

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

David Martin  
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey, Division Director  
Oil Conservation Division



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 3160-3 APD form.

Operator Signature Date: 12/31/12

Well information;

Operator EnerVest, Well Name and Number Jicarilla A 1M

API# 30-039-31172, Section 18, Township 26 NS, Range 5 EW

Conditions of Approval:

(See the below checked and handwritten conditions)

Notify Aztec OCD 24hrs prior to casing & cement.

Hold C-104 for directional survey & "As Drilled" Plat

Hold C-104 for NSI, NSP, DHC

- Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- 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

Charles Peris

NMOCD Approved by Signature

3-18-2014  
Date ca

Form 3168-3  
(April 2004)

NOS: 0  
APOR: N/A  
MP: N/A  
SMA: INBA  
BOND: RLB0007886  
CA/PA: N/A

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

JAN 02 2013

FORM APPROVED  
OMB NO. 1004-0137  
Expires: March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

Fannin Field Office  
Bureau of Land Management

5. Lease Serial No. **Jicarilla Contract 110**

6. If Indian, Allottee or Tribe Name  
**Jicarilla Apache**

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

8. Lease Name and Well No.  
**Jicarilla A #1M**

9. API Well No.  
**30-039-31172**

10. Field and Pool, or Exploratory  
**Blanco Mesa Verde/Basin Dakota**

11. Sec., T., R., M., or Blk. And Survey or Area  
**Sec. 18 T26N R05W**

12. County or Parish  
**Rio Arriba**

13. State  
**NM**

17. Spacing Unit dedicated to this well  
**MV - W/320  
DK - W/320**

20. BLM/ BIA Bond No. on file  
**NMB000503 RLB0007886**

23. Estimated duration  
**5 weeks**

1a. Type of Work:  DRILL  REENTER

1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

2. Name of Operator  
**EnerVest Operating, L.L.C.**

3a. Address  
**1001 Fannin St. Suite 800, Houston, Tx 77034**

4. Location of well (Report location clearly and in accordance with applicable requirements. \*)  
At surface **1115' FSL, 2630' FWL (Unit 1)  
Sec. 18 T26N R05W**  
At proposed prod. zone

14. Distance in miles and direction from the nearest town or post office\*  
**30 miles from Lindrith, NM**

15. Distance from proposed\* location to nearest property or lease line, ft.  
(Also to nearest drlg. unit line, if any) **1115'**

16. No. of acres in lease **2258.36**

17. Spacing Unit dedicated to this well  
**MV - W/320  
DK - W/320**

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. **1169'**

19. Proposed Depth **7615'**

20. BLM/ BIA Bond No. on file  
**NMB000503 RLB0007886**

21. Elevations (Show whether DF, RT, GR, etc.)  
**6611' GL**

22. Approximate date work will start\*  
**4/1/2013**

23. Estimated duration  
**5 weeks**

24. Attachments

ACTION OF APPROVAL OR ACCEPTANCE OF THIS OPERATOR DOES NOT CONSTITUTE ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

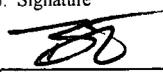
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1 shall be attached to this form:

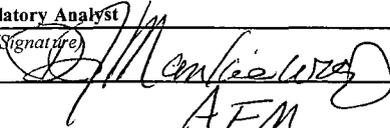
RCVD MAR 12 '14

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan ( if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

- Bond to cover the operations unless covered by existing bond on file (see item 20 above).
- Operator certification.
- Such other site specific information and/ or plans as may be required by the a authorized officer.

OIL CONS. DIV.  
DIST. 3

25. Signature  Name (Printed/ Typed) **Bart Trevino** Date **12/31/2012**

Approved By (Signature)  Name (Printed/ Typed) **AEM** Office **FFO** Date **3/11/14**

Application approval 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.

