

DATE IN <u>2/14/2014</u>	SUSPENSE	ENGINEER <u>MAM</u>	LOGGED IN <u>2/14/2014</u>	TYPE <u>NSL</u>	APP NO. <u>PMAM1404538550</u>
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

David Catanaach
 Print or Type Name

Signature

Date

Agent-Enervest Oprating, LLC
 Title

drcatanach@netscape.com
 E-Mail Address

- NSL
 - Enervest operating,
 LLC
 143199
 well
 - Jicarilla Apache 102
 14M
 30-039-31193
 Pool
 - Basin Dakota
 71599

February 14, 2014

Hand Delivered

New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Attention: Ms. Jami Bailey, CPG
Division Director

Re: Application for Unorthodox Well Location
Jicarilla Apache 102 No. 14M
API No. (30-039-31193)
Surface Location: 1310' FSL & 1482' FWL (Unit N)
BHL: 660' FSL & 1980' FWL (Unit N)
Section 9, T-26 North, R-4 West, NMPM,
Rio Arriba County, New Mexico

Dear Ms. Bailey:

Pursuant to Division Rule 19.15.15.13, Enervest Operating, LLC ("Enervest") respectfully requests administrative approval of an unorthodox gas well location for its proposed Jicarilla Apache 102 No. 14M. This well will be drilled as a development gas well in the Blanco-Mesaverde (72319) and Basin-Dakota (71599) Gas Pools at a surface location 1310 feet from the South line and 1482 feet from the West line (Unit N), and a bottomhole location 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 9, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.

The proposed Jicarilla Apache 102 No. 14M will be dedicated to an existing 320-acre gas spacing and proration unit in the Blanco-Mesaverde Gas Pool comprising the S/2 of Section 9. **The well is at a standard location for this pool.**

The proposed Jicarilla Apache 102 No. 14M will be dedicated to an existing 320-acre gas spacing and proration unit in the Basin-Dakota Gas Pool comprising the W/2 of Section 9. This unit is currently dedicated to Enervest's existing: i) Jicarilla Apache 102 No. 14 (API No. 30-039-06594) located at a standard well location 1620 feet from the North line and 1730 feet from the West line; ii) Jicarilla Apache 102 No. 14E (API No. 30-039-22457) located at a standard well location 1110 feet from the South line and 800 feet from the West line; and iii) Jicarilla Apache 102 No. 14F (API No. 30-039-29666) located at a surface location 120 feet from the North line and 660 feet from the West line, and an unorthodox bottomhole location 218 feet from the North line and 725 feet from the West line.

The Basin-Dakota Gas Pool is currently governed by the "Special Rules and Regulations for the Basin-Dakota Gas Pool" as contained within Division Order No. R-10987, as amended. These rules require standard 320-acre gas spacing and proration units with wells to be located no closer than 660 feet to the outer boundary of the spacing unit and no closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.

✓ The well was proposed to be drilled to a presumed standard bottomhole location 660 feet from the South line and 980 feet from the West line. After the well was staked, it was discovered that this section is irregular in that the W/2 of this section is only 2,622.44 feet wide (See attached C-102). Consequently, the bottomhole location of this well is very slightly unorthodox. Reason

The affected offset tracts are the E/2 of Section 9 and the E/2 of Section 16, both in Township 26 North, Range 4 West. The E/2 of Section 9 is currently being developed in the Basin-Dakota Gas Pool by Enervest. Please note that the working interest ownership between the W/2 and E/2 of Section 9 is common. The E/2 of Section 16 is operated in the Basin-Dakota Gas Pool by ConocoPhillips Company. Notice of this application is being provided to ConocoPhillips Company in accordance with Division rules.

Attached is a Form C-102 showing the proposed well, spacing unit and other existing wells in the spacing unit. Also attached is a map showing the affected offset acreage, and a notice letter.

In summary, approval of the application will provide Enervest the opportunity to recover additional oil and gas reserves from the Basin-Dakota Gas Pool underlying the W/2 of Section 9 that may otherwise not be recovered by the existing wells, thereby preventing waste, and will not violate correlative rights. Not the reason

If you should have any questions, please call me at (505) 690-9453.

Sincerely,

David Catanach

David Catanach, Agent
Enervest Operating, LLC
1001 Fannin Street, Suite 800
Houston, Texas 77002

Xc: OCD-Aztec

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. 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

API Number 30-039-31193	Pool Code 71599	Pool Name Basin-Dakota (Prorated Gas)
Property Code 306751	Property Name Jicarilla Apache 102	Well Number 14M
OGRID No. 143199	Operator Name Enervest Operating, LLC	Elevation 7112'

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	9	26 North	4 West		1310	South	1482	West	Rio Arriba

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
N	9	26 North	4 West		660	South	1980	West	Rio Arriba
Dedicated Acres 320: W/2	Joint or Infill	Consolidate Code	Order No.						

