

Columbus Energy Resources[#]

BBG Ticker: CERP LN

Price: 5.4p

Mkt Cap: £35m

BUY

Year to Dec	Revenue (£'000)	EBITDA (£'000)	PBT (£'000)	EPS (p)	EV/Sales (x)	EV/EBITDA (x)	P/E (x)
2015A	9,475	(1,838)	(9,741)	(0.4)	4.1	neg	neg
2016A	4,545	(300)	(10,736)	(0.2)	8.6	neg	neg
2017E	5,153	(629)	(1,898)	(0.0)	7.6	neg	neg
2018E	13,595	6,828	5,636	0.0	2.9	5.7	nm

SOURCE: Company Data, VSA Capital Research.

A New World

The new management team despite only being appointed earlier this year has rapidly brought about the start of a material turnaround which we expect to unlock significant unrealised potential at **Columbus Energy Resources (CERP)[#]**. The new team has announced an achievable growth strategy, strengthened its financial position with institutional support from **Schroders** and begun to deliver tangible operational improvements.

The shares are up 165% since the appointment of Leo Koot who brings a vast wealth of experience as Executive Chairman, which includes his time as MD of **TAQA (Abu Dhabi National oil Company) UK**. In that role he built TAQA UK from a company of a few people to over 3,000 as a mature E&P operating company that managed 65kboepd production with US\$1.7bn in annual revenues with a market value of US\$2.5bn. Not least by using the same water injection techniques in North Sea oil fields that CERP plans to stimulate production in Trinidad.

Restoring Core Profitability to Drive Growth

CERP dropped the capex intensive infill drilling programme at the onshore Goudron field in June 2017 and following the receipt of a Certificate of Environmental Compliance began a programme of well optimisations and well stimulations. In H1 2017 production average 353bopd, however, following successful initial results CERP is now targeting 550bopd by year end and average 900bopd through 2018. This approach requires minimal capital. Consequently we expect strong cash flow generation as production grows.

In addition to Goudron, the South West Peninsula remains a highly attractive opportunity and the new team plan to fast track development. With a stronger balance sheet and return to positive cash flow expected we now anticipate a first exploration well, funded by internally available funds, to be commenced in H2 2018 which will likely significantly de-risk the project thereby unlocking potentially transformational value for CERP.

Recommendation and Target Price

We initiate with a **BUY** recommendation and TP of 26p.

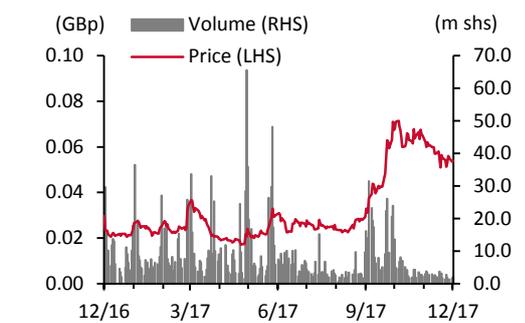
[#]VSA Capital acts as Broker to Columbus Energy Resources.

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Company Description

Columbus Energy Resources is a junior oil & gas production and development company focussed on the island of Trinidad.

One Year Price Performance



Price % chg: 1mn: -17%, 3mn: 64%, 12mn: 82%
12mn high/low: 7.2p/1.7p

SOURCE: FactSet, as of 12 December close.

Market:	LSE AIM
Price target:	26p
Shares in issue:	649m
Free float:	77.6%
Net debt (2017e):	-£4m
Enterprise value:	£39m

Major shareholders

Hargreaves Lansdown Asset MGMT	19.08%
Halifax Share Dealing Ltd	13.95%
Schroders Plc	10.08%

Oliver O'Donnell, Natural Resources

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Investment Case

Columbus Energy (CERP LN) having rebranded itself and replaced key management has begun to implement a turnaround strategy which is set to unlock the significant underlying potential of the Goudron field and South West Peninsula in Trinidad. The new management team have significant experience in well stimulation techniques and optimising underperforming fields and the shares have performed strongly following the announcement of the new team's appointment, up 165% since late H1 2017. We do, however, believe that significant value remains to be unlocked and successful execution of the strategy will provide the necessary catalysts for a rerating.

CERP is able to produce 38 API, light oil, from the onshore Goudron field at low cost while there is significant upside potential in terms of exploration within the South West Peninsula and at Goudron Deep. It is these fundamental factors which have attracted the new management team. However, it is the wholesale changes to capital investment and operating practices that this new team is implementing which will drive a significant rerating, in our view. The management team has brought forward the waterflood pilot programme, which is now underway, by almost a year. This will significantly enhance Goudron production which averaged 353bopd in H1 2017 and we expect production to reach 550bopd by year end and average 900bopd in 2018. This will be achieved via the optimisation of existing wells which will result in a step change in terms of the company's approach to capital spending. We now expect capital spending on Goudron of around £4m (US\$5m) over a two year period, supported by internally available funds, compared to the previous approach which was targeting a multi well infill drilling programme at US\$0.5m each. We expect the combination of stronger production and reduced capital intensity to result in strong cash flow generation and a significant stock rerating.

The change in strategy now means CERP is likely to be able to fund most, if not all, of the South West Peninsula exploration campaign from internally available funds. We expect the changes implemented by the new management team to provide a stable base of cash flow generation from Goudron enabling the exploration of the exciting and potentially transformational opportunity of the South West Peninsula. Given the strong, relevant experience and track record in the market of the new management team we are confident in the company's ability to deliver.

Columbus Operational and Earnings Highlights, £'000

	H1 2017	2017	2018
Oil Price, WTI, US\$/bbl	52	50	55
Production, boepd	353	399	900
Revenue	2,460	5,153	13,595
EBITDA	(1,435.0)	(630)	6,828
EBIT	(1,871)	(1,719)	5,719
Net Income	(1,964)	(1,898)	5,636
Capex	(999)	(1,462)	(1,282)

SOURCE: Company Data, VSA Capital Research

Interim Earnings a Key Turning Point

In H1 2017, before the new management became effective, group oil sales of 108k barrels of oil were down 32% YoY as production in Spain ended in January 2017. While in Trinidad production was disrupted by Tropical Storm Bret alongside declines in well pressure in the Goudron field. However, higher average oil prices and favourable timing of sales more than offset the decline in production and revenue of £2.5m was up 28% YoY. The operating loss of £1.88m was in line YoY, as although CERP has made significant progress and reduced corporate G&A by 16% YoY to £1.4m, cost of sales were higher as a result of one offs relating to Spain while a positive non cash gain in H1 2016 benefitted earnings in the prior period. We note, however, a 33% YoY reduction in operating costs at Trinidad to £700k. The net loss of £1.96m was therefore broadly in line YoY.

