

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

**FORM 10-K/A**

Amendment No. 1

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2009

OR

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: 1-9260

**UNIT CORPORATION**

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

73-1283193

(I.R.S. Employer Identification No.)

**7130 South Lewis, Suite 1000**

Tulsa, Oklahoma

(Address of principal executive offices)

74136

(Zip Code)

(Registrant's telephone number, including area code) (918) 493-7700

**Securities registered pursuant to Section 12(b) of the Act:**

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$.20 per share	NYSE
Rights to Purchase Series A Participating Cumulative Preferred Stock	NYSE

**Securities registered pursuant to Section 12(g) of the Act: None**

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

Yes  No

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

Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

As of June 30, 2009, the aggregate market value of the voting and non-voting common equity (based on the closing price of the stock on the NYSE on June 30, 2009) held by non-affiliates was approximately \$840,731,739. Determination of stock ownership by non-affiliates was made solely for the purpose of this requirement, and the registrant is not bound by these determinations for any other purpose.

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

<u>Class</u>	<u>Outstanding at February 12, 2010</u>
Common Stock, \$.20 par value per share	47,592,327 shares

**DOCUMENTS INCORPORATED BY REFERENCE**

Document

Parts Into Which Incorporated

Portions of the registrant's definitive proxy statement (the "Proxy Statement") with respect to its annual meeting of shareholders scheduled to be held on May 5, 2010. The Proxy Statement shall be filed within 120 days after the end of the fiscal year to which this report relates.

Part III

## **EXPLANATORY NOTE**

We are filing this Amendment No. 1 to our Form 10-K for the year ended December 31, 2009 originally filed with the Securities and Exchange Commission on February 23, 2010 solely for the purpose of filing a revised report of our third-party petroleum engineering firm. The report of Ryder Scott Company, L.P. was filed as Exhibit 99.1 to our 2009 Form 10-K. This report included a statement limiting the use of the report to Unit Corporation. The report appearing in this Form 10-K/A does not contain that limitation. In addition to the revised report being filed as Exhibit 99.1, we are including in this Form 10-K/A a consent from Ryder Scott Company, L.P. in Exhibit 23.2 and certifications of our chief executive officer and chief financial officer in Exhibit 31.1 and 31.2.

No item of or disclosures appearing in our 2009 Form 10-K are affected by this filing other than the exhibits described above. This report on Form 10-K/A is presented as of the filing date of our 2009 Form 10-K and does not reflect events occurring after that date, or modify or update disclosures in any way.

**PART IV**

**Item 15. Exhibits, Financial Statement Schedules**

(a) *The following exhibits are filed as part of this report:*

- 23.2 Consent of Ryder Scott Company, L.P.
- 31.1 Certification of Chief Executive Officer under Rule 13a - 14(a) of the Exchange Act.
- 31.2 Certification of Chief Financial Officer under Rule 13a - 14(a) of the Exchange Act.
- 99.1 Ryder Scott Company, L.P. Summary Report.

**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

UNIT CORPORATION

DATE: September 17, 2010

By:                   /s/ LARRY D. PINKSTON                    
**LARRY D. PINKSTON**  
**President and Chief Executive Officer**  
**(Principal Executive Officer)**

## EXHIBIT INDEX

<b>Exhibit No.</b>	<b>Description</b>
23.2	Consent of Ryder Scott Company, L.P.
31.1	Certification of Chief Executive Officer under Rule 13a—14(a) of the Exchange Act.
31.2	Certification of Chief Financial Officer under Rule 13a—14(a) of the Exchange Act.
99.1	Ryder Scott Company, L.P. Summary Report.

**Exhibit 23.2**

**CONSENT OF RYDER SCOTT COMPANY, L.P.**

We hereby consent to incorporation by reference in the Registration Statements on Form S-8 (File Nos. 33-19652, 33-44103, 33-49724, 33-64323, 33-53542, 333-38166, 333-39584, 333-135194, 333-137857 and 333-166605) of Unit Corporation of the reference to our report for Unit Corporation, which appears in the December 31, 2009 annual report on Form 10-K of Unit Corporation filed on February 23, 2010, and our summary report attached as Exhibit 99.1 to the amendment on Form 10-K/A to such annual report filed on September 17, 2010.