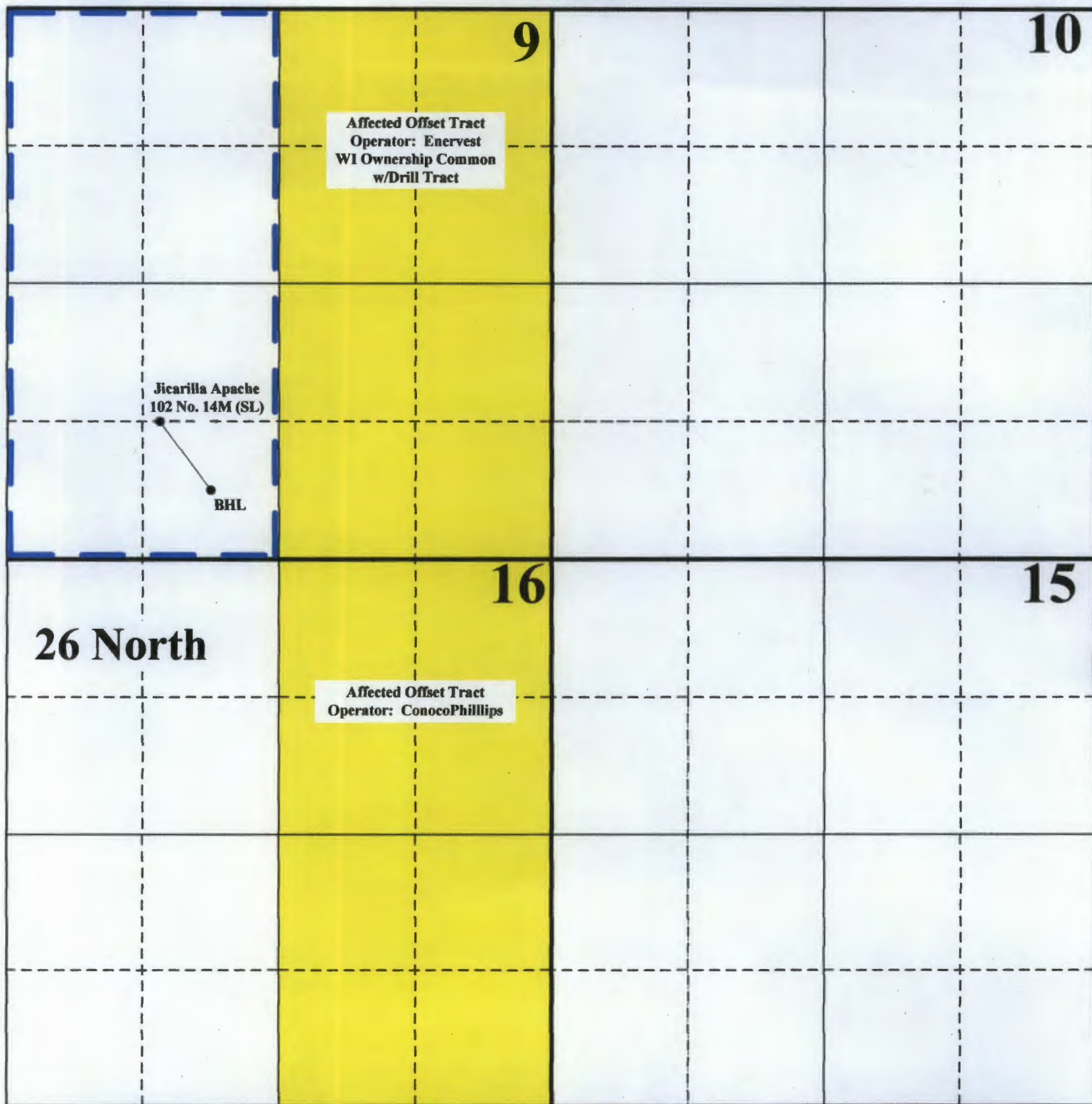
No Allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the Division

	OPERATOR CERTIFICATION <i>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 bottomhole 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 heretofor entered by the Division.</i> Signature _____ Date _____ Printed Name _____ E-mail Address _____	
	SURVEYOR CERTIFICATION <i>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.</i> Date of Survey _____ Signature and Seal of Professional Surveyor: _____ Certificate Number _____	

2,622.44'

5,262.44'

4 West



Affected Offset Acreage

Enervest Operating, LLC
Application for Non-Standard Well Location
Jicarilla Apache 102 No.14M (API No. 30-039-31193)

