

OCD - HOBBS
11/18/2020
RECEIVED

WELL DETAILS: Margarita Federal Com 9H

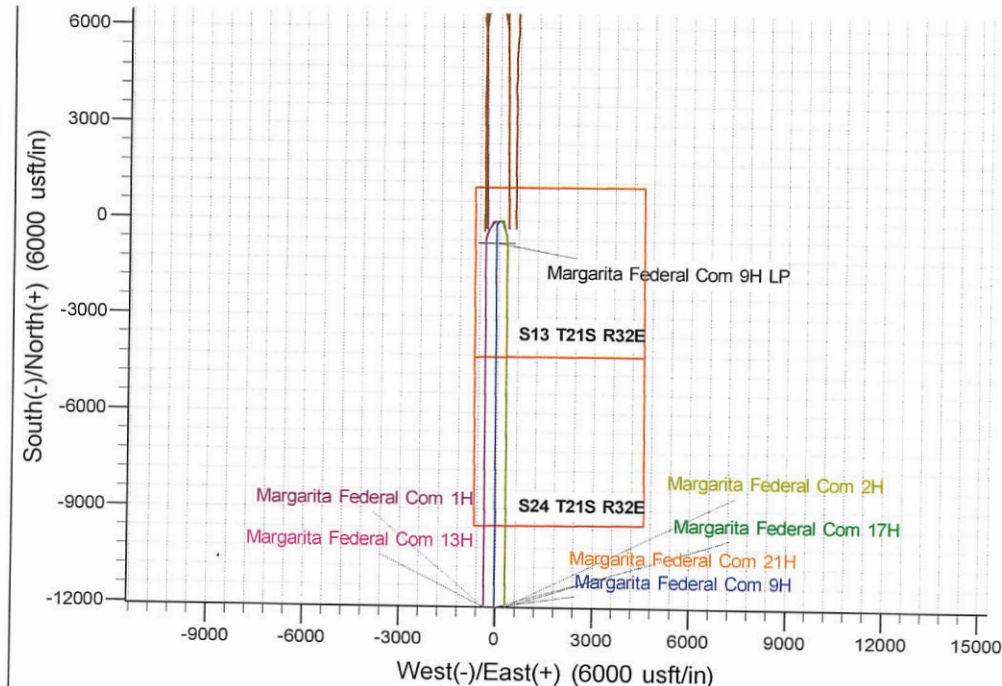
Ground Elev: 3917.0 KB: 3942.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	540258.18	756816.52	32° 28' 59.851 N	103° 38' 4.308 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