Conditions of approval, if any, are attached.  
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)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.4 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

NMOCDAV

RECEIVED

JAN 02 2013

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

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 July, 16, 2010  
Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039- 31172	<sup>2</sup> Pool Code 72319/71599	<sup>3</sup> Pool Name Blanco Mesaverde/Basin Dakota
<sup>4</sup> Property Code 306750	<sup>5</sup> Property Name JICARILLA A	
<sup>7</sup> DGRD No. 143199	<sup>6</sup> Operator Name ENERVEST OPERATING, LLC	
		<sup>8</sup> Well Number 1M
		<sup>9</sup> Elevation 6611'

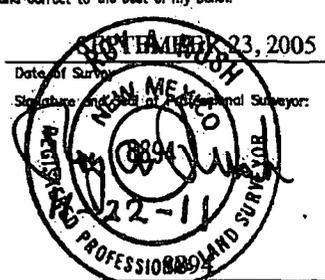
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	18	26-N	5-W		1115	SOUTH	2630	WEST	RIO ARRIBA

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres MV - W/320 DK - W/320			<sup>13</sup> Joint or Infill Y		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.		
7319.20									

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

<p>16</p> <p>MV/DAL</p> <p>FD. 3 1/4" BC. 1957 BLM</p> <p>N. 00°08'52" E 2674.72' (M)</p>	<p>17</p> <p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.</p> <p> 12/31/12 Signature Date</p> <p>Bart Trevino Printed Name</p> <p>btrevino@enervest.net E-mail Address</p>
<p>18</p> <p>FD. 3 1/4" BC. 1957 BLM</p> <p>N. 89°11'53" E 5343.19' (C)</p>	<p>18</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>DATE: JAN 23, 2005 Date of Survey</p> <p> Signature of Professional Surveyor</p> <p>22-11 Certificate Number</p> <p>CALC'D. COR. BY DBL. PROP.</p>

# EnerVest Operating, LLC

## Jicarilla A # 1M

1115' FSL, 2630' FWL Unit N Sec. 18, T26N R05W Rio Arriba County, NM

GL Elev: 6611'

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### Drilling Plan

All Lease and /or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations, BLM Onshore orders and EnerVest's approved Further Development Project Plan. The operator is fully responsible for the actions of its subcontractors. A copy of the APD and Conditions of Approval will be available to the field representatives to ensure compliance.

#### 4.1, 4.2 ESTIMATED FORMATION TOPS (KB) and NOTABLE ZONES:

The following formation depths and proposed casing depths are used as an example only and will be furnished on a site-specific basis for each proposed well.

<u>Formation Name</u>	<u>Depth</u>	<u>Rock Type</u>	<u>Comments</u>
San Jose	Surface	Sandstone	
Ojo Alamo	2398'	Sandstone	Possible Gas, Water
Kirtland	2608'	Shale	
Fruitland	2941'	Coal, Shale, Sandstone	Possible Lost Circ, Gas, Water
Pictured Cliffs	3033'	Sandstone	Possible Lost Circ, Gas, water
Lewis	3120'	Shale	Sloughing Shale
Mesa Verde	3995'	Sandstone / shale	
Mesa Verde (Cliffhouse)	4752'	Sandstone	Possible Lost Circ, Gas, Water
Mesa Verde (Menefee)	4816''	Coal, Sandstone, Shale	Possible Lost Circ, Gas, Water
Mesa Verde (Point Lookout)	5318'	Sandstone	Possible Lost Circ, Gas, Water
Mancos	5471'	Shale	Sloughing Shale
Gallup	6815'	Siltstone, Shale	Gas, Oil
Greenhorn	7237'	Limestone	Gas, Oil
Graneros	7296'	Shale	Gas, Oil, Water
Dakota	7320'	Sandstone	Gas, Oil, Water
Proposed Total Depth	7615'		

Fresh water zones will be adequately protected by setting and cementing the surface casing. All zones containing commercial quantities of oil or gas will be cased and cemented.

## EnerVest Operating, LLC

### Jicarilla A # 1M

1115' FSL, 2630' FWL Unit N Sec. 18, T26N R05W Rio Arriba County, NM  
GL Elev: 6611'

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#### 4.3 PRESSURE CONTROL:

Maximum expected pressure is ~1675 (.22 pressure gradient) psi. The drilling contract has not yet been awarded, thus the exact BOP and Choke Manifold model to be used is not yet known. A typical 11" 2000 psi model is pictured in Exhibits A & B.

A remote accumulator will be used, the pressures, capacities location of the remote and manual controls will be identified at the time of the BLM supervised BOP test.