/s/ Ryder Scott Company, L.P.

RYDER SCOTT COMPANY, L.P.

Houston, Texas  
September 17, 2010

**Exhibit 31.1**

**302 CERTIFICATIONS**

I, Larry D. Pinkston, certify that:

1. I have reviewed this annual report on Form 10-K/A of Unit Corporation; 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: September 17, 2010

/s/ Larry D. Pinkston  
LARRY D. PINKSTON  
Chief Executive Officer  
and Director

**Exhibit 31.2**

**302 CERTIFICATIONS**

I, David T. Merrill, certify that:

1. I have reviewed this annual report on Form 10-K/A of Unit Corporation; 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: September 17, 2010

/s/ David T. Merrill  
DAVID T. MERRILL  
Chief Financial Officer  
and Treasurer

September 17, 2010

Unit Corporation  
1000 Kensington Tower  
7130 South Lewis  
Tulsa, Oklahoma 74170-2500

Gentlemen:

At the request of Unit Corporation (Unit), Ryder Scott Company (Ryder Scott) has conducted a reserves audit of the estimates of the proved reserves as prepared by Unit's engineering and geological staff based on the definitions and disclosure guidelines contained in the United States Securities and Exchange Commission Title 17, Code of Federal Regulations, Modernization of Oil and Gas Reporting, Final Rule released January 14, 2009 in the Federal Register (SEC regulations).

The reserves audit conducted by Ryder Scott was completed on January 15, 2010. This third party letter report presents the results of our reserves audit based on the guidelines set forth under Section 229.1202(a)(7) and (8) of the SEC regulations. The estimated reserves shown herein represent Unit's estimated net reserves attributable to the leasehold and royalty interests in certain properties owned by Unit and the portion of those reserves reviewed by Ryder Scott, as of December 31, 2009.

The properties reviewed by Ryder Scott incorporate 622 reserve determinations and are located in the states of Arkansas, Colorado, Kansas, Louisiana, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, Texas, and Wyoming.

The proved net reserves attributable to the properties that we reviewed account for 81 percent of the total proved net liquid hydrocarbon reserves and 65 percent of the total proved net gas reserves based on estimates prepared by Unit as of December 31, 2009. The properties that we reviewed represent 85 percent of the total proved discounted future net income based on the unescalated pricing policy of the SEC as taken from reserve and income projections prepared by Unit as of December 31, 2009.

As prescribed by the Society of Petroleum Engineers in Paragraph 2.2(f) of the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information (SPE auditing standards), a reserves audit is defined as "the process of reviewing certain of the pertinent facts interpreted and assumptions made that have resulted in an estimate of reserves prepared by others and the rendering of an opinion about (1) the appropriateness of the methodologies employed; (2) the adequacy and quality of the data relied upon; (3) the depth and thoroughness of the reserves estimation process; (4) the classification of reserves appropriate to the relevant definitions used; and (5) the reasonableness of the estimated reserve quantities."

Based on our review, including the data, technical processes and interpretations presented by Unit, it is our opinion that the overall procedures and methodologies utilized by Unit in determining the proved reserves comply with the current SEC regulations and the overall proved reserves for the



reviewed properties as estimated by Unit are, in the aggregate, reasonable within the established audit tolerance guidelines set forth in the SPE auditing standards. The comparison was based on a net barrel of oil equivalent (BOE) basis. Natural gas is converted to oil equivalent using a factor of 6,000 cubic feet of natural gas per one barrel of oil equivalent.

