

District I

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

District II

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

District III

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

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

Form C-101
August 1, 2011

Permit 312350

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

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746		2. OGRID Number 372224
		3. API Number 30-025-49932
4. Property Code 331807	5. Property Name AZALEA 26 36 28 STATE COM	6. Well No. 123H

7. Surface Location

UL - Lot C	Section 28	Township 26S	Range 36E	Lot Idn C	Feet From 230	N/S Line N	Feet From 2216	E/W Line W	County Lea
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8. Proposed Bottom Hole Location

UL - Lot F	Section 33	Township 26S	Range 36E	Lot Idn 3	Feet From 50	N/S Line S	Feet From 1855	E/W Line W	County Lea
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9. Pool Information

WC-025 G-09 S263619C;WOLFCAMP	98234
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 2913
16. Multiple N	17. Proposed Depth 20198	18. Formation Wolfcamp	19. Contractor	20. Spud Date 4/15/2022
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	68	1916	1559	0
Int1	9.875	7.625	29.7	10992	2410	0
Prod	6.75	5.5	23	20198	1572	0

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	2500	TBD

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Christie Hanna	Approved By: Paul F Kautz	
Title:	Title: Geologist	
Email Address: channa@ameredev.com	Approved Date: 3/28/2022	Expiration Date: 3/28/2024
Date: 3/18/2022	Phone: 737-300-4723	Conditions of Approval Attached

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State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ **AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-49932	² Pool Code 98234	³ Pool Name WC-025 G-09 S263619C;WOLFCAMP
⁴ Property Code 331807	⁵ Property Name AZALEA 26 36 28 STATE COM	
⁶ Well Number 123H		
⁷ OGRID No. 372224	⁸ Operator Name AMEREDEV OPERATING, LLC.	⁹ Elevation 2913'

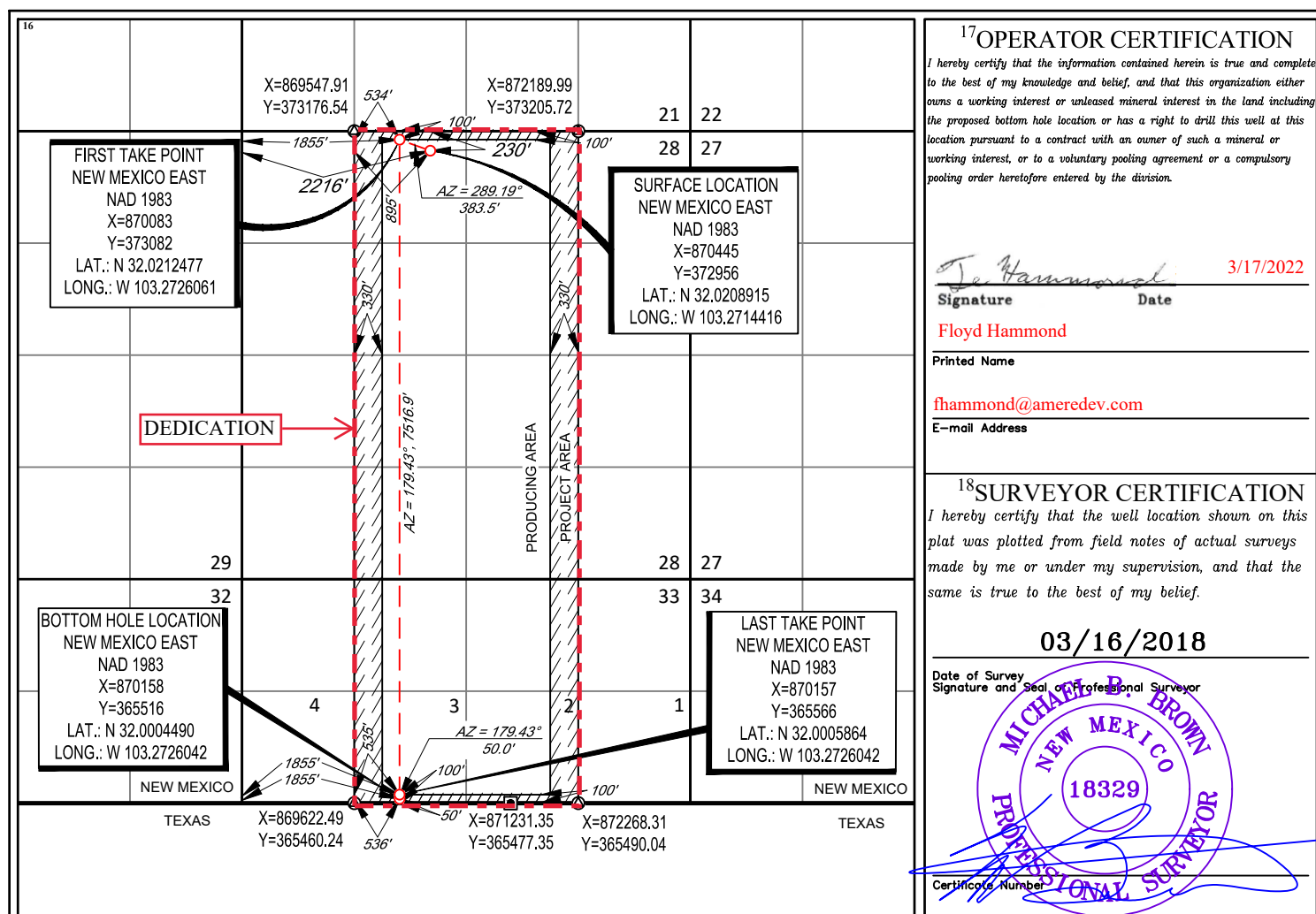
¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	28	26-S	36-E	—	230'	NORTH	2216'	WEST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	33	26-S	36-E	-	50'	SOUTH	1855'	WEST	LEA

¹² Dedicated Acres 467.46	¹³ Joint or Infill	¹⁴ Consolidation Code C	¹⁵ Order No.
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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.



