

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, 2013  
Submit one copy to appropriate District Office

RECEIVED

AUG 15 2013  
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT Farmington Field Office

|                                         |                                                        |                                                                             |
|-----------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------|
| <sup>1</sup> API Number<br>30-039-29936 | <sup>2</sup> Pool Code<br>72319                        | <sup>3</sup> Pool Name<br>BLANCO MESAVERDE (PRORATED GAS POOL) BASIN DAKOTA |
| <sup>4</sup> Property Code<br>306758    | <sup>5</sup> Property Name<br>JICARILLA CONTRACT 155   | <sup>6</sup> Well Number<br>13N                                             |
| <sup>7</sup> OGRID No.<br>143199        | <sup>8</sup> Operator Name<br>ENERVEST OPERATING, LLC. | <sup>9</sup> Elevation<br>6539'                                             |

<sup>10</sup>Surface Location

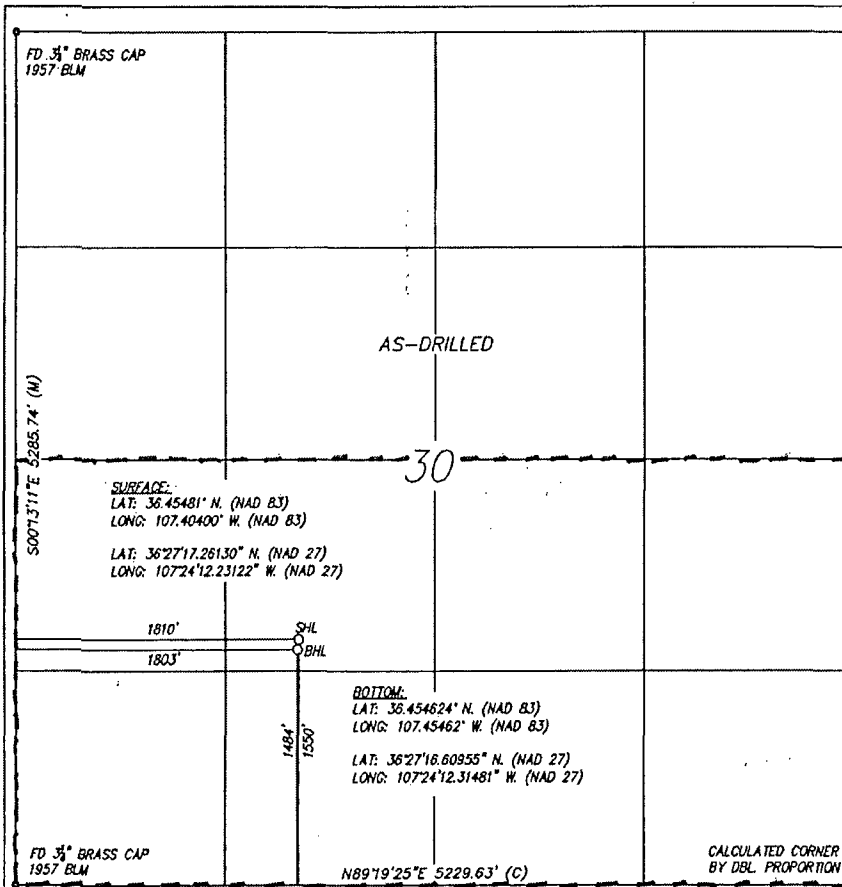
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| K             | 30      | 26-N     | 5-W   |         | 1550          | SOUTH            | 1810          | 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     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| K             | 30      | 26-N     | 5-W   |         | 1484          | SOUTH            | 1803          | WEST           | RIO ARRIBA |

|                                         |                               |                                  |                                          |
|-----------------------------------------|-------------------------------|----------------------------------|------------------------------------------|
| <sup>12</sup> Dedicated Acres<br>319.59 | <sup>13</sup> Joint of Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No.<br>MV-NSP-1400-A |
|-----------------------------------------|-------------------------------|----------------------------------|------------------------------------------|

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.

