



EVALUATION OF THE INTERESTS OF SINTANA ENERGY INC. IN THE VMM 37 BLOCK IN THE MIDDLE MAGDALENA VALLEY BASIN COLOMBIA

SNN | TSX-V

Prepared For Sintana Energy Inc. By Petrotech Engineering Ltd. Effective Date July 31, 2012

Exploring a better way™ A South America Focus

EVALUATION OF THE INTERESTS OF

SINTANA ENERGY INC.

IN THE VMM 37 BLOCK IN THE

MIDDLE MAGDALENA VALLEY BASIN

COLOMBIA

Undiscovered Petroleum Initially-In-Place (equivalent to undiscovered resources) is that quantity of petroleum that is estimated, on a given date, to be contained in accumulations yet to be discovered. The recoverable portion of undiscovered petroleum initially in place is referred to as "prospective resources" and the remainder as "unrecoverable."

Prospective resources are those quantities of oil and gas estimated on a given date to be potentially recoverable from undiscovered accumulations. If discovered, they would be technically and economically viable to recover; and there is no certainty that the prospective resource will be discovered. If discovered, there is no certainty that any discovery will be technically or economically viable to produce.

Prepared For

Sintana Energy Inc.

By

Petrotech Engineering Ltd.

Effective Date

July 31, 2012

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PETROTECH ENGINEERING LTD.

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November 19, 2012

Ref: 12-36

Sintana Energy Inc. 36 Toronto Street, Suite 1000 Toronto, Ontario M5C 2C5

Attention: Mr. Doug Manner, Chief Executive Officer Mr. David L. Cherry, President & COO Mr. Phil De Gruyter, Vice President Exploration

Gentlemen:

Re: Evaluation of the Interests of Sintana Energy Inc. in the Exploration and Production (E&P) Contract of the VMM 37 Block in Colombia

At your request, we have prepared a technical evaluation of the above-mentioned interests of Sintana Energy Inc. (here-in-after referred to as the "Company") in the VMM 37 Block in the Middle Magdalena Valley Basin, Colombia. This block is under exploration and production (E&P) contract with the Agencia Nacional de Hidrocarburos (ANH) and production is subject to the sliding scale royalty rates plus an additional royalty of 1% (see ANH Royalty Rates). The evaluation is to determine the resource values of the Lisama, Tablazo, Salada and Galembo Formations in the VMM 37 Block. The evaluation is prepared using an effective date of July 31, 2012.

On March 12, 2012, the Company has signed a "Business Combination" with ColCan Energy Corp., a private Canadian company under the laws of Ontario. The principal purpose of the "Business Combination" is to combine the oil and gas assets held by the Company with those owned by ColCan in Colombia. Previous to this transaction, ColCan has acquired a 100% working interest of VMM 37 Block from Patriot Energy Services LLC Corp., a Panamanian company for \$9,466,667 US and 8,533,333 shares of ColCan. This "Business Combination" was completed on May 18, 2012. ColCan has provided the combined entity with working interests in the VMM 4, VMM 15 and VMM 37 Blocks in the Middle Magdalena Valley Basin and LLA 18 Block in the Eastern Llanos Basin. The Company has provided the combined entity with working interests in the Upper Magdalena Basin and the Block XXVII (Bayovar) in the Sechura Basin, Peru. The resulting working interests of all blocks of the combined entity are as follows:

Block Name	Working Interests	<u>Basin</u>	Country
VMM 4	25%	Middle Magdalena Valley	Colombia

VMM 15	25%	Middle Magdalena Valley	Colombia
VMM 37	100%	Middle Magdalena Valley	Colombia
LLA 18	25%	Eastern Llanos	Colombia
Talora	30%	Upper Magdalena Valley	Colombia
COR 11	30%	Upper Magdalena Valley	Colombia
COR 39	30%	Upper Magdalena Valley	Colombia
Block XXVII (Bayovar)	25%	Sechura	Peru

The minimum work program of the VMM 37 Block, as per the ANH E&P Contracts, together with the intended work program is disclosed in the evaluation section.

In the previous resource evaluation for ColCan, the prospective resources for three prospects and four leads remain the same in the Mugrosa and Esmeralda/La Paz Formations (see Appendix D) and these prospective resources have not been updated.

For the purpose of this evaluation, the Company has farmed-out 70% working interest of the unconventional resources in the Tablazo, Salada and Galembo Formations to ExxonMobil Exploration Colombia Limited who will pay 100% of the exploration costs of the first three wells to drill down to the Tablazo Formation. In the first three exploratory wells to the Tablazo, the drilling will likely encounter the Lisama Formation and the farmee will provide the electric log of this section for evaluation at no cost to the Company. The Company is to retain 100% working interest in the Lisama Formation. If hydrocarbon is encountered in the Lisama, the subsequent testing and development of this formation will be borne by the Company. In addition, the farmee is to pay \$45 million for Phase 2 of the work program and the farmor will pay back \$10 million from production. The \$10 million amount is deducted from the Company's first production.

This evaluation uses the definition of resources and follows the guidelines from the Canadian Oil and Gas Evaluation (COGE) Handbook. From the available geophysical and well data available at this time, three prospects have been identified in the VMM 37 Block in the Lisama, Galembo, Salada and Tablazo Formations. The evaluation provides the unrisked prospective resources (prospects) in the Lisama, Galembo and Salada Formations (Scenario 1) and in the Lisama, Galembo, Salada and Tablazo Formations. The Galembo, Salada, and Tablazo resources are considered as unconventional. The net cash flow is calculated at **forecast prices and escalated costs** on the prospective resources, to all future time and after deduction of the capital costs, royalties but before and after deduction of income tax. All cash flow data is in U. S. dollars. A summary of the Company's gross and net share of the unrisked prospective resources and the net present values from the applicable properties, discounted at 0, 5, 10, 15 and 20% before income tax are presented as follows:

<u>Unrisked Prospective Resources in the Lisama, Salada and Galembo Formations</u> (Scenario 1)

	L & 1	M Oil Reso	ources	Heav	y Oil Reso	urces		Befor	e Tax NPV	/ @	
	100%	Gross	Net	100%	Gross	Net	0%	5%	10%	15%	20%
Estimate [Variable]	<u>MMbbl</u>	<u>MMbbl</u>	MMbb1	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	<u>MM\$</u>	<u>MM\$</u>	<u>MM\$</u>	<u>MM\$</u>	MM\$

Low:											
Lisama	-	-	-	7.7	7.7	7.0	115.3	87.9	66.8	50.3	37.3
Salada	66.9	20.1	18.4	-	-	-	77.6	19.8	- 7.9	- 20.9	- 26.6
Galembo	66.9	20.1	18.4	-	-	-	557.2	309.1	180.0	109.4	69.0
Total Low	133.9	40.2	36.8	7.7	7.7	7.0	750.1	416.8	238.9	138.8	79.7
Best:											
Lisama	-	-	-	50.5	50.5	45.9	1,861.3	1,490.8	1,211.1	996.4	828.9
Salada	289.2	86.7	77.8	-	-	-	2,787.3	1,643.3	1,027.2	675.5	463.5
Galembo	289.2	86.7	77.8	-	-	-	3,702.7	1,901.9	1,044.7	608.2	371.9
Total Best	578.3	173.5	155.6	50.5	50.5	45.9	8,351.3	5,036.1	3,283.0	2,280.0	1,664.3
High:											
Lisama	-	-	-	167.7	167.7	149.5	7,175.2	5,499.9	4,304.0	3,430.9	2,779.3
Salada	687.8	206.3	178.0	-	-	-	7,511.5	4,450.0	2,815.5	1,884.2	1,321.3
Galembo	687.8	206.3	178.0	-	-	-	9,379.2	4,620.4	2,451.7	1,386.8	827.7
Total High	1,375.6	412.7	356.0	167.7	167.7	149.5	24,065.9	14,570.3	9,571.1	6,701.9	4,928.2

<u>Unrisked Prospective Resources in the Lisama, Tablazo, Salada and Galembo Formations</u> (Scenario 2)

	L & N	A Oil Reso	ources	Heav	y Oil Reso	urces		Befor	e Tax NPV	' @	
	100%	Gross	Net	100%	Gross	Net	0%	5%	10%	15%	20%
Estimate	<u>MMbbl</u>	MMbbl	MMbbl	MMbbl	<u>MMbbl</u>	MMbbl	MM\$	MM\$	MM\$	MM\$	MM\$
Low:											
Lisama	0.0	0.0	0.0	7.7	7.7	7.0	115.3	87.9	66.8	50.3	37.3
Tablazo	33.7	16.9	15.5	0.0	0.0	0.0	-538.0	-401.9	-308.9	-243.7	-196.7
Salada	66.9	20.1	18.4	0.0	0.0	0.0	587.0	356.2	226.1	149.3	102.0
Galembo	66.9	20.1	18.4	0.0	0.0	0.0	550.4	281.1	151.2	85.2	49.9
Total Low	167.6	57.0	52.3	7.7	7.7	7.0	714.8	323.2	135.1	41.1	-7.5
Best:											
Lisama	0.0	0.0	0.0	50.5	50.5	45.9	1,861.3	1,490.8	1,211.1	996.4	828.9
Tablazo	121.9	36.6	33.0	0.0	0.0	0.0	429.4	206.3	98.4	44.2	15.9
Salada	289.2	86.7	77.8	0.0	0.0	0.0	3,707.1	2,076.6	1,239.0	780.6	514.8
Galembo	289.2	86.7	80.6	0.0	0.0	0.0	4,014.9	1,869.0	934.8	497.7	279.4
Total Best	700.2	210.1	191.4	50.5	50.5	45.9	10,012.6	5,642.8	3,483.4	2,318.8	1,638.9
High:											
Lisama	0.0	0.0	0.0	167.7	167.7	149.5	7,175.2	5,499.9	4,304.0	3,430.9	2,779.3
Tablazo	374.5	112.4	96.3	0.0	0.0	0.0	3,182.1	1,965.2	1,293.8	899.3	653.5
Salada	687.8	206.3	178.0	0.0	0.0	0.0	9,302.2	5,006.8	2,890.6	1,772.7	1,143.7
Galembo	687.8	206.3	178.0	0.0	0.0	0.0	9,765.2	4,327.7	2,075.5	1,065.5	579.2
Total High	1,750.2	525.0	452.3	167.7	167.7	149.5	29,424.6	16,799.7	10,564.0	7,168.3	5,155.6

In this evaluation, two scenarios are considered. In Scenario 1, three exploratory wells are to be drilled to the bottom of the Salada Formation going through the Galembo Formation. If successful, production is to be from both of these formations but one at a time. In Scenario 2, three exploratory wells are to be drilled to the Tablazo formation and assuming success in the upper Salada and Galembo Formations. Production is to be from all these formations but one at a time.

Details of the summary of the prospective resources in each of the prospects together with the before-tax NPV are in the Summary Table 1. The July 31, 2012 oil price closed at \$88.06 per barrel for the West Texas Intermediate crude oil and at \$99.19 per barrel for the Vasconia crude oil. The forecast prices are escalated using the NYMEX futures on

the average of the monthly settlement prices to 2017 and then escalated at 2% per year thereafter (see Forecast Oil Prices section). The gross reserve is the Company's share of production before royalties and the net reserve is the Company's share of production after deduction of royalties. The assigned resources do not take into account of the high price rights that ANH can participate on fields that produce over 5 million barrels of oil (see ANH Royalty Rates). Until there is a discovery and the resources can be transferred to reserves, then the estimation of ANH's additional participation under the high price rights will then be estimated. The royalties on the oil are paid in kind to the Colombia government. Each formation is assumed to receive to receive commerciality individually.

The geological chance of success and chance of development assessment in the prospects are shown in the volumetric estimation of each formation in the Evaluation section. The information relating to the prospects as required in 10.3 of the COGE Handbook is disclosed in Appendix C.

In reviewing the resource estimates, it should be understood that there are inherent uncertainties and limitations with both the database available for analysis and the interpretation of such engineering and geological data. The judgments used in assessing the resource are considered reasonable given the historical data on well performances and the knowledge of the property reviewed. Pertinent information such as extent and character of ownership of the Contracts and all factual data submitted by the Company and the Company's representatives are believed to be true. A field inspection of the oil properties was not conducted due to availability of public, published and internal data.

If additional information is required, please advise.

Respectfully Submitted,

Petrotech Engineering Ltd.

John Yu, P. Eng.

Summary Table 1 – Unrisked Prospective Resources and Net Present Values of Sintana Energy Inc. in the Lisama, Salada and Galembo Formations in the VMM 37 Block, Colombia (Scenario 1) Effective Date - July 31, 2012

	L&N	1 Oil Reso	securit	Heavy	7 Oil Resou	Irces					Opex	Opex	Pipeline		Before	Tax NPV	6	
								-X										
	100%	Gross	Net	100%	Gross	Net	Royalty	Factor	Revenue	CapEx	fixed	variable	tariff	%0	5%	10%	15%	20%
stimate	MMbbl	MMbbl	MMbbl	MMbbl	MMbbl	MMbbl	MMbbl	MMbbl	MM\$	MM\$	MM\$	8MM	MM\$	MM\$	8MM	MM\$	MM\$	MM\$
:wo																		
isama		'	•	7.7	T.T	7.0	0.6	0.1	645.1	274.2	28.6	150.2	76.8	115.3	87.9	66.8	50.3	37.3
alada	6.99	20.1	18.4	ı	'	ı	1.7	0.2	1,812.1	997.5	42.1	460.4	234.5	<i>77.6</i>	19.8	- 7.9	- 20.9	- 26.6
Jalembo	6.99	20.1	18.4	ı	ı	ı	1.7	0.2	1,927.3	553.8	43.6	512.0	260.7	557.2	309.1	180.0	109.4	69.0
Fotal Low	133.9	40.2	36.8	7.7	T.T	7.0	4.0	0.4	4,384.6	1,825.6	114.4	1,122.6	571.9	750.1	416.8	238.9	138.8	T.9T
3 est:																		
Lisama	ı	ı	ı	50.5	50.5	45.9	4.5	0.5	4,188.3	725.8	64.5	1,020.5	516.0	1,861.3	1,490.8	1,211.1	996.4	828.9
Salada	289.2	86.7	77.8	ı	ı	ı	8.9	0.8	7,909.3	1,889.4	89.0	2,098.1	1,045.5	2,787.3	1,643.3	1,027.2	675.5	463.5
Galembo	289.2	86.7	77.8	ı	ı	ı	8.9	0.8	8,489.1	1,152.5	100.1	2,358.5	1,175.3	3,702.7	1,901.9	1,044.7	608.2	371.9
Fotal Best	578.3	173.5	155.6	50.5	50.5	45.9	22.4	2.0	20,586.7	3,767.7	253.7	5,477.2	2,736.9	8,351.3	5,036.1	3,283.0	2,280.0	1,664.3
High:																		
Lisama	1	'		167.7	167.7	149.5	18.3	1.5	13,762.0	1,228.9	108.1	3,511.4	1,738.4	7,175.2	5,499.9	4,304.0	3,430.9	2,779.3
Salada	687.8	206.3	178.0	ı	ı	ı	28.4	1.8	18,305.6	3,125.3	142.4	5,087.9	2,438.4	7,511.5	4,450.0	2,815.5	1,884.2	1,321.3
Galembo	687.8	206.3	178.0	ı	ı	ı	28.3	1.8	19,791.2	1,702.7	161.7	5,778.2	2,769.4	9,379.2	4,620.4	2,451.7	1,386.8	827.7
Fotal High	1,375.6	412.7	356.0	167.7	167.7	149.5	75.0	5.1	51,858.7	6,056.9	412.2	14,377.6	6,946.2	24,065.9	14,570.3	9,571.1	6,701.9	4,928.2

Notes:

The Lisama Formation is considered as conventional resources and the Salada and Galembo Formations are considered as unconventional resources.
Each formation is assumed to receive commerciality individually.

Effective Date - July 31, 2012

	L&N	1 Oil Reso	urces	Heavy	7 Oil Resou	Irces					Opex	Opex	Pipeline		Befor	e Tax NPV	8	
								-Х										
	100%	Gross	Net	100%	Gross	Net	Royalty	Factor	Revenue	CapEx	fixed	variable	tariff	%0	5%	10%	15%	20%
Estimate	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	MMbbl	MMbbl	MMbbl	<u>MMbbl</u>	MMbbl	MM\$	MM\$	MM\$	8MM	MM\$	8MM	MM\$	MM\$	MM\$	8MM
Low:																		
Lisama	0.0	0.0	0.0	<i>T.T</i>	T.T	7.0	0.6	0.1	645.1	274.2	28.6	150.2	76.8	115.3	87.9	66.8	50.3	37.3
Tablazo	33.7	16.9	15.5	0.0	0.0	0.0	1.4	0.2	1,552.1	1,492.6	30.2	376.0	191.4	-538.0	-401.9	-308.9	-243.7	-196.7
Salada	6.99	20.1	18.4	0.0	0.0	0.0	1.7	0.2	1,860.9	502.1	41.2	484.1	246.5	587.0	356.2	226.1	149.3	102.0
Galembo Total	6.99	20.1	18.4	0.0	0.0	0.0	1.7	0.2	1,992.0	582.7	45.9	538.7	274.3	550.4	281.1	151.2	85.2	49.9
Low	167.6	57.0	52.3	T.T	<i>T.T</i>	7.0	5.4	0.6	6,050.1	2,851.6	146.0	1,548.9	789.0	714.8	323.2	135.1	41.1	-7.5
Best:																		
Lisama	0.0	0.0	0.0	50.5	50.5	45.9	4.5	0.5	4,188.3	725.8	64.5	1,020.5	516.0	1,861.3	1,490.8	1,211.1	996.4	828.9
Tablazo	121.9	36.6	33.0	0.0	0.0	0.0	3.6	0.3	3,413.5	1,643.8	47.3	861.5	431.5	429.4	206.3	98.4	44.2	15.9
Salada	289.2	86.7	77.8	0.0	0.0	0.0	8.9	0.8	8,204.4	1,052.3	94.9	2,235.9	1,114.2	3,707.1	2,076.6	1,239.0	780.6	514.8
Galembo Total	289.2	86.7	80.6	0.0	0.0	0.0	6.1	0.8	9,159.4	1,228.1	106.7	2,513.4	1,296.3	4,014.9	1,869.0	934.8	497.7	279.4
Best	700.2	210.1	191.4	50.5	50.5	45.9	23.2	2.4	24,965.5	4,650.0	313.4	6,631.4	3,358.0	10,012.6	5,642.8	3,483.4	2,318.8	1,638.9
High:																		
Lisama	0.0	0.0	0.0	167.7	167.7	149.5	18.3	1.5	13,762.0	1,228.9	108.1	3,511.4	1,738.4	7,175.2	5,499.9	4,304.0	3,430.9	2,779.3
Tablazo	374.5	112.4	96.3	0.0	0.0	0.0	16.0	1.0	10,073.1	2,843.2	74.9	2,691.1	1,281.8	3,182.1	1,965.2	1,293.8	899.3	653.5
Salada	687.8	206.3	178.0	0.0	0.0	0.0	28.3	1.8	19,512.4	1,538.3	610.0	5,449.8	2,612.0	9,302.2	5,006.8	2,890.6	1,772.7	1,143.7
Galembo Total	687.8	206.3	178.0	0.0	0.0	0.0	28.3	1.8	21,361.9	1,844.6	585.4	6,196.8	2,970.0	9,765.2	4,327.7	2,075.5	1,065.5	579.2
High	1,750.2	525.0	452.3	167.7	167.7	149.5	91.0	6.0	64,709.3	7,455.0	1,378.3	17,849.2	8,602.2	29,424.6	16,799.7	10,564.0	7,168.3	5,155.6
	Notes:																	

The Lisama Formation is conventional resources and the Tablazo, Salada and Galembo Formations are considered as unconventional resources. Ξ.

Each formation is assumed to receive commerciality individually.

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6

DEFINITIONS OF RESOURCES

Taken from Section 5 of Volume 1 of the Canadian Oil and Gas Evaluation Handbook, by the Society of Petroleum Evaluation Engineers (Calgary Chapter) and the Canadian Institute of Mining, Metallurgy and Petroleum (Petroleum Society), September 1, 2007.

