

30-025-44654 ✓



Ameredev Operating, LLC

Lea County, NM (NAD83 NME)
(Magnolia) Sec-27_T-26-S_R-36-E
Magnolia State Com 26-36-22 #115H

OWB

Plan: Plan #1

Standard Planning Report

03 April, 2018



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Magnolia State Com 26-36-22 #115H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 2933.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 2933.0usft (H&P 616)
Site:	(Magnolia) Sec-27_T-26-S_R-36-E	North Reference:	Grid
Well:	Magnolia State Com 26-36-22 #115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Project	Lea County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	(Magnolia) Sec-27_T-26-S_R-36-E				
Site Position:		Northing:	373,046.00 usft	Latitude:	32° 1' 15.509 N
From:	Map	Easting:	876,423.00 usft	Longitude:	103° 15' 7.750 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.57 °

Well	Magnolia State Com 26-36-22 #115H					
Well Position	+N/-S	0.0 usft	Northing:	373,046.00 usft	Latitude:	32° 1' 15.511 N
	+E/-W	-20.0 usft	Easting:	876,403.00 usft	Longitude:	103° 15' 7.983 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	2,906.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	04/02/18	6.70	59.92	47,773.00451469

Design	Plan #1				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	359.81	

Plan Survey Tool Program	Date	04/03/18			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	22,279.7	Plan #1 (OWB)	MWD	
				MWD - Standard	

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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,124.8	2.50	241.39	2,124.7	-1.3	-2.4	2.00	2.00	0.00	241.39	
4,877.9	2.50	241.39	4,875.3	-58.7	-107.6	0.00	0.00	0.00	0.00	
5,002.7	0.00	0.00	5,000.0	-60.0	-110.0	2.00	-2.00	0.00	180.00	
11,320.7	0.00	0.00	11,318.0	-60.0	-110.0	0.00	0.00	0.00	0.00	
12,220.7	90.00	11.05	11,891.0	502.3	-0.2	10.00	10.00	0.00	11.05	
12,799.7	90.00	359.47	11,891.0	1,077.9	52.8	2.00	0.00	-2.00	-90.00	
22,280.2	90.00	359.47	11,891.0	10,558.0	-35.0	0.00	0.00	0.00	0.00	PBHL (Magnolia St)

