

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 296231

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 30-025-48896
4. Property Code 319601	5. Property Name DAGGER STATE COM	6. Well No. 302H

7. Surface Location

UL - Lot L	Section 30	Township 21S	Range 33E	Lot Idn L	Feet From 2620	N/S Line S	Feet From 710	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	97929	Pool Code	WC-025 G-06 S213326D; BONE SPRING	Pool Name
Property Code 319601	Property Name DAGGER STATE COM			Well Number 302H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA			Elevation 3815'

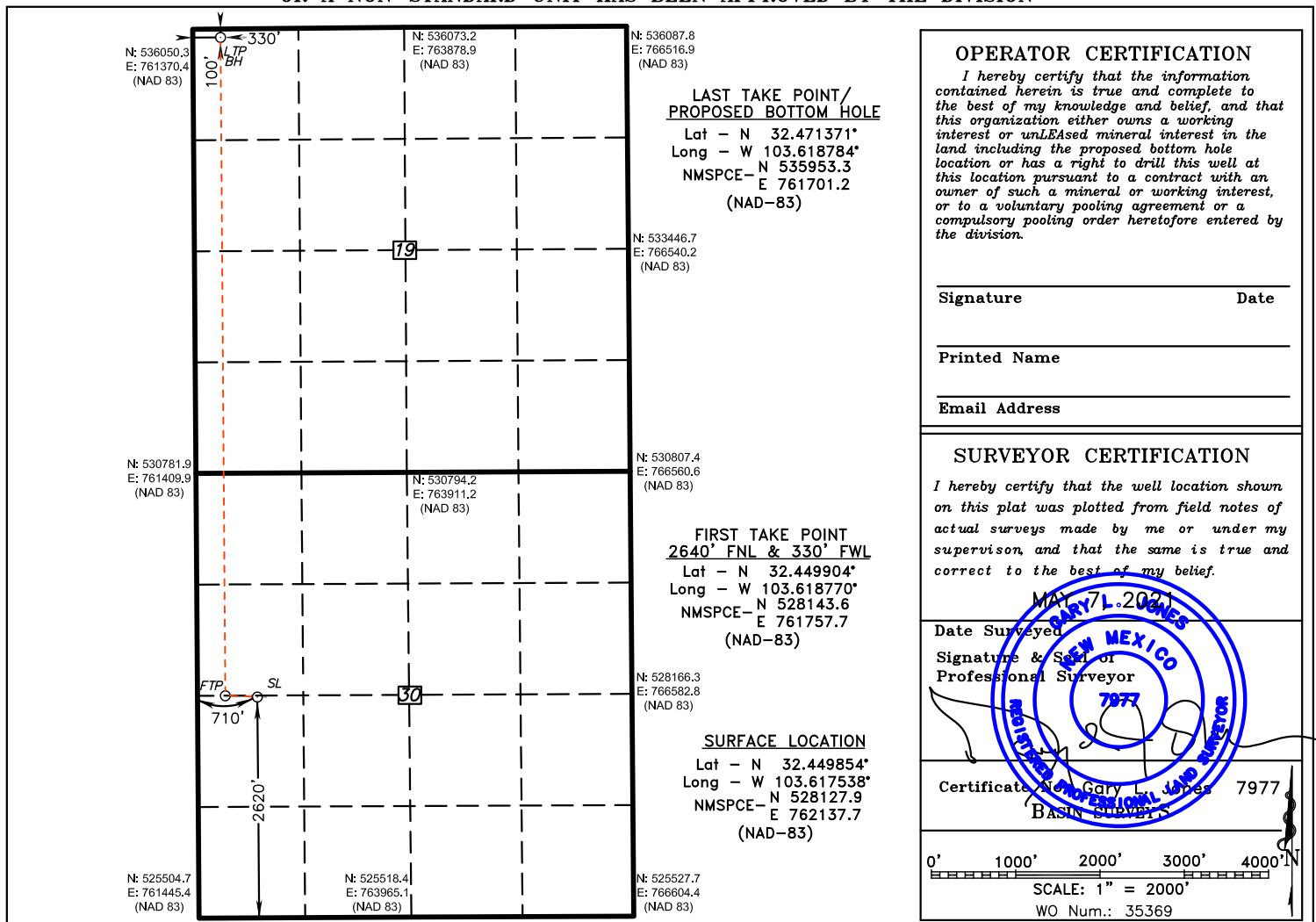
Surface Location

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	710	WEST	LEA

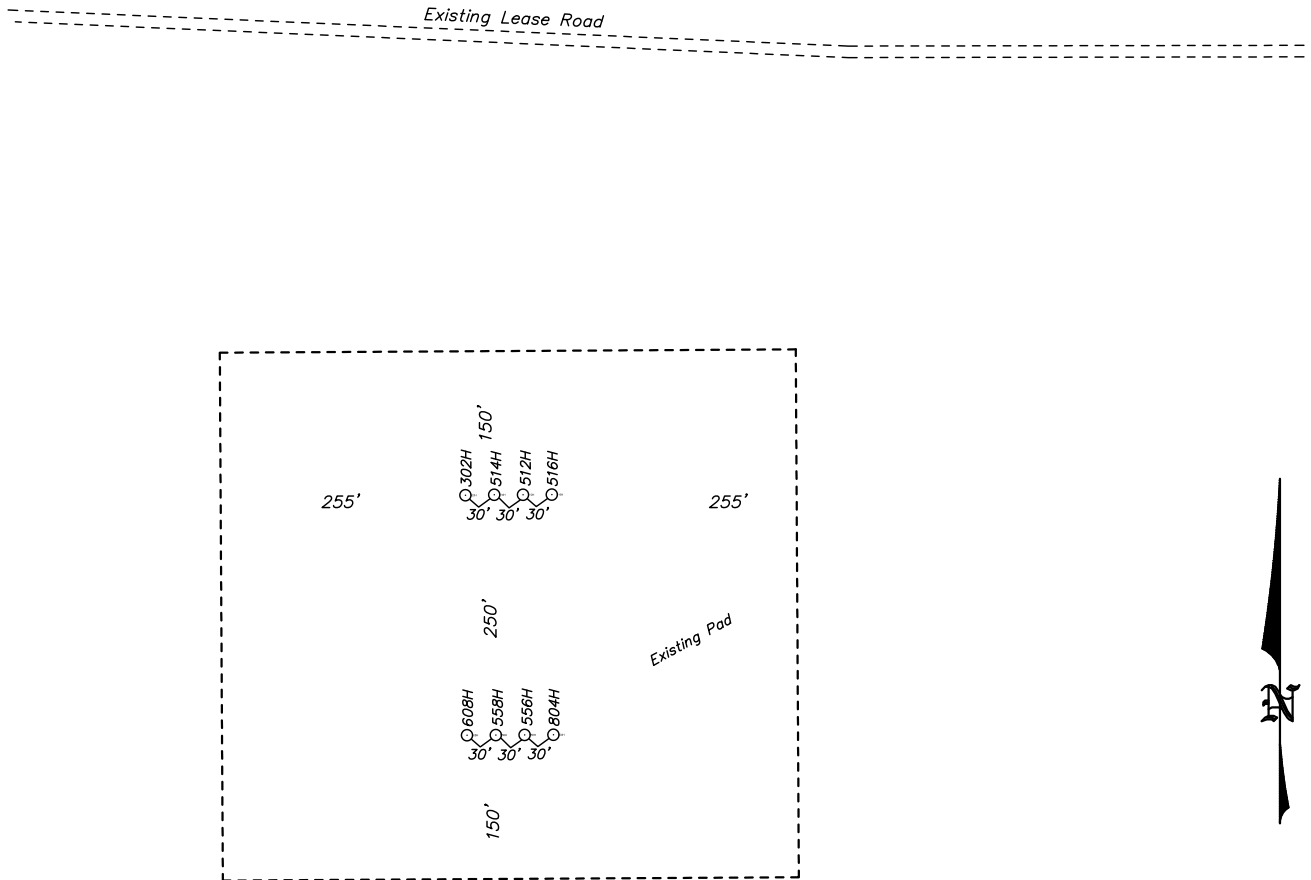
Bottom Hole Location If Different From Surface

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



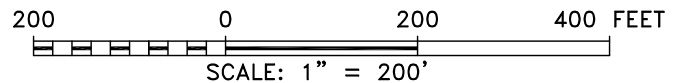
**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA
DAGGER STATE COM #302H
ELEV. - 3815'**

Lat - N 32.449854°
Long - W 103.617538°
NMSPCE - N 528127.9
E 762137.7
(NAD-83)

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #302H / WELL PAD TOPO

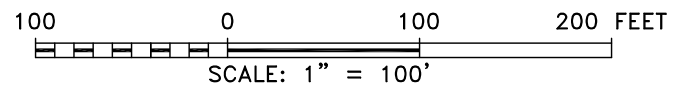
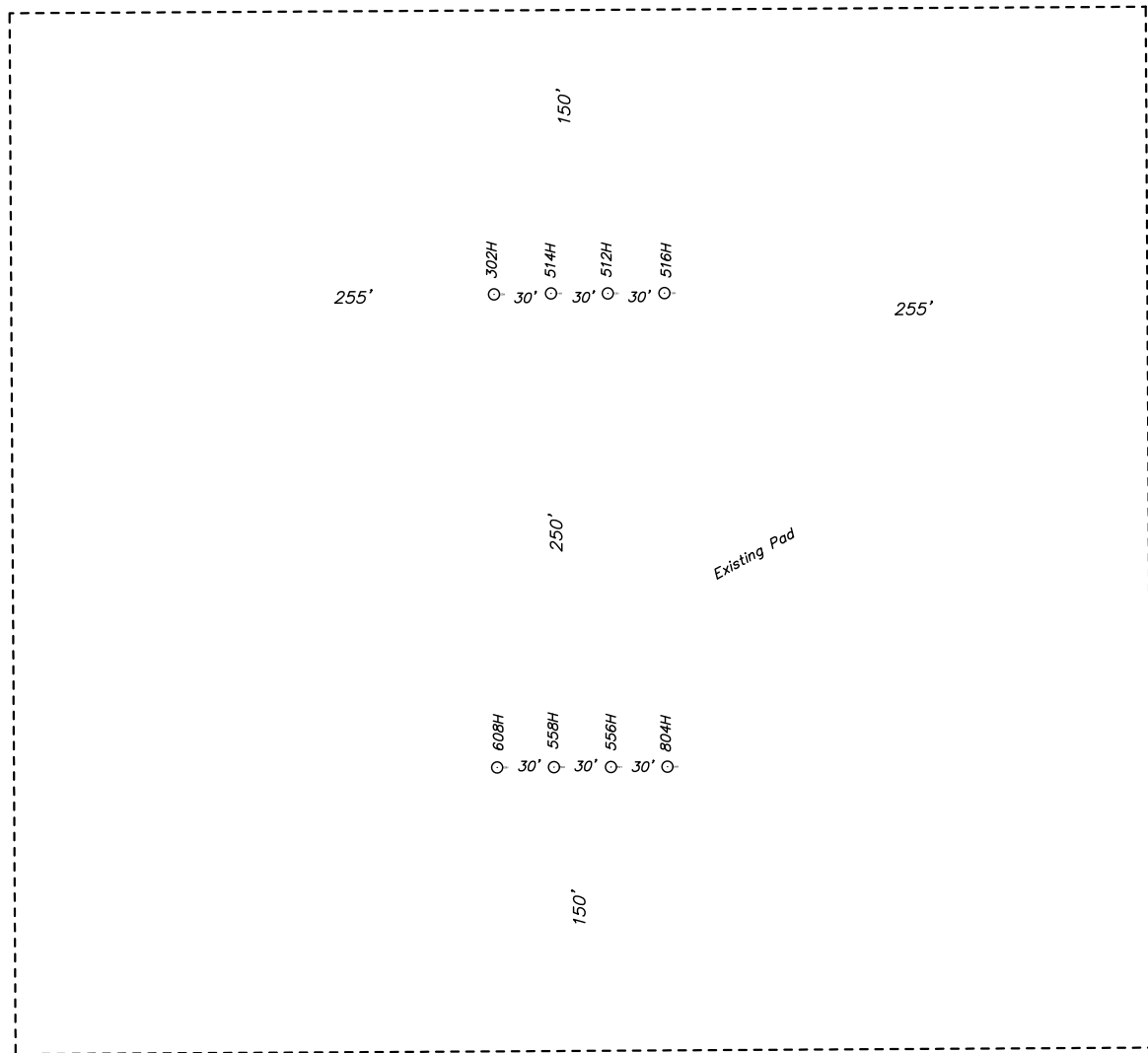
THE DAGGER STATE COM #302H LOCATED 2620' FROM
THE SOUTH LINE AND 710' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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

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

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #302H / WELL PAD TOPO

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DAGGER STATE COM #302H

Located 2620' FSL and 710' 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'

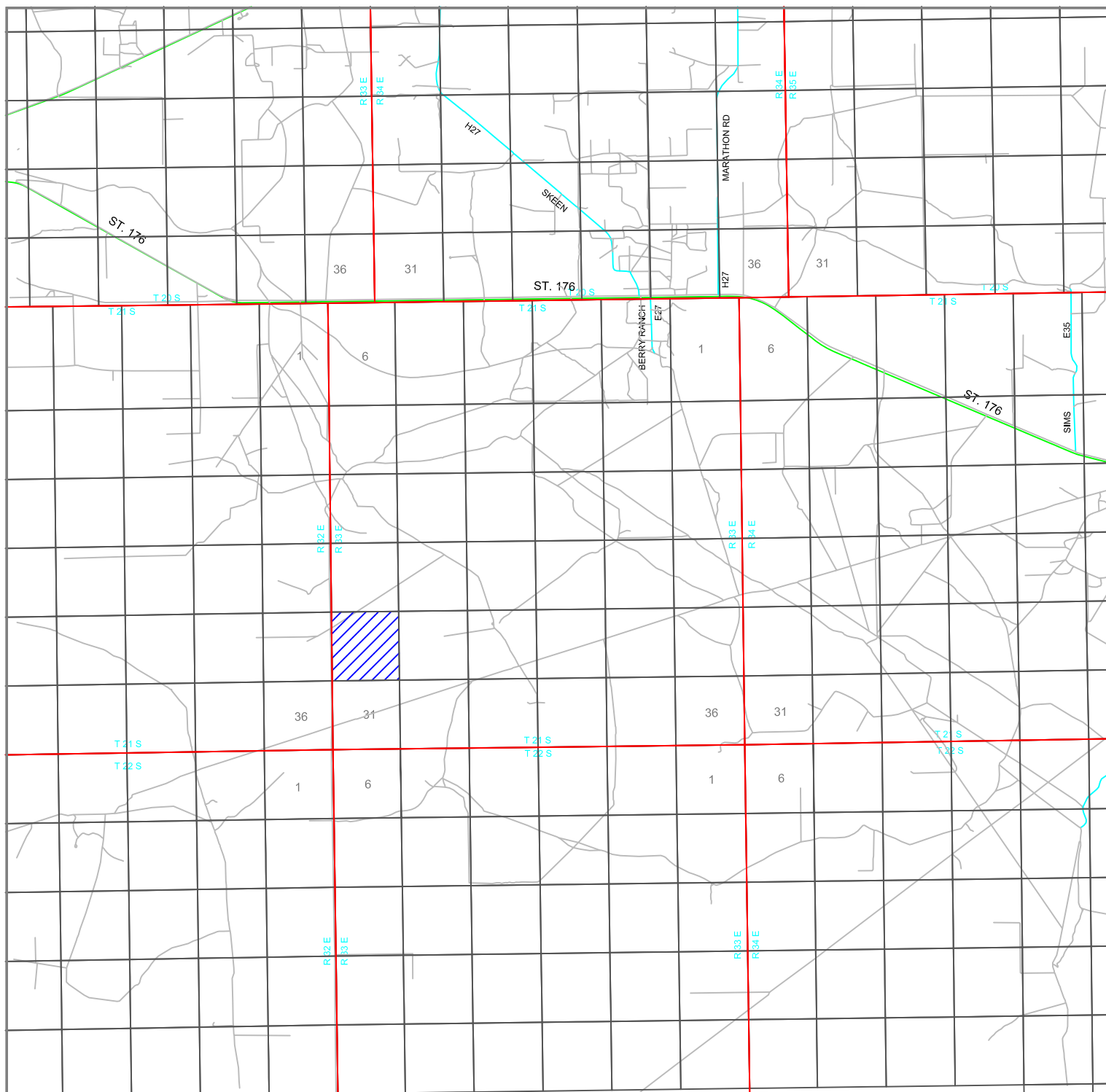
W.O. Number: KJG 35369

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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0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

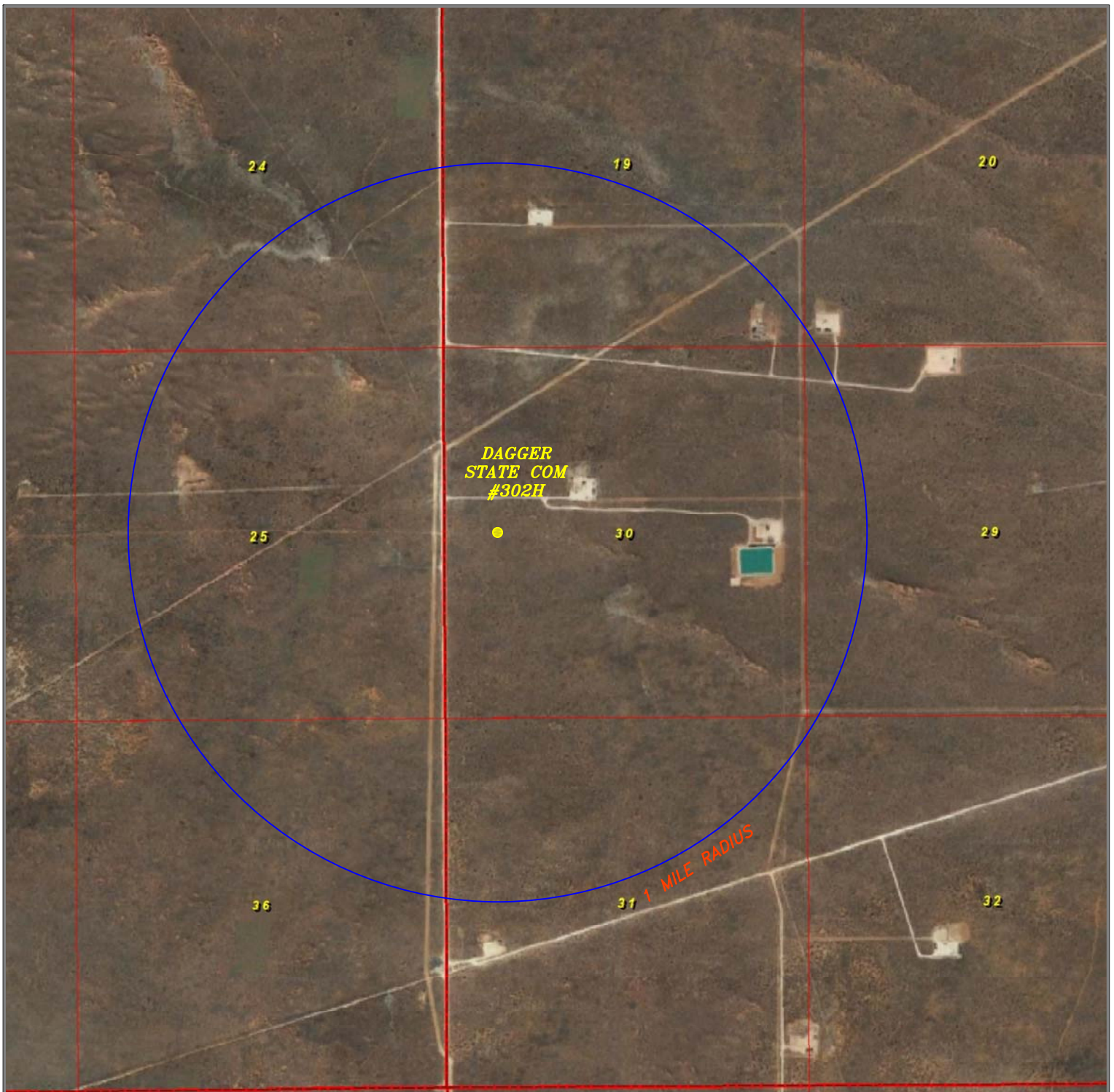
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 ENERGY
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 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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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 #302H	30-025-48896	L-30-21S-33E	2620S 0710W	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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Form APD Conditions

Permit 296231

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: 30-025-48896
	Well: DAGGER STATE COM #302H

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 #302H

PROPOSED LOCATION: U/L L Sec 30 T21S R33E 2620 FSL 710 FWL

Lat. 32.449854 Long. -103.617538 NAD83

PROPOSED DEPTH: 18125' MD 10010' TVD

Gentleman:

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

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

Very truly yours,

OIL CONSERVATION DIVISION

P. Kautz
Paul Kautz

Hobbs District Geologist, District I

RESPONSE:

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

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

Signed _____

Printed Signature JAMES RUTLEY

Representing BLM-CFO

*THE WELL IS LOCATED ON DAGGER DRAW DE
a/in approved Dagger Draw Development Area.*



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 302H

Dagger State Com 302H

Dagger State Com 302H - Prelim 1

Anticollision Report

17 May, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Dagger State Com 302H - 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	18,125.3	Dagger State Com 302H - 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 512H - Dagger State Com 512H - Da	5,000.0	5,000.0	59.8	33.7	2.291	CC, ES
Dagger State Com 512H - Dagger State Com 512H - Da	5,100.0	5,100.0	60.4	34.0	2.291	SF
Dagger State Com 514H - Dagger State Com 514H - Da	5,000.0	5,000.0	29.9	3.8	1.145	Level 3, CC, ES, SF
Dagger State Com 516H - Dagger State Com 516H - Da	5,000.0	5,000.0	89.8	63.6	3.436	CC, ES
Dagger State Com 516H - Dagger State Com 516H - Da	18,125.3	18,425.3	929.9	615.3	2.956	SF
Dagger State Com 556H - Dagger State Com 556H - Da	5,568.1	5,556.1	250.2	223.0	9.177	CC
Dagger State Com 556H - Dagger State Com 556H - Da	5,600.0	5,586.6	250.3	223.0	9.158	ES
Dagger State Com 556H - Dagger State Com 556H - Da	5,900.0	5,880.9	254.0	226.0	9.077	SF
Dagger State Com 558H - Dagger State Com 558H - Da	9,675.0	9,650.6	141.9	90.1	2.740	SF
Dagger State Com 558H - Dagger State Com 558H - Da	9,725.0	9,698.3	138.3	88.2	2.760	ES
Dagger State Com 558H - Dagger State Com 558H - Da	9,766.7	9,736.7	137.1	89.0	2.851	CC
Dagger State Com 608H - Dagger State Com 608H - Da	9,725.0	9,697.0	87.7	33.6	1.622	SF
Dagger State Com 608H - Dagger State Com 608H - Da	9,750.0	9,720.3	85.3	32.8	1.624	ES
Dagger State Com 608H - Dagger State Com 608H - Da	9,784.6	9,751.6	83.9	34.3	1.692	CC
Dagger State Com 804H - Dagger State Com 804H - Da	4,916.3	4,917.3	265.9	240.1	10.282	CC
Dagger State Com 804H - Dagger State Com 804H - Da	5,000.0	5,000.0	265.9	239.8	10.179	ES
Dagger State Com 804H - Dagger State Com 804H - Da	5,400.0	5,386.6	269.6	242.8	10.047	SF
Dagger State Unit #003 - Dagger State Unit #003 - Dagg						Out of range

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	Vertical	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Minimum	Separation	Warning		
Measured Depth (usft)	Depth (usft)	Depth (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
0.0	0.0	0.0	0.0	89.62	0.4	59.8	59.8					
100.0	100.0	100.0	0.5	89.62	0.4	59.8	59.8	58.8	1.06	56.442		
200.0	200.0	200.0	1.7	89.62	0.4	59.8	59.8	56.4	3.42	17.481		
300.0	300.0	300.0	2.4	89.62	0.4	59.8	59.8	55.0	4.82	12.409		
400.0	400.0	400.0	3.0	89.62	0.4	59.8	59.8	53.9	5.91	10.130		
500.0	500.0	500.0	3.4	89.62	0.4	59.8	59.8	53.0	6.83	8.762		
600.0	600.0	600.0	3.8	89.62	0.4	59.8	59.8	52.2	7.65	7.824		
700.0	700.0	700.0	4.2	89.62	0.4	59.8	59.8	51.5	8.39	7.130		
800.0	800.0	800.0	4.5	89.62	0.4	59.8	59.8	50.8	9.08	6.588		
900.0	900.0	900.0	4.9	89.62	0.4	59.8	59.8	50.1	9.73	6.150		

