

Independent Expert Upgrades Prospective Resources in Cuba Block 9 and Beehive

Highlights:

- Independent Reserves Expert McDaniel & Associates completes prospectivity assessment of Block 9 in Cuba and Beehive Prospect in Australia
- Block 9 best estimate Oil In Place increased by 24% to more than 15.7 billion barrels of oil and recoverable Prospective Resources increased by 13% to 718 million barrels of oil
- Underexplored Block 9 onshore acreage provides opportunity for a significant discovery
- Beehive best estimate Prospective Resources assessed as 388 million barrels of oil equivalent with 25% improvement in Chance of Success

MELBOURNE, AUSTRALIA (07 August 2018)

Melbana Energy Limited (ASX: **MAY**) (“**Melbana**” or “**the Company**”) is pleased to provide the following update on the resource assessment for Cuba Block 9 (Melbana 100% and operator) and Beehive Prospect located offshore Australia in WA-488-P (Melbana 100%¹ and operator).

Independent expert McDaniel & Associates (Canada), who have significant Cuban experience certifying reserves for TSX listed Sherritt have completed their independent assessment of prospective resources in Block 9 and the Beehive Prospect in Australia.

For Block 9, the assessment identifies an increase in best estimate Oil in Place of 24% to more than 15.7 billion barrels and an increase of recoverable Prospective Resources of 13% to 718 million barrels of oil equivalent from three prospects and 16 leads. The assessment includes a 17% increase in the aggregate of best estimate prospective resources to 236 million barrels of oil from the four targeted objectives contained within Melbana’s preferred initial two well program of Alameda and Zapato.

The assessment also confirmed the giant potential of the Beehive Prospect, with best estimate Prospective Resources of 388 million barrels of oil equivalent with a significant improvement in Chance of Success to 20% (from 16%).

An extract from the McDaniels & Associates report² is attached.

Melbana Energy’s CEO, Robert Zammit, said:

“The independent assessment by McDaniel & Associates has confirmed the world class prospective resources in Block 9 with a best estimate of 718 million barrels, which in our view is unparalleled globally in terms of onshore prospectivity coupled with the relatively low cost of exploration and the ability to turn

discovery wells into producing wells compared to offshore opportunities . This report demonstrates the tremendous opportunity for Melbana to make a significant discovery in Cuba. We continue to focus on progressing our drilling readiness and the farmout of this premium acreage and look forward to updating shareholders of our progress as our commercial discussions progress.

Beehive has been confirmed as one of the largest oil prospects offshore Australia with a best estimate of 388 million barrels of oil equivalent and a high estimate of over 1.5 billion barrels. Importantly, the Independent Assessment has resulted in a significant improvement in the Chance of Success for Beehive.”

McDaniel & Associates Report – Extract^{2,3}

Melbana Energy Ltd. Cuba and Australia Resources Summary of Prospective Resources Estimates - Property Gross Values Effective April 30, 2018								Table 1c
Prospective Resources - Total BOE(6)			Prospective Resources - Unrisked (1) (2)				Chance of Discovery %	Risky Resources Mean (2) MMboe
Prospect/Lead	Working Interest	Maturity	Low (P90) MMboe	P50 MMboe	Mean MMboe	High (P10) MMboe		
Cuba								
Alameda		Prospect	39	72	79	128	32%	25
A1		Lead	4	11	13	23	12%	2
A2		Lead	21	50	60	112	12%	7
B		Lead	52	126	148	270	12%	18
Zapato		Prospect	38	95	114	214	23%	26
C2		Lead	29	70	84	153	16%	14
E		Lead	7	18	19	35	16%	3
F		Lead	14	34	41	76	15%	6
G1		Lead	11	28	31	58	16%	5
G2		Lead	9	22	26	49	16%	4
J		Lead	19	45	54	100	23%	12
L		Lead	1	3	3	6	23%	1
N		Lead	4	9	10	19	23%	2
Piedra		Prospect	14	34	40	76	23%	9
Q1		Lead	6	15	18	33	12%	2
Q2		Lead	1	3	4	8	12%	0
Q3		Lead	4	9	11	20	12%	1
R		Lead	8	18	22	42	23%	5
U1		Lead	24	60	71	132	15%	11
Sub-Total			305	718	848	1,553		153
Australia								
Beehive		Prospect	91	388	704	1,645	20%	142
Sub-Total			91	388	704	1,645		142
Total			397	1,105	1,551	3,199		295

(1) There is no certainty that any portion of the prospective resources will be discovered. If discovered, there is no certainty that it will be economically viable or technically feasible to produce any portion of the resources.