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Well:	Magnolia State Com 26-36-22 #115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - Build 2.00									
2,100.0	2.00	241.39	2,100.0	-0.8	-1.5	-0.8	2.00	2.00	0.00
2,124.8	2.50	241.39	2,124.7	-1.3	-2.4	-1.3	2.00	2.00	0.00
HOLD - 2753.2 at 2124.8 MD									
2,200.0	2.50	241.39	2,199.9	-2.9	-5.3	-2.9	0.00	0.00	0.00
2,300.0	2.50	241.39	2,299.8	-5.0	-9.1	-4.9	0.00	0.00	0.00
2,400.0	2.50	241.39	2,399.7	-7.0	-12.9	-7.0	0.00	0.00	0.00
2,500.0	2.50	241.39	2,499.6	-9.1	-16.7	-9.1	0.00	0.00	0.00
2,600.0	2.50	241.39	2,599.5	-11.2	-20.5	-11.1	0.00	0.00	0.00
2,700.0	2.50	241.39	2,699.4	-13.3	-24.4	-13.2	0.00	0.00	0.00
2,800.0	2.50	241.39	2,799.3	-15.4	-28.2	-15.3	0.00	0.00	0.00
2,900.0	2.50	241.39	2,899.2	-17.5	-32.0	-17.4	0.00	0.00	0.00
3,000.0	2.50	241.39	2,999.1	-19.5	-35.8	-19.4	0.00	0.00	0.00
3,100.0	2.50	241.39	3,099.0	-21.6	-39.7	-21.5	0.00	0.00	0.00
3,200.0	2.50	241.39	3,198.9	-23.7	-43.5	-23.6	0.00	0.00	0.00
3,300.0	2.50	241.39	3,298.8	-25.8	-47.3	-25.6	0.00	0.00	0.00
3,400.0	2.50	241.39	3,398.8	-27.9	-51.1	-27.7	0.00	0.00	0.00
3,500.0	2.50	241.39	3,498.7	-30.0	-54.9	-29.8	0.00	0.00	0.00
3,600.0	2.50	241.39	3,598.6	-32.1	-58.8	-31.9	0.00	0.00	0.00
3,700.0	2.50	241.39	3,698.5	-34.1	-62.6	-33.9	0.00	0.00	0.00
3,800.0	2.50	241.39	3,798.4	-36.2	-66.4	-36.0	0.00	0.00	0.00
3,900.0	2.50	241.39	3,898.3	-38.3	-70.2	-38.1	0.00	0.00	0.00
4,000.0	2.50	241.39	3,998.2	-40.4	-74.1	-40.2	0.00	0.00	0.00
4,100.0	2.50	241.39	4,098.1	-42.5	-77.9	-42.2	0.00	0.00	0.00
4,200.0	2.50	241.39	4,198.0	-44.6	-81.7	-44.3	0.00	0.00	0.00
4,300.0	2.50	241.39	4,297.9	-46.7	-85.5	-46.4	0.00	0.00	0.00
4,400.0	2.50	241.39	4,397.8	-48.7	-89.3	-48.4	0.00	0.00	0.00
4,500.0	2.50	241.39	4,497.7	-50.8	-93.2	-50.5	0.00	0.00	0.00
4,600.0	2.50	241.39	4,597.6	-52.9	-97.0	-52.6	0.00	0.00	0.00
4,700.0	2.50	241.39	4,697.5	-55.0	-100.8	-54.7	0.00	0.00	0.00
4,800.0	2.50	241.39	4,797.4	-57.1	-104.6	-56.7	0.00	0.00	0.00
4,877.9	2.50	241.39	4,875.3	-58.7	-107.6	-58.3	0.00	0.00	0.00

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Wellbore:	OWB		
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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)
DROP - -2.00									
4,900.0	2.05	241.39	4,897.3	-59.1	-108.4	-58.8	2.00	-2.00	0.00
5,002.7	0.00	0.00	5,000.0	-60.0	-110.0	-59.6	2.00	-2.00	0.00
HOLD - 6318.0 at 5002.7 MD									
5,100.0	0.00	0.00	5,097.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
5,200.0	0.00	0.00	5,197.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
5,300.0	0.00	0.00	5,297.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
5,400.0	0.00	0.00	5,397.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
5,500.0	0.00	0.00	5,497.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
5,600.0	0.00	0.00	5,597.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
5,700.0	0.00	0.00	5,697.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
5,800.0	0.00	0.00	5,797.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
5,900.0	0.00	0.00	5,897.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,000.0	0.00	0.00	5,997.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,100.0	0.00	0.00	6,097.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,200.0	0.00	0.00	6,197.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,300.0	0.00	0.00	6,297.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,400.0	0.00	0.00	6,397.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,500.0	0.00	0.00	6,497.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,597.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,700.0	0.00	0.00	6,697.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,800.0	0.00	0.00	6,797.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
6,900.0	0.00	0.00	6,897.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,000.0	0.00	0.00	6,997.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,100.0	0.00	0.00	7,097.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,200.0	0.00	0.00	7,197.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,300.0	0.00	0.00	7,297.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,400.0	0.00	0.00	7,397.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,500.0	0.00	0.00	7,497.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,600.0	0.00	0.00	7,597.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,700.0	0.00	0.00	7,697.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,800.0	0.00	0.00	7,797.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
7,900.0	0.00	0.00	7,897.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,000.0	0.00	0.00	7,997.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,100.0	0.00	0.00	8,097.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,200.0	0.00	0.00	8,197.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,300.0	0.00	0.00	8,297.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,400.0	0.00	0.00	8,397.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,500.0	0.00	0.00	8,497.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,600.0	0.00	0.00	8,597.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,700.0	0.00	0.00	8,697.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,800.0	0.00	0.00	8,797.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
8,900.0	0.00	0.00	8,897.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,000.0	0.00	0.00	8,997.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,100.0	0.00	0.00	9,097.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,200.0	0.00	0.00	9,197.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,300.0	0.00	0.00	9,297.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,400.0	0.00	0.00	9,397.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,500.0	0.00	0.00	9,497.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,600.0	0.00	0.00	9,597.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,700.0	0.00	0.00	9,697.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,800.0	0.00	0.00	9,797.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
9,900.0	0.00	0.00	9,897.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
10,000.0	0.00	0.00	9,997.3	-60.0	-110.0	-59.6	0.00	0.00	0.00

