UNITED STATES DISTRICT COURT DISTRICT OF NEW JERSEY

IN RE ROYAL DUTCH/SHELL)	Civ. No. 04-374 (JAP)
TRANSPORT SECURITIES)	(Consolidated Cases)
LITIGATION)	Judge Joel A. Pisano
)	<u> </u>

DECLARATION OF ANTON A. BARENDREGT

I, ANTON A. BARENDREGT, declare and affirm as follows:

- 1. From January 1999 through January 2004, I served as the Group Reserves Auditor for the Exploration and Production ("E&P") business of the Royal Dutch/Shell Group of Companies ("Shell" or "the Group"). I am currently retired.
- 2. I hold a Master's degree in Technical Physics from Delft University in the Netherlands. I am a member of the Society of Petroleum Engineers.
- 3. I understand that an issue in this case involves the nature and extent of any United States conduct from April 8, 1999 to March 18, 2004 relating to the estimation or reporting of proved reserves that Shell later restated. I am making this declaration in connection with Shell's submissions on this issue. I previously was deposed in this matter on February 19-22, 2007. I understand that the Court and the parties have access to the transcript of that proceeding.
- 4. Unless otherwise stated, I make this declaration on personal knowledge and am competent to testify as to the matters set forth herein.

- 5. As Group Reserves Auditor, I was based at E&P headquarters, which were located for most of my tenure in The Hague, the Netherlands, and later moved to Rijswijk, the Netherlands.
- 6. As Group Reserves Auditor, I performed three principal tasks. First, I commented on and monitored the Petroleum Resource Volume Guidelines (the "Guidelines") that were edited each year by the Group Hydrocarbon Resources Coordinator, also known at the Group Reserves Coordinator ("GRC"). Second, I conducted audits of individual operating units to assess whether their estimation of their oil and gas resources conformed to the requirements of the then-extant Guidelines. Third, I evaluated whether, on an aggregate level, the Group's estimate of its total proved oil and gas reserves was fairly presented and whether the total estimate was properly derived from the estimates of the operating units.

Petroleum Resource Volume Guidelines

- 7. Other than in 2001, I reviewed the GRC's revisions to the Guidelines each year. Because the GRC had resigned his position in the fall of 2001, I took responsibility for revising the 2001 edition of the Guidelines.
- 8. The Guidelines contained instructions to the Group's individual operating units on the estimation and reporting of oil and gas resources. The principal purpose of the Guidelines was to ensure that E&P received proper estimates of each operating unit's "expectation reserves," the volumes of oil and gas resources that were likely to be produced in the future and on which E&P made its internal business-planning decisions.

- 9. The Guidelines also, however, instructed the operating units on the estimation of "proved reserves," the oil and gas volumes that were reasonably certain of being produced in the future based on existing economic and operating conditions.
- 10. The estimation of proved reserves by a publicly traded oil and gas company is governed by SEC Rule 4-10(a) of Regulation S-X, which defines what volumes of oil and gas can properly be designated as proved reserves, and by Statement of Financial Accounting Standards 69, which requires that publicly traded oil and gas companies report their estimates of proved reserves as supplementary information to their annual financial statements.
- I reviewed the Guidelines that the GRC revised and E&P issued each 11. year in order to confirm that the Guidelines would lead the operating units to estimate their proved reserves in a manner that would yield results consistent with the requirements of Rule 4-10(a).
- 12. Although I occasionally discussed the Guidelines and the requirements of Rule 4-10(a) with Rod Sidle, a reservoir engineer employed by Shell Exploration and Production Company ("SEPCO"), E&P's United States operating unit, the GRC was always responsible for revising and played the principal role in revising the Guidelines. Personnel from E&P would occasionally consult with Sidle concerning reserves-related matters, but the primary purpose of involving Sidle was to help him ensure that SEPCO's policies and practices for estimating and reporting proved reserves were consistent with Group practices. The final decisions concerning the

content of the Guidelines were always made by the GRC or other E&P personnel located in the Netherlands.

