



“Cairn India Limited Q1 FY17 Earnings Conference Call”

July 25, 2016



MANAGEMENT: **MR. SUDHIR MATHUR – CHIEF FINANCIAL OFFICER & ACTING CHIEF EXECUTIVE OFFICER, CAIRN INDIA LIMITED**
MR. SUNIL BOHRA -- DEPUTY CHIEF FINANCIAL OFFICER, CAIRN INDIA LIMITED
MR. SUNITI BHAT – DIRECTOR, RAJASTHAN OIL, CAIRN INDIA LIMITED
MR. ANANTHAKRISHNAN B. – DIRECTOR, GAS DEVELOPMENT, CAIRN INDIA LIMITED
MR. DHEERAJ AGARWAL -- MANAGER, INVESTOR RELATIONS, CAIRN INDIA LIMITED



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Moderator: Ladies and Gentlemen, Good Day and Welcome to Cairn India's first quarter FY17 earnings conference call. As a reminder, all participant lines will be in the listen-only mode and there will be an opportunity for you to ask questions after the presentation concludes. Should you need assistance during the conference call, please signal for an operator by pressing '*' followed by '0' on your touchtone phone. Please note that this conference is being recorded. I now hand the conference over to Cairn India team. Over to you Mr. Dheeraj Agarwal.

Dheeraj Agarwal: Thank you, moderator. Hello! Everyone. This is Dheeraj Agarwal – Manager, Investor Relations at Cairn India. I thank you all for joining us today on this call. Our results for the first quarter FY17 have been released and we hope you have had a chance to go through the same.

Just a mandatory note before we begin the session. Some of the statements made in the call today could be forward-looking in nature. A detail disclaimer in this regard has been included in our presentation that has already been shared on our website www.cairnindia.com. The entire call is being archived and a transcript would be available on the company's website later.

We have with us Mr. Sudhir Mathur -- CFO and Interim CEO, Mr. Sunil Bohra -- Deputy CFO and Mr. Suniti Bhat – Director, Rajasthan Oil to present the Highlights of Company's Quarterly Performance and the way forward. We also have with us Mr. Ananthakrishnan B. – Director, Gas Development.

I will now hand over to our CFO and interim CEO - Mr. Sudhir Mathur for his opening remarks. Over to you, Sir.

Sudhir Mathur: Thank you, Dheeraj. Good Day and thank you for joining us. I would like to start with a recent announcement on Cairn-Vedanta merger and then get into the Operating Performance for the Quarter just gone by. An announcement was made on 22nd July with the revised offer terms. As per the terms, Shareholders of Cairn India will receive one share of Vedanta Limited and four redeemable preference shares of face value of Rs.10 each for the share held in Cairn India. The offer has been revised in terms of increasing the number of preference shares to four from one earlier. The preference share carry the coupon of 7.5% and can be redeemed after 18-months from issuance. The shares will be listed on the National Stock Exchange. Post the transaction, the ownership structure as per the original terms, 79.8% of Vedanta will be owned by the existing Vedanta Limited shareholders and 20.2% owned by Cairn India minority shareholders. Remainder of the key terms is largely the same with the transaction to be effected by way of Scheme of Arrangement and is subject to shareholder approval. Cairn India shareholders meeting will take place on September 12th and the notices for these meetings will be sent out to shareholders in due course. The revised terms have been supported by fairness opinions provided by independent banks and have been subsequently unanimously approved



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by the board members of Vedanta Limited, Cairn India and Vedanta plc, considering the prevailing market conditions and underlying commercial factors. We expect the transaction to close during the first quarter of calendar 2017.

Let me now just say how I believe that Cairn India minority shareholders are presented with unique opportunity to obtain exposure to the significant upside at Vedanta Limited, which I will summarize in the following points: Firstly, there is a great benefit from de-risking earnings and being able to generate stable cash flows through the cycle. I also believe that the revised and final transaction terms are even more attractive to Cairn India shareholders. Thirdly, shareholders will gain exposure to Vedanta Limited world-class commodity assets that have longer life than Cairn India assets and are characterized by strong growth profile as the production ramp up. Fourthly, transaction also provides improved optionality through better allocate capital within the group, it also enables further cost savings. Lastly, Cairn India shareholders will also be beneficiaries of increased free float and higher index rating for Vedanta Limited will also benefit its liquidity. We will also gain access to various capital markets including NYSE and the international debt market which further increases our financial flexibility. All this will lead to a greater potential for further re-rating and the Cairn India management team remains excited about this merger completing in the coming months.

Now for the operating performance, which has been strong in the last quarter. First, taking a quick view of the world of crude oil that we see today, it looks entirely different. It is a world that is fundamentally reshaped by Brent prices showing few revisions after touching 12-years lows in January. However, supply outages in May due to Nigerian, Canadian production going offline and drop of almost a billion barrels a day within US over the year has helped in a few upward revisions of oil prices.

Unfavorable oil prices and financing conditions are making extraction of oil from unconventional tight oil formation and tar sands unattractive. Total oil rig count in the US has nearly halved to around 350 in June '16 compared to last year. The sharp decline in oil prices has resulted in a dip in the long lead projects and as operators are focusing on shorter cycle projects that deliver the quickest payback. Tanking oil prices and shrinking operating cash flows have been instrumental in the debt rising across the industry. Cost of borrowing increased as reflected by expansion in bond yields by 25% to 35% over last year. Stretched balance sheets have forced many operators to focus on asset disposal and equity offerings to improve their liquidity position. The industry also saw 30 more E&P companies in North America filing bankruptcies just this year.