BOP equipment, accumulator, choke manifold and all accessories will meet or exceed BLM requirements as listed in Onshore Order #2 for the 2M systems. The pressure control equipment considerations include but will not be limited to:

1. BOP will be a double gate ram preventer with a set of blind rams and a set of properly-sized pipe rams.
2. Accumulator will have sufficient capacity to close the BOP rams and retain 200 psi above pre charge.
3. Accumulator fluid volume is to be maintained at manufacturer's recommendations.
4. BOP will also have manual closing handles available.
5. 2" minimum kill line and kill line valves (2).
6. Choke manifold (2" lines) with 2 adjustable chokes with valves and gauge.
7. Manually operated Kelly cocks available.
8. Safety valve and sub(s) with adequate opening for all drill strings used.
9. Fill line and flow line above the upper-most BOP rams.

BOPs will be pressure tested; after initial installation, before drilling out from under all set and cemented casing strings and any time a seal is broken. The BOPs will also be pressure tested a minimum of once every 21 days by a 3<sup>rd</sup> party. Additionally, the BOPs will be operationally checked every 24 hours.

All tests and pressure tests will be recorded on IADC log.

Ram type preventors, choke manifold and related pressure control equipment will be pressure tested to the rated working pressure of 2000 psi (high) and 250 psi (low).

The casing strings will be pressure tested per BLM Onshore Order #2 for 30 min as follows:

- a. Surface casing tested to 600 psi prior to drilling out the shoe.
- b. Intermediate casing tested to 1500 psi prior to drilling out the shoe. **(If intermediate casing is used.)**
- c. Production casing will be tested to 6000 psi (4 ½" 11.6# N-80) or 5600 psi (5 ½" 17# N-80) at the commencement of completion operations.

# EnerVest Operating, LLC

## Jicarilla A # 1M

1115' FSL, 2630' FWL Unit N Sec. 18, T26N R05W Rio Arriba County, NM  
GL Elev: 6611'

### 4.4 PROPOSED CASING PROGRAM (S):

The casings program is designed to use **Option A** below. If while drilling the hole conditions indicate that an intermediate casing may be needed then **Option B** will be used.

#### Casing Option A

Hole/Casing Description	Hole Size	Casing OD	Weight lb/ft	Grade	Age	Connection	Top MD	Bottom MD
Surface	12 1/4"	9 5/8"	36	J-55	New	ST&C	0	500'
Prod Casing (1)	8 3/4"	5 1/2"	17	N-80	New	LT&C	0	3210'
Prod Casing (2)	7 7/8"	5 1/2"	17	N-80	New	LT&C	3210'	7615'

**Surface casing is to be cemented to surface. The production casing is to be cemented in 3 stages covering all zones of production potential and the 3<sup>rd</sup> stage is intended to circulate cement to surface.**

#### Casing Option B

Hole/Casing Description	Hole Size	Casing OD	Weight lb/ft	Grade	Age	Connection	Top MD	Bottom MD
Surface	12 1/4"	9 5/8"	36	J-55	New	ST&C	0	500'
Intermediate	8 3/4"	7"	23	J-55	New	LT&C	0	3210'
Prod Casing	6 1/4"	4 1/2"	11.6	N-80	New	LT&C	0	7615'

**Surface and Intermediate casings are to be cemented to surface, production casing is intended to be cemented with a 200' overlap into the intermediate casing.**

### 4.5 CASING CEMENT:

A prototypical cementing program is listed as follows, site-specific cement designs will be produced for each well as the hole conditions warrant. The cement program will be designed to meet the BLM Onshore Order #2 and NMOCD requirements.

**Surface casing** will be cemented to the surface.

Cement and properties; Mix and pump 225 sacks (313 cu ft) Type III cement (or equivalent) cement. Slurry density is to be 14.6 (yield = 1.39 cu ft/sx). Volume will include 100% excess. Cement is to be displaced using a top plug.

## **EnerVest Operating, LLC**

### **Jicarilla A # 1M**

1115' FSL, 2630' FWL Unit N Sec. 18, T26N R05W Rio Arriba County, NM  
GL Elev: 6611'

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Two centralizers will be run on the shoe joint, one centralizer each on the next two joints and then one centralizer on every third joint thereafter.

The surface casing will be pressure tested to 600 psi prior to drilling out the shoe.

