

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.5. Lease Serial No. **NMNM014155**

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

ADVANCE ENERGY PARTNERS HAT MESA LLC3a. Address **11490 WESTHEIMER, STE. 950
HOUSTON, TX 77077**3b. Phone No. (include area code)
(346) 444-9739

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

MARGARITA FEDERAL COM 13/22H9. API Well No.
300254925010. Field and Pool or Exploratory Area
WC-025 G-10 S2133280;WOLFCAMP4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC 13/T21S/R32E/NMP11. Country or Parish, State
LEA/NM**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION				
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

Request to move the Bottom Hole Location from 2540 FNL & 1980 FWL, Section 25, T-21-S, R-32-E, SENW to 2540 FNL & 2090 FWL, Section 25, T-21-S, R-32-E, SENW. Request to also change target depth from Wolfcamp carbonate to 3rd Bone Spring sandstone. Please see attached drill plan, directional plan, and plats for detailed information regarding changes to casing, cement, and mud programs.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

CHRISTIE HANNATitle **REGULATORY COORDINATOR**

Signature

Christie Hanna

Date

12/14/2021**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

CHRISTOPHER WALLS / Ph: (575) 234-2234 / ApprovedTitle **Petroleum Engineer**Date **07/06/2022**

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office **CARLSBAD**

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: NENW / 1250 FNL / 1501 FWL / TWSP: 21S / RANGE: 32E / SECTION: 13 / LAT: 32.482736 / LONG: -103.632075 (TVD: 0 feet, MD: 0 feet)
PPP: NESW / 2640 FSL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 24 / LAT: 32.464428 / LONG: -103.630527 (TVD: 12100 feet, MD: 18393 feet)
PPP: NENW / 0 FNL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 24 / LAT: 32.471709 / LONG: -103.630543 (TVD: 12100 feet, MD: 15737 feet)
PPP: SESW / 1320 FSL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 13 / LAT: 32.475318 / LONG: -103.630515 (TVD: 12100 feet, MD: 14427 feet)
PPP: SENW / 1476 FNL / 1874 FWL / TWSP: 21S / RANGE: 32E / SECTION: 13 / LAT: 32.4821172 / LONG: -103.6308651 (TVD: 11774 feet, MD: 11802 feet)
BHL: SENW / 2540 FNL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 25 / LAT: 32.450154 / LONG: -103.630585 (TVD: 12100 feet, MD: 23565 feet)

Well Name: MARGARITA FEDERAL COM 13	Well Location: T21S / R32E / SEC 13 / NENW /	County or Parish/State:
Well Number: 22H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM014155	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002549250	Well Status: Approved Application for Permit to Drill	Operator: ADVANCE ENERGY PARTNERS HAT MESA LLC

Notice of Intent

Sundry ID: 2648678

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 12/14/2021	Time Sundry Submitted: 09:59
Date proposed operation will begin: 01/03/2022	

Procedure Description: Request to move the Bottom Hole Location from 2540' FNL & 1980' FWL, Section 25, T-21-S, R-32-E, SENW to 2540' FNL & 2090' FWL, Section 25, T-21-S, R-32-E, SENW. Request to also change target depth from Wolfcamp carbonate to 3rd Bone Spring sandstone. Please see attached drill plan, directional plan, and plats for detailed information regarding changes to casing, cement, and mud programs.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Margarita_22H_BHL_etc_Sundry_Attachment_20211214095810.pdf

Well Name: MARGARITA FEDERAL COM 13	Well Location: T21S / R32E / SEC 13 / NENW /	County or Parish/State:
Well Number: 22H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM014155	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002549250	Well Status: Approved Application for Permit to Drill	Operator: ADVANCE ENERGY PARTNERS HAT MESA LLC

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: BRIAN WOOD	Signed on: DEC 14, 2021 09:58 AM
Name: ADVANCE ENERGY PARTNERS HAT MESA LLC	
Title: President	
Street Address: 37 VERANO LOOP	
City: SANTA FE	State: NM
Phone: (505) 466-8120	
Email address: AFMSS@PERMITSWEST.COM	

Field Representative

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

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Adjudicator Complete	Disposition Date: 04/11/2022
Signature: null	

CHANGE TO PLANS

Move First Take Point

From: 1420' FNL & 1980' FWL, Section 13, T-21-S, R-32-E, SENW

To: 1420' FNL & 2090' FWL, Section 13, T-21-S, R-32-E, SENW

Move Bottom Hole Location

From: 2540' FNL & 1980' FWL, Section 25, T-21-S, R-32-E, SENW

To: 2540' FNL & 2090' FWL, Section 25, T-21-S, R-32-E, SENW

Change Target Formation

From: Wolfcamp carbonate

To: 3rd Bone Spring sandstone

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-49250	Pool Code 97895	Pool Name WC-025 G-08 S213304D; BONE SPRING
Property Code 328246	Property Name MARGARITA FEDERAL COM 13	Well Number 22H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA	Elevation 3913'

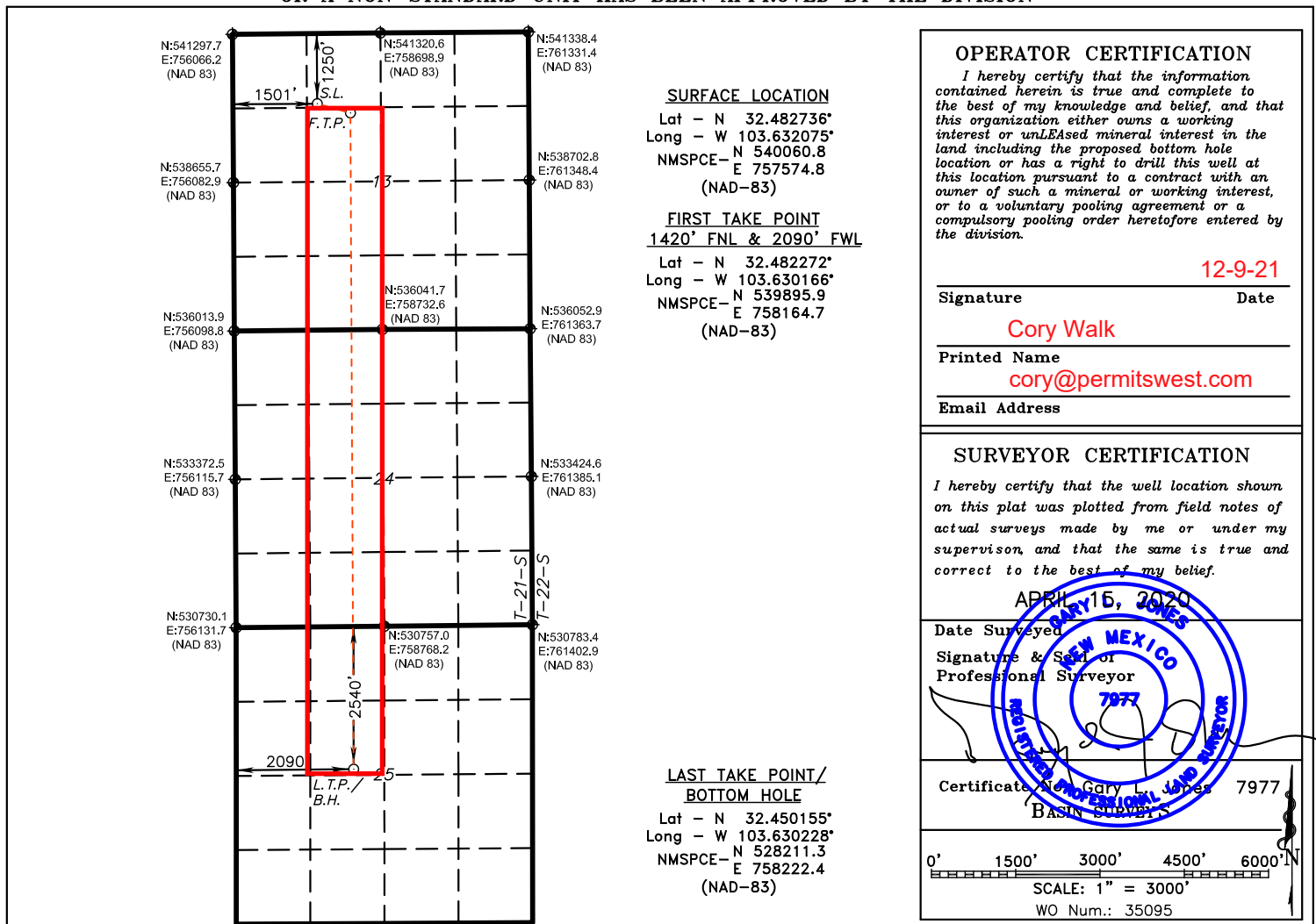
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
C	13	21 S	32 E		1250	NORTH	1501	WEST	LEA

