

The Impact of XBRL on the Oil and Gas Industry

Ernest A. Capozzoli

Kennesaw State University

Kennesaw, Georgia United States

22 September 2007

Oil IT Journal

www.oilit.com

info@oilit.com

The Impact of XBRL on the Oil and Gas Industry

Abstract

Accounting and financial reporting activities are facing substantial changes as a result of XBRL. XBRL stands for eXtensible Business Reporting Language. Currently there is an SEC funded initiative to enhance financial reporting in the EDGAR system and to develop financial statement disclosures in XBRL. The XBRL effort is expected to be completed by year-end 2007 and will contain over 200 financial statement disclosures. Ten of those disclosures are specific to the Oil and Gas industry. This paper will present a discussion of what XBRL is, provide an overview of significant worldwide and U.S. XBRL activities and assess the impact of XBRL as it relates to the Oil and Gas Industry.

Introduction to XBRL

In mid-2005, Gartner placed XBRL deep in the trough of disillusionment. Now it is heading toward the plateau of productivity and positioned to be transformational over the next two years (DeFelice, 2007). XBRL stands for eXtensible Business Reporting Language and is part of a family of "eXtensible Markup Languages" (XML) which provide a standard means of communicating information between businesses and on the internet (What is XBRL).¹ XBRL is not technology, but a set of standards, called taxonomies, built using XML. XBRL builds on previous XML applications by providing a structure accepted by business leaders for tabulating information based on financial and performance reporting formations that are shareable, royalty free, reusable and well understood (O'Conner, 2006). Like accounting standards that provide financial executives direction on how to account for business transactions and report financial information, XBRL standards provide financial executives direction on how to account for business transactions and report financial information in an electronic medium. XBRL will enable information consumers that access financial information to understand the information they are getting. It does not replace or affect the system of accounting

¹ <http://www.xbrl.org/WhatIsXBRL/>

standards; it enables computer translation of financial information that can be interpreted by any XBRL enabled user (Donnelly XBRL Reference Guide)².

XBRL Activities Gather Speed

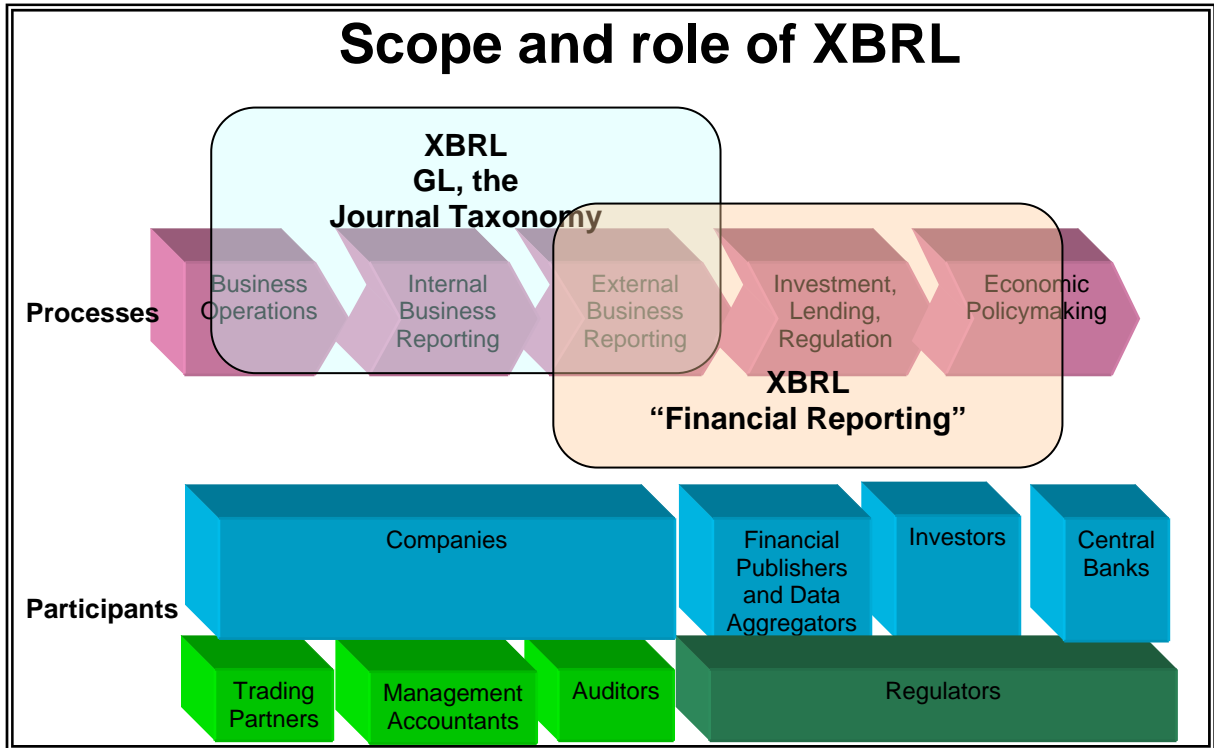
The SEC has a pilot program that permits companies to file financial statement information using an XBRL taxonomy. To date, the SEC has not required companies to file their information in the interactive format because the XBRL labels have not been completed. However, in late 1996 the commission made its intentions clear as chairman Christopher Cox announced that XBRL should have documented "every taxonomy that's necessary to produce financial statements for any industry using US-GAAP CI by no later than mid-year 2007" (Barron, 2007).