However, we believe that H1 2017 is likely to mark a turning point for CERP. With the new management team in place from May 2017, CERP has indicated the early success of its low cost initiatives to restore profitability and positive cash flow at its core operations. In line with previous experience the performance of the first two wells drilled as part of the

Mayaro infill programme (GY-682, GY-683) resulted in strong initial production of 55bopd and 65bopd, however, this declined to 8bopd and 18bopd respectively within a few months as pressure declined due to the very shallow nature of the producing reservoirs (between 150-4,000ft). Consequently and with 160 historic wells of which around 90 are shut in, management has decided to utilise the existing wells and address the issue of declining pressure via well stimulation and other industry standard well optimisation methodologies and implementation of the waterflood pilot programmes to drive new energy into the reservoirs rather than continue with the Mayaro sand infill drilling programme.

CERP's cash position at the end of H1 2017 was £1.7m and CERP announced an additional US\$750k in Lind funding which was received in October 2017. In addition, CERP completed a fundraising in Q4 2017 of £4.1m led by **Schroders Investment Management** (£3m) followed up by a 30 for 1 open offer (up to £1m) as well as a £100k subscription by senior management; each at a price of 5p per share. The open offer was 3.2x oversubscribed which is, in our view, a strong endorsement of the company's revised strategy. The funds will be utilised to accelerate the turnaround strategy. We therefore believe that the recent announcements along with the H1 interim earnings mark a turning point in terms of operational results and consequently earnings performance. We expect stronger performance in H2 2017 and a return to positive free cash flow for the full year in 2018F.

New Management Team in Place

Leo Koot – Executive Chairman

We view Leo's appointment as an extremely positive step. Whilst he may be a new name to the capital markets Leo is a well-respected Director in the oil and gas industry following his success with **TAQA (Abu Dhabi National Oil Company) UK**. His successful experience with TAQA will be directly relevant to realising the potential at CERP as not only did he build TAQA UK from a few people to an organisation of over 3,000 staff and contractors and delivered a mature E&P operating company that managed 65kboepd production with US\$1.7bn in annual revenues but TAQA UK used the same water flooding techniques in North Sea oil fields that CERP plans to use to stimulate production in Trinidad. Key to the operational strength of TAQA UK was the technical and commercial teams that Leo had put in place there. We have already seen Leo make a number of changes to the management team at CERP since took over.

Leo has agreed to receive half his fees for the first 12 months in the form of Company stock to be issued at the end of first year at a price of 2.2p per share being the price at the time of the last placement in March 2017 and broadly equivalent to the mid-market closing price on the day prior to his announcement. In addition, Leo was granted options over CERP shares as below, valid until May 2022. It is clear from the vesting prices of Leo's options that Leo sees significant realisable upside.

- 3 million shares strike at 2.2p vesting at 4p
- 3 million shares strike at 4p vesting at 8p
- 3 million shares strike at 6p vesting at 12p
- 3 million shares strike at 8p vesting at 16p
- 3 million shares strike at 10p vesting at 20p

Further to this Leo is a senior Non-Executive Director of AIM listed **Sterling Energy (SEY)**, Managing Partner of **MENA Gulf Investment Partners (Abu Dhabi)**, whilst prior to TAQA he was CEO of Energy Development Partners (EDP); an oil and gas business creating ways to match capital and resources with developing production in the North Sea, for which he helped raise a US\$350mn private equity fund. The assets of EDP were sold for a considerable profit.

Leo has a Master in Petroleum Engineering and a business degree from Harvard Business School.

Gordon Stein – CFO

Further to Leo's appointment Gordon Stein was announced as the new CFO on 15 June 2017. Gordon had previously been a NED of the company, appointed in January 2017 and has been instrumental in driving many of the strategic, managerial and operational changes which have been implemented through 2017. These changes also included reducing the company's corporate G&A costs including moving the London office to a more suitable location, which is estimated to be saving the company £0.25mn per annum. Gordon has extensive experience in the international oil and gas industry in both public and private companies, as outlined below, and has acted in a management capacity in the raising of more than US\$1.5bn.

Gordon is a member of the Chartered Institute of Public Finance & Accountancy (since 1986) and was the CFO of AIM-listed **Madagascar Oil plc**, from June 2013 to October 2016. He was previously CFO at **Cadogan Petroleum plc, (CAD LN)** which is an independent oil and gas exploration, development and production company with onshore gas and condensate assets in Ukraine. Preceding this he was CFO at **Vanguard Energy Limited** and **Regal Petroleum (RPT LN)**. He has also held senior financial and operational management positions in **Fairfield Energy, Acorn Oil and Gas, LASMO, Monument Oil & Gas, Centrica** and **BG**. Mr Stein has over 43 years' experience in the upstream oil and gas sector in the UK and internationally, including Ukraine, Tunisia, Venezuela, Algeria, Turkmenistan and Madagascar.

Stewart Ahmed – Managing Director, Trinidad

Stewart Ahmed's appointment as Managing Director in Trinidad is another appointment we view as being particularly important in turning CERP around. Previously under the old management CERP did not have an executive level operational manager based in country, however, Stewart will be based in Trinidad to oversee operations and has already implemented a number of operational improvements on the Goudron field to make it more productive at minimal cost. Significantly by having Stewart attending board meetings and working on site in Trinidad we believe this will remove any disconnect between the two and will bring his wealth of technical and commercial expertise from his international career. Stewart has gained significant experience in reservoir support and enhanced oil recovery (EOR) techniques in the roles outlined below which will be vital in all of CERP's work programmes going forward. In particular he has relevant experience in waterflood campaigns, pilot programmes and introducing risk-based processes to increase the change of success of such programmes.

Stewart has 32 years oil industry technical, commercial and management experience, most recently as Chief Operating Officer and General Manager of Madagascar Oil in Antananarivo from 2013-2016. This role required high level negotiations with the Government including the President. Operating the Tsimiroro Field steam flood pilot, he was instrumental in securing the first Field Development License in Madagascar's history.

As General Manager of **Dove Energy** in Sana'a, Yemen, Stewart discovered, developed and operated a number of onshore oil-fields peaking at 25,000bopd. Subsequently he managed the exploration license seismic and drilling work programmes as General Manager of Dove Energy in Damascus, Syria and **Midas Oil and Gas** in Yemen.

He performed the position of Petroleum Engineering Manager for **RDS Resource**, a leading Aberdeen based subsurface consultancy from 1997-2000. Prior to that Mr Ahmed worked for 12 years for **Chevron (CVX US)** in the UK North Sea and Gulf of Mexico as a Petroleum Engineer and Commercial Analyst. He has a BSc in Mining and Petroleum Engineering and is a Member of the Society of Petroleum Engineers.