Nonetheless, the shale industry has managed to keep its technological advances on track. Report suggests improvement in productivity across shale plays, largely attributed to focus on design improvements like drilling longer lateral, optimizing completions through multi-frac per stage, reduction in cluster spacing, high density completion and reduction in drilling and



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completion cost per lateral foot. Also the move to drill more in core locations by US shale players seems to have helped. Oil and Gas E&P environment continues to be challenging, a faltering general economic growth across the world and Brexit only added to the contagion.

With this in mind let me take you back to our five points strategic priorities, which we adopted to guide us through this volatile oil price cycle. On Slide #6, through our five points strategy we have remained focused on our approach and built upon our 'Resource-Reserve-Production roadmap' to tide the 'new normal' environment. In line with our first priority of generating free cash flow, \$226 million of total free cash was generated through our ongoing drive to bring down our operating cost and improve capital efficiency. Water-flood opex in Rajasthan have been brought down 38% over the past six quarters to \$4.4 per barrel. It was accomplished with a steady focus on optimization of workover activities and reduction in costs of crude processing such as saving on chemical cost and gas compressor rentals. The good part is while maintaining the polymer injection at the targeted level, we have been successful in reducing the blended opex. Structuring the polymer contract, taking into consideration the oil prices flux, we have been able to reduce our polymer flood opex by approximately 25% from the guidance we gave out. On the capex front, as part of our returns focused capital disciplined approach, we have reduced our spending plan from \$250 million in last fiscal to \$100 million in the current year. In the first quarter, we deployed \$11 million while retaining the flexibility to quickly increase it to develop an opportunity in the pipeline.

On our second priority, we remain focused on increasing recovery from our core MBA and offshore fields to ensure cash generation even in current low oil price market. Implementing the world-class polymer project in Mangala and going by the scale of the project, stabilizing it within acceptable efficiency rates within one year was a commendable feat. Implementing polymer flood across MBA fields will help us improve the ultimate recovery by 10% to 12%, in addition to 30-35% recovery expected from the water-flood operations. In offshore fields, prudent reservoir management and focus on asset integrity have resulted in Ravva delivering an outstanding recovery of around 50%.

As part of our third priority of developing optionality for growth, we continue to improve the economics of our projects, which include RDG, Polymer Flood in Bhagyam and Aishwariya plus Barmer Hill and Satellite Fields. Successful conclusion of the 15 well hydro-frac campaign, started in RDG to sustain the growth level, has helped us improve our sub-surface understanding, which has resulted in 100% increase in initial productivity compared to the well fraced during the earlier 2009-10 campaign. Improvements in productivity through a combination of technology application and new generation sub-surface workflows along with cost reduction has helped in bringing back viability to key projects which we will discuss in the course of the presentation.



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As part of our fourth priority, we have maintained a strong resilience in the low oil price environment. Through continuous cash generation, we maintain a robust balance sheet that gives us financial flexibility. We registered a healthy cash flow position of \$3.5 billion at the end of first quarter. At Cairn, we firmly believe we can accomplish delivering returns for our shareholders even in tough times, from our asset base.

As part of our fifth priority, we continue to deliver returns by introducing new technology as we go forward. Investing in EOR and Limited Entry Technique for fracking has helped us create long-term shareholder value in a sustained manner. In addition, our return focused capital discipline has helped us invest in projects with higher economic returns.

On Slide #7, our status on the PSC extension in realizing fair price for Rajasthan crude remains unchanged as the matter continues to be sub judice in the Hon'ble Court of Delhi. Saying that, we are pleased to inform that ONGC, in capacity of the contractor, on July 8th had communicated that the ONGC board is agreeable to PSC extension of the Rajasthan block for 10 years under the existing terms and conditions. The ONGC board decision of 30th June 2016 reiterated the ONGC board's April 2015 decision to seek a 10-year extension with existing terms and conditions. I would like to highlight that the partners keenly await the government expeditious decisions on the extension to initiate a large investment program.

On the launch of auction of 'Discovered Small Fields', we see this as a significant step towards a more simplified and transparent administrative and regulatory set-up in the Oil & Gas sector. We believe this will bring in more investments in the Indian Oil & Gas space.

I would like to request Suniti to share our Operating Performance starting from Page #8.

Suniti Bhat:

Thank you, Sudhir. Let me walk you through some of our key operational updates that happened during the last quarter. Our gross production volume was at 197,000 boepd across our assets in the first quarter fiscal 2017. Production from our Rajasthan fields was steady at 167,000 boepd, aided by encouraging Mangala EOR volumes and strong performance from Aishwariya. Mangala EOR production has increased to an average of about 42,000 boepd on the back of enhanced field performance and new wells coming online. As you are aware, we are one of the front runners both in India and probably globally to pursue such a gigantic polymer program. We have successfully managed the polymer injection ramp up in India as one of the world's largest polymer program, while ensuring that there is no dip in production during the conversion of production wells in the injection wells and through proper scheduling and sequencing. In the past few months, we have also seen positive response of the polymer flood from the reservoir. Polymer injection is now maintained at the design condition of 400,000 bpd, resulting in enhanced production volumes. The success and learnings from the Mangala EOR project gives us confidence that we can replicate it effectively in Bhagyam and Aishwariya EOR projects as well. In Aishwariya field itself, driven by production optimization



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and maximization of liquid capacity, we have maintained strong performance. Bhagyam performance continues to be addressed through efficient reservoir management activities. Better reservoir management and higher liquid handling across all our fields including satellite fields -- NI and NE -- have also resulted in improved performance. Gas production from our RDG field continues to remain firm at 28 mmscfd. Within the same field on execution front, we have successfully completed our hydro-frac campaign of 15 wells, which will start adding to the production once hooked-up. The results for this campaign are very positive and will have positive impact on the long-term production performance of the gas field.