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



Anticollision Report

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Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
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Reference Design:	Dagger State Com 302H - 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)			
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	89.62	0.4	59.8	59.8	49.5	10.34	5.787	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	89.62	0.4	59.8	59.8	48.9	10.92	5.479	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	89.62	0.4	59.8	59.8	48.4	11.48	5.213	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	89.62	0.4	59.8	59.8	47.8	12.01	4.981	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	89.62	0.4	59.8	59.8	47.3	12.53	4.776	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	89.62	0.4	59.8	59.8	46.8	13.03	4.592	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	89.62	0.4	59.8	59.8	46.3	13.52	4.427	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	89.62	0.4	59.8	59.8	45.9	13.99	4.278	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	89.62	0.4	59.8	59.8	45.4	14.45	4.142	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	89.62	0.4	59.8	59.8	44.9	14.90	4.017	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	89.62	0.4	59.8	59.8	44.5	15.34	3.901	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	89.62	0.4	59.8	59.8	44.1	15.77	3.795	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	89.62	0.4	59.8	59.8	43.7	16.19	3.696	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	89.62	0.4	59.8	59.8	43.2	16.61	3.603	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	89.62	0.4	59.8	59.8	42.8	17.02	3.517	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	89.62	0.4	59.8	59.8	42.4	17.42	3.436	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	89.62	0.4	59.8	59.8	42.0	17.81	3.360	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	89.62	0.4	59.8	59.8	41.6	18.20	3.288	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	89.62	0.4	59.8	59.8	41.3	18.59	3.220	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	89.62	0.4	59.8	59.8	40.9	18.96	3.156	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	89.62	0.4	59.8	59.8	40.5	19.34	3.095	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	89.62	0.4	59.8	59.8	40.1	19.71	3.036	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	89.62	0.4	59.8	59.8	39.8	20.07	2.981	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	89.62	0.4	59.8	59.8	39.4	20.44	2.928	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	89.62	0.4	59.8	59.8	39.1	20.79	2.878	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	89.62	0.4	59.8	59.8	38.7	21.15	2.830	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	89.62	0.4	59.8	59.8	38.3	21.50	2.784	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	89.62	0.4	59.8	59.8	38.0	21.85	2.739	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	89.62	0.4	59.8	59.8	37.7	22.19	2.697	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	89.62	0.4	59.8	59.8	37.3	22.53	2.656	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	89.62	0.4	59.8	59.8	37.0	22.87	2.617	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	89.62	0.4	59.8	59.8	36.6	23.21	2.579	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	89.62	0.4	59.8	59.8	36.3	23.54	2.542	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	89.62	0.4	59.8	59.8	36.0	23.87	2.507	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	89.62	0.4	59.8	59.8	35.6	24.20	2.473	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	89.62	0.4	59.8	59.8	35.3	24.53	2.440	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	89.62	0.4	59.8	59.8	35.0	24.85	2.408	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	89.62	0.4	59.8	59.8	34.7	25.17	2.378	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	89.62	0.4	59.8	59.8	34.4	25.49	2.348	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	89.62	0.4	59.8	59.8	34.0	25.81	2.319	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	89.62	0.4	59.8	59.8	33.7	26.12	2.291 CC, ES	
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	-130.44	0.4	59.8	60.4	34.0	26.37	2.291 SF	
5,200.0	5,200.0	5,200.0	5,200.0	13.2	13.4	-132.27	0.4	59.8	62.1	35.5	26.60	2.336	
5,300.0	5,299.9	5,299.4	5,299.4	13.3	13.5	-134.38	-0.4	60.3	65.5	38.7	26.77	2.447	
5,400.0	5,399.7	5,398.8	5,398.7	13.5	13.5	-135.94	-2.6	61.5	70.8	43.9	26.93	2.631	
5,500.0	5,499.4	5,498.0	5,497.9	13.6	13.6	-136.94	-6.4	63.6	78.1	51.0	27.10	2.884	
5,600.0	5,598.9	5,597.1	5,596.8	13.8	13.7	-137.46	-11.7	66.5	87.3	60.1	27.29	3.201	
5,700.0	5,698.3	5,695.9	5,695.3	13.9	13.9	-137.60	-18.4	70.2	98.4	70.9	27.49	3.580	
5,800.0	5,797.4	5,794.5	5,793.4	14.2	14.0	-137.46	-26.6	74.7	111.4	83.7	27.72	4.018	
5,900.0	5,896.3	5,893.0	5,891.3	14.4	14.1	-137.20	-36.1	79.9	126.2	98.2	27.92	4.519	
5,962.5	5,958.0	5,954.7	5,952.6	14.5	14.2	-137.23	-42.3	83.3	136.1	108.1	28.06	4.851	
6,000.0	5,995.0	5,991.7	5,989.3	14.6	14.3	-137.34	-46.0	85.3	142.2	114.1	28.14	5.054	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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									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	
6,100.0	6,093.5	6,090.3	6,087.4	14.9	14.5	-137.59	-55.8	90.7	158.5	130.1	28.43	5.575		
6,200.0	6,192.1	6,189.0	6,185.4	15.2	14.8	-137.80	-65.6	96.1	174.8	146.1	28.76	6.078		
6,300.0	6,290.7	6,287.6	6,283.4	15.5	15.0	-137.97	-75.4	101.5	191.1	162.0	29.12	6.565		
6,400.0	6,389.3	6,386.3	6,381.4	15.9	15.3	-138.11	-85.2	106.9	207.4	178.0	29.49	7.035		
6,500.0	6,487.9	6,485.0	6,479.5	16.2	15.6	-138.24	-95.0	112.3	223.8	193.9	29.88	7.488		
6,600.0	6,586.5	6,583.6	6,577.5	16.6	15.9	-138.34	-104.8	117.6	240.1	209.8	30.29	7.925		
6,700.0	6,685.1	6,682.3	6,675.5	17.0	16.2	-138.44	-114.6	123.0	256.4	225.7	30.72	8.346		
6,800.0	6,783.7	6,780.9	6,773.5	17.4	16.5	-138.52	-124.4	128.4	272.7	241.5	31.17	8.750		
6,900.0	6,882.3	6,879.6	6,871.6	17.8	16.8	-138.59	-134.2	133.8	289.0	257.4	31.63	9.137		
7,000.0	6,980.9	6,978.3	6,969.6	18.3	17.2	-138.65	-144.0	139.2	305.3	273.2	32.11	9.509		
7,100.0	7,079.5	7,076.9	7,067.6	18.7	17.5	-138.71	-153.8	144.6	321.6	289.0	32.60	9.866		
7,200.0	7,178.1	7,175.6	7,165.6	19.2	17.9	-138.77	-163.6	150.0	337.9	304.8	33.11	10.207		
7,300.0	7,276.7	7,274.2	7,263.7	19.6	18.3	-138.81	-173.4	155.4	354.3	320.6	33.63	10.534		
7,400.0	7,375.2	7,372.9	7,361.7	20.1	18.7	-138.86	-183.2	160.8	370.6	336.4	34.16	10.847		
7,500.0	7,473.8	7,471.6	7,459.7	20.6	19.1	-138.90	-193.1	166.1	386.9	352.2	34.71	11.147		
7,600.0	7,572.4	7,570.2	7,557.7	21.1	19.5	-138.93	-202.9	171.5	403.2	367.9	35.26	11.433		
7,700.0	7,671.0	7,668.9	7,655.7	21.6	19.9	-138.97	-212.7	176.9	419.5	383.7	35.83	11.707		
7,800.0	7,769.6	7,767.5	7,753.8	22.1	20.4	-139.00	-222.5	182.3	435.8	399.4	36.41	11.969		
7,900.0	7,868.2	7,866.2	7,851.8	22.6	20.8	-139.03	-232.3	187.7	452.1	415.1	37.00	12.220		
8,000.0	7,966.8	7,964.9	7,949.8	23.1	21.2	-139.05	-242.1	193.1	468.5	430.9	37.60	12.460		
8,100.0	8,065.4	8,063.5	8,047.8	23.6	21.7	-139.08	-251.9	198.5	484.8	446.6	38.21	12.689		
8,200.0	8,164.0	8,162.2	8,145.9	24.2	22.1	-139.10	-261.7	203.9	501.1	462.3	38.82	12.908		
8,300.0	8,262.6	8,260.8	8,243.9	24.7	22.6	-139.12	-271.5	209.2	517.4	478.0	39.44	13.117		
8,400.0	8,361.2	8,359.5	8,341.9	25.2	23.0	-139.15	-281.3	214.6	533.7	493.6	40.08	13.318		
8,482.0	8,442.0	8,440.4	8,422.3	25.7	23.4	-139.16	-289.4	219.0	547.1	506.5	40.59	13.479		
8,500.0	8,459.8	8,458.2	8,439.9	25.8	23.5	-139.18	-291.1	220.0	550.0	509.3	40.70	13.515		
8,600.0	8,558.5	8,557.0	8,538.1	26.3	24.0	-139.22	-300.9	225.4	565.4	524.1	41.32	13.685		
8,700.0	8,657.6	8,655.9	8,636.4	26.8	24.5	-139.14	-310.8	230.8	579.6	537.6	41.94	13.819		
8,800.0	8,756.8	8,755.1	8,734.9	27.3	24.9	-138.95	-320.6	236.2	592.4	549.8	42.54	13.924		
8,900.0	8,856.3	8,854.3	8,833.5	27.8	25.4	-138.66	-330.5	241.7	603.9	560.8	43.13	14.001		
9,000.0	8,955.9	8,953.7	8,932.3	28.3	25.9	-138.26	-340.4	247.1	614.2	570.5	43.70	14.053		
9,100.0	9,055.7	9,053.1	9,031.0	28.8	26.4	-137.76	-350.3	252.5	623.2	579.0	44.25	14.083		
9,200.0	9,155.6	9,152.5	9,129.8	29.2	26.9	-137.16	-360.1	257.9	631.0	586.2	44.78	14.092		
9,300.0	9,255.5	9,252.0	9,228.6	29.6	27.4	-136.46	-370.0	263.4	637.6	592.4	45.28	14.084		
9,400.0	9,355.5	9,351.4	9,327.4	29.9	27.9	-135.66	-379.9	268.8	643.1	597.4	45.73	14.064		
9,444.5	9,400.0	9,395.6	9,371.3	30.0	28.1	84.15	-384.3	271.2	645.2	599.3	45.87	14.067		
9,500.0	9,455.5	9,450.7	9,426.1	30.0	28.4	84.66	-389.8	274.2	647.7	601.7	46.01	14.077		
9,577.0	9,532.5	9,527.3	9,502.2	30.1	28.8	85.36	-397.4	278.4	651.2	605.0	46.23	14.088		
9,600.0	9,555.5	9,550.0	9,524.8	30.0	28.9	85.95	-399.6	279.7	652.3	606.0	46.28	14.094		
9,625.0	9,580.4	9,574.6	9,549.2	30.0	29.1	86.21	-402.1	281.0	653.3	607.0	46.33	14.102		
9,650.0	9,605.2	9,598.9	9,573.3	29.9	29.2	86.57	-404.5	282.3	654.4	608.0	46.37	14.111		
9,675.0	9,629.8	9,622.9	9,597.2	29.8	29.3	87.03	-406.9	283.6	655.4	608.9	46.41	14.120		
9,700.0	9,654.1	9,646.5	9,620.6	29.7	29.4	87.59	-409.2	284.9	656.4	609.9	46.45	14.131		
9,725.0	9,678.1	9,669.7	9,643.6	29.6	29.5	88.22	-411.5	286.2	657.5	611.0	46.49	14.143		
9,750.0	9,701.7	9,692.3	9,666.1	29.5	29.7	88.91	-413.8	287.4	658.7	612.1	46.52	14.158		
9,775.0	9,724.9	9,714.3	9,688.0	29.4	29.8	89.64	-416.0	288.6	660.0	613.5	46.56	14.176		
9,800.0	9,747.5	9,735.7	9,709.3	29.4	29.9	90.41	-418.1	289.8	661.6	615.0	46.60	14.198		
9,825.0	9,769.5	9,756.4	9,729.8	29.3	30.0	91.19	-420.2	290.9	663.4	616.8	46.64	14.224		
9,850.0	9,790.9	9,776.4	9,749.6	29.2	30.1	91.96	-422.1	292.0	665.6	619.0	46.69	14.256		
9,875.0	9,811.5	9,796.8	9,769.9	29.1	30.2	92.77	-424.1	293.1	668.2	621.5	46.75	14.295		
9,900.0	9,831.4	9,816.5	9,789.5	29.0	30.3	93.55	-426.0	294.1	671.2	624.4	46.81	14.338		
9,925.0	9,850.5	9,835.3	9,808.2	28.9	30.4	94.27	-427.7	295.1	674.7	627.8	46.89	14.389		