To meet the objective of having a complete US-GAAP CI taxonomy in 2007 the SEC is sponsoring a massive project to incorporate financial statement disclosures in the US-GAAP CI XBRL taxonomy. In September 2006 the SEC announced their intent to invest \$54 million in the transformation of the EDGAR database to enable it to use XBRL technology and expand the existing US-GAAP CI financial statement taxonomy to include over 200 disclosures. The US-GAAP CI financial statements have an existing taxonomy specifying the elements associated with the Balance Sheet, Income Statement and Statement of Cash Flows, but lacks elements for disclosures.

The disclosures will add thousands of new elements to the approximately 1500 elements contained in the existing US-GAAP CI taxonomy. The taxonomy element additions are scheduled for completion in fourth quarter 2007. An XBRL element is the XBRL name of a "fact" or piece of information described in an XBRL taxonomy. For example "Accounts and Notes Receivable, Net" is the second element described in the US GAAP taxonomy (US GAAP Taxonomy, 2005). Exhibit 1 presents the overlapping nature of XBRL activities that blanket most business processes.

² http://xbrl.org/us/us/RR%20Donnelley_XBRL_Reference_Guide.pdf

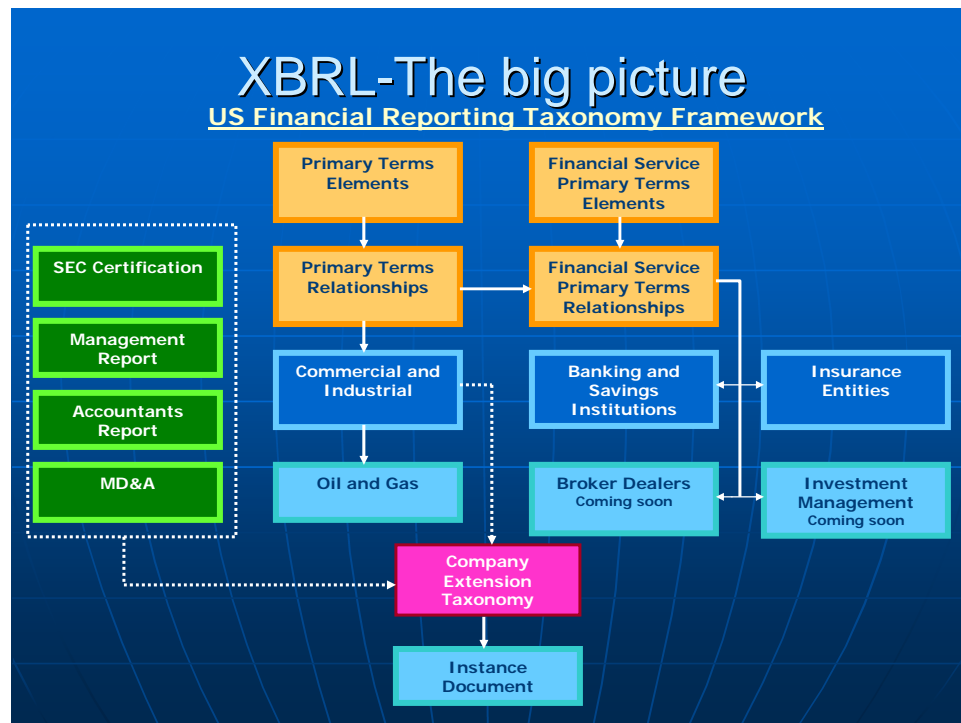
**Exhibit 1
Scope and Role of XBRL**



XBRL Taxonomies

Currently, there are numerous XBRL taxonomies worldwide. Exhibit 2 presents the current taxonomies and those under development in the US. While the topics presented in this paper apply to any of the taxonomies this paper will focus on the Commercial and Industrial (US-GAAP CI) taxonomy.