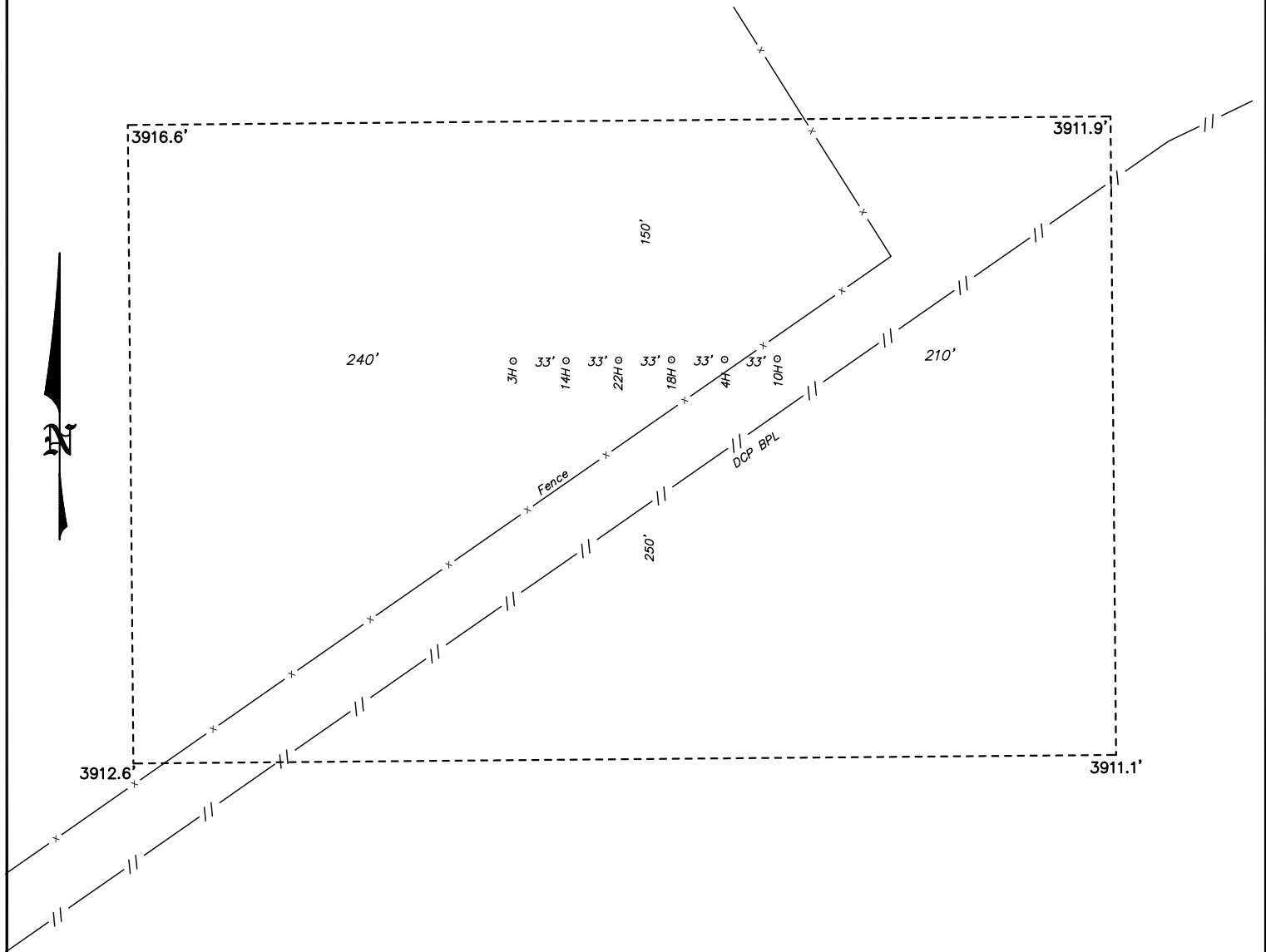
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
F	25	21 S	32 E		2540	NORTH	2090	WEST	LEA
Dedicated Acres 360	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 13, TOWNSHIP 21 SOUTH, RANGE 32 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



basin
surveys
focused on excellence
in the oilfield

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

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

ADVANCE ENERGY PARTNERS HAT MESA

REF: MARGARITA FEDERAL COM 13 22H / WELL PAD TOPO

THE MARGARITA FEDERAL COM 13 22H LOCATED 1250' FROM
THE NORTH LINE AND 1501' FROM THE WEST LINE OF
SECTION 13, TOWNSHIP 21 SOUTH, RANGE 32 EAST.

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

W.O. Number: 35095	Drawn By: K. GOAD	Date: 04-20-2020	Survey Date: 04-15-2020	Sheet 1 of 1 Sheets
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Advance Energy Partners Hat Mesa, LLC
 Margarita Federal Com 13 22H
 SHL 1250' FNL & 1501' FWL Section 13
 BHL 2540' FNL & 2090' FWL Section 25
 T. 21 S., R. 32 E., Lea County, NM

DRILL PLAN PAGE 1

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	MD	Bearing
Quaternary caliche	000'	000'	water
Rustler anhydrite	1668'	1668'	N/A
Base of Salt	2955'	2955'	Salt
Tansill dolomite	3318'	3318'	N/A
Yates sandstone	3361'	3361'	N/A
Seven Rivers gypsum	3565'	3565'	N/A
Capitan Reef	3706'	3706'	water
Bell Canyon limestone	5514'	5514'	hydrocarbons
Cherry Canyon shale	6990'	6990'	hydrocarbons
Lower Brushy Canyon sandstone	8615'	8626'	hydrocarbons
Avalon shale	9062'	9075'	hydrocarbons
1 st Bone Spring sandstone	9957'	9974'	hydrocarbons
2 nd Bone Spring sandstone	10495'	10514'	hydrocarbons
3 rd Bone Spring carbonate	11051'	11071'	hydrocarbons
(KOP	11127'	11147'	hydrocarbons
3 rd Bone Spring sandstone	11571'	11655'	hydrocarbons
TD	12100'	23565'	hydrocarbons

2. NOTABLE ZONES

3rd Bone Spring sandstone is the goal. Closest water well (CP 00794 POD 1) is 0.9 miles east. Depth to water was not reported in the 160' deep well.

Advance Energy Partners Hat Mesa, LLC
 Margarita Federal Com 13 22H
 SHL 1250' FNL & 1501' FWL Section 13
 BHL 2540' FNL & 2090' FWL Section 25
 T. 21 S., R. 32 E., Lea County, NM

DRILL PLAN PAGE 2

3. PRESSURE CONTROL

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

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

Variance is requested to use a speed head (aka, multi-bowl wellhead) after setting intermediate 1. Advance has drilled >50 wells in immediate area to depths >5,000' and never encountered any type of flows. This will allow Advance to land the intermediate 1 and use the current proposed wellhead design. Advance will then NU BOPE on the 13.375" and continue using the BOPE to the completion of the well.

Variance is requested to use a sacrificial wellhead instead of a diverter. Advance will run surface casing with a sacrificial head so BOPE can be nipped up and tested as required by Onshore Order 2 before drilling out the surface casing. Once the intermediate 1 hole is drilled, cased, and cemented; then the sacrificial wellhead will be cut off and the 13.625" 5K MN-DS WH will be installed. BOPE will then be nipped up and tested as required by Onshore Order 2 before drilling out the intermediate 1 casing.

4. CASING & CEMENT

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

Name	Hole OD	Casing OD	Tapered	Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	24"	20"	No	0	1693	0	1693	J-55	94	BTC	1.125	1.125	1.6
1st Intermediate	17.5"	13.375"	No	0	3455	0	3455	J-55	54.5	BTC	1.125	1.125	1.6
2nd Intermediate	12.25"	9.625"	No	0	4000	0	4000	J-55	40	LTC	1.125	1.125	1.6
2nd Intermediate	12.25"	9.625"	No	4000	5464	4000	5464	HCL-80	40	LTC	1.125	1.125	1.6
Production	8.75"	5.5"	No	0	12047	0	11700	HCP-110	20	CDC-HTQ	1.125	1.125	1.6
Production	8.5"	5.5"	No	12047	23203	11700	11700	HCP-110	20	CDC-HTQ	1.125	1.125	1.6

Advance Energy Partners Hat Mesa, LLC
 Margarita Federal Com 13 22H
 SHL 1250' FNL & 1501' FWL Section 13
 BHL 2540' FNL & 2090' FWL Section 25
 T. 21 S., R. 32 E., Lea County, NM

DRILL PLAN PAGE 3

Bow spring centralizers will be installed on the surface (≈ 13.1 centralizers), intermediate 1 (≈ 24.8), and intermediate 2 (≈ 14) casing strings.

