UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Form 10-K/A
Amendment No. 2

[X] Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the fiscal year ended December 31, 2010

[ ] Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the transition period from _____ to _____

Commission File Number 001-14039

CALLON PETROLEUM COMPANY
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization) 64-0844345

200 North Canal Street
Natchez, Mississippi 601-442-1601

(Registrant’s telephone number, including area code)

601-442-1601

Common Stock, $.01 par value
New York Stock Exchange

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes [X] No [ ]

Indicate by check mark whether the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes [ ] No [X]

Indicate by check mark whether registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of “large accelerated filer,” “accelerated filer,” and “smaller reporting company” in Rule 12b-2 of the Exchange Act (check one):

Large accelerated filer [X] Accelerated filer [ ]
Non-accelerated filer [ ] Smaller reporting company [ ]

The aggregate market value of the voting and non-voting common equity stock held by non-affiliates of the registrant was $165.3 million as of June 30, 2010.

As of March 3, 2011, 39,105,130 shares of the Registrant’s common stock, par value $.01 per share, were outstanding.

Documents Incorporated by Reference
Portions of the definitive Proxy Statement of Callon Petroleum Company (to be filed no later than 120 days after December 31, 2010) relating to the Annual Meeting of Stockholders to be held on May 12, 2011, which are incorporated into Part III of this Form 10-K.
EXPLANATORY NOTE

We filed our Annual Report on Form 10-K for the year ended December 31, 2010 on March 15, 2011 (the “Original Report”). On March 18, 2011, we filed an Amendment No. 1 on Form 10-K/A (“Amendment No. 1”) to the Original Report solely to revise Exhibit 99.1 and include the consent of Huddleston & Co., Inc. We are filing this Amendment No. 2 on Form 10-K/A ( “Amendment No. 2”) because Amendment No. 1 inadvertently omitted the signature of a duly authorized representative and the certifications as specified in Exchange Act rules 13a-14(a) or 15d-14(a). We have made no further changes to the Original Report, as amended by Amendment No. 1. This Amendment No. 2 also includes the revised Exhibit 99.1 filed as an exhibit to Amendment No. 1 and includes the consent of Huddleston & Co., Inc. This Amendment No. 2 does not reflect events occurring after the filing of Amendment No. 1, nor does it modify or update the disclosures and information contained in Amendment No. 1 in any way other than described in this paragraph. Accordingly, this Amendment No. 2 should be read in conjunction with the Original Report, as amended by Amendment No. 1, and our other filings with the SEC subsequent to the filing of the Original Report.
### Part IV.

**Item 15. Exhibits and Financial Statement Tables**

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>Description</th>
</tr>
</thead>
</table>
| 23      | Consents of Experts and Counsel  
          | Consent of Huddleston & Co., Inc. |
| 23.3    |             |
| 31      | Rule 13a-14(a) Certifications  
          | Certification of Chief Executive Officer pursuant to Rule 13(a)-14(a)  
          | Certification of Chief Financial Officer pursuant to Rule 13(a)-14(a) |
| 31.1    |             |
| 31.2    |             |
| 99      | Additional Exhibits  
          | Reserve Report Summary Prepared by Huddleston & Co., Inc. as of December 31, 2010 |
| 99.1    |             |
Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Callon Petroleum Company has duly caused this Amendment No. 2 to be signed on its behalf by the undersigned, thereunto duly authorized.

Callon Petroleum Company
Registrant

By: /s/ B.F. Weatherly
Name: B.F. Weatherly
Title: Executive Vice President and Chief Financial Officer

January 5, 2012
CONSENT OF HUDDLESTON & CO., INC.

