

# RONDA

## COLOMBIA 2021

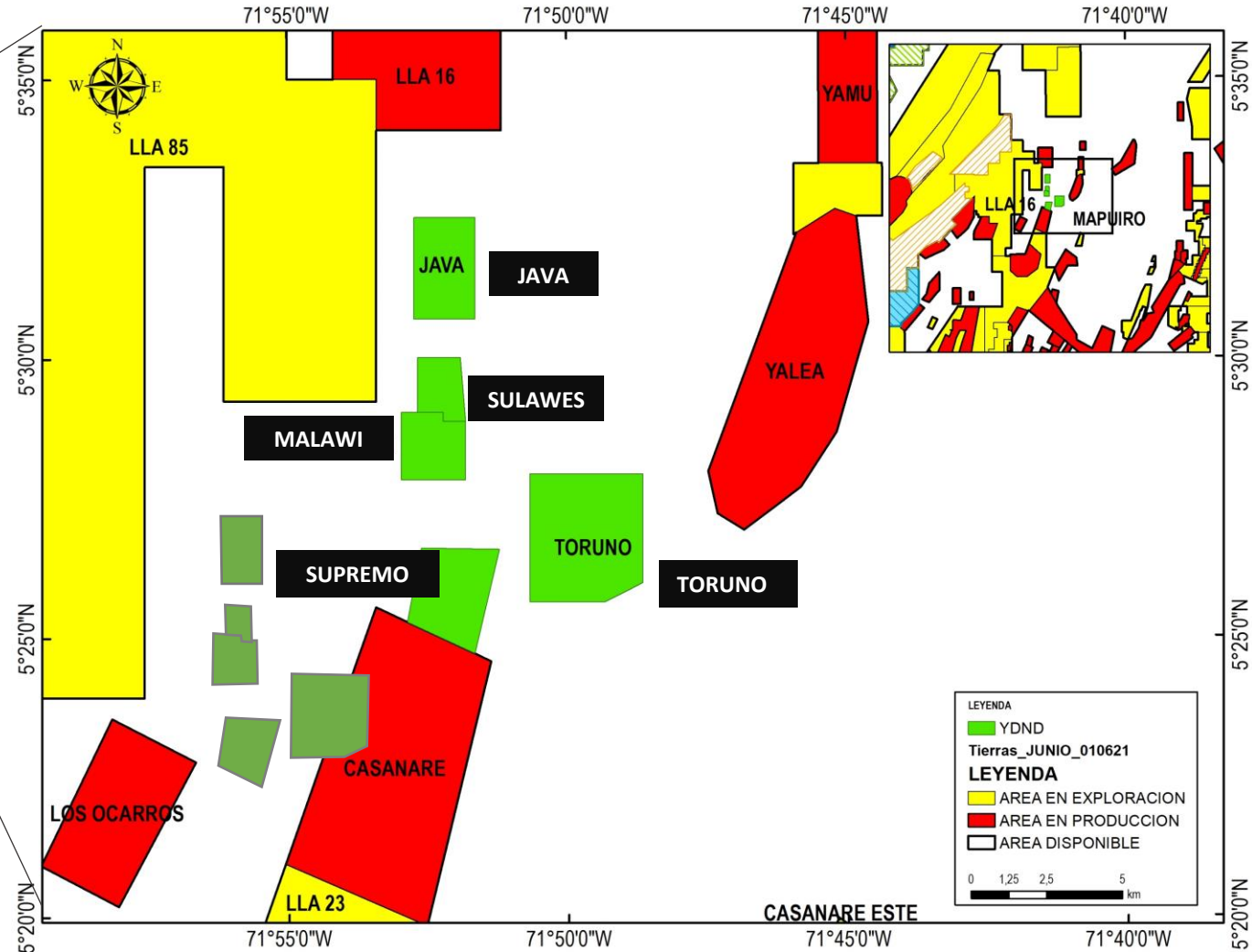
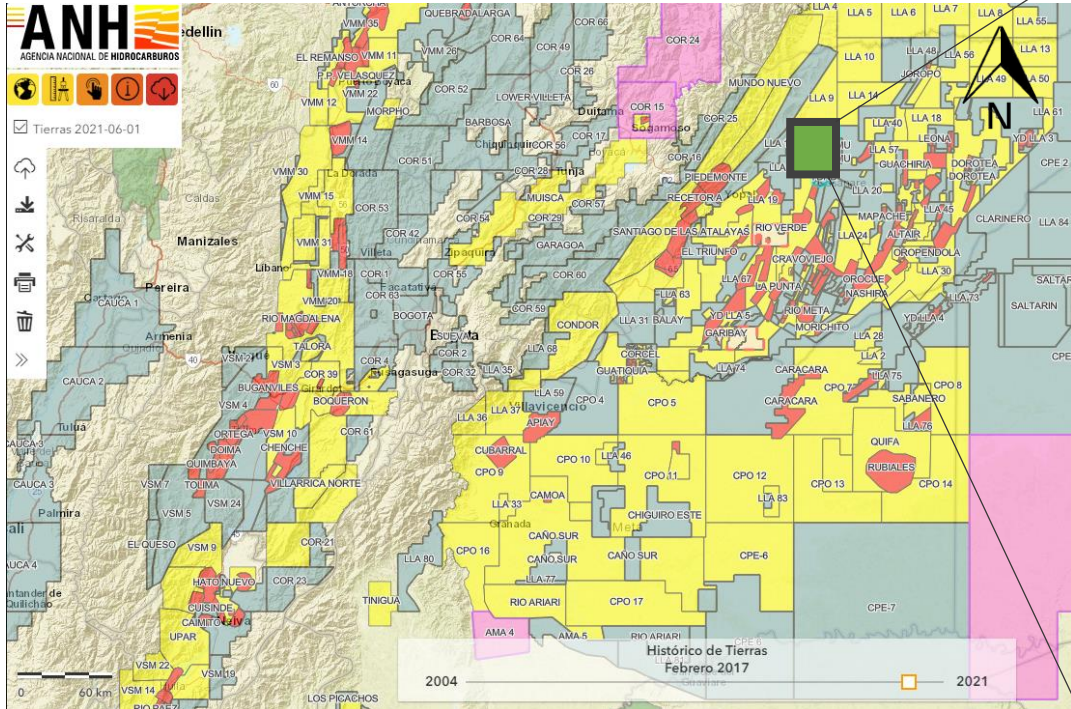
**JAVA, SULAWESI, MALAWY, SUPREMA AND TORUNO  
AREAS**