Crude Oil: A mixture, consisting mainly of pentanes and heavier hydrocarbons that exists in the liquid phase in reservoirs and remains liquid at atmospheric pressure and temperature. Crude oil may contain sulphur and other nonhydrocarbon compounds, but does not include liquids obtained from the processing of natural gas. Classes of crude oil are often reported on the basis of density, sometimes with different meanings. Acceptable ranges are as follows:

Light:	less than 870 kg/m ^{3} (greater than 31.1° API)
Medium:	870 to 920 kg/m ³ (31.1° API to 22.3° API)
Heavy:	920 to 1000 kg/m^3 (22.3° API to 10° API)
Extra-heavy:	greater than 1000 kg/m^3 (less than 10° API)

Heavy or extra-heavy crude oils, as defined by the density ranges given, but with viscosities greater than 10 000 mPa.s measured at original temperature in the reservoir and atmospheric pressure, on a gas-free basis, would generally be classified as bitumen.

Natural Gas: A mixture of lighter hydrocarbons that exist either in the gaseous phase or in solution in crude oil in reservoirs but are gaseous at atmospheric conditions. Natural gas may contain sulphur or other non-hydrocarbon compounds.

Natural Gas Liquids: Those hydrocarbon components that can be recovered from natural gas as liquids including but not limited to, ethane, propane, butanes, pentanes plus, condensate and small quantities of nonhydrocarbons.

Resources

The following definitions relate to the subdivisions in the resources classification framework of Figure 1 and use the primary nomenclature and concepts contained in the 2007 SPE-PRMS, with direct excerpts shown in italics.

Total Petroleum Initially-In-Place (PIIP) 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 (equivalent to discovered resources) is that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production. The recoverable portion of discovered petroleum initially in place includes production, reserves and contingent resources; the remainder is unrecoverable.

Production is the cumulative quantity of petroleum that has been recovered at a given date.

Reserves are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, as of a given date, based on the analysis of drilling, geological, geophysical and engineering data, the use of established technology and specified economic conditions, which are generally accepted as being reasonable. Reserves are further classified according to the level of certainty associated with the estimates and may be sub-classified based on development and production status. Refer to the full definition of reserves in Section 5.4.

Contingent Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. Contingencies may include factors such as economic, legal, environmental, political and regulatory matters, or lack of markets. It is also appropriate to classify as contingent resources the estimated discovered recoverable quantities associated with a project in the early evaluation stage. Contingent Resources are further classified in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by their economic status.

Unrecoverable is that portion of Discovered or Undiscovered PIIP 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 the physical/chemical constraints represented by subsurface interaction of fluids and reservoir rocks.

Undiscovered Petroleum Initially-In-Place (equivalent to undiscovered resources) is that quantity of petroleum that is estimated, on a given date, to be contained in accumulations yet to be discovered. The recoverable portion of undiscovered petroleum initially in place is referred to as "prospective resources" and the remainder as "unrecoverable."

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: see above.

Reserves, contingent resources and prospective resources should not be combined without recognition of the significant differences in the criteria associated with their classification. However, in some instances (e.g., basin potential studies) it may be desirable to refer to certain subsets of the total PIIP. For such purposes, the term "resources" should include the clarifying adjectives "remaining" and "recoverable," as appropriate. For example, the sum of reserves, contingent resources and prospective resources may be referred to as "remaining recoverable resources." However, contingent and prospective resources estimates involve additional risks, specifically the risks of not achieving commerciality and exploration, which are not applicable to reserves estimates. Therefore, when resources categories are combined, it is important that each

component of the summation also be provided, and it should be made clear whether and how the components in the summation were adjusted for risk.

Classification of Resources

For petroleum quantities associated with simple conventional reservoirs, the divisions between the resources categories defined in Section 5.2 may be quite clear, and in such instances, the basic definition alone may suffice for differentiation between categories. For example, the drilling and testing of a well in a simple structural accumulation may be sufficient to allow classification of the entire estimated recoverable quantity as contingent resources or reserves. However, as the industry trends toward the exploitation of more complex and costly petroleum sources, the divisions between resources categories are less distinct, and accumulations may have several categories of resources simultaneously. For example, in extensive "basin-centre" lowpermeability gas plays, the division between all categories of remaining recoverable quantities, i.e., reserves, contingent resources and prospective resources, may be highly interpretive. Consequently, additional guidance is necessary to promote consistency in classifying resources. The following provides some clarification of the key criteria that delineate resources categories. Subsequent volumes of COGEH provide additional guidance.

Discovery Status

As shown in Figure 1, the total petroleum initially in place is first subdivided based on the discovery status of a petroleum accumulation. Discovered PIIP, production, reserves and contingent resources are associated with known accumulations. Recognition as a known accumulation requires that the accumulation be penetrated by a well and have evidence of the existence of petroleum. COGEH Volume 2, Sections 5.3 and 5.4, provides additional clarification regarding drilling and testing requirements relating to recognition of known accumulations.

Commercial Status

Commercial status differentiates reserves from contingent resources. The following outlines the criteria that should be considered in determining commerciality:

- economic viability of the related development project;

- a reasonable expectation that there will be a market for 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, governmental and other social and economic concerns will allow for the actual implementation of the recovery project being evaluated;

- a reasonable expectation that all required internal and external approvals will be forthcoming. Evidence of this may include items such as signed contracts, budget approvals and approvals for expenditures, etc.

- evidence to support a reasonable timetable for development. A reasonable time frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While five years is recommended as a maximum time frame for classification of a project as commercial, a longer time frame could be applied where, for

example, development of economic projects are deferred at the choice of the producer for, among other things, market-related reasons or to meet contractual or strategic objectives.

COGEH Volume 2, Sections 5.5 to 5.8, provides additional details relating to the foregoing aspect of commerciality regarding classification as reserves versus contingent resources.

Commercial Risk

In order to assign recoverable resources of any category, a development plan consisting of one or more projects needs to be defined. In-place quantities for which a feasible project cannot be defined using established technology or technology under development are classified as unrecoverable. In this context, "technology under development" refers to technology that has been developed and verified by testing as feasible for future commercial applications to the subject reservoir. In the early stage of exploration or development, project definition will not be of the detail expected in the later stages of maturity. In most cases, recover efficiency will be largely based on analogous projects.

Estimates of recoverable quantities are stated in terms of the sales products derived from a development program, assuming commercial development. It must be recognized that reserves, contingent resources and prospective resources involve different risks associated with achieving commerciality. The likelihood that a project will achieve commerciality is referred to as the "chance of commerciality." The chance of commerciality varies in different categories of recoverable resources as follows:

Reserves: To be classified as reserves, estimated recoverable quantities must be associated with a project(s) that has demonstrated commercial viability. Under the fiscal conditions applied in the estimation of reserves, the chance of commerciality is effectively 100 percent.

Contingent Resources: Not all technically feasible development plans will be commercial. The commercial viability of a development project is dependent on the forecast of fiscal conditions over the life of the project. For contingent resources, the risk component relating to the likelihood that an accumulation will be commercially developed is referred to as the "chance of development." For contingent resources, the chance of commerciality is equal to the chance of development.

Prospective Resources: Not all exploration projects will result in discoveries. The chance that an exploration project will result in the discovery of petroleum is referred to as the "chance of discovery." Thus, for an undiscovered accumulation, the chance of commerciality is the product of two risk components-the chance of discovery and the chance of development.

Economic Status, Development and Production Subcategories

Economic Status - By definition, reserves are commercially (and hence economically) recoverable. A portion of contingent resources may also be associated with projects that are economically viable but have not yet satisfied all requirements of commerciality. Accordingly, it may be a desirable option to sub-classify contingent resources by economic status:

Economic Contingent Resources are those contingent resources that are currently economically

recoverable.

Sub-Economic Contingent Resources are those contingent resources that are not currently economically recoverable.

Where evaluations are incomplete such that it is premature to identify the economic viability of a project, it is acceptable to note that project economic status is "undetermined" (i.e., "contingent resources-economic status undetermined.")

In examining economic viability, the same fiscal conditions should be applied as in the estimation of reserves, i.e., specified economic conditions, which are generally accepted as being reasonable (refer to COGEH Volume 2, Section 5.8).

Development and Production Status - Resources may be further sub-classified based on development and production status. For reserves, the terms "developed" and "undeveloped" are used to express the status of development of associated recovery projects, and "producing" and "non-producing" indicate whether or not reserves are actually on production (see Section 5.4.2).

Similarly, project maturity subcategories can be identified for contingent and prospective resources; the SPE-PRMS (Section 2.1.3.1) provides examples of subcategories that could be identified. For example, the SPE-PRMS identifies the highest project maturity subcategory as "development pending," defined as "a discovered accumulation where project activities are ongoing to justify commercial development in the foreseeable future."

Uncertainty Categories

Estimates of resources always involve uncertainty, and the degree of uncertainty can vary widely between accumulations/projects and over the life of a project. Consequently, estimates of resources should generally be quoted as a range according to the level of confidence associated with the estimates. An understanding of statistical concepts and terminology is essential to understanding the confidence associated with resources definitions and categories. These concepts, which apply to all categories of resources, are outlined in Sections 5.5.1 to 5.5.3.

The range of uncertainty of estimated recoverable volumes may be represented by either deterministic scenarios or by a probability distribution. Resource should be provided as low, best and high estimates as follows:

• **Low Estimate:** This is considered to be a conservative estimate of the quantity that will actually be recovered. It is likely that the actual remaining quantities recovered will exceed the low estimate. If probabilistic methods are used, there should be at least a 90 percent probability (P90) that the quantities actually recovered will equal or exceed the low estimate.

• **Best Estimate:** This is considered to be the best estimate of the quantity that will actually be recovered. It is equally likely that the actual remaining quantities recovered will be greater or less than the best estimate. If probabilistic methods are used, there should be at least a 50 percent probability (P50) that the quantities actually recovered will equal or exceed the best estimate.

• **High Estimate:** This is considered to be an optimistic estimate of the quantity that will actually be recovered. It is unlikely that the actual remaining quantities recovered will exceed the high estimate. If probabilistic methods are used, there should be at least a 10 percent probability (P10) that the quantities actually recovered will equal or exceed the high estimate.

This approach to describing uncertainty may be applied to reserves, contingent resources and prospective resources. There may be significant risk that sub-commercial and undiscovered accumulations will not achieve commercial production. However, it is useful to consider and identify the range of potentially recoverable quantities independently of such risk.

ANH Royalty Rates and Additional Fiscal Terms in the ANH E&P Contracts

The contractor holds the rights to all production, which can be disposed of after paying a royalty at the point where the hydrocarbons are on specifications for transport or use.

ANH collects the royalty from the contractor. The royalty is a proportion of the daily gross production based on monthly averages, and it is calculated for each field as follows:

		Royalty Rate	(%)	
Production Rate (boe/d)	Light Crude	Gas Onshore	Heavy Crude	Gas Offshore
0 to 5,000	8	6.4	6	4.8
5001 to 125,000	s/s 8 - 20	s/s 6.4 –16	s/s 6 - 15	s/s 4.8 -12
125,001 to 400,000	20	16	15	12
400,001 to 600,000	$s/s \ 20 - 25$	s/s 16 - 20	s/s 15 - 18.75	s/s 12 - 15
> 600,000	25	20	18.75	15
(1) $1 \text{ boe} = 6 \text{ Mcf}$				

High Price Rights in Clause 39 and Annex D of the ANH E&P Contract

When accumulated production rises above 5 MMbbl or when the natural gas is for export market and after five years of production, and when an international reference price of crude is above a trigger level, there is a payment due to ANH for light crude. The payment, Q, is calculated by a formula below:

 $Q = (P-Po/P) \times S\%$

Q = Additional amount of payment to ANH P = Actual price of marker crude, West Texas Intermediate Po = Trigger price of marker crude, West Texas Intermediate S = Percent of Participation

WTI Price, P	Participation, S%
$Po \le P < 2Po$	30%
$2Po \le P < 3Po$	35%
$3Po \le P < 4Po$	40%
$4Po \le P < 5Po$	45%
$5Po \le P$	50%

The trigger level depends on the actual quality of the hydrocarbon produced, measured as the gravity API, as follows:

API produced	Trigger price of 2011, US\$/bbl for oil or \$/MMbtu for gas
< 10	None
10 - 15	48.14
15 - 22	33.71
22 - 29	32.50
>29	31.29

Export natural gas	≤ 500 km	7.23
	500 – 1,000 km	8.43
	>1,000 km or LNG plant	9.63

The assigned resources do not take into account of the high price rights that ANH can participate on fields that produce over 5 million barrels of oil (see ANH Royalty Rates). Until there is a discovery and the resources can be transferred to reserves, then the estimation of ANH's additional participation under the high price rights will then be estimated.

Right For Use of Land (Clause 38 of ANH Contract)

The participants of the Contract are to pay (in \$U.S. per hectare) in Exploration Areas as follows:

Size of the Area	First 100,000) hectares	Per hectare over 100,000		
Term	< = 18 months	> 18 months	= 18 months</td <td>> 18 months</td>	> 18 months	
Within Polygons A or B	\$2.38	\$3.17	\$3.17	\$4.75	
Outside Polygons A or B	\$1.59	\$2.38	\$2.38	\$3.17	
All Offshore Area at \$0.7	'9				

Pay in Exploitation Areas = (Volume Production – Royalty - % ANH) * \$0.12 US per barrel

PARTICIPATION IN PRODUCTION, X% in Clause 40 of the ANH Contract

The Contractor will pay to ANH an economic right (X%), calculated as a percentage of the production after royalties, which applies only for certain contracts that result from competitive bidding processes. On such participation, the contractor will not pay fees for use of land or rights for High Prices.

Forecast Crude Oil Prices

The July 31, 2012 oil price for West Texas Intermediate on the NYMEX Oil Futures closed at \$88.06 per barrel and the Vasconia crude oil price (Latin American Platts) closed at \$99.19 per barrel. The forecast oil prices are based on the monthly closing of NYMEX oil futures of WTI and Brent oil prices; then adjusted to Vasconia pricing. All future crude oil prices were taken from NYMEX (<u>www.cmegroup.com</u>) on the last day of trading in July 2012. The historical prices for oil were taken from Sproule and Associates Inc. Forecast oil prices after 2017 are escalated at 2% per year thereafter. The following summarizes the forecast prices used in this evaluation as follows:

	WTI Crude Oil @ 40 [°] API	Brent Oil @ 39 ⁰ API	Vasconia Oil @ 25 ⁰ API	Salada and Galembo Oil @ 34 ⁰ API	Tablazo Oil @ 40 ⁰ API	Lisama Oil @ 21 ⁰ API
Year	(\$/bbl)	(\$/bbl)	(\$/bbl)	(\$/bbl)	(\$/bbl)	(\$/bbl)
2006	66.09	65.15				
2007	72.27	72.57				
2008	99.59	97.06				
2009	62.09	61.53				
2010	79.43	79.48				
2011	91.40	111.22	106.94			
Aug-12	88.58	103.76	96.17	97.37	100.02	94.73
2013	90.30	101.28	95.79	96.99	99.62	94.35
2014	89.45	98.35	93.90	95.10	97.66	92.49
2015	88.60	96.05	92.32	93.52	96.01	90.94
2016	88.54	94.91	91.72	92.92	95.39	90.34
2017	88.86	94.53	91.70	92.90	95.37	90.32

The Salada and Galembo oil is priced at 34°API, the Tablazo oil is priced at 40°API and the Lisama oil is priced at 21°API with the reference of Vasconia oil at 25°API. All prices are then escalated at 2% per year after 2017. The inflation index in Colombia for 2012 was 3.1% per year and this escalation factor is used throughout the life of the forecast.

CERTIFICATE OF QUALIFICATION

I, JOHN YU, P. Eng., with an office at 7536 Manzanita Place, Burnaby, British Columbia hereby certify

1. That I am a Consulting Petroleum Engineer employed by Petrotech Engineering Ltd., which has prepared a report on the interests for Sintana Energy Inc. during the months from August to November 2012.

2. That Petrotech Engineering Ltd.'s officers or its employees have no direct or indirect interests, nor do they expect to receive any direct or indirect interest, in the properties or in any securities of Sintana Energy Inc.

3. That I attended the University of Alberta and that I graduated with a Bachelor of Science in Metallurgical Engineering in 1974. That I am a registered Professional Engineer in the Province of British Columbia and that I have in excess of thirty-eight years of experience in engineering studies, evaluation of oil and gas properties, drilling, completion, production and process engineering of oil and gas operations and evaluation of mineral properties in Canada, U. S. A., Guatemala, Nicaragua, Colombia, Australia, New Zealand, China, Kazakhstan, Russian Federation, United Arab Emirates, North Sea, Argentina, Cameroon, Peru, Thailand and Indonesia.

4. That I am a qualified evaluator and auditor as defined in National Instrument 51-101.

5. That a field inspection was deemed unnecessary due to the availability of public data and from the Company's records.



John Yu, Professional Engineer Reg. No. B. C. – 12068

I Geology of the Middle Magdalena Valley Basin in Colombia

The north-western corner of South America where Colombia is located has experienced different geological events that have controlled the distribution, genesis, basin fill and bounding structures of the sedimentary basins. Colombia can be divided into three main tectonic domains as follows:

- 1. The Eastern region, limited to the west by the foothills of the Eastern Cordillera. It consists of Palaeozoic and Precambrian basements with a Palaeozoic-Cenozoic sedimentary cover that has undergone mild deformation.
- 2. The Central region comprised of the Eastern Cordillera, Sierra Nevada de Santa Marta, the Magdalena River valley and the Central Cordillera, extending as far as the Romeral fault system to the west. A sedimentary-metamorphic cover rests on a Grenvillian basement believed to have been accreted to the South American border during Palaeozoic times.
- 3. The Western region, located at the west of the Romeral fault system, composed of Mesozoic-Cenozoic oceanic terranes that were accreted to the Continental margin during the Cretaceous, Palaeogene and Neocene.

Lower Palaeozoic marine and coastal siliciclastic and carbonate sediments are distributed throughout the Eastern region (Llanos Basin) and extend into the Central region (Upper Magdalena Valley). These deposits are very fossilliferous and range from Middle Cambrian to Llanvirnian in age. Trilobites, brachiopods and graptolites in grey to black shale are reported from outcrops in the Upper Magdalena Valley and in many wells drilled in the Eastern Llanos Basin. In some places, the thermal maturity of these Lower Palaeozoic sequences indicates appropriate conditions for hydrocarbon generation.

Dated Lower Palaeozoic intrusives outcrop along the Eastern Cordillera and Upper Magdalena basins of the Central region. These intrusives crosscut a low-grade metamorphic sequence and are overlain by the Upper Palaeozoic sedimentary rocks. Folding, metamorphic and granitic intrusions are probably the result of eastward-directed subduction. This region's tectonic event is known as the Caparonensis Orogeny. The sedimentary sequences in this area consist of marine black shale and continental red-beds of Devonian age. In some places, this continental Devonian is followed by an Upper Carboniferous (Pennsylvanian) consisting of limestone, conglomerates, sandstone and graphitic shale with abundant marine fauna. Permian rocks are absent in the southern portion of the Central Region. However, farther to the north in the Santander Massif, Serrania de Perija and Sierra Nevada de Santa Marta, fossiliferous limestone of Lower Permian age has been reported. Folding and granitic intrusions related to shear zones might represent oblique collision and accretion of Upper Palaeozoic rocks during formation of the Pangaea sub-continent.

Development of most of the Colombian sedimentary basins began in the Late Triassic during the break-up of Pangaea. Early Jurassic to Lower Cretaceous sediments were deposited in a northwest-southeast-northeast trending, highly irregular rift system now underlying the Upper Cretaceous to Neocene sedimentary cover. The post–rift phase of the system is characterized by the formation of widespread sag due to the thermal subsidence that, together with global eustatic sea level changes during Middle Albian and Turonian times, created the organic-matter-rich

sediments of the Simiti-Tablazo Tétuan and La Luna source rocks. These formations are responsible for generating most of the hydrocarbon found in Colombia.