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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	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	
9,950.0	9,868.7	9,853.1	9,826.0	28.8	30.5	94.92	-429.3	296.0	678.7	631.8	46.98	14.449		
9,975.0	9,886.0	9,870.1	9,842.8	28.7	30.5	95.48	-430.8	296.8	683.3	636.3	47.07	14.517		
10,000.0	9,902.3	9,886.0	9,858.6	28.7	30.6	95.92	-432.1	297.5	688.6	641.4	47.17	14.597		
10,025.0	9,917.6	9,900.8	9,873.4	28.6	30.7	96.24	-433.3	298.2	694.5	647.2	47.29	14.688		
10,050.0	9,931.9	9,914.5	9,887.1	28.6	30.8	96.42	-434.4	298.8	701.2	653.8	47.40	14.791		
10,075.0	9,945.0	9,927.1	9,899.6	28.5	30.8	96.43	-435.4	299.3	708.5	661.0	47.53	14.908		
10,100.0	9,957.0	9,938.4	9,910.9	28.5	30.9	96.28	-436.3	299.8	716.7	669.0	47.66	15.037		
10,125.0	9,967.9	9,948.6	9,921.0	28.5	30.9	95.93	-437.0	300.2	725.6	677.8	47.80	15.180		
10,150.0	9,977.5	9,957.4	9,929.8	28.4	31.0	95.39	-437.7	300.5	735.2	687.3	47.94	15.337		
10,175.0	9,986.0	9,964.9	9,937.3	28.4	31.0	94.64	-438.2	300.8	745.6	697.5	48.08	15.507		
10,200.0	9,993.2	9,971.0	9,943.4	28.4	31.0	93.66	-438.6	301.1	756.7	708.5	48.22	15.691		
10,225.0	9,999.1	9,975.8	9,948.1	28.4	31.1	92.45	-439.0	301.3	768.5	720.1	48.37	15.888		
10,250.0	10,003.8	9,979.1	9,951.5	28.5	31.1	91.01	-439.2	301.4	780.9	732.4	48.51	16.097		
10,275.0	10,007.2	9,981.0	9,953.3	28.5	31.1	89.33	-439.3	301.4	794.0	745.3	48.66	16.319		
10,300.0	10,009.2	9,981.4	9,953.7	28.6	31.1	87.42	-439.3	301.5	807.6	758.8	48.80	16.551		
10,327.0	10,010.0	9,980.2	9,952.5	28.6	31.1	85.10	-439.3	301.4	822.9	773.9	48.94	16.813		
10,400.0	10,010.0	9,974.3	9,946.7	28.8	31.1	84.61	-438.9	301.2	866.8	817.4	49.35	17.563		
10,500.0	10,010.0	9,966.1	9,938.4	29.2	31.0	83.91	-438.3	300.9	932.8	882.9	49.94	18.678		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - 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	88.92	0.6	29.9	29.9					
100.0	100.0	100.0	100.0	0.5	0.5	88.92	0.6	29.9	29.9	28.9	1.06	28.223		
200.0	200.0	200.0	200.0	1.7	1.7	88.92	0.6	29.9	29.9	26.5	3.42	8.741		
300.0	300.0	300.0	300.0	2.4	2.4	88.92	0.6	29.9	29.9	25.1	4.82	6.205		
400.0	400.0	400.0	400.0	3.0	3.0	88.92	0.6	29.9	29.9	24.0	5.91	5.065		
500.0	500.0	500.0	500.0	3.4	3.4	88.92	0.6	29.9	29.9	23.1	6.83	4.381		
600.0	600.0	600.0	600.0	3.8	3.8	88.92	0.6	29.9	29.9	22.3	7.65	3.912		
700.0	700.0	700.0	700.0	4.2	4.2	88.92	0.6	29.9	29.9	21.5	8.39	3.565		
800.0	800.0	800.0	800.0	4.5	4.5	88.92	0.6	29.9	29.9	20.8	9.08	3.294		
900.0	900.0	900.0	900.0	4.9	4.9	88.92	0.6	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	88.92	0.6	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	88.92	0.6	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	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	88.92	0.6	29.9	29.9	4.1	25.81	1.159 Level 3		
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	88.92	0.6	29.9	29.9	3.8	26.12	1.145 Level 3, CC, ES, SF		
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	-131.75	0.6	29.9	30.5	4.1	26.37	1.156 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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - 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	
5,200.0	5,200.0	5,200.0	5,200.0	13.2	13.4	-135.20	0.6	29.9	32.3	5.7	26.60	1.214	Level 3
5,300.0	5,299.9	5,300.2	5,300.2	13.3	13.5	-138.98	-0.2	29.6	35.0	8.3	26.77	1.309	Level 3
5,400.0	5,399.7	5,400.5	5,400.5	13.5	13.5	-141.70	-2.6	28.5	38.2	11.3	26.93	1.420	Level 3
5,500.0	5,499.4	5,500.9	5,500.7	13.6	13.6	-143.52	-6.7	26.7	41.8	14.7	27.11	1.543	
5,600.0	5,598.9	5,601.3	5,600.9	13.8	13.7	-144.61	-12.3	24.2	45.8	18.5	27.32	1.676	
5,700.0	5,698.3	5,701.7	5,701.1	13.9	13.9	-145.11	-19.5	21.0	50.1	22.5	27.56	1.817	
5,800.0	5,797.4	5,802.2	5,801.1	14.2	14.0	-145.16	-28.3	17.1	54.6	26.8	27.82	1.964	
5,900.0	5,896.3	5,902.6	5,900.9	14.4	14.2	-144.87	-38.7	12.4	59.5	31.5	28.10	2.119	
5,962.5	5,958.0	5,965.1	5,962.8	14.5	14.3	-144.86	-45.6	9.4	63.1	34.8	28.27	2.231	
6,000.0	5,995.0	6,002.5	6,000.0	14.6	14.3	-144.97	-49.7	7.6	65.3	37.0	28.37	2.303	
6,100.0	6,093.5	6,102.3	6,099.1	14.9	14.6	-145.23	-60.7	2.7	71.4	42.7	28.73	2.485	
6,200.0	6,192.1	6,202.1	6,198.2	15.2	14.8	-145.45	-71.7	-2.2	77.5	48.3	29.14	2.658	
6,300.0	6,290.7	6,301.9	6,297.2	15.5	15.1	-145.64	-82.7	-7.1	83.5	53.9	29.57	2.824	
6,400.0	6,389.3	6,401.7	6,396.3	15.9	15.3	-145.80	-93.7	-12.0	89.6	59.5	30.04	2.982	
6,500.0	6,487.9	6,501.5	6,495.4	16.2	15.6	-145.94	-104.7	-16.9	95.6	65.1	30.53	3.133	
6,600.0	6,586.5	6,601.4	6,594.5	16.6	15.9	-146.07	-115.7	-21.7	101.7	70.7	31.05	3.276	
6,700.0	6,685.1	6,701.2	6,693.6	17.0	16.3	-146.18	-126.7	-26.6	107.8	76.2	31.59	3.412	
6,800.0	6,783.7	6,801.0	6,792.7	17.4	16.6	-146.28	-137.7	-31.5	113.8	81.7	32.16	3.540	
6,900.0	6,882.3	6,900.8	6,891.8	17.8	17.0	-146.37	-148.7	-36.4	119.9	87.2	32.75	3.662	
7,000.0	6,980.9	7,000.6	6,990.9	18.3	17.3	-146.45	-159.6	-41.3	126.0	92.6	33.35	3.777	
7,100.0	7,079.5	7,100.4	7,089.9	18.7	17.7	-146.52	-170.6	-46.2	132.0	98.1	33.98	3.886	
7,200.0	7,178.1	7,200.2	7,189.0	19.2	18.1	-146.59	-181.6	-51.1	138.1	103.5	34.63	3.988	
7,300.0	7,276.7	7,300.1	7,288.1	19.6	18.5	-146.65	-192.6	-55.9	144.2	108.9	35.30	4.085	
7,400.0	7,375.2	7,399.9	7,387.2	20.1	18.9	-146.70	-203.6	-60.8	150.2	114.3	35.98	4.176	
7,500.0	7,473.8	7,499.7	7,486.3	20.6	19.3	-146.75	-214.6	-65.7	156.3	119.6	36.67	4.262	
7,600.0	7,572.4	7,599.5	7,585.4	21.1	19.7	-146.80	-225.6	-70.6	162.4	125.0	37.39	4.343	
7,700.0	7,671.0	7,699.3	7,684.5	21.6	20.2	-146.85	-236.6	-75.5	168.4	130.3	38.11	4.420	
7,800.0	7,769.6	7,799.1	7,783.6	22.1	20.6	-146.89	-247.6	-80.4	174.5	135.7	38.85	4.492	
7,900.0	7,868.2	7,899.0	7,882.7	22.6	21.0	-146.93	-258.6	-85.2	180.6	141.0	39.60	4.560	
8,000.0	7,966.8	7,998.8	7,981.7	23.1	21.5	-146.96	-269.6	-90.1	186.7	146.3	40.37	4.624	
8,100.0	8,065.4	8,098.6	8,080.8	23.6	22.0	-147.00	-280.5	-95.0	192.7	151.6	41.14	4.685	
8,200.0	8,164.0	8,198.4	8,179.9	24.2	22.4	-147.03	-291.5	-99.9	198.8	156.9	41.93	4.742	
8,300.0	8,262.6	8,298.2	8,279.0	24.7	22.9	-147.06	-302.5	-104.8	204.9	162.1	42.72	4.795	
8,400.0	8,361.2	8,398.0	8,378.1	25.2	23.4	-147.09	-313.5	-109.7	210.9	167.4	43.52	4.846	
8,482.0	8,442.0	8,479.9	8,459.3	25.7	23.8	-147.11	-322.5	-113.7	215.9	171.7	44.18	4.887	
8,500.0	8,459.8	8,497.9	8,477.2	25.8	23.9	-147.11	-324.5	-114.6	217.0	172.7	44.32	4.896	
8,600.0	8,558.5	8,597.7	8,576.3	26.3	24.3	-147.00	-335.5	-119.4	222.0	177.0	45.08	4.925	
8,700.0	8,657.6	8,697.6	8,675.5	26.8	24.8	-146.64	-346.5	-124.3	225.7	179.9	45.79	4.929	
8,800.0	8,756.8	8,797.6	8,774.7	27.3	25.3	-146.05	-357.5	-129.2	227.8	181.4	46.41	4.909	
8,900.0	8,856.3	8,897.5	8,874.0	27.8	25.8	-145.21	-368.5	-134.1	228.6	181.7	46.95	4.869	
9,000.0	8,955.9	8,997.4	8,973.1	28.3	26.3	-144.11	-379.5	-139.0	228.0	180.6	47.39	4.812	
9,100.0	9,055.7	9,097.3	9,072.2	28.8	26.8	-142.73	-390.5	-143.9	226.1	178.4	47.70	4.740	
9,200.0	9,155.6	9,197.0	9,171.2	29.2	27.3	-141.05	-401.5	-148.8	223.0	175.1	47.86	4.658	
9,300.0	9,255.5	9,296.4	9,269.9	29.6	27.8	-139.02	-412.4	-153.6	218.7	170.9	47.83	4.572	
9,400.0	9,355.5	9,394.0	9,366.9	29.9	28.3	-136.87	-422.2	-158.0	214.0	166.3	47.65	4.491	
9,444.5	9,400.0	9,437.4	9,410.1	30.0	28.5	83.53	-426.1	-159.7	211.9	164.4	47.49	4.462	
9,500.0	9,455.5	9,491.7	9,464.2	30.0	28.8	84.67	-430.6	-161.7	209.4	162.1	47.26	4.431	
9,577.0	9,532.5	9,567.2	9,539.5	30.1	29.2	86.10	-436.0	-164.1	206.5	159.5	46.98	4.395	
9,600.0	9,555.5	9,589.7	9,561.9	30.0	29.3	87.19	-437.4	-164.7	205.7	158.9	46.85	4.391	
9,625.0	9,580.4	9,614.1	9,586.2	30.0	29.4	88.19	-438.9	-165.4	204.9	158.3	46.59	4.398	
9,650.0	9,605.2	9,638.2	9,610.4	29.9	29.5	89.51	-440.2	-166.0	204.2	158.0	46.21	4.419	
9,675.0	9,629.8	9,662.2	9,634.3	29.8	29.6	91.12	-441.5	-166.5	203.6	157.9	45.71	4.454	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - 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	
9,700.0	9,654.1	9,685.9	9,658.0	29.7	29.7	93.00	-442.6	-167.1	203.3	158.2	45.12	4.505	
9,708.7	9,662.5	9,694.1	9,666.1	29.7	29.7	93.72	-443.0	-167.2	203.3	158.4	44.90	4.527	
9,725.0	9,678.1	9,709.3	9,681.3	29.6	29.8	95.12	-443.7	-167.5	203.4	158.9	44.45	4.575	
9,750.0	9,701.7	9,732.3	9,704.3	29.5	29.9	97.43	-444.6	-167.9	203.9	160.2	43.71	4.666	
9,775.0	9,724.9	9,754.8	9,726.8	29.4	30.0	99.88	-445.5	-168.3	205.2	162.2	42.94	4.779	
9,800.0	9,747.5	9,776.9	9,748.8	29.4	30.1	102.41	-446.2	-168.6	207.2	165.1	42.18	4.913	
9,825.0	9,769.5	9,798.4	9,770.3	29.3	30.1	104.97	-446.9	-168.9	210.3	168.8	41.48	5.069	
9,850.0	9,790.9	9,819.3	9,791.3	29.2	30.2	107.49	-447.4	-169.2	214.4	173.5	40.87	5.245	
9,875.0	9,811.5	9,839.6	9,811.6	29.1	30.3	109.91	-447.9	-169.4	219.7	179.3	40.40	5.437	
9,900.0	9,831.4	9,859.2	9,831.2	29.0	30.4	112.19	-448.3	-169.6	226.3	186.2	40.10	5.643	
9,925.0	9,850.5	9,878.1	9,850.0	28.9	30.4	114.28	-448.6	-169.7	234.3	194.3	39.98	5.860	
9,950.0	9,868.7	9,896.2	9,868.1	28.8	30.5	116.14	-448.9	-169.8	243.6	203.6	40.03	6.087	
9,975.0	9,886.0	9,913.4	9,885.3	28.7	30.5	117.73	-449.1	-169.9	254.4	214.2	40.23	6.325	
10,000.0	9,902.3	9,929.7	9,901.6	28.7	30.6	119.03	-449.2	-170.0	266.6	226.0	40.55	6.574	
10,025.0	9,917.6	9,945.1	9,917.1	28.6	30.6	120.02	-449.3	-170.0	280.1	239.1	40.97	6.837	
10,050.0	9,931.9	9,959.6	9,931.5	28.6	30.6	120.66	-449.4	-170.1	294.9	253.4	41.45	7.113	
10,075.0	9,945.0	9,973.0	9,944.9	28.5	30.6	120.93	-449.4	-170.1	310.8	268.9	41.97	7.406	
10,100.0	9,957.0	9,985.1	9,957.0	28.5	30.6	120.76	-449.4	-170.1	327.9	285.4	42.50	7.715	
10,125.0	9,967.9	9,996.0	9,967.9	28.5	30.6	120.12	-449.4	-170.1	346.0	303.0	43.03	8.041	
10,150.0	9,977.5	10,005.6	9,977.5	28.4	30.6	118.97	-449.4	-170.1	365.1	321.5	43.55	8.383	
10,175.0	9,986.0	10,014.1	9,986.0	28.4	30.6	117.26	-449.4	-170.1	385.0	340.9	44.05	8.739	
10,200.0	9,993.2	10,021.3	9,993.2	28.4	30.6	114.90	-449.4	-170.1	405.6	361.1	44.53	9.110	
10,225.0	9,999.1	10,027.2	9,999.1	28.4	30.7	111.81	-449.4	-170.1	426.9	382.0	44.98	9.493	
10,250.0	10,003.8	10,031.9	10,003.8	28.5	30.7	107.90	-449.4	-170.1	448.8	403.4	45.39	9.887	
10,275.0	10,007.2	10,035.3	10,007.2	28.5	30.7	103.07	-449.4	-170.1	471.1	425.3	45.78	10.290	
10,300.0	10,009.2	10,037.3	10,009.2	28.6	30.7	97.29	-449.4	-170.1	493.8	447.6	46.15	10.700	
10,327.0	10,010.0	10,038.1	10,010.0	28.6	30.7	90.00	-449.4	-170.1	518.6	472.1	46.51	11.150	
10,400.0	10,010.0	10,954.4	10,550.0	28.8	29.7	173.56	113.8	-313.6	543.6	484.1	59.48	9.138	
10,500.0	10,010.0	11,050.8	10,550.0	29.2	30.2	175.49	208.3	-332.8	541.7	481.7	59.98	9.031	
10,600.0	10,010.0	11,148.4	10,550.0	29.7	30.8	177.12	304.5	-348.9	540.7	480.2	60.54	8.931	
10,700.0	10,010.0	11,246.9	10,550.0	30.2	31.4	178.42	402.1	-361.9	540.2	479.0	61.17	8.831	
10,800.0	10,010.0	11,346.1	10,550.0	30.9	32.2	179.36	500.9	-371.6	540.0	478.1	61.91	8.722	
10,900.0	10,010.0	11,445.9	10,550.0	31.6	33.0	179.94	600.4	-377.9	540.0	477.2	62.78	8.602	
10,915.7	10,010.0	11,461.5	10,550.0	31.7	33.1	180.00	616.1	-378.6	540.0	477.1	62.93	8.582	
11,000.0	10,010.0	11,545.9	10,550.0	32.5	33.9	-179.84	700.4	-380.8	540.0	476.2	63.76	8.469	
11,100.0	10,010.0	11,645.9	10,550.0	33.4	34.7	-179.84	800.4	-381.6	540.0	475.2	64.85	8.327	
11,200.0	10,010.0	11,745.9	10,550.0	34.5	35.7	-179.85	900.4	-382.3	540.0	474.0	65.99	8.183	
11,300.0	10,010.0	11,845.9	10,550.0	35.6	36.8	-179.85	1,000.4	-383.1	540.0	472.8	67.19	8.037	
11,400.0	10,010.0	11,945.9	10,550.0	36.9	38.0	-179.85	1,100.4	-383.9	540.0	471.6	68.44	7.891	
11,500.0	10,010.0	12,045.9	10,550.0	38.2	39.3	-179.85	1,200.4	-384.7	540.0	470.3	69.73	7.744	
11,600.0	10,010.0	12,145.9	10,550.0	39.6	40.6	-179.86	1,300.4	-385.5	540.0	468.9	71.07	7.599	
11,700.0	10,010.0	12,245.9	10,550.0	41.0	42.0	-179.86	1,400.3	-386.3	540.0	467.6	72.44	7.454	
11,800.0	10,010.0	12,345.9	10,550.0	42.5	43.5	-179.86	1,500.3	-387.1	540.0	466.1	73.86	7.311	
11,900.0	10,010.0	12,445.9	10,550.0	44.0	45.1	-179.86	1,600.3	-387.8	540.0	464.7	75.32	7.170	
12,000.0	10,010.0	12,545.9	10,550.0	45.6	46.6	-179.86	1,700.3	-388.6	540.0	463.2	76.81	7.031	
12,100.0	10,010.0	12,645.9	10,550.0	47.3	48.3	-179.87	1,800.3	-389.4	540.0	461.7	78.33	6.894	
12,200.0	10,010.0	12,745.9	10,550.0	48.9	49.9	-179.87	1,900.3	-390.2	540.0	460.1	79.88	6.760	
12,300.0	10,010.0	12,845.9	10,550.0	50.6	51.6	-179.87	2,000.3	-391.0	540.0	458.5	81.46	6.629	
12,400.0	10,010.0	12,945.9	10,550.0	52.3	53.3	-179.87	2,100.3	-391.8	540.0	456.9	83.08	6.500	
12,500.0	10,010.0	13,045.9	10,550.0	54.1	55.0	-179.88	2,200.3	-392.6	540.0	455.3	84.71	6.375	
12,600.0	10,010.0	13,145.9	10,550.0	55.9	56.8	-179.88	2,300.3	-393.3	540.0	453.6	86.37	6.252	
12,700.0	10,010.0	13,245.9	10,550.0	57.6	58.6	-179.88	2,400.3	-394.1	540.0	451.9	88.06	6.132	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - 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	
12,800.0	10,010.0	13,345.9	10,550.0	59.4	60.4	-179.88	2,500.3	-394.9	540.0	450.2	89.76	6.016	
12,900.0	10,010.0	13,445.9	10,550.0	61.2	62.2	-179.88	2,600.3	-395.7	540.0	448.5	91.49	5.902	
13,000.0	10,010.0	13,545.9	10,550.0	63.1	64.0	-179.89	2,700.3	-396.5	540.0	446.8	93.23	5.792	
13,100.0	10,010.0	13,645.9	10,550.0	64.9	65.9	-179.89	2,800.3	-397.3	540.0	445.0	95.00	5.684	
13,200.0	10,010.0	13,745.9	10,550.0	66.8	67.7	-179.89	2,900.3	-398.1	540.0	443.2	96.78	5.580	
13,300.0	10,010.0	13,845.9	10,550.0	68.6	69.6	-179.89	3,000.3	-398.8	540.0	441.4	98.58	5.478	
13,400.0	10,010.0	13,945.9	10,550.0	70.5	71.4	-179.90	3,100.3	-399.6	540.0	439.6	100.39	5.379	
13,500.0	10,010.0	14,045.9	10,550.0	72.4	73.3	-179.90	3,200.3	-400.4	540.0	437.8	102.22	5.283	
13,600.0	10,010.0	14,145.9	10,550.0	74.3	75.2	-179.90	3,300.3	-401.2	540.0	435.9	104.06	5.189	
13,700.0	10,010.0	14,245.9	10,550.0	76.2	77.1	-179.90	3,400.3	-402.0	540.0	434.1	105.92	5.098	
13,800.0	10,010.0	14,345.9	10,550.0	78.1	79.0	-179.90	3,500.3	-402.8	540.0	432.2	107.79	5.010	
13,900.0	10,010.0	14,445.9	10,550.0	80.0	80.9	-179.91	3,600.3	-403.6	540.0	430.3	109.67	4.924	
14,000.0	10,010.0	14,545.9	10,550.0	81.9	82.8	-179.91	3,700.3	-404.3	540.0	428.4	111.56	4.840	
14,100.0	10,010.0	14,645.9	10,550.0	83.8	84.7	-179.91	3,800.3	-405.1	540.0	426.5	113.46	4.759	
14,200.0	10,010.0	14,745.9	10,550.0	85.7	86.7	-179.91	3,900.3	-405.9	540.0	424.6	115.38	4.680	
14,300.0	10,010.0	14,845.9	10,550.0	87.6	88.6	-179.92	4,000.3	-406.7	540.0	422.7	117.30	4.604	
14,400.0	10,010.0	14,945.9	10,550.0	89.6	90.5	-179.92	4,100.3	-407.5	540.0	420.8	119.23	4.529	
14,500.0	10,010.0	15,045.9	10,550.0	91.5	92.5	-179.92	4,200.3	-408.3	540.0	418.8	121.17	4.457	
14,600.0	10,010.0	15,145.9	10,550.0	93.5	94.4	-179.92	4,300.3	-409.1	540.0	416.9	123.12	4.386	
14,700.0	10,010.0	15,245.9	10,550.0	95.4	96.4	-179.92	4,400.3	-409.8	540.0	414.9	125.07	4.317	
14,800.0	10,010.0	15,345.9	10,550.0	97.3	98.3	-179.93	4,500.3	-410.6	540.0	413.0	127.04	4.251	
14,900.0	10,010.0	15,445.9	10,550.0	99.3	100.2	-179.93	4,600.3	-411.4	540.0	411.0	129.01	4.186	
15,000.0	10,010.0	15,545.9	10,550.0	101.2	102.2	-179.93	4,700.2	-412.2	540.0	409.0	130.99	4.122	
15,100.0	10,010.0	15,645.9	10,550.0	103.2	104.2	-179.93	4,800.2	-413.0	540.0	407.0	132.97	4.061	
15,200.0	10,010.0	15,745.9	10,550.0	105.2	106.1	-179.94	4,900.2	-413.8	540.0	405.0	134.97	4.001	
15,300.0	10,010.0	15,845.9	10,550.0	107.1	108.1	-179.94	5,000.2	-414.6	540.0	403.0	136.96	3.943	
15,400.0	10,010.0	15,945.9	10,550.0	109.1	110.0	-179.94	5,100.2	-415.3	540.0	401.0	138.97	3.886	
15,500.0	10,010.0	16,045.9	10,550.0	111.0	112.0	-179.94	5,200.2	-416.1	540.0	399.0	140.98	3.830	
15,600.0	10,010.0	16,145.9	10,550.0	113.0	114.0	-179.94	5,300.2	-416.9	540.0	397.0	142.99	3.776	
15,700.0	10,010.0	16,245.9	10,550.0	115.0	115.9	-179.95	5,400.2	-417.7	540.0	395.0	145.01	3.724	
15,800.0	10,010.0	16,345.9	10,550.0	116.9	117.9	-179.95	5,500.2	-418.5	540.0	393.0	147.03	3.673	
15,900.0	10,010.0	16,445.9	10,550.0	118.9	119.9	-179.95	5,600.2	-419.3	540.0	390.9	149.06	3.623	
16,000.0	10,010.0	16,545.9	10,550.0	120.9	121.8	-179.95	5,700.2	-420.1	540.0	388.9	151.10	3.574	
16,100.0	10,010.0	16,645.9	10,550.0	122.9	123.8	-179.96	5,800.2	-420.8	540.0	386.9	153.13	3.526	
16,200.0	10,010.0	16,745.9	10,550.0	124.8	125.8	-179.96	5,900.2	-421.6	540.0	384.8	155.18	3.480	
16,300.0	10,010.0	16,845.9	10,550.0	126.8	127.8	-179.96	6,000.2	-422.4	540.0	382.8	157.22	3.435	
16,400.0	10,010.0	16,945.9	10,550.0	128.8	129.7	-179.96	6,100.2	-423.2	540.0	380.7	159.27	3.390	
16,500.0	10,010.0	17,045.9	10,550.0	130.8	131.7	-179.96	6,200.2	-424.0	540.0	378.7	161.33	3.347	
16,600.0	10,010.0	17,145.9	10,550.0	132.7	133.7	-179.97	6,300.2	-424.8	540.0	376.6	163.38	3.305	
16,700.0	10,010.0	17,245.9	10,550.0	134.7	135.7	-179.97	6,400.2	-425.6	540.0	374.6	165.44	3.264	
16,800.0	10,010.0	17,345.9	10,550.0	136.7	137.7	-179.97	6,500.2	-426.3	540.0	372.5	167.51	3.224	
16,900.0	10,010.0	17,445.9	10,550.0	138.7	139.7	-179.97	6,600.2	-427.1	540.0	370.4	169.57	3.184	
17,000.0	10,010.0	17,545.9	10,550.0	140.7	141.6	-179.98	6,700.2	-427.9	540.0	368.4	171.64	3.146	
17,100.0	10,010.0	17,645.9	10,550.0	142.7	143.6	-179.98	6,800.2	-428.7	540.0	366.3	173.72	3.108	
17,200.0	10,010.0	17,745.9	10,550.0	144.6	145.6	-179.98	6,900.2	-429.5	540.0	364.2	175.79	3.072	
17,300.0	10,010.0	17,845.9	10,550.0	146.6	147.6	-179.98	7,000.2	-430.3	540.0	362.1	177.87	3.036	
17,400.0	10,010.0	17,945.9	10,550.0	148.6	149.6	-179.98	7,100.2	-431.1	540.0	360.0	179.95	3.001	
17,500.0	10,010.0	18,045.9	10,550.0	150.6	151.6	-179.99	7,200.2	-431.8	540.0	358.0	182.04	2.966	
17,600.0	10,010.0	18,145.9	10,550.0	152.6	153.6	-179.99	7,300.2	-432.6	540.0	355.9	184.12	2.933	
17,700.0	10,010.0	18,245.9	10,550.0	154.6	155.6	-179.99	7,400.2	-433.4	540.0	353.8	186.21	2.900	
17,800.0	10,010.0	18,345.9	10,550.0	156.6	157.5	-179.99	7,500.2	-434.2	540.0	351.7	188.30	2.868	
17,900.0	10,010.0	18,445.9	10,550.0	158.6	159.5	-180.00	7,600.2	-435.0	540.0	349.6	190.40	2.836	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - 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		
18,000.0	10,010.0	18,545.9	10,550.0	160.6	161.5	-180.00	7,700.2	-435.8	540.0	347.5	192.49	2.805		
18,100.0	10,010.0	18,645.9	10,550.0	162.5	163.5	-180.00	7,800.2	-436.6	540.0	345.4	194.59	2.775		
18,125.3	10,010.0	18,671.2	10,550.0	163.1	164.0	180.00	7,825.5	-436.8	540.0	344.9	195.12	2.768		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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		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	89.62	0.6	89.8	89.8				
100.0	100.0	100.0	100.0	0.5	0.5	89.62	0.6	89.8	89.8	88.7	1.06	84.663	
200.0	200.0	200.0	200.0	1.7	1.7	89.62	0.6	89.8	89.8	86.3	3.42	26.221	
300.0	300.0	300.0	300.0	2.4	2.4	89.62	0.6	89.8	89.8	84.9	4.82	18.613	
400.0	400.0	400.0	400.0	3.0	3.0	89.62	0.6	89.8	89.8	83.9	5.91	15.194	
500.0	500.0	500.0	500.0	3.4	3.4	89.62	0.6	89.8	89.8	82.9	6.83	13.143	
600.0	600.0	600.0	600.0	3.8	3.8	89.62	0.6	89.8	89.8	82.1	7.65	11.736	
700.0	700.0	700.0	700.0	4.2	4.2	89.62	0.6	89.8	89.8	81.4	8.39	10.694	