September the 3<sup>TH</sup> 2021

## Content

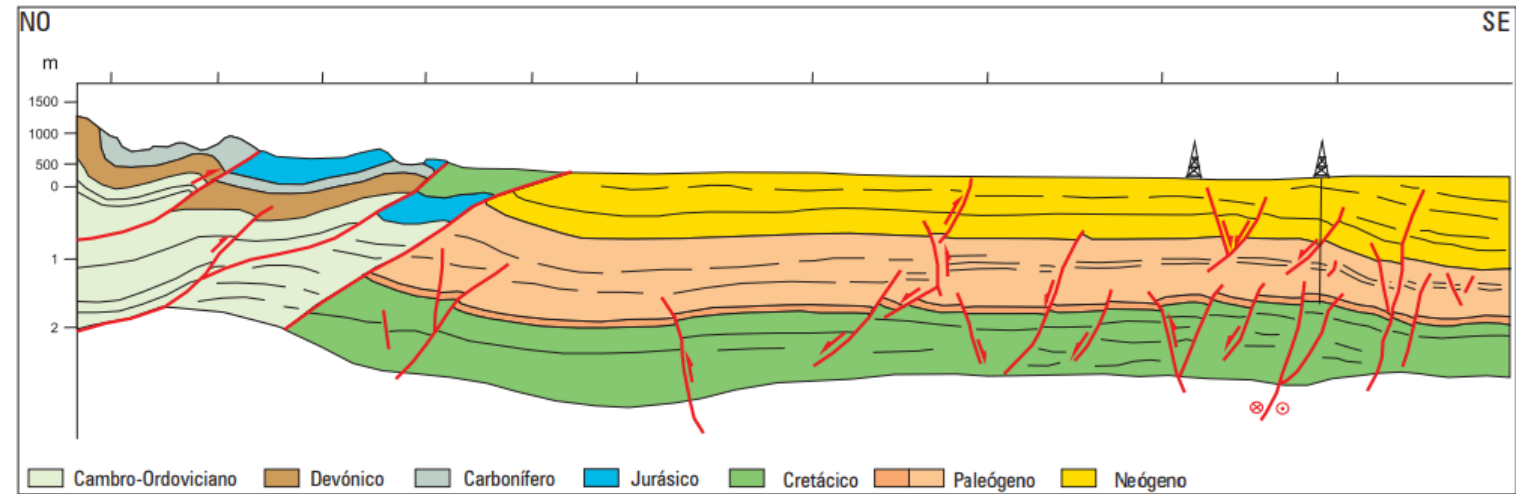
- Location
- Regional Framework
- Available Data
- Infrastructure
- Analogous Field (Kona - Parex)
- UDR (Undeveloped already discovered reservoirs):
  - Java
  - Sulawesi
  - Malawi
  - Supremo
  - Toruno
- Summary