February 14, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

TO: ConocoPhillips Company
3401 E. 30th Street
Farmington, New Mexico 87402

Re: Enervest Operating, LLC
Application for Unorthodox Gas Well Location
Jicarilla Apache 102 No. 14M (API No. 30-039-31193)
Surface Location: 1310' FSL & 1482' FWL (Unit N)
Bottomhole Location: 660' FSL & 1980' FWL (Unit N)
Section 9, T-26 North, R-4 West, NMPM,
Basin-Dakota Gas Pool
Rio Arriba County, New Mexico

Ladies and Gentlemen:

Enclosed please find a copy of the application filed by Enervest Operating, LLC for authorization to drill its Jicarilla Apache 102 No. 14M at the unorthodox bottomhole location in the Basin-Dakota Gas Pool described above. The well will be dedicated to an existing 320-acre gas spacing and proration unit in the Basin-Dakota Gas Pool comprising the W/2 of Section 9. This unit is currently dedicated to Enervest's existing Jicarilla Apache 102 Wells No. 14, 14E and 14F. The unorthodox location is necessitated by an irregular section.

As the owner of an interest that may be affected by the proposed unorthodox gas well location, you are being provided notice as per Division rules and regulations. Objections must be filed in writing at the Division's Santa Fe office within 20 days from the date this notice was sent to you. If no objection is received within twenty days after the filing of this application and proof of notice with the Division, the application may be approved.

If you should have any questions, please call me at (505) 690-9453.

Sincerely,



David Catanach-Agent
Enervest Operating, LLC
1001 Fannin Street, Suite 800
Houston, Texas 77002

Enclosure

U.S. Postal Service™

CERTIFIED MAIL™ RECEIPT

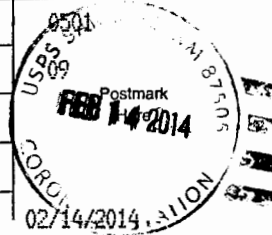
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

FARMINGTON NM 87402

OFFICIAL USE

Postage	\$	\$0.70
Certified Fee		\$3.30
Return Receipt Fee (Endorsement Required)		\$2.70
Restricted Delivery Fee (Endorsement Required)		\$0.00
To:		\$6.70



Sen	ConocoPhillips Company
Stre	3401 E. 30th Street
or F	
City	Farmington, New Mexico 87402

PS Form 3800, August 2000

Instructions

7012 0470 0001 5964 7735

RECEIVED

Form 3160-3
(March 2012)

JUL 03 2013

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Farmington Field Office
Bureau of Land Management

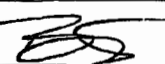
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. Jicarilla Contract 102	
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name Jicarilla Apache Tribe	
2. Name of Operator EnerVest Operating, L.L.C.		7. If Unit or CA Agreement, Name and No.	
3a. Address 1001 Fannin St., Suite 800 Houston, TX 77034		8. Lease Name and Well No. Jicarilla Apache 102 #14M	
3b. Phone No. (include area code) 713-659-3500		9. API Well No. 30-039-31193	
4. Location of Well (Report location clearly and in accordance with any State requirements*) At surface 1310' FSL & 1482' FWL (UL N), Sec. 9 T26N R04W At proposed prod. zone 660' FSL & 1980' FWL (UL N), Sec. 9 T26N R04W		10. Field and Pool, or Exploratory Blanco Mesaverde/Basin Dakota	
14. Distance in miles and direction from nearest town or post office* 30 miles from Lindreth, NM		11. Sec., T. R. M. or Blk. and Survey or Area Sec. 9 T26N R04W	
15. Distance from proposed* location to nearest property or lease line, ft. 1320' (Also to nearest drig. unit line, if any)		12. County or Parish Rio Arriba	
16. No. of acres in lease 2567.94		13. State NM	
17. Spacing Unit dedicated to this well MV - S/320 DK - W/320		RCVD AUG 1 '13	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 260'		20. BLM/BIA Bond No. on file RLB0007886	
19. Proposed Depth 8020' (MD) 8119.18' (TVD)		OIL CONS. DIV. DIST. 3	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7112' GL		22. Approximate date work will start* 03/01/2014	
23. Estimated duration 5 weeks			

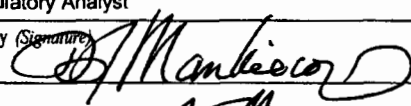
24. Attachments

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

- 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 must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature 	Name (Printed/Typed) Bart Trevino	Date 07/02/2013
---	--------------------------------------	--------------------

Title
Regulatory Analyst

Approved by 	Name (Printed/Typed) AFM	Date 7/31/13
---	-----------------------------	-----------------

Title
Office
FFC

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.

