

**ORCA EXPLORATION GROUP INC.**

ORC.B-TSX V: \$4.35 — BUY

TARGET PRICE: \$6.25; PROJECTED RETURN: 44%

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**Year-End Results Inline; Seeking New Exploration Opportunities**

**EVENT – Year-End Financial and Operating Results**

Production averaged 28.5 mmcf/d, which was slightly higher than our forecast of 26.2 mmcf/d. Cash flow of US\$12.7 million (\$0.41/fd share) was slightly below our forecast of US\$13.8 million (\$0.44/fd share). Orca exited the quarter with no debt and positive working capital of US\$16.8 million.

**HIGHLIGHTS – Production Continues to Build; 2010 Operations to Set Up Exploration in 2011**

**Expansion of processing infrastructure to meet demand:** Current processing and transportation capacity of 90 mmcf/d has the potential to be expanded to 105 mmcf/d on a temporary basis in 2010. The company plans a permanent expansion of processing capacity to 144 mmcf/d by the end of 2012 by installing two new processing trains and pipeline compression. Further capacity expansion to 200 mmcf/d will require construction of a twin onshore pipeline.

**Songo Songo West prospect to be drilled in 2011:** Orca plans to drill the Songo Songo West (SSW) exploration prospect in 2011 (Figure 1). Independent engineering firm McDaniel & Associates Consultants Ltd. assigned an unrisked recoverable resource estimate of 551.6 bcf to the prospect. Success could more than double Orca’s 2P reserves of 490.2 bcf.

**New exploration opportunities:** To balance its lower-risk steady-growth natural gas assets in Tanzania, Orca is seeking to add two oil exploration prospects located in proven hydrocarbon basins in West Africa, the Middle East, and southern Europe.

**VALUATION – Adding SSW to Risked Exploration Upside**

Based upon the valuation for the Songo Songo natural gas field and including Orca’s positive working capital, we calculate a core NAV of \$10.21/fd share. We have added a risked valuation of \$2.26/fd share for the SSW exploration prospect expected to be drilled in 2011 which results in a risked NAV of \$12.47/fd share.

**RECOMMENDATION – BUY on Exploration Potential**

Orca is currently a 100% natural gas producer that should demonstrate steady production growth as demand for natural gas in Tanzania and other East African countries continues to grow. The company continues to trade at a discount to our risked net asset value of \$12.47 due to its concentrated asset base and slow but consistent production growth. The addition of a new oil exploration asset could cause a significant appreciation in the stock price as it would add speculative appeal and the potential for a more-balanced production base. We are upgrading from ACCUMULATE to BUY on the B shares and we have increased our target price from \$5.50 to \$6.25, equivalent to a 0.5x multiple of our risked NAV which equates to a 7.4x multiple of our 2011 EV/DACF.

**VALUATION CATALYST – Adding a New Exploration Project**

A new oil project would diversify its production mix and opportunity base.

**Financial Metrics (C\$)**

Shares O/S (mm)*:	29.5	Mkt. Cap (\$ mm):	\$128.3
FD Shares (mm):	32.3	W.Capital (\$ mm)**	\$17.2
Price:	\$4.35	Ent.Value (\$ mm):	\$111.1
52-Wk High:	\$5.34	52-Wk Low:	\$3.00

\* 27.7 million Class B shares and 1.75 million Class A shares.

\*\*Positive working capital in C\$ as of December 31, 2009

<b>FY December 31</b>	<b>2008A</b>	<b>2009A</b>	<b>2010E</b>	<b>2011E</b>
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**Production**

Liquids (bbl/d)	-	-	-	-
Gas (mmcf/d)	23.7	28.5	33.0	35.5
Boe/d (6:1)	3,945	4,756	5,507	5,925

**Financials (US\$)**

Cash Flow (US\$ mm)	\$9.8	\$12.7	\$18.5	\$26.3
CFPS (FD)	\$0.33	\$0.49	\$0.61	\$0.84
EV/DACF	14.4x	11.4x	6.1x	4.6x
D/CF	na	na	na	na

**2010 Quarters**

Liquids (bbl/d)	-	-	-	-
Gas (mmcf/d)	29.0	31.0	39.0	43.0
Boe/d (6:1)	4,417	5,250	6,000	6,333
CFPS (FD) US\$	\$0.06	\$0.11	\$0.20	\$0.23

**Target Valuation Parameter**

0.5x Risked NAV; 7.1x 2011 EV/DACF



Courtesy of BigCharts.com

**Key Risks**

Expansion of the processing and transportation infrastructure projects will require Songas Limited and EWURA to reach an agreement on terms. Any delays in an agreement could impact Orca’s ability to achieve our forecasts

**Corporate Profile**

Orca Exploration Group Inc. ([www.orcaexploration.com](http://www.orcaexploration.com)) is an international oil and gas exploration and production company that produces and markets natural gas in Tanzania.

