



# “Cairn India Limited’s Q2 FY15 Earnings Conference Call”

**October 21, 2014**



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**MODERATOR:**    **MS. NIDHI AGGARWAL – HEAD, INVESTOR RELATIONS**



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**Moderator:** Ladies and Gentlemen, Good Day and Welcome to the Cairn India's Second Quarter FY15 Earnings Conference Call. As a reminder, all participant lines will be in the listen-only mode. There will be an opportunity for you to ask questions after the presentation concludes. Should you need assistance during the conference call, please signal an operator by pressing '\*' then '0' on your touchtone phone. Please note that this conference is being recorded. I would now hand the conference over to Ms. Nidhi Aggarwal – Head of Investor Relations at Cairn India. Thank you and over to you Ms. Aggarwal.

**Nidhi Aggarwal:** Hello everyone and warm wishes for a Happy Diwali. You would be pleased to know that besides the quarterly results for the period ended 30th September 2014, we have also announced the appointment of MD and CEO of Cairn India with effect from 17th November 2014. The related documents have already been shared and uploaded on our website [www.cairnindia.com](http://www.cairnindia.com) and I hope you have had a chance to go through the same.

On the call today we have key members of the company's leadership team with us to discuss the quarterly performance and the updates. Since some of the statements made in the call could be forward-looking in nature, a detailed disclaimer in this regard has already been included in the documents mentioned above. The entire call is being archived and the transcript would be available on the company's website later.

I now hand over the mike to Mr. Sudhir Mathur, our CFO and Interim CEO, for his opening remarks.

**Sudhir Mathur:** Hello Ladies and Gentlemen, thank you again for joining us, it is a pleasure to be speaking with you. Along with all of us at Cairn, I am sure you are delighted with the appointment of Mayank Ashar as a Managing Director and Chief Executive Officer of Cairn India. Mayank brings with him more than 36 years of rich and diverse experience in the international oil and gas industry including top leadership roles in global organizations like British Petroleum, Petro Canada, and Suncor Energy. He also served as a Chief Executive Officer and President at Irving Oil Limited. His appointment comes at a critical phase when we are focused on delivering the next level of growth.

In light of the renewed optimism under the new government, we view the recent regulatory announcement as a decisive step for the Indian oil and gas industry. Also at a time of lower crude prices, our strong balance sheet and top decile low cost profile distinctly positions us in the global oil and gas space.

Now I would like to talk through some of the key achievements for the quarter as well as discuss the long-term outlook and strategy for Cairn India. During the quarter, our gross production from the three producing assets was approximately 18 million barrels oil equivalent. We recorded revenues of Rs.40 billion, a figure that was slightly limited because of the planned facility maintenance shutdown at the Rajasthan block which we spoke about in our last call and

lower crude prices. Consequently, our EBITDA margins stood at 68%, profit after taxes for the quarter rested at Rs.23 billion. We are confident of achieving a three year compounded annual growth rate of 7% to 10% as well as a reserve replacement ratio of 150% over the next three years. We remain committed to a \$3 billion CAPEX program over the next three years, an effort that will likely last till the end of the fiscal 2017.

We continue to focus on the execution of major development projects in the Rajasthan block to support the medium and long-term production growth. As you already know, we are investing \$1.6 billion into our flagship MBA fields, a plan we believe will assist us in reaching a world class recovery rate of 50%. In the core MBA reservoirs, we remain focused on the creation of infrastructure projects and implementation of the EOR processes. Mangala Polymer flood EOR, one of the largest EOR projects in the world is making progress as we are on track to deliver the first polymer injection by the fourth quarter of this fiscal, all within a period of less than 15 months. We are pleased to announce that Mangala ASP Pilot program has yielded excellent results so far, well above our expectations.

In the Bhagyam field, the FDP for the full polymer flood EOR is being currently reviewed by our JV partner ONGC. Based on our initial estimates and the recent reservoir performance we have received an operating committee approval to enhance production from Aishwariya field to 30,000 barrels equivalent per day.

In addition to our discovered resource base of 2 billion barrels in place at our tight formation in Barmer Hill, we are targeting that formation as well as latest satellite fields with a \$600 million CAPEX program. Global service providers are helping us leverage the North American technology used to exploit these kind of tight reservoirs and I am pleased to say that the early results from this program have been very successful. We brought two additional satellite fields into production this quarter and plan on integrating the rest of them in a phased manner by utilizing existing infrastructure and focusing on low cost development. I also would like to highlight that our JV partners ONGC and we have approved and signed off on the operating committee resolution for the Raag Deep field development plan for 100 mmscf and the OCR has been sent to the management committee. This is a major milestone for the success of the gas development project where we see tremendous potential.

