,592.8	13.7	13.8	-107.13	-22.6	80.7	87.2	59.9	27.26	3.198			
5,700.0	5,699.4	5,692.1	5,690.4	13.9	13.9	-107.14	-30.7	88.1	98.0	70.5	27.46	3.568			
5,800.0	5,798.9	5,790.0	5,787.5	14.0	14.1	-107.40	-39.9	96.7	110.6	82.9	27.68	3.996			
5,892.1	5,890.4	5,879.7	5,876.2	14.2	14.4	-107.77	-49.5	105.5	123.8	95.9	27.90	4.438			
5,900.0	5,898.3	5,887.4	5,883.9	14.2	14.4	-107.82	-50.4	106.3	125.0	97.1	27.91	4.479			
6,000.0	5,997.5	5,985.9	5,981.1	14.3	14.6	-108.23	-61.8	116.8	140.5	112.3	28.17	4.989			
6,100.0	6,096.8	6,084.7	6,078.7	14.6	14.9	-108.55	-73.2	127.4	156.0	127.6	28.46	5.482			
6,200.0	6,196.1	6,183.5	6,176.2	14.8	15.2	-108.81	-84.7	137.9	171.6	142.8	28.78	5.960			
6,300.0	6,295.3	6,282.2	6,273.8	15.1	15.5	-109.04	-96.1	148.5	187.1	158.0	29.13	6.423			
6,400.0	6,394.6	6,381.0	6,371.3	15.3	15.9	-109.22	-107.6	159.0	202.6	173.1	29.49	6.871			
6,500.0	6,493.9	6,479.8	6,468.9	15.6	16.2	-109.38	-119.0	169.6	218.2	188.3	29.87	7.304			
6,600.0	6,593.2	6,578.6	6,566.4	15.9	16.6	-109.52	-130.5	180.1	233.7	203.4	30.27	7.721			
6,700.0	6,692.4	6,677.4	6,664.0	16.3	17.0	-109.64	-141.9	190.7	249.2	218.5	30.69	8.122			
6,800.0	6,791.7	6,776.2	6,761.5	16.6	17.4	-109.75	-153.4	201.2	264.8	233.6	31.12	8.508			
6,900.0	6,891.0	6,874.9	6,859.1	17.0	17.8	-109.85	-164.8	211.8	280.3	248.7	31.57	8.879			
7,000.0	6,990.2	6,973.7	6,956.6	17.3	18.2	-109.93	-176.3	222.3	295.8	263.8	32.03	9.235			
7,100.0	7,089.5	7,072.5	7,054.2	17.7	18.6	-110.01	-187.7	232.9	311.4	278.9	32.51	9.577			
7,200.0	7,188.8	7,171.3	7,151.7	18.1	19.1	-110.08	-199.2	243.4	326.9	293.9	33.01	9.904			
7,300.0	7,288.1	7,270.1	7,249.3	18.5	19.5	-110.14	-210.6	254.0	342.5	308.9	33.52	10.218			
7,400.0	7,387.3	7,368.9	7,346.8	18.9	20.0	-110.20	-222.1	264.5	358.0	324.0	34.04	10.518			
7,500.0	7,486.6	7,467.6	7,444.4	19.3	20.4	-110.25	-233.5	275.1	373.5	339.0	34.57	10.805			
7,600.0	7,585.9	7,566.4	7,541.9	19.7	20.9	-110.30	-245.0	285.6	389.1	354.0	35.11	11.080			
7,700.0	7,685.1	7,665.2	7,639.5	20.2	21.4	-110.35	-256.4	296.1	404.6	369.0	35.67	11.344			
7,800.0	7,784.4	7,764.0	7,737.0	20.6	21.9	-110.39	-267.9	306.7	420.2	383.9	36.24	11.595			
7,900.0	7,883.7	7,862.8	7,834.6	21.0	22.4	-110.43	-279.3	317.2	435.7	398.9	36.81	11.836			
8,000.0	7,983.0	7,961.6	7,932.1	21.5	22.9	-110.46	-290.8	327.8	451.3	413.9	37.40	12.066			
8,100.0	8,082.2	8,060.4	8,029.7	22.0	23.4	-110.49	-302.2	338.3	466.8	428.8	37.99	12.286			
8,200.0	8,181.5	8,159.1	8,127.2	22.4	23.9	-110.53	-313.7	348.9	482.3	443.7	38.60	12.496			
8,300.0	8,280.8	8,257.9	8,224.8	22.9	24.4	-110.56	-325.1	359.4	497.9	458.7	39.21	12.697			
8,400.0	8,380.0	8,356.7	8,322.3	23.4	24.9	-110.58	-336.6	370.0	513.4	473.6	39.83	12.890			
8,500.0	8,479.3	8,455.5	8,419.9	23.9	25.4	-110.61	-348.0	380.5	529.0	488.5	40.46	13.074			
8,600.0	8,578.6	8,554.3	8,517.4	24.4	26.0	-110.63	-359.5	391.1	544.5	503.4	41.10	13.250			
8,700.0	8,677.9	8,653.1	8,615.0	24.8	26.5	-110.66	-370.9	401.6	560.1	518.3	41.74	13.418			
8,800.0	8,777.1	8,751.8	8,712.5	25.3	27.0	-110.68	-382.4	412.2	575.6	533.2	42.39	13.579			
8,900.0	8,876.4	8,851.7	8,811.1	25.8	27.6	-110.70	-393.9	422.8	591.1	548.1	43.03	13.739			
9,000.0	8,975.7	8,958.5	8,916.8	26.3	28.1	-110.81	-405.4	433.4	605.8	562.2	43.68	13.871			
9,100.0	9,074.9	9,065.7	9,023.1	26.8	28.7	-111.04	-415.5	442.7	619.2	574.9	44.33	13.970			
9,200.0	9,174.2	9,173.2	9,130.0	27.4	29.3	-111.39	-424.1	450.6	631.3	586.4	44.96	14.044			
9,286.0	9,259.6	9,265.9	9,222.2	27.8	29.7	-111.79	-430.3	456.3	640.7	595.3	45.47	14.091			
9,300.0	9,273.5	9,280.9	9,237.2	27.9	29.8	-111.87	-431.2	457.2	642.2	596.6	45.55	14.099			
9,400.0	9,372.9	9,388.9	9,344.9	28.3	30.3	-112.44	-436.9	462.4	651.3	605.2	46.11	14.124			
9,500.0	9,472.5	9,497.0	9,452.9	28.8	30.8	-112.95	-441.0	466.2	658.5	611.8	46.65	14.116			
9,600.0	9,572.2	9,605.4	9,561.2	29.3	31.2	-113.42	-443.7	468.7	663.8	616.6	47.14	14.082			
9,700.0	9,672.0	9,713.8	9,669.6	29.7	31.5	-113.84	-444.9	469.8	667.1	619.5	47.54	14.031			
9,800.0	9,771.9	9,816.1	9,771.9	30.1	31.6	-114.17	-445.0	469.8	668.7	621.0	47.77	14.000			

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - 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	
9,900.0	9,871.9	9,916.0	9,871.8	30.5	31.6	-114.49	-443.3	469.8	669.6	621.7	47.94	13.968	
9,978.1	9,950.0	9,991.8	9,946.5	30.6	31.3	88.39	-431.2	469.8	670.0	622.1	47.96	13.970	
10,000.0	9,971.9	10,012.2	9,966.2	30.6	31.2	87.94	-425.9	469.7	670.2	622.2	47.95	13.977	
10,100.6	10,072.5	10,100.0	10,047.8	30.7	30.9	85.19	-393.7	469.5	672.3	624.4	47.95	14.022	
10,125.0	10,096.9	10,118.2	10,063.9	30.7	30.9	98.84	-385.2	469.4	673.5	625.5	47.96	14.043	
10,150.0	10,121.8	10,137.7	10,080.7	30.6	30.8	97.92	-375.4	469.4	675.1	627.2	47.97	14.075	
10,175.0	10,146.6	10,156.9	10,096.9	30.5	30.7	96.98	-365.1	469.3	677.2	629.3	47.97	14.117	
10,200.0	10,171.2	10,175.0	10,111.8	30.4	30.6	96.05	-354.8	469.2	679.8	631.8	47.98	14.167	
10,225.0	10,195.5	10,194.5	10,127.4	30.3	30.6	95.04	-343.0	469.2	682.8	634.8	47.99	14.228	
10,250.0	10,219.5	10,213.0	10,141.7	30.3	30.5	94.04	-331.4	469.1	686.1	638.1	47.99	14.296	
10,275.0	10,243.1	10,231.2	10,155.3	30.2	30.5	93.03	-319.3	469.0	689.8	641.8	48.00	14.372	
10,300.0	10,266.2	10,250.0	10,168.9	30.1	30.4	91.98	-306.3	468.9	693.9	645.9	48.00	14.456	
10,325.0	10,288.7	10,267.1	10,180.8	30.0	30.3	90.97	-294.1	468.8	698.3	650.3	48.01	14.545	
10,350.0	10,310.7	10,284.8	10,192.7	29.9	30.3	89.94	-281.0	468.7	703.0	655.0	48.02	14.639	
10,375.0	10,332.1	10,300.0	10,202.5	29.8	30.3	88.95	-269.3	468.7	707.9	659.9	48.04	14.736	
10,400.0	10,352.7	10,319.6	10,214.6	29.7	30.2	87.86	-253.9	468.5	713.1	665.1	48.05	14.842	
10,425.0	10,372.5	10,336.8	10,224.7	29.6	30.2	86.83	-239.9	468.5	718.6	670.5	48.07	14.949	
10,450.0	10,391.6	10,353.9	10,234.2	29.5	30.1	85.80	-225.7	468.4	724.2	676.1	48.09	15.058	
10,475.0	10,409.7	10,370.9	10,243.1	29.4	30.1	84.79	-211.3	468.3	730.0	681.8	48.13	15.168	
10,500.0	10,426.9	10,387.7	10,251.4	29.4	30.1	83.79	-196.6	468.2	735.9	687.7	48.16	15.279	
10,525.0	10,443.2	10,404.5	10,259.2	29.3	30.1	82.81	-181.8	468.1	741.9	693.7	48.21	15.391	
10,550.0	10,458.4	10,421.1	10,266.4	29.2	30.0	81.85	-166.8	468.0	748.1	699.8	48.26	15.501	
10,575.0	10,472.6	10,437.7	10,273.1	29.2	30.0	80.90	-151.6	467.8	754.3	706.0	48.32	15.611	
10,600.0	10,485.7	10,454.2	10,279.2	29.1	30.0	79.99	-136.3	467.7	760.6	712.2	48.39	15.718	
10,625.0	10,497.7	10,470.6	10,284.7	29.1	30.0	79.10	-120.9	467.6	766.9	718.4	48.46	15.823	
10,650.0	10,508.5	10,486.9	10,289.7	29.1	30.0	78.24	-105.3	467.5	773.2	724.6	48.55	15.925	
10,675.0	10,518.1	10,500.0	10,293.3	29.1	30.0	77.41	-92.7	467.4	779.5	730.8	48.65	16.021	
10,700.0	10,526.4	10,519.5	10,298.0	29.1	30.0	76.60	-73.8	467.3	785.7	737.0	48.75	16.118	
10,725.0	10,533.6	10,535.7	10,301.4	29.1	30.1	75.84	-58.0	467.2	791.9	743.1	48.86	16.208	
10,750.0	10,539.4	10,550.0	10,303.8	29.1	30.1	75.11	-43.9	467.1	798.1	749.1	48.98	16.293	
10,775.0	10,544.0	10,568.1	10,306.4	29.1	30.1	74.41	-26.0	467.0	804.2	755.0	49.11	16.374	
10,800.0	10,547.3	10,584.2	10,308.1	29.2	30.1	73.76	-10.0	466.9	810.1	760.9	49.25	16.449	
10,825.0	10,549.3	10,600.0	10,309.3	29.2	30.2	73.14	5.8	466.8	816.0	766.6	49.40	16.520	
10,850.6	10,550.0	10,616.9	10,309.9	29.3	30.2	72.55	22.6	466.7	821.9	772.3	49.55	16.585	
10,853.5	10,550.0	10,618.7	10,309.9	29.3	30.2	72.56	24.5	466.7	822.5	772.9	49.57	16.593	
10,900.0	10,550.0	10,659.9	10,310.0	29.5	30.3	72.83	65.7	466.4	833.0	783.0	49.93	16.683	
11,000.0	10,550.0	10,757.6	10,310.0	29.9	30.7	73.36	163.4	465.7	853.1	802.1	51.04	16.715	
11,100.0	10,550.0	10,856.1	10,310.0	30.5	31.1	73.79	261.8	465.0	870.1	817.5	52.53	16.564	
11,200.0	10,550.0	10,955.1	10,310.0	31.1	31.6	74.12	360.8	464.4	883.7	829.4	54.27	16.282	
11,300.0	10,550.0	11,054.5	10,310.0	31.8	32.2	74.37	460.2	463.7	894.0	837.8	56.24	15.895	
11,400.0	10,550.0	11,154.2	10,310.0	32.6	32.9	74.53	560.0	463.0	901.0	842.6	58.41	15.425	
11,500.0	10,550.0	11,254.1	10,310.0	33.5	33.7	74.61	659.9	462.3	904.6	843.8	60.75	14.891	
11,554.3	10,550.0	11,308.5	10,310.0	33.9	34.1	74.62	714.2	462.0	905.1	843.1	62.00	14.598	
11,600.0	10,550.0	11,354.1	10,310.0	34.3	34.5	74.62	759.9	461.6	905.2	842.1	63.08	14.348	
11,700.0	10,550.0	11,454.1	10,310.0	35.3	35.5	74.63	859.9	461.0	905.3	839.7	65.55	13.810	
11,800.0	10,550.0	11,554.1	10,310.0	36.3	36.6	74.63	959.9	460.3	905.4	837.2	68.17	13.282	
11,900.0	10,550.0	11,654.1	10,310.0	37.5	37.7	74.63	1,059.9	459.6	905.5	834.6	70.90	12.771	
12,000.0	10,550.0	11,754.1	10,310.0	38.7	38.9	74.63	1,159.9	458.9	905.6	831.8	73.75	12.280	
12,100.0	10,550.0	11,854.1	10,310.0	40.0	40.2	74.63	1,259.9	458.2	905.7	829.0	76.69	11.810	
12,200.0	10,550.0	11,954.1	10,310.0	41.4	41.6	74.64	1,359.9	457.6	905.8	826.1	79.71	11.363	
12,300.0	10,550.0	12,054.1	10,310.0	42.8	43.0	74.64	1,459.9	456.9	905.9	823.1	82.81	10.939	
12,400.0	10,550.0	12,154.1	10,310.0	44.3	44.5	74.64	1,559.9	456.2	906.0	820.0	85.98	10.537	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - 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		Rule Assigned:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
12,500.0	10,550.0	12,254.1	10,310.0	45.9	46.0	74.64	1,659.9	455.5	906.1	816.9	89.22	10.156
12,600.0	10,550.0	12,354.1	10,310.0	47.5	47.6	74.64	1,759.9	454.8	906.2	813.7	92.50	9.796
12,700.0	10,550.0	12,454.1	10,310.0	49.1	49.2	74.64	1,859.9	454.2	906.3	810.4	95.84	9.457
12,800.0	10,550.0	12,554.1	10,310.0	50.8	50.8	74.65	1,959.9	453.5	906.4	807.2	99.21	9.136
12,900.0	10,550.0	12,654.1	10,310.0	52.5	52.5	74.65	2,059.9	452.8	906.5	803.9	102.63	8.832
13,000.0	10,550.0	12,754.1	10,310.0	54.2	54.2	74.65	2,159.9	452.1	906.6	800.5	106.09	8.546
13,100.0	10,550.0	12,854.1	10,310.0	56.0	55.9	74.65	2,259.9	451.4	906.7	797.1	109.57	8.275
13,200.0	10,550.0	12,954.1	10,310.0	57.8	57.6	74.65	2,359.8	450.7	906.8	793.7	113.09	8.019
13,300.0	10,550.0	13,054.1	10,310.0	59.6	59.4	74.65	2,459.8	450.1	906.9	790.3	116.63	7.776
13,400.0	10,550.0	13,154.1	10,310.0	61.4	61.2	74.66	2,559.8	449.4	907.0	786.8	120.20	7.546
13,500.0	10,550.0	13,254.1	10,310.0	63.2	63.0	74.66	2,659.8	448.7	907.1	783.3	123.78	7.328
13,600.0	10,550.0	13,354.1	10,310.0	65.0	64.8	74.66	2,759.8	448.0	907.2	779.8	127.39	7.121
13,700.0	10,550.0	13,454.1	10,310.0	66.9	66.6	74.66	2,859.8	447.3	907.3	776.3	131.02	6.925
13,800.0	10,550.0	13,554.1	10,310.0	68.7	68.4	74.66	2,959.8	446.7	907.4	772.7	134.66	6.738
13,900.0	10,550.0	13,654.1	10,310.0	70.6	70.3	74.66	3,059.8	446.0	907.5	769.2	138.33	6.561
14,000.0	10,550.0	13,754.1	10,310.0	72.5	72.1	74.67	3,159.8	445.3	907.6	765.6	142.00	6.392
14,100.0	10,550.0	13,854.1	10,310.0	74.3	74.0	74.67	3,259.8	444.6	907.7	762.0	145.69	6.230
14,200.0	10,550.0	13,954.1	10,310.0	76.2	75.9	74.67	3,359.8	443.9	907.8	758.4	149.39	6.077
14,300.0	10,550.0	14,054.1	10,310.0	78.1	77.8	74.67	3,459.8	443.3	907.9	754.8	153.10	5.930
14,400.0	10,550.0	14,154.1	10,310.0	80.0	79.6	74.67	3,559.8	442.6	908.0	751.2	156.83	5.790
14,500.0	10,550.0	14,254.1	10,310.0	82.0	81.5	74.68	3,659.8	441.9	908.1	747.5	160.56	5.656
14,600.0	10,550.0	14,354.1	10,310.0	83.9	83.4	74.68	3,759.8	441.2	908.2	743.9	164.30	5.528
14,700.0	10,550.0	14,454.1	10,310.0	85.8	85.3	74.68	3,859.8	440.5	908.3	740.3	168.05	5.405
14,800.0	10,550.0	14,554.1	10,310.0	87.7	87.3	74.68	3,959.8	439.9	908.4	736.6	171.81	5.287
14,900.0	10,550.0	14,654.1	10,310.0	89.6	89.2	74.68	4,059.8	439.2	908.5	732.9	175.58	5.174
15,000.0	10,550.0	14,754.1	10,310.0	91.6	91.1	74.68	4,159.8	438.5	908.6	729.3	179.36	5.066
15,100.0	10,550.0	14,854.1	10,310.0	93.5	93.0	74.69	4,259.8	437.8	908.7	725.6	183.14	4.962
15,200.0	10,550.0	14,954.1	10,310.0	95.5	95.0	74.69	4,359.8	437.1	908.8	721.9	186.92	4.862
15,300.0	10,550.0	15,054.1	10,310.0	97.4	96.9	74.69	4,459.8	436.5	908.9	718.2	190.72	4.766
15,400.0	10,550.0	15,154.1	10,310.0	99.4	98.8	74.69	4,559.8	435.8	909.0	714.5	194.52	4.673
15,500.0	10,550.0	15,254.1	10,310.0	101.3	100.8	74.69	4,659.8	435.1	909.1	710.8	198.32	4.584
15,600.0	10,550.0	15,354.1	10,310.0	103.3	102.7	74.69	4,759.8	434.4	909.2	707.1	202.13	4.498
15,700.0	10,550.0	15,454.1	10,310.0	105.2	104.6	74.70	4,859.8	433.7	909.3	703.4	205.95	4.415
15,800.0	10,550.0	15,554.1	10,310.0	107.2	106.6	74.70	4,959.8	433.0	909.4	699.7	209.76	4.335
15,900.0	10,550.0	15,654.1	10,310.0	109.1	108.5	74.70	5,059.8	432.4	909.5	695.9	213.59	4.258
16,000.0	10,550.0	15,754.1	10,310.0	111.1	110.5	74.70	5,159.8	431.7	909.6	692.2	217.41	4.184
16,100.0	10,550.0	15,854.1	10,310.0	113.1	112.5	74.70	5,259.8	431.0	909.7	688.5	221.24	4.112
16,200.0	10,550.0	15,954.1	10,310.0	115.0	114.4	74.71	5,359.8	430.3	909.8	684.8	225.08	4.042
16,300.0	10,550.0	16,054.1	10,310.0	117.0	116.4	74.71	5,459.8	429.6	909.9	681.0	228.92	3.975
16,400.0	10,550.0	16,154.1	10,310.0	119.0	118.3	74.71	5,559.8	429.0	910.0	677.3	232.76	3.910
16,500.0	10,550.0	16,254.1	10,310.0	120.9	120.3	74.71	5,659.8	428.3	910.1	673.5	236.60	3.847
16,600.0	10,550.0	16,354.1	10,310.0	122.9	122.3	74.71	5,759.8	427.6	910.2	669.8	240.45	3.786
16,700.0	10,550.0	16,454.1	10,310.0	124.9	124.2	74.71	5,859.8	426.9	910.3	666.0	244.30	3.726
16,800.0	10,550.0	16,554.1	10,310.0	126.9	126.2	74.72	5,959.8	426.2	910.4	662.3	248.15	3.669
16,900.0	10,550.0	16,654.1	10,310.0	128.8	128.2	74.72	6,059.8	425.6	910.5	658.5	252.01	3.613
17,000.0	10,550.0	16,754.1	10,310.0	130.8	130.1	74.72	6,159.8	424.9	910.6	654.8	255.86	3.559
17,100.0	10,550.0	16,854.1	10,310.0	132.8	132.1	74.72	6,259.8	424.2	910.7	651.0	259.72	3.507
17,200.0	10,550.0	16,954.1	10,310.0	134.8	134.1	74.72	6,359.8	423.5	910.8	647.3	263.58	3.456
17,300.0	10,550.0	17,054.1	10,310.0	136.8	136.1	74.72	6,459.8	422.8	910.9	643.5	267.45	3.406
17,400.0	10,550.0	17,154.1	10,310.0	138.7	138.0	74.73	6,559.7	422.2	911.0	639.7	271.32	3.358
17,500.0	10,550.0	17,254.1	10,310.0	140.7	140.0	74.73	6,659.7	421.5	911.1	636.0	275.18	3.311
17,600.0	10,550.0	17,354.1	10,310.0	142.7	142.0	74.73	6,759.7	420.8	911.2	632.2	279.05	3.265

