

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 292029

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 30-025-48467
4. Property Code 319601	5. Property Name DAGGER STATE COM	6. Well No. 606H

7. Surface Location

UL - Lot F	Section 30	Township 21S	Range 33E	Lot Idn F	Feet From 2560	N/S Line N	Feet From 2040	E/W Line W	County Lea
---------------	---------------	-----------------	--------------	--------------	-------------------	---------------	-------------------	---------------	---------------

8. Proposed Bottom Hole Location

UL - Lot C	Section 19	Township 21S	Range 33E	Lot Idn C	Feet From 100	N/S Line N	Feet From 2090	E/W Line W	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	-------------------	---------------	---------------

9. Pool Information

WC-025 G-07 S213330F:BONE SPRING	97927
----------------------------------	-------

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3820
16. Multiple N	17. Proposed Depth 19270	18. Formation Bone Spring	19. Contractor	20. Spud Date 2/8/2021
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	13.35	54.5	1600	500	0
Int1	12.25	9.625	40	4000	950	0
Int1	12.25	6.625	40	5300	330	4000
Prod	8.5	5.5	20	19270	2300	0

Casing/Cement Program: Additional Comments

--

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Braden Harris	Approved By: Paul F Kautz	
Title: Vice President	Title: Geologist	
Email Address: bharris@advanceenergypartners.com	Approved Date: 2/9/2021	Expiration Date: 2/9/2023
Date: 2/8/2021	Phone: 406-300-3310	Conditions of Approval Attached

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 4, 2011

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code WC-025-G-07-S21330D 97927	Pool Name Bone Spring WC-025 G-07 S21330F;BONE SPRING
Property Code 319601	Property Name DAGGER STATE COM	Well Number 606H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA	Elevation 3820'

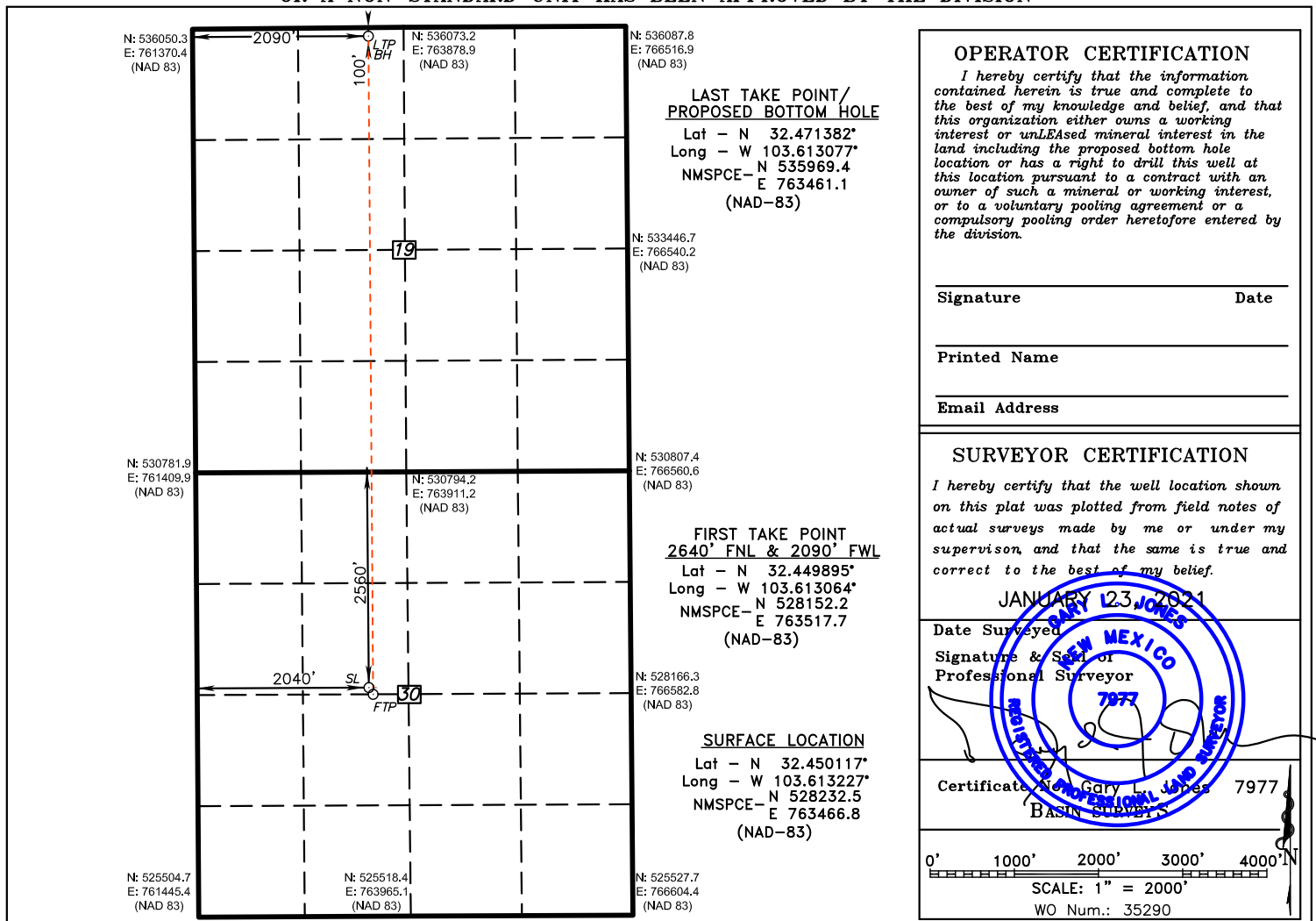
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
F	30	21 S	33 E		2560	NORTH	2040	WEST	LEA

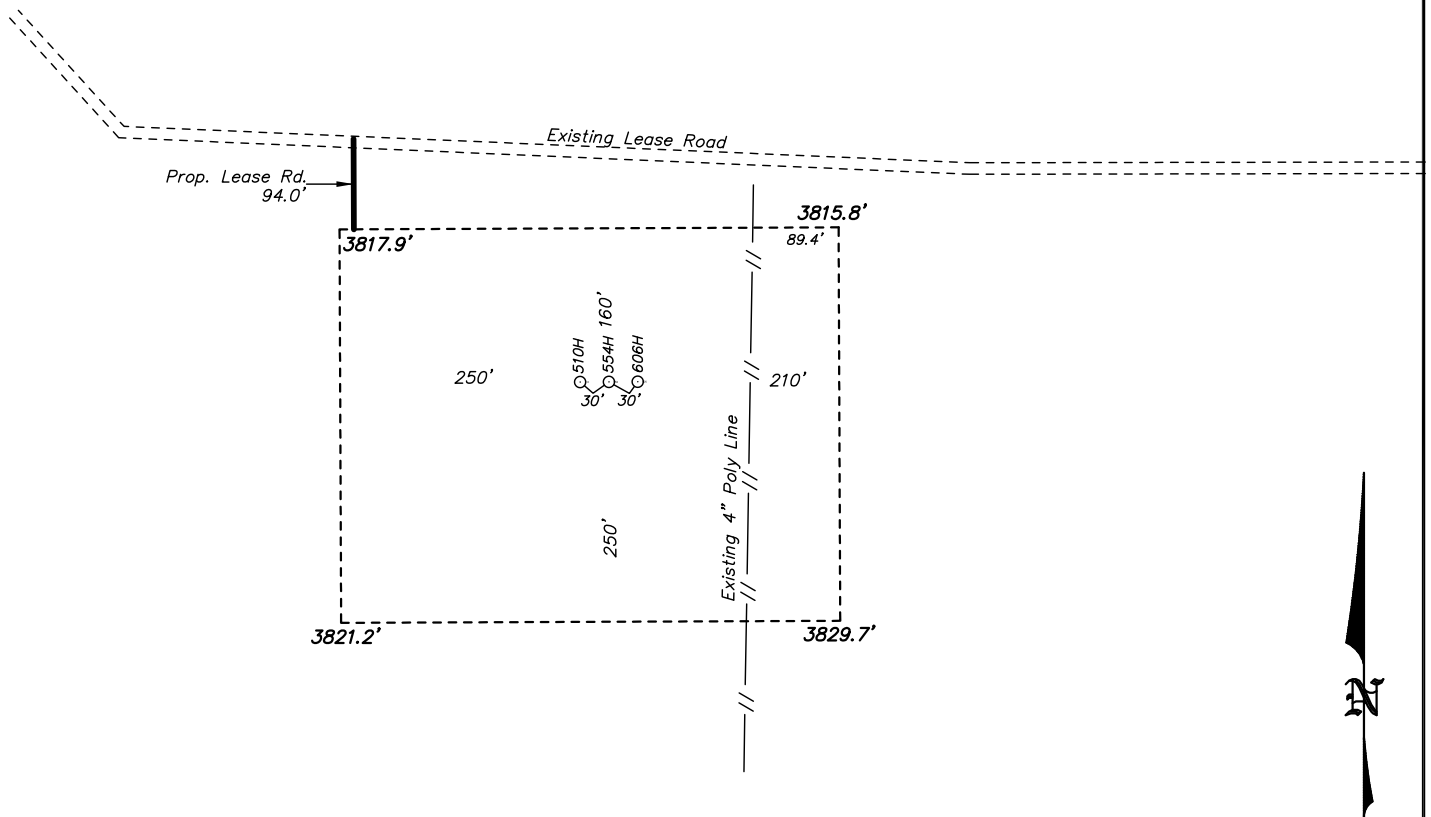
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
C	19	21 S	33 E		100	NORTH	2090	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



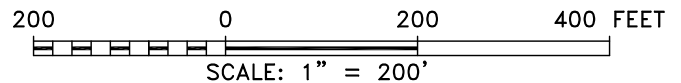
**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA
DAGGER STATE COM #606H
ELEV. - 3822'**

Lat - N 32.450117°
Long - W 103.613227°
NMSPCE - N 528232.5
E 763466.8
(NAD-83)

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #606H / WELL PAD TOPO

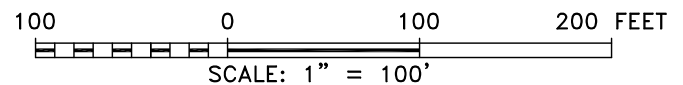
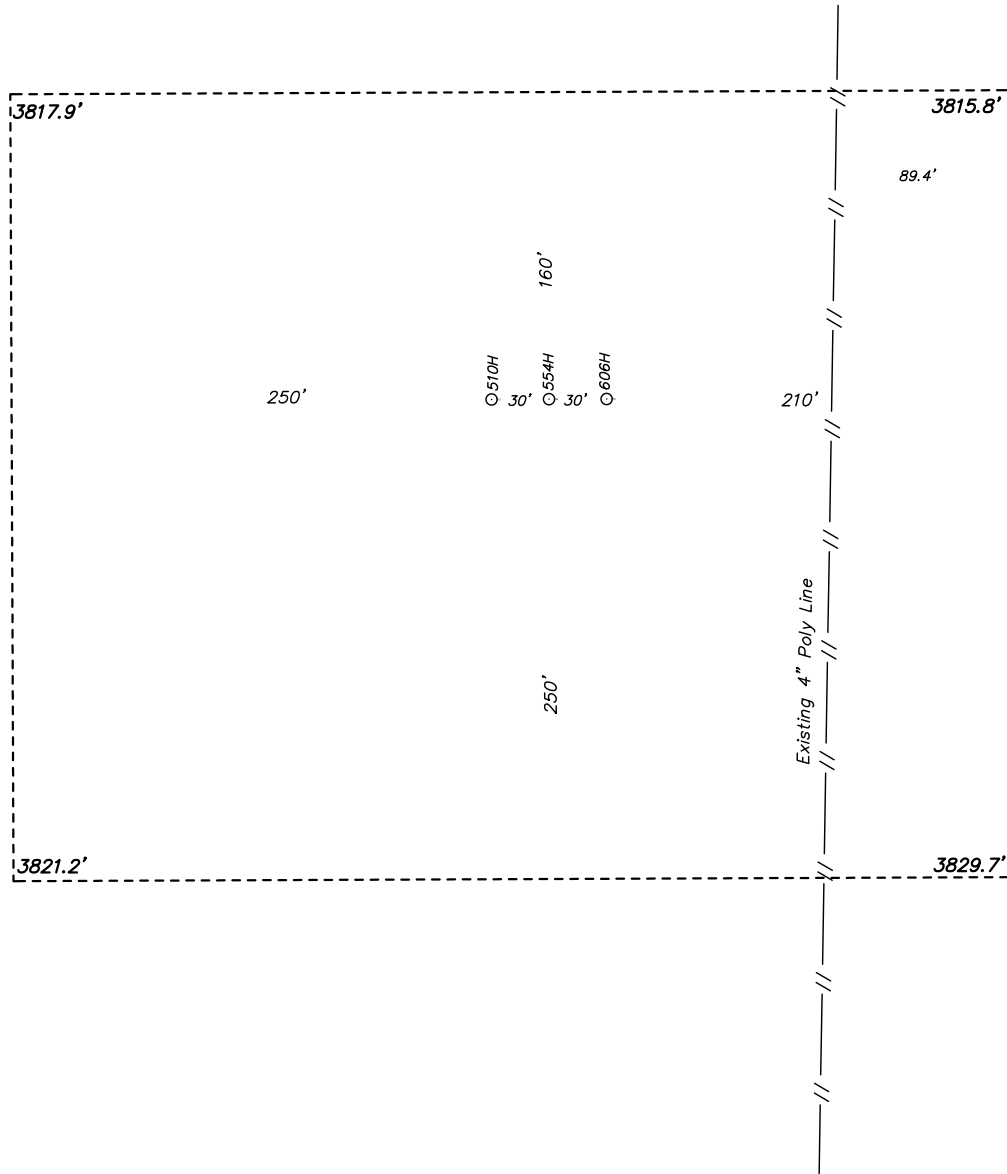
THE DAGGER STATE COM #606H LOCATED 2560' FROM
THE NORTH LINE AND 2040' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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

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

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

**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 #606H / WELL PAD TOPO

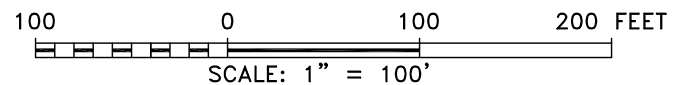
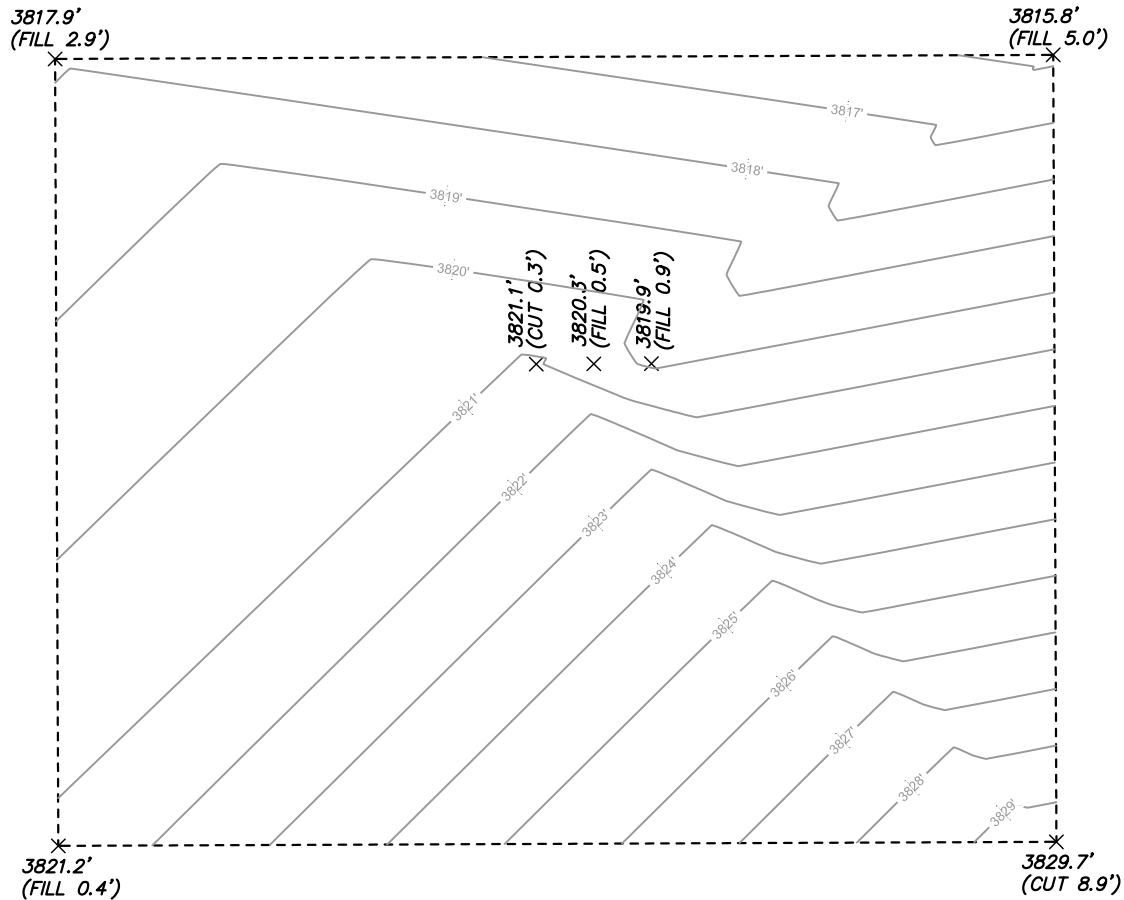
THE DAGGER STATE COM #606H LOCATED 2560' FROM
THE NORTH LINE AND 2040' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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