(Continued on page 2)

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

**BLM'S APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS**

NMOC

RY

*(Instructions on page 2)
This action is subject to technical
and procedural review pursuant to
43 CFR 3165.3 and appeal
pursuant to 43 CFR 3165.4

EnerVest Operating, LLC

Jicarilla Apache 102 # 14M

Surface: 1310' FSL, 1482' FWL Unit N, Sec. 9, T26N R04W

Bottom Hole: 660' FSL, 1980' FWL Unit N, Sec 9, T26N, R04W

Rio Arriba County, NM

GL Elev: 7112'

4.8 ANTICIPATED PRESSURES AND TEMPERATURES:

- | | | |
|----|---|------------|
| a. | Expected bottom hole pressure: | < 1822 psi |
| b. | Anticipated abnormal pressure: | None |
| c. | Anticipated abnormal temperatures: | None |
| d. | Anticipated hazardous gas (H ₂ 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 2014. 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.



Scientific Drilling

Company: EnerVest Operating LLC
Project: Rio Arriba County, NM (NAD83)
Site: Jicarilla

RECEIVED

JUL 29 2013

Farmington Field Office

Bureau of Land Management

Magnetic North: 9.44°

Magnetic Field

Strength: 50393.1snT

Dip Angle: 63.31°

Date: 7/22/2013

Model: BGGM2013

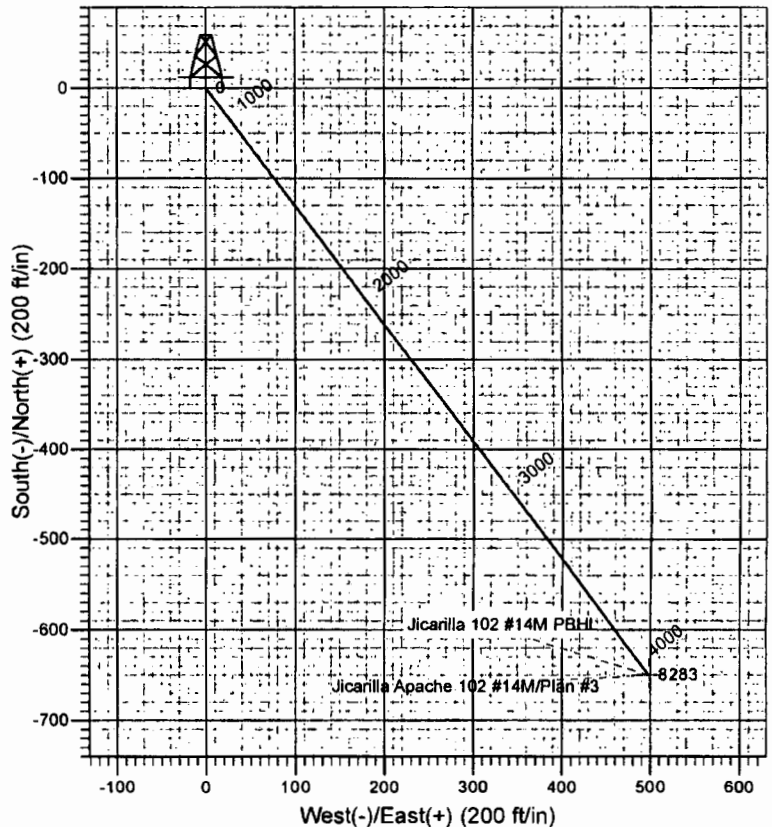
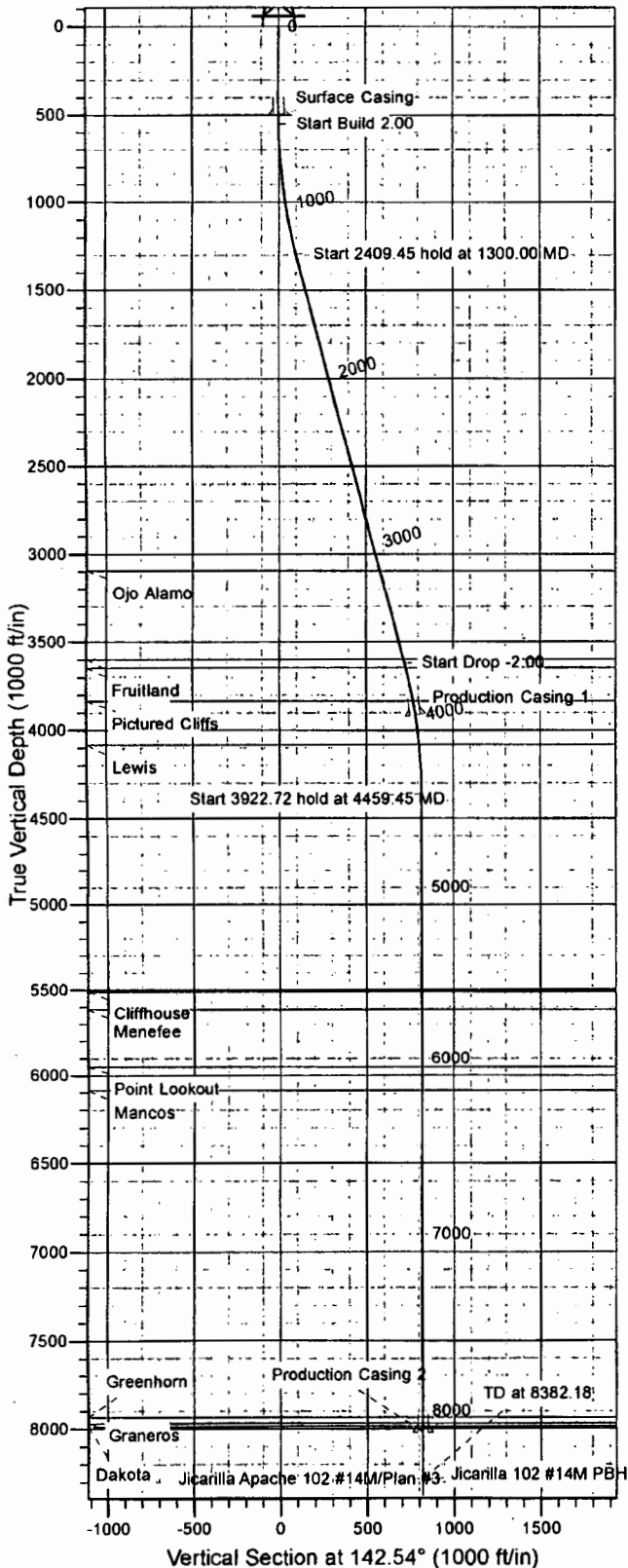
Well Details: Jicarilla Apache 102 #14M

