

RECEIVED

MAY 20 2014

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Farmington Field Office
Bureau of Land Management

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

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 reverse side.

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. Jicarilla Contract 155
2. Name of Operator EnerVest Operating, LLC		6. If Indian, Allottee, or Tribe Name Jicarilla Apache Tribe
3a. Address 1001 Fannin St, Suite 800 Houston, TX 77002-6707	3b. Phone No. (include area code) 713-659-3500; 713-970-1847	7. If Unit or CA. Agreement Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SHL: 1201' FSL & 762' FWL (UL M) Sec. 29, T26N, R05W BHL: 1275' FSL & 671' FWL (UL M) Sec. 29, T26N, R05W		8. Well Name and No. Jicarilla Contract 155 #20M
		9. API Well No. 30-039-31215
		10. Field and Pool, or Exploratory Area Blanco Mesaverde/Basin Dakota
		11. County or Parish, State Rio Arriba, NM

12. CHECK APPROPRIATE BOX(S) 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	☐ Altering Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and abandon	☐ Temporarily Abandon	Directional Survey &
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug back	☐ Water Disposal	As drilled plat

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 recompleat horizontally, give subsurface locations and measured and true vertical depths or pertinent markers and sands. Attach the Bond under which the work will be performed or provide the Bond No. on file with the BLM/ BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notice shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

5/9/2014 - Attached are the Directional survey report and "as drilled" plat.

OIL CONS. DIV DIST. 3

MAY 22 2014

ACCEPTED FOR RECORD

MAY 21 2014

FARMINGTON FIELD OFFICE
BY: William Tambekou

14. I hereby certify that the foregoing is true and correct.		
Name (Printed/ Typed) Jeanie McMillan	Title Sr. Regulatory Analyst	
Signature <u>Jeanie McMillan</u>	Date May 19, 2014	
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.		
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 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)		

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this

form and the number of copies to be submitted, particularly with regard to local area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in

present productive zones, or other zones with present significant fluid

NMOCDA

AS DRILLED

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

¹ API Number 30-039-31215	² Pool Code 72319/71599	³ Pool Name BLANCO MESAVERDE - Basin Dakota
⁴ Property Code 306750	⁵ Property Name JICARILLA CONTRACT 155	
⁷ OGRID No. 143199	⁸ Operator Name ENERVEST OPERATING, LLC	
		⁶ Well Number #20M
		⁹ Elevation 6492'

¹⁰Surface Location

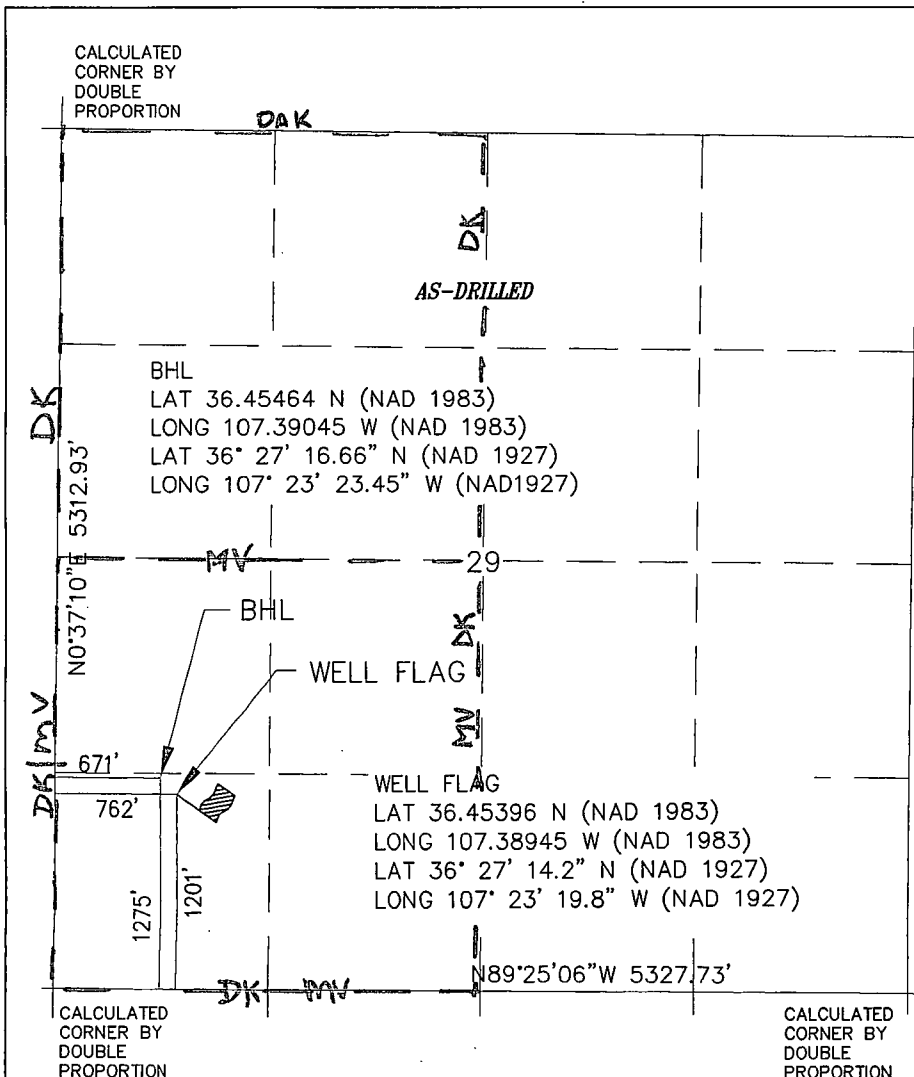
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	29	26	5		1201'	SOUTH	762'	WEST	RIO ARRIBA