# LOCATION

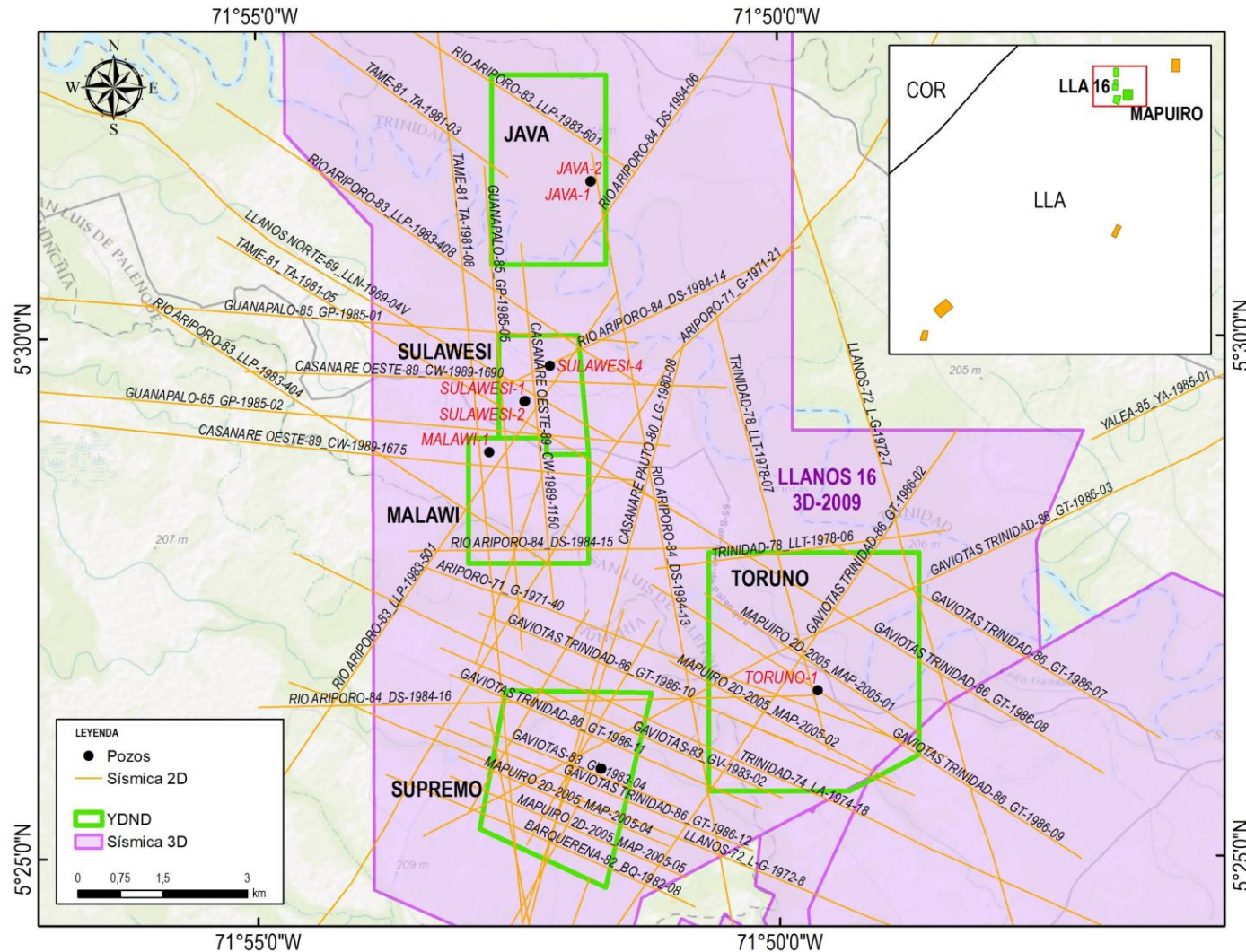


# REGIONAL FRAMEWORK – LLANOS ORIENTALES BASIN

PERIODO	LITOESTRATIGRAFÍA	LITOLOGÍA	SISTEMA PETROLÍFERO	
			ELEMENTOS	PROCESOS TRAMPAS MIGRACIÓN
NEÓGENO	Fm. NECESIDAD			
	Fm. GUAYABO			
	Fm. LEON			
PALEÓGENO	C1			
	C2			
	C3			
	C4			
	C5			
	C6			
	C7			
	C8			
CRETÁCICO	Fm. MIRADOR			
	Fm. LOS CUERVOS			
	Fm. BARCO			
	Fm. GUADALUPE			
	Fm. GACHETA			
JURA.	Fm. UNE			
	BASAMENTO			



# AVAILABLE DATA



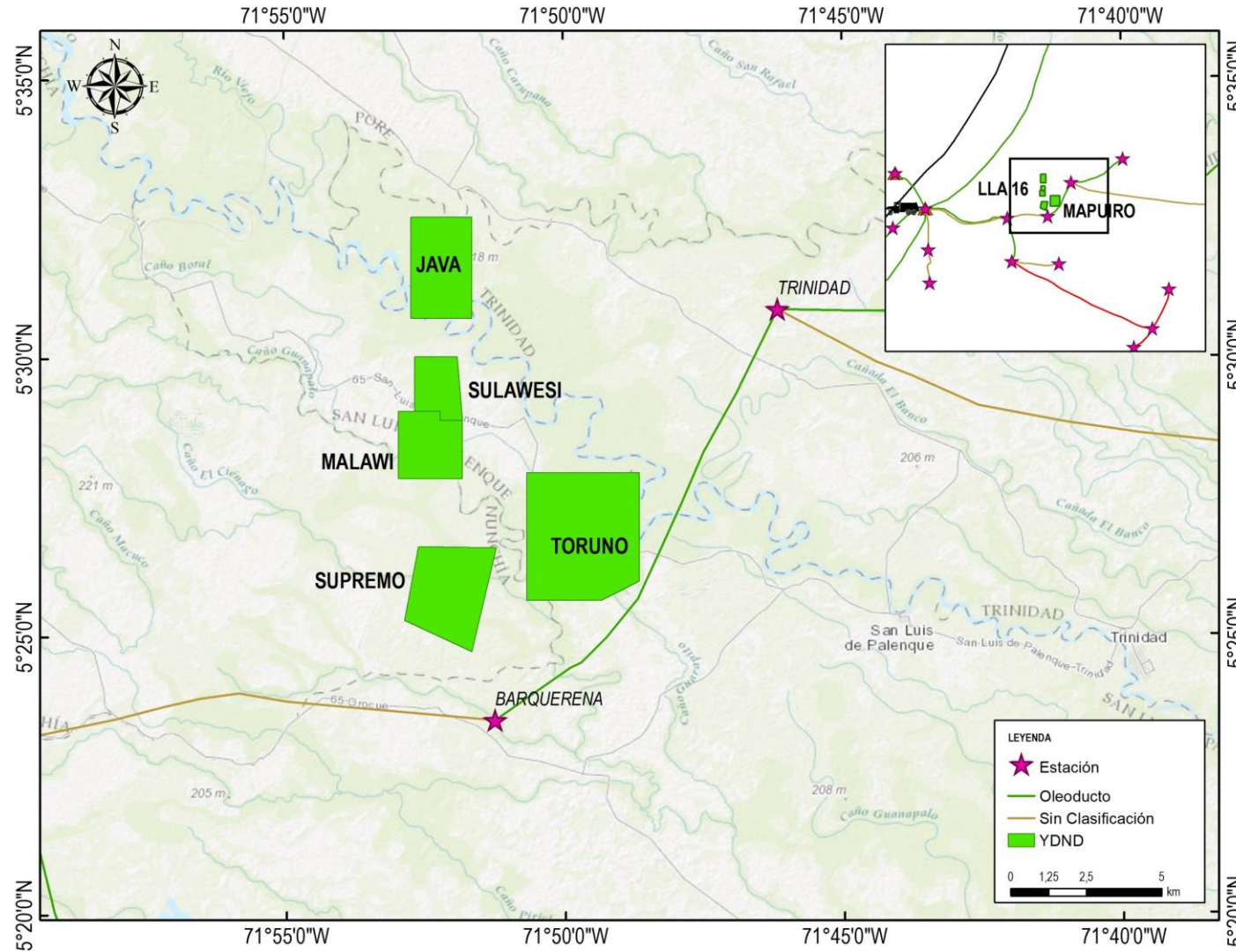
## Wells

- Java 1
- Java 2
- Sulawesi 1
- Sulawesi 2
- Sulawesi 3
- Sulawesi 4
- Malawi 1
- Supremo 1
- Toruno 1