The estimated reserves presented in this report are related to hydrocarbon prices. Unit has informed us that in the preparation of their reserve and income projections, as of December 31, 2009, they used average prices during the 12-month period prior to the ending date of the period covered in this report, determined as unweighted arithmetic averages of the prices in effect on the first-day-of-the-month for each month within such period, unless prices were defined by contractual arrangements as required by the SEC regulations. Actual future prices may vary significantly from the prices required by SEC regulations; therefore, volumes of reserves actually recovered and the amounts of income actually received may differ significantly from the estimated quantities presented in this report. The net reserves as estimated by Unit attributable to Unit's interest in properties that we reviewed and the reserves of properties that we did not review are summarized as follows:

**SEC PARAMETERS**  
Estimated Net Reserves  
Attributable to Certain Properties of  
**Unit Corporation**  
As of December 31, 2009

	Proved			Total Proved
	Developed		Undeveloped	
	Producing	Non-Producing		
<b><i>Net Reserves of Properties Audited by Ryder Scott</i></b>				
Oil/Condensate - Barrels	4,999,360	2,425,580	1,758,020	9,182,960
Plant Products - Barrels	6,915,270	2,876,390	2,426,410	12,218,070
Gas – MMCF	180,911	51,468	40,265	272,644
<b><i>Net Reserves of Properties Not Audited by Ryder Scott</i></b>				
Oil/Condensate - Barrels	1,299,960	458,060	727,850	2,485,870
Plant Products – Barrels	1,174,890	571,210	688,600	2,434,700
Gas – MMCF	67,150	38,688	40,579	146,417
<b><i>Total Net Reserves</i></b>				
Oil/Condensate - Barrels	6,299,320	2,883,640	2,485,870	11,668,830
Plant Products – Barrels	8,090,160	3,447,600	3,115,010	14,652,770
Gas – MMCF	248,061	90,156	80,844	419,061

Liquid hydrocarbons are expressed in standard 42 gallon barrels. All gas volumes are reported on an as-sold basis expressed in millions of cubic feet (MMCF) at the official temperature and pressure bases of the areas in which the gas reserves are located.

***Reserves Included in This Report***

In our opinion, the proved reserves presented in this report comply with the definitions, guidelines and disclosure requirements as required by the SEC regulations.

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward. Moreover, estimates of reserves may increase or decrease as a result of future operations, effects of regulation by governmental agencies or geopolitical risks. As a result, the estimates of oil and gas reserves have an intrinsic uncertainty. The reserves included in this report are therefore estimates only and should not be construed as being exact quantities. They may or may not be actually recovered, and if recovered, could be more or less than the estimated amounts.

An abridged version of the SEC reserves definitions from 210.4-10(a) entitled "Petroleum Reserves Definitions" is included as an attachment to this report.

### ***Audit Data, Methodology, Procedure and Assumptions***

The reserves for the properties that we reviewed were estimated by performance methods or the volumetric method. In general, reserves attributable to producing wells and/or reservoirs were estimated by performance methods such as decline curve analysis and material balance, which utilized extrapolations of historical production and pressure data available generally through October, 2009 in those cases where such data were considered to be definitive. In certain cases, producing reserves were estimated by the volumetric method where there were inadequate historical performance data to establish a definitive trend and where the use of production performance data as a basis for the reserve estimates was considered to be inappropriate. Reserves attributable to non-producing and undeveloped reserves included herein were estimated by the volumetric method, which utilized all pertinent well and seismic data available through December, 2009.

To estimate economically recoverable oil and gas reserves, we consider many factors and assumptions including, but not limited to, the use of reservoir parameters derived from geological, geophysical and engineering data which cannot be measured directly, economic criteria based on current costs and SEC pricing requirements, and forecasts of future production rates. Under the SEC regulations 210.4-10(a)(22)(v) and (26), proved reserves must be demonstrated to be economically producible based on existing economic conditions including the prices and costs at which economic producibility from a reservoir is to be determined as of the effective date of the report. Unit has informed us that they have furnished us all of the accounts, records, geological and engineering data, and reports and other data required for this investigation. In performing our audit of Unit's forecast of future production and income, we have relied upon data furnished by Unit with respect to property interests owned, production and well tests from examined wells, normal direct costs of operating the wells or leases, other costs such as transportation and/or processing fees, ad valorem and production taxes, recompletion and development costs, abandonment costs after salvage, product prices based on the SEC regulations, geological structural and isochore maps, well logs, core analyses, and pressure measurements. Ryder Scott reviewed such factual data for its reasonableness; however, we have not conducted an independent verification of the data supplied by Unit.

