ALIGN
RESEARCH

Eco (Atlantic) Oil & Gas

18th November 2020

Highly successful explorer in frontier regions where preparations are underway for fully funded further drilling in Guyana

Eco started trading on the TSX-V in 2011 with Namibian oil interests. 2016 saw the company teaming up with Tullow to acquire a licence in Guyana to explore similar basins in the margins on the other side of the Atlantic Ocean, ahead of becoming dual-listed in 2017. The shares began rising on Eco's announcement to drill and climbed to 190p+ following the drilling of two discovery wells in Guyana which confirmed the prospectivity of the upper & lower Tertiary fairways. However, the stock price fell by two thirds in a matter of days following Tullow's news that the wells contained heavy oil with high sulphur content, disappointing the market.

Prolific hydrocarbon provinces where Eco teams up with majors

The acreage in both Guyana and Namibia has huge potential where Eco has a good track record of being able to successfully negotiate farm out deals with majors to develop its projects. Eco is in good shape, with over US$17m in the bank, no debt and is fully funded for further drilling in Guyana.

Next door in Guyana, Exxon has discovered more than 9 billion boe

2021 could potentially see the drilling of two wells into light oil Cretaceous targets - the source of ExxonMobil's success on the adjoining Stabroek Block where the 120,000 bopd Liza Field went into production in late 2019.

Strong acreage position in Namibia could benefit from drilling activity

Eco's strategic positioning here could become increasingly more valuable shortly. Rising interest in this area could result in at least four wells being drilled by Total, ExxonMobil, Shell and M&P over the next 12 months.

Dramatically under-priced – our risked NPV suggests 448% upside

A big fall in the stock price provides a good buying opportunity. We initiate coverage of Eco with a target price of 123.54p and **Conviction buy** stance.

Table: Financial overview

Year to end March	2019A	2020A	2021E	2022E
Revenue (C$'000)	16,948	508	500	-
PTP (C$'000)	4,174	(26,660)	(15,300)	(27,900)
EPS (C$)	0.03	(0.15)	(0.08)	(0.15)

Source: Company accounts & Align Research

This investment may not be suitable for your personal circumstances. If you are in any doubt as to its suitability you should seek professional advice. This note does not constitute advice and your capital is at risk. This is a marketing communication and cannot be considered independent research.

CONVICTION BUY – Price target 123.54p

ECO ATLANTIC OIL & GAS

Key data

EPIC	ECO
Share price	22.25p
52 week high/low	62p/13.00p
Listing	AIM & TSX-V
Shares in issue	184.70m
Market Cap	£41.1m
Sector	Oil

12 month share price chart

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IMPORTANT: Eco (Atlantic) Oil & Gas is a research client of Align Research. Align Research holds an interest in the shares of Eco. For full disclaimer please refer to the last page of this document.

Business overview

Eco (Atlantic) Oil & Gas Operations

Eco (Atlantic) Oil & Gas Ltd. is an international oil and gas exploration and development company that is focused on the identification, acquisition and development of upstream petroleum opportunities in politically stable and technically de-risked jurisdictions around the world. The company has a strategic portfolio of offshore projects in Guyana and Namibia in partnership with major oil companies and large independents.

• **Guyana** – In partnership with Tullow Oil and Total/Qatar Petroleum, Eco holds a 15% working interest in the 1,800km² Orinduik offshore block in the shallow to medium depth water of the prospective Guyana-Suriname basin. The licence area is adjacent and updip of ExxonMobil's 18 world class discoveries on the Stabroek Block where recoverable resources of more than 9 billion barrels of oil have been estimated. First production began in late-2019 from the Liza Field. In 2019, Eco was able to announce a significant oil discovery on the Orinduik Block from the Jethro-1 exploration well. The discovery has been estimated to contain over 100 million barrels of oil, above the pre-drill estimates, followed by a further discovery at the Joe-1 exploration well.

• **Namibia** – The company is the majority stakeholder and Operator of four prospective licence blocks in the Walvis Basin called Sharon, Cooper, Guy and Tamar. This licence area (the second largest in Namibia after Exxon) is estimated to contain 2.36 billion barrels of net prospective resources. The Walvis Basin is a proven petroleum system and Eco is working in partnership with NAMCOR and Azinam on these projects within the region.

Stena Forth drill ship which drilled the Jethro-1 and Joe-1 discovery wells. Source: Stena Drilling via CPR February 2020

ATLANTIC MARGINS

Continental drift, plate tectonics and subsequent deposition and associated subsidence have created the geological setting for oil and gas deposits around the edge of the Atlantic Ocean. Transform faults lie at the plate boundaries and its motion is predominately horizontal as two tectonic plates slide past one another. The transform margin is the area where the continents meet these transform faults.

Oil is found in these locations due to a combination of reasons. Firstly, transform margins are often characterised by having little oceanic circulation. Secondly, anoxic conditions exist whereby the sea water is depleted of dissolved oxygen, which means that organic material remains well preserved. Thirdly, provided that this organic material gets buried sufficiently deep enough, hydrocarbons will be generated.

Opening of the central Atlantic Ocean by the action of plate tectonics. Note: Yellow circles highlight Eco Atlantic's exploration projects in Suriname-Guyana basin, Guyana and Walvis basin, Namibia Source: Company

Plate tectonics has revealed that South America and North America were a nice cosy fit with Africa and Europe before the continents drifted apart. Similar basins have been developed on both side of the Atlantic Ocean and plate tectonic concepts are being reassessed along the Atlantic Margin, which represents a vast area. Most notably the MSGBC Basin (Mauritania, Senegal, The Gambia, Guinea Bissau and Guinea Conakry) off the West African coast and the Guyana-Suriname Basin in South America have been shown to share some big similarities.

Both these basins on either side of the Atlantic are seen to be two of the most exciting underexplored frontier oil exploration areas today. The MSGBC basin has been the home to some world-class discoveries and has emerged as one of Africa's E&P hotspots, although it still remains massively underexplored. The same can be said of the Guyana-Suriname Basin which since 2015 has seen ExxonMobil and Tullow Oil make a long list of discoveries. The reinterpretation of plate tectonic concepts seems to be paying dividends.

Background

Eco Oil and Gas Ltd. was incorporated as a private company in the British Virgin Islands in 2011 to identify, acquire, explore and develop petroleum interests. After acquiring five petroleum exploration licences in Namibia, the company completed a merger with Goldbard Resources Inc, a wholly owned subsidiary of Goldbard Capital Corporation in 2011. On completion of the merger, Goldbard Capital changed its name to Eco (Atlantic) Oil & Gas Ltd and was re-admitted to trading on the TSX-V market.

Progress over the years has been pretty rapid. In 2012, Eco agreed farm-out arrangements with NAMCOR and Azinam whereby Azinam acquired a 20% in Eco's Namibia licences. A 2014 farmout deal allowed Tullow to gain a 25% working interest (WI) in the Cooper Licence for carrying Eco for its share of the cost of a 3D seismic acquisition programme. Late-2014 saw the farmout deal with Azinam resulting in the following interests: Cooper Licence (Eco 32.5%, Tullow 25%, Azinam 32.5%, and NAMCOR 10%). Guy Licence (Eco 50%, Azinam 40%, and NAMCOR 10%). Sharon Licence (Eco 60%, Azinam 30%, and NAMCOR 10%).

In 2015, Eco acquired Pan African Oil, which had C$3 million cash and the Tamar Licence deep offshore Namibia, along with two other licences which have since been relinquished. That year, the partners announced the processing of the 1,097km² 3D seismic survey on the Cooper Block. In January 2015, prior to the Liza discovery, Eco began negotiating the application for the Orinduik Block, finally in 2016 after the Liza discovery, Eco and Tullow were jointly awarded the Guyana Licence and entered into the Guyana Joint Operating Agreement (JOA) where Eco had a 40% interest and Tullow Guyana, which was the Operator, with a 60% interest.

Early 2016 saw the completion of an 870 km² 3D survey on the Guy Block. Also, Eco's Namibian licences were extended into the first renewal phase until 14th March 2018 and under the terms of the Petroleum Act, 50% of the acreage of the Sharon and Guy Licences was relinquished but the government waived this requirement for the Cooper licence. In October 2016, Eco Ghana was sold to Petrogulf Corporation. Before the year-end, Eco contracted Namibian consultants RBS, to assist with an EIA survey and gaining the permits to drill in the Cooper Block.

The terms of the farmout deal with Tullow were amended in early 2017 and reduced some of Tullow's obligations to carry Eco on an exploration well on the Cooper Block. Eco started trading on AIM in February 2017 following a placing where £5.1 million was raised at 16p per share, giving an initial market capitalisation of £18.9 million. The placing allowed Eco to enhance its seismic exploration programme on its 1,800km Orinduik Block in Guyana.

In November 2017, the company announced a Strategic Alliance Agreement with Africa Oil Corp. to identify new projects to add to Eco's portfolio. Africa Oil Corp. also invested C$14 million at 22.25p in Eco for a then 19.77% shareholding. September 2018 brought news of Total farming into the Orinduik Block, taking a 25% WI by paying US$13.5 million. This allowed Eco to be fully funded for the 2019 drilling programme where two discoveries were made in offshore Guyana by encountering high quality reservoirs at the Jethro-1 and Joe-1 wells.

Total's farm into the Orinduik block ahead of the wells in 2018, was a result of an option deal which Eco announced in September 2017. Eco had negotiated and entered into an option agreement with Total, which involved Total paying a US$1 million option fee to review the processed 3D in consideration of a 25% WI farm-in to the Block. Within a short period after the review Total had to commit to an additional to payment of US$12.5 million. Upon the announcement of Eco's NI51-101 Resource Report in September 2018, Total triggered that farm in and Eco's interest in the block reduced from 40% to 15%. This represented Total's entrance into Guyana. This was a strategic move for Eco to reduce cost exposure whilst still maintaining a healthy portion of the upside potential on the stock.