(2) The risky resources are partially risky prospective resources that been risky for chance of discovery, but have not been risky for the chance of development.

(3) Sub-Total and Total based on the probabilistic aggregation of zones within a prospect and arithmetic aggregation of the individual prospects to the Sub-Total and Total level.

(4) The Unrisked Total is not representative of the Portfolio Unrisked Total and is provided to give an indication of the resource range assuming all the prospects are successful.

(5) Volumes listed are full life volumes, prior to any cutoffs due to economics.

(6) Based on a Mcf to BOE conversion of 6 to 1. A BOE conversion of 6 to 1 is based on an energy equivalency conversion primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.

¹ Beehive Prospect (WA-488-P) : Total and Santos have options to acquire an aggregate of 80% of the permit by fully funding the first exploration well in WA-488-P

²Independent Expert McDaniel & Associates Competent Persons Report June 30, 2018

³Prospective Resources Cautionary Statement: The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Future exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Overview of Block 9 PSC, Onshore Cuba

Block 9 PSC (Block 9) covers 2,380km² onshore of the north coast of Cuba. It is in a proven hydrocarbon system with multiple producing fields within close proximity, including the Majaguillar and San Anton fields immediately adjacent to it and the multi-billion barrel Varadero oil field further west (see figure 1). Block 9 contains the Motembo field, the first oil field discovered in Cuba. Melbana is prequalified as an onshore and shallow water operator in Cuba and was awarded Block 9 on 3 September, 2015. Melbana's established position in Cuba provides it with a strong early mover advantage.