The Late Cretaceous-Palaeogene exhumation of the Central and Eastern Cordilleras was linked to the oblique accretion of oceanic rocks; as a result, a transition from marine near-shore to continental sedimentary deposits took place. Growth unconformities and fluvial siliciclastic sequences above them, characterized by intense volcanic activity in the western edge of the Central Region (Central Cordillera), are linked to a collision event. Consequently, the fluvial deposits of the intermontane basins east and west of the Romeral fault system are rich in volcano-clastics (e.g. La Paila, Combia, Honda and Mesa formations). These thick molassic deposits represent the overburden sequences to most of the petroleum systems of the Colombian basins.

Initial basin geometry in Colombia was drastically modified by the Campian and Miocene collision events. The Campian-Masstrichtian collision of the oceanic rocks to the west gave rise to development of the Colombian foreland-basin system. By the Early Miocene, a second major transpression event produced by the collision of the Central America Island Arc broke apart the widespread foreland basin system, creating a number of broken-foreland basins. This final configuration is portrayed in the sedimentary basins of Colombia.

The Western Region, located west of the Romeral fault system, is composed of mafic and ultramafic rocks, deep-water siliceous shale, turbidites and minor carbonates. Their stratigraphic relationship is poorly known so far. The tectonics of this region is complex and some of these complexities are a collage of sedimentary/tectonic units that were highly deformed during oblique collision events.

By Campanian-Maastrichtian times, the sequence of the turbiditic sandstone, siliceous mudstone, calcareous sandstone and black and green shale rich in organic matter developed. What is now known as the Niogales Formation is presumably the source rock of the oil seep present in the Patia sub-basin. Most of the geoscientists who have worked in the Western Region believe it to be composed of a still unknown number of allocthonous terranes. The general agreement is that the Western Region is part of the Caribbean plate that moved during the Late Cretaceous from a Pacific Ocean location to its present location. The precise dynamics and kinematics of this paradigm are still poorly understood.

An important conclusion of the assumed displacement and diachronous oblique collision of the Western Region against the Continental margin of Western Colombia is the need for new kinematic models to explain the deformation of the Central and Eastern Regions.

Middle Magdalena Valley Basin - VMM 37 Block

Basin Boundaries

The Middle Magdalena Valley Basin of Colombia is a poly-historic Rift to Broken Foreland Basin. The Basin is located along the central reaches of the Magdalena River Valley between the Central and Eastern Cordilleras of the Colombian Andes. The exploratory process has been oriented mainly towards the identification of structural traps in the Palaeocene sequences. Stratigraphic subtle traps have not adequately been studied yet. The sedimentary record shows a succession of Jurassic continental deposits overlaid by Cretaceous sediments, and both the calcareous and siliciclastic are of transitional to marine origin. The Palaeocene sequence is made up of siliciclastic rocks deposited mainly under continental conditions with some marine influence. Three major deformational phases are presents in the basin, which are responsible for all types of trap geometries: rifting, thrusting and wrenching.

Hydrocarbon evidence

A century of exploration history in the basin has led to the discovery of about 1,900 MMBO, 2.5 Tcf of gas and a total of 41 fields, including the first giant in Colombia, La Cira-Infantas field.

Source

Cretaceous limestones and shales of the La Luna and the Simiti-Tablazo formations are the main source rocks in the basin. TOC are high (1% to 6%) and organic matter is essential Type II Marine, Ro reach values of 0.6% to 1.2 %. The main source rocks were deposited during two worldwide anoxic events. The Galembo and Salada formations are sub-group within the La Luna Formation with Salada in the lower section and Galembo in the upper section (see Figures II-16 to II-19).

Migration

The Eocene unconformity separates the primary reservoir from the underlying active source rocks, forming an ideal plumbing system for the migration of petroleum. Major migration pathways consist of the following:

- 1) Direct vertical migration where La Luna sub-crops the Eocene unconformity,
- 2) Lateral migration along the Eocene sandstone carrier,
- 3) Vertical migration via faults in areas where the La Luna does not sub-crop the Eocene unconformity.

Critical period occurs during the Upper Neocene and continue locally today.

Reservoir

Ninety seven percent of the proven oil in the basin comes from continental Palaeocene sandstones (Palaeocene-Miocene), the Lisama, the Esmeraldas-La Paz and the Colorado-Mugrosa formations, with average porosities 15% to 20% and average permeabilities of 20 to 600 mD. Lightly explored reservoirs are fractured systems of the Cretaceous Limestones Basal Limestone Group and the sub-group of Galembo and Salada within the La Luna Formation.

Seal

The seals for Palaeocene sandstone reservoirs consist of interbedded, non-marine, ductile claystones, mainly from the Esmeraldas and Colorado formations. The seals for potential Cretaceous limestone reservoirs are marine shales of the Simiti and Umir formations.

Trap

Exploration has been directed to prospecting accumulations in structural closures formed by major asymmetric anticlines, among them:

- 1) Contractional fault-related folds hidden beneath surface thrust,
- 2) Duplex structures with fault independent closure,
- 3) Fault-dependent closures in which reservoir strata dip away from the fault,
- 4) Very important traps in the low side of sealing faults.

Prospectivity

The Middle Magdalena Basin is one of the most explored basins of Colombia where 41 fields have been discovered on Palaeocene deposits. Surprisingly it still contains one of the most prolific areas yet to be explored: the Cretaceous carbonate plays.

Potential exploration areas are mainly related to inverted normal faults and sub-thrust anticlines. Subtle stratigraphic traps associated with Miocene-Upper Eocene onlaps, incised channels and truncations are also major objectives for future exploration.

Unconventional Resources

As mentioned in the *Source*, the La Luna and the Simiti-Tablazo formations are the main source rocks in the basin. Therefore, they are the main unconventional targets. The basin is highly-charged with geochemical characteristics of the Cretaceous section as follows:

Formation	TOC, %	Ro, %	SCI	TAI	API, degree
Umir	0.25-5.42	0.87	6.09	1.90	24
La Luna	0.12-12.23	1.25	6.56	2.50	24 - 34
Simiti	0.19-6.52	1.21	7.47	2.50	
Tablazo	0.03-9.66	1.24	7.08	2.60	18.5 - 19.5

This data is taken from Ecopetrol Cagui-1 Well report in 2005 and is presented in the Sintana G&G Report.



Figure I-1 Three Tectonic Domains in Colombia

RIOD	STRATIGRAPHIC	PRODUCING	PRODUCING LITHOLOGY ESSENTIAL ELEMENTS			RODUCING LITHOLOGY ESSENTIAL PI ELEMENTS GF		ESSENTIAL ELEMENTS		PROCE GENER MIGR/	ATION, ATION
PE				RESERV SOURCE	SEAL	TRAP 2	FORMATION	ACCUMULATIO			
0	Mesa Fm.	11		-	-	2	and a	§ .			
NEOGENE	Real Gp.					Inversion - Thrusting / Wrench	nres	Main Generation / Migrat Pulse For La Luna Fm			
	La Cira Shale	-	the second			E.	struct	- Basin			
	Colorado Fm.	Palagua - Velásquez Casabe - Galán La Cira - Infantas		Main			rowih Cl S	grafion Fm. Isrgin Of B			
	Mugrosa Fm,	Casabe - Tesoro		Main Main			steady G	n La Luna he East M			
OGENI	Esmeraļdas Fm,	La Cira - Infantas Lisama Opon - Provincia Cantagallo - Yarigui		Main		sting Begins	No.	First Pr From			
ALE	La Paz Fm,	Cristalina - Bonanza		Main		an - Thru		egins in L			
	Lisama Fm.	Provincia - Payoa	A	Reservo and sea (seconda	ir I Iy)	ial Structural Inversi	2 K	From Tablazo Fm.			
	Umir Fm,		Ŧ	Birrent		12		Gane			
Ξ	La Luna Fm.			Becentry Minor							
3	Simiti Fm.	1		CREWING .							
TA.C	Tablazo Fm, 👷			Gecentary Maile							
C R E	Paja Fm,	20	==			Block	++++				
	Rosablanca F.	ă		Bocontary		- unition					
	Los Santos Fm.	-				Schertz	1000				
ASSIC	Giron Gp.	1	The second second			۳ س	and.				

Figure I-2 Stratigraphic Chart of the Middle Magdalena Valley Basin

II Evaluation of VMM 37 Block in the Middle Magdalena Valley Basin

Exploration & Production (E&P) contract of the VMM 37 Block dated March 1, 2011 was awarded from the Agencia de Nacional Hidrocarburos (ANH) to Patriot Energy Sucursal Colombia. Production is subject to the standard sliding scale of the ANH royalty rates (see ANH Royalty Rates) and an additional X% which is 1% for this block.

The VMM 37 block has an area of 17,465.4374 hectares near the municipality of Yondo in the Department of Antioquia. Under the ANH Contract, the minimum work program commitments are as follows:

Phase	Duration	<u>Minimum Work Program Commitments</u>	Amount, \$US
0	6 months	Identify presence of ethnic groups in the	
		exploratory area and provide notification and	
		consultation with the community of the	
		exploration activities.	
1	36 months	Drill 1 exploratory well A3	3,000,000
2	36 months	Drill 2 exploratory wells A3	6,000,000
		or Drill 1 exploratory well and relinquish 50%	or 3,000,000
		of the Contract area	
		Total Minimum Work Program:	6,000,000 or 9,000,000

Additional Exploratory Program:

Phase	Duration	Additional Exploratory Commitments	Amount, \$US
1	36 months	Acquire, process and interpret 50 km of 2D	2,000,000
		seismic	
		Drill 2 exploratory well A3	6,000,000
		Total Additional Exploratory Program:	8,000,000
		Total Work Program:	14,000,000 or
		_	17,000,000

Acquisition of VMM 37 Block

On March 12, 2012, the Company has signed a "Business Combination" with ColCan Energy Corp., a private Canadian company under the laws of Ontario. The principal purpose of the "Business Combination" is to combine the oil and gas assets held by the Company with those owned by ColCan in Colombia. Previous to this transaction, ColCan has acquired a 100% working interest of VMM 37 Block from Patriot Energy Services LLC Corp., a Panamanian company for \$9,466,667 US and 8,533,333 shares of ColCan. This "Business Combination" was completed on May 18, 2012. ColCan has provided the combined entity with working interests in the VMM 4, VMM 15 and VMM 37 Blocks in the Middle Magdalena Valley Basin and LLA 18 Block in the Eastern Llanos Basin. The Company has provided the combined entity with working interests in the Talora, COR 11 and COR 39 Blocks in the Upper Magdalena Basin and the Block XXVII (Bayovar) in the Sechura Basin, Peru. The resulting working interests of all blocks of the combined entity are as follows:

Block Name	Working Interests	<u>Basin</u>	Country
VMM 4 VMM 15	25% 25%	Middle Magdalena Valley Middle Magdalena Valley	Colombia Colombia
VMM 37	100%	Middle Magdalena Valley	Colombia
LLA 18	25%	Eastern Llanos	Colombia
Talora	30%	Upper Magdalena Valley	Colombia
COR 11	30%	Upper Magdalena Valley	Colombia
COR 39	30%	Upper Magdalena Valley	Colombia
Bayovar	25%	Sechura	Peru

In the previous resource evaluation for ColCan, the prospective resources for three prospects and four leads remain the same in the Mugrosa and Esmeralda/La Paz Formations (see Appendix D) and these prospective resources have not been updated.

For the purpose of this evaluation, the Company has farmed-out 70% working interest of the unconventional resources in the Tablazo, Salada and Galembo Formations to ExxonMobil Exploration Colombia Limited who will pay 100% of the exploration costs of the first three wells to drill down to the Tablazo Formation. In the first three exploratory wells to the Tablazo, the drilling will likely encounter the Lisama Formation and the farmee will provide the electric log of this section for evaluation at no cost to the Company. The Company is to retain 100% working interest in the Lisama Formation. If hydrocarbon is encountered in the Lisama, the subsequent testing and development of this formation will be borne by the Company.

Until the prospective resources are updated to reserves, the additional participation interests under the ANH's E&P contracts are not considered (see ANH Royalties section).

Exploration History in the Area

Much of the exploration activities in the area were conducted between 1940 and 1980. The Cantagallo and Llanito Fields were discovered in 1943 and 1958 respectively. The Pedral-1 and La Coquera-1 wells were drilled but limited data was obtained. To the east of the block, the Bosques-1 was drilled in 1954 and the Bosques-3 well was drilled in 1987. No commercial discovery has been made in block.

Evaluation

From the available 2D seismic data within the VMM 37 Block, five prospects have been identified in the Palaeocene Lisama sandstone (Wedge 1 and Wedge 2) and the unconventional source rocks of the Cretaceous Galembo, Salada (both sub-groups of the La Luna) and Tablazo limestone.

From the 2-D seismic data, two wedges in the Lisama Formation have been mapped with the wedges overlapping each other (see Figures II-5 to II-11). From surrounding wells that have been drilled to the Galembo, Salada and Tablazo Formations and from the 2-D seismic data, both of these formations have been mapped to contain thick sections (see Figures II-12 to II-20).

For the Lisama Formation, both Wedge 1 and Wedge 2 are to be explored in the conventional method with vertical wells drilled and completed for production. In the overlapping area of the wedges, the vertical wells are to be drilled separately at this time as there is insufficient technical information to have completion one on top of each other.

For the Tablazo, Salada and Galembo Formations, the exploratory well is to be drilled vertically to identify the potential hydrocarbon sections in these formations. Completion is to start from the Tablazo by horizontal drilling of approximately a 5,000-foot lateral with multi-stage fracture stimulation over a 300-foot gross vertical section. Once the production is depleted, then it moves to the Salada section above the Tablazo to drill a horizontal section of approximately another 5,000-foot lateral and then completed with a multi-stage stimulation of a 200-foot gross vertical section. This process is repeated twice in the Salada Formation as it is quite thick and the effectiveness of the horizontal drainage with multi-stage fracture stimulation is only good for about 200 feet of net vertical section. When the approximately 400 feet gross section of the Salada production depleted, then it comes uphole to the Galembo to repeat the same horizontal drilling twice.

For the purpose of this evaluation, an additional evaluation is conducted with only the Salada and Galembo Formations without the Tablazo Formation in the event that the Tablazo is not successful.

Analogue Field and Production Data

The analogue and production data in this area is from old fields which have been operated by Ecopetrol in Magdalena Medio (2218) and Sogamoso (2409) with production from the La Luna Formation (see Figure II-1) and from Yarigui-Cantagallo, Los Angeles, Santa Lucia, Cristalina and Dona Maria Fields in the Lisama Formation.

Capital Costs of the Lisama Formation (100% Working Interest - Unescalated)

				100% W.I.	Co.'s W.I.
Estimate	Year	Work Program		Costs, M\$	Costs, M\$
Low	2013	Drill and complete 8 wells	Lisama Wedge 1	48,000	48,000
		Production Facilities	Lisama Wedge 1	6,000	6,000
		Drill and complete 8 wells	Lisama Wedge 2	48,000	48,000
		Production Facilities	Lisama Wedge 2	4,000	4,000
	2014	Drill and complete 8 wells	Lisama Wedge 1	72,000	72,000
		Production Facilities	Lisama Wedge 1	2,000	2,000
		Drill and complete 12 wells	Lisama Wedge 2	36,000	36,000
		Production Facilities	Lisama Wedge 2	6,000	6,000
	2015	Drill and complete 2 wells	Lisama Wedge 2	12,000	12,000
		Production Facilities	Lisama Wedge 2	2,000	2,000
		Total Low Estimate		236,000	236,000
<u>Best</u>	2013	Drill and complete 8 wells	Lisama Wedge 1	48,000	48,000
		Production Facilities	Lisama Wedge 1	11,800	11,800
		Drill and complete 8 wells	Lisama Wedge 2	48,000	48,000
		Production Facilities	Lisama Wedge 2	14,400	14,400
	2014	Drill and complete 12 wells	Lisama Wedge 1	72,000	72,000

		Production Facilities	Lisama Wedge 1	15,200	15,200
		Drill and complete 12 wells	Lisama Wedge 2	72,000	72,000
		Production Facilities	Lisama Wedge 2	18,400	18,400
	2015	Drill and complete 12 wells	Lisama Wedge 1	72,000	72,000
		Production Facilities	Lisama Wedge 1	8,600	8,600
		Drill and complete 12 wells	Lisama Wedge 2	72,000	72,000
		Production Facilities	Lisama Wedge 2	10,600	10,600
	2017	Drill and complete 7 wells	Lisama Wedge 2	42,000	42,000
		Total Best Estimate	C C	505,000	505,000
High	2013	Drill and complete 8 wells	Lisama Wedge 1	48.000	48.000
		Production Facilities	Lisama Wedge 1	22.000	22,000
		Drill and complete 8 wells	Lisama Wedge 2	48.000	48,000
		Production Facilities	Lisama Wedge 2	32,000	32,000
	2014	Drill and complete 12 wells	Lisama Wedge 1	72,000	72,000
		Production Facilities	Lisama Wedge 1	30,000	30,000
		Drill and complete 12 wells	Lisama Wedge 2	72,000	72,000
		Production Facilities	Lisama Wedge 2	40,000	40,000
	2015	Drill and complete 12 wells	Lisama Wedge 1	72,000	72,000
		Production Facilities	Lisama Wedge 1	16,000	16,000
		Drill and complete 12 wells	Lisama Wedge 2	72,000	72,000
		Production Facilities	Lisama Wedge 2	24,000	24,000
	2016	Drill and complete 12 wells	Lisama Wedge 1	72,000	72,000
		Drill and complete 12 wells	Lisama Wedge 2	72,000	72,000
	2017	Drill and complete 12 wells	Lisama Wedge 1	72,000	72,000
		Drill and complete 12 wells	Lisama Wedge 2	72,000	72,000
	2018	Drill and complete 12 wells	Lisama Wedge 1	72,000	72,000
		Drill and complete 12 wells	Lisama Wedge 2	72,000	72,000
	2019	Drill and complete 2 wells	Lisama Wedge 1	12,000	12,000
		Drill and complete 6 wells	Lisama Wedge 2	36,000	36,000
		Total High Estimate		1,028,000	1,028,000

Capital Costs of the Salada and Galembo Formations (30% Working Interest - Unescalated)

				100% W.I.	Co.'s W.I.
Estimate	Year	Work Program		Costs, M\$	Costs, M\$
Low	2013	Drill and complete 7 wells	Salada & Galembo	64,000	19,200
		Production Facilities	Salada & Galembo	6,200	1,860
	2014	Drill and complete 12 wells	Salada & Galembo	192,000	57,600
		Production Facilities	Salada & Galembo	10,000	3,000
	2015	Drill and complete 12 wells	Salada & Galembo	192,000	57,600
		Production Facilities	Salada & Galembo	13,600	4,080
	2016	Drill and complete 12 wells	Salada & Galembo	192,000	57,600
		Production Facilities	Salada & Galembo	8,600	2,580
	2017	Drill and complete 12 wells	Salada & Galembo	192,000	57,600
		Production Facilities	Salada & Galembo	12,400	3,720
	2018	Drill and complete 10 wells	Salada & Galembo	160,000	48,000
		Production Facilities	Salada & Galembo	10,800	3,240
	2019	Drill and complete 12 wells	Salada & Galembo	192,000	57,600