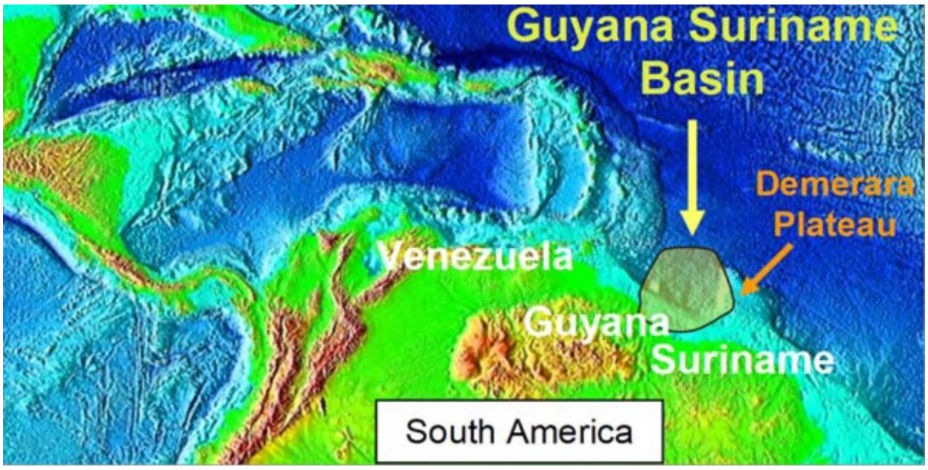
Stock market excitement following these successes propelled the shares to in excess of 190p, but this was to be short lived. In November 2019, the shares fell on news out of Tullow that some samples from the Guyanese wells showed that the oils recovered were heavy crudes with high sulphur content. This took the stock down to the 50p level. Since then the share price has been further undermined by the problematic state of affairs at Tullow Oil and the fall in the oil price that has been caused by the spread of the COVID-19 pandemic.

Operations

Eco has a strategic portfolio of offshore projects in Guyana and Namibia in partnership with major oil companies and large independents.

Guyana

Eco has a 15% WI in the Orinduik Block, which is located offshore of Guyana in the Guyana-Suriname Basin. This lies on the offshore of NE South America, off the countries of Guyana and Suriname.



Location of the Guyana-Suriname Basin. Source: CPR February 2020

Asset	Partners	Working Interest	Status	Expiry date	Licence area	Water depth
Orinduik Block	Tullow (Operator) Total Eco Guyana	60% 25%[1] 15%	Exploration	January 2026	1,800km²	70 – 1,450m

[1]Qatar Petroleum is not a working interest holder on the block but has joined Total in their local holding company

Summary of Eco's assets in Guyana. Source: Company

The Guyana-Suriname basin is ranked by the US Geological Survey as being the world's second-most prospective and under-explored offshore basin. The US Geological Survey estimate is that 13.6 billion barrels of oil and 32 trillion cubic feet of natural gas are waiting to be discovered, but this figure is now quite out of date as this estimate was made prior to the first 10 billion barrels being hit and so the estimate will significantly rise now.

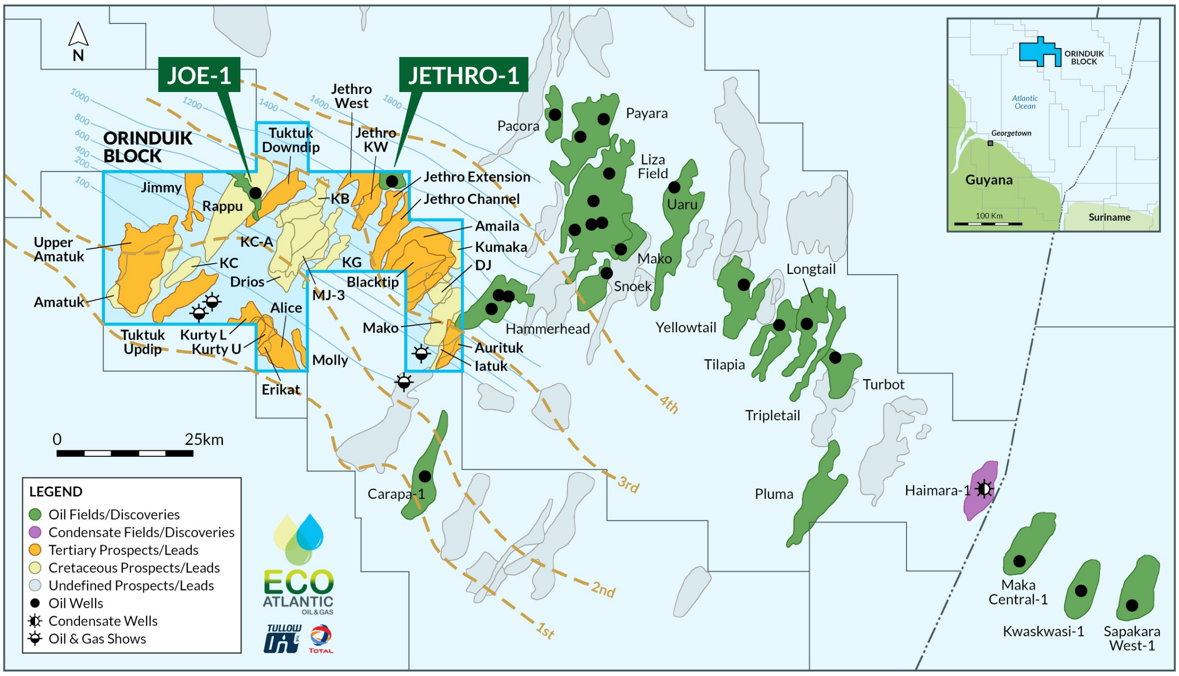
There has been little exploration in the Guyana-Suriname Basin over the years. Eleven wells were drilled in the 1967-2000 period with another three wells drilled by 2012. However, this all changed in 2015 following ExxonMobil's Liza oil and gas discovery in the Stabroek Block, which lies adjacent to Eco's Orinduik Block. ExxonMobil has enjoyed around a 90% drilling success with discoveries in the Stabroek Block of the Guyana-Suriname Basin licence area, with a total estimate of over nine billion barrels of recoverable oil. To put this success story properly into perspective, ExxonMobil's finds represent only a handful of billion-barrel discoveries over recent years and this proven potential still continues to grow.

In all, ExxonMobil has successfully discovered 16 oil and gas accumulations including the Hammerhead discovery, which lies just 7 km east of the Orinduik Block and whose reservoir stretches into the Orinduik Block. As Operator, Tullow has successfully drilled two wells on Eco's Orinduik Block called the Jethro-1 and Joe-1 wells. In addition, to the south of the Orinduik Block, Repsol has successfully drilled a Cretaceous discovery well called Carapa-1 within the Kanuku Block which was spudded in September 2019 and discovered sweet 27 degrees API oil as announced in January 2020.

ExxonMobil commenced production at the Liza Field in December 2019 at 25,000 bopd with plans to increase oil production from the field's first phase to 120,000 bopd. Eco has a 15% WI in the Orinduik Block and is just 11km from and updip to ExxonMobil's original Liza Discovery and now proving closer with further development.

Target Zone

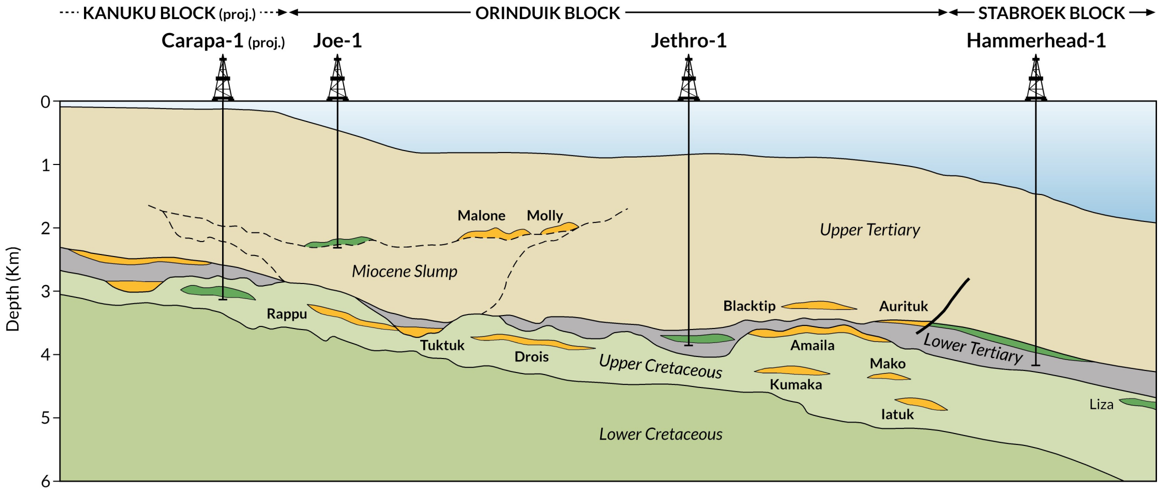
The Guyana-Suriname Basin is a passive margin basin that was formed by the drifting apart of Africa and South American during the Jurassic Age and subsequent drifting apart of the continents to form the Atlantic Ocean during the Cretaceous Age. Since that time, the deposition of fragments of older rocks has led to this sedimentary fill in some areas being more than 7,000m thick.