Approximately 37 single bow centralizers will be installed on the production casing from 5,364' to 10,947' (TVD). Approximately 31 double bow centralizers will be installed from 10,947' to 12,247'. Approximately 133 solid body centralizers will be installed from 12,247' to TD.

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

Cement additive names in following table are West Texas Cementers trade names. They, or equivalent, products will be used.

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	1095	1.9	2081	12.8	50%	B Poz + C	6% Gel + 5% SALT + 0.1% R-1300 + 0.25PPS Pol-E-Flake + 0.005GPS NoFoam V1A
	Tail	1354	350	1.35	473	14.8	20%	C	2% CaCl ₂ + 0.005GPS NoFoam V1A
1st Intermediate	Lead	0	1645	1.83	3010	12.8	50%	B Poz + C	2% Gel + 5% SALT + 0.1% R-1300 + 0.25PPS Pol-E-Flake + 0.005GPS
	Tail	2932	475	1.37	651	14.8	20%	C	5% SALT + 0.005GPS NoFoam V1A
2nd Intermediate	Lead	0	910	1.84	1674	12.8	50%	B Poz + C	2% Gel + 5% SALT + 0.15% R-1300 + 0.25PPS Pol-E-Flake + 0.005GPS NoFoam V1A
	Tail	4371	325	1.33	432	14.8	20%	C	0.005GPS NoFoam V1A
Production	Lead	5414	575	3.4	1955	10.7	35%	ProLite	5PPS Plexcrete STE + 2% SMS + 0.05% SuspendaCem 6302 + 0.4% R-1300 + 0.5% C-47B + 3PPS Gilsonite + 0.25 PPS Pol-E-Flake + 0.005GPS NoFoam V1A
	Tail	11147	2755	1.22	3361	14.5	20%	B Poz + H	5% SALT + 0.05% SuspendaCem 6302 + 0.65% C-20 + 0.5% C-47B + 0.005GPS NoFoam V1A

Advance Energy Partners Hat Mesa, LLC
Margarita Federal Com 13 22H
SHL 1250' FNL & 1501' FWL Section 13
BHL 2540' FNL & 2090' FWL Section 25
T. 21 S., R. 32 E., Lea County, NM

DRILL PLAN PAGE 4

5. MUD PROGRAM

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

Name	Top	Bottom	Type	Mud Weight (ppg)	Visc	Fluid Loss
Surface	0	1693	FW Spud Mud	8.4 - 10.0	28 - 36	NC
Intermediate 1	1693	3455	Brine Water	10.0 - 10.5	28 - 30	NC
Intermediate 1	3455	5464	Fresh Water	8.4 - 8.6	28 - 30	NC
Intermediate 2	5464	12047	Cut Brine	9.0 - 9.2	28 - 30	NC
Production	12047	23203	Oil Based Mud	9.0 - 9.5	55 - 65	6 - 8

6. CORES, TESTS, & LOGS

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

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 5980 psi. Expected bottom hole temperature is $\approx 245^{\circ}$ F.

H2S monitoring and detection equipment will be used from surface casing point to TD.

8. OTHER INFORMATION

Anticipated spud date is upon approval. It is expected it will take ≈ 3 -4 months to drill and complete the well.

**WELL DETAILS: Margarita Federal Com 22H**

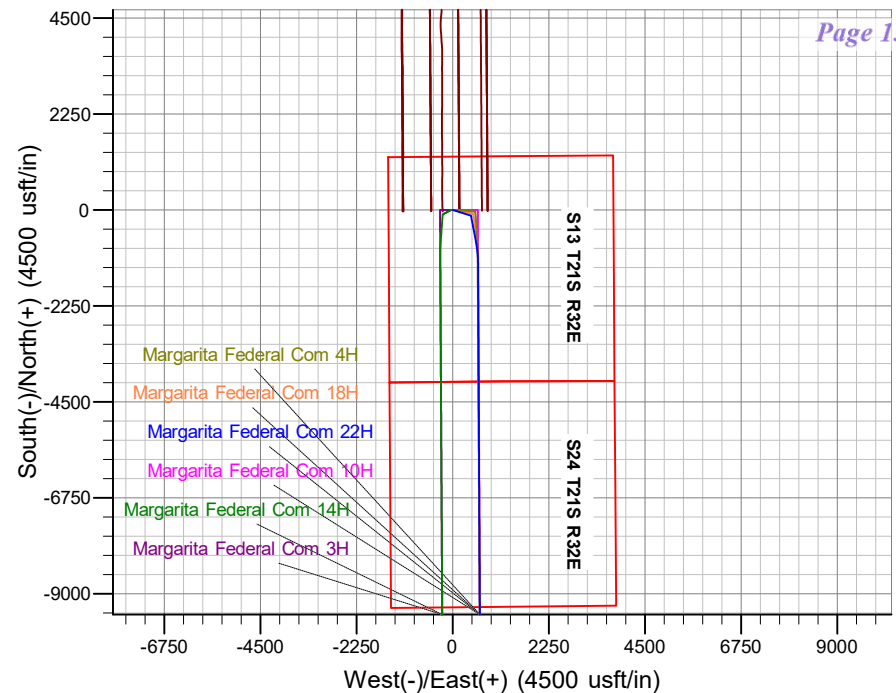
Ground Elev: 3913.0 KB: 3938

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	540060.87	757574.87	32° 28' 57.850 N	103° 37' 55.470 W

PROJECT DETAILS: Hat Mesa

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

System Datum: Mean Sea Level

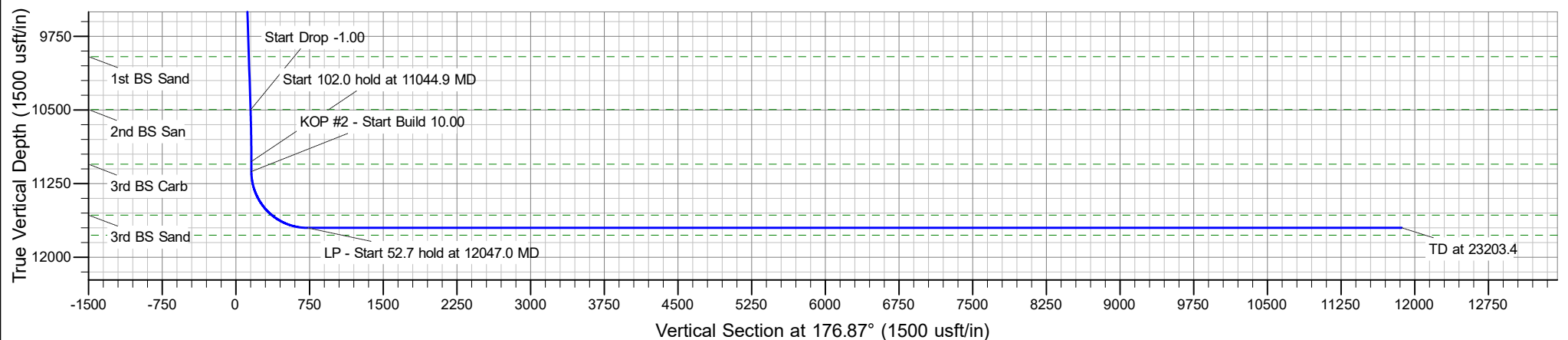
**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5600.0	0.00	0.00	5600.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	6125.6	5.26	107.43	6124.9	-7.2	23.0	1.00	107.43	8.5	Start 4393.7 hold at 6125.6 MD
4	10519.3	5.26	107.43	10500.1	-127.8	407.0	0.00	0.00	149.8	Start Drop -1.00
5	11044.9	0.00	0.00	11025.0	-135.0	430.0	1.00	180.00	158.3	Start 102.0 hold at 11044.9 MD
6	11147.0	0.00	0.00	11127.0	-135.0	430.0	0.00	0.00	158.3	KOP #2 - Start Build 10.00
7	12047.0	90.00	169.41	11700.0	-698.2	535.3	10.00	169.41	726.4	LP - Start 52.7 hold at 12047.0 MD
8	12099.7	90.00	169.41	11700.0	-750.0	545.0	0.00	0.00	778.6	Start DLS 2.00 TFO 90.00
9	12614.7	90.00	179.71	11700.0	-1262.0	593.8	2.00	90.00	1292.5	Start 10588.6 hold at 12614.7 MD
10	23203.4	90.00	179.71	11700.0	-11850.5	647.5	0.00	0.00	11868.2	TD at 23203.4



Azimuths to Grid North
 True North: -0.38°
 Magnetic North: 6.31°

Magnetic Field
 Strength: 47787.8nT
 Dip Angle: 60.25°
 Date: 4/22/2020
 Model: IGRF2015





Advance Energy Partners

Hat Mesa

Margarita Federal Com - Pad C

Margarita Federal Com 22H

Margarita Federal Com 22H

Plan: Margarita Federal Com 22H - Prelim 3

Standard Planning Report

28 October, 2021



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 22H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3938.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad C	North Reference:	Grid
Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 22H		
Design:	Margarita Federal Com 22H - Prelim 3		