Operating-Unit Audits

- 13. My audits of the reported proved reserves of individual operating units were generally conducted in the country where the operating unit's oil and gas assets were located. For example, my 1999 audit of Shell Petroleum Development Company ("SPDC"), the Group's onshore and shallow-offshore Nigeria operating unit, took place at SPDC headquarters in Nigeria. My contacts for these audits would be personnel in the operating unit who were responsible for overseeing the estimation and reporting of oil and gas resources to E&P headquarters, usually the Chief Reservoir Engineer or Chief Petroleum Engineer. [A. Barendregt Dep. at 215-16.]
- 14. There were three circumstances in which I audited an operating unit somewhere other than in the country where the operating unit's oil and gas assets were located. One such circumstance resulted from personal health issues. In 2003, I was scheduled to perform my audit of SPDC in Nigeria, as I had in 1999. I was unable to make the trip, however, due to health reasons. The audit of SPDC was postponed for a short while until the SPDC personnel with whom I needed to meet had occasion to travel to the Netherlands to meet with personnel from Shell Exploration and Production Technology, Applications and Research ("SEPTAR"), an E&P technical service provider based in the Netherlands that performed technical



services for SPDC. The SPDC personnel extended their visit to the Netherlands so that I could conduct my SPDC audit there.

- 15. Another circumstance in which an audit took place in a country other than the one in which the operating unit's oil and gas assets were located involved small operating units that were based at E&P headquarters, rather than in the country where their assets were located. For example, the staff of Shell Kazakhstan Development ("SKD"), the Group's operating unit responsible for its oil and gas assets in Kazakhstan, was based at E&P headquarters in The Hague. As a result, I audited SKD in The Hague, rather than in Kazakhstan.
- 16. On February 20, 2007, I stated that I performed audits of operating units from The Hague "when the effective working unit of the working company was in fact located in The Hague." [A. Barendregt Dep. at 212.] I named the operating units in Kazakhstan and Pakistan as examples. [Id.] This statement pertained only to those audits of the small operating units based in The Hague as just discussed, and not to the operating unit audits discussed below.
- 17. The third category of audits that took place in a country other than the location of the operating unit were those audits that I conducted in a location where technical data pertaining to the operating unit's assets was stored. During my tenure as Group Reserves Auditor, I performed five audits—other than my 2000 audit of Shell Exploration and Production Company ("SEPCO"), the Group's United Statesbased operating unit—in the United States because technical data was located there: my 2001 audit of Shell Exploration (China) Ltd. ("SECL"), my 2002 audit of Shell

Nigeria Exploration and Production Company ("SNEPCO"), my 2002 audit of Shell Development Angola ("SDAN"), my 2002 audit of Shell Brazil Exploration and Production ("SBEP"), and my 2003 audit of Pecten Cameroon Company ("PCC").

- 18. **SECL**. My audit of SECL in 2001 was conducted in Houston, Texas, because SEPTAR's Houston office was providing technical services to SECL. At all times SECL, not SEPTAR, held the final responsibility for estimating its oil and gas resources and submitting those estimates to E&P. My understanding from my review of the year-end 2003 proved reserves and the recategorization recommendations from Project Rockford is that, although SECL later recategorized certain proved reserves in 2004, this recategorization related to SECL's use of the Group's internal project-screening values rather than year-end prices to calculate its proved reserves entitlements, not to any technical work performed by SEPTAR.
- 19. **SNEPCO**. My audit of SNEPCO in 2002 was conducted in Houston because Shell Deepwater Services ("SDS"), an E&P technical service provider based in Houston, was providing technical services to SNEPCO. At all times, SNEPCO, not SDS, held the final responsibility for estimating its oil and gas resources and submitting those estimates to E&P. Although SNEPCO later recategorized certain proved reserves in 2004, I do not believe that SDS's work was responsible for SNEPCO's reserves overstatement. First, most of the proved reserves that were recategorized by SNEPCO related to the Bonga field, proved reserves for which were first booked before the creation of SDS in 1999. Second, most of the reserves restatement for SNEPCO was due to: (i) E&P's decision to

report proved reserves for SNEPCO fields before having taken a final investment decision regarding those fields, a decision that was reversed in 2004, and (ii) E&P's decision to report proved reserves based on an internal project-screening price rather than the year-end price prescribed by Rule 4-10(a).

- 20. The document Bates-numbered V00330377-V00330392, an email string in which I discuss technical work performed by SDS on the Bonga SW field, does not change my conclusions stated above. No proved reserves were ever reported for the Bonga SW field, meaning that no technical work that SDS might have performed regarding that field led to an overstatement of proved reserves.
- 21. **SDAN**. My audit of SDAN in 2002 was conducted in Houston because SDS was providing technical services to SDAN. Although SDAN later recategorized certain proved reserves in 2004, I understand that SDS's work did not contribute to SDAN's initial reserves overstatement. First, the reserves restatement for SDAN was due to E&P's decision to report proved reserves for SDAN's Block 18 asset before having taken a final investment decision regarding that asset, a decision that was reversed in 2004. Second, SDS's technical work ultimately led to a decrease, rather than an increase, in the amount of reserves that SDAN reported as proved. Third, at all times SDAN had the responsibility for estimating its oil and gas resources and submitting those estimates to E&P. As discussed below, both the GRC and I attended meetings at which the reporting of proved reserves for SDAN was discussed. It was clear at all times that any proved reserves would have to be proposed by SDAN and approved by E&P and by me before being reported



externally. For example, it was the GRC and me who suggested to SDAN and SDS that a "creaming project" targeting only the highest-value resources for initial booking as proved reserves could be pursued and could, according to the Guidelines existing at the time, potentially support a booking of proved reserves.