¹¹Bottom 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
M	29	26	5		1275'	SOUTH	671'	WEST	RIO ARRIBA

¹² Dedicated Acres mv - SW/4 ; DK - W/2	¹³ Joint of Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁷OPERATOR CERTIFICATION

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.

Jeanie McMillan 5/19/14
Signature Date

Jeanie McMillan
Printed Name

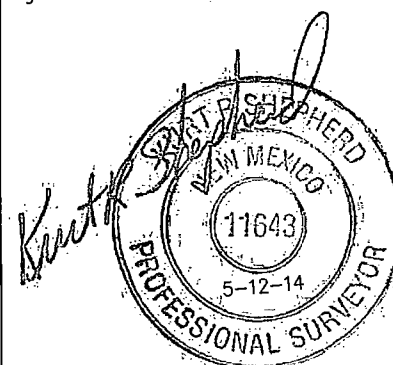
mcmillan@enervest.net
E-mail Address

¹⁸SURVEYOR CERTIFICATION

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 behalf.

Survey Date: AUGUST 22, 2013

Signature and Seal of Professional Surveyor



Certificate Number 11643



Scientific Drilling

Gyro Survey Certification

2948 I-70 Business Loop
Grand Junction, CO 81504
(970)-245-9447 Fax (970)-245-9454

Operator	<u>EnerVest Operating LLC</u>
Well Name & No.	<u>Jicarilla Apache 155 #20M</u>
County & State	<u>Rio Arriba County, NM</u>
SDI Job No.	<u>330414DEF141887</u>
Rig	<u>D&J 2</u>

I, Janie Collins, having personal knowledge of all the facts, hereby
certify that the attached directional survey run from a measured depth of 0 feet to a
measured depth of 7,320 feet is true and correct as determined from all available records.


Signature

9-May-14
Date

Janie Collins
Colorado District Well Planner
Scientific Drilling International

Survey Report



Company:	EnerVest Operating LLC	Local Co-ordinate Reference:	Well Jicarilla 155 #20M
Project:	Rio Arriba County, NM (NAD83)	TVD Reference:	GL 6492' & RKB 12' @ 6504.00ft
Site:	Jicarilla	MD Reference:	GL 6492' & RKB 12' @ 6504.00ft
Well:	Jicarilla 155 #20M	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

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 155 #20M					
Well Position	+N-S	0.00 ft	Northing:	1,986,492.78 usft	Latitude:	36° 27' 14.256 N
	+E-W	0.00 ft	Easting:	1,305,322.96 usft	Longitude:	107° 23' 22.020 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	6,492.00 ft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	4/15/2014	9.41	63.23	50,270

Design:	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)	
	0.00	0.00	0.00	310.21	

Survey Program		Date 5/9/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
544.00	7,320.00	Survey #1 - MWD Survey (OH)	MWD SDI	MWD - Standard ver 1.0.1

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
544.00	0.17	131.36	544.00	-0.53	0.61	-0.81	0.03	0.03	0.00
First SDI MWD Survey									
635.00	2.21	308.33	634.98	0.47	-0.67	0.81	2.62	2.24	194.47
725.00	4.35	323.82	724.83	4.30	-4.05	5.86	2.55	2.38	17.21
817.00	4.48	322.38	816.55	9.96	-8.30	12.77	0.19	0.14	-1.57
908.00	4.31	314.73	907.29	15.18	-12.90	19.65	0.67	-0.19	-8.41
999.00	2.90	302.78	998.11	18.83	-17.26	25.34	1.75	-1.55	-13.13
1,093.00	2.64	304.01	1,092.00	21.33	-21.06	29.85	0.28	-0.28	1.31
1,187.00	2.73	322.99	1,185.90	24.33	-24.20	34.19	0.95	0.10	20.19
1,282.00	2.73	320.62	1,280.79	27.89	-27.00	38.62	0.12	0.00	-2.49