**Production casing (for Casing Option A only)** will be cemented in 3 stages covering all zones of production potential and the 3<sup>rd</sup> stage is intended to circulate cement to surface. Volumes based on 50% OH excess cement for stage 1 and 45% for stages 2 and 3.

Stage 1 Lead cement; mix and pump 143 sacks (305 cu ft) premium lite slurry with CaCl<sub>2</sub>, cello flake and gilsonite. Estimated slurry density is to be 12.1 (yield = 2.13 cu ft/sx).

Stage 1 Tail cement; mix and pump 418 sacks (840 cu ft) premium lite high strength cement with CaCl<sub>2</sub>, cellophane, gilsonite and fluid loss agent. Slurry density is to be 12.5 (yield = 2.01 cu ft/sx).

DV tool at +/- 3210 ft.

Stage 2 Lead cement; mix and pump 92 sacks (197 cu ft) premium lite slurry with CaCl<sub>2</sub>, cello flake and gilsonite. Estimated slurry density is to be 12.1 (yield = 2.13 cu ft/sx).

Stage 2 Tail cement; mix and pump 50 sacks (70 cu ft) Type III cement (or equivalent) cement. Slurry density is to be 14.6 (yield = 1.39 cu ft/sx). or equivalent cement.

DV tool at +/- 2483 ft.

Stage 3 Lead cement; mix and pump 372 sacks (792 cu ft) premium lite slurry with CaCl<sub>2</sub>, cello flake and gilsonite. Estimated slurry density is to be 12.1 (yield = 2.13 cu ft/sx).

Stage 3 Tail cement; mix and pump 50 sacks (70 cu ft) Type III cement (or equivalent) cement. Slurry density is to be 14.6 (yield = 1.39 cu ft/sx). or equivalent cement.

Two centralizers will be run on the shoe joint, one centralizer on every third joint into the surface casing.

**Intermediate casing (for Casing Option B only)** will be cemented to surface in 2 stages, stage tool to be set at +/- 2483'. Cement will be designed to circulate to surface. Volumes will be based on 45% excess in OH.

Stage 1 Lead cement; mix and pump 42 sacks (89 cu ft) premium lite slurry with CaCl<sub>2</sub>, cello flake and gilsonite. Estimated slurry density is to be 12.1 (yield = 2.13 cu ft/sx).

**EnerVest Operating, LLC**

**Jicarilla A # 1M**

1115' FSL, 2630' FWL Unit N Sec. 18, T26N R05W Rio Arriba County, NM  
GL Elev: 6611'

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Stage 1 Tail cement; mix and pump 50 sacks (70 cu ft) Type III cement (or equivalent) cement. Slurry density is to be 14.6 (yield = 1.39 cu ft/sx). or equivalent cement.

DV tool @ +/- 2483 ft.

Stage 2 Lead cement; mix and pump 194 sacks (413 cu ft) premium lite slurry with CaCl<sub>2</sub>, cello flake and gilsonite. Estimated slurry density is to be 12.1 (yield = 2.13 cu ft/sx).

Stage 2 Tail cement; mix and pump 50 sacks (69 cu ft) Type III cement (or equivalent) cement. Slurry density is to be 14.6 (yield = 1.39 cu ft/sx). or equivalent cement.

Two centralizers will be run on the shoe joint, one centralizer on every other joint for 14 joints and then one centralizer on every third joint thereafter.

The Intermediate casing will be pressure tested to 1500 psi prior to drilling out the shoe.

**Production casing (for Casing Option B only)** will be cemented into the intermediate casing with a minimum of 200 ft overlap. Volumes based on 45% excess in OH.

Lead cement; mix and pump 92 sacks (197 cu ft) premium lite slurry with CaCl<sub>2</sub>, cello flake and gilsonite. Estimated slurry density is to be 12.1 (yield = 2.13 cu ft/sx).

Tail cement; mix and pump 239 sacks (481 cu ft) premium lite high strength cement with CaCl<sub>2</sub>, cellophane, gilsonite and fluid loss agent. Slurry density is to be 12.5 (yield = 2.01 cu ft/sx).

Two centralizers will be run on the shoe joint, one centralizer on every other joint into the intermediate casing, then every 3<sup>rd</sup> joint to surface.