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

Form APD Conditions

Permit 312350

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: AMEREDEV OPERATING, LLC [372224] 2901 Via Fortuna Austin, TX 78746	API Number: 30-025-49932
	Well: AZALEA 26 36 28 STATE COM #123H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Pit construction and closure must satisfy all requirements of your approved plan
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud



Ameredev II, LLC

Wellbore Schematic

Well: Azalea 26 36 28 State Com 123H
SHL: Sec. 28 26S-36E 230' FNL & 2216' FWL
BHL: Sec. 33 26S-36E 50' FSL & 1855' FWL
 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 - 7-1/16" 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: xxxxxx
AFE No.: xxxx-xxx
API No.: xxxxxxxxxxxx
GL: 2,913'
Field: Delaware
Objective: Wolfcamp B
TVD: 12,328'
MD: 20,198'
Rig: TBD **KB 27'**
E-Mail: Wellsite2@ameredev.com

Hole Size	Formation Tops	Logs	Cement	Mud Weight
17.5"	Rustler 1,791'	1,559 Sacks	TOC 0'	8.4-8.6 ppg WBM
	13.375" 68# J-55 BTC 1,916'			
12.25"	Salado 2,154'	801 Sacks	TOC 0'	7.5-9.4 Diesel Brine Emulsion
	DV Tool with ACP 3,152'		50% Excess	
	Tansill 3,152'			
	Capitan Reef 3,634'			
	Lamar 4,954'			
	Bell Canyon 5,094'			
	No Casing 5,079'			
9.875"	Brushy Canyon 7,115'			7.5-9.4 Diesel Brine Emulsion
	Bone Spring Lime 8,096'			
	First Bone Spring 9,607'			
	Second Bone Spring 10,211'			
	Third Bone Spring Upper 10,867'			
	7.625" 29.7# L-80HC FJM 10,992'			
6.75"	Third Bone Spring 11,462'			10.5-12.5 ppg OBM
12° Build @ 7,157' MD thru 12,614' MD	Wolfcamp A 11,666'			
	Wolfcamp B 12,134'			
	5.5" 23# P-110 USS-Eagle SFH 20,198'			
	Target Wolfcamp B 12328 TVD // 20198 MD			
		1,572 Sacks	TOC 0'	
			25% Excess	

Casing Design and Safety Factor Check

Casing Specifications						
Segment	Hole ID	Depth	OD	Weight	Grade	Coupling
Surface	17.5	1,916'	13.375	68	J-55	BTC
Intermediate	9.875	10,992'	7.625	29.7	HCL-80	FJM
Prod Segment A	6.75	7,157'	5.5	23	P-110	SFH
Prod Segment B	6.75	20,198'	5.5	23	P-110	SFH

Check Surface Casing				
OD Cplg	Body	Joint	Collapse	Burst
<i>inches</i>	<i>1000 lbs</i>	<i>1000 lbs</i>	<i>psi</i>	<i>psi</i>
14.375	1,069	915	4,100	3,450
Safety Factors				
1.56	8.21	7.02	4.79	0.64
Check Intermediate Casing				
OD Cplg	Body	Joint	Collapse	Burst
<i>inches</i>	<i>1000 lbs</i>	<i>1000 lbs</i>	<i>psi</i>	<i>psi</i>
7.625	940	558	6700	9460
Safety Factors				
1.13	2.88	1.95	1.25	1.18
Check Prod Casing, Segment A				
OD Cplg	Body	Joint	Collapse	Burst
<i>inches</i>	<i>1000 lbs</i>	<i>1000 lbs</i>	<i>psi</i>	<i>psi</i>
5.777	728	655	12780	14360
Safety Factors				
0.49	2.57	2.31	2.75	1.79
Check Prod Casing, Segment B				
OD Cplg	Body	Joint	Collapse	Burst
<i>inches</i>	<i>1000 lbs</i>	<i>1000 lbs</i>	<i>psi</i>	<i>psi</i>
5.777	728	655	12780	14360
Safety Factors				
0.49	6.12	5.51	1.60	1.79

State of New Mexico
Energy, Minerals and Natural Resources

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

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

I. Operator: AMEREDEV OPERATING, LLC **OGRID:** 372224 **Date:** 3/17/2022

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
AZALEA STATE COM 26 36 28 123H		C-28-26-S-36-E	230'FNL & 2216'FWL	+/- 1200	+/- 7000	+/- 2300

IV. Central Delivery Point Name: AZALEA CTB [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
AZALEA STATE COM 26 36 28 123H		5/17/2022	6/17/2022	12/14/2022	1/28/2023	1/30/2023

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices


1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	
Printed Name:	Dayeed Khan
Title:	Engineer
E-mail Address:	dkhan@ameredev.com
Date:	3/17/2022
Phone:	737-300-4735
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

Natural Gas Management Plan

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

- Separation equipment is sized to allow for retention time and velocity to adequately separate oil, gas, and water at anticipated peak rates.
- All central tank battery equipment is designed to efficiently capture the remaining gas from the liquid phase.
- Valves and meters are designed to service without flow interruption or venting of gas.

VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.

19.15.27.8 (A)

Ameredev's field operations are designed with the goal of minimizing flaring and preventing venting of natural gas. If capturing the gas is not possible then the gas is combusted/flared using properly sized flares or combustors in accordance with state air permit rules.

19.15.27.8 (B) Venting and Flaring during drilling operations

- A properly-sized flare stack will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared. Venting will only occur if there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment.

19.15.27.8 (C) Venting and Flaring during completions or recompletions operations.

- During all phases of flowback, wells will flow through a sand separator, or other appropriate flowback separation equipment, and the well stream will be directed to a central tank battery (CTB) through properly sized flowlines
- The CTB will have properly sized separation equipment for maximum anticipated flowrates
- Multiple stages of separation will be used to separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks equipped with a closed loop system that will recover any residual gas from the tanks and route such gas to a sales outlet.

