Senex

Senex Energy Limited

# Delivering a valuable onshore oil and gas business in Australia

## Investor presentation

March 2014

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**Reserve and resource estimates**

Unless otherwise indicated, the statements contained in this presentation about Senex's reserve and resource estimates have been compiled in accordance with the definitions and guidelines in the 2007 SPE PRMS. The information is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, Mr James Crowley BSc (Hons) who has consented to the inclusion of this information in the form and context in which it appears in this report. Mr Crowley is a qualified petroleum reserves and resources evaluator, a member of Society of Petroleum Engineers and full time employee of Senex.

# Overview

**Introducing Senex**

A sustainable oil business

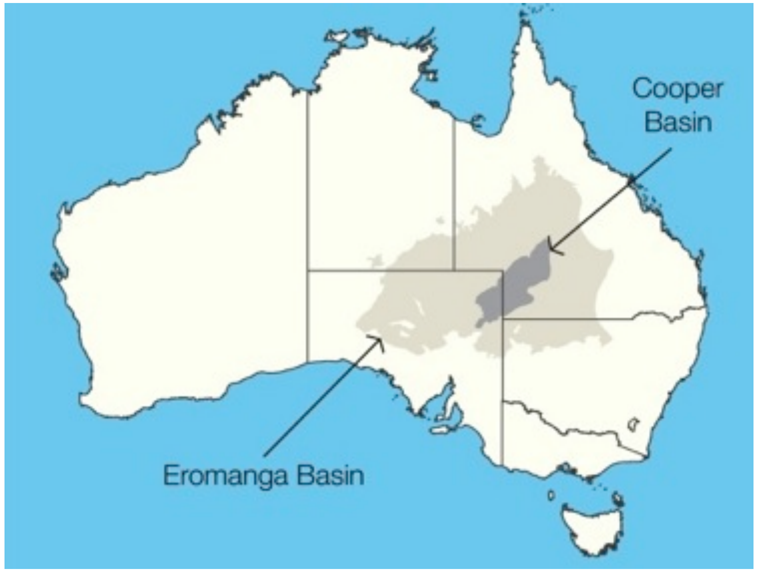
Perfectly positioned gas resource

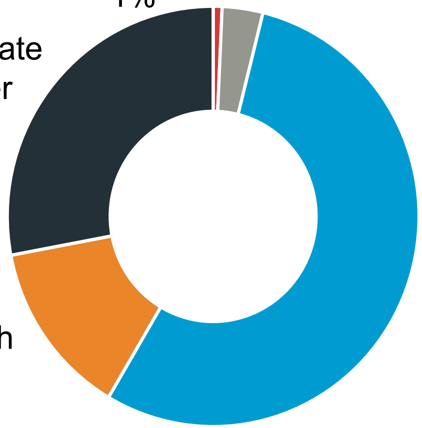
Value-adding gas transactions

Outlook

# An Australian S&P/ASX 200 energy company

- Onshore conventional and unconventional oil and gas
- High growth, profitable, no debt and strong cash position
- Dynamic, highly credentialed technical and commercial leaders

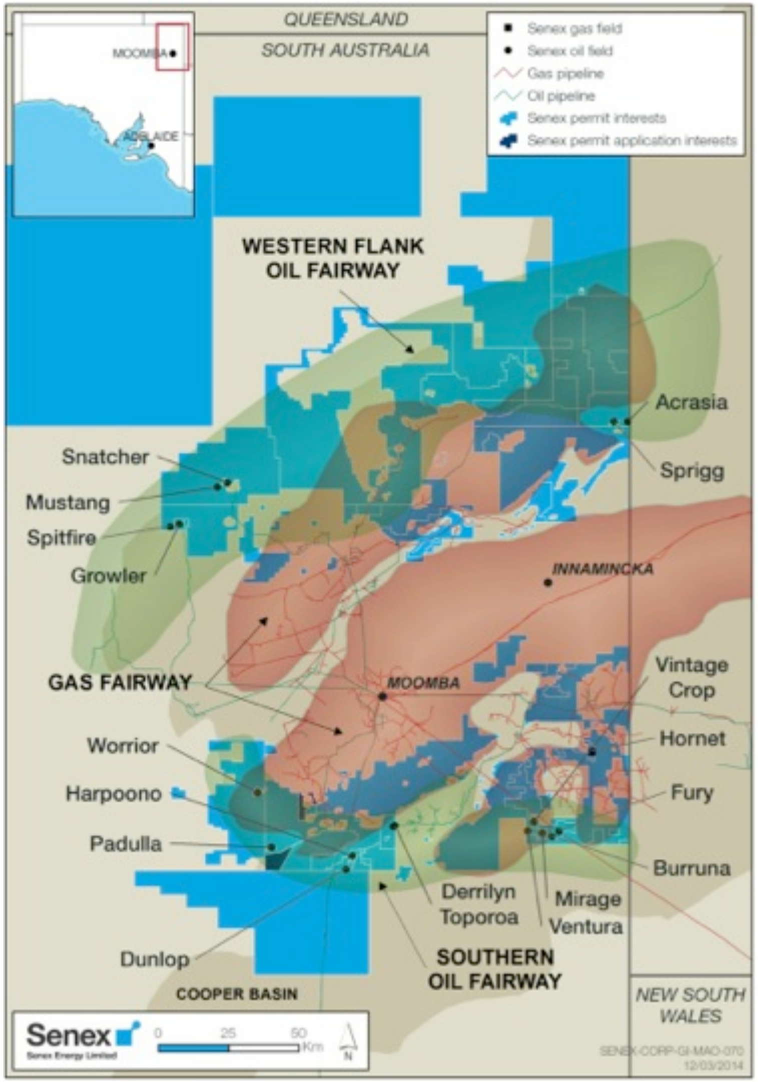



| Key metrics | |
|---|---|
| ASX Code | SXY |
| Shares on issue | 1,145 million |
| Current share price | ~A$0.79 |
| Market capitalisation | ~A$900 million |
| Cash position [1] | A$102.5 million (no debt) |

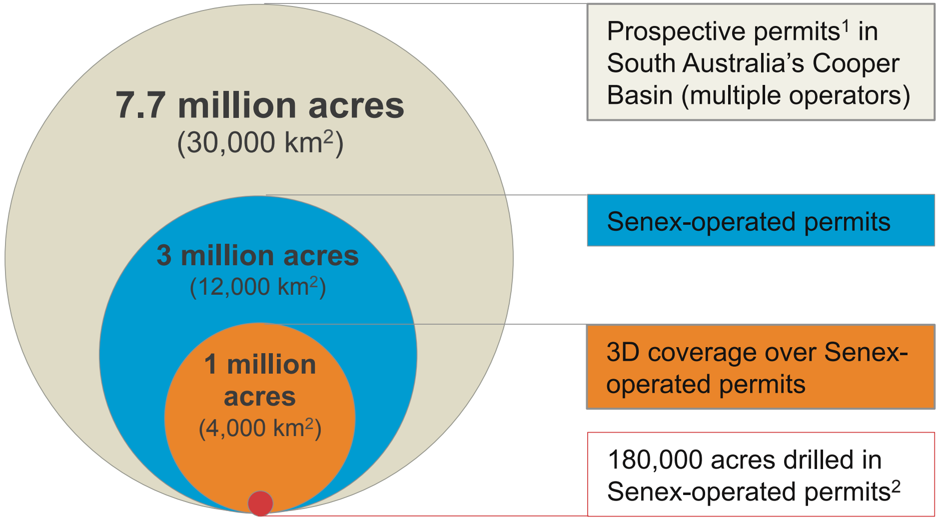
[1] At 31 December 2013

# Senex is a major player in the Cooper Basin




**Senex operates the largest acreage position in South Australia's Cooper Basin**

- Senex-operated permits cover ~40% of prospective acreage in the Basin
- Located within proven oil and gas fairways
- Hosts a variety of oil and gas play types