You may recall that in 2013 we set a target of exploring 3 billion barrels of hydrocarbon in place over three years. Well I am pleased to report that we have already drilled and discovered 1.4 billion STOIP and are on track to drill out the remainder ahead of schedule. With this, our inventory for testing is building well and we hope to capitalize on it for addition to our reserve and resource base. In addition to these accomplishments, our exploration drilling program is diligently working on the 3 billion STOIP that we talked about in the last call. Combined, the total potential hydrocarbons in place could reach around 10 billion.

I now hand over to Darran, our Director Exploration to share the exploration highlights for this quarter.

**Darran Lucas:**

Thanks Sudhir and good evening everyone. This has been an excellent quarter for exploration; we have already announced 11 new discoveries as result of the 2013 to 2016 exploration campaign taking the total number of discoveries within the block to 36. We made three crucial new discoveries during this quarter enhancing the resource base within Rajasthan block to just over 1.4 billion barrels of oil equivalent as highlighted by Sudhir. And we realized that much of the resource base lies within the tighter rock formation such as those of the Barmer Hill and we already have a plan in place to help unlock its potential focused upon horizontal drilling. We continue to focus on the appraisal of the Raag Deep gas field and the key oil discoveries in and around Aishwariya, Guda, DP, NL and V&V and we are flow testing the backlog of exploration discoveries made to date and are also drilling for new high impact exploration prospects. Through these activities, we anticipate adding significant tested resources to our inventory about end of this financial year 2015. We are looking for every opportunity in addition to this to drill early horizontal wells in order to accelerate an early 2C to 1P conversion.

We currently have ongoing 3D seismic acquisition programs underway to identify additional prospects and this will replenish our inventory. And this 3D has also improved the imaging for our appraisal program as well as the gas developments in and around the Raag Deep gas field and at the Guda and the Guda South locations. By the end of this quarter we have completed acquisition of 590 square kilometers of 3D seismic data in the block.

Moving to the Ravva block – the evaluation of the potential gas bearing early Miocene reservoir sands encountered in the RX-11 well is ongoing and that process is underway across the block. We also received the management committee approval for the declaration of commerciality for the Nagayalanka discovery in the KG Onshore block. And as per the PSC, operatorship for the development activities have been transferred to ONGC and preparation of the development plan is now underway.

Finally, interpretation of the newly acquired 3D seismic data of our South African block continues and a robust prospect inventory has been identified. Candidate prospects for exploratory drilling are currently being high-graded and technically matured together with our JV partner, PetroSA. Ananth now would share with you the details of the Rajasthan gas SBU.

**B. Ananthkrishnan:**

Thank you, Darran. As touched upon in Sudhir's briefing, we truly believe that gas holds a significant potential in India and we are also enthusiastic about its possibilities as an ongoing value generator for Cairn. In the short-term we are on course to double the Raageshwari Deep gas daily production volumes by the end of quarter four of the fiscal year 2015. We are also very pleased to report that during the quarter, the field development plan to increase gas production from the Raageshwari Deep gas field to around 100 million standard cubic feet per



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day has been recommended by the joint venture operating committee to the management committee. Meanwhile, we have completed the front end engineering and floated tenders in the market for the construction and laying of the gas processing terminal and the pipeline and for drilling and fracking services. I would also like to point out here that the planned gas infrastructure considers the potential of the multi-Tcf gas resource base that we expect to find through our ongoing exploration program in the Rajasthan block. Suniti will now bring you up to speed on the Rajasthan oil business unit along with an update on our other producing assets.

**Suniti Bhat:**

Thank you Ananth and good evening everyone. Beginning with our Rajasthan block, we produced around 15 million barrels of oil equivalent in the quarter achieving a cumulative total production of 249 million barrels till September 30<sup>th</sup>, 2014. We successfully completed the planned shut-down that was announced in Q1 at the Mangala processing terminal. The main drivers for the shut-down were to restore integrity to the identified areas, implement OEM recommendations, strengthen HSE and business continuity efforts, debottleneck our facilities and enhance production. Excluding the shut-down period, our quarterly production was comparable to previous quarter. In fact, production levels have normalized ever since. The shut-down also helped us to meet regulatory requirements of hydro testing and maintenance of process trains and power systems. The activity was completed ahead of schedule and will improve our plant reliability and operational safety. Additionally, going forward, integration of facility enhancement projects into ongoing operations will be smoother.

Moving on to our mature assets – Raava had a positive oil contribution though overall production was lower due to temporary suspension of gas sales. One of the gas customers undertook a major unplanned maintenance routine within the Andhra Pradesh pipeline network which adversely affected our sales volume. I am pleased to share that gas sales have resumed last week. In our Cambay fields, they continue to perform exceptionally well, the block produced 10,651 barrels of oil and gas and an increase of 23% year-on-year with a plant uptime of 99.8%. This is largely a result of successful well intervention measures that were undertaken in the previous quarter.

