

AS - DRILLED

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
111 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
220 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, 2013

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31175	² Pool Code 72319/71599	³ Pool Name BLANCO MESAVERDE/BASIN DAKOTA
⁴ Property Code 306751	⁵ Property Name JICARILLA APACHE 102	⁶ Well Number 8M
⁷ GRID No. 143199	⁸ Operator Name ENERVEST OPERATING, LLC.	⁹ Elevation 6960'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	3	26-N	4-W		2425	SOUTH	255	WEST	RIO ARRIBA

¹¹Bottom Hole Location If Different From Surface

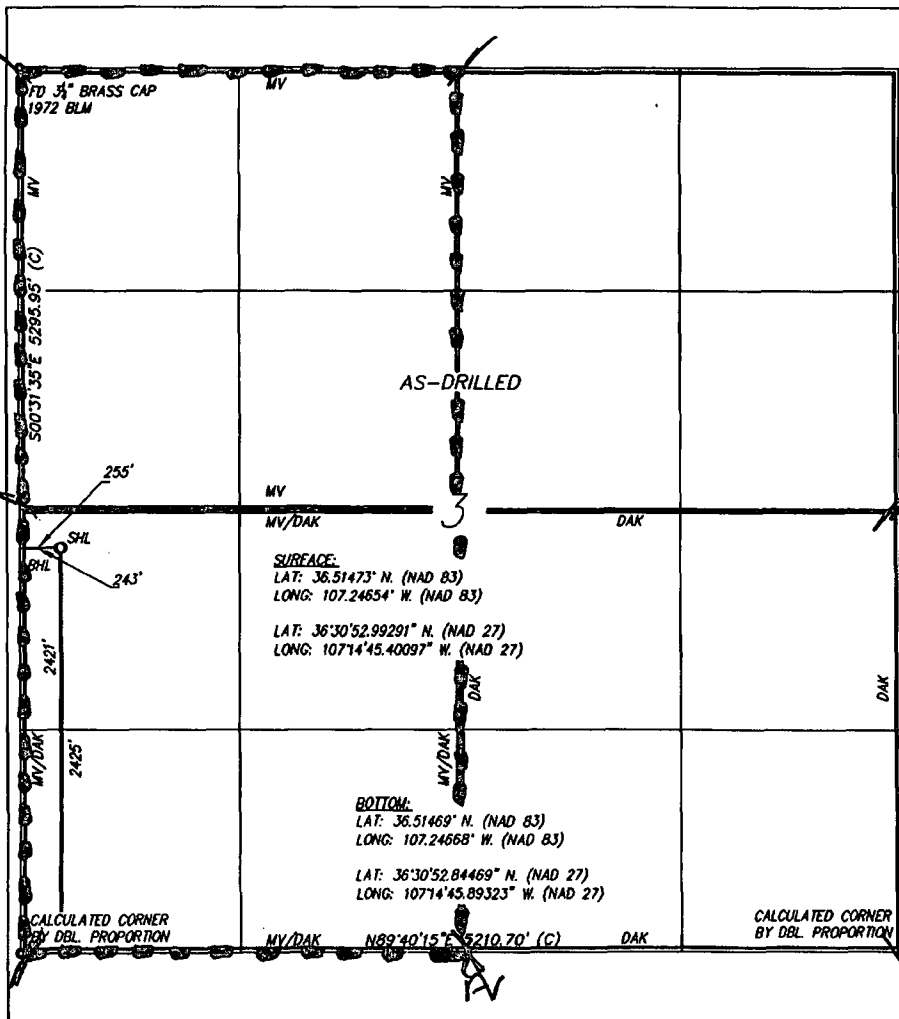
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	3	26-N	4-W		2421	SOUTH	243	WEST	RIO ARRIBA

¹² Dedicated Acres 5/2 MV - W/321.68 DK - W/320	¹³ Joint of Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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RCVD OCT 4 '13
OIL CONS. DIV.

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.

DIST. 3

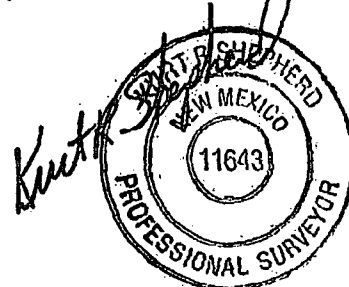


¹⁷OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to 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.