As independent oil and gas consultants, we hereby consent to the references to us and our reserve reports for the years ended December 31, 2010, 2009, and 2008 in Callon Petroleum Company’s Annual Report on Form 10-K/A for the year ended December 31, 2010 and the incorporation by reference of our reports in the following Registration Statements:

- Registration Statement (Form S-8 No. 33-90410) of Callon Petroleum Company;
- Registration Statement (Form S-8 No. 333-100646) of Callon Petroleum Company;
- Registration Statement (Form S-8 No. 333-47784) of Callon Petroleum Company;
- Registration Statement (Form S-8 No. 333-29537) of Callon Petroleum Company;
- Registration Statement (Form S-8 No. 333-29529) of Callon Petroleum Company;
- Registration Statement (Form S-8 No. 333-109744) of Callon Petroleum Company;
- Registration Statement (Form S-8 No. 333-135703) of Callon Petroleum Company;
- Registration Statement (Form S-8 No. 333-160223) of Callon Petroleum Company;
- Registration Statement (Form S-3 No. 333-148680) of Callon Petroleum Company.

HUDDLESTON & CO ., INC.
Texas Registered Engineering Firm F-1024

/s/Peter D. Huddleston
Peter D. Huddleston, P.E.
President

Houston, Texas
January 4, 2012
CERTIFICATIONS

I, Fred L. Callon, certify that:

1. I have reviewed this Annual Report on Form 10-K/A of Callon Petroleum Company; and

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: January 5, 2012

/s/ Fred L. Callon
Fred L. Callon, President and Chief Executive Officer
(Principal executive officer)
I, B. F. Weatherly, certify that:

1. I have reviewed this Annual Report on Form 10-K/A of Callon Petroleum Company; and

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: January 5, 2012

/s/ B. F. Weatherly
B. F. Weatherly, Executive Vice President and
Chief Financial Officer (Principal Financial Officer)
February 7, 2011

Callon Petroleum Company
200 North Canal Street
Natchez, Mississippi 39120

Re: Callon Petroleum Company
Estimated Future Reserves and Revenues
As of December 31, 2010

Gentlemen:

Pursuant to your request, we have estimated oil, condensate, and natural gas reserves and projected revenues for all properties owned by Callon Petroleum Company. The properties are located in Louisiana, Texas, and in the federal waters of the Gulf of Mexico.

Our conclusions, as of December 31, 2010, follow:

<table>
<thead>
<tr>
<th>Constant Product Prices</th>
<th>Net To Callon Petroleum Company*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proved Developed</td>
</tr>
<tr>
<td></td>
<td>Producing</td>
</tr>
<tr>
<td>Estimated Future Net Oil/Cond., Mbbl</td>
<td>2,054.0</td>
</tr>
<tr>
<td>Estimated Future Net (Sales) Gas, MMcf</td>
<td>10,091.1</td>
</tr>
<tr>
<td>Estimated Future Gross Revenue, $M</td>
<td>209,068.0</td>
</tr>
<tr>
<td>Estimated Future Operating Expenses, $M</td>
<td>94,020.1</td>
</tr>
<tr>
<td>Estimated Future Production Taxes, $M</td>
<td>5,285.1</td>
</tr>
<tr>
<td>Estimated Future Capital Costs, $M</td>
<td>12,859.2</td>
</tr>
<tr>
<td>Estimated Future Net Revenue (“FNR”), $M</td>
<td>96,903.6</td>
</tr>
<tr>
<td>Estimated FNR Discounted at 10%, $M</td>
<td>85,237.3</td>
</tr>
</tbody>
</table>

Projected Revenues by Year – Constant Product Prices, $M**

<table>
<thead>
<tr>
<th>Year</th>
<th>Oil/Cond., Mbbl</th>
<th>Gas (Sales), MMcf</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>679.1</td>
<td>81.7</td>
</tr>
<tr>
<td>2012</td>
<td>817.1</td>
<td>107.1</td>
</tr>
<tr>
<td>2013</td>
<td>817.1</td>
<td>107.1</td>
</tr>
<tr>
<td>Thereafter</td>
<td>4,825.4</td>
<td>187.7</td>
</tr>
<tr>
<td>Total</td>
<td>679.1</td>
<td>81.7</td>
</tr>
</tbody>
</table>

*Numbers subject to rounding.
**Certain negative values are attributable to operating cost allocation for the producing and nonproducing categories.