TVD Reference: WELL @ 7112.00ft (Original Well Elev)

Ground Level: 7112.00

Slot

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	2001848.13	1343377.65	36° 29' 50.280 N	107° 15' 38.218 W



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3095.00	3167.16	Ojo Alamo
3599.00	3688.94	Kirtland
3645.00	3736.93	Fruitland
3835.00	3931.19	Pictured Cliffs
4082.00	4180.74	Lewis
5510.00	5609.18	Cliffhouse
5616.00	5715.18	Menefee
5950.00	6049.18	Point Lookout
6087.00	6186.18	Mancos
7935.00	8034.18	Greenhorn
7970.00	8069.18	Graneros
7988.00	8087.18	Dakota

Plan: Plan #3

11:25, July 22 2013

Created By: Janie Collins

PROJECT DETAILS: Rio Arriba County, NM (NAD83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Central Zone

System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Deg	TFace	VFace	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	550.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	15.00	142.54	1291.46	-77.49	59.37	2.00	142.54	97.62	
4	3709.45	15.00	142.54	3618.82	-572.51	438.63	0.00	0.00	721.23	
5	4459.45	0.00	0.00	4360.28	-650.00	498.00	2.00	180.00	616.84	
6	8382.18	0.00	0.00	8283.00	-650.00	498.00	0.00	0.00	818.84	Jicarilla 102 #14M PBHL

Planning Report



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Jicarilla Apache 102 #14M
Company:	EnerVest Operating LLC	TVD Reference:	WELL @ 7112.00ft (Original Well Elev)
Project:	Rio Arriba County, NM (NAD83)	MD Reference:	WELL @ 7112.00ft (Original Well Elev)
Site:	Jicarilla	North Reference:	True
Well:	Jicarilla Apache 102 #14M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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

Site:	Jicarilla		
Site Position:	Northing:	-274,017,644.35 usft	Latitude: 7° 5' 24.101 S
From: Lat/Long	Easting:	372,015,898.75 usft	Longitude: 42° 3' 21.841 E
Position Uncertainty:	0.00 ft	Slot Radius: 13.200 in	Grid Convergence: 0.00 °

Well:	Jicarilla Apache 102 #14M		
Well Position	+N-S	460,410,665.20 ft	Northing: 2,001,848.14 usft
	+E-W	40,096,780.92 ft	Easting: 1,343,377.65 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	Ground Level: 7,112.00 ft

Wellbore:	OH		
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	BGGM2013	7/22/2013	9.44	63.31	50,393

Design:	Plan #3		
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Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.00

Vertical Section	Depth From (TVD)	+N-S	+E-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	142.54