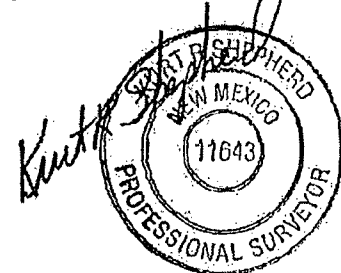


<sup>17</sup>OPERATOR CERTIFICATION  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has 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: BART TREVIÑO Date: 8/14/13  
Printed Name: BART TREVIÑO  
E-mail Address: BTREVIÑO@ENERVEST.NET

<sup>18</sup>SURVEYOR 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: AUGUST 6, 2013  
Signature and Seal of Professional Surveyor



Certificate Number 11643



Scientific Drilling

# Directional Survey Certification

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

RCVD AUG 22 '13  
OIL CONS. DIV.  
DIST. 3

|           |                       |                 |
|-----------|-----------------------|-----------------|
| RE: _____ | Enervest              | Operator        |
| _____     | Jicarilla 155 #13N    | Well Name & No. |
| _____     | Rio Arriba County, NM | County & State  |
| _____     | 330413DEF4978         | 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 2267 feet to a measured depth of 7390 feet is true and correct as determined from all available records.

Kell  
Signature

Colorado District Well Planner  
Title

Scientific Drilling International  
Company

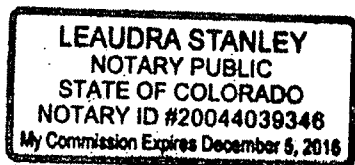
State of : Colorado }  
County of : Mesa } ss