Report Preparation

Purpose of Report – The purpose of this report is to provide the management of Callon with a projection of future reserves and revenues for an assessment of oil and gas properties owned by Callon for inclusion in their public filings. The Proved reserve and revenue projections shown herein have been prepared in accordance with Securities and Exchange Commission ("SEC") requirements for reporting purposes as described below. Although we have prepared projections of Probable and Possible reserves, it is our understanding that Callon has elected to exclude such reserve volumes for public reporting purposes.

Reporting Requirements – SEC Regulation S-K, Item 102, and Regulation S-X, Rule 4-10, require oil and gas reserve information to be reported by publicly held companies as supplemental financial data. These regulations were revised by the SEC effective for filings beginning January 1, 2010. The revised regulations provide for certain changes in Proved reserve definitions, add definitions for Probable and Possible reserves, and require that revenues associated with Proved reserves be reported on the basis of the average of the preceding 12-month, first-of-month product prices. Revenues are to be discounted at 10%, consistent with that required in prior years.

The Proved reserves included herein under "Constant Product Prices" have been prepared in accordance with our understanding of the methodologies specified under SEC and Financial Accounting Standards Board guidelines.
Standards of Practice – This report has been prepared in accordance with our understanding of the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserve Information as promulgated by the Society of Petroleum Engineers and the Guidelines for Application of the Definitions for Oil and Gas Reserves prepared by the Society of Petroleum Evaluation Engineers. However, the projected reserves have been prepared with consideration for reserve classification definitions specified by the SEC that do not necessarily conform to definitions promulgated by the Society of Petroleum Engineers and the World Petroleum Congress.

Economic Limits – In some cases the projections have been prepared with consideration for overall field production, resulting in negative cash flow projections for certain properties. In our opinion, the projections shown herein properly reflect the expected operations. The projections for some properties include consideration for abandonment costs, resulting in negative future revenues and discounted revenues.

Cash Flow Projections – The cash flow projections were run on the aries computer program utilizing Callon's computer facilities. However, Huddleston & Co., Inc., supplied all of the input parameters for the reserve projections.

Cash Flow Presentation – The gross and net reserve volume columns in the cash flow projections have been separated into three different columns: oil (Mbbl), produced gas (MMcf), and sales gas (MMcf). Product prices, net revenues before taxes, and severance taxes are shown separately for each product.
Reserve Estimates

Extrapolation of performance history and material balance estimates were utilized for projecting future recoverable reserves for the producing properties where sufficient history was available to suggest performance trends and where these methods were applicable to the subject reservoirs. The projections for the remaining producing properties were necessarily based on volumetric calculations and/or analogy to nearby producing completions. Reserves assigned to nonproducing zones and undeveloped locations were projected on the basis of volumetric calculations and analogy to nearby production.

Approximately 41% of the future net revenues discounted at 10% are included in the Proved Developed Producing category. The remaining 59% of discounted net revenues are included in the Nonproducing and Undeveloped classifications. Reserve estimates for those properties in the Nonproducing and Undeveloped categories will be subject to a significantly greater level of variation than estimates for producing properties exhibiting established decline trends.

We have utilized certain geologic and engineering data furnished by Callon. However, in all cases we have exercised the final judgments for the estimated reserves and future schedules of production.

In our opinion the assumptions, methodologies and analytical procedures used in this report appropriate for SEC reporting purposes. We have used the methods and procedures that we consider necessary and appropriate to prepare the estimates of reserves herein.

Gas Volumes – Gas volumes are reported at the prevailing pressure base of the state in which the reserves are located and at 60 degrees Fahrenheit. The projections reflect gas streams for production gas and sales gas. The difference between the two is intended to reflect fuel and lease usage.