**Exhibit 2
XBRL the Big Picture**



According to John W. White Director, Division of Corporation Finance U.S. Securities and Exchange Commission XBRL-US is working closely with a wide array of industry groups and the SEC so that the finished taxonomies meet the needs of all constituencies.

Oil and Gas XBRL Activity

The US Securities and Exchange Commission list only two Oil and Gas industry participants in the XBRL voluntary filing program as of August 2007. Anadarko Petroleum Corporation and Brazilian Petroleum Corporation (a/k/a Petrobras SA) are participants in the voluntary program (SEC, 2007). The lack of participation by the industry in the voluntary filing program coupled with pending XBRL initiatives will force organizational changes to meet expected financial reporting requirements. Currently there are two XBRL projects that will specifically impact the Oil and Gas industry. The first is the development of a taxonomy for the oil and gas industry, and like the taxonomies for all other industries, will include data tags for all U.S. GAAP financial statement and footnote disclosures

(White, 2007). The second project is the development of taxonomy specifications for the Supplemental Information on Oil and Gas Exploration and Production Activities required by FAS 69. FAS 69 requires ten supplemental disclosures for the Oil and Gas industry. These ten disclosures are:

1. Oil and Gas Accounting Policy, Full Cost or Successful Efforts
2. Capitalized Costs Relating to Oil and Gas Producing Activities
3. Costs Incurred in Oil & Gas Property Acquisition, Exploration and Development Activities
4. Results of Operations for Oil & Gas Producing Activities
5. Proved Oil & Gas Reserve Quantities
6. Standard Measure of Discounted Future Net Cash Flows
 - a. Changes in the Standardized Measure of Discounted Future Net Cash Flows
7. Productive Wells and Acreage
8. Reserves Reported to Other Agencies
9. Present Oil & Gas Activities Note
 - a. Oil & Gas Production
 - b. Drilling Activity
10. Delivery Commitments Note

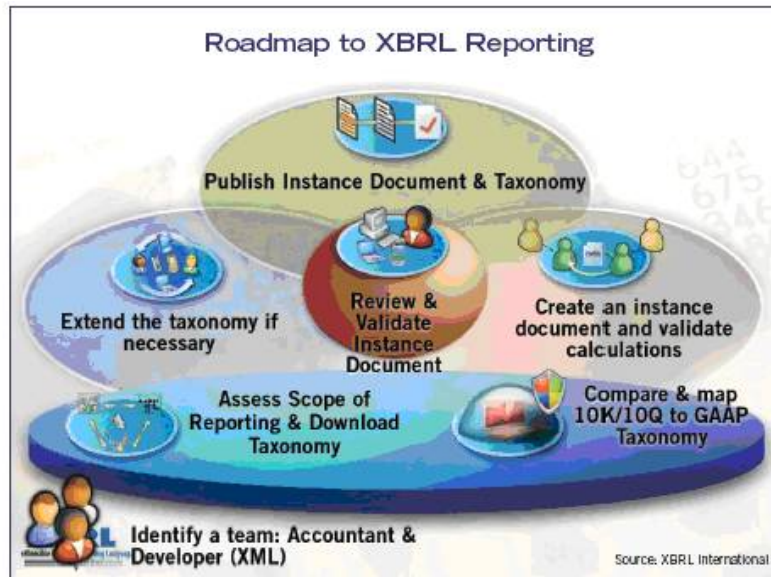
These ten disclosures are in the process of final review to ensure that they can capture and present the disclosure information in a manner similar to what is required by FAS 69. To meet the requirements of FAS 69 the disclosure taxonomy will identify and incorporate over 180 unique line items to report on Oil and Gas activities.

Impact of XBRL on Oil and Gas Financial Reporting

The steady deployment of XBRL will reshape business processes of the Oil and Gas industry and the participants in those processes. The translation of financial statement information into an XBRL instance document is the end point in a complicated process. To successfully create an XBRL document must involve training and proficiency in the capabilities of XBRL as well as the proficiencies in a regular (non-XBRL) business activities. In XBRL terms a set of financial statements are referred to as “instance documents”. The process of creating an XBRL instance document is presented in Exhibit 3. Oil and Gas organizations should insure that personnel are familiar with:

1. the current US-GAAP CI taxonomy – to include disclosures,
2. the Oil and Gas taxonomy (when it becomes available),
3. the process of extending a taxonomy,
4. any XBRL tools used to create an instance document and
5. new quality control measures necessary to submit XBRL instance documents to the SEC.