As previously stated, the hydrocarbon prices used by Unit are based on the average prices during the 12-month period prior to the ending date of the period covered in this report, determined as the unweighted arithmetic averages of the prices in effect on the first-day-of-the-month for each month within such period, unless prices were defined by contractual arrangements. For hydrocarbon products sold under contract, the contract prices, including fixed and determinable escalations exclusive of inflation adjustments, were used until expiration of the contract. Upon contract expiration, the prices were adjusted to the 12-month unweighted arithmetic average as previously described.

The effects of derivative instruments designated as price hedges of oil and gas quantities are not reflected in Unit's individual property evaluations.

While it may reasonably be anticipated that the future prices received for the sale of production and the operating costs and other costs relating to such production may also increase or decrease from existing levels, such changes were, in accordance with rules adopted by the SEC, omitted from consideration in making this evaluation.

Gas imbalances, if any, were not taken into account in the gas reserve estimates reviewed. In certain cases, the gas volumes included herein include gas consumed in operations as reserves. In those cases, the effective price was reduced such that the fuel use had no value.

Operating costs used by Unit are based on the operating expense reports of Unit and include only those costs directly applicable to the leases or wells. The operating costs include a portion of general and administrative costs allocated directly to the leases and wells. When applicable for operated properties, the operating costs include an appropriate level of corporate general administrative and overhead costs. The operating costs for non-operated properties include the COPAS overhead costs that are allocated directly to the leases and wells under terms of operating agreements. No deduction was made for loan repayments, interest expenses, or exploration and development prepayments that were not charged directly to the leases or wells.

Development costs used by Unit are based on authorizations for expenditure for the proposed work or actual costs for similar projects. Unit's estimates of zero abandonment costs after salvage value for onshore properties were used in this report. Ryder Scott has not performed a detailed study of the abandonment costs or the salvage value and makes no warranty for Unit's estimate.

Because of the direct relationship between volumes of proved undeveloped reserves and development plans, we include in the proved undeveloped category only reserves assigned to undeveloped locations that we have been assured will definitely be drilled. Unit has assured us of their intent and ability to proceed with the development activities included in this report, and that they are not aware of any legal, regulatory or political obstacles that would significantly alter their plans. All of the undeveloped locations included in this report are scheduled to be drilled prior to January 1, 2015.

Current costs used by Unit were held constant throughout the life of the properties.

Unit's forecasts of future production rates are based on historical performance from wells now on production or estimated initial production rates based on test data and other related information for those wells or locations that are not currently producing. Forecasts of future production rates may be more or less than estimated because of changes in market demand or allowables set by regulatory bodies. Wells or locations that are not currently producing may start producing earlier or later than anticipated in the forecasts prepared by Unit.

Unit's operations may be subject to various levels of governmental controls and regulations. These controls and regulations may include matters relating to land tenure, drilling, production practices, environmental protection, marketing and pricing policies, royalties, various taxes and levies including income tax, and are subject to change from time to time. Such changes in governmental regulations and policies may cause volumes of reserves actually recovered and amounts of income actually received to differ significantly from the estimated quantities.

The estimates of reserves presented herein were based upon a detailed study of the properties in which Unit owns an interest; however, we have not made any field examination of the properties. No consideration was given in this report to potential environmental liabilities that may exist, nor were any costs included for potential liability to restore and clean up damages, if any, caused by past operating practices.

Certain technical personnel of Unit are responsible for the preparation of reserve estimates on new properties and for the preparation of revised estimates, when necessary, on old properties. These personnel assembled the necessary data and maintained the data and workpapers in an orderly manner. We consulted with these technical personnel and had access to their workpapers and supporting data in the course of our audit.

The data described herein were accepted as authentic and sufficient for determining the reserves unless, during the course of our examination, a matter of question came to our attention in which case the data were not accepted until all questions were satisfactorily resolved. Our audit included such tests and procedures as we considered necessary under the circumstances to render the conclusions set forth herein.

### ***Audit Opinion***

In our opinion, Unit's estimates of future reserves for the reviewed properties were prepared in accordance with generally accepted petroleum engineering and evaluation principles for the estimation of future reserves as set forth in the Society of Petroleum Engineers' Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information, and we found no bias in the utilization and analysis of data in estimates for these properties.

