29 April 2015

Mosman Oil and Gas Limited

Murchison Permit Prospective Resource Report

The Directors of Mosman Oil and Gas Limited ("Mosman" or the "Company") (AIM: MSMN) the New Zealand ("NZ") and Australian focussed oil exploration and development company, are pleased to advise that they have now received a report from independent technical consultants, SRK Consulting (Australasia) Pty Ltd ("SRK"), in respect of its 100% owned Murchison permit in the South Island of New Zealand dated 28 April 2015 (the "SRK Report" or the "Report").

In its Report, SRK has estimated additional deeper tight gas and Oil Prospective Resources that are summarised in Table 1:

Table 1: Estimated Tight Gas and Oil Prospective Resources for the mapped northern part of Murchison PEP 57068 block

Murchison Tight Gas and Oil		P90	P50	MEAN	P10
Prospective Resources	Recoverable Gas (Bcf)	9,543	13,271	13,695	18,546
	Recoverable Oil (MMbbl)	148	159	164	196

Source: SRK Report dated 28 April 2015

The Chairman of Mosman, John W Barr, said: *"The SRK Report provides independent external confirmation of the significant prospective resources at our Murchison permit that contains the shut-in Blackwater-1 oil and gas discovery. It validates our view that the Murchison area should be an immediate priority for Mosman. To this end, we already have a team working on geology, well planning and the approvals required to drill an exploration well which may be a test of both a conventional target and progressing the significant tight gas formation.*

"SRK has been able to quantify the 'size of the prize' not only by estimating hydrocarbons in place, but also the more meaningful category of Prospective Resources. This is a significant step forward and the task is to now further de-risk the resources by methodical exploration and eventually development planning.

"Mosman is aware there is already existing production from Tight Gas in NZ, and now considers that the Murchison Permit could be a key component in achieving Mosman's stated goal of becoming a sustainable mid-sized oil and gas company."

In the Report, SRK has also estimated the conventional oil prospective resources at the Te Wiriki Prospect, summary details of which are in Table 2:

Table 2: Estimated Prospective Oil Resources for the Te Wiriki Anticline

Te Wiriki Prospect Prospective Oil Resources (MMbbl Recoverable)	P90	MODE	P50	MEAN	P10
	0.06	0.03	0.40	1.13	2.92

Source: SRK Report

Prospective Resources on the Te Wiriki Prospect are for the full structure; approximately 34% of the lowest part of the fault dependent closure extends beyond the block held by Mosman.

Prospective resource definitions

The estimated prospective resources summarised in Table 1 are associated with tight gas. Tight Gas Formation ("TGF") is defined by SPE (2011) Guidelines to be "a reservoir that cannot be produced at economic flow rates nor recover economic volumes of natural gas unless the well is stimulated by a large hydraulic fracture treatment or produced by use of a horizontal wellbore or multilateral wellbores" (Holditch 2006). Reference: www.spe.org/industry/docs/PRMS_Guidelines_Nov2011.pdf

In relation to Murchison Tight Gas, in its Report, SRK notes: "The risks comprise mainly the stimulated rock volume accessible per well and the amount of wet condensate liquids producible from the gas. Risks on the tight gas volumes are low, however the economic production characteristics remain to be proven."

With respect to the oil prospective resources summarised in Table 2 that are associated with the Te Wiriki prospect, in its Report, SRK notes: "It is considered the play is proven by the small oil and gas flows [that] were recorded from the nearby Blackwater-1 well. The Te Wiriki structure has identified local oil seeps however conventional reservoir quality is a significant risk."

The hydrocarbon volumes estimated in the SRK Report should not be considered as either contingent resources or reserves. Further exploration and development work in the form of appraisal drilling, well testing and assessment of recovery factors will be required to be able to quantify net resources in relation to the Company's licence areas and to confirm commerciality.

For further details on resource definitions see Appendix 2: Category Definitions of Petroleum Reserves and Resources**.**

The Murchison permit

Mosman secured a 100% interest in the Murchison permit as part of the 2014 Block Offer. The permit covers some 517 sq. km is located approximately 100 km north of Mosman's existing Petroleum Creek Project where an infrastructure base was established in 2014.

The Murchison permit came in to effect on 1 April 2015 (along with two other permits awarded to Mosman: 100% of Taramakau and 100% of the East Coast block).

Three exploration wells have been drilled on the Murchison permit and one nearby. The Murchison permit contains the Blackwater-1 oil and gas discovery as well as a number of oil and gas seeps.

