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       IN THE UNITED STATES DISTRICT COURT
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          DISTRICT OF NEW JERSEY
4
          Civ. No. 04-3749 (JAP)
5
           (Consolidated Cases)
           Hon. Joel A. Pisano
6
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  IN RE ROYAL DUTCH/SHELL
9
  TRANSPORT SECURITIES
10
  LITIGATION
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13
          Videotaped Deposition of
             JOHN MALCOLM
14
15
            Washington, D.C.
          Friday, October 20th, 2006
16
              9:49 a.m.
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23
   Job No. 22-87673
24 Pages 1 - 180
   Reported by: Laurie Bangart-Smith
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          Videotaped Deposition of
3
            JOHN MALCOLM
4
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6
   Held at the offices of:
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        Suite 1200
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         Taken pursuant to notice, before Laurie
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   Bangart-Smith, Registered Professional Reporter
23
   and Notary Public in and for the District of
24
   Columbia.
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0003
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         Cali Day, Videographer
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         Alastair Hunter, KPMG representative
0006
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2
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         THE VIDEOGRAPHER: Here begins Tape
   Number 1 in the deposition of John Malcolm, in the
5
   matter of Royal Dutch/Shell Transport Securities
   Litigation, in the United States District Court,
   District of New Jersey, Case Number 04-374.
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- 7 MR. CORSON: Nicholas Corson, Hogan &
- 8 Hartson, representing KPMG Accountants, N.V., and
- 9 with me today is Alastair Hunter, a representative
- 10 of KPMG Accountants, N.V.
- 11 MR. FOUKAS: Saavas Foukas, Hughes,
- 12 Hubbard & Reed, for PricewaterhouseCoopers, LLP.
- 13 MS. LATIMER: Aimee Latimer, Mayer,
- 14 Brown, Rowe & Maw, for defendant Sir Philip Watts.
- MS. LIEBERMAN: Sharan Lieberman with
- 16 Mayer, Brown, Rowe & Maw for defendant Sir Philip
- 17 Watts.
- 18 MS. WICKHEM: Rebecca Wickhem of Foley &
- 19 Lardner, LLP, for Judith Boynton.
- 20 THE VIDEOGRAPHER: The court reporter
- 21 today is Laurie Bangart-Smith. Would the reporter
- 22 please swear in the witness.

Edinburgh, Scotland. The name of the University was the Heriot-Watt University. That's spelled

H-E-R-I-O-T, dash, W-A-T-T. My first degree was

the technical support to Operations on engineering

- 3 In December 1990 I went to Shell ExPro.
- 4 E-X-P-R-O. That is an abbreviation for Shell,
- 5 brackets, U.K. Exploration and Production,
- 6 Limited, in Aberdeen. I was a Project Manager
- 7 there, running a series of projects up to
- 8 February 1995.
- 9 In 1995, February of 1995 I returned to
- 10 SIPM in The Hague. My first job was as a Business
- 11 Advisor for Argentina and Canada. That lasted for
- 12 a short time, about three or four months. I was
- 13 then involved in the Study Team which was looking
- 14 at how EPT, the Technology Center, and Shell was
- 15 going to be reconfigured for the future. I was in
- 16 that position for something like about 18 months.
- 17 I then held a position in looking after Management
- 18 Systems within EPT, and I held that position for
- 19 about a year.
- The following year I was a Vice
- 21 President of our Technology Center, EPT, and I did
- 22 that until I think January 1998. In January 1998
- 23 I took over a role again as a Business Advisor for

- familiarization period of about three weeks, and
- 23 on the 1st of November 2002 I took over my present
- position, which is Managing Director of Petroleum
- Development Oman. It is again, as I said 0015
- 1 JOHN MALCOLM, October 20, 2006
- originally, a Government private joint venture.
- 3 It is predominantly an Omani company.
- 4 You described the ownership, just the
- various ownership interests in -- I'm going to
- refer to it as "PDO" for short.

7

- It would save a lot of words today.
- Could you please describe for me the
- 9 corporate structure organizationally of PDO.
- 10 Yes. The situation in PDO is that there
- 11 are two senior positions in PDO. One is the
- 12 Managing Director, and the second is a Deputy
- 13 Managing Director. We sometimes refer to these as
- "MD" and "DMD," so if you hear me slipping into

- 10 given by the shareholders, the shareholders being
- 11 the Government of Oman, Shell, Total and Partex.
- 12 Today it is slightly different than it
- 13 was when I arrived. When I arrived we had eight
- 14 Directors of the company. Today we have 12, but
- 15 we have myself and the Deputy Managing Director,
- 16 Dr. Abdulla Lomki (phonetic), who is also the
- 17 Technical Director of the company. We have
- 18 another ten Directors covering the functions and
- 19 the assets of the company, with individual
- responsibilities. Today we have -- two thirds of 20
- 21 the Directors of the company are Omani. Eight are
- 22 Omani, and four, including myself, are
- 23 ex-patriots.
- 24 We have two aspects of the company that
- I think are required for clarification. One is 0017
- 1 JOHN MALCOLM, October 20, 2006
- the oil business of the company, and that oil
- 3 business is shared 60/34/4/2, as I've said before.
- And then we also operate the gas business of the
- company on behalf of the Government of Oman, and

detail within that first year.

following year. So for example, this year we are

working on the Business Plan '07, which is to do

with 2007 onwards, but it is a five-year plan with

I've also got a duty to propose to the

Board as well as delivering the Plan, the changes

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- 20 that is just a little bit smaller than the size of
- 21 England. We have present something like about six
- 22 airports in there, many thousands of kilometers of
- 23 roads, and a pipeline system that runs all the way
- up the country, and we export all the oil for the
- 25 country. We produce 90 odd percent of that oil, 0020
- JOHN MALCOLM, October 20, 2006 1
- but we also export the oil for other parties as
- 3 well, transport and export.
- 4 We have our own electricity generation
- system, 132 KV system. We have our own datacoms,
- 6 IT infrastructure within the country. So it is a
- major undertaking between our two major production
- centers. Between Fahud and Marmul is
- 9 approximately about 400 miles, so it gives a scale
- of the geographical aspect. Also, unlike many
- 11 countries in the Middle East, our oil comes from a
- large number of smaller fields, although we have 12
- 20 of what we call "large fields." These are

JOHN MALCOLM, October 20, 2006 all cases, although we take advice from Shell on

25

0022

3 say certain technical matters and the like, where

Dubai, a gentleman known as Raoul Restucci, but in

4 there is any conflict in any way, I then must

- 6 And if you look at any minutes of
- 7 meetings or anything from board meetings, you will
- 8 see that both myself and the Deputy Managing
- 9 Director, and the Deputy Managing Director is a
- 10 Government appointee, whereas effectively I am one

always represent PDO before any aspects of Shell.

- 11 of the list of candidates that Shell proposes to
- 12 be Managing Director, and the Government selects
- 13 from that list, which is always a minimum of two
- 14 on the list. I -- my first and foremost, my duty
- 15 must always be to PDO.
- 16 BY MR. MACFALL:
- 17 Q Is your tenure as Managing Director of
- 18 PDO subject to periodic approval by the Government
- 19 of Oman?
- 20 A I, I think, I think that is a very nice
- 21 way of putting it, sir. It's -- of course, I am
- 22 like the Managing Director of any company; if I
- 23 lose the support and trust of my Board of
- 24 Directors, then it would become impossible for me
- 25 to do my job. So effectively the Board of 0023
- 1 JOHN MALCOLM, October 20, 2006
- 2 Directors approves my nomination as MD. My
- 3 understanding is that I will remain in the job --
- 4 the job is nominally for four years, but in the
- 5 past people have stayed less than four years and
- 6 people have stayed more than four years. I have
- 7 been in it four years, and I haven't heard
- 8 anything as yet if I'm staying or otherwise, but
- 9 generally I think as long as the Government
- 10 shareholder and the private shareholders both have
- 11 faith in the Managing Director, then he stays
- 12 there until there is a point where Shell would
- 13 propose that another Managing Director would take
- 14 his place. Of course, if that trust was lost,
- 15 then the Managing Director, I have no doubt, would
- 16 leave fairly quickly.
- 17 Q And I think I know the answer to this,
- 18 but just so I'm perfectly clear, your salary is
- 19 actually paid by Shell, correct?
- 20 A No.
- 21 Q I'm sorry. I misunderstood.

- understanding of that term. 4
- 5 Yes, certainly. My current understanding of that term is that proved reserves are all about reasonable certainty, and there are in actual fact a number of definitions in the world. The definition that I think that we are
- 10 here today and is common is the SEC definition of
- proved reserves, but also there are other
- 12 definitions, like the SPE definition, the Society

of Petroleum Engineers.

14

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And in different states in the world

15 there are different definitions of what proved

16 reserves are, but in my understanding -- and I

17 would like to reemphasize at this point that I am

18 a surface engineer rather than a subsurface

19 engineer, so those who wish to go into terminology

20 on permeability, porosity, and the like, you're

21 dealing with the wrong man. I have an

22 understanding of it, but I am not subsurface man,

23 so it is about relevant certainty, and I think

24 that what we're talking about here is the

25 reporting against certain standards, in this case 0026

#### JOHN MALCOLM, October 20, 2006

2 the reporting against SEC standard or SPE standard

or against whatever standards would be required in

4 a particular jurisdiction in the world.

Q The definition of "proved reserves" that

you just provided, or your understanding as you

just described it, rather, could you please tell

me what the basis for that understanding is.

A The basis for that understanding?

10 Q Yes, sir.

11 A I think that if I would say that up to

12 say the reserves crisis in Shell, my understanding

13 was one of -- my general understanding was based

14 in the concepts of P85, the probability of

15 85 percent probability. I think that post that

16 time -- and you quite rightly asked me for my

17 understanding today. Apart from the experience

18 I've gained through that, also within Shell today

19 and for all people working in Joint Ventures who

20 may have anything to do with reporting or helping

21 Shell report in proved reserves, there is a need

22 for everybody to go on some basic course as to

23 what the understanding of SEC proved reserves are.

24 And for those who are required to perform any

25 reporting functions, of course, they have other 0027

1 JOHN MALCOLM, October 20, 2006

2 training requirements.

3 I have to state that from my position

- 2 and expected production, so there's a link between
- 3 expectation reserves and the expected production.
- 4 We plan our production again on a P50 basis, on a
- 5 50/50 basis going forward.
- 6 Q When you say "we" plan, you're referring 7 to PDO, correct?
- 8 A Sorry. You are perfectly correct. When
- 9 I use the word "we," I am talking about PDO.
- 10 Q For internal purposes within PDO, am I 11 correct that expectation reserves are normally
- 12 utilized?
- 13 A Yes. Within PDO our expectation
- 14 reserves will normally be utilized. Where we did
- 15 and we have changed on our annual reports, that
- 16 where we previously published reserves on our
- 17 annual reports, that we used expectation reserves.
- 18 We never published proved reserves.
- 19 THE REPORTER: I'm sorry. You need to
- 20 slow down a little bit.

THE WITNESS: I am sure -- I believe,

- MR. SMITH: Objection to form and
- 21 22 foundation.
- 23 THE WITNESS: I think again, sir, to go
- back again, PDO ran -- when you talked about
- 25 booked, we booked expectation reserves. We had an 0032
- 1 JOHN MALCOLM, October 20, 2006
- Annual Review of Petroleum Resources, an ARPR book

- 1 JOHN MALCOLM, October 20, 2006
- 2 kind of P85 basis, not on a rule basis as per SEC,
- 3 but that number definitely during the early 2000
- 4 onwards was generally accepted and was not a sound
- 5 foundation. It was just an indicative number.
- 6 Shell, on the other hand, may have an ARPR, and
- 7 they may have proved reserves in another number.
- 8 Again to go back as before, if any shareholder
- 9 requests us for information or requests us to
- 10 provide information in a certain format according
- 11 to their guidelines, we will do so, "we" being
- 12 PDO. Sorry.
- 13 BY MR. MACFALL:
- 14 Q Thank you. I realize that I am
- 15 articulating this poorly, and I apologize, but
- 16 what I'm trying to get at, sir, is the numbers
- 17 column in the PDO ARPR which you said was reported
- 18 on a P85 basis, do you know who -- and by "who" I
- 19 mean PDO or -- withdrawn. With respect to the

Agreement --

10

we report accurately our financial statements, one financial statement under the IFRS and another financial statement that we do which is under

Petroleum Accounts, which reflects the Concession

- JOHN MALCOLM, October 20, 2006
- 2 relationships -- I think it's fair to bear in mind
- 3 that this is a relationship that goes back over 40
- 4 years -- that there was a need to do something to
- 5 get the situation regulated, to get the production
- 6 back according to plan again, and the support both
- 7 from the Government side and from the Shell side
- 8 that I received was outstanding.
- 9 Q With regard to the Shell shareholder
- 10 concern regarding the representational impact of
- 11 the production fall-off, was that concern about
- 12 its reputation with the Omani Government?
- 13 MR. SMITH: Objection to form.
- 14 THE WITNESS: I cannot speak for Shell.
- 15 If you wish me to speak as the Managing Director
- 16 of PDO, I think that they had concern, of course,
- 17 with their reputation not just within Oman, but
- 18 the globalized effect that it can have, but

prior to that, and I have still memories after 20

odd years of what the production numbers were in

Based on that understanding, did there

5

6

7

1986.

- 24 While you've been there. Thank you.
- 25 I am familiar, of course, with the 0043
- 1 JOHN MALCOLM, October 20, 2006
- Business Plans that were issued certainly at the
- 3 end of 2003, 2004, into 2005, and the one that
- we're writing just now at the end of 2006, the
- 5 Business Plan that was in place in November 2002
- was in place when I came to the company, and so
- my -- although I am familiar with that Plan, I am
- familiar with that Plan from reading the Plan and
- executing the Plan rather than building and
- 10 developing the Plan.
- 11 Do you recall if the Business Plan that
- was in place when you arrived at PDO in November
- 13 of 2002 contained production targets with regard
- to oil in Oman? 14
- 15 Α Yes, I do.
- 16 Do you recall approximately what that
- target was in the Business Plan that was effective

- 14 coming in looking forward for the following year.
- 15 You come and take over a company in November,
- 16 there is a limit to your flexibility in what you
- 17 can do in the last two months of the year, so my
- 18 key focus was on 2003 rather than 2002, but I can
- 19 still remember the numbers roughly that were in
- 20 place in 2002, and if I remember correctly, I
- 21 think that the average production in 2002 for the
- 22 year was something like 773,000 barrels a day. It
- 23 was 770,000 barrels a day, and that I have to do
- 24 from memory, sir. That is not an exact figure.
- Q I do appreciate that. Do you recall if 0045
- 1 JOHN MALCOLM, October 20, 2006
- 2 the 2002 -- if the Business Plan in place with
- 3 respect to 2002 contained production targets for
- 4 2002?
- 5 A My memory serves me to remember that
- 6 there were really two targets for 2002. There was
- 7 an original target, if I remember correctly, of
- 8 about 830,000 barrels a day, and this had been

- revised downwards, I'm not sure what point,
- 10 probably near the end of 2001 -- on that you need
- 11 to check the facts -- down to 815,000 barrels a
- 12 day. So I think that if you took formally to the
- 13 Plan that was 815, I think there had been an
- 14 aspiration of 830 originally.
- 15 Q Do you recall upon your arrival at PDO
  - 6 in November of 2002 if anyone within PDO discussed
- 17 with you the failure to meet the 2002 production
- 18 target as set forth in PDO's Business Plan?
- 19 A I think that all the shareholders were
- 20 concerned. I had discussions with all of them,
- 21 the Government in particular, and at that moment
- 22 in time the Chairman of the Board was the
- 23 Undersecretary at the Ministry of Oil and Gas,
- 24 effectively one level down from the Minister, and
- 25 there was obviously deep concern not just about 0046
- 1 JOHN MALCOLM, October 20, 2006
- 2 the production in 2002, but the predictions for
- 3 2003.
- 4 Q Do you recall what those predictions --
- 5 withdrawn. Were you familiar with the predictions
- 6 that were being made for 2003?
- 7 A The 2003 production target was in BP
- 8 2003, which was approved at the time I arrived,
- 9 and it was a target, 703,000 barrels a day.
- 10 Q Do you know how that target was
- 11 established?
- 12 A I was not there when the work was done,
- 13 sir. To put it into context, around about the
- 14 second quarter of the year we made a first pass of
- 15 the Business Plan for the following year around
- 16 about April, May, so that was done in 2002 when I
- 17 was not there, and then there's more detail added
- 18 through the summer, and around about September,
- 19 generally October, once we get into the fourth
- 20 quarter of 2003, that Business Plan is firmed up.
- 21 And then from that point there it goes to the
- 22 Board for approval, and my understanding is that
- 23 the number that was approved was 703, and I have
- 24 no -- I was not there, so I have no detailed
- 25 knowledge of how it was put together, just an

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0047

1

3

## JOHN MALCOLM, October 20, 2006

- 2 understanding.
  - Q Do you recall if there was concern
- 4 amongst the PDO shareholders that the target for
- 5 oil production decreased from approximately 830 or
- 6 815 barrels per day to approximately 703 barrels
- 7 per day from 2002 to 2003?
- 8 A Just for clarification, sir, in 2002 my
- 9 understanding is that the average production was
- around about 770,000, and in 2003 the target was
- 11 703,000, so effectively you see that in, from the
- 12 aspirations -- and these I only can take from what
- 13 I read -- at the end of 2001 of 830 reduced to
- 14 815, the production had fallen to 770,000, which
- 15 is a significant fall-off, percentage-wise and
- 16 absolute-wise, and then the fall-off predicted for
- 17 2002, of course, is something like eight, nine
- 18 percent. It's 70,000 -- 770 odd thousand. It
- 19 was -- that was a significant number, both -- and
- 20 I'd like to stress, the numbers I'm quoting you
- 21 are average numbers, so you have between the start
- 22 of the year and the end of the year, it is the
- 23 average number in between, so in actual fact the
- 24 deltas are actually bigger than that, so it was
- 25 quite a difficult time.