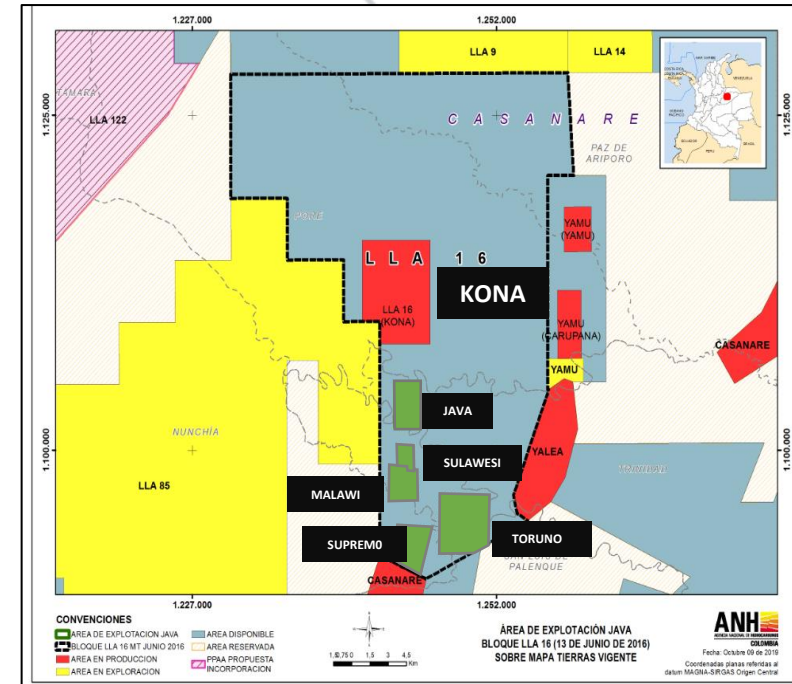
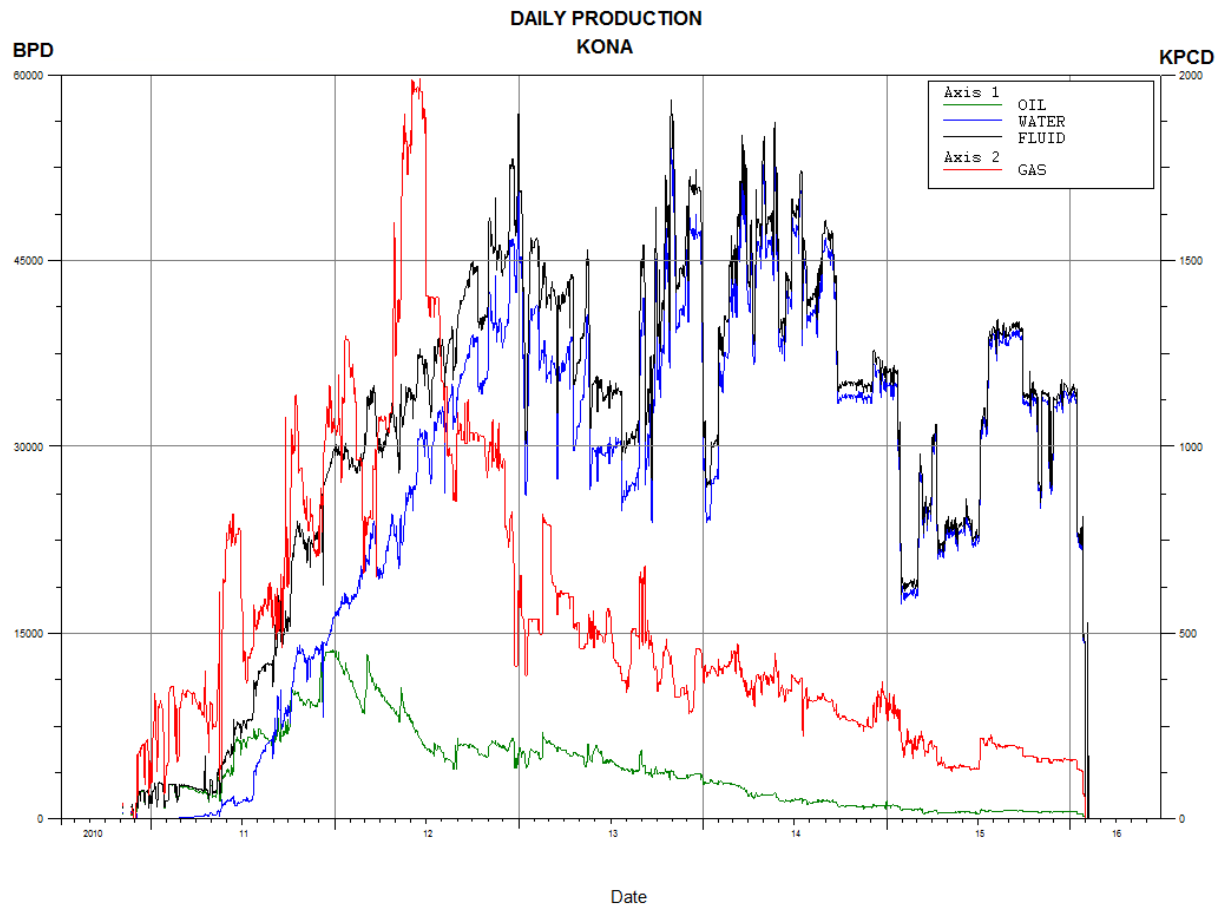
## Sísmica