	Production Facilities	Salada & Galembo	11,800	3,540
2020	Drill and complete 12 wells	Salada & Galembo	192,000	57,600
	Production Facilities	Salada & Galembo	3,400	1,020
2021	Drill and complete 12 wells	Salada & Galembo	192,000	57,600
2022	Drill and complete 12 wells	Salada & Galembo	192,000	57,600
2023	Drill and complete 11 wells	Salada & Galembo	176,000	52,800
	Total Low Estimate		2,012,800	603,840
2013	Drill and complete 10 wells	Salada & Galembo	112,000	33,600
	Production Facilities	Salada & Galembo	20,800	6,240
2014	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
	Production Facilities	Salada & Galembo	34,000	10,200
2015	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
	Production Facilities	Salada & Galembo	37,200	11,160
2016	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
	Production Facilities	Salada & Galembo	30,400	9,120
2017	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
	Production Facilities	Salada & Galembo	33,600	10,080
2018	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
	Production Facilities	Salada & Galembo	30,400	9,120
2019	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
	Production Facilities	Salada & Galembo	40,200	12,060
2020	Drill and complete 18 wells	Salada & Galembo	288,000	288,000
	Production Facilities	Salada & Galembo	27,200	27,200
2021	Drill and complete 18 wells	Salada & Galembo	288,000	288,000
	Production Facilities	Salada & Galembo	2,000	2,000
2022	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
2023	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
2024	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
2025	Drill and complete 18 wells	Salada & Galembo	288,000	86,400
2026	Drill and complete 16 wells	Salada & Galembo	256,000	76,800
	Total Best Estimate		4,079,800	1,647,580
2013	Drill and complete 13 wells	Salada & Galembo	160,000	48,000
	Production Facilities	Salada & Galembo	44,400	13,320
2014	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
	Production Facilities	Salada & Galembo	73,000	21,900
2015	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
	Production Facilities	Salada & Galembo	69,000	20,700
2016	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
	Production Facilities	Salada & Galembo	73,000	21,900
2017	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
	Production Facilities	Salada & Galembo	50,800	15,240
2018	Drill and complete 24 wells	Salada & Galembo	384,000	115,200

<u>High</u>

	Total High Estimate		5,496,200	1,648,860
2026	Drill and complete 20 wells	Salada & Galembo	320,000	96,000
2025	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
2024	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
2023	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
2022	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
	Production Facilities	Salada & Galembo	33,400	10,020
2021	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
	Production Facilities	Salada & Galembo	82,600	24,780
2020	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
	Production Facilities	Salada & Galembo	59,400	17,820
2019	Drill and complete 24 wells	Salada & Galembo	384,000	115,200
	Production Facilities	Salada & Galembo	82,600	24,780

Capital Costs of the Tablazo, Salada and Galembo Formations (30% Working Interest - Unescalated)

				100% W.I.	Co.'s W.I.
Estimate	Year	Work Program		Costs, M\$	Costs, M\$
Low	2013	Drill and complete 7 wells	Tablazo, Salada & Galembo	76,000	22,800
		Production Facilities	Tablazo, Salada & Galembo	6,600	1,980
	2014	Drill and complete 12 wells	Tablazo, Salada & Galembo	228,000	68,400
		Production Facilities	Tablazo, Salada & Galembo	11,200	3,360
	2015	Drill and complete 12 wells	Tablazo, Salada & Galembo	228,000	68,400
		Production Facilities	Tablazo, Salada & Galembo	12,200	3,660
	2016	Drill and complete 12 wells	Tablazo, Salada & Galembo	228,000	68,400
		Production Facilities	Tablazo, Salada & Galembo	10,000	3,000
	2017	Drill and complete 12 wells	Tablazo, Salada & Galembo	228,000	68,400
		Production Facilities	Tablazo, Salada & Galembo	12,800	3,840
	2018	Drill and complete 10 wells	Tablazo, Salada & Galembo	190,000	57,000
		Production Facilities	Tablazo, Salada & Galembo	9,000	2,700
	2019	Drill and complete 12 wells	Tablazo, Salada & Galembo	228,000	68,400
202 202 202 202 202		Production Facilities	Tablazo, Salada & Galembo	11,800	3,540
	2020	Drill and complete 12 wells	Tablazo, Salada & Galembo	228,000	68,400
		Production Facilities	Tablazo, Salada & Galembo	12,000	3,600
	2021	Drill and complete 12 wells	Tablazo, Salada & Galembo	228,000	68,400
		Production Facilities	Tablazo, Salada & Galembo	10,000	3,000
	2022	Drill and complete 12 wells	Tablazo, Salada & Galembo	228,000	68,400
		Production Facilities	Tablazo, Salada & Galembo	600	180
	2023	Drill and complete 11 wells	Tablazo, Salada & Galembo	209,000	62,700
		Total Low Estimate		2,395,200	718,560
Best	2013	Drill and complete 10 wells	Tablazo, Salada & Galembo	133,000	39,900
		Production Facilities	Tablazo, Salada & Galembo	14,600	4,380

2014	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
	Production Facilities	Tablazo, Salada & Galembo	27,200	8,160
2015	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
	Production Facilities	Tablazo, Salada & Galembo	31,800	9,540
2016	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
	Production Facilities	Tablazo, Salada & Galembo	3,400	1,020
2017	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
	Production Facilities	Tablazo, Salada & Galembo	37,200	11,160
2018	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
	Production Facilities	Tablazo, Salada & Galembo	30,400	9,120
2019	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
	Production Facilities	Tablazo, Salada & Galembo	33,600	10,080
2020	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	342,000
	Production Facilities	Tablazo, Salada & Galembo	30,400	9,120
2021	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
	Production Facilities	Tablazo, Salada & Galembo	5,400	1,620
2022	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
2023	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
2024	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
2025	Drill and complete 18 wells	Tablazo, Salada & Galembo	342,000	102,600
2026	Drill and complete 16 wells	Tablazo, Salada & Galembo	304,000	91,200
	Total Best Estimate		4,755,000	1,665,900
2013	Drill and complete 13 wells	Tablazo, Salada & Galembo	190,000	57,000
	Production Facilities	Tablazo, Salada & Galembo	10,000	3,000
2014	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	Production Facilities	Tablazo, Salada & Galembo	76,600	22,980
2015	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	Production Facilities	Tablazo, Salada & Galembo	64,000	19,200
2016	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	Production Facilities	Tablazo, Salada & Galembo	82,600	24,780
2017	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	Production Facilities	Tablazo, Salada & Galembo	38,800	11,640
2018	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	Production Facilities	Tablazo, Salada & Galembo	93,400	28,020
2019	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	Production Facilities	Tablazo, Salada & Galembo	48,600	14,580
2020	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	Production Facilities	Tablazo, Salada & Galembo	93,400	28,020
2021	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	Production Facilities	Tablazo, Salada & Galembo	43,200	12,960
2022	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	Production Facilities	Tablazo, Salada & Galembo	87,600	26,280
2023	Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
	L		,	,

<u>High</u>

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Drill and complete 20 wells	Tablazo, Salada & Galembo	380,000	114,000
Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
Production Facilities	Tablazo, Salada & Galembo	4,200	1,260
Drill and complete 24 wells	Tablazo, Salada & Galembo	456,000	136,800
Production Facilities	Tablazo, Salada & Galembo	50,200	15,060
F	Production Facilities Drill and complete 24 wells Production Facilities	Production FacilitiesTablazo, Salada & GalemboDrill and complete 24 wellsTablazo, Salada & GalemboProduction FacilitiesTablazo, Salada & Galembo	Production FacilitiesTablazo, Salada & Galembo50,200Drill and complete 24 wellsTablazo, Salada & Galembo456,000Production FacilitiesTablazo, Salada & Galembo4 200

Operating Costs

Fixed Operation Cost	\$20,000 per well/month
Variable Operating Cost	\$18.00 per barrel
Transportation Cost	\$10.00 per barrel
Cost Escalation	3.1% per year according to Mundi Index for Colombia
Economic Parameters	
Working Interests	100% for Lisama Formation
	30% for Tablazo, Salada and Galembo Formations
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Oil Price	See Forecast Oil Prices
Drilling Costs	\$16,000,000 per well to the Tablazo Formation
	\$14,000,000 per well to the Salada Formation
	\$6,000,000 per well to the Lisama Formation
Completion/Stimulation	\$3,000,000 for the horizontal multi-stage fracture stimulation
Horizontal Lateral of	\$2,000,000 per lateral of approximately 5,000 feet
Production Facilities	\$2,000,000 per 1,000 bopd
Recompletion	\$5,000,000 with horizontal drilling of 5,000 feet horizontal lateral
	plus multi-stage fracture stimulation
Cost of Initial 3 Wells	No drilling cost to the Company to the Tablazo Formation and
	30% share of the completion costs in the Tablazo Formation
Abandonment	\$400,000 per well net of salvage values
Phase 2 Work Program	\$45 million to be paid by Farmee but the Company has to pay back
	\$10 million from first production.
Effective Date	July 31, 2012

Prospective Resources

Prospective resources (prospects) are assigned based on volumetric estimations of the mapping of the Lisama Formation in the Wedge 1 and Wedge 2 for conventional resources and based on volumetric estimations of the mapping of the Tablazo, Salada and Galembo Formations for unconventional resources. The well drainage for the Lisama well is 80 acres per vertical well. The well drainage for the horizontal lateral Tablazo, Salada and Galembo is approximately 120 acres per well. Volumetric estimation of the resources and the geological chance of success and chance of development assessment in the formation are provided in the latter part of this section.

Initial Production and Decline Rates

Estimate	Prospect	Formation	Initial Daily Rate	Average Monthly Decline Rate
Low	1	Lisama Wedge 1	423	4.00%
	2	Lisama Wedge 2	367	4.00%
	3	Tablazo	700	4.00%
		Salada	675	4.00%
		Galembo	675	4.00%
Best	1	Lisama Wedge 1	1,091	5.00%
	2	Lisama Wedge 2	1,328	5.00%
	3	Tablazo	1,107	4.25%
		Salada	1,601	5.50%
		Galembo	1,601	5.50%
High	1	Lisama Wedge 1	2,076	5.00%
	2	Lisama Wedge 2	2,941	5.00%
	3	Tablazo	2,386	4.25%
		Salada	2,670	6.00%
		Galembo	2,670	6.00%

The initial estimated oil rate is based on daily production per well as follows:
Resource Category:

Prospect Location

VMM 37 Block in the Middle Magdalena Valley Basin

Prospective Resource (Prospects)

Formation	Lisama Wedge 1	Lisama Wedge 1	Lisama Wedge 1
Well Depth (feet)	8,500 - 9,000	8,500 - 9,000	8,500 - 9,000
Resource Estimates	Low	Best	High
Area (acre)	1,160	3,100	5,600
Gross Pay (feet)			
Net-to-Gross	100%	100%	100%
Net Pay (feet)	46	51	57
Effective Volume (acre-feet)	53,360	158,100	319,200
Geometric Factor	0.85	0.85	0.85
Net Volume (acre-feet)	45,356	134,385	271,320
Porosity	15.0%	21.0%	27.0%
Water Saturation	55.0%	45.0%	35.0%
Formation Volume Factor (rb/stb)	1.10	1.10	1.10
Petroleum Originally in Place (stb/acre-ft)	476	815	1,238
Petroleum Originally in Place (Mbbl)	21,592	109,469	335,827
Recovery factor	15.0%	17.5%	20.0%
Recoverable (Mbbl)	3,238.8	19,157.0	67,165.5
Cumulative Production (Mbbl)	-	-	-
Remaining Recoverable (Mbbl)	3,238.8	19,157.0	67,165.5
Gravity of Oil (degree API)	21	21	21
No. of Wells	14.50	38.75	70.00
Recoverable per well (Mbbl)	231.34	504.13	959.51

The oil gravity is based on the average gravity from Yarigui-Cantagallo, Los Angeles, Santa Lucia, Cristalina and Dona Maria Fields in the area.

Probability of Success Assessment

Description	Percentage	Description	Percentage
Reservoir	90	Trap	60
Source	100	Reservoir	60
Regional Seal	90	Seal	90
		Migration	90
		Timing	80
Play Chance	81	Prospect Chance	23.3

Chance of Discovery = 18.9% Chance of Development = 100%

Resource Category:

Prospect Location

VMM 37 Block in the Middle Magdalena Valley Basin

Prospective Resource (Prospects)

Formation	Lisama Wedge 2	Lisama Wedge 2	Lisama Wedge 2
Well Depth (feet)	8,800 - 9,300	8,800 - 9,300	8,800 - 9,300
Resource Estimates	Low	Best	High
Area (acre)	1,820	4,100	5,975
Gross Pay (feet)			
Net-to-Gross	100%	100%	100%
Net Pay (feet)	40	63	80
Effective Volume (acre-feet)	72,800	258,300	478,000
Geometric Factor	0.85	0.85	0.85
Net Volume (acre-feet)	61,880	219,555	406,300
Porosity	15.0%	21.0%	27.0%
Water Saturation	55.0%	45.0%	35.0%
Formation Volume Factor (rb/stb)	1.10	1.10	1.10
Petroleum Originally in Place (stb/acre-ft)	476	815	1,238
Petroleum Originally in Place (Mbbl)	29,459	178,847	502,899
Recovery factor	15.0%	17.5%	20.0%
Recoverable (Mbbl)	4,418.8	31,298.3	100,579.9
Cumulative Production (Mbbl)	-	-	-
Remaining Recoverable (Mbbl)	4,418.8	31,298.3	100,579.9
Gravity of Oil (degree API)	21	21	21
No. of Wells	22.75	51.25	74.69
Recoverable per well (Mbbl)	200.85	613.69	1,359.19

The oil gravity is based on the average gravity from Yarigui-Cantagallo, Los Angeles, Santa Lucia, Cristalina and Dona Maria Fields in the area.

Probability of Success Assessment

Description	Percentage	Description	Percentage
Reservoir	90	Trap	60
Source	100	Reservoir	60
Regional Seal	90	Seal	90
		Migration	90
		Timing	80
Play Chance	81	Prospect Chance	23.3

Chance of Discovery = 18.9% Chance of Development = 100%

Resource Category:

Prospective Resource (Prospects)

Prospect Location

VMM 37 Block in the Middle Magdalena Valley Basin

Formation	Galembo	Galembo	Galembo
Well Depth (feet)	11,500-11,900	10,000-10,400	8,000-8,400
Estimates	Low	Best	High
Area (acre)	14,900	29,053	41,465
Gross Pay (feet)	400	400	400
Net-to-Gross	50%	80%	100%
Net Pay (feet)	200	320	400
Effective Volume (acre-feet)	2,980,000	9,296,960	16,586,000
Geometric Factor	0.7	0.7	0.7
Net Volume (acre-feet)	2,086,000	6,507,872	11,610,200
Porosity	14.00%	15.00%	16.00%
Water Saturation	35.00%	30.00%	25.00%
Formation Volume Factor (rb/stb)	1.1	1.1	1.1
Petroleum Originally in Place (stb/acre-ft)	642	741	846
Petroleum Originally in Place (Mbbl)	1,338,791	4,819,316	9,826,029
Recovery factor	5.00%	6.00%	7.00%
Recoverable (Mbbl)	66,939.55	289,158.95	687,822.02
Cumulative Production (Mbbl)	-	-	-
Remaining Recoverable (Mbbl)	66,939.55	289,158.95	687,822.02
Gravity of Oil (degree API)	26	26	26
No. of Wells for Development	124	242	345
Recoverable Resources per well (Mbbl)	539.84	1,194.87	1,993.69

Note: The recoverable oil is based on drilling two laterals in the Galembo, one at a time. Therefore, the recoverable oil per lateral per well is approximately 270 Mbbl for the low estimate, 597 Mbbl for the best estimate and 997 Mbbl for the high estimate.

Probability of Success Assessment

Description	Percentage	Description	Percentage
Reservoir	90	Trap	70
Source	100	Reservoir	70
Regional Seal	90	Seal	80
		Migration	90
		Timing	90
Play Chance	81	Prospect Chance	31.8

Chance of Discovery = 25.7% Chance of Development = 100%

Resource Category:

Prospective Resource (Prospects)

Prospect Location

VMM 37 Block in the Middle Magdalena Valley Basin

Formation	Salada	Salada	Salada
Well Depth (feet)	12,500-12,900	11,000-11,400	9,000-9,400
Estimates	Low	Best	High
Area (acre)	14,900	29,053	41,465
Gross Pay (feet)	400	400	400
Net-to-Gross	50%	80%	100%
Net Pay (feet)	200	320	400
Effective Volume (acre-feet)	2,980,000	9,296,960	16,586,000
Geometric Factor	0.7	0.7	0.7
Net Volume (acre-feet)	2,086,000	6,507,872	11,610,200
Porosity	14.00%	15.00%	16.00%
Water Saturation	35.00%	30.00%	25.00%
Formation Volume Factor (rb/stb)	1.1	1.1	1.1
Petroleum Originally in Place (stb/acre-ft)	642	741	846
Petroleum Originally in Place (Mbbl)	1,338,791	4,819,316	9,826,029
Recovery factor	5.00%	6.00%	7.00%
Recoverable (Mbbl)	66,939.55	289,158.95	687,822.02
Cumulative Production (Mbbl)	-	-	-
Remaining Recoverable (Mbbl)	66,939.55	289,158.95	687,822.02
Gravity of Oil (degree API)	26	26	26
No. of Wells for Development	124	242	345
Recoverable Resources per well (Mbbl)	539.84	1,194.87	1,993.69

Note: The recoverable oil is based on drilling two laterals in the Salada, one at a time. Therefore, the recoverable oil per lateral per well is approximately 270 Mbbl for the low estimate, 597 Mbbl for the best estimate and 997 Mbbl for the high estimate.

Probability of Success Assessment

Description	Percentage	Description	Percentage
Reservoir	90	Trap	70
Source	100	Reservoir	70
Regional Seal	90	Seal	80
		Migration	90
		Timing	90
Play Chance	81	Prospect Chance	31.8

Chance of Discovery = 25.7% Chance of Development = 100%

Resource Category:

Prospective Resource (Prospects)

Prospect Location

VMM 37 Block in the Middle Magdalena Valley Basin

Formation	Tablazo	Tablazo	Tablazo
Well Depth (feet)	14,000 - 14,200	13,000 - 13,400	12,000 - 12,400
Estimates	Low	Best	High
Area (acre)	16,441	26,784	43,225
Gross Pay (feet)	300	300	300
Net-to-Gross	60%	80%	100%
Net Pay (feet)	180	240	300
Effective Volume (acre-feet)	2,043,600	6,428,160	4,087,200
Geometric Factor	0.7	0.7	0.7
Net Volume (acre-feet)	2,071,566	4,499,712	9,077,250
Porosity	7.00%	8.00%	9.00%
Water Saturation	45.00%	40.00%	35.00%
Formation Volume Factor (rb/stb)	1.1	1.1	1.1
Petroleum Originally in Place (stb/acre-ft)	272	339	413
Petroleum Originally in Place (Mbbl)	562,492	1,523,292	3,745,133
Recovery factor	6.00%	8.00%	10.00%
Recoverable (Mbbl)	33,749.54	121,863.33	374,513.31
Cumulative Production (Mbbl)	-	-	-
Remaining Recoverable (Mbbl)	33,749.54	121,863.33	374,513.31
Gravity of Oil (degree API)	40	40	40
No. of Wells for Development	124	242	345
Recoverable Resources per well (Mbbl)	272.17	503.57	1,085.55

Note: In the Tablazo Formation, only one lateral per well is to be drilled and the recoverable oil in the one lateral is approximately 272 Mbbl in the low estimate, 503 Mbbl in the best estimate and 1,085 Mbbl in the high estimate.