## 0048

1

## JOHN MALCOLM, October 20, 2006

- 2 Q Do you remember if you had any
- discussions with management at Shell as opposed to
- 4 PDO concerning the production decline at PDO in or
- 5 about 2002?
- 6 A Yes. I had discussions. My Key Point
- 7 was the Regional Business Director at the time, a
- 8 Mr. Din Megat, D-I-N, Megat, M-E-G-A-T. "Din" is
- 9 actually short for Zahrudin, Z-A-H-R-U-D-I-N. And
- 10 he was the Regional Business Director. He had a
- 11 Business Advisor for Oman, a chap called Paul
- 12 Mann. And Mr. Megat reported to Mr. Walter van
- 13 der Vijver, and Mr. van der Vijver, of course,
- 14 reported -- was a member of the CMD, reported to
- 15 Mr. Watts, but they -- the Regional Business
- 16 Director was kind of the pivotal point.

Thank you. Do you recall if --

anyone at PDO concerning the reasons for the decline in production between 2001 and 2002?

withdrawn. Do you recall having discussions with

4

10 11 12 13 14 15 (Whereupon, a short recess was taken.) 16 THE VIDEOGRAPHER: We are back on the record. The time is 11:11 a.m. 17 18 BY MR. MACFALL: 19 Mr. Malcolm, did there come a time in 20 2002 when you gained an understanding of the 21 reasons for the production shortfall or the

A That is a good question. I think that -- I think my understanding was really better

production fall-off at PDO?

22

Case 3:04-cv-00374-JAP-JJH Document 357-3 Filed 10/10/2007 Page 32 of 138

25 by say about the end of First Quarter 2003 and 0052

### 1 JOHN MALCOLM, October 20, 2006

- 2 then significantly better by the end of Second
- 3 Quarter 2003, so I think that I took over, for the
- 4 last two months of 2002, a very, very hectic time.
- 5 I understood a number of things. By the end of
- 6 the First Quarter 2003 I had an understanding of
- 7 some of our short-term issues. By the end of
- 8 Second Quarter 2003, I had a feeling for some of
- 9 our longer term issues.
- 10 Q Could you describe for me your
- 11 understanding of the reasons for the shortfall as
- 12 of the end of the Second Quarter of 2003.
- 13 A I can give you the long answer, I can
- 14 give you the short answer. Maybe, sir, I could
- 15 give you the outline, and then if you want more
- 16 depth, we could do that.
- 17 Q That would be fine.
- 18 A I think fundamentally, in my opinion --
- 19 it is my opinion. I think fundamentally around
- 20 about the mid-nineties, PDO's business model
- 21 changed and changed from this very successful
- 22 company of "find a field, develop the field, hook
- 23 it up," to a stage where, although we continued to
- 24 find fields with our exploration ventures, the
- 25 fields were generally not easy to hook up.

#### 0053

# 1 JOHN MALCOLM, October 20, 2006

- 2 So if you look at the total number of
- 3 flowing fields in PDO, it tended to plateau around
- 4 about 1988, because there is always a two-to
- 5 three-year project time between finding something
- 6 and developing it and for it to flow, so the
- 7 numbers, if you look at the total numbers, you see
- 8 that they're there. We found some very
- 9 interesting fields, and we're developing one of
- 10 those today, but the time scale just took longer
- 11 to develop.
- 12 I think also that '98, with a
- 13 \$10-a-barrel oil price, affected not just PDO but
- 14 all the companies within the E&P business. Major
- 15 long-term investments at \$10 a barrel were not

- JOHN MALCOLM, October 20, 2006 possible, and to really start to get the longer term Enhanced Oil Recovery products in place.
- 4 These things, rather than being done sequentially,
- 5 really had to be done in parallel, which had
- 6 significant resource.

- 4 Q Do you recall if Shell, as opposed to
- 5 PDO, dedicated additional assets in an effort to
- 6 improve production rates at PDO in or around 2002,
- 7 2003?
- 8 MR. SMITH: Objection to form.
- 9 THE WITNESS: I think first of all, the,
- 10 the program as we have it or had it at that point
- 11 in time was a Business Plan that had been approved
- 12 by the Board of Directors and was being resourced
- 13 by a number of different means. Where we
- 14 requested support from our private shareholder or
- 15 a public shareholder at that time, we got it. For
- 16 example, my request for funds around about
- 17 April 2003, which was a significant request, we --
- 18 substantially that request was met by a public
- 19 shareholder. And likewise with a private
- 20 shareholder, where we needed support on, say,
- 21 doing studies or the like, that support was
- 22 forthcoming, but I have to stress for you that
- 23 these were studies done on behalf of PDO and were

So we had a range of studies that were being done, some of them, for example, on the

- 1 JOHN MALCOLM, October 20, 2006
- 2 secondary recovery on the waterfloods, these were
- 3 mainly screening studies, front-end type studies,
- 4 and we were running nine or ten of those studies
- 5 in parallel, and I think we reported out in April
- 6 of 2003, and from that then we prioritized which
- 7 ones we were going to take forward. And we had a
- 8 number of other Field Development Plans that were
- 9 ongoing at that time, because many of our Field
- 10 Development Plans really were in need of renewal.
- 11 Q Do you recall if during that period
- 12 technical resources from outside of Oman were
- 13 provided by Shell in an effort to increase
- 14 production?

- a contractual relationship, because they were
- 11 getting paid for this in the vast majority of the
- 12 cases, so that yes, if we had a study to be done
- 13 that we couldn't do in-country and needed to be
- 14 done, we would go to some external party, and that
- 15 external party was often Shell.
- 16 Do you recall if during the period of
- 17 2002 until or through -- withdrawn. Do you recall
- during the period of 2002 until 2004 SEPTAR, if
- 19 you're familiar with that acronym, performed any
- 20 work at PDO?
- 21 The names of what I would refer to as
- EPT, the EP Technology Center, have many names.
- SEPTAR is one of the names I recognize, but some
- 24 of those names change so fast for me that I'm not
- 25 always -- but I think SEPTAR stood for Shell EP 0060
- 1 JOHN MALCOLM, October 20, 2006
- Technology and Research, but I cannot even
- remember what it stood for, but it's something of
- that nature. But EPT is an organization
- effectively centered in Rijswijk, but it has

- 12 question in the form that you put it, sir.
- 13 BY MR. MACFALL:
- 14 I'll see if I can rephrase if for you, sir, unless -- do you recall any Shell personnel 15 based out of Houston doing technical work on 17 behalf of PDO during the time period 2002 until 18 2004?
- 19 I think that they -- for clarification,
- 20 sir, there are two broad categories of personnel.
- 21 One personnel is those who are seconded to PDO, a
- bit like myself. They join PDO, they work for

- 18 PDO during that period?
- 19 A I, I am sure that there were one or two,
- 20 but again most of that coordination was at a level
- 21 below me, and for me to try to hesitate to answer
- 22 on this, I would mislead you, but I'm sure that,
- 23 given the global nature of the business, that
- there were people coming from the Far East, there
- 25 were people maybe coming from Nigeria, there were 0063
- 1 JOHN MALCOLM, October 20, 2006
- people coming from Houston. I have no, I have no
- doubt that there were, there were some people, but
- 4 that is just the globalized nature of the
- 5 business.
- 6 Can you identify any individuals who
- might be familiar with the personnel performing
- the actual technical work of PDO during the time
- 9 period 2002/2004?
- 10 I suspect that most of that you could
- 11 find back near EPT. John Darley, who was the head
- 12 of EPT during that time. We probably have got a
- few names here and there, but if you want

were concerned, both the Government and the

private shareholders.

- As I've said, in early 2003 the Government
- 3 significantly increased the amount of operating
- expenditure. 4
- 5 Shell redirected people to be seconded
- into PDO to build up our Study Center so that we
- 7 could do Field Development Plans, so the tensions,
- of course, were there, as there would be in any
- 9 good relationship that is under real, real
- pressure. The individuals, of course, one in any
- 11 organization, individuals will blame the other
- 12 side, but -- and yes, there was tension, but there
- 13 was also, I think, more importantly, especially
- 14 from the top of Shell downwards, of what is it we
- 15 can do to fix the situation.
- I use the word "fix." That is, rectify 16
- 17 the situation. What can we do to get this
- 18 production understood, this fall-off; what is it
- 19 we can do to rebuild our reputation. But this is
- 20 all about -- this is all about production. This
- is very, very much attributable to production,

identified as the Deputy Managing Director of PDO

12

currently?

factor in connection with the decline in

25

0070 1

production?

booking reserve methodology was a contributing

JOHN MALCOLM, October 20, 2006

one was the old oil; the first one was the new
oil.

And if we take your point here, the
Reserves Booking Methodology, I think -- and I
cannot comment at this point. I can, though,
comment from when I was in the company, that His

successful development of fields. The development

- 15 prepayment of \$30 million, I knew about this
- 16 prepayment, I hadn't seen all the details here,
- 17 and which was effectively equivalent to stating
- 18 that there was concern over something like
- 19 200 million barrels of expectation reserves.
- Q Just with regard to the second page,
- 21 with regard to the prepayment of \$30 million, the
- 22 letter references or specifically states that that
- 23 was "against future de-booking of reserve." Do
- 24 you have knowledge of that de-booking, sir?
- 25 A That again, I had knowledge of it or 0073
- 1 JOHN MALCOLM, October 20, 2006
- 2 started to get an understanding of it when I came
- 3 in, and there was concern that -- I think -- and
- 4 you have to bear with me. I think it was
- 5 associated with the Yibal Field. There was
- 6 concern that -- and whether it was just that field
- 7 or a number of other fields, there was concern
- 8 that maybe the \$30 million here would have been
- 9 because the old oil -- if we say it's old oil --
- was credited at 15 cents per barrel, so that's
- 11 why, sir, it's equivalent to something like

JOHN MALCOLM, October 20, 2006 hundred million barrels of reserves that we could

## 1 JOHN MALCOLM, October 20, 2006

- 2 qualification -- let me be correct -- a
- 3 qualification of 900 million barrels of
- 4 expectation reserves in our books.
- 5 Q You've gone to great lengths to
- 6 distinguish between "expectation" and "proved
- 7 reserves" because of the operating structure of
- PDO. Do you have an understanding as to whether
- 9 there is a relationship between expectation
- 10 reserves as reported within PDO and proved
- 11 reserves reported by Shell?
- MR. SMITH: Objection to form and
- 13 foundation.
- 14 THE WITNESS: First of all, I am not
- 15 responsible for reporting proved reserves for
- 16 Shell. Maybe I can answer your question in a more
- 17 general manner.
- 18 Firstly, from where I come from -- and
- 19 again I am a surface engineer, not a subsurface

- 20 possible, sir, but I don't think that there is a
- 21 direct correlation between those two numbers, in
- my understanding, for the reasons I've given. 22
- 23 BY MR. MACFALL:
- 24 The volume of expectation reserves 25 reported by PDO; do you have any understanding of 0078
- 1 JOHN MALCOLM, October 20, 2006
- 2 whether that included the proved reserves reported
- 3 by Shell?
- 4 MR. SMITH: Objection to form.
- 5 THE WITNESS: Again I, I was not
- involved in Shell's reporting mechanism. We, as
- PDO, provided a service of calculation based on
- guidelines to Shell. If you ask me, though, the
- question the other way around, about do we believe
- our proved reserves of P85 within PDO are

- share.
- 9 BY MR. MACFALL:
- 10 And just so I'm clear, you may have told
- 11 me this before, but I just want to make sure my
- 12 understanding is correct. PDO did not calculate
- proved reserves for Shell during that period of
- 14 time; am I correct?
- 15 MR. SMITH: Objection to form.
- THE WITNESS: Sir, I don't think that's 16
- 17 what I said. Maybe I can restate what I said.
- 18 Was that PDO provided a service to Shell and any
- 19 other shareholder who required it, for us to aid
- 20 them in their reporting by taking our data and
- 21 giving it back in the guidelines that they
- submitted to us. So if Shell or Total or anyone
- 23 else had said to us, "Here is a guideline, can you
- please apply this guideline and give us a number
- 25 out," we would have done so and showed them the 0080
  - 1 JOHN MALCOLM, October 20, 2006

- 1 JOHN MALCOLM, October 20, 2006
- 2 to license extension, of reducing the numbers, but
- 3 it was effectively based on a forward-looking
- 4 production.
- 5 Q Do you know who was -- withdrawn. Was
- 6 there an individual or individuals at PDO who were
- 7 responsible for actually conducting the
- 8 calculations to derive the proved reserves
- 9 reported to Shell?
- 10 MR. SMITH: Objection; lack of
- 11 foundation.
- 12 THE WITNESS: Again I think there were,
- 13 was a department involved in providing this
- 14 service to Shell, according to their guidelines.
- 15 That department was their Corporate Planning
- 16 Department.
- 17 BY MR. MACFALL:
- 18 Q Do you recall the name of any of the --

- foundation. 4 THE WITNESS: I, I think, sir, I have to
- correct your question if you wouldn't mind. BY MR. MACFALL: 6
- 7 0 Sure. 8 Is that we didn't have a Shell
- scorecard; we had a PDO scorecard.

