RLMS
EASTERN AUSTRALIA
Upstream Gas Report
JUL 2015

CORPORATE ACTIVITY

AGL Energy

6 JULY: AGL Energy completed its upstream gas review, commissioned by new MD Andrew Vesey. The company will remain a CSG producer and developer, with the Camden Gas Project and the Gloucester Basin development project to be retained. AGL will also hold on to its two gas storage facilities, the Silver Springs underground facility and the newly commissioned Newcastle LNG facility. Assets to be divested include the Hunter Gas Project, the already up for sale half interest in the Moranbah Gas Project and its small interest in Spring Gully. The company will also pull out of the Cooper Basin tenement ATP 1056. Results of the review will see AGL take a writedown of $603m ($435m after tax), primarily on the Gloucester Project and Moranbah assets.

Most of AGL's upstream gas issues relate to its New South Wales CSG assets. At the end of 2008 the company spent more than $500m to acquire the Gloucester field and Sydney Gas, with the half shares in its Hunter acreage and Camden that it didn't already own. When anti-CSG activism exploded in the state AGL was forced to stop a planned expansion of Camden and halt exploration in the Hunter. The Coalition Government's introduction of 2 km exclusion zones around towns and defined critical industry cluster like wineries and horse studs then sterilised large parts of the projects' acreage. As a result AGL has now sold the three tenements for these projects into the Government's buy-back program, perhaps for as little as the $200,000-$250,000 per tenement that the scheme has so far been paying. AGL valued the two Hunter tenements at $230m when it bought Sydney Gas, illustrating the sheer scale of the value destruction wrought by the anti-CSG movement. Hunter reserves were as high as 134 PJ 2P and 257 PJ 3P, now reduced to zero and with the acreage highly unlikely to ever be re-released by any future governments.

AGL's decision to retain Camden and Gloucester is somewhat surprising. The company has obviously judged that any reputational damage to its electricity and gas retail business by remaining a CSG producer and developer is balanced by the low market price available for any NSW CSG projects. Camden's production is around 5 PJ/year and is slowly declining, with remaining 3P reserves at 45 PJ. With its location on the outskirts of Sydney AGL would face vehement opposition if it tried to drill any new wells at the field, let alone fracc them.

At Gloucester AGL will continue investment to develop the field. It secured approval for the first phase of the development, up to 110 wells and a 30 PJ/year capacity processing plant. Securing further approvals for potential second and third stages of the project would likely be difficult. Any progress in developing the project will be slow and expensive, in the teeth of vehement opposition from sections of the community and with little support from Government. The planned sanction for the field has already slipped from 2013 to 2016, however given the money already invested the project is obviously more valuable to AGL than another owner. The company will write-down the value of the project by $275m ($193m) in its FY2015 accounts, reducing its book value to $131m and reflecting the impact of the project's delays as well as revised estimates of development costs and gas volumes and prices.

AGL has been trying to sell its Moranbah assets for more than a year but has been unable to conclude a transaction. The company will write down their value by $321m ($237m after tax), to just $40m. However, this low figure does not fully reflect the value of the assets as no value is ascribed to the 50% back in rights to ATP 1103 and its 3,498 PJ of 2P+2C. The write-down is primarily related to the value of AGL's half share in the North Queensland Energy (NQE) business, which transports gas to the Yabulu Power Station through the NQ gas pipeline and on sells the plants' electricity output. A lack of investment by Arrow Energy has seen the MGP's gas production fall and NQE is now losing money as electricity volumes and revenues fall. AGL will continue to market the Moranbah assets.

Drillsearch Energy

3 JULY: Drillsearch Energy announced the immediate departure of MD and CEO Brad Lingo. During his six years as CEO Mr Lingo oversaw strong growth in production, reserves and shareholder value at Drillsearch, while expanding the company's Cooper Basin acreage through a number of takeovers. Chairman Jim McKerlie now wants the company to expand to other basins to deliver future growth, either in Australia or further afield. COO Walter Simpson will serve as acting CEO during the search for a permanent replacement for Mr Lingo.

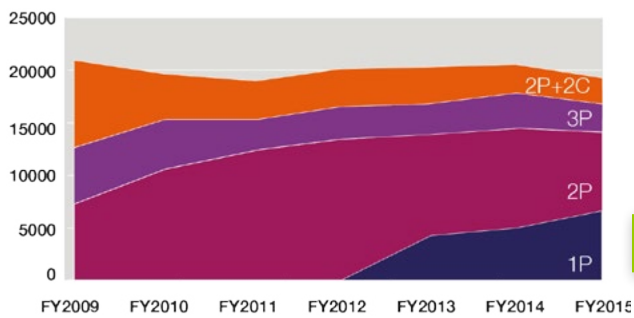
On the 30th of July Elk Petroleum announced the appointment of Mr Lingo as MD and CEO. He will lead efforts to develop the company's Grieve CO_2 enhanced oil recovery project in Wyoming. In conjunction with his appointment Mr Lingo made a $250,000 investment to buy a 4% stake in the company, paying $0.03 for his shares, a premium to the company's share price over the last six months. The market welcomed news of his appointment pushing the share price up to $0.041 on the 31st of July.