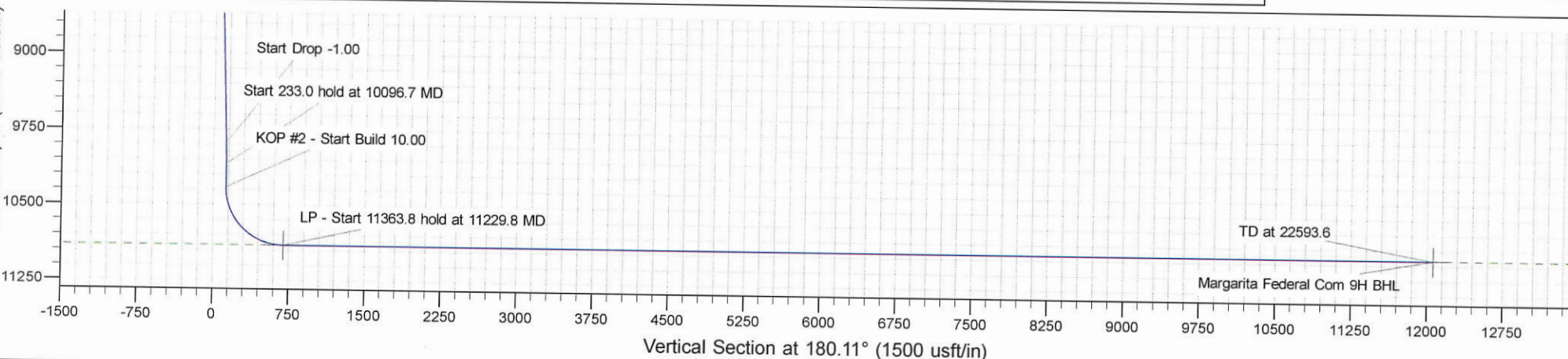
SECTION DETAILS

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	5800.0	0.00	0.00	5800.0	0.0	0.0	0.00	0.00	0.0	
3	6012.1	2.12	214.22	6012.0	-3.2	-2.2	1.00	214.22	3.2	KOP - Start Build 1.00
4	9884.7	2.12	214.22	9882.0	-121.8	-82.8	0.00	0.00	121.9	Start 3872.6 hold at 6012.1 MD
5	10096.7	0.00	0.00	10094.0	-125.0	-85.0	1.00	180.00	125.2	Start Drop -1.00
6	10329.8	0.00	0.00	10327.0	-125.0	-85.0	0.00	0.00	125.2	Start 233.0 hold at 10096.7 MD
7	11229.8	90.00	179.71	10900.0	-698.0	-82.1	10.00	179.71	698.1	KOP #2 - Start Build 10.00
8	22593.6	90.00	179.71	10900.0	-12061.6	-24.1	0.00	0.00	12061.6	LP - Start 11363.8 hold at 11229.8 MD TD at 22593.6



M Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.32°

Magnetic Field
Strength: 47793.2nT
Dip Angle: 60.25°
Date: 4/3/2020
Model: IGRF2015



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 9H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3942.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3942.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad D	North Reference:	Grid
Well:	Margarita Federal Com 9H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 9H		
Design:	Margarita Federal Com 9H - Prelim 2		

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 D		
Site Position:		Northing:	540,257.17 usft
From:	Lat/Long	Easting:	756,717.53 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 28' 59.848 N
		Longitude:	103° 38' 5.464 W

Well	Margarita Federal Com 9H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	
Grid Convergence:	0.38 °		
		Latitude:	32° 28' 59.851 N
		Longitude:	103° 38' 4.308 W
		Ground Level:	3,917.0 usft

Wellbore	Margarita Federal Com 9H		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	4/3/2020	6.70
			Dip Angle (°)
			60.25
			Field Strength (nT)
			47,793.21678812

Design	Margarita Federal Com 9H - Prelim 2		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction (°)
			180.11

Plan Survey Tool Program	Date	4/15/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	22,593.6	Margarita Federal Com 9H - Prelim	MWD+HRGM
				OWSG MWD + HRGM

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,012.1	2.12	214.22	6,012.0	-3.2	-2.2	1.00	1.00	0.00	214.22	
9,884.7	2.12	214.22	9,882.0	-121.8	-82.8	0.00	0.00	0.00	0.00	
10,096.7	0.00	0.00	10,094.0	-125.0	-85.0	1.00	-1.00	0.00	180.00	
10,329.8	0.00	0.00	10,327.0	-125.0	-85.0	0.00	0.00	0.00	0.00	
11,229.8	90.00	179.71	10,900.0	-698.0	-82.1	10.00	10.00	0.00	179.71	
22,593.6	90.00	179.71	10,900.0	-12,061.6	-24.1	0.00	0.00	0.00	0.00	Margarita Federal Com

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 9H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3942.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3942.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad D	North Reference:	Grid
Well:	Margarita Federal Com 9H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 9H		
Design:	Margarita Federal Com 9H - Prelim 2		

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

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 9H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3942.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3942.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad D	North Reference:	Grid
Well:	Margarita Federal Com 9H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 9H		
Design:	Margarita Federal Com 9H - Prelim 2		