- A And our PDO scorecard, definitely around
- 12 about the time that I came in, had expectation and
- 13 even looser Discovered Scope For Recovery targets
- 14 on that scorecard.
- 15 Q Did anyone from the Oman Government ever
- 16 express to you during your tenure at PDO that the
- 17 reserves component of the PDO scorecard was
- 18 somehow related to the decline in production?
- 19 A I think that -- I find that a difficult
- 20 question to answer, sir, in that the scorecard is
- 21 there to -- relates to the Business Plan and
- 22 therefore relates to the targets within the
- 23 Business Plan. It's a focusing tool for the staff
- 24 at PDO. So in itself it relates to the Business
- 25 Plan, but I think your question was not actually 0084
- 1 JOHN MALCOLM, October 20, 2006
- 2 related to the scorecard. You were asking me
- 3 whether --
- 4 Q Whether you had ever received complaints
- 5 from anyone within the Omani Government or
- 6 expressions of concern -- let me withdraw the
- 7 question or rephrase it. Did you ever receive any
- 8 expressions of concern by members of the Omani
- 9 Government that the reserves metric on PDO's
- 10 scorecard was somehow related to the decline in
- 11 oil production at PDO?
- MR. SMITH: Objection to form.
- 13 THE WITNESS: I can state that when I
- 14 came into PDO at the end of 2002, there was
- 15 concern about the expectation reserves that were
- 16 held on the books, and that was expressed to me by
- 17 the then Chairman of the Board, which is different
- 18 from the scorecard. They have concerns about the
- 19 scorecard as to whether or not it produces the
- 20 right behaviors, but I think your question was
- 21 more about the, about the expectation reserves.
- 22 Did they have concerns about the expectation
- 23 reserves? Yes. Did they have concerns about the
- 24 behaviors that scorecards can produce? Yes.
- 25 Sorry to have to restate at least --

