



YPF

Vaca Muerta Update

March 17th, 2014.

Safe harbor statement under the US Private Securities Litigation Reform Act of 1995.

This document contains statements that YPF believes constitute forward-looking statements within the meaning of the US Private Securities Litigation Reform Act of 1995.

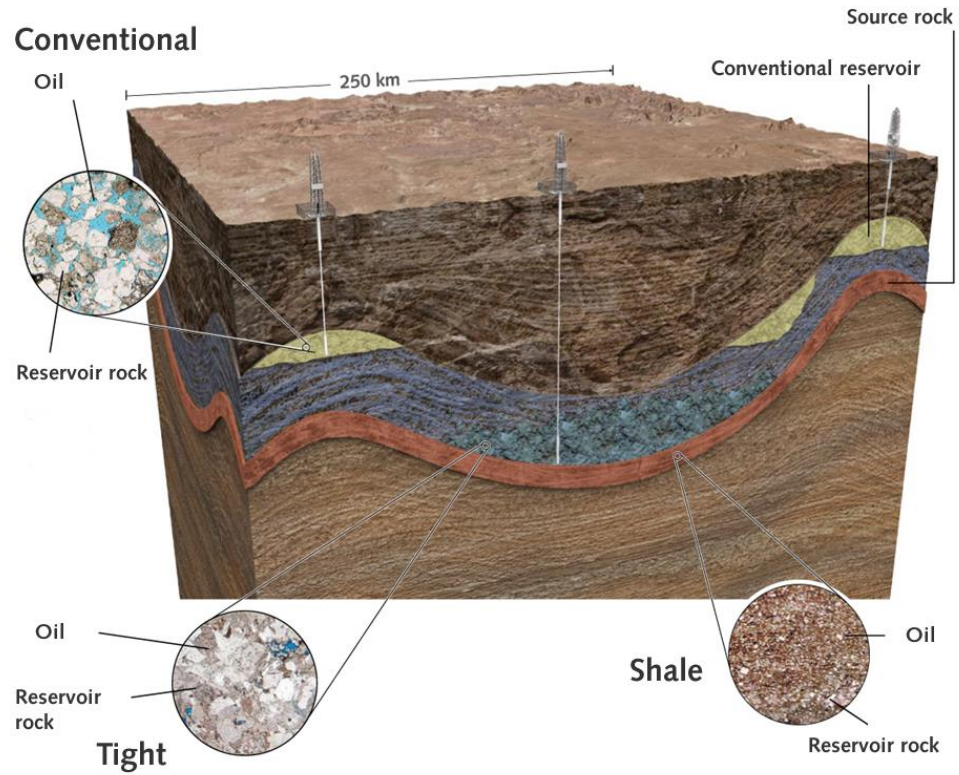
These forward-looking statements may include statements regarding the intent, belief, plans, current expectations or objectives of YPF and its management, including statements with respect to YPF's future financial condition, financial, operating, reserve replacement and other ratios, results of operations, business strategy, geographic concentration, business concentration, production and marketed volumes and reserves, as well as YPF's plans, expectations or objectives with respect to future capital expenditures, investments, expansion and other projects, exploration activities, ownership interests, divestments, cost savings and dividend payout policies. These forward-looking statements may also include assumptions regarding future economic and other conditions, such as future crude oil and other prices, refining and marketing margins and exchange rates. These statements are not guarantees of future performance, prices, margins, exchange rates or other events and are subject to material risks, uncertainties, changes and other factors which may be beyond YPF's control or may be difficult to predict.

YPF's actual future financial condition, financial, operating, reserve replacement and other ratios, results of operations, business strategy, geographic concentration, business concentration, production and marketed volumes, reserves, capital expenditures, investments, expansion and other projects, exploration activities, ownership interests, divestments, cost savings and dividend payout policies, as well as actual future economic and other conditions, such as future crude oil and other prices, refining margins and exchange rates, could differ materially from those expressed or implied in any such forward-looking statements. Important factors that could cause such differences include, but are not limited to, oil, gas and other price fluctuations, supply and demand levels, currency fluctuations, exploration, drilling and production results, changes in reserves estimates, success in partnering with third parties, loss of market share, industry competition, environmental risks, physical risks, the risks of doing business in developing countries, legislative, tax, legal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, wars and acts of terrorism, natural disasters, project delays or advancements and lack of approvals, as well as those factors described in the filings made by YPF and its affiliates with the Securities and Exchange Commission, in particular, those described in "Item 3. Key Information—Risk Factors" and "Item 5. Operating and Financial Review and Prospects" in YPF's Annual Report on Form 20-F for the fiscal year ended December 31, 2012 filed with the US Securities and Exchange Commission. In light of the foregoing, the forward-looking statements included in this document may not occur.

Except as required by law, YPF does not undertake to publicly update or revise these forward-looking statements even if experience or future changes make it clear that the projected performance, conditions or events expressed or implied therein will not be realized.

These materials do not constitute an offer for sale of YPF S.A. bonds, shares or ADRs in the United States or otherwise.

- 1 Unconventional Development: General Overview**
- 2 Increased Productivity: Sweet Spot Identification
- 3 Increased Productivity: Horizontal Well
- 4 Well Construction Cost Reduction
- 5 Principal Challenges for a large development





Tested & Producing	
Vaca Muerta (shale oil / gas)	
Area	30,000 km ²
Lajas (tight gas)	
Mulichinco (tight oil / gas)	
+	
D-129 (shale oil / tight oil)	

Other Opportunities
Noroeste - Cretaceous Yacoraite (shale / tight oil & gas)
Noroeste - Tarija Los Monos (shale gas)
Neuquina Los Molles (shale / tight gas) Agrido (shale oil)
Golfo San Jorge Neocomiano (shale oil / gas)
Chaco Paranaense Devonian – Permian (shale oil)
Cuyana Cacheuta (shale oil) Potrerillos (tight oil)
Austral Inoceramus

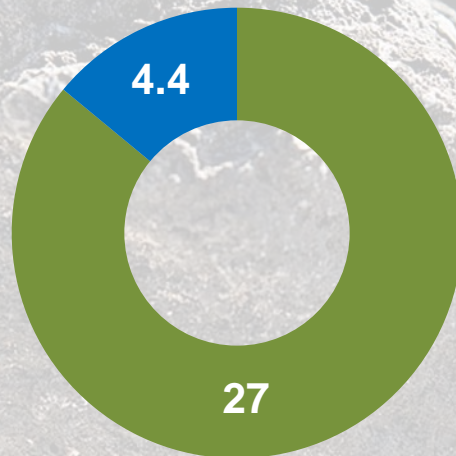
Notes:
K: thousand; M: million; B: billion (10⁹)

Argentina has the resources to increase production



Source: Secretaría de Energia / U.S. Energy Information Administration (DOE) / Advanced Resources International (ARI), 2013

Oil Potential (Bbls)

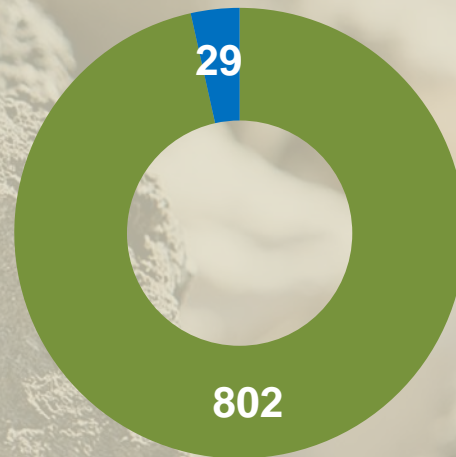


Conventional
(Oil 3P + Resources)

Unconventional
(resources)

4th in UC oil recoverable resources

Gas Potential (Tcf)

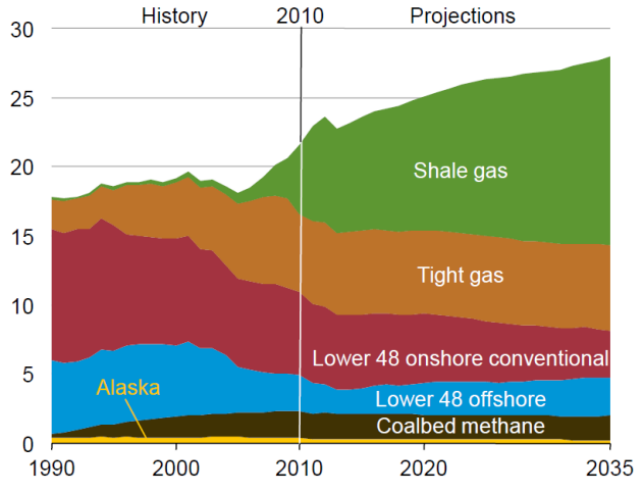


Conventional
(Gas 3P + Resources)

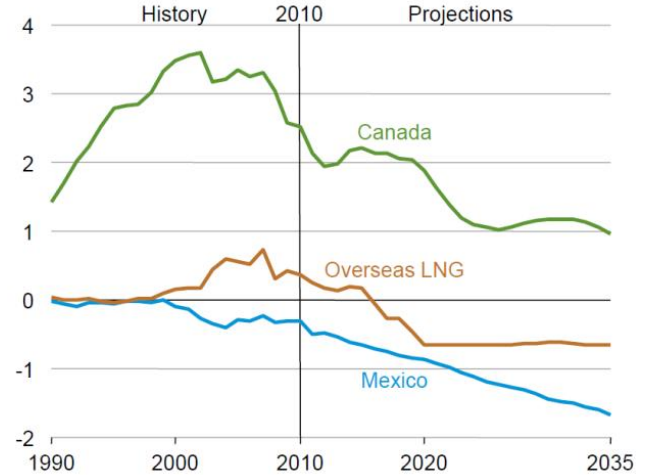
Unconventional
(resources)