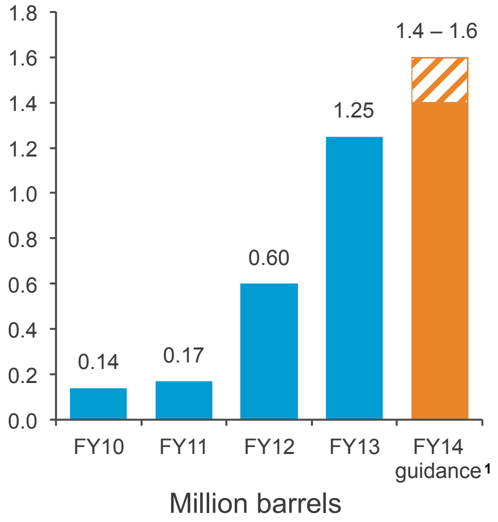



[1] Source: DMITRE [2] Calculated at 80 acre spacing

# Reaping the rewards of balanced investment

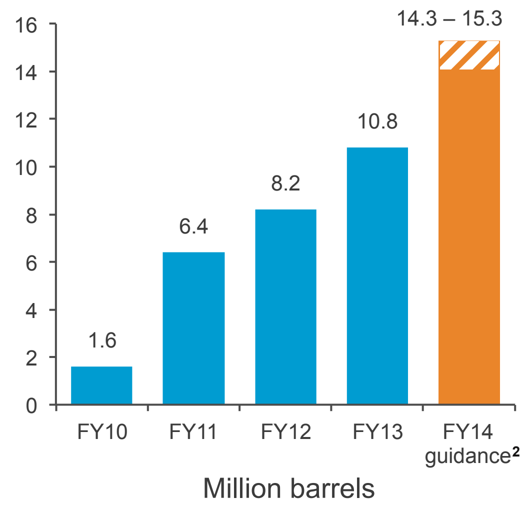
### Oil production

**FY10 – H1 FY14**



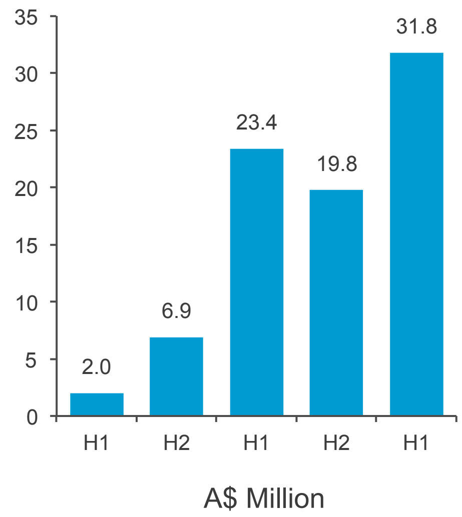

### 2P oil reserves

**FY10 – FY14**




### Underlying profit

**H1 FY12 – H1 FY14**




*Increasing productivity* | *Increasing reserves* | *Driving profitability*

- On track to deliver oil production and 2P reserves additions guidance for FY14[3]
- Operating cost of A$29 per barrel, cash of A$102 million, no debt[4]

[1] Mid-point of guidance of 1.4 mmbbls to 1.6 mmbbls

[2] Mid-point of 4 mmbbls to 6 mmbbls guidance for 2P reserves additions less production to mid-point of guidance (1.5 mmbbls)

[3] FY14 refers to the Financial year ended 30 June 2014

[4] Operating costs excludes royalties; financial position as at 31 December 2013



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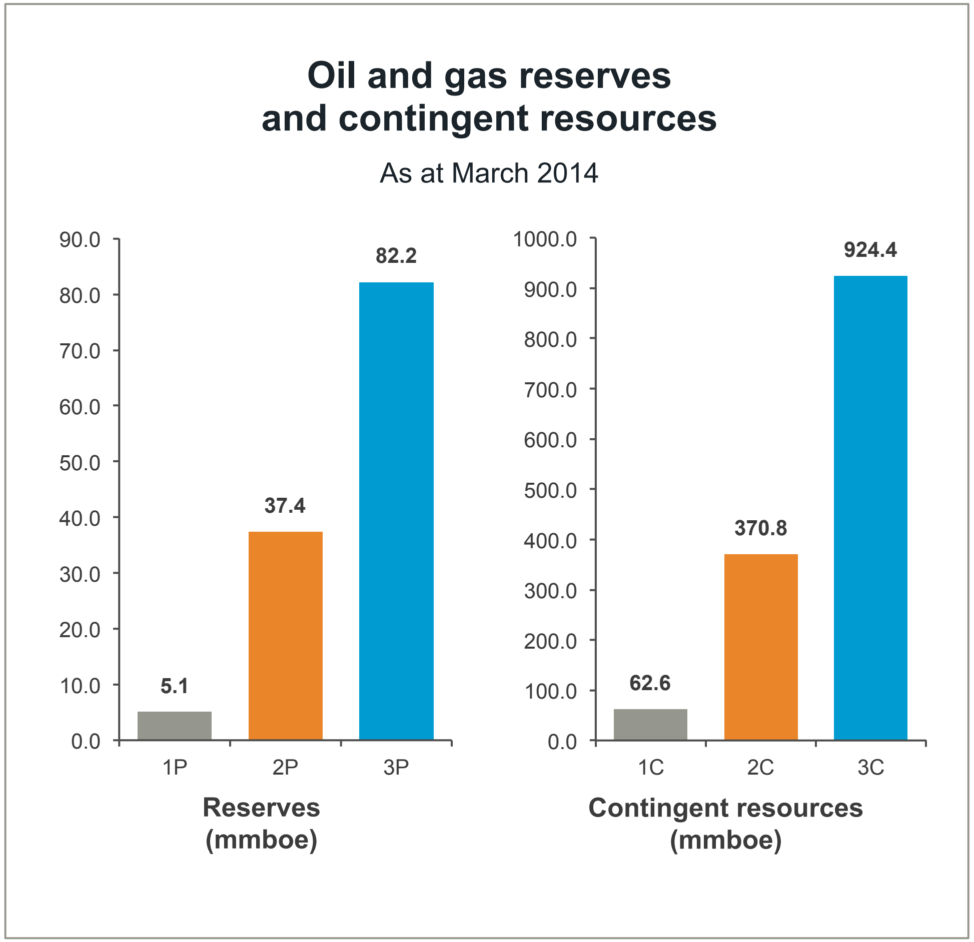
# A strong reserves position




- 2P oil reserves additions of between 4 million and 6 million barrels to be delivered for FY14
- Represents a 2P oil Reserves Replacement Ratio of more than 300%
- Analysis of 1 million acres (4,000 km$^2$) of 3D seismic to deliver next generation of drilling targets

**Record drilling success**
90% of wells drilled in FY14 to date cased and suspended for future testing and production



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# Focused on delivery

## Oil: Growing value through increasing production, reserves and margin

| | |
|---|---|
| **Operations** | ▪ Record production in December 2013 quarter<br>▪ Continually reducing operating costs |
| **Exploration and appraisal** | ▪ Focused on 'low hanging fruit' ahead of drill-ready seismic<br>▪ New oil discoveries to contribute significantly to full year production<br>▪ Drilling on new 3D seismic expected within 6 months |
| **Development** | ▪ In field appraisal and development, using enhanced production techniques to maximise oil recovery |

## Gas: Building a material business by partnering for success

| | |
|---|---|
| **Unconventional** | ▪ Targeting a material unconventional gas resource<br>▪ Strong partner secured in Origin Energy in February 2014<br>▪ Deal terms geared toward early commercialisation |
| **Conventional** | ▪ Hornet gas field discovered in 2013, retained 100% by Senex<br>▪ Planning for extended flow testing ahead of commercialisation<br>▪ Gas sales agreement with SACB JV to monetise appraisal gas |
| **Coal seam gas** | ▪ Strategically-located gas resource in LNG feedstock corridor<br>▪ Successful appraisal has delivered 2P reserves of 26.6 mmboe |

# Australia's premier onshore oil province

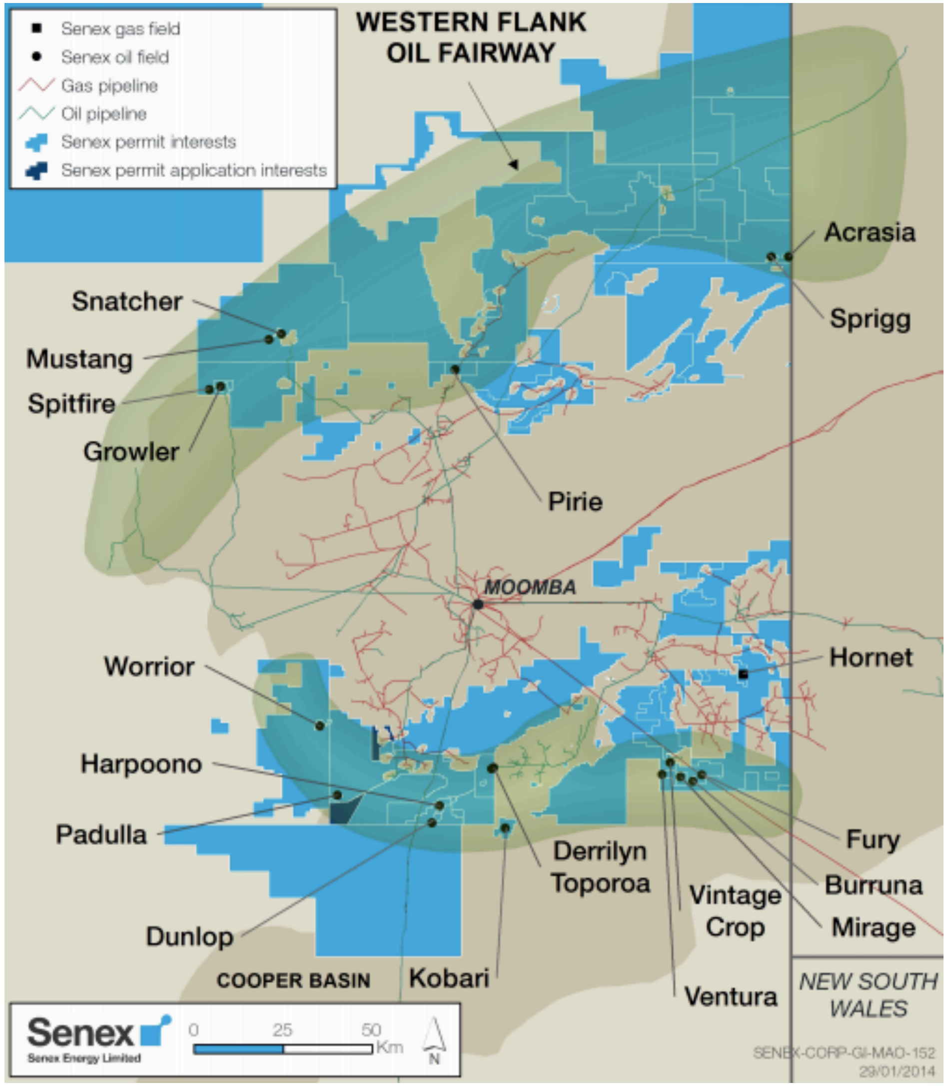
| South Australian Cooper Basin is extremely underdeveloped by international standards | |
|---|---|
| Oil generated from Permian Source Rocks[1]: | 2 trillion barrels |
| STOOIP Cooper Basin fields[2]: | ~640 million barrels |
| Expected ultimate recovery, Cooper Basin fields[2]: | ~200 million barrels |
| Approx. % discoveries drilled as structural traps[2]: | 95% |
| Approx. % discoveries drilled as stratigraphic traps[2]: | 5% |
| Estimated ratio structural/ stratigraphic traps[2]: | 60:40 |