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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,100.0	0.00	0.00	10,097.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
10,200.0	0.00	0.00	10,197.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
10,300.0	0.00	0.00	10,297.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
10,400.0	0.00	0.00	10,397.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
10,500.0	0.00	0.00	10,497.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
10,600.0	0.00	0.00	10,597.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
10,700.0	0.00	0.00	10,697.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
10,800.0	0.00	0.00	10,797.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
10,900.0	0.00	0.00	10,897.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
11,000.0	0.00	0.00	10,997.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
11,100.0	0.00	0.00	11,097.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
11,200.0	0.00	0.00	11,197.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
11,300.0	0.00	0.00	11,297.3	-60.0	-110.0	-59.6	0.00	0.00	0.00
11,320.7	0.00	0.00	11,318.0	-60.0	-110.0	-59.6	0.00	0.00	0.00
KOP - Build 10.00, 258.8'FNL & 2491'FEL									
11,350.0	2.93	11.05	11,347.3	-59.3	-109.9	-58.9	10.00	10.00	0.00
11,400.0	7.93	11.05	11,397.1	-54.6	-108.9	-54.3	10.00	10.00	0.00
11,450.0	12.93	11.05	11,446.2	-45.7	-107.2	-45.4	10.00	10.00	0.00
11,500.0	17.93	11.05	11,494.4	-32.7	-104.7	-32.3	10.00	10.00	0.00
11,550.0	22.93	11.05	11,541.2	-15.6	-101.3	-15.2	10.00	10.00	0.00
11,600.0	27.93	11.05	11,586.4	5.5	-97.2	5.8	10.00	10.00	0.00
11,650.0	32.93	11.05	11,629.5	30.4	-92.4	30.7	10.00	10.00	0.00
11,700.0	37.93	11.05	11,670.2	58.8	-86.8	59.1	10.00	10.00	0.00
11,750.0	42.93	11.05	11,708.3	90.6	-80.6	90.9	10.00	10.00	0.00
11,800.0	47.93	11.05	11,743.3	125.6	-73.8	125.8	10.00	10.00	0.00
11,850.0	52.93	11.05	11,775.2	163.4	-66.4	163.6	10.00	10.00	0.00
11,894.5	57.38	11.05	11,800.6	199.2	-59.4	199.4	10.00	10.00	0.00
Sec 27 & 22 Crossing, 0'FSL & 2437.9'FEL									
11,900.0	57.93	11.05	11,803.5	203.8	-58.5	204.0	10.00	10.00	0.00
11,950.0	62.93	11.05	11,828.2	246.4	-50.2	246.6	10.00	10.00	0.00
12,000.0	67.93	11.05	11,849.0	291.1	-41.4	291.2	10.00	10.00	0.00
12,050.0	72.93	11.05	11,865.7	337.3	-32.4	337.4	10.00	10.00	0.00
12,100.0	77.93	11.05	11,878.3	384.8	-23.1	384.8	10.00	10.00	0.00
12,150.0	82.93	11.05	11,886.6	433.1	-13.7	433.2	10.00	10.00	0.00
12,200.0	87.93	11.05	11,890.6	482.0	-4.1	482.0	10.00	10.00	0.00
12,220.7	90.00	11.05	11,891.0	502.3	-0.2	502.3	10.00	10.00	0.00
EOC/TRN - DLS 2.00 TFO -90.00									