On this 20th day of April, 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

Leaudra Stanley  
Notary Public

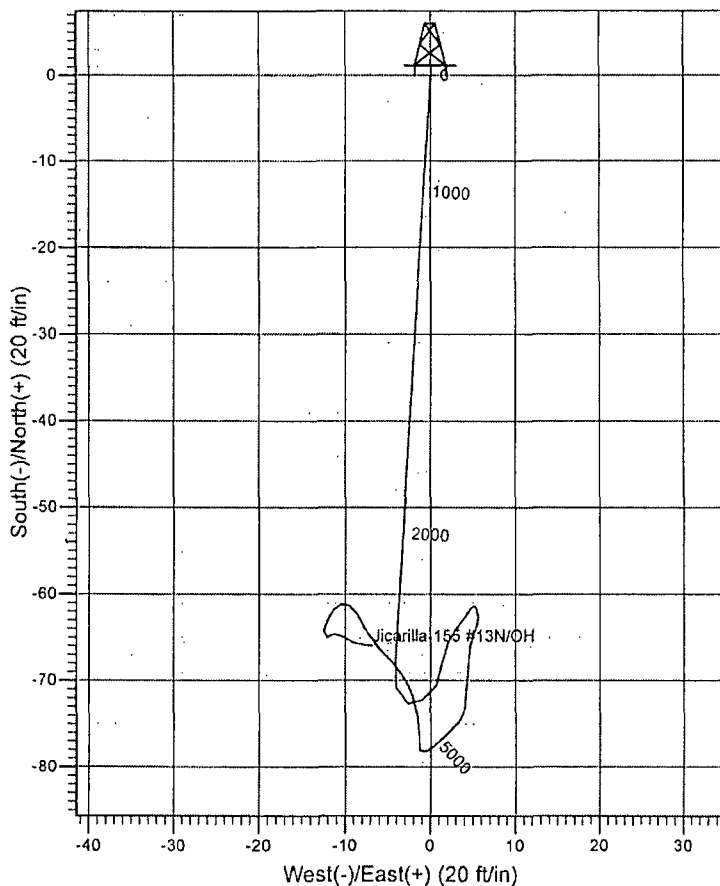
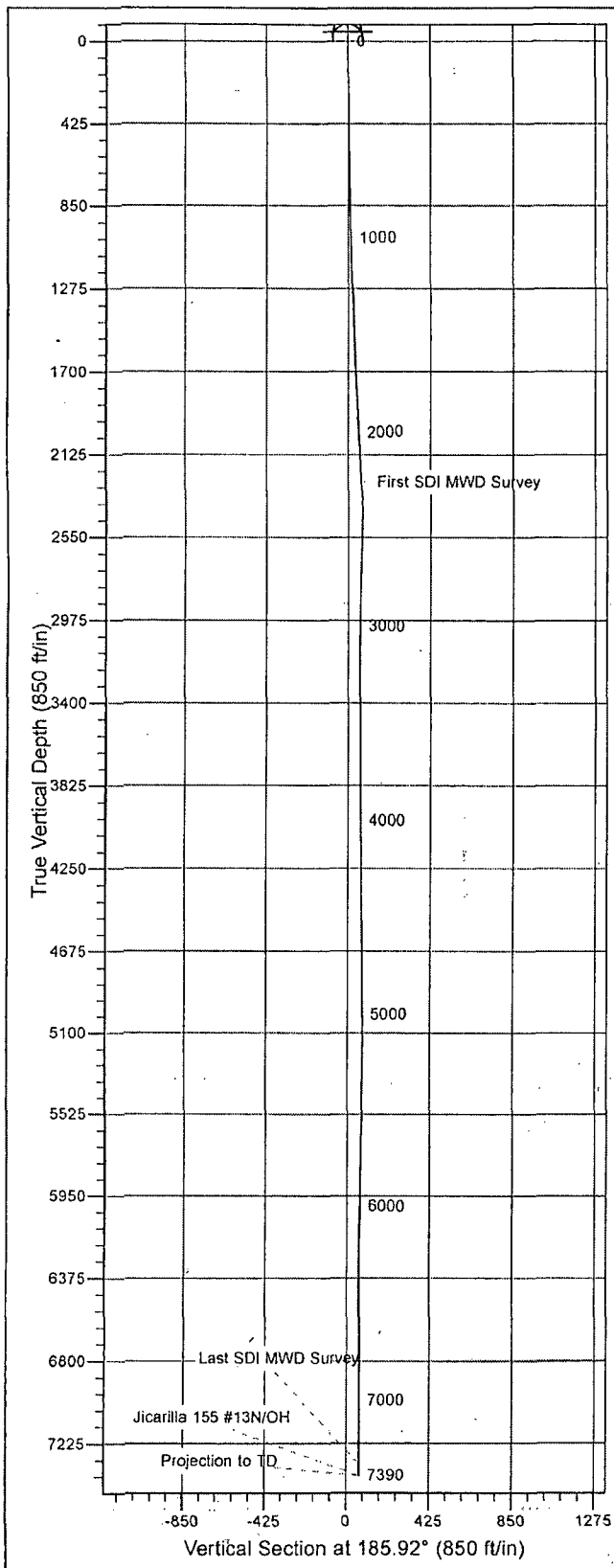
12/5/16  
My Commission Expires





# Scientific Drilling

Company: EnerVest Operating LLC  
Project: Rio Arriba County, NM (NAD83)  
Site: Jicarilla  
Well: Jicarilla 155 #13N  
Wellbore: OH  
Design: OH



### Well Details: Jicarilla 155 #13N

| +N/-S | +E/-W | Northing     | Easting      | Latitude         | Longitude        | Slot |
|-------|-------|--------------|--------------|------------------|------------------|------|
| 0.00  | 0.00  | 274017644.34 | 372015898.75 | 82° 23' 12.207 S | 36° 38' 16.552 E |      |

### REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Jicarilla 155 #13N, True North  
Vertical (TVD) Reference: GL 6539 & RKB 13' @ 6552.00ft  
Section (VS) Reference: Slot - (0.00N, 0.00E)  
Measured Depth Reference: GL 6539 & RKB 13' @ 6552.00ft  
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