[1] Basin-wide assessment by South Australian Government (DMITRE) [2] Senex estimate of entire SA Cooper Basin

# A diverse and growing oil portfolio

- Three main regions:
  - **Western flank:** Prolific fields including Growler, Snatcher, Mustang and Spitfire oil fields
  - **Northern permits:** High growth potential at Acrasia oil field and other new exploration targets
  - **Southern fields:** Rejuvenation of mature fields such as Worrior
- Drilling in FY14 to date has delivered 5 new accumulations



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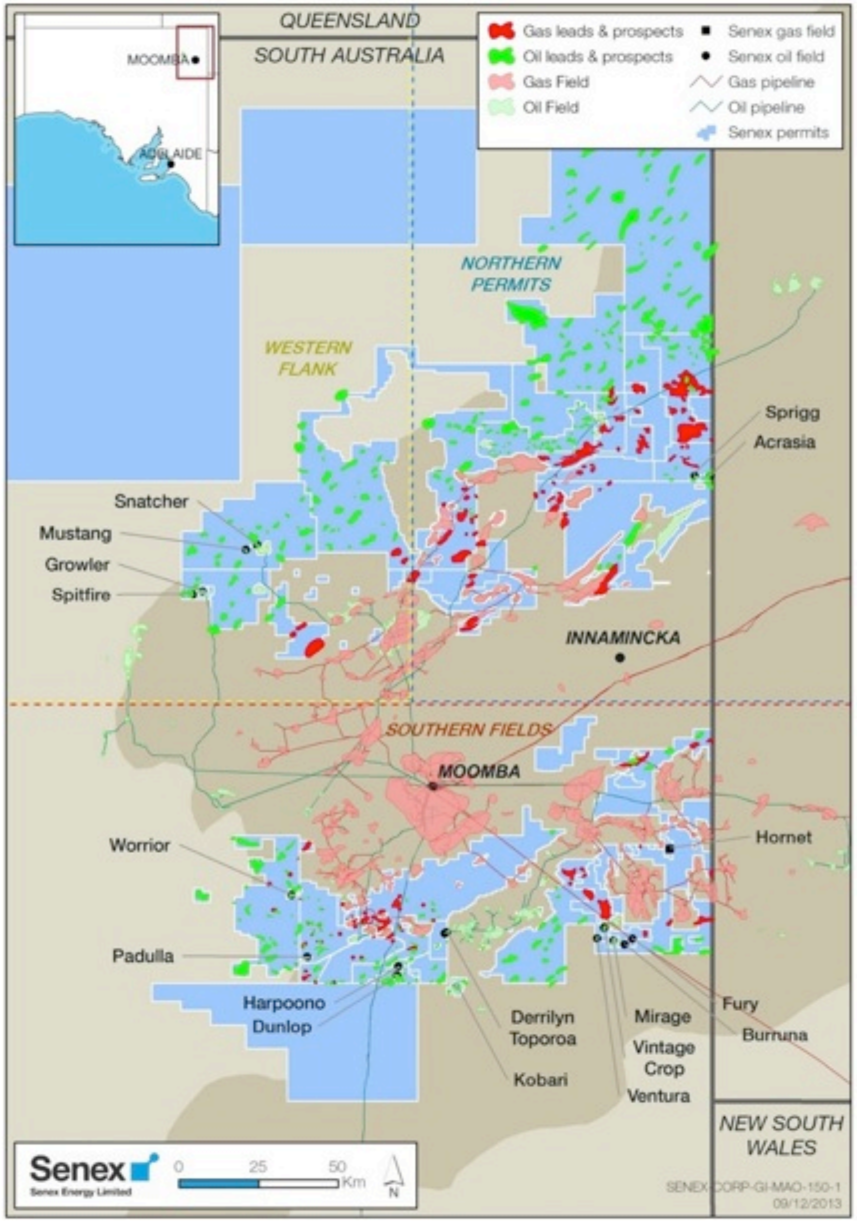


# More than 450 leads and prospects generated in Senex operated permits

- Year-long program of work analysing regional mapping, 2D and 3D seismic data
- Portfolio contains multiple proven play types across western, northern and southern regions
- ~80% of leads and prospects are structural traps with the remainder stratigraphic traps
- ~80% of leads and prospects are oil with the remainder gas



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# Oil portfolio demonstrates significant depth

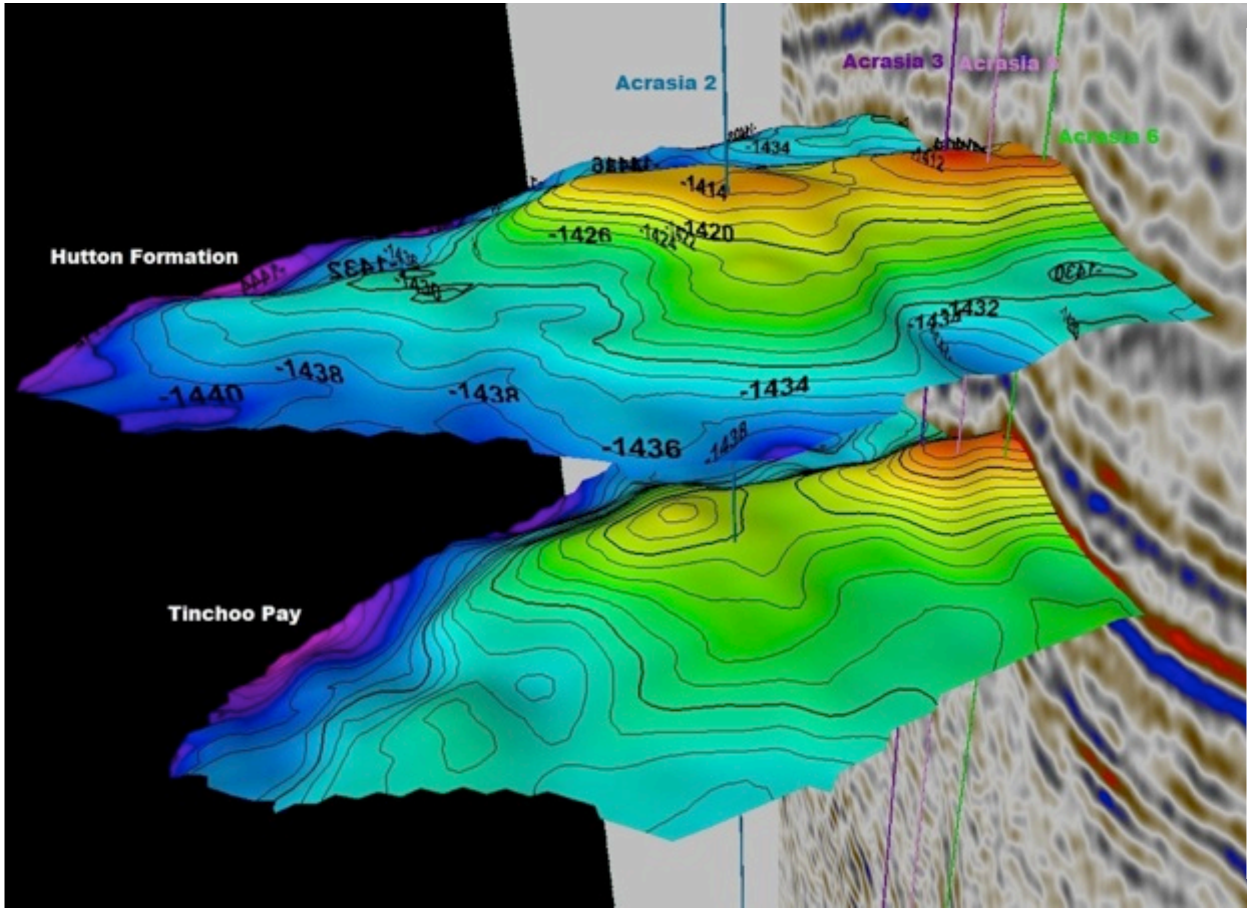


*Image depicting by-passed pay zones and under-produced reservoirs at Acrasia oil field*

**H1 exploration highlights:**

- Namur and Birkhead oil discoveries at Burruna
- Patchawarra oil discovery at Worrior