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - 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		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,700.0	10,550.0	17,454.1	10,310.0	144.7	144.0	74.73	6,859.7	420.1	911.3	628.4	282.93	3.221		
17,800.0	10,550.0	17,554.1	10,310.0	146.7	146.0	74.73	6,959.7	419.4	911.5	624.7	286.80	3.178		
17,900.0	10,550.0	17,654.1	10,310.0	148.7	147.9	74.73	7,059.7	418.7	911.6	620.9	290.67	3.136		
18,000.0	10,550.0	17,754.1	10,310.0	150.7	149.9	74.74	7,159.7	418.1	911.7	617.1	294.55	3.095		
18,100.0	10,550.0	17,854.1	10,310.0	152.6	151.9	74.74	7,259.7	417.4	911.8	613.3	298.43	3.055		
18,200.0	10,550.0	17,954.1	10,310.0	154.6	153.9	74.74	7,359.7	416.7	911.9	609.5	302.31	3.016		
18,300.0	10,550.0	18,054.1	10,310.0	156.6	155.9	74.74	7,459.7	416.0	912.0	605.8	306.19	2.978		
18,400.0	10,550.0	18,154.1	10,310.0	158.6	157.9	74.74	7,559.7	415.3	912.1	602.0	310.07	2.941		
18,500.0	10,550.0	18,254.1	10,310.0	160.6	159.9	74.75	7,659.7	414.7	912.2	598.2	313.96	2.905		
18,600.0	10,550.0	18,354.1	10,310.0	162.6	161.8	74.75	7,759.7	414.0	912.3	594.4	317.84	2.870		
18,671.2	10,550.0	18,425.3	10,310.0	164.0	163.3	74.75	7,830.9	413.5	912.3	591.7	320.61	2.846		
18,671.5	10,550.0	18,425.7	10,310.0	164.0	163.3	74.75	7,831.3	413.5	912.3	591.7	320.62	2.846		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 556H - Dagger State Com 556H - Dagger State Com 556H - 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)			
0.0	0.0	1.0	1.0	0.0	0.0	172.80	-250.1	31.6	252.1				
100.0	100.0	101.0	101.0	0.5	0.5	172.80	-250.1	31.6	252.1	251.0	1.07	235.128	
200.0	200.0	201.0	201.0	1.7	1.7	172.80	-250.1	31.6	252.1	248.7	3.43	73.483	
300.0	300.0	301.0	301.0	2.4	2.4	172.80	-250.1	31.6	252.1	247.3	4.83	52.209	
400.0	400.0	401.0	401.0	3.0	3.0	172.80	-250.1	31.6	252.1	246.2	5.91	42.635	
500.0	500.0	501.0	501.0	3.4	3.4	172.80	-250.1	31.6	252.1	245.3	6.83	36.885	
600.0	600.0	601.0	601.0	3.8	3.8	172.80	-250.1	31.6	252.1	244.4	7.65	32.942	
700.0	700.0	701.0	701.0	4.2	4.2	172.80	-250.1	31.6	252.1	243.7	8.40	30.020	
800.0	800.0	801.0	801.0	4.5	4.5	172.80	-250.1	31.6	252.1	243.0	9.09	27.741	
900.0	900.0	901.0	901.0	4.9	4.9	172.80	-250.1	31.6	252.1	242.4	9.73	25.899	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	172.80	-250.1	31.6	252.1	241.7	10.34	24.370	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	172.80	-250.1	31.6	252.1	241.2	10.93	23.073	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	172.80	-250.1	31.6	252.1	240.6	11.48	21.954	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	172.80	-250.1	31.6	252.1	240.1	12.02	20.976	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	172.80	-250.1	31.6	252.1	239.6	12.53	20.112	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	172.80	-250.1	31.6	252.1	239.1	13.03	19.341	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	172.80	-250.1	31.6	252.1	238.6	13.52	18.646	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	172.80	-250.1	31.6	252.1	238.1	13.99	18.017	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	172.80	-250.1	31.6	252.1	237.6	14.45	17.443	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	172.80	-250.1	31.6	252.1	237.2	14.90	16.917	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	172.80	-250.1	31.6	252.1	236.7	15.34	16.432	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	172.80	-250.1	31.6	252.1	236.3	15.77	15.983	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	172.80	-250.1	31.6	252.1	235.9	16.19	15.566	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	172.80	-250.1	31.6	252.1	235.5	16.61	15.177	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	172.80	-250.1	31.6	252.1	235.1	17.02	14.813	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	172.80	-250.1	31.6	252.1	234.7	17.42	14.472	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	172.80	-250.1	31.6	252.1	234.3	17.81	14.151	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	172.80	-250.1	31.6	252.1	233.9	18.20	13.848	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	172.80	-250.1	31.6	252.1	233.5	18.59	13.562	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	172.80	-250.1	31.6	252.1	233.1	18.97	13.291	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	172.80	-250.1	31.6	252.1	232.7	19.34	13.034	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	172.80	-250.1	31.6	252.1	232.4	19.71	12.789	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	172.80	-250.1	31.6	252.1	232.0	20.08	12.556	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	172.80	-250.1	31.6	252.1	231.6	20.44	12.334	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	172.80	-250.1	31.6	252.1	231.3	20.80	12.122	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	172.80	-250.1	31.6	252.1	230.9	21.15	11.919	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	172.80	-250.1	31.6	252.1	230.6	21.50	11.725	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	172.80	-250.1	31.6	252.1	230.2	21.85	11.538	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	172.80	-250.1	31.6	252.1	229.9	22.19	11.359	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	172.80	-250.1	31.6	252.1	229.6	22.53	11.187	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	172.80	-250.1	31.6	252.1	229.2	22.87	11.021	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	172.80	-250.1	31.6	252.1	228.9	23.21	10.862	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	172.80	-250.1	31.6	252.1	228.5	23.54	10.708	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	172.80	-250.1	31.6	252.1	228.2	23.87	10.560	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	172.80	-250.1	31.6	252.1	227.9	24.20	10.416	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	172.80	-250.1	31.6	252.1	227.6	24.53	10.278	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	172.80	-250.1	31.6	252.1	227.2	24.85	10.144	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	172.80	-250.1	31.6	252.1	226.9	25.17	10.014	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	172.80	-250.1	31.6	252.1	226.6	25.49	9.889	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	172.80	-250.1	31.6	252.1	226.3	25.81	9.767	
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	172.80	-250.1	31.6	252.1	226.0	26.13	9.649	
5,100.0	5,100.0	5,101.0	5,101.0	13.2	13.2	172.80	-250.1	31.6	252.1	225.6	26.44	9.534	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 556H - Dagger State Com 556H - Dagger State Com 556H - 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				Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,200.0	5,200.0	5,200.0	13.4	13.4	172.80	-250.1	31.6	252.1	225.3	26.75	9.423	
5,216.8	5,216.8	5,217.4	5,217.4	13.4	13.4	-31.17	-250.1	31.6	252.1	225.3	26.78	9.412	
5,300.0	5,300.0	5,298.3	5,298.3	13.5	13.5	-31.41	-250.5	32.3	251.9	225.0	26.93	9.353	
5,400.0	5,400.0	5,395.5	5,395.5	13.5	13.6	-32.16	-251.9	34.4	251.3	224.2	27.08	9.279	
5,500.0	5,499.9	5,492.6	5,492.4	13.6	13.7	-33.41	-254.0	38.0	250.4	223.1	27.25	9.189	
5,600.0	5,599.7	5,589.4	5,589.1	13.7	13.8	-35.16	-257.0	42.9	249.3	221.9	27.44	9.087	
5,700.0	5,699.4	5,687.4	5,686.9	13.9	13.9	-37.42	-260.9	49.1	248.2	220.6	27.60	8.991	
5,800.0	5,798.9	5,786.8	5,785.9	14.0	14.0	-40.02	-264.9	55.5	246.3	218.4	27.84	8.847	
5,892.1	5,890.4	5,878.1	5,877.0	14.2	14.2	-42.69	-268.5	61.5	243.8	215.7	28.08	8.683	
5,900.0	5,898.3	5,886.0	5,884.8	14.2	14.2	-42.93	-268.9	62.0	243.6	215.5	28.09	8.671	
6,000.0	5,997.5	5,985.1	5,983.6	14.3	14.4	-46.00	-272.8	68.4	241.0	212.6	28.37	8.496	
6,100.0	6,096.8	6,084.2	6,082.5	14.6	14.6	-49.13	-276.8	74.9	239.2	210.5	28.68	8.338	
6,200.0	6,196.1	6,183.3	6,181.3	14.8	14.8	-52.30	-280.8	81.3	238.1	209.0	29.02	8.204	
6,298.1	6,293.4	6,280.5	6,278.2	15.1	15.1	-55.42	-284.7	87.6	237.7	208.3	29.36	8.097 CC	
6,300.0	6,295.3	6,282.4	6,280.1	15.1	15.1	-55.48	-284.8	87.8	237.7	208.3	29.36	8.095 ES	
6,400.0	6,394.6	6,381.5	6,378.9	15.3	15.3	-58.67	-288.8	94.2	238.1	208.4	29.73	8.009	
6,500.0	6,493.9	6,480.6	6,477.7	15.6	15.6	-61.84	-292.7	100.7	239.2	209.1	30.10	7.947	
6,600.0	6,593.2	6,579.7	6,576.5	15.9	15.9	-64.96	-296.7	107.1	241.1	210.6	30.49	7.908	
6,700.0	6,692.4	6,678.8	6,675.3	16.3	16.1	-68.03	-300.7	113.5	243.7	212.8	30.88	7.891 SF	
6,800.0	6,791.7	6,777.9	6,774.2	16.6	16.5	-71.03	-304.7	120.0	247.0	215.7	31.28	7.895	
6,900.0	6,891.0	6,877.0	6,873.0	17.0	16.8	-73.95	-308.7	126.4	250.9	219.2	31.69	7.917	
7,000.0	6,990.2	6,976.1	6,971.8	17.3	17.1	-76.76	-312.7	132.9	255.5	223.4	32.11	7.957	
7,100.0	7,089.5	7,075.2	7,070.6	17.7	17.4	-79.48	-316.6	139.3	260.7	228.2	32.54	8.012	
7,200.0	7,188.8	7,174.3	7,169.4	18.1	17.8	-82.08	-320.6	145.8	266.5	233.5	32.97	8.081	
7,300.0	7,288.1	7,273.4	7,268.2	18.5	18.1	-84.57	-324.6	152.2	272.7	239.3	33.42	8.162	
7,400.0	7,387.3	7,372.5	7,367.0	18.9	18.5	-86.95	-328.6	158.7	279.5	245.7	33.87	8.253	
7,500.0	7,486.6	7,471.7	7,465.9	19.3	18.8	-89.21	-332.6	165.1	286.8	252.4	34.34	8.352	
7,600.0	7,585.9	7,570.8	7,564.7	19.7	19.2	-91.35	-336.5	171.6	294.5	259.6	34.82	8.458	
7,700.0	7,685.1	7,669.9	7,663.5	20.2	19.6	-93.39	-340.5	178.0	302.5	267.2	35.31	8.569	
7,800.0	7,784.4	7,769.0	7,762.3	20.6	20.0	-95.32	-344.5	184.5	311.0	275.2	35.81	8.684	
7,900.0	7,883.7	7,868.1	7,861.1	21.0	20.4	-97.15	-348.5	190.9	319.7	283.4	36.32	8.803	
8,000.0	7,983.0	7,967.2	7,959.9	21.5	20.8	-98.87	-352.5	197.4	328.8	292.0	36.85	8.923	
8,100.0	8,082.2	8,066.3	8,058.7	22.0	21.2	-100.51	-356.5	203.8	338.2	300.8	37.39	9.045	
8,200.0	8,181.5	8,165.4	8,157.6	22.4	21.6	-102.06	-360.4	210.2	347.8	309.9	37.94	9.167	
8,300.0	8,280.8	8,264.5	8,256.4	22.9	22.0	-103.52	-364.4	216.7	357.7	319.2	38.50	9.289	
8,400.0	8,380.0	8,363.6	8,355.2	23.4	22.4	-104.90	-368.4	223.1	367.8	328.7	39.08	9.411	
8,500.0	8,479.3	8,462.7	8,454.0	23.9	22.8	-106.21	-372.4	229.6	378.0	338.4	39.66	9.531	
8,600.0	8,578.6	8,561.8	8,552.8	24.4	23.3	-107.45	-376.4	236.0	388.5	348.2	40.26	9.650	
8,700.0	8,677.9	8,660.9	8,651.6	24.8	23.7	-108.63	-380.3	242.5	399.2	358.3	40.87	9.767	
8,800.0	8,777.1	8,760.0	8,750.5	25.3	24.1	-109.74	-384.3	248.9	410.0	368.5	41.48	9.883	
8,900.0	8,876.4	8,859.1	8,849.3	25.8	24.6	-110.80	-388.3	255.4	420.9	378.8	42.10	9.997	
9,000.0	8,975.7	8,958.2	8,948.1	26.3	25.0	-111.80	-392.3	261.8	432.0	389.2	42.74	10.108	
9,100.0	9,074.9	9,057.3	9,046.9	26.8	25.4	-112.76	-396.3	268.3	443.2	399.8	43.38	10.217	
9,200.0	9,174.2	9,156.4	9,145.7	27.4	25.9	-113.66	-400.3	274.7	454.5	410.5	44.03	10.324	
9,286.0	9,259.6	9,241.7	9,230.7	27.8	26.3	-114.41	-403.7	280.3	464.3	419.8	44.58	10.416	
9,300.0	9,273.5	9,255.5	9,244.5	27.9	26.3	-114.54	-404.2	281.2	465.9	421.3	44.66	10.433	
9,400.0	9,372.9	9,354.8	9,343.5	28.3	26.8	-115.34	-408.2	287.6	477.0	431.7	45.30	10.530	
9,500.0	9,472.5	9,454.1	9,442.5	28.8	27.2	-115.92	-412.2	294.1	487.4	441.4	45.93	10.610	
9,600.0	9,572.2	9,553.6	9,541.8	29.3	27.7	-116.28	-416.2	300.6	497.0	450.4	46.55	10.676	
9,700.0	9,672.0	9,653.2	9,641.1	29.7	28.2	-116.46	-420.2	307.0	505.9	458.7	47.15	10.728	
9,800.0	9,771.9	9,752.9	9,740.4	30.1	28.6	-116.45	-424.2	313.5	514.0	466.2	47.73	10.767	
9,900.0	9,871.9	9,852.6	9,839.9	30.5	29.1	-116.26	-428.2	320.0	521.3	473.0	48.28	10.796	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 556H - Dagger State Com 556H - Dagger State Com 556H - Prelim 1													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 0.0 usft		
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	Warning	
9,978.1	9,950.0	9,930.5	9,917.5	30.6	29.4	87.97	-431.4	325.1	526.5	477.8	48.65	10.822		
10,000.0	9,971.9	9,952.3	9,939.3	30.6	29.6	88.07	-432.2	326.5	527.9	479.1	48.74	10.831		
10,100.6	10,072.5	10,052.7	10,039.3	30.7	30.0	88.52	-436.3	333.0	534.3	485.1	49.19	10.863		
10,125.0	10,096.9	10,076.9	10,063.5	30.7	30.1	102.97	-437.2	334.6	536.0	486.7	49.29	10.874		
10,150.0	10,121.8	10,101.7	10,088.2	30.6	30.3	103.03	-438.2	336.2	538.0	488.6	49.40	10.892		
10,175.0	10,146.6	10,126.2	10,112.6	30.5	30.4	103.19	-439.2	337.8	540.4	490.9	49.50	10.918		
10,200.0	10,171.2	10,150.5	10,136.8	30.4	30.5	103.43	-440.2	339.4	543.1	493.5	49.60	10.951		
10,225.0	10,195.5	10,174.4	10,160.7	30.3	30.6	103.74	-441.2	340.9	546.2	496.5	49.69	10.992		
10,250.0	10,219.5	10,197.9	10,184.1	30.3	30.7	104.11	-442.1	342.5	549.7	499.9	49.78	11.043		
10,275.0	10,243.1	10,220.9	10,207.1	30.2	30.8	104.52	-443.0	344.0	553.6	503.7	49.86	11.102		
10,300.0	10,266.2	10,243.5	10,229.6	30.1	30.9	104.95	-443.9	345.4	558.0	508.0	49.94	11.172		
10,325.0	10,288.7	10,265.4	10,251.4	30.0	31.0	105.39	-444.8	346.9	562.9	512.9	50.02	11.253		
10,350.0	10,310.7	10,286.6	10,272.6	29.9	31.1	105.82	-445.7	348.2	568.4	518.3	50.10	11.346		
10,375.0	10,332.1	10,307.2	10,293.1	29.8	31.2	106.22	-446.5	349.6	574.5	524.3	50.17	11.451		
10,400.0	10,352.7	10,327.0	10,312.8	29.7	31.3	106.57	-447.3	350.9	581.3	531.0	50.25	11.569		
10,425.0	10,372.5	10,345.9	10,331.7	29.6	31.4	106.85	-448.1	352.1	588.8	538.4	50.32	11.700		
10,450.0	10,391.6	10,364.0	10,349.7	29.5	31.5	107.04	-448.8	353.3	597.0	546.6	50.39	11.846		
10,475.0	10,409.7	10,381.2	10,366.8	29.4	31.6	107.12	-449.5	354.4	606.0	555.5	50.47	12.006		
10,500.0	10,426.9	10,397.3	10,383.0	29.4	31.7	107.08	-450.1	355.4	615.7	565.2	50.54	12.182		
10,525.0	10,443.2	10,412.5	10,398.1	29.3	31.7	106.89	-450.7	356.4	626.3	575.7	50.62	12.373		
10,550.0	10,458.4	10,426.6	10,412.2	29.2	31.8	106.54	-451.3	357.3	637.6	586.9	50.69	12.579		
10,575.0	10,472.6	10,441.3	10,426.8	29.2	31.9	106.13	-451.9	358.3	649.8	599.0	50.77	12.799		
10,600.0	10,485.7	10,454.7	10,440.2	29.1	31.9	105.53	-452.4	359.1	662.7	611.8	50.84	13.034		
10,625.0	10,497.7	10,466.9	10,452.4	29.1	32.0	104.71	-452.8	359.8	676.4	625.4	50.92	13.282		
10,650.0	10,508.5	10,477.9	10,463.3	29.1	32.0	103.65	-453.2	360.5	690.8	639.7	51.00	13.543		
10,675.0	10,518.1	10,487.5	10,472.9	29.1	32.1	102.33	-453.6	361.0	705.8	654.8	51.08	13.818		
10,700.0	10,526.4	10,495.8	10,481.2	29.1	32.1	100.73	-453.9	361.5	721.6	670.5	51.16	14.105		
10,725.0	10,533.6	10,502.7	10,488.0	29.1	32.1	98.84	-454.1	361.9	738.0	686.8	51.23	14.405		
10,750.0	10,539.4	10,508.1	10,493.5	29.1	32.2	96.65	-454.3	362.2	755.0	703.7	51.31	14.715		
10,775.0	10,544.0	10,512.2	10,497.5	29.1	32.2	94.14	-454.4	362.4	772.5	721.1	51.38	15.035		
10,800.0	10,547.3	10,514.7	10,500.0	29.2	32.2	91.32	-454.5	362.5	790.4	738.9	51.45	15.364		
10,825.0	10,549.3	10,515.7	10,501.1	29.2	32.2	88.19	-454.5	362.6	808.7	757.2	51.51	15.700		
10,850.6	10,550.0	10,515.2	10,500.6	29.3	32.2	84.70	-454.5	362.5	827.8	776.3	51.57	16.052		
10,853.5	10,550.0	10,515.1	10,500.4	29.3	32.2	84.68	-454.5	362.5	830.0	778.4	51.58	16.091		
10,900.0	10,550.0	10,512.7	10,498.0	29.5	32.2	84.54	-454.4	362.4	865.3	813.6	51.70	16.738		
11,000.0	10,550.0	10,507.6	10,492.9	29.9	32.2	84.26	-454.2	362.1	943.1	891.0	52.01	18.132		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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)			
0.0	0.0	0.0	0.0	0.0	0.0	179.62	-250.3	1.7	250.3				
100.0	100.0	100.0	100.0	0.5	0.5	179.62	-250.3	1.7	250.3	249.2	1.06	236.068	
200.0	200.0	200.0	200.0	1.7	1.7	179.62	-250.3	1.7	250.3	246.9	3.42	73.113	
300.0	300.0	300.0	300.0	2.4	2.4	179.62	-250.3	1.7	250.3	245.5	4.82	51.899	
400.0	400.0	400.0	400.0	3.0	3.0	179.62	-250.3	1.7	250.3	244.4	5.91	42.367	
500.0	500.0	500.0	500.0	3.4	3.4	179.62	-250.3	1.7	250.3	243.5	6.83	36.647	
600.0	600.0	600.0	600.0	3.8	3.8	179.62	-250.3	1.7	250.3	242.7	7.65	32.725	
700.0	700.0	700.0	700.0	4.2	4.2	179.62	-250.3	1.7	250.3	241.9	8.39	29.820	
800.0	800.0	800.0	800.0	4.5	4.5	179.62	-250.3	1.7	250.3	241.2	9.08	27.555	
900.0	900.0	900.0	900.0	4.9	4.9	179.62	-250.3	1.7	250.3	240.6	9.73	25.724	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	179.62	-250.3	1.7	250.3	240.0	10.34	24.204	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	179.62	-250.3	1.7	250.3	239.4	10.92	22.915	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	179.62	-250.3	1.7	250.3	238.8	11.48	21.804	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	179.62	-250.3	1.7	250.3	238.3	12.01	20.833	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	179.62	-250.3	1.7	250.3	237.8	12.53	19.974	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	179.62	-250.3	1.7	250.3	237.3	13.03	19.207	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	179.62	-250.3	1.7	250.3	236.8	13.52	18.518	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	179.62	-250.3	1.7	250.3	236.3	13.99	17.893	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	179.62	-250.3	1.7	250.3	235.9	14.45	17.322	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	179.62	-250.3	1.7	250.3	235.4	14.90	16.800	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	179.62	-250.3	1.7	250.3	235.0	15.34	16.318	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	179.62	-250.3	1.7	250.3	234.5	15.77	15.872	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	179.62	-250.3	1.7	250.3	234.1	16.19	15.458	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	179.62	-250.3	1.7	250.3	233.7	16.61	15.071	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	179.62	-250.3	1.7	250.3	233.3	17.02	14.710	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	179.62	-250.3	1.7	250.3	232.9	17.42	14.371	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	179.62	-250.3	1.7	250.3	232.5	17.81	14.052	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	179.62	-250.3	1.7	250.3	232.1	18.20	13.752	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	179.62	-250.3	1.7	250.3	231.7	18.59	13.467	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	179.62	-250.3	1.7	250.3	231.3	18.96	13.198	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	179.62	-250.3	1.7	250.3	231.0	19.34	12.943	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	179.62	-250.3	1.7	250.3	230.6	19.71	12.700	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	179.62	-250.3	1.7	250.3	230.2	20.07	12.469	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	179.62	-250.3	1.7	250.3	229.9	20.44	12.248	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	179.62	-250.3	1.7	250.3	229.5	20.79	12.037	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	179.62	-250.3	1.7	250.3	229.2	21.15	11.836	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	179.62	-250.3	1.7	250.3	228.8	21.50	11.643	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	179.62	-250.3	1.7	250.3	228.5	21.85	11.457	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	179.62	-250.3	1.7	250.3	228.1	22.19	11.280	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	179.62	-250.3	1.7	250.3	227.8	22.53	11.109	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	179.62	-250.3	1.7	250.3	227.4	22.87	10.944	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	179.62	-250.3	1.7	250.3	227.1	23.21	10.786	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	179.62	-250.3	1.7	250.3	226.8	23.54	10.633	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	179.62	-250.3	1.7	250.3	226.4	23.87	10.486	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	179.62	-250.3	1.7	250.3	226.1	24.20	10.343	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	179.62	-250.3	1.7	250.3	225.8	24.53	10.206	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	179.62	-250.3	1.7	250.3	225.5	24.85	10.073	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	179.62	-250.3	1.7	250.3	225.1	25.17	9.944	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	179.62	-250.3	1.7	250.3	224.8	25.49	9.819	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	179.62	-250.3	1.7	250.3	224.5	25.81	9.698	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	179.62	-250.3	1.7	250.3	224.2	26.12	9.581	
