AGENDA

- Mendoza Oil & Gas Authority
- Mendoza Production
- 2018 Bid Round Results
- Next Bid Rounds
- Mendoza opportunities: TEAs; Unconventional; Heavy oils; EOR
Values

- Aspire to be a Model Institution
- Maximize Production
- Attract and encourage developing companies
- Promote efficiency
- Ensure Contract enforcement
- Stakeholders Relationship
- Devise Energy Strategies
- Regulate Sustainable Production

Mendoza Oil&Gas Authority 2019
Mendoza Oil Production

Oil Production
1st semester 2019

11.84%
MZA

88.16%
ARG

11.128 m3/d

Note: % indicate Conventional production

Source: Sesco Web SEN june 2019
Mendoza Gas Production

Gas Production
1st semester 2019

MZA 2.20%

Mendoza Gas Production

ARG 97.80%

4.167 Mm3/d

Note: % indicate Conventional production

Fuente: Sesco Web SEN june 2019

Mendoza Oil&Gas Authority 2019
# Oil&Gas equities and operators in Mendoza

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
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<tbody>
<tr>
<td>Exploration</td>
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<tr>
<td>Production</td>
<td>45</td>
</tr>
<tr>
<td>Available blocks</td>
<td>39</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>101</strong></td>
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</tbody>
</table>

**Operators** | 14
Oil&Gas Investments in Mendoza (MMUSD)

- 153 MM Jaguel CDP
- 89 MM ChSNegra
- 298 MM Chachahuen
- Heavy oil in Llançanelo
- Non Conv Pto Rojas / PBN
- EOR CNQ7A
- 2018 Round Bid
2018 BID ROUND RESULTS

<table>
<thead>
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<th>EXPLORAT.</th>
<th>PRODUCT.</th>
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<tbody>
<tr>
<td>Allocated areas</td>
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<tr>
<td>Investments</td>
<td>40,5 MMUSD</td>
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<td>Downpayment</td>
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</table>

Mendoza Oil&Gas Authority 2019
NEXT BID ROUNDS

Bidding document: Mza O&G Authority defines target (UNCONVENTIONAL, heavy oils, EOR) and minimal investments.

Requirements (Sobre A): technical capacity, economic and financial capacity, corporate documentation

Sobre B: investments proposal (Schedule, activities)
CHAÑARES HERRADOS 2019

- **Bid Round Date:** September 2019
- **Type:** Concession (25 years)
- **Surface:** 40,87 km²
- **Average production 2019:** 183 m³/day
2020 ROUND BID

- Available areas: 10
- Location: Neuquina Basin
- Estimated surface: 5,500 km²
- Target: Unconventional

Mendoza Oil&Gas Authority 2019
TEA’S: TECHNICAL EXPLORATION AGREEMENTS

Goal: acquire enhanced information to establish Oil&Gas potential

In AVAILABLE areas

Schedule

Proposal
Assessment and approval
Schedule execution
Request the bidding process for the area
First Refusal Right
Unsuccessful bidders – refund 75% investment
ALLOCATED PRODUCTION AREAS

Mesa verde
Operator: YPF
Investments: 48 MMUSD

Puesto Rojas (First Unconventional Concession in Mendoza)
Operator: Petrolera El Trébol
Pilot Project (3 years): investment 70 MM USD. Estimated investments during the contract: more than 1.000 MM USD

Cerro Redondo (Chachahuen Sur extended surface)
Operator: YPF
Investments 23 MMUSD

Cerro Morado Este
Operator: YPF
Investments 57 MMUSD

Mendoza Oil&Gas Authority 2019
UNCONVENTIONAL DEVELOPMENT IN MENDOZA

Vaca Muerta in Mendoza → 8.700 km².

Oil-prone source rock

Resources (OIP) → 8 billions m³ of oil. Potential reserve (3%) equal to 240 millones de m³

Sweet spot = 2.183 km².

Estimated investment: more than 20 billion dollars.
HEAVY AND EXTRA HEAVY OIL

**Linderde de Piedra (evaluation area)**
Operator: **Hattrick SAS**
Oil discovery under study
Average production 2019: **15,4 m3/d**
Investment during evaluation: **7 MMUSD** (2019-2021)

**Llancanelo**
Operator: **YPF**
Royalties reduction **50%**
Average production 2019: **163,5 m3/d**
**OIP: 950,000 Bbl**
Investment in heavy oil project: **102 MMUSD** (2019-2022) → 34 wells, 17 WO, reservoir electrification and bottom heaters.
EOR PROJECTS

**Chihuido de la Sierra Negra**  
Operator: **YPF**  
Project developed on **Desfiladero Bayo** oilfield.  
In expansion stage.

**CN Q 7 A**  
Operator: **Pluspetrol**  
EOR pilots, polymer injection
DEVELOPMENT OF AND INDUSTRIAL, OIL AND MINING POLE IN PATA MORA

Location near “Potasio Río Colorado” and Chachahuén.

Strategic location next to the Biocceanic Corridor (Paso Pehuenche) and the North-South axis (Route 40).

Construction of an industrial area.

Development of new economical activities (competitiveness and sustainability)

Infrastructure Investment

Lack of roads, electricity supply and services

Strong dependence in the area with the oil industry

Union problems with Neuquen

In execution pre-feasibility study (through CFI): location, soil and alluvial, urban studies, etc.

Mendoza Oil&Gas Authority 2019
QUESTIONS ?
THANK YOU VERY MUCH!