Probability of Success Assessment

Description	Percentage	Description	Percentage
Reservoir	90	Trap	70
Source	100	Reservoir	70
Regional Seal	90	Seal	70
		Migration	90
		Timing	80
Play Chance	81	Prospect Chance	24.7

Chance of Discovery = 20.0% Chance of Development = 100%







Figure II-2 Exploration History in the VMM 37 Block









Figure II-5 Lisama Formation Sand/Shale Infilling along Seismic Line CS-1977-12 in Wedge 1 and Wedge 2 within VMM 37 Block







Figure II-7 Lisama Prospect Wedge Distribution showing the Spoon Trap Play along Seismic Line CS-1977-12 in Wedges 1 and 2







Figure II-9 Wedge 1 Area of the Spoon Trap Play in the Lisama Formation

Shaded Area = 6,720 acres











Overlap Area = 2,284 acres

La Coquera 1 Pedral 1	260 277	9329	Surface Surface	0756 0756	5090 5110	7906 6615	and the second s	- main mark	8058 8308	S968		TD=9310	TD = 9329	
Bosques 3	384	12020	Surface	0667	5410	02148	5962		1	//		Doctor 1	11270	11700
Bosques 2	271	10520	Surface		5125							- men		TD = 10520
Bosques 1	346	12670	Surface	~~~~~	4517		01/2			11/1		Scoct	12325	12700
	K B	τD	Mesa Real	Colorado	Mugrosa	Esmeraldas	La Paz	Lisama	Umir	La Luna	Simiti	Pais	Rosablanca	Tambor
	ex - 27%	LITHOLOGY			I					1				
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		CIONEA.	2NZOORN			ANDO	0.3.3.4			-				

Figure II-12 Stratigraphic Well Control in the Area of VMM 37 Block



Figure II-13 Seismic and Well Control in the Area of VMM 37 Block







Figure II-15 Tablazo Formation Depth in VMM 37 Block (with an area = 43,158 acres)



Figure II-16 La Luna (Galembo) Type Log of the Cocuyo 1 Well from 10,770 to 11,200 feet



Figure II-17 La Luna (Galembo) Type Log of the Cocuyo 1 Well from 11,200 to 11,850 feet



Figure II-18 La Luna (Pjuamana) Type Log of the Cocuyo 1 Well from 11,900 to 12,450 feet



Figure II-19 La Luna (Salada) Type Log of the Cocuyo 1 Well from 12,200 to 12,900 feet



Figure II-20 Tablazo Type Log of the Bosques 3 Well

Table II-1 Summary of Prospective Resource and Net Present Values of the Lisama, Salada and Galembo Formations in the VMM 37 Block (Scenario 1)

Effective Date = July 31, 2012

	L&N	1 Oil Reso	urces	Heav	y Oil Resou	Irces					Opex	Opex	Pipeline		Before	Tax NPV	8	
								Х-			I	I	I					
	100%	Gross	Net	100%	Gross	Net	Royalty	Factor	Revenue	CapEx	fixed	variable	tariff	%0	5%	10%	15%	20%
<u>Estimate</u>	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	MM\$	MM\$	MM\$	MM\$	<u>MM\$</u>	<u>MM\$</u>	<u>MM\$</u>	<u>MM\$</u>	MM\$	<u>MM\$</u>
Lisama	ı	I	ı	T.T	L.T	7.0	0.6	0.1	645.1	274.2	28.6	150.2	76.8	115.3	87.9	66.8	50.3	37.3
Salada	6.99	20.1	18.4	ı	ı	ı	1.7	0.2	1,812.1	997.5	42.1	460.4	234.5	77.6	19.8	- 7.9	- 20.9	- 26.6
Galembo	6.99	20.1	18.4	'	ı	'	1.7	0.2	1,927.3	553.8	43.6	512.0	260.7	557.2	309.1	180.0	109.4	0.69
Total Low	133.9	40.2	36.8	7.7	<i>L. T</i>	7.0	4.0	0.4	4,384.6	1,825.6	114.4	1,122.6	571.9	750.1	416.8	238.9	138.8	L.6L
Best:																		
Lisama	ı	ı	ı	50.5	50.5	45.9	4.5	0.5	4,188.3	725.8	64.5	1,020.5	516.0	1,861.3	1,490.8	1,211.1	996.4	828.9
Salada	289.2	86.7	77.8	'	'	'	8.9	0.8	7,909.3	1,889.4	89.0	2,098.1	1,045.5	2,787.3	1,643.3	1,027.2	675.5	463.5
Galembo	289.2	86.7	77.8	'	'	'	8.9	0.8	8,489.1	1,152.5	100.1	2,358.5	1,175.3	3,702.7	1,901.9	1,044.7	608.2	371.9
Total Best	578.3	173.5	155.6	50.5	50.5	45.9	22.4	2.0	20,586.7	3,767.7	253.7	5,477.2	2,736.9	8,351.3	5,036.1	3,283.0	2,280.0	1,664.3
High:																		
Lisama		'		167.7	167.7	149.5	18.3	1.5	13,762.0	1,228.9	108.1	3,511.4	1,738.4	7,175.2	5,499.9	4,304.0	3,430.9	2,779.3
Salada	687.8	206.3	178.0	'	'	'	28.4	1.8	18,305.6	3,125.3	142.4	5,087.9	2,438.4	7,511.5	4,450.0	2,815.5	1,884.2	1,321.3
Galembo	687.8	206.3	178.0	1	'	1	28.3	1.8	19,791.2	1,702.7	161.7	5,778.2	2,769.4	9,379.2	4,620.4	2,451.7	1,386.8	827.7
Total High	1,375.6	412.7	356.0	167.7	167.7	149.5	75.0	5.1	51,858.7	6,056.9	412.2	14,377.6	6,946.2	24,065.9	14,570.3	9,571.1	6,701.9	4,928.2

Notes: 1. Lisama Formation is conventional resources and Tablazo, Salada and Galembo Formations are considered as unconventional resources.

2. Each formation is assumed to receive commerciality individually.

-2 Summary of Prospective Resource and Net Present Values of the Lisama, Tablazo, Salada and Galembo Formations in	the VMM 37 Block (Scenario 2)
Table II-2 Summ	

Effective Date = July 31, 2012

	L&N	1 Oil Reso	urces	Heavy	y Oil Resor	urces					Opex	Opex	Pipeline		Before	e Tax NPV	0	
								-X										
	100%	Gross	Net	100%	Gross	Net	Royalty	Factor	Revenue	CapEx	fixed	variable	tariff	%0	5%	10%	15%	20%
Estimate	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	MMbbl	MMbbl	<u>MMbbl</u>	<u>MMbbl</u>	<u>MMbbl</u>	MM\$	MM\$	MM\$	MM\$	MM\$	<u>MM\$</u>	MM\$	MM\$	MM\$	MM\$
Low:																		
Lisama	0.0	0.0	0.0	T.T	T.T	7.0	0.6	0.1	645.1	274.2	28.6	150.2	76.8	115.3	87.9	66.8	50.3	37.3
Tablazo	33.7	16.9	15.5	0.0	0.0	0.0	1.4	0.2	1,552.1	1,492.6	30.2	376.0	191.4	-538.0	-401.9	-308.9	-243.7	-196.7
Salada	6.99	20.1	18.4	0.0	0.0	0.0	1.7	0.2	1,860.9	502.1	41.2	484.1	246.5	587.0	356.2	226.1	149.3	102.0
Galembo	6.99	20.1	18.4	0.0	0.0	0.0	1.7	0.2	1,992.0	582.7	45.9	538.7	274.3	550.4	281.1	151.2	85.2	49.9
Total																		
Low	167.6	57.0	52.3	<i>T.T</i>	<i>L. L</i>	7.0	5.4	0.6	6,050.1	2,851.6	146.0	1,548.9	789.0	714.8	323.2	135.1	41.1	-7.5
Best:																		
Lisama	0.0	0.0	0.0	50.5	50.5	45.9	4.5	0.5	4,188.3	725.8	64.5	1,020.5	516.0	1,861.3	1,490.8	1,211.1	996.4	828.9
Tablazo	121.9	36.6	33.0	0.0	0.0	0.0	3.6	0.3	3,413.5	1,643.8	47.3	861.5	431.5	429.4	206.3	98.4	44.2	15.9
Salada	289.2	86.7	77.8	0.0	0.0	0.0	8.9	0.8	8,204.4	1,052.3	94.9	2,235.9	1,114.2	3,707.1	2,076.6	1,239.0	780.6	514.8
Galembo Total	289.2	86.7	80.6	0.0	0.0	0.0	6.1	0.8	9,159.4	1,228.1	106.7	2,513.4	1,296.3	4,014.9	1,869.0	934.8	497.7	279.4
Best	700.2	210.1	191.4	50.5	50.5	45.9	23.2	2.4	24,965.5	4,650.0	313.4	6,631.4	3,358.0	10,012.6	5,642.8	3,483.4	2,318.8	1,638.9
High:																		
Lisama	0.0	0.0	0.0	167.7	167.7	149.5	18.3	1.5	13,762.0	1,228.9	108.1	3,511.4	1,738.4	7,175.2	5,499.9	4,304.0	3,430.9	2,779.3
Tablazo	374.5	112.4	96.3	0.0	0.0	0.0	16.0	1.0	10,073.1	2,843.2	74.9	2,691.1	1,281.8	3,182.1	1,965.2	1,293.8	899.3	653.5
Salada	687.8	206.3	178.0	0.0	0.0	0.0	28.3	1.8	19,512.4	1,538.3	610.0	5,449.8	2,612.0	9,302.2	5,006.8	2,890.6	1,772.7	1,143.7
Galembo Total	687.8	206.3	178.0	0.0	0.0	0.0	28.3	1.8	21,361.9	1,844.6	585.4	6,196.8	2,970.0	9,765.2	4,327.7	2,075.5	1,065.5	579.2
High	1,750.2	525.0	452.3	167.7	167.7	149.5	91.0	6.0	64,709.3	7,455.0	1,378.3	17,849.2	8,602.2	29,424.6	16,799.7	10,564.0	7,168.3	5,155.6

Notes: 1. Lisama Formation is conventional resources and Tablazo, Salada and Galembo Formations are considered as unconventional resources.

2. Each formation is assumed to receive commerciality individually.

Table II-3 Prospective Resources and Net Present Values of the Lisama Wedge 1 Low Estimate

Working Interest	100%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax
	Heavy	y Oil Reso	urces					Opex	Opex	Pipeline	NPV @
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	<u>Mbbl</u>	<u>Mbbl</u>	Mbbl	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	275	275	253	22	3	23,877	57,265	510	5,105	2,609	-41,612
2014	1,360	1,360	1,252	109	13	115,762	43,698	3,156	26,029	13,304	29,574
2015	1,037	1,037	954	83	10	86,794	0	3,796	20,465	10,460	52,072
2016	525	525	483	42	5	43,630	3,728	3,169	10,676	5,457	20,601
2017	41	41	38	3	0	3,403	2,882	432	859	439	-1,210
Total	3,239	3,239	2,980	259	30	273,465	107,572	11,064	63,134	32,268	59,427

NPV of Future Net Revenue Before Tax Deducted (in M\$) @

	Delore ru	<u>n</u> Deddett	$(\mathbf{m},\mathbf{m},\mathbf{m},\mathbf{q})$	C
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
59,427	47,030	37,280	29,535	23,319

Table II-4 Prospective Resources and Net Present Values of the Lisama Wedge 1 Best Estimate

Working Interest	100%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax
	Heavy	y Oil Reso	urces					Opex	Opex	Pipeline	NPV @
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	697	697	642	56	6	60,535	63,299	510	12,942	6,615	-22,830
2014	3,656	3,656	3,345	311	33	309,407	95,036	3,419	69,953	35,559	105,440
2015	5,486	5,486	4,992	494	50	453,939	90,661	6,779	108,215	54,707	193,577
2016	5,689	5,689	5,174	515	52	467,441	47,528	8,387	115,711	58,460	237,355
2017	2,824	2,824	2,590	234	26	233,936	5,765	5,765	59,206	30,171	133,030
2018	796	796	732	64	7	67,485	5,944	2,377	17,212	8,797	33,154
2019	9	9	8	1	0	748	1,021	51	193	99	-616
Total	19,157	19,157	17,483	1,674	175	1,593,492	309,254	27,290	383,431	194,407	679,111

NPV of Future Net Revenue <u>Before Tax</u> Deducted (in M\$) @

<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
679,111	551,468	453,350	376,825	316,271

Table II-5 Prospective Resources and Net Present Values of the Lisama Wedge 1 High Estimate

Working Interest	100%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax NPV
	Heav	y Oil Resou	rces					Opex	Opex	Pipeline	@
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	1,327	1,327	1,221	106	12	115,216	73,911	510	24,632	12,590	3,573
2014	6,959	6,959	6,304	655	63	583,067	110,742	3,419	133,140	67,009	268,756
2015	10,441	10,441	9,359	1,082	94	851,086	98,671	6,779	205,964	102,569	437,103
2016	11,514	11,514	10,287	1,227	103	929,399	89,465	8,667	234,173	116,235	480,859
2017	11,514	11,514	10,287	1,227	103	929,196	92,239	8,936	241,432	119,838	466,751
2018	11,514	11,514	10,287	1,227	103	947,780	95,098	9,213	248,917	123,553	470,999
2019	9,371	9,371	8,428	943	84	792,005	16,341	8,477	208,876	104,360	453,951
2020	3,817	3,817	3,491	326	35	334,589	6,318	5,054	87,709	44,563	190,945
2021	708	708	651	57	7	63,696	5,428	1,357	16,777	8,575	31,559
Total	67,165	67,165	60,316	6,849	603	5,546,032	588,213	52,412	1,401,619	699,292	2,804,496

NPV of Future Net Revenue

Before Tax	Deducted	(in	M\$)	@
		· ·		

<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	20%
2,804,496	2,157,113	1,692,675	1,352,099	1,097,028

Table II-6 Prospective Resources and Net Present Values of the Lisama Wedge 2 Low Estimate

Working Interest	100%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax
	Heavy	y Oil Reso	urces					Opex	Opex	Pipeline	NPV @
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	<u>Mbbl</u>	Mbbl	<u>Mbbl</u>	<u>Mbbl</u>	Mbbl	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	239	239	220	19	2	20,730	55,184	510	4,432	2,265	-41,661
2014	1,304	1,304	1,199	104	12	110,934	85,273	3,419	24,944	12,749	-15,451
2015	1,654	1,654	1,522	132	15	138,400	15,723	5,875	32,634	16,679	67,488
2016	945	945	870	76	9	78,575	3,728	5,405	19,227	9,827	40,388
2017	276	276	254	22	3	22,972	5,765	2,306	5,797	2,963	6,142
Total	4,419	4,419	4,065	354	41	371,625	166,663	17,566	87,036	44,485	55,875

NPV of Future Net Revenue <u>Before Tax</u> Deducted (in M\$) @

			· · · · · ·	
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
55,875	40,880	29,475	20,720	13,935

Table II-7 Prospective Resources and Net Present Values of the Lisama Wedge 2 Best Estimate

Working Interest	100%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax NPV
	Heavy	Oil Resou	rces					Opex	Opex	Pipeline	@
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	849	849	781	68	8	73,691	66,004	510	15,754	8,052	-16,630
2014	4,451	4,451	4,063	388	41	375,753	98,432	3,419	85,155	43,183	145,563
2015	6,678	6,678	6,055	623	61	550,607	92,826	6,779	131,732	66,357	252,913
2016	7,364	7,364	6,663	701	67	601,999	89,465	8,667	149,775	75,289	278,803
2017	7,070	7,070	6,402	667	64	578,293	56,208	8,743	148,237	74,582	290,522
2018	3,727	3,727	3,410	318	34	314,131	5,944	6,241	80,577	40,950	180,420
2019	1,126	1,126	1,036	90	10	97,344	6,128	2,758	25,096	12,827	50,536
2020	34	34	31	3	0	2,978	1,579	132	776	397	94
Total	31,298	31,298	28,441	2,857	284	2,594,795	416,586	37,249	637,102	321,637	1,182,221

NPV of Future Net Revenue

	<u>Before Tax</u> Deducted (in M\$) @												
<u>0%</u>	<u>5%</u>	10%	<u>15%</u>	20%									
1,182,221	939,366	757,749	619,568	512,642									

Table II-8 Prospective Resources and Net Present Values of the Lisama Wedge 2 High Estimate

Working Interest	100%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax NPV
	Heav	y Oil Resour	rces					Opex	Opex	Pipeline	@
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	1,880	1,880	1,729	151	17	163,182	84,315	510	34,892	17,831	25,633
2014	9,857	9,857	8,852	1,005	89	818,702	121,354	3,419	188,599	94,090	411,240
2015	14,790	14,790	13,082	1,709	131	1,189,578	107,330	6,779	291,757	143,363	640,348
2016	16,310	16,310	14,358	1,952	144	1,297,175	86,669	8,667	331,717	162,231	707,891
2017	16,310	16,310	14,358	1,952	144	1,296,892	92,239	8,936	342,000	167,260	686,458
2018	16,310	16,310	14,358	1,952	144	1,322,830	95,098	9,213	352,602	172,445	693,472
2019	15,339	15,339	13,544	1,795	135	1,272,785	52,087	9,192	341,888	167,710	701,908
2020	7,613	7,613	6,883	730	69	659,743	1,579	6,318	174,934	87,870	389,043
2021	2,147	2,147	1,973	174	20	192,898	0	2,605	50,857	25,969	113,467
2022	23	23	21	2	0	2,141	0	56	570	291	1,224
Total	100,580	100,580	89,159	11,421	892	8,215,927	640,672	55,695	2,109,817	1,039,059	4,370,684

NPV of Future Net Revenue	
Before Tax Deducted (in M\$) @	

			(+) 0	
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
4,370,684	3,342,793	2,611,365	2,078,763	1,682,277

Table II-9 Summary of Prospective Resources and Net Present Values of the Salada and
Galembo Formations Low Estimate (Scenario 1)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Tax
]	L & M Oil						Opex	Opex	Pipeline	NPV @
	100%	Gross	Net	Rovalty	X Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	M\$	M\$	M\$	M\$	M\$	M\$
2012	0	0	0	0	0	0	0	0	0	0	0
2013	332	100	92	8	1	849	22,344	115	1,851	946	-24,406
2014	2,249	675	620	55	6	56,623	66,308	947	12,910	6,590	-30,132
2015	3,956	1,187	1,088	99	11	101,156	84,751	1,891	23,410	11,925	-20,822
2016	5,896	1,769	1,622	147	16	149,791	92,663	2,929	35,975	18,324	-101
2017	7,712	2,314	2,121	193	21	195,859	116,605	3,978	48,513	24,708	2,055
2018	9,527	2,858	2,619	239	26	246,704	125,195	5,149	61,789	31,458	23,113
2019	11,490	3,447	3,160	287	32	303,576	146,621	6,342	76,827	39,127	34,658
2020	12,856	3,857	3,533	323	35	346,258	149,215	7,479	88,625	45,110	55,830
2021	12,956	3,887	3,561	326	36	355,917	153,398	7,816	92,086	46,868	55,748
2022	12,956	3,887	3,561	326	36	363,035	158,153	8,059	94,941	48,321	53,561
2023	12,917	3,875	3,550	325	36	369,203	142,284	8,291	97,592	49,672	71,363
2024	11,356	3,407	3,123	284	31	331,247	82,449	7,710	88,452	45,046	107,590
2025	9,624	2,887	2,646	241	26	286,268	73,505	6,670	77,290	39,349	89,453
2026	7,620	2,286	2,096	190	21	231,273	59,186	5,577	63,094	32,133	71,283
2027	5,934	1,780	1,632	148	16	183,722	39,018	4,430	50,654	25,801	63,819
2028	3,947	1,184	1,086	98	11	124,642	32,666	3,146	34,737	17,693	36,401
2029	2,179	654	601	53	6	70,359	5,093	1,861	19,772	10,095	33,537
2030	371	111	102	9	1	12,243	1,929	439	3,474	1,776	4,625
Total	133,879	40,164	36,813	3,351	368	3,728,723	1,551,383	82,828	971,992	494,941	627,579

Before Income Tax NPV (in M\$) @								
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>				
627,579	322,583	166,363	83,120	37,273				

Note: This evaluation is in the Salada and Galembo Formations only.