Survey Report



Company:	EnerVest Operating LLC	Local Co-ordinate Reference:	Well Jicarilla 155 #20M
Project:	Rio Arriba County, NM (NAD83)	TVD Reference:	GL 6492' & RKB 12' @ 6504.00ft
Site:	Jicarilla	MD Reference:	GL 6492' & RKB 12' @ 6504.00ft
Well:	Jicarilla 155 #20M	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

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)
1,376.00	2.73	318.07	1,374.68	31.28	-29.91	43.04	0.13	0.00	-2.71
1,470.00	2.46	317.02	1,468.58	34.42	-32.78	47.26	0.29	-0.29	-1.12
1,563.00	3.61	316.49	1,561.45	38.01	-36.16	52.15	1.24	1.24	-0.57
1,658.00	3.69	312.80	1,656.26	42.25	-40.46	58.18	0.26	0.08	-3.88
1,752.00	3.49	309.09	1,750.08	46.11	-44.90	64.06	0.33	-0.21	-3.95
1,845.00	3.25	311.04	1,842.91	49.63	-49.09	69.53	0.29	-0.26	2.10
1,940.00	2.29	286.69	1,937.81	51.94	-52.94	73.96	1.58	-1.01	-25.63
2,035.00	0.97	284.50	2,032.76	52.69	-55.53	76.42	1.39	-1.39	-2.31
2,127.00	0.70	285.38	2,124.76	53.03	-56.83	77.64	0.29	-0.29	0.96
2,222.00	1.49	313.85	2,219.74	54.04	-58.28	79.40	0.99	0.83	29.97
2,317.00	2.11	328.97	2,314.69	56.40	-60.07	82.28	0.82	0.65	15.92
2,410.00	1.87	323.96	2,407.63	59.09	-61.85	85.38	0.32	-0.26	-5.39
2,504.00	2.11	334.07	2,501.58	61.89	-63.51	88.45	0.45	0.26	10.76
2,598.00	3.52	337.50	2,595.46	66.11	-65.37	92.60	1.51	1.50	3.65
2,692.00	3.27	339.19	2,689.30	71.28	-67.42	97.51	0.29	-0.27	1.80
2,785.00	1.96	323.22	2,782.20	75.03	-69.32	101.38	1.60	-1.41	-17.17
2,880.00	3.24	305.50	2,877.10	77.89	-72.48	105.64	1.58	1.35	-18.65
2,975.00	3.17	291.44	2,971.95	80.41	-77.11	110.80	0.83	-0.07	-14.80
3,069.00	3.34	312.53	3,065.81	83.22	-81.54	116.00	1.28	0.18	22.44
3,162.00	3.25	315.26	3,158.65	86.92	-85.40	121.33	0.19	-0.10	2.94
3,255.00	2.50	325.96	3,251.54	90.47	-88.39	125.91	0.99	-0.81	11.51
3,350.00	1.18	314.78	3,346.48	92.88	-90.24	128.88	1.43	-1.39	-11.77
3,443.00	0.79	312.27	3,439.47	93.98	-91.40	130.47	0.42	-0.42	-2.70
3,537.00	0.67	297.75	3,533.46	94.68	-92.36	131.66	0.23	-0.13	-15.45
3,630.00	0.44	301.55	3,626.46	95.12	-93.15	132.54	0.25	-0.25	4.09
3,724.00	0.43	295.33	3,720.46	95.46	-93.77	133.24	0.05	-0.01	-6.62
3,817.00	0.44	278.08	3,813.45	95.66	-94.44	133.88	0.14	0.01	-18.55
3,911.00	0.53	267.36	3,907.45	95.69	-95.23	134.50	0.14	0.10	-11.40
4,037.00	0.35	218.32	4,033.45	95.36	-96.06	134.92	0.32	-0.14	-38.92
4,129.00	0.40	206.45	4,125.44	94.85	-96.37	134.83	0.10	0.05	-12.90
4,222.00	0.44	210.76	4,218.44	94.25	-96.70	134.70	0.05	0.04	4.63
4,315.00	0.26	206.54	4,311.44	93.76	-96.98	134.59	0.20	-0.19	-4.54
4,410.00	0.35	192.83	4,406.44	93.28	-97.14	134.40	0.12	0.09	-14.43
4,504.00	0.26	182.72	4,500.44	92.79	-97.21	134.14	0.11	-0.10	-10.76
4,595.00	0.53	185.23	4,591.44	92.17	-97.11	133.67	0.32	0.30	-19.22
4,690.00	0.62	186.76	4,686.43	91.24	-97.06	133.03	0.24	0.09	22.66
4,783.00	0.70	167.60	4,779.42	90.18	-97.00	132.30	0.25	0.09	-20.60
4,878.00	0.53	184.65	4,874.42	89.18	-96.91	131.58	0.26	-0.18	17.95
4,971.00	0.50	206.98	4,967.42	88.39	-97.13	131.24	0.22	-0.03	24.01
5,065.00	0.39	202.35	5,061.41	87.73	-97.44	131.05	0.12	-0.12	-4.93
5,159.00	0.35	195.90	5,155.41	87.16	-97.64	130.83	0.06	-0.04	-6.86
5,253.00	0.75	183.00	5,249.41	86.27	-97.75	130.34	0.44	0.43	-13.72
5,347.00	0.77	179.71	5,343.40	85.02	-97.78	129.56	0.05	0.02	-3.50