Moving on to our mature asset: Through planned interventions, reservoir management and optimizing infrastructure, we continue to deliver strong performance from our mature fields. While Ravva continues to operate at best-in-class recovery rate, Cambay maintains its production level driven by our continued initiatives addressing the impact of natural decline. Total production from the offshore assets was 2% higher sequentially at 30,000 boepd. Production from Ravva increased 3% on quarter-on-quarter basis to 20,000 boepd driven by improvement in well productivity after a successful well stimulation program carried out in the fourth quarter. Crude and reservoir management through continuous surveillance, sustained water injection and optimizing gas lift has helped in arresting the natural decline. Production from Cambay was also firm at 10,000 boepd helped by our drive for effective production optimization.

A planned maintenance shut down at Mangala Processing Terminal is proposed in the second half of September. While the shutdown will temporarily impact production, we will also utilize this opportunity to create tie-ins for new facility enhancements and the development projects that is essential for future growth.

Now, I would like to turn it over to Sunil for sharing an update on our Financial Performance.

Sunil Bohra:

Thank you, Suniti, and Good Afternoon, everyone. As mentioned by Sudhir, one of our priorities has been to generate positive free cash flows. Accordingly, even in these tough times our focus continues to be cash flow positive and create value for our shareholders. I am happy to inform that we have made good progress on these fronts.

Before we provide an update on the financial performance, let me take you through one of the major steps our country has taken to align the financial reporting towards global reporting standards, which is International Financial Reporting Standards through creating our own set of reporting standards commonly referred to as the Indian Accounting Standard or Ind AS. Accordingly, in line with the requirement of Ministry of Corporate Affairs, we have shifted our reporting from IGAAP to Ind AS. We have restated our fiscal 2016 numbers as per Ind AS to provide comparative financial performance for first quarter of fiscal 2017. While I am sure you



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would have gone through the release on Ind AS, I will first talk about key changes to elucidate their impact before discussing the financial performance.

As you may know, the first time has to apply Ind AS retrospectively subject to the exemptions specified. Accordingly, we have availed the following four exemptions. Firstly, share-based accounting has been applied from April 2015 to keep security premium account unchanged as per requirement of the Companies Act.

Secondly, for applying Indian Accounting Standard on business combination, the date of incorporation of CIL, which is 21st August of 2006, has been considered as a transition date.

Thirdly, as required the opening foreign currency translation reserves have been separately computed retrospectively for Cairn India limited and Cairn Energy Hydrocarbon Limited, as these entities have operating assets in India, and are thus being subject to tax in India. The exemption has been availed for other subsidiaries, wherein the foreign currency translation reserves has been computed prospectively from the transition date which is 1st April 2015.

Finally, CIL investments and its subsidiaries have not been fair valued as it anyway gets eliminated for consolidation and therefore balances are in line with the earlier IGAAP.

Now, let me summarize the key changes on various aspects due to Ind AS on Cairn and their impact.

Under IGAAP, there was no concept of functional currency and therefore the accounts were prepared in Indian rupee. Now Ind AS 21 requires the assessment of functional currency basis the conditions specified therein. The Production Sharing Contract specifies that the account shall be maintained in US dollars, which shall be the controlling currency for the cost recovery, production sharing and participation purposes and for computation of tax liability. Even our revenues are based on US dollar and most of our joint ventures direct operating spend is denominated in US dollars. Accordingly, we have selected US dollar as the functional currency for our JV operations and for all our overseas subsidiaries. For our Indian treasury and corporate operations, which is mostly denominated in Indian rupee, we have selected Indian rupee as the functional currency. Under IGAAP, the currency fluctuation on dollar-denominated transition for our JV operations and overseas subsidiaries, dollar assets was accounted for in the Profit & Loss account. The same will now get nullified under Ind AS as dollar being the functioning currency. However, under Ind AS, the impact of currency fluctuation for INR-denominated transaction for the same entities will be accounted for in the Profit & Loss accounts. Further, as our reporting currency remains to be Indian rupee, the impact on account of translation of items for which functional currency is USD would be accounted for in the other comprehensive income as foreign exchange translation reserve. The net impact of functional currency change on foreign exchange gain/loss is Rs (1) billion for



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fiscal 2016 last quarter and Rs (9.5) billion for full year fiscal 2016. The foreign currency translation reserve and other OCI was Rs0.5 billion in Q4 fiscal '16 and Rs18 billion for the full year fiscal '16.