- Llanos 16 3D-2009
- 40- 2D seismic lines

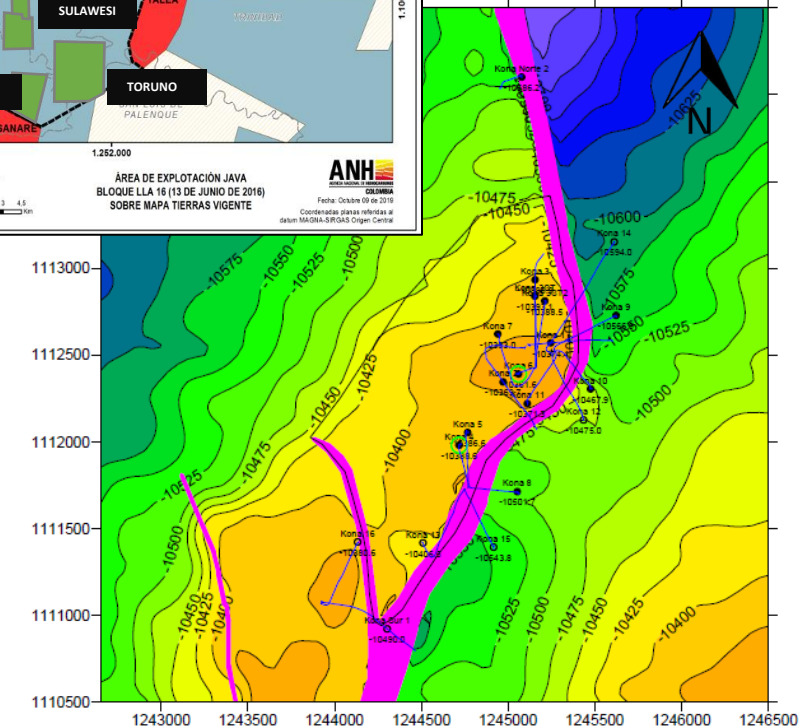
# INFRAESTRUCTURA



# ANALOGOUS FIELD– KONA FIELD



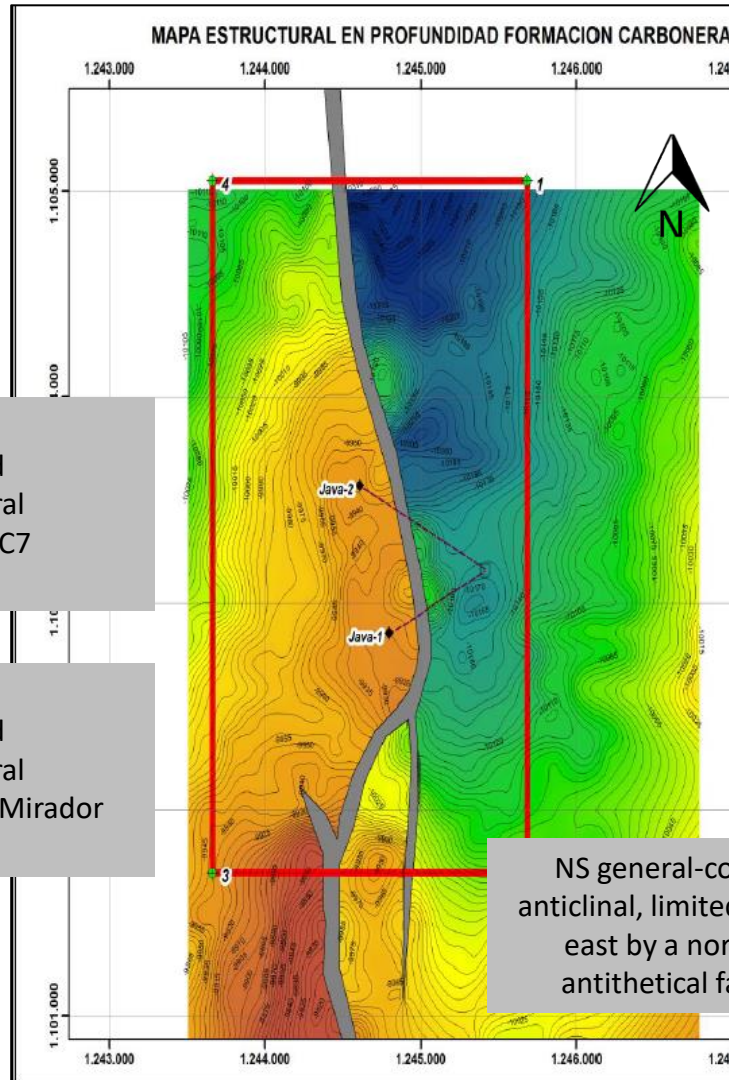
Effective Date: December 31, 2014  
Scale: 1:25,000 11150031