2nd in UC gas recoverable resources

Gas Production (Tcf)

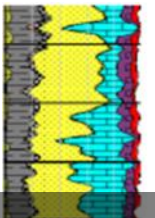
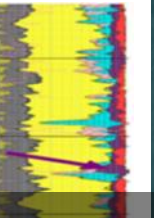

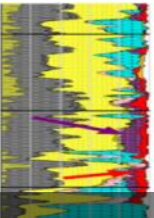
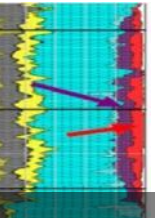
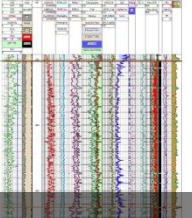
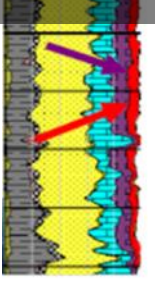


Gas Imports (Tcf)



Source: EIA 2012 Energy Outlook

Vaca Muerta vs. other unconventional resource plays

	Desired	Vaca Muerta	Barnett	Haynesville	Marcellus	Eagle Ford	Wolfcamp
							
TOC (%)	> 2	3-10	4 - 5	0.5 - 4	2 - 12	3 - 5	3
Thickness (m)	> 30	30-450	60 - 90	60 - 90	10 - 60	30 - 100	200 - 300
Reservoir pressure (psi)	High	4,500-9,500	3,000 – 4,000	7,000 – 12,000	2,000 – 5,500	4,500 – 8,500	4,600
							



Characteristics

Pres.= 550 – 650 kg/cm³ at 2,800 m

°API: 35 – 50

Pb: 120 – 200 kg/cm³

GOR: 100 – 500 m³/m³

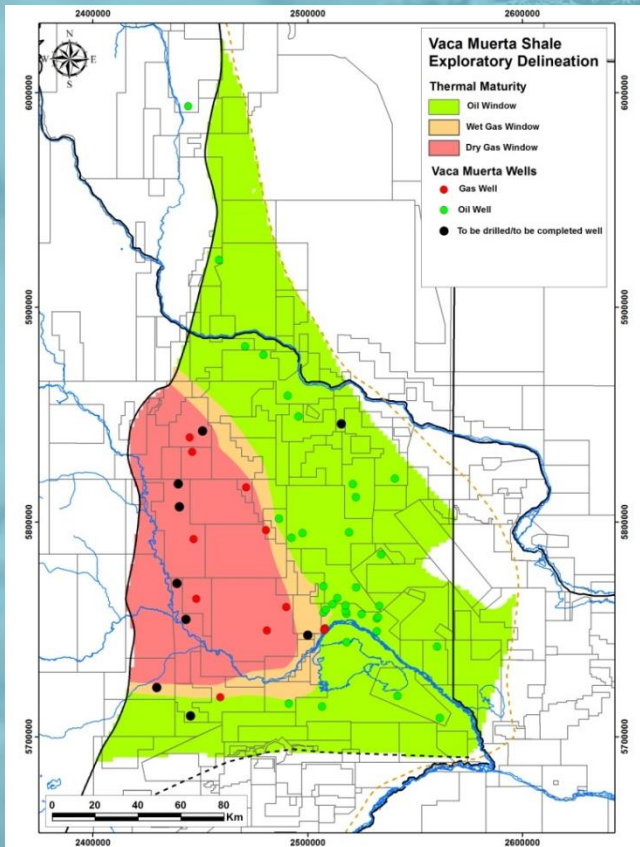
Bo @ Pb: 1.5 – 1.9

Viscosity @ Pb: 0.3 – 0.8 cP

No H₂S, Minor CO₂

Plant products - gas

	M ³ /mm ³	Bbl/mcft
C2	445.25	79.29
C3	366.07	65.19
C4	199.58	35.54
C5	64.92	11.56
C6	16.79	2.99
C7+	11.63	2.07
C5+	93.34	16.62



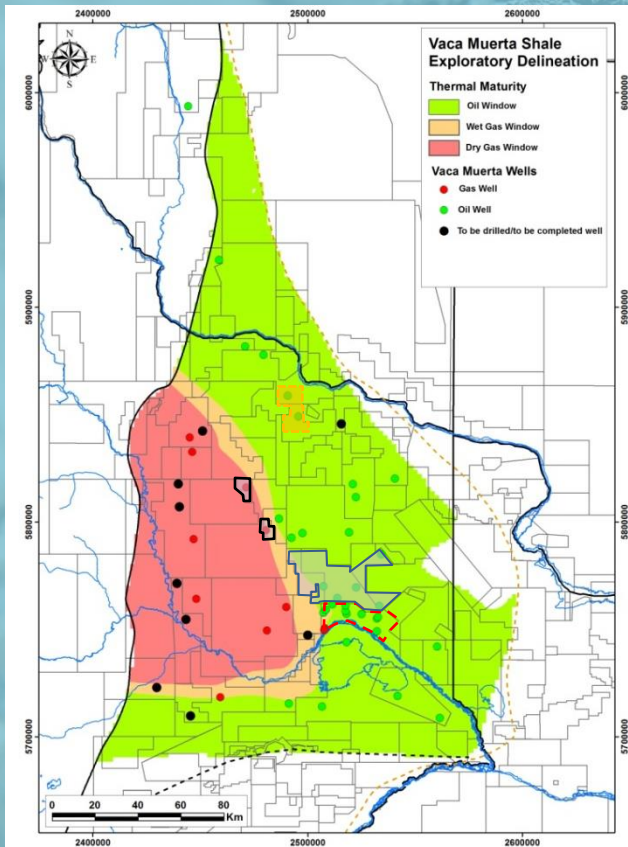
- ▲ Drilling or in Completion
- 2014 Drilling Campaign
- Drilled as of 31/01/2014
- Oil
- Wet gas
- Dry gas

Progress in extended basin-wide delineation

Hold the shale acreage

Increase the value of shale acreage

Delineation of new development clusters



Loma Campana Unconventional Development (395 km²)

The Vaca Muerta Shale Exploratory delineation has enabled YPF to define three additional core areas with short to medium term feasibility of development:



Bajada de Añelo - Bandurria - La Amarga Chica (850 km²)



Nambuena - Bajo del Toro (250 km²)

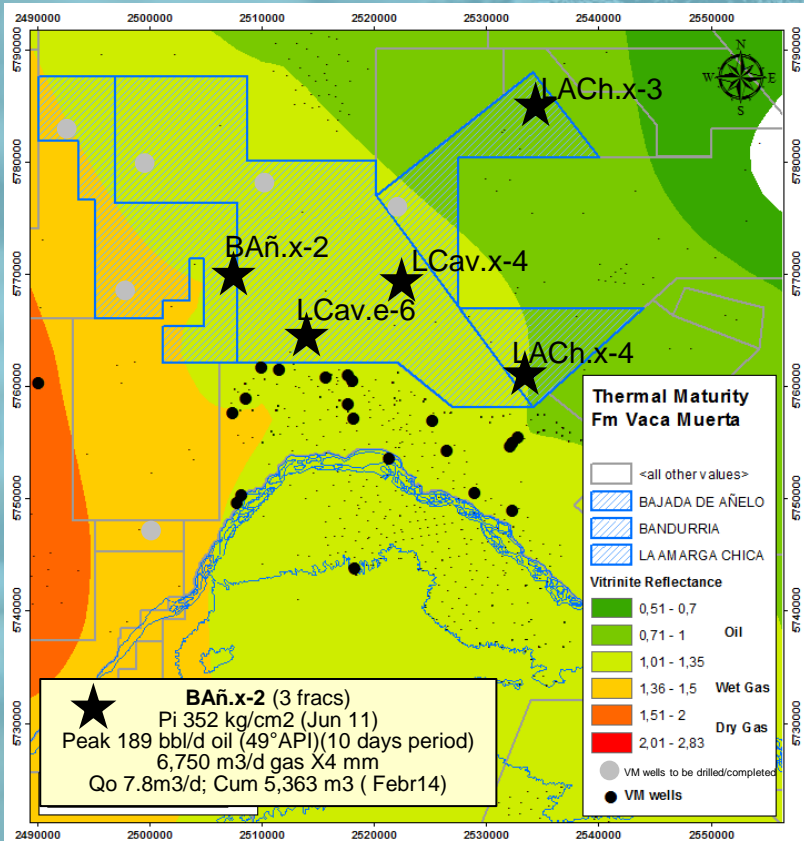


El Orejano - Pampa de las Yeguas I (105 km²)

These three oil and gas core areas have been highlighted by the convergence of different aspects:

