State of New Mexico
Energy, Minerals and Natural Resources Department

New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 1/10/2020
Well information:

30-039-23886 APACHE #154

ENERVEST OPERATING L.L.C.

Application Type:

☒ P&A ☐ Drilling/Casing Change ☐ Location Change

☐ Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)

☐ Other:

Conditions of Approval:

- Notify NMOCD 24 Hours prior to commencing activities
- In addition to the BLM approved plugs
  - Add a plug 3910' – 3810.' OCD Chacra pick @ 3860.'
  - Include coverage 6230' – 6130.' OCD Gallup pick @ 6180.'

Brandon Powell
NMOCD Approved by Signature

6/4/2020
Date

Form 3160-5
(June 2015)

OCD Received
5/11/2020

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
JIC127

6. If Indian, Allottee or Tribe Name
JICARILLA APACHE

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
APACHE 154

2. Name of Operator
ENERVEST OPERATING LLC
Contact: AMY ARCHULETA
E-Mail: aarchuleta@highriverllc.com

9. API Well No.
30-039-23886-00-S1

3a. Address
1001 FANININ STREET SUITE 800
HOUSTON, TX 77002

3b. Phone No. (include area code)
Ph: 505-325-0318

10. Field and Pool or Exploratory Area
WEST LINDRITH

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 3 T24N R4W SWSE 990FSL 2310FEL

11. County or Parish, State
RIO ARRIBA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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

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

KP

Enervest Operating, LLC would like to request permission to plug and abandon this well, per the attached procedure.

NOTE: A paper copy of this sundry was submitted on 9/03/2019 at the Farmington Field Office. It was suggested I submit an electronic copy to track the progress.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #498808 verified by the BLM Well Information System
For ENERVEST OPERATING LLC, sent to the Rio Puerco
Committed to AFMSS for processing by ALBERTA WETHINGTON on 01/13/2020 (20AMW0019SE)

Name *(Printed/Typed)* AMY ARCHULETA — Title REGULATORY

Signature (Electronic Submission) — Date 01/10/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JOE KILLINS — Title PETROLEUM ENGINEER — Date 04/22/2020

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

Office Rio Puerco

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

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

AV

RECEIVED
SEP 04 2019
Farmington Field Office
Bureau of Land Management

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. Jicarilla 127
	6. If Indian, Allottee or Tribe Name Jicarilla Apache Nation
	7. If Unit of CA/Agreement, Name and/or No.
	8. Well Name and No. Apache #154
2. Name of Operator Enervest Operating, LLC	9. API Well No. 30-039-23886
3a. Address 2700 Farmington Ave BLDG K Farmington, NM 87401 3b. Phone No. *(include area code)* 505-325-0318	10. Field and Pool or Exploratory Area Lindrith Gallup Dakota; West
4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* 990' FSL X 2310' FEL SW/SE Sec 3-T24N-R04W	11. Country or Parish, State Rio Arriba County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

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

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

Enervest Operating, LLC plans to plug and abandon and reclaim this well per the attached procedures.

No EC 9/6/19

NOI manually placed in AFMSS

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Amy Archuleta (Agent for Enervest)

Title Regulatory Supervisor

Signature

Date 09/03/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

Office

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

(Instructions on page 2)

FARMINGTON

PLUG AND ABANDONMENT PROCEDURE

8/28/19

Apache 127 #154-3
West Lindrith – Gallup Dakota
990' FSL, 2310' FEL, Section 3, T24N, R4W, Rio Arriba County, New Mexico
API 30-039-23886 / Long _____ / _____

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class G, mixed at 15.8 ppg with a 1.15 cf/sx yield.

1. This project will use an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.

2. Install and test location rig anchors. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.

3. Rods: Yes___, No __X__, Unknown__ ___.
   Tubing: Yes __X__, No _____, Unknown_____, Size ____2-3/8"_____, Length __7094'___.
   Packer: Yes____, No __X__, Unknown_____, Type _____.

4. **Plug #1 (Dakota perforations and top, 7021' – 6921'):** R/T 4.5" gauge ring or mill to 7021'. RIH and set 4.5" CR at 7021'. Pressure test tubing to 1000#. *Attempt to pressure test casing to 800#. If casing does not test then spot or tag subsequent plugs as necessary.* Mix and pump 12 sxs Class G cement and spot a balanced plug inside casing to isolate the Dakota interval. PUH.

5. **Plug #2 (Gallup top, 6252' - 6152):** Mix and pump 12 sxs Class G cement and spot a balanced plug inside casing to cover the Gallup top. PUH.

6. **Plug #3 (Mancos top, 5312' – 5212'):** Mix and pump 12 sxs Class G cement and spot a balanced plug inside casing to cover the Mancos top. PUH.

7. **Plug #4 (Mesaverde top, 4625' – 4525'):** Mix and pump 12 sxs Class G cement and spot a balanced plug inside casing to cover the Mesaverde top. TOH.