12,300.0	90.00	9.46	11,891.0	580.4	13.9	580.3	2.00	0.00	-2.00
12,400.0	90.00	7.46	11,891.0	679.3	28.7	679.2	2.00	0.00	-2.00
12,500.0	90.00	5.46	11,891.0	778.6	39.9	778.5	2.00	0.00	-2.00
12,600.0	90.00	3.46	11,891.0	878.3	47.7	878.2	2.00	0.00	-2.00
12,700.0	90.00	1.46	11,891.0	978.2	52.0	978.1	2.00	0.00	-2.00
12,799.7	90.00	359.47	11,891.0	1,077.9	52.8	1,077.8	2.00	0.00	-2.00
Start 9480.5 hold at 12799.7 MD									
12,900.0	90.00	359.47	11,891.0	1,178.2	51.9	1,178.0	0.00	0.00	0.00
13,000.0	90.00	359.47	11,891.0	1,278.2	51.0	1,278.0	0.00	0.00	0.00
13,100.0	90.00	359.47	11,891.0	1,378.2	50.0	1,378.0	0.00	0.00	0.00
13,200.0	90.00	359.47	11,891.0	1,478.2	49.1	1,478.0	0.00	0.00	0.00
13,300.0	90.00	359.47	11,891.0	1,578.2	48.2	1,578.0	0.00	0.00	0.00
13,400.0	90.00	359.47	11,891.0	1,678.2	47.2	1,678.0	0.00	0.00	0.00
13,500.0	90.00	359.47	11,891.0	1,778.2	46.3	1,778.0	0.00	0.00	0.00
13,600.0	90.00	359.47	11,891.0	1,878.2	45.4	1,878.0	0.00	0.00	0.00
13,700.0	90.00	359.47	11,891.0	1,978.2	44.5	1,978.0	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Magnolia State Com 26-36-22 #115H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 2933.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 2933.0usft (H&P 616)
Site:	(Magnolia) Sec-27_T-26-S_R-36-E	North Reference:	Grid
Well:	Magnolia State Com 26-36-22 #115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #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)	
13,800.0	90.00	359.47	11,891.0	2,078.2	43.5	2,078.0	0.00	0.00	0.00	
13,900.0	90.00	359.47	11,891.0	2,178.2	42.6	2,178.0	0.00	0.00	0.00	
14,000.0	90.00	359.47	11,891.0	2,278.2	41.7	2,278.0	0.00	0.00	0.00	
14,100.0	90.00	359.47	11,891.0	2,378.2	40.8	2,378.0	0.00	0.00	0.00	
14,200.0	90.00	359.47	11,891.0	2,478.2	39.8	2,478.0	0.00	0.00	0.00	
14,300.0	90.00	359.47	11,891.0	2,578.2	38.9	2,578.0	0.00	0.00	0.00	
14,400.0	90.00	359.47	11,891.0	2,678.2	38.0	2,678.0	0.00	0.00	0.00	
14,500.0	90.00	359.47	11,891.0	2,778.2	37.1	2,778.0	0.00	0.00	0.00	
14,558.6	90.00	359.47	11,891.0	2,836.8	36.5	2,836.6	0.00	0.00	0.00	
Sec 22 midpoint, 2636.7'FSL & 2318'FEL										
14,600.0	90.00	359.47	11,891.0	2,878.1	36.1	2,878.0	0.00	0.00	0.00	
14,700.0	90.00	359.47	11,891.0	2,978.1	35.2	2,978.0	0.00	0.00	0.00	
14,800.0	90.00	359.47	11,891.0	3,078.1	34.3	3,078.0	0.00	0.00	0.00	
14,900.0	90.00	359.47	11,891.0	3,178.1	33.4	3,178.0	0.00	0.00	0.00	
15,000.0	90.00	359.47	11,891.0	3,278.1	32.4	3,278.0	0.00	0.00	0.00	
15,100.0	90.00	359.47	11,891.0	3,378.1	31.5	3,378.0	0.00	0.00	0.00	
15,200.0	90.00	359.47	11,891.0	3,478.1	30.6	3,478.0	0.00	0.00	0.00	
15,300.0	90.00	359.47	11,891.0	3,578.1	29.6	3,578.0	0.00	0.00	0.00	