**H1 appraisal and development highlights:**

- Acrasia-6 and Acrasia-8 achieve record net pay in mature field
- Spitfire-4 confirmation of AVO/Inversion technology



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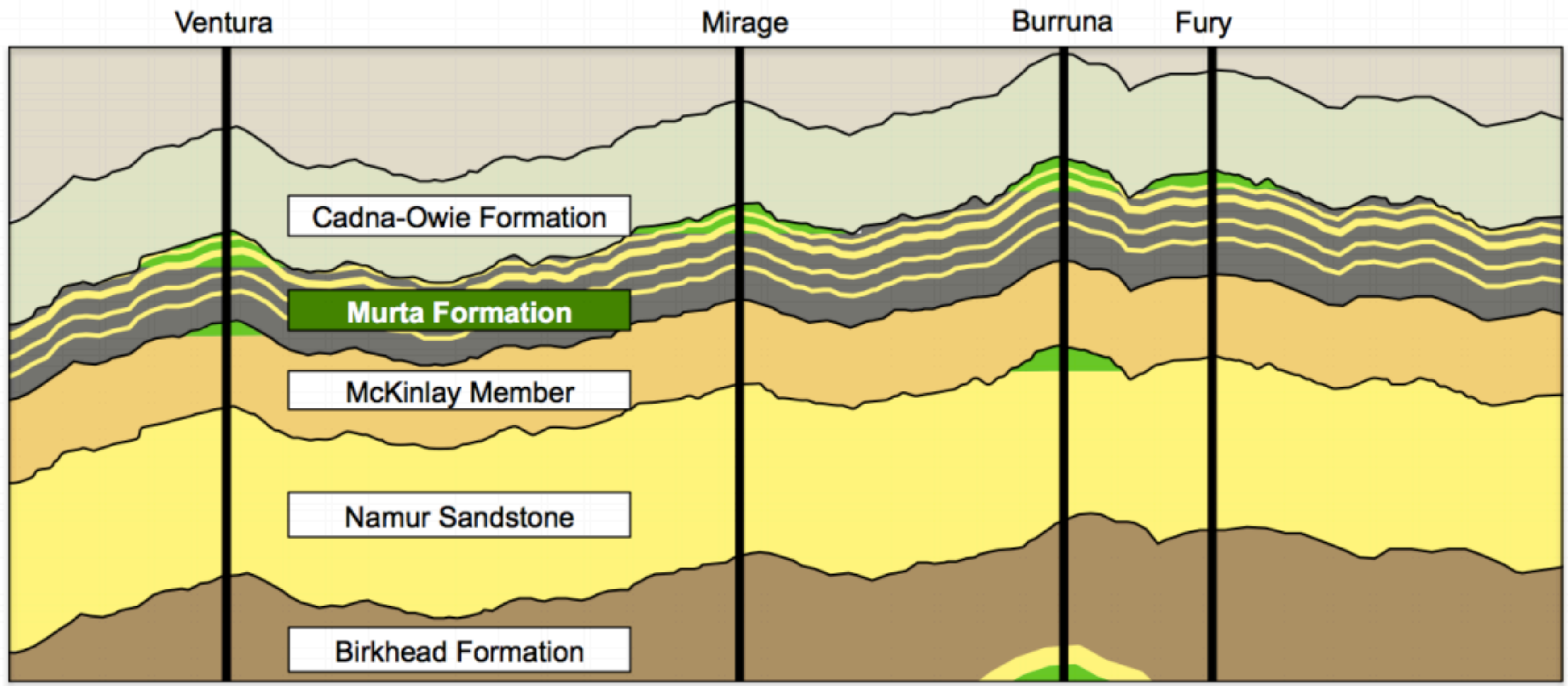
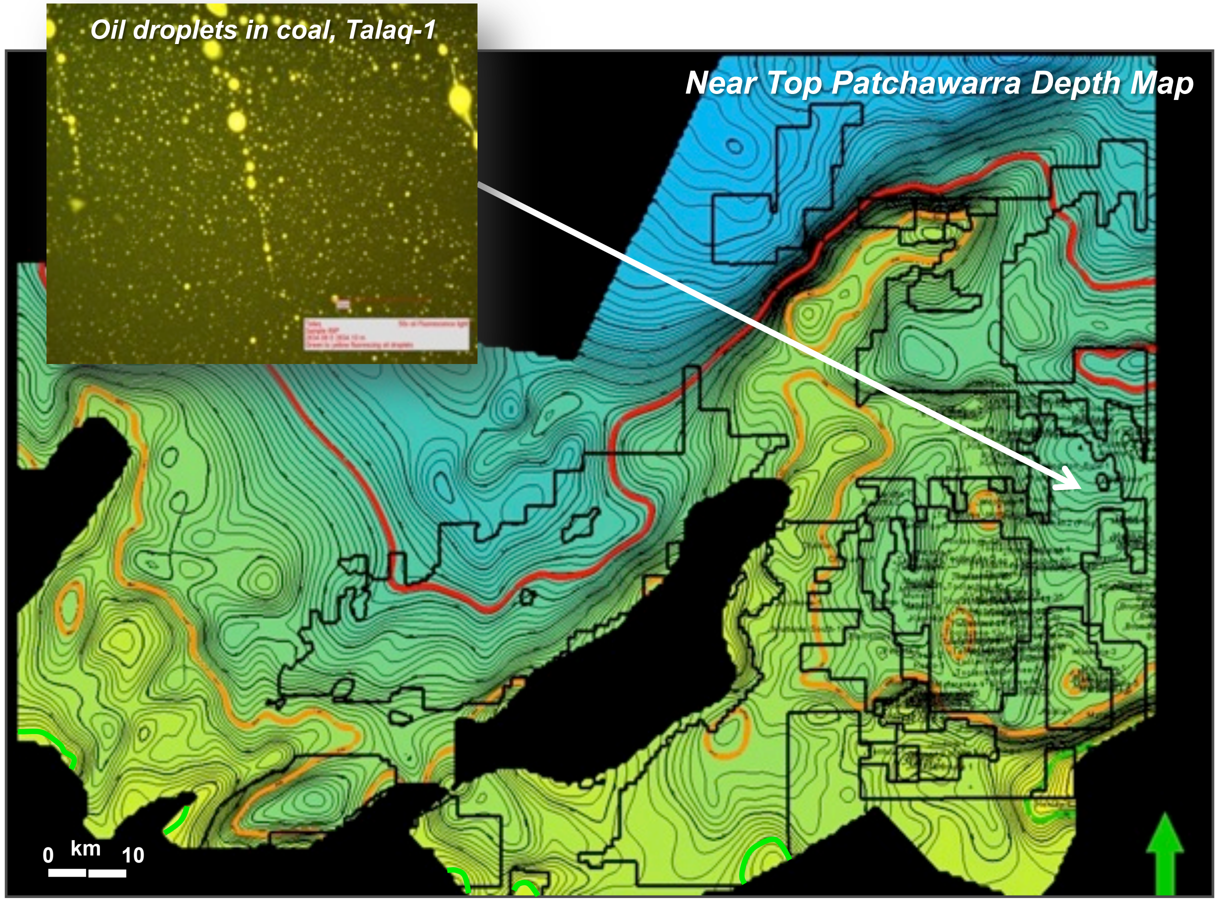
# Tight oil project initiated to unlock a regionally extensive resource

- Net contingent oil resource of 10.4 million barrels 3C and 4.9 million barrels 2C across the Murta Formation in Senex-operated permits
- Low cost, high productivity completion key to reserve bookings and development




*Murta Formation stratigraphy in the southern Cooper-Eromanga Basin*

# Tight oil upside in Patchawarra and Murta




*LEGEND*

top oil maturity — top wet-gas maturity — top dry gas maturity

**Patchawarra tight-oil**

- Tenappera Trough, Mettika Embayment and northern Patchawarra Trough are mature for oil and gas-condensate
- Oil discovered within coal at Talaq-1
- Feasibility being investigated

**Murta tight-oil**

- Contingent resource booked across southern permits
- Indications along GMI Ridge