RESERVES AND RESOURCES

Origin Energy

31 JULY: Origin Energy released its annual reserves report. The company's APLNG stake makes up the bulk of the company's reserves with its 37.5% interest in the project accounting for 5,167 PJ of its total 6,260 PJ-equivalent 2P reserves. Gross 2P reserves at APLNG dropped by 313 PJ to 13,778 PJ over FY2015, with 174 PJ of this due to production and the remainder due to downward revisions as a result of lower oil prices. Gross 3P reserves declined by 1,285 PJ to 16,174 PJ, which, apart from the decrease of 174 PJ as a result of production, was due to downgrading low permeability reserves to 2C resources. 2C resources only grew by 81 PJ with the 1,111 PJ addition from downgraded 3P reserves almost balanced by a 1,030 PJ decrease due to poor results from drilling and pilot operations in APLNG acreage. 1P results provided one bright spot for APLNG as increased development drilling boosted the total from 4,581 PJ to 6,059 PJ.

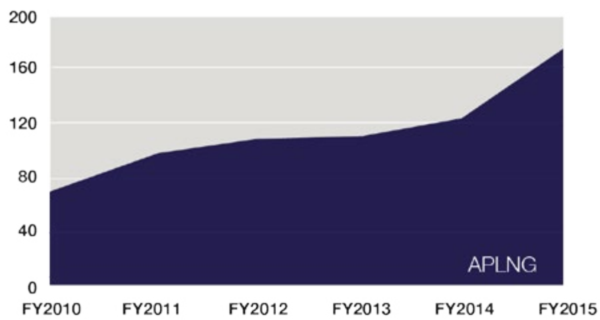
APLNG Gross Reserves and Resources in PJ



Note: 1P reserves first reported end FY2013

APLNG production continued to grow strongly with the project producing 174 PJ during FY2015, up from 123 PJ in the previous financial year. During the most recent quarter production was 58.2 PJ with 36.8 PJ of this from APLNG operated fields (405 TJ/day) and the remaining 21.4 PJ from non-operated fields (235 TJ/day). Origin operated many of the APLNG fields at less than full capacity during the quarter as cheap ramp gas was purchased in the market to satisfy contracts and for power generation.

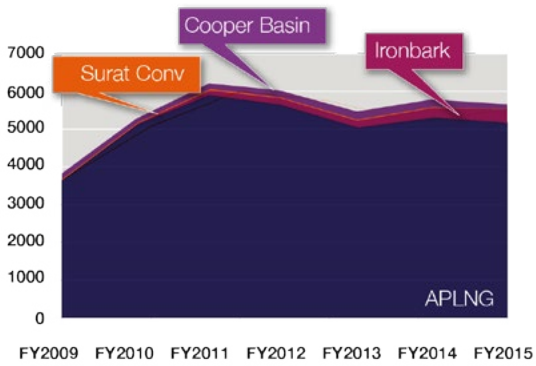
APLNG Gross Production in PJ



Origin's 100%-owned Ironbark CSG project also saw declines in reserves with 2P reserves dipping by 3 PJ to 256 PJ and 3P reserves down 155 PJ to 714 PJ. The 3P downgrade saw the reserves reclassified as 2C resources and was the result of analysis of low permeability areas.

Overall Origin's Eastern Australia onshore 2P gas reserves decreased by 208 PJ to 5,616 PJ. This included a drop of 24 PJ for its Cooper Basin interests to 193 PJ (dry sales gas only) with around half of this due to production and half to revised development plans. 1P reserves were up by 554 PJ to 2,360 PJ as a result of drilling within APNG fields.

Origin Energy Onshore Eastern Australian 2P Reserves in PJ:



Note: The declines in APLNG 2P reserves during FY2012 and FY2013 are a result of Origin selling down its interest, not a decrease in project reserves.

GAS SALES

APA Group

24 JULY: APA Group announced it had signed a new seven year gas transportation agreement that will underwrite a further expansion of the Victoria – New South Wales interconnect. It's the fourth expansion of the system since 2013, with capacity to triple as demand for Victorian gas in NSW grows. For this latest contract APA will spend $85m for looping on the Moomba to Sydney Pipeline and the Victoria Transmission system as interconnect's capacity is expanded by 30 TJ/day. The work has already started and is expected to be finished by the middle of next year.

Incitec Pivot

8 JULY: Incitec Pivot reported that it had been receiving a reduced gas supply to its Moranbah ammonium nitrate plant from the Moranbah Gas Project. Moranbah operator Arrow Energy has advised the company that it may expect ongoing reduced supply of 10-20% of contracted volumes into 2016 before new wells and production enhancement projects improve gas deliverability.