Now taking a deep dive into our key projects in Rajasthan, we continue to focus on creation of infrastructure for reliability and growth. To mitigate the risk caused by unplanned power shutdowns a backup to the national grid has also been made available, it is under final commissioning. Our facilities at Mangala processing terminal were being debottlenecked to increase the fluid handling capacity to accommodate 800,000 barrels of liquids per day by the end of quarter three. I am pleased to inform that we have achieved this milestone ahead of schedule in quarter two itself. We plan on increasing the liquid handling capacity to 1 million barrels per day including injection upgrades in the next phase, this is expected to result in an improved reservoir performance.

Coming to the key EOR project in the core MBA reservoirs that Sudhir spoke a bit about, which is going to lead the success of our enhanced oil recovery program. So far,

commissioning of certain sections of the surface facility has already commenced, the pipeline connectivity is underway, we have two high performance rigs that are drilling additional wells required for this project in line with the schedule. All the major equipments have been installed in the central polymer facility and rest of the integration is going on. We are confident of delivering the Mangala EOR well within the indicated timeframe. The ASP Pilot which was the next phase of EOR has produced exciting early returns, the water cut and oil trend suggest better mobilization of unswept oil than we originally anticipated. We expect the pilot to be concluded by the fourth quarter of fiscal year '15. We anticipate that our EOR program has a potential to enhance recoveries from our key MBA fields by an additional 10% to 15% of the In Place Resources. Additionally, we continue our infill drilling campaign which remains on track, we have drilled 16 new wells in this quarter. These new wells have the potential to add volumes to our current production levels. We are also pleased to announce that we have received the necessary JV approvals to take the production from Aishwariya field to 30,000 barrels of oil per day and plans are underway to increase our rate of development there through infill drilling programs, facility augmentation, and an eventual EOR implementation.

Moving to the emerging business area of Barmer Hill development, we are focused on leveraging existing infrastructure for quicker monetization. In the north of the basin we are targeting resources across Mangala and Aishwariya Barmer Hill, DP1 and Vijaya & Vandana fields. We have drilled and fraced four vertical wells in Mangala and Aishwariya Barmer Hill and initial production rates are in line with expectations. We have also drilled two horizontal wells with lateral lengths of 800 to 850 meters and have completed the process of multistage fracking in one of the horizontal wells for which the testing is currently ongoing. We have successfully undertaken some of the largest fracks in this region of the world. We continue to drive up the value for company by being cost effective especially with respect to our satellite field development through making facilities that are modular, easy to reuse and require minimum installation effort. This quarter two new fields NI and Guda were brought into production taking the total producing satellite fields to five, this is in addition to the Barmer Hill production already ongoing. Initial well performances in the recently added NI field has been superior to what was initially envisaged and additional wells are planned to capture the remaining upside potential.

In the second half of fiscal year 2015 we expect to launch further new fields into production in this growing area of our business. I would now request Sunil to give his view on the financial performance of the company.

**Sunil Bohra:**

Thank you Suniti and good evening everyone. During Q2 of financial year '15, we recorded net revenue of Rs.39.8 billion, it was lower by 14% year-on-year primarily due to 9% lower volumes, 5% lower realization and an additional 10% profit petroleum tranche in both the development areas of the Rajasthan block. This was partially offset by 2% rupee depreciation on year-on-year levels. The Brent dropped to a two year low in the quarter driven by a weaker global demand and excess supply; this resulted in lower crude oil price realization for us at

\$92.1 per barrel. Rajasthan crude oil discount to Brent was at 10.2% compared to 13% same period last year. We continue to focus on strengthening and sustaining our operating efficiencies. We at Cairn are proud to be recognized as one of the lowest cost producers in the world.

We posted an EBITDA of Rs.27 billion during the quarter compared to Rs.36.2 billion in the same period of the previous year. In addition to lower volume and realization, this was impacted by increased facility and well maintenance cost related to the shut-down at Rajasthan. Despite the increase, our operating cost at Rajasthan continued to remain at single digit levels - an approximate rate of around \$6 per barrel in Q2. The depreciation and depletion charge for the quarter was higher, resting at Rs.7 billion compared to Rs.5.5 billion we saw in Q2 of fiscal FY14. This was the result of a change in our accounting policy related to depreciation of surface facilities adopted in the previous quarter as prescribed by the Companies Act of 2013. Profit after tax for the quarter stood at Rs.22.8 billion with a cash EPS of Rs.13.8 increasing our strong cash position. We continue to experience strong return on capital employed which, excluding our treasury income, was at around 20% during the quarter.

Under the ongoing \$3 billion net CAPEX program 40%, of which was earmarked for the fiscal year 2015, we continue to fuel long-term growth having invested \$258 million in this quarter. This includes \$88 million in RJ exploration, \$153 million on development projects at Rajasthan and the balance in our other assets. With this, the total half yearly net CAPEX stands at roughly \$540 million.