Restoring Core Profitability – Goudron Turnaround

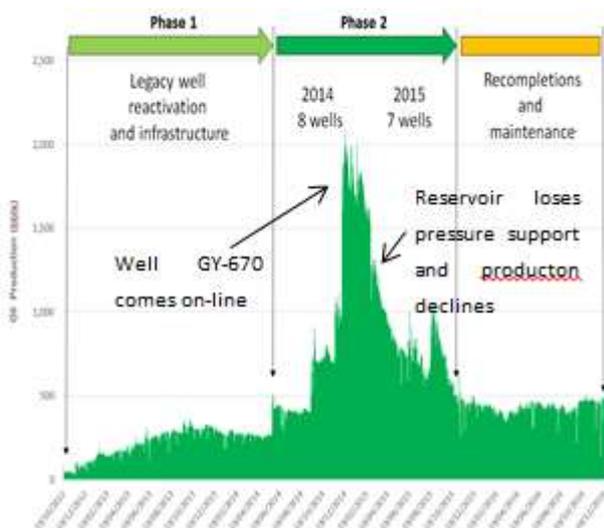
Since the new management team was put in place in May/June 2017 it has assessed the existing operations and determined a series of low cost initiatives which are likely to significantly improve operational performance at the Goudron field. Production in H1 2017 averaged 353bopd. However, CERP have either already made or are in the process of making numerous operational improvements at the Goudron Field to increase production with an immediate effect. This includes installing smart pumping systems using downhole sensors on a number of wells, firstly on well GY-664, allowing automatic pump optimisation and will simultaneously acquire continuous downhole reservoir pressure data which can be used for subsequent water injection programmes.

In addition, CERP have commenced a well stimulation programme, targeting wells in the Mayaro reservoir close to mapped faults where historically Goudron wells have responded successfully to stimulation carried out by previous operators. The stimulation campaign is targeting six existing production wells including the recently drilled GY-683 well and is planned to be carried out across multiple campaigns in the coming months. We estimate this stimulation work is expected to provide a sustained incremental rate which would result in a year end production run rate of 550bopd and 2018 production averaging 900bopd.

Water Injection Pilot Programme

The primary reason why the new management team have changed strategy away from the capex intensive infill drilling programme is due to the lack of reservoir pressure support. Well decline analysis showed that any new wells drilled in the Goudron Field would immediately produce oil; however, they would then experience rapid decline rates as the oil is produced and the reservoir pressure is deflated due to the very shallow nature of the wells (the shallowest of the current Goudron wells being around 150ft and the deepest at 4,000ft). Given the shallow nature there is a need to provide new energy into the reservoir intervals through some form of pressure support; in this case waterflood is seen to be the optimal and most economic option to increase pressure and drive additional and more consistent production from the wells. This was evidenced under the previous management’s regime when well GY-670 came on-line and initially produced over 1,150bopd, confirming the vast potential of the reservoir when the initial pressure is high and that it was capable of producing at significant rates if the reservoir pressure can be maintained. With around 160 wells already drilled on the Goudron field, optimising the existing assets appears a highly logical step likely to generate strong returns for shareholders.

Goudron Field Lacks Sustained Reservoir Pressure



SOURCE: CERP.

Water Sweeps Oil Towards Producer Wells



SOURCE: CERP.

By injecting water into the reservoir to replace the already produced oil CERP will increase reservoir pressure enabling higher recovery and production rates from depleted levels by establishing a sweep of the remaining oil towards production wells. The prior management had planned on implanting a water injection programme, however, it

appeared to be lower on its priority list and was not scheduled until mid-late 2018 and included only one large scale pilot test. However, this water injection programme has now been fast-tracked and refined to implement a simultaneous multi-pilot approach on the Goudron Field, through the adoption of an accelerated fit-for-purpose surface facilities design, allowing the efficiency of the water injection programme to be tested in a number of reservoir intervals and field areas prior to decisions on field-wide expansion of the programme in 2018 and beyond.

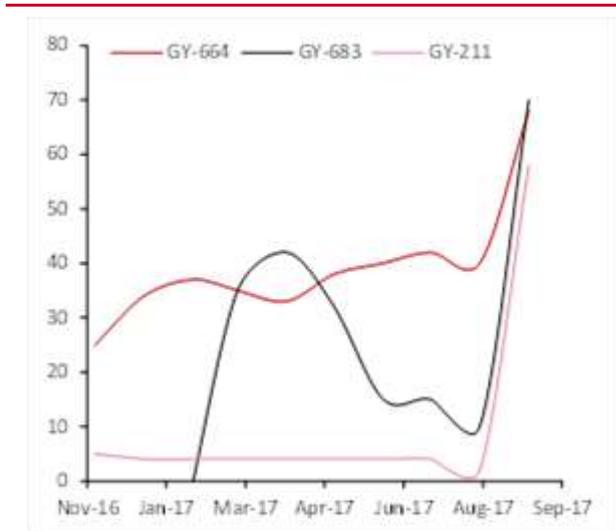
This multi pilot approach commenced following the recent grant of a Certificate of Environmental Compliance by the Environmental Management Authority of Trinidad. Management immediately begun implementing this strategy on receipt of the license and the results have been positive to date. Crucially, the cost of the programme has been reduced dramatically compared to the previous management estimates. Costs committed to date for the first programme for pumps, filters, tanks and pipework comes to just US\$300k while ongoing costs will be minimised as the initial source of injection water is the already produced water from the Goudron field.

The data on recovery and incremental production rates will be key to determining the extent of the waterflood expansion, with a decision now expected in 18 months' time. Proposals for the next three pilot programmes will be submitted shortly and will target two areas in the shallow Goudron Mayaro well and the GY-670 well. However, given early results and the speed with which the initial CEC was granted we assume that the full programme will be implemented.

Water injectivity and inter-well interference testing commenced earlier in 2017 and essential operational equipment was procured to ensure that water injection into the Pilot "A" wells could commence immediately upon receipt of CEC approval. Pilot "A" consists of a continuous water injection of approximately 500 barrels of water per day (BWPD) of currently produced water from the Goudron Field into up to three target injection wells. The Pilot "A" programme, and subsequent pilot programmes are designed to provide incremental oil rate and recovery information that can be used in forecasting to aid a decision on whether to expand the pilot programme within 18 months of each pilot commencement.

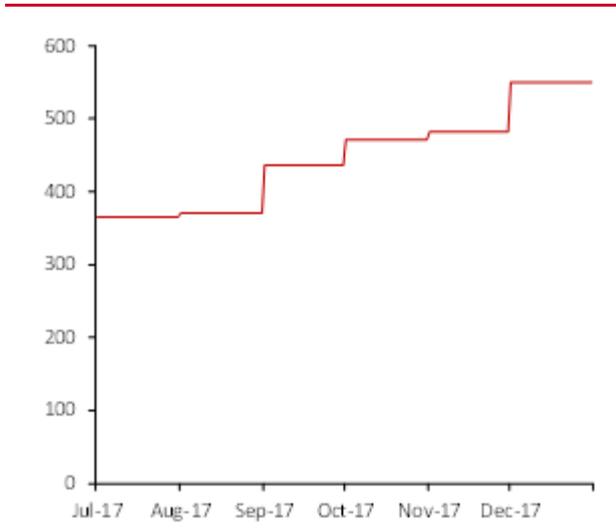
Strong Initial Results to Benefit Earnings

Field Optimisation Results 2017, bopd



SOURCE: Company data, VSA Capital Research.