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
550.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	15.00	142.54	1,291.46	-77.49	59.37	2.00	2.00	0.00	142.54	
3,709.45	15.00	142.54	3,618.82	-572.51	438.63	0.00	0.00	0.00	0.00	
4,459.45	0.00	0.00	4,360.28	-650.00	498.00	2.00	-2.00	0.00	180.00	
8,382.18	0.00	0.00	8,283.00	-650.00	498.00	0.00	0.00	0.00	0.00	Jicarilla 102 #14M PB

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Jicarilla Apache 102 #14M
Company:	EnerVest Operating LLC	TVD Reference:	WELL @ 7112.00ft (Original Well Elev)
Project:	Rio Arriba County, NM (NAD83)	MD Reference:	WELL @ 7112.00ft (Original Well Elev)
Site:	Jicarilla	North Reference:	True
Well:	Jicarilla Apache 102 #14M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
550.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
600.00	1.00	142.54	600.00	-0.35	0.27	0.44	2.00	2.00	0.00
700.00	3.00	142.54	699.93	-3.12	2.39	3.93	2.00	2.00	0.00
800.00	5.00	142.54	799.68	-8.65	6.63	10.90	2.00	2.00	0.00
900.00	7.00	142.54	899.13	-16.95	12.99	21.35	2.00	2.00	0.00
1,000.00	9.00	142.54	998.15	-28.00	21.45	35.27	2.00	2.00	0.00
1,100.00	11.00	142.54	1,096.63	-41.78	32.01	52.63	2.00	2.00	0.00
1,200.00	13.00	142.54	1,194.44	-58.28	44.65	73.42	2.00	2.00	0.00
1,300.00	15.00	142.54	1,291.46	-77.49	59.37	97.62	2.00	2.00	0.00
Start 2409.45 hold at 1300.00 MD									
1,400.00	15.00	142.54	1,388.05	-98.03	75.11	123.50	0.00	0.00	0.00
1,500.00	15.00	142.54	1,484.65	-118.58	90.85	149.38	0.00	0.00	0.00
1,600.00	15.00	142.54	1,581.24	-139.12	106.59	175.26	0.00	0.00	0.00
1,700.00	15.00	142.54	1,677.83	-159.67	122.33	201.14	0.00	0.00	0.00
1,800.00	15.00	142.54	1,774.42	-180.21	138.07	227.02	0.00	0.00	0.00
1,900.00	15.00	142.54	1,871.02	-200.76	153.81	252.91	0.00	0.00	0.00
2,000.00	15.00	142.54	1,967.61	-221.30	169.55	278.79	0.00	0.00	0.00
2,100.00	15.00	142.54	2,064.20	-241.85	185.29	304.67	0.00	0.00	0.00
2,200.00	15.00	142.54	2,160.80	-262.39	201.03	330.55	0.00	0.00	0.00
2,300.00	15.00	142.54	2,257.39	-282.94	216.77	356.43	0.00	0.00	0.00
2,400.00	15.00	142.54	2,353.98	-303.48	232.52	382.32	0.00	0.00	0.00
2,500.00	15.00	142.54	2,450.57	-324.03	248.26	408.20	0.00	0.00	0.00
2,600.00	15.00	142.54	2,547.17	-344.57	264.00	434.08	0.00	0.00	0.00
2,700.00	15.00	142.54	2,643.76	-365.12	279.74	459.96	0.00	0.00	0.00
2,800.00	15.00	142.54	2,740.35	-385.66	295.48	485.84	0.00	0.00	0.00
2,900.00	15.00	142.54	2,836.94	-406.21	311.22	511.73	0.00	0.00	0.00
3,000.00	15.00	142.54	2,933.54	-426.75	326.96	537.61	0.00	0.00	0.00
3,100.00	15.00	142.54	3,030.13	-447.30	342.70	563.49	0.00	0.00	0.00
3,167.16	15.00	142.54	3,095.00	-461.10	353.27	580.87	0.00	0.00	0.00
Ojo Alamo									
3,200.00	15.00	142.54	3,126.72	-467.84	358.44	589.37	0.00	0.00	0.00
3,300.00	15.00	142.54	3,223.31	-488.39	374.18	615.25	0.00	0.00	0.00
3,400.00	15.00	142.54	3,319.91	-508.94	389.92	641.14	0.00	0.00	0.00
3,500.00	15.00	142.54	3,416.50	-529.48	405.66	667.02	0.00	0.00	0.00
3,600.00	15.00	142.54	3,513.09	-550.03	421.40	692.90	0.00	0.00	0.00
3,688.94	15.00	142.54	3,599.00	-568.30	435.40	715.92	0.00	0.00	0.00
Kirtland									
3,700.00	15.00	142.54	3,609.68	-570.57	437.14	718.78	0.00	0.00	0.00
3,709.45	15.00	142.54	3,618.82	-572.51	438.63	721.23	0.00	0.00	0.00
Start Drop -2.00									
3,736.53	14.46	142.54	3,645.00	-577.98	442.82	728.11	2.00	-2.00	0.00
Fruitland									
3,800.00	13.19	142.54	3,706.63	-590.02	452.04	743.28	2.00	-2.00	0.00
3,900.00	11.19	142.54	3,804.37	-606.77	464.88	764.39	2.00	-2.00	0.00
3,931.19	10.57	142.54	3,835.00	-611.45	468.46	770.27	2.00	-2.00	0.00