15,400.0	90.00	359.47	11,891.0	3,678.1	28.7	3,678.0	0.00	0.00	0.00	
15,500.0	90.00	359.47	11,891.0	3,778.1	27.8	3,778.0	0.00	0.00	0.00	
15,600.0	90.00	359.47	11,891.0	3,878.1	26.9	3,878.0	0.00	0.00	0.00	
15,700.0	90.00	359.47	11,891.0	3,978.1	25.9	3,978.0	0.00	0.00	0.00	
15,800.0	90.00	359.47	11,891.0	4,078.1	25.0	4,078.0	0.00	0.00	0.00	
15,900.0	90.00	359.47	11,891.0	4,178.1	24.1	4,178.0	0.00	0.00	0.00	
16,000.0	90.00	359.47	11,891.0	4,278.1	23.2	4,278.0	0.00	0.00	0.00	
16,100.0	90.00	359.47	11,891.0	4,378.1	22.2	4,378.0	0.00	0.00	0.00	
16,200.0	90.00	359.47	11,891.0	4,478.1	21.3	4,478.0	0.00	0.00	0.00	
16,300.0	90.00	359.47	11,891.0	4,578.1	20.4	4,578.0	0.00	0.00	0.00	
16,400.0	90.00	359.47	11,891.0	4,678.1	19.5	4,678.0	0.00	0.00	0.00	
16,500.0	90.00	359.47	11,891.0	4,778.1	18.5	4,778.0	0.00	0.00	0.00	
16,600.0	90.00	359.47	11,891.0	4,878.1	17.6	4,878.0	0.00	0.00	0.00	
16,700.0	90.00	359.47	11,891.0	4,978.1	16.7	4,978.0	0.00	0.00	0.00	
16,800.0	90.00	359.47	11,891.0	5,078.1	15.8	5,078.0	0.00	0.00	0.00	
16,900.0	90.00	359.47	11,891.0	5,178.1	14.8	5,178.0	0.00	0.00	0.00	
17,000.0	90.00	359.47	11,891.0	5,278.0	13.9	5,278.0	0.00	0.00	0.00	
17,100.0	90.00	359.47	11,891.0	5,378.0	13.0	5,378.0	0.00	0.00	0.00	
17,200.0	90.00	359.47	11,891.0	5,478.0	12.1	5,478.0	0.00	0.00	0.00	
17,200.5	90.00	359.47	11,891.0	5,478.5	12.0	5,478.5	0.00	0.00	0.00	
Sec 22 & 15 Crossing, 5278.6'FSL & 2318'FEL										
17,300.0	90.00	359.47	11,891.0	5,578.0	11.1	5,578.0	0.00	0.00	0.00	
17,400.0	90.00	359.47	11,891.0	5,678.0	10.2	5,678.0	0.00	0.00	0.00	
17,500.0	90.00	359.47	11,891.0	5,778.0	9.3	5,778.0	0.00	0.00	0.00	
17,600.0	90.00	359.47	11,891.0	5,878.0	8.3	5,878.0	0.00	0.00	0.00	
17,700.0	90.00	359.47	11,891.0	5,978.0	7.4	5,978.0	0.00	0.00	0.00	
17,800.0	90.00	359.47	11,891.0	6,078.0	6.5	6,078.0	0.00	0.00	0.00	
17,900.0	90.00	359.47	11,891.0	6,178.0	5.6	6,178.0	0.00	0.00	0.00	
18,000.0	90.00	359.47	11,891.0	6,278.0	4.6	6,278.0	0.00	0.00	0.00	
18,100.0	90.00	359.47	11,891.0	6,378.0	3.7	6,378.0	0.00	0.00	0.00	
18,200.0	90.00	359.47	11,891.0	6,478.0	2.8	6,478.0	0.00	0.00	0.00	
18,300.0	90.00	359.47	11,891.0	6,578.0	1.9	6,577.9	0.00	0.00	0.00	
18,400.0	90.00	359.47	11,891.0	6,678.0	0.9	6,677.9	0.00	0.00	0.00	
18,500.0	90.00	359.47	11,891.0	6,778.0	0.0	6,777.9	0.00	0.00	0.00	
18,600.0	90.00	359.47	11,891.0	6,878.0	-0.9	6,877.9	0.00	0.00	0.00	
18,700.0	90.00	359.47	11,891.0	6,978.0	-1.8	6,977.9	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Magnolia State Com 26-36-22 #115H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 2933.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 2933.0usft (H&P 616)