Moving on to accounting of investment income: Under the IGAAP, since we had not adopted AS-30 earlier, it being not mandatory, we were recording investments at lower of cost and fair value of such investments. Under Ind AS the investment needs to be recorded at fair value with changes in fair value accounted through Profit & Loss or Other Comprehensive Income depending upon the nature of the instrument. As at 31st March 2016, based on fair valuation of investment, there was an unrealized gain of around Rs20 billion which has been adjusted through opening equity in Ind AS as part of our same adoption. The net impact of investment income on P&L is Rs (1.2) billion for Q4 fiscal '16 and Rs4.4 billion for the full year fiscal 2016. Similarly, the net impact of investment income on OCI is Rs0.1 billion for Q4 fiscal '16 and Rs (1.7) billion for full year fiscal '16. Going forward, since the investments would be fair valued, it will ensure the investment income in Profit & Loss account to be more stable quarter-on-quarter, unlike in IGAAP wherein income was accounted on realized basis on large part of portfolio like FMPs, bonds, etc.

Moving on to discounting of site restoration liability: Under IGAAP since site restoration liability was accounted at par value as per guidance in IGAAP, which under Ind AS now needs to be discounted to its present value. This will lower the recorded liability in the opening balance sheet, however, unwinding of this discount is required to be done over the expected field life. Accordingly, there will be a one-time reversal of Rs3.4 billion due to discounting of site restoration liability in opening balance sheet for current fiscal. Going forward this would lead to additional unwinding charge being accounted at finance cost and lower depletion and amortization charge.

Moving on to Depletion, Depreciation And Amortization: For depletion accounting IGAAP specified use of working interest on proved and developed reserves or 1P reserves with current asset base for calculation of depletion under unit of production methodology. However, under Ind AS proved and probable reserves or 2P reserves on entitlement interest basis has been selected for calculation of depletion. Similarly, the future capex estimated to develop those undeveloped reserves is required to be added to the current asset base for depletion computation. Change in the depletion accounting will result in increase of the depletion charge as compared to the same under IGAAP, but it will be less volatile on quarterly basis. Accordingly, there will be one-time increase of Rs2.7 billion in our PPE value due to change in the accounting policy for depreciation, depletion and amortization.

Moving on to Exploration Cost: IGAAP required charging of the exploration expenditure which cannot be directly related to individual well in period in which it is incurred as per successful efforts method of accounting. Accordingly, costs like seismic activities,



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interpretation of seismic, planning and general overheads were being expensed as and when incurred. Under Ind AS the company has changed its accounting policy to capitalize such costs initially. This will lower routine exploration cost in P&L account and increase the carrying value of exploration and evaluation assets in the opening balance sheet of the current fiscal. Accordingly, there will be a one-time increase of Rs3.7 billion in our PPE due to this change in accounting policy for exploration cost write-off.

Dividend as you know in IGAAP, the final dividend payable was recorded as a liability in the period to which it relates, even though when it was subject to approval by shareholders. Under Ind AS dividend is recognized as a liability in the period in which the obligation to pay is established, i.e. when the AGM will formally approve. This would mean that the final dividend for FY16 will be accounted for in FY17, post approval by the shareholders in the AGM which happened last week.

The last key point which is on business combination. At the time of incorporation of CIL and subsequent to the Cairn internal reorganization, the shortfall in net assets was recorded as goodwill on consolidation under IGAAP. However, under Ind AS 103 Business Combination, the same has been accounted as business combination under permanent control on historical cost basis and the shortfall as mentioned earlier has been recorded as a reduction to equity. This will result in reduction of opening equity of the current fiscal by Rs38 billion as at 1st April 2016. Accordingly, in the absence of any goodwill, there is no impairment of goodwill on consolidation in comparatives prepared under Ind AS for fourth quarter and year end fiscal 2016.

Moving to Slide #10, coming to the Financial Performance of the Quarter: Our revenue was aided by significant increase in Brent prices following an indication of oil market rebalancing. Brent prices increased 33% quarter-on-quarter, resulting into a 35% increase in our overall realization to \$38 per barrel. Rajasthan crude realization was also up 36% to \$37.4 per barrel. Discount in Rajasthan crude to Brent remained at a level of about \$8 per barrel despite such a significant increase in Brent prices, which in percentage terms to Brent moved from 20% to 18%. However, the revenue increased only 10% quarter-on-quarter to Rs19 billion due to an offsetting impact of higher amount of Profit Petroleum. Profit Petroleum amount more than doubled to Rs6.5 billion due to higher profit on account of increase in Brent prices and lower capital and operating expenditures.

I am happy to report that our constant efforts to reduce our already low operating cost are yielding positive results. Our water-flood operation cost for Rajasthan was further reduced to just \$4.4 per barrel in the first quarter from \$5.2 per barrel in fiscal 2016. It gives us a competitive advantage in the prevailing weak oil price environment. A reduction of 25% in well maintenance expenses compared to fiscal 2016 driven by almost 40% optimization of work over activities has helped in bringing down our opex. Savings on chemical cost and gas



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compressor rentals have also helped in decreasing our crude processing charges by 24%. Our blended operating cost was also reduced to \$6.4 per barrel in the first quarter of fiscal 2017 from \$6.5 per barrel in fiscal 2016, with constant injection of polymer at around 4,000 barrels per day. Our polymer flood opex is about 25% lower than our guidance. Structuring of our polymer purchase contract in a manner to link it with the commodity prices has result into reduction in polymer cost at low oil price. Ongoing interventions to optimize polymer use, contract renegotiation and purchase of power through open access at lower cost have helped in bringing down the operating cost. We are also looking at enhancing our capital power generation for further reduction in power cost. A consistent improvement in our cost efficiency gives us confidence to further reduce the operating cost for Bhagyam and Aishwariya EOR projects by 10% to 20% and improve the returns to 15% to 20% at \$40 Brent price.