**The production casing will be pressure tested for 30 minutes at the commencement of completion operations as outlined above**

Where cement has not been circulated to surface (or to planned depth) a CBL or temperature survey will be run to determine the TOC for that casing string. A CBL log will be run in the production casing prior to the commencement of completion operations.

Cement specifications may vary slightly due to cement type and cement contractor availability.

## EnerVest Operating, LLC

### Jicarilla A # 1M

1115' FSL, 2630' FWL Unit N Sec. 18, T26N R05W Rio Arriba County, NM  
GL Elev: 6611'

#### 4.6 MUD PROGRAM

Depth	Type	Wt / pp	Visc	Fluid Loss
0-500'	FW gel/Lime Spud Mud	8.4-9.0	30-40	N/C
500'-3210'	LSND/Gel sweeps, LCM as needed	8.5-9.4	40-60	20-40 cc
3210'- 7615'	LSND/Gel sweeps, LCM as needed	8.5-9.4	20-40	6-10 cc

The well will be drilled utilizing a closed loop mud handling system. The closed loop system will comply with the NMOCD pit rules pertaining to the use of the system and disposal of the drill cuttings and waste. Drilling mud will be moved for re-use to drill subsequent wells whenever possible.

Viscosity, mud weight and other physical and chemical characteristics of the drilling mud will be varied as required to keep the hole clean, circulate drill cuttings, prevent caving, prevent lost circulation and maximize penetration rate.

Sufficient mud and materials will be kept on site to maintain mud properties and meet lost circulation or mud weight requirements at all times.

Mud design may change depending on well conditions, LCM, fluid loss and viscosity will be determined by the EnerVest representative and the mud engineer on site.

#### 4.7 CORING, TESTING, & LOGGING

No cores or drill stem tests are planned. Well logs to be run are:

##### Casing Option A

**500' to TD;** GR/ Cement Bond Log, at the commencement of completion operations.

**1000' to TD;** GR/Induction/Density Neutron. (Cased hole GR/Neutron will be run if the hole conditions do not allow the use of the open hole logs)

##### Casing Option B

**500' to 3210';** GR/ Cement Bond Log, if cement is not circulated to surface in intermediate casing.

**3210' to TD;** GR/Induction/Density Neutron. (Cased hole GR/Neutron will be run if the hole conditions do not allow the use of the open hole logs)

Deviation surveys will be run at 500 ft intervals and at the base of each hole section prior to setting casing.

**EnerVest Operating, LLC**

**Jicarilla A # 1M**

1115' FSL, 2630' FWL Unit N Sec. 18, T26N R05W Rio Arriba County, NM  
GL Elev: 6611'

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4.8 ANTICIPATED PRESSURES AND TEMPERATURES:

- a. Expected bottom hole pressure: < 1675 psi
- b. Anticipated abnormal pressure: None
- c. Anticipated abnormal temperatures: None
- d. Anticipated hazardous gas (H<sub>2</sub>S): None

If any of the foregoing conditions are unexpectedly encountered, suitable steps will be taken to mitigate according to accepted industry best practices.

4.9 OTHER INFORMATION:

The anticipated spud date is spring 2013. The spud date will be dependent on the weather conditions, road conditions and the Conditions of Approval.

The dirt work for road and well pad construction will commence upon approval of the APD and will be dependent on weather conditions.

The well will be spud after well pad construction is complete and a suitable rig becomes available. The duration of drilling operations is expected to be from two to three weeks. The drilling rig and associated equipment will be removed and preparations will be made for the completion of the well.

Completion will start about one to four weeks after the finish of the drilling operations. A completion rig will be moved in for the completion phase. The completion phase of the well is expected to +/- two weeks. The completion phase will include; perforating, acidizing, fracture stimulation and well testing.

Some events/situations may arise that could potentially change the starting date or project duration that are out of EnerVest's control. If such events/situations arise, the proper officials will be promptly notified.

# EnerVest Operating, LLC

## Jicarilla A # 1M

1115' FSL, 2630' FWL Unit N Sec 18, T26N, R05W Rio Arriba, NM

### Surface Use Plan

#### 1. DIRECTIONS & EXISTING ROADS (See attached Vicinity map)

The location is approximately 33 miles NW of the intersection of US Hwy 550 and NM Hwy 537

Latitude: N 36.48281

Latitude: W 107.40120

From Intersection of US Hwy 550 and NM State Hwy 537: Turn north on Hwy 537 for 28 miles, turn left on J-6 for 8.0 mi, turn right on J-63, go 5.7 mi, turn left, go 0.2 mi, turn left on new access road 0.2mi to new location.