15:28, April 30 2013  
Created By: Janie Collins

## Survey Report



Company: EnerVest Operating LLC  
 Project: Rio Arriba County, NM (NAD83)  
 Site: Jicarilla  
 Well: Jicarilla 155 #13N  
 Wellbore: OH  
 Design: OH

Local Co-ordinate Reference: Well Jicarilla 155 #13N  
 TVD Reference: GL 6539 & RKB 13' @ 6552.00ft  
 MD Reference: GL 6539 & RKB 13' @ 6552.00ft  
 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 155 #13N

Well Position: +N/-S 0.00 ft Northing: -274,017,644.35 usft Latitude: 82° 23' 12.207 S  
 +E/-W 0.00 ft Easting: 372,015,898.75 usft Longitude: 36° 38' 16.552 E  
 Position Uncertainty: 0.00 ft Wellhead Elevation: ft Ground Level: 6,539.00 ft

Wellbore: OH

| Magnetics | Model Name | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|-----------|------------|-------------|--------------------|------------------|------------------------|
|           | IGRF2010   | 4/30/2013   | -49.78             | -67.10           | 48,412                 |

Design: OH

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00

| Vertical Section: | Depth From (TVD)<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Direction<br>(°) |
|-------------------|--------------------------|---------------|---------------|------------------|
|                   | 0.00                     | 0.00          | 0.00          | 185.92           |

Survey Program: Date: 4/30/2013

| From<br>(ft) | To<br>(ft) | Survey (Wellbore)           | Tool Name | Description              |
|--------------|------------|-----------------------------|-----------|--------------------------|
| 2,267.00     | 7,390.00   | Survey #1 - MWD Survey (OH) | MWD SDI   | MWD - Standard ver 1.0.1 |

Survey

| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Vertical<br>Section<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| 0.00                      | 0.00               | 0.00           | 0.00                      | 0.00          | 0.00          | 0.00                        | 0.00                        | 0.00                       | 0.00                      |
| 2,267.00                  | 3.42               | 183.51         | 2,265.65                  | -67.51        | -4.14         | 67.58                       | 0.15                        | 0.15                       | 0.00                      |
| First SDI MWD Survey      |                    |                |                           |               |               |                             |                             |                            |                           |
| 2,330.00                  | 2.58               | 171.84         | 2,328.57                  | -70.79        | -4.05         | 70.83                       | 1.64                        | -1.33                      | -18.52                    |
| 2,423.00                  | 1.41               | 79.97          | 2,421.53                  | -72.66        | -2.63         | 72.55                       | 3.20                        | -1.26                      | -98.78                    |
| 2,486.00                  | 1.68               | 73.07          | 2,484.50                  | -72.28        | -0.98         | 71.98                       | 0.52                        | 0.43                       | -10.95                    |
| 2,580.00                  | 1.60               | 15.27          | 2,578.47                  | -70.59        | 0.88          | 70.15                       | 1.69                        | -0.09                      | -61.49                    |
| 2,673.00                  | 1.70               | 12.17          | 2,671.43                  | -67.99        | 1.31          | 67.49                       | 0.14                        | 0.11                       | -3.33                     |
| 2,767.00                  | 1.18               | 21.60          | 2,765.40                  | -65.73        | 1.96          | 65.18                       | 0.61                        | -0.55                      | 10.03                     |
| 2,861.00                  | 1.01               | 39.45          | 2,859.39                  | -64.19        | 2.85          | 63.55                       | 0.40                        | -0.18                      | 18.99                     |
| 2,987.00                  | 0.83               | 34.22          | 2,985.37                  | -62.58        | 4.06          | 61.82                       | 0.16                        | -0.14                      | -4.15                     |

## Survey Report



Company: EnerVest Operating LLC  
 Project: Rio Arriba County, NM (NAD83)  
 Site: Jicarilla  
 Well: Jicarilla 155 #13N  
 Wellbore: OH  
 Design: OH