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Introducing Senex

A sustainable oil business

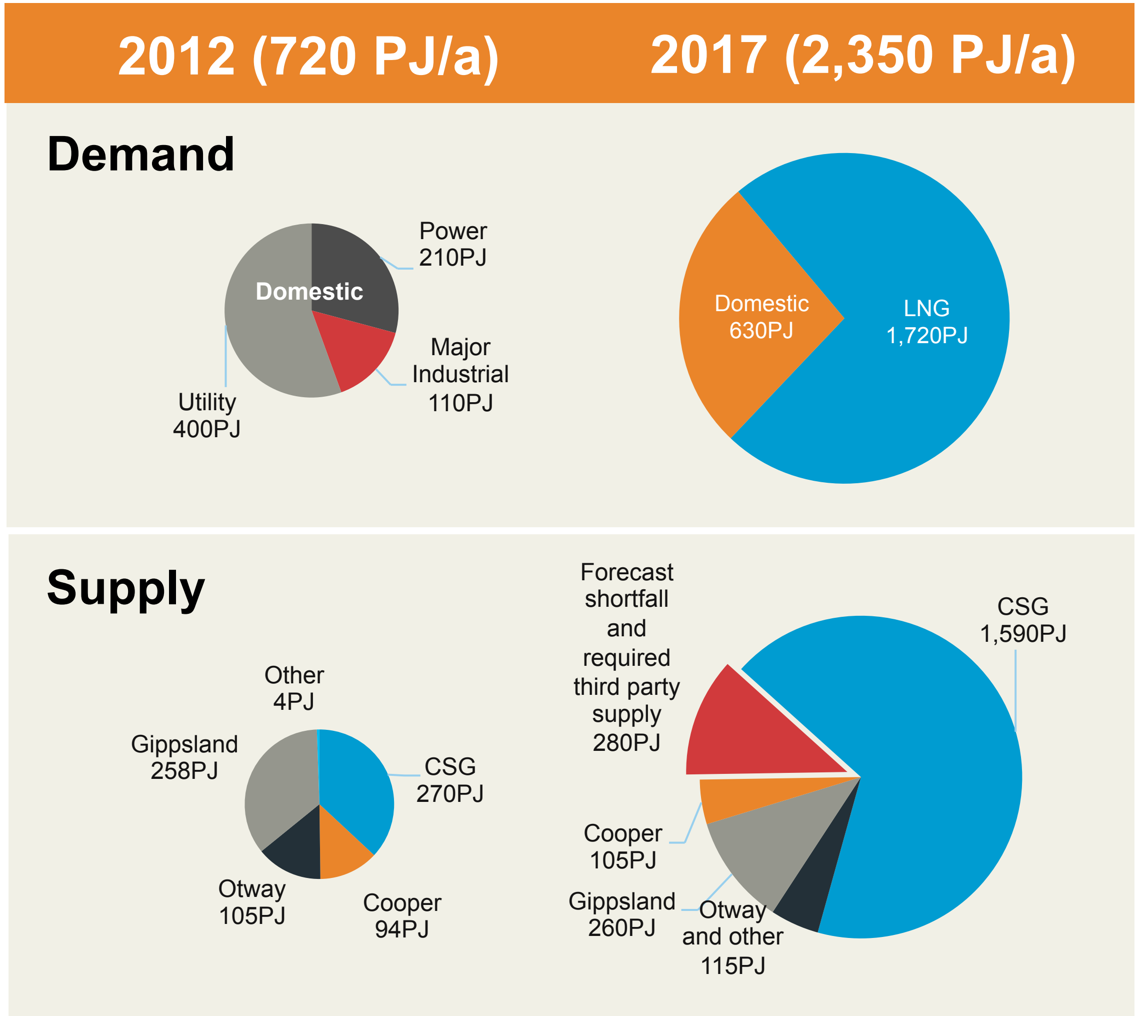
**Perfectly positioned gas resource**

Value-adding gas transactions

Outlook

# Once-in-a-generation opportunity for new gas supply

- LNG gas demand dwarfs domestic requirement
- 2017 price forecast: A$8-11 per gigajoule
- Coal seam gas production must grow by more than five times in five years
- Cooper Basin to help meet shortfall




Source: EnergyQuest Note: 1 PJ = 1.05 Bcf



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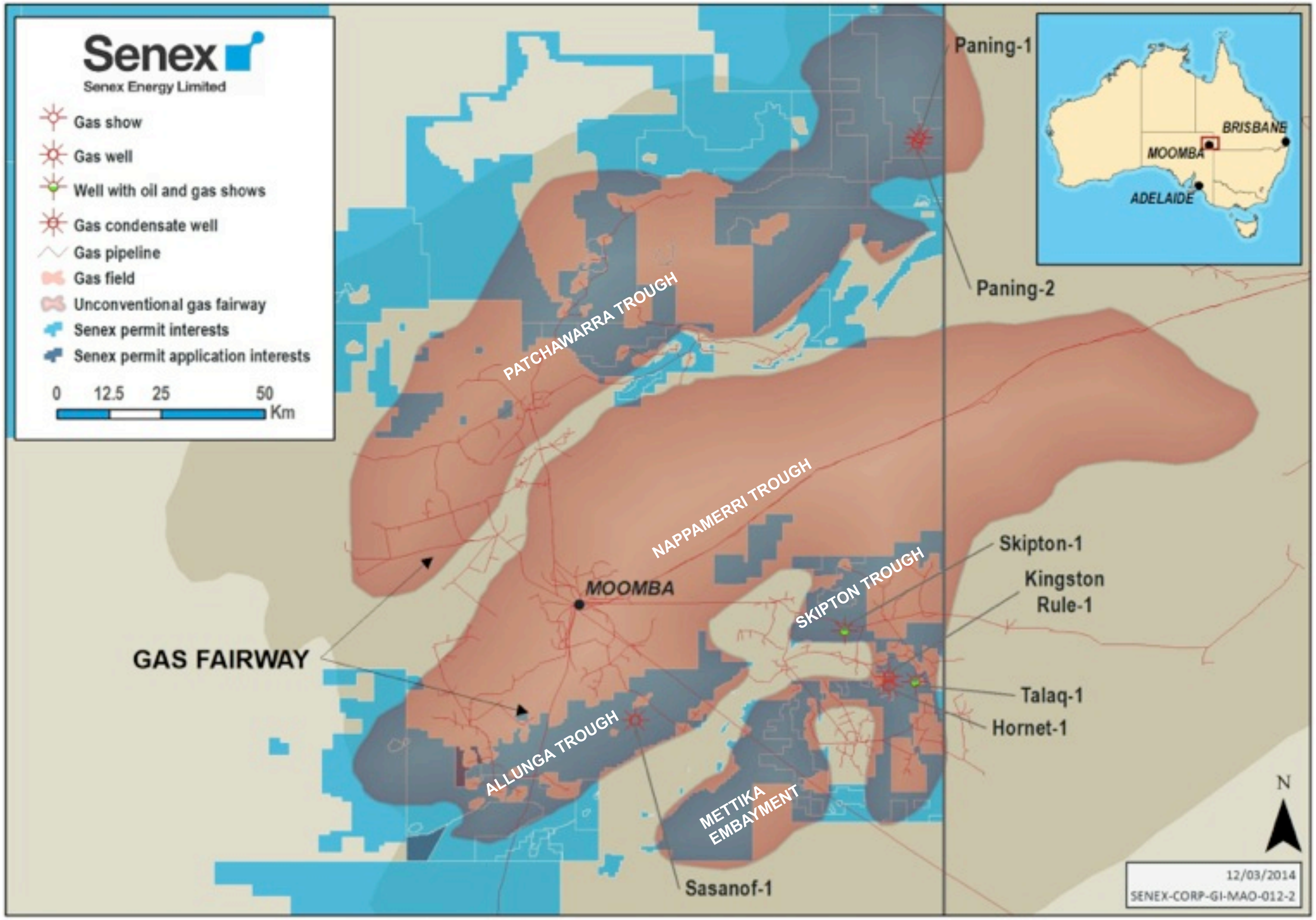
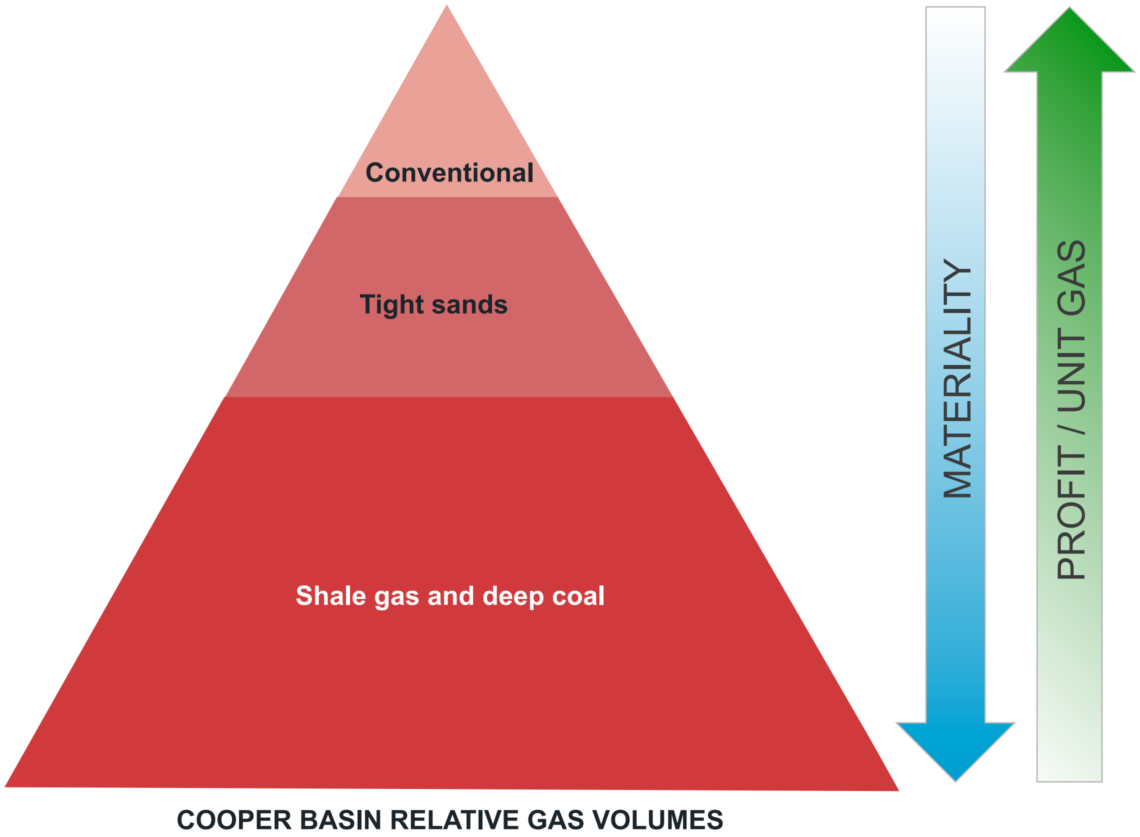
# Cooper Basin is the solution for new gas supply