- Vertical Well performance
- Hydrocarbon in place
- Vaca Muerta rock quality

- Nearby facilities
- YPF operated areas



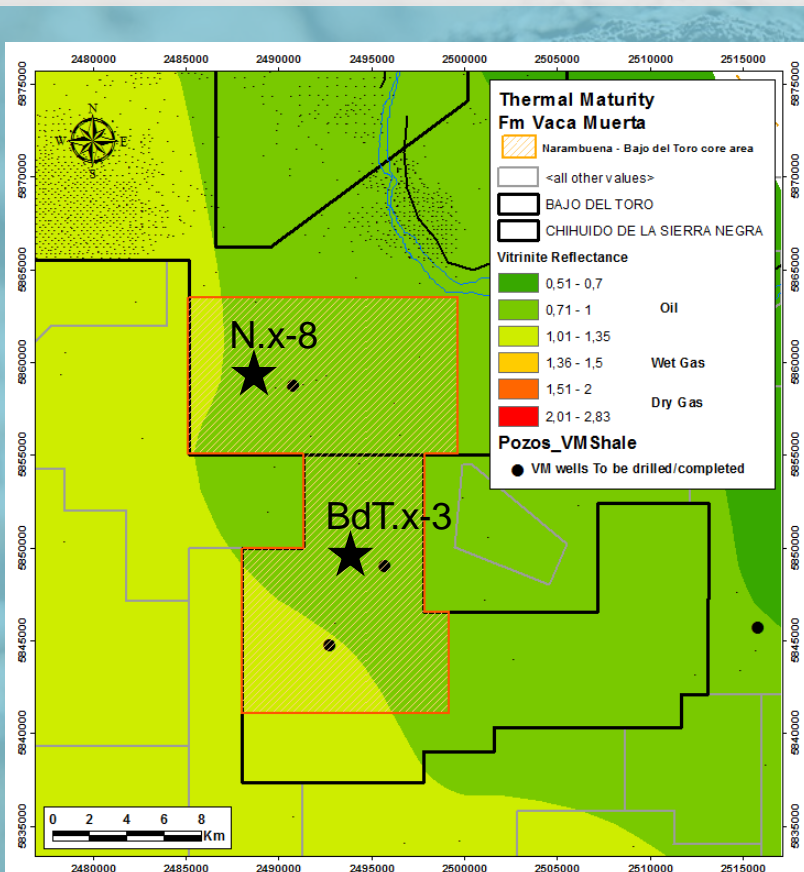
Summary

- 850 km² defined by the YPF operated areas
- 5 oil producing vertical wells
- 1 well in completion
- Light oil production (33 to 49°API)
- Wet gas is expected towards the west (80 km²)
- 130 to 250 m thick (Vaca Muerta high TOC interval)

Oil In Place

- Bajada de Añelo, YPF 85% (200 km²): 13.8 Billion Bbl
- Bandurria, YPF 54.5% (463 km²): 41.6 Billion Bbl
- La Amarga Chica, YPF 90% (187 km²): 14.7 Billion Bbl

<p>★ LCav.x-4 (5 fracs) Pi 334 kg/cm² (Ene 13) Peak 346 bbl/d oil (41°API)(10 days period) 9,788 m³/d gas X3 mm Qo 22.9m³/d; Cum 15,032 m³ (Febr 14)</p>	<p>★ LACH.x-3 (4 fracs) Pi 254 kg/cm² (Oct 11) Peak 182 bbl/d oil (33°API) (10 days period) 2,300 m³/d gas X4 mm Qo 7.6m³/d; Cum 4,779 m³ (Febr14)</p>
<p>★ LCav.e-6 (5 fracs) Pi 349 kg/cm² (Abr 13) Peak 126 bbl/d oil (45°API)(10 days period) 6,450 m³/d gas X3 mm Qo 6.9m³/d; Cum 4,107 m³ (Febr 14)</p>	<p>★ LACH.x-4 (4 fracs) Pi 307 kg/cm² (Ene 13) Peak 296 bbl/d oil (40°API)((10 days period) 5,300 m³/d gas X3 mm Qo 13.3m³/d; Cum 6,985 m³ (Febr14)</p>



Summary

250 km² defined by the YPF operated areas
 2 oil producing vertical wells
 1 well to be drilled (slant geometry)
 Light oil production (35 to 37°API)
 230 to 320 m thick (Vaca Muerta high TOC interval)

Oil In Place

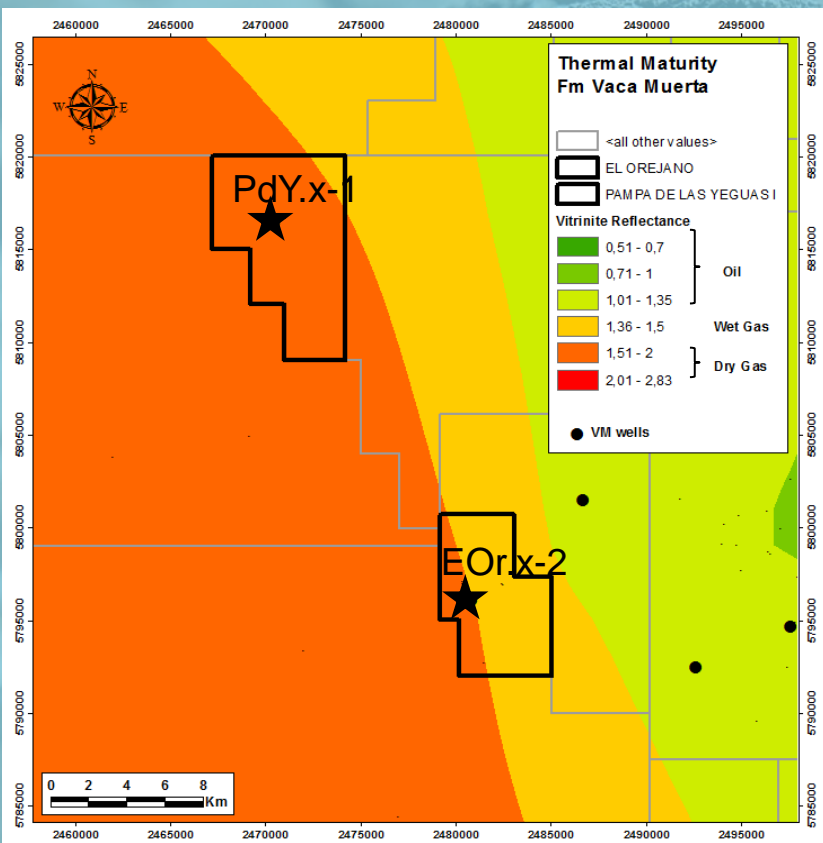
Narambuena, YPF 100% (125 km²): 11.2 Billion Bbl
 Bajo del Toro, YPF 46.8% (125 km²): 14.9 Billion Bbl



N.x-8 (7 fracs)
 Pi 318 kg/cm² (May 13)
 Peak 308 bbl/d oil (35°API)(10 days period)
 4,800 m³/d g X3 mm
 Qo 9.9 m³/d; 5,141 m³ (Febr 14)



BdT.x-3 (6 fracs)
 Pi 360 kg/cm² (May 12)
 Peak 459 bbl/d oil (37°API) (10 days period)
 11,500 m³/d g X4 mm
 Qo 3.6 m³/d; 6,542 m³ (Febr 14)



Summary

- 105 km² defined by the YPF operated areas
- 1 gas producing vertical well (connected to gas line)
- 1 gas/condensate vertical well (flowback test)
- El Orejano block in the initial phase of a Development pilot project (16 wells, 4 wells already drilled)
- Gas and Condensate production
- 160 to 290 m thick (Vaca Muerta high TOC interval)

Gas In Place

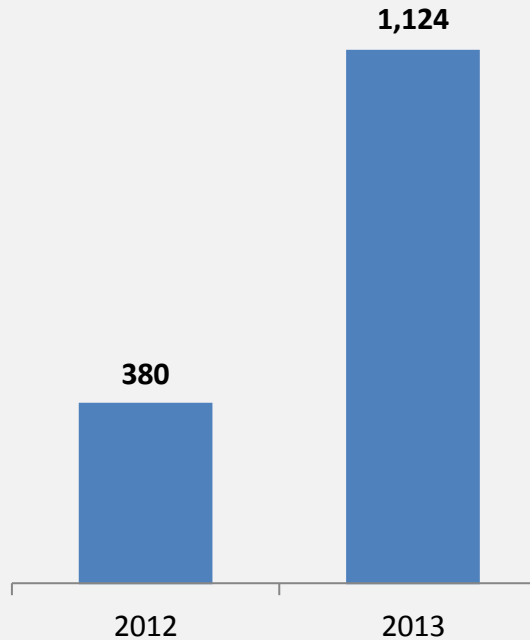
Pampa de las Yeguas, YPF 45% (60 km²): 11.1 TCF
 El Orejano(*), YPF 50% (45 km²): 5.6 TCF

★	<p>PdY.x-1 (7 fracs, above fish) Pi 409 kg/cm² (Febr 14) Peak 16,380 m³/d g (3 days period) 4.5 m³/d cond (51-57°API)X3 mm In flowback test (last 38 days)</p>	★	<p>EOr.x-2(3 fracs) Pi 337 kg/cm² (Mar 12) Peak 117,930 m³/d g X6 mm (4 days period) Qg 11.9 km³/d; 9.7 Mm³ gas (Jan 14)</p>
---	--	---	---

(*) Joint Venture with DOW

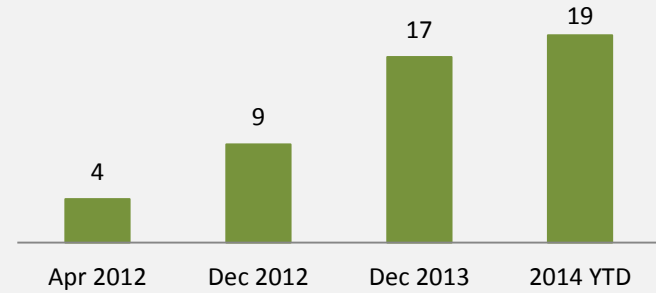
Investment growth

Investments (MM USD)