Ongoing technical programme

The commissioning of the SRK Report is one of a series of steps in Mosman's evaluation of the Murchison permit and its contents will be incorporated into the wider technical evaluation of the permit before any final drilling location decision is taken and well design is finalised. Further technical work is required to narrow the range in size of these prospective resource estimates. A potential exploration well on the Te Wiriki Prospect should be capable of allowing the Company to evaluate both the conventional oil potential as well as to test and obtain initial technical data on the significant deeper gas and oil potential identified in the SRK Report.

Mosman notes that there are several examples of gas fields in NZ currently producing from "Tight Gas" formations including Mangahewa and Kapuni. References:

http://www.nzpam.govt.nz/cms/about-nzpam/doc-library/advantage-nz-downloads/session-7b-winfred-boeren-paper-pdf-745kb and http://www.toddenergy.co.nz/operations/production/production-sites/

Background technical information on the Murchison permit

The Te Wiriki Anticline is a sub-thrust closure located mostly in the northeast of the Murchison permit. The structure comprises a series of small fault independent closures with larger fault dependent potential.

For the northern Murchison permit, tight gas has been identified in reservoirs that comprise the Brunner Coal Measures and Nuggety Sandstone, the Matiri Formation and the Tutaki graded sandstones of the lower Mangles Formation. The oil resources associated with the tight gas in Table 1 are estimated based on a nominal but conservative oil-gas ratio of 1 to 25 Bbls/MMscf.

The SRK Report notes that all four wells drilled in the Murchison sub basin have encountered hydrocarbons. The four wells and re-test data in the Murchison sub-basin (by Bounty Oil Co Ltd., 1970; Bulmer, 1968; Lewis and Williams, 2000; Perdersen, 1925; Western Exploration, 2006; Dunn et al., 1986) are key data points because the Bounty-1 and the Murchison-1 wells had strong gas shows, which are not deemed as 'discoveries' because there were no demonstrable flow tests and no samples taken of the moveable hydrocarbons encountered. The Blackwater-1 well, however, has been labelled as a gas/oil discovery well based on repeated testing and sampling and Mosman notes that Blackwater-1 flowed hydrocarbons to surface. The presence of moveable gas at Matiri-1 is also significant in the Murchison basin evaluation.

The Murchison-1 well was the first well drilled in the area. The well, located on the banks of Mangles River, was drilled in 1927, and was reported to have had several oil and gas shows of significance. Subsequent re-evaluation suggests these may have been condensate-gas shows.

The Bounty-1 well drilled in 1970, was located at the end of the sealed road in Blackwater Valley, south of the Blackwater-1 well. The well had hydrocarbon shows at 356-359 m, 625-640 m and 688- 711 m RKB and reached a TD of 3,131 m before being P&A in the Upper Matiri Formation. Re- analysis of the mud log indicates significantly elevated gas readings between 657 m and 1,600 m within the Mangles Formation and may be due to either gas-condensate in fractures or possibly "shale" associated gas. The key features of the Bounty-1 well are the high levels of connection gas (to saturation levels at the gas trap on the rig) and the high formation pressures encountered.

The Matiri-1 well was drilled in 1985 by PetroCorp using the RockDrill Rig 20 to test the sandstone stringers of the Brunner Coal Measures on the Matiri Anticline (Dunn et al., 1986). This well is outside the Murchison permit but is significant as a result of the detailed documentation and full stratigraphic record the well presents. Gas shows occurred within the Brunner and overlying Kaiata Mudstone. Several intervals on the well were tested. A moderate flow in one test and poor tests on several other zones resulted in only minor gas flows. The coals and mudstones were generally considered too tight to produce.

The Blackwater-1 well drilled in 1968 was deemed an oil discovery, but a sub-commercial accumulation at that time. However, as oil prices gradually inflated in the late 20th century, the well received numerous re-evaluations and was re-entered in order to undertake a re-test. In its Report, SRK notes: "Key points of the Blackwater-1 well data are as follows. The wellbore passed through a fault at a depth of approximately 132.5m RKB, encountering the Lower Mangles Formation, including the Valley Creek Sandstone member. Below the steeply dipping fault at 132.5 m the well encountered hydrocarbon shows to a depth of approximately 152 m. The gas and oil (or gas-condensate) was under pressure and required the use of a barite weighted mud. Various basic means were utilised to achieve stable flow and production data from this zone however the work was ultimately suspended."

Competent Person's Statement

The information contained in this announcement has been reviewed and approved by Andy Carroll, Technical Director for Mosman, who has over 35 years of relevant experience in the oil industry. Mr Carroll is a member of the Society of Petroleum Engineers.