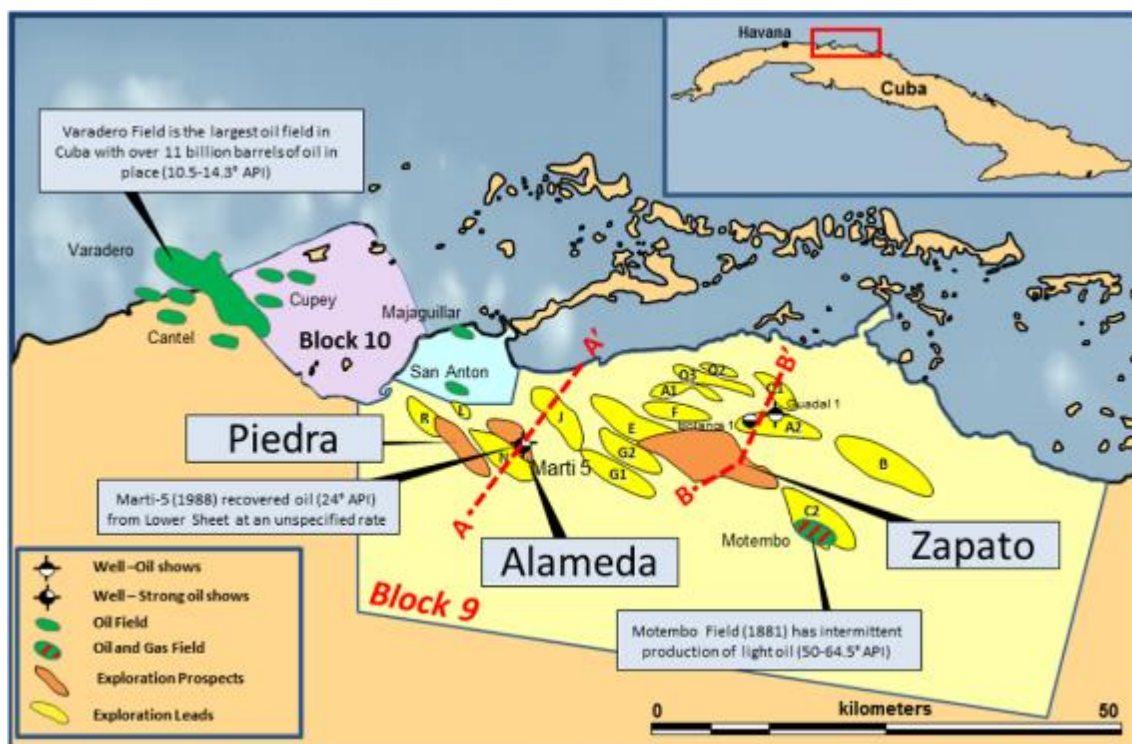


Figure 1 – Block 9 map showing location of key drilling targets

Background

Alameda Prospect - highest ranked prospect in Block 9

The Alameda Prospect is currently the highest ranked exploration target in Block 9 PSC. Alameda is a large structure located in the western part of Block 9 and is in a similar structural position to the Varadero field, the largest oil field in Cuba, approximately 35km away.

The proposed Alameda-1 well which will test a combined exploration potential of over 2.5 billion barrels Oil-in-Place and 140 million barrels of recoverable oil of recoverable oil on a 100% unrisks, best estimate basis and 279 million recoverable barrels aggregate high side potential (Tables 1).

The primary objective at Alameda ranges in depth from approximately 3,000 to 3,700 meters. The presence of oil in the Alameda structure is supported by the Marti-5 well drilled within the prospect closure in a down flank position nearly 30 years ago and which recovered 24° API oil and had numerous oil shows extending over a 850 metre gross interval from the Lower Sheet section (see Figure 1).

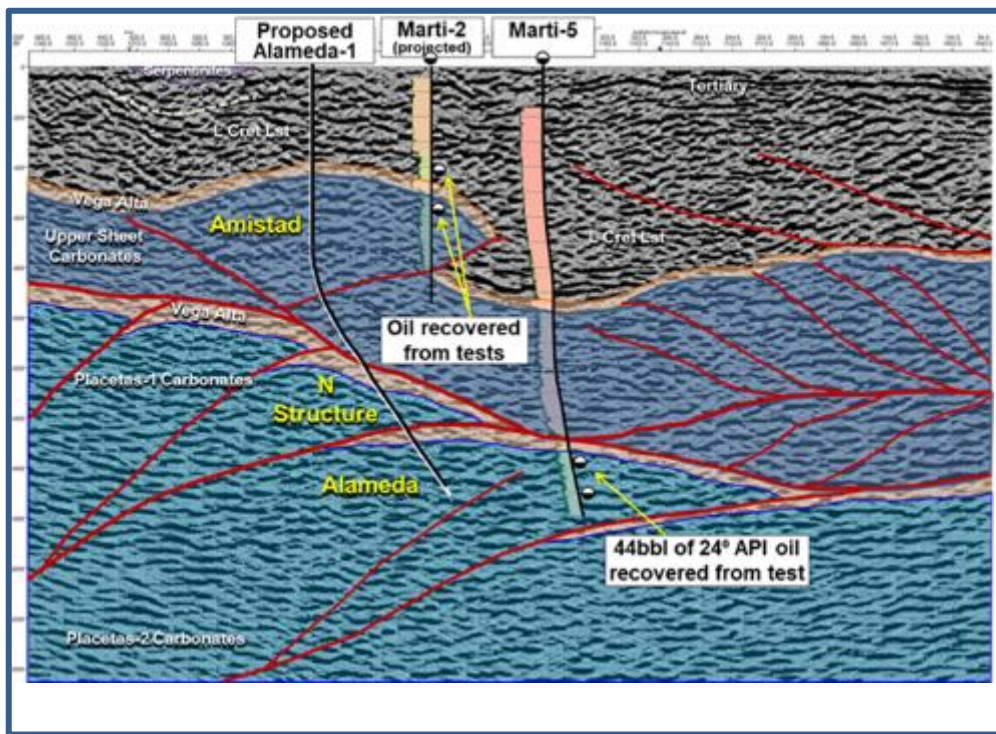


Figure 1: Alameda-1 trajectory tests three objectives

This exploration well has been designed as a mildly deviated well, with a total measured depth of 4,000m to enable the well to penetrate three independent exploration objectives; the primary Alameda objective as well as the shallower N and Amistad (formerly U1) objectives.