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file:///C/Documents%20and%20Settings/daustin/Desktop/Deposition%20Transcripts/102006jmalcolm.txt
          Case 3:04-cv-00374-JAP-JJH
                                         Document 357-3
                                                            Filed 10/10/2007
                                                                               Page 52 of 138
        JOHN MALCOLM, October 20, 2006
2
         MR. MACFALL: No, I appreciate the
   clarification. Why don't we go off the record for
4
   a second.
5
         THE VIDEOGRAPHER: This marks the end of
6
   Tape 1 in the deposition of Mr. Malcolm. We are
7
   going off the record. The time is 12:00 p.m.
8
         (Whereupon, a short recess was taken.)
9
         THE VIDEOGRAPHER: This marks the
    beginning of Tape 2 in the deposition. We are
10
11
    back on the record. The time is 12:06 p.m.
12
    BY MR. MACFALL:
13
          Mr. Malcolm, with regard to the PDO
14
    scorecard, could you describe for me what, if any,
15
    issues were discussed with you by members of the
16
    Omani Government concerning the PDO scorecard.
17
          MR. SMITH: Objection to form and
18
    foundation.
    BY MR. MACFALL:
19
20
           You can answer, sir, if you can.
21
           I think the, um, there were -- with
22
    scorecards there are a number of generic concerns
    that you will get with any Government. One of
    them is whether or not the scorecard is too easy,
25
    because those scorecards are related to the
0086
1
        JOHN MALCOLM, October 20, 2006
   payment of staff. It's a relatively small
3
   percentage, but it's still significant, whether
   the scorecards are too easy. Whether the
5
   scorecard reflects the Business Plan, because it
   should reflect the Business Plan.
7
         And so the concept of scorecards does
   not lie easily with a Civil Service-based
   organization, but I think they understood the need
10
   for focus, and so many of the discussions were
11
    around what, I think what the major of the
12
   Government shareholder saw as important versus
13
    what we at PDO would see as important versus what
    the private shareholder would see as important.
15
    So say, for example, the weighting on production
    or the weighting on safety and the like, so it is
    more about not that anybody -- there was, of
```

- 1 JOHN MALCOLM, October 20, 2006
- we presented our first pass to our shareholders on
- 3 both sides, there was concern, because we, as the
- operator, were saying we believed that there were
- 700 million barrels of expectation reserves that
- we could not match to projects in the Business
- Plan. It was a significant step.
- 8 There was concern in both sides, in the

- 8 person. Maybe if I can rephrase your question if
- 9 it's acceptable to you, sir, is that the
- 10 coordination of the activity was done by Corporate
- 11 Planning Department. The actual detailed
- 12 activities were done by many other people in the
- 13 organization who were responsible for particular
- 14 fields and the projects associated with those
- 15 fields. So the coordination element was
- 16 coordinated by the Corporate Planning Department,
- 17 which reports to our Deputy Managing Director and
- 18 Technical Director.
- 19 BY MR. MACFALL:
- 20 Q Do you recall if Mr. Clayton was
- 21 involved in that process?
- A Yes, he was.
- Q Do you recall why a bottoms-up review
- 24 was conducted in connection with the Business Plan
- 25 in or about May of 2003?

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1 JOHN MALCOLM, October 20, 2006

0090

2 A It's -- of course, one's memory, after

3 three and a bit years, is a bit hazy, but I think

- 4 that the underlying thing was that we wanted to
- 5 get a far better grip on the details of our
- 6 business and particularly our projects going
- 7 forward, and it was -- we sought in that high
- 8 level detail -- we were actually using a new tool
- 9 that was available at the time for building our
- 10 Business Plan, which was very, very helpful to us.
- 11 It actually allowed us to do something that would
- 12 stretch it, be a little bit difficult, but it was
- 13 a good tool, and it was to try to give us that
- 14 clear insight into not just that we've got five
- 15 billion or whatever the number was of expectation
- 16 reserves, but how, how are we going to develop
- 17 those into production over the foreseeable future.
- 18 And it was to get that very much tighter grasp on
- 19 the production versus expectation reserves and our
- 20 plans and our projects and everything that goes
- 21 with them, and our facilities, and so it was just
- 22 a significantly more detailed exercise, and in my
- 23 opinion it was a good piece of work.
- Q Were the findings with regard to the mismatched or matched reserves discovered as a 0091
- 1 JOHN MALCOLM, October 20, 2006
- 2 result of the bottoms-up exercise memorialized in
- 3 a written report?
- 4 A I cannot remember that, sir, but the
- number was well-known and was discussed with the
- 6 shareholders or the Directors.
- 7 Q With regard to Shell as one of the
- 3 shareholders of PDO, was the -- were the results
- 9 of the bottoms-up exercise communicated to it --
- 10 let me rephrase the question. I'm sorry. Do you
- 11 recall if the conclusions reached regarding
- 12 reserves in the bottoms-up exercise were
- 13 communicated to Shell?
- 14 A They were communicated to all our
- 15 shareholders, including Shell.
- Q Do you recall how it was communicated to

7 Shell?

18

1

7

A I think first -- again my memory is hazy

- 19 after this time, but, of course, the first kind of
- 20 frequent contact was with the Business Advisor,
- 21 Paul Mann, and therefore Paul up through the rest
- 22 of the Shell organization. And we communicated it
- 23 to both the Government and Shell, and I think, of
- 24 course, it was such a large number, there was
- 25 shock on all sides. And there was also concern of 0092
  - JOHN MALCOLM, October 20, 2006
  - 2 "are you sure you've got this right," you know, on
- 3 all shareholders. It was a very big number. It
- 4 was 700 million out of five billion. It was a
- 5 significant percentage.
- 6 And I think that to go back to your
  - specific point about Shell, I think that the great
- 8 thing that we got from Shell was, of course,
- 9 challenge of do you think you have this right, and
- 10 we said, yeah, we believe as a first pass, it's a
- 11 good first pass number, but we strongly recommend
- 12 there is a review done such that all shareholders
- 13 can get assurance that the operator's figures are
- 14 sound.
- And, you know, from the time I had come
- 16 in up until about that point, people were always
- 17 saying, well, should we have a reserves review,
- 18 who is going to pay for it. All of these things
- 19 went back and forward that you always get from
- 20 shareholders on issues of cost, but Shell was
- 21 extremely good at this point. They said this is a
- 22 cause for concern. We must put this concern to
- 23 rest one way or another. And they, at their own
- 24 cost, instigated staff around the STOIIP and
- 25 Reserves Review, and Corporate and PDO, we were 0093
- 1 JOHN MALCOLM, October 20, 2006
- 2 providing all our numbers and all our data.
- 3 Q Now, you referenced communication with
- 4 Paul Mann. Do you recall if you communicated
- 5 personally with Paul Mann concerning the findings
- 6 reached in the bottoms-up exercise?
- 7 A I may well have done, but -- I don't

- for example, or e-mail? 13 A I can't remember, sir. I can remember,
- 14 however, that they came in for a technical meeting
- 15 sometime in June, and I can remember we discussed

communicated with Mr. Megat? Was it by telephone,

- 16 it, and it was -- I cannot remember the exact
- 17 date, but sometime in June there was total
- 18 agreement that we should have a review done of
- 19 these numbers.

11

- 20 Was the technical meeting conducted with 21 regard to the findings in the bottoms-up exercise?
- 22 Again I need to go back to my diary to
- 23 check all the dates, but the general format was
- that we would have regular Technical Shareholders
- 25 Meetings. I cannot remember the exact date that 0094
- 1 JOHN MALCOLM, October 20, 2006
- that Technical Shareholders Meeting took place,
- but I believe it was around about early June 2003,
- which was at the point that we were saying to our
- 5 shareholders, because we, we have a Technical
- Shareholders Meeting before kind of every board,
- we have three or four board meetings a year, so it
- was around about that time we gave them the first
- pass of the plan, and you're saying the plan, we
- 10 think we're 700 million barrels of expectation
- 11 reserves short that we can't match to projects.
- 12 Did anyone from Shell request an
- 13 opportunity to review the data that had been
- utilized to reach that conclusion in the
- 15 bottoms-up exercise?
- 16 That, sir, was subsequent to when we did
- 17 the STOIIP and Reserves Review and Expectation
- Review, and that we provided all our data that we
- 19 had utilized and the rationale and everything like
- 20 that, so, of course, we provide that data to both
- 21 sets of shareholders as requested, but in this
- 22 particular case as it was a Shell STOIIP and
- Reserves Review, they specifically, of course,
- wanted to know how we got to our figures, they

Case 3:04-cv-00374-JAP-JJH Document 357-3 25 wanted to check our figures, the methodology, et 0095

## 1 JOHN MALCOLM, October 20, 2006

- 2 cetera, of the figures.
- 3 Q For my own edification, we've used the
- 4 term several times, and I just want to make sure
- 5 that I have an accurate understanding; the term
- 5 "STOIIP," which I believe you said is Stock Tank
- 7 Oil Initially In Place --
- 8 A Yes, sir.
  - Q -- could you please explain for me what
- 10 that is, sir.

9

- 11 A Well, sir, you've got a simple surface
- 12 engineer who is going to have to explain it to
- 13 you, but maybe I can give you my understanding --
- 14 Q Thank you.
- 15 A -- my explanation, is that if you take a
- 16 reservoir of oil -- and some people mistakenly
- 7 think of it like a tank, but it is not a tank. It
- 18 is small particles of oil encased in grains of
- 19 sand or in grains of carbonate, depending on the
- 20 source of that reservoir, whether that reservoir
- 21 of rock is a sandstone or whether it's a
- 22 carbonate, but you have got -- within the pores of
- 23 that reservoir you have got oil and in some cases
- 24 you've got water as well, and it is under
- 25 tremendous pressures. Oil and gas is under 0096

## 1 JOHN MALCOLM, October 20, 2006

- 2 tremendous pressure, depending on how deep it is.
- 3 The deeper it is, generally the deeper the
- 4 pressure, but if you conceptually lifted all of
- 5 that oil out of the ground, conceptually, and you
- 6 placed it into a tank on the surface, that would
- 7 be, in my understanding, the Stock Tank Oil
- 8 Initially In Place. Now, I think that the
- 9 terminology is an old one. And again I'm not a
- 10 reservoir engineer, so I couldn't tell you where
- 11 it comes from, but that is my understanding, and
- 12 it is the -- it is truly the maximum amount of oil
- 13 that you could ever recover from a reservoir. And
- 14 as such, that is -- it is an important number in
- 15 that you could never theoretically -- not even

concern we have to address, and they said that

they would do this at their own costs. They would

- 15 with regard to this review: Are you familiar with
- 16 an organization or entity known as the Bellaire
- 17 Technology Center?
- 18 A Yes, I know of the Bellaire Technology
- 19 Center.
- 20 Q Could you describe for me -- well, do
- 21 you have an understanding of what it is?
- 22 A I think that today, organizationally, I
- 23 am a little bit out of date with what is happening

- 2 when you're running a joint venture, your focus is
- 3 on the joint venture, and sometimes how things are
- 4 organized in our Corporate Center of Shell, I
- 5 don't always pick them all up, but there was a
- 6 point where the Bellaire Technical Center
- 7 essentially used to be -- my understanding was the
- 8 Research and Development Support Center based in
- 9 Houston, and they have -- and again this all
- 10 happened after I left EPT in 1997, but there is
- 11 this kind of relationship between themselves and
- 12 Rijswijk on where work is done, et cetera.
- 13 Q Do you recall if Bellaire Technology
- 14 Center did any work in connection with the STOIIP
- 15 and Reserves Review conducted in 2003 in PDO?
- 16 A From my side I simply saw it as a
- 17 Shell-led study from people in Rijswijk, supported
- 18 by the original Business Director and the EP CEO,
- 19 because they were effectively footing the bill at
- 20 the end of the day, how they resourced that study
- 21 was really -- I really had no concerns apart from
- 22 to make sure that they resourced it with very,
- 23 very good people such that the outcome of the
- 24 study would be credible.
- Q I believe you indicated that that study, 0101
- 1 JOHN MALCOLM, October 20, 2006
- 2 the STOIIP and Reserves Review, ran from
- 3 approximately June of 2003 until December of 2003,
- 4 correct?
- 5 A It did. It was different peaks in
- 6 activity. The key reporting, the first -- there
- 7 was a number of report-outs, but the significant
- 8 one was in September 2003, which was a kind of
- 9 peak report-out, but my understanding is I think
- 10 the -- and I need to go check my facts again, but
- 11 I think the study was closed off near the end of
- 12 December, near the end of 2003.
- Q Did there come a time during that
- 14 period, June of 2003 to December of 2003, when the

JOHN MALCOLM, October 20, 2006

up to 960 or something. By the end of the year there was a whole pile of -- we had, uh, as PDO,

number was 930. I think that number then changed

large, but they felt from their viewpoint the

0103 1

- Management at Shell was apprised of the issue
- 5 concerning the expectation reserves at PDO?
- MR. SMITH: Objection to form and 6 foundation. 7
- 8 THE WITNESS: When you say the word
- 9 "Senior Management," sir, who are you referring
- 10 to?
- 11 BY MR. MACFALL:
- 12 Q I'll identify specific individuals. Are
- you aware if Walter van der Vijver ultimately
- became aware of the mismatch between fields and
- 15 expectation reserves at PDO?
- 16 A From my recollection, I believe that
- Walter van der Vijver, in June 2003, was advised
- 18 of our belief and the mismatched volumes, and he
- 19 authorized the Reserves Review, the payment of the
- 20 Reserves Review. He took away all of this
- 21 dillydallying on it in terms of who was paying
- what, but my understanding is he was working on

- 19 was done, it was a reasonable piece of work,
- 20 because it was done very, very fast, a bottoms-up
- 21 review.
- MR. SMITH: In your response to this
- 23 question, you referred to "June 2006." Is that
- 24 what you meant?
- THE WITNESS: No. I'm sorry. I think 0106
- 1 JOHN MALCOLM, October 20, 2006
- 2 I'm getting a little bit tired here. June 2003.
- 3 Thank you. I think six months, but June 2003. My
- 4 apologies. Thank you for correcting me.
- 5 MR. MACFALL: In view of that, would
- 6 this be a convenient time to take a break for
- 7 lunch?
- 8 MR. SMITH: Sure.
- 9 THE VIDEOGRAPHER: We are going off the
- 10 record. The time is 12:36 p.m.
- (Whereupon, the lunch recess was taken.)
- 12 (Exhibit No. 2 was marked for
- 13 identification and attached to the deposition

JOHN MALCOLM, October 20, 2006

A My understanding of his visit and that -- and subsequent visits was that Mr. Watts

Mr. Watts' visit at that time?

1

- 7 it in a very tangible way in terms of showing the
- 8 support and personally trying to resolve the
- 9 problems that occurred in PDO and elsewhere, but I
- 10 think it was to try to get again this alignment
- 11 back in with the shareholders.
- 12 Q With respect to the document in front of
- 13 you, do you recall if you've ever seen this
- 14 before, sir?
- 15 A I don't, I don't recall having seen this
- 16 before.
- 17 Q Directing your attention specifically to
- 18 the second page of the document, there appears a
- 19 Preamble at top, what is labeled "Preamble," with
- 20 a series of bullet points that follows. And I
- 21 realize that --
- A This, sir, is under the second page of
- 23 the document?
- 24 Q Second page of the document, first page
- 25 of, I believe --
- 0109
- 1 JOHN MALCOLM, October 20, 2006
- 2 A Oh, sorry.
- 3 Q Okay. I believe this may have occurred
- 4 prior to your tenure at PDO, but let me ask you.
- 5 The second bullet point under the Preamble
- 6 references negotiations with something called the
- 7 "GISCO deal." Do you have an understanding of
- 8 what that refers to, sir?
- 9 A I have a, I do not have a complete
- 0 understanding of GISCO. My understanding is that
- 11 GISCO, I think it stands for Gas Infrastructure
- 12 Services Company, but it may -- but I'm not
- 13 totally involved with it. It was a vehicle to
- 14 help finance the upstream investment of the Oman
- 15 LNG plant, OLNG, and so although the Government
- 16 has a hundred percent ownership of the, of the
- 17 upstream gas asset, that this was a vehicle that
- 18 allowed the private shareholder to invest in the
- 19 infrastructure required to get that gas to the
- 20 downstream plant, which is referred to in here as
- 21 "OLNG."

aspect of the various joint ventures that Shell

A It was a long time ago, but I, I recall

JOHN MALCOLM, October 20, 2006

Do you recall if the issue of the

25

3

0113 1

the meeting.

Document 357-3

- Case 3:04-cv-00374-JAP-JJH production shortfall at PDO was discussed during
- 5 that meeting?
- 6 The -- more than the shortfall, the
  - discussion was about the Business Plan, which, as
- we've said before, at that time was BP03. What we
- intended to do is to tackle the short, medium and
- 10 long-term issues, and I think that this talks
- 11 about those in some ways, about the waterflood
- 12 projects and the UR projects.
- 13 Q Do you recall if expectation reserves
- 14 were discussed specifically during this meeting?
- And I do realize this was prior to the bottoms-up
- 16 exercise.
- 17 A I do not. I do not recall expectation
- 18 reserves being discussed at this meeting.
- 19 The sentence continues with a reference
- 20 to "HM." Could you please identify that
- 21 individual for me, sir.
- 22 Yeah. "HM" here stands for His Majesty,
- 23 Sultan Kaboos, who is the Sultan of Oman.
- 24 Do you recall attending any meetings
- between Mr. Watts and His Majesty, the Sultan of 0114
- 1 JOHN MALCOLM, October 20, 2006
- Oman?

- 3 Yes, I do. Α
  - Do you recall approximately how long
- 5 that meeting lasted?
- 6 From my memory -- and there were several
- meetings, but if you're talking about this
- 8 particular one --
- 9 Q I am.
- 10 A -- the meeting was effectively split
- into three parts. The first part where was His
- Majesty and Sir Philip Watts had a meeting in
- private. There was then a meeting at which 13
- myself, John Crocker and another Government
- Minister -- I don't remember what Government 15
- Ministers were there, but it was only about five,
- five or six people in the room, where there was a
- 18 general discussion where I took His Majesty
- through the plan for 2003, and then that was 19
- 20 followed then by dinner.

6 again you must excuse me; it is such a long time 7 ago. We had a number of place cards of kind of view drafts that I would through, take His Majesty

9 through to say this is what we're trying to do

10 specifically in 2003 and going forward in terms of

11 the waterfloods and the O.R. projects.

- maybe it was '56, you must excuse me, and that was
- a drilling of the Fahud 1 well, which was a dry
- well, and there was another two subsequent wells
- drilled, but effectively my understanding again
- from my reading of the subject is that IPC,
- 11 various members of IPC split off at that point,
- 12 and you were left with effectively Shell with
- 13 85 percent and Partex was 15 percent.
- 14 They did some rudimentary seismic in the
- 15 early 1960s, and in 1962 they went back and
- drilled in Yibal, they hit oil. They drilled in 16
- Natih, N-A-T-I-H, they hit oil. They went back to
- Fahud on the other side of the Yibal and they hit
- 19 oil, and effectively from 1967 onwards you had
- 20 this -- or from 1960 onwards you had this very,
- 21 very close relationship between Shell and the
- 22 country. In 1967 was the first export of oil from
- 23 the country, and that relationship, that had been
- 24 in place ever since.
- 25 To put it in context, sir, is that the 0118
- JOHN MALCOLM, October 20, 2006 1
- 85 percent -- the company was reconstituted at

- 24 actually made the declaration in the meeting, and
- I was sitting, I was sitting there when he said 0119
- JOHN MALCOLM, October 20, 2006 1
- the words, and, you know, it was an incredible
- 3 vote of confidence in Phil Watts and in Shell. He
- actually made that declaration at that meeting.
- 5 BY MR. MACFALL:
- 6 The following paragraph references a
- 7 meeting with -- between Mr. Watts and Ministers
  - Macki and Rumhy, together with Mr. Crocker and
- yourself. Do you recall that meeting, sir?
- 10 I remember this meeting, but not as
- 11 clearly as I remember the previous meeting. And
- sir, maybe I could just say for the record, I know 12
- 13 that all of this is taken in confidence, this
- 14 testimony, but the previous meeting with His
- 15 Majesty is very, very strictly confidential.
- I do appreciate that. 16
- 17 And I'm trying to be as open as possible
- 18 within that belief and that confidence.
- 19 MR. SMITH: Just so the record reflects

When I say "New Year 2003," I mean New

9

10

times --

0123 1 JOHN MALCOLM, October 20, 2006

Majesty on I think it was the 31st of December, 2003, as to progress on -- as to what progress

there had been on our business during the year.

23

- Q Separate and apart from any briefing
- 3 that Mr. Watts would have or may have received
- 4 from Mr. Megat and others at Shell, do you recall
- 5 specifically discussing the expectation reserves
- 6 issue with him during that period?
- 7 A Yes. I remember making -- I think it
- 3 was a presentation to, a very short presentation
- 9 to the CMD, must have been October-ish 2003, and I
- 10 remember going through the view drafts that we
- 11 were going to use, because when we went to see His
- 12 Majesty, I would actually take His Majesty through
- 13 the work that PDO was doing at that time, because
- 14 it was very much PDO's plan of where we were going
- 15 with Shell providing support, so that that