Projected Production in H2 2017, bopd



SOURCE: Company data, VSA Capital Research

The above results from the water injections, as reported at the company's AGM in mid-September in 2017, demonstrate clearly the potential of the programme. Whilst these initial rates are likely to ease back to a more normalised production rate the incremental benefit of the programme is clear. We highlight well GY-683 as instructive of the turnaround being implemented by the new management team; the well was one of the last to be drilled by the prior team and in line with previous attempts well pressure and production declined shortly after initial production. Previously this would have been allowed to coast as the flat lining production at well GY-211 demonstrates. However, the initial results show the viability of this new approach and the extent of the realisable potential to be unlocked.

These initial results give us confidence that the 550bopd target for year-end is achievable with a further ramp up to an average of 900bopd in 2018. Consequently we expect revenues to benefit significantly and we now expect £5.2m in 2017F and £13.6m in 2018F using our forecast of US\$55/bbl WTI. Furthermore, as a result of stronger production and further optimisation we expect unit costs for CERP to decline and now forecast a target US\$6/bbl over the long term, however, we forecast US\$7/bbl in 2018 whilst production is ramped up. As a result of the stronger production and reduced capital intensity of the growth programme we expect strong free cash flow generation from CERP in the coming years as the full value of the Goudron field is unlocked. This will enable internal funding of future development programmes of the South West Peninsula and latterly Goudron Deep.

Future Pilot Programmes

CERP are planning further water injection pilot programmes (B, C and D), targeting two areas of the shallow Goudron Mayaro reservoir and also as potential pressure support for the GY-670 well, which initially peaked at over 1,150bopd in December 2014. The initial testing on GY-670 has successfully shown that water injection will increase pressure which is highly encouraging, in our view. Proposals for Pilot B, C and D are planned for submission in the coming months, taking into account early results from injectivity testing, Pilot "A" implementation and the stimulation campaign.

CERP incorporated the drilling data from the 2015 drilling campaign as well as production data from wells drilled in 2014 and 2015 to produce an updated reserves and resources report. This work was audited in June 2016 by **Deloitte's** Resource Evaluation & Advisory team and as a result the best estimate oil in place (STOIP) within the field has increased over 20% since the 2015 independent review to 555mmbbls.

2016 Independently Verified Resource Estimates

Gross (mmbbls)	1P	2P	3P
Reserves	1.6	11.8	25.6
Gross (mmbbls)	1C	2C	3C
Contingent Resources	3.2	22.2	63.4
Gross (mmbbls)	Low	Med	High
STOIP	210	555	975

SOURCE: Deloitte

Water Flood Analogues

Analogue fields in Trinidad supplement the Goudron Field dataset. The water injection schemes implemented in the local fields in Trinidad demonstrate the existing scale of water injection operations in Trinidad, as well as the response from rock formations of the same stratigraphy as the Goudron Field.

The local fields in Trinidad providing analogue data are all within c25km of the Goudron field. The nearby Navette field has performed multiple water injection schemes over the past 40 years with a secondary oil recovery factor varying from 3 to 21%. CERP also used the Beach Marcelle field as an analogue for its waterflood development as both fields are interpreted to have similar depositional environments to the C-Sand of the Goudron field.

However, no waterflood programme has taken place on the Mayaro or C-Sands before, therefore, the best indicator for the performance of a full waterflood programme will come from the four planned waterflood pilot tests.

Deloitte has also increased its reserve estimate over the Goudron Field. Proven (1P) gross oil reserves in the producing Goudron Mayaro Sandstone and deeper C-sand and pre-Cruse reservoirs increased by over 3% to 1.6mmbbls, and the gross proven and probable reserves (2P) increased by 4% to 11.8mmbbls. Proved, probable and possible reserves (3P) increased by 9% to 25.6mmbbls.

Beach Marcelle and Navette Work Programmes

Scheme	007	410	307 main
Original Oil in Place (MMBO)	23.85	25.55	36.70
Primary Recovery (%)	36.8%	28.1%	31.8%
Cumulative secondary recovery (%)	2.6%	16.1%	2.1%
Ultimate Secondary Recovery (%)	4.5%	17.4%	5.5%

SOURCE: CERP

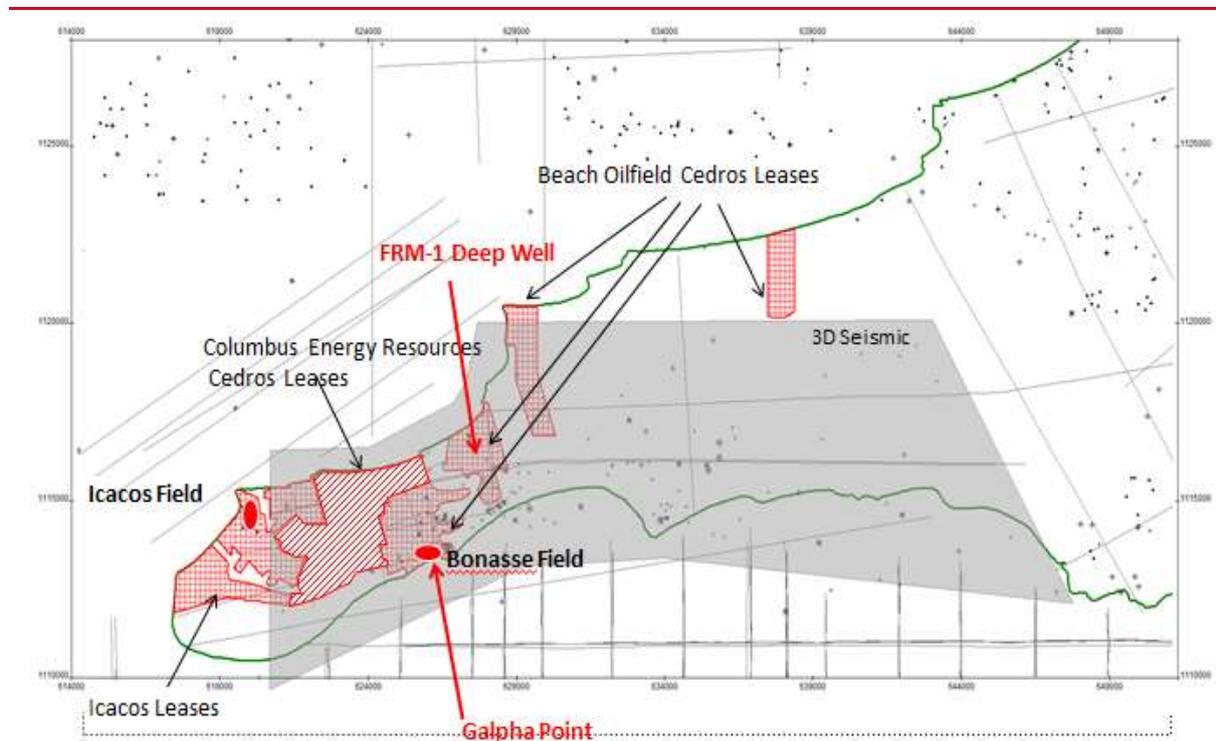
Goudron Deep – Lurking Below

It is clear that management is extremely enthusiastic about the potential in CERP from a geological and technical perspective, in particular the quality of the oil from the Goudron Field is particularly good (38° API) i.e. the oil is light. This is particularly unusual when considering that the reservoir depth at Goudron is shallow, ordinarily at these shallow depths one would expect the quality of the oil to be much lower and viscous due to biodegradation of the oil and interaction with bacteria. However, as this is not the case this would indicate that the oil is leaking and, therefore, migrating from a deeper and much larger source which management has indicated could form part of its exploration strategy at some future stage. Although this represents an avenue with significant potential there is no current exploration budget dedicated to Goudron Deep exploration and as such it does not form a part of our valuation but we believe investors should be aware of this future potential.