In line with our policy to continuously enhance our value to shareholders, the Cairn India board declared an interim cash dividend of Rs.5 per share; this dividend was paid out in last week of September. We ended the quarter with strong cash and cash equivalent position at Rs.160.3 billion. Of that total, 75% is in rupee funds and 25% in US dollar funds. Our rupee investments are invested with a current yield of around 8.5% and dollar investments with a yield to maturity of around 4.1%.

I would now like to request the moderator to open the session for Q&A.

**Moderator:**

Thank you very much sir. Ladies and Gentlemen, we will now begin the question-and-answer session. The first question is from the line of Probal Sen from IDFC. Please go ahead.

**Probal Sen:**

Just two questions. One, this 100 mmscfd of gas production that has been targeted by FY17, just wanted a sense of how much would actually be available for sale because I believe the internal consumption is obviously going to be included in this overall production level? The second question was with regard to the Barmer Hill, obviously a lot of activity surrounding exploration activity on this asset, can we just get a sense of the regulatory permission status with regard to going ahead with development on production from this asset or are we still sometime away from that at this point of time?



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- B. Ananthkrishnan:** The field development plan actually envisages production of gas sale of around 90 mmscfd.
- Probal Sen:** Okay. So just about 10 mmscfd is roughly the internal consumption, is it safe to assume that?
- B. Ananthkrishnan:** 10 plus depending on the requirements.
- Probal Sen:** And about the second question sir?
- Suniti Bhat:** On Barmer Hill, there was a policy that was introduced in October which talked about early monetization and we are trying to get production data while FDPs are still yet to be filed. So we are using that policy to get the Barmer Hill execution and early production data is coming through in this process. As we will get that data we will also start filing FDPs. So from a regulatory perspective this is pretty much in line with the current regulatory policies that we have put in place. So as soon as we get a couple of more of wells in, we are looking at filing FDPs with the joint venture partners and regulators from the Barmer Hill development perspective. Because it is a tight oil business, you will see a series of briefings coming through one after other so that we start building a credible tight oil production profile in the Barmer basin.
- Probal Sen:** Right. Sir if I may just ask one follow-up question, as of now what is the kind of profit share that we have for the government for both DA1 and DA2? And for the new areas have there been progress made for the PSC terms in terms of profit sharing and anything else?
- Sunil Bohra:** In terms of profit sharing, our DA1 is at 40% and DA2 is at 30%.
- Probal Sen:** And sir for the newer areas, is there any thought regarding PSC terms of is that too early to sort of look at those things at this point of time?
- Sudhir Mathur:** These are the two producing development areas, the third one is at zero. Entire block of Rajasthan is broken up into three DAs, so as Sunil pointed out 40-30 and zero.
- Moderator:** Thank you. The next question is from the line of Rakesh Sethia from Morgan Stanley. Please go ahead.
- Rakesh Sethia:** Two questions I had. First, can you remind us in terms of your production or path forward for example if production is about 183,000 how does it go to 7% to 10% growth and slightly more clarity in terms of what milestone we should look at in next two quarters and next 12 months? And secondly the question on, if I look at OPEX for this particular quarter for that \$6.3 per barrel, why the OPEX is higher as compared to last quarter?
- Suniti Bhat:** On the OPEX front, one of the key things as we said to you last time is we were trying to stabilize our power systems; so temporarily we had to use DG systems to drive our power supply, now the grid power is in so that is going to drive it down. So increased well



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intervention and DG driving power consumption through diesel is what was the key driver for OPEX increase this quarter.

**Rakesh Sethia:**

Okay, so going forward because of the earlier guidance what I understand was \$4 to \$5 including pipeline, so should we still work around that number or should we be looking at the current run rate of OPEX going forward?

**Suniti Bhat:**

I think our life of field OPEX guideline always has been that under water flood we were talking about 3.5 for the upstream facilities and then we are saying that between upstream plus our pipeline operation is a \$5 under water flood. Then, once the full EOR implementation through polymer floods will come in, we were talking about somewhere incremental OPEX of around \$8 to \$10 for that particular phase of our operations. As we will start moving into EOR and polymer flood will happen, the OPEX will start moving for the incremental production in that direction. Otherwise, we are well within our guided OPEX for the water flood part.

**Rakesh Sethia:**

Okay, thank you. And if you can just remind us about the production, how should we look at the production growth going forward? I understand this is 7% to 10% volume growth guided for the next three years but if I look at production is 183 flat for three quarters, there are a lot of moving parts but when I understand that this Mangala declining, there is Bhagyam on the other side, there is Aishwariya you have got higher production approval, there are a lot of things happening on satellite and Barmer Hill front. But if you could just give us a background of some more guidance or some more clarity in terms of how should we trend the production going forward, how should we look at the growth going forward in next 12 months?