Enquiries:

Mosman Oil & Gas Limited
John W Barr, Executive Chairman
Andy Carroll, Technical Director
jwbarr@mosmanoilandgas.com
acarroll@mosmanoilandgas.com

SI Capital Limited (Joint Broker)
Nick Emerson / Andy Thacker
+44 (0) 1483 413500

ZAI Corporate Finance Limited (NOMAD)
Tom Price / John Simpson
+44 (0) 20 7060 2220

SP Angel Corporate Finance LLP (Joint Broker)
Stuart Gledhill / Richard Hail
+44 (0) 20 3470 0470

Gable Communications Limited
John Bick / Justine James
+44 (0) 20 7193 7463
mosman@gablecommunications.com

Updates on the Company's activities are regularly posted on its website www.mosmanoilandgas.com

About Mosman
Mosman (AIM: MSMN) is an Australia and New Zealand focused oil exploration and development company with a strategy to build a sustainable mid-tier oil and gas business by acquisition and organic growth.

Currently, Mosman has a total of ten permits or accepted permit applications in New Zealand and Australia.

Petroleum Creek Project, New Zealand
Mosman owns 100% of permit PEP 38526, the Petroleum Creek Project, which is a 143 sq. km low cost onshore exploration project located near Greymouth on the South Island in the southern extension of the proven Taranaki oil system.

Taramakau, Murchison and East Coast Permits (New Zealand)
These permits were granted to Mosman in December 2014. Exploration is currently in the advanced planning stage.

Officer Basin Project, Australia (Application)
Mosman has a 25% investment in the Officer Basin Project, a 22,527 sq. km large land holding with significant exploration potential, which lies in one of the more explored parts of the Basin with road access. The project area is in the Western Australian part of the Officer Basin and offers both conventional and unconventional potential with hydrocarbon shows reported and all elements of a petroleum system are present.

Amadeus Basin Projects, Australia
Mosman owns 100% of two granted permits and one application in the Amadeus Basin in Central Australia which total of 5,458 sq. km. The Amadeus Basin is considered one of the most prospective onshore areas in the Northern Territory of Australia for both conventional and unconventional oil and gas, and hosts the producing Mereenie, Palm Valley and Surprise fields.

Otway Basin Project, Australia
Mosman owns 30% of VIC/P62 in the Otway Basin. The permit was recently renewed and is in relatively shallow water. The 70% permit holder funded a 3D seismic survey in 2013. The results of the 3D seismic survey are now being integrated into a geological model to allow identification and ranking of drilling targets. Within the Otway Basin there is commercial production both onshore and offshore.

APPENDIX 1

Glossary of Oil and Gas Terms

%	per cent
bbl	barrel
Bcf or BCF	billion standard cubic feet of gas
km	kilometre
m	metre
Md or md	millidarcy
MMbbl	million barrels of oil
MMboe	million barrels of oil equivalent
MMscf	million standard cubic feet of gas
MMscfd	million standard cubic feet of gas per day
NZP&M	New Zealand Petroleum & Minerals, the New Zealand Government body charged with managing New Zealand's oil, gas, mineral and coal resources
Permeability	measure of the ease with which a fluid flows through a rock. The units are millidarcies or darcies
OGIP	Gas initially in place
OIIP	Oil initially in place
Porosity	measure of how much of a rock is open space. This space can be between grains or within cracks or cavities of the rock. Measured in %.
RKB	RKB – Rotary Kelly Bushing (a datum for measuring depth in an oil well)
Tcf	trillion standard cubic feet of gas
Tight Gas Formation	a reservoir that cannot be produced at economic flow rates nor recover economic volumes of natural gas unless the well is stimulated by a large hydraulic fracture treatment or produced by use of a horizontal wellbore or multilateral wellbores

APPENDIX 2

Category Definitions of Petroleum Reserves and Resources

For further details on the definitions and guidelines, please see the original document (Society of Petroleum Engineers (SPE), 2007).

The following figure (from the World Petroleum Council) presents 1P 2P and 3P category definitions. Furthermore, it provides guidelines designed to promote consistency in resource assessments. The following summarizes the definitions for each Reserves category in terms of both the deterministic incremental approach and scenario approach and also provides the probability criteria if probabilistic methods are applied. Reference: www.spe.org/industry/docs/PRMS_Guidelines_Nov2011.pdf

Resources Classification Framework

Proved Reserves are those quantities of petroleum, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations. If deterministic methods are used, the term reasonable certainty is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate.