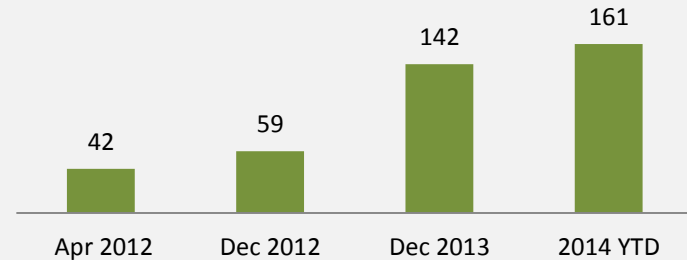


Important Activity Increase

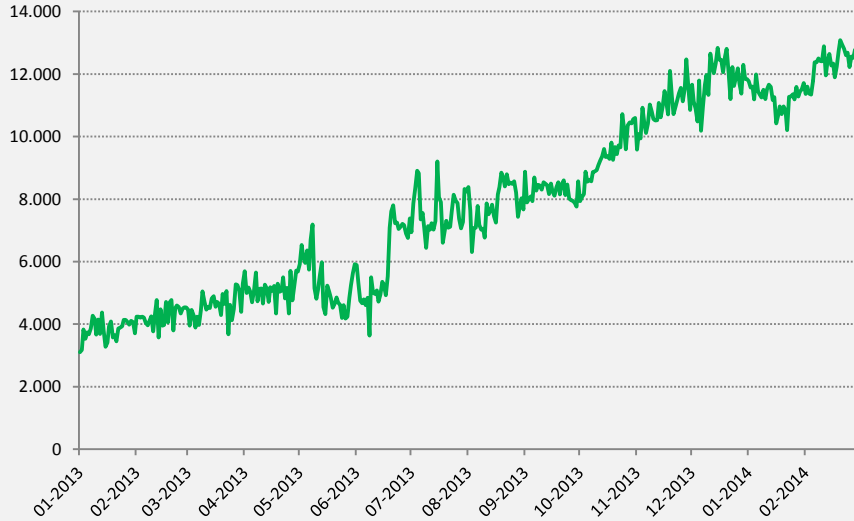
Drilling Rigs



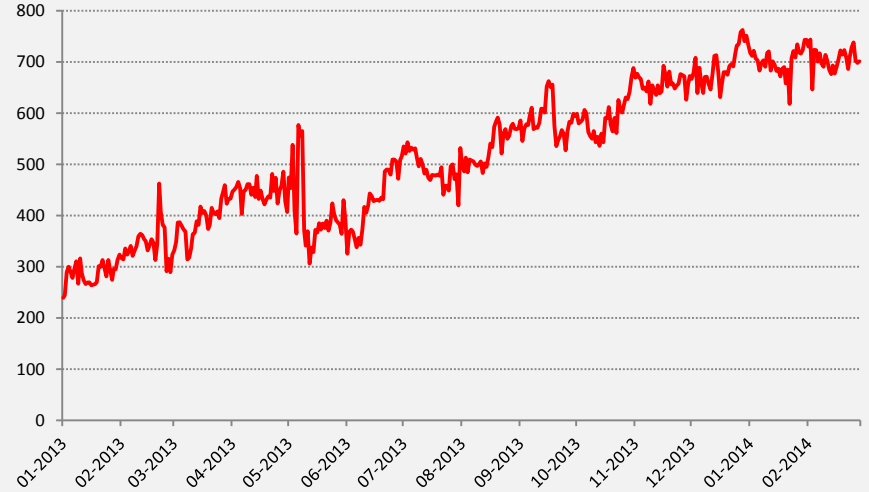
Wells in Production



Oil (bbls/d)



Gas (km³/d)



Wells in production

161

Current production

20,000 boe/day

2 Main Drivers to Reach an economical development

Increased Productivity

- Improve subsurface understanding
- Identify the Sweet Spots
- Optimize completions
- Successful horizontal development

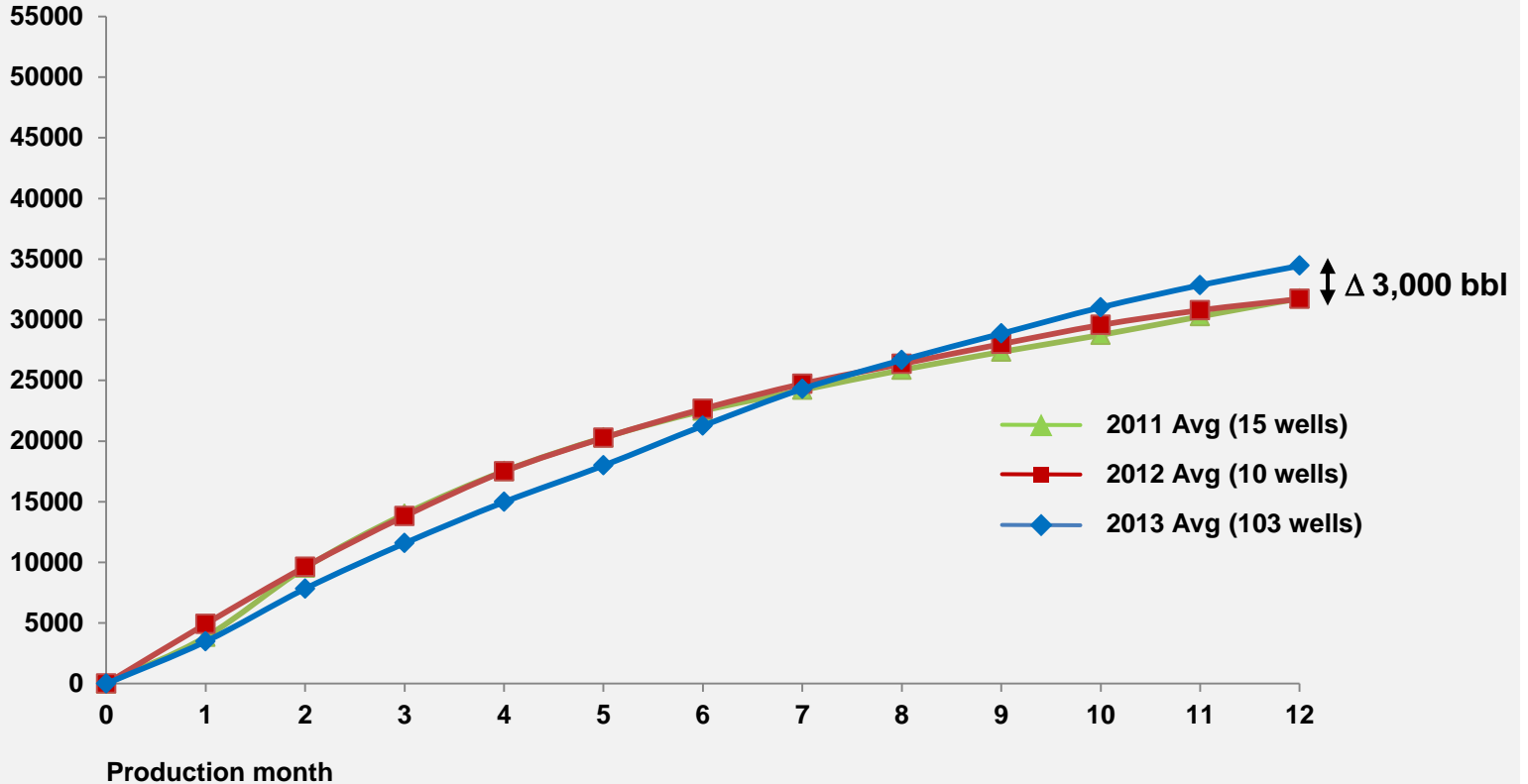
Well Construction Cost Reduction

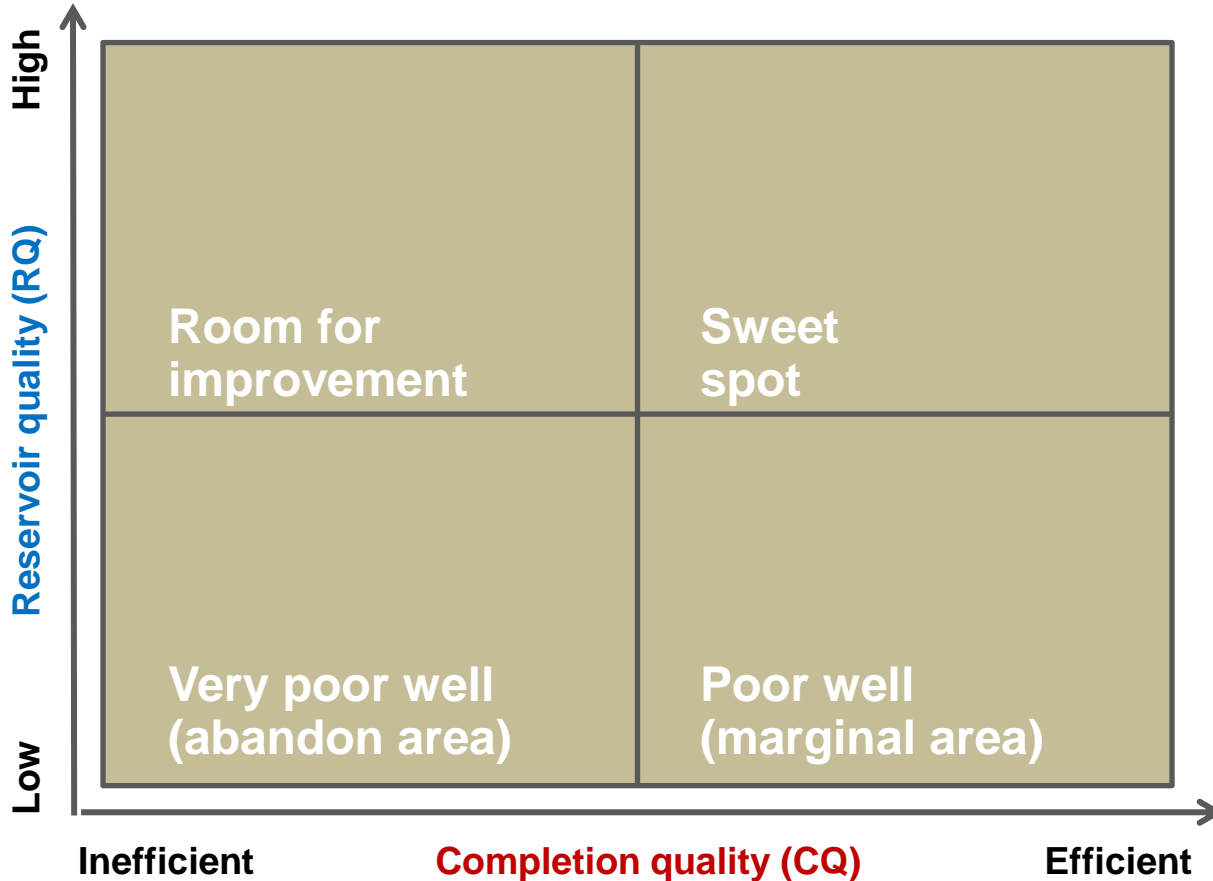
- Casing Drilling Techniques
- Local Sand Sourcing
- Operational efficiency optimization
- Contracts renegotiation