Property Descriptions

Mississippi Canyon 538/582 – The Medusa Prospect, drilled by Murphy on Mississippi Canyon Blocks 538 and 582 during 1999 and more fully delineated as a result of drilling conducted in 2000 and 2001, successfully tested a number of horizons in two separate fault blocks. Drilling operations conducted during 2002 resulted in certain minor revisions in geological interpretations and reserves were adjusted to reflect a revised study of geological and petrophysical characteristics. Reserve estimates for a total of 17 reservoirs, representing 11 horizons, have been based on volumetric calculations utilizing 3-D seismic data and subsurface control for mapping, as well as petrophysical calculations derived from well logs and sidewall cores.

Production operations for this property were initiated in November 2003 and there were 8 wellbores producing at the time of report preparation. The estimated reserves for those reservoirs completed in the existing wells have been revised from our original projections to reflect the performance of the wells to date. In some cases Nonproducing and Undeveloped reserve assignments have been adjusted to conform with the performance of the existing completions. On an overall basis the estimated ultimate oil reserves have been increased 1.2% and gas reserves have been increased 1.7% in comparison to our previous report. The Medusa Prospect represents 49.3% and 9.1% of the oil and gas, respectively, net to Callon.

Undeveloped reserves projected for a sidetrack of the A-1 wellbore are scheduled to be developed upon depletion of reserves assigned to the existing well. We have been informed that the scheduling of development operations is the result of facilities limitations and cost considerations associated with drilling a separate wellbore.

Garden Banks 341 – The Habanero Prospect drilled by Shell during the first half of 1999 encountered two productive horizons: the Habanero 52 oil sand and the Habanero 55 gas sand. The productive horizons were also tested in a downdip, nonproductive sidetrack that allows for the calculation of hydrocarbon limits in both horizons. Proved reserves were assigned on the basis of information derived from the two wellbores and supported by seismic interpretations. Additional drilling activities conducted during 2001 resulted in establishing the updip productive limits in both reservoirs.

After being sidetracked to its current location in May 2003, production operations were initiated during November 2003 with the No. 2 well being completed in the Habanero 52 sand at a rate of 12,000 BOPD and 19 MMcf/day. In addition, the No. 1 was tested at a rate of 4,700 BOPD and 8.3 MMcf/day; however, the sliding sleeve separating the Habanero 52 and 55 sands was found to be in the open position resulting in the co-mingling of the two zones. A subsequent workover in the No. 1 wellbore resulted in a single completion in the Habanero 52 sand. We have been informed that the Habanero 55 sand is no longer mechanically able to be produced in the No. 1 well and the reserves for this horizon have been eliminated from our report.

The estimated reserves shown herein include consideration for two producing completions in the Habanero 52 oil sand, and two sidetrack locations to produce the Habanero 52 gas sand. In comparison to our prior report, projected ultimate oil recoveries have been increased 4.6% and gas recoveries have been revised upward 1.9% to reflect well performance.

The undeveloped reserves for this property have been included in our projected reserves since 2001 and currently are scheduled to be developed at the depletion of the existing completions in 2013. We have been informed that it is the intention of the operator to sidetrack the existing wellbores to exploit these reserves. The timing of such operations is the result of physical facilities limitations and economic considerations with respect to both drilling operations for new wellbores and reconfiguration of the facilities.

On an overall basis the estimated reserves attributable to the Habanero Prospect represent 7.9% of the estimated Proved net oil and 13.9% of the Proved net gas for Callon. Approximately 68% of the oil reserves and 93% of the gas reserves for this property have been included in the Undeveloped category.

Wolfberry Properties – In 2009 Callon acquired ownership in four West Texas fields: Block 5, Carpe Diem, East Bloxom, and Kayleigh, located in Crockett, Midland, Upton, and Ector Counties, respectively. The subject properties are located within the Wolfberry trend. On an overall basis the properties include 32 producing wells, 8 nonproducing wells and recompletions, and 56 undeveloped locations.
Reserve assignments for the producing completions were assigned on the basis of the extrapolation of performance data. Analogy was considered in determining hyperbolic exponents for the estimation of future reserves for those completions that did not have sufficient production history to definitively project the proper decline profile. Reserves for the undeveloped locations were projected on the basis of analogy to existing completions. In all cases, the undeveloped locations are direct offsets to existing completions.