The overall proved reserves for the reviewed properties as estimated by Unit are, in the aggregate, reasonable within the established audit tolerance guidelines of 10 percent as set forth in the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers.

In general, we were in reasonable agreement with Unit's estimates of proved reserves for the properties which we reviewed; however, in certain cases there was more than an acceptable variance between Unit's estimates and our estimates due to a difference in interpretation of data or due to our having access to data which were not available to Unit when its reserve estimates were prepared. In some of these cases, Unit revised its estimates to conform more closely to our estimates to ensure that in the aggregate we were in reasonable agreement. As a consequence, it is our opinion that the data presented herein for the properties that we reviewed fairly reflect the estimated net reserves owned by Unit.

### ***Other Properties***

Other properties, as used herein, are those properties of Unit that we did not review. The proved net reserves attributable to the other properties account for 19 percent of the total proved net liquid hydrocarbon reserves and 35 percent of the total proved net gas reserves based on estimates prepared by Unit as of December 31, 2009.

The same technical personnel of Unit were responsible for the preparation of the reserve estimates for the properties that we reviewed as well as for the properties not reviewed by Ryder Scott.

***Standards of Independence and Professional Qualification***

Ryder Scott is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world for over seventy years. Ryder Scott is employee-owned and maintains offices in Houston, Texas; Denver, Colorado; and Calgary, Alberta, Canada. We have over eighty engineers and geoscientists on our permanent staff. By virtue of the size of our firm and the large number of clients for which we provide services, no single client or job represents a material portion of our annual revenue. We do not serve as officers or directors of any publicly traded oil and gas company and are separate and independent from the operating and investment decision-making process of our clients. This allows us to bring the highest level of independence and objectivity to each engagement for our services.

Ryder Scott actively participates in industry related professional societies and organizes an annual public forum focused on the subject of reserves evaluations and SEC regulations. Many of our staff have authored or co-authored technical papers on the subject of reserves related topics. We encourage our staff to maintain and enhance their professional skills by actively participating in ongoing continuing education.

Ryder Scott requires that staff engineers and geoscientists have received professional accreditation, and are maintaining in good standing, a registered or certified professional engineer's license or a registered or certified professional geoscientist's license, or the equivalents thereof, from an appropriate governmental authority or a recognized self-regulating professional organization prior to becoming an officer of the Company.

We are independent petroleum engineers with respect to Unit. Neither we nor any of our employees have any interest in the subject properties, and neither the employment to do this work nor the compensation is contingent on our estimates of reserves for the properties which were reviewed.

The professional qualifications of the undersigned, the technical person primarily responsible for auditing and approving the reserves information discussed in this report, are included as an attachment to this letter.

***Terms of Usage***

The results of our third party audit, presented in report form herein, were prepared in accordance with the disclosure requirements set forth in the SEC regulations and intended for public disclosure as an exhibit in filings made with the SEC by Unit. We have provided our written consent to Unit for the references to our name as well as to the references to the results of our third party audit in filings made by Unit with the SEC.

We have provided Unit with a digital version of the original signed copy of this audit letter. In the event there are any differences between the digital version included in filings made by Unit and the original signed audit letter, the original signed audit letter shall control and supersede the digital version.

The data and work papers used in the preparation of this report are available for examination by authorized parties in our offices. Please contact us if we can be of further service.

Very truly yours,

**RYDER SCOTT COMPANY, L.P.**  
TBPE Firm Registration No. F-1580

/s/ Fred P. Richoux  
Fred P. Richoux, P.E.  
TBPE License No. 33949  
Executive Vice President

FPR/sm

**UNIT CORPORATION**

**Estimated  
Future Reserves  
Attributable to Certain  
Leasehold and Royalty Interests**

**SEC Parameters**

**As of  
December 31, 2009**

/s/ Fred P. Richoux  
Fred P. Richoux, P.E.  
Executive Vice President

**RYDER SCOTT COMPANY, L.P.**  
TBPE Firm Registration No. F-1580

## **Professional Qualifications of Primary Technical Person**

The conclusions presented in this report are the result of technical analysis conducted by teams of geoscientists and engineers from Ryder Scott Company, L.P. Mr. Fred P. Richoux was the primary technical person responsible for the estimate of the reserves, future production and income.