Planning Report



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Jicarilla Apache 102 #14M
Company:	EnerVest Operating LLC	TVD Reference:	WELL @ 7112.00ft (Original Well Elev)
Project:	Rio Arriba County, NM (NAD83)	MD Reference:	WELL @ 7112.00ft (Original Well Elev)
Site:	Jicarilla	North Reference:	True
Well:	Jicarilla Apache 102 #14M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Pictured Cliffs									
4,000.00	9.19	142.54	3,902.79	-620.82	475.64	782.08	2.00	-2.00	0.00
4,011.35	8.96	142.54	3,914.00	-622.24	476.73	783.87	2.00	-2.00	0.00
Production Casing 1									
4,100.00	7.19	142.54	4,001.77	-632.12	484.30	796.32	2.00	-2.00	0.00
4,180.74	5.57	142.54	4,082.00	-639.25	489.76	805.30	2.00	-2.00	0.00
Lewis									
4,200.00	5.19	142.54	4,101.18	-640.68	490.85	807.10	2.00	-2.00	0.00
4,300.00	3.19	142.54	4,200.91	-646.48	495.30	814.41	2.00	-2.00	0.00
4,400.00	1.19	142.54	4,300.83	-649.51	497.62	818.23	2.00	-2.00	0.00
4,459.45	0.00	0.00	4,360.28	-650.00	498.00	818.84	2.00	-2.00	0.00
Start 3922.72 hold at 4459.45 MD									
4,500.00	0.00	0.00	4,400.82	-650.00	498.00	818.84	0.00	0.00	0.00
4,600.00	0.00	0.00	4,500.82	-650.00	498.00	818.84	0.00	0.00	0.00
4,700.00	0.00	0.00	4,600.82	-650.00	498.00	818.84	0.00	0.00	0.00
4,800.00	0.00	0.00	4,700.82	-650.00	498.00	818.84	0.00	0.00	0.00
4,900.00	0.00	0.00	4,800.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,000.00	0.00	0.00	4,900.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,100.00	0.00	0.00	5,000.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,200.00	0.00	0.00	5,100.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,300.00	0.00	0.00	5,200.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,400.00	0.00	0.00	5,300.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,500.00	0.00	0.00	5,400.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,600.00	0.00	0.00	5,500.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,609.18	0.00	0.00	5,510.00	-650.00	498.00	818.84	0.00	0.00	0.00
Cliffhouse									
5,700.00	0.00	0.00	5,600.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,715.18	0.00	0.00	5,616.00	-650.00	498.00	818.84	0.00	0.00	0.00
Menefee									
5,800.00	0.00	0.00	5,700.82	-650.00	498.00	818.84	0.00	0.00	0.00
5,900.00	0.00	0.00	5,800.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,000.00	0.00	0.00	5,900.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,049.18	0.00	0.00	5,950.00	-650.00	498.00	818.84	0.00	0.00	0.00
Point Lookout									
6,100.00	0.00	0.00	6,000.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,186.18	0.00	0.00	6,087.00	-650.00	498.00	818.84	0.00	0.00	0.00
Mancos									
6,200.00	0.00	0.00	6,100.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,300.00	0.00	0.00	6,200.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,400.00	0.00	0.00	6,300.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,500.00	0.00	0.00	6,400.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,600.00	0.00	0.00	6,500.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,700.00	0.00	0.00	6,600.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,800.00	0.00	0.00	6,700.82	-650.00	498.00	818.84	0.00	0.00	0.00
6,900.00	0.00	0.00	6,800.82	-650.00	498.00	818.84	0.00	0.00	0.00
7,000.00	0.00	0.00	6,900.82	-650.00	498.00	818.84	0.00	0.00	0.00
7,100.00	0.00	0.00	7,000.82	-650.00	498.00	818.84	0.00	0.00	0.00
7,200.00	0.00	0.00	7,100.82	-650.00	498.00	818.84	0.00	0.00	0.00
7,300.00	0.00	0.00	7,200.82	-650.00	498.00	818.84	0.00	0.00	0.00
7,400.00	0.00	0.00	7,300.82	-650.00	498.00	818.84	0.00	0.00	0.00
7,500.00	0.00	0.00	7,400.82	-650.00	498.00	818.84	0.00	0.00	0.00
7,600.00	0.00	0.00	7,500.82	-650.00	498.00	818.84	0.00	0.00	0.00
7,700.00	0.00	0.00	7,600.82	-650.00	498.00	818.84	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Jicarilla Apache 102 #14M
Company:	EnerVest Operating LLC	TVD Reference:	WELL @ 7112.00ft (Original Well Elev)
Project:	Rio Arriba County, NM (NAD83)	MD Reference:	WELL @ 7112.00ft (Original Well Elev)
Site:	Jicarilla	North Reference:	True
Well:	Jicarilla Apache 102 #14M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,800.00	0.00	0.00	7,700.82	-650.00	498.00	818.84	0.00	0.00	0.00
7,900.00	0.00	0.00	7,800.82	-650.00	498.00	818.84	0.00	0.00	0.00
8,000.00	0.00	0.00	7,900.82	-650.00	498.00	818.84	0.00	0.00	0.00
8,034.18	0.00	0.00	7,935.00	-650.00	498.00	818.84	0.00	0.00	0.00
Greenhorn									
8,069.18	0.00	0.00	7,970.00	-650.00	498.00	818.84	0.00	0.00	0.00
Graneros									
8,087.18	0.00	0.00	7,988.00	-650.00	498.00	818.84	0.00	0.00	0.00
Dakota									
8,100.00	0.00	0.00	8,000.82	-650.00	498.00	818.84	0.00	0.00	0.00
8,119.18	0.00	0.00	8,020.00	-650.00	498.00	818.84	0.00	0.00	0.00
Production Casing 2									
8,200.00	0.00	0.00	8,100.82	-650.00	498.00	818.84	0.00	0.00	0.00
8,300.00	0.00	0.00	8,200.82	-650.00	498.00	818.84	0.00	0.00	0.00
8,382.18	0.00	0.00	8,283.00	-650.00	498.00	818.84	0.00	0.00	0.00
TD at 8382.18 - Jicarilla 102 #14M PBHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Jicarilla 102 #14M PBHL	0.00	0.00	8,283.00	-650.00	498.00	2,001,192.95	1,343,868.80	36° 29' 43.853 N	107° 15' 32.119 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
500.00	500.00	Surface Casing	9.625	12.250
4,011.35	3,914.00	Production Casing 1	5.500	8.750
8,119.18	8,020.00	Production Casing 2	5.500	7.875