In aggregate, these properties represent 41.8% and 19.0% of oil and gas reserves, respectively, net to Callon. Approximately 66% of the estimated reserves, on an equivalent barrel basis, are in the Undeveloped category. Development operations conducted during 2010 by Callon resulted in 20 wells being drilled (10 producing and 10 awaiting completion). All of the undeveloped locations are direct offsets to existing wellbores.

**Swan Lake** – During 2010 Callon drilled the Mills No. 1, a Haynesville completion located in Bossier Parish, Louisiana, which had produced approximately 0.95 Bcf by year end. A total of 3 development wells were assigned on the basis of the performance of the subject completion and wells producing in offset sections.

Reserve assignments for the producing completion were assigned on the basis of the extrapolation of performance data. Analogy was considered in determining the hyperbolic exponent for the estimation of future reserves. Reserves for the undeveloped locations were projected on the basis of analogy to existing completions.

In aggregate, this property represents 41.3% of gas reserves net to Callon. Approximately 77% of the estimated reserves are in the Undeveloped category.

**West Cameron Block 295** – West Cameron Block 295, discovered in 2005, is defined by two separate gas accumulations that are productive from similar geologic intervals. However, there is some evidence that the M-1 sands in the two existing wells have some degree of pressure communication though produced fluids vary somewhat in composition. The No. A-1 (formerly No. 2) wellbore encountered productive sands in the Rob M-1 horizon (15,370’ MD) and the Rob L horizon (13,100’ MD). The well was completed in the Rob M-1 and is currently on production. A development well, designed to effectively drain the M-1 reservoir (No. A-2), was drilled during 2006 and encountered the target horizon. The initial completion in the Rob M-1 Lower depleted during 2007 and the well has been recompleted to the Rob M-1. Reserve estimates for the property were increased to reflect the performance of the existing completions. Ultimate gross recovery for the field is estimated to be approximately 34.5 Bcf. The property represents 4.4% of remaining gas reserves net to Callon.
The estimated reserves and revenues shown herein should be considered on an overall basis and estimates for individual properties should not be taken out of context with the total or overall projections.

Development – Callon has assured us of its intent and ability to proceed with the development activities included in this report and that they are not aware of any legal, regulatory, political or economic obstacles that would significantly alter these plans.

The revenues and present worth of future net revenues are not represented to be market values either for individual properties or on a total property basis.

### Product Prices

As we understand the SEC requirements issued on January 14, 2009, oil and gas prices utilized to determine the Standardized Measure of discounted cash flows should be based on the trailing twelve-month average of the first-of-the-month prices. The estimated revenues shown herein reflect the actual average of first-of-the-month prices received by Callon on a property by property basis which conform with benchmark prices of $79.43 per barrel and $4.38 per MMBTU. All prices were held constant over the producing life of the properties. The projected prices for both oil and gas were based on our understanding of SEC requirements.

Gas prices have been adjusted to reflect the Btu content, transportation charges, and other fees specific to the individual properties. Gas prices for certain properties include consideration for processing arrangements and the price shown herein has been adjusted to reflect such arrangements in comparison to produced gas volumes. On an overall basis, the wellhead gas prices utilized herein are approximately 18% greater than the values utilized as of December 31, 2009. Market level gas prices are subject to a significant level of variation depending on location and marketing considerations specific to the individual properties. In our opinion, it is likely that there will be a substantial degree of variation in prices in the future. Spot prices for natural gas have experienced a large degree of volatility during recent years, which can be attributed to seasonal demands and other market considerations.

The projected oil prices for individual properties have been adjusted to reflect all wellhead deductions and premiums on a property by property basis, including transportation costs, location differentials, and crude quality. The weighted average wellhead prices shown herein are approximately 36% greater than those utilized for our report prepared as of December 31, 2009, which has had a material impact on estimated future revenues and in some cases has marginally affected economically recoverable reserves. Variations in oil prices are the result of changes in market conditions and future prices are likely to be affected by a variety of factors including OPEC actions, political and market considerations, and overall economic conditions.