Beach Energy

1 JULY: Beach Energy commenced selling Cooper Basin gas to Origin Energy under an eight year GSA. The gas sales represent the first separate marketing of Beach's share of SACB and SWQ joint venture production and will likely see an increase in revenue for the company, with the gas price to be oil-linked. The contract is for up to 139 PJ over the eight year term with delivery ex-Moomba; Origin holds an option to extend for a further two years to increase total volumes to up to 173 PJ.

LNG

APLNG

28 JULY: Origin Energy advised that the first refrigerants had started being loaded into Train 1 of APLNG. This allows commissioning of the refrigerant compressors, a key step in the start-up of the liquefaction process at the project. APLNG remains on track to begin sustained LNG exports from Train 1 in the fourth quarter of 2015.

GLNG

17 JULY: Santos advised that the first train of GLNG was expected to begin production at the end of the September quarter this year. The company has completed the initial upstream field developments for the project at Fairview and Roma and is continuing commissioning of Train 1 on Curtis Island.

QCLNG

13 JULY: BG Group shipped the first cargo from QCLNG's Train 2, seven months after Train 1 commenced exports. In that time the project has shipped more than 1.5 MT of LNG in 27 cargoes with Train 1 now running at plateau production levels of 4 MTPA and shipping around 5 cargoes each month. During the June Quarter equity upstream production from BG's QGC subsidiary averaged 465 TJ/day (80 kboe/day) with a peak rate of 581 TJ/day (100 kboe/day) achieved during July, after the quarter's end.

Bechtel will now work to complete final commissioning of Train 2, before handing operations over to BG. The company expects both trains to be operating at plateau levels in the middle of next year, producing 8 MTPA of LNG shipped in ten cargoes per month. During the ramp-up period BG expects up to 20% of the gas feed for the two trains to come from third party supply contracts.

Loading of first cargo from QCLNG Train 2

Source: BG Group

GOVERNMENT AND REGULATION

Queensland

7 JULY: The Queensland Government will develop a Gas Supply and Demand Action Plan. The aim is to allow the state to make the best benefit from its large gas resources, addressing both issues that raise the cost of supply and make access to supplies more difficult for gas consumers. Development of the plan will be led by the Department of Natural Resources and Mines and the Department of Energy and Water Supply. An issues paper will be released prior to finalisation of the plan at the end of this year or early next year.

NSW

1 JULY: The NSW EPA assumed responsibility as the chief regulator for CSG activities in the state. The move is part of the Coalition Government's Gas Plan, its response to Chief Scientist Professor Mary O'Kane's extensive inquiry into CSG in the state. Giving the EPA greater responsibilities satisfies her recommendation that regulation of CSG activities be separated from the allocation of exploration and production licences.

The Government's buy-back scheme for petroleum exploration tenements, also part of the Gas Plan, has been extended for three months, until the end of September. During July the Government bought back three Sydney Basin tenement from AGL Energy and is also negotiating a potential exit of Metgasco from its Clarence-Moreton Basin tenements. Although titleholders of the 15 exploration tenements cancelled so far have been given only nominal compensation of around $200,000 per tenement it will take a lot more to get Metgasco to surrender its three tenements and exit the politically charged Northern Rivers Region. The company has spent more than $120m on previous exploration activity in its acreage and is also due compensation from the state for the unlawful cancellation of its Rosella-E01 drilling permit. NSW Industry, Resources and Energy Minister Anthony Roberts has committed to reveal the full costs of the buy-back scheme once it has been completed.

FOCUS: THE NEXT JUNIOR

With one Curtis Island LNG project already producing and the other two soon to follow the new east coast gas market is a reality. Domestic gas prices are higher, although higher production costs are acting to limit the returns to producers and low oil prices are a further burden for LNG exporters. It's clear that there is also significant space in the market for new gas supply. With the focus of attention and investment now moving away from the CSG-to-LNG proponents there is ample opportunity for the next crop of junior explorers to come through and start production. The market is calling out for new competitively priced supply with some large consumers already committing funds to advance prospective projects. The following tables show four projects that currently offer a chance of being sanctioned for development in the next few years: Strike Energy's Southern Cooper Basin Project, Central Petroleum's Amadeus Basin conventional gas fields, Real Energy's Cooper Basin basin-centred-gas project in ATP 927 and Senex Energy's Western Surat Gas Project. These potential projects vary in location and geological play however they are all potential company makers that can supply significant amounts of gas into the market. They are all also under control of juniors making geology and access to markets and finance the deciding factors over project success.

There are a number of other projects being promoted by juniors that also offer the potential to bring supply into the market. This includes Blue Energy's ATP 814 in the Bowen Basin, Comet Ridge's 40% interest in the Mahalo Project, Armour Energy's South Nicholson Basin acreage and Cooper Energy's offshore Otway fields. These projects have not been included in this survey as the pathways to development for these projects are not entirely controlled by their respective owners. Blue is reliant on development plans for Arrow Energy and its planned pipeline from Moranbah to Gladstone; with a non-operating interest in Mahalo Comet Ridge does not have control over the project and its progress; Armour Energy must undertake further exploration and appraisal in its acreage for which it has not yet secured funding and must also rely on construction of the NEGI to access markets and Cooper Energy is developing its Sole Field in a JV with Santos and the Manta Field in a JV with Beach Energy. The projects all offer the opportunity to be company makers and deliver meaningful supply into the market but as they are reliant on other actors they may be more complicated to develop than the four projects listed on the following pages.