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		Margarita Federal Com - Pad C			
Site Position:		Northing:	540,061.09 usft	Latitude:	32° 28' 57.850 N
From:	Lat/Long	Easting:	757,607.56 usft	Longitude:	103° 37' 55.088 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	Margarita Federal Com 22H					
Well Position	+N/-S	0.0 usft	Northing:	540,060.87 usft	Latitude:	32° 28' 57.850 N
	+E/-W	0.0 usft	Easting:	757,574.87 usft	Longitude:	103° 37' 55.470 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,913.0 usft
Grid Convergence:		0.38 °				

Wellbore	Margarita Federal Com 22H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/22/2020	6.69	60.25	47,787.81728447

Design	Margarita Federal Com 22H - Prelim 3				
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	176.87	

Plan Survey Tool Program	Date	10/28/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	23,203.4	Margarita Federal Com 22H - Pre	MWD+HRGM	
			OWSG MWD + HRGM		



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 22H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3938.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad C	North Reference:	Grid
Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 22H		
Design:	Margarita Federal Com 22H - Prelim 3		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,125.6	5.26	107.43	6,124.9	-7.2	23.0	1.00	1.00	0.00	107.43	
10,519.3	5.26	107.43	10,500.1	-127.8	407.0	0.00	0.00	0.00	0.00	
11,044.9	0.00	0.00	11,025.0	-135.0	430.0	1.00	-1.00	0.00	180.00	
11,147.0	0.00	0.00	11,127.0	-135.0	430.0	0.00	0.00	0.00	0.00	
12,047.0	90.00	169.41	11,700.0	-698.2	535.3	10.00	10.00	0.00	169.41	
12,099.7	90.00	169.41	11,700.0	-750.0	545.0	0.00	0.00	0.00	0.00	Margarita Federal Coi
12,614.7	90.00	179.71	11,700.0	-1,262.0	593.8	2.00	0.00	2.00	90.00	
23,203.4	90.00	179.71	11,700.0	-11,850.5	647.5	0.00	0.00	0.00	0.00	Margarita Federal Coi



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad C	North Reference:	Grid
Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 22H		
Design:	Margarita Federal Com 22H - Prelim 3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,668.0	0.00	0.00	1,668.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
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
3,318.0	0.00	0.00	3,318.0	0.0	0.0	0.0	0.00	0.00	0.00
Tansill									
3,361.0	0.00	0.00	3,361.0	0.0	0.0	0.0	0.00	0.00	0.00
Yates									
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
3,565.0	0.00	0.00	3,565.0	0.0	0.0	0.0	0.00	0.00	0.00
Seven Rivers									
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
3,706.0	0.00	0.00	3,706.0	0.0	0.0	0.0	0.00	0.00	0.00
Capitan Reef									
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



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad C	North Reference:	Grid
Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 22H		
Design:	Margarita Federal Com 22H - Prelim 3		

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)
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,514.0	0.00	0.00	5,514.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Limestone									
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									
5,700.0	1.00	107.43	5,700.0	-0.3	0.8	0.3	1.00	1.00	0.00
5,800.0	2.00	107.43	5,800.0	-1.0	3.3	1.2	1.00	1.00	0.00
5,900.0	3.00	107.43	5,899.9	-2.4	7.5	2.8	1.00	1.00	0.00
6,000.0	4.00	107.43	5,999.7	-4.2	13.3	4.9	1.00	1.00	0.00
6,100.0	5.00	107.43	6,099.4	-6.5	20.8	7.7	1.00	1.00	0.00
6,125.6	5.26	107.43	6,124.9	-7.2	23.0	8.5	1.00	1.00	0.00
Start 4393.7 hold at 6125.6 MD									
6,200.0	5.26	107.43	6,199.0	-9.3	29.5	10.9	0.00	0.00	0.00
6,300.0	5.26	107.43	6,298.5	-12.0	38.2	14.1	0.00	0.00	0.00
6,400.0	5.26	107.43	6,398.1	-14.7	47.0	17.3	0.00	0.00	0.00
6,500.0	5.26	107.43	6,497.7	-17.5	55.7	20.5	0.00	0.00	0.00
6,600.0	5.26	107.43	6,597.3	-20.2	64.4	23.7	0.00	0.00	0.00
6,700.0	5.26	107.43	6,696.8	-23.0	73.2	26.9	0.00	0.00	0.00
6,800.0	5.26	107.43	6,796.4	-25.7	81.9	30.2	0.00	0.00	0.00
6,900.0	5.26	107.43	6,896.0	-28.5	90.7	33.4	0.00	0.00	0.00
7,000.0	5.26	107.43	6,995.6	-31.2	99.4	36.6	0.00	0.00	0.00
7,100.0	5.26	107.43	7,095.2	-34.0	108.2	39.8	0.00	0.00	0.00
7,200.0	5.26	107.43	7,194.7	-36.7	116.9	43.0	0.00	0.00	0.00
7,300.0	5.26	107.43	7,294.3	-39.4	125.6	46.2	0.00	0.00	0.00
7,400.0	5.26	107.43	7,393.9	-42.2	134.4	49.5	0.00	0.00	0.00
7,500.0	5.26	107.43	7,493.5	-44.9	143.1	52.7	0.00	0.00	0.00
7,600.0	5.26	107.43	7,593.1	-47.7	151.9	55.9	0.00	0.00	0.00
7,700.0	5.26	107.43	7,692.6	-50.4	160.6	59.1	0.00	0.00	0.00
7,800.0	5.26	107.43	7,792.2	-53.2	169.3	62.3	0.00	0.00	0.00
7,900.0	5.26	107.43	7,891.8	-55.9	178.1	65.5	0.00	0.00	0.00
8,000.0	5.26	107.43	7,991.4	-58.7	186.8	68.8	0.00	0.00	0.00
8,100.0	5.26	107.43	8,091.0	-61.4	195.6	72.0	0.00	0.00	0.00
8,200.0	5.26	107.43	8,190.5	-64.1	204.3	75.2	0.00	0.00	0.00
8,300.0	5.26	107.43	8,290.1	-66.9	213.0	78.4	0.00	0.00	0.00
8,400.0	5.26	107.43	8,389.7	-69.6	221.8	81.6	0.00	0.00	0.00
8,500.0	5.26	107.43	8,489.3	-72.4	230.5	84.8	0.00	0.00	0.00
8,600.0	5.26	107.43	8,588.9	-75.1	239.3	88.1	0.00	0.00	0.00
8,626.3	5.26	107.43	8,615.0	-75.8	241.6	88.9	0.00	0.00	0.00
Lower Brushy									
8,700.0	5.26	107.43	8,688.4	-77.9	248.0	91.3	0.00	0.00	0.00
8,800.0	5.26	107.43	8,788.0	-80.6	256.7	94.5	0.00	0.00	0.00
8,900.0	5.26	107.43	8,887.6	-83.3	265.5	97.7	0.00	0.00	0.00



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad C	North Reference:	Grid
Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 22H		
Design:	Margarita Federal Com 22H - Prelim 3		