- 1 Unconventional Development: General Overview
- 2 Increased Productivity: Sweet Spot Identification**
- 3 Increased Productivity: Horizontal Well
- 4 Well Construction Cost Reduction
- 5 Principal Challenges for a large development

Cumulative oil production, bbl



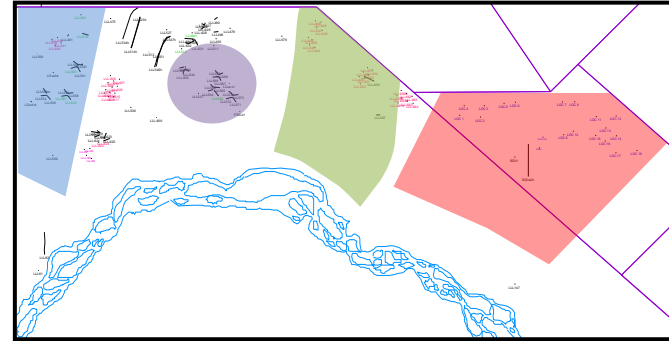
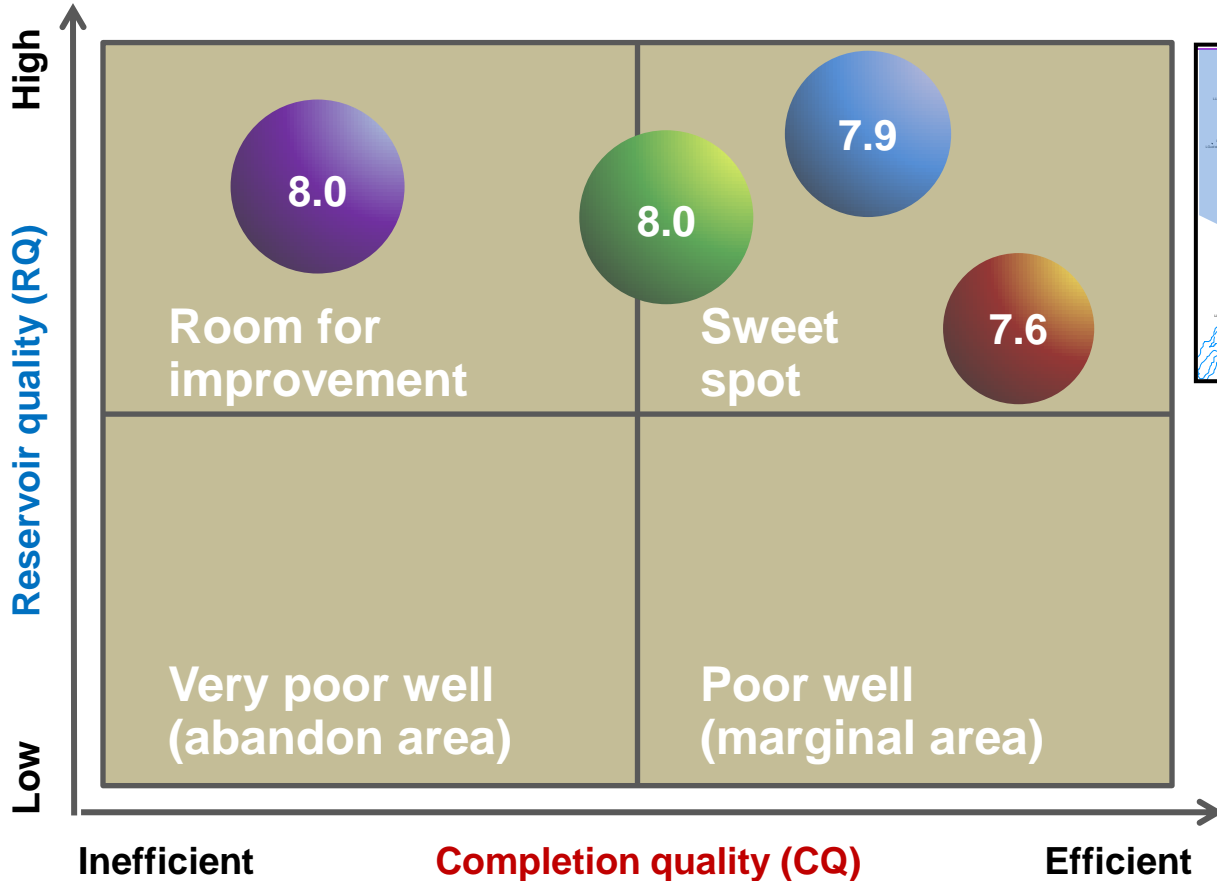


Reservoir Quality

- Porosity
- Water saturation
- Permeability
- TOC
- Mineral content
- Maturation
- Pore pressure

Completion Quality

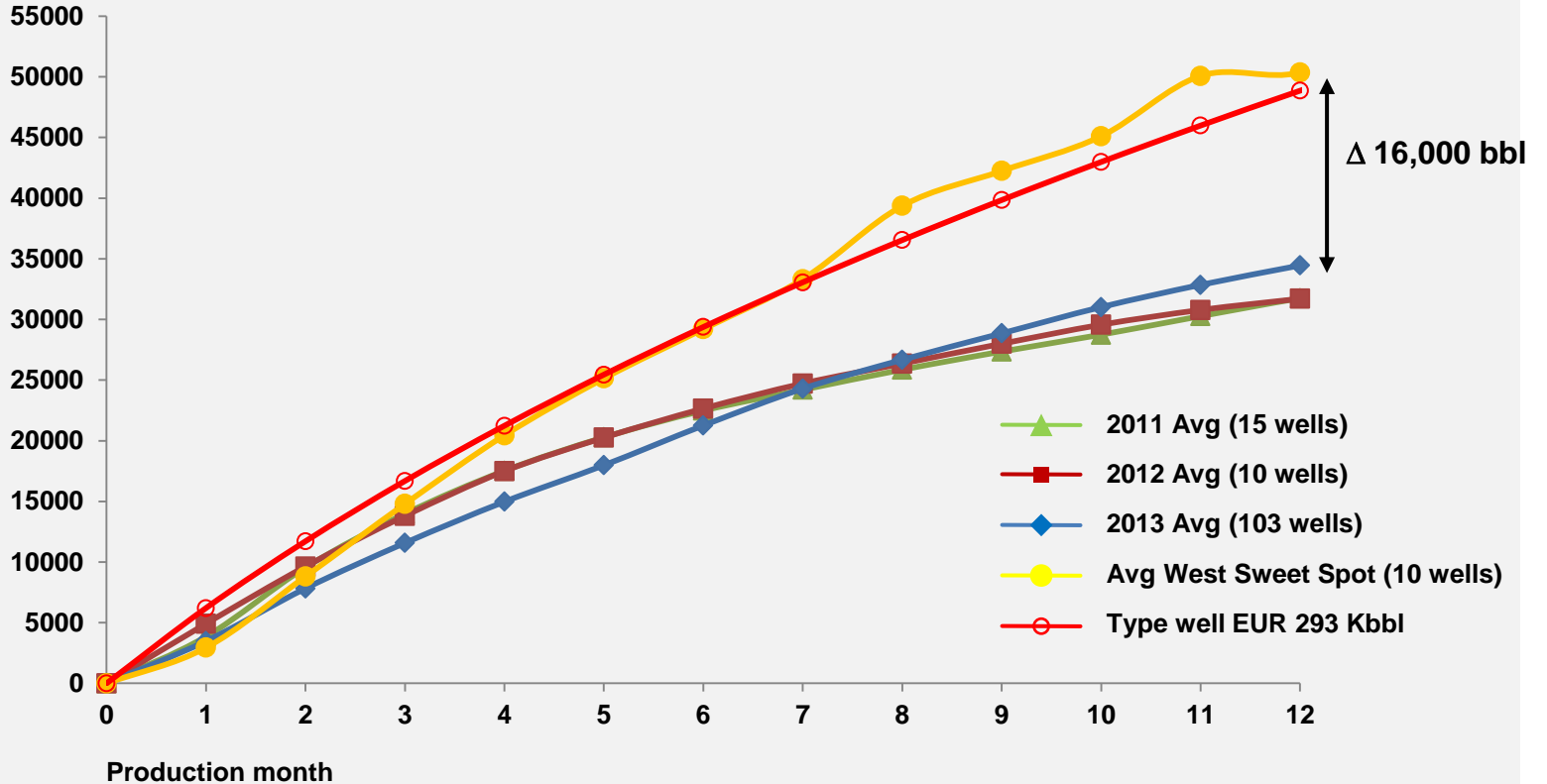
- Containment
- Fracturability
- Low solids production
- Low rock-fluid sensitivity