Signature: *[Signature]* Date: 10/4/2013
Printed Name: BART TREUNO
E-mail Address: BTREUNO@ENERVEST.NET

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 belief.

Survey Date: SEPTEMBER 18, 2013
Signature and Seal of Professional Surveyor



Certificate Number 11643

D & J DRILLING, LLC
P. O. BOX 49
FARMINGTON, NM 87499

RECEIVED

AUG 19 2013

ENERVEST

DATE: 06/18/13

TO: ENERVEST OPERATING L.L.C.
2700 FARMINGTON AVENUE, BLK K, STE 1
FARMINGTON, NM 87401

ATTN: DRILLING A/P

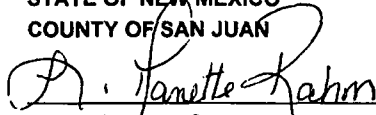
RCVD OCT 4 '13
OIL CONS. DIV.
DIST. 3

THIS LETTER IS TO CERTIFY THAT D & J DRILLING, DID RUN DEVIATION SURVEYS AT
THE LISTED DEPTH ON YOUR JICARILLA APACHE 102 #8M, IN SEC03-T26N-R05W, IN RIO ARRIBA
COUNTY, NEW MEXICO. API WELL NUMBER - 30-039-31175

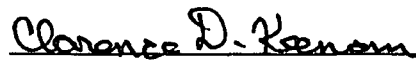
DEPTH	DEGREE DEVIATION
210'	1 1/4
486'	3/4
6525'	1 1/4
7028'	1
7600'	1

TO THE BEST OF MY KNOWLEDGE, I SWEAR THIS INFORMATION TO BE TRUE.

STATE OF NEW MEXICO
COUNTY OF SAN JUAN


NOTARY PUBLIC, L. NANETTE RAHM

SINCERELY,


OWNER- CLARENCE D. KEENOM



AV



Scientific Drilling

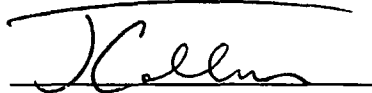
Directional Survey Certification

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

RCVD OCT 4 '13
OIL CONS. DIV.
DIST. 3

RE: EnerVest Operator
Jicarilla Apache 102 #8M Well Name & No.
Rio Arriba County, NM County & State
330613DEF18663 SDI Job No.

I, Janie Collins, having personal knowledge of all the facts, hereby
certify that the attached directional survey run from a measured depth of 639 feet to a
measured depth of 5676 feet is true and correct as determined from all available records.


Signature

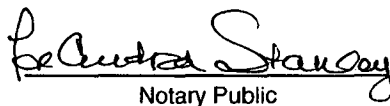
Colorado District Well Planner
Title

Scientific Drilling International
Company

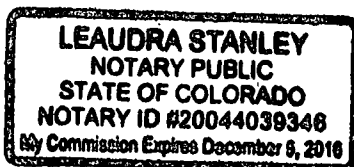
State of : Colorado }
County of : Mesa } ss

On this 11th day of September, 2013, before me personally appeared
Janie Collins to me known as the person described in and who executed the foregoing
instrument and acknowledged that (s)he executed the same as his/her free act and deed.