**Multiple Share Structure**

Two-share structure: 1.75 million Class A shares are outstanding with 20 votes each, and 27.7 million Class B single-voting shares. The Chairman & CEO of Orca holds 99.5% of the Class A shares and 17.5% of the outstanding Class B shares.

## NATURAL GAS SALES

**Industrial demand:** In 2009, Orca supplied 5.7 mmcf/d of natural gas to industrial customers in Dar es Salaam at an average price of US\$8.36/mcf. Industrial sales increased by 42.5% over 2008, primarily due to increased demand from the Tanzania Portland Cement Company to provide gas to its new kiln at Wazo Hill. Orca currently has 35 industrial customers connected to the distribution line.

**Power-generation demand:** Power sector natural gas sales in 2009 averaged 22.8 mmcf/d, and increased by 16% over last year. Orca supplied natural gas to the power sector at an average price of US\$2.40/mcf. As at December 31, 2009, there was 189 MW of gas fired generation in Tanzania that is being powered by Orca's natural gas. At maximum demand, the power stations would require approximately 38 mmcf/d of sales gas.

## SSW EXPLORATION PROSPECT

Independent engineering firm McDaniel & Associates Consultants Ltd. (McDaniel) completed a reserves estimate of the Songo Songo natural gas field in Tanzania. At December 31, 2009, total net proven and probable (2P) reserves were estimated to be 490 bcf, with an after-tax NP10 value of US\$291.1 million. McDaniel also completed a resource estimate of the SSW exploration prospect, which is located approximately 2.5 kilometres west of the producing Songo Songo field (Figure 1). McDaniel's unrisks recoverable resource estimate of 551.6 bcf is similar to the 2P reserves of the Songo Songo field. McDaniel assigned a relatively high chance of success to the exploration prospect of 50%. Orca and other operators in East Africa are currently sourcing a jack-up rig to drill a well in 2011.

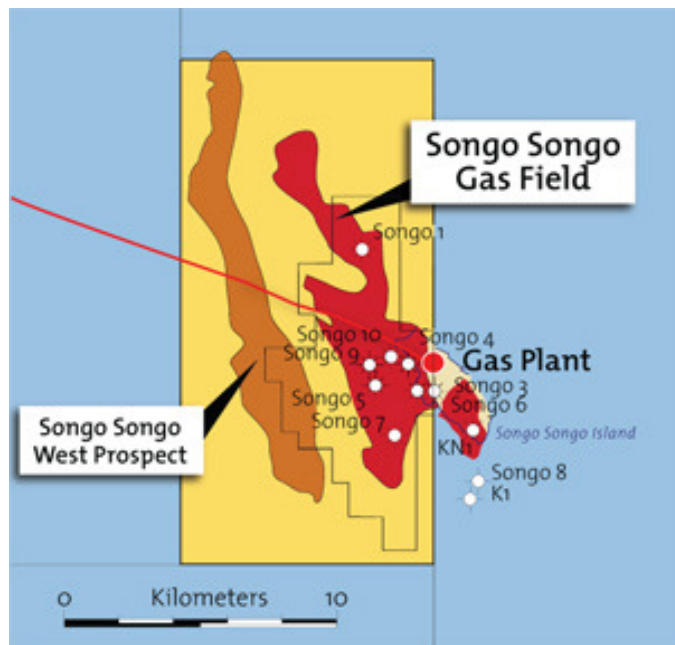


Figure 1. Songo Songo Field  
Source. Company reports

## EVALUATING NEW EXPLORATION OPPORTUNITIES

Orca continues to evaluate new acquisition prospects located in Africa, the Middle East, and southern Europe. The key acquisition criteria is location in a proven hydrocarbon basin with which the management team has past expertise, with large reserve potential, and the ability to drill within two years. The preference is for oil that can be monetized rapidly with a minimal upfront capital expenditure.

## RISKED NAV

Based upon the valuation for the Songo Songo natural gas field and including Orca's positive working capital, we calculate a core NAV of \$10.21/fd share. We have added a risked valuation of \$2.26/fd share for the SSW exploration prospect expected to be drilled in 2011 which results in a risked NAV of \$12.47/fd share (Figure 2).