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)
9,000.0	5.26	107.43	8,987.2	-86.1	274.2	100.9	0.00	0.00	0.00
9,075.1	5.26	107.43	9,062.0	-88.2	280.8	103.3	0.00	0.00	0.00
Avalon									
9,100.0	5.26	107.43	9,086.8	-88.8	283.0	104.1	0.00	0.00	0.00
9,200.0	5.26	107.43	9,186.3	-91.6	291.7	107.4	0.00	0.00	0.00
9,300.0	5.26	107.43	9,285.9	-94.3	300.4	110.6	0.00	0.00	0.00
9,400.0	5.26	107.43	9,385.5	-97.1	309.2	113.8	0.00	0.00	0.00
9,500.0	5.26	107.43	9,485.1	-99.8	317.9	117.0	0.00	0.00	0.00
9,600.0	5.26	107.43	9,584.7	-102.6	326.7	120.2	0.00	0.00	0.00
9,700.0	5.26	107.43	9,684.2	-105.3	335.4	123.4	0.00	0.00	0.00
9,800.0	5.26	107.43	9,783.8	-108.0	344.1	126.7	0.00	0.00	0.00
9,900.0	5.26	107.43	9,883.4	-110.8	352.9	129.9	0.00	0.00	0.00
9,973.9	5.26	107.43	9,957.0	-112.8	359.3	132.3	0.00	0.00	0.00
1st BS Sand									
10,000.0	5.26	107.43	9,983.0	-113.5	361.6	133.1	0.00	0.00	0.00
10,100.0	5.26	107.43	10,082.6	-116.3	370.4	136.3	0.00	0.00	0.00
10,200.0	5.26	107.43	10,182.1	-119.0	379.1	139.5	0.00	0.00	0.00
10,300.0	5.26	107.43	10,281.7	-121.8	387.8	142.7	0.00	0.00	0.00
10,400.0	5.26	107.43	10,381.3	-124.5	396.6	146.0	0.00	0.00	0.00
10,500.0	5.26	107.43	10,480.9	-127.3	405.3	149.2	0.00	0.00	0.00
10,514.2	5.26	107.43	10,495.0	-127.6	406.6	149.6	0.00	0.00	0.00
2nd BS San									
10,519.3	5.26	107.43	10,500.1	-127.8	407.0	149.8	0.00	0.00	0.00
Start Drop -1.00									
10,600.0	4.45	107.43	10,580.5	-129.8	413.5	152.2	1.00	-1.00	0.00
10,700.0	3.45	107.43	10,680.3	-131.9	420.1	154.6	1.00	-1.00	0.00
10,800.0	2.45	107.43	10,780.1	-133.4	425.0	156.4	1.00	-1.00	0.00
10,900.0	1.45	107.43	10,880.1	-134.5	428.3	157.6	1.00	-1.00	0.00
11,000.0	0.45	107.43	10,980.1	-134.9	429.8	158.2	1.00	-1.00	0.00
11,044.9	0.00	0.00	11,025.0	-135.0	430.0	158.3	1.00	-1.00	0.00
Start 102.0 hold at 11044.9 MD									
11,070.9	0.00	0.00	11,051.0	-135.0	430.0	158.3	0.00	0.00	0.00
3rd BS Carb									
11,100.0	0.00	0.00	11,080.1	-135.0	430.0	158.3	0.00	0.00	0.00
11,147.0	0.00	0.00	11,127.0	-135.0	430.0	158.3	0.00	0.00	0.00
KOP #2 - Start Build 10.00									
11,200.0	5.30	169.41	11,180.0	-137.4	430.5	160.7	10.00	10.00	0.00
11,300.0	15.30	169.41	11,278.2	-155.0	433.7	178.4	10.00	10.00	0.00
11,400.0	25.30	169.41	11,371.9	-189.0	440.1	212.8	10.00	10.00	0.00
11,500.0	35.30	169.41	11,458.1	-238.6	449.4	262.7	10.00	10.00	0.00
11,600.0	45.30	169.41	11,534.3	-302.1	461.2	326.8	10.00	10.00	0.00
11,654.9	50.79	169.41	11,571.0	-342.2	468.7	367.2	10.00	10.00	0.00
3rd BS Sand									
11,700.0	55.30	169.41	11,598.1	-377.6	475.4	403.0	10.00	10.00	0.00
11,800.0	65.30	169.41	11,647.6	-462.9	491.3	489.0	10.00	10.00	0.00
11,900.0	75.30	169.41	11,681.2	-555.3	508.6	582.2	10.00	10.00	0.00
12,000.0	85.30	169.41	11,698.1	-652.1	526.7	679.8	10.00	10.00	0.00
12,047.0	90.00	169.41	11,700.0	-698.2	535.3	726.4	10.00	10.00	0.00
LP - Start 52.7 hold at 12047.0 MD									
12,099.7	90.00	169.41	11,700.0	-750.0	545.0	778.6	0.00	0.00	0.00
Start DLS 2.00 TFO 90.00 - Margarita Federal Com 22H LP									
12,100.0	90.00	169.41	11,700.0	-750.3	545.1	778.9	2.00	0.00	2.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 22H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3938.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad C	North Reference:	Grid
Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 22H		
Design:	Margarita Federal Com 22H - Prelim 3		

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)
12,200.0	90.00	171.41	11,700.0	-848.9	561.7	878.3	2.00	0.00	2.00
12,300.0	90.00	173.41	11,700.0	-948.0	574.9	978.0	2.00	0.00	2.00
12,400.0	90.00	175.41	11,700.0	-1,047.5	584.6	1,077.9	2.00	0.00	2.00
12,500.0	90.00	177.41	11,700.0	-1,147.3	590.9	1,177.9	2.00	0.00	2.00
12,600.0	90.00	179.41	11,700.0	-1,247.3	593.7	1,277.8	2.00	0.00	2.00
12,614.7	90.00	179.71	11,700.0	-1,262.0	593.8	1,292.5	2.00	0.00	2.00
Start 10588.6 hold at 12614.7 MD									
12,700.0	90.00	179.71	11,700.0	-1,347.3	594.2	1,377.7	0.00	0.00	0.00
12,800.0	90.00	179.71	11,700.0	-1,447.3	594.7	1,477.6	0.00	0.00	0.00
12,900.0	90.00	179.71	11,700.0	-1,547.3	595.2	1,577.5	0.00	0.00	0.00
13,000.0	90.00	179.71	11,700.0	-1,647.3	595.7	1,677.3	0.00	0.00	0.00
13,100.0	90.00	179.71	11,700.0	-1,747.3	596.2	1,777.2	0.00	0.00	0.00
13,200.0	90.00	179.71	11,700.0	-1,847.3	596.7	1,877.1	0.00	0.00	0.00
13,300.0	90.00	179.71	11,700.0	-1,947.3	597.2	1,977.0	0.00	0.00	0.00
13,400.0	90.00	179.71	11,700.0	-2,047.3	597.8	2,076.8	0.00	0.00	0.00
13,500.0	90.00	179.71	11,700.0	-2,147.3	598.3	2,176.7	0.00	0.00	0.00
13,600.0	90.00	179.71	11,700.0	-2,247.3	598.8	2,276.6	0.00	0.00	0.00
13,700.0	90.00	179.71	11,700.0	-2,347.3	599.3	2,376.5	0.00	0.00	0.00
13,800.0	90.00	179.71	11,700.0	-2,447.3	599.8	2,476.4	0.00	0.00	0.00
13,900.0	90.00	179.71	11,700.0	-2,547.3	600.3	2,576.2	0.00	0.00	0.00
14,000.0	90.00	179.71	11,700.0	-2,647.3	600.8	2,676.1	0.00	0.00	0.00
14,100.0	90.00	179.71	11,700.0	-2,747.3	601.3	2,776.0	0.00	0.00	0.00
14,200.0	90.00	179.71	11,700.0	-2,847.3	601.8	2,875.9	0.00	0.00	0.00
14,300.0	90.00	179.71	11,700.0	-2,947.3	602.3	2,975.7	0.00	0.00	0.00
14,400.0	90.00	179.71	11,700.0	-3,047.3	602.8	3,075.6	0.00	0.00	0.00
14,500.0	90.00	179.71	11,700.0	-3,147.3	603.3	3,175.5	0.00	0.00	0.00
14,600.0	90.00	179.71	11,700.0	-3,247.3	603.8	3,275.4	0.00	0.00	0.00
14,700.0	90.00	179.71	11,700.0	-3,347.3	604.4	3,375.3	0.00	0.00	0.00
14,800.0	90.00	179.71	11,700.0	-3,447.3	604.9	3,475.1	0.00	0.00	0.00
14,900.0	90.00	179.71	11,700.0	-3,547.3	605.4	3,575.0	0.00	0.00	0.00
15,000.0	90.00	179.71	11,700.0	-3,647.3	605.9	3,674.9	0.00	0.00	0.00
15,100.0	90.00	179.71	11,700.0	-3,747.3	606.4	3,774.8	0.00	0.00	0.00
15,200.0	90.00	179.71	11,700.0	-3,847.3	606.9	3,874.6	0.00	0.00	0.00
15,300.0	90.00	179.71	11,700.0	-3,947.3	607.4	3,974.5	0.00	0.00	0.00
15,400.0	90.00	179.71	11,700.0	-4,047.3	607.9	4,074.4	0.00	0.00	0.00
15,500.0	90.00	179.71	11,700.0	-4,147.3	608.4	4,174.3	0.00	0.00	0.00
15,600.0	90.00	179.71	11,700.0	-4,247.3	608.9	4,274.2	0.00	0.00	0.00
15,700.0	90.00	179.71	11,700.0	-4,347.3	609.4	4,374.0	0.00	0.00	0.00
15,800.0	90.00	179.71	11,700.0	-4,447.3	609.9	4,473.9	0.00	0.00	0.00
15,900.0	90.00	179.71	11,700.0	-4,547.3	610.4	4,573.8	0.00	0.00	0.00
16,000.0	90.00	179.71	11,700.0	-4,647.3	610.9	4,673.7	0.00	0.00	0.00
16,100.0	90.00	179.71	11,700.0	-4,747.3	611.5	4,773.5	0.00	0.00	0.00
16,200.0	90.00	179.71	11,700.0	-4,847.2	612.0	4,873.4	0.00	0.00	0.00
16,300.0	90.00	179.71	11,700.0	-4,947.2	612.5	4,973.3	0.00	0.00	0.00
16,400.0	90.00	179.71	11,700.0	-5,047.2	613.0	5,073.2	0.00	0.00	0.00
16,500.0	90.00	179.71	11,700.0	-5,147.2	613.5	5,173.0	0.00	0.00	0.00
16,600.0	90.00	179.71	11,700.0	-5,247.2	614.0	5,272.9	0.00	0.00	0.00
16,700.0	90.00	179.71	11,700.0	-5,347.2	614.5	5,372.8	0.00	0.00	0.00
16,800.0	90.00	179.71	11,700.0	-5,447.2	615.0	5,472.7	0.00	0.00	0.00
16,900.0	90.00	179.71	11,700.0	-5,547.2	615.5	5,572.6	0.00	0.00	0.00
17,000.0	90.00	179.71	11,700.0	-5,647.2	616.0	5,672.4	0.00	0.00	0.00
17,100.0	90.00	179.71	11,700.0	-5,747.2	616.5	5,772.3	0.00	0.00	0.00
17,200.0	90.00	179.71	11,700.0	-5,847.2	617.0	5,872.2	0.00	0.00	0.00
17,300.0	90.00	179.71	11,700.0	-5,947.2	617.5	5,972.1	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 22H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3938.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad C	North Reference:	Grid
Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 22H		
Design:	Margarita Federal Com 22H - Prelim 3		