8. **Plug #5 (Chacra top, 3833' - 3733'):** Perforate squeeze holes at 3833'. Establish injection rate. RIH and set 4.5" CR @ 3783'. Mix and pump 52 sxs Class G cement, squeeze 40 sxs outside casing and leave 12 sxs inside to cover the Chacra top. PUH.

9. **Plug #6 (Pictured Cliffs, Fruitland, Kirtland and Ojo Alamo tops, 2962' – 2358'):** Mix and pump 51 sxs Class G cement and spot a balanced plug inside casing to cover PC through the Ojo Alamo top. TOH.

10. **Plug #6 (Nacimiento top, 1087' – 987'):** Perforate squeeze holes at 1087'. Establish injection rate. RIH and set 4.5" CR @ 1037'. Mix and pump 52 sxs Class G cement, squeeze 40 sxs outside casing and leave 12 sxs inside to cover the Nacimiento top. TOH.

11. **Plug #7 (8-5/8" Surface casing shoe and Surface, 443' - Surface):** Perforate 4 squeeze holes at 443'. Establish circulation out bradenhead with water and circulate the BH annulus clean. Mix approximately 140 sxs Class G cement and pump down the 4.5" casing to circulate good cement out bradenhead. Shut in well and WOC.

12. ND cementing valves and cut off wellhead. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. RD, MOL and cut off anchors. Restore location per BLM stipulations

Apache 127 #154-3

Current

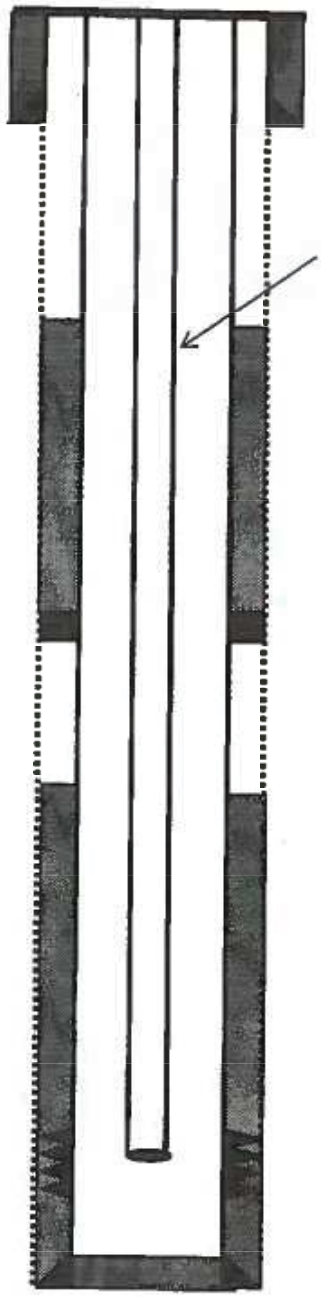
West Lindrith – Gallup Dakota

990' FSL, 2310' FEL, Section 3, T-24-N, R-4-W,
Rio Arriba County, NM API #30-039-23886

Today's Date: 8/27/19

Spud: 10/25/85
Completion: 12/3/85

Elevation: 6803' GR



12.25" hole

8.625", 24#, Casing set @ 393'
Cement with 275 sxs, circulate to surface

2-3/8" tubing @ 7094'

TOC @ 1900' (CBL)

Nacimiento @ 1037'

Ojo Alamo @ 2408'

Kirtland @ 2601'

Fruitland @ 2785'

Pictured Cliffs @ 2912'

DV Tool @ 3984'
Stage 2: Cemented with 600 sxs

Chacra @ 3783'

TOC unknown

Mesaverde @ 4575'

Mancos @ 5262'

Gallup @ 6202'

Dakota @ 7045'

Dakota Perforations:
7071' – 7342'

7-7/8" Hole

4.5" 10.5# /11.6#, casing set @ 7405'
Stage 1: Cemented with 600 sxs

TD 7405'
PBTD 7365'