While characterised as an exploration well, the chance of success at Alameda-1 benefits from two old wells, Marti-2 and Marti-5, both of which recovered oil from Amistad/ U1 and Alameda objectives respectively. The Amistad/U1 objective is a structure indicated on seismic as being updip of the tested oil recoveries in the Marti-2 well. Alameda-1 is estimated to take approximately 80 days to drill. In the event of a discovery at Alameda there would be significant follow up potential, with a number of additional leads in close proximity.

Objective	Chance of Success	Recoverable Prospective Resource (MMstb) ^{2,3}			
	%	Low	Best	High	Mean
Amistad/U1	15%	24	60	132	71
N	23%	4	9	19	10
Alameda	32%	39	72	128	79

Table 1: Exploration Prospective Recoverable Resource estimates for objectives of Alameda-1 well

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Zapato Prospect

The proposed Zapato-1 well location is in the central portion of Block 9 and is designed to test a Lower Sheet closure in close proximity to the shallower Motembo oil field, which has historically produced a high quality light oil. The Zapato feature has a crest at approximately 2,000 metres and is a robust structure with nearly 1,000 metres of vertical relief.

Recently completed gravity and magnetic study commissioned by Melbana and undertaken by Cuba's specialist technical laboratory CEINPET over the Zapato prospect has indicated a strong gravity and magnetic alignment with the structural interpretation Melbana's technical team derived from seismic and surface data. This result is supportive of Melbana's assessment of the prospectivity of Zapato as a large carbonate duplex structure along strike from the Motembo discovery which produced light 56°API oil.

Block 9 has high quality detailed pre-existing gravity and magnetic data sets. In the type of geology present in Cuba it is common to use a combination of seismic, magnetic and gravity data sets to define prospectivity.

Carbonate duplex structures such as Zapato are being targeted by Melbana due to their potential to contain Varadero style oil accumulations and are able to be identified using this technique by their combined gravity and magnetic response which differentiates them from low prospectivity intervals.