**Exhibit 3
Roadmap to XBRL Reporting**



Example of a Disclosure

The disclosure of Capitalized Costs Relating to Oil and Gas Producing Activities per FAS 69 Paragraph 41 is presented below in Exhibit 4

**Exhibit 4
Capitalized Costs Relating to Oil and Gas Producing Activities per FAS 69**

<p>Capitalized Costs Relating to Oil and Gas Producing Activities At December 31, 19XX</p>
Total

Unproved oil and gas properties	\$X
Proved oil and gas properties	<u>X</u>
	X
Accumulated depreciation, depletion, and amortization, and valuation allowances	<u>X</u>
Net capitalized costs	<u>\$X</u>
Enterprise's share of equity method investees' net capitalized costs	<u>\$X</u>

The requirement for this disclosure, while simple in appearance, is complicated by the presentation style of the company preparing the disclosure. For example, in Exhibit 5 Exxon-Mobile prefers to present the information by region with the regions listed in columns. Exxon-Mobile also discloses information beyond what is required by FAS 69 para. 41. The additional disclosure information is for producing assets, support facilities and incomplete construction. Andarko takes a different approach to disclosing the information required under FAS 69. A partial portion of Andarko's disclosure is presented in Exhibit 6. Andarko uses a style where the information is listed vertically with the regions represented in blocks of data. Clearly different styles and different disclosure levels between the two companies are used to meet the requirements of FAS 69.

Exhibit 5 Exxon Mobile Capitalized Costs (Partial Extract)

Exxon Mobile 2005

Millions of \$								
Capitalized Costs	United States	Canada	Europe	Africa	Asia Pacific/ Middle East	Russia/ Caspian	Other	Total
As of December 31, 2005								
Property (acreage) costs – Proved	3,407	3,336	210	184	954	460	209	8,760
Unproved	587	266	29	544	858	99	227	2,610
Total property costs	3,994	3,602	239	728	1,812	559	436	11,370
Producing assets	34,306	11,261	39,355	11,818	15,024	857	1,006	113,627
Support facilities	620	199	478	410	1,158	217	51	3,133
Incomplete construction	1,862	789	1,073	4,903	751	3,109	154	12,641
Total capitalized costs	40,782	15,851	41,145	17,859	18,745	4,742	1,647	140,771
Accumulated depreciation and depletion	26,071	9,573	28,899	5,115	13,070	330	437	83,495
Net capitalized costs for consolidated	14,711	6,278	12,246	12,744	5,675	4,412	1,210	57,276

bsidiaries								
opportional interest of net capitalized costs of uity companies	1,386	—	1,310	—	1,043	2,746	—	6,485

Exhibit 6
Andarko Capitalized Costs (Partial Extract)

Andarko Petroleum 2005

		2005	2004
<i>millions</i>			
United States			
Capitalized			
	Unproved properties	1,067	1,311
	Proved properties	17,282	14,566
		<u>18,349</u>	<u>15,877</u>
	Accumulated depreciation, depletion and amortization	6,627	5,845
	Net capitalized costs	11,722	10,032
Canada			
Capitalized			
	Unproved properties	111	177
	Proved properties	5,148	4,457
		<u>5,259</u>	<u>4,634</u>
	Accumulated depreciation, depletion and amortization	2,611	2,307
	Net capitalized costs	2,648	2,327

Different approaches to meeting disclosure requirements pose an interesting situation for the taxonomy developer. The developer must insure compliance with FAS 69 while simultaneously providing sufficient flexibility for companies to choose the style and information disclosure level with which they are comfortable. A suggested taxonomy for this disclosure is presented in Exhibit 7.

Exhibit 7
Suggested Taxonomy
Capitalized Costs Relating to Oil and Gas Producing Activities

Capitalized Costs Relating to Oil and Gas Producing Activities	Abstract
Capitalized Costs	Item
Region	Tuple
Unproved Oil and Gas Properties (in FAS 69 example)	Item
Proved Oil and Gas Properties (in FAS 69 example)	Item

Producing Assets	Item
Support Facilities and Equipment	Item
Incomplete Construction, Deferred Items	Item
Total Capitalized Assets	Item
Accumulated Depreciation, Depletion, and Amortization, and Valuation Allowances (in FAS 69 example)	Item
Net Capitalized Costs (in FAS 69 example)	Item
Proportional Share of Net Capitalizable Costs of Equity Companies (in FAS 69 example)	Item

The power of XBRL becomes evident because the taxonomy adds both structure and flexibility.