All deductions and premiums to individual oil and gas prices were held constant over the life of the properties. Variations in future product prices may materially affect actual revenues in comparison to the projections shown herein.

Product price hedges, if any, were not considered for the purposes of this report.

A comparison of the average product prices, weighted as a composite for all Proved properties, follows:

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>Maximum</th>
<th>Average Over Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil, $/bbl</td>
<td>78.10</td>
<td>78.32</td>
<td>78.07</td>
</tr>
<tr>
<td>Gas, $/Mcf</td>
<td>4.80</td>
<td>5.68</td>
<td>5.10</td>
</tr>
</tbody>
</table>

### Operating Expenses

Operating expenses, generally shown as dollars per well per month for onshore properties, were provided by Callon and adjusted for nonrecurring costs where applicable. Operating costs for the Wolfberry properties include a component of variable costs projected on a unit of production basis to reflect declining expenses associated with decreasing producing levels. In some cases, particularly for the offshore properties, operating costs were projected on a total-unit or platform basis and the projections were continued until the unit or facility reached the economic limit. Severance and ad valorem taxes were calculated at the rates applicable to each property and have been deducted from the cash flow. Operating costs were held constant over the economic life of the properties.

### Capital Costs

Capital costs necessary to perform recompletions and to drill new wells were supplied by Callon. We have generally reviewed the projected expenditures and they are consistent with our perception of current costs necessary to perform the intended operations. Capital costs were held constant over the life of the properties.

### Other Considerations

#### Additional Costs – Costs were not deducted for depletion, depreciation, and/or amortization. Consideration has also been excluded for federal and/or state income taxes, if any.

Abandonment costs for all offshore properties and certain onshore properties were included in the projections where Callon has determined the total cost associated with abandoning the facilities and platforms will exceed salvage value. In some cases, funds have been escrowed to cover anticipated future abandonment costs. The projections reflect a total of $30,079,000 in abandonment costs.

#### Additional Potential Values – Values were not assigned to nonproducing acreage or to acreage held by production, if any. In general, the salvage of surface and subsurface equipment for the onshore properties was assumed to be equal to abandonment costs.

#### Context – The estimated reserves and revenues shown herein should be considered on an overall basis and estimates for individual properties should not be taken out of context with the total or overall projections.

#### Development – Callon has assured us of its intent and ability to proceed with the development activities included in this report and that they are not aware of any legal, regulatory, political or economic obstacles that would significantly alter these plans.

**The revenues and present worth of future net revenues are not represented to be market values either for individual properties or on a total property basis.**
**Data Sources** – Essentially all data were furnished by Callon, including production statistics, product prices, operating costs, ownership, and basic well information. In some cases we have considered information from our files or data from publicly available sources. We have accepted the data as represented. We express no opinions and make no representations as to legal or accounting interpretations provided by Callon. Production statistics for the significant Callon-operated properties and for several of the other more significant properties were available through December 2010.

We retain in our files plotted production histories for all properties and certain other information that we believe pertinent. We have not inspected the properties evaluated in this report nor have we conducted independent well tests.

The reserves shown in this report are estimates only and should not be construed as exact quantities. Proved reserves are those quantities of oil and gas which, by analysis of engineering and geoscience data, can be estimated with reasonable certainty to be economically producible. If the reserves are recovered, the resulting revenues and the related costs could be more or less than the estimated amounts. As a result of governmental regulations and policies and uncertainties in supply and demand, the sales rates, the prices received for produced reserves, the ability to recover the reserves and the costs incurred in recovering such reserves may vary from the assumptions made in the preparation of this report. Estimates of reserves may increase or decrease as a result of future operations, market conditions, and/or changes in governmental regulations or policies.

Respectfully submitted,

/s/ Peter D. Huddleston
Peter D. Huddleston, P.E.
Texas Registered Engineering Firm F-1024

PDH:klh
Huddleston & Co., Inc.