

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# APD Print Report

**APD ID:** 10400031906

Operator Name: AMEREDEV OPERATING LLC

Well Name: NANDINA FED COM 25 36 31

Well Type: OIL WELL

Submission Date: 07/05/2018

Federal/Indian APD: FED

Well Number: 115H

Well Work Type: Drill

Highlighted data reflects the most recent changes

**Show Final Text** 

# Application

#### Section 1 - General

**APD ID:** 10400031906

**Tie to previous NOS?** 10400030260

Submission Date: 07/05/2018

**BLM Office: CARLSBAD** 

**User:** Christie Hanna

Title: Senior Engineering Technician

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM137469

Lease Acres: 600.28

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? NO

**Permitting Agent? NO** 

APD Operator: AMEREDEV OPERATING LLC

Operator letter of designation:

# **Operator Info**

Operator Organization Name: AMEREDEV OPERATING LLC

Operator Address: 5707 Southwest Parkway, Building 1, Suite 275

**Operator PO Box:** 

Operator City: Austin State: TX

**Operator Phone:** (737)300-4700

**Operator Internet Address:** 

#### **Section 2 - Well Information**

Well in Master Development Plan? NO

**Mater Development Plan name:** 

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

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**Zip:** 78735

Well Name: NANDINA FED COM 25 36 31 Well Number: 115H

Well Name: NANDINA FED COM 25 36 31 Well Number: 115H Well API Number:

Field/Pool or Exploratory? Field and Pool Field Name: WC-025 G-09 Pool Name: WOLFCAMP

S263620C

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Describe other minerals:

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: MULTIPLE WELL Multiple Well Pad Name: Number: 115H

Well Class: HORIZONTAL NANDINA

Well Class: HORIZONTAL Number of Legs: 1

Well Work Type: Drill
Well Type: OIL WELL
Describe Well Type:
Well sub-Type: INFILL
Describe sub-type:

Distance to town: 6.5 Miles Distance to nearest well: 4270 FT Distance to lease line: 200 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_EXHIBIT\_2A\_2B\_20180705083610.pdf

NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_VICINITY\_MAP\_20180705083611.pdf

NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_BLM\_LEASES\_20180705083605.pdf

NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_C\_102\_SIG\_20180705083606.pdf

NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_GAS\_CAPTURE\_PLAN\_20180705083630.pdf

Well work start Date: 06/01/2019 Duration: 90 DAYS

#### **Section 3 - Well Location Table**

Survey Type: RECTANGULAR

**Describe Survey Type:** 

Datum: NAD83 Vertical Datum: NAVD88

Survey number: 19642

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	DVT
SHL	200	FSL	229	FEL	25S	36E	31	Lot	32.08012	-	LEA	NEW	NEW	F	NMNM	301	0	0
Leg			0					0	66	103.3030		MEXI	MEXI		137469	4		
#1										681		CO	CO					

Approval Date: 10/05/2018

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Well Name: NANDINA FED COM 25 36 31 Well Number: 115H

$\leq$																		
	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	DVT
KOP Leg #1	0	FSL	217 2	FEL	25S	36E	31	Aliquot SWSE	32.07957 37	- 103.3026 866	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137469	- 854 8	115 68	115 62
PPP Leg #1	200	FSL	229 0	FEL	25S	36E	31	Aliquot SWSE	32.08012 66	- 103.3030 681	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137469	301 4	0	0
PPP Leg #1	0	FSL	231 8	FEL	25\$	36E	31	Aliquot NWNE	32.09412 13	- 103.3031 658	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137469	- 912 1	171 88	121 35
PPP Leg #1	0	FNL	231 8	FEL	25S	36E	30	Aliquot SWSE	32.09412 13	- 103.3031 658	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137469	- 912 1	171 88	121 35
PPP Leg #1	264 0	FSL	231 8	FEL	25S	36E	31	Aliquot NWSE	32.08683 6	- 103.3031 644	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 119762	- 912 1	145 49	121 35
PPP Leg #1	132 0	FSL	231 8	FEL	258	36E	31	Aliquot SWSE	32.08320 78	- 103 3031 637	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 137469	- 912 1	132 29	121 35
PPP Leg #1	132 0	FSL	231 8	FEL	25\$	36E	30	Aliquot SWSE	32.09771 68	- 103.3031 665	LEA	WEW MEXI OO	NEW MEXI CO	F	NMNM 137469	- 912 1	185 08	121 35
PPP Leg #1	132 0		231 8	FEL	25S	36E	31	Aliquot NWSE	32.08320 78	- 103.3031 637	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 119762	- 912 1	132 29	121 35
PPP Leg #1	264 0	FSL	231 8	FEL	25S	36E	31	Aliquot SWNE	32.08683 6	- 103.3031 644	LEA		NEW MEXI CO	F	NMNM 137469	- 912 1	145 49	121 35
EXIT Leg #1	132 0	FSL	231 8	FEL	25S	36E	30	Aliquot NWSE	32.09771 68	- 103.3031 665	LEA -		NEW MEXI CO	F	FEE	- 912 1	185 08	121 35
BHL Leg #1	200	FNL	231 8	FEL	25S	36E	30	Aliquot NWNE	32.10806 86	- 103.3031 684	LEA	1	NEW MEXI CO	F	FEE	- 912 1	222 74	121 35