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)
5,400.0	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
KOP - Start Build 1.00									
5,900.0	1.00	214.22	5,900.0	-0.7	-0.5	0.7	1.00	1.00	0.00
6,000.0	2.00	214.22	6,000.0	-2.9	-2.0	2.9	1.00	1.00	0.00
6,012.1	2.12	214.22	6,012.0	-3.2	-2.2	3.2	1.00	1.00	0.00
Start 3872.6 hold at 6012.1 MD									
6,100.0	2.12	214.22	6,099.9	-5.9	-4.0	5.9	0.00	0.00	0.00
6,200.0	2.12	214.22	6,199.8	-9.0	-6.1	9.0	0.00	0.00	0.00
6,300.0	2.12	214.22	6,299.8	-12.1	-8.2	12.1	0.00	0.00	0.00
6,400.0	2.12	214.22	6,399.7	-15.1	-10.3	15.1	0.00	0.00	0.00
6,500.0	2.12	214.22	6,499.6	-18.2	-12.4	18.2	0.00	0.00	0.00
6,600.0	2.12	214.22	6,599.5	-21.2	-14.4	21.3	0.00	0.00	0.00
6,700.0	2.12	214.22	6,699.5	-24.3	-16.5	24.3	0.00	0.00	0.00
6,800.0	2.12	214.22	6,799.4	-27.4	-18.6	27.4	0.00	0.00	0.00
6,900.0	2.12	214.22	6,899.3	-30.4	-20.7	30.5	0.00	0.00	0.00
7,000.0	2.12	214.22	6,999.3	-33.5	-22.8	33.5	0.00	0.00	0.00
7,100.0	2.12	214.22	7,099.2	-36.5	-24.8	36.6	0.00	0.00	0.00
7,200.0	2.12	214.22	7,199.1	-39.6	-26.9	39.7	0.00	0.00	0.00
7,300.0	2.12	214.22	7,299.1	-42.7	-29.0	42.7	0.00	0.00	0.00
7,400.0	2.12	214.22	7,399.0	-45.7	-31.1	45.8	0.00	0.00	0.00
7,500.0	2.12	214.22	7,498.9	-48.8	-33.2	48.8	0.00	0.00	0.00
7,600.0	2.12	214.22	7,598.9	-51.8	-35.3	51.9	0.00	0.00	0.00
7,700.0	2.12	214.22	7,698.8	-54.9	-37.3	55.0	0.00	0.00	0.00
7,800.0	2.12	214.22	7,798.7	-58.0	-39.4	58.0	0.00	0.00	0.00
7,900.0	2.12	214.22	7,898.7	-61.0	-41.5	61.1	0.00	0.00	0.00
8,000.0	2.12	214.22	7,998.6	-64.1	-43.6	64.2	0.00	0.00	0.00
8,100.0	2.12	214.22	8,098.5	-67.1	-45.7	67.2	0.00	0.00	0.00
8,200.0	2.12	214.22	8,198.5	-70.2	-47.7	70.3	0.00	0.00	0.00
8,300.0	2.12	214.22	8,298.4	-73.3	-49.8	73.4	0.00	0.00	0.00
8,400.0	2.12	214.22	8,398.3	-76.3	-51.9	76.4	0.00	0.00	0.00
8,500.0	2.12	214.22	8,498.2	-79.4	-54.0	79.5	0.00	0.00	0.00
8,600.0	2.12	214.22	8,598.2	-82.4	-56.1	82.6	0.00	0.00	0.00
8,700.0	2.12	214.22	8,698.1	-85.5	-58.1	85.6	0.00	0.00	0.00
8,800.0	2.12	214.22	8,798.0	-88.6	-60.2	88.7	0.00	0.00	0.00
8,900.0	2.12	214.22	8,898.0	-91.6	-62.3	91.7	0.00	0.00	0.00
9,000.0	2.12	214.22	8,997.9	-94.7	-64.4	94.8	0.00	0.00	0.00
9,100.0	2.12	214.22	9,097.8	-97.7	-66.5	97.9	0.00	0.00	0.00
9,200.0	2.12	214.22	9,197.8	-100.8	-68.5	100.9	0.00	0.00	0.00
9,300.0	2.12	214.22	9,297.7	-103.9	-70.6	104.0	0.00	0.00	0.00
9,400.0	2.12	214.22	9,397.6	-106.9	-72.7	107.1	0.00	0.00	0.00
9,500.0	2.12	214.22	9,497.6	-110.0	-74.8	110.1	0.00	0.00	0.00
9,600.0	2.12	214.22	9,597.5	-113.0	-76.9	113.2	0.00	0.00	0.00
9,700.0	2.12	214.22	9,697.4	-116.1	-79.0	116.3	0.00	0.00	0.00
9,800.0	2.12	214.22	9,797.4	-119.2	-81.0	119.3	0.00	0.00	0.00
9,884.7	2.12	214.22	9,882.0	-121.8	-82.8	121.9	0.00	0.00	0.00
Start Drop -1.00									
9,900.0	1.97	214.22	9,897.3	-122.2	-83.1	122.4	1.00	-1.00	0.00
10,000.0	0.97	214.22	9,997.3	-124.3	-84.5	124.5	1.00	-1.00	0.00
10,096.7	0.00	0.00	10,094.0	-125.0	-85.0	125.2	1.00	-1.00	0.00