- 16 distinction was always made. And so I can
- 17 remember in the end of December 2003 going through
- 18 the view drafts that I was going to utilize on our
- 19 briefing for His Majesty that evening on the
- 20 31st of December.
- 21 Q Excluding the CMD presentation about
- 22 which you just testified, do you recall speaking
- 23 with Mr. Watts during any of Mr. Watts' visits to
- 24 Oman in connection -- withdrawn. At any point
- 25 when Mr. Watts came to Oman during the period of 0124
- 1 JOHN MALCOLM, October 20, 2006
- 2 2002 to 2004, do you recall speaking with him, in
- 3 Oman, concerning the PDO reserves issue?
- 4 A I remember very clearly briefing him
- 5 before we went to see His Majesty in 1st December
- 6 of 2003. That is very, very clear in my mind, and
- 7 it was -- because at that point, if my memory
- 8 serves me well, I think the Shell Reserves and
- 9 STOIIP Review had been close -- had been
- 10 substantially closed out. I think it had been
- 11 closed out in December of 2003, but that is the
- 12 one I remember. I don't remember in between. My
- 13 problem is I can't remember the visits in between.
- 14 I remember the visit very clearly in January, I
- 15 remember the visit very clearly in December, and I
- 16 think there was another one in between there, but
- 17 again -- and I remember the CMD presentation that
- 8 was around about October.

9 about expectation issues, and then the other one

effectively -- and up to that point had been all

Review, and then the other one had been

there to remind me. It really had kind of two -two major milestones had come in place. One had been the presentation on the Reserves and STOIIP A Again, sir, it's a long time ago. I'm sure there was clarifications raised, but the details I cannot remember, to be honest, after three and a quarter years, but I'm sure the minutes of meeting -- there must be minutes of meeting which show any such discussions.

9 Q Did there come a time during 2003 when 10 you became aware of an issue arising in connection 11 with proved reserves versus expectation reserves?

12 A Yeah. I think that up to about

13 September 2003 we had so many problems on the

14 expectation reserves -- to put this in context,

15 something like 20 percent of our expectation

16 reserves were placed in, at best, a category of

17 doubt whether or not they were moved into scope or

18 whether they were moved further out, but they were

19 in a significant category of doubt. And again I

20 don't remember the exact date, but around about

21 the end of September, maybe it was beginning of

22 October, the Reserves Auditor came in for Shell to

23 check and prove reserves, and there was a

24 presentation made, and it's at that point I

25 realized that from Shell's viewpoint that they -- 0128

15

16

17

meeting did occur.

Do you recall meeting with Mr. Pay at

No, I don't. And again that may be my

any point in or around August of 2003?

- exercise. At this moment in time, if you
- remember, I think the reserves, the STOIIP and
- Reserves Review reported out substantially around
- 15 about the middle of September, so this number I
- believe is the number that we in PDO believed were 16
- the volumes at risk at that time, and whether or 17
- 18 not we -- what means that we would identify these
- 19 at-risk reserves, they would certainly not be part
- 20 of any foundation for a future production program.
- 21 So the, the match reserves issue, one is
- 22 you're saying when we match reserves at projects,
- 23 this is how we see our production levels going
- forward. You're left with this other bundle, and
- 25 then you're left with a question of what do you 0131

## 1 JOHN MALCOLM, October 20, 2006

- actually do with it in terms of your ARPR, but
- 3 what is clear in your ARPR is that you actually
- have to identify it and you have to flag it some
- way, or it's suspect. You can take them all off
- or you can flag them, and then, as you do Field
- Development Plans, you can confirm or otherwise
- that you're going to remove them.

discussions, but in terms of timing, in May we had

was an ongoing STOIIP and Reserves Review being

decision until we issued our ARPR effective 1st of January 2003. So I don't totally buy into whether or not we needed to book or de-book at this moment

flagged the problem as we understood it. There

carried out. We actually didn't need to make a

JOHN MALCOLM, October 20, 2006 in time, and as hindsight shows, the number was

So there was really a concern of how do we handle this in our ARPR. Do you just take it off the bottom line? Do you make a provision?

How do you actually handle it? But at that moment

700, but that was more or less the number in May.

Did Mr. Pay hold the position of SIEP

Hydrocarbon Resource Coordinator at Shell in or

MR. SMITH: Objection to form and

no knowledge. I can only take the exhibit that

you have put in front of me which says that he

Did you have any interaction with

THE WITNESS: I, I could not -- I have

in time, 715 was still our first pass number for me. I think it was 715. If you'd ask me what number it was, I would say it was greater than

actually far bigger than 715. It was 900 and

25 Mr. Pay during 2003 to 2004?

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something.

BY MR. MACFALL:

about August of 2003?

held such a position.

BY MR. MACFALL:

foundation.

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Case 3:04-cv-00374-JAP-JJH Document 357-3 Filed 10/10/2007 0133 1 JOHN MALCOLM, October 20, 2006 2 Not that I can remember. 3 If you look at Number 2 beneath the first paragraph, it's captioned "Proposed Approach 5 to Reserves Categorization," and material follows after regarding expectation developed reserves, proved developed reserves, expectation undeveloped 8 reserves and proved undeveloped reserves. 9 The first sentence with regard to that 10 says, "Of the remaining Shell Reserves within license, a revised subclassification is proposed 11 12 by PDO as follows," and that material follows. 13 Sorry, sir. So we're in Section 2? 14 Section 2. I'm sorry. 15 And then we've got "Expectation Developed Reserves, all projects in the Operating 17 phase"? 18 Right, that section there, the sentence O 19 that precedes it.

- 20 A Oh, yes.
- 21 Okay, "a revised subclassification," the
- 22 sentence reads, "is proposed by PDO." Do you
- 23 recall PDO proposing a revised subclassification
- 24 with respect to reserves in or about August of
- 25 2003?

- 1 JOHN MALCOLM, October 20, 2006
- 2 MR. SMITH: Objection to form and
- 3 foundation.
- 4 THE WITNESS: Again I don't believe I
- was at this meeting, sir, and at that point in
- time, up to that point my understanding was that
- 7 we had on our books expectation reserves and we
- had on our books proved reserves, and as I advised
- you earlier, those proved reserves numbers were of
- 10 dubious value, and I see here that some of them
- 11 were even negative numbers, which backs up my
- 12 statement. That someone would want to split the
- division down between developed and undeveloped
- 14 does not sound to me to be unreasonable. It gives
- 15 a greater feeling of -- a handle on what parts are
- dependent on future projects and what parts are

7 the beginning, one of the problems that we had in

because to go back again, sir, as I said rather at

that they would have proposed such a split,

- reading something, you know, and trying to
- 3 interpret it, but it is not unreasonable that you
- split between what is already an installed
- 5 capacity and what is going to be the future
- installed capacity.
- BY MR. MACFALL: 7
- 8 I believe you indicated two individuals.
- I'm sorry. It was the Senior Petroleum Engineer I
- believe is one position. Withdrawn. Let me try
- 11 that again. Were there individuals within PDO
- 12 whose scope of responsibility would have included
- the classification of various reserves at PDO? 13
- 14 Α Yes.
- 15 And could you just identify by title 16 once again for me those positions, sir.
- 17 The, the -- this was in 2003. If you
- just let me look at the reference indicators,
- organizations change so quickly. 19
- 20 Sure. Q
- 21 Effectively in terms of our most senior
- reservoir engineer or most senior petroleum 22
- 23 engineer at that time would have been Stuart
- Evans, who is today -- I cannot remember his title

Case 3:04-cv-00374-JAP-JJH Do nat time, but today is our Petroleum

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25 at that time, but today is our Petroleum 0138

1

JOHN MALCOLM, October 20, 2006

- 2 Engineering Director. And one of the people
- 3 mentioned here, Dave Kemshell, works for him. So
- 4 in terms of a guidance, in terms of how we handle
- 5 petroleum engineering issues internally within PDO
- 6 effectively comes under the agreement of the
- 7 Petroleum Engineering Director, and the consistent
- 8 reporting and pooling together of those issues
- 9 comes under the remit of the head of Corporate
- 10 Planning.
- 11 Q Mr. Malcolm, I'd now like to direct your
- 12 attention to the following page in the document,
- 13 sir. If you could turn to that page, please,
- 14 you'll see about a third of the way down the page
- 15 there is an item numbered 3, "Potentially Exposed
- 16 Proved Reserves." Do you see that, sir?
- 17 A Yes.
- 18 Q Beneath that the paragraph discusses
- 19 reserves that are potentially exposed, according
- 20 to this -- there is a reference in the first
- 21 sentence to potential of exposure "due to a lack
- 22 of technical maturity." Do you see that, sir?
- 23 It's in the second line.
- 24 A Yes.
- Q Do you recall any reserves at PDO being 0139
- 1 JOHN MALCOLM, October 20, 2006
- 2 exposed in or about August of 2003 due to a lack
- 3 of technical maturity?
- 4 MR. SMITH: Objection to form and to
- 5 foundation.
- 6 THE WITNESS: As I have explained
- 7 previously, in PDO it is a company that's run on
- 8 an expectation basis. We realized that we did not
- 9 have -- we had a matched reserves problem of,
- 10 something like what we thought was 715 million.
- 11 It was actually higher than that. And by the
- 12 definition, effectively those reserves could not
- 13 be matched with the project, so the Field
- 14 Development Plans also that we knew and we were
- 15 working very hard on was to try to prove up our

- JOHN MALCOLM, October 20, 2006
  MR. SMITH: It's more than one question.
  THE WITNESS: More than one question.
  BY MR. MACFALL:
  Q I'll rephrase the question. Is the
- 6 reference to "technical project definition work"

- 4 So we saw that to book and de-book
- 5 definitive reserves within PDO's expectation
- 6 volumes, we should try to do so wherever possible
- 7 with a Field Development Plan, and we had a number
- 8 of plans going forward for our fields. That
- 9 doesn't mean to say that we shouldn't be prudent
- 10 in qualifying numbers, but we shouldn't just say
- 11 we'll take 200 million of that field. We saw that
- 12 we had to get some rigor back into the system, and
- 13 we have Field Development Plans that said this is
- 14 where we start today, this is the development
- 15 production we have, these are the projects we have
- 16 in the pipeline, this is how we see the
- 17 undeveloped and future undeveloped coming from.
- So that was, that was the mindset within
- 19 PDO was one of let us do this in a very rigorous
- 20 and professional manner. Let's not just, because
- 21 we think the number is 715, go ahead and whack 715
- 22 off. As we found out later on, the number we
- 23 thought came out to be 900 and something. So it

quantification of exposed expectation reserves at

MR. SMITH: Objection to form and

10

11 12 PDO?

foundation.

BY MR. MACFALL:

think that you can combine the two issues

By -- the auditor you're referring to;

3

4 5 together.

BY MR. MACFALL:

personnel. I may be wrong, sir, but I cannot

I cannot remember anyone excluding PDO

audit?

Α

remember.

10 11

if you looked at my agenda during the day, you

- 2 copies, many of which would not reflect the actual3 diary.
- 4 Q Do you recall if you produced copies of
- 5 the notes which you took of various meetings at
- 6 PDO during 2002/2004 to Shell in connection with
- 7 this litigation?
- 8 A No.
- 9 Q No, you don't recall or no, you did not
- 10 produce it?
- 11 A No, I know that I gave permission to
- 12 Shell to take everything that I had electronically
- 13 on my system, on my e-mail system, and that is
- 14 the -- although I take other notes, they are
- 15 generally not as structured as the notes of
- 16 meeting that end up electronically, either minutes
- 17 of meeting or whatever.
- 18 Q Do you retain copies of the notes of the
- 19 meetings that you take by hand?
- 20 A Not consistently.
- Q Do you have any copies of notes that you

BY MR. MACFALL:

MR. SMITH: Objection to form.

A Yes.

10

11

on, and in hindsight we can see that roundabout

JOHN MALCOLM, October 20, 2006

February 2004 there was a Memorandum of

Understanding signed.

25

- 24 that the Concession extension would be granted?
- 25 A He asked for my opinion, and I gave him 0157
- 1 JOHN MALCOLM, October 20, 2006
- my opinion about what was happening on the
- 3 likelihood, from the meetings I had been at, and
- when you read his report afterwards, you know, he,
- 5 as I understood it, took a very balanced
- viewpoint, was this really has to happen in a very
- short period of time, in like two months, or it's
- 8 not relevant. And it didn't happen within that
- short period of time and therefore it was not
- relevant. I think that's really what he wanted to
- 11 try and to find out, was it was going to happen
- 12 tomorrow or the next day or whatever before the
- 13 U.N., but it didn't happen --
- 14 THE REPORTER: You need to slow down.
- 15 Trying to find out whether it was going to
- 16 happen --
- 17 THE WITNESS: Tomorrow or the next day.
- 18 Again, sir, you know, this is three and a bit
- years ago. I have many, many meetings. 19
- 20 BY MR. MACFALL:

MR. SMITH: When you say "subsequent" to

2 A No, I don't recall. No, I don't recall.

JOHN MALCOLM, October 20, 2006

0161

- 0162
- 1 JOHN MALCOLM, October 20, 2006
- have had that it was going to be unsatisfactory,
- and we would not have been surprised by waiting
- for the report. There would have been an
- indication. Whether it was Mr. Barendregt told me
- or whether it was one of my staff told me, I can't
- remember, but it was not a surprise.
- BY MR. MACFALL:
- 9 Were you personally concerned by the unsatisfactory rating given by Mr. Barendregt in 10
- connection with PDO reserves submission? 11
- I am concerned, of course, with all 12
- 13 unsatisfactory audits within PDO, but in this
- 14 particular case this was about a service we were
- 15 doing for others, according to their guidelines.
- At the time I was very, very much more concerned
- 17 about the thought that 20 percent of my
- 18 expectation reserves had been agreed by an
- external review to have been lacking substance and

take a look at that, sir, and ask you if you

10

recognize it.

MR. SMITH: Objection to form and

JOHN MALCOLM, October 20, 2006

- 23 would be signed before the end of 2003. And my
- 24 major concern at the time was that people should
- 25 not write anything in external reports that would 0167
- 1 JOHN MALCOLM, October 20, 2006
- 2 be taken for granted that we would get such an
- 3 extension, and so it is a very -- I was asked for
- 4 my opinion, did I believe an MOU was going to be
- 5 signed. I gave my opinion based on the meetings.
- 6 You have seen several of Watts' minutes and
- 7 everything else, but I cannot remember implying,
- 8 and I don't think this sentence actually says it,
- 9 that John Malcolm said it was going to be before
- 10 the end of 2003. It's written in a very nebulous
- 11 manner here. I think that what was discussed was
- 12 did I believe we were going to get one signed.
- 13 Yes. When it was going to be? It was sometime
- 14 soon. In actual fact, in hindsight it came out in
- 15 February 2004.
- 16 BY MR. MACFALL:
- 17 Q Thank you, Mr. Malcolm. I think we're
- 18 trying to get to the same place on that

MR. MACFALL: I never said they were.

his position as auditor at Shell, in a position to

My question was: Was Mr. Barendregt, in

6 7

8

BY MR. MACFALL:

- 7 actual data. Again these things happened several
- 8 layers below me, but our policy is to book and
- 9 de-book reserves on the basis of FDPs, and as we
- 10 bring the FDPs in one after another, we take the
- 11 matched reserves on or off the books, depending on
- 12 how they come in. My understanding is that in our
- 13 ARPR -- but that needs to be checked -- we have
- 14 clearly that we have this vulnerability to these
- 15 matched reserves, but our policy is to take them
- 16 off the books as we get the FDPs or, in some
- 17 cases, actually to add reserves. And today we
- 18 have, we have a pretty structured process that has
- 19 the support of all the shareholders.
- 20 Q Are you aware if Shell ultimately
- 21 de-booked or recategorized -- withdrawn. Let me
- 22 try again. Are you aware if Shell recategorized
- 23 any volume of proved reserves reported to it by
- 24 PDO?
- 25 MR. SMITH: Objection to form.

Industry, the Minister of Oil and Gas. It has

5

6 7 concern for the Government.

that concern to you if you recall?

How is it that the Government expressed

His Majesty's Ministers are very capable

and smart men. If we go back to where we came in

- when you were asking me about P50, P85, et cetera,
- 10 in hindsight I realize what concerned them greatly
- 11 was that they understood that expectation reserves
- 12 could go up and down and that proved reserves
- 13 could go up but generally not too often down.
- 14 They were more solid.
- 15 And I think there was a tremendous
- 16 concern in Oman that their Managing Director --
- 17 and I am their Managing Director. I know you see
- 18 me today as otherwise, but I am also their
- 19 Managing Director. That their Managing Director
- 20 was saying that the expectation reserves of PDO
- 21 were likely to be down by 20 percent, and external
- 22 sources were saying that the proved reserves of
- 23 PDO, as reported by Shell, were down by
- 24 40 percent, and they were naturally extremely
- 25 concerned by this, because one would expect that 0175
- 1 JOHN MALCOLM, October 20, 2006
- 2 the proved reserves percentage would be lower than
  - the expectation reserves percentage. So the
- 4 numbers did not match up.

- 5 This, by the way, I surmise, a very long
- 6 meeting. I explained to them how the license
- cutoff worked, how the previous calculation of
- Shell had worked versus the SEC calculation, et
- 9 cetera, and I believe at the end of that meeting
- 10 they understood why 20 percent and 40 percent
- 11 added up. And there was I believe concerns and
- 12 there are still concerns about reserve, but I
- 13 believe the incongruous nature of those two
- 14 numbers was put to rest, and I then understood why
- 15 they wanted me to present numbers to them.
- 16 Q Do you recall approximately how long 17 that presentation lasted?
- A It would have lasted at least an hour,
- 19 maybe an hour and a half. In some cases, of
- 20 course, you're dealing with very capable people,
- 21 and you are putting in some very technical terms,
- 22 so there was a number of clarifications on what
- 23 these technical terms meant and a number of other
- 24 things, but they had -- in my opinion, they had
- 25 the right to call in their Managing Director to

- 1 JOHN MALCOLM, October 20, 2006
- explain two numbers that they could not balance in
- 3 their mind, that these two numbers held together,
- one that was reported in press and one that was --
- 5 they had reported by PDO's in expectation.
- 6 Do you recall approximately when that meeting occurred?
- 8 I can only guess it was around about the
- Second Quarter sometime. It was after all the
- announcements, after all the fall-out.
- 11 After Second Quarter '02?
- 12 A Yes.
- 13 MR. MACFALL: Can we take a short break.
- 14 MR. SMITH: Sure.
- 15 THE VIDEOGRAPHER: We are going off the
- 16 record. The time is 3:22 p.m.
- 17 (Whereupon, a short recess was taken.)
- 18 THE VIDEOGRAPHER: We are back on the
- 19 record. The time is 3:32 p.m.
- 20 MR. MACFALL: Mr. Malcolm, I'd like to
- 21 thank you very much for your time and candor, sir.
- 22 At this point I have no further questions.
- 23 MR. SMITH: Thank you. We have nothing.
- 24 THE VIDEOGRAPHER: This marks the end of
- the deposition of Mr. Malcolm. The total number 25 0177
- 1 JOHN MALCOLM, October 20, 2006
- of tapes used today was three. We are going off
- 3 the record. The time is 3:32 p.m.
  - (Signature having not been waived, the
- videotaped deposition of JOHN MALCOLM was
- 6 concluded at 3:32 p.m.)
- 7 8

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Filed 10/10/2007

It is a pity that he wrote this letter.
Please recommend the appropriate response (wrothen foral).
Thankin Walk

Paga 111 of 138

copy mosel, man

# Sultanate of Oman Ministry of Oil & Gas Muscat

مُكْتَبُّ الْوَلْيِّـٰذِا Minister's Office

URGENT

No : 4/14/2397/2001 Date : 09-10-2001

Mr. Walter van de Vijver Group Managing Director Royal Dutch / Shell Group of Companies CEO Exploration & Production.

After Compliments,

Thank you very much for your letter of 1<sup>st</sup> October 2001. On behalf of the government I thank you for the attention given to our problem of production as was discussed during our meetings.

There were a number of issues that were mentioned that many of us believe are responsible to the sudden and unexpected decline in PDO black oil production. I think it is appropriate to record some of our concern while allowing PDO management to come up with a comprehensive "recovery plan". Many of us strongly believe that the following factors are either responsible or contributed to the production "crisis". These include, but not limited, to the following factors: -

- 1) The Assett management Style.
- 2) Reserve booking methodology
- 3) Score Card
- 4) Contracts and Contracting Management.
- 5) Human Resource Management.

Some of the above factors are some-what inter-connected, for example reserve booking vs. scorecard.

Reference to your letter, therefore, I am concerned that you are still putting a lot of emphasis on reserve booking and score card; the very factors that many of us blame for the current crisis.

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HAG00120098

congly to the EXHIBIT

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## Sultanate of Oman Ministry of Oil & Gas Muscat