# JAVA AREA



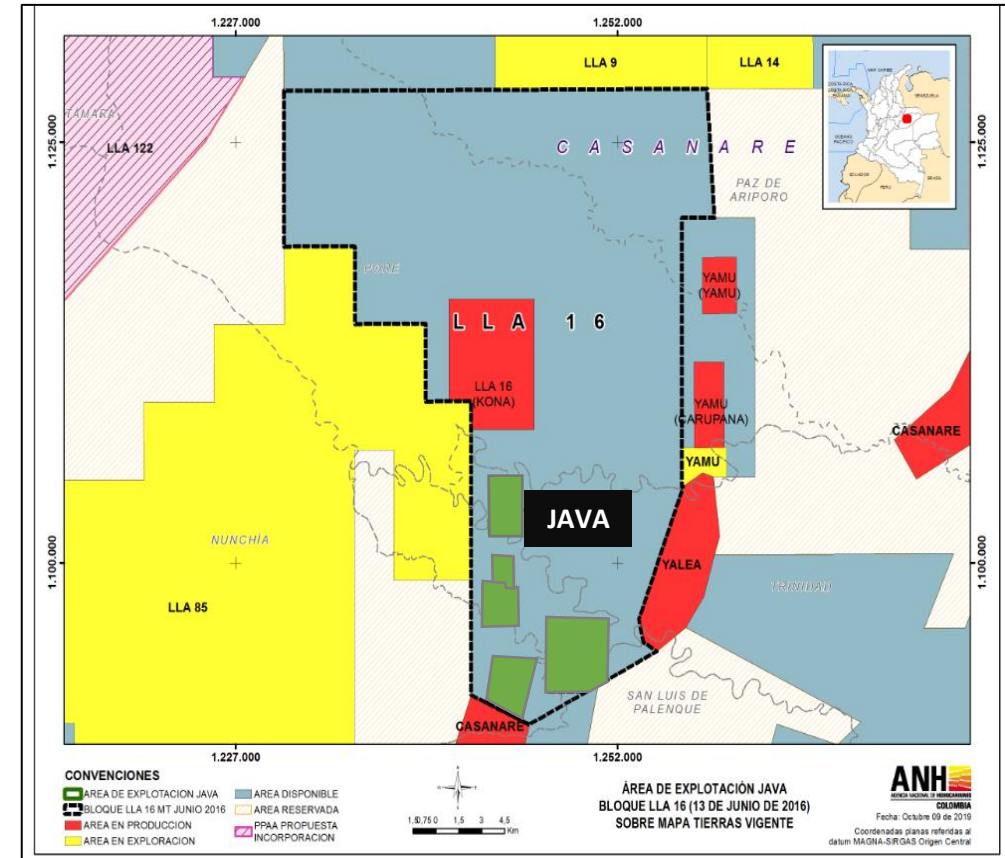
# JAVA AREA



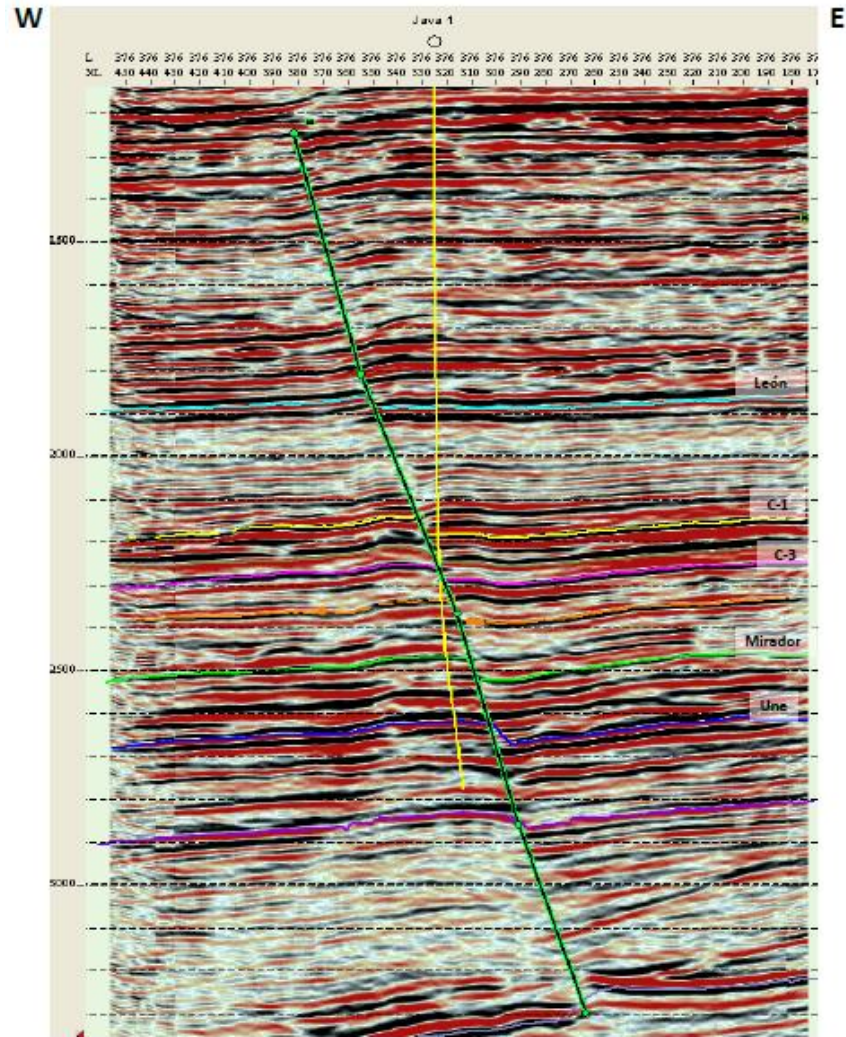
WELL: JAVA-1  
 STRUCTURE: Anticlinal failed  
 STRUCTURAL TRAP: Structural  
 PRODUCTION FORMATION: C7  
 DEPTH: 12,651 feet MD

WELL: JAVA-2  
 STRUCTURE: Anticlinal failed  
 STRUCTURAL TRAP: Structural  
 PRODUCTION FORMATION: Mirador  
 DEPTH: 12,973 feet MD

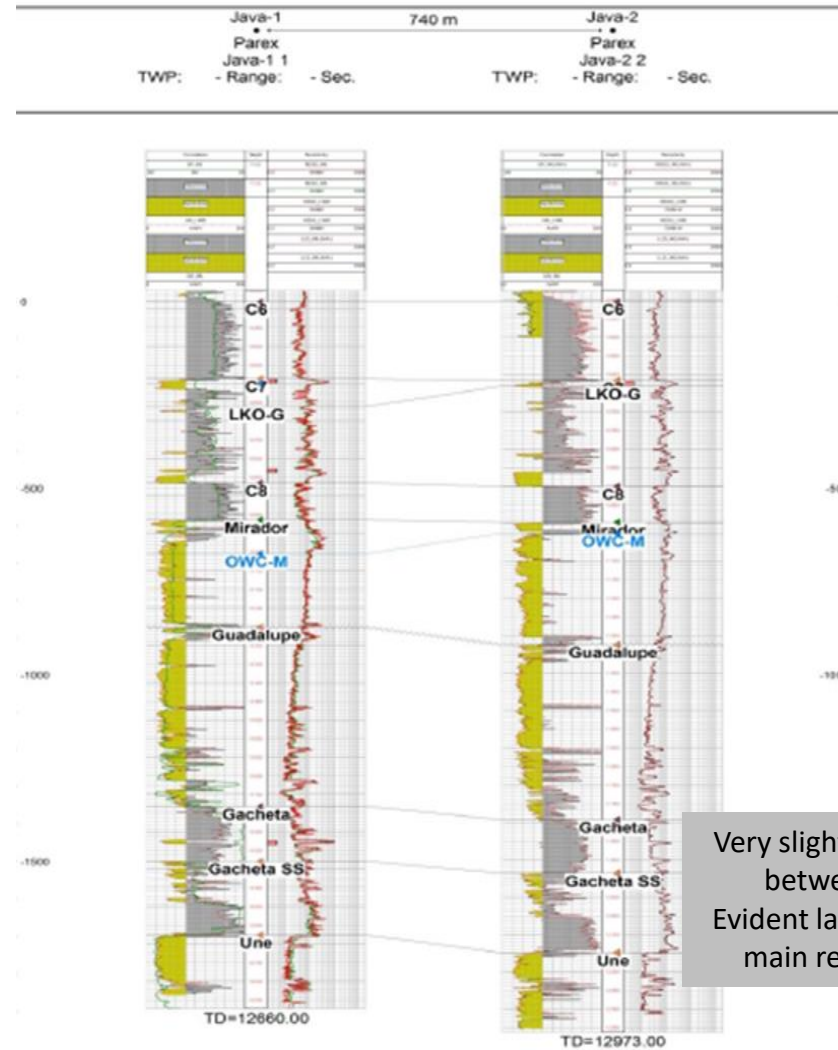
NS general-course anticlinal, limited to the east by a normal antithetical fault.



# JAVA AREA



E



Very slight structural difference between the two wells.  
Evident lateral continuity of the main reservoir formations.