Transformational Growth: South West Peninsula

Although the Goudron turnaround strategy will unlock significant value in itself and provides near term catalyst for the shares, the free cash flow generated at Goudron will, in part, be utilised to fund drilling at the South West Peninsula (SWP) in late 2018 which is likely to provide significant further upside, in our view. CERP has announced that it intends to drill the most attractive prospects during H2 2018 once commercial negotiations are completed and necessary government approvals are secured. We believe that the initial well is likely to cost between US\$2-4m and has the potential to significantly de-risk the project. Given the strong cash flow projections at Goudron we do not believe that CERP will require a partner to conduct the initial drilling and by conducting this stage of the de-risking process, they will be able to maintain a greater share of the project going forward. We assume that CERP will maintain a 66% working interest as without a pipeline there will most likely be some significant infrastructure requirements whereby using a partner to provide capital would benefit CERP.

CERP's SWP Operations Overview



SOURCE: CERP.

The SWP, where CERP already has shallow production from its BOLT licence (on the Bonasse field), is significant since the deep onshore area is largely unexplored and is considered highly prospective due to its close proximity to the prolific East Venezuelan Basin of which the SWP is geologically a part. The only deep onshore well, FRM-1, was drilled in 2008 to a depth of 12,301 feet, found oil shows in the Lower Cruse and Lengua Formations at around 11,700

feet. The regionally significant Herrera Sandstone formation was not reached in the FRM-1 well. Structural features offshore the SWP at Soldado have yielded major oil fields, in excess of 200 million barrels, and CERP believe similar structures may lie onshore beneath the SWP. CERP estimate the SWP has a STOIP of 1.3Bboe and it is intending to work numerous prospects in the area. Boulders of oil saturated Lower Cruse Herrera Sandstones are exhumed by mud volcanoes, such as at Galpha Point and confirm the presence of oil (see photo below).

CERP has completed initial well interventions across the field in order to understand the condition of field facilities, well completions and the potential for sustained base production. Oil sales from the Bonasse Field have been managed as the available volumes have justified trucked sales to the Point Fortin delivery point. BOLT is a private licence meaning CERP is not contractually bound to sell its crude to the Petrotrin refinery like it is from the Goudron Field where it typically receives a sale price of WTI discounted by 5-12%, currently that discount stands at c8%. In our opinion, this provides CERP with good leverage on selling its BOLT production given the demand for domestic crude by the refinery, as highlighted earlier in this report, whereby CERP has the option to negotiate better terms for its crude or market it internationally. CERP will also receive revenues from sales in US Dollars from the Bonasse field or from development of the SWP. Furthermore, the oil quality from individual wells has been measured with the gravity shown to be $>25^{\circ}$ API, which was of higher quality than the heavy oil first expected and will, therefore, command less of a discount than first thought.

CERP's activity in the SWP remains focused on gaining approval for the Private Mineral License applications which will allow it to continue to mature exploration prospect opportunities in the area. Additionally a nomination letter for additional acreage in the area was lodged with the Ministry of Energy and Energy Affairs in June 2017 in response to the Open Bid Round announced in May 2017. As highlighted in the valuation section of this report we believe the long term value in CERP lies in the enormous exploration potential of the SWP. The free cash flow which CERP should be able to generate by increasing production at the Goudron Field in the short term will allow CERP to invest in and further de-risk the SWP to make it more attractive to either a farm-out partner or a direct sale.

Oil Saturated Boulders at Surface



SOURCE: Company data, VSA Capital Research.

CERP acquired Full Tensor Gravity (FTG) data in 2015 over the entire SWP which has been interpreted alongside a soil geochemistry survey and the existing well and seismic data which includes a 3D seismic survey over a large portion of the SWP. The integrated interpretation work has shown the presence of numerous undrilled oil and gas leads and prospects within the SWP which will be further studied prior to a decision to drill.

Lind Partners Loan: Terms Improved

In September 2017, CERP announced a favourable revision to the terms on its lending facility with **Lind Partners**. Following the agreement announced in December 2016 for a US\$8.9m convertible loan facility of which US\$1.825m (T1) was initially drawn down, CERP negotiated an increase in the conversion price and Lind Partners exercised their exclusive rights to provide a further US\$0.75m which was received by CERP in October. The revision in terms with Lind Partners included the following;

- T1 conversion price increased by 50% to 4.5p/sh.
- Issue of 17.9mn shares to Lind, held in escrow for at least six months.
- September 2017 monthly repayment was made in shares as part of the revision, 2.3m shares issued at 3p/sh.
- Lind exercised its right to increase the size of the facility by US\$750k (T2) with funds received by CERP in October 2017. T2 will be repaid at a monthly rate of US\$38.7k in cash or shares as determined by CERP over a period of up to two years.
- Lind became eligible for 7.6mn share options on provision of T2 exercisable at a price of 50% above the preceding 20 day average to the award date for up to 40 months.

Lind Partners also exercised their exclusive right to convert US\$150,000 of the outstanding loan at 4.5p/sh in mid-October 2017 with 2.5mn shares being issued arising from this conversion. In addition, Lind Partners undertook a further conversion of the loan (for US\$0.3mn) at 4.5p/sh in late-November with 5.1m shares being issued. Subsequent monthly payments have been made by CERP in cash with no dilutive impact and we estimate that around US\$1.5m of T1 and T2 loans remained outstanding at the end of November 2017. CERP intends to repay these loans in cash in accordance with the terms of the agreement.