Site:	(Magnolia) Sec-27_T-26-S_R-36-E	North Reference:	Grid
Well:	Magnolia State Com 26-36-22 #115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #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)
18,800.0	90.00	359.47	11,891.0	7,078.0	-2.8	7,077.9	0.00	0.00	0.00
18,900.0	90.00	359.47	11,891.0	7,178.0	-3.7	7,177.9	0.00	0.00	0.00
19,000.0	90.00	359.47	11,891.0	7,278.0	-4.6	7,277.9	0.00	0.00	0.00
19,100.0	90.00	359.47	11,891.0	7,378.0	-5.5	7,377.9	0.00	0.00	0.00
19,200.0	90.00	359.47	11,891.0	7,478.0	-6.5	7,477.9	0.00	0.00	0.00
19,300.0	90.00	359.47	11,891.0	7,577.9	-7.4	7,577.9	0.00	0.00	0.00
19,400.0	90.00	359.47	11,891.0	7,677.9	-8.3	7,677.9	0.00	0.00	0.00
19,500.0	90.00	359.47	11,891.0	7,777.9	-9.3	7,777.9	0.00	0.00	0.00
19,600.0	90.00	359.47	11,891.0	7,877.9	-10.2	7,877.9	0.00	0.00	0.00
19,700.0	90.00	359.47	11,891.0	7,977.9	-11.1	7,977.9	0.00	0.00	0.00
19,800.0	90.00	359.47	11,891.0	8,077.9	-12.0	8,077.9	0.00	0.00	0.00
19,900.0	90.00	359.47	11,891.0	8,177.9	-13.0	8,177.9	0.00	0.00	0.00
20,000.0	90.00	359.47	11,891.0	8,277.9	-13.9	8,277.9	0.00	0.00	0.00
20,100.0	90.00	359.47	11,891.0	8,377.9	-14.8	8,377.9	0.00	0.00	0.00
20,200.0	90.00	359.47	11,891.0	8,477.9	-15.7	8,477.9	0.00	0.00	0.00
20,300.0	90.00	359.47	11,891.0	8,577.9	-16.7	8,577.9	0.00	0.00	0.00
20,400.0	90.00	359.47	11,891.0	8,677.9	-17.6	8,677.9	0.00	0.00	0.00
20,500.0	90.00	359.47	11,891.0	8,777.9	-18.5	8,777.9	0.00	0.00	0.00
20,600.0	90.00	359.47	11,891.0	8,877.9	-19.4	8,877.9	0.00	0.00	0.00
20,700.0	90.00	359.47	11,891.0	8,977.9	-20.4	8,977.9	0.00	0.00	0.00
20,800.0	90.00	359.47	11,891.0	9,077.9	-21.3	9,077.9	0.00	0.00	0.00
20,900.0	90.00	359.47	11,891.0	9,177.9	-22.2	9,177.9	0.00	0.00	0.00
21,000.0	90.00	359.47	11,891.0	9,277.9	-23.1	9,277.9	0.00	0.00	0.00
21,100.0	90.00	359.47	11,891.0	9,377.9	-24.1	9,377.9	0.00	0.00	0.00
21,200.0	90.00	359.47	11,891.0	9,477.9	-25.0	9,477.9	0.00	0.00	0.00
21,300.0	90.00	359.47	11,891.0	9,577.9	-25.9	9,577.9	0.00	0.00	0.00
21,400.0	90.00	359.47	11,891.0	9,677.9	-26.8	9,677.9	0.00	0.00	0.00
21,500.0	90.00	359.47	11,891.0	9,777.9	-27.8	9,777.9	0.00	0.00	0.00
21,600.0	90.00	359.47	11,891.0	9,877.8	-28.7	9,877.9	0.00	0.00	0.00
21,700.0	90.00	359.47	11,891.0	9,977.8	-29.6	9,977.9	0.00	0.00	0.00
21,800.0	90.00	359.47	11,891.0	10,077.8	-30.6	10,077.9	0.00	0.00	0.00
21,900.0	90.00	359.47	11,891.0	10,177.8	-31.5	10,177.9	0.00	0.00	0.00
22,000.0	90.00	359.47	11,891.0	10,277.8	-32.4	10,277.9	0.00	0.00	0.00
22,100.0	90.00	359.47	11,891.0	10,377.8	-33.3	10,377.9	0.00	0.00	0.00
22,200.0	90.00	359.47	11,891.0	10,477.8	-34.3	10,477.9	0.00	0.00	0.00
22,280.2	90.00	359.47	11,891.0	10,558.0	-35.0	10,558.1	0.00	0.00	0.00