**Sudhir Mathur:**

See, in terms of the milestone that you had asked for, I think during the course of when we were speaking earlier, there were significant milestones that were critical to achieve this; one was the entire approval for the gas FDP phase one at Raag Deep which we talked about, we got the operating committee resolution which has been sent to the management committee and as Ananth pointed out, we are in very advanced stage of tendering the pipeline as well as the terminal.

The second, I think Suniti spoke about that that the Bhagyam Polymer as well the field development plan is with our partners ONGC, under evaluation and we look forward to repeating that cycle of what we are learning in Mangala and execution is not only Bhagyam but Aishwariya going forward. Aishwariya approvals for 30,000 have come in place, we look to augment it further beyond 30,000 and we are quite confident that with tweaking of surface facilities we would certainly get there. And lastly is the Barmer and satellite fields, so the two satellite fields have been put in place, they are operating. We are looking to see what we can do to reduce development costs with early production system so as to make them more and more viable. Going forward, Barmer Hill, we have drilled out the horizontal wells and we have done 10 fracks now on a single horizontal well and we should be able to give you a much better guidance in the next quarter on the flow rates but as we mentioned they have been vey-very

healthy flows; but in terms to be able to quantify and multiply that and tell you the numbers, we would be in a better position in the next call.

**Moderator:** Thank you. The next question is from the line of Abhishek Agarwal from Macquarie. Please go ahead.

**Abhishek Agarwal:** With the new policy that has been announced by the government a couple of days ago regarding gas pricing, could you give us some idea on very broadly how the economics could work for your gas production going forward? And my second question was to do with the amount of CAPEX that we are doing and the number of rigs that we have, where do we stand today versus our plans?

**B. Ananthakrishnan:** On the new gas pricing it is still early days, the clarity is emerging. But based on what we have seen through the press releases put up by the PIB from the CCEA, our current interpretation is that this new gas pricing is not applicable to Pre-NELP blocks like Rajasthan where government approval has not been provided for under the PSC. So at this moment, we do not see any changes and as I said earlier we are going ahead with all the project work that is required for executing this.

**Abhishek Agarwal:** Okay. My second question was to do where we stand on the CAPEX as well as rig position?

**Suniti Bhat:** Let me start from the rigs, on the rigs in Rajasthan from a drilling perspective, we have around 11 drilling rigs and we have around 7 Workover rigs working; they are working across our exploration, development and production operations. So from a rig ramp up perspective there is really no issue, that whole thing is way behind us when we used to be rig constraint. So currently the infill drilling both for exploration and development is ongoing that is helping support both the 2C growth as well as the production. Because that is going as per plan so pretty much our planned CAPEX spending is also in track with what we are intending to do this year and over the next three years.

**Moderator:** Thank you. Next question is from the line of Vidyadhar Ginde from Merrill Lynch. Please go ahead.

**Vidyadhar Ginde:** Couple of questions, one is on you said in April that the production in the current year would be flat Y-o-Y, is there a risk that the production this year lower on a Y-o-Y basis? And the second question is in terms of the ramp-up in production going forward beyond FY17, where is growth likely to come from, is it more likely to come from new discoveries and maybe gas? Is 200 sort of plateau in terms of MBA? So those are the two main questions.

**Sudhir Mathur:** Yes, Vidya the MBA plateau is roughly 200. We are looking forward to accelerating the polymer flood in Bhagyam. We are working on Aishwariya and like we mentioned as well, the ASP pilot testing have gone up much better than expectations. So as soon as the Mangala Polymer project is executed before the end of this fiscal, we would look to see what we can do

to bring forward that as well. The other areas of growth as you mentioned we had 3 billion barrels in place, volumes that we were exploring and testing out over a three year period. We mentioned in the last call and just to reiterate, we have bought forward that three year cycle to move that up quite significantly and in addition added 3 billion barrels to our resources and we look forward to sort of building up with the team working very diligently on what we can do to expedite that conversion into reserves; we also mentioned that they are slight difficult reservoirs but 6 billion is a very large number on resource that we are working with in addition to the existing resource base 4.2 billion, taking the total gross resource base to 10 billion. So it is an outstanding and a world-class reservoir we are working off to continue to grow from the Rajasthan block itself.

**Vidyadhar Ginde:**

Sudhir where I am coming from is that I think in terms of reserves growth there has not been really any disappointment, in fact it has always kept on surprising on the positive. But as far as the production ramp up is concerned there has been at one stage you guys had guided 300,000 so it is in that context that in fact now since the last talked of even further potential for reservoirs but that does not seem to be converting into, while the peak production guidance have in fact come down.

**Sudhir Mathur:**

Yes, we are working on the business plan and like early this year in April we gave out a guidance based on the set of discussions the board and the management had on a long-term business plan and I am sure we will do the same at the end of this fiscal. Having said that, we are working on development costs quite intensely to see what we can do to reduce it, as well as on facility enhancement of fluid handling to ensure that we are able to handle the amount of fluid that would be required in the future but there are huge number of pipelines is pretty full up to manage and come to this growth numbers. Suniti you want to add?