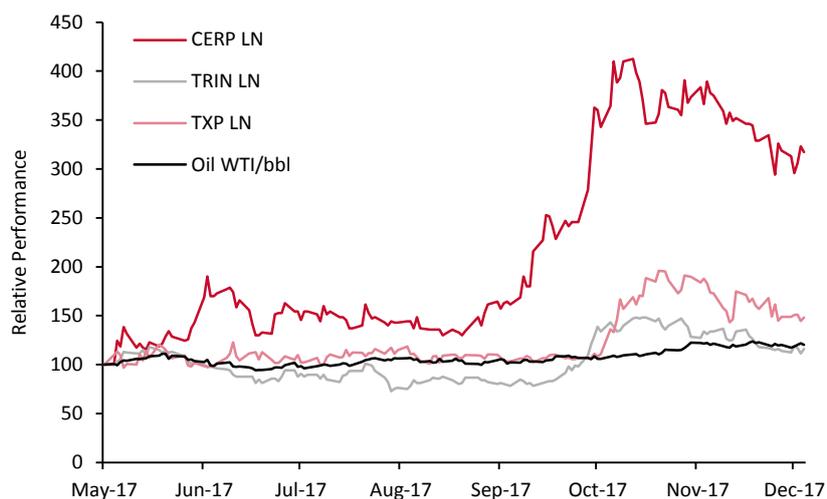
Although the conversion price was originally viewed by investors as a ceiling for the equity valuation as judged by share performance since late September 2017 we now believe that the combination of a strengthened balance sheet, improved lending terms and realisable turnaround strategy mean that the conversion price will no longer act as a ceiling. With strong cash flow generation potential far in excess of the outstanding loan amount we believe that the upside potential far outweighs the dilution risk associated with this instrument.

CERP continues to have access to an additional US\$6.3mn of convertible loans from the Lind Partner agreement, subject to the approval of Lind Partners. However, given the recent £3m institutional investment from Schroders, the £1m from the open offer, £0.1m from management and the US\$0.75m T2 loan from Lind Partners, we believe CERP is well funded to meet its planned activities in 2018, especially when the cashflows from growing production in Trinidad are taken into account.

Outperforming Its in Country Peers

Since the change in management in May 2017 CERP has outperformed both its peers and WTI crude on a comparative basis. The significant changes at CERP have, however, reinvigorated investor interest in what is, in our view, one of the most attractive regions for oil development and exploration globally. Consequently the shares of CERP's regional peers have rallied on the back of its success.

CERP Outperformance Since Management Changeover



SOURCE: Company data, VSA Capital Research.

We believe that there is significant further upside potential and the outperformance versus peers is justified and can be maintained. The listed peers in Trinidad, include **Trinity Exploration & Production (TRIN)** and **Touchstone Exploration (TXP)**. This is despite several catalysts for its peer group in the period including the AIM listing of TXP whilst TRIN restructured its balance sheet at the start of the 2017 as its senior debt and creditor obligations inhibited its ability to operate and has announced a robust operational improvement.

Valuation

Methodology

We value CERP’s new strategy using a sum of the parts methodology across its portfolio of assets onshore Trinidad. We believe the value in CERP lies in both the development of its Goudron Field, through maintaining its base production on the field by making operational improvements, and exploration and development on its South West Peninsula (SWP) leases in which CERP owns a majority working interest (WI), and which we believe can create shareholder value in both the short and medium term. We have valued CERP in two divisions as outlined below.

- Firstly, we attribute value to CERP maintaining and increasing its base level production from the Goudron Field through making numerous operational improvements and a well stimulation programme targeting near fault wells. We also include the four planned water flood pilot tests as part of this programme.
- Exploration and development over the SWP.

We have produced an asset by asset NAV on a per barrel basis applying detailed DCF modelling for each of the above developments, based on our own assumptions, data from analogous fields and company guidance. Whilst CERP has stated it has placed the Mayaro sand infill drilling programme on hold due to a lack of reservoir pressure support, we have included some shut in wells being reoptimised to drive production growth. This approach significantly reduces the projected capital intensity and enhances potential shareholder returns in our view.

In its most recent Contingent Person’s Report (CPR) update carried out by **Deloitte** in June 2016 CERP’s proven and probable (2P) reserves at Goudron increased to 11.8mmbbls (2015: 7.2mmbbls) relating to the Mayaro Sandstone and deeper C-Sand reservoirs, to which we have applied our per barrel NAV based on the field optimisations, well stimulation and water flood pilot tests. We have followed a similar process for the full-field waterflood programme based on the 2C contingent resource number of 22.2mmbbls from the same CPR. Finally we have valued the SWP leases which are estimated by CERP to have gross un-risked prospective resources of 1.3Bboe to which we have applied a 15% recovery factor based on company guidance and data from the nearby offshore Soldado Field.

We have applied a discount rate of 10% to reflect the fact that whilst Trinidad is still a developing nation it has an established petroleum system and long track record of commercial production. We have based our earnings forecasts on the assumption of flat WTI oil prices of US\$55/bbl from 2018.

Chance of Success

Our risked NAV carries a varying Chance of Success (CoS) across each asset depending on our level of confidence of both the asset’s geological CoS from a technical perspective and commercial CoS reflecting our confidence in the project receiving the necessary investment, summarised in the table below.

Our geological CoS on CERP’s base level production and optimisations is high to reflect the fact that it is currently in production, averaging 353bopd over H1 2017 but expected to reach 550bopd by year end and an average of 900bopd in 2018. In our opinion the optimisation and stimulation work and pilot tests are low risk whilst the strengthened balance sheet indicates that this programme is funded. Inherently there is risk that the optimisations and pilot tests may not perform as expected which is why the CoS is not higher.

Chance of Success Summary

Project	Geological CoS	Commercial CoS	Total CoS
Base Production, Optimisations and Pilots	65%	85%	55%
SWP	25%	40%	10%

SOURCE: VSA Capital Research.

Whilst SWP is still mostly an exploration play and, therefore, inherently riskier than a development project we have applied a geological CoS of 25% to reflect our high level of confidence for exploration in this region as a proven petroleum province which sits on trend with the offshore Soldado Fields where **Petrotrin** was producing 6,000bbls/d

from 2014. Furthermore CERP already has some production from the shallow reservoirs in SWP removing the risk of the presence of a source rock.

CERP previously indicated that it expected to farm-out SWP to share the risk and cost in this project. However, the approach has changed somewhat in recent months. The timing of the project has been brought forward from 2021 to H2 2018 with CERP indicating it should be able to fund initial drilling from its own cash resources. This additional drilling is likely to significantly derisk the project confirming the license's potential and reducing the interest that CERP would need to farm out to develop the project. Given that infrastructure costs for a project of this scale are likely to remain significant we assume that CERP would farm out just a third of the project retaining a 66% interest.

We have assigned a commercial CoS of 40% on the SWP which reflects our confidence in CERP finding a farm-out partner. Although this may be considered relatively high for an early stage exploration project, we are confident in this assumption as our expectation given existing production on the license area as well as the boulders of oil saturated sandstones which have been exhumed by mud volcanoes provide greater confidence in the presence of oil. Our NAV indicates the potential for significant upside in the SWP and should CERP successfully meet its stated targets by defining the prospects and finding a farm-in partner as this would remove the funding risk over the project thereby increasing the CoS of the project.

NAV, Recommendation and Target Price

The recent announcements in terms of strategy, fundraising and growth planning have provided a comprehensive and, in our view, achievable path to realising the significant potential of the underlying assets. CERP is now able to carry out all its planned operational improvements and well stimulations over the Goudron Field for a modest investment of around US\$5m spread over the next few years. We believe that initial exploration activities of the SWP will also now be funded using future Goudron cash flow as well as existing cash resources. We expect CERP to be cash flow positive by year end 2017 although the benefit to earning will likely be more clearly realised in 2018.