19.15.27.8 (D) Venting and Flaring during production operations.

- During production, the well stream will be routed to the CTB where multiple stages of separation will separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks with a closed

loop system that will recover any residual gas from the tanks and route such gas to a sales outlet, minimizing tank emissions.

- Flares are equipped with auto-ignition systems and continuous pilot operations.
- Automatic gauging equipment is installed on all tanks.

19.15.27.8 (E) Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- Automatic gauging equipment is installed on all tanks to minimize venting
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Flares are equipped with continuous pilots and auto-ignitors along with remote monitoring of the pilot status
- Weekly AVOs and monthly LDAR inspections will be performed on all wells and facilities that produce more than 60 Mcfd.
- Gas/H₂S detectors will be installed throughout the facilities and wellheads to detect leaks and enable timely repairs.

19.15.27.8 (F) Measurement or estimation of vented and flared natural gas

- All high pressure flared gas is measured by equipment conforming to API 14.10.
- No meter bypasses are installed.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated through flare flow curves with the assistance of air emissions consultants, as necessary.

VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- Ameredev will use best management practices to vent as minimally as possible during well intervention operations and downhole well maintenance
- All natural gas is routed into the gas gathering system and directed to one of Ameredev's multiple gas sales outlets.
- All venting events will be recorded and all start-up, shutdown, maintenance logs will be kept for control equipment
- All control equipment will be maintained to provide highest run-time possible
- All procedures are drafted to keep venting and flaring to the absolute minimum



American Resource Development LLC.

Ameredev Operating

Lea County, NM (N83-NME)

Camelia_Azalea

Azalea State Com 26-36-28 123H

123H

Plan: Baseline Plan #2 - 179.43

Permit Plan

16 March, 2022



American Resource Development LLC.

Permit Plan

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Azalea State Com 26-36-28 123H
Project:	Lea County, NM (N83-NME)	TVD Reference:	GL 2913 + 27 KB @ 2940.0usft
Site:	Camelia_Azalea	MD Reference:	GL 2913 + 27 KB @ 2940.0usft
Well:	Azalea State Com 26-36-28 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	Baseline Plan #2 - 179.43	Database:	AUS-COMPASS - EDM_15 - 32bit

Project	Lea County, NM (N83-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	Camelia_Azalea				
Site Position:		Northing:	372,956.00 usft	Latitude:	32.02089044
From:	Map	Easting:	870,445.00 usft	Longitude:	-103.27144134
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.56 °

Well	Azalea State Com 26-36-28 123H					
Well Position	+N/-S	0.0 usft	Northing:	372,956.00 usft	Latitude:	32.02089044
	+E/-W	0.0 usft	Easting:	870,445.00 usft	Longitude:	-103.27144134
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,913.0 usft

Wellbore	123H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/14/2022	6.31	59.74	47,337.70363367

Design	Baseline Plan #2 - 179.43			
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	182.21

Survey Tool Program	Date	3/15/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,197.9	Baseline Plan #2 - 179.43 (123H)	MWD	OWSG MWD - Standard

Planned Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	+FSL/-FNL (usft)	+FWL/-FEL (usft)	Latitude (°)	Longitude (°)
0.0	0.00	0.00	0.0	-230.0	2,216.0	32.02089044	-103.27144134
100.0	0.00	0.00	100.0	-230.0	2,216.0	32.02089044	-103.27144134
200.0	0.00	0.00	200.0	-230.0	2,216.0	32.02089044	-103.27144134
300.0	0.00	0.00	300.0	-230.0	2,216.0	32.02089044	-103.27144134
400.0	0.00	0.00	400.0	-230.0	2,216.0	32.02089044	-103.27144134
Start Build 1.50							
500.0	1.50	329.50	500.0	-228.9	2,215.3	32.02089355	-103.27144345
600.0	3.00	329.50	599.9	-225.5	2,213.3	32.02090290	-103.27144977
700.0	4.50	329.50	699.7	-219.9	2,210.0	32.02091848	-103.27146030
733.3	5.00	329.50	732.9	-217.5	2,208.6	32.02092506	-103.27146475
Start 6090.3 hold at 733.3 MD							
800.0	5.00	329.50	799.3	-212.5	2,205.7	32.02093890	-103.27147410



American Resource Development LLC.

Permit Plan

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)
Site: Camelia_Azalea
Well: Azalea State Com 26-36-28 123H
Wellbore: 123H
Design: Baseline Plan #2 - 179.43