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	179.62	-250.3	1.7	250.3	223.9	26.44	9.467	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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)		
5,200.0	5,200.0	5,200.0	5,200.0	13.4	13.4	179.62	-250.3	1.7	250.3	223.6	26.75	9.357	
5,300.0	5,300.0	5,297.6	5,297.6	13.5	13.5	-24.27	-250.8	1.0	250.0	223.1	26.93	9.283	
5,400.0	5,400.0	5,395.2	5,395.2	13.5	13.6	-24.04	-252.2	-1.1	249.0	221.9	27.08	9.196	
5,500.0	5,499.9	5,492.8	5,492.7	13.6	13.7	-23.65	-254.5	-4.5	247.4	220.2	27.25	9.081	
5,600.0	5,599.7	5,590.4	5,590.1	13.7	13.8	-23.10	-257.8	-9.3	245.2	217.8	27.44	8.937	
5,700.0	5,699.4	5,689.4	5,688.9	13.9	13.9	-22.42	-261.8	-15.3	242.2	214.6	27.62	8.770	
5,800.0	5,798.9	5,789.3	5,788.4	14.0	14.0	-21.87	-266.0	-21.5	237.7	209.8	27.87	8.530	
5,892.1	5,890.4	5,881.2	5,880.1	14.2	14.2	-21.48	-269.8	-27.1	232.1	204.0	28.12	8.254	
5,900.0	5,898.3	5,889.1	5,888.0	14.2	14.2	-21.45	-270.1	-27.6	231.6	203.4	28.14	8.230	
6,000.0	5,997.5	5,988.8	5,987.4	14.3	14.4	-21.05	-274.3	-33.8	224.8	196.4	28.44	7.904	
6,100.0	6,096.8	6,088.6	6,086.9	14.6	14.6	-20.63	-278.5	-39.9	218.0	189.2	28.79	7.573	
6,200.0	6,196.1	6,188.4	6,186.4	14.8	14.8	-20.18	-282.6	-46.0	211.3	182.1	29.17	7.243	
6,300.0	6,295.3	6,288.1	6,285.9	15.1	15.1	-19.70	-286.8	-52.2	204.5	174.9	29.57	6.915	
6,400.0	6,394.6	6,387.9	6,385.4	15.3	15.3	-19.19	-290.9	-58.3	197.8	167.8	30.01	6.590	
6,500.0	6,493.9	6,487.6	6,484.9	15.6	15.6	-18.65	-295.1	-64.5	191.0	160.6	30.47	6.270	
6,600.0	6,593.2	6,587.4	6,584.3	15.9	15.9	-18.06	-299.3	-70.6	184.4	153.4	30.96	5.954	
6,700.0	6,692.4	6,687.1	6,683.8	16.3	16.1	-17.43	-303.4	-76.7	177.7	146.2	31.48	5.643	
6,800.0	6,791.7	6,786.9	6,783.3	16.6	16.4	-16.75	-307.6	-82.9	171.0	139.0	32.03	5.339	
6,900.0	6,891.0	6,886.7	6,882.8	17.0	16.8	-16.02	-311.7	-89.0	164.4	131.8	32.61	5.041	
7,000.0	6,990.2	6,986.4	6,982.3	17.3	17.1	-15.23	-315.9	-95.1	157.8	124.6	33.22	4.750	
7,100.0	7,089.5	7,086.2	7,081.7	17.7	17.4	-14.36	-320.0	-101.3	151.2	117.4	33.86	4.466	
7,200.0	7,188.8	7,185.9	7,181.2	18.1	17.8	-13.42	-324.2	-107.4	144.7	110.2	34.53	4.191	
7,300.0	7,288.1	7,285.7	7,280.7	18.5	18.1	-12.39	-328.4	-113.6	138.2	103.0	35.23	3.923	
7,400.0	7,387.3	7,385.4	7,380.2	18.9	18.5	-11.26	-332.5	-119.7	131.8	95.8	35.96	3.664	
7,500.0	7,486.6	7,485.2	7,479.7	19.3	18.8	-10.01	-336.7	-125.8	125.4	88.7	36.73	3.414	
7,600.0	7,585.9	7,585.0	7,579.1	19.7	19.2	-8.63	-340.8	-132.0	119.1	81.5	37.53	3.173	
7,700.0	7,685.1	7,684.7	7,678.6	20.2	19.6	-7.09	-345.0	-138.1	112.8	74.5	38.36	2.941	
7,800.0	7,784.4	7,784.5	7,778.1	20.6	20.0	-5.38	-349.2	-144.3	106.7	67.4	39.23	2.719	
7,900.0	7,883.7	7,884.2	7,877.6	21.0	20.4	-3.46	-353.3	-150.4	100.6	60.5	40.14	2.507	
8,000.0	7,983.0	7,984.0	7,977.1	21.5	20.8	-1.30	-357.5	-156.5	94.7	53.6	41.08	2.306	
8,100.0	8,082.2	8,083.7	8,076.5	22.0	21.2	1.15	-361.6	-162.7	88.9	46.9	42.04	2.116	
8,200.0	8,181.5	8,183.5	8,176.0	22.4	21.6	3.93	-365.8	-168.8	83.4	40.3	43.03	1.937	
8,300.0	8,280.8	8,283.3	8,275.5	22.9	22.0	7.09	-370.0	-175.0	78.0	34.0	44.02	1.772	
8,400.0	8,380.0	8,383.0	8,375.0	23.4	22.4	10.72	-374.1	-181.1	72.9	27.9	44.99	1.621	
8,500.0	8,479.3	8,482.8	8,474.5	23.9	22.8	14.86	-378.3	-187.2	68.2	22.3	45.90	1.485 Level 3	
8,600.0	8,578.6	8,582.5	8,574.0	24.4	23.2	19.59	-382.4	-193.4	63.8	17.1	46.71	1.367 Level 3	
8,700.0	8,677.9	8,682.3	8,673.4	24.8	23.7	24.97	-386.6	-199.5	60.0	12.7	47.33	1.267 Level 3	
8,800.0	8,777.1	8,782.0	8,772.9	25.3	24.1	31.02	-390.7	-205.6	56.7	9.1	47.68	1.190 Level 3	
8,900.0	8,876.4	8,881.8	8,872.4	25.8	24.5	37.71	-394.9	-211.8	54.2	6.5	47.66	1.137 Level 3	
9,000.0	8,975.7	8,981.6	8,971.9	26.3	25.0	44.95	-399.1	-217.9	52.5	5.2	47.22	1.111 Level 3, ES, SF	
9,100.0	9,074.9	9,081.3	9,071.4	26.8	25.4	52.55	-403.2	-224.1	51.6	5.3	46.37	1.113 Level 3	
9,140.3	9,114.9	9,121.5	9,111.4	27.1	25.6	55.66	-404.9	-226.5	51.6	5.6	45.93	1.123 Level 3, CC	
9,200.0	9,174.2	9,181.1	9,170.8	27.4	25.9	60.27	-407.4	-230.2	51.7	6.5	45.19	1.144 Level 3	
9,286.0	9,259.6	9,266.9	9,256.4	27.8	26.3	66.78	-411.0	-235.5	52.5	8.5	44.05	1.193 Level 3	
9,300.0	9,273.5	9,280.8	9,270.3	27.9	26.3	67.80	-411.5	-236.3	52.7	8.9	43.86	1.202 Level 3	
9,400.0	9,372.9	9,380.6	9,369.9	28.3	26.8	73.85	-415.7	-242.5	54.9	12.1	42.87	1.282 Level 3	
9,500.0	9,472.5	9,480.5	9,469.5	28.8	27.2	77.70	-419.9	-248.6	58.0	15.6	42.44	1.368 Level 3	
9,600.0	9,572.2	9,580.4	9,569.1	29.3	27.7	79.56	-424.0	-254.8	61.7	19.2	42.48	1.452 Level 3	
9,700.0	9,672.0	9,680.4	9,668.7	29.7	28.1	79.72	-428.2	-260.9	65.6	22.7	42.92	1.530	
9,800.0	9,771.9	9,780.2	9,768.4	30.1	28.6	78.45	-432.4	-267.1	69.9	26.2	43.70	1.600	
9,900.0	9,871.9	9,880.1	9,867.9	30.5	29.1	76.03	-436.5	-273.2	74.7	29.8	44.84	1.666	
9,978.1	9,950.0	9,958.0	9,945.6	30.6	29.4	-82.53	-439.8	-278.0	78.8	32.9	45.92	1.716	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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	
10,000.0	9,971.9	9,979.8	9,967.4	30.6	29.5	-83.30	-440.7	-279.4	80.0	33.8	46.23	1.731	
10,100.6	10,072.5	10,080.2	10,067.5	30.7	30.0	-86.56	-444.9	-285.5	85.8	38.1	47.70	1.800	
10,125.0	10,096.9	10,104.5	10,091.7	30.7	30.1	-73.06	-445.9	-287.0	87.1	38.9	48.16	1.809	
10,150.0	10,121.8	10,129.3	10,116.4	30.6	30.2	-74.85	-446.9	-288.6	88.1	39.2	48.90	1.801	
10,175.0	10,146.6	10,153.9	10,141.0	30.5	30.3	-77.41	-447.9	-290.1	88.9	39.0	49.89	1.781	
10,200.0	10,171.2	10,178.3	10,165.3	30.4	30.5	-80.68	-449.0	-291.6	89.6	38.5	51.13	1.753	
10,225.0	10,195.5	10,202.4	10,189.4	30.3	30.6	-84.60	-450.0	-293.1	90.6	38.0	52.56	1.723	
10,250.0	10,219.5	10,226.1	10,213.0	30.3	30.7	-89.04	-450.9	-294.5	92.0	37.9	54.12	1.700	
10,275.0	10,243.1	10,249.6	10,236.5	30.2	30.8	-93.92	-451.9	-296.0	94.1	38.4	55.70	1.689	
10,300.0	10,266.2	10,272.9	10,259.6	30.1	30.9	-99.06	-452.8	-297.3	97.1	40.0	57.15	1.699	
10,325.0	10,288.7	10,295.5	10,282.2	30.0	31.0	-104.23	-453.7	-298.5	101.3	43.0	58.36	1.736	
10,350.0	10,310.7	10,317.6	10,304.3	29.9	31.1	-109.26	-454.4	-299.7	106.9	47.7	59.21	1.805	
10,375.0	10,332.1	10,339.1	10,325.7	29.8	31.2	-113.99	-455.1	-300.7	114.0	54.3	59.68	1.910	
10,400.0	10,352.7	10,359.8	10,346.4	29.7	31.3	-118.33	-455.8	-301.7	122.7	62.9	59.78	2.053	
10,425.0	10,372.5	10,379.8	10,366.4	29.6	31.3	-122.19	-456.4	-302.5	133.0	73.5	59.56	2.254	
10,450.0	10,391.6	10,399.0	10,385.5	29.5	31.4	-125.54	-456.9	-303.3	144.9	85.8	59.12	2.432	
10,475.0	10,409.7	10,417.3	10,403.8	29.4	31.5	-128.39	-457.3	-303.9	158.3	99.8	58.52	2.706	
10,500.0	10,426.9	10,434.7	10,421.2	29.4	31.6	-130.72	-457.7	-304.5	173.1	115.3	57.83	2.993	
10,525.0	10,443.2	10,451.1	10,437.6	29.3	31.6	-132.57	-458.1	-305.1	189.2	132.1	57.12	3.312	
10,550.0	10,458.4	10,466.5	10,453.0	29.2	31.7	-133.94	-458.4	-305.5	206.4	150.0	56.40	3.660	
10,575.0	10,472.6	10,480.9	10,467.4	29.2	31.8	-134.83	-458.7	-305.9	224.8	169.1	55.72	4.034	
10,600.0	10,485.7	10,494.1	10,480.6	29.1	31.8	-135.23	-458.9	-306.2	244.1	189.0	55.07	4.432	
10,625.0	10,497.7	10,506.2	10,492.7	29.1	31.9	-135.12	-459.1	-306.5	264.3	209.8	54.47	4.852	
10,650.0	10,508.5	10,517.2	10,503.6	29.1	31.9	-134.45	-459.3	-306.8	285.3	231.4	53.92	5.292	
10,675.0	10,518.1	10,526.9	10,513.4	29.1	31.9	-133.13	-459.4	-307.0	307.0	253.6	53.41	5.748	
10,700.0	10,526.4	10,535.4	10,521.9	29.1	32.0	-131.04	-459.5	-307.1	329.3	276.4	52.96	6.219	
10,725.0	10,533.6	10,542.6	10,529.1	29.1	32.0	-127.99	-459.6	-307.3	352.2	299.7	52.54	6.703	
10,750.0	10,539.4	10,548.5	10,535.0	29.1	32.0	-123.72	-459.7	-307.4	375.5	323.3	52.17	7.197	
10,775.0	10,544.0	10,553.1	10,539.6	29.1	32.0	-117.88	-459.7	-307.4	399.2	347.3	51.84	7.700	
10,800.0	10,547.3	10,556.4	10,542.9	29.2	32.0	-110.07	-459.7	-307.5	423.2	371.6	51.54	8.210	
10,825.0	10,549.3	10,558.3	10,544.8	29.2	32.0	-100.00	-459.8	-307.5	447.3	396.1	51.28	8.724	
10,850.6	10,550.0	10,558.9	10,545.3	29.3	32.0	-87.50	-459.8	-307.5	472.3	421.2	51.04	9.253	
10,853.5	10,550.0	10,558.9	10,545.3	29.3	32.0	-87.49	-459.8	-307.5	475.0	424.0	51.01	9.312	
10,900.0	10,550.0	10,558.6	10,545.0	29.5	32.0	-87.11	-459.8	-307.5	520.5	469.9	50.66	10.276	
11,000.0	10,550.0	10,557.8	10,544.3	29.9	32.0	-85.88	-459.8	-307.5	619.3	569.1	50.15	12.348	
11,100.0	10,550.0	11,794.6	11,265.0	30.5	34.0	-177.44	254.1	-403.3	715.7	651.6	64.08	11.169	
11,200.0	10,550.0	11,895.0	11,265.0	31.1	34.9	-178.27	354.4	-407.8	715.3	650.4	64.91	11.021	
11,300.0	10,550.0	11,994.8	11,265.0	31.8	35.7	-179.07	454.3	-409.1	715.1	649.3	65.79	10.869	
11,400.0	10,550.0	12,094.6	11,265.0	32.6	36.6	-179.64	554.0	-409.9	715.0	648.3	66.71	10.718	
11,500.0	10,550.0	12,194.5	11,265.0	33.5	37.6	-179.93	653.9	-410.7	715.0	647.3	67.66	10.567	
11,554.3	10,550.0	12,248.8	11,265.0	33.9	38.2	-179.97	708.3	-411.1	715.0	646.8	68.18	10.487	
11,600.0	10,550.0	12,294.5	11,265.0	34.3	38.7	-179.97	753.9	-411.5	715.0	646.4	68.62	10.420	
11,700.0	10,550.0	12,394.5	11,265.0	35.3	39.8	-179.97	853.9	-412.3	715.0	645.4	69.62	10.270	
11,800.0	10,550.0	12,494.5	11,265.0	36.3	41.0	-179.97	953.9	-413.0	715.0	644.3	70.69	10.115	
11,900.0	10,550.0	12,594.5	11,265.0	37.5	42.2	-179.97	1,053.9	-413.8	715.0	643.2	71.80	9.958	
12,000.0	10,550.0	12,694.5	11,265.0	38.7	43.6	-179.97	1,153.9	-414.6	715.0	642.0	72.96	9.799	
12,100.0	10,550.0	12,794.5	11,265.0	40.0	44.9	-179.97	1,253.9	-415.4	715.0	640.8	74.17	9.640	
12,200.0	10,550.0	12,894.5	11,265.0	41.4	46.3	-179.97	1,353.9	-416.2	715.0	639.6	75.43	9.479	
12,300.0	10,550.0	12,994.5	11,265.0	42.8	47.8	-179.97	1,453.9	-416.9	715.0	638.3	76.72	9.319	
12,400.0	10,550.0	13,094.5	11,265.0	44.3	49.3	-179.97	1,553.9	-417.7	715.0	636.9	78.06	9.160	
12,500.0	10,550.0	13,194.5	11,265.0	45.9	50.8	-179.97	1,653.9	-418.5	715.0	635.6	79.43	9.001	
12,600.0	10,550.0	13,294.5	11,265.0	47.5	52.4	-179.97	1,753.9	-419.3	715.0	634.2	80.84	8.845	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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	
12,700.0	10,550.0	13,394.5	11,265.0	49.1	54.0	-179.98	1,853.9	-420.1	715.0	632.7	82.28	8.689	
12,800.0	10,550.0	13,494.5	11,265.0	50.8	55.6	-179.98	1,953.9	-420.8	715.0	631.2	83.76	8.536	
12,900.0	10,550.0	13,594.5	11,265.0	52.5	57.3	-179.98	2,053.9	-421.6	715.0	629.7	85.27	8.386	
13,000.0	10,550.0	13,694.5	11,265.0	54.2	59.0	-179.98	2,153.9	-422.4	715.0	628.2	86.80	8.237	
13,100.0	10,550.0	13,794.5	11,265.0	56.0	60.7	-179.98	2,253.9	-423.2	715.0	626.6	88.36	8.091	
13,200.0	10,550.0	13,894.5	11,265.0	57.8	62.4	-179.98	2,353.9	-424.0	715.0	625.0	89.95	7.949	
13,300.0	10,550.0	13,994.5	11,265.0	59.6	64.1	-179.98	2,453.9	-424.8	715.0	623.4	91.57	7.808	
13,400.0	10,550.0	14,094.5	11,265.0	61.4	65.9	-179.98	2,553.9	-425.5	715.0	621.8	93.20	7.671	
13,500.0	10,550.0	14,194.5	11,265.0	63.2	67.7	-179.98	2,653.9	-426.3	715.0	620.1	94.86	7.537	
13,600.0	10,550.0	14,294.5	11,265.0	65.0	69.5	-179.98	2,753.9	-427.1	715.0	618.5	96.54	7.406	
13,700.0	10,550.0	14,394.5	11,265.0	66.9	71.3	-179.98	2,853.9	-427.9	715.0	616.8	98.24	7.278	
13,800.0	10,550.0	14,494.5	11,265.0	68.7	73.1	-179.98	2,953.9	-428.7	715.0	615.0	99.96	7.153	
13,900.0	10,550.0	14,594.5	11,265.0	70.6	74.9	-179.98	3,053.9	-429.4	715.0	613.3	101.70	7.030	
14,000.0	10,550.0	14,694.5	11,265.0	72.5	76.7	-179.98	3,153.9	-430.2	715.0	611.5	103.46	6.911	
14,100.0	10,550.0	14,794.5	11,265.0	74.3	78.6	-179.98	3,253.9	-431.0	715.0	609.8	105.23	6.795	
14,200.0	10,550.0	14,894.5	11,265.0	76.2	80.4	-179.98	3,353.9	-431.8	715.0	608.0	107.01	6.681	
14,300.0	10,550.0	14,994.5	11,265.0	78.1	82.3	-179.98	3,453.9	-432.6	715.0	606.2	108.82	6.571	
14,400.0	10,550.0	15,094.5	11,265.0	80.0	84.1	-179.98	3,553.9	-433.3	715.0	604.4	110.63	6.463	
14,500.0	10,550.0	15,194.5	11,265.0	82.0	86.0	-179.98	3,653.9	-434.1	715.0	602.5	112.46	6.358	
14,600.0	10,550.0	15,294.5	11,265.0	83.9	87.9	-179.98	3,753.8	-434.9	715.0	600.7	114.30	6.255	
14,700.0	10,550.0	15,394.5	11,265.0	85.8	89.8	-179.98	3,853.8	-435.7	715.0	598.8	116.15	6.156	
14,800.0	10,550.0	15,494.5	11,265.0	87.7	91.7	-179.98	3,953.8	-436.5	715.0	597.0	118.02	6.058	
14,900.0	10,550.0	15,594.5	11,265.0	89.6	93.6	-179.98	4,053.8	-437.2	715.0	595.1	119.89	5.964	
15,000.0	10,550.0	15,694.5	11,265.0	91.6	95.5	-179.98	4,153.8	-438.0	715.0	593.2	121.78	5.871	
15,100.0	10,550.0	15,794.5	11,265.0	93.5	97.4	-179.99	4,253.8	-438.8	715.0	591.3	123.68	5.781	
15,200.0	10,550.0	15,894.5	11,265.0	95.5	99.3	-179.99	4,353.8	-439.6	715.0	589.4	125.58	5.693	
15,300.0	10,550.0	15,994.5	11,265.0	97.4	101.2	-179.99	4,453.8	-440.4	715.0	587.5	127.50	5.608	
15,400.0	10,550.0	16,094.5	11,265.0	99.4	103.1	-179.99	4,553.8	-441.1	715.0	585.6	129.42	5.525	
15,500.0	10,550.0	16,194.5	11,265.0	101.3	105.0	-179.99	4,653.8	-441.9	715.0	583.6	131.35	5.443	
15,600.0	10,550.0	16,294.5	11,265.0	103.3	107.0	-179.99	4,753.8	-442.7	715.0	581.7	133.29	5.364	
15,700.0	10,550.0	16,394.5	11,265.0	105.2	108.9	-179.99	4,853.8	-443.5	715.0	579.8	135.24	5.287	
15,800.0	10,550.0	16,494.5	11,265.0	107.2	110.8	-179.99	4,953.8	-444.3	715.0	577.8	137.20	5.212	
15,900.0	10,550.0	16,594.5	11,265.0	109.1	112.8	-179.99	5,053.8	-445.0	715.0	575.8	139.16	5.138	
16,000.0	10,550.0	16,694.5	11,265.0	111.1	114.7	-179.99	5,153.8	-445.8	715.0	573.9	141.13	5.066	
16,100.0	10,550.0	16,794.5	11,265.0	113.1	116.7	-179.99	5,253.8	-446.6	715.0	571.9	143.10	4.996	
16,200.0	10,550.0	16,894.5	11,265.0	115.0	118.6	-179.99	5,353.8	-447.4	715.0	569.9	145.08	4.928	
16,300.0	10,550.0	16,994.5	11,265.0	117.0	120.5	-179.99	5,453.8	-448.2	715.0	567.9	147.07	4.862	
16,400.0	10,550.0	17,094.5	11,265.0	119.0	122.5	-179.99	5,553.8	-449.0	715.0	565.9	149.06	4.797	
16,500.0	10,550.0	17,194.5	11,265.0	120.9	124.4	-179.99	5,653.8	-449.7	715.0	563.9	151.06	4.733	
16,600.0	10,550.0	17,294.5	11,265.0	122.9	126.4	-179.99	5,753.8	-450.5	715.0	561.9	153.06	4.671	
16,700.0	10,550.0	17,394.5	11,265.0	124.9	128.4	-179.99	5,853.8	-451.3	715.0	559.9	155.07	4.611	
16,800.0	10,550.0	17,494.5	11,265.0	126.9	130.3	-179.99	5,953.8	-452.1	715.0	557.9	157.08	4.552	
16,900.0	10,550.0	17,594.5	11,265.0	128.8	132.3	-179.99	6,053.8	-452.9	715.0	555.9	159.10	4.494	
17,000.0	10,550.0	17,694.5	11,265.0	130.8	134.2	-179.99	6,153.8	-453.6	715.0	553.9	161.13	4.438	
17,100.0	10,550.0	17,794.5	11,265.0	132.8	136.2	-179.99	6,253.8	-454.4	715.0	551.8	163.15	4.382	
17,200.0	10,550.0	17,894.5	11,265.0	134.8	138.2	-179.99	6,353.8	-455.2	715.0	549.8	165.18	4.329	
17,300.0	10,550.0	17,994.5	11,265.0	136.8	140.1	-179.99	6,453.8	-456.0	715.0	547.8	167.22	4.276	
17,400.0	10,550.0	18,094.5	11,265.0	138.7	142.1	-179.99	6,553.8	-456.8	715.0	545.7	169.26	4.224	
17,500.0	10,550.0	18,194.5	11,265.0	140.7	144.1	-180.00	6,653.8	-457.5	715.0	543.7	171.30	4.174	
17,600.0	10,550.0	18,294.5	11,265.0	142.7	146.0	-180.00	6,753.8	-458.3	715.0	541.7	173.34	4.125	
17,700.0	10,550.0	18,394.5	11,265.0	144.7	148.0	-180.00	6,853.8	-459.1	715.0	539.6	175.39	4.077	
17,800.0	10,550.0	18,494.5	11,265.0	146.7	150.0	-180.00	6,953.8	-459.9	715.0	537.6	177.45	4.029	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,900.0	10,550.0	18,594.5	11,265.0	148.7	152.0	-180.00	7,053.7	-460.7	715.0	535.5	179.50	3.983		
18,000.0	10,550.0	18,694.5	11,265.0	150.7	153.9	-180.00	7,153.7	-461.4	715.0	533.4	181.56	3.938		
18,100.0	10,550.0	18,794.5	11,265.0	152.6	155.9	-180.00	7,253.7	-462.2	715.0	531.4	183.62	3.894		
18,200.0	10,550.0	18,894.5	11,265.0	154.6	157.9	-180.00	7,353.7	-463.0	715.0	529.3	185.69	3.851		
18,300.0	10,550.0	18,994.5	11,265.0	156.6	159.9	-180.00	7,453.7	-463.8	715.0	527.2	187.76	3.808		
18,400.0	10,550.0	19,094.5	11,265.0	158.6	161.8	-180.00	7,553.7	-464.6	715.0	525.2	189.83	3.767		
18,500.0	10,550.0	19,194.5	11,265.0	160.6	163.8	-180.00	7,653.7	-465.3	715.0	523.1	191.90	3.726		
18,600.0	10,550.0	19,294.5	11,265.0	162.6	165.8	-180.00	7,753.7	-466.1	715.0	521.0	193.98	3.686		
18,671.2	10,550.0	19,365.6	11,265.0	164.0	167.2	180.00	7,824.9	-466.7	715.0	519.5	195.45	3.658		
18,671.5	10,550.0	19,366.0	11,265.0	164.0	167.2	180.00	7,825.3	-466.7	715.0	519.5	195.46	3.658		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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)			
0.0	0.0	1.0	1.0	0.0	0.0	-173.57	-250.5	-28.2	252.1				
100.0	100.0	101.0	101.0	0.5	0.5	-173.57	-250.5	-28.2	252.1	251.0	1.07	235.128	
200.0	200.0	201.0	201.0	1.7	1.7	-173.57	-250.5	-28.2	252.1	248.7	3.43	73.483	
300.0	300.0	301.0	301.0	2.4	2.4	-173.57	-250.5	-28.2	252.1	247.3	4.83	52.209	
400.0	400.0	401.0	401.0	3.0	3.0	-173.57	-250.5	-28.2	252.1	246.2	5.91	42.635	
500.0	500.0	501.0	501.0	3.4	3.4	-173.57	-250.5	-28.2	252.1	245.3	6.83	36.885	
600.0	600.0	601.0	601.0	3.8	3.8	-173.57	-250.5	-28.2	252.1	244.4	7.65	32.942	
700.0	700.0	701.0	701.0	4.2	4.2	-173.57	-250.5	-28.2	252.1	243.7	8.40	30.020	
800.0	800.0	801.0	801.0	4.5	4.5	-173.57	-250.5	-28.2	252.1	243.0	9.09	27.741	
900.0	900.0	901.0	901.0	4.9	4.9	-173.57	-250.5	-28.2	252.1	242.4	9.73	25.899	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	-173.57	-250.5	-28.2	252.1	241.7	10.34	24.370	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	-173.57	-250.5	-28.2	252.1	241.2	10.93	23.073	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	-173.57	-250.5	-28.2	252.1	240.6	11.48	21.954	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	-173.57	-250.5	-28.2	252.1	240.1	12.02	20.976	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	-173.57	-250.5	-28.2	252.1	239.6	12.53	20.112	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	-173.57	-250.5	-28.2	252.1	239.1	13.03	19.341	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	-173.57	-250.5	-28.2	252.1	238.6	13.52	18.646	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	-173.57	-250.5	-28.2	252.1	238.1	13.99	18.017	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	-173.57	-250.5	-28.2	252.1	237.6	14.45	17.443	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	-173.57	-250.5	-28.2	252.1	237.2	14.90	16.917	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	-173.57	-250.5	-28.2	252.1	236.7	15.34	16.432	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	-173.57	-250.5	-28.2	252.1	236.3	15.77	15.983	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	-173.57	-250.5	-28.2	252.1	235.9	16.19	15.566	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	-173.57	-250.5	-28.2	252.1	235.5	16.61	15.177	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	-173.57	-250.5	-28.2	252.1	235.1	17.02	14.813	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	-173.57	-250.5	-28.2	252.1	234.7	17.42	14.472	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	-173.57	-250.5	-28.2	252.1	234.3	17.81	14.151	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	-173.57	-250.5	-28.2	252.1	233.9	18.20	13.848	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	-173.57	-250.5	-28.2	252.1	233.5	18.59	13.562	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	-173.57	-250.5	-28.2	252.1	233.1	18.97	13.291	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	-173.57	-250.5	-28.2	252.1	232.7	19.34	13.034	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	-173.57	-250.5	-28.2	252.1	232.4	19.71	12.789	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	-173.57	-250.5	-28.2	252.1	232.0	20.08	12.556	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	-173.57	-250.5	-28.2	252.1	231.6	20.44	12.334	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	-173.57	-250.5	-28.2	252.1	231.3	20.80	12.122	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	-173.57	-250.5	-28.2	252.1	230.9	21.15	11.919	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	-173.57	-250.5	-28.2	252.1	230.6	21.50	11.725	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	-173.57	-250.5	-28.2	252.1	230.2	21.85	11.538	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	-173.57	-250.5	-28.2	252.1	229.9	22.19	11.359	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	-173.57	-250.5	-28.2	252.1	229.6	22.53	11.187	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	-173.57	-250.5	-28.2	252.1	229.2	22.87	11.021	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	-173.57	-250.5	-28.2	252.1	228.9	23.21	10.862	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	-173.57	-250.5	-28.2	252.1	228.5	23.54	10.708	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	-173.57	-250.5	-28.2	252.1	228.2	23.87	10.560	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	-173.57	-250.5	-28.2	252.1	227.9	24.20	10.416	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	-173.57	-250.5	-28.2	252.1	227.6	24.53	10.278	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	-173.57	-250.5	-28.2	252.1	227.2	24.85	10.144	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	-173.57	-250.5	-28.2	252.1	226.9	25.17	10.014	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	-173.57	-250.5	-28.2	252.1	226.6	25.49	9.889	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	-173.57	-250.5	-28.2	252.1	226.3	25.81	9.767	