#### 2. ROAD TO BE BUILT OR UPGRADED

- A. Drilling of this well will require the construction of 1012' of new access road from an existing access road that connects with J-63 road as shown on the Access Plat and Vicinity map. After the well is completed as a commercial producer, the need for a pipeline is ascertained, it is proposed to construct 1012' of pipeline to tie-in to an existing Williams pipeline which runs with the access road that connects with J-63.
- B. Width: 20 ft running surface; 40 ft total ROW with is applied for to accommodate access and drainage installation along the road.
- C. Maximum grade: 0-1%.
- D. Turnouts: No turnouts are planned for this access road.
- E. Drainage design: The drainage design for the proposed new access road will be in conformance with Jicarilla Apache Tribal and BIA standards – with the agreement of the of the Jicarilla Apache Tribe. It is proposed to build a drainage holding and diversion pond near location if needed to prevent location erosion and divert drainage around the location. Any area used in this fashion will have been reviewed and given clearance for the possible archaeological and environmental impact.
- F. Location and size of culverts: None are required.
- G. Surface Materials: No gates, cattle guards or fences to be installed along the access road or the location. Road base material may be used as necessary during the drilling and completion phases of this project.

#### 3. SURFACE OWNERSHIP

The surface ownership of the well site location and access roads are all on Jicarilla Apache Nation land.

#### 4. EXISTING WELLS (See the Vicinity map)

This is a development location. There are thirty-four existing wells within a one-mile radius of the proposed location as shown on the Vicinity map.

## **EnerVest Operating, LLC**

### **Jicarilla A # 1M**

1115' FSL, 2630' FWL Unit N Sec 18, T26N, R05W Rio Arriba, NM

#### 5. WELL SITE LAYOUT

The attached figure (Fig A) shows the proposed well location layout while drilling this well. The drilling contractor has not been chosen and the layout of the may vary with the particular drilling contractor's rig requirements. A construction zone will be built on the sides of the well location as per attached survey plats and will be reclaimed as per item # 11 below after the completion of this well.

#### 6. PROPOSED PRODUCTION FACILITIES

The actual equipment used and the configuration will be determined after the well is completed. At a minimum, the facilities will include a meter run, a separator, a produced water storage tank and a condensate/oil storage tank. All surface equipment will be painted with a non-reflective paint color as per specifications as specified by the Conditions of Approval.

#### 7. WATER SUPPLY

Drilling and completion water will come from sources as agreed with the Jicarilla Apache Tribe. Fresh water will be trucked from several sources; local ponds, or wells from the area. No water wells are to be drilled for this location.

#### 8. CONSTRUCTION MATERIALS & METHODS

NM One Call (811), US Forest Service and BLM will be notified before construction starts. The top 6" of soil from the location will be saved and will be piled at near the location to be used for reclamation at a later date. Any road base, gravel or other fill material will be hauled from a source as agreed upon by the Jicarilla Apache Tribe or as specified in the Conditions of Approval.

#### 9. WASTE DISPOSAL

- ✓ A. The drill cuttings will be handled with a closed loop system and stored in steel rig tanks. These will then be hauled to a properly-permitted site for disposal. The drilling fluid will be processed for re-use, any drilling fluid that cannot be re-used will be hauled to a properly-permitted facility for disposal. The closed loop system will be closed and removed as per NMOCD.
- B. Drilling mud that cannot be re-used will be disposed of at a properly permitted facility.
- C. Produced water will be collected and disposed of a properly permitted facility.
- D. Any sewage will be collected by the portable toilet provider for disposal.
- E. All garbage and general trash will be collected in a portable trash cage and will be removed from the site and disposed of in a properly permitted disposal facility. There will be no burning of trash.
- F. Drilling crews under the supervision of the contractor or operator will control and dispose of garbage and waste materials during the drilling operations.