basin
surveys
focused on excellence
in the oilfield

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

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



ADVANCE ENERGY PARTNERS HAT MESA

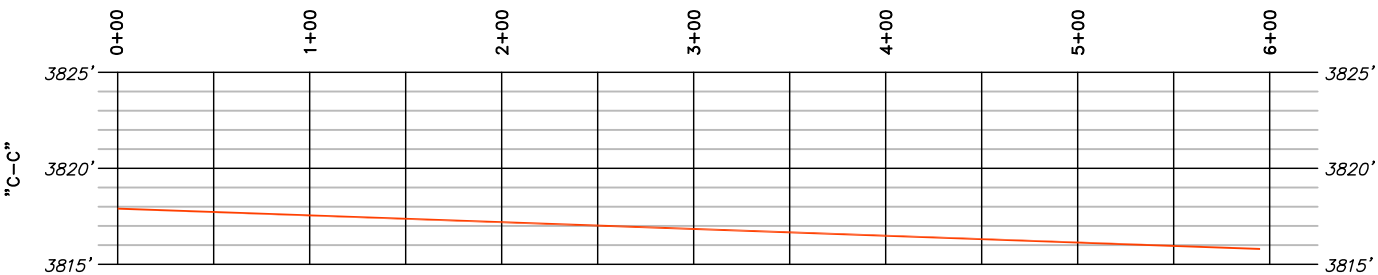
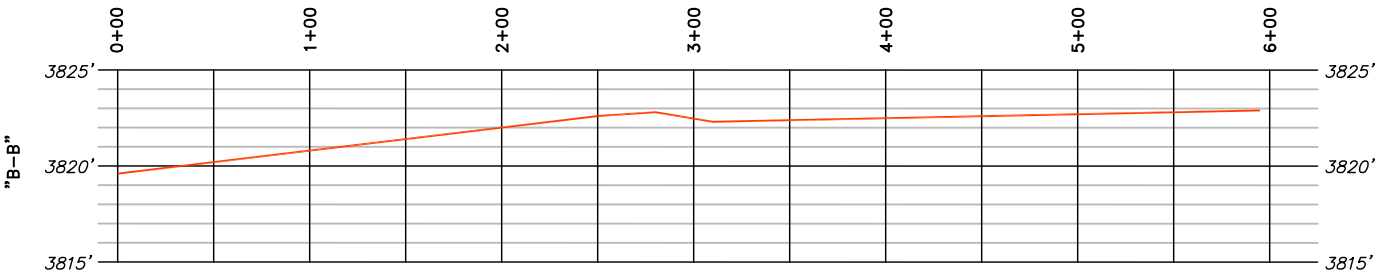
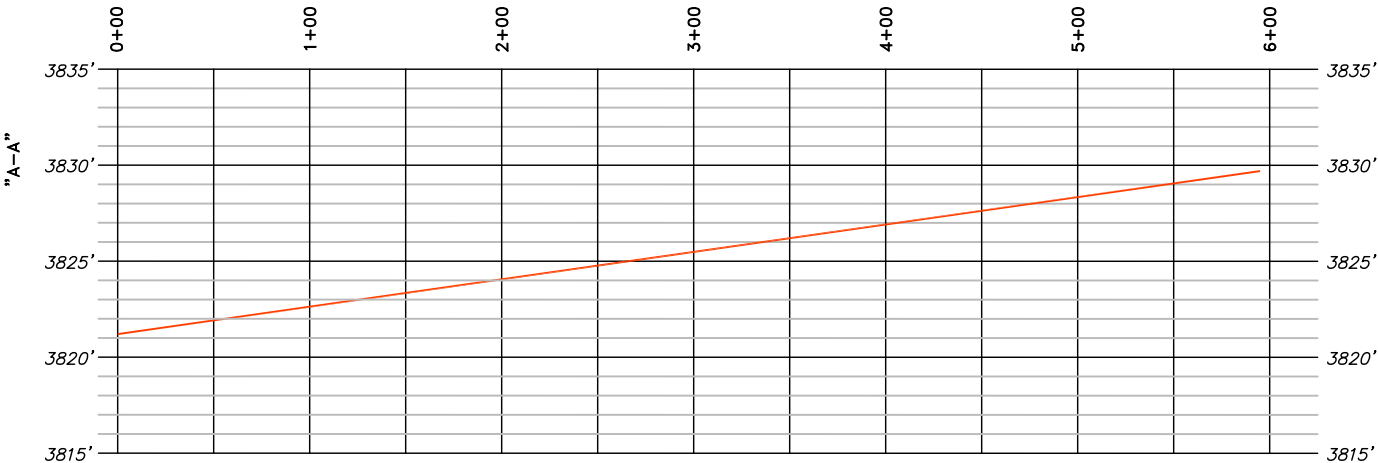
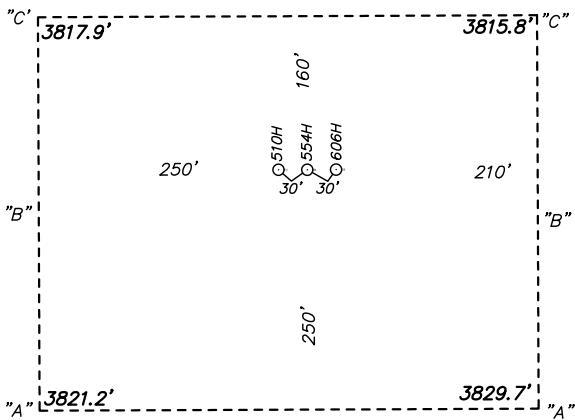
REF: DAGGER STATE COM PAD C / CUT & FILL

THE DAGGER STATE COM PAD C LOCATED IN
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.
N.M.P.M., LEA COUNTY, NEW MEXICO.

basin
surveys
focused on excellence
in the oilfield

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

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



I HEREBY CERTIFY THAT THIS MAP WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES
Professional Land Surveyor
No. 7977
No. 5074



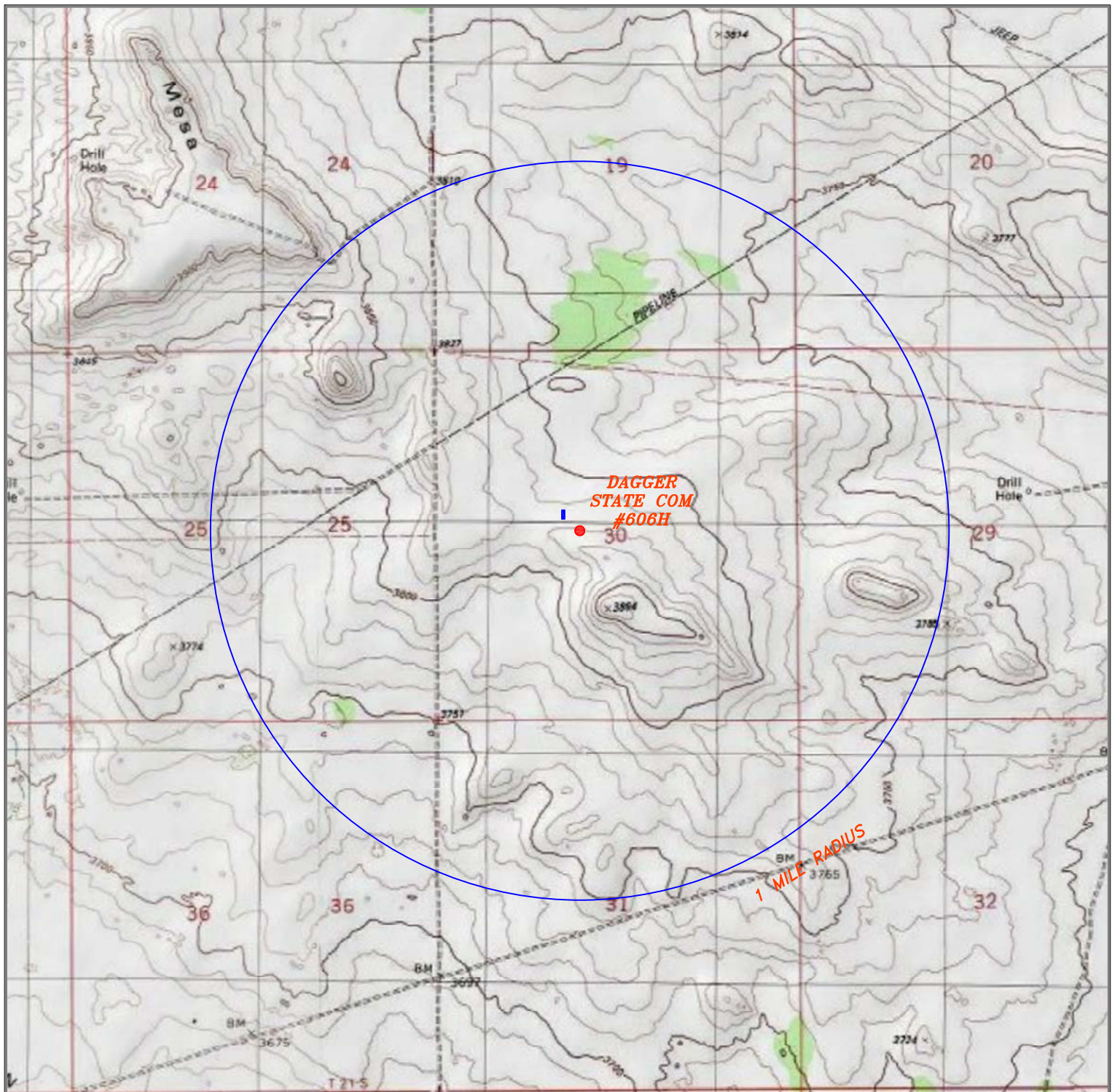
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

CROSS SECTION
HORIZONTAL 1"=100'
VERTICAL 1"=50'

ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM PAD C

THE DAGGER STATE COM PAD C LOCATED IN
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.
N.M.P.M., LEA COUNTY, NEW MEXICO.



DAGGER STATE COM #606H

Located 2560' FNL and 2040' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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

0' 1000' 2000' 3000' 150'0"
 SCALE: 1" = 2000'

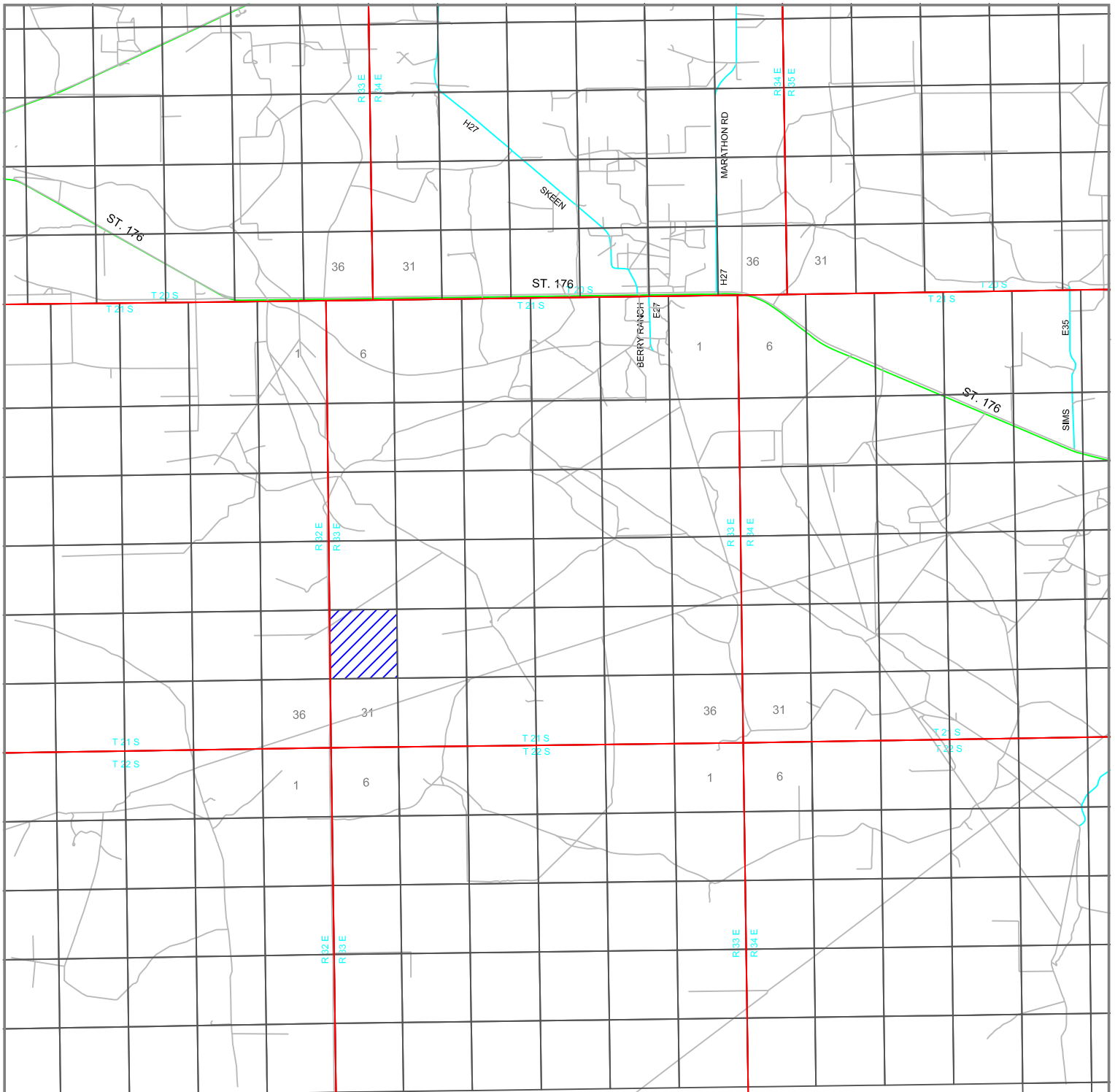
W.O. Number: KJG 35290

Survey Date: 01-23-2021

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**



DAGGER STATE COM #606H

Located 2560' FNL and 2040' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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

0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

W.O. Number: KJG 35290

Survey Date: 01-23-2021

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**

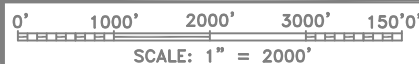


DAGGER STATE COM #606H

Located 2560' FNL and 2040' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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



SCALE: 1" = 2000'

W.O. Number: KJG 35290

Survey Date: 01-23-2021

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**

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

GAS CAPTURE PLAN

Date: 2/9/2021

☒ 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 #606H	30-025-48467	F-30-21S-33E	2560N 2040W	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 0' 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

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 APD Comments

Permit 292029

PERMIT COMMENTS

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077		API Number: 30-025-48467
		Well: DAGGER STATE COM #606H

Created By	Comment	Comment Date
plmartinez	Resubmit with Property Code & Bottom Hole Location on C-102	2/5/2021
dmoughon	Property Code 319601	2/5/2021

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 APD Conditions

Permit 292029

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: 30-025-48467
	Well: DAGGER STATE COM #606H

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	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 at 5753703186 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.
pkautz	Three String Casing Program - In accordance with R-111-P all strings shall be cemented to surface.

Kautz, Paul, EMNRD

From: Martin, Ed <emartin@slo.state.nm.us>
Sent: Friday, July 15, 2016 7:37 AM
To: Rutley, James; Katie Keller; Kevin Ryan
Cc: Tate F. Savage
Subject: RE: AMTEX "Dagger Draw" Drill Island in Section 30 21S 33E

The New Mexico State Land Office concurs. Drill Island to which this email refers is approved.