Table II-10 Prospective Resources and Net Present Values of the Salada Formation Low Estimate (Scenario 1)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax NPV
	Heav	y Oil Reso	ources		V			Opex	Opex	Pipeline	@
	100%	Gross	Net	Rovalty	A- Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	M\$	M\$	M\$	M\$	M\$	M\$
2012	0	0	0	0	0	0	0	0	0	0	0
2013	332	100	92	8	1	849	22,344	115	1,851	946	-24,406
2014	2,249	675	620	55	6	56,623	66,308	947	12,910	6,590	-30,132
2015	3,956	1,187	1,088	99	11	101,156	84,751	1,891	23,410	11,925	-20,822
2016	5,896	1,769	1,622	147	16	149,791	90,916	2,929	35,975	18,324	1,647
2017	6,478	1,943	1,780	163	18	164,406	94,987	3,459	40,750	20,740	4,470
2018	6,478	1,943	1,780	163	18	167,694	97,334	3,566	42,013	21,383	3,397
2019	6,478	1,943	1,780	163	18	171,048	100,662	3,677	43,316	22,046	1,348
2020	6,478	1,943	1,780	163	18	174,469	100,725	3,791	44,659	22,729	2,565
2021	6,478	1,943	1,780	163	18	177,958	102,591	3,908	46,043	23,434	1,982
2022	6,478	1,943	1,780	163	18	181,517	105,771	4,029	47,470	24,160	86
2023	6,439	1,932	1,770	162	18	184,056	88,279	4,137	48,650	24,762	18,227
2024	4,878	1,463	1,342	121	13	142,396	26,769	3,426	37,993	19,364	54,843
2025	3,146	944	865	78	9	93,640	16,099	2,254	25,267	12,871	37,148
2026	1,142	343	315	27	3	34,792	0	1,024	9,458	4,834	19,476
2027	32	10	9	1	0	1,004	0	49	276	141	538
Total	66,940	20,082	18,406	1,676	184	1,801,399	997,536	39,202	460,041	234,251	70,368

NPV of Future Net Revenue								
Before Tax Deducted (in M\$) @								
0%	<u>5%</u>	10%	<u>15%</u>	20%				
70,368	13,517	-13,624	-26,276	-31,707				

Table II-11 Prospective Resources and Net Present Values of the Galembo Formation Low Estimate (Scenario 1)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	TON							0	0	Diastina	Before Tax
	L&N 1000/	Cross	Irces	Dovalty	V Easter	Douonuo	ConEr	Opex	Upex	toriff	
Vaar	100% Mbbl	Mbbl	Mbbl	Mbb1	A-Factor Mbb1	M¢	Сарых м¢	M¢	M¢	M¢	0% M¢
<u>1 ear</u>		MUUU	<u>NIUUI</u>	<u>MIDDI</u>	MIDDI		<u>IVI</u>	<u>IVI</u>	<u>IVI</u>		<u>IVI</u> ,
2012	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	1,747	0	0	0	-1,747
2017	1,234	370	341	30	3	31,453	21,618	519	7,763	3,968	-2,415
2018	3,049	915	839	76	8	79,010	27,861	1,582	19,776	10,075	19,716
2019	5,012	1,504	1,379	124	14	132,528	45,959	2,666	33,511	17,081	33,311
2020	6,378	1,913	1,753	160	18	171,789	48,489	3,688	43,966	22,380	53,265
2021	6,478	1,943	1,780	163	18	177,958	50,807	3,908	46,043	23,434	53,766
2022	6,478	1,943	1,780	163	18	181,517	52,382	4,029	47,470	24,160	53,475
2023	6,478	1,943	1,780	163	18	185,148	54,006	4,154	48,942	24,909	53,136
2024	6,478	1,943	1,780	163	18	188,851	55,680	4,283	50,459	25,682	52,747
2025	6,478	1,943	1,780	163	18	192,628	57,406	4,416	52,023	26,478	52,305
2026	6,478	1,943	1,780	163	18	196,480	59,186	4,553	53,636	27,299	51,807
2027	5,902	1,770	1,623	147	16	182,718	39,018	4,381	50,378	25,660	63,281
2028	3,947	1,184	1,086	98	11	124,642	32,666	3,146	34,737	17,693	36,401
2029	2,179	654	601	53	6	70,359	5,093	1,861	19,772	10,095	33,537
2030	371	111	102	9	1	12.243	1.929	439	3,474	1.776	4.625
Total	66,940	20,082	18,406	1,675	184	1,927,324	553,847	43,625	511,951	260,690	557,210

NPV of Future Net Revenue <u>Before Tax</u> Deducted (in M\$) @

<u>0%</u>	<u>5%</u>	10%	<u>15%</u>	<u>20%</u>
557,210	309,066	179,986	109,396	68,980
Table II-12 Summary of Prospective Resources and Net Present Values of the Salada and **Galembo Formations Best Estimate (Scenario 1)**

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	T & N		2005					Oney	Opey	Pipeline	Tax NPV
	100%	Gross	Not	Dovalty	V Factor	Povonuo	ConFr	fixed	voriable	toriff	0%
Voor	100% Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	M¢	Сарых М\$	M¢	M	M\$	070 M\$
<u>1 ear</u>	<u>IVIDDI</u>	<u>101001</u>	<u>MIDDI</u>	<u>WIUUI</u>	<u>MIDDI</u>			<u>IVI</u>		<u>IVI</u>	<u>IVI</u>
2012	1.020	210	295	0	0	17 407	52.050	152	5 749	2,029	14 400
2013	1,032	310	285	25	3	17,487	53,050	153	5,748	2,938	-44,402
2014	7,223	2,16/	1,961	205	20	185,466	105,511	1,381	41,458	20,849	16,267
2015	12,019	3,606	3,241	365	32	301,314	126,650	2,820	71,126	35,520	65,197
2016	18,420	5,526	4,968	558	50	458,864	142,170	4,361	112,385	56,134	143,813
2017	23,239	6,972	6,258	714	63	577,851	170,968	5,959	146,186	72,897	181,840
2018	29,592	8,878	7,968	910	80	750,499	184,327	7,712	191,922	95,698	270,840
2019	34,553	10,366	9,300	1,066	93	893,439	218,265	9,506	231,042	115,153	319,473
2020	40,742	12,223	10,962	1,261	110	1,074,170	230,087	11,467	280,869	139,940	411,807
2021	43,001	12,900	11,553	1,347	116	1,154,742	230,502	12,881	305,631	152,059	453,668
2022	43,015	12,905	11,557	1,348	116	1,178,226	237,230	13,297	315,213	156,825	455,661
2023	43,015	12,905	11,557	1,348	116	1,201,790	244,584	13,709	324,985	161,687	456,826
2024	43,015	12,905	11,557	1,348	116	1,225,826	252,166	14,134	335,059	166,699	457,768
2025	43,015	12,905	11,557	1,348	116	1,250,342	144,067	14,572	345,446	171,867	574,391
2026	43,015	12,905	11,557	1,348	116	1,275,349	149,007	15,024	356,155	177,194	577,969
2027	38,630	11,589	10,401	1,188	104	1,170,833	137,980	14,375	329,764	164,427	524,286
2028	33,255	9,977	8,943	1,033	89	1,026,810	129,655	12,663	292,678	145,757	446,058
2029	27,277	8,183	7,352	831	74	861,009	97,293	10,977	247,511	123,539	381,689
2030	22,173	6,652	5,965	687	60	712,535	86,913	9,056	207,435	103,338	305,793
2031	15,957	4,787	4,311	476	43	525,248	53,698	7,093	153,910	76,998	233,548
2032	10,990	3,297	2,961	336	30	367,975	41,124	4,910	109,290	54,524	158,127
2033	4,668	1,401	1,278	123	13	161,951	4,228	2,678	47,862	24,256	82,927
2034	468	140	129	11	1	16,703	2,422	412	4,947	2,529	6,394
Total	578,318	173,495	155,618	17,877	1,556	16,388,429	3,041,898	189,140	4,456,623	2,220,828	6,479,939
	Before Income Tax NPV (in M\$) @										

Before Income Tax NPV (in M\$) @									
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>					
6,479,939	3,535,965	2,063,266	1,275,527	827,729					

Note: This evaluation is in the Salada and Galembo Formations and assumes that the Tablazo Formation is not successful.

Table II-13 Prospective Resources and Net Present Values of the Salada Formation BestEstimate (Scenario 1)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Tax NPV
	L&N	A Oil Resourc	ces					Opex	Opex	Pipeline	@
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	<u>Mbbl</u>	Mbbl	<u>Mbbl</u>	Mbbl	Mbbl	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	1,032	310	285	25	3	17,487	53,050	153	5,748	2,938	-44,402
2014	7,223	2,167	1,961	205	20	185,466	105,511	1,381	41,458	20,849	16,267
2015	12,019	3,606	3,241	365	32	301,314	126,650	2,820	71,126	35,520	65,197
2016	18,420	5,526	4,968	558	50	458,864	142,170	4,361	112,385	56,134	143,813
2017	21,409	6,423	5,753	670	58	531,209	147,548	5,642	134,674	67,013	176,332
2018	21,508	6,452	5,778	674	58	544,249	150,894	5,884	139,489	69,399	178,583
2019	21,508	6,452	5,778	674	58	555,134	158,901	6,067	143,813	71,550	174,803
2020	21,508	6,452	5,778	674	58	566,237	159,011	6,255	148,271	73,768	178,932
2021	21,508	6,452	5,778	674	58	577,562	154,618	6,449	152,868	76,055	187,573
2022	21,508	6,452	5,778	674	58	589,113	158,657	6,648	157,607	78,413	187,789
2023	21,508	6,452	5,778	674	58	600,895	163,575	6,855	162,492	80,843	187,130
2024	21,508	6,452	5,778	674	58	612,913	168,646	7,067	167,530	83,349	186,321
2025	21,508	6,452	5,778	674	58	625,171	57,958	7,286	172,723	85,933	301,271
2026	21,508	6,452	5,778	674	58	637,675	57,858	7,512	178,077	88,597	305,630
2027	17,123	5,137	4,623	514	46	520,405	44,005	6,630	146,166	73,084	250,519
2028	11,747	3,524	3,165	359	32	363,374	40,328	4,678	103,388	51,581	163,398
2029	5,770	1,731	1,574	157	16	184,303	0	2,744	52,354	26,444	102,761
2030	847	254	234	20	2	27,935	0	611	7,927	4,051	15,346
Total	289,159	86,748	77,808	8,939	778	7,899,306	1,889,381	89,043	2,098,097	1,045,522	2,777,264

NPV of Future Net Revenue									
Before Tax Deducted (in M\$) @									
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>					
2,777,264	1,634,052	1,018,523	667,328	455,866					

Table II-14 Prospective Resources and Net Present Values of the Galembo Formation BestEstimate (Scenario 1)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Tax NPV
	L&N	I Oil Resour	ces					Opex	Opex	Pipeline	@
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	<u>Mbbl</u>	Mbbl	Mbbl	<u>Mbbl</u>	<u>Mbbl</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0
2017	1,830	549	505	44	5	46,641	23,420	317	11,512	5,884	5,508
2018	8,085	2,425	2,190	236	22	206,249	33,433	1,828	52,433	26,299	92,257
2019	13,045	3,914	3,521	392	35	338,305	59,364	3,439	87,229	43,603	144,670
2020	19,234	5,770	5,183	587	52	507,933	71,076	5,212	132,598	66,172	232,875
2021	21,493	6,448	5,774	673	58	577,180	75,885	6,432	152,763	76,005	266,096
2022	21,508	6,452	5,778	674	58	589,113	78,573	6,648	157,607	78,413	267,872
2023	21,508	6,452	5,778	674	58	600,895	81,009	6,855	162,492	80,843	269,696
2024	21,508	6,452	5,778	674	58	612,913	83,520	7,067	167,530	83,349	271,447
2025	21,508	6,452	5,778	674	58	625,171	86,109	7,286	172,723	85,933	273,120
2026	21,508	6,452	5,778	674	58	637,675	91,150	7,512	178,077	88,597	272,338
2027	21,508	6,452	5,778	674	58	650,428	93,975	7,745	183,598	91,344	273,766
2028	21,508	6,452	5,778	674	58	663,437	89,327	7,985	189,289	94,175	282,660
2029	21,508	6,452	5,778	674	58	676,705	97,293	8,233	195,157	97,095	278,927
2030	21,326	6,398	5,731	667	57	684,600	86,913	8,445	199,508	99,287	290,446
2031	15,957	4,787	4,311	476	43	525,248	53,698	7,093	153,910	76,998	233,548
2032	10,990	3,297	2,961	336	30	367,975	41,124	4,910	109,290	54,524	158,127
2033	4,668	1,401	1,278	123	13	161,951	4,228	2,678	47,862	24,256	82,927
2034	468	140	129	11	1	16,703	2,422	412	4,947	2,529	6,394
Total	289,159	86,748	77,810	8,938	778	8,489,122	1,152,518	100,097	2,358,527	1,175,307	3,702,675

NPV of Future Net Revenue

<u>Before Tax</u> Deducted (in M\$) @								
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>				
3,702,675	1,901,913	1,044,742	608,199	371,863				

Table II-15 Summary of Prospective Resources and Net Present Values of the Salada and Galembo Formations High Estimate (Scenario 1)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	L&M	[Oil Resour	Cec					Onex	Opex	Pipeline	Tax NPV @
	100%	Gross	Net	Royalty	X Factor	Revenue	CanEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	M\$	M\$	M\$	M\$	M\$	M\$
2012	0	0	0	0	0	0	0	0	0	0	0
2013	2.146	644	592	52	6	47.073	64.880	306	11.947	6.100	-36.160
2014	15,499	4,650	4,103	546	41	388,008	149,490	2,052	88,961	43,618	103,888
2015	24,661	7,398	6,402	997	64	595,132	172,907	3,986	145,941	70,156	202,141
2016	38,423	11,527	10,019	1,508	100	925,393	200,314	6,039	234,434	113,205	371,400
2017	47,629	14,289	12,317	1,971	123	1,137,418	220,376	8,215	299,613	143,488	465,726
2018	61,284	18,385	15,917	2,468	159	1,499,205	260,266	10,520	397,459	191,167	639,792
2019	70,836	21,251	18,301	2,950	183	1,758,217	275,186	12,991	473,653	226,613	769,773
2020	84,077	25,223	21,796	3,427	218	2,135,832	323,394	15,542	579,614	278,251	939,030
2021	93,801	28,140	24,220	3,921	242	2,420,851	316,404	18,238	666,700	318,784	1,100,725
2022	95,697	28,709	24,674	4,035	247	2,515,601	316,306	19,341	701,259	334,833	1,143,861
2023	95,697	28,709	24,674	4,035	247	2,565,913	326,112	19,941	722,998	345,213	1,151,649
2024	95,697	28,709	24,674	4,035	247	2,617,231	336,221	20,559	745,411	355,915	1,159,126
2025	95,697	28,709	24,674	4,035	247	2,669,576	346,644	21,196	768,519	366,948	1,166,269
2026	95,697	28,709	24,674	4,035	247	2,722,967	357,390	21,853	792,343	378,324	1,173,058
2027	95,697	28,709	24,674	4,035	247	2,777,427	337,176	22,531	816,906	390,052	1,210,763
2028	85,198	25,559	22,083	3,476	221	2,535,462	186,316	21,535	749,826	359,911	1,217,873
2029	74,400	22,320	19,229	3,091	192	2,251,929	192,092	19,209	675,089	323,111	1,042,428
2030	62,592	18,778	16,250	2,528	162	1,941,105	133,746	16,975	585,559	281,517	923,309
2031	51,073	15,322	13,223	2,099	132	1,611,180	137,892	14,320	492,608	236,188	730,173
2032	40,071	12,021	10,435	1,586	104	1,296,858	73,817	11,756	398,471	192,161	620,653
2033	27,817	8,345	7,236	1,109	72	917,306	76,106	8,738	285,188	137,387	409,888
2034	17,308	5,192	4,557	636	46	589,184	17,921	5,764	182,947	89,195	293,357
2035	4,603	1,381	1,260	121	13	166,158	5,992	2,397	50,160	25,425	82,183
2036	45	14	13	1	0	1,686	1,030	51	510	261	-166
Total	1,375,644	412,693	355,997	56,696	3,560	38,086,711	4,827,979	304,055	10,866,116	5,207,821	16,880,740

Before Income Tax NPV (in M\$) @

<u>5% 10% 15%</u>

<u>0%</u>

16,880,740 9,061,110 5,258,430 3,262,872 2,141,268

Note: This evaluation is in Salada and Galembo Formations and assumes that the Tablazo Formation is not successful.

<u>20%</u>

Table II-16 Prospective Resources and Net Present Values of the Salada Formation High
Estimate (Scenario 1)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	L&A	/ Oil Resour	.					Onex	Opex	Pipeline	Before Tax NPV @
	100%	Gross	Net	Rovaltv	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	<u>M\$</u>	<u>M\$</u>	M\$	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	2,146	644	592	52	6	47,073	64,880	306	11,947	6,100	-36,160
2014	15,499	4,650	4,103	546	41	388,008	149,490	2,052	88,961	43,618	103,888
2015	24,661	7,398	6,402	997	64	595,132	172,907	3,986	145,941	70,156	202,141
2016	38,423	11,527	10,019	1,508	100	925,393	200,314	6,039	234,434	113,205	371,400
2017	46,740	14,022	12,072	1,950	121	1,114,756	198,758	8,042	294,019	140,629	473,308
2018	47,848	14,355	12,337	2,017	123	1,162,013	215,689	8,559	310,323	148,171	479,271
2019	47,848	14,355	12,337	2,017	123	1,185,253	213,907	8,824	319,943	152,765	489,814
2020	47,848	14,355	12,337	2,017	123	1,208,959	228,627	9,098	329,861	157,500	483,873
2021	47,848	14,355	12,337	2,017	123	1,233,138	217,396	9,380	340,087	162,383	503,892
2022	47,848	14,355	12,337	2,017	123	1,257,800	211,542	9,671	350,630	167,417	518,541
2023	47,848	14,355	12,337	2,017	123	1,282,956	218,100	9,970	361,499	172,607	520,780
2024	47,848	14,355	12,337	2,017	123	1,308,616	224,861	10,279	372,706	177,957	522,812
2025	47,848	14,355	12,337	2,017	123	1,334,788	231,832	10,598	384,259	183,474	524,625
2026	47,848	14,355	12,337	2,017	123	1,361,484	239,019	10,927	396,171	189,162	526,205
2027	47,848	14,355	12,337	2,017	123	1,388,713	215,136	11,265	408,453	195,026	558,834
2028	37,349	11,205	9,746	1,459	97	1,118,974	60,492	9,921	328,711	158,839	561,011
2029	26,551	7,965	6,892	1,074	69	807,112	62,368	7,235	240,920	115,806	380,784
2030	14,744	4,423	3,913	510	39	467,392	0	4,630	137,930	67,785	257,047
2031	3,225	967	886	81	9	107,992	0	1,591	31,103	15,831	59,467
Total	687,822	206,347	177,995	28,351	1,780	18,295,551	3,125,317	142,371	5,087,898	2,438,431	7,501,534

NPV of Future Net Revenue Before Tax Deducted (in M\$) @

	Derore ru	A Deducted	(11114) C	
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
7,501,534	4,440,741	2,806,779	1,876,082	1,313,614

Table II-17 Prospective Resources and Net Present Values of the Galembo Formation High Estimate (Scenario 1)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax NPV
	L&N	A Oil Resour	ces		X-			Opex	Opex	Pipeline	@
	100%	Gross	Net	Royalty	Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0
2017	889	267	245	21	2	22,662	21,618	173	5,593	2,859	-7,582
2018	13,435	4,031	3,580	451	36	337,192	44,577	1,961	87,136	42,996	160,521
2019	22,988	6,896	5,964	933	60	572,963	61,279	4,167	153,711	73,848	279,959
2020	36,228	10,868	9,458	1,410	95	926,873	94,768	6,444	249,753	120,751	455,158
2021	45,953	13,786	11,883	1,903	119	1,187,714	99,008	8,859	326,613	156,401	596,832
2022	47,848	14,355	12,337	2,017	123	1,257,800	104,764	9,671	350,630	167,417	625,320
2023	47,848	14,355	12,337	2,017	123	1,282,956	108,011	9,970	361,499	172,607	630,869
2024	47,848	14,355	12,337	2,017	123	1,308,616	111,360	10,279	372,706	177,957	636,313
2025	47,848	14,355	12,337	2,017	123	1,334,788	114,812	10,598	384,259	183,474	641,644
2026	47,848	14,355	12,337	2,017	123	1,361,484	118,371	10,927	396,171	189,162	646,853
2027	47,848	14,355	12,337	2,017	123	1,388,713	122,041	11,265	408,453	195,026	651,929
2028	47,848	14,355	12,337	2,017	123	1,416,488	125,824	11,615	421,115	201,072	656,863
2029	47,848	14,355	12,337	2,017	123	1,444,817	129,724	11,975	434,169	207,305	661,644
2030	47,848	14,355	12,337	2,017	123	1,473,714	133,746	12,346	447,629	213,731	666,262
2031	47,848	14,355	12,337	2,017	123	1,503,188	137,892	12,728	461,505	220,357	670,705
2032	40,071	12,021	10,435	1,586	104	1,296,858	73,817	11,756	398,471	192,161	620,653
2033	27,817	8,345	7,236	1,109	72	917,306	76,106	8,738	285,188	137,387	409,888
2034	17,308	5,192	4,557	636	46	589,184	17,921	5,764	182,947	89,195	293,357
2035	4,603	1,381	1,260	121	13	166,158	5,992	2,397	50,160	25,425	82,183
2036	45	14	13	1	0	1,686	1,030	51	510	261	-166
Total	687,822	206,347	178,001	28,345	1,780	19,791,160	1,702,662	161,684	5,778,218	2,769,390	9,379,206