Southern Cooper Basin Gas Project - PEL 96

Ownership	Strike Energy* 67%; Energy World Corporation 33%	The enigmatic Energy World has so far been a silent partner
Play	Cooper Basin deep coal gas	Strike is targeting Patchawarra coals at depths of around 2,000 metres. Although a new play Santos has successfully flowed gas from the same coals in other parts of the basin.
Location	SA - southern edge of Cooper Basin	good location for supply to multiple east coast markets
Quantum	Multi tcf	Strike internal prospective resource estimate of 6.8 tcf recoverable sales gas for PEL 96. Independent 2C of 155 bcf from 3,000 acre area.
Development Plan	Fracced vertical wells	Strike is planning an initial twenty year development with production of around 50 PJ/year. A further development is mooted to supply 250 PJ/year for 20 years. Target production rate of 1.2 Mmscfd/well. Strike estimates cost to drill, fracc, complete and connect each well at $3.5m. Plus a further lifetime cost of gathering/processing and OPEX at $13.5m/well.
Status	Proof of concept	Currently dewatering first pilot production wells. Gas flows to surface but not yet at commercial rates as required for first reserves.
Timing	Short/medium term	Ambitious target for first stage of development: FID 2016 and first production 2017/2018. 2020 more realistic?
Markets	Yes	Has signed 250 PJ pre-pay supply contract with Orica and further 45 PJ pre-pay with Orora. Route to market through existing pipeline network connecting Cooper to east coast
Funding	Initial funding secured	Pre-payment supply contracts with Orica and Orora could provide more than $50m to take the project towards sanction. Strike had $12m of cash at end FY15.
Economics	Good	Strike estimating ex-field gas price of around $4.50/GJ. Transport would add another couple of $/GJ to this. Potential for associated liquids to improve economics
Community/ regulatory	Good	SA is most attractive Australian state for onshore petroleum and remoteness of the Cooper mitigates protest
Opportunity	Company maker	Strike has a market cap of around $110m. This is all down to the potential of the SCBP.

Amadeus Basin Conventional

Ownership	Central Petroleum*50%/100%; Santos 50%/0%	Santos has sold Central a 50% operating interest in Mereenie, to add to the company's ownership of Dingo and Palm Valley
Play	Conventional gas	With some associated oil in Mereenie
Location	Amadeus Basin, southern part of the NT	Relatively far from east coast markets
Quantum	Hundreds of PJ	Current 2P reserves of 180 PJ, Central aiming to increase this to 300-400 PJ by the end of 2015
Development Plan	Vertical wells	Advantage of spare installed processing capacity at Mereenie and a number of already producing wells
Status	Mature	Currently producing gas from three fields
Timing	Medium term	Dependent on market access, if sanctioned in 2016 the NEGI could be operating in 2019
Markets	Not currently available	Fully supplied domestic gas market in the NT. Requires construction of the NEGI pipeline link to the east coast to access markets. Has a pre-pay agreement with Incitec Pivot that may lead to funding support
Funding	Initial funding available	Debt funding from Macquarie Bank ,funding support through Incitec
Economics	Good	Central claims operating costs for gas production of $2/GJ or lower are achievable, plus transport costs of $2-$3/GJ to Ballera or Moomba
Community/ regulatory	Good	NT supportive of onshore petroleum, remote location
Opportunity	Company maker	Central MD Richard Cottee is hitching the company to the NEGI project. If the pipeline doesn't get the go-ahead the company will have substantial debt and restricted market opportunities.

ATP 927

Ownership	Real Energy* 100%	Full ownership gives Real early stage project control and opportunity to farm-down later
Play	Toolachee and Patchawarra basin-centred gas	Targeted formations at depths of around 2,200 - 2,500 metres.
Location	QLD - north western Cooper Basin	Good location to supply Wallumbilla or Gladstone
Quantum	Multi tcf	Prospective recoverable gas resource of 5.5 tcf, 3C 672 bcf (DeGolyer and MacNaughton)
Development Plan	Fracced wells	Resource estimate assumed closely spaced development of multiple wells
Status	early stage	First two wells drilled have highlighted opportunity, fraccing to follow to show gas can be produced to surface
Timing	Medium/long term	Real aims to progress a large project in the next three years
Markets	Yes	Proximity to SWQP provides ready access to Wallumbilla and Gladstone. Has an indicative pre-pay GSA with Incitec Pivot for 110 PJ over 10 years.
Funding	Initial funding available	Pre-payment contract with Incitec Pivot would provide up to $35m. Cash of $4m at end FY15 with a $6m R&D refund expected. May also seek a farm-in partner
Economics	Requires further work	Indicative price for Incitec Pivot contract is around $6.50/GJ
Community/ regulatory	Good	QLD supportive of onshore petroleum, remote location
Opportunity	Company maker	Real has market cap of around $22m. ATP 927 is the company's main focus.