Local Co-ordinate Reference: Well Azalea State Com 26-36-28 123H
TVD Reference: GL 2913 + 27 KB @ 2940.0usft
MD Reference: GL 2913 + 27 KB @ 2940.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	+FSL/-FNL (usft)	+FWL/-FEL (usft)	Latitude (°)	Longitude (°)
900.0	5.00	329.50	898.9	-205.0	2,201.3	32.02095966	-103.27148813
1,000.0	5.00	329.50	998.6	-197.5	2,196.8	32.02098042	-103.27150217
1,100.0	5.00	329.50	1,098.2	-189.9	2,192.4	32.02100118	-103.27151620
1,200.0	5.00	329.50	1,197.8	-182.4	2,188.0	32.02102194	-103.27153023
1,300.0	5.00	329.50	1,297.4	-174.9	2,183.6	32.02104270	-103.27154426
1,400.0	5.00	329.50	1,397.0	-167.4	2,179.1	32.02106346	-103.27155830
1,500.0	5.00	329.50	1,496.7	-159.9	2,174.7	32.02108421	-103.27157233
1,600.0	5.00	329.50	1,596.3	-152.4	2,170.3	32.02110497	-103.27158636
1,700.0	5.00	329.50	1,695.9	-144.9	2,165.9	32.02112573	-103.27160039
1,795.5	5.00	329.50	1,791.0	-137.7	2,161.6	32.02114555	-103.27161379
Rustler							
1,800.0	5.00	329.50	1,795.5	-137.4	2,161.4	32.02114649	-103.27161443
1,900.0	5.00	329.50	1,895.1	-129.9	2,157.0	32.02116725	-103.27162846
2,000.0	5.00	329.50	1,994.8	-122.4	2,152.6	32.02118801	-103.27164249
2,100.0	5.00	329.50	2,094.4	-114.8	2,148.2	32.02120877	-103.27165652
2,159.9	5.00	329.50	2,154.0	-110.4	2,145.5	32.02122120	-103.27166492
Salado							
2,200.0	5.00	329.50	2,194.0	-107.3	2,143.7	32.02122953	-103.27167056
2,293.0	5.00	329.50	2,286.6	-100.4	2,139.6	32.02124884	-103.27168361
Hard Lines Exit at 2293.0 MD							
2,300.0	5.00	329.50	2,293.6	-99.8	2,139.3	32.02125029	-103.27168459
2,400.0	5.00	329.50	2,393.2	-92.3	2,134.9	32.02127105	-103.27169862
2,500.0	5.00	329.50	2,492.9	-84.8	2,130.5	32.02129181	-103.27171266
2,600.0	5.00	329.50	2,592.5	-77.3	2,126.1	32.02131257	-103.27172669
2,700.0	5.00	329.50	2,692.1	-69.8	2,121.6	32.02133333	-103.27174072
2,800.0	5.00	329.50	2,791.7	-62.3	2,117.2	32.02135409	-103.27175475
2,900.0	5.00	329.50	2,891.3	-54.8	2,112.8	32.02137485	-103.27176879
3,000.0	5.00	329.50	2,991.0	-47.3	2,108.4	32.02139561	-103.27178282
3,100.0	5.00	329.50	3,090.6	-39.7	2,103.9	32.02141637	-103.27179685
3,161.7	5.00	329.50	3,152.0	-35.1	2,101.2	32.02142917	-103.27180550
Tansill							
3,200.0	5.00	329.50	3,190.2	-32.2	2,099.5	32.02143713	-103.27181088
3,300.0	5.00	329.50	3,289.8	-24.7	2,095.1	32.02145789	-103.27182492
3,400.0	5.00	329.50	3,389.4	-17.2	2,090.7	32.02147865	-103.27183895
3,500.0	5.00	329.50	3,489.0	-9.7	2,086.2	32.02149941	-103.27185298
3,600.0	5.00	329.50	3,588.7	-2.2	2,081.8	32.02152017	-103.27186702
3,616.0	5.00	329.50	3,604.6	-1.0	2,081.1	32.02152349	-103.27186926
Lease Line Exit at 3616.0 MD							
3,700.0	5.00	329.50	3,688.3	5.3	2,077.4	32.02154093	-103.27188105
3,800.0	5.00	329.50	3,787.9	12.8	2,073.0	32.02156169	-103.27189508
3,900.0	5.00	329.50	3,887.5	20.3	2,068.5	32.02158245	-103.27190911
4,000.0	5.00	329.50	3,987.1	27.8	2,064.1	32.02160321	-103.27192315
4,100.0	5.00	329.50	4,086.8	35.3	2,059.7	32.02162397	-103.27193718
4,200.0	5.00	329.50	4,186.4	42.9	2,055.3	32.02164473	-103.27195121
4,300.0	5.00	329.50	4,286.0	50.4	2,050.9	32.02166549	-103.27196524



American Resource Development LLC.

Permit Plan

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Azalea State Com 26-36-28 123H
Project:	Lea County, NM (N83-NME)	TVD Reference:	GL 2913 + 27 KB @ 2940.0usft
Site:	Camelia_Azalea	MD Reference:	GL 2913 + 27 KB @ 2940.0usft
Well:	Azalea State Com 26-36-28 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	Baseline Plan #2 - 179.43	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	+FSL/-FNL (usft)	+FWL/-FEL (usft)	Latitude (°)	Longitude (°)
4,400.0	5.00	329.50	4,385.6	57.9	2,046.4	32.02168625	-103.27197928
4,500.0	5.00	329.50	4,485.2	65.4	2,042.0	32.02170701	-103.27199331
4,600.0	5.00	329.50	4,584.9	72.9	2,037.6	32.02172777	-103.27200734
4,700.0	5.00	329.50	4,684.5	80.4	2,033.2	32.02174853	-103.27202138
4,800.0	5.00	329.50	4,784.1	87.9	2,028.7	32.02176929	-103.27203541
4,900.0	5.00	329.50	4,883.7	95.4	2,024.3	32.02179005	-103.27204944
4,970.5	5.00	329.50	4,954.0	100.7	2,021.2	32.02180469	-103.27205934
Lamar							
5,000.0	5.00	329.50	4,983.3	102.9	2,019.9	32.02181081	-103.27206347
5,100.0	5.00	329.50	5,083.0	110.4	2,015.5	32.02183157	-103.27207751
5,111.1	5.00	329.50	5,094.0	111.3	2,015.0	32.02183387	-103.27207906
Bell Canyon							
5,200.0	5.00	329.50	5,182.6	118.0	2,011.0	32.02185232	-103.27209154
5,300.0	5.00	329.50	5,282.2	125.5	2,006.6	32.02187308	-103.27210557
5,400.0	5.00	329.50	5,381.8	133.0	2,002.2	32.02189384	-103.27211961
5,500.0	5.00	329.50	5,481.4	140.5	1,997.8	32.02191460	-103.27213364
5,600.0	5.00	329.50	5,581.1	148.0	1,993.3	32.02193536	-103.27214767
5,700.0	5.00	329.50	5,680.7	155.5	1,988.9	32.02195612	-103.27216170
5,800.0	5.00	329.50	5,780.3	163.0	1,984.5	32.02197688	-103.27217574
5,900.0	5.00	329.50	5,879.9	170.5	1,980.1	32.02199764	-103.27218977
6,000.0	5.00	329.50	5,979.5	178.0	1,975.7	32.02201840	-103.27220380
6,100.0	5.00	329.50	6,079.2	185.5	1,971.2	32.02203916	-103.27221784
6,200.0	5.00	329.50	6,178.8	193.0	1,966.8	32.02205992	-103.27223187
6,300.0	5.00	329.50	6,278.4	200.6	1,962.4	32.02208068	-103.27224590
6,400.0	5.00	329.50	6,378.0	208.1	1,958.0	32.02210144	-103.27225993
6,500.0	5.00	329.50	6,477.6	215.6	1,953.5	32.02212220	-103.27227397
6,600.0	5.00	329.50	6,577.3	223.1	1,949.1	32.02214296	-103.27228800
6,700.0	5.00	329.50	6,676.9	230.6	1,944.7	32.02216372	-103.27230203
6,800.0	5.00	329.50	6,776.5	238.1	1,940.3	32.02218448	-103.27231607
6,823.6	5.00	329.50	6,800.0	239.9	1,939.2	32.02218938	-103.27231938
Start Drop -1.50							
6,900.0	3.85	329.50	6,876.2	245.0	1,936.2	32.02220343	-103.27232887
7,000.0	2.35	329.50	6,976.0	249.6	1,933.5	32.02221632	-103.27233759
7,100.0	0.85	329.50	7,076.0	252.0	1,932.1	32.02222299	-103.27234210
7,139.0	0.27	329.50	7,115.0	252.4	1,931.9	32.02222390	-103.27234271
Brushy Canyon							
7,156.9	0.00	0.00	7,132.9	252.4	1,931.8	32.02222400	-103.27234278
Start 2467.1 hold at 7156.9 MD							
7,200.0	0.00	0.00	7,176.0	252.4	1,931.8	32.02222400	-103.27234278
7,300.0	0.00	0.00	7,276.0	252.4	1,931.8	32.02222400	-103.27234278
7,400.0	0.00	0.00	7,376.0	252.4	1,931.8	32.02222400	-103.27234278
7,500.0	0.00	0.00	7,476.0	252.4	1,931.8	32.02222400	-103.27234278
7,600.0	0.00	0.00	7,576.0	252.4	1,931.8	32.02222400	-103.27234278
7,700.0	0.00	0.00	7,676.0	252.4	1,931.8	32.02222400	-103.27234278
7,800.0	0.00	0.00	7,776.0	252.4	1,931.8	32.02222400	-103.27234278