4,916.3	4,916.3	4,917.3	4,917.3	12.9	12.9	-173.57	-250.5	-28.2	252.1	226.2	25.86	9.747	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-173.57	-250.5	-28.2	252.1	226.0	26.12	9.649	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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	
5,100.0	5,100.0	5,098.4	5,098.4	13.2	13.2	-173.41	-250.9	-29.0	252.6	226.2	26.38	9.575	
5,200.0	5,200.0	5,195.8	5,195.8	13.4	13.3	-172.96	-252.2	-31.1	254.1	227.5	26.62	9.546	
5,300.0	5,300.0	5,293.1	5,293.0	13.5	13.4	-16.23	-254.2	-34.7	255.9	229.1	26.80	9.548	
5,400.0	5,400.0	5,390.4	5,390.1	13.5	13.5	-15.36	-257.1	-39.8	257.0	230.1	26.97	9.531	
5,500.0	5,499.9	5,489.4	5,488.9	13.6	13.6	-14.36	-260.7	-46.0	257.4	230.3	27.13	9.488	
5,600.0	5,599.7	5,589.3	5,588.5	13.7	13.7	-13.43	-264.3	-52.4	256.2	228.8	27.35	9.366	
5,700.0	5,699.4	5,689.2	5,688.1	13.9	13.9	-12.59	-268.0	-58.7	253.3	225.7	27.61	9.173	
5,800.0	5,798.9	5,789.1	5,787.7	14.0	14.1	-11.81	-271.6	-65.1	248.8	220.9	27.91	8.913	
5,892.1	5,890.4	5,880.9	5,879.3	14.2	14.3	-11.14	-275.0	-70.9	243.2	215.0	28.21	8.620	
5,900.0	5,898.3	5,888.8	5,887.2	14.2	14.3	-11.08	-275.3	-71.4	242.6	214.4	28.23	8.594	
6,000.0	5,997.5	5,988.5	5,986.6	14.3	14.6	-10.34	-278.9	-77.8	235.8	207.2	28.58	8.249	
6,100.0	6,096.8	6,088.2	6,086.1	14.6	14.8	-9.55	-282.5	-84.1	229.0	200.0	28.99	7.899	
6,200.0	6,196.1	6,188.0	6,185.5	14.8	15.1	-8.71	-286.2	-90.4	222.2	192.8	29.43	7.553	
6,300.0	6,295.3	6,287.7	6,285.0	15.1	15.4	-7.82	-289.8	-96.8	215.5	185.6	29.90	7.209	
6,400.0	6,394.6	6,387.4	6,384.4	15.3	15.6	-6.87	-293.4	-103.1	208.9	178.5	30.40	6.871	
6,500.0	6,493.9	6,487.1	6,483.9	15.6	15.9	-5.86	-297.1	-109.5	202.3	171.3	30.94	6.539	
6,600.0	6,593.2	6,586.8	6,583.3	15.9	16.2	-4.78	-300.7	-115.8	195.8	164.3	31.50	6.214	
6,700.0	6,692.4	6,686.5	6,682.8	16.3	16.6	-3.63	-304.3	-122.2	189.3	157.2	32.11	5.896	
6,800.0	6,791.7	6,786.3	6,782.2	16.6	16.9	-2.40	-308.0	-128.5	182.9	150.2	32.74	5.588	
6,900.0	6,891.0	6,886.0	6,881.7	17.0	17.2	-1.08	-311.6	-134.8	176.7	143.3	33.40	5.289	
7,000.0	6,990.2	6,985.7	6,981.1	17.3	17.6	0.33	-315.3	-141.2	170.5	136.4	34.10	5.000	
7,100.0	7,089.5	7,085.4	7,080.6	17.7	17.9	1.85	-318.9	-147.5	164.4	129.6	34.82	4.722	
7,200.0	7,188.8	7,185.1	7,180.0	18.1	18.3	3.49	-322.5	-153.9	158.5	122.9	35.57	4.455	
7,300.0	7,288.1	7,284.8	7,279.5	18.5	18.7	5.25	-326.2	-160.2	152.7	116.3	36.35	4.201	
7,400.0	7,387.3	7,384.6	7,378.9	18.9	19.0	7.15	-329.8	-166.6	147.0	109.9	37.14	3.958	
7,500.0	7,486.6	7,484.3	7,478.4	19.3	19.4	9.19	-333.4	-172.9	141.5	103.6	37.96	3.729	
7,600.0	7,585.9	7,584.0	7,577.8	19.7	19.8	11.40	-337.1	-179.2	136.3	97.5	38.78	3.514	
7,700.0	7,685.1	7,683.7	7,677.2	20.2	20.2	13.78	-340.7	-185.6	131.2	91.6	39.61	3.312	
7,800.0	7,784.4	7,783.4	7,776.7	20.6	20.6	16.35	-344.3	-191.9	126.4	86.0	40.44	3.126	
7,900.0	7,883.7	7,883.2	7,876.1	21.0	21.0	19.11	-348.0	-198.3	121.9	80.6	41.25	2.954	
8,000.0	7,983.0	7,982.9	7,975.6	21.5	21.4	22.08	-351.6	-204.6	117.6	75.6	42.03	2.799	
8,100.0	8,082.2	8,082.6	8,075.0	22.0	21.8	25.26	-355.3	-211.0	113.7	71.0	42.76	2.659	
8,200.0	8,181.5	8,182.3	8,174.5	22.4	22.3	28.66	-358.9	-217.3	110.2	66.8	43.43	2.537	
8,300.0	8,280.8	8,282.0	8,273.9	22.9	22.7	32.26	-362.5	-223.6	107.1	63.1	44.01	2.433	
8,400.0	8,380.0	8,381.7	8,373.4	23.4	23.1	36.06	-366.2	-230.0	104.4	59.9	44.49	2.347	
8,500.0	8,479.3	8,481.5	8,472.8	23.9	23.5	40.04	-369.8	-236.3	102.3	57.4	44.85	2.280	
8,600.0	8,578.6	8,581.2	8,572.3	24.4	24.0	44.18	-373.4	-242.7	100.6	55.5	45.08	2.232	
8,700.0	8,677.9	8,680.9	8,671.7	24.8	24.4	48.42	-377.1	-249.0	99.5	54.3	45.16	2.203	
8,800.0	8,777.1	8,780.6	8,771.2	25.3	24.8	52.74	-380.7	-255.4	98.9	53.8	45.11	2.193 ES, SF	
8,847.7	8,824.5	8,828.2	8,818.6	25.6	25.1	54.81	-382.5	-258.4	98.9	53.8	45.05	2.195 CC	
8,900.0	8,876.4	8,880.3	8,870.6	25.8	25.3	57.09	-384.4	-261.7	98.9	54.0	44.94	2.201	
9,000.0	8,975.7	8,980.0	8,970.1	26.3	25.7	61.40	-388.0	-268.1	99.5	54.8	44.67	2.228	
9,100.0	9,074.9	9,079.8	9,069.5	26.8	26.2	65.64	-391.6	-274.4	100.7	56.3	44.33	2.271	
9,200.0	9,174.2	9,179.5	9,169.0	27.4	26.6	69.77	-395.3	-280.7	102.3	58.4	43.95	2.329	
9,286.0	9,259.6	9,265.3	9,254.5	27.8	27.0	73.20	-398.4	-286.2	104.2	60.6	43.61	2.389	
9,300.0	9,273.5	9,279.2	9,268.4	27.9	27.1	73.74	-398.9	-287.1	104.5	61.0	43.55	2.400	
9,400.0	9,372.9	9,379.0	9,367.9	28.3	27.6	76.98	-402.5	-293.4	107.5	64.2	43.32	2.481	
9,500.0	9,472.5	9,478.8	9,467.5	28.8	28.0	79.17	-406.2	-299.8	111.0	67.7	43.33	2.563	
9,600.0	9,572.2	9,578.7	9,567.1	29.3	28.5	80.37	-409.8	-306.1	115.0	71.5	43.55	2.641	
9,700.0	9,672.0	9,678.6	9,666.8	29.7	28.9	80.67	-413.5	-312.5	119.3	75.4	43.97	2.714	
9,800.0	9,771.9	9,778.5	9,766.4	30.1	29.4	80.15	-417.1	-318.8	123.9	79.3	44.58	2.780	
9,900.0	9,871.9	9,878.3	9,866.0	30.5	29.9	78.91	-420.8	-325.2	128.9	83.5	45.38	2.839	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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		
9,978.1	9,950.0	9,956.3	9,943.7	30.6	30.2	-78.53	-423.6	-330.1	133.0	86.9	46.12	2.884		
10,000.0	9,971.9	9,978.1	9,965.5	30.6	30.3	-78.98	-424.4	-331.5	134.2	87.9	46.33	2.897		
10,100.6	10,072.5	10,078.5	10,065.5	30.7	30.8	-80.96	-428.0	-337.9	139.9	92.5	47.35	2.955		
10,125.0	10,096.9	10,102.7	10,089.8	30.7	30.9	-67.05	-428.9	-339.5	141.0	93.4	47.66	2.959		
10,150.0	10,121.8	10,127.6	10,114.5	30.6	31.0	-68.13	-429.8	-341.0	141.8	93.6	48.13	2.945		
10,175.0	10,146.6	10,152.2	10,139.1	30.5	31.2	-69.73	-430.7	-342.6	142.1	93.3	48.76	2.914		
10,200.0	10,171.2	10,176.6	10,163.5	30.4	31.3	-71.81	-431.6	-344.2	142.1	92.6	49.55	2.868		
10,225.0	10,195.5	10,200.8	10,187.5	30.3	31.4	-74.36	-432.5	-345.7	142.0	91.5	50.49	2.812		
10,250.0	10,219.5	10,224.6	10,211.3	30.3	31.5	-77.34	-433.4	-347.2	141.8	90.3	51.59	2.750		
10,256.8	10,225.9	10,230.9	10,217.6	30.2	31.5	-78.21	-433.6	-347.6	141.8	89.9	51.91	2.732		
10,275.0	10,243.1	10,247.9	10,234.5	30.2	31.6	-80.69	-434.2	-348.7	141.9	89.1	52.82	2.687		
10,300.0	10,266.2	10,270.8	10,257.3	30.1	31.7	-84.36	-435.1	-350.2	142.4	88.3	54.15	2.630		
10,325.0	10,288.7	10,293.1	10,279.6	30.0	31.8	-88.24	-435.9	-351.6	143.6	88.1	55.51	2.587		
10,350.0	10,310.7	10,314.8	10,301.2	29.9	31.9	-92.22	-436.7	-353.0	145.7	88.9	56.84	2.563		
10,375.0	10,332.1	10,335.8	10,322.2	29.8	32.0	-96.20	-437.4	-354.3	148.9	90.9	58.04	2.566		
10,400.0	10,352.7	10,356.1	10,342.4	29.7	32.1	-100.06	-438.2	-355.6	153.6	94.5	59.03	2.601		
10,425.0	10,372.5	10,375.6	10,361.9	29.6	32.2	-103.68	-438.9	-356.8	159.7	99.9	59.77	2.672		
10,450.0	10,391.6	10,394.2	10,380.5	29.5	32.3	-107.00	-439.6	-358.0	167.5	107.2	60.21	2.781		
10,475.0	10,409.7	10,412.0	10,398.2	29.4	32.4	-109.94	-440.2	-359.1	176.9	116.5	60.38	2.929		
10,500.0	10,426.9	10,428.8	10,415.0	29.4	32.5	-112.45	-440.8	-360.2	187.9	127.7	60.29	3.117		
10,525.0	10,443.2	10,444.7	10,430.8	29.3	32.6	-114.52	-441.4	-361.2	200.6	140.6	60.01	3.343		
10,550.0	10,458.4	10,459.5	10,445.6	29.2	32.6	-116.10	-441.9	-362.2	214.8	155.2	59.58	3.604		
10,575.0	10,472.6	10,473.3	10,459.3	29.2	32.7	-117.19	-442.4	-363.0	230.3	171.3	59.06	3.900		
10,600.0	10,485.7	10,485.9	10,471.9	29.1	32.8	-117.76	-442.9	-363.8	247.1	188.7	58.48	4.226		
10,625.0	10,497.7	10,497.4	10,483.4	29.1	32.8	-117.79	-443.3	-364.6	265.1	207.2	57.87	4.581		
10,650.0	10,508.5	10,507.7	10,493.7	29.1	32.9	-117.24	-443.7	-365.2	284.1	226.8	57.26	4.961		
10,675.0	10,518.1	10,516.8	10,502.7	29.1	32.9	-116.05	-444.0	-365.8	304.0	247.3	56.68	5.364		
10,700.0	10,526.4	10,524.7	10,510.6	29.1	32.9	-114.16	-444.3	-366.3	324.7	268.6	56.11	5.787		
10,725.0	10,533.6	10,531.4	10,517.3	29.1	33.0	-111.47	-444.6	-366.7	346.1	290.5	55.58	6.227		
10,750.0	10,539.4	10,536.8	10,522.6	29.1	33.0	-107.88	-444.8	-367.1	368.1	313.0	55.09	6.681		
10,775.0	10,544.0	10,540.9	10,526.7	29.1	33.0	-103.29	-444.9	-367.3	390.5	335.9	54.63	7.148		
10,800.0	10,547.3	10,543.7	10,529.5	29.2	33.0	-97.62	-445.0	-367.5	413.3	359.1	54.21	7.625		
10,825.0	10,549.3	10,545.2	10,531.0	29.2	33.0	-90.87	-445.1	-367.6	436.5	382.6	53.82	8.109		
10,850.6	10,550.0	10,545.4	10,531.2	29.3	33.0	-82.99	-445.1	-367.6	460.4	406.9	53.46	8.611		
10,853.5	10,550.0	10,545.3	10,531.1	29.3	33.0	-82.97	-445.1	-367.6	463.1	409.6	53.42	8.668		
10,900.0	10,550.0	10,544.4	10,530.2	29.5	33.0	-82.29	-445.0	-367.6	507.0	454.1	52.87	9.589		
11,000.0	10,550.0	10,542.2	10,528.0	29.9	33.0	-80.33	-445.0	-367.4	603.4	551.4	52.03	11.598		
11,100.0	10,550.0	10,539.8	10,525.6	30.5	33.0	-77.26	-444.9	-367.3	701.5	650.0	51.51	13.618		
11,200.0	10,550.0	10,537.1	10,523.0	31.1	33.0	-71.96	-444.8	-367.1	800.5	749.3	51.21	15.633		
11,300.0	10,550.0	10,534.2	10,520.1	31.8	33.0	-61.23	-444.7	-366.9	900.1	849.0	51.05	17.632		
11,400.0	10,550.0	10,531.1	10,516.9	32.6	33.0	-34.05	-444.6	-366.7	999.9	948.9	51.00	19.607		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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		Highside Toolface (°)	Offset Wellbore Centre		Distance		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)			
0.0	0.0	1.0	1.0	0.0	0.0	166.19	-250.3	61.5	257.7				
100.0	100.0	101.0	101.0	0.5	0.5	166.19	-250.3	61.5	257.7	256.6	1.07	240.376	
200.0	200.0	201.0	201.0	1.7	1.7	166.19	-250.3	61.5	257.7	254.3	3.43	75.123	
300.0	300.0	301.0	301.0	2.4	2.4	166.19	-250.3	61.5	257.7	252.9	4.83	53.375	
400.0	400.0	401.0	401.0	3.0	3.0	166.19	-250.3	61.5	257.7	251.8	5.91	43.587	
500.0	500.0	501.0	501.0	3.4	3.4	166.19	-250.3	61.5	257.7	250.9	6.83	37.709	
600.0	600.0	601.0	601.0	3.8	3.8	166.19	-250.3	61.5	257.7	250.1	7.65	33.677	
700.0	700.0	701.0	701.0	4.2	4.2	166.19	-250.3	61.5	257.7	249.3	8.40	30.690	
800.0	800.0	801.0	801.0	4.5	4.5	166.19	-250.3	61.5	257.7	248.6	9.09	28.361	
900.0	900.0	901.0	901.0	4.9	4.9	166.19	-250.3	61.5	257.7	248.0	9.73	26.478	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	166.19	-250.3	61.5	257.7	247.4	10.34	24.914	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	166.19	-250.3	61.5	257.7	246.8	10.93	23.588	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	166.19	-250.3	61.5	257.7	246.2	11.48	22.444	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	166.19	-250.3	61.5	257.7	245.7	12.02	21.445	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	166.19	-250.3	61.5	257.7	245.2	12.53	20.561	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	166.19	-250.3	61.5	257.7	244.7	13.03	19.772	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	166.19	-250.3	61.5	257.7	244.2	13.52	19.062	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	166.19	-250.3	61.5	257.7	243.7	13.99	18.419	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	166.19	-250.3	61.5	257.7	243.3	14.45	17.832	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	166.19	-250.3	61.5	257.7	242.8	14.90	17.294	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	166.19	-250.3	61.5	257.7	242.4	15.34	16.798	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	166.19	-250.3	61.5	257.7	241.9	15.77	16.340	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	166.19	-250.3	61.5	257.7	241.5	16.19	15.913	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	166.19	-250.3	61.5	257.7	241.1	16.61	15.516	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	166.19	-250.3	61.5	257.7	240.7	17.02	15.144	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	166.19	-250.3	61.5	257.7	240.3	17.42	14.795	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	166.19	-250.3	61.5	257.7	239.9	17.81	14.467	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	166.19	-250.3	61.5	257.7	239.5	18.20	14.157	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	166.19	-250.3	61.5	257.7	239.1	18.59	13.865	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	166.19	-250.3	61.5	257.7	238.7	18.97	13.588	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	166.19	-250.3	61.5	257.7	238.4	19.34	13.325	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	166.19	-250.3	61.5	257.7	238.0	19.71	13.075	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	166.19	-250.3	61.5	257.7	237.6	20.08	12.837	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	166.19	-250.3	61.5	257.7	237.3	20.44	12.609	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	166.19	-250.3	61.5	257.7	236.9	20.80	12.393	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	166.19	-250.3	61.5	257.7	236.6	21.15	12.185	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	166.19	-250.3	61.5	257.7	236.2	21.50	11.986	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	166.19	-250.3	61.5	257.7	235.9	21.85	11.796	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	166.19	-250.3	61.5	257.7	235.5	22.19	11.613	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	166.19	-250.3	61.5	257.7	235.2	22.53	11.437	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	166.19	-250.3	61.5	257.7	234.8	22.87	11.267	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	166.19	-250.3	61.5	257.7	234.5	23.21	11.104	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	166.19	-250.3	61.5	257.7	234.2	23.54	10.947	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	166.19	-250.3	61.5	257.7	233.8	23.87	10.795	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	166.19	-250.3	61.5	257.7	233.5	24.20	10.649	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	166.19	-250.3	61.5	257.7	233.2	24.53	10.507	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	166.19	-250.3	61.5	257.7	232.9	24.85	10.370	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	166.19	-250.3	61.5	257.7	232.5	25.17	10.238	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	166.19	-250.3	61.5	257.7	232.2	25.49	10.109	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	166.19	-250.3	61.5	257.7	231.9	25.81	9.985	
4,916.3	4,916.3	4,917.3	4,917.3	12.9	12.9	166.19	-250.3	61.5	257.7	231.9	25.86	9.965 CC	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	166.19	-250.3	61.5	257.7	231.6	26.12	9.865 ES	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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	
5,100.0	5,100.0	5,098.1	5,098.1	13.2	13.2	166.05	-250.6	62.3	258.3	231.9	26.38	9.790	
5,200.0	5,200.0	5,195.1	5,195.1	13.4	13.3	165.64	-251.8	64.5	260.0	233.4	26.63	9.764	
5,300.0	5,300.0	5,292.1	5,292.0	13.5	13.4	-39.10	-253.7	68.1	262.2	235.4	26.80	9.781	
5,400.0	5,400.0	5,388.8	5,388.5	13.5	13.5	-40.35	-256.3	73.2	264.2	237.2	26.97	9.795	
5,500.0	5,499.9	5,487.0	5,486.5	13.6	13.6	-42.06	-259.7	79.7	266.1	239.0	27.12	9.813	
5,600.0	5,599.7	5,586.6	5,585.7	13.7	13.7	-44.06	-263.1	86.4	267.2	239.8	27.33	9.775	
5,700.0	5,699.4	5,686.0	5,684.9	13.9	13.9	-46.30	-266.6	93.0	267.3	239.8	27.58	9.693	
5,800.0	5,798.9	5,785.3	5,783.9	14.0	14.1	-48.83	-270.1	99.7	266.8	238.9	27.86	9.576	
5,892.1	5,890.4	5,876.6	5,874.9	14.2	14.3	-51.41	-273.2	105.8	265.7	237.6	28.12	9.449	
5,900.0	5,898.3	5,884.5	5,882.7	14.2	14.3	-51.64	-273.5	106.3	265.6	237.5	28.14	9.439	
6,000.0	5,997.5	5,983.5	5,981.5	14.3	14.6	-54.59	-276.9	113.0	264.7	236.3	28.45	9.306	
6,076.9	6,073.9	6,059.7	6,057.5	14.5	14.8	-56.87	-279.6	118.1	264.5	235.8	28.71	9.212	
6,100.0	6,096.8	6,082.5	6,080.3	14.6	14.8	-57.55	-280.4	119.6	264.5	235.7	28.79	9.188	
6,200.0	6,196.1	6,181.6	6,179.0	14.8	15.1	-60.51	-283.8	126.3	265.0	235.9	29.15	9.092	
6,300.0	6,295.3	6,280.6	6,277.8	15.1	15.4	-63.45	-287.3	132.9	266.3	236.7	29.53	9.017	
6,400.0	6,394.6	6,379.7	6,376.5	15.3	15.6	-66.35	-290.7	139.6	268.2	238.3	29.92	8.964	
6,500.0	6,493.9	6,478.7	6,475.3	15.6	15.9	-69.21	-294.2	146.2	270.9	240.5	30.33	8.931	
6,600.0	6,593.2	6,577.7	6,574.1	15.9	16.2	-72.00	-297.6	152.9	274.2	243.4	30.74	8.918 SF	
6,700.0	6,692.4	6,676.8	6,672.8	16.3	16.6	-74.73	-301.1	159.5	278.1	247.0	31.17	8.923	
6,800.0	6,791.7	6,775.8	6,771.6	16.6	16.9	-77.37	-304.5	166.2	282.7	251.1	31.61	8.945	
6,900.0	6,891.0	6,874.9	6,870.3	17.0	17.2	-79.92	-308.0	172.8	287.9	255.8	32.05	8.981	
7,000.0	6,990.2	6,973.9	6,969.1	17.3	17.6	-82.38	-311.4	179.5	293.6	261.1	32.51	9.032	
7,100.0	7,089.5	7,073.0	7,067.9	17.7	17.9	-84.75	-314.9	186.1	299.9	266.9	32.97	9.094	
7,200.0	7,188.8	7,172.0	7,166.6	18.1	18.3	-87.01	-318.3	192.8	306.6	273.2	33.45	9.166	
7,300.0	7,288.1	7,271.0	7,265.4	18.5	18.7	-89.18	-321.8	199.4	313.8	279.9	33.93	9.248	
7,400.0	7,387.3	7,370.1	7,364.1	18.9	19.0	-91.25	-325.2	206.1	321.5	287.0	34.43	9.337	
7,500.0	7,486.6	7,469.1	7,462.9	19.3	19.4	-93.22	-328.7	212.7	329.5	294.6	34.94	9.431	
7,600.0	7,585.9	7,568.2	7,561.6	19.7	19.8	-95.09	-332.1	219.4	337.9	302.5	35.46	9.531	
7,700.0	7,685.1	7,667.2	7,660.4	20.2	20.2	-96.87	-335.6	226.0	346.7	310.7	35.99	9.634	
7,800.0	7,784.4	7,766.3	7,759.2	20.6	20.6	-98.57	-339.0	232.7	355.8	319.2	36.53	9.739	
7,900.0	7,883.7	7,865.3	7,857.9	21.0	21.0	-100.18	-342.4	239.3	365.1	328.1	37.08	9.847	
8,000.0	7,983.0	7,964.3	7,956.7	21.5	21.4	-101.71	-345.9	246.0	374.8	337.2	37.65	9.956	
8,100.0	8,082.2	8,063.4	8,055.4	22.0	21.8	-103.16	-349.3	252.6	384.7	346.5	38.22	10.065	
8,200.0	8,181.5	8,162.4	8,154.2	22.4	22.3	-104.54	-352.8	259.3	394.9	356.0	38.81	10.174	
8,300.0	8,280.8	8,261.5	8,253.0	22.9	22.7	-105.85	-356.2	265.9	405.2	365.8	39.41	10.282	
8,400.0	8,380.0	8,360.5	8,351.7	23.4	23.1	-107.09	-359.7	272.6	415.8	375.7	40.02	10.389	
8,500.0	8,479.3	8,459.5	8,450.5	23.9	23.6	-108.27	-363.1	279.2	426.5	385.9	40.64	10.496	
8,600.0	8,578.6	8,558.6	8,549.2	24.4	24.0	-109.40	-366.6	285.9	437.4	396.2	41.27	10.600	
8,700.0	8,677.9	8,657.6	8,648.0	24.8	24.4	-110.47	-370.0	292.5	448.5	406.6	41.90	10.703	
8,800.0	8,777.1	8,756.7	8,746.7	25.3	24.9	-111.49	-373.5	299.1	459.7	417.2	42.55	10.805	
8,900.0	8,876.4	8,855.7	8,845.5	25.8	25.3	-112.46	-376.9	305.8	471.1	427.9	43.20	10.904	
9,000.0	8,975.7	8,954.8	8,944.3	26.3	25.8	-113.38	-380.4	312.4	482.6	438.7	43.87	11.001	
9,100.0	9,074.9	9,053.8	9,043.0	26.8	26.2	-114.26	-383.8	319.1	494.2	449.7	44.54	11.096	
9,200.0	9,174.2	9,152.8	9,141.8	27.4	26.7	-115.10	-387.3	325.7	505.9	460.7	45.21	11.190	
9,286.0	9,259.6	9,238.0	9,226.7	27.8	27.1	-115.79	-390.2	331.5	516.1	470.3	45.79	11.270	
9,300.0	9,273.5	9,251.9	9,240.5	27.9	27.1	-115.92	-390.7	332.4	517.7	471.8	45.88	11.285	
9,400.0	9,372.9	9,351.0	9,339.4	28.3	27.6	-116.68	-394.2	339.0	529.1	482.6	46.54	11.369	
9,500.0	9,472.5	9,450.4	9,438.5	28.8	28.0	-117.24	-397.6	345.7	539.8	492.6	47.21	11.436	
9,600.0	9,572.2	9,549.8	9,537.6	29.3	28.5	-117.62	-401.1	352.4	549.8	501.9	47.85	11.489	
9,700.0	9,672.0	9,649.4	9,636.9	29.7	29.0	-117.81	-404.5	359.1	558.9	510.4	48.48	11.529	
9,800.0	9,771.9	9,749.1	9,736.3	30.1	29.4	-117.85	-408.0	365.8	567.2	518.1	49.08	11.556	
9,900.0	9,871.9	9,848.8	9,835.7	30.5	29.9	-117.72	-411.5	372.5	574.7	525.1	49.66	11.574	