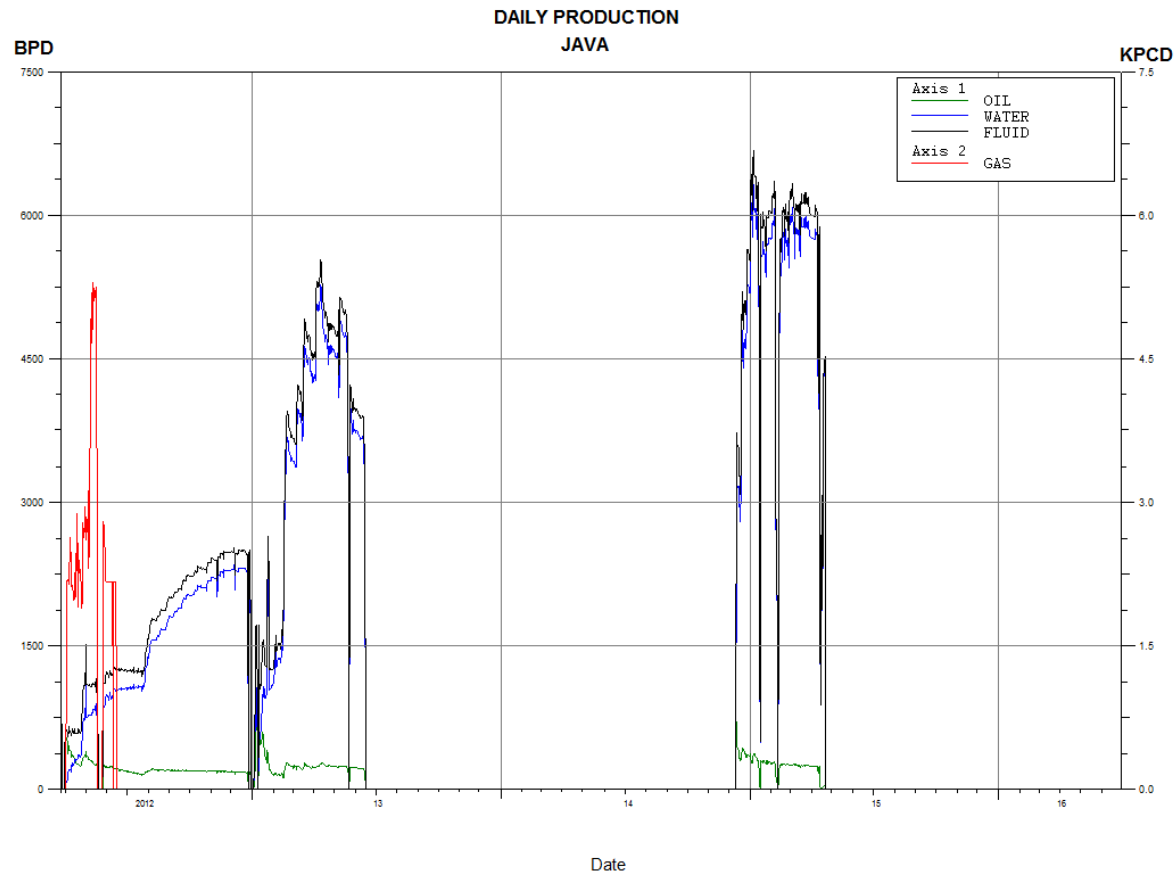
Formación	Intervalo	Fluido Total (Bbls)	Crudo (Bbls)	Agua (Bbls)	Gas (MSCF)	°API	BSW (%)
Carbonera C7A	10973'-10983'	594.95	589.00	5.95	N/R	29.43	1%

**Tabla 2A.** Resultados prueba de producción Carbonera C7A

Formación	Intervalo	BFPD	BOPD	BWPD	QPD (mscfd)
Carbonera C7A	10973'-10983'	540.67	535.26	5.41	N/R

The production test was carried out in 3 intervals during 2012. The formations tested were Gacheta, Carbonera C7C and Carbonera C7A.

# JAVA AREA



PRODUCCION ACUMULADA AÑO 2014 POR POZO			
Pozo	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Java 1	7.797	81.113	0
Java 2	0	0	0
<b>Total</b>	<b>7.797</b>	<b>81.113</b>	<b>0</b>

PRODUCCION ACUMULADA TOTAL POR POZO			
Pozo	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Java 1	88.968	816.376	0.176
Java 2	18.472	204.713	0
<b>Total</b>	<b>107.44</b>	<b>1021.089</b>	<b>0.176</b>

PRODUCCION ACUMULADA AÑO 2014 POR POZO			
Formación	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Carbonera	7.797	81.113	0
<b>Total</b>	<b>7.797</b>	<b>81.113</b>	<b>0</b>

PRODUCCION ACUMULADA TOTAL POR POZO			
Formación	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Carbonera	107.44	1021.089	0.176
<b>Total</b>	<b>107.44</b>	<b>1021.089</b>	<b>0.176</b>

PRONÓSTICO DE PRODUCCIÓN 2015, CAMPO JAVA													
Pozo	Unidad	ene-15	feb-15	mar-15	abr-15	may-15	jun-15	jul-15	ago-15	sep-15	oct-15	nov-15	dic-15
Java-1	BOPD	214	199	187	175	165	156	147	140	133	127	122	117
<b>TOTAL:</b>	<b>BOPD</b>	<b>214</b>	<b>199</b>	<b>187</b>	<b>175</b>	<b>165</b>	<b>156</b>	<b>147</b>	<b>140</b>	<b>133</b>	<b>127</b>	<b>122</b>	<b>117</b>

Tabla 3.7. Pronóstico de producción 2015, Campo Java.

The cumulative production of the Java field from its reactivation until 2014 was 7797 barrels of oil, 81113 barrels of water and 0 MMPCS of gas.