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)	
17,400.0	90.00	179.71	11,700.0	-6,047.2	618.1	6,071.9	0.00	0.00	0.00	
17,500.0	90.00	179.71	11,700.0	-6,147.2	618.6	6,171.8	0.00	0.00	0.00	
17,600.0	90.00	179.71	11,700.0	-6,247.2	619.1	6,271.7	0.00	0.00	0.00	
17,700.0	90.00	179.71	11,700.0	-6,347.2	619.6	6,371.6	0.00	0.00	0.00	
17,800.0	90.00	179.71	11,700.0	-6,447.2	620.1	6,471.5	0.00	0.00	0.00	
17,900.0	90.00	179.71	11,700.0	-6,547.2	620.6	6,571.3	0.00	0.00	0.00	
18,000.0	90.00	179.71	11,700.0	-6,647.2	621.1	6,671.2	0.00	0.00	0.00	
18,100.0	90.00	179.71	11,700.0	-6,747.2	621.6	6,771.1	0.00	0.00	0.00	
18,200.0	90.00	179.71	11,700.0	-6,847.2	622.1	6,871.0	0.00	0.00	0.00	
18,300.0	90.00	179.71	11,700.0	-6,947.2	622.6	6,970.8	0.00	0.00	0.00	
18,400.0	90.00	179.71	11,700.0	-7,047.2	623.1	7,070.7	0.00	0.00	0.00	
18,500.0	90.00	179.71	11,700.0	-7,147.2	623.6	7,170.6	0.00	0.00	0.00	
18,600.0	90.00	179.71	11,700.0	-7,247.2	624.1	7,270.5	0.00	0.00	0.00	
18,700.0	90.00	179.71	11,700.0	-7,347.2	624.6	7,370.4	0.00	0.00	0.00	
18,800.0	90.00	179.71	11,700.0	-7,447.2	625.2	7,470.2	0.00	0.00	0.00	
18,900.0	90.00	179.71	11,700.0	-7,547.2	625.7	7,570.1	0.00	0.00	0.00	
19,000.0	90.00	179.71	11,700.0	-7,647.2	626.2	7,670.0	0.00	0.00	0.00	
19,100.0	90.00	179.71	11,700.0	-7,747.2	626.7	7,769.9	0.00	0.00	0.00	
19,200.0	90.00	179.71	11,700.0	-7,847.2	627.2	7,869.7	0.00	0.00	0.00	
19,300.0	90.00	179.71	11,700.0	-7,947.2	627.7	7,969.6	0.00	0.00	0.00	
19,400.0	90.00	179.71	11,700.0	-8,047.2	628.2	8,069.5	0.00	0.00	0.00	
19,500.0	90.00	179.71	11,700.0	-8,147.2	628.7	8,169.4	0.00	0.00	0.00	
19,600.0	90.00	179.71	11,700.0	-8,247.2	629.2	8,269.3	0.00	0.00	0.00	
19,700.0	90.00	179.71	11,700.0	-8,347.2	629.7	8,369.1	0.00	0.00	0.00	
19,800.0	90.00	179.71	11,700.0	-8,447.2	630.2	8,469.0	0.00	0.00	0.00	
19,900.0	90.00	179.71	11,700.0	-8,547.2	630.7	8,568.9	0.00	0.00	0.00	
20,000.0	90.00	179.71	11,700.0	-8,647.2	631.2	8,668.8	0.00	0.00	0.00	
20,100.0	90.00	179.71	11,700.0	-8,747.2	631.8	8,768.6	0.00	0.00	0.00	
20,200.0	90.00	179.71	11,700.0	-8,847.2	632.3	8,868.5	0.00	0.00	0.00	
20,300.0	90.00	179.71	11,700.0	-8,947.2	632.8	8,968.4	0.00	0.00	0.00	
20,400.0	90.00	179.71	11,700.0	-9,047.2	633.3	9,068.3	0.00	0.00	0.00	
20,500.0	90.00	179.71	11,700.0	-9,147.2	633.8	9,168.1	0.00	0.00	0.00	
20,600.0	90.00	179.71	11,700.0	-9,247.2	634.3	9,268.0	0.00	0.00	0.00	
20,700.0	90.00	179.71	11,700.0	-9,347.2	634.8	9,367.9	0.00	0.00	0.00	
20,800.0	90.00	179.71	11,700.0	-9,447.2	635.3	9,467.8	0.00	0.00	0.00	
20,900.0	90.00	179.71	11,700.0	-9,547.2	635.8	9,567.7	0.00	0.00	0.00	
21,000.0	90.00	179.71	11,700.0	-9,647.2	636.3	9,667.5	0.00	0.00	0.00	
21,100.0	90.00	179.71	11,700.0	-9,747.2	636.8	9,767.4	0.00	0.00	0.00	
21,200.0	90.00	179.71	11,700.0	-9,847.2	637.3	9,867.3	0.00	0.00	0.00	
21,300.0	90.00	179.71	11,700.0	-9,947.2	637.8	9,967.2	0.00	0.00	0.00	
21,400.0	90.00	179.71	11,700.0	-10,047.2	638.3	10,067.0	0.00	0.00	0.00	
21,500.0	90.00	179.71	11,700.0	-10,147.2	638.9	10,166.9	0.00	0.00	0.00	
21,600.0	90.00	179.71	11,700.0	-10,247.2	639.4	10,266.8	0.00	0.00	0.00	
21,700.0	90.00	179.71	11,700.0	-10,347.2	639.9	10,366.7	0.00	0.00	0.00	
21,800.0	90.00	179.71	11,700.0	-10,447.2	640.4	10,466.6	0.00	0.00	0.00	
21,900.0	90.00	179.71	11,700.0	-10,547.2	640.9	10,566.4	0.00	0.00	0.00	
22,000.0	90.00	179.71	11,700.0	-10,647.2	641.4	10,666.3	0.00	0.00	0.00	
22,100.0	90.00	179.71	11,700.0	-10,747.2	641.9	10,766.2	0.00	0.00	0.00	
22,200.0	90.00	179.71	11,700.0	-10,847.2	642.4	10,866.1	0.00	0.00	0.00	
22,300.0	90.00	179.71	11,700.0	-10,947.2	642.9	10,965.9	0.00	0.00	0.00	
22,400.0	90.00	179.71	11,700.0	-11,047.2	643.4	11,065.8	0.00	0.00	0.00	
22,500.0	90.00	179.71	11,700.0	-11,147.2	643.9	11,165.7	0.00	0.00	0.00	
22,600.0	90.00	179.71	11,700.0	-11,247.2	644.4	11,265.6	0.00	0.00	0.00	
22,700.0	90.00	179.71	11,700.0	-11,347.2	644.9	11,365.5	0.00	0.00	0.00	



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad C	North Reference:	Grid
Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 22H		
Design:	Margarita Federal Com 22H - Prelim 3		

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)	
22,800.0	90.00	179.71	11,700.0	-11,447.2	645.5	11,465.3	0.00	0.00	0.00	
22,900.0	90.00	179.71	11,700.0	-11,547.2	646.0	11,565.2	0.00	0.00	0.00	
23,000.0	90.00	179.71	11,700.0	-11,647.2	646.5	11,665.1	0.00	0.00	0.00	
23,100.0	90.00	179.71	11,700.0	-11,747.2	647.0	11,765.0	0.00	0.00	0.00	
23,200.0	90.00	179.71	11,700.0	-11,847.2	647.5	11,864.8	0.00	0.00	0.00	
23,203.4	90.00	179.71	11,700.0	-11,850.5	647.5	11,868.2	0.00	0.00	0.00	
TD at 23203.4 - Margarita Federal Com 22H BHL										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Margarita Federal Com 2 - plan hits target center - Point	0.00	0.00	11,700.0	-11,850.5	647.5	528,210.35	758,222.37	32° 27' 0.547 N	103° 37' 48.822 W	
Margarita Federal Com 2 - plan hits target center - Point	0.00	0.00	11,700.0	-750.0	545.0	539,310.87	758,119.87	32° 28' 50.393 N	103° 37' 49.165 W	