800.0	800.0	800.0	800.0	4.5	4.5	89.62	0.6	89.8	89.8	80.7	9.08	9.882	
900.0	900.0	900.0	900.0	4.9	4.9	89.62	0.6	89.8	89.8	80.0	9.73	9.226	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	89.62	0.6	89.8	89.8	79.4	10.34	8.681	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	89.62	0.6	89.8	89.8	78.8	10.92	8.218	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	89.62	0.6	89.8	89.8	78.3	11.48	7.820	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	89.62	0.6	89.8	89.8	77.8	12.01	7.471	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	89.62	0.6	89.8	89.8	77.2	12.53	7.163	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	89.62	0.6	89.8	89.8	76.7	13.03	6.889	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	89.62	0.6	89.8	89.8	76.3	13.52	6.641	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	89.62	0.6	89.8	89.8	75.8	13.99	6.417	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	89.62	0.6	89.8	89.8	75.3	14.45	6.212	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	89.62	0.6	89.8	89.8	74.9	14.90	6.025	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	89.62	0.6	89.8	89.8	74.4	15.34	5.852	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	89.62	0.6	89.8	89.8	74.0	15.77	5.692	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	89.62	0.6	89.8	89.8	73.6	16.19	5.544	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	89.62	0.6	89.8	89.8	73.2	16.61	5.405	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	89.62	0.6	89.8	89.8	72.8	17.02	5.276	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	89.62	0.6	89.8	89.8	72.4	17.42	5.154	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	89.62	0.6	89.8	89.8	72.0	17.81	5.040	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	89.62	0.6	89.8	89.8	71.6	18.20	4.932	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	89.62	0.6	89.8	89.8	71.2	18.59	4.830	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	89.62	0.6	89.8	89.8	70.8	18.96	4.733	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	89.62	0.6	89.8	89.8	70.4	19.34	4.642	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	89.62	0.6	89.8	89.8	70.1	19.71	4.555	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	89.62	0.6	89.8	89.8	69.7	20.07	4.472	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	89.62	0.6	89.8	89.8	69.3	20.44	4.393	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	89.62	0.6	89.8	89.8	69.0	20.79	4.317	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	89.62	0.6	89.8	89.8	68.6	21.15	4.245	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	89.62	0.6	89.8	89.8	68.3	21.50	4.175	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	89.62	0.6	89.8	89.8	67.9	21.85	4.109	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	89.62	0.6	89.8	89.8	67.6	22.19	4.045	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	89.62	0.6	89.8	89.8	67.2	22.53	3.984	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	89.62	0.6	89.8	89.8	66.9	22.87	3.925	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	89.62	0.6	89.8	89.8	66.6	23.21	3.868	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	89.62	0.6	89.8	89.8	66.2	23.54	3.813	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	89.62	0.6	89.8	89.8	65.9	23.87	3.761	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	89.62	0.6	89.8	89.8	65.6	24.20	3.710	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	89.62	0.6	89.8	89.8	65.2	24.53	3.660	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	89.62	0.6	89.8	89.8	64.9	24.85	3.612	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	89.62	0.6	89.8	89.8	64.6	25.17	3.566	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	89.62	0.6	89.8	89.8	64.3	25.49	3.522	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	89.62	0.6	89.8	89.8	64.0	25.81	3.478	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	89.62	0.6	89.8	89.8	63.6	26.12	3.436 CC, ES	
5,100.0	5,100.0	5,098.9	5,098.9	13.2	13.2	-129.82	0.0	90.3	90.9	64.6	26.30	3.456	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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	
5,200.0	5,200.0	5,197.8	5,197.8	13.2	13.2	-129.85	-1.9	92.1	94.3	67.9	26.45	3.566	
5,300.0	5,299.9	5,296.5	5,296.4	13.3	13.3	-129.90	-5.0	95.0	100.0	73.4	26.61	3.758	
5,400.0	5,399.7	5,395.0	5,394.7	13.5	13.5	-129.95	-9.4	99.0	108.0	81.2	26.79	4.031	
5,500.0	5,499.4	5,493.2	5,492.6	13.6	13.6	-129.99	-15.0	104.1	118.2	91.2	26.98	4.380	
5,600.0	5,598.9	5,591.0	5,589.9	13.8	13.7	-130.03	-21.8	110.4	130.7	103.5	27.20	4.804	
5,700.0	5,698.3	5,688.3	5,686.7	13.9	13.9	-130.06	-29.8	117.8	145.4	117.9	27.45	5.297	
5,800.0	5,797.4	5,785.2	5,782.7	14.2	14.1	-130.07	-38.9	126.2	162.3	134.6	27.72	5.856	
5,900.0	5,896.3	5,881.4	5,878.0	14.4	14.4	-130.07	-49.2	135.6	181.4	153.4	28.03	6.473	
5,962.5	5,958.0	5,942.1	5,937.8	14.5	14.5	-130.08	-56.1	142.1	194.4	166.2	28.21	6.892	
6,000.0	5,995.0	5,978.7	5,974.0	14.6	14.6	-130.18	-60.4	146.0	202.4	174.1	28.31	7.147	
6,100.0	6,093.5	6,076.4	6,070.5	14.9	14.9	-130.41	-71.7	156.4	223.6	194.9	28.67	7.798	
6,200.0	6,192.1	6,174.1	6,167.0	15.2	15.2	-130.61	-83.0	166.8	244.8	215.7	29.07	8.420	
6,300.0	6,290.7	6,271.8	6,263.5	15.5	15.5	-130.77	-94.4	177.3	266.0	236.5	29.50	9.017	
6,400.0	6,389.3	6,369.6	6,360.0	15.9	15.8	-130.91	-105.7	187.7	287.2	257.2	29.95	9.589	
6,500.0	6,487.9	6,467.3	6,456.5	16.2	16.2	-131.02	-117.0	198.1	308.4	278.0	30.43	10.135	
6,600.0	6,586.5	6,565.0	6,553.0	16.6	16.5	-131.13	-128.4	208.6	329.6	298.7	30.93	10.658	
6,700.0	6,685.1	6,662.7	6,649.5	17.0	16.9	-131.22	-139.7	219.0	350.8	319.4	31.45	11.155	
6,800.0	6,783.7	6,760.5	6,746.0	17.4	17.3	-131.30	-151.0	229.4	372.0	340.0	31.99	11.629	
6,900.0	6,882.3	6,858.2	6,842.5	17.8	17.7	-131.37	-162.3	239.9	393.2	360.7	32.55	12.080	
7,000.0	6,980.9	6,955.9	6,939.0	18.3	18.1	-131.44	-173.7	250.3	414.5	381.3	33.14	12.508	
7,100.0	7,079.5	7,053.6	7,035.5	18.7	18.5	-131.49	-185.0	260.8	435.7	401.9	33.74	12.915	
7,200.0	7,178.1	7,151.3	7,132.0	19.2	19.0	-131.55	-196.3	271.2	456.9	422.5	34.35	13.300	
7,300.0	7,276.7	7,249.1	7,228.5	19.6	19.4	-131.60	-207.6	281.6	478.1	443.1	34.98	13.666	
7,400.0	7,375.2	7,346.8	7,325.0	20.1	19.9	-131.64	-219.0	292.1	499.3	463.7	35.63	14.013	
7,500.0	7,473.8	7,444.5	7,421.5	20.6	20.3	-131.68	-230.3	302.5	520.5	484.2	36.29	14.342	
7,600.0	7,572.4	7,542.2	7,518.0	21.1	20.8	-131.72	-241.6	312.9	541.7	504.8	36.97	14.654	
7,700.0	7,671.0	7,640.0	7,614.5	21.6	21.3	-131.75	-252.9	323.4	563.0	525.3	37.66	14.949	
7,800.0	7,769.6	7,737.7	7,711.0	22.1	21.7	-131.78	-264.3	333.8	584.2	545.8	38.36	15.229	
7,900.0	7,868.2	7,835.4	7,807.5	22.6	22.2	-131.81	-275.6	344.2	605.4	566.3	39.07	15.494	
8,000.0	7,966.8	7,933.1	7,904.0	23.1	22.7	-131.84	-286.9	354.7	626.6	586.8	39.80	15.745	
8,100.0	8,065.4	8,030.9	8,000.5	23.6	23.2	-131.87	-298.3	365.1	647.8	607.3	40.53	15.983	
8,200.0	8,164.0	8,128.6	8,097.0	24.2	23.7	-131.89	-309.6	375.6	669.0	627.8	41.28	16.209	
8,300.0	8,262.6	8,226.3	8,193.5	24.7	24.2	-131.92	-320.9	386.0	690.3	648.2	42.03	16.423	
8,400.0	8,361.2	8,324.0	8,290.0	25.2	24.7	-131.94	-332.2	396.4	711.5	668.7	42.79	16.626	
8,482.0	8,442.0	8,404.1	8,369.1	25.7	25.2	-131.95	-341.5	405.0	728.9	685.5	43.41	16.789	
8,500.0	8,459.8	8,421.7	8,386.5	25.8	25.3	-131.98	-343.6	406.9	732.7	689.1	43.54	16.826	
8,600.0	8,558.5	8,519.6	8,483.2	26.3	25.8	-132.09	-354.9	417.3	753.1	708.8	44.30	16.999	
8,700.0	8,657.6	8,617.7	8,580.1	26.8	26.3	-132.09	-366.3	427.8	772.4	727.3	45.06	17.140	
8,800.0	8,756.8	8,716.0	8,677.1	27.3	26.9	-131.99	-377.7	438.3	790.6	744.7	45.82	17.255	
8,900.0	8,856.3	8,814.5	8,774.3	27.8	27.4	-131.81	-389.1	448.8	807.6	761.0	46.55	17.347	
9,000.0	8,955.9	8,920.8	8,879.5	28.3	27.9	-131.53	-401.0	459.7	823.1	775.9	47.28	17.408	
9,100.0	9,055.7	9,030.1	8,987.8	28.8	28.5	-131.25	-411.7	469.7	836.4	788.4	48.02	17.419	
9,200.0	9,155.6	9,140.0	9,096.9	29.2	29.1	-130.97	-421.0	478.2	847.3	798.6	48.71	17.393	
9,300.0	9,255.5	9,250.3	9,206.8	29.6	29.6	-130.69	-428.8	485.4	855.8	806.5	49.36	17.338	
9,400.0	9,355.5	9,361.1	9,317.2	29.9	30.2	-130.40	-435.0	491.1	862.0	812.0	49.94	17.259	
9,444.5	9,400.0	9,410.4	9,366.4	30.0	30.4	89.15	-437.3	493.2	863.9	813.8	50.14	17.230	
9,500.0	9,455.5	9,472.1	9,428.0	30.0	30.7	89.31	-439.6	495.4	865.9	815.5	50.34	17.200	
9,577.0	9,532.5	9,557.7	9,513.6	30.1	31.0	89.48	-442.2	497.7	868.0	817.3	50.61	17.148	
9,600.0	9,555.5	9,583.3	9,539.1	30.0	31.1	89.97	-442.7	498.2	868.4	817.7	50.69	17.134	
9,625.0	9,580.4	9,611.0	9,566.8	30.0	31.2	90.09	-443.3	498.7	868.9	818.1	50.75	17.120	
9,650.0	9,605.2	9,638.5	9,594.4	29.9	31.3	90.30	-443.7	499.1	869.2	818.4	50.81	17.108	
9,675.0	9,629.8	9,665.9	9,621.7	29.8	31.4	90.60	-444.0	499.4	869.5	818.7	50.86	17.097	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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		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)			
9,700.0	9,654.1	9,693.0	9,648.8	29.7	31.5	90.99	-444.2	499.6	869.8	818.9	50.91	17.087	
9,725.0	9,678.1	9,719.8	9,675.6	29.6	31.5	91.46	-444.4	499.7	870.1	819.2	50.92	17.086	
9,750.0	9,701.7	9,746.1	9,701.9	29.5	31.6	92.00	-444.4	499.8	870.4	819.5	50.93	17.090	
9,775.0	9,724.9	9,769.1	9,724.9	29.4	31.6	92.52	-444.4	499.8	870.8	819.9	50.92	17.103	
9,800.0	9,747.5	9,791.7	9,747.5	29.4	31.6	93.09	-444.4	499.8	871.4	820.5	50.90	17.119	
9,825.0	9,769.5	9,813.7	9,769.5	29.3	31.6	93.68	-444.4	499.8	872.2	821.3	50.89	17.139	
9,850.0	9,790.9	9,835.0	9,790.9	29.2	31.6	94.28	-444.4	499.8	873.2	822.3	50.88	17.164	
9,875.0	9,811.5	9,855.7	9,811.5	29.1	31.6	94.87	-444.4	499.8	874.6	823.7	50.86	17.195	
9,900.0	9,831.4	9,875.6	9,831.4	29.0	31.6	95.46	-444.4	499.8	876.3	825.4	50.85	17.232	
9,925.0	9,850.5	9,900.8	9,856.6	28.9	31.6	96.24	-443.8	499.8	878.3	827.5	50.83	17.280	
9,950.0	9,868.7	9,927.5	9,883.2	28.8	31.5	97.05	-441.7	499.7	880.6	829.9	50.79	17.338	
9,975.0	9,886.0	9,955.6	9,911.0	28.7	31.4	97.88	-437.9	499.7	883.2	832.5	50.75	17.405	
10,000.0	9,902.3	9,985.2	9,940.1	28.7	31.3	98.72	-432.1	499.7	886.0	835.3	50.69	17.479	
10,025.0	9,917.6	10,016.6	9,970.4	28.6	31.2	99.58	-424.0	499.6	889.1	838.4	50.63	17.561	
10,050.0	9,931.9	10,050.1	10,002.1	28.6	31.1	100.47	-413.3	499.6	892.3	841.7	50.56	17.648	
10,075.0	9,945.0	10,085.8	10,035.0	28.5	31.0	101.38	-399.3	499.5	895.6	845.1	50.48	17.740	
10,100.0	9,957.0	10,124.2	10,069.1	28.5	30.8	102.33	-381.7	499.3	899.0	848.6	50.41	17.834	
10,125.0	9,967.9	10,165.6	10,104.1	28.5	30.7	103.29	-359.7	499.2	902.5	852.2	50.34	17.928	
10,150.0	9,977.5	10,210.2	10,139.6	28.4	30.5	104.27	-332.6	499.0	905.9	855.6	50.28	18.016	
10,175.0	9,986.0	10,258.5	10,174.9	28.4	30.4	105.25	-299.7	498.8	909.2	859.0	50.25	18.095	
10,200.0	9,993.2	10,310.6	10,209.1	28.4	30.2	106.21	-260.5	498.5	912.3	862.0	50.24	18.159	
10,225.0	9,999.1	10,366.6	10,240.9	28.4	30.1	107.09	-214.4	498.2	915.0	864.7	50.27	18.202	
10,250.0	10,003.8	10,426.4	10,288.6	28.5	30.0	107.87	-161.4	497.8	917.3	867.0	50.35	18.220	
10,275.0	10,007.2	10,489.5	10,290.4	28.5	30.0	108.48	-102.3	497.4	919.1	868.6	50.48	18.207	
10,300.0	10,009.2	10,555.1	10,304.6	28.6	30.1	108.87	-38.3	497.0	920.2	869.5	50.66	18.163	
10,327.0	10,010.0	10,627.6	10,310.0	28.6	30.2	109.02	33.9	496.5	920.6	869.7	50.92	18.082	
10,400.0	10,010.0	10,700.0	10,310.0	28.8	30.5	109.02	106.3	496.0	920.7	869.3	51.42	17.905	
10,500.0	10,010.0	10,800.0	10,310.0	29.2	30.8	109.01	206.3	495.3	920.8	868.5	52.35	17.589	
10,600.0	10,010.0	10,900.0	10,310.0	29.7	31.3	109.01	306.3	494.7	921.0	867.4	53.56	17.196	
10,700.0	10,010.0	11,000.0	10,310.0	30.2	31.8	109.01	406.3	494.0	921.1	866.1	55.00	16.746	
10,800.0	10,010.0	11,100.0	10,310.0	30.9	32.5	109.01	506.3	493.3	921.2	864.5	56.68	16.252	
10,900.0	10,010.0	11,200.0	10,310.0	31.6	33.2	109.00	606.3	492.6	921.3	862.8	58.57	15.731	
11,000.0	10,010.0	11,300.0	10,310.0	32.5	34.0	109.00	706.3	491.9	921.4	860.8	60.64	15.195	
11,100.0	10,010.0	11,400.0	10,310.0	33.4	35.0	109.00	806.3	491.3	921.6	858.7	62.89	14.653	
11,200.0	10,010.0	11,500.0	10,310.0	34.5	36.0	109.00	906.3	490.6	921.7	856.4	65.29	14.116	
11,300.0	10,010.0	11,600.0	10,310.0	35.6	37.1	108.99	1,006.3	489.9	921.8	854.0	67.83	13.590	
11,400.0	10,010.0	11,700.0	10,310.0	36.9	38.2	108.99	1,106.3	489.2	921.9	851.4	70.49	13.078	
11,500.0	10,010.0	11,800.0	10,310.0	38.2	39.5	108.99	1,206.3	488.5	922.0	848.8	73.26	12.585	
11,600.0	10,010.0	11,900.0	10,310.0	39.6	40.8	108.99	1,306.3	487.8	922.2	846.0	76.13	12.112	
11,700.0	10,010.0	12,000.0	10,310.0	41.0	42.2	108.98	1,406.3	487.2	922.3	843.2	79.09	11.661	
11,800.0	10,010.0	12,100.0	10,310.0	42.5	43.7	108.98	1,506.3	486.5	922.4	840.3	82.12	11.232	
11,900.0	10,010.0	12,200.0	10,310.0	44.0	45.2	108.98	1,606.3	485.8	922.5	837.3	85.22	10.824	
12,000.0	10,010.0	12,300.0	10,310.0	45.6	46.7	108.98	1,706.3	485.1	922.6	834.2	88.39	10.438	
12,100.0	10,010.0	12,400.0	10,310.0	47.3	48.3	108.97	1,806.3	484.4	922.7	831.1	91.61	10.073	
12,200.0	10,010.0	12,500.0	10,310.0	48.9	49.9	108.97	1,906.3	483.8	922.9	828.0	94.88	9.727	
12,300.0	10,010.0	12,600.0	10,310.0	50.6	51.6	108.97	2,006.3	483.1	923.0	824.8	98.19	9.400	
12,400.0	10,010.0	12,700.0	10,310.0	52.3	53.3	108.97	2,106.3	482.4	923.1	821.6	101.55	9.090	
12,500.0	10,010.0	12,800.0	10,310.0	54.1	55.0	108.96	2,206.3	481.7	923.2	818.3	104.94	8.798	
12,600.0	10,010.0	12,900.0	10,310.0	55.9	56.7	108.96	2,306.3	481.0	923.3	815.0	108.36	8.521	
12,700.0	10,010.0	13,000.0	10,310.0	57.6	58.4	108.96	2,406.3	480.4	923.5	811.6	111.82	8.259	
12,800.0	10,010.0	13,100.0	10,310.0	59.4	60.2	108.95	2,506.3	479.7	923.6	808.3	115.30	8.010	
12,900.0	10,010.0	13,200.0	10,310.0	61.2	62.0	108.95	2,606.3	479.0	923.7	804.9	118.80	7.775	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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				Rule Assigned:						Offset Well Error: 0.0 usft				
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,000.0	10,010.0	13,300.0	10,310.0	63.1	63.8	108.95	2,706.3	478.3	923.8	801.5	122.33	7.552		
13,100.0	10,010.0	13,400.0	10,310.0	64.9	65.6	108.95	2,806.3	477.6	923.9	798.1	125.88	7.340		
13,200.0	10,010.0	13,500.0	10,310.0	66.8	67.4	108.94	2,906.3	477.0	924.1	794.6	129.45	7.138		
13,300.0	10,010.0	13,600.0	10,310.0	68.6	69.3	108.94	3,006.3	476.3	924.2	791.1	133.04	6.947		
13,400.0	10,010.0	13,700.0	10,310.0	70.5	71.1	108.94	3,106.3	475.6	924.3	787.7	136.64	6.764		
13,500.0	10,010.0	13,800.0	10,310.0	72.4	73.0	108.94	3,206.3	474.9	924.4	784.2	140.26	6.591		
13,600.0	10,010.0	13,900.0	10,310.0	74.3	74.9	108.93	3,306.3	474.2	924.5	780.6	143.89	6.425		
13,700.0	10,010.0	14,000.0	10,310.0	76.2	76.7	108.93	3,406.2	473.5	924.7	777.1	147.53	6.267		
13,800.0	10,010.0	14,100.0	10,310.0	78.1	78.6	108.93	3,506.2	472.9	924.8	773.6	151.19	6.117		
13,900.0	10,010.0	14,200.0	10,310.0	80.0	80.5	108.93	3,606.2	472.2	924.9	770.0	154.86	5.972		
14,000.0	10,010.0	14,300.0	10,310.0	81.9	82.4	108.92	3,706.2	471.5	925.0	766.5	158.54	5.835		
14,100.0	10,010.0	14,400.0	10,310.0	83.8	84.3	108.92	3,806.2	470.8	925.1	762.9	162.22	5.703		
14,200.0	10,010.0	14,500.0	10,310.0	85.7	86.2	108.92	3,906.2	470.1	925.2	759.3	165.92	5.577		
14,300.0	10,010.0	14,600.0	10,310.0	87.6	88.1	108.92	4,006.2	469.5	925.4	755.7	169.62	5.455		
14,400.0	10,010.0	14,700.0	10,310.0	89.6	90.1	108.91	4,106.2	468.8	925.5	752.1	173.34	5.339		
14,500.0	10,010.0	14,800.0	10,310.0	91.5	92.0	108.91	4,206.2	468.1	925.6	748.5	177.05	5.228		
14,600.0	10,010.0	14,900.0	10,310.0	93.5	93.9	108.91	4,306.2	467.4	925.7	744.9	180.78	5.121		
14,700.0	10,010.0	15,000.0	10,310.0	95.4	95.8	108.91	4,406.2	466.7	925.8	741.3	184.51	5.018		
14,800.0	10,010.0	15,100.0	10,310.0	97.3	97.8	108.90	4,506.2	466.1	926.0	737.7	188.25	4.919		
14,900.0	10,010.0	15,200.0	10,310.0	99.3	99.7	108.90	4,606.2	465.4	926.1	734.1	192.00	4.823		
15,000.0	10,010.0	15,300.0	10,310.0	101.2	101.6	108.90	4,706.2	464.7	926.2	730.4	195.75	4.732		
15,100.0	10,010.0	15,400.0	10,310.0	103.2	103.6	108.90	4,806.2	464.0	926.3	726.8	199.50	4.643		
15,200.0	10,010.0	15,500.0	10,310.0	105.2	105.5	108.89	4,906.2	463.3	926.4	723.2	203.26	4.558		
15,300.0	10,010.0	15,600.0	10,310.0	107.1	107.5	108.89	5,006.2	462.7	926.6	719.5	207.03	4.476		
15,400.0	10,010.0	15,700.0	10,310.0	109.1	109.4	108.89	5,106.2	462.0	926.7	715.9	210.80	4.396		
15,500.0	10,010.0	15,800.0	10,310.0	111.0	111.4	108.89	5,206.2	461.3	926.8	712.2	214.57	4.319		
15,600.0	10,010.0	15,900.0	10,310.0	113.0	113.4	108.88	5,306.2	460.6	926.9	708.6	218.35	4.245		
15,700.0	10,010.0	16,000.0	10,310.0	115.0	115.3	108.88	5,406.2	459.9	927.0	704.9	222.13	4.173		
15,800.0	10,010.0	16,100.0	10,310.0	116.9	117.3	108.88	5,506.2	459.3	927.2	701.2	225.91	4.104		
15,900.0	10,010.0	16,200.0	10,310.0	118.9	119.2	108.88	5,606.2	458.6	927.3	697.6	229.70	4.037		
16,000.0	10,010.0	16,300.0	10,310.0	120.9	121.2	108.87	5,706.2	457.9	927.4	693.9	233.49	3.972		
16,100.0	10,010.0	16,400.0	10,310.0	122.9	123.2	108.87	5,806.2	457.2	927.5	690.2	237.28	3.909		
16,200.0	10,010.0	16,500.0	10,310.0	124.8	125.1	108.87	5,906.2	456.5	927.6	686.5	241.08	3.848		
16,300.0	10,010.0	16,600.0	10,310.0	126.8	127.1	108.87	6,006.2	455.8	927.7	682.9	244.88	3.789		
16,400.0	10,010.0	16,700.0	10,310.0	128.8	129.1	108.86	6,106.2	455.2	927.9	679.2	248.68	3.731		
16,500.0	10,010.0	16,800.0	10,310.0	130.8	131.0	108.86	6,206.2	454.5	928.0	675.5	252.49	3.675		
16,600.0	10,010.0	16,900.0	10,310.0	132.7	133.0	108.86	6,306.2	453.8	928.1	671.8	256.29	3.621		
16,700.0	10,010.0	17,000.0	10,310.0	134.7	135.0	108.86	6,406.2	453.1	928.2	668.1	260.10	3.569		
16,800.0	10,010.0	17,100.0	10,310.0	136.7	137.0	108.85	6,506.2	452.4	928.3	664.4	263.92	3.518		
16,900.0	10,010.0	17,200.0	10,310.0	138.7	139.0	108.85	6,606.2	451.8	928.5	660.7	267.73	3.468		
17,000.0	10,010.0	17,300.0	10,310.0	140.7	140.9	108.85	6,706.2	451.1	928.6	657.0	271.55	3.420		
17,100.0	10,010.0	17,400.0	10,310.0	142.7	142.9	108.85	6,806.2	450.4	928.7	653.3	275.36	3.373		
17,200.0	10,010.0	17,500.0	10,310.0	144.6	144.9	108.84	6,906.2	449.7	928.8	649.6	279.18	3.327		
17,300.0	10,010.0	17,600.0	10,310.0	146.6	146.9	108.84	7,006.2	449.0	928.9	645.9	283.00	3.282		
17,400.0	10,010.0	17,700.0	10,310.0	148.6	148.9	108.84	7,106.2	448.4	929.1	642.2	286.83	3.239		
17,500.0	10,010.0	17,800.0	10,310.0	150.6	150.8	108.84	7,206.2	447.7	929.2	638.5	290.65	3.197		
17,600.0	10,010.0	17,900.0	10,310.0	152.6	152.8	108.83	7,306.2	447.0	929.3	634.8	294.48	3.156		
17,700.0	10,010.0	18,000.0	10,310.0	154.6	154.8	108.83	7,406.2	446.3	929.4	631.1	298.31	3.116		
17,800.0	10,010.0	18,100.0	10,310.0	156.6	156.8	108.83	7,506.2	445.6	929.5	627.4	302.14	3.077		
17,900.0	10,010.0	18,200.0	10,310.0	158.6	158.8	108.83	7,606.1	445.0	929.7	623.7	305.97	3.038		
18,000.0	10,010.0	18,300.0	10,310.0	160.6	160.8	108.82	7,706.1	444.3	929.8	620.0	309.80	3.001		
18,100.0	10,010.0	18,400.0	10,310.0	162.5	162.8	108.82	7,806.1	443.6	929.9	616.3	313.63	2.965		