**Suniti Bhat:**

I think just adding to what Sudhir was saying, we are very clear in terms of over the next three years at the 7% to 10% growth guidance that we have given, and it underpins three key things. One of the key things is making sure that the projects which you guys can watch out for the execution projects in and around infrastructure creation, as I said MPT debottlenecking and implementation of EOR projects across MBA is going to give us a base of 180,000 to 200,000 barrels. And the excitement that we get from discovering more and more resource base is a little bit challenging because it is tight resources that we are finding, that coupled with as I said the Mangala, Aishwariya, Barmer Hill, V&V, and DP looking at that space and seeing how our horizontal wells will ramp up and how this part of our production growth is going to be ramping up, it will be a little bit slower than the conventional Mangala-Bhagyam but it is what is going to get us another 10,000 to 30,000 barrels is what we had guided you guys over a three year; and then the gas piece that Ananth was talking about. When we put up all of that together these three things add to 7% to 10% compound growth over a three-year period that we have been guiding you and everything that is happening on execution is getting back on track and exploration seems to augment it and get us more and more resource to work on.



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- Vidyadhar Ginde:** Sort of where I am coming from is that these new reserve increase, are they more likely to elongate the life of the field rather than enhance the production rate beyond the kind of added number at the end of FY17. So to get to something like 230, 240 or maybe even 250 in the next few years but beyond that, are the reservoirs are going to extend the life of the field rather than increase production rates for the block as a whole?
- Suniti Bhat:** There will be a production growth that is exploration led from Barmer Hill and tight oil reservoirs and satellite fields as Sudhir was saying in. We are focusing on the already discovered part which was the Barmer Hill and some other satellite and as Darran has already said we have already added 1.4 billion barrels; all that is also start getting into the mix of creating the production growth. So everything is going to get into a production growth.
- Vidyadhar Ginde:** Okay, last question in same context that for how long do you expect this MBA peak of 180 to 200 to sustain?
- Sudhir Mathur:** I think what we are seeing from MBA 180 to 200 is what we are looking at but the right way to start looking at MBA is to look at incremental recovery. What we are looking at putting processes in place to increase the recovery factor of these fields to 45% to 50% through implementation of EOR because these will form the back bone of production from these systems. So we are looking at getting the recovery factors up in these fields and getting to augment the production through various new discoveries that are going to come from the exploration effort that we have.
- Moderator:** Thank you. The next question is from the line of Piyush Jain from Morningstar. Please go ahead.
- Piyush Jain:** So with the respect to the South African data so far whatever we have seen, what is the nature of the field at present? It is like ultra-deepwater or deepwater? I am just trying to understand the cost dynamics versus the low cost of Rajasthan Field you have?
- Darran Lucas:** Okay. We are working up with 3D at the moment, we have the new 3D data that's coming in, and we have to be working that to actually build our prospect inventory. And the most attractive part of that 3D is actually in the deepwater environment where we see a high quality oil play developing and this is a play system which has been well-developed along with West African margins sourced from the sedimentary and terrain source rocks. So we see this has a very high potential play and they will be at high risk. It is in deepwater environment around about 500 to 600 meters.
- Piyush Jain:** The second question is on the field development plan, just please guide me if I heard it wrong that now I am actually asking on the Rajasthan field, so you are actually increasing the Mangala processing terminal capacity to like closer to about 1 million I think and the new discoveries which you are actually making or you are actually developing, what is the trajectory of the cost here because we are having like a lot of the fields you are actually trying



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to take the help of horizontal drilling, so what is the proportion of the tighter fields now as we are moving toward newer fields.

**Suniti Bhat:**

I think let's just stick to two things. We are discovering more and more tighter fields but the way we will look at developing them is just because the fields are tighter, we are in a privileged position in the tighter fields, the big part of them overlay our Fatehgarh reservoirs. So our Fatehgarh reservoirs are below so we already have infrastructure that has been created for the Fatehgarh reservoir. So any infrastructure augmentation that is going to be done in our central processing facility and that was always the intent of this development, it is going to be also infrastructure development for future growth from various things that will come into the system. To start with, it will be fields or reservoirs like Barmer Hill which are just above Fatehgarh they will go through the same pipeline, same thing into the MPT processing. At the end of the day all oil gets processed at MPT and goes through the pipeline to the various buyers and into Bhogat. So this augmentation is done with a view to look at the future growth of the basin.

**Piyush Jain:**

So in terms of the newer fields like you have already given us some color on the cost, but as we are actually seeing these new fields, what is roughly the cost difference typically for these new fields where you have to actually go for higher advanced drilling methods as in the North America. So what is the nominal critical cost here you are seeing, for estimating?