We initiate with a BUY recommendation and target price of 26p which implies 381% upside potential.

NAV Summary Table

Asset	Timing	Unrisked (mmbbls)	Equity (%)	Net unrisked (mmbbls)	CoS (%)	Net risky (mmboe)	EMV (US\$/bbl)	EMV (US\$m)	Net unrisked (US\$)	Net risky (p/sh)
Goudron Base	2017	11.9	100%	11.9	55%	6.6	23.6	154.7	280.0	17.1
SWP	2018	145.9	66%*	111.5	10%	11.1	8.2	91.3	913.1	10.1
No. of shares										669.3
Subtract: SG&A								(15.4)		(1.7)
Subtract: Debt								(1.9)		(0.2)
Add: cash FY17								5.9		0.6
Total NAV										26.0

(*Assumes a farm out on the SWP) **SOURCE:** VSA Capital Research. **Fully diluted to reflect management options

Trinidad Overview

Trinidad has a strong petroleum production track record with more than 3Bbbls produced over 100 years on land and in shallow water. According to the EIA Trinidad’s proven crude oil reserves in 2013 stood at 728mmbbls. CERP’s Goudron Field is a mature oilfield located in southeast Trinidad. The sediments within the Goudron Field were deposited by a wave-dominated delta system prograding onto a storm-influenced and current-influenced shelf. The high rates of sediment supply filled all available proximal space, creating a broad and low slope coastal plain. The sediments represent two different depositional belts: Goudron Mayaro Sand and C-Sand. Two reservoir targets have been identified for hydrocarbon production in the Goudron field; the Goudron Mayaro Formation and the C-Sands incorporating the Lower Morne and Lower Cruse Formations.

The Goudron Field is 100% owned by CERP and lies between the East Moruga and Beach Marcelle fields in south-eastern Trinidad. It has direct access to the **Petrotrin** oil export pipeline to the Pointe-a-Pierre refinery in western Trinidad. The field was originally discovered by in 1927 and was developed in its current form by **Texaco** between 1956 and 1986, when ownership passed to Petrotrin. A field reactivation contract, Incremental Production Service Contract (IPSC), was signed in late 2009 and was acquired by CERP in October 2012.

Trinidad and Tobago



SOURCE: World Atlas, VSA Capital Research.

CERP’s operations comprise of the Goudron Field and the fields within the South West Peninsula (SWP). The SWP includes the Icacos Oilfield which lies within the Cedros Peninsular and is surrounded by a number of 100% CERP owned leases. The BOLT leases which contains the Bonasse Oilfield also lies within the SWP.

CERP’s Operations Overview



SOURCE: Company data, VSA Capital Research.

Stratigraphic Column of the Goudron Block

Ero	System (Formal)	Sub system (Sub)	Series (NW to SE)	Facies (NW to SE)	Lithostratigraphy			
					Series (NW to SE)	Group	Formation	Member
Cenozoic	Quaternary	Pleistocene	Later	Growth faulting	Mayaro	Goudron Fm.	A	Pre-Mayaro Unconformity
			Middle				B	
			Early					
	Neogene	Growth faulting (NW to SE)	Mauvo	Lower Morne Fm.	Zone 1	Pre-Cruse Unconformity		
					Zone 2			
					Zone 3			
					Zone 4			
	Paleogene	Fault block	Lower Morne Fm.					
Paleozoic	Pre-Cruse Unconformity	Liquor/Karst/Copra Fm.						

SOURCE: Company data, VSA Capital Research

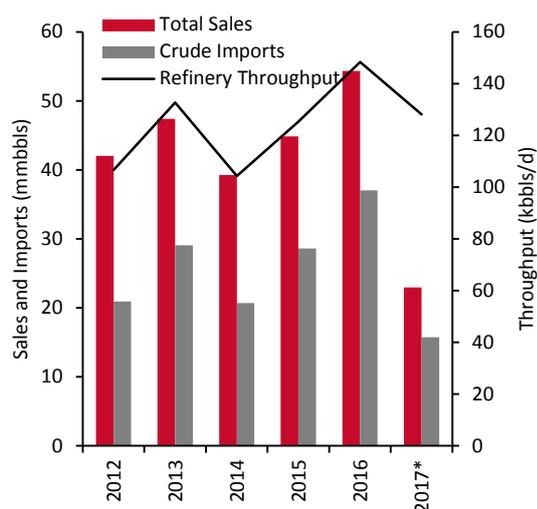
CERP has developed a strong relationship with the refinery and the government authorities as an employer and investor in the country. Furthermore, it has consistently paid its local creditors on time and in full which has been key to developing this strong relationship. CERP is recognised as a reliable operator which is certainly beneficial when it comes to new applications for licenses and permits. Indeed, we believe that the recent successful permit for the water injection programme demonstrates the strong working relationship and also the authorities' competence enhancing Trinidad's credentials as a positive operational jurisdiction.

Trinidad Refinery

Petrotrin, the Trinidadian state owned oil company, operates the only refinery on the island with a capacity of 165kbbbls/d although local production has suffered a decline over the last decade and was recorded as c96kbbbls/d in 2016 compared to almost double that figure a decade ago. Since Trinidad's indigenous production is less than Petrotrin's refinery capacity the state must import crude oil to utilise refinery capacity to support running costs.

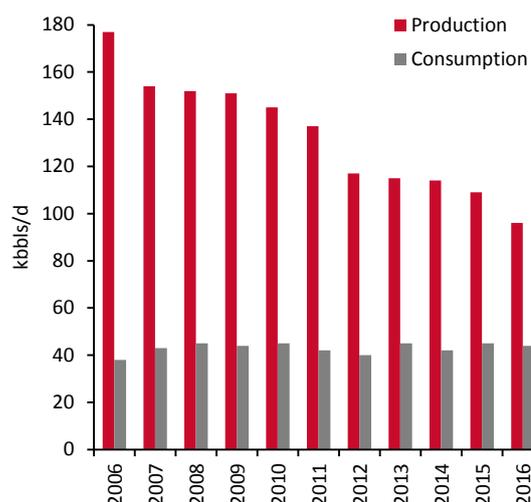
The Trinidad refinery has increasingly relied on imported crude from international markets due to declining domestic production. This highlights the significant potential for domestic producers to displace foreign crude imports. Through increasing its production in the coming years and the sales agreement it already has in place with the Petrotrin refinery we believe CERP is well positioned to take advantage of this local demand.

Refinery Throughput Vs Sales and Imports



SOURCE: MEEI. *Data to June 2017, VSA Capital Research.