Structure is provided by having all companies use the defined elements/items. For example, when companies tag the financial values associated with “Unproved Oil and Gas Properties,” consistency is provided from period to period and company to company. Financial analysis is further enhanced with the consistency provided by taxonomy structure. Flexibility is provided by permitting a company to tag financial information with only what is required under FAS 69 or it may use the additional items defined in the taxonomy. Further flexibility is provided by permitting output to be formatted in a manner most suitable to an organization’s style for reporting the disclosure.

Summary/Conclusion

SEC officials, such as chief accountant Conrad Hewitt and Chairman Christopher Cox, have recently dropped very strong hints that XBRL will be mandatory in the near future (Watson , 2007). Gartner predicts that 30 percent of investment services companies will adopt and consume information in XBRL between 2007 and 2010 and that the SEC will mandate filing in that format by the fourth quarter of 2008 (DeFelice, 2007).

While full scale use of XBRL may be in the near future, the advantages of an XBRL reporting scheme are apparent and, soon enough, all companies will require this form of interactive reporting to meet governmental reporting requirements (Barron, 2007). Additionally, XBRL and the accounting

standards setting process may merge. According to Robert J. DeSantis, President & COO of the Financial Accounting Foundation, "XBRL financial reporting taxonomies may become an integral component of the financial accounting and reporting standard-setting process as users become more accustomed to relying on XBRL based financial reporting" (Heffes, 2007). It is important for an organization to master the technology and acquire the skills necessary to produce XBRL compliant documents.

An organization's interest in XBRL is in getting the accounting correct for a company that is filing statements with the SEC. For the Oil and Gas Industry that means the requirements of FAS 69 as well as all other requirements must be met. When XBRL becomes a required format, an organization will need to know how to properly use both the US GAAP taxonomy and the Oil and Gas taxonomy.

The Oil and Gas Industry will be impacted by the expansion of XBRL activities. The Oil and Gas taxonomy, the expansion of the US-GAAP-CI taxonomy to accommodate disclosures and the pending use of XBRL-GL will all require change in the Oil and Gas industry. Organization personnel will be required to master XBRL terminology, taxonomies and tools. Current initiatives by the SEC are expected to expand XBRL use for filings. Organizations that understand XBRL will have a huge advantage over those that do not (Watson, 2007). The question is not whether XBRL will impact the Oil and Gas industry, but when?

References

Barron, Jacob. "XBRL continues its march to the forefront of reporting.(Extensible Business Reporting Language)", Business Credit, Feb 2007, Vol. 109 Issue 2, p34-34, 1p;

DeFelice, Alexandra. "XBRL Grows Up: The reporting language has made global strides, but the waiting game continues." Accounting Technology, March 2007 Vol. 23 Issue 2, p29-33, 5p

Donnelly XBRL Reference Guide

http://xbrl.org/us/us/RR%20Donnelley_XBRL_Reference_Guide.pdf

Heffes, Ellen M.. (2007), "XBRL gets a boost from FAF.(financial reporting)(eXtensible Business Reporting Language, Financial A", Financial Executive, April 2007, Vol. 23 Issue 3, p14-15, 2p.

SEC (2007) Test Group Participants

http://www.sec.gov/spotlight/xbrl/interactivedata.htm#idata_who

Watson, Liv, (2007), What CPAs need to know, now that the SEC is taking XBRL in earnest. April 5, 2007.

http://www.cpa2biz.com/Content/media/PRODUCER_CONTENT/Newsletters/Articles_2007/CorpFin/Serious_About_XBRL.jsp

What is XBRL? <http://www.xbrl.org/WhatIsXBRL/>

White, John W., (2007), Drilling for Disclosure: The Powerful Tool of Interactive Data, AAPG/SPE International Multidisciplinary Reserves Conference

Washington, D.C. June 25, 2007 <http://www.sec.gov/news/speech/2007/spch062507jww.htm>

US GAAP Taxonomy, (2005),

http://xbrl.org/us/fr/gaap/ci/2005-02-28/Elements%20by%20Label%20%20CI_2005-02-28.pdf