Seal


Notary Public

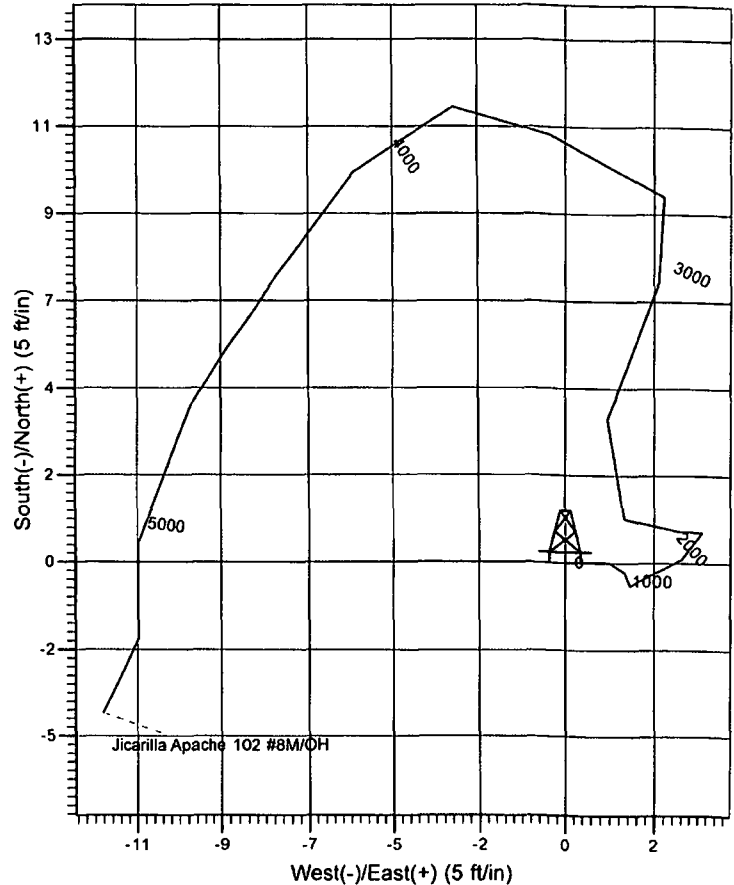
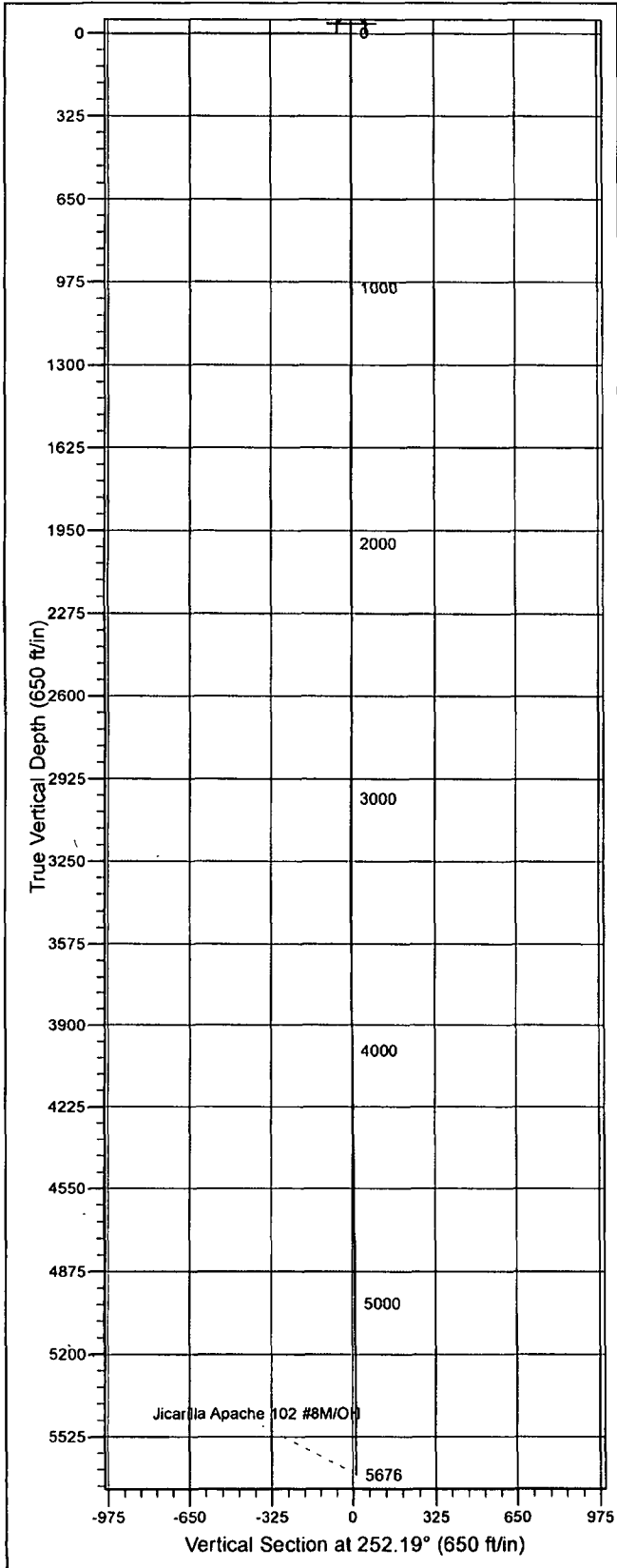
1215114
My Commission Expires