American Resource Development LLC.

Permit Plan

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)
Site: Camelia_Azalea
Well: Azalea State Com 26-36-28 123H
Wellbore: 123H
Design: Baseline Plan #2 - 179.43

Local Co-ordinate Reference: Well Azalea State Com 26-36-28 123H
TVD Reference: GL 2913 + 27 KB @ 2940.0usft
MD Reference: GL 2913 + 27 KB @ 2940.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	+FSL/-FNL (usft)	+FWL/-FEL (usft)	Latitude (°)	Longitude (°)
7,900.0	0.00	0.00	7,876.0	252.4	1,931.8	32.02222400	-103.27234278
8,000.0	0.00	0.00	7,976.0	252.4	1,931.8	32.02222400	-103.27234278
8,100.0	0.00	0.00	8,076.0	252.4	1,931.8	32.02222400	-103.27234278
8,120.0	0.00	0.00	8,096.0	252.4	1,931.8	32.02222400	-103.27234278
Bone Spring Lime							
8,200.0	0.00	0.00	8,176.0	252.4	1,931.8	32.02222400	-103.27234278
8,300.0	0.00	0.00	8,276.0	252.4	1,931.8	32.02222400	-103.27234278
8,400.0	0.00	0.00	8,376.0	252.4	1,931.8	32.02222400	-103.27234278
8,500.0	0.00	0.00	8,476.0	252.4	1,931.8	32.02222400	-103.27234278
8,600.0	0.00	0.00	8,576.0	252.4	1,931.8	32.02222400	-103.27234278
8,700.0	0.00	0.00	8,676.0	252.4	1,931.8	32.02222400	-103.27234278
8,800.0	0.00	0.00	8,776.0	252.4	1,931.8	32.02222400	-103.27234278
8,900.0	0.00	0.00	8,876.0	252.4	1,931.8	32.02222400	-103.27234278
9,000.0	0.00	0.00	8,976.0	252.4	1,931.8	32.02222400	-103.27234278
9,100.0	0.00	0.00	9,076.0	252.4	1,931.8	32.02222400	-103.27234278
9,200.0	0.00	0.00	9,176.0	252.4	1,931.8	32.02222400	-103.27234278
9,300.0	0.00	0.00	9,276.0	252.4	1,931.8	32.02222400	-103.27234278
9,400.0	0.00	0.00	9,376.0	252.4	1,931.8	32.02222400	-103.27234278
9,500.0	0.00	0.00	9,476.0	252.4	1,931.8	32.02222400	-103.27234278
9,600.0	0.00	0.00	9,576.0	252.4	1,931.8	32.02222400	-103.27234278
9,624.0	0.00	0.00	9,600.0	252.4	1,931.8	32.02222400	-103.27234278
Start Build 1.50							
9,631.0	0.11	328.89	9,607.0	252.4	1,931.8	32.02222402	-103.27234279
First Bone Spring							
9,700.0	1.14	328.89	9,676.0	253.0	1,931.5	32.02222579	-103.27234402
9,800.0	2.64	328.89	9,775.9	255.9	1,929.7	32.02223359	-103.27234943
9,900.0	4.14	328.89	9,875.7	260.9	1,926.7	32.02224759	-103.27235912
9,943.9	4.80	328.89	9,919.5	263.9	1,924.9	32.02225569	-103.27236474
Start 1601.0 hold at 9943.9 MD							
10,000.0	4.80	328.89	9,975.4	267.9	1,922.5	32.02226680	-103.27237243
10,100.0	4.80	328.89	10,075.1	275.0	1,918.2	32.02228660	-103.27238615
10,200.0	4.80	328.89	10,174.7	282.2	1,913.9	32.02230640	-103.27239987
10,236.4	4.80	328.89	10,211.0	284.8	1,912.3	32.02231361	-103.27240486
Second Bone Spring							
10,300.0	4.80	328.89	10,274.4	289.4	1,909.5	32.02232620	-103.27241358
10,400.0	4.80	328.89	10,374.0	296.5	1,905.2	32.02234601	-103.27242730
10,500.0	4.80	328.89	10,473.7	303.7	1,900.9	32.02236581	-103.27244102
10,600.0	4.80	328.89	10,573.3	310.9	1,896.6	32.02238561	-103.27245474
10,700.0	4.80	328.89	10,673.0	318.0	1,892.2	32.02240541	-103.27246846
10,800.0	4.80	328.89	10,772.6	325.2	1,887.9	32.02242522	-103.27248218
10,894.7	4.80	328.89	10,867.0	332.0	1,883.8	32.02244397	-103.27249517
Third Bone Spring Upper							
10,900.0	4.80	328.89	10,872.3	332.3	1,883.6	32.02244502	-103.27249590
11,000.0	4.80	328.89	10,971.9	339.5	1,879.3	32.02246482	-103.27250961
11,100.0	4.80	328.89	11,071.6	346.7	1,875.0	32.02248462	-103.27252333