Western Surat Gas Project

Ownership	Senex Energy* 100%	Full ownership gives Senex total control of the project
Play	Surat Basin Walloons CSG	Project centres on the Lacerta Field discovered by Sunshine Gas
Location	Central QLD	On the Roma shelf
Quantum	Hundreds of PJ	Current 2P reserves of 488 PJ, development of 35-50 TJ/day targeted
Development Plan	Vertical wells	The project includes a number of pilot wells drilled but not yet connected and tested
Status	Development being planned	The company is making the projectits main focus in a lower oil price environment and will benefit from a number of pilot wells already drilled but not yet connected and tested. EIS process soon to commence.
Timing	Short term	Senex is targeting first gas production at the end of 2017
Markets	Good	Located close to the Wallumbilla gas hub and demand point, multiple routes to Gladstone
Funding	Initial funding available	Senex has cash on hand to fund the project towards an FID, as well as revnue from ist Cooper Basin oil business
Economics	To be determined	Senex is aiming to deliver a project at lower cost than other CSG developments
Community/ regulatory	Good	Queensland Government is supportive and unlikely to be affected by any potential community opposition
Opportunity	Company builder	Would add a large gas business to Senex's Cooper Basin western flank oil business

CORPORATE ACTIVITY

Central Petroleum

31 JULY: Central Petroleum announced the appointment of Robert Hubbard as the company's new Chairman. The incumbent Chairman, Andy Whittle, had previously advised his intention to resign. Mr Hubbard is already Central's Deputy Chairman and was previously a partner with PwC for more than twenty years, specialising in resources.

Buru Energy

30 JULY: Buru Energy advised that Alcoa had terminated a gas pre-sales agreement that provided funding for the development of a Canning Basin gas project. Under the agreement Alcoa provided Buru's predecessor company ARC Energy with a $40m gas prepayment in 2007, in return for which it would be supplied up to 500 PJ of gas over 15 years at a fixed price. With the deadline for an FID for the gas project repeatedly extended Alcoa has now ended the arrangement. Buru must repay the $40m advanced over the next three years, however it has already escrowed $22.4m of the required funds. Alcoa will retain the right to purchase 100 PJ of gas at market prices from any future Buru Canning gas development.

Buru expects a development would secure higher prices in the current WA market than those incorporated into the original Alcoa contract in 2007. The company believes there is a market for gas from any development both in the Pilbara or for power generation or methanol production in the Kimberley. Coogee Chemicals, the privately owned company that has been looking to develop a new world scale methanol plant within Australia for a number of years, is one of the company's largest shareholders. Including the escrow funds Buru had $42m on hand at the end of the June Quarter. A payment of $15m will be made to Alcoa during August; two further $12.5m payments must be made in 2017 and 2018.

Lakes Oil

15 JULY: Armour Energy made a move to oust Lakes Oil's management, requesting the company hold a shareholder's meeting with a vote to remove Executive Chairman Rob Annells and non-exec Director Barney Berold from the Board. Armour holds an 18.9% stake in Lakes, the same size interest as Gina Rinehart's Timeview Enterprises. Lakes recently raised $4m in a convertible notes issue with Timeview accounting for half of the new funds and Armour none.

With its core Victorian tight gas acreage still affected by the state's ongoing onshore drilling and fraccing moratoriums the company has been unable to do any on the ground exploration since the start of 2013 and will use some of the new money to start exploration in the Queensland Cooper Basin. The Victorian Labor Government plans to make a more permanent decision on unconventional exploration in the state at the end of this year after the Parliament has completed a further inquiry.

Armour has yet to comment on its intentions towards Lakes, but will be able to make its case to fellow shareholders in the Notice of Meeting documentation, to be issued in August. The meeting will follow in September with Timeview's reaction to Armour's move likely to prove key to its success or otherwise. Messrs Annells and Berold respectively hold 0.94% and 0.47% interests in Lakes' 11.4 billion issued shares.

EXPLORATION AND APPRAISAL

Beach Energy

29 JULY: Beach Energy advised that it planned to spend just $5m on unconventional exploration during FY2016. This is sharply down on the $60m the company spent during FY2015 and a similar amount in the previous year. Beach is cutting back on unconventional exploration spend as the oil price fall leads it to defer lower priority projects and fully fund capex from cash on hand and operating cash flows. Over FY2015 the company's cash balance turned by $391m with cash on hand decreasing from $411m to $170m and $150m of debt being drawn down.

The company's flagship unconventional project in the Nappamerri Trough does not currently have any on-the-ground exploration planned as Beach reviews the results of the extensive exploration and appraisal program funded by Chevron. The company will seek a new farm-in partner later in FY2016. Beach is undertaking an extensive organisational review under new MD Rob Cole, having expanded from its traditional Cooper Basin oil and gas focus into Australian unconventional plays in the Cooper, Bonaparte and Otway Basins.

