



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE  
1000 RIO BRAZOS ROAD  
AZTEC NM 87410  
(505) 334-6178 FAX: (505) 334-6170  
[http://emnr.d.state.nm.us/ocd/District IU3/district.htm](http://emnr.d.state.nm.us/ocd/District%20IU3/district.htm)

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 12/29/2014 Operator Enervest API #30-0 45-25953

Property Name Payne Well No. 3E Location: Unit 2 Section 26 Township 31N Range 13W

Well Status (Shut-In or Producing) Initial PSI: Tubing 100 Intermediate      Casing 110 Bradenhead 90

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

| Testing | PRESSURE   |     |            | INTERM |     |
|---------|------------|-----|------------|--------|-----|
|         | Bradenhead |     |            |        |     |
|         | BH         | Int | Csg        | Int    | Csg |
| TIME    |            |     |            |        |     |
| 5 min   | <u>0</u>   |     | <u>110</u> |        |     |
| 10 min  | <u>0</u>   |     | <u>110</u> |        |     |
| 15 min  | <u>0</u>   |     | <u>110</u> |        |     |
| 20 min  |            |     |            |        |     |
| 25 min  |            |     |            |        |     |
| 30 min  |            |     |            |        |     |

| FLOW CHARACTERISTICS |              |
|----------------------|--------------|
| BRADENHEAD           | INTERMEDIATE |
| Steady Flow <u>✓</u> |              |
| Surges               |              |
| Down to Nothing      |              |
| Nothing              |              |
| Gas                  |              |
| Gas & Water          |              |
| Water                |              |

If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR      FRESH      SALTY      SULFUR      BLACK     

5 MINUTE SHUT-IN PRESSURE BRADENHEAD 50 INTERMEDIATE     

REMARKS:

Slight Blow after 15 sec

By Alp Chavan

Witness     

Lease Operator  
(Position)

E-mail address



2030 Afton Place  
Farmington, NM 87401  
(505) 325-6622

Analysis No: EN150005  
Cust No: 25400-11345

### Well/Lease Information

Customer Name: ENERVEST  
Well Name: PAYNE #3E  
County/State: SAN JUAN NM  
Location:  
Field:  
Formation:  
Cust. Stn. No.:

Source: BRADENHEAD  
Pressure: 90 PSIG  
Sample Temp: DEG. F  
Well Flowing: Y  
Date Sampled: 12/29/2014  
Sampled By: LEROY M.  
Foreman/Engr.:

Remarks: BRADENHEAD SAMPLE

### Analysis

| Component:: | Mole%:  | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|---------|---------|---------|--------------|
| Nitrogen    | 1.371   | 0.1510  | 0.00    | 0.0133       |
| CO2         | 0.017   | 0.0030  | 0.00    | 0.0003       |
| Methane     | 88.443  | 15.0320 | 893.27  | 0.4899       |
| Ethane      | 4.980   | 1.3350  | 88.13   | 0.0517       |
| Propane     | 3.105   | 0.8580  | 78.12   | 0.0473       |
| Iso-Butane  | 0.837   | 0.2750  | 27.22   | 0.0168       |
| N-Butane    | 0.707   | 0.2230  | 23.06   | 0.0142       |
| I-Pentane   | 0.275   | 0.1010  | 11.00   | 0.0069       |
| N-Pentane   | 0.128   | 0.0470  | 5.13    | 0.0032       |
| Hexane Plus | 0.137   | 0.0610  | 7.22    | 0.0045       |
| Total       | 100.000 | 18.0860 | 1133.17 | 0.6479       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1138.9  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1119.1  
REAL SPECIFIC GRAVITY: 0.6494

GPM, BTU, and SPG calculations as shown  
above are based on current GPA factors.

DRY BTU @ 14.650: 1132.7  
DRY BTU @ 14.696: 1136.3  
DRY BTU @ 14.730: 1138.9  
DRY BTU @ 15.025: 1161.7

CYLINDER #: 12  
CYLINDER PRESSURE: 92 PSIG  
DATE RUN: 12/31/14 9:26 AM  
ANALYSIS RUN BY: LOGAN CHENEY



ENERVEST  
WELL ANALYSIS COMPARISON

Lease: PAYNE #3E  
Stn. No.:  
Mtr. No.:

BRADENHEAD

01/05/2015  
25400-11345

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Smpl Date: 12/29/2014  
Test Date: 12/31/2014  
Run No: EN150005  
Nitrogen: 1.371  
CO2: 0.017  
Methane: 88.443  
Ethane: 4.980  
Propane: 3.105  
I-Butane: 0.837  
N-Butane: 0.707  
I-Pentane: 0.275  
N-Pentane: 0.128  
Hexane+: 0.137  
BTU: 1138.9  
GPM: 18.0860  
SPG: 0.6494



2030 Afton Place  
Farmington, NM 87401  
(505) 325-6622

Analysis No: EN150006  
Cust No: 25400-11350

### Well/Lease Information

Customer Name: ENERVEST  
Well Name: PAYNE #3E  
County/State: SAN JUAN NM  
Location:  
Field:  
Formation:  
Cust. Stn. No.:

Source: CASING  
Pressure: 10 PSIG  
Sample Temp: DEG. F  
Well Flowing: Y  
Date Sampled: 12/29/2014  
Sampled By: LEROY M.  
Foreman/Engr.:

Remarks: CASING SAMPLE

### Analysis

| Component:  | Mole%:  | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|---------|---------|---------|--------------|
| Nitrogen    | 0.375   | 0.0410  | 0.00    | 0.0036       |
| CO2         | 0.739   | 0.1270  | 0.00    | 0.0112       |
| Methane     | 78.336  | 13.3270 | 791.19  | 0.4339       |
| Ethane      | 11.694  | 3.1380  | 206.95  | 0.1214       |
| Propane     | 5.110   | 1.4130  | 128.57  | 0.0778       |
| Iso-Butane  | 0.545   | 0.1790  | 17.72   | 0.0109       |
| N-Butane    | 1.536   | 0.4860  | 50.11   | 0.0308       |
| I-Pentane   | 0.420   | 0.1540  | 16.80   | 0.0105       |
| N-Pentane   | 0.437   | 0.1590  | 17.52   | 0.0109       |
| Hexane Plus | 0.808   | 0.3620  | 42.59   | 0.0267       |
| Total       | 100.000 | 19.3860 | 1271.46 | 0.7378       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1279.3  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1257.0  
REAL SPECIFIC GRAVITY: 0.7403

GPM, BTU, and SPG calculations as shown  
above are based on current GPA factors.

DRY BTU @ 14.650: 1272.4  
DRY BTU @ 14.696: 1276.3  
DRY BTU @ 14.730: 1279.3  
DRY BTU @ 15.025: 1304.9

CYLINDER #: 101  
CYLINDER PRESSURE: 113 PSIG  
DATE RUN: 12/31/14 9:27 AM  
ANALYSIS RUN BY: LOGAN CHENEY



ENERVEST  
WELL ANALYSIS COMPARISON

Lease: PAYNE #3E  
Stn. No.:  
Mtr. No.:

CASING

01/05/2015  
25400-11350

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Smpl Date: 12/29/2014  
Test Date: 12/31/2014  
Run No: EN150006  
  
Nitrogen: 0.375  
CO2: 0.739  
Methane: 78.336  
Ethane: 11.694  
Propane: 5.110  
I-Butane: 0.545  
N-Butane: 1.536  
I-Pentane: 0.420  
N-Pentane: 0.437  
Hexane+: 0.808  
  
BTU: 1279.3  
GPM: 19.3860  
SPG: 0.7403