- Structurally Complex
- LLL East
- Sweet Spot NW
- Loma Campana

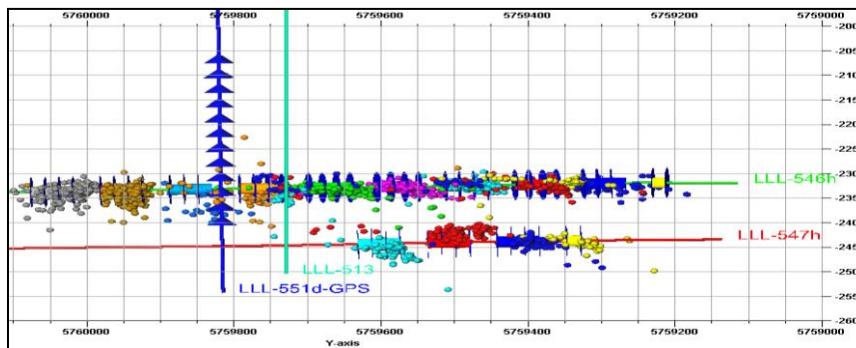
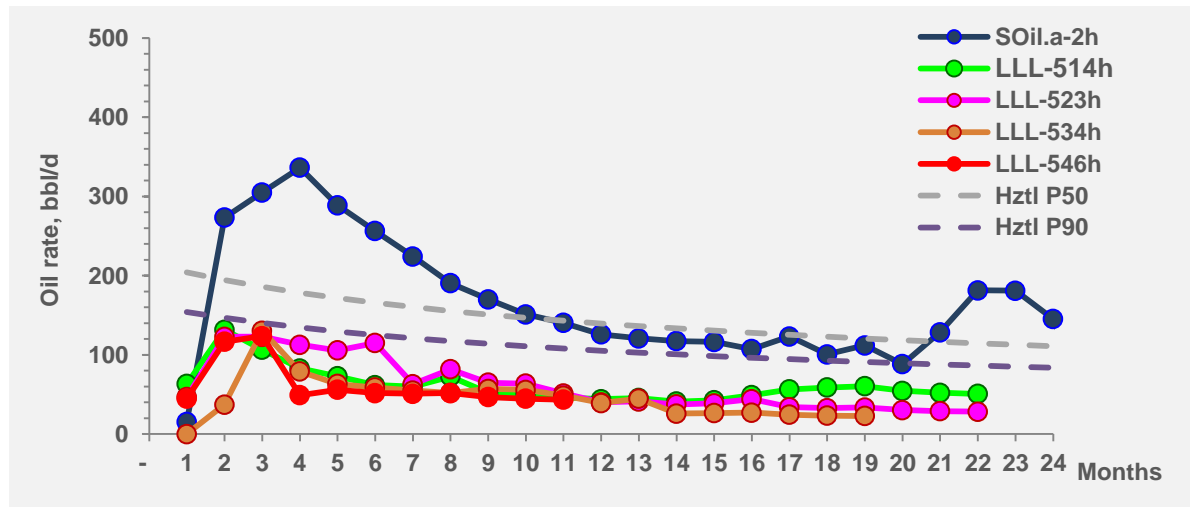
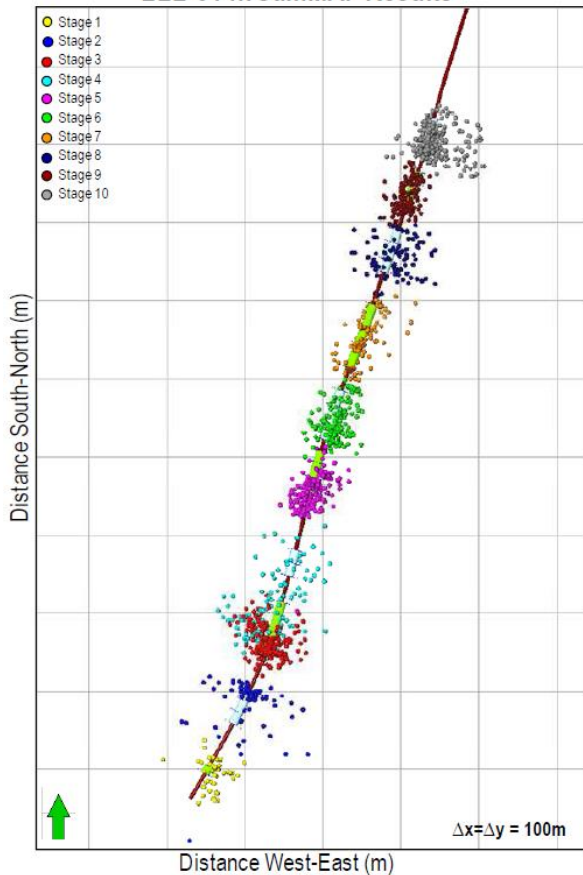
Size of balloons refers to vertical well construction average cost in millions US dollars.

Cumulative oil production, bbl



- 1 Unconventional Development: General Overview
- 2 Increased Productivity: Sweet Spot Identification
- 3 Increased Productivity: Horizontal Well**
- 4 Well Construction Cost Reduction
- 5 Principal Challenges for a large development

LLL-514h StimMAP Results



Multidisciplinary team approach: YPF / SLB / Von Gonten

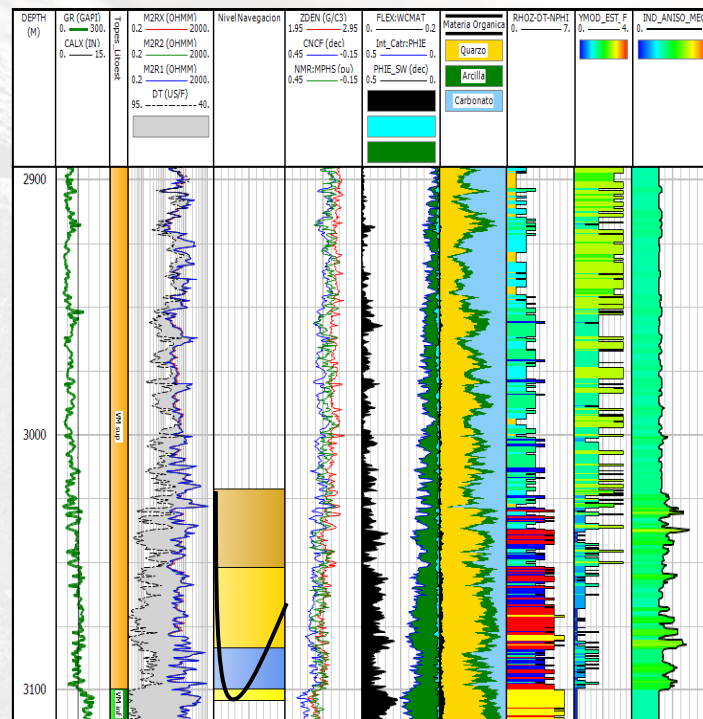
Microseismic monitoring to:

- Observe frac growth
- Be prepared to take proactive actions

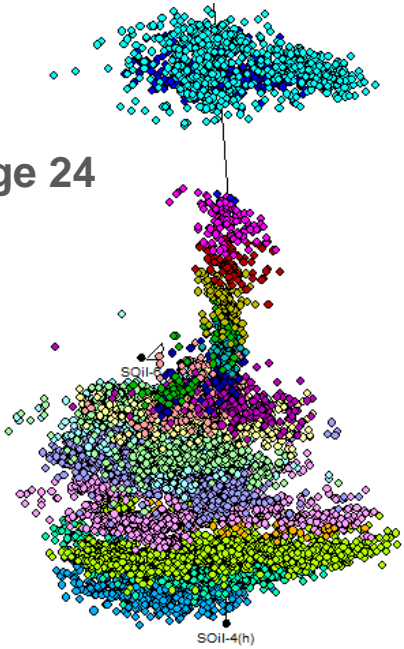
Tackle ashbed/conductivity losses with increased pumped sand and frac conductivity