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 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - 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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,978.1	9,950.0	9,926.6	9,913.4	30.6	30.3	86.45	-414.2	377.7	580.0	530.0	50.04	11.592	
10,000.0	9,971.9	9,948.5	9,935.1	30.6	30.4	86.54	-415.0	379.2	581.4	531.3	50.13	11.599	
10,100.6	10,072.5	10,048.8	10,035.2	30.7	30.9	86.92	-418.4	385.9	588.0	537.4	50.59	11.622	
10,125.0	10,096.9	10,073.1	10,059.4	30.7	31.0	101.33	-419.3	387.5	589.7	539.0	50.70	11.632	
10,150.0	10,121.8	10,097.8	10,084.1	30.6	31.1	101.37	-420.2	389.2	591.7	540.9	50.81	11.647	
10,175.0	10,146.6	10,122.4	10,108.6	30.5	31.2	101.49	-421.0	390.8	594.0	543.1	50.91	11.669	
10,200.0	10,171.2	10,146.7	10,132.8	30.4	31.3	101.68	-421.9	392.5	596.6	545.6	51.00	11.698	
10,225.0	10,195.5	10,170.6	10,156.7	30.3	31.4	101.95	-422.7	394.1	599.5	548.4	51.09	11.735	
10,250.0	10,219.5	10,194.2	10,180.1	30.3	31.5	102.26	-423.5	395.6	602.8	551.6	51.17	11.779	
10,275.0	10,243.1	10,217.3	10,203.2	30.2	31.7	102.62	-424.3	397.2	606.5	555.2	51.25	11.833	
10,300.0	10,266.2	10,239.8	10,225.7	30.1	31.8	103.01	-425.1	398.7	610.5	559.2	51.32	11.896	
10,325.0	10,288.7	10,261.8	10,247.6	30.0	31.9	103.40	-425.9	400.2	615.1	563.7	51.39	11.969	
10,350.0	10,310.7	10,283.1	10,268.8	29.9	32.0	103.79	-426.6	401.6	620.2	568.7	51.45	12.054	
10,375.0	10,332.1	10,303.7	10,289.4	29.8	32.1	104.15	-427.3	403.0	625.8	574.3	51.51	12.149	
10,400.0	10,352.7	10,323.6	10,309.2	29.7	32.2	104.47	-428.0	404.3	632.0	580.5	51.57	12.257	
10,425.0	10,372.5	10,342.6	10,328.1	29.6	32.3	104.73	-428.7	405.6	638.9	587.3	51.62	12.378	
10,450.0	10,391.6	10,360.8	10,346.2	29.5	32.3	104.91	-429.3	406.8	646.5	594.8	51.67	12.512	
10,475.0	10,409.7	10,378.0	10,363.4	29.4	32.4	105.00	-429.9	408.0	654.7	603.0	51.71	12.661	
10,500.0	10,426.9	10,394.3	10,379.6	29.4	32.5	104.97	-430.5	409.1	663.7	611.9	51.76	12.823	
10,525.0	10,443.2	10,409.5	10,394.9	29.3	32.6	104.81	-431.0	410.1	673.4	621.6	51.80	13.000	
10,550.0	10,458.4	10,423.7	10,409.0	29.2	32.6	104.50	-431.5	411.1	683.9	632.1	51.84	13.192	
10,575.0	10,472.6	10,436.8	10,422.1	29.2	32.7	104.02	-432.0	411.9	695.1	643.3	51.88	13.398	
10,600.0	10,485.7	10,448.8	10,434.0	29.1	32.8	103.36	-432.4	412.7	707.1	655.2	51.93	13.618	
10,625.0	10,497.7	10,459.6	10,444.8	29.1	32.8	102.50	-432.7	413.5	719.9	667.9	51.97	13.853	
10,650.0	10,508.5	10,469.2	10,454.4	29.1	32.9	101.42	-433.1	414.1	733.4	681.4	52.01	14.101	
10,675.0	10,518.1	10,477.6	10,462.8	29.1	32.9	100.11	-433.4	414.7	747.5	695.5	52.05	14.362	
10,700.0	10,526.4	10,484.8	10,469.9	29.1	32.9	98.56	-433.6	415.2	762.4	710.3	52.09	14.635	
10,725.0	10,533.6	10,490.7	10,475.8	29.1	33.0	96.75	-433.8	415.5	777.8	725.7	52.13	14.920	
10,750.0	10,539.4	10,495.3	10,480.4	29.1	33.0	94.69	-434.0	415.9	793.8	741.7	52.17	15.216	
10,775.0	10,544.0	10,498.7	10,483.7	29.1	33.0	92.36	-434.1	416.1	810.4	758.2	52.21	15.522	
10,800.0	10,547.3	10,500.7	10,485.8	29.2	33.0	89.78	-434.2	416.2	827.4	775.1	52.25	15.836	
10,825.0	10,549.3	10,501.4	10,486.5	29.2	33.0	86.95	-434.2	416.3	844.7	792.5	52.28	16.158	
10,850.6	10,550.0	10,500.8	10,485.9	29.3	33.0	83.81	-434.2	416.2	862.9	810.6	52.32	16.494	
10,853.5	10,550.0	10,500.7	10,485.8	29.3	33.0	83.80	-434.2	416.2	864.9	812.6	52.32	16.532	
10,900.0	10,550.0	10,498.3	10,483.4	29.5	33.0	83.69	-434.1	416.1	898.6	846.2	52.39	17.152	
11,000.0	10,550.0	10,493.5	10,478.6	29.9	33.0	83.49	-433.9	415.7	972.8	920.2	52.62	18.486	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3847.5usft (Original Well Ele