**EnerVest Operating, LLC**

**Jicarilla A # 1M**

1115' FSL, 2630' FWL Unit N Sec 18, T26N, R05W Rio Arriba, NM

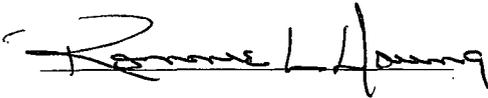
1001 Fannin Street, Suite 800  
Houston, TX 77002  
713-495-5355

14. OPERATOR CERTIFICATION

EnerVest, Operating, LLC has the necessary consents from the proper lease owners to conduct lease operations in conjunction with this well. Bond coverage pursuant to 43 CFR 3104 for lease activities and operations is being provided NMB000503.

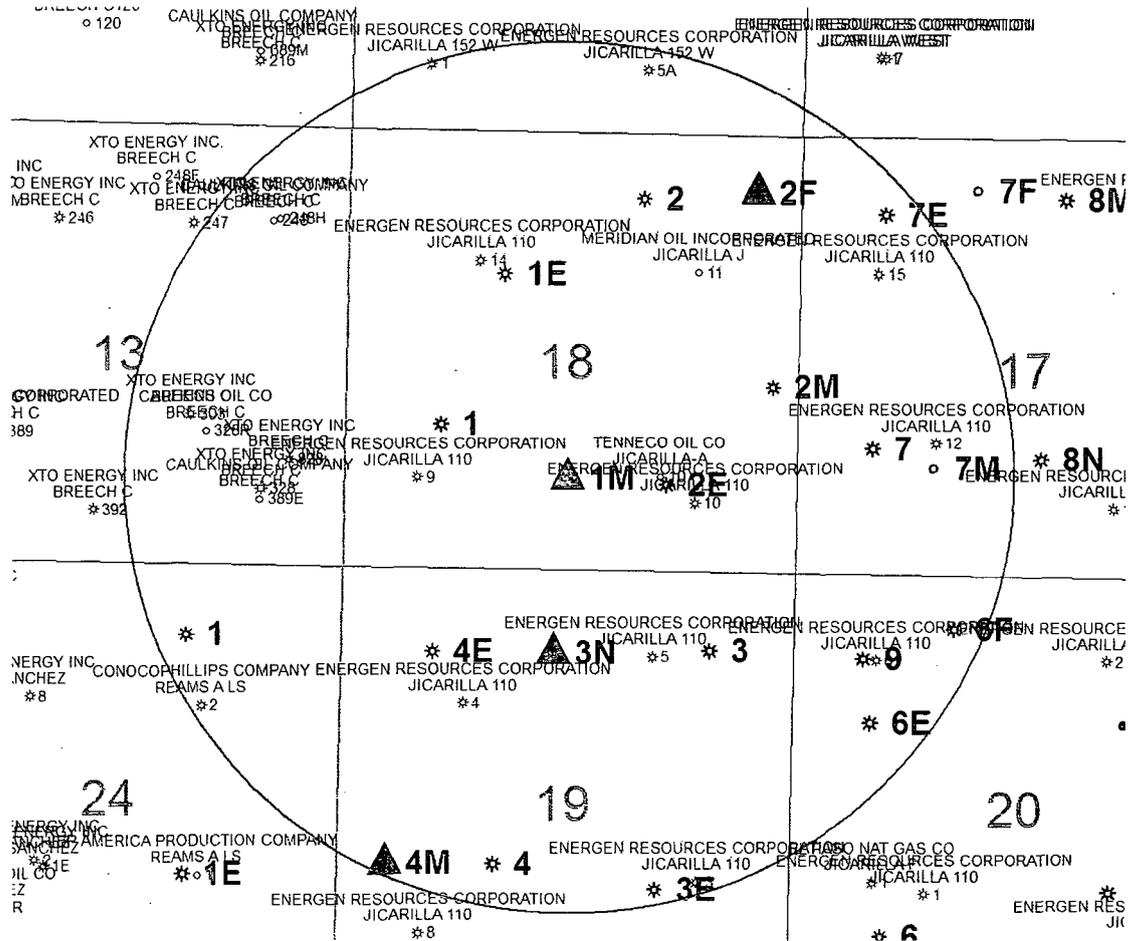
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by EnerVest Operating, LLC and its contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I or EnerVest Operating, LLC am/is responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of a false statement.

Executed this 31 day of Dec, 2012.