Perforation re-design: re-accommodate perforation clusters

Stimulation re-design: increase total proppant per stage

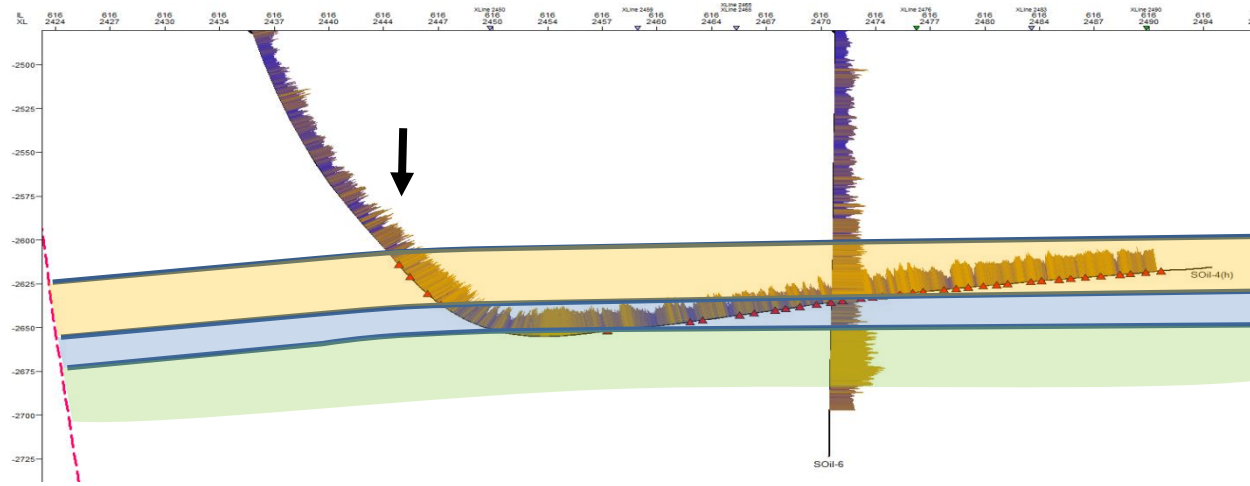


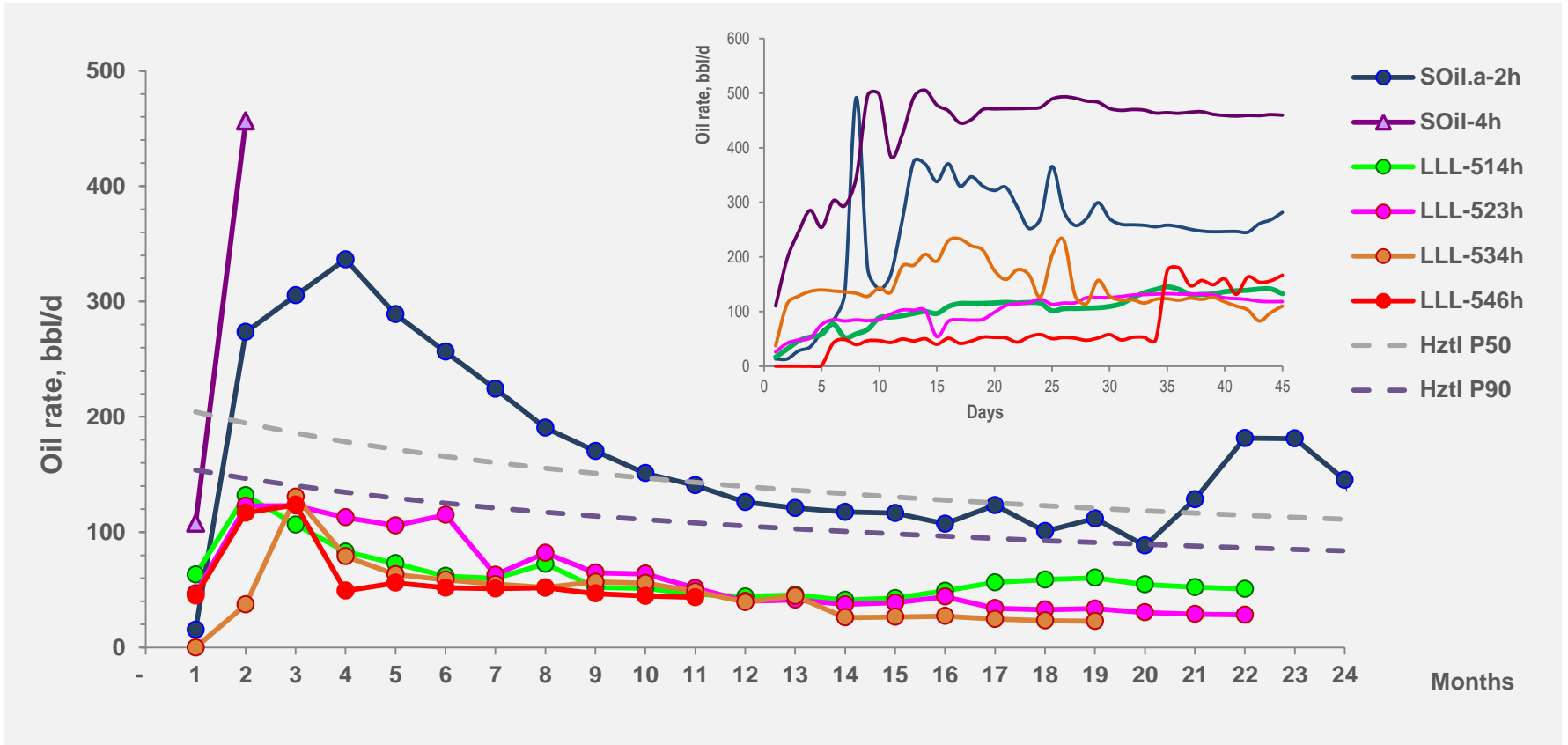
Stage 24

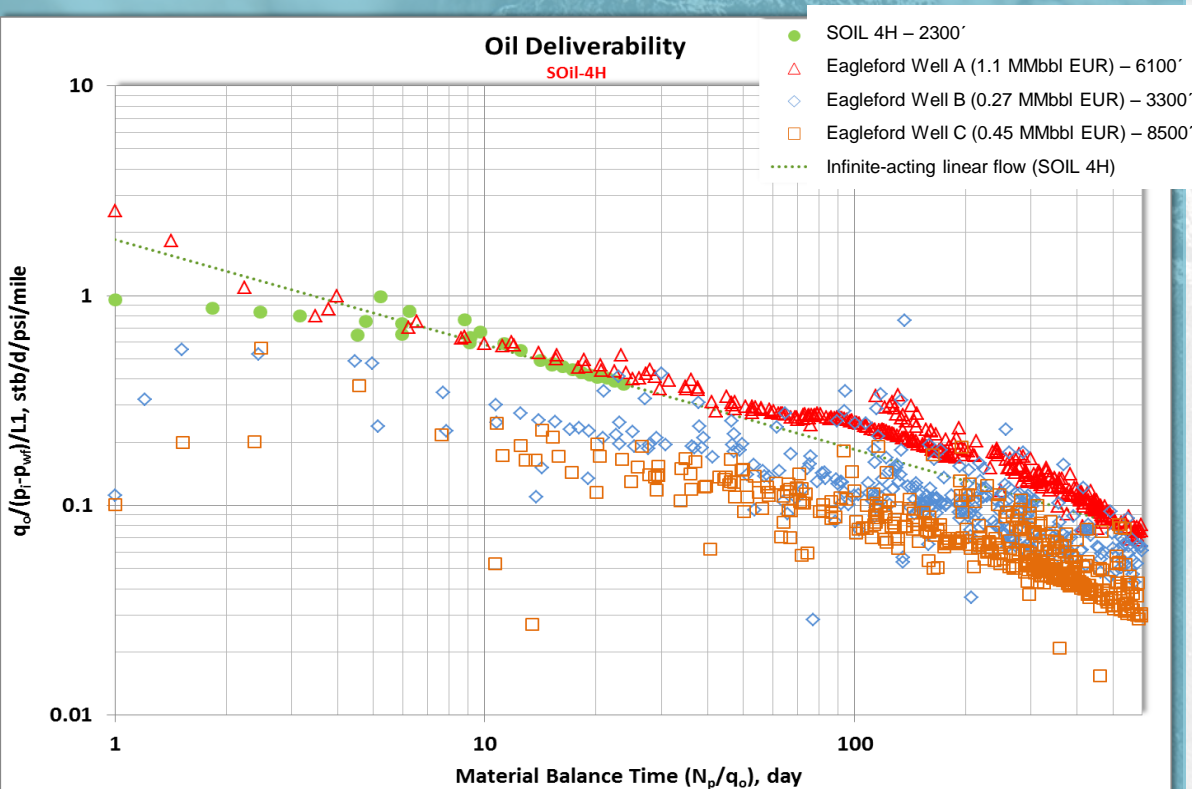


N

S





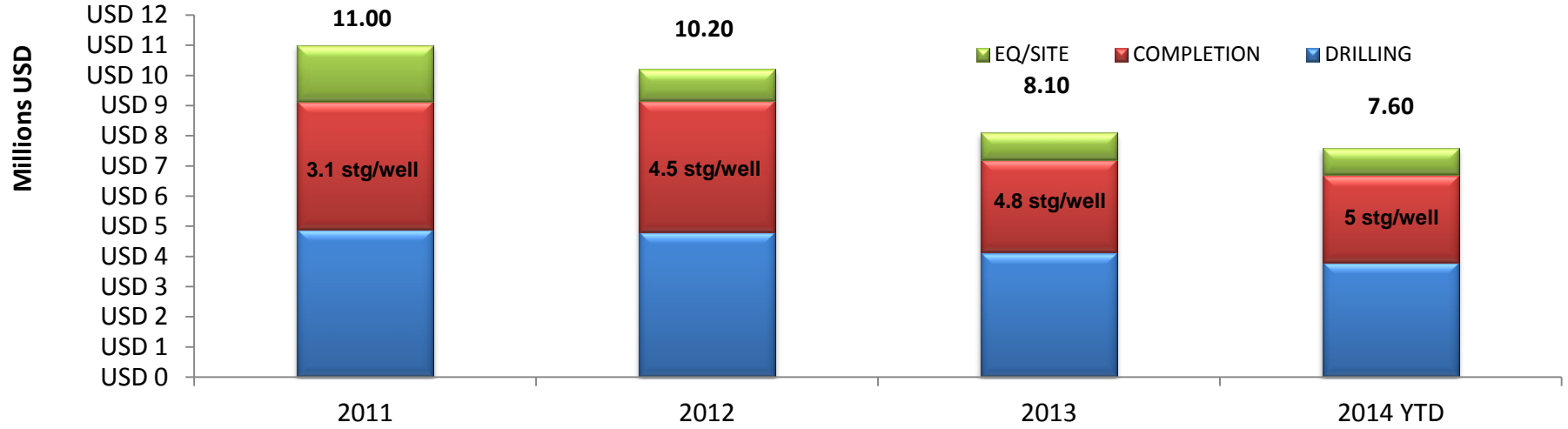


Normalization on Stimulated Length

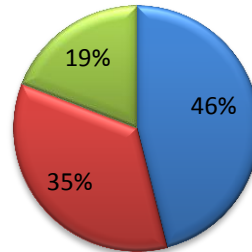
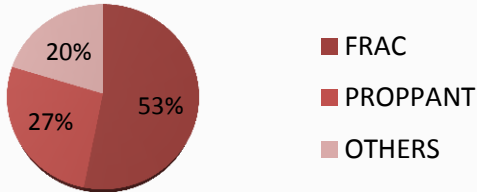
When normalized against the effectively-fractured length, SOil-4H displays a superior deliverability compared to 3 different black oil Eagle Ford wells

In conclusion, had SOil-4H been drilled and completed at its full length, it might be boasting the high production rates of the best Eagle Ford black oil horizontal wells

- 1 Unconventional Development: General Overview
- 2 Increased Productivity: Sweet Spot Identification
- 3 Increased Productivity: Horizontal Well
- 4 Well Construction Cost Reduction**
- 5 Principal Challenges for a large development

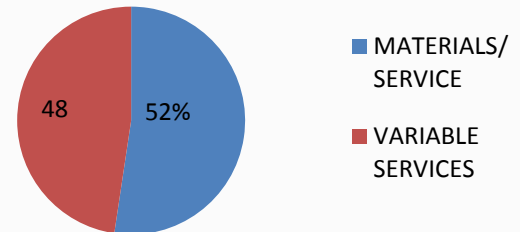


COMPLETION COSTS

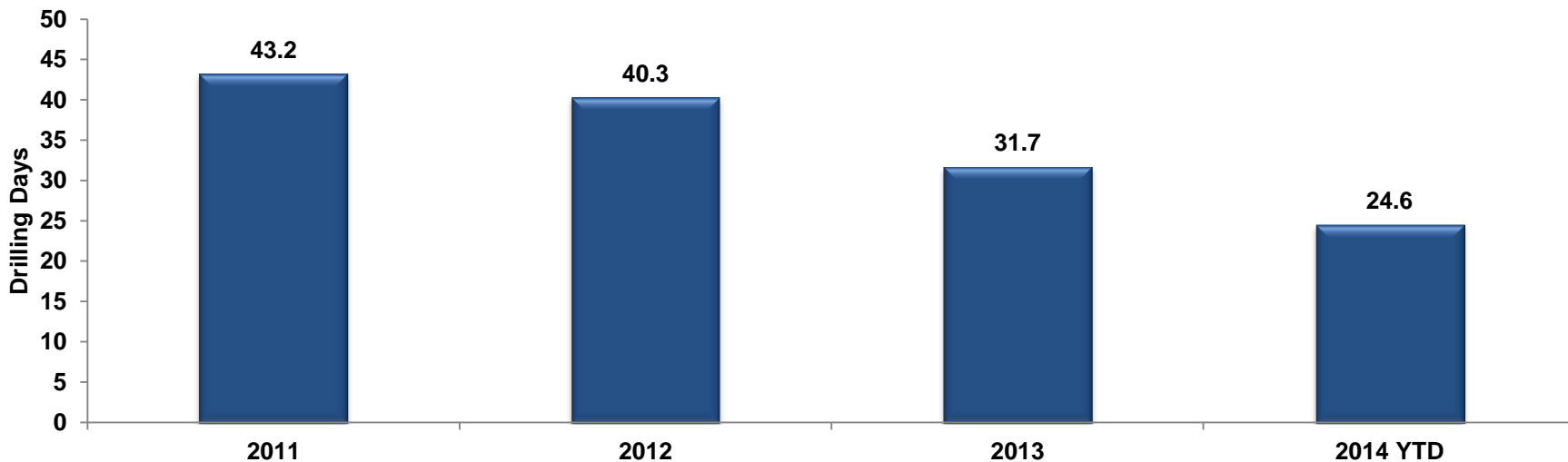


- DRILLING
- COMPLETION
- EQ/SITE

DRILLING COSTS



- MATERIALS/SERVICE
- VARIABLE SERVICES

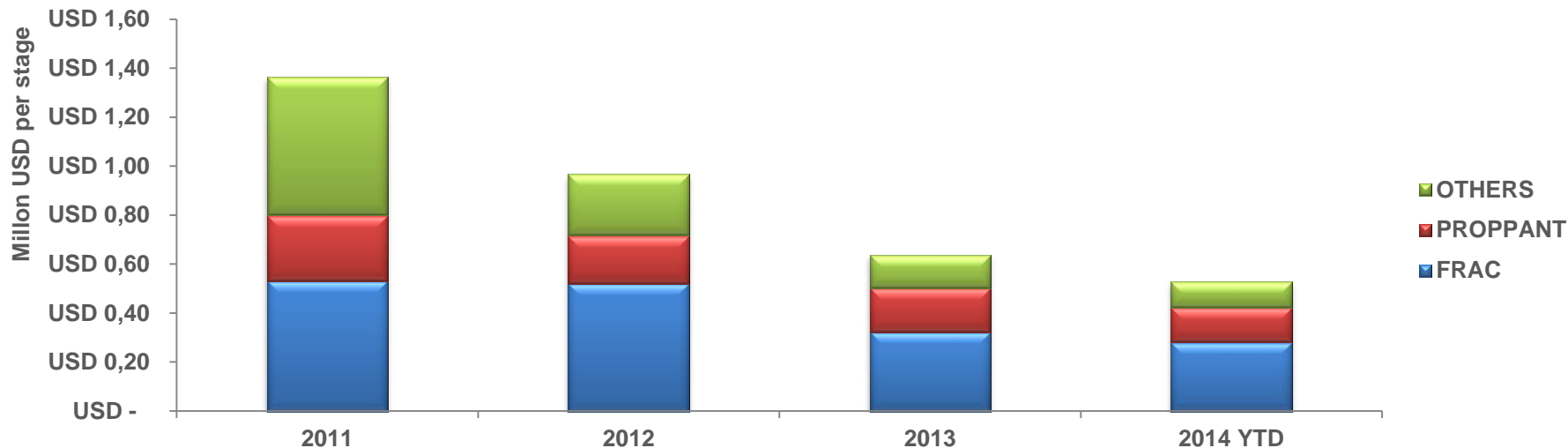


Implemented Initiatives:

- MPD / UBD Operational Procedure
- Introduction of Casing Drilling
- Directional Drilling Optimization
- Multipad locations

Future Opportunities:

- Widespread use of Casing Drilling
- New automated rigs / skidding
- Use of 4" DP for entire well
- Mud Plant



Implemented Initiatives:

- Monthly “Bundle” contracts
- Multiple proppant providers
- Adoption of new technology
- Operational efficiency Optimization:
3 stg/day, SIMOPS, Plug & Perf technology

Future Opportunities:

- Renegotiation of Bundle Contracts
- 100 % local proppant utilization
- Bulk proppant logistics
- Water distribution Network