Ed Martin
 Oil and Gas Manager
 Oil Gas and Minerals Division
 505.827.5746
 New Mexico State Land Office
 310 Old Santa Fe Trail
 P.O. Box 1148
 Santa Fe, NM 87504-1148
 emartin@slo.state.nm.us



.....
 CONFIDENTIALITY NOTICE: This e-mail, including all attachments is for the sole use of the intended recipient[s] and may contain confidential and/or privileged information. Any unauthorized review, use, copying, disclosure or distribution is prohibited, unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender at once and destroy all copies of this message.

From: Rutley, James [mailto:jrutley@blm.gov]
Sent: Tuesday, July 05, 2016 6:48 AM
To: Katie Keller <katiek@intrepidpotash.com>; Kevin Ryan <Kevin.Ryan@intrepidpotash.com>
Cc: Tate F. Savage <tate.savage@amtexenergy.com>; Martin, Ed <emartin@slo.state.nm.us>
Subject: AMTEX "Dagger Draw" Drill Island in Section 30 21S 33E

Good Morning Katie and Kevin,

AMTEX Energy proposed to State Lands and BLM the AMTEX Drill Island for its Dagger Draw operations. The drill island and development area's 30 day notification period expired without objection or protest. The development area consists of all of sections 19, 30 and 31 in T21S R33E and all wells will be drilled from the AMTEX Drill Island in Section 30(see attached survey).

Because the drill island is on State Lands and not BLM, a formal Federal development area was not approved but would have been if on Federal Lands.

Only wells drilled from or proposed from the AMTEX Drill Island will be approved with respect to your LMR. All other wells not on drill island will be subject to provisions of Oil Conservation Division Order R-111-P as to whether the proposed locations are within an established Life-of-Mine-Reserve that is filed with BLM by you.

Thanks,

Jim

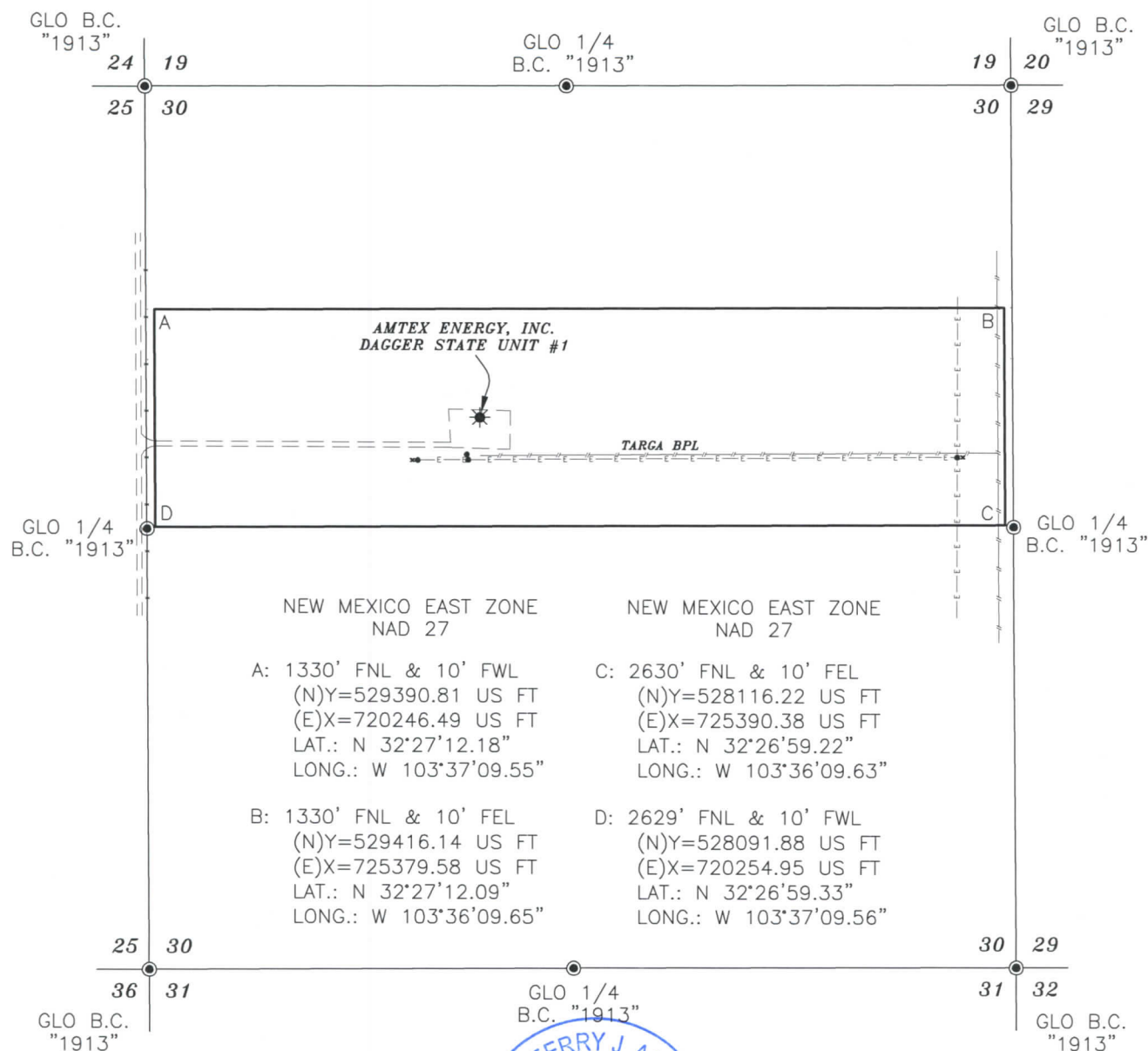
James S. Rutley
Geologist
Carlsbad Field Office
Bureau of Land Management
(575) 234-5904

Warning: This message is intended only for use of the individual or entity to which it is addressed, and may contain information that is privileged or confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately by return letter/fax/email.

This email has been scanned by the Symantec Email [Security.cloud](#) service.
For more information please visit <http://www.symanteccloud.com>

This email has been scanned by the Symantec Email [Security.cloud](#) service.
For more information please visit <http://www.symanteccloud.com>

AMTEX ENERGY, INC.
AMTEX/COG DRILL ISLAND IN SECTION 30,
TOWNSHIP 21 SOUTH, RANGE 33 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 5/13/2016
 Terry J. Asel, N.M. R.P.L.S. No. 15079

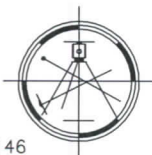


LEGEND

- - DENOTES FOUND MONUMENT AS NOTED
- E—E—E— - DENOTES ELECTRIC LINE
- P—P—P—P— - DENOTES PIPELINE
- X—X—X—X— - DENOTES FENCE LINE
- == == == - DENOTES CALICHE ROAD

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
 HOBBS, NEW MEXICO - 575-393-9146



1000' 0 1000' 2000' FEET
 SCALE: 1"=1000'

**WELL DETAILS: Dagger State Com 606H**

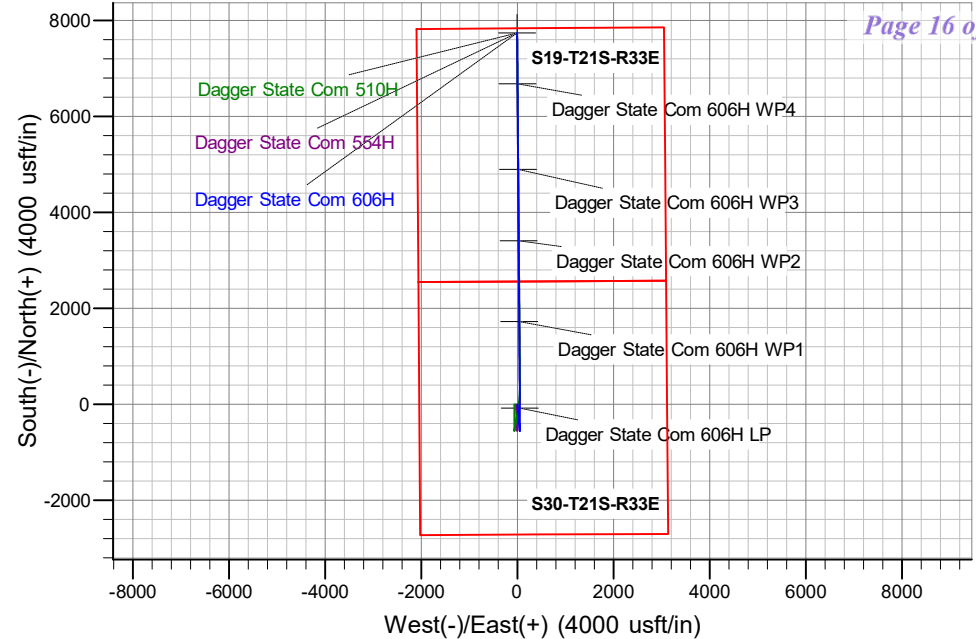
Ground Elev: 3820.0 KB: 3854.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	528232.56	763466.97	32° 27' 0.421 N	103° 36' 47.617 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

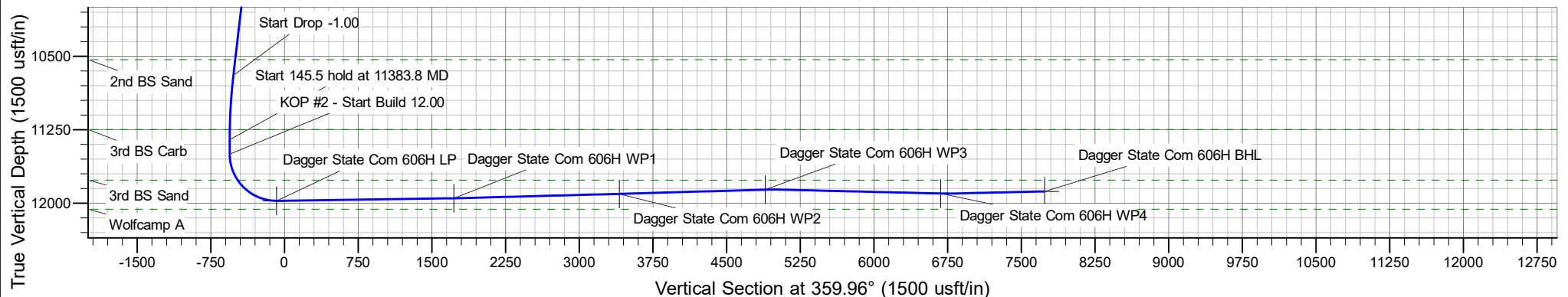
**SECTION DETAILS**

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	5850.0	0.00	0.00	5850.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	6510.0	6.60	174.88	6508.5	-37.8	3.4	1.00	174.88	-37.8	Start 4213.9 hold at 6510.0 MD
4	10723.9	6.60	174.88	10694.5	-520.2	46.6	0.00	0.00	-520.2	Start Drop -1.00
5	11383.8	0.00	0.00	11353.0	-558.0	50.0	1.00	180.00	-558.0	Start 145.5 hold at 11383.8 MD
6	11529.4	0.00	0.00	11498.5	-558.0	50.0	0.00	0.00	-558.0	KOP #2 - Start Build 12.00
7	12279.4	90.00	0.10	11976.0	-80.5	50.8	12.00	0.10	-80.6	LP - Start DLS 2.00 TFO -31.63
8	12279.5	90.00	0.10	11976.0	-80.4	50.8	0.00	0.00	-80.5	LP - Start DLS 2.00 TFO -31.63
9	12328.7	90.84	359.58	11975.6	-31.3	50.7	2.00	-31.63	-31.3	Start 1754.7 hold at 12328.7 MD
10	14083.4	90.84	359.58	11950.0	1723.2	37.9	0.00	0.00	1723.2	WP1 - Start DLS 2.00 TFO -0.12
11	14118.4	91.54	359.58	11949.3	1758.2	37.7	2.00	-0.12	1758.2	Start 1650.9 hold at 14118.4 MD
12	15769.2	91.54	359.58	11905.0	3408.4	25.6	0.00	0.00	3408.4	WP2 - Start DLS 2.00 TFO 0.78
13	15775.3	91.66	359.58	11904.8	3414.5	25.6	2.00	0.78	3414.5	Start 1480.1 hold at 15775.3 MD
14	17255.4	91.66	359.58	11862.0	4893.9	14.8	0.00	0.00	4893.9	WP3 - Start DLS 2.00 TFO -179.99
15	17407.3	88.62	359.58	11861.6	5045.9	13.7	2.00	-179.99	5045.8	Start 1633.9 hold at 17407.3 MD
16	19041.2	88.62	359.58	11901.0	6679.2	1.8	0.00	0.00	6679.2	WP4 - Start DLS 2.00 TFO -0.07
17	19175.7	91.31	359.58	11901.1	6813.7	0.8	2.00	-0.07	6813.7	Start 923.3 hold at 19175.7 MD
18	20098.9	91.31	359.58	11880.0	7736.7	-5.9	0.00	0.00	7736.7	TD at 20098.9



Azimuths to Grid North
 True North: -0.39°
 Magnetic North: 6.21°

Magnetic Field
 Strength: 47692.9nT
 Dip Angle: 60.21°
 Date: 1/25/2021
 Model: IGRF2015





Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 606H

Dagger State Com 606H

Plan: Dagger State Com 606H - Prelim 1

Standard Planning Report

02 February, 2021



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 606H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 606H		
Design:	Dagger State Com 606H - 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 606H					
Well Position	+N/-S	0.0 usft	Northing:	528,232.56 usft	Latitude:	32° 27' 0.421 N
	+E/-W	0.0 usft	Easting:	763,466.96 usft	Longitude:	103° 36' 47.617 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,820.0 usft
Grid Convergence:		0.39 °				

Wellbore	Dagger State Com 606H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/25/2021	6.60	60.21	47,692.87230112

Design	Dagger State Com 606H - 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	359.96	

Plan Survey Tool Program	Date	2/2/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,098.8	Dagger State Com 606H - Prelim	MWD+HRGM	
			OWSG MWD + HRGM		



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 606H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 606H		
Design:	Dagger State Com 606H - Prelim 1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,850.0	0.00	0.00	5,850.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,510.0	6.60	174.88	6,508.5	-37.8	3.4	1.00	1.00	0.00	174.88	
10,723.9	6.60	174.88	10,694.5	-520.2	46.6	0.00	0.00	0.00	0.00	
11,383.8	0.00	0.00	11,353.0	-558.0	50.0	1.00	-1.00	0.00	180.00	
11,529.4	0.00	0.00	11,498.5	-558.0	50.0	0.00	0.00	0.00	0.00	
12,279.4	90.00	0.10	11,976.0	-80.5	50.8	12.00	12.00	0.00	0.10	
12,279.5	90.00	0.10	11,976.0	-80.4	50.8	0.00	0.00	0.00	0.00	Dagger State Com 60
12,328.7	90.84	359.58	11,975.6	-31.3	50.7	2.00	1.70	-1.05	-31.63	
14,083.4	90.84	359.58	11,950.0	1,723.2	37.9	0.00	0.00	0.00	0.00	Dagger State Com 60
14,118.4	91.54	359.58	11,949.3	1,758.2	37.7	2.00	2.00	0.00	-0.12	
15,769.2	91.54	359.58	11,905.0	3,408.4	25.6	0.00	0.00	0.00	0.00	Dagger State Com 60
15,775.3	91.66	359.58	11,904.8	3,414.5	25.6	2.00	2.00	0.03	0.78	
17,255.4	91.66	359.58	11,862.0	4,893.9	14.8	0.00	0.00	0.00	0.00	Dagger State Com 60
17,407.3	88.62	359.58	11,861.6	5,045.9	13.7	2.00	-2.00	0.00	-179.99	
19,041.2	88.62	359.58	11,901.0	6,679.2	1.8	0.00	0.00	0.00	0.00	Dagger State Com 60
19,175.7	91.31	359.58	11,901.1	6,813.7	0.8	2.00	2.00	0.00	-0.07	
20,098.9	91.31	359.58	11,880.0	7,736.7	-5.9	0.00	0.00	0.00	0.00	Dagger State Com 60