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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									Rule Assigned:				Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
18,125.3	10,010.0	18,425.3	10,310.0	163.1	163.3		108.82	7,831.4	443.4	929.9				615.3



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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	166.15	-249.5	61.5	257.0				
100.0	100.0	101.0	101.0	0.5	0.5	166.15	-249.5	61.5	257.0	255.9	1.07	239.716	
200.0	200.0	201.0	201.0	1.7	1.7	166.15	-249.5	61.5	257.0	253.6	3.43	74.917	
300.0	300.0	301.0	301.0	2.4	2.4	166.15	-249.5	61.5	257.0	252.2	4.83	53.228	
400.0	400.0	401.0	401.0	3.0	3.0	166.15	-249.5	61.5	257.0	251.1	5.91	43.467	
500.0	500.0	501.0	501.0	3.4	3.4	166.15	-249.5	61.5	257.0	250.2	6.83	37.605	
600.0	600.0	601.0	601.0	3.8	3.8	166.15	-249.5	61.5	257.0	249.4	7.65	33.585	
700.0	700.0	701.0	701.0	4.2	4.2	166.15	-249.5	61.5	257.0	248.6	8.40	30.606	
800.0	800.0	801.0	801.0	4.5	4.5	166.15	-249.5	61.5	257.0	247.9	9.09	28.283	
900.0	900.0	901.0	901.0	4.9	4.9	166.15	-249.5	61.5	257.0	247.3	9.73	26.405	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	166.15	-249.5	61.5	257.0	246.7	10.34	24.845	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	166.15	-249.5	61.5	257.0	246.1	10.93	23.523	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	166.15	-249.5	61.5	257.0	245.5	11.48	22.383	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	166.15	-249.5	61.5	257.0	245.0	12.02	21.386	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	166.15	-249.5	61.5	257.0	244.5	12.53	20.505	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	166.15	-249.5	61.5	257.0	244.0	13.03	19.718	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	166.15	-249.5	61.5	257.0	243.5	13.52	19.010	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	166.15	-249.5	61.5	257.0	243.0	13.99	18.369	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	166.15	-249.5	61.5	257.0	242.6	14.45	17.783	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	166.15	-249.5	61.5	257.0	242.1	14.90	17.247	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	166.15	-249.5	61.5	257.0	241.7	15.34	16.752	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	166.15	-249.5	61.5	257.0	241.2	15.77	16.295	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	166.15	-249.5	61.5	257.0	240.8	16.19	15.870	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	166.15	-249.5	61.5	257.0	240.4	16.61	15.473	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	166.15	-249.5	61.5	257.0	240.0	17.02	15.102	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	166.15	-249.5	61.5	257.0	239.6	17.42	14.754	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	166.15	-249.5	61.5	257.0	239.2	17.81	14.427	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	166.15	-249.5	61.5	257.0	238.8	18.20	14.118	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	166.15	-249.5	61.5	257.0	238.4	18.59	13.827	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	166.15	-249.5	61.5	257.0	238.0	18.97	13.550	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	166.15	-249.5	61.5	257.0	237.7	19.34	13.288	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	166.15	-249.5	61.5	257.0	237.3	19.71	13.039	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	166.15	-249.5	61.5	257.0	236.9	20.08	12.801	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	166.15	-249.5	61.5	257.0	236.6	20.44	12.575	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	166.15	-249.5	61.5	257.0	236.2	20.80	12.359	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	166.15	-249.5	61.5	257.0	235.9	21.15	12.152	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	166.15	-249.5	61.5	257.0	235.5	21.50	11.953	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	166.15	-249.5	61.5	257.0	235.2	21.85	11.763	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	166.15	-249.5	61.5	257.0	234.8	22.19	11.581	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	166.15	-249.5	61.5	257.0	234.5	22.53	11.405	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	166.15	-249.5	61.5	257.0	234.1	22.87	11.236	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	166.15	-249.5	61.5	257.0	233.8	23.21	11.074	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	166.15	-249.5	61.5	257.0	233.5	23.54	10.917	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	166.15	-249.5	61.5	257.0	233.1	23.87	10.766	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	166.15	-249.5	61.5	257.0	232.8	24.20	10.620	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	166.15	-249.5	61.5	257.0	232.5	24.53	10.478	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	166.15	-249.5	61.5	257.0	232.2	24.85	10.342	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	166.15	-249.5	61.5	257.0	231.8	25.17	10.210	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	166.15	-249.5	61.5	257.0	231.5	25.49	10.082	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	166.15	-249.5	61.5	257.0	231.2	25.81	9.957	
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	166.15	-249.5	61.5	257.0	230.9	26.13	9.837	
5,100.0	5,100.0	5,101.0	5,101.0	13.2	13.2	-53.44	-249.5	61.5	256.5	230.1	26.37	9.725	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,200.0	5,200.0	5,200.0	13.2	13.4	-53.92	-249.5	61.5	254.9	228.3	26.60	9.583	
5,300.0	5,299.9	5,297.7	5,297.7	13.3	13.5	-54.84	-250.0	62.2	253.0	226.2	26.78	9.448	
5,400.0	5,399.7	5,394.3	5,394.3	13.5	13.6	-56.33	-251.3	64.3	251.5	224.5	26.95	9.330	
5,500.0	5,499.4	5,490.7	5,490.5	13.6	13.7	-58.40	-253.4	67.8	250.4	223.3	27.13	9.231	
5,568.1	5,567.2	5,556.1	5,555.8	13.7	13.7	-60.12	-255.3	70.9	250.2	223.0	27.27	9.177 CC	
5,600.0	5,598.9	5,586.6	5,586.3	13.8	13.8	-61.01	-256.4	72.6	250.3	223.0	27.33	9.158 ES	
5,700.0	5,698.3	5,683.8	5,683.2	13.9	13.9	-64.18	-260.2	78.7	251.1	223.6	27.50	9.134	
5,800.0	5,797.4	5,782.5	5,781.6	14.2	14.0	-67.74	-264.1	85.2	252.4	224.6	27.72	9.103	
5,900.0	5,896.3	5,880.9	5,879.8	14.4	14.2	-71.60	-268.1	91.6	254.0	226.0	27.99	9.077 SF	
5,962.5	5,958.0	5,942.4	5,941.0	14.5	14.3	-74.16	-270.6	95.6	255.4	227.3	28.14	9.078	
6,000.0	5,995.0	5,979.1	5,977.7	14.6	14.4	-75.73	-272.0	97.9	256.5	228.2	28.22	9.087	
6,100.0	6,093.5	6,077.3	6,075.5	14.9	14.6	-79.84	-276.0	104.3	260.2	231.7	28.52	9.123	
6,200.0	6,192.1	6,175.4	6,173.4	15.2	14.8	-83.83	-279.9	110.7	265.3	236.4	28.86	9.192	
6,300.0	6,290.7	6,273.5	6,271.2	15.5	15.0	-87.65	-283.9	117.1	271.6	242.4	29.23	9.293	
6,400.0	6,389.3	6,371.7	6,369.1	15.9	15.3	-91.28	-287.8	123.5	279.2	249.5	29.62	9.423	
6,500.0	6,487.9	6,469.8	6,466.9	16.2	15.5	-94.72	-291.7	129.9	287.8	257.7	30.05	9.577	
6,600.0	6,586.5	6,567.9	6,564.8	16.6	15.8	-97.95	-295.7	136.3	297.4	266.9	30.51	9.749	
6,700.0	6,685.1	6,666.0	6,662.6	17.0	16.1	-100.98	-299.6	142.6	307.9	276.9	30.99	9.936	
6,800.0	6,783.7	6,764.2	6,760.5	17.4	16.4	-103.80	-303.6	149.0	319.3	287.8	31.50	10.134	
6,900.0	6,882.3	6,862.3	6,858.3	17.8	16.7	-106.43	-307.5	155.4	331.3	299.3	32.04	10.341	
7,000.0	6,980.9	6,960.4	6,956.1	18.3	17.0	-108.88	-311.5	161.8	344.1	311.4	32.61	10.552	
7,100.0	7,079.5	7,058.6	7,054.0	18.7	17.4	-111.14	-315.4	168.2	357.4	324.2	33.19	10.766	
7,200.0	7,178.1	7,156.7	7,151.8	19.2	17.7	-113.25	-319.3	174.6	371.2	337.4	33.80	10.981	
7,300.0	7,276.7	7,254.8	7,249.7	19.6	18.0	-115.21	-323.3	180.9	385.5	351.0	34.43	11.196	
7,400.0	7,375.2	7,353.0	7,347.5	20.1	18.4	-117.02	-327.2	187.3	400.2	365.1	35.08	11.409	
7,500.0	7,473.8	7,451.1	7,445.4	20.6	18.8	-118.71	-331.2	193.7	415.3	379.5	35.74	11.619	
7,600.0	7,572.4	7,549.2	7,543.2	21.1	19.1	-120.28	-335.1	200.1	430.7	394.2	36.42	11.825	
7,700.0	7,671.0	7,647.4	7,641.1	21.6	19.5	-121.74	-339.1	206.5	446.4	409.3	37.11	12.028	
7,800.0	7,769.6	7,745.5	7,738.9	22.1	19.9	-123.10	-343.0	212.9	462.3	424.5	37.82	12.226	
7,900.0	7,868.2	7,843.6	7,836.7	22.6	20.3	-124.37	-346.9	219.2	478.6	440.0	38.53	12.420	
8,000.0	7,966.8	7,941.8	7,934.6	23.1	20.7	-125.56	-350.9	225.6	495.0	455.7	39.26	12.608	
8,100.0	8,065.4	8,039.9	8,032.4	23.6	21.1	-126.67	-354.8	232.0	511.6	471.6	40.00	12.791	
8,200.0	8,164.0	8,138.0	8,130.3	24.2	21.5	-127.72	-358.8	238.4	528.4	487.7	40.74	12.970	
8,300.0	8,262.6	8,236.2	8,228.1	24.7	21.9	-128.69	-362.7	244.8	545.4	503.9	41.50	13.143	
8,400.0	8,361.2	8,334.3	8,326.0	25.2	22.3	-129.61	-366.7	251.2	562.5	520.2	42.26	13.311	
8,482.0	8,442.0	8,414.7	8,406.2	25.7	22.6	-130.33	-369.9	256.4	576.6	533.7	42.88	13.449	
8,500.0	8,459.8	8,432.4	8,423.8	25.8	22.7	-130.50	-370.6	257.5	579.7	536.7	43.00	13.480	
8,600.0	8,558.5	8,530.8	8,521.9	26.3	23.1	-131.36	-374.6	263.9	596.3	552.5	43.76	13.627	
8,700.0	8,657.6	8,629.4	8,620.2	26.8	23.5	-132.05	-378.5	270.4	611.8	567.3	44.51	13.747	
8,800.0	8,756.8	8,728.2	8,718.7	27.3	24.0	-132.58	-382.5	276.8	626.3	581.0	45.24	13.842	
8,900.0	8,856.3	8,827.3	8,817.5	27.8	24.4	-132.96	-386.5	283.2	639.5	593.6	45.97	13.913	
9,000.0	8,955.9	8,926.5	8,916.5	28.3	24.9	-133.22	-390.5	289.7	651.6	605.0	46.67	13.963	
9,100.0	9,055.7	9,025.9	9,015.6	28.8	25.3	-133.34	-394.5	296.1	662.6	615.2	47.35	13.992	
9,200.0	9,155.6	9,125.4	9,114.8	29.2	25.7	-133.35	-398.4	302.6	672.3	624.3	48.01	14.002	
9,300.0	9,255.5	9,225.1	9,214.1	29.6	26.2	-133.25	-402.5	309.1	680.8	632.2	48.65	13.996	
9,400.0	9,355.5	9,324.7	9,313.5	29.9	26.6	-133.03	-406.5	315.6	688.2	639.0	49.23	13.978	
9,444.5	9,400.0	9,369.1	9,357.8	30.0	26.8	86.53	-408.2	318.5	691.1	641.7	49.44	13.980	
9,500.0	9,455.5	9,424.4	9,412.9	30.0	27.1	86.73	-410.5	322.1	694.6	644.9	49.65	13.988	
9,577.0	9,532.5	9,501.3	9,489.5	30.1	27.5	87.01	-413.5	327.1	699.4	649.4	49.97	13.996	
9,600.0	9,555.5	9,524.1	9,512.3	30.0	27.6	87.42	-414.5	328.6	700.8	650.8	50.06	14.001	
9,625.0	9,580.4	9,548.9	9,537.0	30.0	27.7	87.48	-415.5	330.2	702.3	652.2	50.14	14.008	
9,650.0	9,605.2	9,573.5	9,561.5	29.9	27.8	87.65	-416.5	331.8	703.8	653.6	50.21	14.018	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,675.0	9,629.8	9,597.8	9,585.8	29.8	27.9	87.91	-417.4	333.4	705.2	655.0	50.27	14.029	
9,700.0	9,654.1	9,621.9	9,609.8	29.7	28.0	88.26	-418.4	334.9	706.7	656.4	50.33	14.042	
9,725.0	9,678.1	9,645.5	9,633.3	29.6	28.1	88.70	-419.3	336.5	708.2	657.8	50.37	14.058	
9,750.0	9,701.7	9,668.7	9,656.5	29.5	28.2	89.20	-420.3	338.0	709.7	659.3	50.41	14.078	
9,775.0	9,724.9	9,691.4	9,679.1	29.4	28.3	89.76	-421.2	339.4	711.4	661.0	50.44	14.103	
9,800.0	9,747.5	9,713.5	9,701.1	29.4	28.4	90.36	-422.1	340.9	713.2	662.8	50.47	14.132	
9,825.0	9,769.5	9,735.0	9,722.5	29.3	28.5	90.99	-422.9	342.3	715.3	664.8	50.49	14.168	
9,850.0	9,790.9	9,755.7	9,743.3	29.2	28.6	91.63	-423.8	343.6	717.6	667.1	50.50	14.211	
9,875.0	9,811.5	9,775.8	9,763.2	29.1	28.7	92.26	-424.6	344.9	720.2	669.7	50.50	14.263	
9,900.0	9,831.4	9,795.0	9,782.4	29.0	28.8	92.87	-425.4	346.2	723.3	672.8	50.49	14.324	
9,925.0	9,850.5	9,813.4	9,800.7	28.9	28.9	93.44	-426.1	347.4	726.7	676.2	50.48	14.395	
9,950.0	9,868.7	9,830.8	9,818.1	28.8	29.0	93.95	-426.8	348.5	730.6	680.1	50.46	14.478	
9,975.0	9,886.0	9,847.3	9,834.6	28.7	29.1	94.38	-427.5	349.6	735.0	684.6	50.43	14.574	
10,000.0	9,902.3	9,862.8	9,850.0	28.7	29.1	94.72	-428.1	350.6	740.1	689.7	50.40	14.684	
10,025.0	9,917.6	9,877.3	9,864.4	28.6	29.2	94.95	-428.7	351.5	745.7	695.3	50.36	14.808	
10,050.0	9,931.9	9,890.6	9,877.8	28.6	29.3	95.06	-429.2	352.4	751.9	701.6	50.31	14.946	
10,075.0	9,945.0	9,902.9	9,890.0	28.5	29.3	95.03	-429.7	353.2	758.9	708.6	50.25	15.101	
10,100.0	9,957.0	9,914.0	9,901.0	28.5	29.4	94.85	-430.1	353.9	766.5	716.3	50.19	15.270	
10,125.0	9,967.9	9,923.9	9,910.9	28.5	29.4	94.50	-430.5	354.6	774.8	724.6	50.13	15.456	
10,150.0	9,977.5	9,932.6	9,919.6	28.4	29.5	93.99	-430.9	355.1	783.7	733.7	50.06	15.657	
10,175.0	9,986.0	9,940.0	9,927.0	28.4	29.5	93.29	-431.2	355.6	793.4	743.4	49.98	15.874	
10,200.0	9,993.2	9,946.3	9,933.2	28.4	29.5	92.39	-431.4	356.0	803.8	753.9	49.91	16.106	
10,225.0	9,999.1	9,951.2	9,938.1	28.4	29.5	91.30	-431.6	356.3	814.8	764.9	49.83	16.352	
10,250.0	10,003.8	9,954.8	9,941.8	28.5	29.6	90.01	-431.8	356.6	826.4	776.6	49.75	16.612	
10,275.0	10,007.2	9,957.2	9,944.1	28.5	29.6	88.52	-431.9	356.7	838.6	788.9	49.67	16.884	
10,300.0	10,009.2	9,958.2	9,945.2	28.6	29.6	86.84	-431.9	356.8	851.3	801.7	49.58	17.168	
10,327.0	10,010.0	9,957.9	9,944.8	28.6	29.6	84.80	-431.9	356.8	865.6	816.1	49.50	17.487	
10,400.0	10,010.0	9,954.9	9,941.9	28.8	29.6	84.57	-431.8	356.6	906.9	857.6	49.30	18.393	
10,500.0	10,010.0	9,950.9	9,937.8	29.2	29.5	84.25	-431.6	356.3	969.5	920.4	49.15	19.726	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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: Reference		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	
0.0	0.0	0.0	0.0	0.0	0.0	172.79	-249.7	31.6	251.7					
100.0	100.0	100.0	100.0	0.5	0.5	172.79	-249.7	31.6	251.7	250.7	1.06	237.408		
200.0	200.0	200.0	200.0	1.7	1.7	172.79	-249.7	31.6	251.7	248.3	3.42	73.528		
300.0	300.0	300.0	300.0	2.4	2.4	172.79	-249.7	31.6	251.7	246.9	4.82	52.193		
400.0	400.0	400.0	400.0	3.0	3.0	172.79	-249.7	31.6	251.7	245.8	5.91	42.608		
500.0	500.0	500.0	500.0	3.4	3.4	172.79	-249.7	31.6	251.7	244.9	6.83	36.855		
600.0	600.0	600.0	600.0	3.8	3.8	172.79	-249.7	31.6	251.7	244.1	7.65	32.911		
700.0	700.0	700.0	700.0	4.2	4.2	172.79	-249.7	31.6	251.7	243.3	8.39	29.989		
800.0	800.0	800.0	800.0	4.5	4.5	172.79	-249.7	31.6	251.7	242.6	9.08	27.711		
900.0	900.0	900.0	900.0	4.9	4.9	172.79	-249.7	31.6	251.7	242.0	9.73	25.870		
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	172.79	-249.7	31.6	251.7	241.4	10.34	24.342		
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	172.79	-249.7	31.6	251.7	240.8	10.92	23.045		
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	172.79	-249.7	31.6	251.7	240.2	11.48	21.928		
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	172.79	-249.7	31.6	251.7	239.7	12.01	20.951		
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	172.79	-249.7	31.6	251.7	239.2	12.53	20.087		
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	172.79	-249.7	31.6	251.7	238.7	13.03	19.316		
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	172.79	-249.7	31.6	251.7	238.2	13.52	18.623		
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	172.79	-249.7	31.6	251.7	237.7	13.99	17.994		
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	172.79	-249.7	31.6	251.7	237.3	14.45	17.421		
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	172.79	-249.7	31.6	251.7	236.8	14.90	16.895		
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	172.79	-249.7	31.6	251.7	236.4	15.34	16.410		
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	172.79	-249.7	31.6	251.7	236.0	15.77	15.962		
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	172.79	-249.7	31.6	251.7	235.5	16.19	15.545		
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	172.79	-249.7	31.6	251.7	235.1	16.61	15.157		
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	172.79	-249.7	31.6	251.7	234.7	17.02	14.794		
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	172.79	-249.7	31.6	251.7	234.3	17.42	14.453		
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	172.79	-249.7	31.6	251.7	233.9	17.81	14.132		
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	172.79	-249.7	31.6	251.7	233.5	18.20	13.830		
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	172.79	-249.7	31.6	251.7	233.1	18.59	13.544		
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	172.79	-249.7	31.6	251.7	232.8	18.96	13.273		
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	172.79	-249.7	31.6	251.7	232.4	19.34	13.016		
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	172.79	-249.7	31.6	251.7	232.0	19.71	12.772		
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	172.79	-249.7	31.6	251.7	231.7	20.07	12.539		
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	172.79	-249.7	31.6	251.7	231.3	20.44	12.318		
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	172.79	-249.7	31.6	251.7	230.9	20.79	12.106		
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	172.79	-249.7	31.6	251.7	230.6	21.15	11.903		
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	172.79	-249.7	31.6	251.7	230.2	21.50	11.709		
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	172.79	-249.7	31.6	251.7	229.9	21.85	11.522		
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	172.79	-249.7	31.6	251.7	229.5	22.19	11.344		
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	172.79	-249.7	31.6	251.7	229.2	22.53	11.172		
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	172.79	-249.7	31.6	251.7	228.9	22.87	11.006		
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	172.79	-249.7	31.6	251.7	228.5	23.21	10.847		
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	172.79	-249.7	31.6	251.7	228.2	23.54	10.693		
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	172.79	-249.7	31.6	251.7	227.9	23.87	10.545		
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	172.79	-249.7	31.6	251.7	227.5	24.20	10.402		
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	172.79	-249.7	31.6	251.7	227.2	24.53	10.264		
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	172.79	-249.7	31.6	251.7	226.9	24.85	10.130		
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	172.79	-249.7	31.6	251.7	226.6	25.17	10.000		
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	172.79	-249.7	31.6	251.7	226.2	25.49	9.875		
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	172.79	-249.7	31.6	251.7	225.9	25.81	9.753		
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	172.79	-249.7	31.6	251.7	225.6	26.12	9.635		
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	-46.79	-249.7	31.6	251.1	224.8	26.37	9.522		

