Exhibit 101

From:

Hines, Ian I. /777319

To:

Inglis, Robert R.B.; SIMON, G.; BERTHERIN, Gilles G.

CC:

Newberry, Derek D. /777291; Sikkema, Wyttse W. /777301; de Ruiter,

Rudolf R. /777325

BCC:

Sent Date:

2000-03-29 23:55:27,000

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2000-03-29 23:57:52.000

Date:

Subject:

NOTES FROM VC

Attachments: BLOCK1~1.DOC

## Gents,

I have produced a draft summary of our discussion last week - Apologies for my tardiness and any misrepresentation - its longer than really necessary, in an effort to table as many of the issues as possible - I am also using this to promote some internal awareness of Block 18 and to support efforts to get the right resources

Appreciate if you can review this for correctness and let me have your comments.

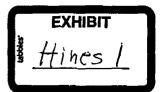
Thanks,

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# **BLOCK 18 FORWARD PLANNING MEETING**

Video conference: 23rd March 2000

Present:

SDA Rob Inglis Grogore Simon

Gilles Bertherin (Part Time)

SDS

Wytse Sikkema Derek Newberry Barry Knight Ian Hines

## 1. Background (see notes attached).

Reserves within Block 18 are distributed amongst a large number of smaller reservoirs with shallower Miocene and deeper Oligocene horizons, Miocene oil is heavier and degraded, Oligocene oil is lighter but still has low pour point with wax and flow assurance implications.

Three discoveries have been made to date (circa 550 mmbbls), volume potential in the block is in excess of 1 billion barrels. BPA are currently focussing on a potential cluster hub development of the eastern area, (Greater Plutonio which includes Galio, Plutonio and Paladio). Opportunities may exist for a second hub in the western area thereafter. However, the key decisions and BPA's underlying philosophy and strategy for block development and management of uncertainty are unclear, and have not been well documented nor enunciated to SDA.

Three appraisal wells are now planned back to back with the first well to spud in May. This will give little time for interpretation or analysis in the event of surprises. Total budget (100% share) for 2000 is approx \$120 million (??), the bulk of which is for the exploration and appraisal wells. SDA control funds release via allocations in two categories – firm and contingent. The bulk of the budget is still contingent at this stage.

BPA's preliminary development scheme for Greater Plutonio (currently based upon 765 mmbbl MSV) assumes a large FPSO supporting 44 subsea wells, Capex of ~\$US3 billion; with a target UTC of \$3 UD and with the field onstream by early 2005. SDA are currently carrying lower development costs of circa \$US2.5 billion (extrapolated from Bonga) and a low case MSV of 750 MMbbl. SDA believe that the field will be economic at \$3.4 UDC.

BP are building a significant team in Sunbury, currently at ~25 and expected to grow to 45 by end year. BPA are proposing a very aggressive schedule with their base plan calling for sanction (FID) by end 2000. This is reminiscent of the early days of Foinaven and Schiehaltion — with a management by assertion culture and parallel subsurface and surface development studies — all in a more complex subsurface setting than in the Wofs. An alternative BPA plan has FID mid 2001, SDA are carrying a more realistic end 2001 schedule — based upon extrapolation of the Bonga experience. Studies are in progress to explore opportunities to build on the ongoing Block 17 (Dalia) development studies. A study with ABB is currently in progress to assess synergy with the Dalia development, and to identify cost and schedule enablers.

To date BPA deliverables or detailed plans for development of Block 18 are very few and far between. There are strong indications that BP are struggling to build the team and carry out and

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properly document the work. BP appear to be focussing on the facilities aspects (and particularly the FPSO) and have not tabled a plan for developing and resolving subsurface uncertainties.

The project has passed through the Shell VAR1 gate with support for the exploration/appraisal programme. The VAR re-inforced the lack of and the urgent need for BP to prepare a detailed, integrated activity plan to map the path to project sanction and to address the key development concerns. This needs to be available by mid April. A VAR2 is tentatively planned mid year, but this must be driven by readiness to proceed.

### 2. Exploration/Appraisal

Rig sourcing for the drilling campaign is ongoing, it is planned to use one of the Pride units which is currently drilling within Block 17. Timing will be dependent on success in Block 17 and the need for success case well testing, which is considered likely. SDA expect that the first well in Block 18 will be delayed to mid-end May accordingly.