EBITDA margin was healthy at 42% in the first quarter and improved 31% in the fourth quarter fiscal 2016. EBITDA also increased 48% sequentially to Rs8 billion on account of higher revenue, reduction in operating cost and lower cess charges on ad-valorem basis. Depreciation, Depletion and Amortization charges increased 9% to Rs8 billion as per Ind AS calculation, wherein DD&A charges are computed on 2P reserves on entitlement interest basis. Our DD&A charges will reduce substantially once the PSC extension is granted as our reserve size will almost double which will reduce the depletion rate of our asset base. Other income was flat at Rs5 billion. Foreign exchange movement due to depreciation of rupee compared to dollar resulted into a loss of Rs1 billion.

As we informed earlier, our 7-year tax holiday for Rajasthan asset ended by May 2016. Though this will increase our effective tax rate, our cash tax rate will continue to remain at MAT of around 20% and we shall be able to utilize our outstanding MAT credit balance of Rs78 billion. Our net tax for the quarter was Rs0.1 billion. Net profit excluding exceptional items increased 88% sequentially to Rs4 billion in the first quarter driven by higher EBITDA which was partially offset by higher DD&A charges and loss from foreign exchange movement. Cash EPS for the first quarter was also up 19% at Rs6.7 per share.

In line with our strategic priority we generated cash from operations of \$110 million in the first quarter. With a focus on return based capital investment, we spent only \$11 million with 82% on development work and 18% on exploration activities. The capex was spent primarily on fracing activities in RDG. We generated a strong free cash flow of \$226 million which further strengthen our cash position with closing cash and cash equivalents at \$3.5 billion, 68% of which remains in rupee funds and 32% in dollar funds.

With that, I would like to hand over back to Sudhir to discuss our strategy for our resource monetization.



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Sudhir Mathur:

Thank you, Sunil. As we remain focused on monetizing our gross resource base of over 1 billion boe, we are working on multiple options which include PSC extension, development of our key projects and evaluating our other discoveries in Rajasthan for their development. Our efforts towards expediting PSC extension till 2030 for Rajasthan will help us convert about 250 million boe of resources to reserves. And, I would like to highlight that we have made a capital investment for large part of these reserves. We estimate capital investment of less than \$800 million for the development of our RDG gas and Bhagyam EOR projects which are part of the \$250 million barrels of reserves. As we are engaging with the government and our JV partner, we remain positive on our PSC extension.

Another leg for resource monetization includes development of key projects other than RDG gas and Bhagyam EOR. We expect Aishwariya EOR, Mangala and Aishwariya Barmer Hill to add almost 100 million boe to the reserves till 2030.

Let me talk about our continued efforts to improve the economics of these projects through productivity enhancement and cost reduction: First, RDG. In our earlier call, we spoke about the encouraging result we received both in terms of productivity as well as cost reduction. Based on our improved initial well rates and reservoir characterization, we now estimate that the ultimate recovery of gas from the RDG field to be higher by almost 26%. This increases our gross recovery potential including condensate from 74 million boe to about 86 million boe till 2030. Higher expected recovery along with cost efficiency pushed the returns in the range of 25 to 30% from the earlier 20%. 'Limited Entry Technique' of fracturing using multiple perforations in single stage and precise reservoir targeting has increased our reservoir coverage by almost 30%. Design improvements with greater number of fracs per well, tightening of the cluster and stage spacing, and increase in proppant concentration is aiding higher productivity. Our focus on infusion of technology and design engineering has resulted in 100% increase in our initial well productivity to 8-10 mmscfd compared to the wells fraced during the earlier campaign.

Slide #14: The adoption of 'Addressable Switch Firing System' perforation technique has helped us halve the number of days required per frac to 2.2 days and lower the cost per frac by about 50% to \$230,000. I am happy to report that over 70% of this cost reduction is structural in nature, driven by design optimization and operational efficiency savings.

As informed earlier, we plan to develop the RDG Gas project in a phase manner. It will increase our capital efficiency through cost rationalization while ensuring sustained production growth. Now to update you on Phase-1, we have successfully completed fracturing activities in the 15-wells and the wells are being put to production after testing and clean-up. Debottlenecking of the existing facility through low cost augmentation and addition of a compressor station is underway with international tenders floated in the market. Completion of Phase-1 will increase our gas production from RDG to 40-50 mmscfd by mid next year.



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Now to update on Phase-2, tendering for the new gas processing terminal, long lead items, drilling rig and services are progressing as per plan. Tendering activities for gas activation pipeline from Raageshwari to Pali and Pali to Mehsana, proposed to be constructed by GSPL India Gasnet Limited are progressing as per plan. Conclusion of Phase-2 will help increase the production to our guidance of about 100 mmscfd.