TD at 22280.2, 200°FNL & 2318°FEL

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Magnolia State Com 26-36-22 #115H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 2933.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 2933.0usft (H&P 616)
Site:	(Magnolia) Sec-27_T-26-S_R-36-E	North Reference:	Grid
Well:	Magnolia State Com 26-36-22 #115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PBHL (Magnolia State - plan hits target center - Point	0.00	0.00	11,891.0	10,558.0	-35.0	383,604.00	876,368.00	32° 2' 59.982 N	103° 15' 7.161 W
FTP (Magnolia State () - plan misses target center by 51.1usft at 12258.1usft MD (11891.0 TVD, 539.1 N, 6.7 E) - Point	0.00	0.00	11,891.0	530.0	57.0	373,576.00	876,460.00	32° 1' 20.750 N	103° 15' 7.259 W
LTP (Magnolia State () - plan misses target center by 0.2usft at 22150.2usft MD (11891.0 TVD, 10428.0 N, -33.8 E) - Rectangle (sides W60.0 H9,898.0 D25.0)	0.00	359.47	11,891.0	10,428.0	-34.0	383,474.00	876,369.00	32° 2' 58.696 N	103° 15' 7.165 W

Casing Points					
Measured Depth	Vertical Depth		Name	Casing Diameter	Hole Diameter
(usft)	(usft)			(")	(")
1,350.0	1,350.0	13.375		13-3/8	17-1/2
5,202.7	5,200.0	9.625		9-5/8	12-1/4
10,802.7	10,800.0	7.625		7-5/8	8-3/4
22,280.2	11,891.0	5 1/2"		5-1/2	6-3/4

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
900.0	900.0	Dewey Lake				
2,158.1	2,158.0	Rustler				
2,396.3	2,396.0	Salado				
3,207.1	3,206.0	Tansill				
4,957.7	4,955.0	Lamar				
5,217.7	5,215.0	Bell Canyon				
6,674.7	6,672.0	Brushy Canyon				
7,609.7	7,607.0	Bone Spring Lime				
9,326.7	9,324.0	First Bone Spring				
9,847.7	9,845.0	Second Bone Spring				
10,607.7	10,605.0	Third Bone Spring Upper				
11,251.7	11,249.0	Third Bone Spring				
11,420.2	11,417.0	Wolfcamp				