- 22. **SBEP**. My audit of SBEP in 2002 was conducted in Houston because SEPCO personnel were providing technical services to SBEP. These technical services, however, related to the Merluza field. I understand that no proved reserves relating to Merluza were recategorized in 2004.
- **PCC**. My audit of PCC in 2003 was conducted in Dallas because the Dallas office of Netherland Sewell & Associates had performed study work underlying the PCC ARPR submission. My understanding, however, is that no proved reserves were restated for PCC in 2004.

Consultations Regarding SDAN Proved Reserves

- 24. In addition to the five audits conducted in the United States described above, I briefly consulted with SDS staff in Houston on two other occasions concerning proved reserves for SDAN.
 - a. In early November 2000, I visited Houston to perform my audit of SEPCO, the United States-based operating company. While in Houston, I was presented with the current results of technical work that SDS had performed for SDAN, technical work that SDAN and E&P hoped could serve as the basis for a booking of proved reserves in 2000. I advised SDS that its technical work



- was not sufficient to support a booking of proved reserves and made recommendations concerning the further technical work that needed to be done.
- b. On December 12, 2000, I attended a second meeting in Houston where SDS and SDAN personnel presented GRC and me with the results of its further technical work. I concluded after the December 12 meeting that, with additional technical work, a limited booking of proved reserves for SDAN in 2000 would be consistent with the Guidelines.
- 25. Like the technical work that SDS performed for SNEPCO, the work that SDS performed for SDAN led SDAN to estimate and report fewer proved reserves than it might have otherwise. SDS's work did not contribute to the initial overstatement of reserves. At all times, furthermore, SDAN, not SDS, held the responsibility for making the ultimate estimate of its oil and gas resources and submitting that estimate to E&P.
- 26. The document Bates-numbered SMJ00035943-SMJ00035946, a string of emails discussing the booking of proved reserves by SDAN in 2000, does not change my conclusions that (i) SDS did not have the authority to propose or book proved reserves, and (ii) SDS's technical work, rather than contributing to SDAN's overstatement of reserves, led SDAN to book fewer proved reserves than it might otherwise have booked. In the email string, Gordon Parry states that "the latest figures coming out of SDS are lower than the 293" million barrels that E&P

personnel had proposed to report as proved. E&P proposed that the GRC, E&P, and I meet to discuss the proper proved-reserves figure to be reported externally, because E&P made the final determination and Shell's external auditors and I had to approve that determination.

- 27. The document Bates-numbered SMJ00036352-SMJ00036354, an email string ending in an email from me to Aidan McKay, does not change my conclusion that SDS did not have the authority to estimate and report proved reserves. Although I stated in my email that SDS had asked me to "discuss Block 18 reserves with them and advise them what they needed to do to be able to book reserves," I did not mean that SDS itself was responsible for reporting proved reserves. SDS was asked by SDAN to develop technical scenarios that would allow SDAN to report proved reserves, but SDS's work was only preparatory to SDAN's decision to report proved reserves, and E&P, the external auditors, and I then had to agree that the reserves could be properly reported externally as proved.
- 28. The document Bates-numbered V00070311-V00070313, an email to me from McKay forwarding an email from McKay to John Bell concerning the circumstances surrounding SDS's involvement in SDAN's booking of proved reserves in 2000, does not change my conclusion that SDS acted primarily as a technical service provider to SDAN and that SDAN held the final responsibility for estimating and reporting its oil and gas resources. McKay explains in the email that SDS was performing technical work concerning the SDAN fields in Angola. Although one of the aims of the technical work was to support SDAN's ability to

report proved reserves, nothing in the email contradicts the fact that SDAN and E&P, not SDS, made the final decision concerning whether SDAN could properly report proved reserves for its assets. Furthermore, it is my understanding that the proved reserves that SDAN reported for 2000 were retroactively restated in 2004 because, in 2000, E&P had not taken a final investment decision on the Block 18 project, and the Group decided in 2004 to restate proved reserves that had been reported prior to a final investment decision. The recategorization did not occur because of any errors in SDS's technical work.