Coming to Enhanced Oil Recovery, in line with our objective of monetizing our resources, we are also pursuing polymer flood in Bhagyam and Aishwariya after encouraging results from Mangala polymer. We estimate that the polymer flood will increase the recovery from our core MBA fields by about 10% to 12% in addition to the 30% to 35% expected from water-flood operations. We are targeting an additional gross 45 million boe from Bhagyam and 15 million boe from Aishwariya through polymer flood till 2030. Pursuing our Five Point Strategy, the initial implementation will take place in a favorable region to reduce drilling and surface facility cost with the focus on return based capital investments. However, that facility design will factor in for scaling up to tap the potential of additional barrels through EOR with improvement in their economy. For Bhagyam EOR, through our scope optimization efforts, we have revised our plan to develop 45 million boe now from 59 million boe previously. This has already reduced our total cost of development and operations by 25% from \$24 per barrel to \$18 per barrel resulting in a 10% return at about \$45 Brent. Similarly, for Aishwariya EOR, we are presently targeting 15 million boe through high grading of the field. In the next phase, we plan to pursue additional 17 million boe for development. By optimizing the scope, we have substantially reduced the number of wells and facility size resulting in lowering our total cost of development and operations by about 30% from \$26 per barrel to about \$19 per barrel. This would help us generate a return in excess of 10%.

In addition to Mangala EOR success, the encouraging results from optimization drive in Aishwariya and Bhagyam EOR give us the confidence to chase further cost efficiency of 10% to 20% and generate returns up to 20% even at \$40 Brent. Our teams are evaluating various options to reduce capital investment through drilling and completion optimization, use of alternate technology and material, optimization of scope and design, and imbibing the learnings from Mangala EOR. This includes optimization of development through fewer wells and a better construction methodology such as use of standardized skids instead of stick built. Based on our experience at Mangala, we are also working on optimizing polymer and power consumption along with reducing their purchase cost through competitive sourcing to lower our operating cost. Given the proximity of Aishwariya field to Mangala, we are evaluating opportunities to utilize Mangala EOR facilities and build a pipeline from the Mangala polymer facility for polymer injection into the Aishwariya field, which may reduce our cost of setting up a facility to prepare polymer solution.

To give you an update on the status of these projects- on Bhagyam EOR, further polymer injection tests are in progress in multiple wells to improve the injection rate modeling. We are



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working on the tendering process including bit of finalization for long lead items. We intend to submit the revised development plans for Bhagyam EOR to our JV partner in the first half of 2017 after incorporating results of multiple wells injection test. Polymer injection is expected to begin in the first quarter of 2019 subject to approval of the plans. On Aishwariya EOR, concept report has been finalized and the development plan is expected to be submitted in the current quarter. First polymer injection is expected in first half of 2018.

Coming to other projects in Barmer Hill for resource monetization, I would like to highlight that the Barmer Hill has significant exploration potential with hydrocarbons in-place of around 1.4 billion boe. We estimate a recovery of 8% to 10%. Initially, we are focusing on areas in the Barmer Hill around our existing facilities to leverage on the available infrastructure. We are also continuing the exploration activities in other areas. As we are currently looking at Mangala and Aishwariya Barmer Hill, higher recovery of resources and cost reduction will be key drivers for improving the economics at low price. We initiated appraisal program at Mangala and Aishwariya Barmer Hill in 2014, which involved intensive application of frac technology. During the course of field appraisal, we realized significant improvements in operational efficiency and technology implementation. Proppant concentration increased from 19,500 pounds per stage to 227,000 pounds per stage over the appraisal period. Current cutting edge technologies such as 'Microseismic' to better understand frac propagation direction and 'Chemical Tracer Technology' to study zonal contributions were used in this campaign. We also realized significant improvement in frac execution as we increased the number of fracs executed per day from 1 to 3 as well learning curve effect set in. This helped us reduce our overall well completion cost for the lateral wells by almost 20% against our initial plan of \$8 million. We are relooking at reducing the cost further by 20% to 30% to \$4.5-\$5 million per well. As we look at the development of Aishwariya Barmer Hill with an estimated recovery of 20 to 30 million boe till 2030, we are planning to do it in a phased manner to derisk the overall investment.

We move to Slide #17, moving on from key projects, I would like to talk about the way forward for unlocking more resources of the 38 discoveries we have made in Rajasthan. By adopting cutting edge technology, design innovation and scope optimization, we have realized significant cost reduction and productivity improvement as we just discussed.

In addition, we also continue to build prospects through exploration activities. The newly acquired 3D seismic near Raageshwari field and other areas of Rajasthan block is under interpretation for identifying new prospects that will add to replenish the exploration prospect inventory.

With that, we end our performance update for the first quarter and can proceed to the Question-and-Answer Session.



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Moderator: Thank you, sir. Ladies and Gentlemen, we will now begin with the Question-and-Answer Session. The first question is from the line of Probal Sen from IDFC Securities. Please go ahead.

Probal Sen: I have a couple of questions: One, with regard to the merger, does the merger going through have any impact in the near-term on revision of our capex plans? I realize that you said that this \$100 million that you are spending is driven by the reality of crude prices, but realistically being part of the larger group, will it change our near-term capex plans at all?

Sudhir Mathur: Not at all. As I mentioned in the joint call in the last week, the capital availability is really a function of management being able to put a value-accretive to the board of any company, in our case through our partner as well and that is what we are working on. As you would have heard today in the call, we have made significant progress. I think each one of the four projects that we spoke about, there has been an improvement of I would say anywhere from 25 to 50% in the IRR. So we have a way to go. Management is working to make sure that each one of these four projects is capable of producing 20% IRR and we do not see any sort of hesitation from our side or from the board to ask for capital or any hesitation for the board to give it to us. These are very value-accretive projects. We are just ensuring that the board and the shareholders know that it is and that can survive in a serious downturn.