Map of the offshore Guyana Orinduik Block. Source: Company

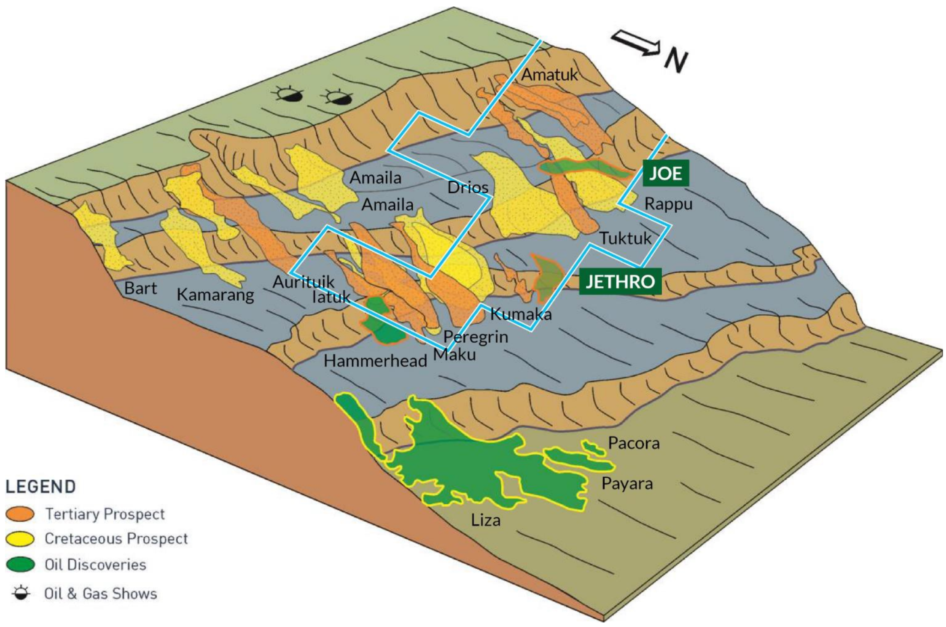
Target reservoir rocks for the Orinduik Block can be spilt into two types. Firstly, there are the sand channels deposited along the shelf margin, channel fill and overbank deposits, slope and basin turbidite fans. These are channel and fan-shaped sedimentary sand bodies formed by the accumulation of layered particles as the slope over the continental shelf breaks that grade upwards from course to the finer sizes which have been formed by a turbidity or underwater current.

Secondly, carbonates in the form of reefs and shallow water limestones. These rocks are either from the Cretaceous or a younger Age and are thought to be similar to the Cretaceous and Tertiary Age reservoirs that ExxonMobil has discovered in the neighbouring Stabroek Block at Liza, Liza Deep, Payara, Pacora, Ranger, Snoek, Longtail, Pluma, Haimara, Hammerhead, Tilapia, Tripletail, Yellowtail, Uaru, Mako and Turbot. Essentially, these sandstones and limestone reservoir units are interbedded and effectively capped by shales and marls. The Tertiary sandstones discovered by the Jethro-1 and Joe-1 wells consist of high quality well sorted sands.



Major discoveries in the Orinduik and adjacent blocks. Source: CPR February 2020

The Upper Cretaceous section includes Slope Channel Complex deposits, a classification by geologists which encompasses slope mini-basins and mud rich fine-grained submarine fans. Here such deposits are caused by stratigraphic pinch outs (tapering out of a reservoir against a nonporous sealing rock which traps hydrocarbons) together with well-developed basin floor fan sedimentary systems where extensive deposition has occurred. Plus, there are further targets found on terrace slopes where the sand has pooled in a flat spot where there is a change of gradient along the slope.



Relative positions of the Orinduik, Stabroek and Kanuku Block leads and discoveries. Source: CPR February 2020

The diagram on the previous page shows the relative positions of the Orinduik, Stabroek and Kanuku Block leads and discoveries. The Liza sand fan complex analog has been identified as being from the Maastrichtian era (72.1 to 66 million years ago) which is the latest age in the Late Cretaceous epoch. The Hammerhead discovery, along with the Jethro-1 and Joe-1 wells, has proven that commercial accumulations of hydrocarbons exist in stratigraphic sand traps in the Tertiary section.

Drilling

Eco has enjoyed drilling success in this world class basin with the Jethro-1 and Joe-1 wells. These two significant oil discoveries have served to de-risk the block's substantial potential and to gain valuable seismic interpretation confidence.

The Jethro-1 well was completed in August 2019 (net cost to Eco of US$7.6 million) and has proved to be a major oil discovery with 55m of net pay in excellent quality sandstone. Importantly, there was 98% net to gross (NTG) which represents the productive hydrocarbon zones in the reservoir for further exploitation. The results exceeded partner pre-drill expectations which were for 220 mmboe (gross). Being the first well drilled on Orinduik, Jethro-1 de-risked the remaining Tertiary prospects.

The Joe-1 well was drilled on a back to back basis and was completed in September 2019 (net cost to Eco of US$3 million). A second oil discovery was announced with 16m of net pay (92% NTG) in continuous thick quality sandstone. Results met with partners' pre-drill expectation of 75-150 mmboe (gross). The Joe-1 well represented a play-opening well in the Upper Tertiary and effectively de-risked further prospects identified in the west on Orinduik.

Subsequent analysis of some fluid samples from both these wells confirmed that the samples recovered were mobile heavy crudes (approximately 12 - 18° API) with high sulphur content (approximately 4.5%). Management have commented that, as such, the oil appears not dissimilar to commercial heavy crudes in the nearby Hammerhead discovery and to oil that is currently being produced in the North Sea, Gulf of Mexico, the Campos Basin in Brazil, Venezuela and Angola. With potentially over 200mmbboe Recoverable, the company intends to further study the potential commercialisation of the field

CPR February 2020

The latest CPR confirmed multi-billion barrel prospectivity and indicated 771.2 mmboe net to Eco. Gustavson Associates' February 2020 CPR represented an update on the March 2018 CPR following the drilling of two of the Prospects as well as including public information from some offblock wells and some additional Leads. The consultants pointed out that although the results from the drilling of the Jethro-1 and Joe-1 wells indicated the presence of oil and gas, the level of testing of these hydrocarbon accumulations was not sufficient to move the resources from Prospective to Contingent.

	Gross Prospective Oil Equivalent Resources mmboe			Net Prospective Oil Equivalent Resources mmboe		
Orinduik Block	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate
Total	2,614.6	5,141.3	9,313.8	392.2	771.2	1,397.1

Gross and net barrels of oil equivalent Prospective Resources. Source: CPR February 2020

	Oil in Place mmbbl			Total Oil Resources mmbbl			Total Associated Gas Resources Bcf		
	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate
Orinduik Block	9,353.8	18,001.9	31,696.6	2,315.0	4,537.0	8,178.7	1,797.8	3,625.8	6,810.5
Total	9,353.8	18,001.9	31,696.6	2,315.0	4,537.0	8,178.7	1,797.8	3,625.8	6,810.5

Gross unrisked Prospective Resource Estimates for the Orinduik Block. Source: CPR February 20202

	Oil in Place mmbbl			Total Oil Resources mmbbl			Total Associated Gas Resources BCf			Risk
	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate	POS[1] Range %
Orinduik Block	1,403.1	2700.3	4,754.5	347.3	680.5	1,226.8	269.7	543.9	1,021.6	26.4-100
Total	1,403.1	2700.3	4,754.5	347.3	680.5	1,226.8	269.7	543.9	1,021.6	

[1]Probablity of success

Net unrisked Prospective Resource Estimates for the Orinduik Block and risk percentage. Source: CPR February 20202

There was a significant increase in Gross Prospective Resource P50 (Best) to 5,141 mmboe from the previous estimate of 3,981 mmboe in March 2019 through incorporating the two successful 2019 Tertiary wells and the neighbouring Cretaceous Carapa-1 well results. This served to de-risk approximately 4 billion barrels of Cretaceous prospects in the Orinduik Block. In all, 22 prospects were identified on the Orinduik Block including 11 leads in the Upper Cretaceous horizon.

The Carapa-1 oil discovery (Repsol Operator 37.5%, Tullow 37.5%, and Total 25%) in the Kanuku licence reported 4m net pay and this was lower than pre-drill forecast (latest assumptions suggest it has 20m of net pay). The 27° API represented good quality oil that is updip from Orinduik with less than 1% sulphur. This updip discovery in Kanuku proved a high quality petroleum system and suggested the extension of the Cretaceous Light sweet oil charge through Orinduik from the same down dip source rock charging ExxonMobil's Stabroek producing oilfields..