سُسُّلُطُنَّةُ عُنَّانَا عُنَّالُكُمْ مُنَّالُكُمْ مُنَّالًا عُنَّالًا عُنَّالًا عُنَّالًا عُنَّالًا عُنَّالًا وَالْفِي الْمُعْلِّمُ الْمُعْلِمُ الْمُعْلِمُ الْمُعْلِمُ الْمُعْلِمُ الْمُعْلِمُ الْمُعْلِمُ الْمُعْلِمُ الْم مستشفط

If the emphasis of 815 kbpd is a realistic production (in PDO's view) then the government agree. However if the focus is on the score card; then we would like to revisit the whole issue of scorecard. Similarly on reserve booking. While we appreciate and thank you for making a pre-payment of 30 M\$ against future debooking of reserve, MOG will scrutinize strictly the 2001 reserve bookings (old oil) that do not contain a comprehensive development and exploitation programs.

I will therefore like to discuss further these two issues in order to avoid any negative impact/influence they may have towards our goal for recovery. I will further discuss our thoughts with Steve and John Crocker.

Once again we thank you for visiting us in Oman and hope to see you here soon.

Best regards,

Dr.Mohammed bin Hamad Al Rumhy Minister of Oil and Gas.

CC: H.E. Ahmed A. Macki Minister of National Economy & Deputy Chairman Of Financial Affairs & Energy Resources Council.

> FOIA Confidential Treatment Requested

> > HAG00120099

#### Unknown

From: Sent:

Watts, Philip B SI-MGDPW

13 January 2003 16:54

To:

Van der Veer, Jeroen J SI-MGDJV; Brinded, Malcolm A SI-MGDMB; Skinner, Paul PD SI-

MGDPS; Van De Vijver, Walter SI-MGDWV

Subject:

Oman visit - 9-12 January 2003

I have just returned from Oman and send this visit report with a number of attachments (one of which should not have wide circulation). The matters arising need urgent action, as suggested in this note.

I look forward to discussing it at CMD tomorrow.







Oman visit 9-12 January 2003.d... attachment 2.doc

Oman visit -

Attachment 3 - Gas Draft Guide...

password for attachment 2+3: leicesterPW

Phil

Incoming mail is certified Virus Free. Checked by AVG anti-virus system (http://www.grisoft.com). Version: 6.0.567 / Virus Database; 358 - Release Date: 24/01/2004

**VIJVER 1450** 

V00231450

**FOIA** Confidential Treatment Requested

#### Oman visit – 10-12 January 2003

#### Preamble.

- I went to Salalah last September when it became clear that a very concerning situation had arisen in Government relations regarding PDO oil production.
- This came in the wake of the fractious time of the renegotiations of the GISCO
- My apology to HM was received graciously and I undertook to go back to see him to discuss PDO.
- At that time HM adjudicated on the "Government Train" and declared that Shell would have "12%".
- He also encouraged the Minister to get on with the Concession negotiations in a positive manner.

#### The key meetings

After reading a comprehensive briefing document I had an extensive session with John Crocker, John Malcolm, Agnus Cassens and Peter Cryer before going to see HM. My (restricted) account of the one-to-one meeting is attached. This was followed by the full session with HM, described by John Crocker in the next attachment.

- 1. PDO gets the breathing space to demonstrate delivery which will take 18-24 months before the turnaround can be measured in barrels (as opposed to words today).
- 2. I gave the Shell commitment to help the third/Government train be successful ... but giving proper advice, initially with Ministers Macki & Rumhy the following day.
- 3. HM made a resounding declaration that the Concession negotiations should start in March this year and end at the latest by March 2004.

The following morning I went to see Ministers Macki and Rumhy together with John Crocker and John Malcolm. The 2 hour meeting is described in the attachment. It was rather frank, at times difficult but, if all parties do as agreed, could be highly productive. The bottom line was that we would draft and send to them for comment the ground rules for finalization of the arrangements for the Government Train. A draft of these is attached. The key points agreed in the meeting and now recorded are:

- 1. Shell's commitment to help GT to happen quickly.
- 2. The Minister's commitment to share all data
- 3. My "four points"
  - (i ) A bankable SPA
  - (ii ) A good EPC
  - (iii) Comfort (and ultimately approval) from the existing leaders/buyers of Trains 1 and 2.
  - (iv) The pivotal, primary role of OLNG

- 4. Resolution of other outstanding issue
  - the IPP (i)
  - (ii) the LNG shipping

#### The Outlook

So we face the final negotiations for Train 3 over the next weeks and the renegotiation of the Concession agreement (and reserves booking fee) against the backdrop of a long hard road to turn round PDO oil production.

#### Suggested Actions

- (i) The Oil
- PDO is getting tremendous support and this will be further personified by the visits of Messrs. Megat/Darley at end January and the visit by MGDWV in March.
- March is a critical watershed for progress of the key waterflood and EOR projects.
- Perish the thought that PDO doesn't deliver (but, of course, this needs the cooperation and timely support of numerous Ministries ... a point I made and will reinforce in my subsequent visits.

#### (ii) The "Government Train"

- This now needs the most urgent Shell action which in terms of the necessary formal Shell approvals for a "success case" will need
  - (i) authority for OLNG to take their share of the project at the mid-February board meeting of OLNG
  - (ii) consideration of authority for FID by CMD in February and Conference on 5 March.
- This will require dedicated effort by all concerned in order to gain some initiative rather than just fight a rearguard action before being "dragged kicking and screaming to the party".

#### (iii) The Concession

- We need to have an overview/initial mandate to negotiate paper to CMD in
- Again, this will require dedicated resources which wisely uses John Crocker as the leading "general" rather than him spending too much time in the trenches.

In conclusion, all these matters are interconnected and we need to maintain a holistic Shell overview.

I would like to pay tribute to the dedicated efforts of a lot of people who work in a difficult atmosphere, notably

- John Malcolm, who has made a very good first impression both internally and externally.
- Charles Watson and his people who have been pushed from pillar to post and lacked information on which to make decisions.
- Agnus Cassens who is in an unenviable position serving a board that is at cross purposes.
- Not least, John Crocker who as the Shell Representative is the lightning rod for all the tensions of the last year and can expect a lot more of the same to come.

I look forward to discussing this all at CMD tomorrow.

Phil Watts 13 January 2003

Attachments 1,2,3

V00231453

**VIJVER 1453** 

Attachment 1

#### Meeting with HM

We had a pleasant one-to-one discussion for about 20 minutes at his request, covering the following areas:

#### Recollection of last meeting

- I reflected on our first meeting in Salalah last September, reminding him of my regret for the difficulties with the oil production.
- He graciously brushed this aside and wanted to hear of the progress.

#### The Oil

- I talked of the PDO plan agreed with the Ministry, my personal commitment to
  giving the necessary Shell support and the need to get on with its implementation,
  making it very clear that we were in for a tough 18-24 months before the
  turnaround could be expected. I stressed that it needed the cooperation of all
  concerned PDO, Shell and all the Ministries, especially MOG.
- I mentioned that this was not an exercise in "more of the same" but a fundamental shift to water flood and EOR projects, supported by the ongoing oil and gas exploration programmes. I noted that the next few years was not only about oil production turnaround but also about implementing the new technologies necessary to assure the future of PDO for the next generation.
- He reminisced about the difficulties experienced by PDO in the mid-70's and was sure that the current difficulties would be overcome.

#### Concession

- I intentionally did not mention this matter but HM had an oblique reference to it when he recounted how a third party (the sons of Sheik Zaid) has put forward the idea that Occidental had some proposals. He had asked for them to be written down and sent to the Ministry so that they could be passed on to Shell.
- He said a few times that he was not pressing for their acceptance, just our
  consideration as to whether their ideas might be useful. (He noted that he had
  asked the third party how they would feel if they were the owners of the
  concession and were approached in this way!).

#### The Third Train

- By way of introduction of this item I asked for permission to mention a matter of serious concern. He had already in the previous item talked about a spirit of frankness and asked me to continue.
- I worried about the lack of alignment and trust in relation to the "Government Train Project". Completely in sorrow rather than anger I wished that the third

train would have been a simple expansion of OLNG but acknowledged that this was a matter of "sovereign right" and now that the decision had been taken – and that HM had adjudicated in the 12% interest for Shell – we would do all in our power to make the GTP a success.

- In the spirit of true partnership I said that we would honestly express our concerns at the meeting with Ministers Macki and Rumhy in the morning.
- I hoped that matters could be sorted out in weeks rather than months lest this issue undermine the necessary good co-operation to make progress in all our activities.
- HM responded very favourably to this.

#### Conclusion

- HM made some very pleasant concluding remarks and presented me with a historical momento a pen with an oryx head on the cap, produced in the very early days of PDO.
- On the way out, I expressed admiration for the model of the recently completed Grand Mosque in Muscat and mentioned that I would be visiting it on the following day. He was delighted and proceeded to give me an extra 10 minute discourse on its design (in which he was intimately involved).

MGDPW 13 January 2003

**VIJVER 1455** 

#### Khila, Hedaya ONPS

From: Sent

Pay. John JR SIEP-EPS-P

Monday, September 08, 2003 14:16

To: Ce: Mann, Paul SEPI-EPM; Blascos, John SIEP-EPB-C

Clayton, Stuart ONP; Kemshell, David UPR; Harthy, Said DTEM7

Subject:

PDO Reserves Meeting: Notes

Paul, John

Please find attached notes on my visit to PDO of 26 - 27 August 2003. They have been seen by those copied.



Notes of PDO Meeting Final.ZIP...

John Pay Group Hydrocarbon Resource Coordinator Shell International Exploration and Production B.V. larel van Bylandtiaan 30, Postbus 663, 2501 CR. The Hague, The Netherlands

fel: +31 (70) 377 7405 Other Tel: +31 (0)6 5252 1964

Email: john.pay@shell.com

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OM 000550

**EXHIBIT** Malcolm 3

FOIA Confidential Treatment Requested V00102402

### Notes on SIEP / PDO RESERVES MEETING, 26-27 August 2003

The SIEP Hydrocarbon Resource Co-ordinator (HRQ) met with PDO staff to review the current status of PDO resource volumes in preparation for the forthcoming annual resource volume reporting exercise. This note summarizes the outcome of this meeting. The ongoing STOIIP and Reserves Review, together with the SEC Reserves Audit scheduled for October 2003, will provide considerable further clarity on the distribution of hydrocarbon resources in the PDO portfolio and may result in the following being fineruned. In addition it should be noted that whilst the HRC in general supports the approach suggested by PDO (although please refer to comments below), this does not necessarily imply that the Shell Group Reserves Auditor will also concur.

#### ARPR match with project data

Work to date indicates that some 715 million bbl (100% PDO share) of Expectation reserves may need to be debooked. This relates to reserves in the PDO / MOG (Ministry of Oil and Gas) ARPR for which no development project is currently identified. Also referred to as "match volumes", the reserves concerned are primarily associated with the Yibal, Marmul, Qarn Alam, Al Huwaisal, Lekhwair, Saih Rawl and Saih Nihayda fields.

#### 2. Proposed approach to reserves categorization

Of the remaining Shell Reserves within licence, a revised sub-classification is proposed by PDO as follows:

Expectation Developed Reserves:

all projects in the "Operating" phase

Proved Developed Reserves:

set equal to Expectation Developed Reserves (see Note

(i) below)

Expectation Undeveloped Reserves:

all existing Expectation Undeveloped Reserves,

excluding "match volumes" (see (1) above).

Proved Undeveloped Reserves:

all projects with existing Expectation Undeveloped Reserves that are in the "Execution" or "Design" phases or which are planned to reach these phases by the end

of 2008 (see Note (ii) and item (3) below)

which are targetted at the proved area of an existing

producing field

which employ proved (in PDO operations) technology

and recovery processes (see Note (iii) below).

#### Notes:

- i HRC comment: Setting Proved Developed Reserves equal to Expectation Developed Reserves is likely to be justified for mature producing assets. However, in newly developed (and hence immature) fields, consideration might be given to using a more conservative estimate pending confirmation of reservoir performance.
- ii HRC comment: The preferred approach of PDO is to work exclusively with the Expectation estimate of reserves for each project, assigning these reserves to either the Proved or "Probable" category based on the criteria listed above (Expectation Reserves for the Company being the sum of Proved and Probable). Again, this approach is likely to be justified for some projects, but certainly not for all and PDO is advised to take this into account when defining

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FOIA Confidential Treatment Requested Undeveloped Proved Reserves, particularly for projects in new and immature fields. The SEC requires Proved Reserves to be estimated such that upward revisions are much more likely to occur in future than downward revisions. Whilst not specifically stated, other guidance published by the SEC and recent correspondence with Shell clearly indicates that they view this criterion as being applicable at least at the field level, and not at the overall portfolio level.

iii SEC rules prohibit the disclosure of Proved Reserves in relation to improved recovery processes that have not yet been proved effective through observation of actual reservoir performance (pilot test or installed project). In Shell's current interpretation of the rules, reserves may be booked for processes that have been proved effective in local analogous situations. PDO's approach is consistent with this.

#### 3. Potentially exposed Proved Reserves

The approach quoted above for Proved Undeveloped Reserves implies that Proved Reserves that have been booked for some projects are potentially exposed due to a lack of technical maturity – the maturation of a project to the "Design" phase is broadly comparable with the Shell Group's VAR-3 hurdle, and several projects for which Proved Reserves have been disclosed have yet to reach this level of maturity. The total volume of Proved Reserves that is potentially exposed in this way is 612 mln bbl (100% PDO basis). PDO proposes to retain these reserves on the books pending completion of technical project definition work. Reserves for projects that will be underpinned in this manner by the end of 2008 are proposed not to be debooked from the Proved Reserves category. The majority of the reserves in question will actually be underpinned much sooner than 2008 (approximately 75% covered by the end of 2005). The HRC concurs with PDO's suggested approach as being pragmatic.

#### 4. ARPR data consistency

A brief review of the data in the PDO 2002 ARPR identified some areas of concern: several fields carry negative proved reserves with most, if not all, other fields having proved reserves that appear to be low by comparison with the expectation figure. As such, PDO may be able to revise upwards its overall estimate of Proved Reserves, even after taking into account the potential debookings referred to in (1) above. This may be of interest to the MOG, particularly if, in its dealings with third parties, greater emphasis might be placed on Proved Reserves than has been usual to date (there was some discussion of this point between the HRC, the STOIIP and Reserves Review Team and PDO staff).

#### 5. Shell shareholder considerations

From the Shell shareholder perspective, there is a mis-match between the Proved reserves disclosed by Shell via the SEC and those disclosed by PDO to the MOG. The former should be constrained by licence expiry in 2012 and yet the volume is higher (on a WI-equivalent basis) than the latter, which in principle reflects a 30-year production window. Noting item (4) above, it is likely that the PDO/MOG figures can be revised significantly upwards, but nevertheless it appears to be inevitable that the Shell / SEC figures must be revised downward to reflect a more balanced view of production that is reasonably certain to be achieved before licence expiry, consistent with the categorization summarized in (2) above.

From the Shell point of view, the licence expiry date is itself subject to revision: the advice of the Shell shareholder representative and the HRC on which date to use should be sought in good time for compiling the annual reserves report to Shell.

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FOIA Confidential Treatment Requested NOTE - 29 Nov 2003

CONFIDENTIAL

From:

Anton A. Barendregt

Group Reserves Auditor, SIEP - EPF - GRA

To:

Frank Coopman

Chief Financial Officer, SIEP - EPF

John Bell

Corporate Support Director, SIEP - EPS

John Malcolm

Managing Director, PDO

Copy:

Abdulla Lamki

Deputy Managing Director, PDO

Stuart Clayton

Head, Economics, Technology & Planning, PDO

Stuart Evans

Petroleum Engineering Value Assurance Manager, PDO

Fatma Kharusi

Finance Director, PDO

Guy Janssens

Controller, PDO

Lynda Armstrong

Exploration Director, PDO

Dave Kemshell

Corporate Function Discipline Head Reservoir Engineering, PDO

Said Al Harty

Reserves Coordinator, PDO

(circulation)

SIEP - EPS-P: Hans Bakker, John Pay

Andrew Vaughan Maarten Wetselaar Technical Director, SEPI – EPM Finance Director, SEPI – EPM

Ken Marnoch

Internal Auditor EP, SI-FSAR, The Haque

Han van Delden

Partner, KPMG Accountants NV

Brian Puffer

PriceWaterhouseCoopers

#### SEC PROVED RESERVES AUDIT - PDO (OMAN), 25-28 Oct 2003

I have audited the Proved Reserves submissions of Petroleum Development Oman (PDO) for the year 2002 and the processes that were followed in their preparation. These submissions present the PDO contribution to the Group's externally reported Proved and Proved Developed Reserves and their associated changes as at 31 December 2002.

Total Group share Proved Reserves booked by PDO at the end of 2002 were 144 mln m3 of oil. This represents some 5% of total Group share Proved Reserves on an oil-equivalent basis. Proved reserves replacement ratio for PDO over 2002 was -19%.

The last previous SEC proved reserves audit for PDO was carried out in 1999. This current audit verified the PDO procedures against those laid down in the "Petroleum Resource Volume Guidelines, SIEP 2002-1100/1101" (based, inter alia, on FASB Statement 69). It included a verification of the technical and commercial maturity of the reported reserves, a verification that margins of uncertainty were appropriate, that Group share and net sales volumes had been calculated correctly and that reported reserves changes were classified correctly. It also included a verification that the annual production (sales) submission through the Finance system was consistent with the reserves submission. The audit took the form of detailed discussions about the reserves reporting process with PDO staff. Emphasis was placed on the procedures and methods followed and less on detailed individual field estimates.

The audit found that PDO's Group share proved developed reserves are largely reasonable, but that some 40% of the submitted proved total reserves at 1.1.2003 do not fulfil present reserves guidelines. The reason for this is partly the progressive tightening of Group reserves guidelines (following SEC guidance), but more fundamentally that submitted proved reserves have not been reviewed and reduced in the light of recent downtums in oil production rates. The technical maturity of the projects associated with proved undeveloped reserves had also been eroded due to tack of medium- and long-term field development planning work. PDO have recognised this and have embarked on an aggressive study programme to address the maturation of the associated projects. An imminent agreement with the Government regarding an extension to the current production licence may provide further (partial) relief from the necessity to de-book the overstated volumes.

In view of the many positive changes foreseen during 2004, the audit suggestion is that the present volumes be continued unchanged per 1.1.2004 (reduced by 2003 production), but that a properly based portfolio of proved reserves should be submitted by 1.1.2005. The overall opinion on the state of PDO's 1.1.2003 Proved Reserves submission, taking account of the audit's findings (see Attachment 3), is <u>unsatisfactory</u>. However, improvements have been set in motion.

A summary of the findings and observations is included in the Attachments.

FOIA Confidential Treatment Requested

EXHIBIT
Malcolm 4

GRA 000313

A.A. Barendregt

Attachments 1, 2, 3

**GRA 000314** 

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02/12/03

Attachment 1

#### SEC PROVED RESERVES AUDIT - PDO and GISCO 25-28 Oct 2003 MAIN OBSERVATIONS

1. PDO are the operator in a land-based concession in the Oman interior. Shareholders in PDO are the Oman Government (60%) and the 'private shareholders' (Shell, TFE and Partex). Shell holds 85% of the private shareholders' share of 40% and has thus title to 34% of the PDO produced crude. PDO are free to use produced gas for own use and for re-injection where needed, but the Oman Government has exclusive title to the exported gas. Hence, no gas reserves are carried by PDO. The current production licence started in 1967 and ends on 24th June 2012.