Local Co-ordinate Reference: Well Jicarilla 155 #13N  
 TVD Reference: GL 6539 & RKB 13' @ 6552.00ft  
 MD Reference: GL 6539 & RKB 13' @ 6552.00ft  
 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) |
|---------------------|-----------------|-------------|---------------------|----------|----------|-----------------------|-----------------------|----------------------|---------------------|
| 3,114.00            | 0.34            | 41.77       | 3,112.36            | -61.54   | 4.83     | 60.71                 | 0.39                  | -0.39                | 5.94                |
| 3,240.00            | 0.14            | 140.33      | 3,238.36            | -61.38   | 5.18     | 60.51                 | 0.31                  | -0.16                | 78.22               |
| 3,364.00            | 0.31            | 153.12      | 3,362.36            | -61.79   | 5.43     | 60.90                 | 0.14                  | 0.14                 | 10.31               |
| 3,520.00            | 0.29            | 180.44      | 3,518.36            | -62.56   | 5.62     | 61.65                 | 0.09                  | -0.01                | 17.51               |
| 3,678.00            | 0.37            | 194.47      | 3,676.36            | -63.46   | 5.49     | 62.55                 | 0.07                  | 0.05                 | 8.88                |
| 3,835.00            | 0.51            | 200.89      | 3,833.35            | -64.60   | 5.11     | 63.73                 | 0.09                  | 0.09                 | 4.09                |
| 3,993.00            | 0.55            | 194.36      | 3,991.35            | -65.99   | 4.67     | 65.16                 | 0.05                  | 0.03                 | -4.13               |
| 4,151.00            | 0.70            | 178.85      | 4,149.34            | -67.69   | 4.50     | 66.87                 | 0.14                  | 0.09                 | -9.82               |
| 4,309.00            | 0.60            | 191.16      | 4,307.33            | -69.47   | 4.36     | 68.65                 | 0.11                  | -0.06                | 7.79                |
| 4,467.00            | 0.74            | 180.72      | 4,465.32            | -71.30   | 4.19     | 70.49                 | 0.12                  | 0.09                 | -6.61               |
| 4,624.00            | 0.64            | 187.64      | 4,622.30            | -73.18   | 4.06     | 72.37                 | 0.08                  | -0.06                | 4.41                |
| 4,780.00            | 0.64            | 224.36      | 4,778.29            | -74.67   | 3.33     | 73.93                 | 0.26                  | 0.00                 | 23.54               |
| 4,934.00            | 0.76            | 223.14      | 4,932.28            | -76.03   | 2.03     | 75.41                 | 0.08                  | 0.08                 | -0.79               |
| 5,088.00            | 0.81            | 230.53      | 5,086.27            | -77.47   | 0.50     | 77.00                 | 0.07                  | 0.03                 | 4.80                |
| 5,184.00            | 0.67            | 238.53      | 5,182.26            | -78.19   | -0.51    | 77.83                 | 0.18                  | -0.15                | 8.33                |
| 5,340.00            | 0.40            | 358.55      | 5,338.26            | -78.12   | -1.30    | 77.84                 | 0.60                  | -0.17                | 76.94               |
| 5,435.00            | 1.92            | 358.09      | 5,433.23            | -76.20   | -1.36    | 75.93                 | 1.60                  | 1.60                 | -0.48               |
| 5,529.00            | 1.48            | 348.53      | 5,527.19            | -73.44   | -1.65    | 73.22                 | 0.56                  | -0.47                | -10.17              |
| 5,621.00            | 1.00            | 338.77      | 5,619.17            | -71.52   | -2.18    | 71.37                 | 0.57                  | -0.52                | -10.61              |
| 5,714.00            | 0.72            | 326.58      | 5,712.16            | -70.28   | -2.80    | 70.19                 | 0.36                  | -0.30                | -13.11              |
| 5,807.00            | 0.59            | 331.77      | 5,805.16            | -69.37   | -3.34    | 69.35                 | 0.15                  | -0.14                | 5.58                |