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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	
5,200.0	5,200.0	5,200.0	5,200.0	13.2	13.4	-47.24	-249.7	31.6	249.3	222.7	26.61	9.372	
5,300.0	5,299.9	5,298.0	5,298.0	13.3	13.5	-47.81	-250.2	30.9	246.8	220.0	26.78	9.213	
5,400.0	5,399.7	5,396.2	5,396.1	13.5	13.6	-48.35	-251.6	28.8	243.8	216.8	26.96	9.043	
5,500.0	5,499.4	5,494.3	5,494.2	13.6	13.7	-48.84	-254.0	25.3	240.4	213.3	27.15	8.856	
5,600.0	5,598.9	5,592.5	5,592.2	13.8	13.8	-49.29	-257.3	20.5	236.6	209.2	27.35	8.651	
5,700.0	5,698.3	5,691.9	5,691.3	13.9	13.9	-49.79	-261.4	14.4	232.2	204.7	27.53	8.437	
5,800.0	5,797.4	5,791.7	5,790.8	14.2	14.0	-50.64	-265.5	8.3	226.8	199.0	27.76	8.171	
5,900.0	5,896.3	5,891.3	5,890.2	14.4	14.2	-51.89	-269.7	2.2	220.3	192.3	28.01	7.868	
5,962.5	5,958.0	5,953.6	5,952.3	14.5	14.3	-52.90	-272.3	-1.7	215.8	187.7	28.14	7.670	
6,000.0	5,995.0	5,990.9	5,989.5	14.6	14.4	-53.54	-273.8	-4.0	213.0	184.8	28.21	7.551	
6,100.0	6,093.5	6,090.4	6,088.7	14.9	14.6	-55.35	-278.0	-10.1	205.7	177.2	28.45	7.229	
6,200.0	6,192.1	6,189.9	6,187.9	15.2	14.8	-57.29	-282.1	-16.2	198.6	169.8	28.71	6.917	
6,300.0	6,290.7	6,289.4	6,287.2	15.5	15.1	-59.37	-286.3	-22.3	191.7	162.7	28.96	6.620	
6,400.0	6,389.3	6,388.9	6,386.4	15.9	15.3	-61.60	-290.4	-28.5	185.1	155.9	29.20	6.339	
6,500.0	6,487.9	6,488.4	6,485.7	16.2	15.6	-64.00	-294.6	-34.6	178.8	149.3	29.43	6.074	
6,600.0	6,586.5	6,587.9	6,584.9	16.6	15.9	-66.56	-298.7	-40.7	172.8	143.1	29.66	5.827	
6,700.0	6,685.1	6,687.5	6,684.1	17.0	16.1	-69.29	-302.9	-46.8	167.2	137.3	29.87	5.597	
6,800.0	6,783.7	6,787.0	6,783.4	17.4	16.4	-72.21	-307.0	-53.0	162.0	131.9	30.09	5.384	
6,900.0	6,882.3	6,886.5	6,882.6	17.8	16.8	-75.31	-311.2	-59.1	157.3	127.0	30.31	5.189	
7,000.0	6,980.9	6,986.0	6,981.8	18.3	17.1	-78.60	-315.3	-65.2	153.0	122.5	30.55	5.009	
7,100.0	7,079.5	7,085.5	7,081.1	18.7	17.4	-82.05	-319.5	-71.3	149.3	118.5	30.82	4.845	
7,200.0	7,178.1	7,185.0	7,180.3	19.2	17.8	-85.67	-323.6	-77.4	146.2	115.0	31.13	4.695	
7,300.0	7,276.7	7,284.5	7,279.5	19.6	18.1	-89.43	-327.8	-83.6	143.6	112.1	31.51	4.558	
7,400.0	7,375.2	7,384.0	7,378.8	20.1	18.5	-93.30	-331.9	-89.7	141.8	109.8	31.98	4.432	
7,500.0	7,473.8	7,483.5	7,478.0	20.6	18.8	-97.26	-336.0	-95.8	140.5	108.0	32.56	4.317	
7,600.0	7,572.4	7,583.1	7,577.3	21.1	19.2	-101.27	-340.2	-101.9	140.0	106.8	33.25	4.211	
7,626.1	7,598.1	7,609.0	7,603.1	21.2	19.3	-102.31	-341.3	-103.5	140.0	106.5	33.45	4.185	
7,700.0	7,671.0	7,682.6	7,676.5	21.6	19.6	-105.29	-344.3	-108.1	140.2	106.1	34.07	4.114	
7,800.0	7,769.6	7,782.1	7,775.7	22.1	20.0	-109.27	-348.5	-114.2	141.0	106.0	35.01	4.028	
7,900.0	7,868.2	7,881.6	7,875.0	22.6	20.3	-113.20	-352.6	-120.3	142.6	106.5	36.07	3.953	
8,000.0	7,966.8	7,981.1	7,974.2	23.1	20.7	-117.02	-356.8	-126.4	144.8	107.5	37.23	3.889	
8,100.0	8,065.4	8,080.6	8,073.4	23.6	21.1	-120.71	-360.9	-132.6	147.6	109.1	38.47	3.836	
8,200.0	8,164.0	8,180.1	8,172.7	24.2	21.6	-124.25	-365.1	-138.7	151.0	111.2	39.78	3.797	
8,300.0	8,262.6	8,279.6	8,271.9	24.7	22.0	-127.63	-369.2	-144.8	155.0	113.9	41.13	3.769	
8,400.0	8,361.2	8,379.1	8,371.1	25.2	22.4	-130.82	-373.4	-150.9	159.5	117.0	42.50	3.753	
8,482.0	8,442.0	8,460.7	8,452.5	25.7	22.7	-133.31	-376.8	-156.0	163.5	119.9	43.63	3.748	
8,500.0	8,459.8	8,478.7	8,470.4	25.8	22.8	-133.84	-377.5	-157.1	164.4	120.6	43.87	3.748	
8,600.0	8,558.5	8,578.3	8,569.7	26.3	23.2	-136.43	-381.7	-163.2	169.0	123.8	45.18	3.740	
8,700.0	8,657.6	8,678.0	8,669.2	26.8	23.7	-138.49	-385.8	-169.3	172.5	126.1	46.40	3.717	
8,800.0	8,756.8	8,777.9	8,768.8	27.3	24.1	-140.11	-390.0	-175.5	174.9	127.4	47.54	3.679	
8,900.0	8,856.3	8,877.8	8,868.4	27.8	24.5	-141.31	-394.2	-181.6	176.1	127.5	48.60	3.623	
9,000.0	8,955.9	8,977.8	8,968.1	28.3	25.0	-142.15	-398.3	-187.8	175.9	126.4	49.58	3.549	
9,100.0	9,055.7	9,077.7	9,067.8	28.8	25.4	-142.64	-402.5	-193.9	174.5	124.0	50.47	3.457	
9,200.0	9,155.6	9,177.7	9,167.5	29.2	25.9	-142.78	-406.7	-200.1	171.6	120.3	51.27	3.347	
9,300.0	9,255.5	9,277.6	9,267.1	29.6	26.3	-142.55	-410.8	-206.2	167.3	115.4	51.95	3.221	
9,400.0	9,355.5	9,377.4	9,366.7	29.9	26.8	-141.93	-415.0	-212.4	161.7	109.2	52.49	3.081	
9,444.5	9,400.0	9,421.8	9,410.9	30.0	27.0	77.92	-416.9	-215.1	158.8	106.2	52.63	3.017	
9,500.0	9,455.5	9,477.2	9,466.1	30.0	27.2	78.49	-419.2	-218.5	155.0	102.2	52.73	2.939	
9,577.0	9,532.5	9,554.0	9,542.7	30.1	27.6	79.34	-422.4	-223.2	149.7	96.8	52.87	2.831	
9,600.0	9,555.5	9,576.9	9,565.5	30.0	27.7	80.47	-423.3	-224.6	148.0	95.2	52.84	2.802	
9,625.0	9,580.4	9,601.6	9,590.3	30.0	27.8	81.71	-424.3	-226.2	146.1	93.4	52.65	2.774	
9,650.0	9,605.2	9,626.2	9,614.8	29.9	27.9	83.50	-425.4	-227.7	144.0	91.7	52.31	2.752	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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		
9,675.0	9,629.8	9,650.6	9,639.1	29.8	28.0	85.82	-426.4	-229.2	141.9	90.1	51.78	2.740 SF		
9,700.0	9,654.1	9,674.6	9,663.0	29.7	28.1	88.65	-427.4	-230.7	139.9	88.9	51.06	2.740		
9,725.0	9,678.1	9,698.3	9,686.6	29.6	28.2	91.95	-428.4	-232.1	138.3	88.2	50.13	2.760 ES		
9,750.0	9,701.7	9,721.5	9,709.7	29.5	28.3	95.65	-429.3	-233.5	137.3	88.4	48.98	2.804		
9,766.7	9,717.3	9,736.7	9,724.9	29.5	28.4	98.31	-430.0	-234.5	137.1	89.0	48.09	2.851 CC		
9,775.0	9,724.9	9,744.1	9,732.4	29.4	28.4	99.65	-430.3	-234.9	137.2	89.5	47.63	2.880		
9,800.0	9,747.5	9,766.2	9,754.4	29.4	28.5	103.83	-431.2	-236.3	138.1	92.0	46.13	2.995		
9,825.0	9,769.5	9,787.7	9,775.8	29.3	28.6	108.05	-432.1	-237.6	140.5	95.9	44.56	3.152		
9,850.0	9,790.9	9,808.5	9,796.5	29.2	28.7	112.17	-433.0	-238.9	144.4	101.3	43.04	3.355		
9,875.0	9,811.5	9,828.5	9,816.5	29.1	28.8	116.08	-433.8	-240.1	150.1	108.4	41.69	3.600		
9,900.0	9,831.4	9,847.7	9,835.7	29.0	28.9	119.69	-434.6	-241.3	157.6	117.0	40.60	3.882		
9,925.0	9,850.5	9,866.1	9,854.0	28.9	29.0	122.91	-435.4	-242.4	167.1	127.2	39.83	4.195		
9,950.0	9,868.7	9,883.5	9,871.4	28.8	29.1	125.71	-436.1	-243.5	178.3	138.9	39.36	4.530		
9,975.0	9,886.0	9,900.0	9,887.8	28.7	29.2	128.07	-436.8	-244.5	191.3	152.1	39.17	4.883		
10,000.0	9,902.3	9,915.5	9,903.3	28.7	29.2	129.95	-437.4	-245.5	205.8	166.7	39.19	5.253		
10,025.0	9,917.6	9,930.0	9,917.7	28.6	29.3	131.37	-438.0	-246.4	221.9	182.5	39.37	5.637		
10,050.0	9,931.9	9,943.3	9,931.0	28.6	29.4	132.30	-438.6	-247.2	239.3	199.6	39.64	6.036		
10,075.0	9,945.0	9,955.6	9,943.2	28.5	29.4	132.73	-439.1	-247.9	257.8	217.8	39.97	6.450		
10,100.0	9,957.0	9,966.7	9,954.3	28.5	29.5	132.61	-439.6	-248.6	277.4	237.1	40.33	6.879		
10,125.0	9,967.9	9,976.6	9,964.1	28.5	29.5	131.90	-440.0	-249.2	298.0	257.3	40.69	7.322		
10,150.0	9,977.5	9,985.2	9,972.8	28.4	29.5	130.50	-440.3	-249.8	319.3	278.3	41.05	7.779		
10,175.0	9,986.0	9,992.7	9,980.2	28.4	29.6	128.28	-440.6	-250.2	341.4	300.0	41.38	8.249		
10,200.0	9,993.2	9,998.9	9,986.4	28.4	29.6	125.07	-440.9	-250.6	364.0	322.3	41.70	8.729		
10,225.0	9,999.1	10,003.8	9,991.3	28.4	29.6	120.60	-441.1	-250.9	387.1	345.2	41.99	9.219		
10,250.0	10,003.8	10,007.5	9,994.9	28.5	29.7	114.58	-441.3	-251.1	410.7	368.4	42.27	9.717		
10,275.0	10,007.2	10,009.8	9,997.3	28.5	29.7	106.70	-441.4	-251.3	434.5	392.0	42.52	10.220		
10,300.0	10,009.2	10,010.8	9,998.3	28.6	29.7	96.80	-441.4	-251.3	458.6	415.8	42.75	10.728		
10,327.0	10,010.0	10,010.5	9,998.0	28.6	29.7	84.21	-441.4	-251.3	484.7	441.8	42.97	11.280		
10,400.0	10,010.0	10,007.5	9,995.0	28.8	29.7	82.80	-441.3	-251.1	555.7	512.2	43.50	12.774		
10,500.0	10,010.0	10,003.4	9,990.9	29.2	29.6	80.88	-441.1	-250.9	653.7	609.6	44.07	14.832		
10,600.0	10,010.0	9,999.2	9,986.8	29.7	29.6	78.98	-440.9	-250.6	752.2	707.7	44.52	16.896		
10,700.0	10,010.0	9,995.1	9,982.6	30.2	29.6	77.13	-440.8	-250.4	851.0	806.2	44.88	18.963		
10,800.0	10,010.0	9,991.0	9,978.5	30.9	29.6	75.30	-440.6	-250.1	950.1	904.9	45.18	21.031		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	0.0	0.0	179.62	-249.9	1.7	249.9				
100.0	100.0	101.0	101.0	0.5	0.5	179.62	-249.9	1.7	249.9	248.9	1.07	233.127	
200.0	200.0	201.0	201.0	1.7	1.7	179.62	-249.9	1.7	249.9	246.5	3.43	72.857	
300.0	300.0	301.0	301.0	2.4	2.4	179.62	-249.9	1.7	249.9	245.1	4.83	51.765	
400.0	400.0	401.0	401.0	3.0	3.0	179.62	-249.9	1.7	249.9	244.0	5.91	42.272	
500.0	500.0	501.0	501.0	3.4	3.4	179.62	-249.9	1.7	249.9	243.1	6.83	36.571	
600.0	600.0	601.0	601.0	3.8	3.8	179.62	-249.9	1.7	249.9	242.3	7.65	32.662	
700.0	700.0	701.0	701.0	4.2	4.2	179.62	-249.9	1.7	249.9	241.5	8.40	29.764	
800.0	800.0	801.0	801.0	4.5	4.5	179.62	-249.9	1.7	249.9	240.9	9.09	27.505	
900.0	900.0	901.0	901.0	4.9	4.9	179.62	-249.9	1.7	249.9	240.2	9.73	25.679	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	179.62	-249.9	1.7	249.9	239.6	10.34	24.162	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	179.62	-249.9	1.7	249.9	239.0	10.93	22.876	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	179.62	-249.9	1.7	249.9	238.5	11.48	21.767	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	179.62	-249.9	1.7	249.9	237.9	12.02	20.798	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	179.62	-249.9	1.7	249.9	237.4	12.53	19.941	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	179.62	-249.9	1.7	249.9	236.9	13.03	19.176	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	179.62	-249.9	1.7	249.9	236.4	13.52	18.488	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	179.62	-249.9	1.7	249.9	235.9	13.99	17.864	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	179.62	-249.9	1.7	249.9	235.5	14.45	17.295	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	179.62	-249.9	1.7	249.9	235.0	14.90	16.773	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	179.62	-249.9	1.7	249.9	234.6	15.34	16.292	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	179.62	-249.9	1.7	249.9	234.2	15.77	15.847	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	179.62	-249.9	1.7	249.9	233.7	16.19	15.433	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	179.62	-249.9	1.7	249.9	233.3	16.61	15.048	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	179.62	-249.9	1.7	249.9	232.9	17.02	14.687	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	179.62	-249.9	1.7	249.9	232.5	17.42	14.349	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	179.62	-249.9	1.7	249.9	232.1	17.81	14.030	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	179.62	-249.9	1.7	249.9	231.7	18.20	13.730	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	179.62	-249.9	1.7	249.9	231.4	18.59	13.446	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	179.62	-249.9	1.7	249.9	231.0	18.97	13.178	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	179.62	-249.9	1.7	249.9	230.6	19.34	12.923	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	179.62	-249.9	1.7	249.9	230.2	19.71	12.680	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	179.62	-249.9	1.7	249.9	229.9	20.08	12.449	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	179.62	-249.9	1.7	249.9	229.5	20.44	12.229	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	179.62	-249.9	1.7	249.9	229.1	20.80	12.019	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	179.62	-249.9	1.7	249.9	228.8	21.15	11.818	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	179.62	-249.9	1.7	249.9	228.4	21.50	11.625	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	179.62	-249.9	1.7	249.9	228.1	21.85	11.440	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	179.62	-249.9	1.7	249.9	227.7	22.19	11.262	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	179.62	-249.9	1.7	249.9	227.4	22.53	11.092	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	179.62	-249.9	1.7	249.9	227.1	22.87	10.928	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	179.62	-249.9	1.7	249.9	226.7	23.21	10.769	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	179.62	-249.9	1.7	249.9	226.4	23.54	10.617	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	179.62	-249.9	1.7	249.9	226.1	23.87	10.470	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	179.62	-249.9	1.7	249.9	225.7	24.20	10.328	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	179.62	-249.9	1.7	249.9	225.4	24.53	10.190	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	179.62	-249.9	1.7	249.9	225.1	24.85	10.058	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	179.62	-249.9	1.7	249.9	224.8	25.17	9.929	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	179.62	-249.9	1.7	249.9	224.4	25.49	9.804	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	179.62	-249.9	1.7	249.9	224.1	25.81	9.684	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	179.62	-249.9	1.7	249.9	223.8	26.12	9.567	
5,016.8	5,016.8	5,017.5	5,017.5	13.1	13.1	-39.81	-249.9	1.7	249.9	223.8	26.16	9.555	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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)			
5,100.0	5,100.0	5,098.9	5,098.9	13.2	13.2	-39.77	-250.4	0.9	249.7	223.4	26.32	9.489	
5,200.0	5,200.0	5,196.8	5,196.7	13.2	13.3	-39.64	-251.6	-1.3	249.0	222.5	26.48	9.402	
5,300.0	5,299.9	5,294.7	5,294.5	13.3	13.4	-39.44	-253.7	-4.9	247.7	221.1	26.66	9.293	
5,400.0	5,399.7	5,392.5	5,392.2	13.5	13.5	-39.15	-256.6	-10.0	246.0	219.1	26.85	9.160	
5,500.0	5,499.4	5,491.9	5,491.3	13.6	13.6	-38.85	-260.2	-16.2	243.5	216.5	27.03	9.009	
5,600.0	5,598.9	5,591.8	5,591.0	13.8	13.8	-38.80	-263.9	-22.6	239.8	212.5	27.27	8.792	
5,700.0	5,698.3	5,691.7	5,690.6	13.9	13.9	-39.03	-267.5	-29.0	234.7	207.1	27.54	8.520	
5,800.0	5,797.4	5,791.4	5,790.1	14.2	14.1	-39.54	-271.1	-35.3	228.2	200.4	27.83	8.199	
5,900.0	5,896.3	5,891.1	5,889.4	14.4	14.4	-40.39	-274.8	-41.6	220.4	192.3	28.14	7.834	
5,962.5	5,958.0	5,953.3	5,951.5	14.5	14.5	-41.11	-277.0	-45.6	214.9	186.6	28.31	7.592	
6,000.0	5,995.0	5,990.6	5,988.7	14.6	14.6	-41.57	-278.4	-48.0	211.5	183.1	28.41	7.446	
6,100.0	6,093.5	6,090.1	6,087.9	14.9	14.8	-42.88	-282.0	-54.3	202.4	173.7	28.72	7.049	
6,200.0	6,192.1	6,189.5	6,187.1	15.2	15.1	-44.32	-285.7	-60.6	193.4	164.4	29.04	6.660	
6,300.0	6,290.7	6,289.0	6,286.3	15.5	15.4	-45.89	-289.3	-67.0	184.6	155.2	29.36	6.285	
6,400.0	6,389.3	6,388.5	6,385.5	15.9	15.6	-47.62	-292.9	-73.3	175.9	146.2	29.68	5.925	
6,500.0	6,487.9	6,488.0	6,484.7	16.2	15.9	-49.52	-296.5	-79.6	167.4	137.4	29.99	5.581	
6,600.0	6,586.5	6,587.4	6,583.9	16.6	16.2	-51.63	-300.2	-85.9	159.0	128.8	30.27	5.253	
6,700.0	6,685.1	6,686.9	6,683.1	17.0	16.6	-53.96	-303.8	-92.3	150.9	120.4	30.54	4.943	
6,800.0	6,783.7	6,786.4	6,782.3	17.4	16.9	-56.55	-307.4	-98.6	143.1	112.4	30.78	4.650	
6,900.0	6,882.3	6,885.9	6,881.5	17.8	17.2	-59.44	-311.0	-104.9	135.7	104.7	31.00	4.377	
7,000.0	6,980.9	6,985.3	6,980.7	18.3	17.6	-62.65	-314.7	-111.2	128.6	97.4	31.18	4.123	
7,100.0	7,079.5	7,084.8	7,079.9	18.7	17.9	-66.21	-318.3	-117.6	121.9	90.6	31.36	3.888	
7,200.0	7,178.1	7,184.3	7,179.2	19.2	18.3	-70.17	-321.9	-123.9	115.8	84.3	31.53	3.673	
7,300.0	7,276.7	7,283.8	7,278.4	19.6	18.7	-74.55	-325.6	-130.2	110.3	78.6	31.72	3.477	
7,400.0	7,375.2	7,383.2	7,377.6	20.1	19.0	-79.35	-329.2	-136.6	105.5	73.5	31.98	3.299	
7,500.0	7,473.8	7,482.7	7,476.8	20.6	19.4	-84.56	-332.8	-142.9	101.5	69.2	32.36	3.137	
7,600.0	7,572.4	7,582.2	7,576.0	21.1	19.8	-90.14	-336.4	-149.2	98.5	65.5	32.92	2.991	
7,700.0	7,671.0	7,681.6	7,675.2	21.6	20.2	-96.02	-340.1	-155.5	96.4	62.7	33.70	2.860	
7,800.0	7,769.6	7,781.1	7,774.4	22.1	20.6	-102.08	-343.7	-161.9	95.4	60.6	34.74	2.745	
7,842.4	7,811.4	7,823.3	7,816.4	22.3	20.8	-104.68	-345.2	-164.5	95.3	60.0	35.26	2.702	
7,900.0	7,868.2	7,880.6	7,873.6	22.6	21.0	-108.21	-347.3	-168.2	95.5	59.4	36.03	2.649	
8,000.0	7,966.8	7,980.1	7,972.8	23.1	21.4	-114.25	-351.0	-174.5	96.6	59.1	37.54	2.574	
8,100.0	8,065.4	8,079.5	8,072.0	23.6	21.8	-120.09	-354.6	-180.8	98.9	59.7	39.20	2.522	
8,200.0	8,164.0	8,179.0	8,171.2	24.2	22.2	-125.62	-358.2	-187.2	102.1	61.1	40.94	2.494	
8,300.0	8,262.6	8,278.5	8,270.4	24.7	22.7	-130.77	-361.8	-193.5	106.2	63.5	42.68	2.488	
8,400.0	8,361.2	8,378.0	8,369.6	25.2	23.1	-135.51	-365.5	-199.8	111.1	66.7	44.39	2.503	
8,482.0	8,442.0	8,459.5	8,451.0	25.7	23.4	-139.07	-368.4	-205.0	115.6	69.9	45.73	2.529	
8,500.0	8,459.8	8,477.4	8,468.8	25.8	23.5	-139.81	-369.1	-206.2	116.7	70.7	46.01	2.536	
8,600.0	8,558.5	8,577.0	8,568.1	26.3	24.0	-143.42	-372.7	-212.5	121.9	74.4	47.50	2.567	
8,700.0	8,657.6	8,676.7	8,667.6	26.8	24.4	-146.28	-376.4	-218.8	126.2	77.3	48.85	2.583	
8,800.0	8,756.8	8,776.6	8,767.2	27.3	24.8	-148.54	-380.0	-225.2	129.2	79.1	50.09	2.579	
8,900.0	8,856.3	8,876.5	8,866.8	27.8	25.3	-150.32	-383.6	-231.5	130.9	79.7	51.25	2.554	
9,000.0	8,955.9	8,976.4	8,966.5	28.3	25.7	-151.69	-387.3	-237.9	131.2	78.9	52.32	2.507	
9,100.0	9,055.7	9,076.4	9,066.2	28.8	26.2	-152.70	-390.9	-244.3	130.0	76.7	53.33	2.438	
9,200.0	9,155.6	9,176.3	9,165.8	29.2	26.6	-153.37	-394.6	-250.6	127.3	73.0	54.26	2.345	
9,300.0	9,255.5	9,276.2	9,265.5	29.6	27.1	-153.71	-398.2	-257.0	123.0	67.9	55.12	2.232	
9,400.0	9,355.5	9,376.1	9,365.0	29.9	27.5	-153.69	-401.9	-263.3	117.2	61.3	55.88	2.097	
9,444.5	9,400.0	9,420.5	9,409.3	30.0	27.7	65.87	-403.5	-266.1	114.1	58.0	56.12	2.033	
9,500.0	9,455.5	9,475.8	9,464.5	30.0	28.0	66.08	-405.5	-269.7	110.0	53.7	56.35	1.953	
9,577.0	9,532.5	9,552.6	9,541.1	30.1	28.4	66.40	-408.3	-274.6	104.4	47.7	56.69	1.842	
9,600.0	9,555.5	9,575.5	9,564.0	30.0	28.5	67.46	-409.1	-276.0	102.5	45.8	56.72	1.808	
9,625.0	9,580.4	9,600.3	9,588.7	30.0	28.6	68.84	-410.0	-277.6	100.0	43.4	56.63	1.767	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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)			
9,650.0	9,605.2	9,624.9	9,613.2	29.9	28.7	71.04	-410.9	-279.2	97.1	40.7	56.38	1.723	
9,675.0	9,629.8	9,649.3	9,637.5	29.8	28.8	74.12	-411.8	-280.7	93.9	38.0	55.92	1.680	
9,700.0	9,654.1	9,673.4	9,661.5	29.7	28.9	78.12	-412.7	-282.2	90.7	35.5	55.20	1.644	
9,725.0	9,678.1	9,697.0	9,685.1	29.6	29.0	83.06	-413.6	-283.7	87.7	33.6	54.10	1.622 SF	
9,750.0	9,701.7	9,720.3	9,708.3	29.5	29.1	88.87	-414.4	-285.2	85.3	32.8	52.55	1.624 ES	
9,775.0	9,724.9	9,743.0	9,731.0	29.4	29.2	95.40	-415.3	-286.7	84.0	33.5	50.49	1.664	
9,784.6	9,733.6	9,751.6	9,739.5	29.4	29.3	98.04	-415.6	-287.2	83.9	34.3	49.58	1.692 CC	
9,800.0	9,747.5	9,765.2	9,753.1	29.4	29.3	102.36	-416.1	-288.1	84.2	36.2	48.02	1.754	
9,825.0	9,769.5	9,786.7	9,774.6	29.3	29.4	109.40	-416.8	-289.4	86.5	41.1	45.40	1.904	
9,850.0	9,790.9	9,807.6	9,795.4	29.2	29.5	116.15	-417.6	-290.8	91.0	48.0	43.03	2.115	
9,875.0	9,811.5	9,827.7	9,815.4	29.1	29.6	122.35	-418.3	-292.0	98.0	56.7	41.24	2.376	
9,900.0	9,831.4	9,846.9	9,834.7	29.0	29.7	127.81	-419.0	-293.3	107.3	67.2	40.16	2.672	
9,925.0	9,850.5	9,865.4	9,853.1	28.9	29.8	132.47	-419.7	-294.5	118.9	79.2	39.73	2.993	
9,950.0	9,868.7	9,882.9	9,870.5	28.8	29.9	136.34	-420.4	-295.6	132.4	92.7	39.74	3.332	
9,975.0	9,886.0	9,899.5	9,887.1	28.7	30.0	139.48	-421.0	-296.6	147.7	107.6	40.03	3.689	
10,000.0	9,902.3	9,915.1	9,902.6	28.7	30.0	141.96	-421.5	-297.6	164.4	124.0	40.46	4.063	
10,025.0	9,917.6	9,929.7	9,917.2	28.6	30.1	143.83	-422.1	-298.5	182.5	141.5	40.94	4.457	
10,050.0	9,931.9	9,943.1	9,930.6	28.6	30.2	145.13	-422.5	-299.4	201.7	160.3	41.42	4.870	
10,075.0	9,945.0	9,955.5	9,942.9	28.5	30.2	145.88	-423.0	-300.2	221.9	180.0	41.87	5.300	
10,100.0	9,957.0	9,966.7	9,954.1	28.5	30.3	146.08	-423.4	-300.9	243.0	200.7	42.27	5.748	
10,125.0	9,967.9	9,976.7	9,964.1	28.5	30.3	145.68	-423.8	-301.5	264.8	222.2	42.64	6.211	
10,150.0	9,977.5	9,985.5	9,972.9	28.4	30.4	144.59	-424.1	-302.1	287.3	244.4	42.97	6.687	
10,175.0	9,986.0	9,993.1	9,980.4	28.4	30.4	142.64	-424.4	-302.6	310.4	267.2	43.26	7.176	
10,200.0	9,993.2	9,999.4	9,986.7	28.4	30.4	139.52	-424.6	-303.0	334.0	290.5	43.51	7.675	
10,225.0	9,999.1	10,004.5	9,991.8	28.4	30.5	134.77	-424.8	-303.3	357.9	314.2	43.74	8.183	
10,250.0	10,003.8	10,008.2	9,995.5	28.5	30.5	127.56	-424.9	-303.5	382.2	338.2	43.94	8.697	
10,275.0	10,007.2	10,010.7	9,998.0	28.5	30.5	116.73	-425.0	-303.7	406.7	362.6	44.12	9.217	
10,300.0	10,009.2	10,011.9	9,999.1	28.6	30.5	101.10	-425.1	-303.8	431.3	387.0	44.29	9.739	
10,327.0	10,010.0	10,011.7	9,998.9	28.6	30.5	79.70	-425.0	-303.8	458.1	413.6	44.44	10.307	
10,400.0	10,010.0	10,009.0	9,996.3	28.8	30.5	77.56	-425.0	-303.6	530.3	485.5	44.80	11.838	
10,500.0	10,010.0	10,005.4	9,992.7	29.2	30.5	74.71	-424.8	-303.4	629.6	584.4	45.17	13.940	
10,600.0	10,010.0	10,001.8	9,989.1	29.7	30.5	71.94	-424.7	-303.1	729.1	683.6	45.45	16.041	
10,700.0	10,010.0	9,998.2	9,985.5	30.2	30.4	69.29	-424.6	-302.9	828.7	783.0	45.68	18.142	
10,800.0	10,010.0	9,994.7	9,982.0	30.9	30.4	66.73	-424.4	-302.7	928.3	882.4	45.87	20.239	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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		Distance		Rule Assigned:		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
0.0	0.0	1.0	1.0	0.0	0.0	159.89	-249.7	91.4	265.9			
100.0	100.0	101.0	101.0	0.5	0.5	159.89	-249.7	91.4	265.9	264.8	1.07	248.026
200.0	200.0	201.0	201.0	1.7	1.7	159.89	-249.7	91.4	265.9	262.5	3.43	77.514
300.0	300.0	301.0	301.0	2.4	2.4	159.89	-249.7	91.4	265.9	261.1	4.83	55.073
400.0	400.0	401.0	401.0	3.0	3.0	159.89	-249.7	91.4	265.9	260.0	5.91	44.974
500.0	500.0	501.0	501.0	3.4	3.4	159.89	-249.7	91.4	265.9	259.1	6.83	38.909
600.0	600.0	601.0	601.0	3.8	3.8	159.89	-249.7	91.4	265.9	258.3	7.65	34.749
700.0	700.0	701.0	701.0	4.2	4.2	159.89	-249.7	91.4	265.9	257.5	8.40	31.667
800.0	800.0	801.0	801.0	4.5	4.5	159.89	-249.7	91.4	265.9	256.8	9.09	29.263
900.0	900.0	901.0	901.0	4.9	4.9	159.89	-249.7	91.4	265.9	256.2	9.73	27.320
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	159.89	-249.7	91.4	265.9	255.6	10.34	25.707
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	159.89	-249.7	91.4	265.9	255.0	10.93	24.338
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	159.89	-249.7	91.4	265.9	254.4	11.48	23.158
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	159.89	-249.7	91.4	265.9	253.9	12.02	22.127
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	159.89	-249.7	91.4	265.9	253.4	12.53	21.215
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	159.89	-249.7	91.4	265.9	252.9	13.03	20.402
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	159.89	-249.7	91.4	265.9	252.4	13.52	19.669
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	159.89	-249.7	91.4	265.9	251.9	13.99	19.005
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	159.89	-249.7	91.4	265.9	251.5	14.45	18.400
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	159.89	-249.7	91.4	265.9	251.0	14.90	17.845
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	159.89	-249.7	91.4	265.9	250.6	15.34	17.333
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	159.89	-249.7	91.4	265.9	250.1	15.77	16.860
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	159.89	-249.7	91.4	265.9	249.7	16.19	16.420
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	159.89	-249.7	91.4	265.9	249.3	16.61	16.009
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	159.89	-249.7	91.4	265.9	248.9	17.02	15.626
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	159.89	-249.7	91.4	265.9	248.5	17.42	15.266
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	159.89	-249.7	91.4	265.9	248.1	17.81	14.927
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	159.89	-249.7	91.4	265.9	247.7	18.20	14.608
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	159.89	-249.7	91.4	265.9	247.3	18.59	14.306
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	159.89	-249.7	91.4	265.9	246.9	18.97	14.020
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	159.89	-249.7	91.4	265.9	246.6	19.34	13.749
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	159.89	-249.7	91.4	265.9	246.2	19.71	13.491
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	159.89	-249.7	91.4	265.9	245.8	20.08	13.245
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	159.89	-249.7	91.4	265.9	245.5	20.44	13.011
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	159.89	-249.7	91.4	265.9	245.1	20.80	12.787
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	159.89	-249.7	91.4	265.9	244.8	21.15	12.573
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	159.89	-249.7	91.4	265.9	244.4	21.50	12.368
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	159.89	-249.7	91.4	265.9	244.1	21.85	12.171
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	159.89	-249.7	91.4	265.9	243.7	22.19	11.982
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	159.89	-249.7	91.4	265.9	243.4	22.53	11.801
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	159.89	-249.7	91.4	265.9	243.0	22.87	11.626
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	159.89	-249.7	91.4	265.9	242.7	23.21	11.458
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	159.89	-249.7	91.4	265.9	242.4	23.54	11.295
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	159.89	-249.7	91.4	265.9	242.0	23.87	11.139
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	159.89	-249.7	91.4	265.9	241.7	24.20	10.988
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	159.89	-249.7	91.4	265.9	241.4	24.53	10.842
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	159.89	-249.7	91.4	265.9	241.1	24.85	10.700
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	159.89	-249.7	91.4	265.9	240.7	25.17	10.564
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	159.89	-249.7	91.4	265.9	240.4	25.49	10.431
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	159.89	-249.7	91.4	265.9	240.1	25.81	10.303
4,916.3	4,916.3	4,917.3	4,917.3	12.9	12.9	159.89	-249.7	91.4	265.9	240.1	25.86	10.282 CC
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	159.89	-249.7	91.4	265.9	239.8	26.12	10.179 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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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	5,097.6	5,097.6	13.2	13.2	-59.82	-250.1	92.2	266.1	239.8	26.32	10.112	
5,200.0	5,200.0	5,194.2	5,194.2	13.2	13.3	-60.64	-251.2	94.4	266.7	240.2	26.48	10.073	
5,300.0	5,299.9	5,290.6	5,290.5	13.3	13.4	-61.99	-253.1	98.0	267.8	241.2	26.65	10.050	
5,400.0	5,399.7	5,386.6	5,386.3	13.5	13.5	-63.84	-255.7	103.0	269.6	242.8	26.84	10.047 SF	
5,500.0	5,499.4	5,484.2	5,483.6	13.6	13.6	-66.20	-259.0	109.4	272.2	245.2	27.00	10.083	
5,600.0	5,598.9	5,583.3	5,582.4	13.8	13.7	-68.90	-262.5	116.1	274.8	247.6	27.22	10.096	
5,700.0	5,698.3	5,682.2	5,681.0	13.9	13.9	-71.87	-265.9	122.7	277.5	250.0	27.48	10.098	
5,800.0	5,797.4	5,780.8	5,779.4	14.2	14.1	-75.10	-269.3	129.3	280.5	252.8	27.76	10.103	
5,900.0	5,896.3	5,879.2	5,877.5	14.4	14.3	-78.57	-272.8	135.9	284.1	256.0	28.07	10.119	
5,962.5	5,958.0	5,940.6	5,938.7	14.5	14.5	-80.85	-274.9	140.0	286.7	258.4	28.25	10.148	
6,000.0	5,995.0	5,977.3	5,975.3	14.6	14.6	-82.25	-276.2	142.5	288.5	260.1	28.35	10.174	
6,100.0	6,093.5	6,075.4	6,073.1	14.9	14.8	-85.90	-279.6	149.1	294.0	265.3	28.70	10.244	
6,200.0	6,192.1	6,173.4	6,170.9	15.2	15.1	-89.41	-283.0	155.7	300.8	271.7	29.09	10.339	
6,300.0	6,290.7	6,271.5	6,268.6	15.5	15.3	-92.75	-286.4	162.2	308.7	279.2	29.51	10.459	
6,400.0	6,389.3	6,369.5	6,366.4	15.9	15.6	-95.93	-289.8	168.8	317.6	287.6	29.96	10.601	
6,500.0	6,487.9	6,467.5	6,464.2	16.2	15.9	-98.92	-293.2	175.4	327.4	297.0	30.43	10.759	
6,600.0	6,586.5	6,565.6	6,561.9	16.6	16.2	-101.74	-296.6	182.0	338.1	307.2	30.93	10.930	
6,700.0	6,685.1	6,663.6	6,659.7	17.0	16.5	-104.39	-300.1	188.6	349.6	318.1	31.46	11.112	
6,800.0	6,783.7	6,761.7	6,757.5	17.4	16.8	-106.86	-303.5	195.2	361.8	329.7	32.01	11.300	
6,900.0	6,882.3	6,859.7	6,855.2	17.8	17.2	-109.18	-306.9	201.7	374.6	342.0	32.59	11.494	
7,000.0	6,980.9	6,957.8	6,953.0	18.3	17.5	-111.34	-310.3	208.3	388.0	354.8	33.19	11.690	
7,100.0	7,079.5	7,055.8	7,050.8	18.7	17.9	-113.36	-313.7	214.9	401.9	368.1	33.81	11.886	
7,200.0	7,178.1	7,153.9	7,148.5	19.2	18.2	-115.24	-317.1	221.5	416.3	381.8	34.45	12.083	
7,300.0	7,276.7	7,251.9	7,246.3	19.6	18.6	-117.00	-320.5	228.1	431.0	395.9	35.11	12.277	
7,400.0	7,375.2	7,350.0	7,344.1	20.1	19.0	-118.64	-323.9	234.6	446.2	410.4	35.78	12.469	
7,500.0	7,473.8	7,448.0	7,441.8	20.6	19.3	-120.17	-327.4	241.2	461.7	425.2	36.48	12.658	
7,600.0	7,572.4	7,546.1	7,539.6	21.1	19.7	-121.61	-330.8	247.8	477.5	440.4	37.18	12.843	
7,700.0	7,671.0	7,644.1	7,637.4	21.6	20.1	-122.95	-334.2	254.4	493.6	455.7	37.90	13.024	
7,800.0	7,769.6	7,742.2	7,735.1	22.1	20.5	-124.21	-337.6	261.0	510.0	471.3	38.63	13.201	
7,900.0	7,868.2	7,840.2	7,832.9	22.6	20.9	-125.39	-341.0	267.5	526.5	487.2	39.38	13.372	
8,000.0	7,966.8	7,938.2	7,930.7	23.1	21.3	-126.50	-344.4	274.1	543.3	503.2	40.13	13.540	
8,100.0	8,065.4	8,036.3	8,028.4	23.6	21.7	-127.54	-347.8	280.7	560.3	519.4	40.89	13.702	
8,200.0	8,164.0	8,134.3	8,126.2	24.2	22.1	-128.53	-351.2	287.3	577.4	535.8	41.66	13.860	
8,300.0	8,262.6	8,232.4	8,224.0	24.7	22.6	-129.45	-354.7	293.9	594.7	552.3	42.44	14.013	
8,400.0	8,361.2	8,330.4	8,321.7	25.2	23.0	-130.32	-358.1	300.5	612.2	568.9	43.23	14.161	
8,482.0	8,442.0	8,410.8	8,401.9	25.7	23.3	-131.01	-360.9	305.9	626.6	582.7	43.87	14.283	
8,500.0	8,459.8	8,428.5	8,419.5	25.8	23.4	-131.17	-361.5	307.0	629.7	585.7	44.00	14.311	
8,600.0	8,558.5	8,526.7	8,517.5	26.3	23.8	-132.00	-364.9	313.6	646.6	601.8	44.78	14.440	
8,700.0	8,657.6	8,625.3	8,615.7	26.8	24.3	-132.68	-368.3	320.2	662.4	616.9	45.56	14.541	
8,800.0	8,756.8	8,724.1	8,714.2	27.3	24.7	-133.21	-371.8	326.9	677.2	630.8	46.32	14.619	
8,900.0	8,856.3	8,823.1	8,813.0	27.8	25.2	-133.61	-375.2	333.5	690.7	643.6	47.07	14.675	
9,000.0	8,955.9	8,922.3	8,911.9	28.3	25.6	-133.88	-378.7	340.2	703.1	655.3	47.80	14.709	
9,100.0	9,055.7	9,021.7	9,011.0	28.8	26.1	-134.04	-382.1	346.9	714.3	665.8	48.51	14.724	
9,200.0	9,155.6	9,121.2	9,110.2	29.2	26.5	-134.08	-385.6	353.5	724.2	675.0	49.20	14.721	
9,300.0	9,255.5	9,220.8	9,209.5	29.6	27.0	-134.02	-389.1	360.2	733.0	683.1	49.86	14.702	
9,400.0	9,355.5	9,320.4	9,308.9	29.9	27.4	-133.86	-392.5	366.9	740.6	690.1	50.47	14.673	
9,444.5	9,400.0	9,364.8	9,353.1	30.0	27.6	85.68	-394.1	369.9	743.5	692.9	50.69	14.670	
9,500.0	9,455.5	9,420.1	9,408.3	30.0	27.9	85.85	-396.0	373.6	747.1	696.2	50.92	14.673	
9,577.0	9,532.5	9,497.0	9,484.9	30.1	28.3	86.08	-398.7	378.8	752.1	700.8	51.25	14.674	
9,600.0	9,555.5	9,519.8	9,507.7	30.0	28.4	86.48	-399.5	380.3	753.5	702.2	51.34	14.677	
9,625.0	9,580.4	9,544.6	9,532.4	30.0	28.5	86.51	-400.3	382.0	755.1	703.6	51.43	14.683	
9,650.0	9,605.2	9,569.2	9,557.0	29.9	28.6	86.64	-401.2	383.6	756.5	705.0	51.50	14.689	