Lead	Gross Prospective Resources (mmboe)			Net Prospective Resources (mmboe)			Risk POS %
	Low Estimate	**Best Estimate**	**High Estimate**	**Low Estimate**	**Best Estimate**	**High Estimate**	
TERTIARY							
Jethro	107.0	208.3	362.6	16.1	31.2	54.4	100.0%
Joe	37.3	104.4	232.6	5.6	15.7	34.9	100.0%
Hammerhead	8.6	15.0	25.6	1.3	2.2	3.8	81.0%
Jethro Chan	80.5	137.3	230.1	12.1	20.6	34.5	41.7%
Jethro Ext	23.3	53.8	98.0	3.5	8.1	14.7	43.2%
Jethro KW	85.2	158.5	270.6	12.8	23.8	40.6	33.6%
Jethro West	114.8	183.8	286.7	17.2	27.6	43.0	33.6%
Jimmy	30.9	68.4	133.3	4.6	10.3	20.0	64.6%
Kurty L	12.9	35.8	76.2	1.9	5.4	11.4	29.7%
Kurty U	13.7	42.8	91.4	2.0	6.4	13.7	29.7%
Alice	67.4	196.7	430.7	10.1	29.5	64.6	31.2%
CRETACEOUS							
Amaila-Kumaka	393.0	775.8	1,422.3	59.0	116.4	213.3	31.5%
Amatuk	117.2	267.3	503.0	17.6	40.1	75.5	28.8%
DJ	97.8	173.9	283.9	14.7	26.1	42.6	33.7%
EriKat	21.8	45.1	82.6	3.3	6.8	12.4	30.6%
Iatuk-D	401.1	725.3	1,281.3	60.2	108.8	192.2	31.2%
KC	23.7	47.5	85.3	3.6	7.1	12.8	26.4%
KC-A	41.4	73.8	126.8	6.2	11.1	19.0	26.4%
KG	393.4	724.7	1,211.4	59.0	108.7	181.7	31.2%
MJ-3	143.7	263.5	464.2	21.6	39.5	69.6	28.8%
Rappu	231.0	500.1	947.1	34.6	75.0	142.1	35.1%
KB	168.8	339.6	68.0	25.3	50.9	100.2	31.5%
TOTAL	**2,614.6**	**5,141.3**	**9,313.8**	**392.2**	**771.2**	**1,397.1**	

Gross and Net Prospective unrisked resources by lead with probability of success. Source: CPR February 2020

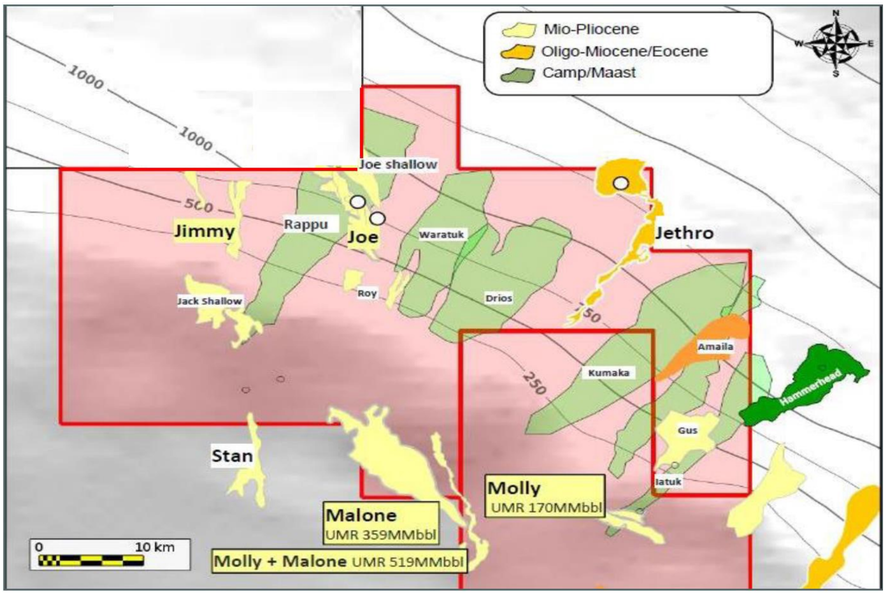
In this latest CPR on Guyana, Gustavson pointed out that the potential for large conventional accumulations in stratigraphic and subtle structural traps in this area has been proven, with recent drilling showing an estimated 9.5 billion barrels of oil equivalent in the Stabroek Block and 5.1 million barrels of oil equivalent in the Orinduik Block. Certainly, any lead with a probability of success in the 30% range and higher is very significant. Summing up, the consultants reckoned that the basin is characterised by moderate to high-risk, high-reward exploration in a low-risk favourable political and economic environment.

Outlook

There is little doubt that the partners' active work programme at the Orinduik Block is demonstrating scale. The Jethro and Joe discoveries have confirmed the prospectivity of both upper and lower Tertiary fairways. At the same time, ExxonMobil's appraisal of the Hammerhead discovery, drilled on the Orinduik boundary, has shown that Hammerhead extends into the Orinduik licence area. The Jethro-1 well acted to de-risk multiple other Lower Tertiary Prospects across block with further upside from Cretaceous leads and prospects.

Following this exploration success, the partners are involved in the painstaking process of calibrating the seismic to refine identified, recently de-risked and future prospects. At the same time the team is evaluating appraisal and development options for the Jethro and Joe discoveries. The powerful combination of high-quality geology, world class fiscal terms and straight forward development, as has been demonstrated by ExxonMobil at the Liza Field, should ensure high value barrels.

The Joe-1 discovery marked the opening of a new play in the Upper Tertiary which qualifies seismic interpretation of the block. The continuous thick sandstone reservoir with high porosity sands proves the presence of recoverable resources in the Upper Tertiary and it was the first such discovery in this section in offshore Guyana. The Joe-1 well resulted in the identified prospects in the western part of the block being de-risked. The Joe-1 well was drilled rapidly and at a low cost which also seems to de-risk the development potential of the Upper Tertiary.

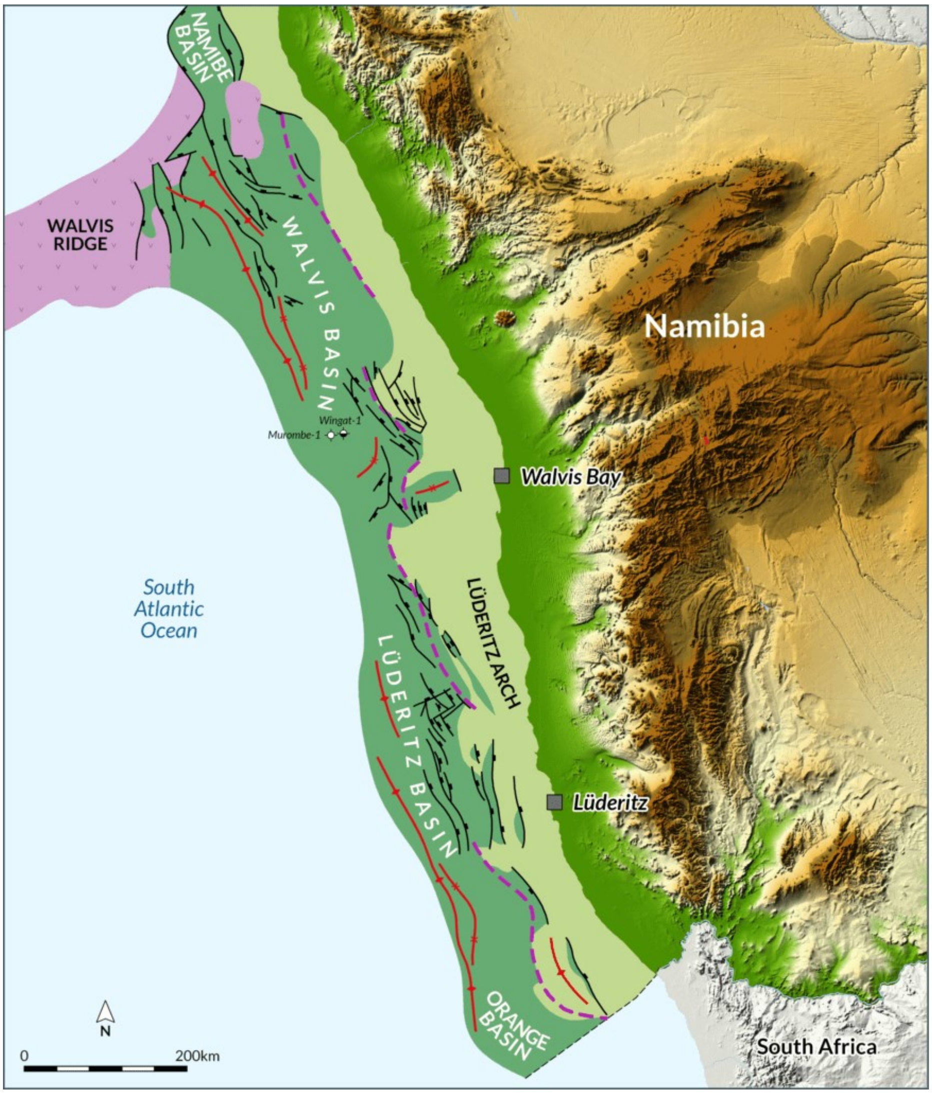


Joe-1 play-opening Upper Tertiary. Source: Company

Undoubtedly, the Orinduik block has substantial potential as the two discovery wells drilled in 2019 have only served to test less than 10% of the block's substantial potential. The plan is now to integrate the Jethro-1, Joe-1 and Carapa-1 discoveries with new regional data and then incorporate all this data into a reprocessing of the existing 3D seismic. At the same time, further geological modelling and prospect maturation studies are underway to gain an improved interpretation of the Cretaceous which will allow for the definition and selection of further drilling targets potentially into stacked targets. All this is expected to be achieved shortly as reprocessing results and further interpretation allows the selection of optimum well location(s). Eco is aggressive to move to drilling as soon as possible and is working with partners to do so. As Tullow undergoes restructuring challenges and realignment of its focus, the company has continued working with the partners on Orinduik. Eco, Total and newcomer, Qatar all remain focused with Tullow on careful target selection and drilling once targets are defined.

Namibia

The oil industry has been braced for big finds in Namibia. The country has a coastline of getting on for 1,600km and offshore Namibia is of particular interest to the market as it is a part of the plate tectonic conjugate of offshore Brazil where world-class oil and gas discoveries have been made in recent years. On top of that, offshore Namibia also lies on the West African continental margin next door to Angola, the scene of many major oil discoveries. So, given all that, coupled with attractive tax incentives, it is little surprise that offshore Namibian oil exploration has become highly attractive in recent years for independent oil companies (IOCs) and oil majors such as Tullow, Total, GALP, Shell, ONGC and ExxonMobil.