**Suniti Bhat:**

I think as I said earlier we will come to you guys once we have a basket of wells, drilled, fracked, produced and we know as the productivities are going to come in. Once I have a tangible data set we will come to all of you to tell you how what kind of benchmark cost that you need to start looking at. We started this journey of developing these fields for fracking, horizontal wells, 10 stages per horizontal well has just started in this part of the world. We are going to develop that one, our intent is to get to the benchmark that have been set in North America, and they are just starting. Once we get that data fully, we will start sharing them with you along with the kind of production we are seeing from these wells.

**Piyush Jain:**

So far your field development plan is already beating the benchmarks in India, that's true. My last question is, everything looks encouraging so far, the way you are discovering the fields and you are raising the capacity of the processing terminal, so just one point would be quite helpful, what is the number of wells you would be roughly thinking over the next three years you would be needing to actually develop these fields as new fields are come into play?

**Suniti Bhat:**

I think, see as I said the number of wells depends upon the kind of productivity that I will start getting a feel for from these programs that we are currently executing this year; we will be able to give you a good guidance on the number of wells needed as we go through this year because unlike a traditional vertical well, we are talking about horizontal wells in multi-stage fracking, we will get that data and we really will optimize on the number of wells and the cost per well

and start to hit these benchmarks to get the right recovery factors and production ramp ups for this one. But currently we do not see that as a stumbling block to where we are going.

**Piyush Jain:** Sure. Sir then just please help me on this quarter data, like what is the number of wells you drilled this quarter?

**Suniti Bhat:** This quarter we have added 16 development wells that have gone into production.

**Moderator:** Thank you. The next question is from the line of Avadhoot Sabnis of CIMB. Please go ahead.

**Avadhoot Sabnis:** Sir, if the enterprise value of the market cap of your company, still a large portion of it is in cash, could you just give us some color in terms of are you looking at inorganic opportunities and what is the criteria there you are looking at or you are laying down for evaluating those inorganic opportunities, can we really expect some big announcements in that regard in the next 12 months?

**Sudhir Mathur:** Avdhoot, the lower oil prices certainly opens up opportunities. It is too early to comment on where it will stick and they may become a part of the game plan. As of now not yet; we are in a very exciting stage where we have got a lot of exploration both in Rajasthan as well as other blocks that Darran outlined to create a new level of growth but given pretty envious balance sheet I would say, if the oil price remains and there are good opportunities, we would certainly look at inorganic growth.

**Avadhoot Sabnis:** Can you give us any color at all in terms of how you would evaluate sort of inorganic opportunities in terms of specific areas you look at or specific areas you would not look at, how you would look at political risk or any color at all?

**Sudhir Mathur:** Avadhoot, it is very difficult to answer, it depends on opportunity, sometime the opportunity is overwhelming, sometimes the geopolitical situation is overwhelming but I mean given the fact that the Government of India has come up with much more decisive policy over the entire oil and gas, we would expect them to come up with a new NELP very shortly which they wanted to resolve before a new NELP. But inorganic opportunity is always an outcome of the opportunity in front of us; by design we are not going out actively and looking anywhere in the world.

**Moderator:** Thank you. Next question is from the line of Harshad B. from Motilal Oswal Securities. Please go ahead.

**Harshad Borawake:** I had three questions; one was in the current exploration program how much total exploration wells have been drilled up till now? And second is, what is the current production level at Rajasthan? And third is, what is the cash realization for the Rajasthan gas wells?

**Darran Lucas:** Number of exploration wells drill to date or this last quarter?



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- Harshad Borawake:** In the current exploration program since we restarted the exploration.
- Darran Lucas:** We drilled 36 exploration wells in the current campaign since the beginning of March 2013.
- Harshad Borawake:** And discoveries number is 11, right, equivalent for this?
- Darran Lucas:** Yes, we made 11 exploration discoveries which have been discovered, tested and flowed to surface.
- Harshad Borawake:** Sure. And what is the ongoing production at Rajasthan right now?
- Sunil Bohra:** If you will refer to Page #8 of the release, the production at Rajasthan for the quarter is 163,000 barrels.
- Harshad Borawake:** So that includes the impact of shut-down, right?
- Sunil Bohra:** Yes, that is right so the shutdown was for nine days roughly that is around 8-10%.
- Harshad Borawake:** And in terms of realization for gas sales?
- Management:** So our overall average gas price realization is at around \$7.3 per mscf.
- Harshad Borawake:** Sure. And lastly this Nagayalanka DOC approval which you have got, so is there any reserve number to this? How does it work I mean, or the reserve number will come later?
- Darran Lucas:** The development plan is now with ONGC and it is up to them to come up with the reserve numbers and the development plan associated with that.
- Moderator:** Thank you. Next question is from the line of Manish Kumar from HSBC. Please go ahead.
- Manish Kumar:** I have three questions if you could kindly take them. First is, could you actually give us an indication of how much is total liquid production as we speak and how much will you expect it to go to once you start your EOR? The second question is, do you have any schedule for EOR implementation in mind, for example do you want to take Mangala first or Aishwariya first? And the third question is, if you could let us know out of the 36 exploration wells that you have drilled, I would imagine several of them would have been tested as well, what has been the overall production rate from the wells that you have tested?
- Suniti Bhat:** I will take the first two questions and then Darran is going to give you the answer to your third one. I think on the liquid rate that we are talking about, as I said we have just finished ahead of schedule our debottlenecking project so with that one we are currently processing in excess of 800,000 barrels of liquid through our processing terminal, so that has currently happened. And