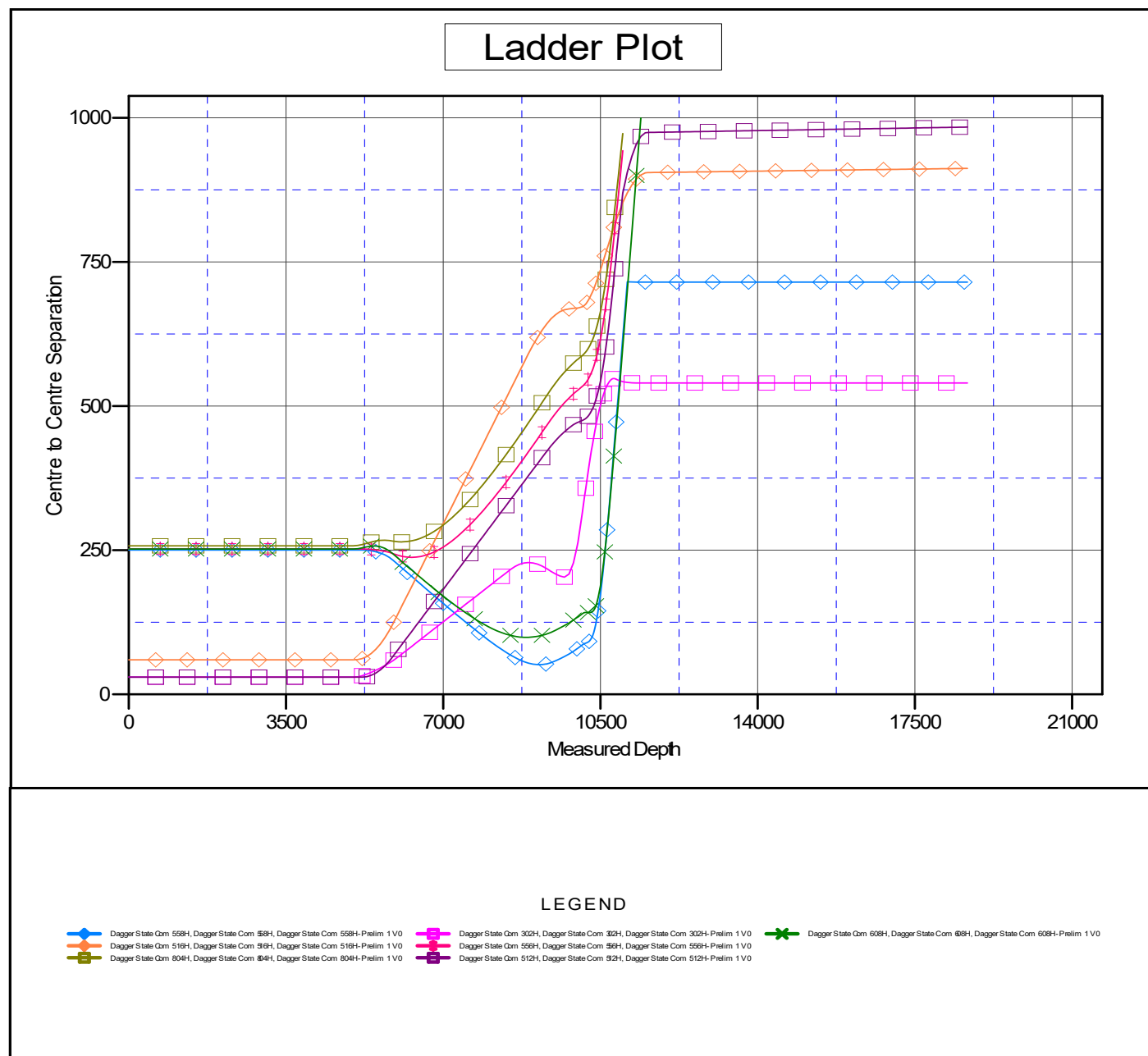
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 514H