A separate agreement has been concluded between Shell, Total and Partex with the Oman Government regarding processing and further export of the associated and non-associated gas produced from PDO fields. This gas plant has been funded jointly between the co-venturers and the Oman Government and in recognition of this funding each of the co-venturers receives an annual fee, which is translated back into entitlement volumes for gas and NGL. This operation, administered by GISCO, is not addressed in this audit report.

PDO projects are in principle approved by the PDO board. The Group Capital Allocation system has little influence on these decisions. The verbal statement was made that many of the latest projects might not have passed the stringent Group criteria. UTC levels (an important screening tool for the PDO board) have risen above \$4/bl in recent years and the current outlook is that these may rise further, up to \$10/bl for some

2. PDO production levels had climbed gradually from 200 Mb/d in the early 1970's to a plateau of 850 Mb/d in the late 1990's. A relatively steep decline has set in since 2001 and current production is at some 700 Mb/d. The fundamental reason for the decline is the progressing maturity of the many producing fields, as evidenced by increasing water cuts and, to a lesser extent, increasing GORs. The first signs of field decline had been countered by an aggressive drilling campaign, including many horizontal wells, which has helped to maintain the earlier plateau production level. Decline, or at least production at lower levels, has now been accepted as inevitable by PDO (and the shareholders), although further development options are still pursued vigorously.

Prior to and during Programme Build preparation in 2003, PDO staff recognised that some 900 MMstb (100% volumes) of expectation undeveloped reserves could not be supported by identifiable projects. These volumes were still based on assumed recovery factors, which should be seen as an outdated practice. After initial shareholder resistance, these 'unmatched' volumes have now been moved out of the 30-year Programme Build window. To address the resulting shortfall, Shell committed a team from SIEP-EPT and other sources to carry out a comprehensive review of the STOIIPs and reserves of the PDO operated fields (the STOIIP and Reserves Review Team, or SRRT). This review was in the final stages of completion during the audit. Preliminary conclusions by the SRRT were that PDO's STOIIP estimates could largely be confirmed and that the expectation project reserves estimates in the 2003 Programme Build could generally be supported. Some exceptions were still found in Marmul and Yibal, where expectation reserves in these fields were considered to be some 20 mln m3 too high. The SRRT also noted that the great majority of the projects associated with the undeveloped reserves were not properly defined (i.e. passed VAR3) and that some were notional to very notional.

The auditor is indebted to the SRRT for sharing their preliminary conclusions with him. The review was found to be highly opportune and it provided a firm basis for the audit's findings.

The characteristics of the PDO fields tend to be complex in nature. The predominant reservoirs in the northern part of the concession are the Natih and Shuaiba carbonates, which are generally tight and which show varying degrees of fracturing. The predominant reservoirs in the South are the Haima and Al Khlata sandstones. The latter is of glacial origin and has been deposited onto the heavily scoured and eroded Haima sands. It tends to be highly heterogeneous, showing poor to excellent permeabilities.

The oil in these reservoirs varies from medium-light to heavy quality, with generally low GORs. Coupled with generally poor aquifer activity, this means that reservoir energy tends to be low and that pressure maintenance methods of recovery have to be applied. Water injection is used most widely, but gas injection under gas-oil gravity drainage has been implemented successfully in the steeply dipping Fahud field. Steam and polymer injection have been tried with varying success in the Marmul field in the South. A steam injection pilot has been in progress for several years in the heavily fractured Qam Alam field and a field wide application is now planned. Injection of gas alternated by water (WAG) is seen as a possible further recovery mechanism. Horizontal wells have been used quite successfully and these have led to significantly improved field rates and, in many cases, improved recoveries.

The heterogeneous nature of both the carbonates and the sandstones make good sweep efficiencies a

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GRA 000315

32/12/03

FOIA Confidential Treatment Requested challenging target. The current average recovery factor is some 23% and major fields like Fahud and Natih have recovery factors in this range. The best recoveries are in the 40-50% range (Yibal, Rima, Saih Nihaida). The aspiration by the Oman Government and by PDO is to raise the target recoveries to the latter level for all fields. This will require extraction of the oil from the less permeable portions of the reservoirs, which is counteracted by the many bypass routes (higher permeable 'thief zones' or fractures) that surround these tighter portions.

Many of the PDO fields started production before or during the 1970's and production declines are apparent in a number of them. As mentioned, these declines have been countered by an aggressive drilling campaign, and this has helped maintain the PDO plateau production through the 1990's. The many infill wells did not always yield the additional reserves that were aspired. A striking example is seen in the Yibal field, where a massive horizontal infill well campaign did raise production, but where the subsequent much steeper decline seems to point towards an ultimate recovery that is not much different from that seen before, see Fig.1. A possible mild arrest of the decline may be evident from recent measurements. The lesson seems to be that many fields will yield additional recoverable volumes, but that they need sufficient time. The prevailing reservoir heterogeneities make gas-oil gravity drainage or induced/spontaneous water imbibition the only realistic option for further recovery. The associated time frames can hardly be accelerated.

- 4. The SRRT have identified that lack of reservoir understanding is the single most important bottleneck to production increases and further oil development maturation. Good reservoir understanding requires a reliable and representative 3D reservoir model (first static, then dynamic) and the experience in many other operations in the Group is that the availability of good 3D seismic is key to such modelling. Spectacular results have been seen in a number of other Group operated areas making e.g. reservoir character or oil fill clearly visible. Many teams in the South Ornan area to claim that, due to the complex overburden (a number of strong reflective events) and due to the poor acoustic contrast at reservoir level, little use can be made of existing seismic in reservoir characterisation and 3D mapping. This opinion seems to be contradicted by experience in the Rima field, where it has been shown that dedicated re-processing (Cheats and van Gogh filtering) and close cooperation with Exploration Processing can yield much improved results. Further pursuit of this, to see whether similar results can be obtained in other fields, is strongly encouraged and supported.
- 5. There is mis-alignment between individual field proved reserves and the corporate PDO submission. The root cause for this has been that PDO have historically focused mainly on expectation reserves because these are the basis for business planning. Expectation reserves are also the subject of intensive discussions with the Oman Government (and also the basis for reserves addition bonuses!). Proved reserves estimates for individual fields were prepared but these have hardly been updated and they have now shrunk to unrealistic levels (see 6 below). Because of this, PDO have maintained corporate Group share proved total reserves as an independent entity, not linked to individual field volumes. This approach has not only caused problems with the audit trail but, more seriously, it allowed the Group proved reserves estimate to drift away from realistic levels, see 8 below.
- 6. Probabilistic estimates of STOIIP and ultimate recoveries have been prepared by PDO prior to and in early stages of field development. Recovery factor ranges were obtained from preliminary reservoir modelling. Although new well results are incorporated, the probabilistic parameter <u>ranges</u> still seem to reflect early well data only, i.e. little adjustment seems to be made for subsequent dynamic STOIIP and recovery determination from production performance. Hence, the current proved vs. expectation recovery ranges in individual fields are too wide for the current stage of field development. The 1999 reserves audit made the same observation. It is therefore disappointing to see that no progress has been made in this respect.

The conservative nature of the current field proved (P85) recoveries has been further exposed by progressing cumulative production from the fields. With proved and expectation ultimate recoveries fixed, the range between proved and expectation remaining reserves will widen with progressing production. This is clearly visible in Figure 2. Cumulative production has already overtaken proved ultimate recovery in some fields, with the result that these fields now carry negative proved remaining reserves, which is of course impossible. Examples are Rima, Sayyala, Wafra and Runib.

Group reserves guidelines state clearly that field / reservoir reserves estimates should be made separately for developed (no further activity, or NFA) and undeveloped reserves. The latter must be project based, i.e. they must be associated with clearly identified future development activities (wells, facilities). Estimation of total recoveries based on (largely assumed) recovery factors is archaic and is considered indefensible with the current state of petroleum engineering technology.

Proved developed reserves should be derived in a deterministic manner, using reservoir model simulations and production trend extrapolations. Proved undeveloped reserves should be evaluated through simulation, using either a low case model realisation or e.g. a specific assessment for infill wells whether they address 'proved areas'. This practice should result in proved undeveloped reserves growing towards expectation levels with progressing field maturity, see Fig. 2.

7. Expectation developed reserves are generally, and correctly, derived from well and cluster decline analysis (through Oil Field Manager software) or from reservoir simulation models. The Group share proved

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02/12/03

developed estimate was derived from the expectation NFA forecast, cut off at the end-of-licence in June 2012. This is in accordance with Group guidelines. However, the link between Group share / corporate proved reserves and individual field estimates should be re-established.

There is a serious flaw in the corporate total proved reserves estimate (and, by implication, in the undeveloped reserves estimate) in that this estimate was not reviewed when the PDO oil production started to decline rapidly from 2000 onwards. Group share reserves should be producible within the current licence period (ending in 2012) and the achievement of production of the stated volumes in that time period has rapidly become unlikely.

The majority of the declared corporate undeveloped field reserves are associated with identified projects. However, many of these are notional or highly notional. There are of course more mature projects, but many of these are recognised as needing further work or re-work in order to become matured towards the required VAR3 (or FID) level. Even some projects/volumes based on FDPs from the late 1990's, which did pass VAR3 earlier, are now seen as out of date because of subsequent well and field performance. The estimate made by PDO and the SRRT is that 80-90% of the presently identified undeveloped reserves are yet to pass through the VAR3 stage. This means that these volumes do not fulfil present Group and SEC guidelines. It is accepted that the latter have tightened over the last three years (from 'defined' projects to VAR3) and thus further increased the exposure.

The main reason for this regrettable situation is that proper modern static and dynamic modelling has received insufficient attention in PDO in recent years. Much attention was diverted towards short-term activities to provide new well proposals. The situation is now being addressed through an urgent and aggressive study

The Group share undeveloped reserves at 1.1.2003 (and hence the total proved reserves) contain therefore a large portion that does not fulfil current Group reserves guidelines. A preliminary estimate made by PDO during 2003 is that of the 907 MMstb (Group share) booked at 1.1.2003, some 400 MMstb are exposed in this

It is noted that the 907 MMstb submission at 1.1.2003 had been based on SIEP advice, reducing it from a higher value proposed by PDO. This advice was seen as a preliminary correction, pending results of further PDO investigations and the planned 2003 reserves audit. The approach was supported by the Group reserves auditor, but he did express concern in his end-2002 report that PDO's proved reserves were overstated.

The impact of this effective overstatement of reserves is somewhat reduced by the fact that discussions between PDO and the Oman Government towards an extension of the current production licence are currently in progress and that a Heads of Agreement is expected before the end of 2003. A formal extension agreement could then be signed during the first half of 2004. This should bring some 300 MMstb of mature project reserves (230 MMstb developed, 70 MMstb undeveloped) into the Group reserves portfolio.

- It was noted during the audit that PDO are proposing to carry a number of projects with positive expectation reserves but zero proved reserves. These volumes relate to projects and exploration discoveries, whose development plan is not yet sufficiently mature to ment the booking of proved reserves. The expectation volumes have been agreed with the Oman Government and reserves addition- and exploration bonuses will be received for them. The Group guidelines state clearly that expectation reserves can only be booked if the associated projects fulfil the conditions for proved reserves. If the latter is not the case, the expectation volumes should be booked as SFR.
- 10. The consistency between reserves and Finance was good. There was full agreement between the 1.1.2003 submissions for reserves and for annual production through Ceres/FIRST, without any corrections being required.

The verification of the correctness of proved developed and proved total reserves used for UOP asset depletion calculations was not relevant in the case of PDO, because UOP asset depletion was not applied in the past. The operating agreement stipulates a 40-30-10-10% depreciation profile for all capex and this is applied for calculation of the PDO profit margin and for PDO tax returns. Shell Group accounts returns are prepared by Shell Oman Trading (SOMANT) and they do not declare any share in the PDO assets.

PDO accounts are declared with asset depreciation through the abovementioned 5-year profile. This is not in accordance with international accounting practices, which require UOP depletion, based on proved total and proved developed reserves. This has led to continuing qualifications in external auditor reports (since 1967), which the Oman Government now want to see removed. Hence, PDO will need to start maintaining proper estimates of individual field proved developed and proved total (i.e. undeveloped) reserves. In view of the current state of PDO's proved reserves estimates (both corporate and by field), PDO have considered it not realistic to start with the new method of UOP accounting per 1.1.2004. A start per 1.1.2005 was seen to be the earliest possible as it would be desirable to avoid major swings in individual field reserves and asset values due to the necessary corrections to be applied during 2004. This view is fully supported.

Following the implementation of the new method of asset accounting, PDO will be required to re-state their accounts back to 2000. The intention was to do this on the basis of the 1.1.2005 volumes, correcting back

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only for annual production. The auditor recommendation is to include annual transfers from undeveloped to developed volumes (i.e. development activity) as well, since without this correction the earlier proved developed reserves would become too large.

11. By way of audit trail, PDO issue an annual ARPR report, which lists full life cycle (i.e. 30-years) recoverable volumes of oil+condensate (from PDO facilities) and associated gas. The format of the report seems somewhat cumbersome (duplicated data and unnecessary data, e.g. depletion rates, high estimates) and it could benefit from a simplification.

Document 357-3

There is no note or report describing the basis or background for the Group share reserves submission. There is a spreadsheet, but this is not very accessible. Individual field proved reserves in the 1.1.2003 submission are clearly wrong (e.g. larger than expectation volumes and also larger than full-field-life proved reserves). The submission listed changes in the 'Improved Recovery, 'Extensions and Discoveries', and 'Transfers form Undeveloped to Developed' categories, but there was no audit trail to link this back in a quantitative manner to individual fields. The audit trail for PDO's Group share proved reserves is thus extremely poor. Guidelines for a proper audit trail are published on the EPB-P website ('Planning'/'Reserves', to be moved to a new EPS website in due course) and these should be followed. What is needed is a set of tables, at field level, with a format as presented in Att.2 and with a brief note describing the source of the constituent data.

It was noted that, whilst there is a central PDO library, field teams tend to keep project reports in personal filing cabinets. The SRRT reported instances where documents had to be obtained from the Ministry because no copies could be found within PDO, following the temporary abandonment and re-assignment of the Fahud field team. This is clearly an undesirable situation and corrective measures should be undertaken.

- 12. The auditor's suggestion for the way forward is as follows:
  - In view of the short period left to end-2003, it will not be possible to arrive at a properly defined set of individual field proved reserves that could form a sound basis for the PDO corporate Group share proved reserves booking.
  - Assuming that a Heads of Agreement can be obtained with the Oman Government before end 2003 regarding an extension of the PDO production licence, it is argued that the impact of the present reserves overstatement is reduced.
  - Hence, it is suggested that the present proved developed and proved total Group share reserves volumes be continued in the 1.1.2004 submission, correcting only for 2003 production and for transfers from developed to undeveloped. Total proved reserves replacement ratio should thus be 0%.
  - The proper sum of full life cycle proved developed reserves for all fields and proved undeveloped reserves for all projects fulfilling Group reserves criteria should then be booked per 1.1.2005. This would require the maturation of at least some 200 MMstb of proved project volumes, to obtain a 100% proved reserves replacement ratio over 2004, see Table 1 below. Group share reserves should be a straight 34% of PDO oil
  - It is suggested to invite the Group Reserves Auditor for a consultation visit towards the end of 2004 to verify with him the status of the proved developed and proved undeveloped reserves portfolio.

Group share total proved reserves 1.1.2003 (MMstb) 2003 Production Group share total proved reserves 1.1.2004 (MMstb)	907 -87
<del></del>	820
Group share total proved reserves 1.1.2004 (MMstb)	820
Overstatement 400 MMstb	-400
Transfer from beyond-licence	+287
New matured proved reserves	+200
2004 Production	-87
Group share total proved reserves 1.1.2005 (MMstb)	820

#### Table 1 - Possible progression of PDO proved reserves during 2003 / 2004

#### Recommendations

- Continue pursuing the possible improvements in reservoir characterization and modelling that may be obtained from dedicated seismic re-processing (cf Rima).
- Declare proved developed as equal to expectation developed reserves in fields where there is either a good simulation history match or where there is a well-defined decline rate extrapolation. New fields and

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reservoirs with neither of these should be assigned a conservative (low case) value for proved developed reserves.

- Prepare proved and expectation estimates of undeveloped reserves by individual project and by field.
  Proved estimates should preferably be based on low case simulation model realisations and should be seen
  to be growing towards expectation levels with progressing field cumulative production. Projects should be
  ranked according to their maturity, e.g. 'firm' (VAR3/FID), 'mature' (documented FDP), 'possible' (VAR2) etc.
- Invite the Group Reserves Auditor for a consultation visit towards the end of 2004 to verify the status of Group share proved developed and proved undeveloped reserves.
- In the re-statement of PDO accounts for years back to 2000, correct the 1.1.2005 volumes back to earlier years by adding annual production and by subtracting annual transfers from undeveloped to developed reserves.
- Classify projects with expectation reserves but zero proved reserves as SFR in the next appropriate submission.
- Improve the audit trail for the Group reserves submission by following the guidelines for reserves audit trails
  on the EPB/Planning/Reserves website.
- Ensure that the central library facilities are fully utilised by all teams, particularly where it relates to proper storing and indexing of copies of all reports and meeting notes (e.g. with the Ministry).

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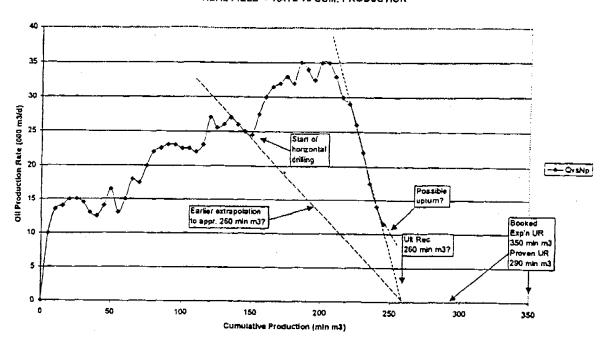
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#### YIBAL FIELD - RATE Vs CUM, PRODUCTION



#### PDO 1.1.2003 Total Reserves

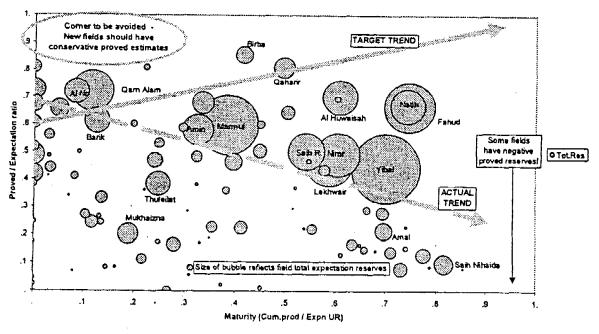


Figure 1 - Yibal field oil rate decline versus cumulative production