Ronnie L. Young  
Director - Regulatory  
1001 Fannin Street, Suite 800  
Houston, TX 77002  
713-495-6530

# A #1M

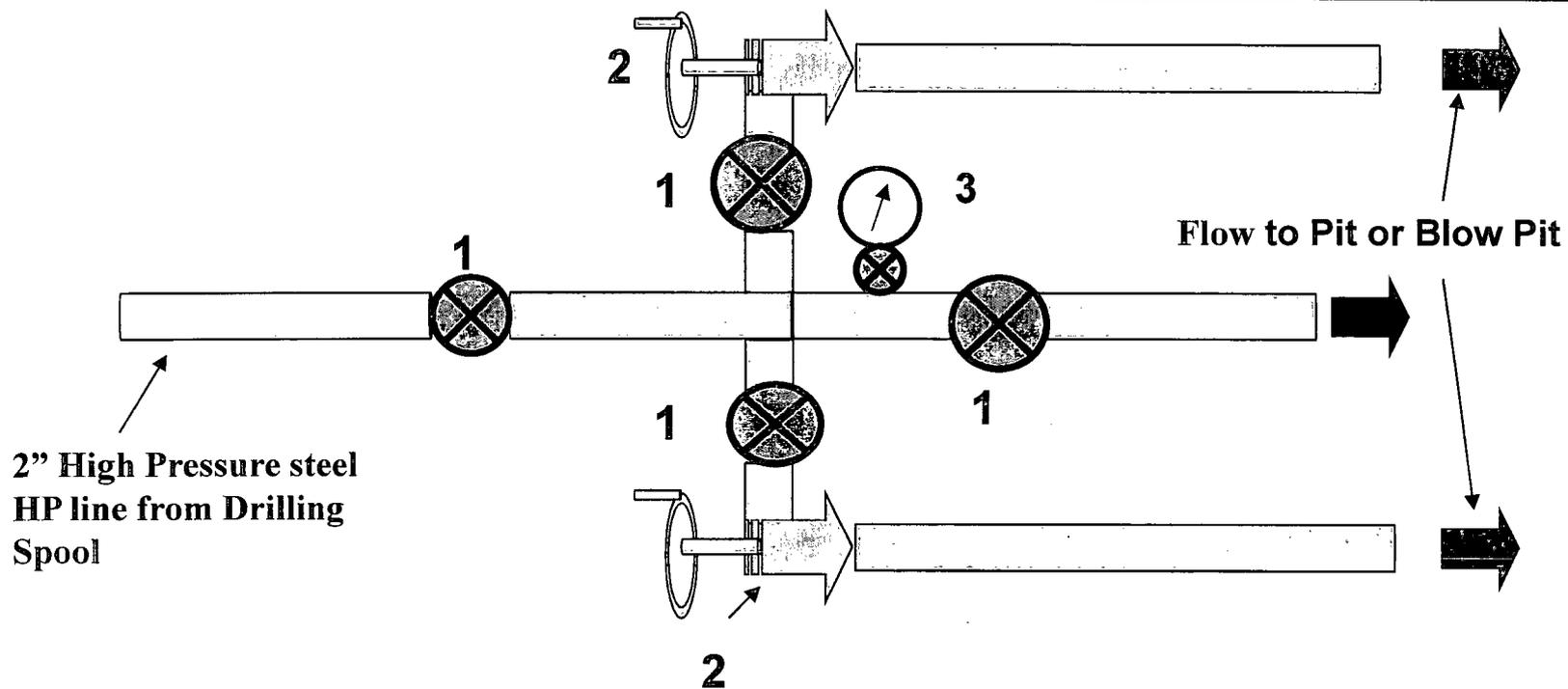


## Exhibit B

**EnerVest  
Jicarilla 2013 Drilling  
Program  
2000 psi Choke Manifold**

### Components

1. 2" Valves (2M)
2. Adjustable Chokes
3. Gauge



**EnerVest  
Jicarilla 2013  
Drilling Program  
Blowout Preventer  
2000 psi**

**Exhibit A**

- Components**
1. Wellhead 9 5/8"
  2. Drilling Spool
  3. Pipe Rams
  4. Blind Rams
  5. Spool
  6. 2" Check Valve
  7. 2" Manual Valves