Map of offshore Namibia. Source: Company

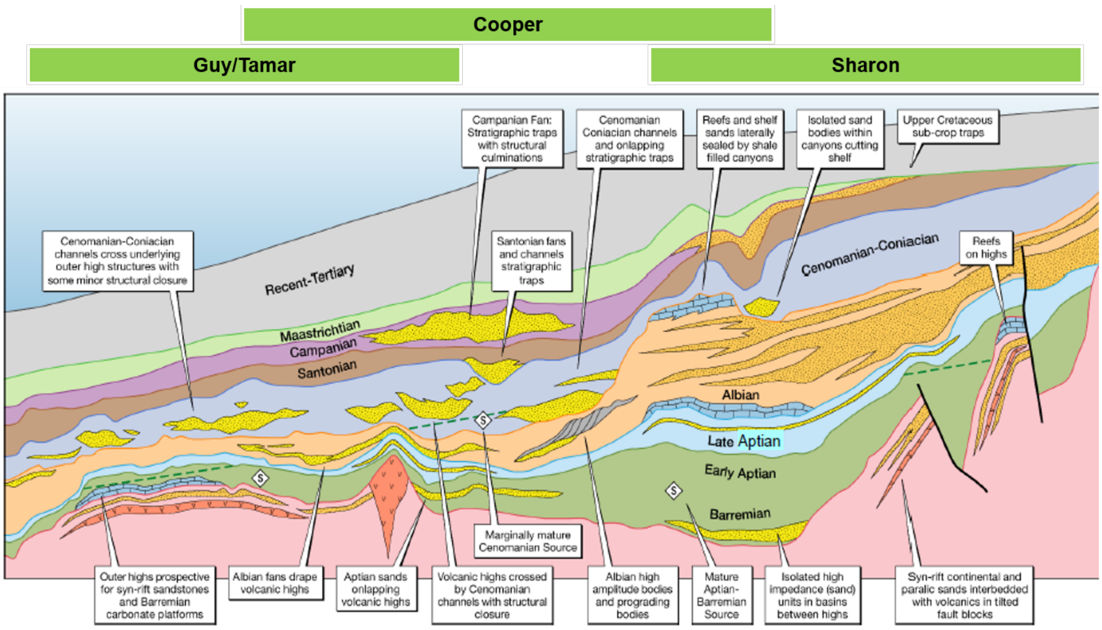
In 2013, Brazilian oil company HRT encountered rich oil-bearing source rocks and discovered oil off the coast of Namibia when drilling the Wingat-1 discovery well in the Walvis Basin, recovering light and sweet crude oil. Eco's focus is also on the Walvis Basin where the company currently holds four licence blocks covering 22,500km². On these four blocks, Eco has formed strong and strategic partnerships with NAMCOR, Azinam, ONGC Videsh and Spectrum Geo Ltd. The Wingat 1 discovery was made right in the middle of Eco's four blocks.

	Cooper PEL 030	Sharon PEL 033	Guy PEL 034	Tamar PEL 050
Partners/WI	Eco 57.5% Azinam 32.5% NAMCOR 10%	Eco 60% Azinam 30% NAMCOR 10%	Eco 60% Azinam 30%, NAMCOR 10%	Eco 80% Spectrum 10% NAMCOR 10%
Operator	Eco	Eco	Eco	Eco
Block size	5000km²	5000km²	5000km²	7500km²
Water depth	<600m	<500m	<2500m	<2500m
Licence	5 years + 2 years (3rd optional) + 2 years (3rd optional)	5 years + 2 years (3rd optional) + 2 years (3rd optional)	5 years + 2 years (3rd optional) + 2 years (3rd optional)	5 years + 2 years (3rd optional) + 2 years (3rd optional)
Exploration	1,100km² 3D programme completed in November 2014	Acquired 8,000 Km of existing 2D. Plan 1,000km² of 3D	Completed 1,000km 2D and 870km² of 3D 2016	Completed 1,000 km 2D. 3D under consideration
Targets	•Upper Cretaceous Clastics •Turbidites •Albian fan/channel •Lower Cretaceous Carbonates	• Basal Tertiary Clastics and Turbidites • Upper Cretaceous Clastics • Turbidites •Lower Cretaceous Carbonates	•Basal Tertiary Clastics and Turbidites •Upper Cretaceous Clastics •Turbidites •Lower Cretaceous Carbonates	•Basal Tertiary Clastics and Turbidites •Upper Cretaceous Clastics •Turbidites •Lower Cretaceous Carbonates

Eco's interest in four blocks in the Walvis Basin, offshore Namibia. Source: Company

Target zones

Over the four blocks, there are multiple target horizons and trap types as shown in the diagram below (the typical trap types do vary from block to block). These include channel and turbidite sands and carbonate reefs in structural and stratigraphic trap settings.

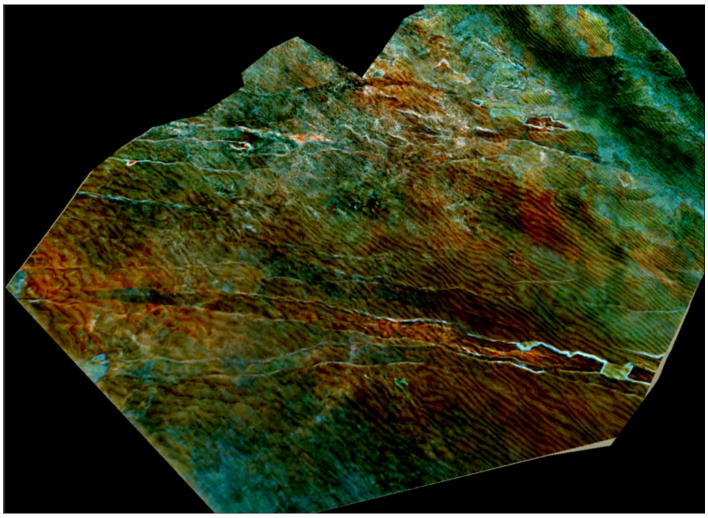


Play types on the offshore Namibia in the Eco blocks. Source: CPR October 2016

Exploration

Eco has a large operated interest in four offshore blocks covering 22,500km² in the Walvis Basin where substantial progress has been made since they gained an interest. Below we comment on the work undertaken on the Cooper and Guy licences which have received most attention from the partners.

Cooper Licence - The company's current focus is on further defining the Osprey Lead, which is an 882 million barrel Aptian/Albian source fed oil target within a sand filled channel system. This lies in the Cretaceous sequence and has a mature oil window that is located in an area with a 300m depth of water.



Osprey Prospect, Cooper Block. Source: Company

A total of 1,100km² 3D seismic was acquired in November 2014, followed by processing and interpretation. Eco's share of these costs was covered by Tullow (US$4 million) and Azinam (US$2 million) under the terms of the farmout deal. October 2018 saw Tullow leave the block and its 25% WI was transferred back to the company. Eco is reported to be in discussions with potential farm-in partners to replace Tullow and jointly drill the Osprey Prospect. For the second renewal phase the Ministry waived the relinquishment requirement for this block which means that the partners can continue exploring the whole licence area.

Guy Licence – Under the terms of the farm-out deal Azinam funded Eco's share of costs for the shooting and processing of 1,000 km of 2D seismic survey on this block. Azinam also funded 66.44% of the costs of an 870 km² 3D seismic survey. For the second renewal phase, the partners relinquished the western half of this block, which was not a priority.

CPR October 2016

A CPR was published by Gustavson Associates in October 2016 entitled "*Resource Report for Certain Assets in Offshore Namibia and Report for Assets in Offshore Guyana*". This was prepared according to NI 51-101 standards to support Eco's filing for the Toronto Stock Exchange.

Block	Oil in Place mmbbl			Prospective Oil Resources mmbbl			Prospective Associated Gas Resources Bcf		
	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate
Cooper	1,896.1	3,166.0	5,036.7	434.3	752.8	1,241.8	404.8	735.8	1,274.9
Guy	2,194.9	6,903.0	16,906.8	489.4	1,581.4	4,009.9	478.2	1,545.3	3,932.4
Sharon	3,136.4	9,658.5	23,345.3	701.9	2,211.7	5,518.4	668.3	2,175.6	5,465.9
Total	**7,227.3**	**19,727.4**	**45,288.9**	**1,625.6**	**4,546.0**	**10,770.2**	**1,551.2**	**4,456,7**	**10,673.2**

Gross unrisked Prospective Resource Estimates by Block. Source: CPR October 2016

Block	Oil in Place mmbbl			Prospective Oil Resources mmbbl			Prospective Associated Gas Resources Bcf		
	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate
Cooper	616.2	1,029.0	1,639.9	141.2	244.7	403.6	131.6	239.1	414.3
Guy	1,097.4	3,451.5	8,453.4	244.7	790.7	2,005.0	239.1	772.6	1,966.2
Sharon	1,881.1	5,795.1	14,007.2	421.2	1,327.0	3,311.0	401.0	1,305.4	3,279.6
Total	**3,595.5**	**10,275.5**	**24,097.6**	**807.0**	**2,362.4**	**5,719.6**	**771.6**	**2,317.1**	**5,660.1**

Net unrisked Prospective Resource Estimates by Block. Source: CPR October 2016

The intention of this report was to describe and quantify the Prospective Resources contained in the offshore blocks in Namibia and also report on the offshore block in Guyana which at that time had not be fully evaluated.

Outlook

Currently, the company continues to make progress with its various work programmes offshore Namibia. The management team expects that Eco will benefit from the uptick in activity that seems planned for the region over the next twelve months as it is expected that up to four exploration wells will be drilled by ExxonMobil, Total, Maurel & Prom and Shell.

Strategy for growth

Eco is a highly successful explorer in frontier regions and has significant acreage in two of today's most compelling areas for global oil and gas exploration, both from a fiscal terms and geological perspective. The company benefits from having a well-established executive team that has been together since 2011, has remained consistent and has been augmented by the appointment of Alice Carroll as Head of Marketing and IR, and Keith Hill as an Independent Director.