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Figure 2 - Ratio of Proved / Expectation Reserves versus progressing field maturity

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#### CHECKLIST SEC RESERVES AUDITS

Attachment 3

сом	PANY: PDO	ARE	A / FIELD: ALL FIELDS
	Audit criteria	Resu	tt Comments
1	TECHNICAL MATURITY		
1.01	is 3D seismic available and used for the field(s) in question?	+	3D Seismic coverage is universal over all discovered fields.
1.02	Are seismic processing and interpretation state-of-the-art?	0	Seismic tends to be of poor quality due to strong shallow multiples, surface rugosity and other irregularities, e.g. local sinkholes. Filtering (Cheats, van Gogh) has been applied with mixed success. Results are more promising in one area (Rimicuster) where it is anticipated that good information can be obtained on structure and small scale faulting, but, more importantly on reservoir stratification and perhaps
1.03	Is seismic quality used / adequate for proving hydrocarbing bearing areas?	N.A.	Oils tend to be generally heavy and of low GOR. Acoustic contrast with water is small and oil bearing areas cannot be distinguished from seismic.
1.04	is well data coverage adequate?	+	The majority of fields have been developed by numerous wells, both vertical and horizontal.
1.05	Are fluid levels known?	+	Since seismic and regional aquifer pressures are not reliable for predicting OWCs these tend to be specifically targeted by appraisal wells.
	Are petrophysical well data quality and quantity adequate?	0	Not all wells had full suites of logs during major development drilling phases (GR and resistivity only, no porosity tools). This is a slight hindrance in reservoir characterisation.
1.07	Is reservoir producibility for undeveloped reserves supported by production tests or other evidence?	+	Most fields are now in production. Production tests are carried
	Are there proper volumetric estimates?	+	out in exploration / appraisal wells.  Volumetric estimates have been made for all fields. Most date back from the older generation of mapping packages (Zycor, CPS, Supervol). Most of these were coarse layered or coarse gridded. However, the recent (STEP staffed) STOIIP and Reserves Review Team has largely confirmed the validity of these estimates.
	Are representative PVT data available and have they been properly accounted for in the volumetric estimate?	+	Proper sampling and analysis is done for new fields.
	Are gas GHVs measured properly for sales gas conditions and accounted for in reserves submissions?	+	No gas reserves are carried
1.11	Are static models available / adequate?	×	Proper modern static and dynamic modelling has received insufficient attention in recent years. A large volume of booked reserves is based on older and outdated FDPs or on earlier volumetric estimates. This is now being addressed through an urgent study programme. Petrel models are the present standard
1.12	Are dynamic models available / adequate?	X	See above. MoReS models are now downloaded from Petrel.
1.13	Are history matches available / adequate?		History matches are gradually becoming available as models are matured.
	Are the recovery factors for proved reserves realistic?	X	are matured.  PDO and the STOIIP and Reserves Review Team have concluded that a number of the older (FDP) expectation reserves estimates have been overstated (Yibal, Marmul, Qarn Alam).  Individual field proved reserves are still based on old probabilistic volumetrics, in which the margins are much too wide in relation to the field's maturity.  As for the booked proved corporate Shell share reserves, these cannot be tied back to realistic proved individual field estimates.
	Are developed reserves based on proper NFA (No Further Activity) forecasts?	+	Expectation developed reserves are based on NFA forecasts derived from well and cluster decline analysis (through Oil Field Manager software. The origin of the corporate proved developed estimate was not clear, but its volume seems broadly in line with the expectation NFA forecast, cut off at the end-of-licence in 2014.
a	Are developed reserves based on existing wells, completions and facilities, or do they require only minor costs (<10% project lost) to be hooked up?	+	Yes; No behind-pipe reserves are carried.

+ = Good O = Satisfactory X = Unsatisfactory N.A. = Not Applicable

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#### CHECKLIST SEC RESERVES AUDITS

Attachment 3

			Attachment 3
1.17	Have development projects been defined for undeveloped reserves or can they be defined?	X	The majority of undeveloped field reserves are associated with identified projects. However, many of these are notional or highly notional, while others have no forecast associated with
<u></u>		_[	Ithem in the Business Plan
1.18	Are there auditable development project plans with costs, benefits and economics?	X	
1.19	Are the projects technically mature or is further data gathering necessary?	×	The majority of projects are recognised as needing further wor or re-work in order to become matured. Even many projects/volumes based on FDPs from the late 1990's are now seen as out of date because of subsequent well and field performance.
1.20	Are improved recovery estimates based on a successful pilot of analogue or are they otherwise supportable?	or O	There are ample water injection projects in the PDO operated area. This could normally count as a sufficient analogue base for proving further new water injection projects. However, the reservoirs concerned (notably the Al Khlata sandstone and some shallower fractured carbonates) present a high degree of variability and such analogues may not always be
1.21	Have the projects successfully passed a VAR3/VAR4 review or are they otherwise ready for application for funding?	×	recresentative PD0 and the STOIIP / Reserves Review Team have recognised that 80-90% of the undeveloped reserves are yet to pass through the VAR3 stage. This includes a number of projects that have gone through such a stage in the past but which are now seen to need updating.
1.22	Are the projects firmly planned to go ahead - are there any potential show stoppers?	0	The Oman Government, as the major shareholder, is firmly committed to maximise oil recovery in a manner that is beneficial to them. Only projects with very poor economics would be at risk of not being executed.
2	COMMERCIAL MATURITY	1	
	Are the projects economically viable (meeting Group Scr. Crit. over range of possible future scenarios / low case reserves)?	0	PDO projects are in principle approved by the PDO board. The Group Capital Allocation system has little influence on these decisions. The verbal statement was made that many projects would not have passed the stringent Group criteria. Previous UTC levels were at some \$4/bi, but these have risen in recent years and the current outlook is that these may rise to levels up
	Have forecasts been cut off when rates become uneconomic?	N.A	to \$10bl Forecasts are cut off at the end of the current production licence (24th June 2012). This long before production levels have declined below economic production levels.
2.03	Have the latest Group Screening / Reference Criteria been used?	0	See 2.01 above
	Are assumed prices and costs RT (or justified if not)?	0	See 2.01 above
2.05	Is export infrastructure (pipelines, terminals etc) available or, if not, is it firmly planned and fully included in the economics?	+	Most of the export infrastructure is already in place. Any extensions would be included in the relevant economics.
2.06	Is project financing available or can it reasonably be expected to be available?	+	Yes
	Are developed reserves actually in production?	<del></del> -	Yes, see 1.15.
2.08	Have all major gas project reserves been committed or contracted to sales, e.g. through a HOA, GSA?	N.A.	PDO is free to use produced gas for own use and for re- injection where needed, but they have no title to exported gas. Hence, no gas reserves are carried.
\$	Can smaller gas project reserves reasonably be expected to be sold in existing markets and through existing / firmly planned facilities?	N.A.	The state of the s
2.10 l	f neither, is there a firm commitment (eg FID) that supports the assumption and maturing of a future market?	N.A.	
	REASONABLE CERTAINTY		
3.01 is	s the uncertainty range of volumetric parameters and STOIIP stimates adequate?		STOIIP ranges were evaluated probabilistically after the early static (deterministic) modelling. Parameter ranges tended to take into account well log data only, but no adjustment was made for dynamic STOIIP determination from production performance. Hence these ranges were perhaps defensible at the time of their preparation but they are too wide for the current stage of field development.
re re	lave 'proved areas' been defined (lowest known fluid contact, continuity of production', no major/sealing faults) and are they salistic?	+	Water contact levels are well known and well control tends to be more than adequate.
, t	re proved (developed and total) reserves consistent with lese 'proved areas'?	+	Yes

+ = Good O = Satisfactory X = Unsatisfactory N.A. = Not Applicable

FOIA Confidential Treatment Requested

#### CHECKLIST SEC RESERVES AUDITS

Attachment 3

3.04	is the uncertainty range of developed recovery adequate?  Is the uncertainty range of undeveloped recovery adequate?	X	Although there is no clear audit trail for the composite proved developed recovery estimate, it appears to align with the expectation NFA forecast within the licence period. This is largely reasonable for a portfolio with the size and maturity of PDO's. Some downward corrections should be made for new developed fields.  The composite proved forecast is not linked back to proved estimates for individual fields. The reason is that no such individual field estimates are made.  The undeveloped forecast within licence contains a large number of projects that are far from mature and which can therefore not be regarded as proved (or, for that matter as true expectation). The composite proved undeveloped estimate includes a significant number of these immature projects. This
3.06	Have market / production constraint uncertainties been taken		is not in accordance with SEC and Group guidelines. As for the developed reserves, the composite proved undeveloped forecast is not linked back to proved estimates for individual fields because no such proved estimates are made.
	into account?	N.A.	Offiake is at maximum field capacity.
3.07	Is the Group / Region / Asset Holder committed to proceed with development?	+	Yes, see also 1.22
3.08	What is ratio of field(s) cum.prod. / expectation total recovery?		0.59
3.09	Can the field(s) be considered mature?		On average, yes, although there are numerous small new fields
3.10	Are proved reserves for fields (or other entities used for asset depreciation) added together arithmetically?	+	Yes .
3.11	Are proved reserves within fields (or within entities used for asset depreciation) added together probabilistically?	0	Field recovery estimates are now generally made in a deterministic manner. Probabilistic addition is no longer appropriate.
3.12	Is any assumed dependency in probabilistic addition appropriate?	N.A.	
4	GROUP SHARE CALCULATION		
4.01	Are proved and proved developed reserves fully producible within the licence period (or its extension if there is a legal right) and within production ceilings/constraints?	×	The proved developed reserves align with the expectation NFA forecast, which is appropriate for mature fields. The proved undeveloped reserves are likely to be overstated because they are not fully supported by proved projects.
4.02	Are the forecasts required to demonstrate the above condition consistent with the firm Base Case presented in the latest Business Plan?	×	The proved total estimate is well in excess of the Tranche 1' projects forecast from the 2002 Business Plan and similar forecasts from the 2003 Business Plan.
4.03	is the hydrocarbon Equity share calculated properly (regular production contracts)?	+	The Group share is 34%, which is 85% of the 'private
4.04	Is the hydrocarbon PSC entitlement share (net cost oil + profit oil only) calculated property?	N.A.	shareholders' share of 40% in the PDO operated fields.
4.05	is the hydrocarbon Purchase Right share (to the extent that economic benefit is derived from production while still bearing share of risks and rewards) calculated properly?	N.A.	
4.06	Are royalties that are (formally or customarily) paid in cash included in reserves?	+	Royalties are paid in cash and are not deducted from liftings nor reserves bookings.
	Are royalties paid in kind excluded from reserves?	N.A.	
	Are volumes delivered free of charge as fees in kind (e.g. for infrastructure used by third parties) included in reserves?  Similarly, are volumes received as fees in kind excluded from reserves?	N.A.	Minor streams of third party crude are exported through PDO pipelines. Fees are paid in cash.
4.09	Has historic Group under-or overlift (e.g. compared with other co-venturers) been accounted for?	N.A.	
	Have gas volumes produced from the reservoir but not yet sold (e.g. through UGS, gas re-injection into another reservoir or a swap deal with another field) been properly maintained in reserves?	N.A.	No gas reserves are carried
	Have gas volumes paid for by the buyer but not yet produced and sold (take-or-pay' gas) been properly maintained in reserves?	N.A.	
	Have separate submissions been made for Equity , Entitlement and Purchase Right volumes?	N.A.	
	AUDIT TRAILS		
	Are proved and proved developed reserves estimates up-to date?	Х	The composite total proved reserves within-licence estimate has largely been maintained from previous years, in spite of the growing immaturity of the constituent projects.
	= Good O = Satisfactory X = Un	<u>स्वराद्धाः</u>	огу и А. я ног Аррпсавів

PDO03-Att3.xls, CheckList

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**GRA 000325** 

02/12/2003, 13.30

#### CHECKLIST SEC RESERVES AUDITS

Attachment 3

5.02	Can reported net Group equity reserves be reconciled with individual field reserves estimates?	X	No. The individual proved / expectation reserves ratios for individual fields are too low, particularly for the more mature
<u></u> _			fields (see Att. 4)
5.03	Can reserves changes be reconciled with individual field changes?	×	
5.04	Are reserves changes reported in the appropriate categories?	   x	only Since the source of the changes was not clear, it could not be
		^	established whether the categorisation of the changes was appropriate
5.05	reporting procedures?	0	A document has been in circulation in draft form for some time.  A final version is anticipated in November this year.
5.06	justifications for new reserves estimates in sufficient detail?	0	FDP documents were prepared upon the conclusion of studies. Very few of these have been issued in recent years because of time pressure.
5.07	library where copies are kept?	X	Whilst there is a central library with search facilities, field teams tend to keep project reports in personal filing cabinets.
5.08	Is the annual reserves submission supported by a sufficiently detailed summary note explaining the reserves changes (classified in revisions, extensions, sales-in-place etc) per field, with references to detailed reports as appropriate?	×	An ARPR report is issued annually, which lists full life cycle (i.e. 30-years) recoverable volumes of oil-condensate (from PDO facilities) and associated gas. The format seems somewhat cumbersome (duplicated data and unnecessary data e.g. depletion rates, high estimates). It could benefit from a simplification.  A note describing the basis for the Group estimates was not
5.09	Are electronic data bases containing both historic submissions' data and current reserves data in place and accessible?	+	resent, only a complex spreadsheet Yes, largely in the form of spreadsheets
5.10	Do these data bases also contain references to detailed reports?	0	No
6	CONSISTENCY WITH FINANCIAL REPORTING		
6.01	Are proved and proved developed reserves based on fiscalised volumes under sales conditions?	+	Yes
6.02	Are oil, NGLs and sales gas reported in their appropriate categories?	+	Yes; Oil (and any co-produced oil gas condensate) is reported by PDO, gas and ex-gas plant liquids entitlements are reported by Gisco.
	Are own use, fuel, losses etc excluded?	+	Gas own fuel and losses are not relevant to the calculation of Group share oil entitlements
	Are annual Oil+NGL production volumes in reserves submissions consistent with Upstream sales volumes reported into the Finance (Ceres) system? (Ceres line 0933, which is the sum of line 7385 (Reward Oil/NGL) and line 0871 [= 8462-Oil + 8464-NGL for Consolidated Companies + line 3596 (= 0931-Oil + 0932-NGL) for Assoc. Companies).	+	Yes
	Are annual gas production volumes in reserves submissions consistent with Upstream Gas production available for Sales (GpafS) volumes reported into the Finance (Ceres) system? (Ceres line 9130)	N.A.	No gas reserves carried by PDO
	Are the Financial and Reserves accounting of production / sales fully consistent with each other also in cases like royalties, fees-in-kind, underlift/overlift, gas re-injection/UGS, take-or-pay gas?	+	Yes (only royalties are applicable here)
	Are the net Shell share reserves reported properly and consistently with Finance reporting (100% for consolidated Shell companies, with minority reserves reported separately, or actual percentage if less than 50%1?	+	PDO prepares the submissions as an associated company with 34% Group share.

GRA 000326

#### CHECKLIST SEC RESERVES AUDITS

Attachment 3

6.08	Are reported proved total and proved developed reserves consistent with those used for asset depreciation in Group Accounts?	N.A.	PDO has not applied UOP asset depletion in the past. The operating agreement stipulates a 40-30-10-10-10% depreciation profile for all capex and this is applied for calculation of the Shell margin and for tax submissions. Shell Group returns are made by Somant who do not hold any snar in the PDO assets, hence no asset depreciation is applicable for Group accounts. PDO accounts are managed with depreciation through the abovementioned 5-year profile. This is not in accordance with international accounting practices, which require UOP depletion, based on proved total and proved developed reserves. This has led to qualifications in external auditor reports, which the Oman Government now want to see removed. Hence, PDO will need to maintain proper estimates of individual field proved developed and proved total (i.e. undeveloped) reserves, probably starting at 1.1.2005.
7	OVERALL	-	
7.01	If Group guidelines should not or not completely have been followed, are results still reasonable / overstated / understated?	Х	Group share proved developed reserves at 1,1,2003 are largely acceptable. However, Group share total (i.e. undeveloped) reserves are not in accordance with SEC and Group guidelines and have thus been overstated significantly.
7.02	Do the reported proved and proved developed reserves estimates give a reasonably accurate reflection of shareholder value?		In spite of the above comment, the currently reported volumes give a reasonable reflection of shareholder value if account is taken of the probable extension of the current production licence agreement beyond 2012.

#### Weight Score (0-100%)

1	TECHNICAL MATURITY	30% 47%
2	COMMERCIAL MATURITY	9% 72%
3	REASONABLE CERTAINTY	21% 67%
4	GROUP SHARE CALCULATION	8% 50%
5	AUDIT TRAILS	16% 23%
6	CONSISTENCY WITH FINANCIAL REPORTING	7% 100%
1	OVERALL OPINION	8% 50%
	TOTAL SCORE	100% 54%

GRA 000327

#### Unknown

From:

Coopman, Frank F SIEP-EPF

Sent:

06 November 2003 16:44

To:

Barendregt, Anton AA SIEP-EPF-DIR; Pay, John JR SIEP-EPS-P

Subject:

RE: Draft Reserves audit report (PDO)

#### Anton.

I understand and respect your rationale.

--Original Message-

From:

Barendregt, Anton AA SIEP-EPF-DIR

Sent:

06 November 2003 01:17

To:

Coopman, Frank F SIEP-EPF; Pay, John JR SIEP-EPS-P

Subject:

RE: Draft Reserves audit report (PDO)

Frank,

Trust you're aware that the report is still in draft form.

The reason why I am 'lenient' in this case is because I have had the personal assurance from many people in PDO, including the MD, that a deal about the licence extension is around the corner and that aHOA is likely to be signed before end-2003. If this was Russia, I'd still be cautious, but in Oman I feel one can safely assume that the deal is indeed much more than 'reasonably certain',

The way I see it, is that we therefore have some 300 out of the overstated 400 MMbIs as more than 'reasonably certain'. Much more certain, in my opinion, than the volumes for projects that we still need to get VAR3 on, particularly if the latter is still some years away - I'm not only thinking of PDO here, but more particularly of SPDC. and quite possibly others.

I could insist on debooking the 400 MMbls now, only to see most of it re-instated again a year later. But then I should also, and even more so, insist on debooking all projects for which we have no VAR3/FID at 1.1.2004. Our guidelines say we shouldn't do that, with some justification, I believe. Personally I'd rather defend the Oman case to the SEC than the SPDC case, because in Oman we're looking at bridging a one-year gap, in SPDC it's bound to be (much?) longer.

If you want me to explain this to the external auditors, I'd be more than happy to.

Regards,

Anton

-Original Message-

Coopman, Frank F SIEP-EPF From:

Sent:

woensdag 5 november 2003 9:10

To:

Pay, John JR SIEP-EPS-P

Cc:

Barendregt, Anton AA SIEP-EPF-DIR

Subject: FW: Draft Reserves audit report

John,

Assume you have read the attached audit report. I did.

It is a very balanced report, although I am not so sure that our external auditors are as lenient as Anton.

It will be a tough one to explain to the SEC!

-----Original Message-----

Barendregt, Anton AA SIEP-EPF-DIR From:

Sent: 04 November 2003 02:18

To:

Clayton, Stuart PDO-DTEM; Harthy, Sald SAA PDO-DTEM7

Evans, Stuart ES PDO-DPVM Cc:

Subject: Draft Reserves audit report

Stuart, Said,

GRA 000311

V00100686

FOIA Confidential reatment Requested Herewith my draft report, with apologies for the slight delay (I'm travelling and I couldn't get E-mail access until now).

I'd be grateful for your comments by mid this month, if possible.

Many thanks once again for your cooperation.

PS What is Stuart E's job title?

Regards,

Anton

<< File: PDO03-Covnt.doc (Compressed) >> << File: PDO03-Att3.xls (Compressed) >>

Incoming mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com),
sion: 6.0.567 / Virus Database: 358 - Release Date: 24/01/2004

**GRA 000312**