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 9H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3942.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3942.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad D	North Reference:	Grid
Well:	Margarita Federal Com 9H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 9H		
Design:	Margarita Federal Com 9H - Prelim 2		

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)
Start 233.0 hold at 10096.7 MD									
10,100.0	0.00	0.00	10,097.3	-125.0	-85.0	125.2	0.00	0.00	0.00
10,200.0	0.00	0.00	10,197.3	-125.0	-85.0	125.2	0.00	0.00	0.00
10,300.0	0.00	0.00	10,297.3	-125.0	-85.0	125.2	0.00	0.00	0.00
10,329.8	0.00	0.00	10,327.0	-125.0	-85.0	125.2	0.00	0.00	0.00
KOP #2 - Start Build 10.00									
10,400.0	7.02	179.71	10,397.1	-129.3	-85.0	129.5	10.00	10.00	0.00
10,500.0	17.02	179.71	10,494.8	-150.1	-84.9	150.3	10.00	10.00	0.00
10,600.0	27.02	179.71	10,587.3	-187.5	-84.7	187.7	10.00	10.00	0.00
10,700.0	37.02	179.71	10,672.0	-240.5	-84.4	240.7	10.00	10.00	0.00
10,800.0	47.02	179.71	10,746.2	-307.4	-84.1	307.5	10.00	10.00	0.00
10,900.0	57.02	179.71	10,807.7	-386.1	-83.7	386.2	10.00	10.00	0.00
11,000.0	67.02	179.71	10,854.5	-474.3	-83.2	474.4	10.00	10.00	0.00
11,100.0	77.02	179.71	10,885.4	-569.3	-82.7	569.4	10.00	10.00	0.00
11,200.0	87.02	179.71	10,899.2	-668.2	-82.2	668.3	10.00	10.00	0.00
11,229.8	90.00	179.71	10,900.0	-698.0	-82.1	698.1	10.00	10.00	0.00
LP - Start 11363.8 hold at 11229.8 MD - LP - Margarita Federal Com 9H LP									
11,300.0	90.00	179.71	10,900.0	-768.2	-81.7	768.3	0.00	0.00	0.00
11,400.0	90.00	179.71	10,900.0	-868.2	-81.2	868.3	0.00	0.00	0.00
11,500.0	90.00	179.71	10,900.0	-968.2	-80.7	968.3	0.00	0.00	0.00
11,600.0	90.00	179.71	10,900.0	-1,068.2	-80.2	1,068.3	0.00	0.00	0.00
11,700.0	90.00	179.71	10,900.0	-1,168.2	-79.7	1,168.3	0.00	0.00	0.00
11,800.0	90.00	179.71	10,900.0	-1,268.2	-79.2	1,268.3	0.00	0.00	0.00
11,900.0	90.00	179.71	10,900.0	-1,368.1	-78.7	1,368.3	0.00	0.00	0.00