we will continue to look at increasing the liquid capacity of that plant given the growth plans that we have in mind.

Coming to the second question you had on EOR implementation, as I said earlier also when I was giving the update, we are well-advanced in terms of implementing the polymer flood of Mangala field. We will start injecting the polymer in the fourth quarter of this fiscal year and then ramp up the polymer injection and convert the Mangala field from a water flooding to a polymer flooding, it will be followed by Bhagyam and Aishwariya in that sequence. What we also said is while polymer flooding is happening, we are getting very-very exciting results from the ASP flooding in Mangala itself. What we are finding in ASP is that the response of the reservoirs is better than we had expected and by the end of this fiscal year, we should have that also fully done and we should have something to share with you. With the intent and then based on that we will accelerate our plans to implement ASP flooding in our key MBA reservoirs, that is how we are looking at getting these things on. Darran you want to add on exploration testing?

**Darran Lucas:**

Yes, with respect to the wells which have exploration and appraisal wells which we have tested to date, we have got a range of vertical well productivities which go from 175 up to over 600 barrels of oil per day depending on the number of sands which have been tested and encountered in the formation; . And also of course the number of zones that are fracked as well.

**Manish Kumar:**

And sir, just couple of clarifications, one is I was trying to figure out how much is liquid being currently produced and how much do you expect for the next couple of years? And in terms of well productivity you have actually indicated some of the range in press release as well that accounts for those recoveries. If you could indicate the average of the ones you have fracked and tested so that we can get a view of how good productivity of some of your new wells are. Thanks.

**Suniti Bhat:**

I will take the liquid question, as we previously said to one other previous question from one other caller, it is on Page #8 of the release also, the quarterly production including shutdown from Rajasthan is ~163,000 plus barrels of oil per day, now because that is associated with overall liquid which has two components to it, the overall liquid that we process in our plant has both the liquid that comes from our reservoirs, it also has liquid that for process requirements we have always in the system because we use that liquid to lift the fluids from the reservoir. Overall, we are currently processing an excess of 800,000 barrels of liquid to our central plant. We are looking at augmenting these central facilities to around a million barrels or so of liquid processing capacity as I had said while giving an update, so that will continue. Now the liquid capacity at the central plant we will keep on allocating to the right reservoirs to increase and optimize production from the block as such because this is the central processing facility. Does it answer your question?



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**Manish Kumar:** Yes, kind of. So if I understood you correctly you are saying currently you are processing about 8 lakh barrel total water and oil out together, is my understanding right?

**Management:** Absolutely correct.

**Manish Kumar:** Okay. And the second question was with respect to frack, I am talking of either of exploration or appraisal well post 2013 January what has been the production rate if you could kindly indicate those rates?

**Suniti Bhat:** I think Darran has given you indicative rates of the kind of in our exploration campaign which is pre and post-fracking. What I have said previously also is that the critical activity, which is looking at production rates of horizontal wells post-fracking is something that will come to you in the next quarter because we want to get decent set of data behind us when we start guiding you on the kind of rates to expect. But what we can tell you at this point is we are getting tremendous success in operationally implementing the frack in horizontal tunnels in this part of the world. We have actually placed some of the largest fracks in excess of 200,000 pounds of proppant per stage in the formations in Barmer basin so far. So that is what excites us a lot. And now we are in the process of getting that data, when we will have a tangible data set, we will share that with you guys.

**Moderator:** Thank you. Ladies and Gentlemen, that was the last question. I now hand the conference over to Mr. Mathur for his closing comments.

**Sudhir Mathur:** Thank you for joining us today. I would like to reiterate our commitment to the creation of long-term shareholder value. With the joining of Mayank Ashar as CEO, we will fast track our next phase of growth trajectory. We are optimistic about our continued success in our exploration and appraisal program to achieve our stated exploration targets. With significant opportunities in the field of gas, Barmer Hill, and development projects at MBA fields we remain confident of achieving a rate of production growth of 7% to 10% and a reserve replacement ratio of roughly 150% over the next three years. On behalf of Cairn India I wish you all a very Happy Diwali and look forward to having you on our next quarterly call.

**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.