Drilling Plan

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Phone: (505) 476-3460 Fax: (505) 476-3462

# State of New Mexico Energy, Minerals & 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

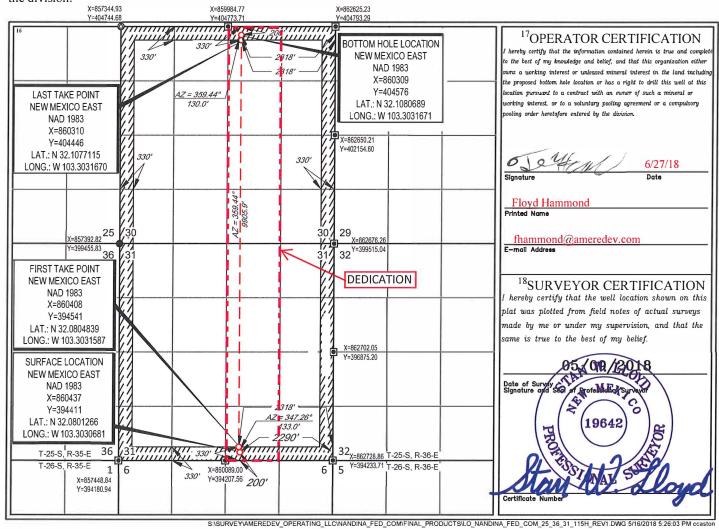
<sup>1</sup> API Numbe	r	<sup>2</sup> Pool Code				
30-025-45246		33813	JAL;WOLFCAMP, WES	T		
<sup>₹</sup> Property Code		5P	roperty Name	<sup>6</sup> Well Number		
322647	NA	ANDINA 25 36 31	115H			
<sup>7</sup> OGRID No.		<sup>8</sup> O	perator Name	<sup>9</sup> Elevation		
372224		AMEREDEV	OPERATING, LLC.	3014'		

<sup>10</sup>Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	31	25-S	36-E	=	200'	SOUTH	2290'	EAST	LEA

UL or lot no.	Section 30	Township 25-S	Range 36-E	Lot Idn	Feet from the 200'	North/South line NORTH	Feet from the 2318'	East/West line <b>EAST</b>	County LEA
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or I	nfill 14Co	onsolidation Co C	de <sup>15</sup> Ord	er No.				

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



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1220 S. St. Francis Dr., Santa Fe, NM 87505

# State of New Mexico Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

#### GAS CAPTURE PLAN

Date: <u>6/27/18</u>	
<ul><li>☑ Original</li><li>☐ Amended - Reason for Amendment:</li></ul>	Operator & OGRID No.: <u>Ameredev Operating LLC (372224)</u>

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

# Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	SHL (ULSTR)	SHL	Expected	Flared or	Comments
			Footages	MCF/D	Vented	
Nandina Fed Com	30-025-	O-31-25S-36E	200' FSL	1000	<30 days	Flare until well
25 36 31 115H	45246		2290' FEL			clean, then connect

#### **Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. Gas produced from production facility has not yet been dedicated. However, negotiations are underway for a possible connection within 2 miles. Operator will provide (periodically) to Gas Transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Operator and Gas Transporter will have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Gas Transporter Processing Plant at an as yet undetermined location. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

#### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on <u>Gas Transporter</u> system at that time. Based on current information, it is <u>Operator's</u> belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

#### **Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease
  - o Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
  - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
  - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