Survey Report



Company:	EnerVest Operating LLC	Local Co-ordinate Reference:	Well Jicarilla 155 #20M
Project:	Rio Arriba County, NM (NAD83)	TVD Reference:	GL 6492' & RKB 12' @ 6504.00ft
Site:	Jicarilla	MD Reference:	GL 6492' & RKB 12' @ 6504.00ft
Well:	Jicarilla 155 #20M	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

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)	
5,441.00	0.70	190.02	5,437.39	83.82	-97.87	128.86	0.16	-0.07	10.97	
5,534.00	0.62	181.58	5,530.38	82.76	-97.99	128.26	0.14	-0.09	-9.08	
5,629.00	0.79	168.48	5,625.38	81.60	-97.87	127.43	0.25	0.18	-13.79	
5,721.00	0.90	158.60	5,717.37	80.31	-97.48	126.29	0.20	0.12	-10.74	
5,815.00	0.87	165.81	5,811.36	78.93	-97.04	125.06	0.12	-0.03	7.67	
5,911.00	0.88	149.76	5,907.34	77.59	-96.49	123.77	0.25	0.01	-16.72	
6,006.00	0.70	202.94	6,002.34	76.42	-96.34	122.92	0.76	-0.19	55.98	
6,101.00	1.11	30.83	6,097.33	76.68	-96.10	122.89	1.90	0.43	-181.17	
6,197.00	1.23	26.10	6,193.31	78.40	-95.17	123.30	0.16	0.13	-4.93	
6,291.00	0.97	26.89	6,287.29	80.02	-94.37	123.72	0.28	-0.28	0.84	
6,386.00	0.62	55.19	6,382.29	81.03	-93.58	123.78	0.54	-0.37	29.79	
6,478.00	0.53	73.65	6,474.28	81.43	-92.76	123.41	0.22	-0.10	20.07	
6,573.00	0.26	123.92	6,569.28	81.44	-92.16	122.96	0.44	-0.28	52.92	
6,666.00	0.44	128.84	6,662.28	81.09	-91.71	122.39	0.20	0.19	5.29	
6,760.00	0.32	122.34	6,756.28	80.73	-91.21	121.77	0.14	-0.13	-6.91	
6,856.00	0.34	164.20	6,852.27	80.31	-90.90	121.27	0.25	0.02	43.60	
6,950.00	0.42	160.59	6,946.27	79.72	-90.71	120.74	0.09	0.09	-3.84	
7,046.00	0.44	148.09	7,042.27	79.07	-90.40	120.09	0.10	0.02	-13.02	
7,140.00	0.68	165.05	7,136.26	78.23	-90.07	119.28	0.31	0.26	18.04	
7,236.00	0.70	176.66	7,232.26	77.09	-89.88	118.41	0.15	0.02	12.09	
7,261.00	0.81	177.42	7,257.26	76.76	-89.87	118.19	0.44	0.44	3.04	
Last SDI MWD Survey										
7,320.00	0.81	177.42	7,316.25	75.93	-89.83	117.62	0.00	0.00	0.00	
Projection to TD										

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
544.00	544.00	-0.53	0.61	First SDI MWD Survey
7,261.00	7,257.26	76.76	-89.87	Last SDI MWD Survey
7,320.00	7,316.25	75.93	-89.83	Projection to TD

Checked By: _____ Approved By: _____ Date: _____