Year-End Review of Proved Reserves

- 29. Each year, I evaluated whether E&P's estimate of its proved reserves was consistent with the requirements of the Guidelines, and therefore with the requirements of applicable law. My evaluation, contained in a report called the Review of Group End-[Year] Proved Oil and Gas Reserves Summary Preparation ("Year-End Review"), was one of the many steps in the process by which the Group compiled and reported its proved-reserves estimates.
- 30. In January of each year, each operating unit submitted a form to the GRC at E&P headquarters containing the unit's estimate of its oil and gas resources as of the end of the previous year. This form, called an Annual Review of Petroleum Resources ("ARPR"), divided the resource estimates into various categories and sub-categories, including Proved Reserves, Proved Developed Reserves, and Expectation Reserves.



- 31. The operating units themselves were responsible for estimating, compiling and submitting their resource volumes. While some operating units received technical assistance from service providers such as SEPTAR and SDS, this assistance was designed either to allow the operating unit to estimate its subsurface oil and gas volumes and map the structures of subsurface reservoirs more accurately or to enable the unit to develop ways to improve its production of hydrocarbons in the subsurface. Once this technical work had been performed (either by a technical service provider or by the operating unit itself), the operating unit needed to conduct the necessary economic, legal, and contractual analysis to determine the appropriate volumes of resources to report to E&P for each category in the ARPR. Operating units often consulted with the GRC concerning whether a proposed categorization of oil and gas resources was consistent with the Guidelines.
- 32. After each operating unit submitted its ARPR to the GRC in the Netherlands, the GRC compiled that information into an aggregate estimate of the Group's oil and gas resources. The GRC also made a preliminary determination concerning whether the operating units' reported oil and gas resource numbers were appropriate.
- 33. I reviewed both the GRC's aggregate estimate of the Group's proved and proved developed reserves and the individual estimates from the operating units. My review was designed to confirm that: (i) the GRC had properly aggregated the proved reserves estimates of the individual operating units; (ii) the operating units whose reserves estimates I had audited during the previous year had properly taken



my observations and comments into account in making their submission; (iii) any significant changes in an operating unit's reported proved reserves were properly supported; and (iv) any other important questions concerning the propriety of an operating unit's proved reserves were addressed.

- 34. After reviewing the ARPR data submitted by the operating units, I composed the Year-End Review. The Year-End Review discussed (i) the results of the individual operating-unit audits that I had conducted during the previous year, (ii) other notable issues concerning the operating units' ARPRs, such as a significant change in an operating unit's proved reserves, and (iii) any observations that I had concerning changes that needed to be made to the Guidelines to ensure that operating units conformed to both the spirit and the letter of applicable law in estimating their proved reserves.
- I submitted my Year-End Review to the E&P leadership and to the Group's external auditors, KPMG and PricewaterhouseCoopers ("PwC"). Around the same time, a meeting would be held in The Hague to discuss the proved reserves figures that the Group proposed to report externally. I attended the meeting, as did the GRC, one or more E&P personnel who supervised the GRC and representatives from KPMG, PwC, and the Group Controller's office. None of the attendees was based in the United States. At this meeting, the GRC would present the Group's proposed proved reserves figures, which the E&P leadership had approved, to KPMG and PwC. I would present the results of my review and my opinion concerning whether the proposed proved reserves figures fairly presented the

Group's entitlement to proved reserves. KPMG and PwC were able to, and did, ask clarifying questions concerning any issue about which they were uncertain.

- After KPMG and PwC had reviewed the proved-reserves figures pursuant to the requirements of Statement on Auditing Standards No. 52, they were included in the Group's Annual Report on Form 20-F and in its other public disclosures to the market. Thus, disclosure did not occur until (i) the operating units had submitted their ARPRs to the GRC in the Netherlands; (ii) the GRC had compiled the aggregate proved reserves figures in the Netherlands; (iii) the E&P leadership in the Netherlands had approved the proved reserves figures that the GRC submitted; (iv) I had reviewed the proved reserves figures in the Netherlands; and (v) the GRC and I had presented our results and opinions to KPMG and PwC in the Netherlands.
- 37. During 2003, I became a part of the Reserves Committee, a committee within E&P that was established specifically to monitor the Group's oil and gas resource portfolio and to improve the process of estimating and reporting oil and gas resources. The Reserves Committee sat in the Netherlands.



I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

ANTON A. BARENDREGT

Filed 10/10/2007

Executed:

June 10, 2007

Wassencian, Netherlands