The Atlantic Margin plays represent a highly exciting recent development within the industry. The thinking behind this play all revolves around the concept called Conjugate Margin Pair Basins. There is overwhelming evidence through plate reconstruction which shows that parts of South America and North America make a really good fit with Africa and Europe in the times before the plate split and the continents began drifting. Eco looks well-placed to really benefit from its early adoption of this compelling concept which has pointed towards similar basins being developed on both sides of the Atlantic. The prize could be huge as ExxonMobil's discoveries in the Guyana Basin have so far exceeded 9 billion boe, with the Liza Field commencing Phase 1 production in December 2019 with a target of 120,000 bopd.

There is no doubt that 2019 was a cracking year for Eco, with two wildcat wells drilled and two discoveries made in Guyana. This looks like an exemplary record which bodes very well for the future and is a reminder that the company selected the Orinduik block as having high potential before ExxonMobil even drilled the initial discovery well in Guyana. The key takeaways from the success which was enjoyed last year are probably fourfold. Firstly, the executive team has a sound understanding of the oil and gas industry which has been highlighted by the negotiation of the Orinduik acreage prior to any discovery being made in Guyana. Secondly, investors now see that Eco knows how to read and interpret 3D seismic and select its drilling targets. Thirdly, the reservoir sand bodies were better than expected as these were found to not only be thicker but were also of higher quality. Fourthly, those results have actually shown that there are two petroleum systems that meet in Eco's Orinduik Block, creating both Cretaceous and Tertiary targets. The Cretaceous targets are seen to be similar to all ExxonMobil's discoveries plus the Carapa-1 which is light oil from the Northeast. In addition, there is a high probability that the same feed systems channel through the balance of Orinduik from other proven discoveries to the NE of Orinduik, the Stabroek Block in the north to Kanuku Block in the south. The Tertiary target is another petroleum system from the west which is seen to be similar to Venezuelan oil as developed by Petrobras and Chevron. It ought to be noted that the source rock is to the NE and the channels follow that strike which results in the lenticular pattern to all the resources.

Eco's shares were savagely hit by the fallout from the Tullow announcement of significant production reductions in Ghana far below estimates and its mishandling of the communication of the prospectivity and potential of heavy oil development, as well as its own financial state of affairs. It does seem that Tullow might have miscommunicated the issue for its own purposes. There is no doubt that heavy oil is a commodity which is in use around the world and in demand as some refineries can only process such oils. It is true that heavy oil does have its issues in that it can be more expensive to produce given its viscosity. Samples from Jethro-1 and Joe-1 were seen to be mobile heavy oil due to a high well head temperature (93°C), high-pressure which resulted in a relatively low viscosity, with say a possible 20% recovery. Where the break-even cost for light ExxonMobil oil from the Liza

Field is US$25-30/bbl, it might be US$40 – 45/bbl for heavy oil, but it is still profitable in a future environment of US$60 per barrel. In Tullow's rush to write off its investment, the major made no mention about the heavy oil being mobile, which might well have avoided the knee jerk reaction of investors which led to a dramatic sell down of the stock.

Laboratory results on the eight good samples from the drilling of these discovery wells highlighted oil at 12 - 20° API, with 20° API not even seen as being heavy oil. It has to be said that the discovery at Jethro-1 could not be properly appraised and warrants further attention. It was noted that the reservoir was very thick and seen to contain sections of lighter oil. In fact, the oil at Jethro-1 oil was not dissimilar to that discovered by ExxonMobil at Hammerhead which was 15-20° API in Tertiary (ExxonMobil's only Tertiary discovery). Tullow drilled the Tertiary first at the Orinduik Block as it was much shallower and was very obvious on the 3D with a 45% Chance of Success. Moving forward, Jethro and Joe are not the focus as out of Eco's 5 billion boe of Prospective Resources, 1 billion boe is in the Tertiary while 4 billion boe is in the Cretaceous. This is where ExxonMobil has enjoyed 16 discoveries in the neighbouring Stabroek Block totaling more than 9 billion boe.

	Block size acres	**Thickness feet**	**Gross size K acre-feet**	**Yield BOE/acre-ft**	**Gross size mmboe**
Liza discovery	26,800	295	7,906	225	1,639
Payara discovery	25,000	95	2,375	225	534
Pacora discovery	25,000	65	1,625	225	366
Longtail discovery	25,000	256	6,400	175	1,120
Snoek	25,000	82	2,050	225	461
Turbot discovery	25,000	75	1,875	225	422
Ranger discovery	25,000	230	5,750	175	1,006
Hammerhead discovery	25,000	197	4,925	175	862
Pluma	25,000	121	3,025	175	-
Tilapia discovery	25,000	305	7,625	175	1,334
Haimara discovery	25,000	207	5,175	175	-
Yellowtail discovery	25,000	292	7,300	175	1,278
Tripletail discovery	25,000	108	2,700	175	473
TOTAL			**58,731**	**162**	**9,494**

Goldman Sachs estimate that the total gross resource potential in Guyana from existing ExxonMobil discoveries is around 9.5 bn BOE. Source Goldman Sachs via Eco

So, in Guyana, the clear focus is making discoveries in the light Cretaceous oil. This looks likely given Eco' s impressive track record and ExxonMobil's long list of discoveries in the next block north which includes the now producing Liza Field at 32° API and also the 27° API discovery at Carapa-1 south of them. There is a high probability that the Cretaceous runs right across Eco's Orinduik Block. Already, at least 10 prospective drilling targets have been identified, but the 3D is being reprocessed with the data that resulted from the Jethro-1, Joe-1 and Carapa-1 discoveries. The partners will be seeking to identify the biggest target by volume which have the highest chances of success. Eco is exploring for high value barrels in offshore Guyana as the fiscal terms are some of the best in the world, helped by the company signing agreements ahead of any oil discoveries.

Eco already has three favoured stacked targets, but the ongoing desktop exploration work is continuing and the partners are recalibrating and reprocessing the 3D this year to define the targets and to provide further definition to the Cretaceous interpretation and selection of targets for drilling. Eco's clear plan is to drill at least two wells in 2021, but actually three might be on the cards. Eco is in a great situation with strong partners, no debt and over US$17 million in the bank. These funds look sufficient to drill three wells. The Jethro-1 and Joe-1 wells cost on average US$35 million. The Cretaceous is a bit deeper but bearing in mind that rig rates are down and the saving on mobilisation costs and operational benefits in drilling wells back to back would suggest that an estimate of under US$40 million per well was about right – this would mean a maximum net US$6 million to Eco all in – easily a two well program.

Namibia definitely has oil with the notable discovery of light 42°API in 2013 by HRT and Gulf. This vast Atlantic Margin clearly warrants the drilling of additional wells and substantially more in the way of geological studies. There just has not been enough exploration, with only 17 wells drilled in an area four times the size of the North Sea. The story seems to be that as Namibia is a new frontier, the big decline in the oil price in 2015-17 had served to keep the bigger players away. All that looks about to change as the time is getting closer when majors will start to drill. ExxonMobil, Shell, Total and Cosmos have now become active, with four wells lined up to be drilled in the next 12 months. This action looks likely to kick off as early as the end of October 2020, with a well being spudded by Total which will be targeting 2 billion barrels in one shot. The great thing is that these majors will stay in the country until they find oil, which could reflect very positively on the company.

Eco has a strategically important position in Namibia with the second largest acreage after ExxonMobil. Early mover advantage has meant that the team has been able to grab a huge piece of the acreage in an obvious sweet spot. The company has a 60-80% WI on each of the four blocks which is sufficient to allow a big major to take a significant stake of 30-40% stake. In addition, Eco is also the Operator on each of these blocks and so that can be handed over in the future as well. Moving ahead, the company is very comfortable to maintain a 15-25% WI on discovery. So far, Eco has met all its work commitments, two blocks are drill ready, with one well needing to be drilled by March 2022. We would hazard a guess that Eco, given its enviable portfolio, must be attracting a lot of inbound interest.

There is a clear series of imminent share price catalysts from both Guyana and Namibia. Little seems to beat drilling for share price action and there should be plenty of excitement in the run up to potentially drilling 2 or 3 wells in Guyana in 2021 and a well in Namibia by March 2022. All eyes will be on corporate moves in Namibia, as new entrants to this region seek to gain acreage. Meanwhile, majors will be drilling around Eco’s acreage. All of this could serve to focus the spotlight well and truly on Eco once again and push the company’s projects very smartly up the valuation curve.

Financials & current trading

Losses that have been recorded over the last five years are mainly due to the costs of exploring oil and gas exploration licences in Namibia and Guyana.

Y/E 31 March C$'000s	2016A	2017A	2018A	2019A	2020A
Revenue	556	15	1,334	16,948	508
Pre-tax profit/loss	-5,107	-3,557	-8,357	-12,775	-26,660
Net profit/loss	-5,108	-3,557	-8,357	-12,775	-26,600

Eco (Atlantic) Oil & Gas five-year trading history. Source: Company accounts

2020 results

The year ended 31st March 2020 saw the company announce two oil discoveries, Jethro-1 (August 2020) and Joe-1 (September 2020), on its Orinduik offshore petroleum licence in Guyana. Final results for this period showed that revenue from interest income stood at C$0.507 million and operating expenses totalled C$27.168 million (of which operating costs were C$16.908 million). The net loss and comprehensive loss came out at C$26.660 million, which equated to a basic and diluted loss per share of C$0.15.