12,000.0	90.00	179.71	10,900.0	-1,468.1	-78.1	1,468.3	0.00	0.00	0.00
12,100.0	90.00	179.71	10,900.0	-1,568.1	-77.6	1,568.3	0.00	0.00	0.00
12,200.0	90.00	179.71	10,900.0	-1,668.1	-77.1	1,668.3	0.00	0.00	0.00
12,300.0	90.00	179.71	10,900.0	-1,768.1	-76.6	1,768.3	0.00	0.00	0.00
12,400.0	90.00	179.71	10,900.0	-1,868.1	-76.1	1,868.3	0.00	0.00	0.00
12,500.0	90.00	179.71	10,900.0	-1,968.1	-75.6	1,968.3	0.00	0.00	0.00
12,600.0	90.00	179.71	10,900.0	-2,068.1	-75.1	2,068.3	0.00	0.00	0.00
12,700.0	90.00	179.71	10,900.0	-2,168.1	-74.6	2,168.3	0.00	0.00	0.00
12,800.0	90.00	179.71	10,900.0	-2,268.1	-74.1	2,268.3	0.00	0.00	0.00
12,900.0	90.00	179.71	10,900.0	-2,368.1	-73.5	2,368.3	0.00	0.00	0.00
13,000.0	90.00	179.71	10,900.0	-2,468.1	-73.0	2,468.3	0.00	0.00	0.00
13,100.0	90.00	179.71	10,900.0	-2,568.1	-72.5	2,568.3	0.00	0.00	0.00
13,200.0	90.00	179.71	10,900.0	-2,668.1	-72.0	2,668.3	0.00	0.00	0.00
13,300.0	90.00	179.71	10,900.0	-2,768.1	-71.5	2,768.3	0.00	0.00	0.00
13,400.0	90.00	179.71	10,900.0	-2,868.1	-71.0	2,868.3	0.00	0.00	0.00
13,500.0	90.00	179.71	10,900.0	-2,968.1	-70.5	2,968.3	0.00	0.00	0.00
13,600.0	90.00	179.71	10,900.0	-3,068.1	-70.0	3,068.3	0.00	0.00	0.00
13,700.0	90.00	179.71	10,900.0	-3,168.1	-69.5	3,168.3	0.00	0.00	0.00
13,800.0	90.00	179.71	10,900.0	-3,268.1	-69.0	3,268.3	0.00	0.00	0.00
13,900.0	90.00	179.71	10,900.0	-3,368.1	-68.4	3,368.3	0.00	0.00	0.00
14,000.0	90.00	179.71	10,900.0	-3,468.1	-67.9	3,468.3	0.00	0.00	0.00
14,100.0	90.00	179.71	10,900.0	-3,568.1	-67.4	3,568.2	0.00	0.00	0.00
14,200.0	90.00	179.71	10,900.0	-3,668.1	-66.9	3,668.2	0.00	0.00	0.00
14,300.0	90.00	179.71	10,900.0	-3,768.1	-66.4	3,768.2	0.00	0.00	0.00
14,400.0	90.00	179.71	10,900.0	-3,868.1	-65.9	3,868.2	0.00	0.00	0.00
14,500.0	90.00	179.71	10,900.0	-3,968.1	-65.4	3,968.2	0.00	0.00	0.00
14,600.0	90.00	179.71	10,900.0	-4,068.1	-64.9	4,068.2	0.00	0.00	0.00
14,700.0	90.00	179.71	10,900.0	-4,168.1	-64.4	4,168.2	0.00	0.00	0.00
14,800.0	90.00	179.71	10,900.0	-4,268.1	-63.8	4,268.2	0.00	0.00	0.00