**Four key gas plays:** conventional, tight sands, shale-gas and deep coal



# Differentiating Cooper Basin gas plays




**Conventional**
- High flow rates
- Moderate to high condensate
- 10-100 Bcf per field

**Tight sands**
- Moderate flow rates
- Low to moderate condensate
- 10's to 1,000's Bcf per field

**Shale gas and deep coal**
- Low to moderate flow rates
- Dry gas
- Multiple Tcf per field



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# Numerous conventional gas targets identified

## PEL-182

- Vanessa gas field discovered in 2007
- Gas flows total 8.4 mmscfd, 20 bcpd (est.)
- Toolachee and Epsilon structure with stratigraphic upside
- Additional targets identified on 2D seismic. Planning to acquire 3D seismic prior to drilling

## PEL-90M / PEL-102

- Toolachee and Epsilon structural and stratigraphic traps

## PEL-93 / PEL-113

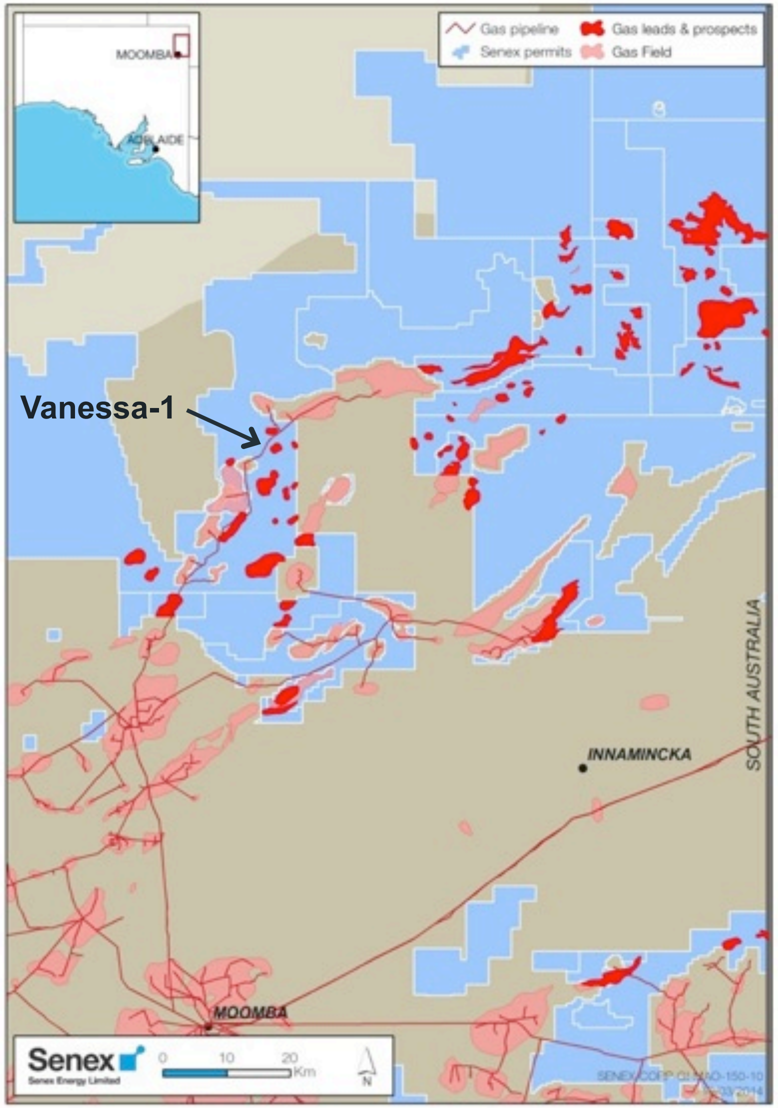
- “Worrior-style” Patchawarra flank plays

## PEL-516 (south)

- Mettika Embayment, Toolachee 4-way dip closures
- Tenappera Trough Patchawarra 4-way dip closures

## PEL-115

- Hornet – Kingston Rule
- Wilpinnie Patchawarra



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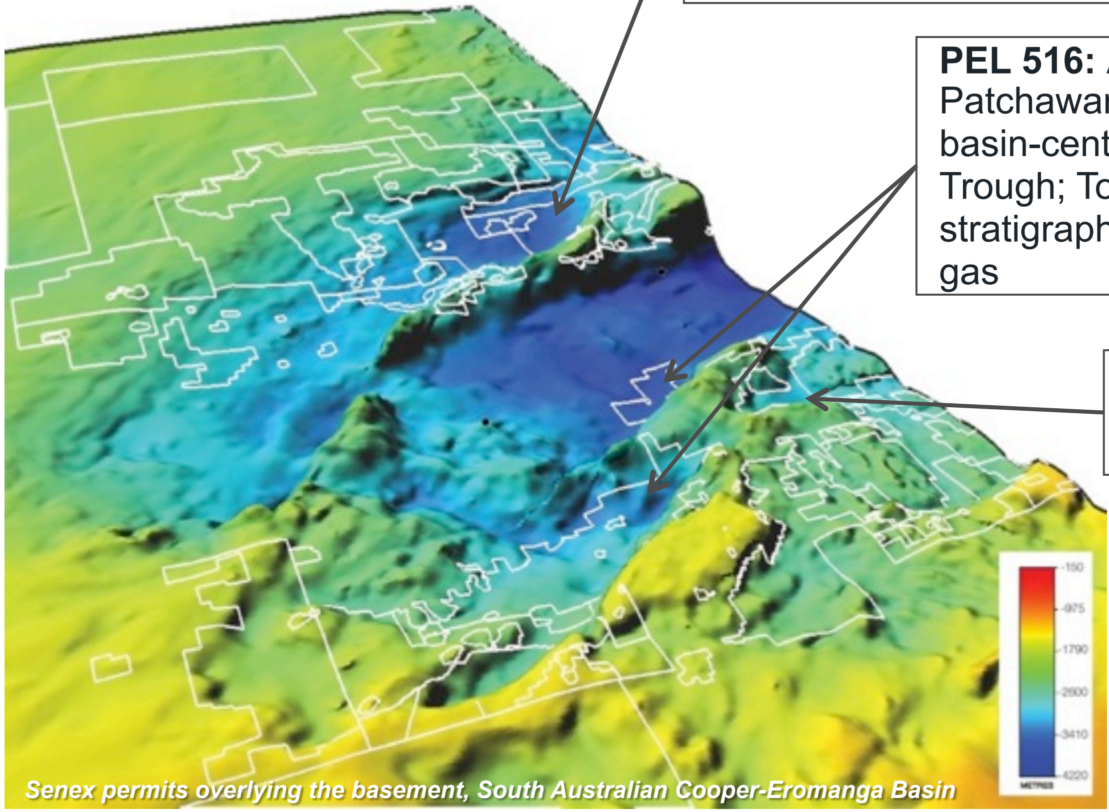
# Tight sand plays

**PEL 514:** Patchawarra Trough; Toolachee and Epsilon stratigraphic traps. Patchawarra stratigraphic traps and basin-centred gas

**PEL 516:** Allunga Trough; Patchawarra stratigraphic traps and basin-centred gas, Nappamerri Trough; Toolachee and Patchawarra stratigraphic traps and basin-centred gas

**PEL 115:** Skipton Trough; Patchawarra stratigraphic traps




*Senex permits overlying the basement, South Australian Cooper-Eromanga Basin*



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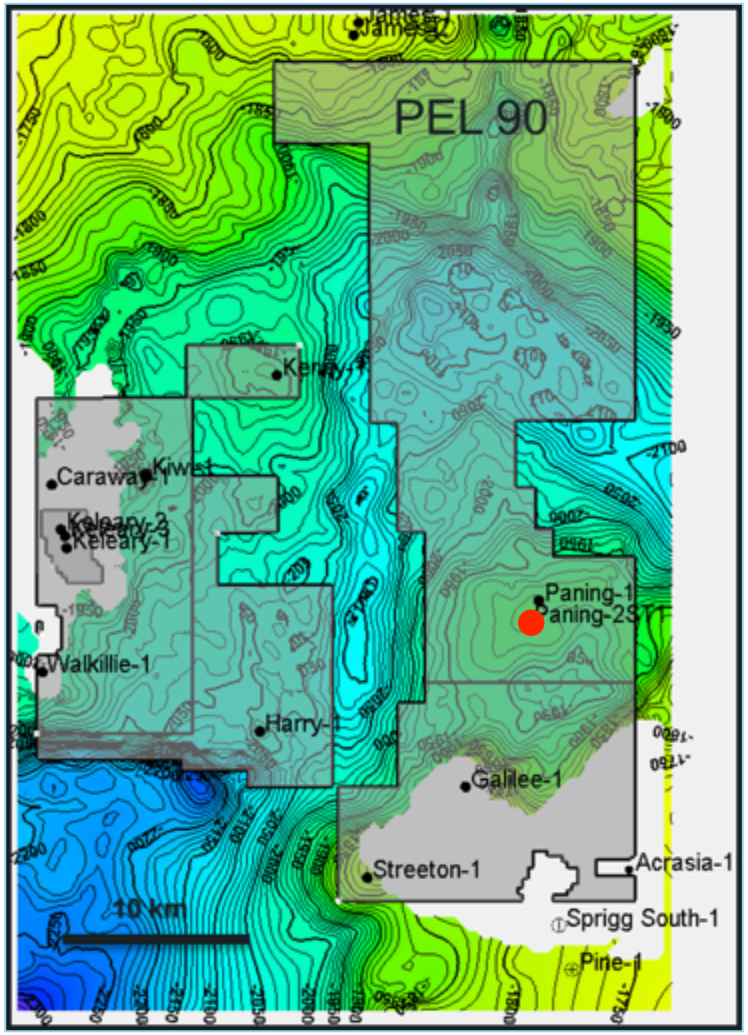
# Unconventional gas and deep coal