Well Name: NANDINA FED COM 25 36 31 Well Number: 115H

# **Section 1 - Geologic Formations**

F			T	Maria			D I
Formation	Farmatian Nama	Flacestian.	True Vertical		l ith ala aire	Min and Dagger	Producing
ID 1	Formation Name RUSTLER ANHYDRITE	Elevation	Depth	Depth	Lithologies  ANHYDRITE	Mineral Resources	
		3014	1068	1068			No
2	SALADO	1506	1508	1508	SALT	NONE	No
3	TANSILL	-220	3234	3234	LIMESTONE	NONE	No
4	CAPITAN REEF	-720	3734	3734	LIMESTONE	USEABLE WATER	No
5	LAMAR	-2020	5034	5034	LIMESTONE	NONE	No
6	BELL CANYON	-2055	5069	5069	SANDSTONE	NATURAL GAS,OIL	No
7	BRUSHY CANYON	-4095	7109	7109	SANDSTONE	NATURAL GAS,OIL	No
8	BONE SPRING LIME	-5321	8335	8335	LIMESTONE	NONE	No
9	BONE SPRING 1ST	-6697	9711	9711	SANDSTONE	NATURAL GAS,OIL	No
10	BONE SPRING 2ND	-7255	10269	10269	SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 3RD	-7841	10855	10855	LIMESTONE	NATURAL GAS,OIL	No
12	BONE SPRING 3RD	-8440	11454	11454	SANDSTONE	NATURAL GAS,OIL	No
13	WOLFCAMP	-8705	11719	11719	SHALE	NATURAL GAS,OIL	Yes

# **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 10M Rating Depth: 15000

**Equipment**: 10M BOPE SYSTEM WILL BE USED AFTER THE SURFACE CASING IS SET. A KELLY COCK WILL BE KEPT IN THE DRILL STRING AT ALL TIMES. A FULL OPENING DRILL PIPE STABBING VALVE WITH PROPER DRILL PIPE CONNECTIONS WILL BE ON THE RIG FLOOR AT ALL TIMES.

Requesting Variance? YES

Variance request: Co-Flex Choke Line

Testing Procedure: See attachment

#### **Choke Diagram Attachment:**

10M\_Choke\_Manifold\_20180918122638.pdf

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Well Name: NANDINA FED COM 25 36 31 Well Number: 115H

10M\_Choke\_Manifold\_20180918122638.pdf

#### **BOP Diagram Attachment:**

 $5 M\_BOP\_System\_20180918122901.pdf$ 

Pressure\_Control\_Plan\_Pad\_Well\_MB4\_Preset\_BLM\_\_002\_\_20180918122916.pdf

4String\_MB\_Ameredev\_Drawing\_net\_REV\_20180918122938.pdf

# **Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Dod. OT
1	SURFACE	17.5	13.375	NEW	API	N	0	1193	0	1193	3014		1193	J-55	l	OTHER - BTC	1.82	0.9	DRY	13.9 8	DRY	13 2
2		12.2 5	9.625	NEW	API	N	0	5084	0	5084	3014		5084	HCL -80		OTHER - BTC	1.39	0.93	DRY	5.12	DRY	4.
3	INTERMED IATE	8.75	7.625	NEW	API	N	0	11377	0	11377	3014		11377	HCP -110	l	OTHER - FJM	1.04	1.27	DRY	1.92	DRY	2.
4	PRODUCTI ON	6.75	5.5	NEW	API	N	0	21777	0	11950	3014		21777	P- 110		OTHER - CYHP TMK- UP SF TORQ	1.73	1.92	DRY	2.85	DRY	3.

#### **Casing Attachments**

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**Operator Name: AMEREDEV OPERATING LLC** Well Name: NANDINA FED COM 25 36 31 Well Number: 115H **Casing Attachments** Casing ID: 1 String Type: SURFACE **Inspection Document: Spec Document: Tapered String Spec:** Casing Design Assumptions and Worksheet(s): NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_BLM\_4\_STRING\_CASING\_DESIGN\_CHECK\_20180705092151.pdf 13.375\_54.50\_J55\_SEAH\_20180918070950.pdf Casing ID: 2 String Type: INTERMEDIATE **Inspection Document: Spec Document: Tapered String Spec:** Casing Design Assumptions and Worksheet(s): NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_BLM\_4\_STRING\_CASING\_DESIGN\_CHECK\_20180705092243.pdf 9625\_40\_SeAH80HC\_4100\_Collapse\_20180918071026.pdf Casing ID: 3 String Type: INTERMEDIATE **Inspection Document: Spec Document: Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_BLM\_4\_STRING\_CASING\_DESIGN\_CHECK\_20180705092348.pdf 7.625\_29.70\_P110HC\_LIBERTY\_FJM\_20180918071056.pdf

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Well Name: NANDINA FED COM 25 36 31 Well Number: 115H