Beach also advised that it had paid a small sum to acquire private company Territory Oil and Gas, its JV partner in the Bonaparte. After drilling a well with both conventional and unconventional targets in the onshore part of the basin during 2014 Beach may seek a farm-in partner to fund further exploration.

Senex Energy

28 JULY: Senex Energy advised that an extended production test of the Hornet gas field is delivering disappointing results. The company is flow testing two wells on the Cooper Basin tight gas field, where it has estimated a 2C contingent resource of 835 bcf. It has taken Hornet-1 offline due to liquid loading and plans to restart production in the second half of 2015. Kingston Rule-1 was brought online in late March and is producing gas from an off structure stratigraphic trap. Senex will undertake studies of the field and further testing of both wells in order to better determine the size of the field

AWE

27 JULY: AWE reported that it had completed drilling the Waitsia-2 well, reaching a total depth of 3,530 m. Elevated gas shows were recorded over the Kingia and High Cliff Sandstones as well as the secondary unconventional targets the Carynginia Shale and Irwin River Coal Measures. AWE will complete its current three well Perth Basin drilling program by wireline logging the well, flow testing may follow.

The company's focus is likely to remain on the Waitsia Field and the northern part of its Perth Basin acreage. AWE advised that it would not fracc the Drover-1 exploration well, drilled in EP 455 to assess the shale gas potential on the southern edge of the north Perth Basin. After analysis of core samples, wireline logging and the completion of a Diagnostic Fracture Injection Test no further work is planned at Drover. Titan Energy, the company's JV partner in EP 455, is looking to divest its 18.5% stake as it expands its oil drilling in Texas.

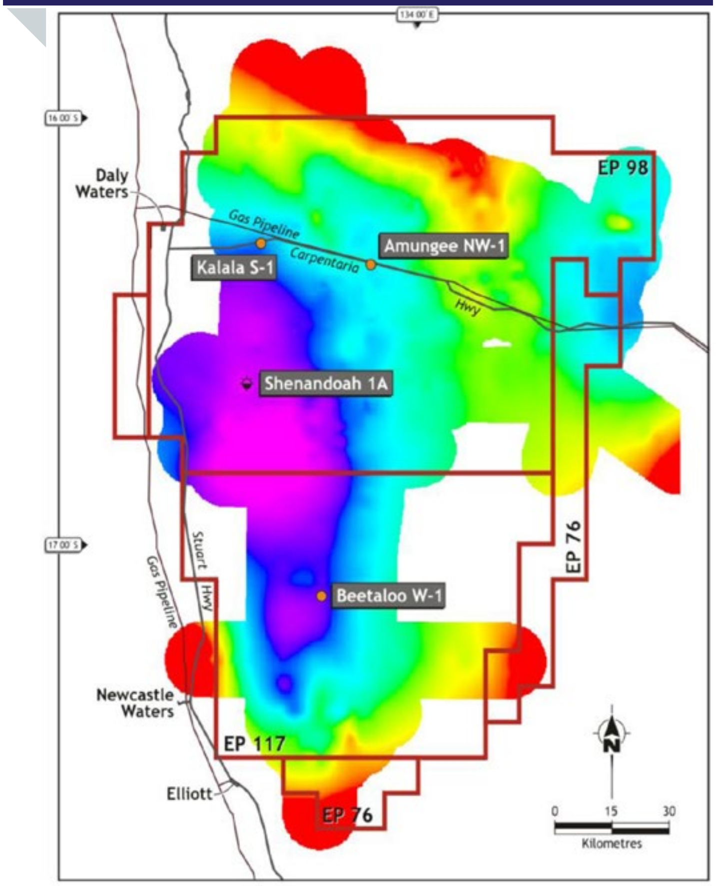
Buru Energy

17 JULY: Buru Energy looks set to soon start a program to fracc and test up to four Laurel Formation tight gas wells in the Canning Basin. The company appears to be attempting to minimise publicity about the program but Condor Energy's fracc spread is being mobilised from the Cooper Basin to the Canning and the WA Department of Lands has demanded that a small group of protesters leave a camp on crown land at the entrance to the Yulleroo access road. Preparatory works at the Asgard and Valhalla North sites have been completed as Buru gears up for its first Laurel Formation fraccing program since 2010 when Yulleroo-2 was flow tested at up to 1.6 Mmscfd.

Origin Energy

14 JULY: Origin Energy spudded the first of three coreholes in the Beetaloo Basin targeting the Middle Velkerri shale formation, a program expected to cost $22m including associated studies. Kalala S-1 has a planned total depth of 2,800 m and marks the start of a multi-year farm in by Origin and Sasol to three Beetaloo tenements held by Falcon Oil and Gas. Two wells including one horizontal will be fracced and tested next year. Kalala S-1 is the first well to be drilled in Falcon's Beetaloo acreage since Shenandoah-1A in 2011. In the intervening period Hess funded the acquisition of extensive 2D seismic but missed out on an option to take a stake in the tenements.