Probable Reserves are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves. It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate.

Possible Reserves are those additional reserves which analysis of geoscience and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus Possible (3P) Reserves, which is equivalent to the high estimate scenario. In this context, when probabilistic methods are used, there should be at least a 10% probability that the actual quantities recovered will equal or exceed the 3P estimate.

The “Range of Uncertainty” reflects a range of estimated quantities potentially recoverable from an accumulation by a project, while the vertical axis represents the “Chance of Commerciality”, that is, the chance that the project that will be developed and reach commercial producing status.

The following definitions apply to the major subdivisions within the resources classification:

TOTAL PETROLEUM INITIALLY-IN-PLACE is that quantity of petroleum that is estimated to exist originally in naturally occurring accumulations. It includes that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production plus those estimated quantities in accumulations yet to be discovered (equivalent to “total resources”).

DISCOVERED PETROLEUM INITIALLY-IN-PLACE is that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production.

PRODUCTION is the cumulative quantity of petroleum that has been recovered at a given date. While all recoverable resources are estimated and production is measured in terms of the sales product specifications, raw production (sales plus non-sales) quantities are also measured and required to support engineering analyses based on reservoir voidage.

Multiple development projects may be applied to each known accumulation, and each project will recover an estimated portion of the initially-in-place quantities. The projects shall be subdivided into Commercial and Sub-Commercial, with the estimated recoverable quantities being classified as Reserves and Contingent Resources respectively, as defined below.

RESERVES are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria's: they must be discovered, recoverable, commercial, and remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by development and production status.

CONTINGENT RESOURCES are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies. Contingent Resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality. Contingent Resources are further categorized in accordance with the level of certainty associated with the estimates and may be subclassified based on project maturity and/or characterized by their economic status.

UNDISCOVERED PETROLEUM INITIALLY-IN-PLACE is that quantity of petroleum estimated, as of a given date, to be contained within accumulations yet to be discovered.

PROSPECTIVE RESOURCES are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both an associated chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity.

UNRECOVERABLE is that portion of Discovered or Undiscovered Petroleum Initially-in-Place quantities which is estimated, as of a given date, not to be recoverable by future development projects. A portion of these quantities may become recoverable in the future as commercial circumstances change or technological developments occur, the remaining portion may never be recovered due to physical/chemical constraints represented by subsurface interaction of fluids and reservoir rocks.

ESTIMATED ULTIMATE RECOVERY (EUR) is not a resources category, but a term that may be applied to any accumulation or group of accumulations (discovered or undiscovered) to define those quantities of petroleum estimated, as of a given date, to be potentially recoverable under defined technical and commercial conditions plus those quantities already produced (total of recoverable resources).

In specialized areas, such as basin potential studies, where alternative terminology has been used, the total resources may be referred to as Total Resource Base or Hydrocarbon Endowment. Total recoverable or EUR may be termed Basin Potential. The sum of Reserves, Contingent Resources and Prospective Resources may be referred to as "remaining recoverable resources". When such terms are used, it is important that each classification component of the summation also be provided. Moreover, these

quantities should not be aggregated without due consideration of the varying degrees of technical and commercial risk involved with their classification

Under the SPE (2011) guideline a **Tight Gas Formation (TGF)** is "a reservoir that cannot be produced at economic flow rates nor recover economic volumes of natural gas unless the well is stimulated by a large hydraulic fracture treatment or produced by use of a horizontal wellbore or multilateral wellbores" (Holditch 2006).

Project-Based Resources Evaluations

The resources evaluation process consists of identifying a recovery project, or projects, associated with a petroleum accumulation(s), estimating the quantities of Petroleum Initially-in-Place, estimating that portion of those in-place quantities that can be recovered by each project, and classifying the project(s) based on its maturity status or chance of commerciality.

This concept of a project-based classification system is further clarified by examining the primary data sources contributing to an evaluation of net recoverable resources.

Resources Classification

The basic classification requires establishment of criteria for a petroleum discovery and thereafter the distinction between commercial and sub-commercial projects in known accumulations (and hence between Reserves and Contingent Resources).

Determination of Discovery Status

A discovery is one petroleum accumulation, or several petroleum accumulations collectively, for which one or several exploratory wells have established through testing, sampling, and/or logging the existence of a significant quantity of potentially moveable hydrocarbons.