Mr. Richoux, an employee of Ryder Scott Company L.P. (Ryder Scott) since 1978, is Ryder Scott's Executive Vice President, serves as Director of Canadian Operations, is a member of the Board of Directors, and is responsible for coordinating and supervising staff and consulting engineers of the company in ongoing reservoir evaluation studies worldwide. Before joining Ryder Scott, Mr. Richoux served in a number of engineering positions with Phillips Petroleum Company. For more information regarding Mr. Richoux's geographic and job specific experience, please refer to the Ryder Scott Company website at <http://www.ryderscott.com/Experience/Employees.php>.

Mr. Richoux earned a Bachelor of Science degree in Electrical Engineering from The University of Louisiana at Lafayette in 1967 and is a registered Professional Engineer in the State of Texas and in the Province of Alberta. He is also a member of the Society of Petroleum Engineers and the Society of Petroleum Evaluation Engineers.

In addition to gaining experience and competency through prior work experience, the Texas Board of Professional Engineers requires a minimum of fifteen hours of continuing education annually, including at least one hour in the area of professional ethics, which Mr. Richoux fulfills. As part of his 2009 continuing education hours, Mr. Richoux attended an internally presented 16 hours of formalized training as well as a day-long public forum and various professional society presentations specifically on the new SEC regulations relating to the definitions and disclosure guidelines contained in the United States Securities and Exchange Commission Title 17, Code of Federal Regulations, Modernization of Oil and Gas Reporting, Final Rule released January 14, 2009 in the Federal Register. Mr. Richoux attended an additional 9 hours of formalized in-house training as well as 9 hours of formalized external training during 2009 covering such topics as the SPE/WPC/AAPG/SPEE Petroleum Resources Management System, reservoir engineering, geoscience and petroleum economics evaluation methods, procedures and software and ethics for consultants. In addition, Mr. Richoux served as the technical presenter in a webinar hosted by a major accounting firm relating to the SEC reserve reporting guidelines.

Based on his educational background, professional training and more than 40 years of practical experience in the estimation and evaluation of petroleum reserves, Mr. Richoux has attained the professional qualifications as a Reserves Estimator and Reserves Auditor set forth in Article III of the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information" promulgated by the Society of Petroleum Engineers as of February 19, 2007.



## PETROLEUM RESERVES DEFINITIONS

**As Adapted From:  
RULE 4-10(a) of REGULATION S-X PART 210  
UNITED STATES SECURITIES AND EXCHANGE COMMISSION (SEC)**

### ***PREAMBLE***

On January 14, 2009, the United States Securities and Exchange Commission (“the Commission”) published the “Modernization of Oil and Gas Reporting; Final Rule” in the Federal Register of National Archives and Records Administration (NARA). The “Modernization of Oil and Gas Reporting; Final Rule” includes revisions and additions to the definition section in Rule 4-10 of Regulation S-X, revisions and additions to the oil and gas reporting requirements in Regulation S-K, and amends and codifies Industry Guide 2 in Regulation S-K. The “Modernization of Oil and Gas Reporting; Final Rule”, including all references to Regulation S-X and Regulation S-K, shall be referred to herein collectively as the “SEC Regulations”. The SEC Regulations take effect with all filings made with the United States Securities and Exchange Commission as of December 31, 2009, or after January 1, 2010. Reference should be made to the full text under Title 17, Code of Federal Regulations, Regulation S-X Part 210, Rule 4-10 (a) for the complete definitions, as the following definitions, descriptions and explanations rely wholly or in part on excerpts from the original document (direct passages excerpted from the aforementioned SEC document are denoted in italics herein).

Reserves are those quantities of petroleum which are anticipated to be commercially recovered from known accumulations from a given date forward under defined conditions. All reserve estimates involve some degree of uncertainty. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-classified as probable and possible reserves to denote progressively increasing uncertainty in their recoverability. Under the SEC Regulations as of December 31, 2009, or after January 1, 2010, a company may optionally disclose estimated quantities of probable or possible oil and gas reserves in documents publicly filed with the Commission. The SEC Regulations continue to prohibit disclosure of estimates of oil and gas resources other than reserves and any estimated values of such resources in any document publicly filed with the Commission unless such information is required to be disclosed in the document by foreign or state law as noted in §229.102 (5).