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	Local Co-ordinate Reference:	Well Dagger State Com 514H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 514H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 514H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3847.5usft (Original Well Ele

Offset Depths are relative to Offset Datum

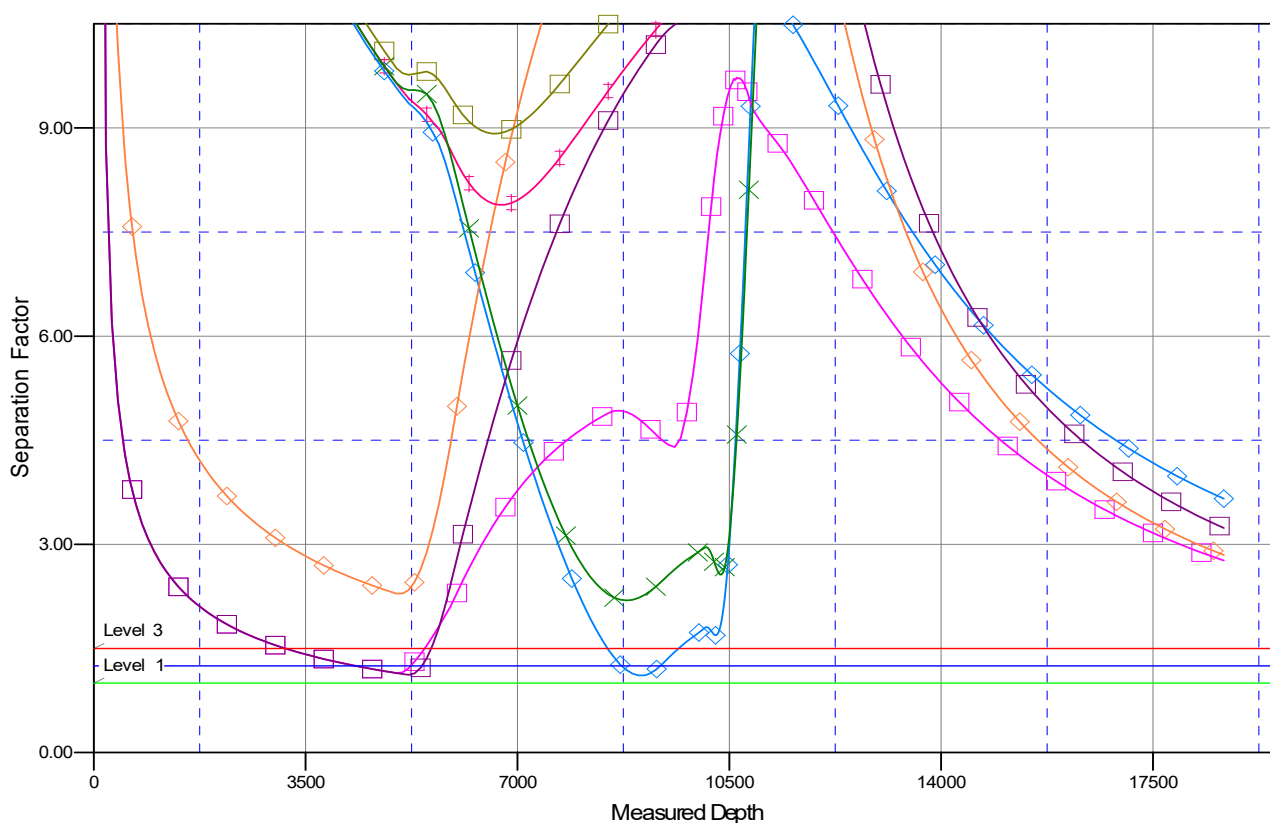
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 514H

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

Grid Convergence at Surface is: 0.38°

Separation Factor Plot



LEGEND

- Dagger State Qm 558H, Dagger State Com 558H, Dagger State Com 558H-Prelim 1 V0
 Dagger State Qm 516H, Dagger State Com 516H, Dagger State Com 516H-Prelim 1 V0
 Dagger State Qm 804H, Dagger State Com 804H, Dagger State Com 804H-Prelim 1 V0
- Dagger State Qm 302H, Dagger State Com 302H, Dagger State Com 302H-Prelim 1 V0
 Dagger State Qm 555H, Dagger State Com 555H, Dagger State Com 555H-Prelim 1 V0
 Dagger State Qm 512H, Dagger State Com 512H, Dagger State Com 512H-Prelim 1 V0
- Dagger State Qm 608H, Dagger State Com 608H, Dagger State Com 608H-Prelim 1 V0

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



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 514H

Dagger State Com 514H

Plan: Dagger State Com 514H - Prelim 1

Standard Planning Report

17 May, 2021



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 514H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 514H		
Design:	Dagger State Com 514H - Prelim 1		

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

Site	Dagger State			
Site Position:		Northing:	529,194.79 usft	Latitude: 32° 27' 9.770 N
From:	Lat/Long	Easting:	766,028.88 usft	Longitude: 103° 36' 17.644 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	

Well	Dagger State Com 514H			
Well Position	+N/-S	0.0 usft	Northing:	528,128.51 usft
	+E/-W	0.0 usft	Easting:	762,167.69 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level: 3,815.0 usft
Grid Convergence:	0.38 °			

Wellbore	Dagger State Com 514H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/19/2021	6.60	60.21	47,694.01745165

Design	Dagger State Com 514H - Prelim 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	356.59

Plan Survey Tool Program	Date	5/17/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,671.2	Dagger State Com 514H - Prelim	MWD+HRGM
				OWSG MWD + HRGM



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 514H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 514H		
Design:	Dagger State Com 514H - Prelim 1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,892.1	6.92	203.96	5,890.4	-38.1	-17.0	1.00	1.00	0.00	203.96	
9,286.0	6.92	203.96	9,259.6	-411.9	-183.0	0.00	0.00	0.00	0.00	
9,978.1	0.00	0.00	9,950.0	-450.0	-200.0	1.00	-1.00	0.00	180.00	
10,100.6	0.00	0.00	10,072.5	-450.0	-200.0	0.00	0.00	0.00	0.00	
10,850.6	90.00	345.53	10,550.0	12.3	-319.3	12.00	12.00	0.00	345.53	
10,853.5	90.00	345.53	10,550.0	15.1	-320.0	0.00	0.00	0.00	0.00	Dagger State Com 51
11,554.3	90.00	359.55	10,550.0	708.3	-410.8	2.00	0.00	2.00	90.00	
18,671.2	90.00	359.55	10,550.0	7,824.9	-466.7	0.00	0.00	0.00	0.00	Dagger State Com 51



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 514H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 514H		
Design:	Dagger State Com 514H - Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 514H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 514H		
Design:	Dagger State Com 514H - Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	1.00	203.96	5,300.0	-0.8	-0.4	-0.8	1.00	1.00	0.00
5,400.0	2.00	203.96	5,400.0	-3.2	-1.4	-3.1	1.00	1.00	0.00
5,500.0	3.00	203.96	5,499.9	-7.2	-3.2	-7.0	1.00	1.00	0.00
5,600.0	4.00	203.96	5,599.7	-12.8	-5.7	-12.4	1.00	1.00	0.00
5,700.0	5.00	203.96	5,699.4	-19.9	-8.9	-19.4	1.00	1.00	0.00
5,800.0	6.00	203.96	5,798.9	-28.7	-12.7	-27.9	1.00	1.00	0.00
5,892.1	6.92	203.96	5,890.4	-38.1	-17.0	-37.1	1.00	1.00	0.00
Start 3394.0 hold at 5892.1 MD									
5,900.0	6.92	203.96	5,898.3	-39.0	-17.3	-37.9	0.00	0.00	0.00
6,000.0	6.92	203.96	5,997.5	-50.0	-22.2	-48.6	0.00	0.00	0.00
6,100.0	6.92	203.96	6,096.8	-61.0	-27.1	-59.3	0.00	0.00	0.00
6,200.0	6.92	203.96	6,196.1	-72.1	-32.0	-70.0	0.00	0.00	0.00
6,300.0	6.92	203.96	6,295.3	-83.1	-36.9	-80.7	0.00	0.00	0.00
6,400.0	6.92	203.96	6,394.6	-94.1	-41.8	-91.4	0.00	0.00	0.00
6,500.0	6.92	203.96	6,493.9	-105.1	-46.7	-102.1	0.00	0.00	0.00
6,600.0	6.92	203.96	6,593.2	-116.1	-51.6	-112.8	0.00	0.00	0.00
6,700.0	6.92	203.96	6,692.4	-127.1	-56.5	-123.5	0.00	0.00	0.00
6,800.0	6.92	203.96	6,791.7	-138.1	-61.4	-134.2	0.00	0.00	0.00
6,900.0	6.92	203.96	6,891.0	-149.1	-66.3	-144.9	0.00	0.00	0.00
7,000.0	6.92	203.96	6,990.2	-160.1	-71.2	-155.6	0.00	0.00	0.00
7,100.0	6.92	203.96	7,089.5	-171.2	-76.1	-166.3	0.00	0.00	0.00
7,200.0	6.92	203.96	7,188.8	-182.2	-81.0	-177.0	0.00	0.00	0.00
7,300.0	6.92	203.96	7,288.1	-193.2	-85.9	-187.7	0.00	0.00	0.00
7,400.0	6.92	203.96	7,387.3	-204.2	-90.7	-198.4	0.00	0.00	0.00
7,500.0	6.92	203.96	7,486.6	-215.2	-95.6	-209.1	0.00	0.00	0.00
7,600.0	6.92	203.96	7,585.9	-226.2	-100.5	-219.8	0.00	0.00	0.00
7,700.0	6.92	203.96	7,685.1	-237.2	-105.4	-230.5	0.00	0.00	0.00
7,800.0	6.92	203.96	7,784.4	-248.2	-110.3	-241.2	0.00	0.00	0.00
7,900.0	6.92	203.96	7,883.7	-259.2	-115.2	-251.9	0.00	0.00	0.00
8,000.0	6.92	203.96	7,983.0	-270.2	-120.1	-262.6	0.00	0.00	0.00
8,100.0	6.92	203.96	8,082.2	-281.3	-125.0	-273.3	0.00	0.00	0.00
8,200.0	6.92	203.96	8,181.5	-292.3	-129.9	-284.0	0.00	0.00	0.00
8,300.0	6.92	203.96	8,280.8	-303.3	-134.8	-294.7	0.00	0.00	0.00
8,400.0	6.92	203.96	8,380.0	-314.3	-139.7	-305.4	0.00	0.00	0.00
8,500.0	6.92	203.96	8,479.3	-325.3	-144.6	-316.1	0.00	0.00	0.00
8,600.0	6.92	203.96	8,578.6	-336.3	-149.5	-326.8	0.00	0.00	0.00
8,700.0	6.92	203.96	8,677.9	-347.3	-154.4	-337.5	0.00	0.00	0.00
8,800.0	6.92	203.96	8,777.1	-358.3	-159.3	-348.2	0.00	0.00	0.00
8,900.0	6.92	203.96	8,876.4	-369.3	-164.2	-358.9	0.00	0.00	0.00
9,000.0	6.92	203.96	8,975.7	-380.4	-169.0	-369.6	0.00	0.00	0.00
9,100.0	6.92	203.96	9,074.9	-391.4	-173.9	-380.3	0.00	0.00	0.00
9,200.0	6.92	203.96	9,174.2	-402.4	-178.8	-391.0	0.00	0.00	0.00
9,286.0	6.92	203.96	9,259.6	-411.9	-183.0	-400.2	0.00	0.00	0.00
Start Drop -1.00									
9,300.0	6.78	203.96	9,273.5	-413.4	-183.7	-401.7	1.00	-1.00	0.00
9,400.0	5.78	203.96	9,372.9	-423.4	-188.2	-411.4	1.00	-1.00	0.00
9,500.0	4.78	203.96	9,472.5	-431.8	-191.9	-419.6	1.00	-1.00	0.00
9,600.0	3.78	203.96	9,572.2	-438.6	-194.9	-426.2	1.00	-1.00	0.00
9,700.0	2.78	203.96	9,672.0	-443.8	-197.3	-431.3	1.00	-1.00	0.00
9,800.0	1.78	203.96	9,771.9	-447.5	-198.9	-434.8	1.00	-1.00	0.00
9,900.0	0.78	203.96	9,871.9	-449.5	-199.8	-436.8	1.00	-1.00	0.00
9,978.1	0.00	0.00	9,950.0	-450.0	-200.0	-437.3	1.00	-1.00	0.00
Start 122.5 hold at 9978.1 MD									