| 5,902.00            | 1.59            | 319.02      | 5,900.14            | -67.94   | -4.44    | 68.04                 | 1.08                  | 1.05                 | -13.42              |
| 5,998.00            | 1.21            | 313.92      | 5,996.11            | -66.24   | -6.04    | 66.51                 | 0.42                  | -0.40                | -5.31               |
| 6,122.00            | 1.42            | 333.15      | 6,120.08            | -63.96   | -7.68    | 64.41                 | 0.39                  | 0.17                 | 15.51               |
| 6,216.00            | 0.93            | 329.22      | 6,214.06            | -62.26   | -8.60    | 62.82                 | 0.53                  | -0.52                | -4.18               |
| 6,312.00            | 0.76            | 298.89      | 6,310.05            | -61.29   | -9.55    | 61.94                 | 0.49                  | -0.18                | -31.59              |
| 6,407.00            | 0.56            | 247.71      | 6,405.04            | -61.16   | -10.53   | 61.92                 | 0.63                  | -0.21                | -53.87              |
| 6,502.00            | 0.72            | 220.84      | 6,500.03            | -61.78   | -11.35   | 62.63                 | 0.35                  | 0.17                 | -28.28              |
| 6,595.00            | 0.77            | 201.04      | 6,593.03            | -62.81   | -11.96   | 63.71                 | 0.28                  | 0.05                 | -21.29              |
| 6,689.00            | 1.10            | 200.15      | 6,687.01            | -64.25   | -12.50   | 65.19                 | 0.35                  | 0.35                 | -0.95               |
| 6,813.00            | 0.86            | 60.73       | 6,811.01            | -64.91   | -12.10   | 65.81                 | 1.48                  | -0.19                | -112.44             |
| 6,875.00            | 0.63            | 77.95       | 6,873.00            | -64.61   | -11.36   | 65.44                 | 0.51                  | -0.37                | 27.77               |
| 6,970.00            | 0.64            | 127.30      | 6,968.00            | -64.82   | -10.42   | 65.55                 | 0.56                  | 0.01                 | 51.95               |
| 7,127.00            | 0.45            | 105.05      | 7,124.99            | -65.51   | -9.13    | 66.11                 | 0.18                  | -0.12                | -14.17              |
| 7,221.00            | 0.50            | 104.26      | 7,218.99            | -65.71   | -8.38    | 66.22                 | 0.05                  | 0.05                 | -0.84               |
| 7,333.00            | 0.54            | 95.52       | 7,330.98            | -65.88   | -7.38    | 66.29                 | 0.08                  | 0.04                 | -7.80               |
| Last SBI MWD Survey |                 |             |                     |          |          |                       |                       |                      |                     |
| 7,390.00            | 0.56            | 91.07       | 7,387.98            | -65.91   | -6.83    | 66.27                 | 0.08                  | 0.04                 | -7.81               |
| Projection to TD    |                 |             |                     |          |          |                       |                       |                      |                     |

## Survey Report



Company: EnerVest Operating LLC  
Project: Rio Arriba County, NM (NAD83)  
Site: Jicarilla  
Well: Jicarilla 155 #13N  
Wellbore: OH  
Design: OH

Local Co-ordinate Reference  
TVD Reference: GL 6539 & RKB 13' @ 6552.00ft  
MD Reference: GL 6539 & RKB 13' @ 6552.00ft  
North Reference: True  
Survey Calculation Method: Minimum Curvature  
Database: Grand Junction District

## Design Annotations

| Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Local Coordinates<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Comment              |
|---------------------------|---------------------------|------------------------------------|---------------|----------------------|
| 2,267.00                  | 2,265.65                  | -67.51                             | -4.14         | First SDI MWD Survey |
| 7,333.00                  | 7,330.98                  | -65.88                             | -7.38         | Last SDI MWD Survey  |
| 7,390.00                  | 7,387.98                  | -65.91                             | -6.83         | Projection to TD     |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_