Origin Energy Beetaloo Program



Source: Falcon Oil and Gas

PangaeaResources

17 JULY: Pangaea Resources 2015 Beetaloo Basin exploration campaign will include the acquisition of 380 km of 2D seismic in EPs 167 and 168. This is in addition to the drilling of four exploration wells targeting the Velkerri Formation. With seven wells targeting the formation to be drilled this year the Velkerri is shaping up as Australia's busiest unconventional play.

RESERVES AND RESOURCES

Central Petroleum

21 JULY: Central Petroleum released a new independent estimate of gas reserves at its Palm Valley and Dingo Fields. Total 1P reserves at the fields are 28 PJ with 2P reserves estimated at 57 PJ. Netherland, Sewell and Associates signed off on the figures, which also include a market limited 2C contingent resource of 52 PJ. Central is working to increase reserves in the Amadeus Basin to support the investment case for the proposed NEGI gas pipeline to the east coast and to secure market access for its gas. The company is aiming to increase gross 2P reserves at Mereenie from 123 PJ to 280 PJ by the end of the year, after buying a 50%-operating share of the field from Santos last month.

Central Petroleum Amadeus Basin Reserves and Resources at 30 June 2015

Field	1P	2P	2C
Palm Valley	18	24	30
Dingo	10	33	23

Real Energy

21 JULY: Real Energy announced the first independent estimate of contingent resources at its Cooper Basin basin-centred gas play in ATP 927. DeGolyer and MacNaughton signed off on a 2C estimate of 276 bcf for the tenement, with 1C at 77 bcf and 3C at 672 bcf. The estimates were around half the size of the internal estimates released by Real last December and are based on a field development with 80 acre (324 m^2) well spacing. Additionally, DeGolyer estimated prospective recoverable gas resources of 5,483 bcf for the permit.

Real's resource estimates are based on two wells targeting the Toolachee and Patchawarra Formations within ATP 927 as well data from surrounding tenements. The company has signed a non-binding Letter of Intent to supply 110 PJ of gas to Incitec Pivot over ten years from the project and is to receive $35m of funding to progress development under the agreement. Real quoted potential revenue of $800m for the gas if a supply contract is enacted, implying a starting gas price of around $6.50/GJ, escalating at the 2% inflation rate estimated by the company. Real is currently planning a potential fracc and test program for its two wells, both drilled during 2014.

EASTERN AUSTRALIA CSG:

Reserves at 31 December 2014, production second half 2014 Averages

Field	Ownership	State	Basin	Reserves (PJ) 1P	2P	3P	Production (TJ/day)	Tenure
AGL ENERGY								
Camden Gas Project	AGL Energy* 100%	NSW	Sydney		45	45	16	PPLs 1, 2, 4, 5; PELs 4, 5
Gloucester Basin Project	AGL Energy* 100%	NSW	Gloucester		454	565		PEL 285
Total for AGL Energy including projects operated by others					**1,824**	**3,447**	**32**	
ARROW ENERGY								
Moranbah Gas Project	Arrow Energy* 50% AGL Energy 50%	Qld	Bowen	160	2,512	5,350	31	
Blackwater	Arrow Energy* 100%	Qld	Bowen					
Comet	Arrow Energy* 100%	Qld	Bowen					
Norwich Park	Arrow Energy* 100%	Qld	Bowen					
Surat Basin Fields	Arrow Energy* 50%-100%	Qld	Surat					
Tipton West JV	Arrow Energy* 100%	Qld	Surat				25	
Kogan North	Arrow Energy* CS Energy 50%	Qld	Surat				7	
Daandine	Arrow Energy* 100%	Qld	Surat				27	
Total for Arrow Energy				**160**	**2,512**	**5,350**	**90**	
BG GROUP								
94% ownership of QCLNG project operator								
Total for BG Group including projects operated by others				**3,096**	**10,326**	**18,876**	**550**	
BLUE ENERGY								
Sapphire Field	Blue Energy* 100%	Qld	Bowen		50	180		ATP 814P
Total for Blue Energy					**50**	**180**		
ERM POWER								
Clarence-Moreton	ERM Power *50% CMR 30%, Red Sky 20%	NSW	Clarence-Moreton		17	159		PEL 457
Total for ERM Power					**9**	**190**		
HARCOURT PETROLEUM								
Mungi/Harcourt	Harcourt*67.1% Mitsui 32.9%	QLD	Bowen	36	448	1,064	3	PL 94Sublease, ATP 56 4P
Timmy	Harcourt*62.9% Mitsui 37.1%	QLD	Bowen		67	175		ATP 602P
Total for Harcout Petroleum				**36**	**515**	**1,239**	**3**	
LANDBRIDGE GROUP								
Meridian	Landbridge* 51% Mitsui 49%	QLD	Bowen	93	680	1,524	8	PL 94, Coal Mining Leases
Paranui	Landbridge* 25.5% Mitsui 24.5% BG 50%	QLD	Bowen			270		ATP 769 W
Tibrook	Landbridge* 25.5% Mitsui 24.5% BG 50%	QLD	Bowen			152		ATP 688P W
Total for Landbridge				**47**	**347**	**885**	**4**	
ORIGIN ENERGY								
37.5% ownership of APLNG and project upstream operator								
Ironbark Project	Origin 100%				256	714		ATP 788P
Total for Origin Energy including projects operated by others				**2,272**	**5,423**	**6,779**	**240**	
SANTOS								
30% ownership of GLNG and project operator								
Narrabri CSG Project	Santos* 80% EnergyAustralia 20%	NSW	Gunnedah	233	971			PEL 238
Total for Santos including projects operated by others				**978**	**2,964**		**33**	
SENEX ENERGY								
Western Surat Project	Senex Energy* 100% - 45%	Qld	Surat		488			ATPs 767, 795, 889, 593, 791
Total for Senex Energy including projects operated by others					**488**			