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 606H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 606H		
Design:	Dagger State Com 606H - 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
1,528.0	0.00	0.00	1,528.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 606H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 606H		
Design:	Dagger State Com 606H - 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)
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,354.0	0.00	0.00	5,354.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Limestone									
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,850.0	0.00	0.00	5,850.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									
5,900.0	0.50	174.88	5,900.0	-0.2	0.0	-0.2	1.00	1.00	0.00
6,000.0	1.50	174.88	6,000.0	-2.0	0.2	-2.0	1.00	1.00	0.00
6,100.0	2.50	174.88	6,099.9	-5.4	0.5	-5.4	1.00	1.00	0.00
6,200.0	3.50	174.88	6,199.8	-10.6	1.0	-10.6	1.00	1.00	0.00
6,300.0	4.50	174.88	6,299.5	-17.6	1.6	-17.6	1.00	1.00	0.00
6,400.0	5.50	174.88	6,399.2	-26.3	2.4	-26.3	1.00	1.00	0.00
6,500.0	6.50	174.88	6,498.6	-36.7	3.3	-36.7	1.00	1.00	0.00
6,510.0	6.60	174.88	6,508.5	-37.8	3.4	-37.8	1.00	1.00	0.00
Start 4213.9 hold at 6510.0 MD									
6,600.0	6.60	174.88	6,597.9	-48.1	4.3	-48.1	0.00	0.00	0.00
6,700.0	6.60	174.88	6,697.3	-59.6	5.3	-59.6	0.00	0.00	0.00
6,800.0	6.60	174.88	6,796.6	-71.0	6.4	-71.0	0.00	0.00	0.00
6,900.0	6.60	174.88	6,896.0	-82.5	7.4	-82.5	0.00	0.00	0.00
7,000.0	6.60	174.88	6,995.3	-93.9	8.4	-93.9	0.00	0.00	0.00
7,100.0	6.60	174.88	7,094.6	-105.4	9.4	-105.4	0.00	0.00	0.00
7,200.0	6.60	174.88	7,194.0	-116.8	10.5	-116.8	0.00	0.00	0.00
7,300.0	6.60	174.88	7,293.3	-128.3	11.5	-128.3	0.00	0.00	0.00
7,400.0	6.60	174.88	7,392.6	-139.7	12.5	-139.7	0.00	0.00	0.00
7,500.0	6.60	174.88	7,492.0	-151.1	13.5	-151.2	0.00	0.00	0.00
7,600.0	6.60	174.88	7,591.3	-162.6	14.6	-162.6	0.00	0.00	0.00
7,700.0	6.60	174.88	7,690.7	-174.0	15.6	-174.1	0.00	0.00	0.00
7,800.0	6.60	174.88	7,790.0	-185.5	16.6	-185.5	0.00	0.00	0.00
7,900.0	6.60	174.88	7,889.3	-196.9	17.6	-196.9	0.00	0.00	0.00
8,000.0	6.60	174.88	7,988.7	-208.4	18.7	-208.4	0.00	0.00	0.00
8,100.0	6.60	174.88	8,088.0	-219.8	19.7	-219.8	0.00	0.00	0.00
8,200.0	6.60	174.88	8,187.3	-231.3	20.7	-231.3	0.00	0.00	0.00
8,300.0	6.60	174.88	8,286.7	-242.7	21.7	-242.7	0.00	0.00	0.00
8,400.0	6.60	174.88	8,386.0	-254.2	22.8	-254.2	0.00	0.00	0.00
8,500.0	6.60	174.88	8,485.4	-265.6	23.8	-265.6	0.00	0.00	0.00
8,535.9	6.60	174.88	8,521.0	-269.7	24.2	-269.7	0.00	0.00	0.00
Lower Brushy									
8,600.0	6.60	174.88	8,584.7	-277.1	24.8	-277.1	0.00	0.00	0.00
8,700.0	6.60	174.88	8,684.0	-288.5	25.9	-288.5	0.00	0.00	0.00
8,800.0	6.60	174.88	8,783.4	-300.0	26.9	-300.0	0.00	0.00	0.00
8,900.0	6.60	174.88	8,882.7	-311.4	27.9	-311.4	0.00	0.00	0.00
9,000.0	6.60	174.88	8,982.0	-322.9	28.9	-322.9	0.00	0.00	0.00
9,075.5	6.60	174.88	9,057.0	-331.5	29.7	-331.5	0.00	0.00	0.00
Avalon									
9,100.0	6.60	174.88	9,081.4	-334.3	30.0	-334.3	0.00	0.00	0.00
9,200.0	6.60	174.88	9,180.7	-345.7	31.0	-345.8	0.00	0.00	0.00
9,300.0	6.60	174.88	9,280.1	-357.2	32.0	-357.2	0.00	0.00	0.00
9,400.0	6.60	174.88	9,379.4	-368.6	33.0	-368.7	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 606H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 606H		
Design:	Dagger State Com 606H - 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)
9,500.0	6.60	174.88	9,478.7	-380.1	34.1	-380.1	0.00	0.00	0.00
9,600.0	6.60	174.88	9,578.1	-391.5	35.1	-391.6	0.00	0.00	0.00
9,700.0	6.60	174.88	9,677.4	-403.0	36.1	-403.0	0.00	0.00	0.00
9,800.0	6.60	174.88	9,776.7	-414.4	37.1	-414.5	0.00	0.00	0.00
9,900.0	6.60	174.88	9,876.1	-425.9	38.2	-425.9	0.00	0.00	0.00
10,000.0	6.60	174.88	9,975.4	-437.3	39.2	-437.4	0.00	0.00	0.00
10,017.7	6.60	174.88	9,993.0	-439.3	39.4	-439.4	0.00	0.00	0.00
1st BS Sand									
10,100.0	6.60	174.88	10,074.8	-448.8	40.2	-448.8	0.00	0.00	0.00
10,200.0	6.60	174.88	10,174.1	-460.2	41.2	-460.2	0.00	0.00	0.00
10,300.0	6.60	174.88	10,273.4	-471.7	42.3	-471.7	0.00	0.00	0.00
10,400.0	6.60	174.88	10,372.8	-483.1	43.3	-483.1	0.00	0.00	0.00
10,500.0	6.60	174.88	10,472.1	-494.6	44.3	-494.6	0.00	0.00	0.00
10,563.3	6.60	174.88	10,535.0	-501.8	45.0	-501.8	0.00	0.00	0.00
2nd BS Sand									
10,600.0	6.60	174.88	10,571.4	-506.0	45.3	-506.0	0.00	0.00	0.00
10,700.0	6.60	174.88	10,670.8	-517.5	46.4	-517.5	0.00	0.00	0.00
10,723.9	6.60	174.88	10,694.5	-520.2	46.6	-520.2	0.00	0.00	0.00
Start Drop -1.00									
10,800.0	5.84	174.88	10,770.2	-528.4	47.3	-528.4	1.00	-1.00	0.00
10,900.0	4.84	174.88	10,869.7	-537.7	48.2	-537.7	1.00	-1.00	0.00
11,000.0	3.84	174.88	10,969.4	-545.2	48.9	-545.2	1.00	-1.00	0.00
11,100.0	2.84	174.88	11,069.3	-551.0	49.4	-551.0	1.00	-1.00	0.00
11,200.0	1.84	174.88	11,169.2	-555.1	49.7	-555.1	1.00	-1.00	0.00
11,278.8	1.05	174.88	11,248.0	-557.0	49.9	-557.1	1.00	-1.00	0.00
3rd BS Carb									
11,300.0	0.84	174.88	11,269.2	-557.4	49.9	-557.4	1.00	-1.00	0.00
11,383.8	0.00	0.00	11,353.0	-558.0	50.0	-558.0	1.00	-1.00	0.00
Start 145.5 hold at 11383.8 MD									
11,400.0	0.00	0.00	11,369.2	-558.0	50.0	-558.0	0.00	0.00	0.00
11,500.0	0.00	0.00	11,469.2	-558.0	50.0	-558.0	0.00	0.00	0.00
11,529.4	0.00	0.00	11,498.5	-558.0	50.0	-558.0	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
11,600.0	8.48	0.10	11,568.9	-552.8	50.0	-552.8	12.00	12.00	0.00
11,700.0	20.48	0.10	11,665.6	-527.8	50.1	-527.9	12.00	12.00	0.00
11,800.0	32.48	0.10	11,754.9	-483.3	50.1	-483.4	12.00	12.00	0.00
11,812.1	33.92	0.10	11,765.0	-476.7	50.1	-476.8	12.00	12.00	0.00
3rd BS Sand									
11,900.0	44.48	0.10	11,833.0	-421.2	50.2	-421.3	12.00	12.00	0.00
12,000.0	56.48	0.10	11,896.6	-344.2	50.4	-344.3	12.00	12.00	0.00
12,100.0	68.48	0.10	11,942.7	-255.7	50.5	-255.8	12.00	12.00	0.00
12,200.0	80.48	0.10	11,969.4	-159.5	50.7	-159.6	12.00	12.00	0.00
12,279.4	90.00	0.10	11,976.0	-80.5	50.8	-80.6	12.00	12.00	0.00
12,279.5	90.00	0.10	11,976.0	-80.4	50.8	-80.5	0.00	0.00	0.00
LP - Start DLS 2.00 TFO -31.63 - Dagger State Com 606H LP									
12,300.0	90.35	359.88	11,975.9	-59.9	50.8	-59.9	2.00	1.70	-1.05
12,328.7	90.84	359.58	11,975.6	-31.3	50.7	-31.3	2.00	1.70	-1.05
Start 1754.7 hold at 12328.7 MD									
12,400.0	90.84	359.58	11,974.6	40.1	50.2	40.0	0.00	0.00	0.00
12,500.0	90.84	359.58	11,973.1	140.1	49.4	140.0	0.00	0.00	0.00
12,600.0	90.84	359.58	11,971.7	240.1	48.7	240.0	0.00	0.00	0.00
12,700.0	90.84	359.58	11,970.2	340.0	48.0	340.0	0.00	0.00	0.00
12,800.0	90.84	359.58	11,968.8	440.0	47.3	440.0	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 606H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 606H		
Design:	Dagger State Com 606H - 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)
12,900.0	90.84	359.58	11,967.3	540.0	46.5	540.0	0.00	0.00	0.00
13,000.0	90.84	359.58	11,965.8	640.0	45.8	640.0	0.00	0.00	0.00
13,100.0	90.84	359.58	11,964.4	740.0	45.1	739.9	0.00	0.00	0.00
13,200.0	90.84	359.58	11,962.9	840.0	44.4	839.9	0.00	0.00	0.00
13,300.0	90.84	359.58	11,961.4	940.0	43.6	939.9	0.00	0.00	0.00
13,400.0	90.84	359.58	11,960.0	1,039.9	42.9	1,039.9	0.00	0.00	0.00
13,500.0	90.84	359.58	11,958.5	1,139.9	42.2	1,139.9	0.00	0.00	0.00
13,600.0	90.84	359.58	11,957.1	1,239.9	41.4	1,239.9	0.00	0.00	0.00
13,700.0	90.84	359.58	11,955.6	1,339.9	40.7	1,339.9	0.00	0.00	0.00
13,800.0	90.84	359.58	11,954.1	1,439.9	40.0	1,439.9	0.00	0.00	0.00
13,900.0	90.84	359.58	11,952.7	1,539.9	39.3	1,539.8	0.00	0.00	0.00
14,000.0	90.84	359.58	11,951.2	1,639.9	38.5	1,639.8	0.00	0.00	0.00
14,083.4	90.84	359.58	11,950.0	1,723.2	37.9	1,723.2	0.00	0.00	0.00
WP1 - Start DLS 2.00 TFO -0.12 - Dagger State Com 606H WP1									
14,100.0	91.17	359.58	11,949.7	1,739.9	37.8	1,739.8	2.00	2.00	0.00
14,118.4	91.54	359.58	11,949.3	1,758.2	37.7	1,758.2	2.00	2.00	0.00
Start 1650.9 hold at 14118.4 MD									
14,200.0	91.54	359.58	11,947.1	1,839.8	37.1	1,839.8	0.00	0.00	0.00
14,300.0	91.54	359.58	11,944.4	1,939.8	36.3	1,939.7	0.00	0.00	0.00
14,400.0	91.54	359.58	11,941.7	2,039.7	35.6	2,039.7	0.00	0.00	0.00
14,500.0	91.54	359.58	11,939.0	2,139.7	34.9	2,139.7	0.00	0.00	0.00
14,600.0	91.54	359.58	11,936.4	2,239.7	34.2	2,239.6	0.00	0.00	0.00
14,700.0	91.54	359.58	11,933.7	2,339.6	33.4	2,339.6	0.00	0.00	0.00
14,800.0	91.54	359.58	11,931.0	2,439.6	32.7	2,439.6	0.00	0.00	0.00
14,900.0	91.54	359.58	11,928.3	2,539.5	32.0	2,539.5	0.00	0.00	0.00
15,000.0	91.54	359.58	11,925.6	2,639.5	31.2	2,639.5	0.00	0.00	0.00
15,100.0	91.54	359.58	11,922.9	2,739.5	30.5	2,739.4	0.00	0.00	0.00
15,200.0	91.54	359.58	11,920.3	2,839.4	29.8	2,839.4	0.00	0.00	0.00
15,300.0	91.54	359.58	11,917.6	2,939.4	29.1	2,939.4	0.00	0.00	0.00
15,400.0	91.54	359.58	11,914.9	3,039.3	28.3	3,039.3	0.00	0.00	0.00
15,500.0	91.54	359.58	11,912.2	3,139.3	27.6	3,139.3	0.00	0.00	0.00
15,600.0	91.54	359.58	11,909.5	3,239.3	26.9	3,239.3	0.00	0.00	0.00
15,700.0	91.54	359.58	11,906.9	3,339.2	26.1	3,339.2	0.00	0.00	0.00
15,769.2	91.54	359.58	11,905.0	3,408.4	25.6	3,408.4	0.00	0.00	0.00
WP2 - Start DLS 2.00 TFO 0.78 - Dagger State Com 606H WP2									
15,775.3	91.66	359.58	11,904.8	3,414.5	25.6	3,414.5	2.00	2.00	0.03
Start 1480.1 hold at 15775.3 MD									
15,800.0	91.66	359.58	11,904.1	3,439.2	25.4	3,439.2	0.00	0.00	0.00
15,900.0	91.66	359.58	11,901.2	3,539.1	24.7	3,539.1	0.00	0.00	0.00
16,000.0	91.66	359.58	11,898.3	3,639.1	24.0	3,639.1	0.00	0.00	0.00
16,100.0	91.66	359.58	11,895.4	3,739.1	23.2	3,739.0	0.00	0.00	0.00
16,200.0	91.66	359.58	11,892.5	3,839.0	22.5	3,839.0	0.00	0.00	0.00
16,300.0	91.66	359.58	11,889.6	3,939.0	21.8	3,939.0	0.00	0.00	0.00
16,400.0	91.66	359.58	11,886.8	4,038.9	21.0	4,038.9	0.00	0.00	0.00
16,500.0	91.66	359.58	11,883.9	4,138.9	20.3	4,138.9	0.00	0.00	0.00
16,600.0	91.66	359.58	11,881.0	4,238.8	19.6	4,238.8	0.00	0.00	0.00
16,700.0	91.66	359.58	11,878.1	4,338.8	18.9	4,338.8	0.00	0.00	0.00
16,800.0	91.66	359.58	11,875.2	4,438.7	18.1	4,438.7	0.00	0.00	0.00
16,900.0	91.66	359.58	11,872.3	4,538.7	17.4	4,538.7	0.00	0.00	0.00
17,000.0	91.66	359.58	11,869.4	4,638.7	16.7	4,638.6	0.00	0.00	0.00
17,100.0	91.66	359.58	11,866.5	4,738.6	16.0	4,738.6	0.00	0.00	0.00
17,200.0	91.66	359.58	11,863.6	4,838.6	15.2	4,838.6	0.00	0.00	0.00
17,255.4	91.66	359.58	11,862.0	4,893.9	14.8	4,893.9	0.00	0.00	0.00
WP3 - Start DLS 2.00 TFO -179.99 - Dagger State Com 606H WP3									