Short term objectives are to prove up volumes in excess of 750 MMbbl for the greater Plutonio area; where several pods of ~150 MMbbl have been identified. The next well location (Paladio) has been selected, and will focus on Oligocene objectives (circa ~140 MMbbl) with some Miocene upside. The well carry's a high (90%) POS. The second well is likely to be Galio crest or Galio crest flank?. For the 3rd well, SDA would prefer to target the Plutonio flank. There is an option for a 4th well this year. No well proposals have been provided to date, despite several requests from SDA to BPA to open an early dialogue. In addition to proving up volume potential the wells need to be carefully planned to extract the maximum amount of information to support development activity)

BP are considering the benefits of additional high resolution 3D seismic (~\$US 30 m); SDA feel this is not required from a pure exploration standpoint, but it has proven very successful in unlocking understanding of internal reservoir architecture on Block 17. The cost value tradeoff is still being assessed by BPA.

BPA are anxious to have Shell input in designing the well programmes, but to date SDA have not seen any well proposals. SDA see scope to challenge BPA well proposals and for application of DTL through dialogue and a formal workshop. In addition to the exploration objectives, planning for future wells must recognise the development issues (e.g. to target flow assurance issues, water sampling etc) and the cost value tradeoff of the testing programme needs to be addressed.

### 3. Support required from SDS

#### 3.1 General Requirements

Establish a core team in SDS to support SDA and build up understanding and a long term relationship based upon intimate customer knowledge.

Together with SDA, develop and execute a plan to build deeper understanding of Block 18 drivers/uncertainties, to assess maturity of BPA work in these areas and to provide continuos challenge from a position of strength: Known drivers/uncertainties include:

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- Number/proximity of reservoir segments, connectivity
- Reserves density
- Production rates
- Oil quality
- Flow assurance issues
- Development costs and schedules

Given the short term timing of the E/A plans, work should focus initially on the subsurface and well engineering issues, making sure we drill the right wells, in the right places and with the right data collection requirements. In the medium term, it is expected to include an independent assessment of key subsurface performance issues and a requirement to build static and dynamic reservoir models

Help formulate a plan for extracting key deliverables from BPA, look to other project analogues like Bonga and develop a shopping list of what we require.

Assist SDA with internal reporting needs (e.g. support to the GDPI intiative) assessment of new business opportunities (e.g. possible farm in to Block 34).

Look at how to maximise learning's and disseminate these within the rest of SDS and the Shell Group

#### 3.2 Specific Needs

Identify and secure subsurface, WDU and surface engineering resources necessary to develop CTR's covering the full workscope.

Develop an inventory and an understanding of all the existing data and work carried out by the SDA asset team and by BPA for Block 18. Identify key staff who have worked on Block 18. previously and who can be used to help the new team get up to speed quickly.

Assemble and review the available data and develop a shopping list of data, deliverables and key issues which are appropriate for the current status of the project and which can be tabled as specific requirements from BPA.

Review and challenge BPA plans for the exploration and appraisal drilling in terms of well objectives, well locations, well design and well testing programmes, well costs and Value of Information. Identify and mobilise subsurface and WDU resources who can develop and implement a strategy for applying DTL in Block 18. Participate in a Workshop with SDA to identify opportunities for reducing E/A wells costs and maximising leverage from DTL thinking. Understand fluid properties and challenge/define the well testing requirements.

Define means to optimise VOI of the exploration and appraisal programme

Develop a plan to be able to challenge BP on their interpretation and assumptions for the key project drivers and uncertainties (e.g. reservoir connectivity, well ultimate recoveries, well density and well productivity assumptions). Identify and scope independent study work required to validate the key assumptions, to understand reservoir uncertainties and fluid properties and for addessing these.

Support SDA's internal reporting requirements and their assessment of future growth opportunites - SDA may take a stake in block 34.

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Compile and review existing SWOT analyses material on BPA strengths and weaknesses. Together with SDA validate and or challenge the current understanding of BPA strengths and weaknesses drawing on individuals with as much direct experience as possible. Use this to assist SDA with any additional workscope or resourcing requirements.

Establish a means to share information with SDA making use of a secure Alta Vista forum or

Maintain an evergreen suite of volumetric assessments/models Maintain an evergreen set of development concepts (including DVA systems) costs and schedules for the Block 18 and Block 34 developments

Develop an independent view of the potential cost and schedule benefits of creating synergy between the Block 18 development and other projects which are in the execution phase, such as the Dalia or possibly Bonga developments

Develop or identify a process to maximise learning's from the Block 18 development and disseminate these within the rest SDS and the Shell group

Provide support to various drilling subsurface and lessons learnt workshops which SDA/BPA are planning over the next few months

Provide SDA with a template for monthly information updates from BP

Develop revised CTR's including all the above workscope items.

3,3 **Future Meetings** 

Next meeting by telecon is planned for April 6th

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