#### **Casing Attachments**

Casing ID: 4 String Type: PRODUCTION

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

# Casing Design Assumptions and Worksheet(s):

NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_BLM\_4\_STRING\_CASING\_DESIGN\_CHECK\_20180705092535.pdf

TMK\_UP\_SF\_TORQ\_\_\_\_5.500in\_x\_20.00\_\_P\_110\_CYHP\_20180918071121.pdf

# **Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	809	735	1.89	12.9	1390. 62	100	CLASS C	Bentonite, Retarder, Kolseal, Defoamer, Celloflake
SURFACE	Tail		809	1193	200	1.33	14.8	266.4	100	CLASS C	NONE
INTERMEDIATE	Lead		0	3485	1005	1.88	12.9	1887. 39	50	CLASS C	Bentonite, Salt, Kolseal, Defoamer, Celloflake
INTERMEDIATE	Tail		3485	5084	375	1.33	14.8	500.2 5	25	CLASS C	NONE
INTERMEDIATE	Lead		4493	1014 5	255	2.85	11	725.4 8	25	CLASS H	Bentonite, Retarder, Kolseal, Defoamer, Celloflake, Anti-settling Expansion Additive
INTERMEDIATE	Tail		1014 5	1137 7	100	1.24	14.5	123.7	25	CLASS H	Bentonite, Retarder, Dispersant, Fluid Loss
PRODUCTION	Lead		1109 7	2177 7	930	1.22	14.5	1137. 39	25	CLASS H	Retarder, Kolseal, Defoamer, Celloflake, Expansion Additive
PRODUCTION	Tail		2177 7	2177 7						CLASS H	none

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Well Name: NANDINA FED COM 25 36 31 Well Number: 115H

# **Section 5 - Circulating Medium**

Mud System Type: Semi-Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

**Describe what will be on location to control well or mitigate other conditions:** All necessary supplies (e.g. bentonite, cedar bark) for fluid control will be on site.

**Describe the mud monitoring system utilized:** An electronic pit volume totalizer (PVT) will be utilized on the circulating system to monitor pit volume, flow rate, pump pressure, and pump rate.

# **Circulating Medium Table**

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	НА	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1193	WATER-BASED MUD	8.6	10							
1193	5084	SALT SATURATED	10	11.5							
5084	1137 7	OTHER : CUT BRINE	9.5	10.5							
1137 7	1195 0	OIL-BASED MUD	11.5	12.5							

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Well Name: NANDINA FED COM 25 36 31 Well Number: 115H

# **Section 6 - Test, Logging, Coring**

List of production tests including testing procedures, equipment and safety measures:

A directional survey, measurement while drilling and a mudlog/geologic lithology log will all be run from surface to TD.

List of open and cased hole logs run in the well:

DS,MWD,MUDLOG

Coring operation description for the well:

No coring will be done on this well.

#### **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 5000 Anticipated Surface Pressure: 2330.3

Anticipated Bottom Hole Temperature(F): 160

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

**Contingency Plans geohazards attachment:** 

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

H2S\_Plan\_20180705093223.pdf

#### **Section 8 - Other Information**

Proposed horizontal/directional/multi-lateral plan submission:

Nandina\_Fed\_Com\_25\_36\_31\_115H\_Plan\_2\_20180705093242.pdf

Pressure\_Control\_Plan\_Pad\_Well\_MB4\_Preset\_BLM\_\_002\_\_20180918123206.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Other Variance attachment:

R616\_\_\_CoC\_for\_hoses\_12\_18\_17\_20180705093442.pdf

 $Requested\_Exceptions\_\_\_4\_String\_Revised\_09182018\_20180918123229.pdf$ 

**SUPO** 

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Well Name: NANDINA FED COM 25 36 31 Well Number: 115H

# **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

Nandina\_\_6N\_Well\_Plats\_20180912\_20180913063709.pdf

NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_WELL\_PAD\_ACCESS\_20180913063800.pdf

Existing Road Purpose: ACCESS Row(s) Exist? YES

ROW ID(s)

ID: NM-138148

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

**New Road Map:** 

NANDINA\_FED\_COM\_25\_36\_31\_115H\_\_\_WELL\_PAD\_ACCESS\_20180913063854.pdf

Nandina\_\_6N\_Well\_Plats\_20180912\_20180913063908.pdf

New road type: RESOURCE

Length: 4606 Feet Width (ft.): 30

Max slope (%): 2 Max grade (%): 2

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Crowned and Ditched

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

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# 10M Choke Manifold

#### 10M Choke Manifold