Probal Sen: Just to be clear in terms of the Bhagyam & Aishwariya EOR projects, if I understood correctly the initial plan was to recover 59 million barrels from Bhagyam and 32 million barrels from Aishwariya, which has now been sort of revised to 46 million barrels from Bhagyam and 15 million barrels from Aishwariya?

Suniti Bhat: Let us take Bhagyam on; the total recoverable reserves remain similar. What we have done is we have gone into what is the sweeter part of Bhagyam, figured out an optimized solution and set with the current way and given the IRR threshold that Sudhir was talking about it is going to focus around 46 million barrels out of the total recoverable of 59 million barrels. As things will change, we will also look at what to do with other part, but current focus is gotten back to what is the sweetest part within the Bhagyam reservoir itself.

Probal Sen: I got that. So that is why I am trying to just clarify that in the near-term therefore out of the 59 million barrels, 46 million barrels is what is being targeted as of now?

Suniti Bhat: It is being targeted for monetization of production within the near-term. Rest of it so basically converting from resources to reserves. Same story for Aishwariya. The other way of looking at it is these are Phase-1 of these projects and we would then look at Phase-2 of these projects as our engineering understanding and the macro environment also changes.



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Moderator: Thank you. The next question is from the line of Miten Lathia from HDFC Mutual Fund. Please go ahead.

Miten Lathia: On the 38 discoveries which have been made, could we get some color on the sort of resource that it most closely resembles, if you are to compare it with something that you are already producing or developing, what would these reservoirs most closely resemble and could that development of these take precedence over Barmer Hill in your opinion?

Ananthkrishnan B.: In the recently concluded exploration campaign, we had said that we had discovered around 1.7 million boe in place which is in around 13 discoveries that we have made so far. So these 13 new discoveries are currently under appraisal and most of the oil is in tight reservoirs similar to possibly Barmer Hill reservoirs. So, our focus is on the development of Barmer Hill reservoir over Mangala and Aishwariya and based on the technology application there and the efficiencies we learn from those developments, the other fields will follow, but many of the fields are currently under appraisal.

Miten Lathia: The rest of the Barmer Hill which does not lie over Mangala and Aishwariya, what would be your view on those?

Ananthkrishnan B.: Those are also currently being looked at for development - fields like DP, NL and VNV, those are currently under very serious development plan optimization.

Miten Lathia: Can an FDP for those go through at \$45 to \$50 of Brent?

Ananthkrishnan B.: We are currently working on that. We have still not submitted any Field Development Plan there. We are trying to get through to submit the Field Development Plan considering the current oil price.

Miten Lathia: Just to summarize, on the entire resource base barring Mangala, Bhagyam, Aishwariya and the associated EOR that we are already working on, what is it you will think is developable at a \$50 Brent price?

Ananthkrishnan B.: Currently, as I said, these are the fields that we are looking at for development. So the actual numbers we can get back to you in terms of the resources. I have told the field names as such. So it is Mangala Barmer Hill, Aishwariya Barmer Hill, DP, NL and VNV are currently being looked at for development and we believe that these fields will be developable at the current oil prices, the rest of the fields will follow.

Moderator: Thank you. The next question is from the line of Arya Sen from Jefferies. Please go ahead.

Arya Sen: Firstly, you mentioned that the profit petroleum has increased. What is it in DA-1 and DA-2 now?



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- Sunil Bohra:** PP tranche remains same at 40% for both DA-1 and DA-2.
- Arya Sen:** When you said it has increased, that is only the absolute amount?
- Sunil Bohra:** Yes, because as you know last quarter the profits were not there, because Brent was at record low levels. So the last quarter our PP was only Rs278 crores, whereas this quarter it was like Rs650 crores.
- Arya Sen:** Going forward, what would be the depreciation under Ind AS, will it remain at a similar level till of course you get the PSC extension and all that?
- Sunil Bohra:** I think you are right, till we get the PSC extension broadly it will remain at the Q1 level, as we said little while back in case whenever we get the PSC extension point forward, the depreciation share we expect to reduce significantly.
- Arya Sen:** Could you explain the forex loss in the quarter? The rupee depreciated, right. You typically have a...
- Sunil Bohra:** That is what I tried to explain a little while back about the functional currency. We are I think in a typical situation where we have our JV assets and all the currency where the transactions are denominated in dollars, our PSC is in dollars. So accordingly, what happens in Ind AS, it gives a choice if you want a different functional currency than INR which was not there in Indian GAAP. So what happens for your JV primarily you have dollars as functional currency. So when you translate to rupee in terms of presentation, you do not get any gain which earlier you were getting from dollar to rupee because of rupee depreciation. On the other hand, actually you have to convert whatever expenses you incurred from rupee to dollar and also your liabilities incurred, hence there is a loss. So earlier, I am sure you have been referring to previous quarters wherein we used to see a gain in whenever the rupee used to depreciate, now actually it is reverse.
- Arya Sen:** This quarter forex loss does not have any one-off prior period impact or anything, so this is likely to remain the case going forward as well?
- Sunil Bohra:** Yes, as long as rupee depreciates we are likely to see this kind of impact.
- Arya Sen:** In the previous call, you mentioned something about the indemnity on the tax liability case for Cairn. So could you just discuss that a little more in detail, how does it work?
- Sudhir Mathur:** Yes, we mentioned it on the call. At the time of IPO, it will be there in the IPO documents that Cairn Energy plc had given an indemnity to Cairn India against the tax issue.