### Estimated Net Asset Value

	C\$ mm	C\$/share
<b>Reserves</b>		
Proven	252.8	\$8.40
Probable	44.3	\$1.47
Total	<b>297.0</b>	<b>\$9.87</b>
Positive Working Capital	17.2	\$0.58
<b>Net Asset Value (Basic)</b>	<b>314.2</b>	<b>\$10.65</b>
<b>Net Asset Value (FD)</b>	<b>318.2</b>	<b>\$10.21</b>
Risked Resource Value (Songo Songo West)	70.2	\$2.25
Dilution Increment	4.0	\$0.13
<b>Risked Net Asset Value (FD)</b>	<b>388.4</b>	<b>\$12.47</b>

Figure 2. Risked NAV

Source. Company reports, Mackie Research Capital

**Orca Exploration Group Inc.**

**ORC.B**

<b>Share Data and Market Value</b>		<b>Price and Target</b>			
Basic Shares (mm)	29.5	Close C \$:	\$4.35		
Diluted Sh. (Treasury)	30.8	52-Week High C \$:	\$5.34		
Fully Diluted (mm)	32.3	52-Week Low C \$:	\$3.00		
<b>Market Cap. (C \$ mm)</b>	<b>128.3</b>	Target Price C \$:	\$6.25		
<b>Enterprise Value (C \$ mm)</b>	<b>111.1</b>	Potential Return:	43.7%		
Net Debt (W.C.) (C \$ mm)	(17.2)	Risked NAV	1.0x		
<b>Production</b>		<b>2008A</b>	<b>2009A</b>	<b>2010E</b>	<b>2011E</b>
Oil & Liquids	bbl/d	-	-	-	-
Natural Gas	mmcf/d	23.7	28.5	33.0	35.5
Boe/d	6:1	3,945	4,756	5,507	5,925
Production Growth	%	(33%)	21%	16%	8%
<b>Cash Flow &amp; Earnings (US\$)</b>		<b>2008A</b>	<b>2009A</b>	<b>2010E</b>	<b>2011E</b>
Cash Flow	\$ mm	9.8	12.7	18.5	25.1
Cash Flow/Share	\$/share	\$ 0.33	\$ 0.43	\$ 0.63	\$ 0.85
Cash Flow/FD Share	\$/share	\$ 0.31	\$ 0.41	\$ 0.59	\$ 0.81
CF Per Share Growth	%	9%	30%	46%	35%
<b>\$/Barrel of Oil Equivalent (US \$)</b>		<b>2008A</b>	<b>2009A</b>	<b>2010E</b>	<b>2011E</b>
Revenue	\$/boe/d	24.12	21.59	21.52	21.02
Operating Costs	\$/boe/d	1.03	1.62	1.50	1.50
G&A	\$/boe/d	8.52	5.96	5.97	5.55
<b>Cash Flow</b>	<b>\$/boe/d</b>	<b>6.77</b>	<b>7.30</b>	<b>9.22</b>	<b>11.60</b>
<b>Valuation Metrics (C \$)</b>		<b>2008A</b>	<b>2009A</b>	<b>2010E</b>	<b>2011E</b>
FD Cash Flow Multiple		13.1x	10.1x	7.2x	5.4x
EV/DACF Multiple		14.4x	11.4x	6.1x	4.9x
EV/Production	C \$/boe/d	28.2	23.4	20.2	18.8
EV/boe reserves	C \$/boe	1.36	1.36		
<b>Commodity Price</b>		<b>2008A</b>	<b>2009A</b>	<b>2010E</b>	<b>2011E</b>
Industrial	US \$/mcf	\$11.97	\$8.36	\$8.50	\$8.75
Power	US \$/mcf	\$2.37	\$2.40	\$2.40	\$2.40
Exchange Rate	US \$ per C \$	1.06	1.14	0.98	1.00
<b>Capex and Capital Structure</b>		<b>2008A</b>	<b>2009A</b>	<b>2010E</b>	<b>2011E</b>
Capex/Cash Flow	%	390%	42%	105%	140%
Weighted Average Basic	mm	29.5	29.6	29.5	29.5
Dilutive	mm	31.0	31.1	31.2	31.2
Market Cap	C \$ mm	128.3	128.8	128.3	128.3
Enterprise Value	C \$ mm	119.9	114.0	112.1	122.3
Year-end Net Debt (WC)	C \$ mm	(8.4)	(14.8)	(16.2)	(6.0)
Net Debt/Cash Flow		na	na	na	na
<b>Net Asset Value Estimate</b>		<b>Reserve Estimate</b>		12/31/2007	
	(C \$ thousands)			(mboe)	
Reserves (P + P)*	314,219	Proven	79%	64,150	
Net Debt (W. Capital)	17,179	Probable	21%	17,550	
Other Assets	-	P+P		81,700	
Other Liabilities	-	<b>Reserve Life Index</b>			
Net Asset Value	297,041			Production	
NAV/Share	\$10.65			2009	2010
<b>NAV/FD Share</b>	<b>\$10.21</b>	Proven		37.0	31.9
Risked Exploration (C\$)	\$70,150	P+P		47.1	40.6
Risked NAV/Share (C\$)	\$12.45				
<b>Risked NAV/FD share (C\$)</b>	<b>\$12.47</b>				

Figure 3. Fundamentals & Key Ratios  
Source. Company reports, Mackie Research Capital

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