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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			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		
9,675.0	9,629.8	9,593.6	9,581.3	29.8	28.7	86.87	-402.0	385.2	757.9	706.3	51.57	14.697			
9,700.0	9,654.1	9,617.7	9,605.3	29.7	28.8	87.19	-402.9	386.9	759.3	707.7	51.63	14.708			
9,725.0	9,678.1	9,641.3	9,628.9	29.6	28.9	87.59	-403.7	388.5	760.7	709.0	51.68	14.720			
9,750.0	9,701.7	9,664.6	9,652.1	29.5	29.0	88.06	-404.5	390.0	762.1	710.4	51.72	14.736			
9,775.0	9,724.9	9,687.3	9,674.7	29.4	29.1	88.58	-405.3	391.5	763.6	711.8	51.75	14.755			
9,800.0	9,747.5	9,709.5	9,696.8	29.4	29.2	89.15	-406.1	393.0	765.2	713.4	51.78	14.779			
9,825.0	9,769.5	9,731.0	9,718.3	29.3	29.4	89.75	-406.8	394.5	767.0	715.2	51.79	14.809			
9,850.0	9,790.9	9,751.9	9,739.1	29.2	29.4	90.36	-407.5	395.9	769.0	717.2	51.80	14.845			
9,875.0	9,811.5	9,772.0	9,759.1	29.1	29.5	90.97	-408.2	397.2	771.3	719.5	51.81	14.889			
9,900.0	9,831.4	9,791.3	9,778.4	29.0	29.6	91.56	-408.9	398.5	773.9	722.1	51.80	14.941			
9,925.0	9,850.5	9,809.7	9,796.8	28.9	29.7	92.12	-409.6	399.8	776.9	725.1	51.78	15.003			
9,950.0	9,868.7	9,827.3	9,814.3	28.8	29.8	92.63	-410.2	400.9	780.3	728.5	51.76	15.076			
9,975.0	9,886.0	9,843.9	9,830.8	28.7	29.9	93.07	-410.8	402.0	784.2	732.4	51.72	15.161			
10,000.0	9,902.3	9,859.5	9,846.4	28.7	30.0	93.43	-411.3	403.1	788.5	736.9	51.68	15.259			
10,025.0	9,917.6	9,874.0	9,860.9	28.6	30.0	93.69	-411.8	404.1	793.5	741.8	51.63	15.370			
10,050.0	9,931.9	9,887.5	9,874.4	28.6	30.1	93.84	-412.3	405.0	799.0	747.4	51.57	15.495			
10,075.0	9,945.0	9,899.9	9,886.7	28.5	30.1	93.87	-412.7	405.8	805.1	753.6	51.50	15.634			
10,100.0	9,957.0	9,911.1	9,897.9	28.5	30.2	93.76	-413.1	406.6	811.9	760.5	51.42	15.789			
10,125.0	9,967.9	9,921.1	9,907.9	28.5	30.2	93.49	-413.4	407.2	819.3	768.0	51.34	15.959			
10,150.0	9,977.5	9,929.9	9,916.7	28.4	30.3	93.07	-413.7	407.8	827.4	776.2	51.25	16.144			
10,175.0	9,986.0	9,937.5	9,924.2	28.4	30.3	92.48	-414.0	408.3	836.1	785.0	51.16	16.345			
10,200.0	9,993.2	9,943.9	9,930.5	28.4	30.4	91.72	-414.2	408.8	845.5	794.5	51.06	16.560			
10,225.0	9,999.1	9,948.9	9,935.6	28.4	30.4	90.77	-414.4	409.1	855.5	804.6	50.95	16.790			
10,250.0	10,003.8	9,952.7	9,939.4	28.5	30.4	89.64	-414.5	409.4	866.1	815.3	50.85	17.033			
10,275.0	10,007.2	9,955.2	9,941.8	28.5	30.4	88.32	-414.6	409.5	877.3	826.5	50.74	17.289			
10,300.0	10,009.2	9,956.4	9,943.0	28.6	30.4	86.83	-414.7	409.6	889.0	838.3	50.63	17.557			
10,327.0	10,010.0	9,956.2	9,942.8	28.6	30.4	85.00	-414.7	409.6	902.2	851.6	50.52	17.859			
10,400.0	10,010.0	9,953.6	9,940.3	28.8	30.4	84.82	-414.6	409.4	940.5	890.3	50.24	18.721			
10,500.0	10,010.0	9,950.1	9,936.7	29.2	30.4	84.56	-414.4	409.2	999.4	949.5	49.98	19.998			



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - Prelim 1	Offset TVD Reference:	Offset Datum

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

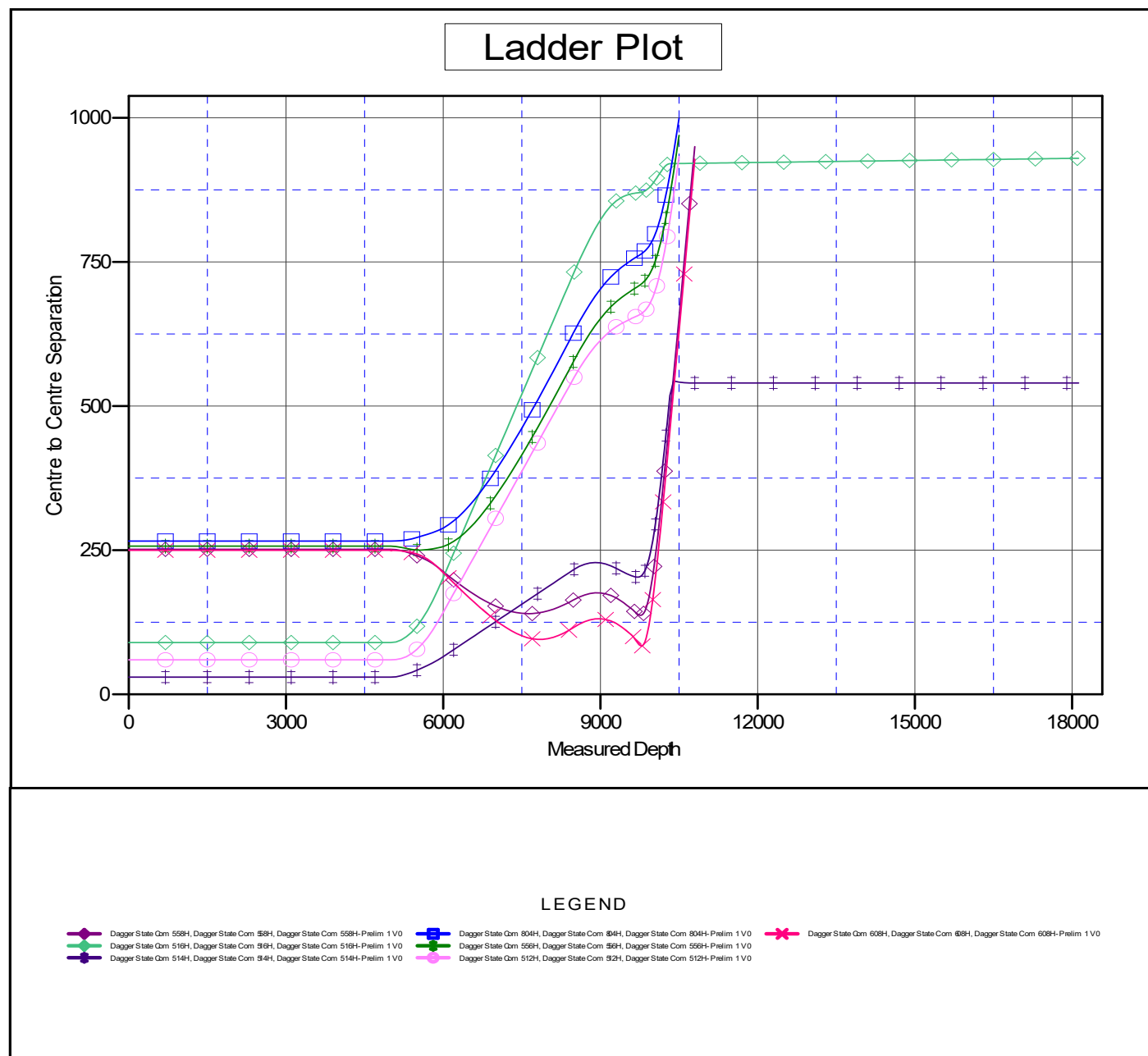
Coordinates are relative to: Dagger State Com 302H

Offset Depths are relative to Offset Datum

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

Central Meridian is 104° 20' 0.000 W

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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 302H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 302H - 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

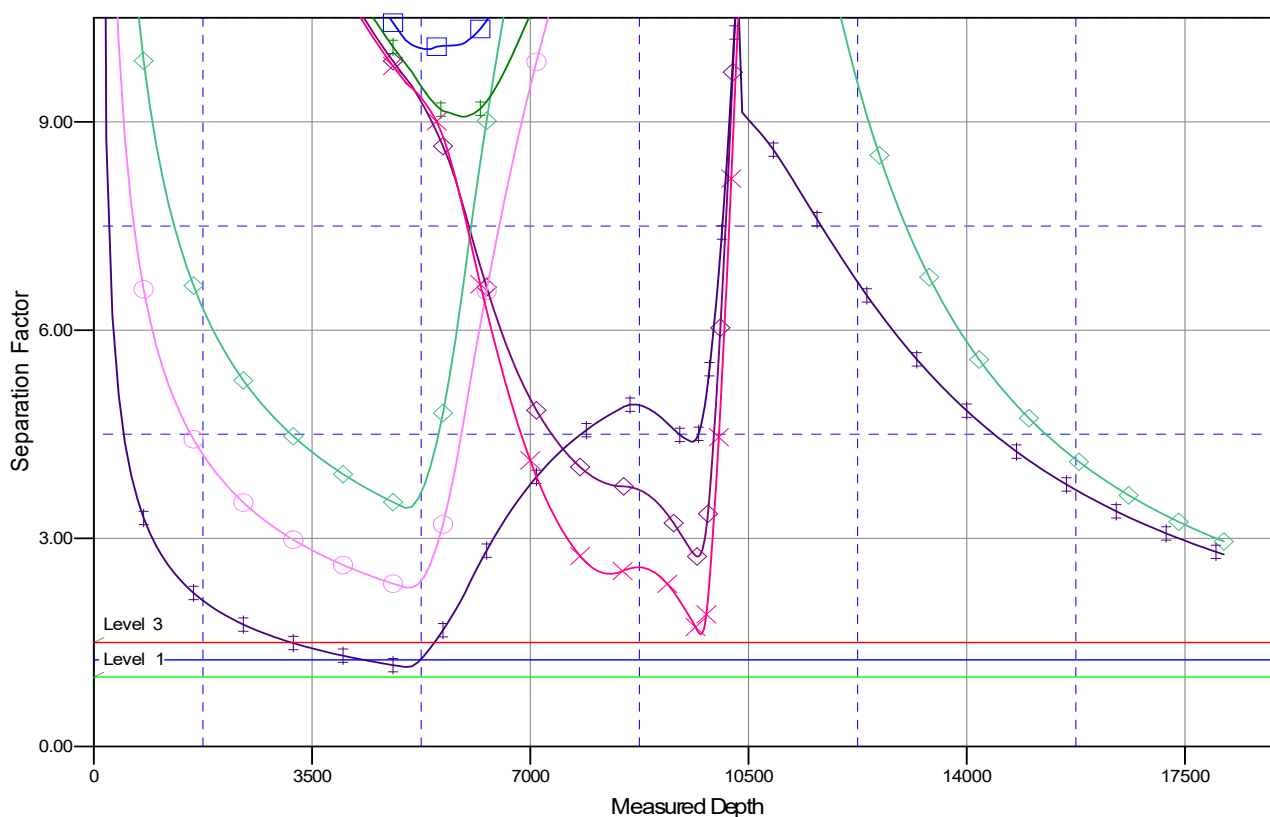
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 302H