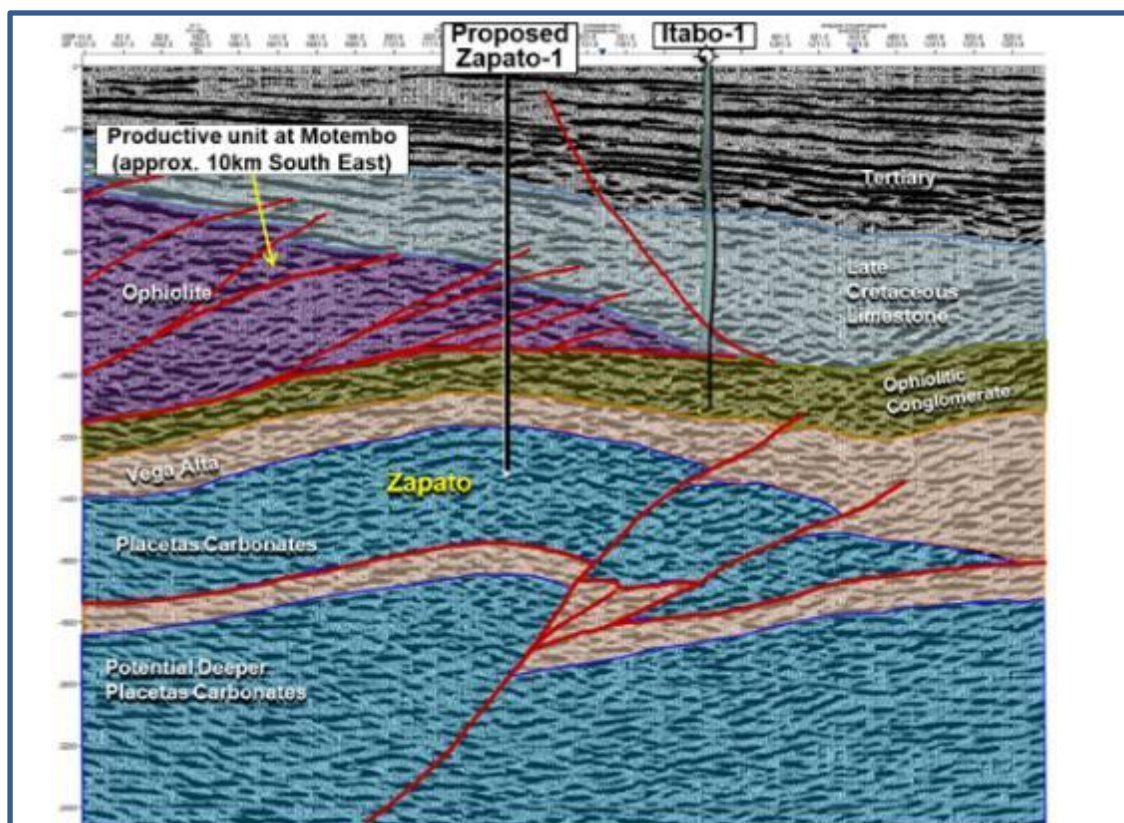


Figure 2 – Zapato Prospect Seismic Profile and Well Path

	Chance of Success	Recoverable Prospective Resource (MMstb) ^{2,3}			
	%	Low	Best	High	Mean
Zapato	23%	38	95	214	114

Table 2: Exploration Prospective Recoverable Resource estimates for Zapato

³**Prospective Resources Cautionary Statement:** The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Future exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

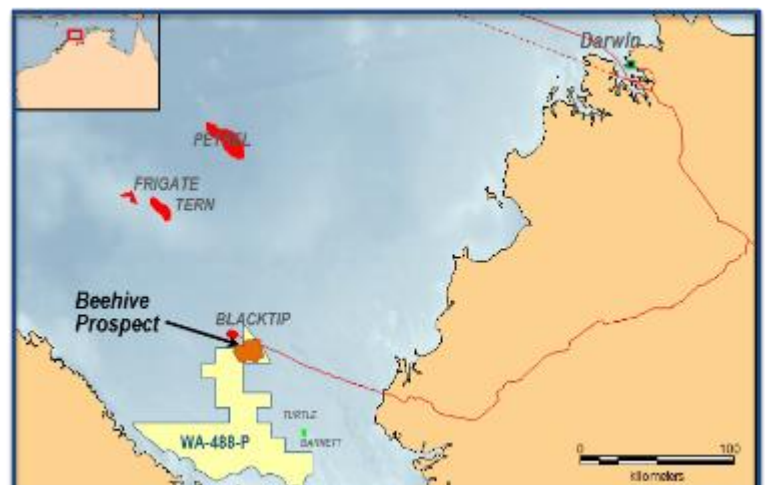
WA-488-P Background

Seismic Survey

The Beehive 3D Seismic Survey was operated by Australian energy company Santos pursuant to an Operations Services Agreement and is fully funded by French major Total and Santos. The Beehive 3D Seismic Survey acquisition area was approximately 600 km² with a larger operational area around it to allow for vessel turns and testing of equipment. The operational area is located in the Joseph Bonaparte Gulf, approximately 225 km west-southwest from Darwin 65 km from the closest land at Cape Domett (in Western Australia), and 60 km from Yelcher Beach in the Northern Territory. Water depths in the acquisition area ranged from approximately 30 to 50 m. The survey was a typical 3D survey using methods and procedures similar to others conducted in Australian waters.