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 514H
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Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 514H		
Design:	Dagger State Com 514H - Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.0	0.00	0.00	9,971.9	-450.0	-200.0	-437.3	0.00	0.00	0.00
10,100.0	0.00	0.00	10,071.9	-450.0	-200.0	-437.3	0.00	0.00	0.00
10,100.6	0.00	0.00	10,072.5	-450.0	-200.0	-437.3	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
10,200.0	11.92	345.53	10,171.2	-440.0	-202.6	-427.2	12.00	12.00	0.00
10,300.0	23.92	345.53	10,266.2	-410.3	-210.2	-397.0	12.00	12.00	0.00
10,400.0	35.92	345.53	10,352.7	-362.1	-222.7	-348.2	12.00	12.00	0.00
10,500.0	47.92	345.53	10,426.9	-297.5	-239.4	-282.7	12.00	12.00	0.00
10,600.0	59.92	345.53	10,485.7	-219.4	-259.5	-203.5	12.00	12.00	0.00
10,700.0	71.92	345.53	10,526.4	-131.1	-282.3	-114.1	12.00	12.00	0.00
10,800.0	83.92	345.53	10,547.3	-36.6	-306.7	-18.3	12.00	12.00	0.00
10,850.6	90.00	345.53	10,550.0	12.3	-319.3	31.3	12.00	12.00	0.00
LP - Start 2.9 hold at 10850.6 MD									
10,853.5	90.00	345.53	10,550.0	15.1	-320.0	34.1	0.00	0.00	0.00
Start DLS 2.00 TFO 90.00 - Dagger State Com 514H LP									
10,900.0	90.00	346.46	10,550.0	60.2	-331.3	79.8	2.00	0.00	2.00
11,000.0	90.00	348.46	10,550.0	157.8	-353.0	178.6	2.00	0.00	2.00
11,100.0	90.00	350.46	10,550.0	256.1	-371.2	277.8	2.00	0.00	2.00
11,200.0	90.00	352.46	10,550.0	355.0	-386.1	377.4	2.00	0.00	2.00
11,300.0	90.00	354.46	10,550.0	454.4	-397.5	477.2	2.00	0.00	2.00
11,400.0	90.00	356.46	10,550.0	554.1	-405.4	577.2	2.00	0.00	2.00
11,500.0	90.00	358.46	10,550.0	654.0	-409.8	677.2	2.00	0.00	2.00
11,554.3	90.00	359.55	10,550.0	708.3	-410.8	731.5	2.00	0.00	2.00
Start 7116.8 hold at 11554.3 MD									
11,600.0	90.00	359.55	10,550.0	753.9	-411.1	777.1	0.00	0.00	0.00
11,700.0	90.00	359.55	10,550.0	853.9	-411.9	876.9	0.00	0.00	0.00
11,800.0	90.00	359.55	10,550.0	953.9	-412.7	976.8	0.00	0.00	0.00
11,900.0	90.00	359.55	10,550.0	1,053.9	-413.5	1,076.7	0.00	0.00	0.00
12,000.0	90.00	359.55	10,550.0	1,153.9	-414.3	1,176.5	0.00	0.00	0.00
12,100.0	90.00	359.55	10,550.0	1,253.9	-415.0	1,276.4	0.00	0.00	0.00
12,200.0	90.00	359.55	10,550.0	1,353.9	-415.8	1,376.3	0.00	0.00	0.00
12,300.0	90.00	359.55	10,550.0	1,453.9	-416.6	1,476.1	0.00	0.00	0.00
12,400.0	90.00	359.55	10,550.0	1,553.9	-417.4	1,576.0	0.00	0.00	0.00
12,500.0	90.00	359.55	10,550.0	1,653.9	-418.2	1,675.9	0.00	0.00	0.00
12,600.0	90.00	359.55	10,550.0	1,753.9	-419.0	1,775.7	0.00	0.00	0.00
12,700.0	90.00	359.55	10,550.0	1,853.9	-419.8	1,875.6	0.00	0.00	0.00
12,800.0	90.00	359.55	10,550.0	1,953.9	-420.5	1,975.5	0.00	0.00	0.00
12,900.0	90.00	359.55	10,550.0	2,053.9	-421.3	2,075.3	0.00	0.00	0.00
13,000.0	90.00	359.55	10,550.0	2,153.9	-422.1	2,175.2	0.00	0.00	0.00
13,100.0	90.00	359.55	10,550.0	2,253.9	-422.9	2,275.1	0.00	0.00	0.00
13,200.0	90.00	359.55	10,550.0	2,353.9	-423.7	2,374.9	0.00	0.00	0.00
13,300.0	90.00	359.55	10,550.0	2,453.9	-424.5	2,474.8	0.00	0.00	0.00
13,400.0	90.00	359.55	10,550.0	2,553.9	-425.3	2,574.7	0.00	0.00	0.00
13,500.0	90.00	359.55	10,550.0	2,653.9	-426.0	2,674.5	0.00	0.00	0.00
13,600.0	90.00	359.55	10,550.0	2,753.9	-426.8	2,774.4	0.00	0.00	0.00
13,700.0	90.00	359.55	10,550.0	2,853.9	-427.6	2,874.3	0.00	0.00	0.00
13,800.0	90.00	359.55	10,550.0	2,953.9	-428.4	2,974.1	0.00	0.00	0.00
13,900.0	90.00	359.55	10,550.0	3,053.9	-429.2	3,074.0	0.00	0.00	0.00
14,000.0	90.00	359.55	10,550.0	3,153.9	-430.0	3,173.9	0.00	0.00	0.00
14,100.0	90.00	359.55	10,550.0	3,253.9	-430.8	3,273.7	0.00	0.00	0.00
14,200.0	90.00	359.55	10,550.0	3,353.9	-431.5	3,373.6	0.00	0.00	0.00
14,300.0	90.00	359.55	10,550.0	3,453.9	-432.3	3,473.5	0.00	0.00	0.00
14,400.0	90.00	359.55	10,550.0	3,553.9	-433.1	3,573.3	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 514H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 514H		
Design:	Dagger State Com 514H - Prelim 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,500.0	90.00	359.55	10,550.0	3,653.9	-433.9	3,673.2	0.00	0.00	0.00	
14,600.0	90.00	359.55	10,550.0	3,753.9	-434.7	3,773.1	0.00	0.00	0.00	
14,700.0	90.00	359.55	10,550.0	3,853.8	-435.5	3,872.9	0.00	0.00	0.00	
14,800.0	90.00	359.55	10,550.0	3,953.8	-436.3	3,972.8	0.00	0.00	0.00	
14,900.0	90.00	359.55	10,550.0	4,053.8	-437.0	4,072.7	0.00	0.00	0.00	
15,000.0	90.00	359.55	10,550.0	4,153.8	-437.8	4,172.5	0.00	0.00	0.00	
15,100.0	90.00	359.55	10,550.0	4,253.8	-438.6	4,272.4	0.00	0.00	0.00	
15,200.0	90.00	359.55	10,550.0	4,353.8	-439.4	4,372.3	0.00	0.00	0.00	
15,300.0	90.00	359.55	10,550.0	4,453.8	-440.2	4,472.1	0.00	0.00	0.00	
15,400.0	90.00	359.55	10,550.0	4,553.8	-441.0	4,572.0	0.00	0.00	0.00	
15,500.0	90.00	359.55	10,550.0	4,653.8	-441.8	4,671.9	0.00	0.00	0.00	
15,600.0	90.00	359.55	10,550.0	4,753.8	-442.5	4,771.7	0.00	0.00	0.00	
15,700.0	90.00	359.55	10,550.0	4,853.8	-443.3	4,871.6	0.00	0.00	0.00	
15,800.0	90.00	359.55	10,550.0	4,953.8	-444.1	4,971.5	0.00	0.00	0.00	
15,900.0	90.00	359.55	10,550.0	5,053.8	-444.9	5,071.3	0.00	0.00	0.00	
16,000.0	90.00	359.55	10,550.0	5,153.8	-445.7	5,171.2	0.00	0.00	0.00	
16,100.0	90.00	359.55	10,550.0	5,253.8	-446.5	5,271.1	0.00	0.00	0.00	
16,200.0	90.00	359.55	10,550.0	5,353.8	-447.3	5,370.9	0.00	0.00	0.00	
16,300.0	90.00	359.55	10,550.0	5,453.8	-448.0	5,470.8	0.00	0.00	0.00	
16,400.0	90.00	359.55	10,550.0	5,553.8	-448.8	5,570.7	0.00	0.00	0.00	
16,500.0	90.00	359.55	10,550.0	5,653.8	-449.6	5,670.5	0.00	0.00	0.00	
16,600.0	90.00	359.55	10,550.0	5,753.8	-450.4	5,770.4	0.00	0.00	0.00	
16,700.0	90.00	359.55	10,550.0	5,853.8	-451.2	5,870.3	0.00	0.00	0.00	
16,800.0	90.00	359.55	10,550.0	5,953.8	-452.0	5,970.1	0.00	0.00	0.00	
16,900.0	90.00	359.55	10,550.0	6,053.8	-452.8	6,070.0	0.00	0.00	0.00	
17,000.0	90.00	359.55	10,550.0	6,153.8	-453.5	6,169.9	0.00	0.00	0.00	
17,100.0	90.00	359.55	10,550.0	6,253.8	-454.3	6,269.7	0.00	0.00	0.00	
17,200.0	90.00	359.55	10,550.0	6,353.8	-455.1	6,369.6	0.00	0.00	0.00	
17,300.0	90.00	359.55	10,550.0	6,453.8	-455.9	6,469.5	0.00	0.00	0.00	
17,400.0	90.00	359.55	10,550.0	6,553.8	-456.7	6,569.3	0.00	0.00	0.00	
17,500.0	90.00	359.55	10,550.0	6,653.8	-457.5	6,669.2	0.00	0.00	0.00	
17,600.0	90.00	359.55	10,550.0	6,753.8	-458.3	6,769.1	0.00	0.00	0.00	
17,700.0	90.00	359.55	10,550.0	6,853.8	-459.0	6,868.9	0.00	0.00	0.00	
17,800.0	90.00	359.55	10,550.0	6,953.8	-459.8	6,968.8	0.00	0.00	0.00	
17,900.0	90.00	359.55	10,550.0	7,053.7	-460.6	7,068.7	0.00	0.00	0.00	
18,000.0	90.00	359.55	10,550.0	7,153.7	-461.4	7,168.5	0.00	0.00	0.00	
18,100.0	90.00	359.55	10,550.0	7,253.7	-462.2	7,268.4	0.00	0.00	0.00	
18,200.0	90.00	359.55	10,550.0	7,353.7	-463.0	7,368.3	0.00	0.00	0.00	
18,300.0	90.00	359.55	10,550.0	7,453.7	-463.8	7,468.1	0.00	0.00	0.00	
18,400.0	90.00	359.55	10,550.0	7,553.7	-464.5	7,568.0	0.00	0.00	0.00	
18,500.0	90.00	359.55	10,550.0	7,653.7	-465.3	7,667.9	0.00	0.00	0.00	
18,600.0	90.00	359.55	10,550.0	7,753.7	-466.1	7,767.7	0.00	0.00	0.00	
18,671.2	90.00	359.55	10,550.0	7,824.9	-466.7	7,838.8	0.00	0.00	0.00	
TD at 18671.2 - Dagger State Com 514H BHL										



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 514H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 514H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 514H		
Design:	Dagger State Com 514H - Prelim 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Dagger State Com 514H- - plan hits target center - Point	0.00	0.00	10,550.0	7,824.9	-466.7	535,953.40	761,701.01	32° 28' 16.936 N	103° 37' 7.622 W
Dagger State Com 514H- - plan hits target center - Point	0.00	0.00	10,550.0	15.1	-320.0	528,143.61	761,847.69	32° 26' 59.649 N	103° 37' 6.521 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
10,850.6	10,550.0	LP	5-1/2	5-1/2	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
5,200.0	5,200.0	0.0	0.0	KOP - Start Build 1.00	
5,892.1	5,890.4	-38.1	-17.0	Start 3394.0 hold at 5892.1 MD	
9,286.0	9,259.6	-411.9	-183.0	Start Drop -1.00	
9,978.1	9,950.0	-450.0	-200.0	Start 122.5 hold at 9978.1 MD	
10,100.6	10,072.5	-450.0	-200.0	KOP #2 - Start Build 12.00	
10,850.6	10,550.0	12.3	-319.3	LP - Start 2.9 hold at 10850.6 MD	
10,853.5	10,550.0	15.1	-320.0	Start DLS 2.00 TFO 90.00	
11,554.3	10,550.0	708.3	-410.8	Start 7116.8 hold at 11554.3 MD	
18,671.2	10,550.0	7,824.9	-466.7	TD at 18671.2	

**WELL DETAILS: Dagger State Com 514H**

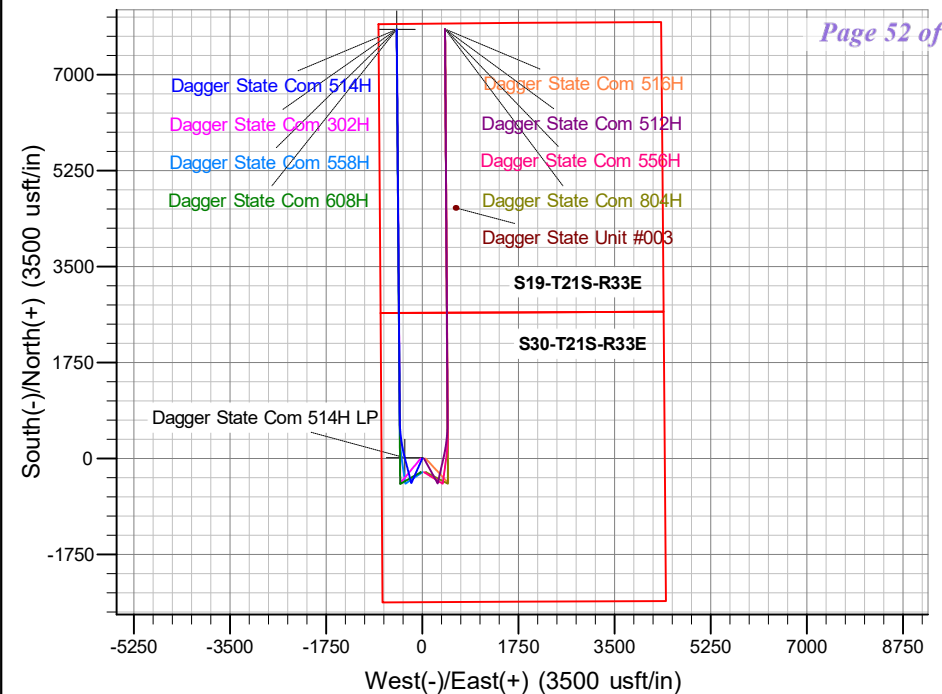
Ground Elev: 3815.0 KB: 3847.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	528128.50	762167.69	32° 26' 59.478 N	103° 37' 2.788 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	5892.1	6.92	203.96	5890.4	-38.1	-17.0	1.00	203.96	-37.1	Start 3394.0 hold at 5892.1 MD
4	9286.0	6.92	203.96	9259.6	-411.9	-183.0	0.00	0.00	-400.2	Start Drop -1.00
5	9978.1	0.00	0.00	9950.0	-450.0	-200.0	1.00	180.00	-437.3	Start 122.5 hold at 9978.1 MD
6	10100.6	0.00	0.00	10072.5	-450.0	-200.0	0.00	0.00	-437.3	KOP #2 - Start Build 12.00
7	10850.6	90.00	345.53	10550.0	12.3	-319.3	12.00	345.53	31.3	LP - Start 2.9 hold at 10850.6 MD
8	10853.5	90.00	345.53	10550.0	15.1	-320.0	0.00	0.00	34.1	Start DLS 2.00 TFO 90.00
9	11554.3	90.00	359.55	10550.0	708.3	-410.8	2.00	90.00	731.5	Start 7116.8 hold at 11554.3 MD
10	18671.2	90.00	359.55	10550.0	7824.9	-466.7	0.00	0.00	7838.8	TD at 18671.2