Recent developments

In January 2020, the company noted the light cretaceous oil discovery on the Carapa-1 well, Kanuku Block, offshore Guyana, announced by Tullow Oil (37.5%), in partnership with Repsol (Operator, 37.5%) and Total (25%). At the time Colin Kinley, Eco's COO, was quick to point out that *"The Carapa discovery is very important to us technically and confirms our thinking on prospectivity on our Orinduik block. The existence of a good oil grade unaffected by sulphur in board of us is excellent news. We have a proven source kitchen to the North, with ExxonMobil and partners having defined and now producing 32 API at the Liza field to the North of us, and now a 27 API oil discovery on Carapa to the South of us. We continue to gain a good understanding of the transportation and pooling systems, and we can see the reservoirs clearly in the cretaceous. …".*

In February 2020, Eco announced the filing of a NI 51-101 compliant resource report on the Orinduik Block. This report showed a significant increase in Gross Prospective Resources to 5,141 mmboe (771 mmboe net to Eco) from a previous estimate of Gross Prospective Resources of 3,981 mmboe in March 2019. In addition, 22 prospects were identified on the Orinduik Block including 11 leads in the Upper Cretaceous horizon. The majority of the project leads were considered to have a 30% or better chance of success (COS), enhanced by the recent discovery of light oil in the Carapa 1 well on the Kanuku block to the south of Orinduik. The leads in the Tertiary aged section were estimated to contain 1,204 mmboe, while those in the Cretaceous section were estimated to contain approximately 3,936 mmboe.

Risks

Geological risks

There are a series of technical risk factors concerning the amount of understanding of the geology of the project areas, the reservoirs being targeted and the distribution and magnitude of the indicators that have been identified in exploration work.

Political risk

There are political risks involved in companies operating in Guyana and Namibia. The oil industry is arguably the most susceptible sector of the market to political risks largely due to its importance to the host county's economy.

Oil and gas price risks

Oil and gas prices are highly cyclical and changes in the price could have a negative or positive impact on the valuation of the company's projects and revenue from the sales of hydrocarbons.

Exchange rate risks

Movements in the value of currencies will have an effect on the company's accounts on translation from US dollars into Canadian dollars. Fluctuations in the value of the Canadian dollar against the pound may have an effect on the valuation Eco is awarded by the UK stock market.

Future funds

The market for raising funds for small cap companies looks to have had improved from the worse conditions a couple of years ago. However, the global spread of the COVID-19 pandemic has meant that equity markets have become extremely difficult. This is especially so for oil companies where lockdown has resulted in a glut of oil which has had a severe impact on the price per barrel. Even ahead of the arrival of this pandemic and the fall in the oil price, some recent fund raisings in the small cap oil sector have seen share prices being undermined by incoming investors demanding substantial discounts to provide the necessary capital.

Board of Directors

Moshe Peterburg – Non-Executive Chairman

Moshe (also known as Peter), is a private investor with over 25 years of investment experience in Africa and Eastern Europe. He is the founder of Peterburg Holdings, a private investment company with a broad portfolio across many sectors including infrastructure, mining and oil and gas. Moshe was also a co-founder of GP Minerals Ltd, a private resource investment and development company. Furthermore, he is the chairman of the board of trustees of the Design Museum Holon (Israel) and is also a member of the acquisition committee of the Tate Modern Museum in London. Moshe holds a BSc in Electronic Engineering from Haifa Technion and an MBA in Finance from Tel Aviv University.

Gil Holzman – President & Chief Executive Officer

Gil has 15 years of experience in the mining and energy resource sectors throughout South America and Africa. Prior to co-founding Eco (Atlantic) Oil and Gas, he was a co-founder of GP Minerals Ltd, a private resource investment and development company, and, between 2003 and 2006, Gil was the Managing Director of Bombardier Inc's Middle East Region. He has also held a variety of strategic consultancy roles, including co-founding political consultancy, GCS Issue Management Ltd. Gil has a BA in Business Management and Finance and an LLB in Israeli and International Law from IDC Herzilya. He also has an MBA from The Arison School of Business.

Colin Kinley – Chief Operating Officer

Colin is CEO of Kinley Exploration LLC, leading a team of industry experts providing professional, technical and oversight expertise to international resource companies within the upstream sector. With 35 years of international expertise in integrated energy project management and the development of new energy companies, he has served as a senior executive to several E&P companies and oilfield service companies, as well as possessing significant experience in frontier resource development. Colin is also President and CEO of Jet Mining Pty LLC and a Non-Executive Director of TSX-V listed companies, Marimaca Mining Corp and Excelsior Mining Corp.

Gadi Levin – Finance Director

Gadi is a Chartered Accountant with many years of experience in the public and private equity markets. His experience spans multiple jurisdictions including South Africa, the UK and Israel. He has acted as financial controller for Eco (Atlantic) Oil & Gas on a consultancy basis since November 2014 and was appointed as Finance Director of the company in November 2016. Gadi is also currently the Chief Financial Officer of TSX-V listed companies Vaxil Bio Ltd., Briacell Therapeutics Corp. and Adira Energy Ltd. He has a Bachelor of Commerce degree in Accounting and Information Systems, has received his Chartered Accountant designation in South Africa and has an MBA from Bar Ilan University in Israel.

Alan Friedman – Executive Director

Alan, a South African qualified attorney, has been associated with the North American public markets for two decades and has a depth of experience in representing, advising, and assisting small-medium cap companies in acquiring assets, accessing capital, going public transactions and advising on M&A, and managing emerging growth businesses. He is the Managing Partner and co-founder of Bayline Capital Partners, a Canadian based capital markets advisory boutique, involved in the business of identifying, financing and managing a portfolio of companies across a wide range of sectors. Alan was also the co-founder of Auryx Gold Corp, sold to B2 Gold for $200m; Osino Resources and Enthusiast Gaming.

Kangulohi Helmut Angula – Non-Executive Director

Helmut has served as the Finance Minister and Deputy Minister of Mines and Energy, as well as five other cabinet portfolios within the Government of Namibia for a period spanning over 20 years. Since leaving the Government of Namibia, Kangulohi has focused on private business opportunities and is a consultant to the mining, energy, infrastructure and real estate industries in Namibia.

Peter Nicol – Non-Executive Director

Peter has over 40 years' experience in the oil and gas industry in both industry and investment banking. Prior to joining the Board of Eco (Atlantic) Oil & Gas, he was a partner at GMP Securities, Executive Managing Director at Tristone Capital, Global Sector Director of Oil Research at ABN Amro and Head of European Oil and Gas at Goldman Sachs. Peter has worked with and advised a number of small-medium cap and private-equity financed companies in the UK, Canada and Norway on M&A, financing and as a Director. He is currently a Director of Touchstone Exploration, ERCe and Thorogood Associates. Peter holds a BSc in Mathematics and Economics from Strathclyde University in Glasgow.

Keith Hill – Independent Director

Keith has over 35 years' experience in the oil industry including 23 years with the Lundin Group as well as international new venture management and senior exploration positions at Occidental Petroleum and Shell Oil Company. He previously served as President of Valkyries Petroleum, BlackPearl Resources and Shamaran Petroleum and is currently a Director of Africa Energy, Impact Oil and Gas and TAG Oil. Keith is currently President and CEO of Africa Oil Corp., a publicly traded oil and gas company focused on East Africa. His education includes an MSc in Geology and BSc degree in Geophysics from Michigan State University. Additionally, Keith also holds an MBA from the University of St. Thomas in Houston.

Forecasts

We initiate coverage of Eco with forecasts for the financial years ending 31st March 2021 and 2022. For 2021 we forecast that total expenses will be C$15.800 million as the company prepares to undertake further drilling of wells in Guyana. After C$0.500 million of interest income, the net loss and comprehensive loss comes out at C$15.300 million, which equates to a loss per share of C$0.08.

For 2022 it is assumed we will see the drilling of two wells in the Cretaceous, with Eco's share of costs being US$6 million (C$8 million) all in per well along with other operating expenses, with total costs of C$27.900 million. On this basis, the net loss and comprehensive loss are determined to be C$27.900 million which represents a loss per share of C$0.15.

Year End 31 March (C$'000s)	**FY 2019a**	**FY 2020a**	**FY 2021e**	**FY 2022e**
Revenue				
Income from farm-out agreement	16,569	-	-	-
Interest income	289	508	500	-
	16,948	508	500	-
Operating expenses:				
Compensation costs	706	1,147	1,200	1,200
Professional fees	416	668	700	800
Operating costs	5,385	16,908	4,000	16,000
General and administrative costs	1,488	1,863	1,900	1,900
Write off of receivable	767	-	-	-
Stock-based compensation	4,377	7,640	8,000	8,000
Foreign exchange (gain)	(326)	(1,060)	-	-
Total expenses	(12,775)	(27,168)	(15,800)	(27,900)
Net profit (loss) and comprehensive profit (loss)	4,174	(26,660)	(15,300)	(27,900)
Basic and diluted net profit (loss) per share attributable to equity holders of the parent (C$)	0.03	(0.15)	(0.08)	(0.15)
Weighted average number	159,887,208	182,829,288	185,807,175	189,147,723
Total shares plus options and warrants	172,488,028	191,727,723	191,617,723	191,617,723

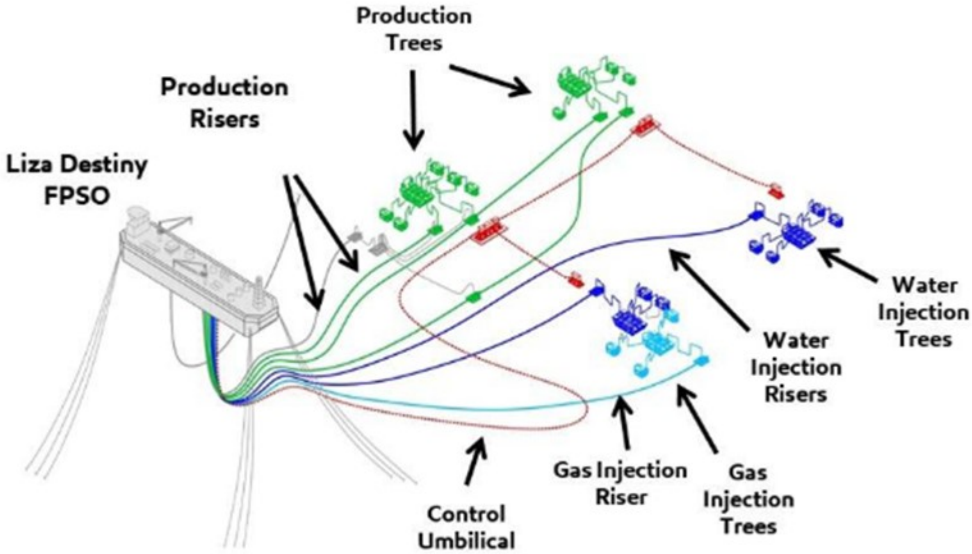
Source: Company/Align Research

Valuation

We have sought to determine a realistic valuation and target price for the stock which makes sense in today's market. To this end we have developed a financial model which focuses on offshore Guyana. This covers the discovered fields Jethro, Joe and Hammerhead Extension in the Tertiary and the more advanced exploration prospects within the Cretaceous which is now the company's real focus.