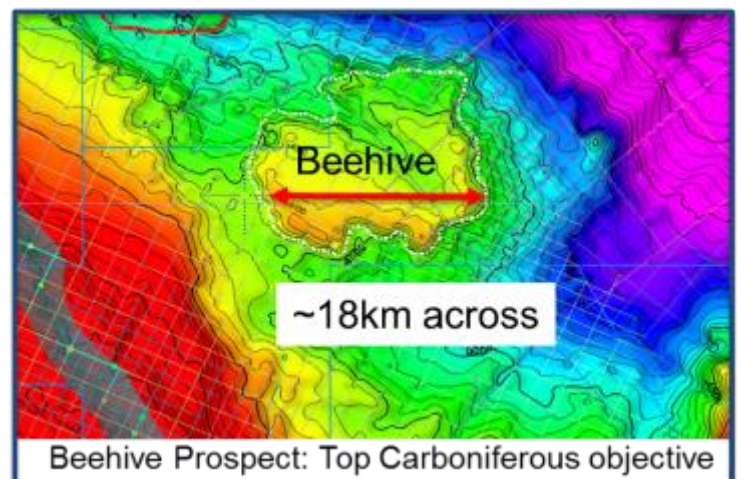
Commercial

Total and Santos have an option (exercisable together or individually) to acquire a direct 80% participating interest in the permit in return for fully funding the costs of all activities until completion of the first well in the WA-488-P permit. Beehive is located close to several existing facilities including Ichthys project and Blacktip field and pipeline offering several options for future gas monetization. In the event of a commercial discovery, Melbana will repay carried funding from its share of cash flow from the Beehive field. Melbana will have no re-payment obligations for such carried funding in the event there is no commercial discovery and development in WA-488-P.

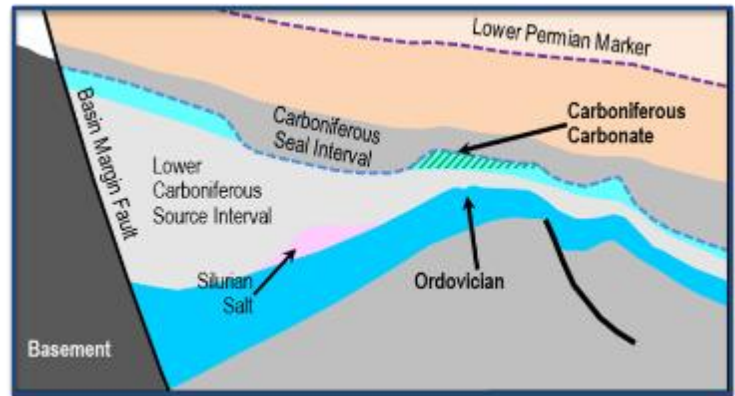


Technical

The Beehive prospect is potentially the largest undrilled hydrocarbon prospect in Australia. It is a Carboniferous age 180km² isolated carbonate build up with 400m of mapped vertical relief, analogous to the giant Tengiz field in the Caspian Basin. It is located in 40m water depth suitable for a jack up rig, within ~75km of shore and developable by either FPSO or pipeline to existing infrastructure. This play type is new and undrilled in the Bonaparte Basin with no wells having been drilled to this depth in the basin.



The carbonate reservoir is also interpreted to be the same age as the 2011 Ungani-1 oil discovery in the Canning basin, which tested at 1,600 bopd demonstrating a high quality reservoir. Beehive is a much larger build up than Ungani and has excellent access to the Lower Carboniferous source rock in adjacent depocentres.



Beehive is currently defined by a tight grid of 2D seismic data. The acquisition of the new 3D seismic survey over Beehive will provide potential for further de-risking of the prospect and facilitate consideration of a preferred location for the Beehive-1 exploration well.

The acquisition of a new 3D seismic survey over Beehive will provide potential for further de-risking of the prospect and will facilitate consideration of a preferred location for the Beehive-1 exploration well. Potentially the largest undrilled hydrocarbon prospect in Australia, the Beehive prospect is characterised as having significant prospective resources as outlined in the following table:

	Chance of Success	Recoverable Prospective Resource (MMboe) ^{2,3}			
	%	Low	Best	High	Mean
Beehive	20%	91	388	1,645	704

Table 3: Exploration Prospective Recoverable Resource estimates for Beehive

³ **Prospective Resources Cautionary Statement:** The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Future exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Contingent and Prospective Resources: The information that relates to Contingent Resources and Prospective Resources for Melbana is based on, and fairly represents, information and supporting documentation compiled by Mr. Dean Johnstone, who is an employee of the company and has more than 34 years of relevant experience. Mr. Johnstone is a member of the American Association of Petroleum Geologists. Mr. Johnstone consents to the publication of the resource assessments contained herein. The Contingent Resource and Prospective Resource estimates are consistent with the definitions of hydrocarbon resources that appear in the Listing Rules. Conversion factors: 6 Bscf gas equals 1 MMboe; 1 bbl condensate equals 1 boe; COS means Chance of Success