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 9H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3942.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3942.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad D	North Reference:	Grid
Well:	Margarita Federal Com 9H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 9H		
Design:	Margarita Federal Com 9H - Prelim 2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,900.0	90.00	179.71	10,900.0	-4,368.1	-63.3	4,368.2	0.00	0.00	0.00
15,000.0	90.00	179.71	10,900.0	-4,468.1	-62.8	4,468.2	0.00	0.00	0.00
15,100.0	90.00	179.71	10,900.0	-4,568.1	-62.3	4,568.2	0.00	0.00	0.00
15,200.0	90.00	179.71	10,900.0	-4,668.1	-61.8	4,668.2	0.00	0.00	0.00
15,300.0	90.00	179.71	10,900.0	-4,768.1	-61.3	4,768.2	0.00	0.00	0.00
15,400.0	90.00	179.71	10,900.0	-4,868.1	-60.8	4,868.2	0.00	0.00	0.00
15,500.0	90.00	179.71	10,900.0	-4,968.1	-60.3	4,968.2	0.00	0.00	0.00
15,600.0	90.00	179.71	10,900.0	-5,068.1	-59.8	5,068.2	0.00	0.00	0.00
15,700.0	90.00	179.71	10,900.0	-5,168.1	-59.3	5,168.2	0.00	0.00	0.00
15,800.0	90.00	179.71	10,900.0	-5,268.1	-58.7	5,268.2	0.00	0.00	0.00
15,900.0	90.00	179.71	10,900.0	-5,368.1	-58.2	5,368.2	0.00	0.00	0.00
16,000.0	90.00	179.71	10,900.0	-5,468.1	-57.7	5,468.2	0.00	0.00	0.00
16,100.0	90.00	179.71	10,900.0	-5,568.1	-57.2	5,568.2	0.00	0.00	0.00
16,200.0	90.00	179.71	10,900.0	-5,668.1	-56.7	5,668.2	0.00	0.00	0.00
16,300.0	90.00	179.71	10,900.0	-5,768.1	-56.2	5,768.2	0.00	0.00	0.00
16,400.0	90.00	179.71	10,900.0	-5,868.1	-55.7	5,868.2	0.00	0.00	0.00
16,500.0	90.00	179.71	10,900.0	-5,968.1	-55.2	5,968.2	0.00	0.00	0.00
16,600.0	90.00	179.71	10,900.0	-6,068.1	-54.7	6,068.2	0.00	0.00	0.00
16,700.0	90.00	179.71	10,900.0	-6,168.1	-54.1	6,168.2	0.00	0.00	0.00
16,800.0	90.00	179.71	10,900.0	-6,268.1	-53.6	6,268.2	0.00	0.00	0.00
16,900.0	90.00	179.71	10,900.0	-6,368.1	-53.1	6,368.2	0.00	0.00	0.00
17,000.0	90.00	179.71	10,900.0	-6,468.1	-52.6	6,468.2	0.00	0.00	0.00
17,100.0	90.00	179.71	10,900.0	-6,568.1	-52.1	6,568.2	0.00	0.00	0.00
17,200.0	90.00	179.71	10,900.0	-6,668.1	-51.6	6,668.2	0.00	0.00	0.00