Our target price is based on a risked net asset value which assumes a value per barrel and an assumed chance of success for geological targets which comes from the CPR. We also incorporate a commercial chance of success to reflect not only the development risk but also funding issues and the effect of dilution. However, we do see Eco as ultimately selling the Guyana interests on further success to a major which would negate the need to be involved in the substantial funding requirements that the development phase would bring.

In our analysis we have used a flat Brent oil forecast of US$60 per barrel. Our other key valuation assumptions for the discovered fields and the visible exploration prospects have been largely based on the ExxonMobil's development of the Liza Field on the adjoining Stabroek Block as well as other similar scale offshore development projects.



Schematic diagram of Lisa Phase 1 Project. Source: ExxonMobil

The Liza Phase 1 Project is designed to produce 450 million barrels of oil over its lifetime and commenced production in December 2019 with peak production of 120,000 bopd of a very light 32° with low sulphur (0.5%) premium oil. This development is 190km offshore and operating in water at depths of 1,50 0– 1,900m, where the initial capital expenditure ahead of peak production is budgeted at US$3.2 billion, representing a unit development cost of some US$7/bbl. The project includes a leased floating production, storage and offloading (FPSO) vessel called Liza Destiny which can handle the peak production and has storage capacity of up to 1.6 million barrels.

Liza Phase 1 involves four drill centres with seventeen wells in total. There are eight oil producing wells (average estimated ultimate recovery (EUR) per production well of 56 mmbo and six water injection wells along with three gas reinjection wells. Notably, during its development, Liza has been seen to have had a very fast ramp up in production, with 95,000 – 100,000 bopd already reached by March 2020. Energy research and business intelligence group Rystad Energy has estimated that production costs at Liza Phase 1 are about US7-9 per barrel, with the FPSO being leased and accounting for c.30-40% of overall production costs.

Based on such considerations, we have modelled a similar project coming into production in 2025. To remain conservative, we have used higher production costs over the life of the project. Looking at production from the potential Cretaceous reservoirs which we have assumed would attract a premium Brent crude oil price. Eco signed agreements for offshore Guyana ahead of any oil discoveries and the fiscal terms are some of the best in the world. A royalty rate of 1% has been contracted along with a maximum cost recovery of 75%, with the partners receiving a 40-50% share of profit oil. Using a 12% discount rate the NPV per barrel came out at US$5.76.

	Unrisked Prospective Resources mmboe		**NPV(12) Per bbl US$/boe**	**Unrisked NPV US$m**	**Chance of success %**		**Risked NPV US$m**
	Gross	**Net**			**Geological**	**Commercial**	
G&A capitalised							(4.72)
Options & warrants							1.56
Net cash							13.20
Sub-total							**10.04**
DISCOVERIES & EXPLORATION UPSIDE							
Hammerhead Extension	15.0	2.2	3.48	8.61	81.0%	100%	6.20
Jethro	208.3	31.2	3.48	122.16	100%	67%	72.77
Joe	104.4	15.7	3.48	61.47	100%	50%	27.33
Jethro Extension	53.8	8.1	3.48	31.71	43.2%	67%	8.16
DJ	173.9	26.1	5.76	150.21	33.7%	40%	20.25
Iatuk-D	725.3	108.8	5.76	626.14	31.2%	40%	78.14
Rappu	500.1	75.0	5.76	431.63	35.1%	40%	60.60
Amatuk	267.3	40.1	5.76	230.98	28.8%	40%	26.61
Sub-total	**1,780.80**	**267.10**					**300.07**
TOTAL							**310.11**

NAV summary. Source: Align Research

In the Tertiary, we were guided by the Joe-1 and Jethro-1 discoveries and the CPR which suggests heavy oil. Hammerhead is shaping up to be the fourth confirmed development by ExxonMobil in the Stabroek Block after Liza 1, Liza 2 and Payara. The Hammerhead-1 well was drilled in a new reservoir encountering 60m (197 feet) of high-quality oil-bearing sandstone reservoir worth an estimated gross size of 862 mmboe, with 3D seismic showing it is continuing into the Orinduik Block. The oil discovered at Jethro-1 was not dissimilar to Hammerhead, which is 15-20° API in the Tertiary. Heavy crude oil is deemed to be any liquid petroleum with an API gravity less than 20° oil and there is good demand as some refineries can process nothing else. We have set the level of capital expenditure to reflect the additional costs expected in producing heavy oil.

The view of an expert consultancy is that at US$50/bbl the selling price of such heavy oil would attract a 6-15% discount to Brent. We have applied a similar discount factor on our flat US$60bbl price over the life of the project which is the discount figure that has been used in our analysis. Using the same fiscal treatment and a 12% discount rate once again, the NPV per barrel was determined to be US$3.48.

NAV	**US$ million**
Net cash	13.20
G&A capitalised NPV(12)	(4.72)
Hammerhead extension	6.20
Jethro	72.77
Joe	27.33
Core NAV	**114.78**
Jethro Extension	8.16
DJ	20.25
Iatuk-D	78.14
Rappu	60.60
Amatuk	26.61
Sub-total	US$308.55 million £235.53 million
Per share value based on the number of shares in issue currently (184,697,723)	**127.52p**
Options and warrants	US$1.56 million
Total	US$310.11 million £236.72 million
Per share value based on the number of shares on a fully diluted basis (191,617,723)	**123.54p**

Sum-of-the-parts valuation table. Source: Align Research

This NAV summary data went into our Sum-Of-The-Parts table to calculate a target price for the stock. The NAV (ex-warrants and options) comes out at US$308.55 million or £235.53 million which equates to 127.52p per share based on the current number of shares in issue. **Adding in funds from warrants and options being exercised gives an NAV figure of US$310.11 million or £236.72 million. This is equivalent to 123.54p per share on a fully diluted basis (191,617,723) and we have chosen this as our target price for the stock.**

It must be pointed out that in our valuation process, we have left out of our analysis the long list of prospects and leads in both Guyana and Namibia which are undeniably at an early stage. So, there has been no contribution to the target price from the large WI in the impressive blocks in offshore Namibia. We look forward to updating our analysis in the future and hopefully being able to include some of this additional potential as the visibility on this exploration becomes clearer.

Conclusion

Eco is heavily undervalued in our view, with there being a series of imminent catalysts which could take the share price back towards past highs. The news flow does look as though it will be enough to keep any oil investor satisfied. ExxonMobil will be drilling in the adjacent block to Eco's Orinduik Block in late 2020, spudding two wells which should serve to remind the market of the potential here. There seems to be lots of room for upside over the next six months and there looks to be good gains to be made by buying into the drilling catalyst ahead of the company confirming the exploration budget and drill targets for the Cretaceous before the year-end. History often repeats itself and so it is worth noting that in 2018 the stock moved from 38p to 70p in a matter of days when the company announced its 2019 drilling programme for Guyana.

At the same time, Eco is investigating various opportunities in the Guyana-Suriname region. Given the depressed state of the oil market, many companies have a lot of overhanging debt and are seeking to slim down their portfolios, so Eco is looking to seize the chance of capturing other opportunities as they present themselves. That is another benefit of the company being in a strong financial position, with ongoing relationships with big partners.

While all this is happening, the Namibian story looks as though it is about to switch up a gear or two as there seems to be plenty of additional news to emanate from here. Namibia has had a bit of a chequered drilling history, but the presence of a working petroleum system is not in any doubt. Belatedly, the majors are beginning to become active in this new "hot" area.

The next 12 months is expected to see a total of up to four wells potentially drilled by the likes of ExxonMobil, Total, Maurel & Prom and Shell in offshore Namibia. We believe that Eco's interests here might become increasingly attractive to oil majors seeking to become involved in this latest hot area, which provides the clear spectra of both corporate developments along with technical developments. Investors need to realise that once the news flow really gets pumping it might be hard to catch the share price.

We initial coverage of Eco (Atlantic) Oil & Gas with a Conviction Buy stance and a share price target of 123.54p.

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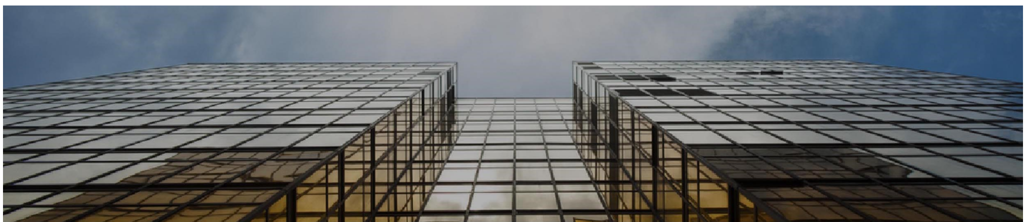

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