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Magnolia State Com 26-36-22 #115H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 2933.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 2933.0usft (H&P 616)
Site:	(Magnolia) Sec-27_T-26-S_R-36-E	North Reference:	Grid
Well:	Magnolia State Com 26-36-22 #115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.0	2,000.0	0.0	0.0	NUDGE - Build 2.00
2,124.8	2,124.7	-1.3	-2.4	HOLD - 2753.2 at 2124.8 MD
4,877.9	4,875.3	-58.7	-107.6	DROP - -2.00
5,002.7	5,000.0	-60.0	-110.0	HOLD - 6318.0 at 5002.7 MD
11,320.7	11,318.0	-60.0	-110.0	KOP - Build 10.00, 258.8'FNL & 2491'FEL
11,894.5	11,800.6	199.2	-59.4	Sec 27 & 22 Crossing, 0'FSL & 2437.9'FEL
12,220.7	11,891.0	502.3	-0.2	EOC/TRN - DLS 2.00 TFO -90.00
12,799.7	11,891.0	1,077.9	52.8	Start 9480.5 hold at 12799.7 MD
14,558.6	11,891.0	2,836.8	36.5	Sec 22 midpoint, 2636.7'FSL & 2318'FEL
17,200.5	11,891.0	5,478.5	12.0	Sec 22 & 15 Crossing, 5278.6'FSL & 2318'FEL
22,280.2	11,891.0	10,558.0	-35.0	TD at 22280.2, 200'FNL & 2318'FEL

Wellbore Schematic

Well: Magnolia State Com 26-36-22 115H
SHL: Sec. 27 26S-36E 200' FNL & 2380' FEL
BHL: Sec. 15 26S-36E 200' FNL & 2318' FEL
 Lea, NM
Wellhead: A - 13-5/8" 10M x 13-5/8" SOW
 B - 13-5/8" 10M x 13-5/8" 10M
 C - 13-5/8" 10M x 13-5/8" 10M
 Tubing Spool - 5-1/8" 15M x 13-3/8" 10M
Xmas Tree: 2-9/16" 10M
Tubing: 2-7/8" L-80 6.5# 8rd EUE

Co. Well ID: 40524
AFE No.: 2018-007
API No.: xxxxxxxxxxxx
GL: 2,906'
Field: Delaware_WCA
Objective: Wolfcamp A
TVD: 11,891'
MD: 21,720'
Rig: H&P 616
E-Mail: Wellsite2@ameredev.com

Hole Size	Formation Tops	Logs	Cement	Mud Weight
17.5"	Dewey Lake 900'		1125 Sacks TOC 0'	8.6 - 10 ppg WBM
	13.375" 54.5# J-55 BTC 1,350'		100% Excess	
12.25"	Rustler 2,158'		1150 Sacks TOC 0'	10 - 11.5 ppg Brine
	Salado 2,396'		50% Excess	
	Tansill 3,206'			
	Lamar 4,955'			
	9.625" 40# L-80HC BTC 5,200'			
8.75"	Bell Canyon 5,215'	Triple Combo	300 Sacks TOC 4700'	9.5 - 10.5 Cut Brine
	Brushy Canyon 6,672'			
	Bone Spring Lime 7,607'			
	First Bone Spring 9,324'			
	Second Bone Spring 9,845'			
	Third Bone Spring Upper 10,605'			
	7.625" 29.7#P-110HC FJM 10,800'		25% Excess	
	Third Bone Spring 11,249'	Triple Combo, CMR, FMI	950 Sacks TOC 10,300'	11.5 - 12.5 ppg OBM
	Wolfcamp 11,417'			
	5.5" 20# P-110HC CDC 21,720'			
6.75" KOP 11,320' 10° Build	Target Wolfcamp A 11,891' TVD // 21,720' MD			
	Pilot Hole 2.875" 7.9# L-80 EUE 13,600'		400 Sacks 5% Excess	11.5 - 13 ppg OBM