QUEENSLAND CSG-TO-LNG PROJECTS:

APLNG (AUSTRALIA PACIFIC LNG PROJECT)

Ownership:	Origin Energy 37.5% / ConocoPhillips 37.5% / Sinopec 25%	**Site:**	Laird Point, Curtis Island
Operatorship:	Upstream and pipelines: Origin / LNG: ConocoPhillips	**Customers:**	Sinopec 7.6 MTPA for 20 years, Kansai 1.0 MTPA for 20 years
Status:	Train 1 first LNG Q4 2015 Train 2 first LNG mid 2016	**Reserves:**	1P: 6,059 PJ 2P: 13,778 PJ 3P: 16,174 PJ 2C 2,760 PJ
Size:	2 x 4.5 MTPA LNG trains	**Production:**	640 TJ/day (234 PJ/year)

Major Fields	Ownership	State	Basin	Production (TJ/day)
Spring Gully	APLNG* 96.6% Santos 3.4%	Qld	Bowen	134
Peat	APLNG* 100%	Qld	Bowen	3
Talinga/Orana	APLNG* 100%	Qld	Surat	109
Condabri	APLNG* 100%	Qld	Surat	127
Combabula/ Reedy Creek	APLNG* 100%	Qld	Surat	36

GLNG (GLADSTONE LNG PROJECT)

Ownership:	Santos 30% / PETRONAS 27.5% / Total 27.5% / KOGAS 15%	**Site:**	Hamilton Point West, Curtis Island
Operatorship:	Santos	**Customers:**	PETRONAS and KOGAS both to take 3.5 MTPA for 20 years
Status:	FID taken January 2011, first LNG 2015	**Reserves:**	1P: 2,245 PJ 2P: 5,603 PJ 2C: 1,202 PJ
Size:	2 x 3.9 MTPA LNG trains (three-train 10 MTPA ultimate potential)	**Production:**	111 TJ/day (40.5 PJ/year)

Major Fields	Ownership	State	Basin	Production (TJ/day)
Fairview	GLNG* 76.07% APLNG 23.93%	Qld	Bowen	76
Scotia	GLNG* 100%	Qld	Bowen	21
Arcadia	GLNG* 100%	Qld	Bowen	
Roma Shelf	GLNG* 100%	Qld	Surat	

QCLNG (QUEENSLAND CURTIS LNG PROJECT)

Ownership:	BG Group 50% Train 1 and 97.5% Train 2 / CNOOC 50% Train 1 / Tokyo Gas 2.5% Train 2	**Site:**	North China Bay, Curtis Island
Operatorship:	QGC (100%-owned subsidiary of BG Group)	**Customers:**	CNOOC 3.6 MTPA from Train 1 for 20 years, Tokyo Gas 1.2 MTPA from Train 2 for 20 years, Chubu Electric up to 20 cargoes over 20 years, BG portfolio supply: up to 1.7 MTPA to Quintero LNG in Chile to 2030, up to 3.0 MTPA to Singapore for 20 years
Status:	Train 1 at plateau (first LNG Dec 2014) Train 2 ramping-up (first LNG July 2015)	**Reserves:**	1P: 3,096 PJ 2P: 10,326 PJ 3P: 18,876 PJ 2C: 13,700 PJ
Size:	2 x 4.25 MTPA LNG trains (three-train 12.75 MTPA ultimate potential)	**Production:**	580 TJ/day (212 PJ/year)

Major Fields	Ownership	State	Basin	Production (TJ/day)
QGC Central Walloons	BG* 59.4%-100%	Qld	Surat	204
Berwyndale South	BG* 100%	Qld	Surat	67
Kenya-Argyle	BG* 59.4% APLNG 40.6%	Qld	Surat	580
Woleebee Creek	BG* 80% Toyota 15% CNOOC 4% Tokyo Gas 1%	Qld	Surat	
Lacerta	BG* 100%	Qld	Surat	
Bellevue	BG* 70.6% APLNG 30.4%	Qld	Surat	39
Paradise Downs	BG* 100%	Qld	Surat	
Lawton	BG* 100%	Qld	Surat	