In this context, "significant" implies that there is evidence of a sufficient quantity of petroleum to justify estimating the in-place volume demonstrated by the well(s) and for evaluating the potential for economic recovery. Estimated recoverable quantities within such a discovered (known) accumulation(s) shall initially be classified as Contingent Resources pending definition of projects with sufficient chance of commercial development to reclassify all, or a portion, as Reserves.

Where in-place hydrocarbons are identified but are not considered currently recoverable, such quantities may be classified as Discovered Unrecoverable, if considered appropriate for resource management purposes, a portion of these quantities may become recoverable resources in the future as commercial circumstances change or technological developments occur.

Determination of Commerciality

Discovered recoverable volumes (Contingent Resources) may be considered commercially producible, and thus Reserves, if the entity claiming commerciality has demonstrated firm intention to proceed with development and such intention is based upon all of the following criteria:

- Evidence to support a reasonable timetable for development.
- A reasonable assessment of the future economics of such development projects meeting defined investment and operating criteria.
- A reasonable expectation that there will be a market for all or at least the expected sales quantities of production required to justify development.

- Evidence that the necessary production and transportation facilities are available or can be made available.
- Evidence that legal, contractual, environmental and other social and economic concerns will allow for the actual implementation of the recovery project being evaluated.
- To be included in the Reserves class, a project must be sufficiently defined to establish its commercial viability. There must be a reasonable expectation that all required internal and external approvals will be forthcoming, and there is evidence of firm intention to proceed with development within a reasonable time frame. A reasonable time frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While 5 years is recommended as a benchmark, a longer time frame could be applied where, for example, development of economic projects are deferred at the option of the producer for, among other things, market-related reasons, or to meet contractual or strategic objectives. In all cases, the justification for classification as Reserves should be clearly documented.

To be included in the Reserves class, there must be a high confidence in the commercial producibility of the reservoir as supported by actual production or formation tests. In certain cases, Reserves may be assigned on the basis of well logs and/or core analysis that indicate that the subject reservoir is hydrocarbon-bearing and is analogous to reservoirs in the same area that are producing or have demonstrated the ability to produce on formation tests.

Project Status and Commercial Risk

Evaluators have the option to establish a more detailed resources classification reporting system that can also provide the basis for portfolio management by subdividing the chance of commerciality axis according to project maturity. Such sub-classes may be characterized by standard project maturity level descriptions (qualitative) and/or by their associated chance of reaching producing status (quantitative).

As a project moves to a higher level of maturity, there will be an increasing chance that the accumulation will be commercially developed. For Contingent and Prospective Resources, this can further be expressed as a quantitative chance estimate that incorporates two key underlying risk components:

- The chance that the potential accumulation will result in the discovery of petroleum. This is referred to as the “chance of discovery”
- Once discovered, the chance that the accumulation will be commercially developed is referred to as the “chance of development”.

Thus, for an undiscovered accumulation, the “chance of commerciality” is the product of these two risk components. For a discovered accumulation where the “chance of discovery” is 100%, the “chance of commerciality” becomes equivalent to the “chance of development”.

Project Maturity Sub-Classes

Development projects (and their associated recoverable quantities) may be sub-classified according to project maturity levels and the associated actions (business decisions) required to move a project toward commercial production.

Project Maturity Sub-Classes

Project Maturity terminology and definitions have been modified from the example provided in the 2001 Supplemental Guidelines, Chapter 2. Detailed definitions and guidelines for each Project maturity sub-class are provided in Table I. This approach supports managing portfolios of opportunities at various stages of exploration and development and may be supplemented by associated quantitative estimates of chance of

commerciality. The boundaries between different levels of project maturity may be referred to as "decision gates".

Decisions within the Reserves class are based on those actions that progress a project through final approvals to implementation and initiation of production and product sales. For Contingent Resources, supporting analysis should focus on gathering data and performing analyses to clarify and then mitigate those key conditions, or contingencies that prevent commercial development.

For Prospective Resources, these potential accumulations are evaluated according to their chance of discovery and, assuming a discovery, the estimated quantities that would be recoverable under appropriate development projects. The decision at each phase is to undertake further data acquisition and/or studies designed to move the project to a level of technical and commercial maturity where a decision can be made to proceed with exploration drilling.

Evaluators may adopt alternative sub-classes and project maturity modifiers, but the concept of increasing chance of commerciality should be a key enabler in applying the overall classification system and supporting portfolio management.