Scientific Drilling

Company: EnerVest Operating LLC
Project: Rio Arriba County, NM (NAD83)
Site: Jicarilla
Well: Jicarilla Apache 102 #8M
Wellbore: OH
Design: OH



Well Details: Jicarilla Apache 102 #8M

+N/-S	+E/-W	TVD Reference: GL 6960 @ 6960.00ft Round Level: 6960.00	North	East	Latitude	Longitude	Slot
0.00	0.00		2008150.39	1347580.63	36° 30' 53.028 N	107° 14' 47.544 W	

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Jicarilla Apache 102 #8M, True North
Vertical (TVD) Reference: GL 6960 @ 6960.00ft
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: GL 6960 @ 6960.00ft
Calculation Method: Minimum Curvature

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

Plan: OH

13:02, September 11 2013
Created By: Janie Collins

Survey Report



Company: EnerVest Operating LLC
Project: Rio Arriba County, NM (NAD83)
Site: Jicarilla
Well: Jicarilla Apache 102 #8M
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Jicarilla Apache 102 #8M
TVD Reference: GL 6960 @ 6960.00ft
MD Reference: GL 6960 @ 6960.00ft
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

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

System Datum: Mean Sea Level

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 #8M

Well Position +N-S 0.00 ft Northing: 2,008,150.40 usft Latitude: 36° 30' 53.028 N
 +E-W 0.00 ft Easting: 1,347,580.63 usft Longitude: 107° 14' 47.544 W
Position Uncertainty 0.00 ft Wellhead Elevation: 0.00 ft Ground Level: 6,960.00 ft

Wellbore: OH

Magnetics Model Name: Sample Date: Declination: Dip Angle Field Strength
 IGRF2010 9/11/2013 9.37 63.31 50.448

Design: OH

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.00

Vertical Section: Depth From (TVD) +N-S +E-W Direction
 (ft) (ft) (ft) (°)
 0.00 0.00 0.00 252.19

Survey Program: Date: 9/11/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
639.00	5,676.00	Survey #1 - Surface MWD Survey (OH)	MWD SDI	MWD - Standard ver 1.0.1

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
639.00	0.20	89.79	639.00	0.00	1.12	-1.06	0.03	0.03	0.00
913.00	0.11	202.02	913.00	-0.24	1.49	-1.35	0.10	-0.03	40.96
1,227.00	0.10	105.52	1,227.00	-0.59	1.65	-1.39	0.05	0.00	-30.73
1,543.00	0.47	53.96	1,542.99	0.10	2.96	-2.85	0.13	0.12	-16.32
1,700.00	0.24	3.40	1,699.99	0.81	3.50	-3.58	0.23	-0.15	-32.20
2,013.00	0.34	226.95	2,012.99	0.83	2.86	-2.98	0.17	0.03	-43.59
2,326.00	0.43	324.13	2,325.98	1.14	1.49	-1.77	0.19	0.03	31.05
2,641.00	0.59	9.25	2,640.97	3.70	1.06	-2.14	0.13	0.05	14.32
2,953.00	0.82	28.13	2,952.95	7.26	2.37	-4.48	0.10	0.07	6.05

Survey Report



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MD Reference: GL 6960 @ 6960.00ft
North Reference: True
Survey Calculation Method: Minimum Curvature
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)
3,266.00	0.35	284.10	3,265.94	9.46	2.50	-5.28	0.31	-0.15	-33.24
3,581.00	0.88	304.91	3,580.92	11.05	-0.37	-3.03	0.17	0.16	6.61
3,828.00	0.49	249.81	3,827.90	11.75	-2.88	-0.85	0.29	-0.15	-22.31
4,144.00	0.67	229.02	4,143.89	10.07	-5.55	2.20	0.09	0.06	-6.58
4,422.00	0.72	205.94	4,421.87	7.43	-7.54	4.90	0.10	0.02	-8.30
4,737.00	0.78	221.62	4,736.84	4.05	-9.83	8.12	0.07	0.02	4.98
5,050.00	0.72	179.52	5,049.82	0.49	-11.22	10.54	0.17	-0.02	-13.45
5,364.00	0.17	181.13	5,363.81	-1.95	-11.22	11.28	0.18	-0.18	0.51
5,676.00	0.85	212.14	5,675.80	-3.91	-12.17	12.78	0.16	0.15	9.94

Checked By: _____ Approved By: _____ Date: _____