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 606H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 606H		
Design:	Dagger State Com 606H - 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)	
17,300.0	90.77	359.58	11,861.1	4,938.5	14.5	4,938.5	2.00	-2.00	0.00	
17,400.0	88.77	359.58	11,861.5	5,038.5	13.8	5,038.5	2.00	-2.00	0.00	
17,407.3	88.62	359.58	11,861.6	5,045.9	13.7	5,045.8	2.00	-2.00	0.00	
Start 1633.9 hold at 17407.3 MD										
17,500.0	88.62	359.58	11,863.9	5,138.5	13.1	5,138.5	0.00	0.00	0.00	
17,600.0	88.62	359.58	11,866.3	5,238.5	12.3	5,238.5	0.00	0.00	0.00	
17,700.0	88.62	359.58	11,868.7	5,338.4	11.6	5,338.4	0.00	0.00	0.00	
17,800.0	88.62	359.58	11,871.1	5,438.4	10.9	5,438.4	0.00	0.00	0.00	
17,900.0	88.62	359.58	11,873.5	5,538.4	10.1	5,538.4	0.00	0.00	0.00	
18,000.0	88.62	359.58	11,875.9	5,638.3	9.4	5,638.3	0.00	0.00	0.00	
18,100.0	88.62	359.58	11,878.3	5,738.3	8.7	5,738.3	0.00	0.00	0.00	
18,200.0	88.62	359.58	11,880.7	5,838.3	8.0	5,838.3	0.00	0.00	0.00	
18,300.0	88.62	359.58	11,883.1	5,938.2	7.2	5,938.2	0.00	0.00	0.00	
18,400.0	88.62	359.58	11,885.5	6,038.2	6.5	6,038.2	0.00	0.00	0.00	
18,500.0	88.62	359.58	11,888.0	6,138.2	5.8	6,138.2	0.00	0.00	0.00	
18,600.0	88.62	359.58	11,890.4	6,238.1	5.0	6,238.1	0.00	0.00	0.00	
18,700.0	88.62	359.58	11,892.8	6,338.1	4.3	6,338.1	0.00	0.00	0.00	
18,800.0	88.62	359.58	11,895.2	6,438.1	3.6	6,438.1	0.00	0.00	0.00	
18,900.0	88.62	359.58	11,897.6	6,538.1	2.9	6,538.0	0.00	0.00	0.00	
19,000.0	88.62	359.58	11,900.0	6,638.0	2.1	6,638.0	0.00	0.00	0.00	
19,041.2	88.62	359.58	11,901.0	6,679.2	1.8	6,679.2	0.00	0.00	0.00	
WP4 - Start DLS 2.00 TFO -0.07 - Dagger State Com 606H WP4										
19,100.0	89.79	359.58	11,901.8	6,738.0	1.4	6,738.0	2.00	2.00	0.00	
19,175.7	91.31	359.58	11,901.1	6,813.7	0.8	6,813.7	2.00	2.00	0.00	
Start 923.3 hold at 19175.7 MD										
19,200.0	91.31	359.58	11,900.5	6,838.0	0.7	6,838.0	0.00	0.00	0.00	
19,300.0	91.31	359.58	11,898.2	6,938.0	-0.1	6,938.0	0.00	0.00	0.00	
19,400.0	91.31	359.58	11,896.0	7,037.9	-0.8	7,037.9	0.00	0.00	0.00	
19,500.0	91.31	359.58	11,893.7	7,137.9	-1.5	7,137.9	0.00	0.00	0.00	
19,600.0	91.31	359.58	11,891.4	7,237.9	-2.3	7,237.9	0.00	0.00	0.00	
19,700.0	91.31	359.58	11,889.1	7,337.8	-3.0	7,337.8	0.00	0.00	0.00	
19,800.0	91.31	359.58	11,886.8	7,437.8	-3.7	7,437.8	0.00	0.00	0.00	
19,900.0	91.31	359.58	11,884.5	7,537.8	-4.5	7,537.8	0.00	0.00	0.00	
20,000.0	91.31	359.58	11,882.3	7,637.8	-5.2	7,637.8	0.00	0.00	0.00	
20,098.9	91.31	359.58	11,880.0	7,736.7	-5.9	7,736.7	0.00	0.00	0.00	
TD at 20098.9 - Dagger State Com 606H BHL										



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 606H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 606H		
Design:	Dagger State Com 606H - Prelim 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Dagger State Com 606H - plan hits target center - Point	0.00	0.00	11,862.0	4,893.9	14.8	533,126.49	763,481.79	32° 27' 48.845 N	103° 36' 47.059 W
Dagger State Com 606H - plan hits target center - Point	0.00	0.00	11,880.0	7,736.7	-5.9	535,969.23	763,461.04	32° 28' 16.975 N	103° 36' 47.077 W
Dagger State Com 606H - plan hits target center - Point	0.00	0.00	11,901.0	6,679.2	1.8	534,911.79	763,468.79	32° 28' 6.511 N	103° 36' 47.070 W
Dagger State Com 606H - plan hits target center - Point	0.00	0.00	11,905.0	3,408.4	25.6	531,640.99	763,492.59	32° 27' 34.146 N	103° 36' 47.050 W
Dagger State Com 606H - plan hits target center - Point	0.00	0.00	11,950.0	1,723.2	37.9	529,955.79	763,504.89	32° 27' 17.470 N	103° 36' 47.039 W
Dagger State Com 606H - plan hits target center - Point	0.00	0.00	11,976.0	-80.4	50.8	528,152.14	763,517.79	32° 26' 59.622 N	103° 36' 47.030 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
12,277.4	11,976.0	LP	5-1/2	5-1/2	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,528.0	1,528.0	Rustler		0.00		
5,354.0	5,354.0	Base of Limestone		0.00		
8,535.9	8,521.0	Lower Brushy		0.00		
9,075.5	9,057.0	Avalon		0.00		
10,017.7	9,993.0	1st BS Sand		0.00		
10,563.3	10,535.0	2nd BS Sand		0.00		
11,278.8	11,248.0	3rd BS Carb		0.00		
11,812.1	11,765.0	3rd BS Sand		0.00		



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 606H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 606H		
Design:	Dagger State Com 606H - Prelim 1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,850.0	5,850.0	0.0	0.0	KOP - Start Build 1.00
6,510.0	6,508.5	-37.8	3.4	Start 4213.9 hold at 6510.0 MD
10,723.9	10,694.5	-520.2	46.6	Start Drop -1.00
11,383.8	11,353.0	-558.0	50.0	Start 145.5 hold at 11383.8 MD
11,529.4	11,498.5	-558.0	50.0	KOP #2 - Start Build 12.00
12,279.5	11,976.0	-80.4	50.8	LP - Start DLS 2.00 TFO -31.63
12,328.7	11,975.6	-31.3	50.7	Start 1754.7 hold at 12328.7 MD
14,083.4	11,950.0	1,723.2	37.9	WP1 - Start DLS 2.00 TFO -0.12
14,118.4	11,949.3	1,758.2	37.7	Start 1650.9 hold at 14118.4 MD
15,769.2	11,905.0	3,408.4	25.6	WP2 - Start DLS 2.00 TFO 0.78
15,775.3	11,904.8	3,414.5	25.6	Start 1480.1 hold at 15775.3 MD
17,255.4	11,862.0	4,893.9	14.8	WP3 - Start DLS 2.00 TFO -179.99
17,407.3	11,861.6	5,045.9	13.7	Start 1633.9 hold at 17407.3 MD
19,041.2	11,901.0	6,679.2	1.8	WP4 - Start DLS 2.00 TFO -0.07
19,175.7	11,901.1	6,813.7	0.8	Start 923.3 hold at 19175.7 MD
20,098.9	11,880.0	7,736.7	-5.9	TD at 20098.9



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 606H

Dagger State Com 606H

Dagger State Com 606H - Prelim 1

Anticollision Report

02 February, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Dagger State Com 606H - 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	2/2/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,098.8	Dagger State Com 606H - 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 510H - Dagger State Com 510H - Da	5,404.1	5,405.1	63.3	35.9	2.312	CC
Dagger State Com 510H - Dagger State Com 510H - Da	5,600.0	5,600.9	63.4	35.7	2.283	ES
Dagger State Com 510H - Dagger State Com 510H - Da	5,700.0	5,700.7	63.8	35.8	2.281	SF
Dagger State Com 554H - Dagger State Com 554H - Da	5,764.9	5,764.9	30.2	1.9	1.066	Level 3, CC
Dagger State Com 554H - Dagger State Com 554H - Da	5,800.0	5,800.0	30.2	1.8	1.064	Level 3, ES, SF

Offset Design: Dagger State - Dagger State Com 510H - Dagger State Com 510H - Dagger State Com 510H - 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)				
0.0	0.0	1.0	1.0	0.0	0.0	-93.02	-3.3	-63.2	63.3					
100.0	100.0	101.0	101.0	0.5	0.5	-93.02	-3.3	-63.2	63.3	62.2	1.07	59.047		
200.0	200.0	201.0	201.0	1.7	1.7	-93.02	-3.3	-63.2	63.3	59.9	3.43	18.454		
300.0	300.0	301.0	301.0	2.4	2.4	-93.02	-3.3	-63.2	63.3	58.5	4.83	13.111		
400.0	400.0	401.0	401.0	3.0	3.0	-93.02	-3.3	-63.2	63.3	57.4	5.91	10.707		
500.0	500.0	501.0	501.0	3.4	3.4	-93.02	-3.3	-63.2	63.3	56.5	6.83	9.263		
600.0	600.0	601.0	601.0	3.8	3.8	-93.02	-3.3	-63.2	63.3	55.7	7.65	8.273		
700.0	700.0	701.0	701.0	4.2	4.2	-93.02	-3.3	-63.2	63.3	54.9	8.40	7.539		
800.0	800.0	801.0	801.0	4.5	4.5	-93.02	-3.3	-63.2	63.3	54.2	9.09	6.967		
900.0	900.0	901.0	901.0	4.9	4.9	-93.02	-3.3	-63.2	63.3	53.6	9.73	6.504		
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	-93.02	-3.3	-63.2	63.3	53.0	10.34	6.120		
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	-93.02	-3.3	-63.2	63.3	52.4	10.93	5.794		
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	-93.02	-3.3	-63.2	63.3	51.8	11.48	5.513		
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	-93.02	-3.3	-63.2	63.3	51.3	12.02	5.268		
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	-93.02	-3.3	-63.2	63.3	50.8	12.53	5.051		
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	-93.02	-3.3	-63.2	63.3	50.3	13.03	4.857		
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	-93.02	-3.3	-63.2	63.3	49.8	13.52	4.683		
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	-93.02	-3.3	-63.2	63.3	49.3	13.99	4.525		
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	-93.02	-3.3	-63.2	63.3	48.9	14.45	4.380		
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	-93.02	-3.3	-63.2	63.3	48.4	14.90	4.248		
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	-93.02	-3.3	-63.2	63.3	48.0	15.34	4.126		
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	-93.02	-3.3	-63.2	63.3	47.5	15.77	4.014		

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 510H - Dagger State Com 510H - Dagger State Com 510H - 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	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	-93.02	-3.3	-63.2	63.3	47.1	16.19	3.909		
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	-93.02	-3.3	-63.2	63.3	46.7	16.61	3.811		
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	-93.02	-3.3	-63.2	63.3	46.3	17.02	3.720		
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	-93.02	-3.3	-63.2	63.3	45.9	17.42	3.634		
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	-93.02	-3.3	-63.2	63.3	45.5	17.81	3.554		
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	-93.02	-3.3	-63.2	63.3	45.1	18.20	3.478		
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	-93.02	-3.3	-63.2	63.3	44.7	18.59	3.406		
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	-93.02	-3.3	-63.2	63.3	44.3	18.97	3.338		
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	-93.02	-3.3	-63.2	63.3	44.0	19.34	3.273		
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	-93.02	-3.3	-63.2	63.3	43.6	19.71	3.212		
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	-93.02	-3.3	-63.2	63.3	43.2	20.08	3.153		
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	-93.02	-3.3	-63.2	63.3	42.9	20.44	3.097		
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	-93.02	-3.3	-63.2	63.3	42.5	20.80	3.044		
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	-93.02	-3.3	-63.2	63.3	42.2	21.15	2.993		
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	-93.02	-3.3	-63.2	63.3	41.8	21.50	2.944		
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	-93.02	-3.3	-63.2	63.3	41.5	21.85	2.898		
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	-93.02	-3.3	-63.2	63.3	41.1	22.19	2.853		
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	-93.02	-3.3	-63.2	63.3	40.8	22.53	2.809		
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	-93.02	-3.3	-63.2	63.3	40.4	22.87	2.768		
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	-93.02	-3.3	-63.2	63.3	40.1	23.21	2.728		
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	-93.02	-3.3	-63.2	63.3	39.8	23.54	2.689		
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	-93.02	-3.3	-63.2	63.3	39.4	23.87	2.652		
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	-93.02	-3.3	-63.2	63.3	39.1	24.20	2.616		
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	-93.02	-3.3	-63.2	63.3	38.8	24.53	2.581		
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	-93.02	-3.3	-63.2	63.3	38.5	24.85	2.547		
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	-93.02	-3.3	-63.2	63.3	38.1	25.17	2.515		
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	-93.02	-3.3	-63.2	63.3	37.8	25.49	2.483		
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	-93.02	-3.3	-63.2	63.3	37.5	25.81	2.453		
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	-93.02	-3.3	-63.2	63.3	37.2	26.13	2.423		
5,100.0	5,100.0	5,101.0	5,101.0	13.2	13.2	-93.02	-3.3	-63.2	63.3	36.9	26.44	2.394		
5,200.0	5,200.0	5,201.0	5,201.0	13.4	13.4	-93.02	-3.3	-63.2	63.3	36.6	26.75	2.366		
5,300.0	5,300.0	5,301.0	5,301.0	13.5	13.5	-93.02	-3.3	-63.2	63.3	36.2	27.06	2.339		
5,400.0	5,400.0	5,401.0	5,401.0	13.7	13.7	-93.02	-3.3	-63.2	63.3	35.9	27.37	2.313		
5,404.1	5,404.1	5,405.1	5,405.1	13.7	13.7	-93.02	-3.3	-63.2	63.3	35.9	27.38	2.312 CC		
5,500.0	5,500.0	5,501.0	5,501.0	13.8	13.8	-93.23	-3.6	-63.2	63.3	35.7	27.59	2.295		
5,600.0	5,600.0	5,600.9	5,600.9	14.0	13.8	-94.81	-5.3	-63.2	63.4	35.7	27.79	2.283 ES		
5,700.0	5,700.0	5,700.7	5,700.6	14.1	13.9	-97.94	-8.8	-63.2	63.8	35.8	27.99	2.281 SF		
5,800.0	5,800.0	5,800.4	5,800.1	14.3	14.0	-102.53	-14.0	-63.2	64.8	36.6	28.19	2.297		
5,850.0	5,850.0	5,850.1	5,849.8	14.3	14.0	-105.31	-17.3	-63.2	65.6	37.3	28.27	2.319		
5,900.0	5,900.0	5,900.0	5,899.5	14.4	14.1	76.92	-21.0	-63.2	66.6	38.3	28.32	2.351		
6,000.0	6,000.0	5,999.2	5,998.3	14.4	14.2	71.48	-29.6	-63.2	69.2	40.8	28.43	2.435		
6,100.0	6,099.9	6,098.4	6,097.0	14.5	14.4	66.54	-40.0	-63.2	72.6	44.0	28.57	2.541		
6,200.0	6,199.8	6,197.5	6,195.4	14.6	14.5	62.13	-52.0	-63.2	76.5	47.8	28.73	2.664		
6,300.0	6,299.5	6,296.4	6,293.4	14.7	14.7	58.24	-65.7	-63.2	81.0	52.1	28.94	2.801		
6,400.0	6,399.2	6,396.3	6,392.1	14.8	15.0	55.25	-80.4	-63.2	85.4	56.3	29.16	2.930		
6,510.0	6,508.5	6,506.1	6,500.7	15.0	15.2	53.33	-96.6	-63.2	89.3	59.8	29.48	3.029		
6,600.0	6,597.9	6,596.1	6,589.7	15.1	15.5	52.33	-109.9	-63.2	92.0	62.2	29.74	3.092		
6,700.0	6,697.3	6,696.0	6,688.6	15.3	15.8	51.28	-124.6	-63.2	95.0	64.9	30.08	3.158		
6,800.0	6,796.6	6,796.0	6,787.4	15.5	16.1	50.30	-139.3	-63.2	98.0	67.6	30.45	3.220		
6,900.0	6,896.0	6,895.9	6,886.3	15.7	16.4	49.38	-154.1	-63.2	101.1	70.3	30.85	3.278		
7,000.0	6,995.3	6,995.8	6,985.1	16.0	16.7	48.51	-168.8	-63.2	104.2	72.9	31.28	3.331		
7,100.0	7,094.6	7,095.8	7,084.0	16.2	17.1	47.69	-183.5	-63.2	107.3	75.6	31.75	3.381		