Reserves Status

Once projects satisfy commercial risk criteria, the associated quantities are classified as Reserves. These quantities may be allocated to the following subdivisions based on the funding and operational status of wells and associated facilities within the reservoir development plan:

- Developed Reserves are expected quantities to be recovered from existing wells and facilities
- Developed Producing Reserves are expected to be recovered from completion intervals that are open and producing at the time of the estimate
- Developed Non-Producing Reserves include shut-in and behind-pipe Reserves
- Undeveloped Reserves are quantities expected to be recovered through future investments.

Where Reserves remain undeveloped beyond a reasonable timeframe, or have remained undeveloped due to repeated postponements, evaluations should be critically reviewed to document reasons for the delay in initiating development and justify retaining these quantities within the Reserves class. While there are specific circumstances where a longer delay (see Determination of Commerciality, section 2.1.2) is justified, a reasonable time frame is generally considered to be less than 5 years.

Development and production status are of significant importance for project management. While Reserves Status has traditionally only been applied to Proved Reserves, the same concept of Developed and Undeveloped Status based on the funding and operational status of wells and producing facilities within the development project are applicable throughout the full range of Reserves uncertainty categories (Proved, Probable and Possible).

Quantities may be subdivided by Reserves Status independent of sub-classification by Project Maturity. If applied in combination, Developed and/or Undeveloped Reserves quantities may be identified separately within each Reserves sub-class (On Production, Approved for Development, and Justified for Development).

Economic Status

Projects may be further characterized by their Economic Status. All projects classified as Reserves must be economic under defined conditions.

Based on assumptions regarding future conditions and their impact on ultimate economic viability, projects currently classified as Contingent Resources may be broadly divided into two groups:

Marginal Contingent Resources are those quantities associated with technically feasible projects that are either currently economic or projected to be economic under reasonably forecasted improvements in commercial conditions but are not committed for development because of one or more contingencies.

Sub-Marginal Contingent Resources are those quantities associated with discoveries for which analysis indicates that technically feasible development projects would not be economic and/or other contingencies would not be satisfied under current or reasonably forecasted improvements in commercial conditions. These projects nonetheless should be retained in the inventory of discovered resources pending unforeseen major changes in commercial conditions.

Where evaluations are incomplete such that it is premature to clearly define ultimate chance of commerciality, it is acceptable to note that project economic status is "undetermined." Additional economic status modifiers may be applied to further characterize recoverable quantities; for example, non-sales (lease fuel, flare, and losses) may be separately identified and documented in addition to sales quantities for both production and recoverable resource estimates (see also Reference Point, section 3.2.1). Those discovered in-place volumes for which a feasible development project cannot be defined using current or reasonably forecast improvements in, technology are classified as Unrecoverable.

Economic Status may be identified independently of, or applied in combination with, Project Maturity sub-classification to more completely describe the project and its associated resources.

APPENDIX 3

Definition of Prospective Resources, P90, P10, P50, Pmean

While there may be a significant risk that sub-commercial or undiscovered accumulations will not achieve commercial production, it is useful to consider the range of potentially recoverable volumes independently of such a risk.

Prospective Resources are those quantities of petroleum which are estimated to be potentially recoverable from undiscovered accumulations. These estimates are derived from volumetric estimates for the reservoir size, estimates of the reservoir characteristics (porosity, permeability, oil saturation). The basis of these estimates would be available geological and geophysical data, and the data from any existing wells in the given area.

Any estimation of resource quantities for an accumulation is subject to both technical and commercial uncertainties and consequently there will be a range of estimates which in general will be substantially greater for undiscovered accumulations than for discovered accumulations. In all cases, however, the actual range will be dependent on the amount and quality of data (both technical and commercial) which is available for that accumulation. As more data become available for a specific accumulation (for example wells and reservoir performance data) the range of uncertainty would be reduced.

Probabilistic methods are normally used to quantify the uncertainty in these estimated quantities and the results of the analysis are typically presented by stating resource quantities at the following levels of confidence:

- **P90 resource** reflects a volume estimate that, assuming the accumulation is developed, there is a 90% probability that the quantities actually recovered will equal or exceed the estimate. This is therefore a low estimate of resource.
- **P50 resource** reflects a volume estimate that, assuming the accumulation is developed, there is a 50% probability that the quantities actually recovered will equal or exceed the estimate. This is therefore a median estimate of resource.
- **P10 resource** reflects a volume estimate that, assuming the accumulation is developed, there is a 10% probability that the quantities actually recovered will equal or exceed the estimate. This is therefore a high estimate of resource.
- **Pmean** is the mean of the probability distribution for the resource estimates. This is often not the same as P50 as the distribution can be skewed by high resource numbers with relatively low probabilities.