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Arya Sen: But now that the Indian government has sort of held you liable in ways, how does that work – is that indemnity being questioned or is the indemnity there separately between you and Cairn UK?

Sudhir Mathur: The indemnity is between Cairn Energy plc and Cairn India. It has nothing to do with the Government of India.

Moderator: Thank you. The next question is from the line of Manish Kumar from HSBC. Please go ahead.

Manish Kumar: My question is related to the recovery rate either till the PSC period or if it gets extended beyond that. You talked about experience with EOR being better than what you had initially forecasted. So given everything what was the recovery that you thought you would get earlier, let us say, three, four years ago and what is the ultimate recovery that you see now? Does that change anything for the period till 2020, if you could answer that question in two parts, the first part will be for the period till 2020 and the second part period beyond 2020 till field life?

Suniti Bhat: Let me just answer in two ways; the overall recovery from chemical EOR plus water-flood that we expect in our core reservoir and we are looking at targeting in the order of around 50% including the chemical flood eventually which is ASP. While what we have currently implemented in the fields is polymer flood. So we still are targeting to get those 50% overall recovery from the three big fields. When we say that we are seeing a good performance of Mangala reservoir, given the amount of polymer injection we have done at this stage of ramp up, the response of the reservoir has been pretty positive and we are hoping to learn from this and see what implication it is going to have on overall recovery numbers from a polymer flood. But with polymer flood plus ASP within the 20, 30 contexts, we are looking at an incremental total overall recovery of 50% from these four reservoirs, polymer and ASP together.

Manish Kumar: So as such there is no change in that guidance?

Suniti Bhat: We are not changing any guidance from the incremental 50% that we have said through chemicals EOR across MBA. We are just saying that we are seeing good positive results of production coming in earlier within the Mangala field. We will see how they get translated into the Bhagyam and Aishwariya. The real learning for us is around the cost front, is how we are going to be leveraging this experience and the fact that we have created a large polymer plant which is eventually going to help the commerciality or commercial developability of Bhagyam and Aishwariya and effectively recovery has a element of economic suite, eventually also the recovery of these fields as we go into 2030 regime.

Manish Kumar: Just a small clarification; you said, incremental 50%. Did you mean ultimate recovery of 50%?

Suniti Bhat: It is 50% total, water-flood plus chemical EOR.



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- Moderator:** Thank you. The next question is from the line of Vikash Jain from CLSA. Please go ahead.
- Vikash Jain:** I had a few on Ind AS particularly. So specifically for depletion now is it right to say that the increase in depletion charges is primarily because of you now taking into account the future cost or so, because proved developed reserves would certainly be lower than proved and probable reserves even on EI basis. So, is that right that since you take additional future cost, the implied depletion value per barrel kind of increases, is that the main reason?
- Sunil Bohra:** Vikas, whilst we are moving from proved and developed to proved and yet to be developed which is from 1P to 2P, we expect more stable sort of depreciation charge over the quarters. If you see the past, normally our fourth quarter has always seen significantly lower depreciation compared to the previous quarter because we used to sort of do our annual assessment of reserves only in the last quarter. So a full previous year impact is to come in Q4. For last two years if you see our Q4 depreciation has been significantly lower than the corresponding three quarters. So what we expect first from Ind AS is that volatility in depreciation charge to go away. We come back to your question in terms of impact of that on Q1 depreciation charge, "Is it higher primarily because of Ind AS?" The answer to that is not fully. The impact due to Ind AS is broadly around 60% of the increase and rest is because of the other capitalization and the exchange rates.
- Vikash Jain:** To cut the change, a normalized annual depletion rate assuming similar production levels would be so that total depletion for four quarters, that is one year would be how much?
- Sunil Bohra:** Ballpark number of around Rs3,000 crores.
- Vikash Jain:** The other thing which I wanted little more clarity on was the exploration cost bit. So, what do you exactly mean that say, for example, survey expenses, these do not have to be written off immediately or so at what point do you write off some of this, so how is that different from what used to happen in the IGAAP?
- Sunil Bohra:** Vikas, what used to happen earlier for all the general expenses including seismic surveys, used to be charged off as and when incurred. We have given a detailed explanation on impact of Ind AS on accounting of exploration cost in our press release. You may like to refer our Annexure on Ind AS attached with the press release published on 21st Jul. We would be happy to take further questions on it offline.
- Moderator:** Thank you. I now hand the conference over to Mr. Sudhir Mathur for closing comments. Over to you, sir.
- Sudhir Mathur:** Thanks, Moderator. I just like to close by saying that the Cairn team has delivered a resilient performance, registering an 88% increase in profit for the quarter compared to the fourth quarter. We have taken significant measures to drive cost efficiency and rationalize capital



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investment resulting in free cash flow generation in a lower-for-longer oil price environment. We remain committed to our four projects – RDG Gas, polymer flood at Bhagyam and Aishwariya as well as tight oil projects. Sharp reductions in drilling and fracking costs driven by technological improvements and innovation, coupled with learnings from Mangala EOR give us the confidence that we will be ready to execute in a \$50 per barrel world within 12 months. Thank you.

Moderator:

Thank you very much members of the management. Ladies and Gentlemen, on behalf of Cairn India, that concludes this conference. Thank you for joining us and you may now disconnect your lines.