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 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 510H - Dagger State Com 510H - Dagger State Com 510H - Prelim 1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,200.0	7,194.0	7,195.7	7,182.8	16.5	17.5	46.92	-198.2	-63.2	110.5	78.2	32.25	3.426	
7,300.0	7,293.3	7,295.7	7,281.7	16.8	17.9	46.19	-212.9	-63.2	113.6	80.9	32.78	3.467	
7,400.0	7,392.6	7,395.6	7,380.5	17.1	18.2	45.50	-227.7	-63.2	116.8	83.5	33.33	3.504	
7,500.0	7,492.0	7,495.5	7,479.4	17.4	18.7	44.85	-242.4	-63.2	120.0	86.1	33.92	3.538	
7,600.0	7,591.3	7,595.5	7,578.2	17.8	19.1	44.23	-257.1	-63.2	123.2	88.7	34.53	3.568	
7,700.0	7,690.7	7,695.4	7,677.1	18.1	19.5	43.65	-271.8	-63.2	126.4	91.3	35.17	3.596	
7,800.0	7,790.0	7,795.4	7,775.9	18.5	19.9	43.09	-286.6	-63.2	129.7	93.9	35.83	3.620	
7,900.0	7,889.3	7,895.3	7,874.8	18.8	20.4	42.56	-301.3	-63.2	132.9	96.4	36.51	3.641	
8,000.0	7,988.7	7,995.2	7,973.6	19.2	20.9	42.05	-316.0	-63.2	136.2	99.0	37.22	3.659	
8,100.0	8,088.0	8,095.2	8,072.5	19.6	21.3	41.57	-330.7	-63.2	139.5	101.5	37.94	3.675	
8,200.0	8,187.3	8,195.1	8,171.3	20.0	21.8	41.11	-345.5	-63.2	142.7	104.0	38.69	3.689	
8,300.0	8,286.7	8,295.1	8,270.2	20.4	22.3	40.67	-360.2	-63.2	146.0	106.6	39.45	3.701	
8,400.0	8,386.0	8,395.0	8,369.0	20.8	22.8	40.25	-374.9	-63.2	149.3	109.1	40.24	3.711	
8,500.0	8,485.4	8,494.9	8,467.9	21.3	23.2	39.85	-389.6	-63.2	152.6	111.6	41.04	3.719	
8,600.0	8,584.7	8,594.9	8,566.7	21.7	23.7	39.47	-404.3	-63.2	155.9	114.1	41.85	3.726	
8,700.0	8,684.0	8,694.8	8,665.6	22.1	24.2	39.10	-419.1	-63.2	159.2	116.6	42.68	3.731	
8,800.0	8,783.4	8,794.8	8,764.4	22.6	24.8	38.74	-433.8	-63.2	162.6	119.0	43.53	3.735	
8,900.0	8,882.7	8,894.7	8,863.3	23.0	25.3	38.40	-448.5	-63.2	165.9	121.5	44.38	3.738	
9,000.0	8,982.0	8,994.6	8,962.1	23.5	25.8	38.08	-463.2	-63.2	169.2	124.0	45.25	3.739	
9,100.0	9,081.4	9,094.6	9,061.0	23.9	26.3	37.77	-478.0	-63.2	172.6	126.4	46.14	3.740	
9,200.0	9,180.7	9,194.5	9,159.8	24.4	26.8	37.46	-492.7	-63.2	175.9	128.9	47.03	3.740	
9,300.0	9,280.1	9,296.6	9,260.9	24.9	27.4	37.26	-507.2	-63.2	178.8	130.9	47.89	3.734	
9,400.0	9,379.4	9,399.3	9,362.8	25.3	27.9	37.37	-519.9	-63.2	180.2	131.5	48.68	3.701	
9,500.0	9,478.7	9,502.0	9,464.9	25.8	28.4	37.79	-530.9	-63.2	180.1	130.7	49.38	3.647	
9,600.0	9,578.1	9,604.7	9,567.2	26.3	28.9	38.54	-540.0	-63.2	178.5	128.5	49.97	3.572	
9,700.0	9,677.4	9,707.2	9,669.4	26.8	29.3	39.63	-547.3	-63.2	175.4	125.0	50.42	3.479	
9,800.0	9,776.7	9,809.5	9,771.6	27.3	29.8	41.12	-552.7	-63.2	171.0	120.3	50.71	3.372	
9,900.0	9,876.1	9,911.6	9,873.6	27.8	30.2	43.07	-556.3	-63.2	165.3	114.5	50.78	3.254	
10,000.0	9,975.4	10,013.4	9,975.4	28.3	30.5	45.57	-558.1	-63.2	158.4	107.8	50.57	3.132	
10,100.0	10,074.8	10,113.8	10,075.8	28.8	30.6	48.66	-558.3	-63.2	150.7	100.8	49.92	3.018	
10,200.0	10,174.1	10,227.3	10,189.2	29.3	30.4	53.59	-554.5	-62.6	141.0	92.5	48.47	2.909	
10,300.0	10,273.4	10,343.8	10,301.7	29.8	29.9	68.14	-526.3	-58.0	117.3	73.1	44.20	2.655	
10,400.0	10,372.8	10,436.8	10,384.6	30.3	29.5	94.78	-484.9	-51.2	95.1	55.7	39.39	2.414	
10,425.0	10,397.6	10,456.5	10,401.0	30.4	29.4	102.47	-474.1	-49.4	93.7	53.8	39.89	2.350	
10,500.0	10,472.1	10,507.8	10,441.4	30.8	29.2	123.41	-443.0	-44.3	107.3	60.6	46.71	2.296	
10,600.0	10,571.4	10,561.5	10,480.0	31.3	28.9	142.14	-406.1	-38.2	159.7	106.1	53.67	2.976	
10,700.0	10,670.8	10,600.0	10,504.9	31.8	28.8	152.12	-377.2	-33.5	232.2	176.1	56.10	4.139	
10,723.9	10,694.5	10,611.0	10,511.5	32.0	28.7	154.50	-368.5	-32.1	251.1	194.6	56.46	4.447	
10,800.0	10,770.2	10,635.0	10,525.4	32.3	28.6	159.38	-349.2	-28.9	313.6	256.4	57.25	5.478	
10,900.0	10,869.7	10,661.5	10,539.5	32.8	28.5	163.84	-327.1	-25.3	399.3	341.3	58.00	6.885	
11,000.0	10,969.4	10,683.8	10,550.4	33.3	28.5	166.97	-307.9	-22.1	487.7	429.0	58.65	8.315	
11,100.0	11,069.3	10,700.0	10,557.7	33.7	28.4	169.03	-293.6	-19.8	577.7	518.4	59.27	9.747	
11,200.0	11,169.2	10,725.0	10,568.1	34.2	28.4	171.50	-271.2	-16.1	668.9	609.1	59.83	11.180	
11,300.0	11,269.2	10,734.3	10,571.6	34.5	28.3	172.49	-262.7	-14.7	760.9	700.5	60.44	12.590	
11,383.8	11,353.0	10,750.0	10,577.2	34.7	28.3	-11.38	-248.2	-12.3	838.6	777.7	60.90	13.770	
11,400.0	11,369.2	10,750.0	10,577.2	34.7	28.3	-11.38	-248.2	-12.3	853.6	792.6	61.00	13.994	
11,500.0	11,469.2	10,759.2	10,580.3	34.7	28.3	-10.83	-239.6	-10.9	947.0	885.5	61.58	15.380	
11,529.4	11,498.5	10,762.4	10,581.3	34.7	28.3	-10.66	-236.7	-10.5	974.7	912.9	61.74	15.786	
11,550.0	11,519.2	10,764.6	10,582.0	34.7	28.3	-9.49	-234.6	-10.1	994.0	932.1	61.86	16.069	

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 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 554H - Dagger State Com 554H - Dagger State Com 554H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.39	-0.2	-30.2	30.2				
100.0	100.0	100.0	100.0	0.5	0.5	-90.39	-0.2	-30.2	30.2	29.2	1.06	28.512	
200.0	200.0	200.0	200.0	1.7	1.7	-90.39	-0.2	-30.2	30.2	26.8	3.42	8.830	
300.0	300.0	300.0	300.0	2.4	2.4	-90.39	-0.2	-30.2	30.2	25.4	4.82	6.268	
400.0	400.0	400.0	400.0	3.0	3.0	-90.39	-0.2	-30.2	30.2	24.3	5.91	5.117	
500.0	500.0	500.0	500.0	3.4	3.4	-90.39	-0.2	-30.2	30.2	23.4	6.83	4.426	
600.0	600.0	600.0	600.0	3.8	3.8	-90.39	-0.2	-30.2	30.2	22.6	7.65	3.952	
700.0	700.0	700.0	700.0	4.2	4.2	-90.39	-0.2	-30.2	30.2	21.8	8.39	3.602	
800.0	800.0	800.0	800.0	4.5	4.5	-90.39	-0.2	-30.2	30.2	21.1	9.08	3.328	
900.0	900.0	900.0	900.0	4.9	4.9	-90.39	-0.2	-30.2	30.2	20.5	9.73	3.107	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	-90.39	-0.2	-30.2	30.2	19.9	10.34	2.923	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	-90.39	-0.2	-30.2	30.2	19.3	10.92	2.768	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-90.39	-0.2	-30.2	30.2	18.8	11.48	2.633	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	-90.39	-0.2	-30.2	30.2	18.2	12.01	2.516	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	-90.39	-0.2	-30.2	30.2	17.7	12.53	2.412	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	-90.39	-0.2	-30.2	30.2	17.2	13.03	2.320	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	-90.39	-0.2	-30.2	30.2	16.7	13.52	2.237	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	-90.39	-0.2	-30.2	30.2	16.2	13.99	2.161	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	-90.39	-0.2	-30.2	30.2	15.8	14.45	2.092	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	-90.39	-0.2	-30.2	30.2	15.3	14.90	2.029	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	-90.39	-0.2	-30.2	30.2	14.9	15.34	1.971	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	-90.39	-0.2	-30.2	30.2	14.5	15.77	1.917	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	-90.39	-0.2	-30.2	30.2	14.0	16.19	1.867	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	-90.39	-0.2	-30.2	30.2	13.6	16.61	1.820	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	-90.39	-0.2	-30.2	30.2	13.2	17.02	1.777	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-90.39	-0.2	-30.2	30.2	12.8	17.42	1.736	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	-90.39	-0.2	-30.2	30.2	12.4	17.81	1.697	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	-90.39	-0.2	-30.2	30.2	12.0	18.20	1.661	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	-90.39	-0.2	-30.2	30.2	11.6	18.59	1.627	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	-90.39	-0.2	-30.2	30.2	11.3	18.96	1.594	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	-90.39	-0.2	-30.2	30.2	10.9	19.34	1.563	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	-90.39	-0.2	-30.2	30.2	10.5	19.71	1.534	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	-90.39	-0.2	-30.2	30.2	10.2	20.07	1.506	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	-90.39	-0.2	-30.2	30.2	9.8	20.44	1.479 Level 3	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	-90.39	-0.2	-30.2	30.2	9.4	20.79	1.454 Level 3	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	-90.39	-0.2	-30.2	30.2	9.1	21.15	1.429 Level 3	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	-90.39	-0.2	-30.2	30.2	8.7	21.50	1.406 Level 3	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	-90.39	-0.2	-30.2	30.2	8.4	21.85	1.384 Level 3	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	-90.39	-0.2	-30.2	30.2	8.0	22.19	1.362 Level 3	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	-90.39	-0.2	-30.2	30.2	7.7	22.53	1.342 Level 3	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	-90.39	-0.2	-30.2	30.2	7.4	22.87	1.322 Level 3	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	-90.39	-0.2	-30.2	30.2	7.0	23.21	1.303 Level 3	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-90.39	-0.2	-30.2	30.2	6.7	23.54	1.284 Level 3	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	-90.39	-0.2	-30.2	30.2	6.4	23.87	1.266 Level 3	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	-90.39	-0.2	-30.2	30.2	6.0	24.20	1.249 Level 3	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	-90.39	-0.2	-30.2	30.2	5.7	24.53	1.233 Level 3	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	-90.39	-0.2	-30.2	30.2	5.4	24.85	1.217 Level 3	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	-90.39	-0.2	-30.2	30.2	5.1	25.17	1.201 Level 3	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	-90.39	-0.2	-30.2	30.2	4.7	25.49	1.186 Level 3	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	-90.39	-0.2	-30.2	30.2	4.4	25.81	1.171 Level 3	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-90.39	-0.2	-30.2	30.2	4.1	26.12	1.157 Level 3	
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	-90.39	-0.2	-30.2	30.2	3.8	26.44	1.143 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 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 554H - Dagger State Com 554H - Dagger State Com 554H - 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	13.4	13.4	-90.39	-0.2	-30.2	30.2	3.5	26.75	1.130	Level 3
5,300.0	5,300.0	5,300.0	5,300.0	13.5	13.5	-90.39	-0.2	-30.2	30.2	3.2	27.06	1.117	Level 3
5,400.0	5,400.0	5,400.0	5,400.0	13.7	13.7	-90.39	-0.2	-30.2	30.2	2.9	27.37	1.104	Level 3
5,500.0	5,500.0	5,500.0	5,500.0	13.8	13.8	-90.39	-0.2	-30.2	30.2	2.6	27.68	1.092	Level 3
5,600.0	5,600.0	5,600.0	5,600.0	14.0	14.0	-90.39	-0.2	-30.2	30.2	2.2	27.98	1.080	Level 3
5,700.0	5,700.0	5,700.0	5,700.0	14.1	14.1	-90.80	-0.4	-30.2	30.2	2.0	28.20	1.072	Level 3
5,764.9	5,764.9	5,764.9	5,764.9	14.2	14.1	-92.57	-1.4	-30.2	30.2	1.9	28.33	1.066	Level 3, CC
5,800.0	5,800.0	5,800.0	5,800.0	14.3	14.1	-94.11	-2.2	-30.1	30.2	1.8	28.39	1.064	Level 3, ES, SF
5,850.0	5,850.0	5,850.0	5,849.9	14.3	14.1	-96.99	-3.7	-30.1	30.3	1.8	28.47	1.064	Level 3
5,900.0	5,900.0	5,899.9	5,899.8	14.4	14.2	84.86	-5.6	-30.0	30.5	2.0	28.51	1.070	Level 3
6,000.0	6,000.0	5,999.7	5,999.5	14.4	14.3	78.53	-10.9	-29.8	31.2	2.6	28.59	1.092	Level 3
6,100.0	6,099.9	6,099.5	6,099.1	14.5	14.4	72.60	-17.8	-29.4	32.4	3.7	28.70	1.129	Level 3
6,200.0	6,199.8	6,199.2	6,198.4	14.6	14.5	67.20	-26.5	-29.1	34.0	5.1	28.83	1.178	Level 3
6,300.0	6,299.5	6,298.9	6,297.5	14.7	14.6	62.38	-36.9	-28.6	35.9	6.9	28.98	1.237	Level 3
6,400.0	6,399.2	6,398.5	6,396.4	14.8	14.8	58.16	-49.0	-28.0	38.0	8.9	29.14	1.305	Level 3
6,510.0	6,508.5	6,508.5	6,505.4	15.0	15.0	55.65	-63.0	-27.4	39.9	10.5	29.38	1.358	Level 3
6,600.0	6,597.9	6,598.5	6,594.7	15.1	15.2	54.74	-74.4	-26.9	40.9	11.4	29.59	1.384	Level 3
6,700.0	6,697.3	6,698.5	6,693.9	15.3	15.4	53.79	-87.2	-26.3	42.1	12.3	29.85	1.412	Level 3
6,800.0	6,796.6	6,798.5	6,793.1	15.5	15.7	52.90	-99.9	-25.8	43.3	13.2	30.15	1.438	Level 3
6,900.0	6,896.0	6,898.5	6,892.3	15.7	16.0	52.05	-112.7	-25.2	44.6	14.1	30.48	1.462	Level 3
7,000.0	6,895.3	6,898.5	6,891.4	16.0	16.3	51.24	-125.4	-24.6	45.8	15.0	30.84	1.485	Level 3
7,100.0	7,094.6	7,098.5	7,090.6	16.2	16.6	50.48	-138.1	-24.0	47.0	15.8	31.22	1.506	
7,200.0	7,194.0	7,198.4	7,189.8	16.5	16.9	49.76	-150.9	-23.5	48.3	16.6	31.64	1.525	
7,300.0	7,293.3	7,298.4	7,289.0	16.8	17.2	49.07	-163.6	-22.9	49.5	17.4	32.09	1.543	
7,400.0	7,392.6	7,398.4	7,388.1	17.1	17.6	48.42	-176.3	-22.3	50.8	18.2	32.56	1.559	
7,500.0	7,492.0	7,498.4	7,487.3	17.4	17.9	47.80	-189.1	-21.8	52.0	19.0	33.06	1.574	
7,600.0	7,591.3	7,598.4	7,586.5	17.8	18.3	47.21	-201.8	-21.2	53.3	19.7	33.58	1.587	
7,700.0	7,690.7	7,698.4	7,685.7	18.1	18.7	46.65	-214.6	-20.6	54.6	20.4	34.13	1.599	
7,800.0	7,790.0	7,798.4	7,784.8	18.5	19.1	46.11	-227.3	-20.0	55.8	21.1	34.71	1.609	
7,900.0	7,889.3	7,898.4	7,884.0	18.8	19.5	45.59	-240.0	-19.5	57.1	21.8	35.31	1.618	
8,000.0	7,988.7	7,998.4	7,983.2	19.2	19.9	45.10	-252.8	-18.9	58.4	22.5	35.93	1.626	
8,100.0	8,088.0	8,098.4	8,082.4	19.6	20.3	44.63	-265.5	-18.3	59.7	23.1	36.57	1.633	
8,200.0	8,187.3	8,198.4	8,181.5	20.0	20.8	44.18	-278.3	-17.8	61.0	23.8	37.23	1.639	
8,300.0	8,286.7	8,298.3	8,280.7	20.4	21.2	43.75	-291.0	-17.2	62.3	24.4	37.91	1.643	
8,400.0	8,386.0	8,398.3	8,379.9	20.8	21.7	43.34	-303.7	-16.6	63.6	25.0	38.61	1.647	
8,500.0	8,485.4	8,498.3	8,479.1	21.3	22.1	42.94	-316.5	-16.0	64.9	25.6	39.33	1.650	
8,600.0	8,584.7	8,598.3	8,578.2	21.7	22.6	42.56	-329.2	-15.5	66.2	26.2	40.06	1.653	
8,700.0	8,684.0	8,698.3	8,677.4	22.1	23.1	42.19	-342.0	-14.9	67.5	26.7	40.82	1.654	
8,800.0	8,783.4	8,798.3	8,776.6	22.6	23.5	41.84	-354.7	-14.3	68.8	27.3	41.58	1.656	
8,900.0	8,882.7	8,898.3	8,875.7	23.0	24.0	41.50	-367.4	-13.7	70.2	27.8	42.36	1.656	
9,000.0	8,982.0	8,998.3	8,974.9	23.5	24.5	41.17	-380.2	-13.2	71.5	28.3	43.16	1.656	
9,100.0	9,081.4	9,098.3	9,074.1	23.9	25.0	40.86	-392.9	-12.6	72.8	28.8	43.96	1.656	
9,200.0	9,180.7	9,198.3	9,173.3	24.4	25.5	40.56	-405.6	-12.0	74.1	29.3	44.78	1.655	
9,300.0	9,280.1	9,298.2	9,272.4	24.9	26.0	40.26	-418.4	-11.5	75.4	29.8	45.61	1.654	
9,400.0	9,379.4	9,398.2	9,371.6	25.3	26.5	39.98	-431.1	-10.9	76.8	30.3	46.45	1.653	
9,500.0	9,478.7	9,498.2	9,470.8	25.8	27.0	39.71	-443.9	-10.3	78.1	30.8	47.31	1.651	
9,600.0	9,578.1	9,598.2	9,570.0	26.3	27.5	39.44	-456.6	-9.7	79.4	31.3	48.17	1.649	
9,700.0	9,677.4	9,698.2	9,669.1	26.8	28.0	39.19	-469.3	-9.2	80.8	31.7	49.04	1.647	
9,800.0	9,776.7	9,798.2	9,768.3	27.3	28.5	38.94	-482.1	-8.6	82.1	32.2	49.92	1.644	
9,900.0	9,876.1	9,898.2	9,867.5	27.8	29.0	38.70	-494.8	-8.0	83.4	32.6	50.81	1.642	
10,000.0	9,975.4	9,998.2	9,966.7	28.3	29.6	38.47	-507.6	-7.5	84.8	33.1	51.71	1.639	
10,100.0	10,074.8	10,099.1	10,066.8	28.8	30.1	38.45	-519.9	-6.9	85.7	33.2	52.52	1.631	