**Top Toolachee massive coal, Paning-2**

## PEL 90

- Paning-2 flow-tested a 26 m thick coal seam at 90 mcfd
- Core desorbtion indicates >30 $m^3$ / ton gas (dry ash-free)

## PEL 514

- Over-pressured Patchawarra Formation with associated gas

## PEL 516

- Gas flow from Murteree Shale and Patchawarra Formation in Sasanof-1
- Basin Centred Gas play with continuous gas column and overpressure in Nappamerri Trough



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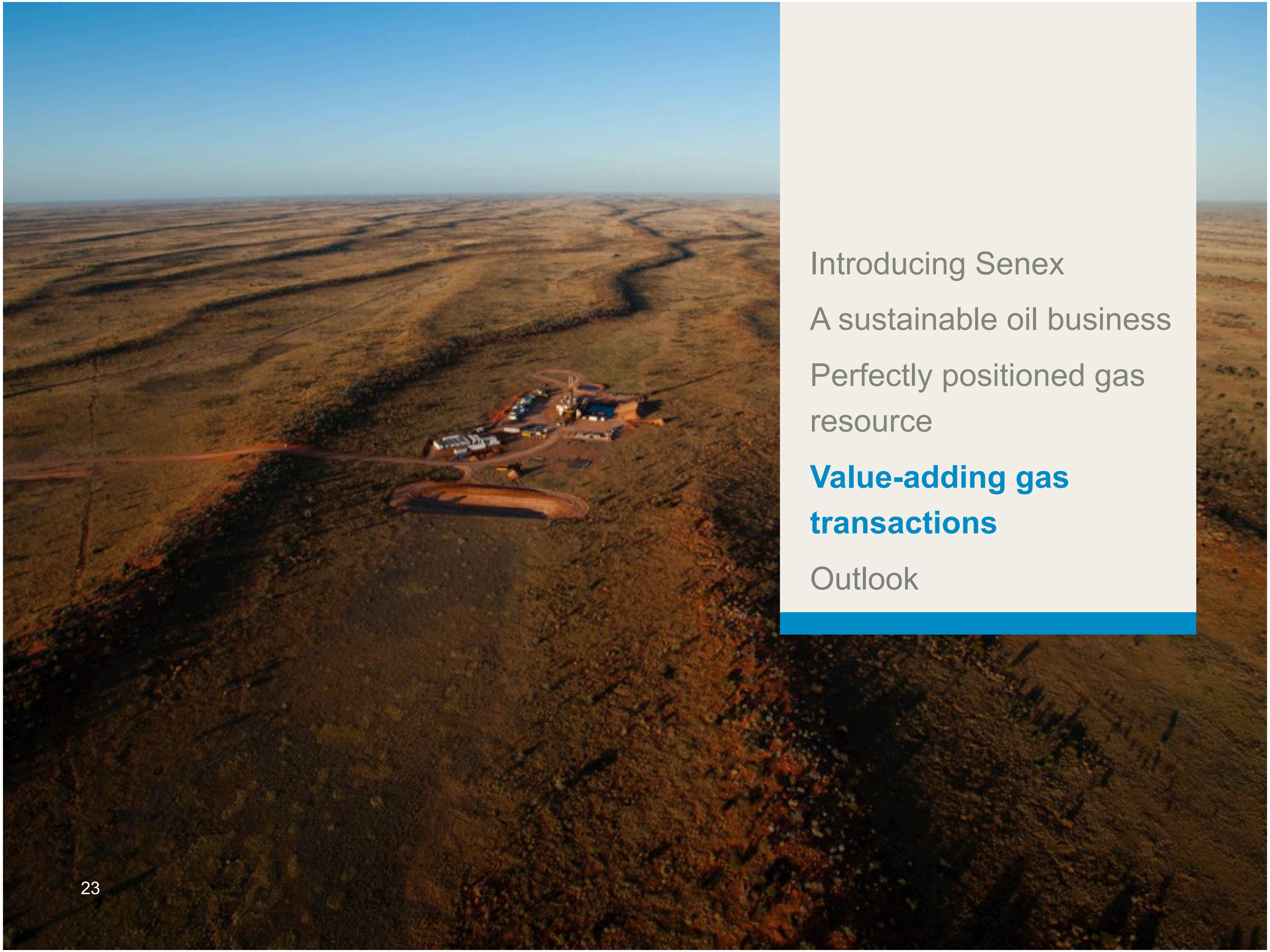


Introducing Senex

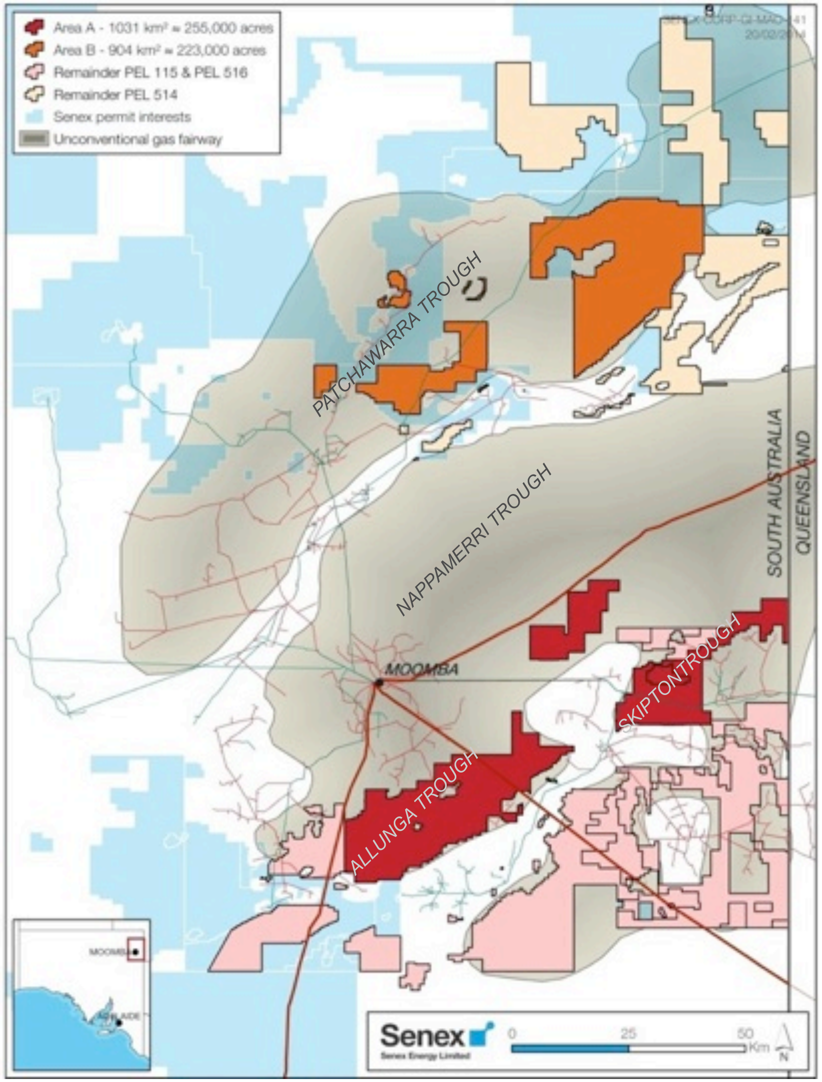
A sustainable oil business

Perfectly positioned gas resource

**Value-adding gas transactions**

Outlook

# Senex and Origin Energy gas farm-out




- Two farm-out agreements:
  - **Area A:** 36% of area of PEL 516 and PEL 115 (Senex 100%)
  - **Area B:** 47% of area of PEL 514 (Deeps) (Senex 80% and operator)
- Up to $252 million work program over 2 stages, drilling at least 15 wells and substantial seismic campaign
- Senex free-carried for its share of the first $185 million of work program
- Senex retains operatorship during the two-stage work program
- Senex retains interests in the oil-prone Shallows of Area B
- Excludes Hornet gas field