American Resource Development LLC.

Permit Plan

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Azalea State Com 26-36-28 123H
Project:	Lea County, NM (N83-NME)	TVD Reference:	GL 2913 + 27 KB @ 2940.0usft
Site:	Camelia_Azalea	MD Reference:	GL 2913 + 27 KB @ 2940.0usft
Well:	Azalea State Com 26-36-28 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	Baseline Plan #2 - 179.43	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	+FSL/-FNL (usft)	+FWL/-FEL (usft)	Latitude (°)	Longitude (°)
11,200.0	4.80	328.89	11,171.2	353.8	1,870.6	32.02250443	-103.27253705
11,300.0	4.80	328.89	11,270.9	361.0	1,866.3	32.02252423	-103.27255077
11,400.0	4.80	328.89	11,370.5	368.2	1,862.0	32.02254403	-103.27256449
11,491.8	4.80	328.89	11,462.0	374.7	1,858.0	32.02256221	-103.27257709
Third Bone Spring							
11,500.0	4.80	328.89	11,470.2	375.3	1,857.7	32.02256383	-103.27257821
11,545.0	4.80	328.89	11,515.0	378.5	1,855.7	32.02257274	-103.27258438
Start Drop -1.50							
11,600.0	3.97	328.89	11,569.8	382.1	1,853.5	32.02258270	-103.27259128
11,696.3	2.53	328.89	11,666.0	386.8	1,850.7	32.02259563	-103.27260024
Wolfcamp							
11,700.0	2.47	328.89	11,669.7	387.0	1,850.6	32.02259601	-103.27260050
11,800.0	0.97	328.89	11,769.6	389.5	1,849.1	32.02260313	-103.27260543
11,864.9	0.00	0.00	11,834.5	390.0	1,848.8	32.02260443	-103.27260633
Start DLS 12.00 TFO 179.43							
11,900.0	4.21	179.43	11,869.6	388.7	1,848.8	32.02260088	-103.27260633
12,000.0	16.21	179.43	11,967.8	371.0	1,849.0	32.02255223	-103.27260632
12,100.0	28.21	179.43	12,060.2	333.3	1,849.4	32.02244850	-103.27260631
12,188.6	38.85	179.43	12,134.0	284.4	1,849.9	32.02231413	-103.27260628
Wolfcamp B							
12,200.0	40.21	179.43	12,142.8	277.1	1,849.9	32.02229423	-103.27260628
12,300.0	52.21	179.43	12,211.8	205.1	1,850.6	32.02209616	-103.27260625
12,400.0	64.21	179.43	12,264.4	120.2	1,851.5	32.02186294	-103.27260621
12,500.0	76.21	179.43	12,298.2	26.3	1,852.4	32.02160478	-103.27260616
12,531.0	79.93	179.43	12,304.6	-4.0	1,852.7	32.02152149	-103.27260615
Lease Line Entry at 12531.0 MD							
12,600.0	88.21	179.43	12,311.7	-72.6	1,853.4	32.02133294	-103.27260611
12,613.9	89.88	179.43	12,312.0	-86.4	1,853.5	32.02129482	-103.27260611
Start 17.1 hold at 12613.9 MD							
12,631.0	89.88	179.43	12,312.0	-103.6	1,853.7	32.02124770	-103.27260610
Start 7516.9 hold at 12631.0 MD - 01-FTP (AZ123H)							
12,632.0	89.88	179.43	12,312.0	-104.5	1,853.7	32.02124506	-103.27260610
Hard Lines Entry at 12632.0 MD							
12,700.0	89.88	179.43	12,312.1	-172.6	1,854.4	32.02105808	-103.27260607
12,800.0	89.88	179.43	12,312.4	-272.6	1,855.4	32.02078322	-103.27260602
12,900.0	89.88	179.43	12,312.6	-372.5	1,856.4	32.02050835	-103.27260597
13,000.0	89.88	179.43	12,312.8	-472.5	1,857.4	32.02023349	-103.27260593
13,100.0	89.88	179.43	12,313.0	-572.5	1,858.4	32.01995863	-103.27260588
13,200.0	89.88	179.43	12,313.2	-672.5	1,859.4	32.01968376	-103.27260583
13,300.0	89.88	179.43	12,313.4	-772.5	1,860.4	32.01940890	-103.27260578
13,400.0	89.88	179.43	12,313.6	-872.5	1,861.4	32.01913403	-103.27260574
13,500.0	89.88	179.43	12,313.8	-972.5	1,862.4	32.01885917	-103.27260569
13,600.0	89.88	179.43	12,314.0	-1,072.5	1,863.4	32.01858430	-103.27260564
13,700.0	89.88	179.43	12,314.3	-1,172.5	1,864.4	32.01830944	-103.27260559
13,800.0	89.88	179.43	12,314.5	-1,272.5	1,865.4	32.01803457	-103.27260555



American Resource Development LLC.