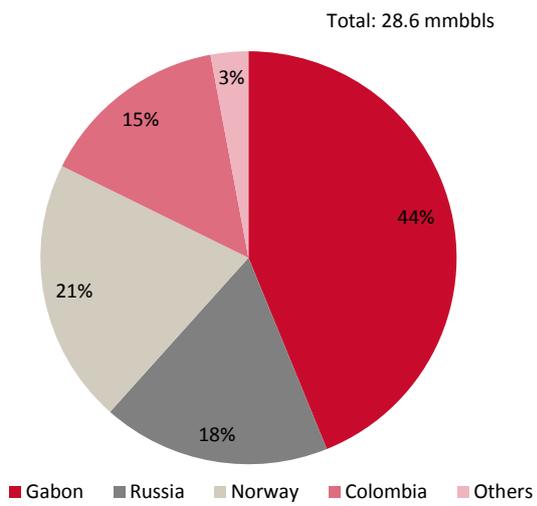
Trinidad Production Vs Consumption



SOURCE: BP Statistical Review 2017. VSA Capital Research.

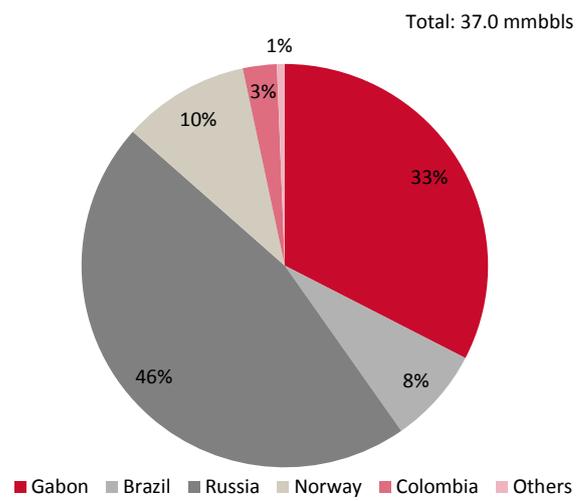
Other countries that Trinidad imports and refines crude oil from, either on its own account or for clients under processing agreements, include; Gabon, Russia, Norway and Colombia with Brazil becoming an increasingly important supplier according to the latest data in 2017. In 2012, downtime at several refinery plants and industrial unrest negatively affected refining activity; refinery throughput fell from 137.3kbbbls/d in 2011 to 106.7kbbbls/d the following year. The refinery was again running at near full capacity by June of 2013, leading to a recovery in both throughput and sales that year. Nevertheless, refinery operations weakened in 2014 as a result of global excess supply and low demand for gasoline, which resulted in Petrotrin taking 13 of its units offline. In 2015 refinery throughput recovered 18.4% to 125.3kbbbls/d compared to 104.3kbbbls/d the previous year. The improvement in refining activity and sales continued into 2016 and H1 2017.

Trinidad Crude Oil Imports 2015



SOURCE: MEEI, VSA Capital Research.

Vs Trinidad Crude Oil Imports 2016



SOURCE: MEEI, VSA Capital Research.

Appendix 2: Financials

Profit & Loss (Reported)

Year End Dec (£'000)	2015A	2016A	2017E	2018E	2019E
Revenues	9,475	4,545	5,153	13,595	54,819
Cost of Sales	(8,076)	(3,543)	(3,125)	(4,608)	(20,790)
Gross Profit	1,399	1,002	2,029	8,987	34,029
SG&A	(4,196)	(3,157)	(2,659)	(2,160)	(2,203)
D&A	(1,732)	(1,150)	(1,090)	(1,108)	(1,117)
Other Operating	(2,515)	466	-	-	-
EBIT	(7,044)	(2,839)	(1,719)	5,719	30,710
Net Interest	(240)	43	(179)	(84)	(84)
PBT	(9,741)	(10,736)	(1,898)	5,636	30,626
Tax Expense	930.0	-	-	-	-
Net Income	(8,811)	(10,769)	(1,898)	5,636	30,626

Cash Flow

Year End Dec (£'000)	2015A	2016A	2017E	2018E	2019E
EBIT	(7,044)	(2,839)	(1,719)	5,719	30,710
D&A	5,206	2,539	1,090	1,108	1,117
Changes in WC	1,985	(3,848)	(288)	(1,858)	(3,757)
Changes in Other CA and CL	(1,213)	1,028	-	-	-
Income tax paid	-	(20)	-	-	-
Other	-	-	-	-	-
Cash flow from operations	(1,066)	(3,140)	(917)	4,970	28,069
Capital Expenditure	(7,202)	(309)	(1,462)	(1,282)	(1,333)
Increase in intangibles	(833)	(1)	-	-	-
Change in NCA and NCL	(34)	-	-	-	-
Cash flow from investing	(8,069)	(310)	(1,462)	(1,282)	(1,333)
New issuance of shares	9,853	8,560	6,600	-	-
Net Debt (Repayment) / drawdown	4,287	(6,754)	-	-	(1,862)
Net interest charges	(262)	86	(179)	(84)	(84)
Other	(458)	(450)	-	-	-
Cash flow from financing	13,420	1,442	6,421	(84)	(1,946)
Net change in cash	2,553	(3,158)	4,043	3,604	24,790
Cash and cash equivalents, beginning of year	1,583	4,127	1,827	5,870	9,474
FX differences	(9)	858	-	-	-
Cash and cash equivalents, end of year	4,127	1,827	5,870	9,474	34,264

Balance Sheet

Year End Dec (£'000)	2015A	2016A	2017E	2018E	2019E
Cash and cash equivalents	4,127	1,827	5,870	9,474	34,264
Inventory	309	457	353	1,490	6,008
Trade debtors	357	366	1,220	2,235	9,011
Other	2,118	710	-	-	-
Total Current Assets	6,911	3,360	7,442	13,198	49,238
Oil & Gas assets	14,754	14,958	15,330	15,504	15,720
Intangible assets	11,477	4,998	4,998	4,998	4,998
PP&E	2,690	1,839	1,839	1,839	1,839
Other	34	38	38	38	38
Total Non Current Assets	28,955	21,833	22,205	22,379	22,595
TOTAL ASSETS	35,866	25,193	29,647	35,577	71,878
Borrowings	7,252	682	682	1,662	-
Trade creditors	5,081	717	1,852	2,146	9,683
Other	1,271	1,526	143	143	143
Total Current Liabilities	13,604	4,105	2,677	3,951	9,826
Non Current Liabilities	1,011	2,368	2,368	1,388	1,188
Total Liabilities	14,615	5,293	5,045	5,339	11,014
Net Assets	21,251	19,900	24,602	30,238	60,864
Paid-in Capital	58,196	66,306	72,906	72,906	72,906
Retained Earnings	(42,156)	(53,846)	(55,744)	(50,108)	(19,482)
Other	5,211	7,440	7,440	7,440	7,440
Total	21,251	19,900	24,602	30,238	60,864

SOURCE: Company data. VSA Capital Research.

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Equities breakdown: 31 December 2016	Spec. BUY	BUY	HOLD	SELL
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Companies to which VSA has supplied investment banking services	25%	75%	0%	0%