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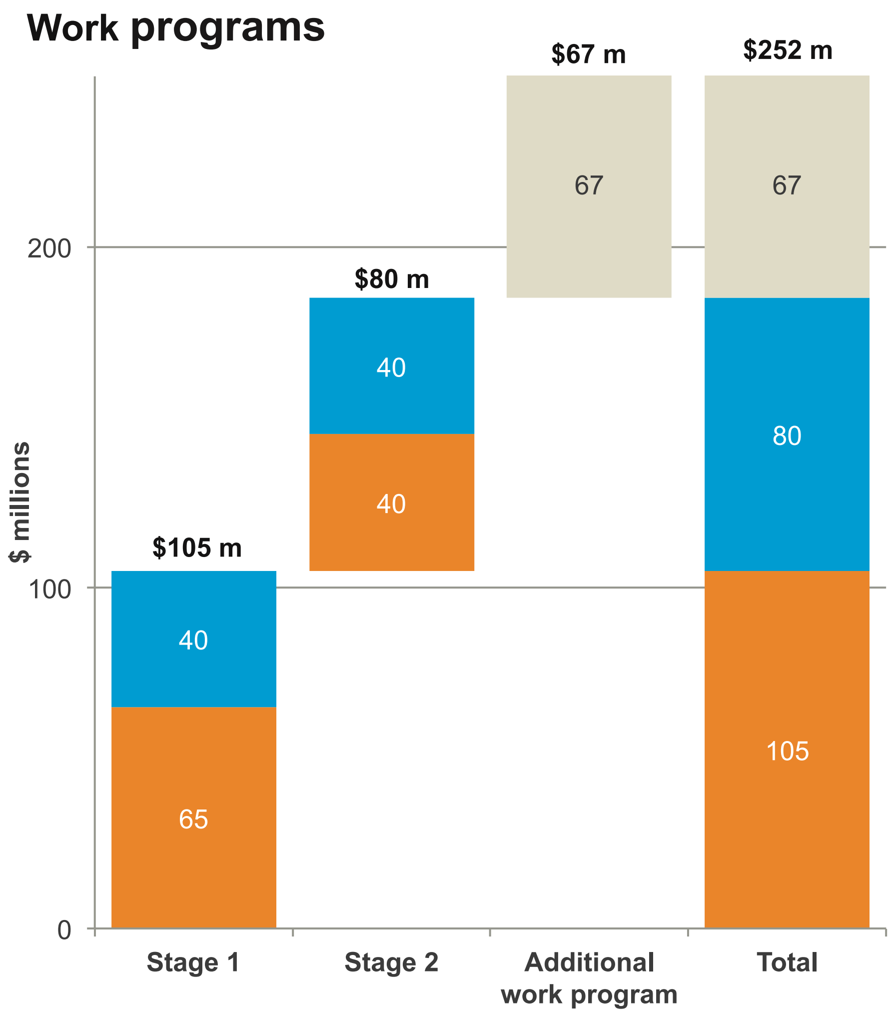
# Mechanics of the transaction




**Senex free-carried for its interest in the first two stages**

- Origin to earn a maximum interest of 50% in Area A and 40% in Area B:

  **Area A**
  Stage 1: $65 million to earn 40%
  Stage 2: $40 million to earn 10%

  **Area B (Deeps only)**
  Stage 1: $32 million to earn 30%[2]
  Stage 2: $32 million to earn 10%[2]

- Additional Area B work program (Stage 1 and 2): Up to $67 million[3]
- Total work program up to $252 million

[1] Change of operator at Origin's election [2] Planet Gas holds a 20% interest in Area B [3] Subject to operating committee approval

# Transaction highlights

- ✓ Origin has strong east coast gas market position and extensive Cooper Basin understanding as a member of the SACB JV
- ✓ Senex retains exposure to upside through material equity position post farm-out
- ✓ Farm-in restricted to portions of PELs
- ✓ Oil potential of Area B Shallows retained in full
- ✓ Separate equity lifting and marketing rights retained, preserving maximum optionality for commercialisation
- ✓ Detailed timetable agreed for decision-making and Stage progression
- ✓ Clear mechanisms agreed for development decisions

# Focused on early commercialisation

*Exploration* → *Early Appraisal* → *Pilot Program* → *Early Production* → *Production*

| Stage 1: Understanding the resource | Stage 2: Building reserves and proving commerciality | Development |
|---|---|---|
| **Operator: Senex** | **Operator: Senex** | **Operator: Origin[1]** |
| **Work program:** Up to $105 million plus additional Area B work program | **Work program:** Up to $80 million plus additional Area B work program | Full field development |
| **Area A:** 300 line kilometre 2D seismic survey and 4 exploration wells | **Area A:** Flow testing of a 5 well pilot (4 new appraisal wells) | |
| **Area B:** 250 km$^2$ new 3D seismic and 3 exploration wells | **Area B:** Flow testing of a 5 well pilot (4 new appraisal wells) | |

[1] Change of operator at Origin's election



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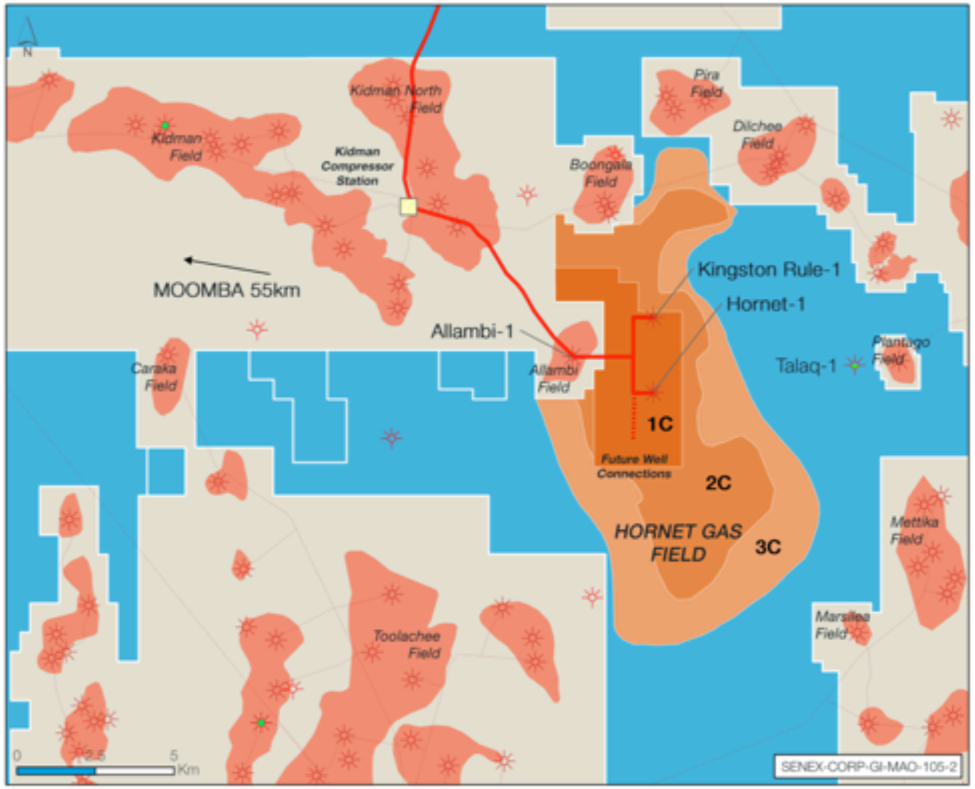
# Hornet Gas Sales Agreement with SACB JV





- Gas pipeline
- Gas field
- Contingent 1C Resource Area
- Contingent 2C Resource Area
- Contingent 3C Resource Area
- Other Senex permit interests

Note: Flow lines between Hornet gas field appraisal wells and the Allambi connection point are indicative only and are yet to be constructed.

- GSA reached with SACB JV for the off-take of raw gas over a two-year period, commencing early in FY15
- Raw gas will comprise natural gas, condensate and LPG
- Under the agreement Senex may supply a Maximum Daily Quantity of raw gas of 10 mmscfd
- Pricing for condensate and LPG will be linked to international product pricing, less specific transport and processing charges



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**Outlook**

# Delivering the strategy in FY14

**Continuous growth in our oil and gas business**

| | |
|---|---|
| **Underlying financial strength** | ✔ Zero debt and fully funded: $102.5 million in cash as at 31 December 2013 |
| | ✔ On track to deliver capital expenditure guidance of $120 million to $140 million for FY14 |
| **Production and reserves growth on track for FY14** | ✔ Oil production of 1.4 million to 1.6 million barrels |
| | ✔ 2P reserves growth of 4 million to 6 million barrels |
| | ✔ Continued reduction in operating costs |
| **Major milestones achieved in our Cooper Basin gas business** | ✔ Senex and Origin Energy agree gas farm-out involving up to $252 million work program |
| | ✔ Senex and SACB JV agree Hornet GSA |

# Strategic growth objectives

**Focused on growing shareholder value**

| | |
|---|---|
| **Accelerated growth** | ▪ Leverage our unrivalled acreage position in the South Australian Cooper Basin<br>▪ Deliver multi-million barrel oil production<br>▪ Infield and greenfield development |
| **Value accretion** | ▪ Multiple conventional gas fields<br>▪ Develop unconventional oil resources |
| **Step change** | ▪ Final investment decision and development of a material unconventional gas resource |
| **Running room** | ▪ Strategic asset growth that complements current portfolio and core skills in onshore hydrocarbon exploration and production |



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