NPV of Future Net Revenue <u>Before Tax</u> Deducted (in M\$) @							
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>			
9,379,206	4,620,369	2,451,651	1,386,790	827,654			

Table II-18 Summary of Prospective Resources and Net Present Values of the Tablazo,
Salada and Galembo Formations Low Estimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	I & M	Oil Resour	•CO5					Oney	Oney	Pipeline	Before Tax NPV @
	100%	Gross	Net	Rovalty	X Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	M\$	M\$	M\$	M\$	M\$	M\$
2012	0	0	0	0	0	0	0	0	0	0	0
2013	345	172	159	14	2	5,797	43,826	191	3,199	1,635	-43,054
2014	2,332	1,166	1,071	95	11	104,618	130,877	1,578	22,313	11,387	-61,538
2015	4,138	1,893	1,735	158	17	165,887	154,053	2,904	37,349	19,019	-47,437
2016	6,055	2,470	2,263	206	23	213,584	161,036	3,991	50,227	25,574	-27,244
2017	7,926	3,031	2,778	253	28	261,085	187,361	5,073	63,556	32,365	-27,271
2018	9,683	3,558	3,260	298	33	311,703	200,195	6,263	76,922	39,157	-10,834
2019	11,682	4,158	3,811	347	38	370,848	221,389	7,507	92,673	47,191	2,089
2020	13,379	4,667	4,276	391	43	423,821	242,116	8,821	107,241	54,589	11,054
2021	15,379	5,267	4,827	440	48	487,334	258,501	10,227	124,780	63,528	30,298
2022	16,218	5,519	5,056	463	51	520,429	262,450	11,240	134,798	68,605	43,335
2023	16,182	5,500	5,039	461	50	529,011	229,265	11,569	138,506	70,495	79,177
2024	14,562	4,690	4,300	390	43	458,651	109,218	10,529	121,773	62,022	155,108
2025	12,741	3,846	3,524	322	35	381,515	96,505	8,865	102,955	52,415	120,775
2026	10,707	3,212	2,944	268	29	324,871	87,640	7,740	88,650	45,137	95,704
2027	9,000	2,700	2,475	225	25	278,611	68,354	6,659	76,829	39,127	87,640
2028	7,060	2,118	1,941	177	19	222,854	60,391	5,454	62,133	31,634	63,241
2029	5,244	1,573	1,443	130	14	169,022	33,678	4,241	47,582	24,252	59,269
2030	3,429	1,029	943	86	9	112,639	26,685	2,861	32,077	16,336	34,680
2031	1,466	440	405	35	4	49,312	2,652	1,458	14,143	7,229	23,829
2032	100	30	28	2	0	3,446	1,139	148	999	511	649
Total	167,629	57,038	52,278	4,761	523	5,395,037	2,577,331	117,321	1,398,705	712,208	589,472

Before Income Tax NPV (in M\$) @

<u>0%</u>	<u>5%</u>	<u>10%</u>	15%	<u>20%</u>
589,472	226,040	59,705	-17,323	-52,387

Table II-19 Prospective Resources and Net Present Values of the Tablazo Formation Low Estimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	L&	M Oil Resour	ces					Opex	Opex	Pipeline	Before Tax NPV @
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	<u>Mbbl</u>	Mbbl	Mbbl	Mbbl	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	345	172	159	14	2	5,797	43,826	191	3,199	1,635	-43,054
2014	2,332	1,166	1,071	95	11	104,618	130,877	1,578	22,313	11,387	-61,538
2015	3,260	1,630	1,493	137	15	143,345	135,410	2,565	32,149	16,362	-43,141
2016	3,266	1,633	1,496	137	15	142,697	138,320	2,656	33,213	16,903	-48,395
2017	3,266	1,633	1,496	137	15	142,666	144,124	2,738	34,242	17,427	-55,866
2018	3,266	1,633	1,496	137	15	145,519	146,330	2,823	35,304	17,967	-56,905
2019	3,266	1,633	1,496	137	15	148,430	152,450	2,911	36,398	18,524	-61,853
2020	3,266	1,633	1,496	137	15	151,398	157,219	3,001	37,527	19,098	-65,447
2021	3,266	1,633	1,496	137	15	154,426	160,795	3,094	38,690	19,690	-67,843
2022	3,266	1,633	1,496	137	15	157,515	159,869	3,190	39,889	20,300	-65,734
2023	3,226	1,613	1,478	135	15	158,715	123,330	3,260	40,622	20,676	-29,173
2024	1,606	803	739	64	7	80,949	0	1,963	20,854	10,659	47,473
2025	118	59	54	5	1	6,057	0	199	1,577	806	3,474
Total	33,750	16,875	15,465	1,409	155	1,542,132	1,492,552	30,170	375,978	191,433	-548,001

NPV of Future Net Revenue <u>Before Tax</u> Deducted (in M\$) @							
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>			
-548,001	-411,227	-317,626	-251,834	-204,333			

Table II-20 Prospective Resources and Net Present Values of the Salada Formation LowEstimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax
	L&N	I Oil Resou	rces					Opex	Opex	Pipeline	NPV @
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	<u>Mbbl</u>	Mbbl	Mbbl	<u>Mbbl</u>	<u>Mbbl</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	879	264	242	21	2	22,542	18,643	339	5,199	2,657	-4,296
2016	2,789	837	767	69	8	70,887	22,716	1,335	17,014	8,672	21,150
2017	4,660	1,398	1,282	116	13	118,419	43,237	2,335	29,314	14,939	28,595
2018	6,266	1,880	1,723	157	17	162,250	44,577	3,380	40,637	20,689	52,966
2019	6,478	1,943	1,780	163	18	171,048	45,959	3,677	43,316	22,046	56,050
2020	6,478	1,943	1,780	163	18	174,469	47,384	3,791	44,659	22,729	55,906
2021	6,478	1,943	1,780	163	18	177,958	48,853	3,908	46,043	23,434	55,720
2022	6,478	1,943	1,780	163	18	181,517	50,367	4,029	47,470	24,160	55,490
2023	6,478	1,943	1,780	163	18	185,148	51,929	4,154	48,942	24,909	55,214
2024	6,478	1,943	1,780	163	18	188,851	53,538	4,283	50,459	25,682	54,889
2025	6,146	1,844	1,690	154	17	182,830	39,099	4,250	49,354	25,131	64,996
2026	4,229	1,269	1,163	105	12	128,391	28,455	3,187	35,014	17,838	43,897
2027	2,522	757	695	62	7	78,201	7,334	1,966	21,531	10,982	36,388
2028	582	175	161	14	2	18,436	0	615	5,120	2,617	10,084
Total	66,940	20,082	18,406	1,676	184	1,860,948	502,090	41,249	484,072	246,486	587,049

NPV of Future Net Revenue <u>Before Tax</u> Deducted (in M\$) @

<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
587,049	356,193	226,104	149,320	102,023

Table II-21 Prospective Resources and Net Present Values of the Galembo Formation Low Estimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax
	L&M	Oil Resou	irces					Opex	Opex	Pipeline	NPV @
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	0	0
2018	151	45	42	4	0	3,934	9,287	59	981	502	-6,896
2019	1,938	581	535	47	5	51,371	22,980	919	12,959	6,621	7,892
2020	3,634	1,090	1,000	91	10	97,953	37,512	2,030	25,056	12,761	20,595
2021	5,634	1,690	1,550	140	16	154,949	48,853	3,224	40,047	20,404	42,421
2022	6,474	1,942	1,779	163	18	181,397	52,214	4,021	47,439	24,144	53,579
2023	6,478	1,943	1,780	163	18	185,148	54,006	4,154	48,942	24,909	53,136
2024	6,478	1,943	1,780	163	18	188,851	55,680	4,283	50,459	25,682	52,747
2025	6,478	1,943	1,780	163	18	192,628	57,406	4,416	52,023	26,478	52,305
2026	6,478	1,943	1,780	163	18	196,480	59,186	4,553	53,636	27,299	51,807
2027	6,478	1,943	1,780	163	18	200,410	61,020	4,694	55,299	28,145	51,252
2028	6,478	1,943	1,780	163	18	204,418	60,391	4,839	57,013	29,017	53,157
2029	5,244	1,573	1,443	130	14	169,022	33,678	4,241	47,582	24,252	59,269
2030	3,429	1,029	943	86	9	112,639	26,685	2,861	32,077	16,336	34,680
2031	1,466	440	405	35	4	49,312	2,652	1,458	14,143	7,229	23,829
2032	100	30	28	2	0	3,446	1,139	148	999	511	649
Total	66,940	20,082	18,407	1,675	184	1,991,958	582,689	45,902	538,655	274,289	550,424

NPV of Future Net Revenue						
	Before Tax	<u>x</u> Deducted	(in M\$) @	1		
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>		
550,424	281,074	151,228	85,190	49,922		

Table II-22 Summary of Prospective Resources and Net Present Values of the Tablazo,Salada and Galembo Formations Best Estimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax NPV
	L&N	/I Oil Resou	rces					Opex	Opex	Pipeline	@
	100%	Gross	Net	Royalty	X Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	<u>Mbbl</u>	Mbbl	Mbbl	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	730	219	201	18	2	10,068	46,969	153	4,064	2,077	-43,194
2014	5,409	1,623	1,477	146	15	144,243	121,100	1,381	31,050	15,700	-24,988
2015	9,408	2,822	2,548	274	25	244,010	138,117	2,841	55,677	27,924	19,453
2016	15,818	4,745	4,284	461	43	403,131	162,234	4,361	96,512	48,410	91,614
2017	20,567	6,170	5,548	622	55	519,745	183,736	5,981	129,380	64,632	136,015
2018	27,041	8,112	7,298	814	73	694,978	200,055	7,712	175,374	87,655	224,182
2019	31,837	9,551	8,613	938	86	835,147	226,403	9,529	212,880	106,647	279,689
2020	38,238	11,471	10,464	1,007	105	1,033,317	252,557	11,467	263,606	133,594	372,093
2021	43,057	12,917	11,799	1,118	118	1,187,356	287,898	13,475	306,032	155,298	424,652
2022	49,410	14,823	13,510	1,313	135	1,385,607	308,086	15,664	362,075	183,340	516,442
2023	52,035	15,610	14,198	1,412	142	1,484,840	308,606	17,413	393,127	198,645	567,048
2024	52,080	15,624	14,210	1,414	142	1,515,772	314,181	17,989	405,663	204,971	572,967
2025	52,080	15,624	14,210	1,414	142	1,546,087	193,745	18,547	418,239	211,325	704,231
2026	52,080	15,624	14,210	1,414	142	1,577,009	196,906	19,121	431,204	217,876	711,901
2027	48,888	14,666	13,363	1,303	134	1,510,142	179,541	18,599	417,326	211,249	683,426
2028	44,499	13,350	12,172	1,178	122	1,399,024	190,147	16,998	391,637	198,374	601,867
2029	39,215	11,765	10,763	1,002	108	1,260,450	133,674	15,457	355,832	180,851	574,635
2030	33,624	10,087	9,249	838	92	1,104,821	151,214	13,653	314,556	160,231	465,166
2031	27,877	8,363	7,718	645	77	940,361	111,706	11,867	268,874	137,850	410,064
2032	22,501	6,750	6,258	492	63	777,773	109,473	9,797	223,755	115,246	319,503
2033	16,524	4,957	4,589	368	46	581,712	57,079	7,752	169,406	87,124	260,351
2034	11,420	3,426	3,096	330	31	400,331	43,713	5,437	120,707	60,605	169,870
2035	5,203	1,561	1,422	139	14	187,505	4,494	3,071	56,707	28,692	94,541
2036	642	192	177	15	2	23,823	2,574	566	7,209	3,685	9,789
Total	700,181	210,054	191,378	18,676	1,914	20,767,251	3,924,210	248,831	5,610,889	2,842,003	8,141,318

Before Income Tax NPV (in M\$) @

<u>0%</u>	<u>5%</u>	10%	15%	20%
8,141,318	4,142,645	2,263,616	1,314,303	802,380

Table II-23 Prospective Resources and Net Present Values of the Tablazo Formation Best Estimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax
	L&M	Oil Resou	rces					Opex	Opex	Pipeline	NPV @
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	<u>Mbbl</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	730	219	201	18	2	10,068	46,969	153	4,064	2,077	-43,194
2014	5,409	1,623	1,477	146	15	144,243	121,100	1,381	31,050	15,700	-24,988
2015	8,661	2,598	2,342	257	23	224,851	126,253	2,725	51,258	25,665	18,950
2016	9,064	2,719	2,448	271	24	233,492	130,782	3,019	55,304	27,657	16,729
2017	9,064	2,719	2,448	271	24	233,441	133,293	3,113	57,019	28,515	11,501
2018	9,064	2,719	2,448	271	24	238,110	138,762	3,210	58,786	29,399	7,954
2019	9,064	2,719	2,448	271	24	242,872	144,059	3,309	60,609	30,310	4,585
2020	9,064	2,719	2,448	271	24	247,729	145,943	3,412	62,488	31,250	4,637
2021	9,064	2,719	2,448	271	24	252,684	151,518	3,517	64,425	32,218	1,006
2022	9,064	2,719	2,448	271	24	257,738	154,886	3,626	66,422	33,217	-414
2023	9,064	2,719	2,448	271	24	262,892	150,051	3,739	68,481	34,247	6,375
2024	9,064	2,719	2,448	271	24	268,150	152,584	3,855	70,604	35,308	5,799
2025	9,064	2,719	2,448	271	24	273,513	24,839	3,974	72,792	36,403	135,504
2026	9,064	2,719	2,448	271	24	278,983	22,764	4,097	75,049	37,531	139,542
2027	5,873	1,762	1,601	160	16	186,156	0	3,110	50,131	25,314	107,602
2028	1,484	445	410	36	4	48,558	0	1,028	13,058	6,674	27,798
Total	121,863	36,559	32,957	3,602	330	3,403,481	1,643,803	47,269	861,538	431,485	419,386

NPV of Future Net Revenue <u>Before Tax</u> Deducted (in M\$) @

	Defore 1	un Deudee	$cu (m m \phi)$	-
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
419,386	197,048	89,770	36,034	8,219

Table II-24 Prospective Resources and Net Present Values of the Salada Formation BestEstimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	L&N	/ Oil Resour						Opex	Opex	Pipeline	Before Tax NPV @
	100%	Gross	Net	Rovalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	<u>Mbbl</u>	Mbbl	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	747	224	206	18	2	19,159	11,864	115	4,419	2,259	503
2016	6,754	2,026	1,837	189	18	169,639	31,453	1,342	41,207	20,752	74,885
2017	11,503	3,451	3,100	350	31	286,304	50,443	2,868	72,361	36,118	124,514
2018	17,977	5,393	4,851	542	49	456,868	61,294	4,502	116,587	58,256	216,228
2019	21,330	6,399	5,732	667	57	550,699	63,194	5,959	142,626	70,978	267,942
2020	21,508	6,452	5,778	674	58	566,237	71,076	6,255	148,271	73,768	266,867
2021	21,508	6,452	5,778	674	58	577,562	73,279	6,449	152,868	76,055	268,911
2022	21,508	6,452	5,778	674	58	589,113	77,649	6,648	157,607	78,413	268,796
2023	21,508	6,452	5,778	674	58	600,895	77,893	6,855	162,492	80,843	272,812
2024	21,508	6,452	5,778	674	58	612,913	78,077	7,067	167,530	83,349	276,890
2025	21,508	6,452	5,778	674	58	625,171	82,797	7,286	172,723	85,933	276,432
2026	21,508	6,452	5,778	674	58	637,675	85,364	7,512	178,077	88,597	278,124
2027	21,508	6,452	5,778	674	58	650,428	88,010	7,745	183,598	91,344	279,732
2028	21,508	6,452	5,778	674	58	663,437	95,779	7,985	189,289	94,175	276,208
2029	17,707	5,312	4,779	533	48	559,680	36,381	7,224	160,675	80,304	275,097
2030	12,116	3,635	3,265	370	33	390,036	50,905	5,166	113,349	56,567	164,050
2031	6,369	1,911	1,734	177	17	211,281	8,287	3,116	61,429	30,972	107,477
2032	1,087	326	300	26	3	37,281	8,544	797	10,808	5,524	11,608
Total	289,159	86,748	77,809	8,939	778	8,204,377	1,052,288	94,891	2,235,916	1,114,208	3,707,074

NPV of Future Net Revenue	
Before Tax Deducted (in M\$) @	

<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
3,707,074	2,076,634	1,239,011	780,575	514,810

Table II-25 Prospective Resources and Net Present Values of the Galembo Formation Best Estimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

											Before Tax NPV
	L&M	l Oil Resour	ces					Opex	Opex	Pipeline	@
	100%	Gross	Net	Royalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	0	0
2019	1,443	433	433	0	4	41,576	19,150	260	9,646	5,359	7,162
2020	7,666	2,300	2,238	61	22	219,350	35,538	1,801	52,847	28,576	100,588
2021	12,485	3,746	3,573	173	36	357,111	63,101	3,509	88,740	47,025	154,735
2022	18,838	5,652	5,284	367	53	538,757	75,551	5,389	138,046	71,710	248,060
2023	21,463	6,439	5,972	467	60	621,053	80,662	6,820	162,154	83,555	287,861
2024	21,508	6,452	5,984	469	60	634,708	83,520	7,067	167,530	86,313	290,279
2025	21,508	6,452	5,984	469	60	647,403	86,109	7,286	172,723	88,989	292,295
2026	21,508	6,452	5,984	469	60	660,351	88,778	7,512	178,077	91,748	294,235
2027	21,508	6,452	5,984	469	60	673,558	91,530	7,745	183,598	94,592	296,093
2028	21,508	6,452	5,984	469	60	687,029	94,368	7,985	189,289	97,524	297,862
2029	21,508	6,452	5,984	469	60	700,769	97,293	8,233	195,157	100,548	299,539
2030	21,508	6,452	5,984	469	60	714,785	100,309	8,488	201,207	103,665	301,116
2031	21,508	6,452	5,984	469	60	729,080	103,419	8,751	207,445	106,878	302,588
2032	21,414	6,424	5,958	466	60	740,492	100,929	8,999	212,947	109,722	307,895
2033	16,524	4,957	4,589	368	46	581,712	57,079	7,752	169,406	87,124	260,351
2034	11,420	3,426	3,096	330	31	400,331	43,713	5,437	120,707	60,605	169,870
2035	5,203	1,561	1,422	139	14	187,505	4,494	3,071	56,707	28,692	94,541
2036	642	192	177	15	2	23,823	2,574	566	7,209	3,685	9,789
Total	289,159	86,748	80,613	6,135	806	9,159,394	1,228,119	106,671	2,513,436	1,296,310	4,014,858

NPV of Future Net Revenue Before Tax Deducted (in M\$) @

	Defore Ta	Deducted	(Π Μφ) @	
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	20%
4,014,858	1,868,963	934,835	497,694	279,351

Table II-26 Summary of Prospective Resources and Net Present Values of Tablazo, Salada and Galembo Formations High Estimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