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 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 554H - Dagger State Com 554H - Dagger State Com 554H - 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	
10,200.0	10,174.1	10,200.3	10,167.5	29.3	30.6	39.12	-530.5	-6.4	85.2	32.1	53.10	1.604	
10,300.0	10,273.4	10,301.5	10,268.2	29.8	31.1	40.53	-539.4	-6.0	83.3	29.9	53.40	1.561	
10,400.0	10,372.8	10,402.5	10,369.0	30.3	31.5	42.83	-546.5	-5.7	80.2	26.8	53.32	1.503	
10,500.0	10,472.1	10,503.3	10,469.7	30.8	32.0	46.21	-551.7	-5.5	75.9	23.1	52.73	1.439 Level 3	
10,600.0	10,571.4	10,603.9	10,570.2	31.3	32.4	51.03	-555.2	-5.3	70.7	19.2	51.43	1.374 Level 3	
10,700.0	10,670.8	10,704.2	10,670.5	31.8	32.7	57.81	-557.0	-5.2	65.0	15.9	49.14	1.323 Level 3	
10,723.9	10,694.5	10,728.0	10,694.3	32.0	32.7	59.79	-557.1	-5.2	63.7	15.3	48.40	1.315 Level 3	
10,800.0	10,770.2	10,803.9	10,770.2	32.3	32.8	66.51	-557.2	-5.2	60.0	14.0	45.94	1.305 Level 3	
10,900.0	10,869.7	10,905.4	10,871.7	32.8	32.7	76.79	-555.5	-5.1	56.2	13.4	42.82	1.312 Level 3	
10,984.5	10,954.0	10,989.6	10,954.5	33.2	32.3	98.39	-541.2	-3.7	52.6	11.2	41.35	1.271 Level 3	
11,000.0	10,969.4	11,004.2	10,968.5	33.3	32.3	103.73	-537.2	-3.3	52.8	10.5	42.34	1.247 Level 3	
11,100.0	11,069.3	11,090.4	11,048.5	33.7	31.9	137.10	-505.3	-0.3	70.6	15.3	55.35	1.276 Level 3	
11,200.0	11,169.2	11,162.6	11,110.1	34.2	31.5	156.59	-467.9	3.3	115.1	53.7	61.36	1.876	
11,300.0	11,269.2	11,225.0	11,158.2	34.5	31.2	166.53	-428.5	7.0	175.4	112.5	62.87	2.790	
11,383.8	11,353.0	11,263.5	11,185.2	34.7	31.0	-14.45	-401.2	9.6	233.2	169.9	63.30	3.684	
11,400.0	11,369.2	11,270.7	11,190.0	34.7	31.0	-13.82	-395.9	10.1	244.9	181.5	63.36	3.865	
11,500.0	11,469.2	11,310.5	11,215.0	34.7	30.8	-10.85	-365.1	13.0	321.2	257.4	63.78	5.036	
11,529.4	11,498.5	11,325.0	11,223.5	34.7	30.8	-9.93	-353.3	14.2	344.7	280.8	63.89	5.396	
11,550.0	11,519.2	11,325.0	11,223.5	34.7	30.8	-9.48	-353.3	14.2	361.1	297.1	64.02	5.641	
11,575.0	11,544.1	11,336.4	11,229.9	34.6	30.7	-8.34	-343.9	15.0	380.6	316.5	64.09	5.938	
11,600.0	11,568.9	11,350.0	11,237.2	34.5	30.7	-7.32	-332.6	16.1	399.6	335.4	64.14	6.230	
11,625.0	11,593.5	11,350.0	11,237.2	34.4	30.7	-6.92	-332.6	16.1	418.0	353.7	64.33	6.498	
11,650.0	11,617.9	11,363.4	11,244.1	34.3	30.6	-6.15	-321.1	17.2	435.8	371.4	64.39	6.769	
11,675.0	11,641.9	11,375.0	11,249.8	34.1	30.6	-5.55	-311.1	18.2	453.1	388.6	64.48	7.028	
11,700.0	11,665.6	11,382.1	11,253.2	34.0	30.6	-5.13	-304.9	18.8	469.8	405.2	64.62	7.270	
11,725.0	11,688.7	11,391.6	11,257.6	33.9	30.5	-4.70	-296.5	19.6	485.9	421.2	64.75	7.505	
11,750.0	11,711.4	11,400.0	11,261.3	33.8	30.5	-4.35	-289.0	20.3	501.4	436.5	64.90	7.726	
11,775.0	11,733.5	11,410.9	11,265.9	33.6	30.5	-4.00	-279.2	21.2	516.3	451.2	65.04	7.938	
11,800.0	11,754.9	11,425.0	11,271.6	33.5	30.4	-3.63	-266.3	22.4	530.5	465.4	65.14	8.144	
11,825.0	11,775.6	11,425.0	11,271.6	33.4	30.4	-3.51	-266.3	22.4	544.1	478.7	65.44	8.315	
11,850.0	11,795.6	11,440.3	11,277.3	33.2	30.4	-3.18	-252.1	23.8	557.0	491.4	65.55	8.497	
11,875.0	11,814.8	11,450.0	11,280.7	33.1	30.4	-2.97	-243.1	24.6	569.2	503.4	65.75	8.657	
11,900.0	11,833.0	11,460.3	11,284.1	33.0	30.4	-2.76	-233.4	25.6	580.7	514.8	65.95	8.806	
11,925.0	11,850.4	11,475.0	11,288.6	32.9	30.3	-2.52	-219.5	26.9	591.6	525.5	66.10	8.950	
11,950.0	11,866.8	11,475.0	11,288.6	32.8	30.3	-2.46	-219.5	26.9	601.8	535.3	66.46	9.055	
11,975.0	11,882.2	11,490.6	11,292.8	32.7	30.3	-2.25	-204.5	28.3	611.2	544.5	66.62	9.174	
12,000.0	11,896.6	11,500.0	11,295.2	32.6	30.3	-2.11	-195.5	29.2	619.9	553.0	66.88	9.269	
12,025.0	11,909.8	11,511.0	11,297.7	32.5	30.3	-1.96	-184.8	30.2	627.9	560.8	67.13	9.354	
12,050.0	11,922.0	11,525.0	11,300.5	32.4	30.2	-1.80	-171.2	31.5	635.2	567.8	67.34	9.432	
12,075.0	11,932.9	11,525.0	11,300.5	32.3	30.2	-1.77	-171.2	31.5	641.8	574.0	67.76	9.472	
12,100.0	11,942.7	11,541.9	11,303.4	32.2	30.2	-1.60	-154.6	33.1	647.5	579.5	67.96	9.528	
12,125.0	11,951.3	11,550.0	11,304.6	32.2	30.2	-1.51	-146.6	33.8	652.6	584.3	68.28	9.557	
12,150.0	11,958.6	11,562.5	11,306.1	32.1	30.2	-1.39	-134.2	35.0	656.9	588.3	68.56	9.582	
12,175.0	11,964.6	11,575.0	11,307.3	32.1	30.2	-1.28	-121.9	36.2	660.4	591.6	68.84	9.594	
12,200.0	11,969.4	11,583.3	11,307.9	32.1	30.2	-1.20	-113.7	36.9	663.2	594.0	69.18	9.586	
12,225.0	11,972.9	11,600.0	11,308.8	32.0	30.2	-1.06	-97.0	38.5	665.3	595.9	69.43	9.583	
12,250.0	11,975.1	11,600.0	11,308.8	32.0	30.2	-1.06	-97.0	38.5	666.6	596.7	69.89	9.538	
12,275.0	11,976.0	11,615.2	11,309.0	32.0	30.2	-0.93	-81.9	40.0	667.1	596.9	70.16	9.508	
12,279.4	11,976.0	11,617.6	11,309.0	32.0	30.2	-0.91	-79.5	40.2	667.1	596.9	70.21	9.502	
12,279.5	11,976.0	11,617.7	11,309.0	32.0	30.2	-0.91	-79.4	40.2	667.1	596.9	70.21	9.502	
12,300.0	11,975.9	11,638.3	11,309.0	32.0	30.2	-0.75	-58.9	42.1	667.0	596.7	70.31	9.486	
12,328.7	11,975.6	11,667.1	11,309.0	32.0	30.2	-0.54	-30.2	44.4	666.6	596.2	70.46	9.462	

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 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 554H - Dagger State Com 554H - Dagger State Com 554H - 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 (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
12,400.0	11,974.6	11,739.0	11,309.1	32.0	30.2	-0.09	41.6	49.1	665.5	594.6	70.84	9.393
12,500.0	11,973.1	11,840.1	11,309.4	32.0	30.2	0.27	142.6	52.6	663.7	592.3	71.43	9.292
12,600.0	11,971.7	11,941.0	11,309.9	32.1	30.2	0.34	243.5	52.7	661.8	589.7	72.07	9.183
12,700.0	11,970.2	12,041.0	11,310.4	32.1	30.3	0.34	343.5	51.9	659.8	587.0	72.78	9.066
12,800.0	11,968.8	12,141.0	11,310.9	32.1	30.3	0.34	443.4	51.1	657.8	584.3	73.56	8.943
12,900.0	11,967.3	12,241.0	11,311.4	32.2	30.3	0.33	543.4	50.3	655.9	581.5	74.39	8.816
13,000.0	11,965.8	12,340.9	11,312.0	32.3	30.4	0.33	643.4	49.5	653.9	578.6	75.27	8.687
13,100.0	11,964.4	12,432.8	11,311.6	32.4	30.6	0.32	735.3	48.8	652.8	576.3	76.47	8.537
13,200.0	11,962.9	12,532.8	11,310.9	32.5	30.9	0.32	835.3	48.0	652.1	574.6	77.47	8.417
13,300.0	11,961.4	12,632.8	11,310.2	32.8	31.6	0.31	935.3	47.2	651.3	572.8	78.52	8.295
13,400.0	11,960.0	12,732.8	11,309.4	33.5	32.8	0.31	1,035.3	46.4	650.6	571.0	79.62	8.171
13,500.0	11,958.5	12,832.8	11,308.7	34.8	34.2	0.30	1,135.2	45.7	649.8	569.1	80.77	8.046
13,600.0	11,957.1	12,932.8	11,308.0	36.2	35.8	0.30	1,235.2	44.9	649.1	567.2	81.95	7.920
13,700.0	11,955.6	13,032.8	11,307.3	37.9	37.5	0.29	1,335.2	44.1	648.4	565.2	83.18	7.795
13,800.0	11,954.1	13,132.8	11,306.5	39.5	39.2	0.29	1,435.2	43.3	647.6	563.2	84.45	7.669
13,900.0	11,952.7	13,232.8	11,305.8	41.3	40.9	0.28	1,535.2	42.5	646.9	561.1	85.75	7.544
14,000.0	11,951.2	13,332.8	11,305.1	43.0	42.6	0.28	1,635.2	41.7	646.2	559.1	87.09	7.420
14,083.4	11,950.0	13,416.2	11,304.5	44.5	44.1	0.28	1,718.6	41.1	645.5	557.3	88.23	7.317
14,100.0	11,949.7	13,432.8	11,304.4	44.8	44.4	0.27	1,735.2	40.9	645.4	556.9	88.46	7.296
14,118.4	11,949.3	13,451.2	11,304.2	45.1	44.8	0.27	1,753.5	40.8	645.1	556.4	88.71	7.272
14,200.0	11,947.1	13,532.8	11,303.6	46.6	46.2	0.27	1,835.2	40.1	643.5	553.6	89.85	7.161
14,300.0	11,944.4	13,632.8	11,302.9	48.4	48.1	0.27	1,935.1	39.4	641.5	550.2	91.28	7.028
14,400.0	11,941.7	13,732.8	11,302.2	50.2	49.9	0.26	2,035.1	38.6	639.6	546.8	92.75	6.896
14,500.0	11,939.0	13,832.7	11,301.5	52.1	51.8	0.26	2,135.1	37.8	637.6	543.4	94.24	6.766
14,600.0	11,936.4	13,932.7	11,300.7	54.0	53.6	0.25	2,235.1	37.0	635.6	539.9	95.75	6.638
14,700.0	11,933.7	14,032.7	11,300.0	55.8	55.5	0.25	2,335.0	36.2	633.7	536.4	97.30	6.513
14,800.0	11,931.0	14,132.7	11,299.3	57.7	57.4	0.24	2,435.0	35.4	631.7	532.9	98.86	6.390
14,900.0	11,928.3	14,232.7	11,298.6	59.6	59.3	0.24	2,535.0	34.6	629.8	529.3	100.45	6.269
15,000.0	11,925.6	14,332.6	11,297.8	61.5	61.2	0.24	2,635.0	33.9	627.8	525.7	102.07	6.151
15,100.0	11,922.9	14,432.6	11,297.1	63.4	63.1	0.23	2,734.9	33.1	625.9	522.2	103.70	6.035
15,200.0	11,920.3	14,532.6	11,296.4	65.3	65.0	0.23	2,834.9	32.3	623.9	518.5	105.35	5.922
15,300.0	11,917.6	14,632.6	11,295.7	67.3	66.9	0.22	2,934.9	31.5	621.9	514.9	107.03	5.811
15,400.0	11,914.9	14,731.1	11,294.9	69.2	68.8	0.22	3,033.4	30.7	620.0	511.2	108.81	5.698
15,500.0	11,912.2	14,825.1	11,293.3	71.1	70.6	0.21	3,127.4	30.0	619.1	508.2	110.91	5.582
15,600.0	11,909.5	14,925.1	11,291.3	73.1	72.6	0.21	3,227.4	29.2	618.3	505.7	112.64	5.489
15,700.0	11,906.9	15,025.1	11,289.4	75.0	74.5	0.20	3,327.4	28.4	617.6	503.2	114.38	5.399
15,769.2	11,905.0	15,094.3	11,288.1	76.4	75.9	0.20	3,396.6	27.9	617.0	501.4	115.60	5.338
15,775.3	11,904.8	15,100.4	11,288.0	76.5	76.0	0.20	3,402.7	27.8	617.0	501.3	115.71	5.332
15,800.0	11,904.1	15,125.1	11,287.5	76.9	76.5	0.20	3,427.4	27.6	616.7	500.6	116.14	5.310
15,900.0	11,901.2	15,225.1	11,285.6	78.9	78.4	0.20	3,527.3	26.9	615.8	497.9	117.91	5.222
16,000.0	11,898.3	15,325.1	11,283.7	80.8	80.4	0.19	3,627.3	26.1	614.8	495.1	119.70	5.136
16,100.0	11,895.4	15,425.1	11,281.7	82.8	82.3	0.19	3,727.3	25.3	613.8	492.3	121.50	5.052
16,200.0	11,892.5	15,525.1	11,279.8	84.8	84.3	0.18	3,827.3	24.5	612.8	489.5	123.31	4.970
16,300.0	11,889.6	15,625.1	11,277.9	86.7	86.2	0.18	3,927.2	23.7	611.9	486.7	125.14	4.890
16,400.0	11,886.8	15,725.1	11,276.0	88.7	88.2	0.17	4,027.2	23.0	610.9	483.9	126.98	4.811
16,500.0	11,883.9	15,825.1	11,274.0	90.7	90.2	0.17	4,127.2	22.2	609.9	481.1	128.82	4.735
16,600.0	11,881.0	15,945.2	11,274.1	92.6	92.5	0.16	4,247.2	21.3	607.0	477.8	129.13	4.700
16,700.0	11,878.1	16,045.1	11,275.4	94.6	94.5	0.16	4,347.1	20.5	602.7	471.7	130.99	4.601
16,800.0	11,875.2	16,145.0	11,276.8	96.6	96.5	0.16	4,447.0	19.7	598.4	465.6	132.87	4.504
16,900.0	11,872.3	16,244.9	11,278.2	98.5	98.4	0.15	4,546.9	18.9	594.1	459.4	134.75	4.409
17,000.0	11,869.4	16,344.8	11,279.6	100.5	100.4	0.15	4,646.8	18.1	589.9	453.2	136.64	4.317
17,100.0	11,866.5	16,444.7	11,281.0	102.5	102.4	0.14	4,746.7	17.4	585.6	447.1	138.54	4.227