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
12,047.0	11,700.0	LP	5-1/2	5	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,668.0	1,668.0	Rustler		0.00		
3,318.0	3,318.0	Tansill		0.00		
3,361.0	3,361.0	Yates		0.00		
3,565.0	3,565.0	Seven Rivers		0.00		
3,706.0	3,706.0	Capitan Reef		0.00		
5,514.0	5,514.0	Base of Limestone		0.00		
8,626.3	8,615.0	Lower Brushy		0.00		
9,075.1	9,062.0	Avalon		0.00		
9,973.9	9,957.0	1st BS Sand		0.00		
10,514.2	10,495.0	2nd BS San		0.00		
11,070.9	11,051.0	3rd BS Carb		0.00		
11,654.9	11,571.0	3rd BS Sand		0.00		



Planning Report

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Company:	Advance Energy Partners	TVD Reference:	WELL @ 3938.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad C	North Reference:	Grid
Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 22H		
Design:	Margarita Federal Com 22H - Prelim 3		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,600.0	5,600.0	0.0	0.0	KOP - Start Build 1.00
6,125.6	6,124.9	-7.2	23.0	Start 4393.7 hold at 6125.6 MD
10,519.3	10,500.1	-127.8	407.0	Start Drop -1.00
11,044.9	11,025.0	-135.0	430.0	Start 102.0 hold at 11044.9 MD
11,147.0	11,127.0	-135.0	430.0	KOP #2 - Start Build 10.00
12,047.0	11,700.0	-698.2	535.3	LP - Start 52.7 hold at 12047.0 MD
12,099.7	11,700.0	-750.0	545.0	Start DLS 2.00 TFO 90.00
12,614.7	11,700.0	-1,262.0	593.8	Start 10588.6 hold at 12614.7 MD
23,203.4	11,700.0	-11,850.5	647.5	TD at 23203.4



Advance Energy Partners

Hat Mesa

Margarita Federal Com - Pad C

Margarita Federal Com 22H

Margarita Federal Com 22H

Margarita Federal Com 22H - Prelim 3

Anticollision Summary Report

28 October, 2021



Anticollision Summary Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Margarita Federal Com 22H
Project:	Hat Mesa	TVD Reference:	WELL @ 3938.0usft (Original Well Elev)
Reference Site:	Margarita Federal Com - Pad C	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Margarita Federal Com 22H	Database:	EDM 5000.16 Single User Db
Reference Design:	Margarita Federal Com 22H - Prelim 3	Offset TVD Reference:	Offset Datum

Reference	Margarita Federal Com 22H - Prelim 3		
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	10/28/2021			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	23,203.4	Margarita Federal Com 22H - Prelim 3 (Ma	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						
Big Bull Fed Com						
Big Bull Fed Com 305H - Big Bull Fed Com 305H - Big B	9,365.2	15,647.3	518.7	361.7	3.303	CC, ES, SF
Big Bull Fed Com 306H - Big Bull Fed Com 306H - Big B	9,312.7	15,653.7	161.2	14.3	1.097	Level 3, CC, ES, SF
Big Bull Fed Com 403H - Big Bull Fed Com 403H - Big B	10,161.9	16,404.4	454.5	295.6	2.859	CC, ES, SF
Big Bull Fed Com 504H - Big Bull Fed Com 504H - Big B	10,936.7	17,143.6	281.5	127.9	1.833	CC, ES, SF
Big Bull Fed Com 602H - Big Bull Fed Com 602H - Big B	11,531.2	17,953.4	438.5	301.8	3.207	CC, ES, SF
Big Bull Fed Com 705H - Big Bull Fed Com 705H - Big B	11,550.0	18,056.3	553.9	423.3	4.243	SF
Big Bull Fed Com 705H - Big Bull Fed Com 705H - Big B	11,600.0	18,056.3	544.9	416.5	4.244	ES
Big Bull Fed Com 705H - Big Bull Fed Com 705H - Big B	11,635.2	18,056.3	543.1	416.8	4.302	CC
Big Bull Fed Com 706H - Big Bull Fed Com 706H - Big B	11,649.4	18,259.1	624.3	503.2	5.155	CC, ES, SF
Big Moose Fed Com - Pad D						
Big Moose Fed Com 307H - Big Moose Fed Com 307H -	9,251.9	15,867.4	804.4	636.2	4.783	CC, ES
Big Moose Fed Com 307H - Big Moose Fed Com 307H -	9,300.0	15,867.4	805.8	637.1	4.775	SF
Big Moose Fed Com 308H - Big Moose Fed Com 308H -						Out of range
Big Moose Fed Com 404H - Big Moose Fed Com 404H -	10,035.3	16,734.0	874.8	703.2	5.097	CC, ES
Big Moose Fed Com 404H - Big Moose Fed Com 404H -	10,100.0	16,734.0	877.2	704.9	5.092	SF
Big Moose Fed Com 505H - Big Moose Fed Com 505H -	10,815.2	17,308.0	667.3	493.6	3.842	CC, ES, SF
Big Moose Fed Com 506H - Big Moose Fed Com 506H -						Out of range
Big Moose Fed Com 604H - Big Moose Fed Com 604H -						Out of range
Big Moose Fed Com 707H - Big Moose Fed Com 707H -						Out of range
Big Moose Fed Com 708H - Big Moose Fed Com 708H -						Out of range
Margarita Federal Com - Pad C						
Margarita Federal Com 10H - Margarita Federal Com 10H	4,914.0	4,921.5	99.3	73.4	3.838	CC
Margarita Federal Com 10H - Margarita Federal Com 10H	5,000.0	5,007.4	99.3	73.2	3.799	ES
Margarita Federal Com 10H - Margarita Federal Com 10H	5,100.0	5,105.7	100.3	73.9	3.797	SF
Margarita Federal Com 14H - Margarita Federal Com 14H	5,114.3	5,120.8	33.0	6.5	1.245	Level 3, CC
Margarita Federal Com 14H - Margarita Federal Com 14H	5,200.0	5,206.5	33.0	6.2	1.233	Level 3, ES, SF
Margarita Federal Com 18H - Margarita Federal Com18H	5,314.0	5,321.5	32.7	5.6	1.205	Level 3, CC
Margarita Federal Com 18H - Margarita Federal Com18H	10,901.9	10,915.0	60.2	-4.1	0.935	Level 3, ES, SF
Margarita Federal Com 3H - Margarita Federal Com 3H -	4,914.0	4,921.5	66.0	40.1	2.551	CC
Margarita Federal Com 3H - Margarita Federal Com 3H -	5,000.0	5,007.4	66.0	39.9	2.525	ES, SF
Margarita Federal Com 4H - Margarita Federal Com 4H -	5,114.3	5,120.8	66.0	39.5	2.490	CC
Margarita Federal Com 4H - Margarita Federal Com 4H -	5,200.0	5,206.4	66.0	39.2	2.466	ES, SF