								_	_		Tax NPV
	L&N	I Oil Resourc	es					Opex	Opex	Pipeline	@
	100%	Gross	Net	Royalty	X Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>Mbbl</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>
2012	0	0	0	0	0	0	0	0	0	0	0
2013	1,964	589	542	47	5	43,991	63,710	306	10,937	5,588	-36,549
2014	15,165	4,549	4,019	530	40	392,495	174,307	2,052	87,045	42,722	86,369
2015	25,033	7,510	6,452	1,057	65	619,074	188,910	4,339	148,145	70,714	206,968
2016	38,357	11,507	9,962	1,545	100	940,285	228,656	11,071	234,032	112,557	353,969
2017	48,233	14,470	12,428	2,042	124	1,167,782	235,058	19,485	303,410	144,771	465,058
2018	61,078	18,323	15,819	2,504	158	1,510,611	290,734	28,173	396,122	189,996	605,586
2019	71,597	21,479	18,458	3,021	185	1,794,346	285,561	37,656	478,741	228,562	763,827
2020	83,722	25,116	21,655	3,462	217	2,143,458	355,697	42,835	577,166	276,453	891,307
2021	94,880	28,464	24,469	3,995	245	2,467,605	347,997	46,475	674,370	322,063	1,076,700
2022	105,083	31,525	27,148	4,377	271	2,858,533	425,540	49,964	770,042	368,406	1,244,582
2023	117,492	35,248	30,317	4,931	303	3,256,029	424,143	54,006	887,660	424,160	1,466,061
2024	121,716	36,515	31,338	5,177	313	3,432,997	420,300	72,384	948,081	452,037	1,540,196
2025	121,750	36,525	31,346	5,179	313	3,502,564	431,649	74,628	977,745	466,170	1,552,372
2026	121,750	36,525	31,346	5,179	313	3,572,615	445,030	76,941	1,008,055	480,622	1,561,967
2027	121,750	36,525	31,346	5,179	313	3,644,067	421,666	96,224	1,039,305	495,521	1,591,351
2028	111,771	33,531	28,922	4,609	289	3,429,569	243,179	97,514	983,702	471,383	1,633,793
2029	99,868	29,960	25,817	4,143	258	3,122,592	250,717	97,543	906,185	433,818	1,434,329
2030	89,080	26,724	23,062	3,662	231	2,845,164	204,906	94,479	833,359	399,538	1,312,882
2031	76,375	22,913	19,765	3,147	198	2,487,207	204,186	84,857	736,652	353,038	1,108,475
2032	66,437	19,931	17,213	2,718	172	2,209,290	153,558	75,275	660,656	316,972	1,002,829
2033	53,207	15,962	13,800	2,162	138	1,806,750	146,574	64,267	545,499	262,014	788,397
2034	43,575	13,072	11,308	1,764	113	1,510,056	102,682	53,085	460,596	221,349	672,343
2035	30,087	9,026	7,847	1,179	78	1,068,881	80,897	40,748	327,880	158,370	460,985
2036	21,607	6,482	5,621	861	56	780,910	44,792	28,625	242,766	116,951	347,776
2037	7,927	2,378	2,148	230	21	304,420	6,370	15,287	91,830	46,082	144,851
2038	653	196	180	16	2	26,032	49,254	1,970	7,793	3,983	-36,968
Total	1,750,157	525,047	452,330	72,717	4,523	50,937,325	6,226,072	1,270,190	14,337,770	6,863,840	22,239,452

	Before Income Tax NPV (in M\$) @										
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>							
22,239,452	11,290,464	6,251,325	3,729,320	2,368,690							

Table II-27 Prospective Resources and Net Present Values of Tablazo Formation High Estimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	L&N	(Oil Resour	res					Oney	Oney	Pipeline	Before Tax NPV @
	100%	Gross	Net	Rovalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Voor	Mbbl	Mbbl	Mbbl	Mbb1	Mbbl	M¢	Сарыл М\$	M¢	M¢	M\$	M\$
<u>1 car</u> 2012	<u>101001</u>	<u>NIDDI</u>	<u>101001</u>	<u>10001</u>	<u>MIDDI</u>	<u>1015</u>	<u>IVI</u> 0	<u>IVI</u> 0	<u>IVI</u> 0	<u>IVI</u> 0	<u>IVI</u>
2012	1 964	589	542	47	5	43 991	63 710	306	10 937	5 588	-36 549
2013	1,504	4 549	4 019	530	40	392 495	174 307	2 052	87 045	42 722	86 369
2014	24 502	7 350	6 306	1 045	63	605 435	175 351	3 905	144 999	69 106	212.075
2016	26.053	7,816	6 672	1 1 1 4 4	67	636 419	186 719	4 361	158 960	75 384	210,995
2017	26,053	7,816	6.672	1,144	67	636.281	177,409	4,497	163.888	77,721	212,766
2018	26.053	7.816	6.672	1.144	67	649.006	201.580	4.636	168,968	80.131	193.692
2019	26.053	7.816	6.672	1.144	67	661.986	191.727	4.780	174.206	82.615	208.658
2020	26.053	7 816	6 672	1 144	67	675 226	213 545	4 928	179 607	85 176	191 971
2020	26,053	7,816	6 672	1 1 4 4	67	688 731	201 439	5.081	185 174	87.816	209 221
2021	20,055	7,010	6,672	1,144	(7	702 505	201,757	5,001	100.015	00,520	101 742
2022	20,055	7,810	0,072	1,144	07	702,505	224,071	5,238	190,915	90,538	191,/45
2023	26,053	7,816	6,672	1,144	67	716,555	216,428	5,401	196,833	93,345	204,548
2024	26,053	7,816	6,672	1,144	67	730,887	205,076	5,568	202,935	96,239	221,069
2025	26,053	7,816	6,672	1,144	67	745,504	209,753	5,741	209,226	99,222	221,563
2026	26,053	7,816	6,672	1,144	67	760,414	216,255	5,919	215,712	102,298	220,231
2027	26,053	7,816	6,672	1,144	67	775,623	185,799	6,102	222,399	105,469	255,853
2028	16,075	4,822	4,248	574	42	503,756	0	4,597	141,472	69,240	288,447
2029	4,171	1,251	1,143	108	11	138,263	0	1,746	37,847	19,209	79,461
Total	374,513	112,354	96,321	16,033	963	10,063,078	2,843,169	74,857	2,691,123	1,281,818	3,172,111

	NPV of Future Net Revenue <u>Before Tax</u> Deducted (in M\$) @									
<u>0%</u>	<u>5%</u>	<u>10%</u>	15%	<u>20%</u>						
3,172,111	1,955,940	1,285,170	891,135	645,828						

Table II-28 Prospective Resources and Net Present Values of Salada Formation HighEstimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	L&N	/ Oil Resour	res					Onex	Opex	Pipeline	Before Tax NPV @
	100%	Gross	Net	Rovalty	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	M\$	M\$	M\$	M\$	M\$	M\$
2012	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	532	159	147	13	1	13,639	13,559	434	3,146	1,608	-5,107
2016	12,304	3,691	3,290	401	33	303,866	41,937	6,710	75,072	37,173	142,975
2017	22,180	6,654	5,756	898	58	531,501	57,649	14,989	139,522	67,050	252,291
2018	35,025	10,507	9,148	1,360	91	861,604	89,154	23,537	227,154	109,865	411,894
2019	45,466	13,640	11,765	1,875	118	1,130,294	91,918	32,845	304,013	145,681	555,836
2020	47,848	14,355	12,337	2,017	123	1,208,959	94,768	36,391	329,861	157,500	590,439
2021	47,848	14,355	12,337	2,017	123	1,233,138	97,706	37,519	340,087	162,383	595,444
2022	47,848	14,355	12,337	2,017	123	1,299,019	100,734	38,682	350,630	167,417	641,557
2023	47,848	14,355	12,337	2,017	123	1,325,000	103,857	39,881	361,499	172,607	647,156
2024	47,848	14,355	12,337	2,017	123	1,351,500	107,077	41,117	372,706	177,957	652,643
2025	47,848	14,355	12,337	2,017	123	1,378,530	110,396	42,392	384,259	183,474	658,008
2026	47,848	14,355	12,337	2,017	123	1,406,100	113,818	43,706	396,171	189,162	663,242
2027	47,848	14,355	12,337	2,017	123	1,434,222	117,347	45,061	408,453	195,026	668,336
2028	47,848	14,355	12,337	2,017	123	1,462,907	120,985	46,458	421,115	201,072	673,278
2029	47,848	14,355	12,337	2,017	123	1,492,165	124,735	47,898	434,169	207,305	678,057
2030	41,232	12,370	10,725	1,644	107	1,323,156	75,018	45,096	385,730	185,807	631,505
2031	28,527	8,558	7,428	1,130	74	934,759	66,294	33,943	275,147	132,681	426,694
2032	18,588	5,576	4,876	701	49	625,793	11,392	22,783	184,844	89,784	316,990
2033	5,358	1,608	1,463	144	15	191,583	0	10,147	54,937	27,783	98,715
2034	125	38	35	3	0	4,618	0	387	1,324	677	2,229
Total	687822	206347	178003	28343.6	1780.03	2E+07	1538343	609978	5449839	2612011	9302180

NPV of Future Net Revenue <u>Before Tax</u> Deducted (in M\$) @

	Denote 14	A Deducted	$(\mathbf{m},\mathbf{m},\mathbf{q},\mathbf{\phi}) \in$	
<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
9,302,180	5,006,824	2,890,620	1,772,732	1,143,660

Table II-29 Prospective Resources and Net Present Values of Galembo Formation High Estimate (Scenario 2)

Working Interest	30%
Royalty	ANH 8%-20% Sliding Scale
X-Factor	1% in the VMM 37 ANH Contract
Effective Date	July 31, 2012

	L&N	1 Oil Resour	ces					Opex	Opex	Pipeline	Before Tax NPV @
	100%	Gross	Net	Rovaltv	X-Factor	Revenue	CapEx	fixed	variable	tariff	0%
Year	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	M\$	M\$	M\$	M\$	M\$	M\$
2012	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	0	0
2019	78	23	22	2	0	2,066	1,915	31	521	266	-667
2020	9,820	2,946	2,646	300	26	259,273	47,384	1,516	67,698	33,778	108,897
2021	20,979	6,294	5,460	834	55	545,737	48,853	3,876	149,109	71,864	272,036
2022	31,182	9,355	8,139	1,215	81	857,009	100,734	6,044	228,497	110,451	411,282
2023	43,590	13,077	11,308	1,769	113	1,214,474	103,857	8,724	329,328	158,209	614,357
2024	47,814	14,344	12,329	2,015	123	1,350,611	108,148	25,698	372,440	177,840	666,484
2025	47,848	14,355	12,337	2,017	123	1,378,530	111,500	26,495	384,259	183,474	672,801
2026	47,848	14,355	12,337	2,017	123	1,406,100	114,957	27,316	396,171	189,162	678,494
2027	47,848	14,355	12,337	2,017	123	1,434,222	118,520	45,061	408,453	195,026	667,162
2028	47,848	14,355	12,337	2,017	123	1,462,907	122,194	46,458	421,115	201,072	672,068
2029	47,848	14,355	12,337	2,017	123	1,492,165	125,982	47,898	434,169	207,305	676,810
2030	47,848	14,355	12,337	2,017	123	1,522,008	129,888	49,383	447,629	213,731	681,377
2031	47,848	14,355	12,337	2,017	123	1,552,448	137,892	50,914	461,505	220,357	681,780
2032	47,848	14,355	12,337	2,017	123	1,583,497	142,167	52,492	475,812	227,188	685,839
2033	47,848	14,355	12,337	2,017	123	1,615,167	146,574	54,120	490,562	234,231	689,681
2034	43,450	13,035	11,273	1,761	113	1,505,438	102,682	52,697	459,272	220,672	670,114
2035	30,087	9,026	7,847	1,179	78	1,068,881	80,897	40,748	327,880	158,370	460,985
2036	21,607	6,482	5,621	861	56	780,910	44,792	28,625	242,766	116,951	347,776
2037	7,927	2,378	2,148	230	21	304,420	6,370	15,287	91,830	46,082	144,851
2038	653	196	180	16	2	26,032	49,254	1,970	7,793	3,983	-36,968
Total	687822	206347	178007	28339.8	1780.07	2.1E+07	1844559	585356	6196808	2970011	9765161

NPV of Future Net Revenue Before Tax Deducted (in M\$) @

<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
9,765,161	4,327,700	2,075,535	1,065,453	579,201

Appendix A Conversion Factors and Abbreviations

Conversion Factors

1 metre3.28 feet1 cubic metre of gas35.31467 cubic feet of gas1 cubic metre of liquid6.28981 barrels1 kg/sq. cm.14.22334 psi1 hectare (10,000 square metres)2.471054 acres

Abbreviations

ac	acre
AOF	absolute open flow
API	American Petroleum Institute
bbl	barrel
bopd	barrels of oil per day
BTU	British Thermal Unit
ср	centipose
°F	degrees, Fahrenheit
°R	degrees, Rankin
ft	feet
GOR	gas oil ratio
KB	Kelly bushing
LT	long tonne
m	metre
Mbbl	thousands of barrels
MMbbl	millions of barrels
\$M	thousand dollars
Mcf	thousand cubic feet
mD	milli-Darcy
MD	measured depth
MMcf	million cubic feet
ppm	parts per million
PVT	pressure-volume-temperature
psia	pounds per square inch absolute
psig	pounds per square inch gauge
rb	reservoir barrel
RFT	Repeat formation test
scf	standard cubic feet
SS	subsea
stb	stock tank barrel
STOOIP	stock tank original oil-in-place
TVD	true vertical depth
WI	working interest



Appendix B Location Plat of the VMM 37 Block (as per Annex B of the ANH Exploration and Production Contract)

Appendix C Information Pertaining to the Prospects

As required in 10.3 (Reporting Resources and Values of Undeveloped Lands) of the COGE Handbook, the information relating to the prospects is as follows:

1. Location and basin name

VMM 37 Block is in the Middle Magdalena Valley Basin.

2. Gross and Net interest in the lands.

<u>Block</u>	Gross, hectares	Working Interest	Net, hectares
VMM 37	17,465	100%	17,465

The Company intends to farm-out 70% working interest in the Salada and Galembo and Tablazo Formations within the VMM 37 Block.

3. Expiry Dates of Exploration Phase

VMM 37 – September 1, 2014

- 4. Geologic Age and Lithology of the Target Zone
- Block Geological Age and Lithology of the Target Zone
- VMM 37 Lisama in the Paleocene Salada, Galembo (sub-groups of La Luna) and Tablazo Formations in the Cretaceous.
- 5. Distance to the nearest analogous commercial production

The analogue and production data in this area is from old fields which have been operated by Ecopetrol in Magdalena Medio (2218) and Sogamoso (2409) with production from the La Luna Formation (see Figure II-1) and from Yarigui-Cantagallo, Los Angeles, Santa Lucia, Cristalina and Dona Maria Fields in the Lisama Formation.

These fields are all within 100 km from VMM 37 Block.

- 6. The prospects in the VMM 37 Block are expected to range from light to heavy crude oil.
- 7. Range of pool or field sizes and the probability of success and risk.

The range of pool sizes are as follows:

Lisama from 3,239 to 100,580 Mbbl Galembo from 66,940 to 687,822 Mbbl Salada from 66,940 to 687,822 Mbbl Tablazo 33,750 to 374,513 Mbbl

Chance of discovery from approximately 18.9% to 25.7%

8. Depth of the target zone.

Lisama 5,500 to 6,200 feet Salada and Galembo 8,000 to 11,900 feet Tablazo 12,000 to 14,200 feet

9. Estimated cost (at 100% working interest) to drill and test a well to the target depth.

VMM 37 – Approximately \$6,000,000 per well in the Lisama Formation to \$14,000,000 per well in the Tablazo/Salada and Galembo Formations

10. Drilling commencement and completion dates

VMM 37 – First Half of 2013

- 11. Price environment –The product price is based on Colombian export price of the Vasconia oil and is currently adjusted to the Brent crude oil price less gravity adjustment and pipeline tariff for the produced oil in VMM 37.
- 12. Expected marketing and transportation arrangements from the field, the oil is normally trucked to a pipeline loading terminal and the shipped by existing pipeline system to the Port of Coveňas for the VMM 37 oil for export.
- 13. Identity and relevant experience of the operator

The Company is the current operator of the block but will be transferring operatorship to ExxonMobil Exploration Colombia after the farm-out agreement. ExxonMobil is the biggest oil company in the world.

14. The risks and probability of success as described in item 7.

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Unrisked Prospective Resources and Net Present Values of ColCan Energy Corp. in the VMM 37 Block in Colombia Effective Date - February 28, 2011

Total VMM 37 - Best and High Estimates

	L&M	Oil Resou	rces		Before T:	ax NPV Discou	unted @			After Tax	NPV Discour	ited @	
	100%	Gross	Net	%0	5%	10%	15%	20%	%0	5%	10%	15%	20%
Prospect	(Mbbl)	(Mbbl)	(Mbbl)	(W\$)	(W\$)	(M\$)	(M\$)	(M\$)	(W\$)	(M\$)	(M\$)	(M\$)	(M\$)
Best	11,336	11,336	10,325	474,002	326,400	228,527	162,100	116,029	331,380	218,585	145,161	96,358	63,300
High	87,524	87,524	79,717	5,849,714	3,927,924	2,740,898	1,976,322	1,464,905	4,053,277	2,700,942	1,868,796	1,335,157	979,974
VMM 3'	7 - Best E	stimates											
	L&	M Oil Reso	urces		Before	Tax NPV Dist	counted @			After Ta	x NPV Discou	inted @	
	100%	Gross	Net	%0	5%	10%	15%	20%	%0	5%	10%	15%	20%
Prospect	(Mbbl)	(Mbbl)	(Mbbl)	(W\$)	(W\$)	(W\$)	(W\$)	(W\$)	(M\$)	(W\$)	(W\$)	(M\$)	(M\$)
1	2,656	2,656	2,41	9 111,258	80,771	1 59,420	44,180	33,101	77,632	54,040	37,794	26,414	18,314
2	1,517	1,517	1,38	2 67,19() 48,98t	5 36,202	27,047	20,369	46,836	32,914	23,269	16,468	11,594
ŝ	7,163	7,163	6,52	4 295,554	4 196,643	3 132,905	90,874	62,559	206,912	131,632	84,099	53,476	33,392
Total	11,336	11,336	10,32	5 474,002	2 326,400	228,527	162,100	116,029	331,380	218,585	145,161	96,358	63,300
VMM 3'	7 - High E	Estimates											
	L&M	I Oil Resou	rces		Before T	ax NPV Disco	ounted @			After Ta	X NPV Disco	inted @	
	100%	Gross	Net	0%	5%	10%	15%	20%	%0	5%	10%	15%	20%
Prospect	(Mbbl)	(Mbbl)	(Mbbl)	(W\$)	(W\$)	(W\$)	(W\$)	(W\$)	(M\$)	(W\$)	(M\$)	(W\$)	(M\$)
1	18,721	18,721	17,051	1,236,946	900,783	674,077	516,388	403,546	857,119	619,614	459,943	349,316	270,514
7	14,000	14,000	12,751	924,926	674,753	505,517	387,499	302,864	640,796	464,074	344,873	262,059	202,933
ω	54,803	54,803	49,915	3,687,842	2,352,387	1,561,304	1,072,435	758,495	2,555,362	1,617,255	1,063,979	723,782	506,527
Total	87,524	87,524	79,717	5,849,714	3,927,924	2,740,898	1,976,322	1,464,905	4,053,277	2,700,942	1,868,796	1,335,157	979,974

Unrisked Prospective Resources (Leads) of ColCan Energy Corp. in the VMM 37 Block in Colombia

Effective Date – February 28, 2011

		Petroleum Originally in Place (Mbbl)	Recoverable (Mbbl)	Recoverable (Mbbl)
Estimate	Leads		100% W.I.	Company's W.I.
Low	Lead 1	5,200	520	520
	Lead 2	1,468	147	147
	Lead 3	1,427	143	143
	Lead 4	11,871	1,484	1,484
	Total Low Estimate	19,967	2,293	2,293
Best	Lead 1	32,775	4,916	4,916
	Lead 2	14,462	2,169	2,169
	Lead 3	9,507	1,426	1,426
	Lead 4	73,509	11,026	11,026
	Total Best Estimate	130,253	19,538	19,538
High	Lead 1	89,073	17,815	17,815
-	Lead 2	52,167	10,433	10,433
	Lead 3	32,168	6,434	6,434
	Lead 4	392,823	78,565	78,565
	Total High Estimate	566,231	113,246	113,246

CORPORATE INFORMATION

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AUDIT COMMITTEE

Ron MacMicken, Director Grant Fagerheim, Director Bruno Maruzzo, Director

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