17,300.0	90.00	179.71	10,900.0	-6,768.1	-51.1	6,768.2	0.00	0.00	0.00
17,400.0	90.00	179.71	10,900.0	-6,868.1	-50.6	6,868.2	0.00	0.00	0.00
17,500.0	90.00	179.71	10,900.0	-6,968.1	-50.1	6,968.2	0.00	0.00	0.00
17,600.0	90.00	179.71	10,900.0	-7,068.1	-49.6	7,068.2	0.00	0.00	0.00
17,700.0	90.00	179.71	10,900.0	-7,168.1	-49.0	7,168.2	0.00	0.00	0.00
17,800.0	90.00	179.71	10,900.0	-7,268.1	-48.5	7,268.2	0.00	0.00	0.00
17,900.0	90.00	179.71	10,900.0	-7,368.1	-48.0	7,368.2	0.00	0.00	0.00
18,000.0	90.00	179.71	10,900.0	-7,468.1	-47.5	7,468.2	0.00	0.00	0.00
18,100.0	90.00	179.71	10,900.0	-7,568.1	-47.0	7,568.1	0.00	0.00	0.00
18,200.0	90.00	179.71	10,900.0	-7,668.1	-46.5	7,668.1	0.00	0.00	0.00
18,300.0	90.00	179.71	10,900.0	-7,768.1	-46.0	7,768.1	0.00	0.00	0.00
18,400.0	90.00	179.71	10,900.0	-7,868.1	-45.5	7,868.1	0.00	0.00	0.00
18,500.0	90.00	179.71	10,900.0	-7,968.1	-45.0	7,968.1	0.00	0.00	0.00
18,600.0	90.00	179.71	10,900.0	-8,068.1	-44.4	8,068.1	0.00	0.00	0.00
18,700.0	90.00	179.71	10,900.0	-8,168.1	-43.9	8,168.1	0.00	0.00	0.00
18,800.0	90.00	179.71	10,900.0	-8,268.1	-43.4	8,268.1	0.00	0.00	0.00
18,900.0	90.00	179.71	10,900.0	-8,368.1	-42.9	8,368.1	0.00	0.00	0.00
19,000.0	90.00	179.71	10,900.0	-8,468.1	-42.4	8,468.1	0.00	0.00	0.00
19,100.0	90.00	179.71	10,900.0	-8,568.1	-41.9	8,568.1	0.00	0.00	0.00
19,200.0	90.00	179.71	10,900.0	-8,668.1	-41.4	8,668.1	0.00	0.00	0.00
19,300.0	90.00	179.71	10,900.0	-8,768.1	-40.9	8,768.1	0.00	0.00	0.00
19,400.0	90.00	179.71	10,900.0	-8,868.1	-40.4	8,868.1	0.00	0.00	0.00
19,500.0	90.00	179.71	10,900.0	-8,968.1	-39.9	8,968.1	0.00	0.00	0.00
19,600.0	90.00	179.71	10,900.0	-9,068.0	-39.3	9,068.1	0.00	0.00	0.00
19,700.0	90.00	179.71	10,900.0	-9,168.0	-38.8	9,168.1	0.00	0.00	0.00
19,800.0	90.00	179.71	10,900.0	-9,268.0	-38.3	9,268.1	0.00	0.00	0.00
19,900.0	90.00	179.71	10,900.0	-9,368.0	-37.8	9,368.1	0.00	0.00	0.00
20,000.0	90.00	179.71	10,900.0	-9,468.0	-37.3	9,468.1	0.00	0.00	0.00
20,100.0	90.00	179.71	10,900.0	-9,568.0	-36.8	9,568.1	0.00	0.00	0.00
20,200.0	90.00	179.71	10,900.0	-9,668.0	-36.3	9,668.1	0.00	0.00	0.00