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

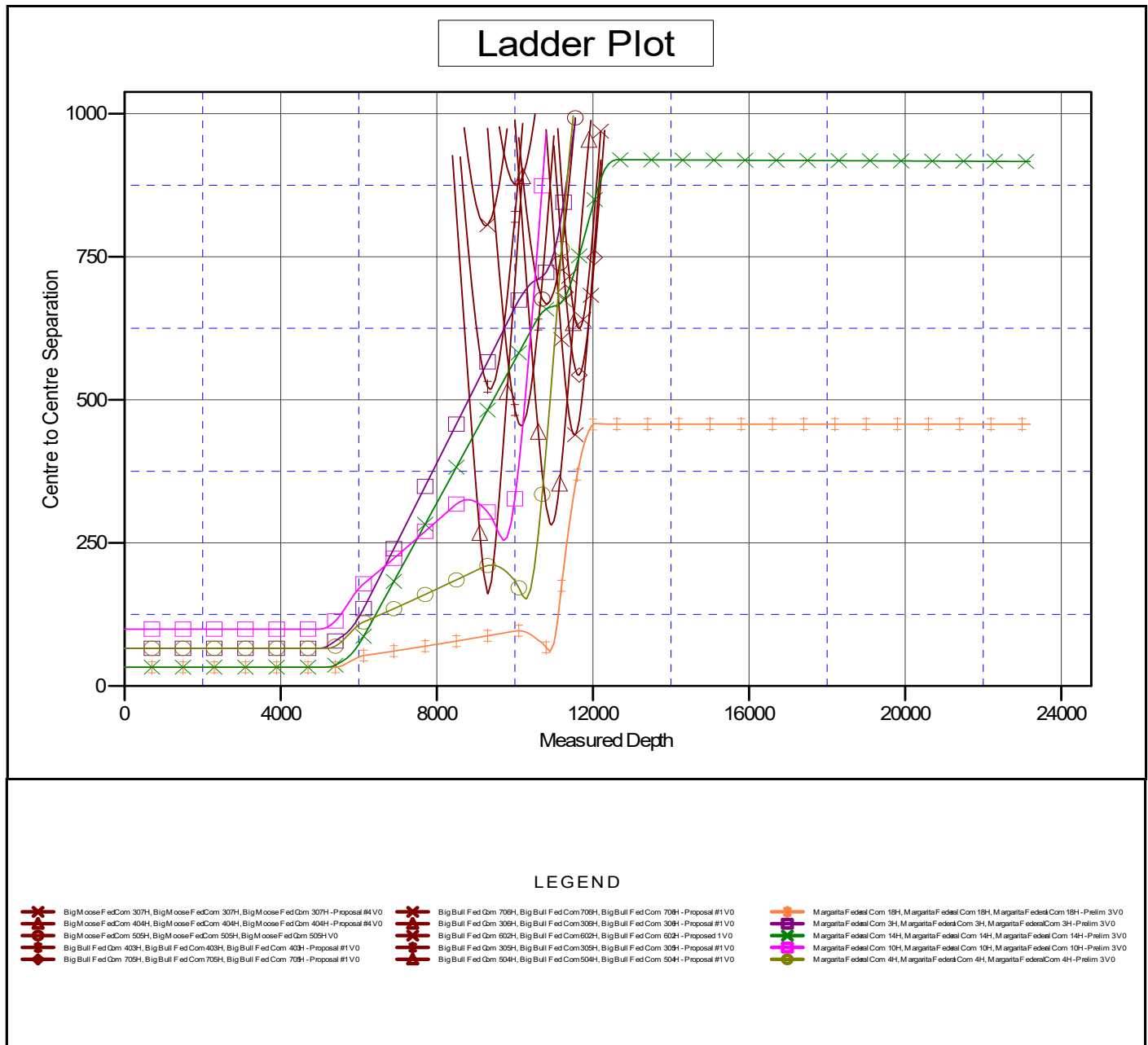


Anticollision Summary Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Margarita Federal Com 22H
Project:	Hat Mesa	TVD Reference:	WELL @ 3938.0usft (Original Well Elev)
Reference Site:	Margarita Federal Com - Pad C	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Margarita Federal Com 22H	Database:	EDM 5000.16 Single User Db
Reference Design:	Margarita Federal Com 22H - Prelim 3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3938.0usft (Original Well Ele)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Margarita Federal Com 22H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.38°



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



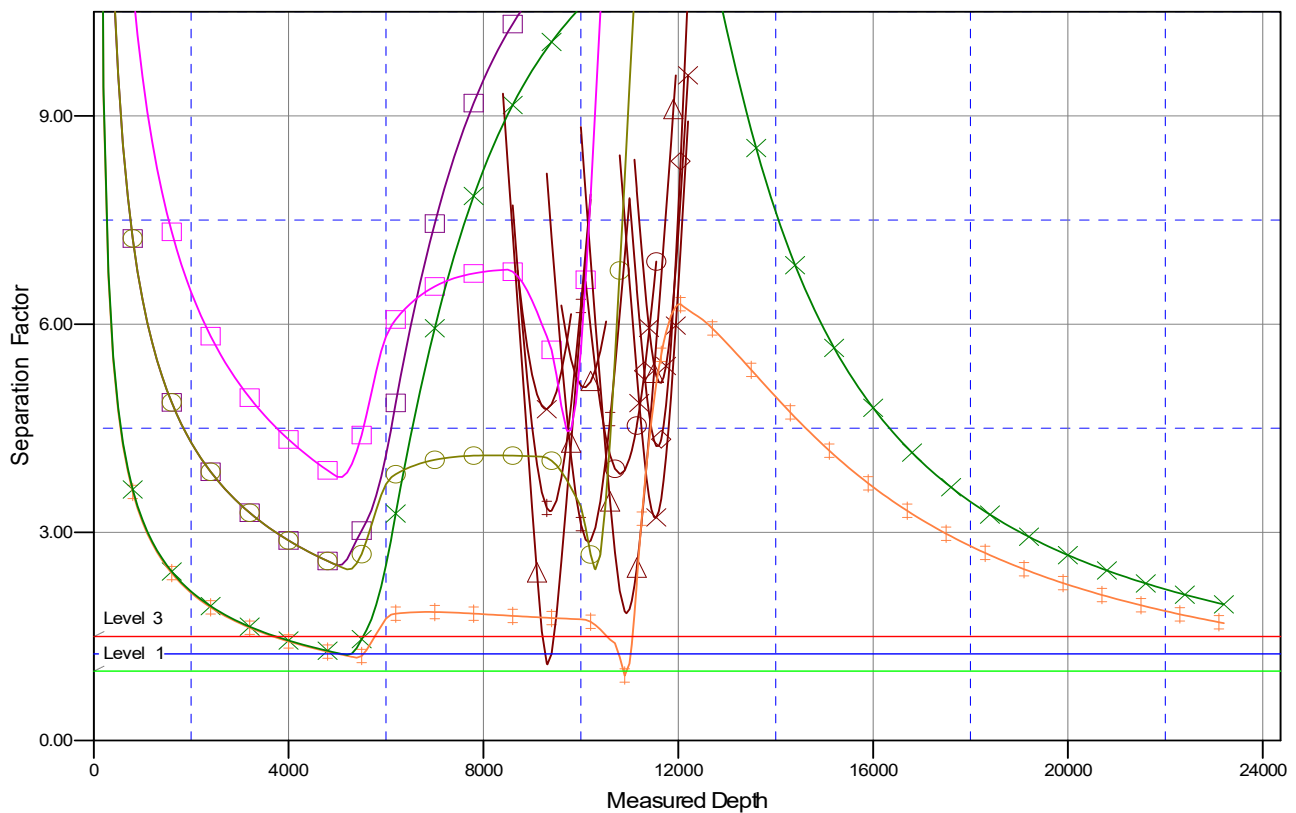
Anticollision Summary Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Margarita Federal Com 22H
Project:	Hat Mesa	TVD Reference:	WELL @ 3938.0usft (Original Well Elev)
Reference Site:	Margarita Federal Com - Pad C	MD Reference:	WELL @ 3938.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Margarita Federal Com 22H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
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Reference Design:	Margarita Federal Com 22H - Prelim 3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3938.0usft (Original Well Ele
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Margarita Federal Com 22H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.38°

Separation Factor Plot



LEGEND

- Big Moose Fed Com 307H, Big Moose Fed Com 307H, Big Moose Fed Com 307H - Proposal #4 V0 - Big Moose Fed Com 404H, Big Moose Fed Com 404H, Big Moose Fed Com 404H - Proposal #4 V0 - Big Moose Fed Com 505H, Big Moose Fed Com 505H, Big Moose Fed Com 505H - Proposal #1 V0 - Big Bull Fed Com 403H, Big Bull Fed Com 403H, Big Bull Fed Com 403H - Proposal #1 V0 - Big Bull Fed Com 705H, Big Bull Fed Com 705H, Big Bull Fed Com 705H - Proposal #1 V0	- Big Bull Fed Com 706H, Big Bull Fed Com 706H, Big Bull Fed Com 706H - Proposal #1 V0 - Big Bull Fed Com 306H, Big Bull Fed Com 306H, Big Bull Fed Com 306H - Proposal #1 V0 - Big Bull Fed Com 602H, Big Bull Fed Com 602H, Big Bull Fed Com 602H - Proposal #1 V0 - Big Bull Fed Com 305H, Big Bull Fed Com 305H, Big Bull Fed Com 305H - Proposal #1 V0 - Big Bull Fed Com 504H, Big Bull Fed Com 504H, Big Bull Fed Com 504H - Proposal #1 V0	- Margarita Fed Com 18H, Margarita Fed Com 18H, Margarita Fed Com 18H - Prelim 3 V0 - Margarita Fed Com 3H, Margarita Fed Com 3H, Margarita Fed Com 3H - Prelim 3 V0 - Margarita Fed Com 14H, Margarita Fed Com 14H, Margarita Fed Com 14H - Prelim 3 V0 - Margarita Fed Com 10H, Margarita Fed Com 10H, Margarita Fed Com 10H - Prelim 3 V0 - Margarita Fed Com 4H, Margarita Fed Com 4H, Margarita Fed Com 4H - Prelim 3 V0
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CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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
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District III
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 125133

CONDITIONS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	OGRID: 372417
	Action Number: 125133
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	PREVIOUS COA's APPLY	7/14/2022