Reserves estimates will generally be revised as additional geologic or engineering data become available or as economic conditions change.

Reserves may be attributed to either natural energy or improved recovery methods. Improved recovery methods include all methods for supplementing natural energy or altering natural forces in the reservoir to increase ultimate recovery. Examples of such methods are pressure maintenance, cycling, waterflooding, thermal methods, chemical flooding, and the use of miscible and immiscible displacement fluids. Other improved recovery methods may be developed in the future as petroleum technology continues to evolve.

## **RESERVES (SEC DEFINITIONS)**

Securities and Exchange Commission Regulation S-X §229.4-10(a) (26) defines reserves as follows:

**Reserves.** *Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.*

*Note to paragraph (a)(26): Reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible. Reserves should not be assigned to areas that are clearly separated from a known accumulation by a non-productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations).*

## **PROVED RESERVES (SEC DEFINITIONS)**

Securities and Exchange Commission Regulation S-X §229.4-10(a) (22) defines proved oil and gas reserves as follows:

**Proved oil and gas reserves.** *Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations—prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.*

(i) *The area of the reservoir considered as proved includes:*

(A) *The area identified by drilling and limited by fluid contacts, if any, and*

(B) *Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.*

(ii) *In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.*

(iii) *Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.*

*(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:*

*(A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and*

*(B) The project has been approved for development by all necessary parties and entities, including governmental entities.*

*(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.*

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## RESERVES STATUS DEFINITIONS AND GUIDELINES

As Adapted From:  
RULE 4-10(a) of REGULATION S-X PART 210  
UNITED STATES SECURITIES AND EXCHANGE COMMISSION (SEC)

and

### PETROLEUM RESOURCES MANAGEMENT SYSTEM (SPE-PRMS)

Sponsored and Approved by:  
SOCIETY OF PETROLEUM ENGINEERS (SPE),  
WORLD PETROLEUM COUNCIL (WPC)  
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS (AAPG)  
SOCIETY OF PETROLEUM EVALUATION ENGINEERS (SPEE)

Reserves status categories define the development and producing status of wells and reservoirs.

### **DEVELOPED RESERVES (SEC DEFINITIONS)**

Securities and Exchange Commission Regulation S-X §229.4-10(a) (6) defines developed oil and gas reserves as follows:

*Developed oil and gas reserves are reserves of any category that can be expected to be recovered:*

*(i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and*

*(ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.*

### **Developed Producing (SPE-PRMS Definitions)**

While not a requirement for disclosure under the SEC regulations, developed oil and gas reserves may be further sub-classified according to the guidance contained in the SPE-PRMS as Producing or Non-Producing.

#### **Developed Producing Reserves**

*Developed Producing Reserves are expected to be recovered from completion intervals that are open and producing at the time of the estimate.*

*Improved recovery reserves are considered producing only after the improved recovery project is in operation.*

#### **Developed Non-Producing**

*Developed Non-Producing Reserves include shut-in and behind-pipe reserves.*

**Shut-In**

*Shut-in Reserves are expected to be recovered from:*

- (1) completion intervals which are open at the time of the estimate but which have not yet started producing;*
- (2) wells which were shut-in for market conditions or pipeline connections; or*
- (3) wells not capable of production for mechanical reasons.*

**Behind-Pipe**

*Behind-pipe Reserves are expected to be recovered from zones in existing wells which will require additional completion work or future re-completion prior to start of production.*

*In all cases, production can be initiated or restored with relatively low expenditure compared to the cost of drilling a new well.*

**UNDEVELOPED RESERVES (SEC DEFINITIONS)**

Securities and Exchange Commission Regulation S-X §229.4-10(a) (31) defines undeveloped oil and gas reserves as follows:

*Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.*

*(i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.*

*(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time.*

*(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, as defined in paragraph (a)(2) of this section, or by other evidence using reliable technology establishing reasonable certainty.*