RECEIVED

JUL 03 2013

Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Farmington Field Office

Bureau of Land Management

Lease Serial No.

Jicarilla Contract 102

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

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

8. Lease Name and Well No.
Jicarilla Apache 102 #14M

9. API Well No.
30-039-31193

10. Field and Pool, or Exploratory
Blanco Mesaverde/Basin Dakota

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 9 T26N R04W

12. County or Parish
Rio Arriba

13. State
NM

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

3b. Phone No. (include area code)
713-659-3500

4. Location of Well (Report location clearly and in accordance with any State requirements*)
At surface 1310' FSL & 1482' FWL (UL N), Sec. 9 T26N R04W
At proposed prod. zone 660' FSL & 1980' FWL (UL N), Sec. 9 T26N R04W

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

15. Distance from proposed*
location to nearest
property or lease line, ft. 1320'
(Also to nearest drig. unit line, if any)

16. No. of acres in lease
2567.94

17. Spacing Unit dedicated to this well
MV - S/320
DK - W/320
RCVD AUG 1 '13

18. Distance from proposed location*
to nearest well, drilling, completed, 260'
applied for, on this lease, ft.

19. Proposed Depth
8020' (MD)
8119.18' (TVD)

20. BLM/BIA Bond No. on file
RLB0007886
OIL CONS. DIV.
DIST. 3

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
7112' GL

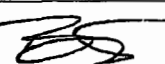
22. Approximate date work will start*
03/01/2014

23. Estimated duration
5 weeks

24. Attachments

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

- 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 must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature 

Name (Printed/Typed)
Bart Trevino

Date
07/02/2013

Title
Regulatory Analyst

Approved by 
Title
AFM

Name (Printed/Typed)

Date
7/31/13

Office

FFC

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.

(Continued on page 2)

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

**BLM'S APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS**

NMOC

RY

*(Instructions on page 2)
This action is subject to technical
and procedural review pursuant to
43 CFR 3165.3 and appeal
pursuant to 43 CFR 3165.4