Database: EDM 5000.16 Single User Db
Company: Advance Energy Partners
Project: Hat Mesa
Site: Margarita Federal Com - Pad D
Well: Margarita Federal Com 9H
Wellbore: Margarita Federal Com 9H
Design: Margarita Federal Com 9H - Prelim 2

Local Co-ordinate Reference: Well Margarita Federal Com 9H
TVD Reference: WELL @ 3942.0usft (Original Well Elev)
MD Reference: WELL @ 3942.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
20,300.0	90.00	179.71	10,900.0	-9,768.0	-35.8	9,768.1	0.00	0.00	0.00
20,400.0	90.00	179.71	10,900.0	-9,868.0	-35.3	9,868.1	0.00	0.00	0.00
20,500.0	90.00	179.71	10,900.0	-9,968.0	-34.7	9,968.1	0.00	0.00	0.00
20,600.0	90.00	179.71	10,900.0	-10,068.0	-34.2	10,068.1	0.00	0.00	0.00
20,700.0	90.00	179.71	10,900.0	-10,168.0	-33.7	10,168.1	0.00	0.00	0.00
20,800.0	90.00	179.71	10,900.0	-10,268.0	-33.2	10,268.1	0.00	0.00	0.00
20,900.0	90.00	179.71	10,900.0	-10,368.0	-32.7	10,368.1	0.00	0.00	0.00
21,000.0	90.00	179.71	10,900.0	-10,468.0	-32.2	10,468.1	0.00	0.00	0.00
21,100.0	90.00	179.71	10,900.0	-10,568.0	-31.7	10,568.1	0.00	0.00	0.00
21,200.0	90.00	179.71	10,900.0	-10,668.0	-31.2	10,668.1	0.00	0.00	0.00
21,300.0	90.00	179.71	10,900.0	-10,768.0	-30.7	10,768.1	0.00	0.00	0.00
21,400.0	90.00	179.71	10,900.0	-10,868.0	-30.2	10,868.1	0.00	0.00	0.00
21,500.0	90.00	179.71	10,900.0	-10,968.0	-29.6	10,968.1	0.00	0.00	0.00
21,600.0	90.00	179.71	10,900.0	-11,068.0	-29.1	11,068.1	0.00	0.00	0.00
21,700.0	90.00	179.71	10,900.0	-11,168.0	-28.6	11,168.1	0.00	0.00	0.00
21,800.0	90.00	179.71	10,900.0	-11,268.0	-28.1	11,268.1	0.00	0.00	0.00
21,900.0	90.00	179.71	10,900.0	-11,368.0	-27.6	11,368.1	0.00	0.00	0.00
22,000.0	90.00	179.71	10,900.0	-11,468.0	-27.1	11,468.0	0.00	0.00	0.00
22,100.0	90.00	179.71	10,900.0	-11,568.0	-26.6	11,568.0	0.00	0.00	0.00
22,200.0	90.00	179.71	10,900.0	-11,668.0	-26.1	11,668.0	0.00	0.00	0.00
22,300.0	90.00	179.71	10,900.0	-11,768.0	-25.6	11,768.0	0.00	0.00	0.00
22,400.0	90.00	179.71	10,900.0	-11,868.0	-25.0	11,868.0	0.00	0.00	0.00
22,500.0	90.00	179.71	10,900.0	-11,968.0	-24.5	11,968.0	0.00	0.00	0.00
22,593.6	90.00	179.71	10,900.0	-12,061.6	-24.1	12,061.6	0.00	0.00	0.00

TD at 22593.6 - Margarita Federal Com 9H 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 9H - plan hits target center - Point	0.00	0.00	10,900.0	-698.0	-82.1	539,560.23	756,734.44	32° 28' 52.950 N	103° 38' 5.320 W
Margarita Federal Com 9H - plan hits target center - Point	0.00	0.00	10,900.0	-12,061.6	-24.1	528,196.59	756,792.45	32° 27' 0.504 N	103° 38' 5.510 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
11,229.8	10,900.0	LP	5-1/2	6

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
11,229.8	10,900.0	LP		0.00	

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Margarita Federal Com 9H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3942.0usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3942.0usft (Original Well Elev)
Site:	Margarita Federal Com - Pad D	North Reference:	Grid
Well:	Margarita Federal Com 9H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Margarita Federal Com 9H		
Design:	Margarita Federal Com 9H - Prelim 2		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,800.0	5,800.0	0.0	0.0	KOP - Start Build 1.00
6,012.1	6,012.0	-3.2	-2.2	Start 3872.6 hold at 6012.1 MD
9,884.7	9,882.0	-121.8	-82.8	Start Drop -1.00
10,096.7	10,094.0	-125.0	-85.0	Start 233.0 hold at 10096.7 MD
10,329.8	10,327.0	-125.0	-85.0	KOP #2 - Start Build 10.00
11,229.8	10,900.0	-698.0	-82.1	LP - Start 11363.8 hold at 11229.8 MD
22,593.6	10,900.0	-12,061.6	-24.1	TD at 22593.6