Permit Plan

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Azalea State Com 26-36-28 123H
Project:	Lea County, NM (N83-NME)	TVD Reference:	GL 2913 + 27 KB @ 2940.0usft
Site:	Camelia_Azalea	MD Reference:	GL 2913 + 27 KB @ 2940.0usft
Well:	Azalea State Com 26-36-28 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	Baseline Plan #2 - 179.43	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	+FSL/-FNL (usft)	+FWL/-FEL (usft)	Latitude (°)	Longitude (°)
13,900.0	89.88	179.43	12,314.7	-1,372.5	1,866.4	32.01775971	-103.27260550
14,000.0	89.88	179.43	12,314.9	-1,472.5	1,867.4	32.01748484	-103.27260545
14,100.0	89.88	179.43	12,315.1	-1,572.5	1,868.4	32.01720998	-103.27260540
14,200.0	89.88	179.43	12,315.3	-1,672.5	1,869.4	32.01693511	-103.27260535
14,300.0	89.88	179.43	12,315.5	-1,772.5	1,870.3	32.01666025	-103.27260531
14,400.0	89.88	179.43	12,315.7	-1,872.5	1,871.3	32.01638538	-103.27260526
14,500.0	89.88	179.43	12,316.0	-1,972.5	1,872.3	32.01611052	-103.27260521
14,600.0	89.88	179.43	12,316.2	-2,072.5	1,873.3	32.01583565	-103.27260516
14,700.0	89.88	179.43	12,316.4	-2,172.5	1,874.3	32.01556078	-103.27260512
14,800.0	89.88	179.43	12,316.6	-2,272.4	1,875.3	32.01528592	-103.27260507
14,900.0	89.88	179.43	12,316.8	-2,372.4	1,876.3	32.01501105	-103.27260502
15,000.0	89.88	179.43	12,317.0	-2,472.4	1,877.3	32.01473619	-103.27260497
15,100.0	89.88	179.43	12,317.2	-2,572.4	1,878.3	32.01446132	-103.27260492
15,200.0	89.88	179.43	12,317.4	-2,672.4	1,879.3	32.01418646	-103.27260488
15,300.0	89.88	179.43	12,317.6	-2,772.4	1,880.3	32.01391159	-103.27260483
15,400.0	89.88	179.43	12,317.9	-2,872.4	1,881.3	32.01363673	-103.27260478
15,500.0	89.88	179.43	12,318.1	-2,972.4	1,882.3	32.01336186	-103.27260473
15,600.0	89.88	179.43	12,318.3	-3,072.4	1,883.3	32.01308700	-103.27260468
15,700.0	89.88	179.43	12,318.5	-3,172.4	1,884.3	32.01281213	-103.27260464
15,800.0	89.88	179.43	12,318.7	-3,272.4	1,885.3	32.01253727	-103.27260459
15,900.0	89.88	179.43	12,318.9	-3,372.4	1,886.3	32.01226240	-103.27260454
16,000.0	89.88	179.43	12,319.1	-3,472.4	1,887.3	32.01198754	-103.27260449
16,100.0	89.88	179.43	12,319.3	-3,572.4	1,888.3	32.01171267	-103.27260444
16,200.0	89.88	179.43	12,319.5	-3,672.4	1,889.3	32.01143781	-103.27260440
16,300.0	89.88	179.43	12,319.8	-3,772.4	1,890.3	32.01116294	-103.27260435
16,400.0	89.88	179.43	12,320.0	-3,872.4	1,891.3	32.01088808	-103.27260430
16,500.0	89.88	179.43	12,320.2	-3,972.4	1,892.3	32.01061321	-103.27260425
16,600.0	89.88	179.43	12,320.4	-4,072.4	1,893.3	32.01033835	-103.27260420
16,700.0	89.88	179.43	12,320.6	-4,172.3	1,894.3	32.01006348	-103.27260415
16,800.0	89.88	179.43	12,320.8	-4,272.3	1,895.3	32.00978861	-103.27260411
16,900.0	89.88	179.43	12,321.0	-4,372.3	1,896.3	32.00951375	-103.27260406
17,000.0	89.88	179.43	12,321.2	-4,472.3	1,897.2	32.00923888	-103.27260401
17,100.0	89.88	179.43	12,321.4	-4,572.3	1,898.2	32.00896402	-103.27260396
17,200.0	89.88	179.43	12,321.7	-4,672.3	1,899.2	32.00868915	-103.27260391
17,300.0	89.88	179.43	12,321.9	-4,772.3	1,900.2	32.00841429	-103.27260386
17,400.0	89.88	179.43	12,322.1	-4,872.3	1,901.2	32.00813942	-103.27260382
17,500.0	89.88	179.43	12,322.3	-4,972.3	1,902.2	32.00786456	-103.27260377
17,600.0	89.88	179.43	12,322.5	-5,072.3	1,903.2	32.00758969	-103.27260372
17,700.0	89.88	179.43	12,322.7	-5,172.3	1,904.2	32.00731483	-103.27260367
17,800.0	89.88	179.43	12,322.9	-5,272.3	1,905.2	32.00703996	-103.27260362
17,900.0	89.88	179.43	12,323.1	-5,372.3	1,906.2	32.00676510	-103.27260357
18,000.0	89.88	179.43	12,323.4	-5,472.3	1,907.2	32.00649023	-103.27260352
18,100.0	89.88	179.43	12,323.6	-5,572.3	1,908.2	32.00621536	-103.27260348
18,200.0	89.88	179.43	12,323.8	-5,672.3	1,909.2	32.00594050	-103.27260343
18,300.0	89.88	179.43	12,324.0	-5,772.3	1,910.2	32.00566563	-103.27260338



American Resource Development LLC.