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 554H - Dagger State Com 554H - Dagger State Com 554H - 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)			
17,200.0	11,863.6	16,544.6	11,282.3	104.5	104.3	0.14	4,846.6	16.6	581.3	440.9	140.44	4.139	
17,255.4	11,862.0	16,599.9	11,283.1	105.6	105.4	0.14	4,901.9	16.2	579.0	437.5	141.50	4.092	
17,300.0	11,861.1	16,644.5	11,283.7	106.4	106.3	0.14	4,946.5	15.8	577.4	435.0	142.36	4.056	
17,377.8	11,861.1	16,722.3	11,284.8	108.0	107.9	0.13	5,024.3	15.2	576.3	432.5	143.89	4.005	
17,407.3	11,861.6	16,751.8	11,285.2	108.6	108.5	0.13	5,053.8	15.0	576.5	432.0	144.47	3.990	
17,500.0	11,863.9	16,844.5	11,286.5	110.4	110.3	0.13	5,146.5	14.3	577.4	431.2	146.29	3.947	
17,600.0	11,866.3	16,944.5	11,287.9	112.4	112.3	0.12	5,246.5	13.5	578.5	430.2	148.24	3.902	
17,700.0	11,868.7	17,044.5	11,289.2	114.4	114.3	0.12	5,346.4	12.7	579.5	429.3	150.19	3.859	
17,800.0	11,871.1	17,155.8	11,291.3	116.4	116.5	0.11	5,457.7	11.8	580.1	429.0	151.12	3.839	
17,900.0	11,873.5	17,265.5	11,296.4	118.3	118.6	0.10	5,567.3	11.0	577.8	425.7	152.16	3.798	
18,000.0	11,875.9	17,365.5	11,301.4	120.3	120.6	0.10	5,667.1	10.2	575.2	421.1	154.14	3.732	
18,100.0	11,878.3	17,465.4	11,306.4	122.3	122.6	0.09	5,767.0	9.4	572.6	416.5	156.11	3.668	
18,200.0	11,880.7	17,565.4	11,311.4	124.3	124.6	0.09	5,866.8	8.6	570.1	412.0	158.09	3.606	
18,300.0	11,883.1	17,665.4	11,316.4	126.3	126.6	0.08	5,966.6	7.8	567.5	407.4	160.07	3.545	
18,400.0	11,885.5	17,765.3	11,321.4	128.3	128.6	0.08	6,066.5	7.1	564.9	402.8	162.06	3.486	
18,500.0	11,888.0	17,865.3	11,326.4	130.3	130.5	0.07	6,166.3	6.3	562.3	398.2	164.05	3.427	
18,600.0	11,890.4	17,957.4	11,330.7	132.3	132.4	0.07	6,258.4	5.6	560.0	393.1	166.86	3.356	
18,641.1	11,891.4	17,991.8	11,331.8	133.1	133.1	0.07	6,292.7	5.3	559.8	391.4	168.36	3.325	
18,700.0	11,892.8	18,041.1	11,332.5	134.3	134.0	0.06	6,342.0	4.9	560.3	389.8	170.48	3.286	
18,800.0	11,895.2	18,138.6	11,332.8	136.2	136.0	0.06	6,439.5	4.1	562.4	389.7	172.72	3.256	
18,900.0	11,897.6	18,238.6	11,333.0	138.2	138.0	0.05	6,539.5	3.4	564.6	389.8	174.73	3.231	
19,000.0	11,900.0	18,338.6	11,333.3	140.2	140.0	0.05	6,639.4	2.6	566.7	390.0	176.75	3.206	
19,041.2	11,901.0	18,379.8	11,333.4	141.1	140.8	0.05	6,680.6	2.3	567.6	390.0	177.59	3.196	
19,100.0	11,901.8	18,438.5	11,333.5	142.2	142.0	0.04	6,739.4	1.8	568.3	389.5	178.77	3.179	
19,175.7	11,901.1	18,514.2	11,333.7	143.7	143.5	0.04	6,815.1	1.2	567.4	387.1	180.32	3.147	
19,200.0	11,900.5	18,538.5	11,333.8	144.2	144.0	0.04	6,839.4	1.0	566.8	385.9	180.81	3.135	
19,300.0	11,898.2	18,638.5	11,334.0	146.2	146.0	0.03	6,939.4	0.3	564.2	381.4	182.83	3.086	
19,400.0	11,896.0	18,738.5	11,334.3	148.2	148.0	0.03	7,039.3	-0.5	561.7	376.8	184.86	3.038	
19,500.0	11,893.7	18,838.4	11,334.5	150.2	150.0	0.03	7,139.3	-1.3	559.2	372.3	186.89	2.992	
19,600.0	11,891.4	18,938.4	11,334.8	152.2	152.0	0.02	7,239.2	-2.1	556.6	367.7	188.93	2.946	
19,700.0	11,889.1	19,038.4	11,335.0	154.2	154.0	0.02	7,339.2	-2.8	554.1	363.1	190.97	2.902	
19,800.0	11,886.8	19,138.3	11,335.3	156.2	156.0	0.01	7,439.2	-3.6	551.6	358.6	193.01	2.858	
19,900.0	11,884.5	19,238.3	11,335.5	158.2	158.0	0.01	7,539.1	-4.4	549.0	354.0	195.05	2.815	
20,000.0	11,882.3	19,338.3	11,335.8	160.2	160.0	0.00	7,639.1	-5.2	546.5	349.4	197.10	2.773	
20,098.9	11,880.0	19,438.8	11,336.0	162.2	161.9	0.00	7,736.7	-5.9	544.0	344.7	199.26	2.730	

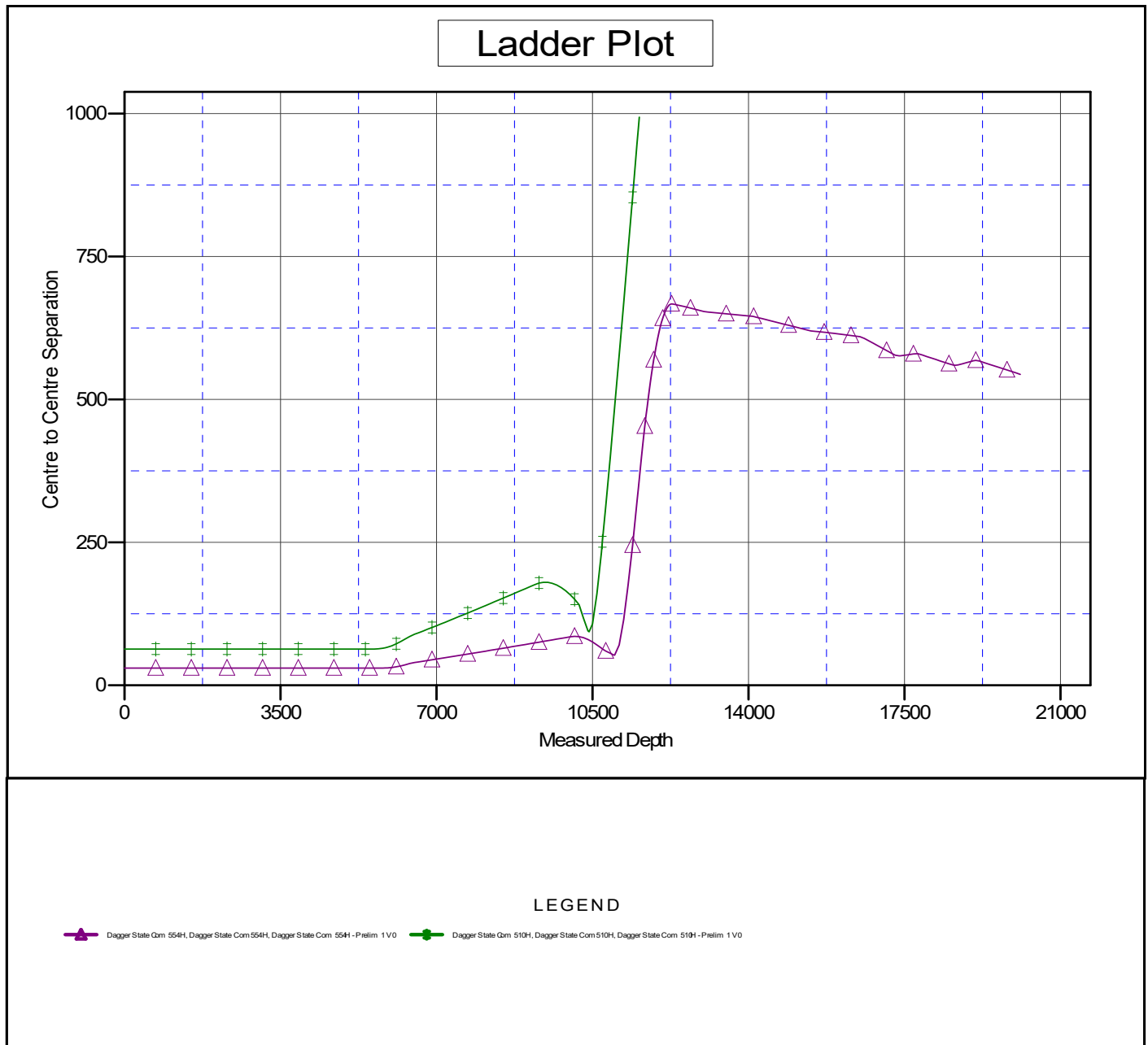


Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3852.5usft (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 606H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.39°



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 606H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 606H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 606H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 606H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3852.5usft (Original Well Ele

Offset Depths are relative to Offset Datum

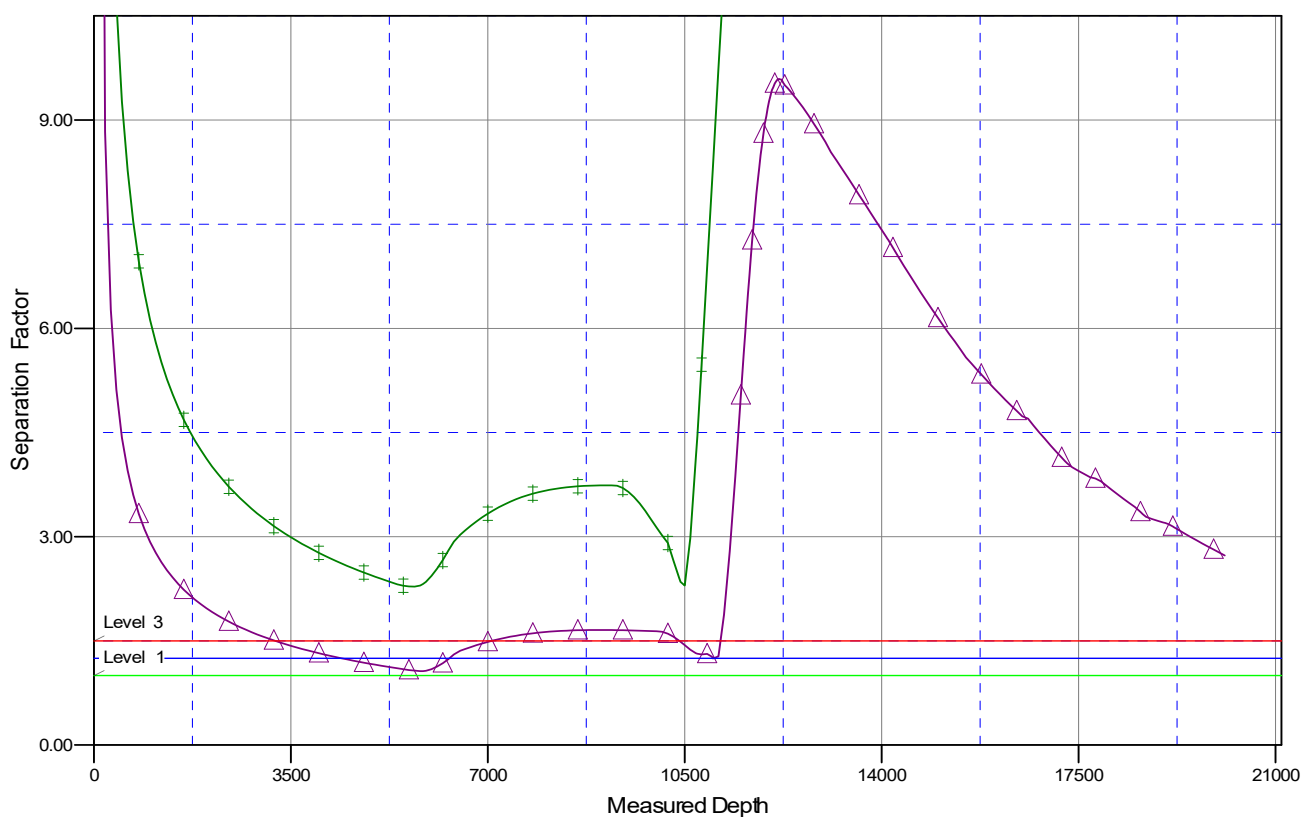
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 606H

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

Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

Dagger State Com 554H, Dagger State Com 554H, Dagger State Com 554H - Prelim 1 V0
 Dagger State Com 510H, Dagger State Com 510H, Dagger State Com 510H - Prelim 1 V0