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 514H, Dagger State Com 514H, Dagger State Com 514H-Prelim 1 V0	- Dagger State Qm 804H, Dagger State Com 804H, Dagger State Com 804H-Prelim 1 V0 - Dagger State Qm 556H, Dagger State Com 556H, Dagger State Com 556H-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
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Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 302H

Dagger State Com 302H

Plan: Dagger State Com 302H - 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 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 302H		
Design:	Dagger State Com 302H - 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 302H					
Well Position	+N/-S	0.0 usft	Northing:	528,127.94 usft	Latitude:	32° 26' 59.474 N
	+E/-W	0.0 usft	Easting:	762,137.77 usft	Longitude:	103° 37' 3.137 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,815.0 usft
Grid Convergence:	0.38 °					

Wellbore	Dagger State Com 302H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/14/2021	6.57	60.21	47,661.53342356

Design	Dagger State Com 302H - 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	356.81	

Plan Survey Tool Program	Date	5/17/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	18,125.3	Dagger State Com 302H - Prelim	MWD+HRGM	
			OWSG MWD + HRGM		

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	
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,962.5	9.63	219.43	5,958.0	-62.3	-51.2	1.00	1.00	0.00	219.43	
8,482.0	9.63	219.43	8,442.0	-387.7	-318.8	0.00	0.00	0.00	0.00	
9,444.5	0.00	0.00	9,400.0	-450.0	-370.0	1.00	-1.00	0.00	180.00	
9,577.0	0.00	0.00	9,532.5	-450.0	-370.0	0.00	0.00	0.00	0.00	
10,327.0	90.00	359.54	10,010.0	27.4	-373.9	12.00	12.00	0.00	359.54	
18,125.3	90.00	359.54	10,010.0	7,825.5	-436.8	0.00	0.00	0.00	0.00	Dagger State Com 30



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 302H		
Design:	Dagger State Com 302H - 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
KOP - Start Build 1.00									
5,100.0	1.00	219.43	5,100.0	-0.7	-0.6	-0.6	1.00	1.00	0.00
5,200.0	2.00	219.43	5,200.0	-2.7	-2.2	-2.6	1.00	1.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 302H		
Design:	Dagger State Com 302H - 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	3.00	219.43	5,299.9	-6.1	-5.0	-5.8	1.00	1.00	0.00
5,400.0	4.00	219.43	5,399.7	-10.8	-8.9	-10.3	1.00	1.00	0.00
5,500.0	5.00	219.43	5,499.4	-16.8	-13.8	-16.0	1.00	1.00	0.00
5,600.0	6.00	219.43	5,598.9	-24.2	-19.9	-23.1	1.00	1.00	0.00
5,700.0	7.00	219.43	5,698.3	-33.0	-27.1	-31.4	1.00	1.00	0.00
5,800.0	8.00	219.43	5,797.4	-43.1	-35.4	-41.0	1.00	1.00	0.00
5,900.0	9.00	219.43	5,896.3	-54.5	-44.8	-51.9	1.00	1.00	0.00
5,962.5	9.63	219.43	5,958.0	-62.3	-51.2	-59.4	1.00	1.00	0.00
Start 2519.5 hold at 5962.5 MD									
6,000.0	9.63	219.43	5,995.0	-67.1	-55.2	-64.0	0.00	0.00	0.00
6,100.0	9.63	219.43	6,093.5	-80.1	-65.8	-76.3	0.00	0.00	0.00
6,200.0	9.63	219.43	6,192.1	-93.0	-76.4	-88.6	0.00	0.00	0.00
6,300.0	9.63	219.43	6,290.7	-105.9	-87.1	-100.9	0.00	0.00	0.00
6,400.0	9.63	219.43	6,389.3	-118.8	-97.7	-113.2	0.00	0.00	0.00
6,500.0	9.63	219.43	6,487.9	-131.7	-108.3	-125.5	0.00	0.00	0.00
6,600.0	9.63	219.43	6,586.5	-144.6	-118.9	-137.8	0.00	0.00	0.00
6,700.0	9.63	219.43	6,685.1	-157.5	-129.5	-150.1	0.00	0.00	0.00
6,800.0	9.63	219.43	6,783.7	-170.5	-140.2	-162.4	0.00	0.00	0.00
6,900.0	9.63	219.43	6,882.3	-183.4	-150.8	-174.7	0.00	0.00	0.00
7,000.0	9.63	219.43	6,980.9	-196.3	-161.4	-187.0	0.00	0.00	0.00
7,100.0	9.63	219.43	7,079.5	-209.2	-172.0	-199.3	0.00	0.00	0.00
7,200.0	9.63	219.43	7,178.1	-222.1	-182.6	-211.6	0.00	0.00	0.00
7,300.0	9.63	219.43	7,276.7	-235.0	-193.3	-223.9	0.00	0.00	0.00
7,400.0	9.63	219.43	7,375.2	-248.0	-203.9	-236.2	0.00	0.00	0.00
7,500.0	9.63	219.43	7,473.8	-260.9	-214.5	-248.5	0.00	0.00	0.00
7,600.0	9.63	219.43	7,572.4	-273.8	-225.1	-260.8	0.00	0.00	0.00
7,700.0	9.63	219.43	7,671.0	-286.7	-235.7	-273.1	0.00	0.00	0.00
7,800.0	9.63	219.43	7,769.6	-299.6	-246.4	-285.4	0.00	0.00	0.00
7,900.0	9.63	219.43	7,868.2	-312.5	-257.0	-297.7	0.00	0.00	0.00
8,000.0	9.63	219.43	7,966.8	-325.4	-267.6	-310.0	0.00	0.00	0.00
8,100.0	9.63	219.43	8,065.4	-338.4	-278.2	-322.3	0.00	0.00	0.00
8,200.0	9.63	219.43	8,164.0	-351.3	-288.8	-334.6	0.00	0.00	0.00
8,300.0	9.63	219.43	8,262.6	-364.2	-299.4	-346.9	0.00	0.00	0.00
8,400.0	9.63	219.43	8,361.2	-377.1	-310.1	-359.2	0.00	0.00	0.00
8,482.0	9.63	219.43	8,442.0	-387.7	-318.8	-369.3	0.00	0.00	0.00
Start Drop -1.00									
8,500.0	9.45	219.43	8,459.8	-390.0	-320.7	-371.5	1.00	-1.00	0.00
8,600.0	8.45	219.43	8,558.5	-402.0	-330.5	-383.0	1.00	-1.00	0.00
8,700.0	7.45	219.43	8,657.6	-412.7	-339.3	-393.1	1.00	-1.00	0.00
8,800.0	6.45	219.43	8,756.8	-422.0	-347.0	-402.0	1.00	-1.00	0.00
8,900.0	5.45	219.43	8,856.3	-430.0	-353.6	-409.7	1.00	-1.00	0.00
9,000.0	4.45	219.43	8,955.9	-436.7	-359.1	-416.0	1.00	-1.00	0.00
9,100.0	3.45	219.43	9,055.7	-442.0	-363.4	-421.1	1.00	-1.00	0.00
9,200.0	2.45	219.43	9,155.6	-446.0	-366.7	-424.8	1.00	-1.00	0.00
9,300.0	1.45	219.43	9,255.5	-448.6	-368.8	-427.3	1.00	-1.00	0.00
9,400.0	0.45	219.43	9,355.5	-449.9	-369.9	-428.6	1.00	-1.00	0.00
9,444.5	0.00	0.00	9,400.0	-450.0	-370.0	-428.7	1.00	-1.00	0.00
Start 132.5 hold at 9444.5 MD									
9,500.0	0.00	0.00	9,455.5	-450.0	-370.0	-428.7	0.00	0.00	0.00
9,577.0	0.00	0.00	9,532.5	-450.0	-370.0	-428.7	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
9,600.0	2.75	359.54	9,555.5	-449.4	-370.0	-428.1	12.00	12.00	0.00
9,700.0	14.75	359.54	9,654.1	-434.3	-370.1	-413.0	12.00	12.00	0.00



Planning Report

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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 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 302H		
Design:	Dagger State Com 302H - 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)	
9,800.0	26.75	359.54	9,747.5	-398.9	-370.4	-377.6	12.00	12.00	0.00	
9,900.0	38.75	359.54	9,831.4	-344.9	-370.8	-323.7	12.00	12.00	0.00	
10,000.0	50.75	359.54	9,902.3	-274.6	-371.4	-253.5	12.00	12.00	0.00	
10,100.0	62.75	359.54	9,957.0	-191.1	-372.1	-170.1	12.00	12.00	0.00	
10,200.0	74.75	359.54	9,993.2	-98.1	-372.8	-77.2	12.00	12.00	0.00	
10,300.0	86.75	359.54	10,009.2	0.4	-373.6	21.2	12.00	12.00	0.00	
10,315.3	88.59	359.54	10,009.9	15.7	-373.8	36.5	12.00	12.00	0.00	
Dagger State Com 302H LP										
10,327.0	90.00	359.54	10,010.0	27.4	-373.9	48.2	12.00	12.00	0.00	
LP - Start 7798.3 hold at 10327.0 MD										
10,400.0	90.00	359.54	10,010.0	100.4	-374.4	121.1	0.00	0.00	0.00	
10,500.0	90.00	359.54	10,010.0	200.4	-375.2	221.0	0.00	0.00	0.00	
10,600.0	90.00	359.54	10,010.0	300.4	-376.1	320.9	0.00	0.00	0.00	
10,700.0	90.00	359.54	10,010.0	400.4	-376.9	420.8	0.00	0.00	0.00	
10,800.0	90.00	359.54	10,010.0	500.4	-377.7	520.7	0.00	0.00	0.00	
10,900.0	90.00	359.54	10,010.0	600.4	-378.5	620.5	0.00	0.00	0.00	
11,000.0	90.00	359.54	10,010.0	700.4	-379.3	720.4	0.00	0.00	0.00	
11,100.0	90.00	359.54	10,010.0	800.4	-380.1	820.3	0.00	0.00	0.00	
11,200.0	90.00	359.54	10,010.0	900.4	-380.9	920.2	0.00	0.00	0.00	
11,300.0	90.00	359.54	10,010.0	1,000.4	-381.7	1,020.1	0.00	0.00	0.00	
11,400.0	90.00	359.54	10,010.0	1,100.4	-382.5	1,120.0	0.00	0.00	0.00	
11,500.0	90.00	359.54	10,010.0	1,200.4	-383.3	1,219.9	0.00	0.00	0.00	
11,600.0	90.00	359.54	10,010.0	1,300.4	-384.1	1,319.7	0.00	0.00	0.00	
11,700.0	90.00	359.54	10,010.0	1,400.4	-384.9	1,419.6	0.00	0.00	0.00	
11,800.0	90.00	359.54	10,010.0	1,500.4	-385.7	1,519.5	0.00	0.00	0.00	
11,900.0	90.00	359.54	10,010.0	1,600.4	-386.5	1,619.4	0.00	0.00	0.00	
12,000.0	90.00	359.54	10,010.0	1,700.3	-387.3	1,719.3	0.00	0.00	0.00	
12,100.0	90.00	359.54	10,010.0	1,800.3	-388.2	1,819.2	0.00	0.00	0.00	
12,200.0	90.00	359.54	10,010.0	1,900.3	-389.0	1,919.1	0.00	0.00	0.00	
12,300.0	90.00	359.54	10,010.0	2,000.3	-389.8	2,019.0	0.00	0.00	0.00	
12,400.0	90.00	359.54	10,010.0	2,100.3	-390.6	2,118.8	0.00	0.00	0.00	
12,500.0	90.00	359.54	10,010.0	2,200.3	-391.4	2,218.7	0.00	0.00	0.00	
12,600.0	90.00	359.54	10,010.0	2,300.3	-392.2	2,318.6	0.00	0.00	0.00	
12,700.0	90.00	359.54	10,010.0	2,400.3	-393.0	2,418.5	0.00	0.00	0.00	
12,800.0	90.00	359.54	10,010.0	2,500.3	-393.8	2,518.4	0.00	0.00	0.00	
12,900.0	90.00	359.54	10,010.0	2,600.3	-394.6	2,618.3	0.00	0.00	0.00	
13,000.0	90.00	359.54	10,010.0	2,700.3	-395.4	2,718.2	0.00	0.00	0.00	
13,100.0	90.00	359.54	10,010.0	2,800.3	-396.2	2,818.0	0.00	0.00	0.00	
13,200.0	90.00	359.54	10,010.0	2,900.3	-397.0	2,917.9	0.00	0.00	0.00	
13,300.0	90.00	359.54	10,010.0	3,000.3	-397.8	3,017.8	0.00	0.00	0.00	
13,400.0	90.00	359.54	10,010.0	3,100.3	-398.6	3,117.7	0.00	0.00	0.00	
13,500.0	90.00	359.54	10,010.0	3,200.3	-399.4	3,217.6	0.00	0.00	0.00	
13,600.0	90.00	359.54	10,010.0	3,300.3	-400.3	3,317.5	0.00	0.00	0.00	
13,700.0	90.00	359.54	10,010.0	3,400.3	-401.1	3,417.4	0.00	0.00	0.00	
13,800.0	90.00	359.54	10,010.0	3,500.3	-401.9	3,517.2	0.00	0.00	0.00	
13,900.0	90.00	359.54	10,010.0	3,600.3	-402.7	3,617.1	0.00	0.00	0.00	
14,000.0	90.00	359.54	10,010.0	3,700.3	-403.5	3,717.0	0.00	0.00	0.00	
14,100.0	90.00	359.54	10,010.0	3,800.3	-404.3	3,816.9	0.00	0.00	0.00	
14,200.0	90.00	359.54	10,010.0	3,900.3	-405.1	3,916.8	0.00	0.00	0.00	
14,300.0	90.00	359.54	10,010.0	4,000.3	-405.9	4,016.7	0.00	0.00	0.00	
14,400.0	90.00	359.54	10,010.0	4,100.3	-406.7	4,116.6	0.00	0.00	0.00	
14,500.0	90.00	359.54	10,010.0	4,200.3	-407.5	4,216.5	0.00	0.00	0.00	
14,600.0	90.00	359.54	10,010.0	4,300.3	-408.3	4,316.3	0.00	0.00	0.00	
14,700.0	90.00	359.54	10,010.0	4,400.3	-409.1	4,416.2	0.00	0.00	0.00	



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 302H		
Design:	Dagger State Com 302H - 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)	
14,800.0	90.00	359.54	10,010.0	4,500.3	-409.9	4,516.1	0.00	0.00	0.00	
14,900.0	90.00	359.54	10,010.0	4,600.3	-410.7	4,616.0	0.00	0.00	0.00	
15,000.0	90.00	359.54	10,010.0	4,700.3	-411.5	4,715.9	0.00	0.00	0.00	
15,100.0	90.00	359.54	10,010.0	4,800.2	-412.4	4,815.8	0.00	0.00	0.00	
15,200.0	90.00	359.54	10,010.0	4,900.2	-413.2	4,915.7	0.00	0.00	0.00	
15,300.0	90.00	359.54	10,010.0	5,000.2	-414.0	5,015.5	0.00	0.00	0.00	
15,400.0	90.00	359.54	10,010.0	5,100.2	-414.8	5,115.4	0.00	0.00	0.00	
15,500.0	90.00	359.54	10,010.0	5,200.2	-415.6	5,215.3	0.00	0.00	0.00	
15,600.0	90.00	359.54	10,010.0	5,300.2	-416.4	5,315.2	0.00	0.00	0.00	
15,700.0	90.00	359.54	10,010.0	5,400.2	-417.2	5,415.1	0.00	0.00	0.00	
15,800.0	90.00	359.54	10,010.0	5,500.2	-418.0	5,515.0	0.00	0.00	0.00	
15,900.0	90.00	359.54	10,010.0	5,600.2	-418.8	5,614.9	0.00	0.00	0.00	
16,000.0	90.00	359.54	10,010.0	5,700.2	-419.6	5,714.7	0.00	0.00	0.00	
16,100.0	90.00	359.54	10,010.0	5,800.2	-420.4	5,814.6	0.00	0.00	0.00	
16,200.0	90.00	359.54	10,010.0	5,900.2	-421.2	5,914.5	0.00	0.00	0.00	
16,300.0	90.00	359.54	10,010.0	6,000.2	-422.0	6,014.4	0.00	0.00	0.00	
16,400.0	90.00	359.54	10,010.0	6,100.2	-422.8	6,114.3	0.00	0.00	0.00	
16,500.0	90.00	359.54	10,010.0	6,200.2	-423.6	6,214.2	0.00	0.00	0.00	
16,600.0	90.00	359.54	10,010.0	6,300.2	-424.5	6,314.1	0.00	0.00	0.00	
16,700.0	90.00	359.54	10,010.0	6,400.2	-425.3	6,413.9	0.00	0.00	0.00	
16,800.0	90.00	359.54	10,010.0	6,500.2	-426.1	6,513.8	0.00	0.00	0.00	
16,900.0	90.00	359.54	10,010.0	6,600.2	-426.9	6,613.7	0.00	0.00	0.00	
17,000.0	90.00	359.54	10,010.0	6,700.2	-427.7	6,713.6	0.00	0.00	0.00	
17,100.0	90.00	359.54	10,010.0	6,800.2	-428.5	6,813.5	0.00	0.00	0.00	
17,200.0	90.00	359.54	10,010.0	6,900.2	-429.3	6,913.4	0.00	0.00	0.00	
17,300.0	90.00	359.54	10,010.0	7,000.2	-430.1	7,013.3	0.00	0.00	0.00	
17,400.0	90.00	359.54	10,010.0	7,100.2	-430.9	7,113.2	0.00	0.00	0.00	
17,500.0	90.00	359.54	10,010.0	7,200.2	-431.7	7,213.0	0.00	0.00	0.00	
17,600.0	90.00	359.54	10,010.0	7,300.2	-432.5	7,312.9	0.00	0.00	0.00	
17,700.0	90.00	359.54	10,010.0	7,400.2	-433.3	7,412.8	0.00	0.00	0.00	
17,800.0	90.00	359.54	10,010.0	7,500.2	-434.1	7,512.7	0.00	0.00	0.00	
17,900.0	90.00	359.54	10,010.0	7,600.2	-434.9	7,612.6	0.00	0.00	0.00	
18,000.0	90.00	359.54	10,010.0	7,700.2	-435.7	7,712.5	0.00	0.00	0.00	
18,100.0	90.00	359.54	10,010.0	7,800.2	-436.6	7,812.4	0.00	0.00	0.00	
18,125.3	90.00	359.54	10,010.0	7,825.5	-436.8	7,837.6	0.00	0.00	0.00	
TD at 18125.3 - Dagger State Com 302H BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Dagger State Com 302H	0.00	0.00	10,010.0	15.6	-380.2	528,143.59	761,757.61	32° 26' 59.654 N	103° 37' 7.572 W	
- plan misses target center by 6.4usft at 10315.3usft MD (10009.9 TVD, 15.7 N, -373.8 E)										
- Point										
Dagger State Com 302H	0.00	0.00	10,010.0	7,825.5	-436.8	535,953.40	761,701.01	32° 28' 16.936 N	103° 37' 7.622 W	
- plan hits target center										
- Point										



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 302H
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 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 302H		
Design:	Dagger State Com 302H - Prelim 1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
10,327.0	10,010.0	LP	5-1/2	5-1/2	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
5,000.0	5,000.0	0.0	0.0	KOP - Start Build 1.00	
5,962.5	5,958.0	-62.3	-51.2	Start 2519.5 hold at 5962.5 MD	
8,482.0	8,442.0	-387.7	-318.8	Start Drop -1.00	
9,444.5	9,400.0	-450.0	-370.0	Start 132.5 hold at 9444.5 MD	
9,577.0	9,532.5	-450.0	-370.0	KOP #2 - Start Build 12.00	
10,327.0	10,010.0	27.4	-373.9	LP - Start 7798.3 hold at 10327.0 MD	
18,125.3	10,010.0	7,825.5	-436.8	TD at 18125.3	

**WELL DETAILS: Dagger State Com 302H**

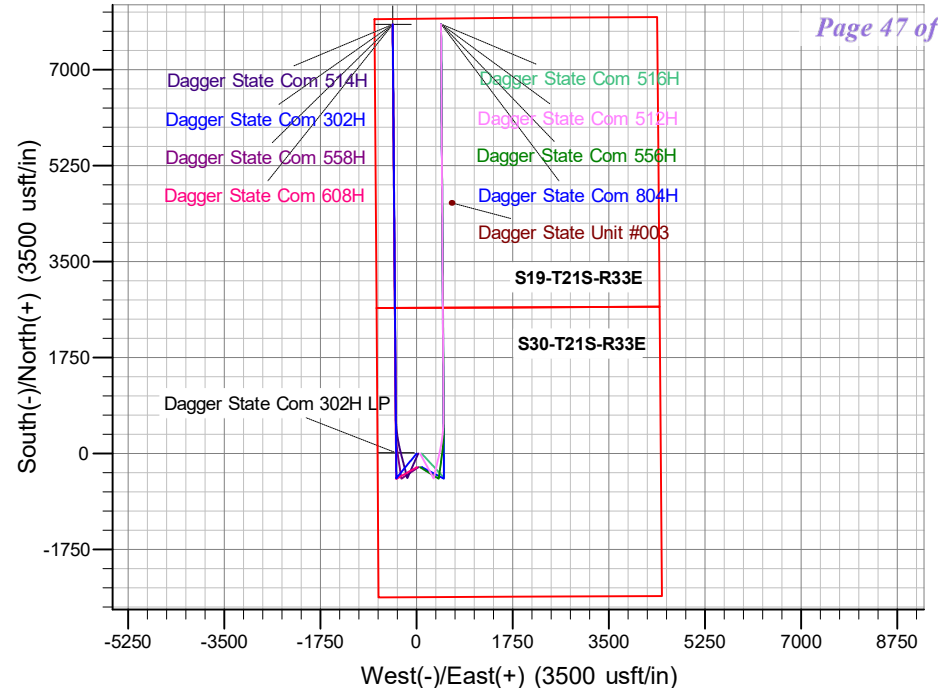
Ground Elev: 3815.0 KB: 3847.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	528127.94	762137.78	32° 26' 59.474 N	103° 37' 3.137 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	5000.0	0.00	0.00	5000.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	5962.5	9.63	219.43	5958.0	-62.3	-51.2	1.00	219.43	-59.4	Start 2519.5 hold at 5962.5 MD
4	8482.0	9.63	219.43	8442.0	-387.7	-318.8	0.00	0.00	-369.3	Start Drop -1.00
5	9444.5	0.00	0.00	9400.0	-450.0	-370.0	1.00	180.00	-428.7	Start 132.5 hold at 9444.5 MD
6	9577.0	0.00	0.00	9532.5	-450.0	-370.0	0.00	0.00	-428.7	KOP #2 - Start Build 12.00
7	10327.0	90.00	359.54	10010.0	27.4	-373.9	12.00	359.54	48.2	LP - Start 7798.3 hold at 10327.0 MD
8	18125.3	90.00	359.54	10010.0	7825.5	-436.8	0.00	0.00	7837.6	TD at 18125.3



Azimuths to Grid North
 True North: -0.38°
 Magnetic North: 6.18°

Magnetic Field
 Strength: 47661.5nT
 Dip Angle: 60.21°
 Date: 5/14/2021
 Model: IGRF2015