Permit Plan

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Azalea State Com 26-36-28 123H
Project:	Lea County, NM (N83-NME)	TVD Reference:	GL 2913 + 27 KB @ 2940.0usft
Site:	Camelia_Azalea	MD Reference:	GL 2913 + 27 KB @ 2940.0usft
Well:	Azalea State Com 26-36-28 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	Baseline Plan #2 - 179.43	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	+FSL/-FNL (usft)	+FWL/-FEL (usft)	Latitude (°)	Longitude (°)
18,400.0	89.88	179.43	12,324.2	-5,872.3	1,911.2	32.00539077	-103.27260333
18,500.0	89.88	179.43	12,324.4	-5,972.3	1,912.2	32.00511590	-103.27260328
18,600.0	89.88	179.43	12,324.6	-6,072.2	1,913.2	32.00484104	-103.27260323
18,700.0	89.88	179.43	12,324.8	-6,172.2	1,914.2	32.00456617	-103.27260318
18,800.0	89.88	179.43	12,325.0	-6,272.2	1,915.2	32.00429131	-103.27260313
18,900.0	89.88	179.43	12,325.3	-6,372.2	1,916.2	32.00401644	-103.27260309
19,000.0	89.88	179.43	12,325.5	-6,472.2	1,917.2	32.00374157	-103.27260304
19,100.0	89.88	179.43	12,325.7	-6,572.2	1,918.2	32.00346671	-103.27260299
19,200.0	89.88	179.43	12,325.9	-6,672.2	1,919.2	32.00319184	-103.27260294
19,300.0	89.88	179.43	12,326.1	-6,772.2	1,920.2	32.00291698	-103.27260289
19,400.0	89.88	179.43	12,326.3	-6,872.2	1,921.2	32.00264211	-103.27260284
19,500.0	89.88	179.43	12,326.5	-6,972.2	1,922.2	32.00236725	-103.27260279
19,600.0	89.88	179.43	12,326.7	-7,072.2	1,923.2	32.00209238	-103.27260274
19,700.0	89.88	179.43	12,326.9	-7,172.2	1,924.2	32.00181751	-103.27260269
19,800.0	89.88	179.43	12,327.2	-7,272.2	1,925.1	32.00154265	-103.27260265
19,900.0	89.88	179.43	12,327.4	-7,372.2	1,926.1	32.00126778	-103.27260260
20,000.0	89.88	179.43	12,327.6	-7,472.2	1,927.1	32.00099292	-103.27260255
20,100.0	89.88	179.43	12,327.8	-7,572.2	1,928.1	32.00071805	-103.27260250
20,147.9	89.88	179.43	12,327.9	-7,620.0	1,928.6	32.00058649	-103.27260247
02-LTP (AZ123H)							
20,147.9	89.88	179.43	12,327.9	-7,620.1	1,928.6	32.00058633	-103.27260247
Start 50.0 hold at 20147.9 MD							
20,197.9	89.88	179.43	12,328.0	-7,670.0	1,929.1	32.00044909	-103.27260245
03-BHL (AZ123H)							
20,197.9	89.88	179.43	12,328.0	-7,670.1	1,929.1	32.00044893	-103.27260245
TD at 20197.9							



American Resource Development LLC.

Permit Plan

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Azalea State Com 26-36-28 123H
Project:	Lea County, NM (N83-NME)	TVD Reference:	GL 2913 + 27 KB @ 2940.0usft
Site:	Camelia_Azalea	MD Reference:	GL 2913 + 27 KB @ 2940.0usft
Well:	Azalea State Com 26-36-28 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	Baseline Plan #2 - 179.43	Database:	AUS-COMPASS - EDM_15 - 32bit

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,159.9	2,154.0	Salado			
10,894.7	10,867.0	Third Bone Spring Upper			
7,139.0	7,115.0	Brushy Canyon			
12,188.6	12,134.0	Wolfcamp B			
1,795.5	1,791.0	Rustler			
9,631.0	9,607.0	First Bone Spring			
3,161.7	3,152.0	Tansill			
11,491.8	11,462.0	Third Bone Spring			
5,111.1	5,094.0	Bell Canyon			
4,970.5	4,954.0	Lamar			
11,696.3	11,666.0	Wolfcamp			
10,236.4	10,211.0	Second Bone Spring			
8,120.0	8,096.0	Bone Spring Lime			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
400.0	400.0	0.0	0.0	Start Build 1.50
733.3	732.9	12.5	-7.4	Start 6090.3 hold at 733.3 MD
2,293.0	2,286.6	129.6	-76.4	Hard Lines Exit at 2293.0 MD
3,616.0	3,604.6	229.0	-134.9	Lease Line Exit at 3616.0 MD
6,823.6	6,800.0	469.9	-276.8	Start Drop -1.50
7,156.9	7,132.9	482.4	-284.2	Start 2467.1 hold at 7156.9 MD
9,624.0	9,600.0	482.4	-284.2	Start Build 1.50
9,943.9	9,919.5	493.9	-291.1	Start 1601.0 hold at 9943.9 MD
11,545.0	11,515.0	608.5	-360.3	Start Drop -1.50
11,864.9	11,834.5	620.0	-367.2	Start DLS 12.00 TFO 179.43
12,531.0	12,304.6	226.0	-363.3	Lease Line Entry at 12531.0 MD
12,613.9	12,312.0	143.6	-362.5	Start 17.1 hold at 12613.9 MD
12,631.0	12,312.0	126.4	-362.3	Start 7516.9 hold at 12631.0 MD
12,632.0	12,312.0	125.5	-362.3	Hard Lines Entry at 12632.0 MD
20,147.9	12,327.9	-7,390.1	-287.4	Start 50.0 hold at 20147.9 MD
20,197.9	12,328.0	-7,440.1	-286.9	TD at 20197.9

Checked By: _____ Approved By: _____ Date: _____