- 1 Unconventional Development: General Overview
- 2 Increased Productivity: Sweet Spot Identification
- 3 Increased Productivity: Horizontal Well
- 4 Well Construction Cost Reduction
- 5 Principal Challenges for a large development**

Enhance development economics

- + **Increased Productivity**
 - Improve subsurface understanding
 - Identify the Sweet Spots
 - Optimize completions
 - Successful horizontal development
- + **Well Construction Cost Reduction**
 - Casing Drilling Techniques
 - Local Sand Sourcing
 - Operational efficiency optimization (new rig fleet)
 - Contracts renegotiation

Reserves

- + **Reserves Estimation Methodology**
 - Traditional DCA methods do not apply
 - It is necessary to consider Pressure decline rates (RTA, Simulation)



Design a sustainable development

+ Minimize the environmental impact

- Multiwell Rig Pad (Rigs “fit for purpose”)
- Optimize Water and Sand logistics (Minimize truck transportation)
- Pipe network for water pumping to well location
- Railway to the site for sand storage
- Treatment and re-use of Flow back water

Align objectives with all the stakeholders

+ Federal and Provincial Government

- Provide the right regulatory scheme

+ Communities

- Expand Social License to operate

+ Labor Unions

- Enhance labor contracts focusing on productivity



An aerial photograph of an oil drilling site in a vast, arid landscape during sunset. The sun is low on the horizon, casting a warm, golden glow over the scene. In the foreground, a large drilling rig stands prominently, with the number '23126' visible on its structure. Surrounding the rig are various pieces of equipment, including storage tanks, trailers, and smaller buildings. The terrain is flat and sparsely vegetated. The overall atmosphere is one of industrial activity in a remote, natural setting.

YPF

NUESTRA ENERGÍA