Apache 127 #154-3

Proposed P&A

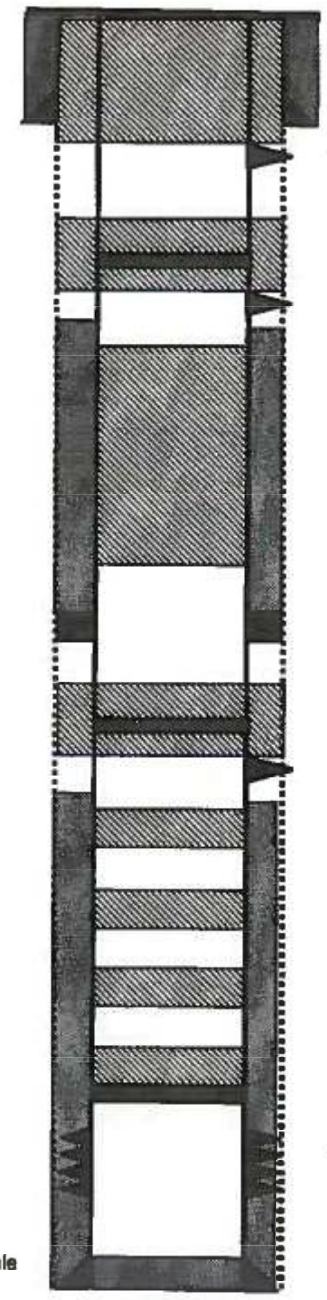
West Lindrith – Gallup Dakota

990' FSL, 2310' FEL, Section 3, T-24-N, R-4-W,
Rio Arriba County, NM API #30-039-23886

Today's Date: 8/27/19

Spud: 10/25/85
Completion: 12/3/85

Elevation: 6803' GR



12.25" hole

8.625", 24#, Casing set @ 393'
Cement with 275 sxs, circulate to surface

Perforate @ 443'

Plug #8: 443' – 0'
Class G cement, 140 sxs

Nacimiento @ 1037'

Set CR @ 1037'

Perforate @ 1087'

TOC @ 1900' (CBL)

Plug #7: 1087' – 987'
Class G cement, 52 sxs:
12 inside and 40 outside

Ojo Alamo @ 2408'

Kirtland @ 2601'

Fruitland @ 2785'

Pictured Cliffs @ 2912'

Plug #6: 2962' – 2358'
Class G cement, 51 sxs

DV Tool @ 3984'
Stage 2: Cemented with 600 sxs

Chacra @ 3783'

Set CR @ 3783'

Perforate @ 3833'

TOC unknown

Plug #5: 3833' – 3733'
Class G cement, 52 sxs:
12 inside and 40 outside

Mesaverde @ 4575'

Plug #4: 4625' – 4525'
Class G cement, 12 sxs

Mancos @ 5262'

Plug #3: 5312' – 5212'
Class G cement, 12 sxs

Gallup @ 6202'

Plug #2: 6252' – 6152'
Class G cement, 12 sxs

Dakota @ 7045'

Set CR @ 7021'

Plug #1: 7021' – 6921'
Class G cement, 12 sxs

Dakota Perforations:
7071' – 7342'

7-7/8" Hole

4.5" 10.5# /11.6#, casing set @ 7405'
Stage 1: Cemented with 600 sxs

TD 7405'
PBTD 7365'

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: Apache 154

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."

2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.

3. Run a CBL after setting plug 1. Submit electronic copy of the CBL for verification to the following addresses: jkillins@blm.gov , jhoffman@blm.gov and Brandon.Powell@state.nm.us . Based on CBL results inside/outside plugs and volumes will be adjusted accordingly. Formation tops are based on the attached geologic report.

4. BLM picks Gallup formation top at 6265. Adjust plug to cover 6215-6315.

5. BLM picks Ojo Alamo top at 2330. Adjust plug to cover 2962 – 2280.

6. BLM picks Nacimiento top at 1110. Adjust plug to cover 1160 – 1060.

BLM FLUID MINERALS
Geologic Report

Date Completed: 4/15/20

Well No.	Apache # 154		Location	990′ FSL	&	2310′ FEL	
Lease No.	Jicarilla 127		Sec. 3	T24N		R4W	
Operator	Enervest		County	Rio Arriba	State	New Mexico	
Total Depth	7405′	PBTD 7365′	Formation	Lindrith Gallup Dakota; West			
Elevation (GL) 6803′			Elevation (KB) 6815′ (est.)				

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm			Surface	1110′	Surface/Fresh water sands
Nacimiento Fm			1110′	2330′	
Ojo Alamo Ss			2330′	2601′	Aquifer (fresh water)
Kirtland Shale			2601′	2785′	
Fruitland Fm			2785′	2912′	Coal/Gas/Possible water
Pictured Cliffs Ss			2912′	3000′	Gas
Lewis Shale			3000′	3783′	
Chacra			3783′	4575′	Possible water or dry
Cliff House Ss (main)			4575′	4600′	Water/Possible gas
Menefee Fm			4600′	5098′	Coal/Ss/Water/Possible O&G
Point Lookout Ss			5098′	5262′	Probable water/Possible O&G
Mancos Shale			5262′	6265′	Source rock
Gallup			6265′	7045′	O&G/Water
Dakota			7045′		O&G/Water

Remarks:
P & A

- Please ensure that the tops of the Pictured Cliffs and Fruitland formations as well as the entire Ojo Alamo aquifer, identified in this report, are isolated by proper placement of cement plugs. This will protect the freshwater sands in this well bore.

Reference Wells:
1)Enervest Fm. Tops
Same

Prepared by: *Walter Gage*