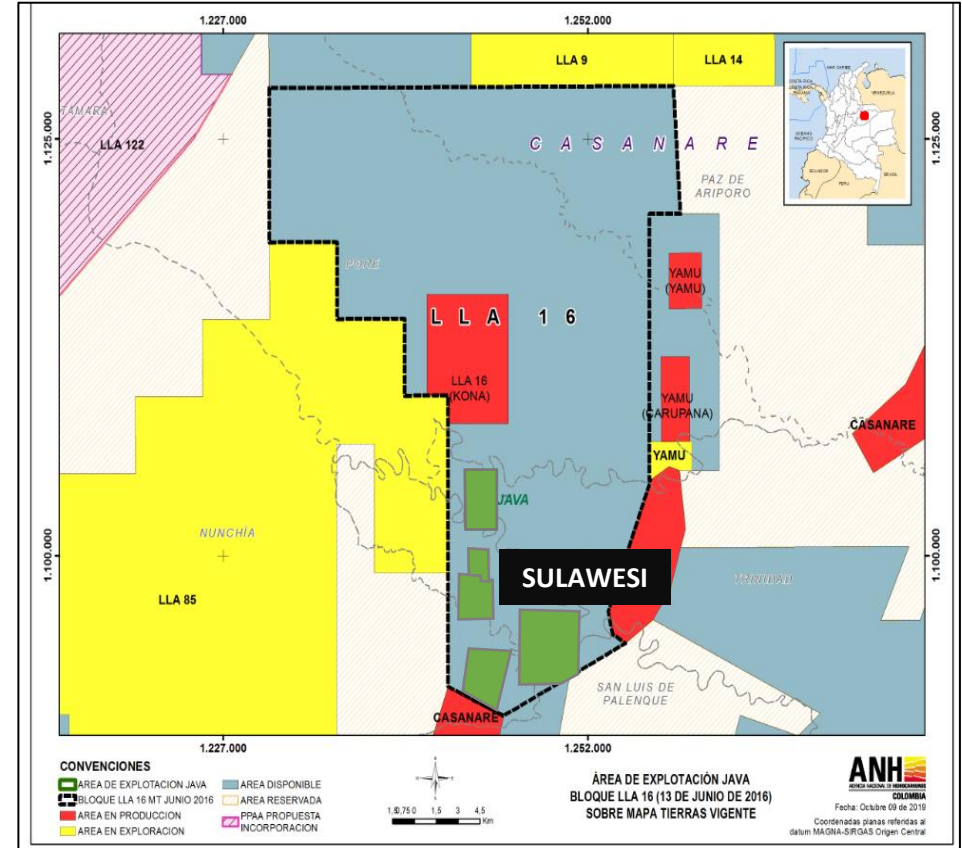
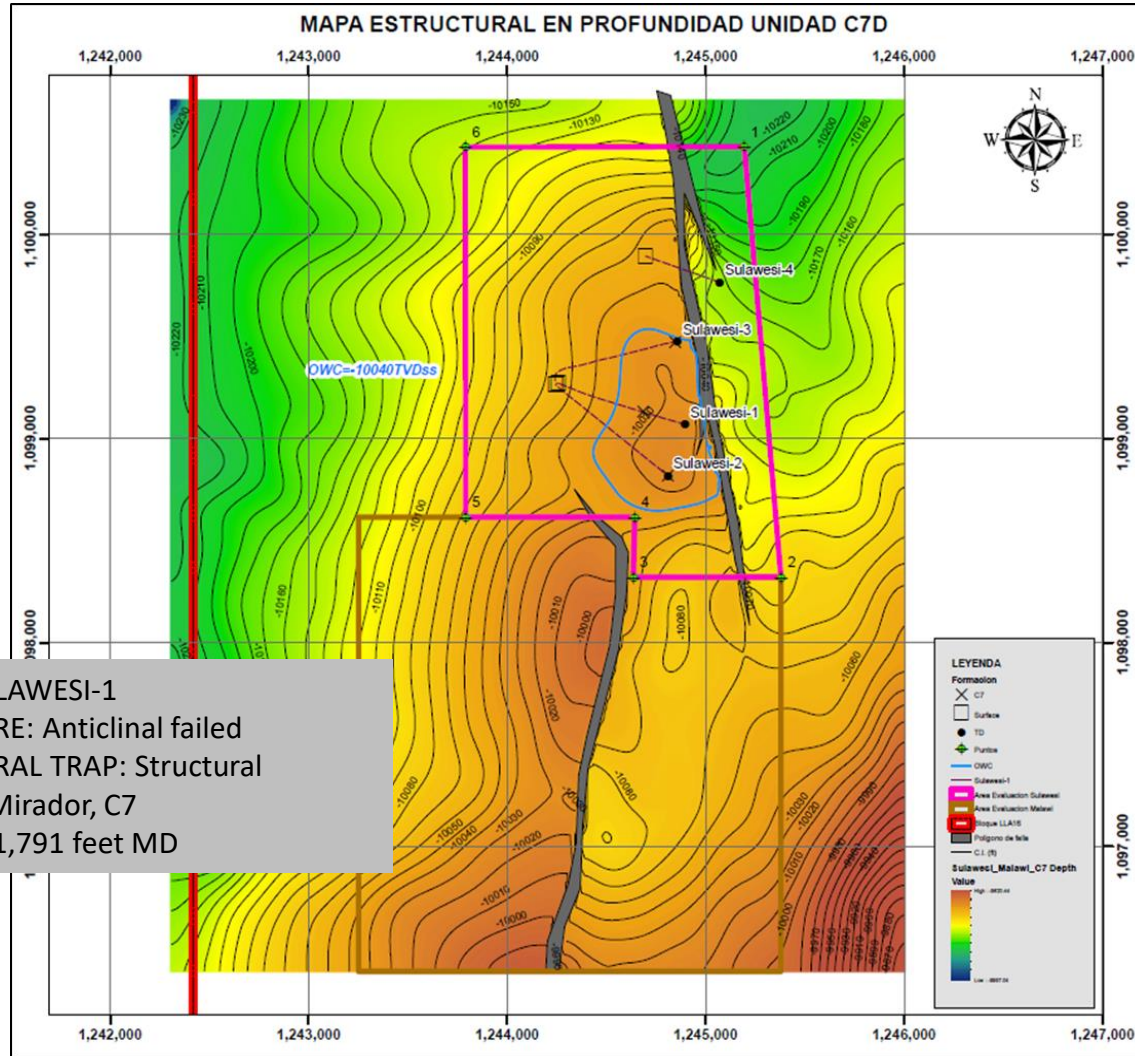
Tabla de Reservas Contrato E&P LLA-16											
Área en particular	Producción (Miles de barriles)	Producción acumulada (Miles de barriles)	Reservas Probadas Remanentes (Miles de barriles)						Reservas Probables	Reservas Posibles	
			2012	2013	31-dic-14				(Miles de barriles)	2013	2013
					Desarrolladas		No Desarrolladas	Total			
					Produciendo	No Produciendo					
Java	7.797	107.440	179.00	98.00	90.203	0.000	0.000	90.203	30.000	12.000	
<b>Total</b>	<b>7.797</b>	<b>107.440</b>	<b>179.000</b>	<b>98.000</b>	<b>90.203</b>	<b>0.000</b>	<b>0.000</b>	<b>90.203</b>	<b>30.000</b>	<b>12.000</b>	

Tabla de Reservas Contrato E&P LLA-16											
Área en particular	Producción (Miles de pies cúbicos)	Producción acumulada (Miles de pies cúbicos)	Reservas Probadas Remanentes (Miles de pies cúbicos)						Reservas Probables	Reservas Posibles	
			2012	2013	31-dic-14				(Miles de pies cúbicos)	2013	2013
					Desarrolladas		No Desarrolladas	Total			
					Produciendo	No Produciendo					
Java											
<b>Total</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	

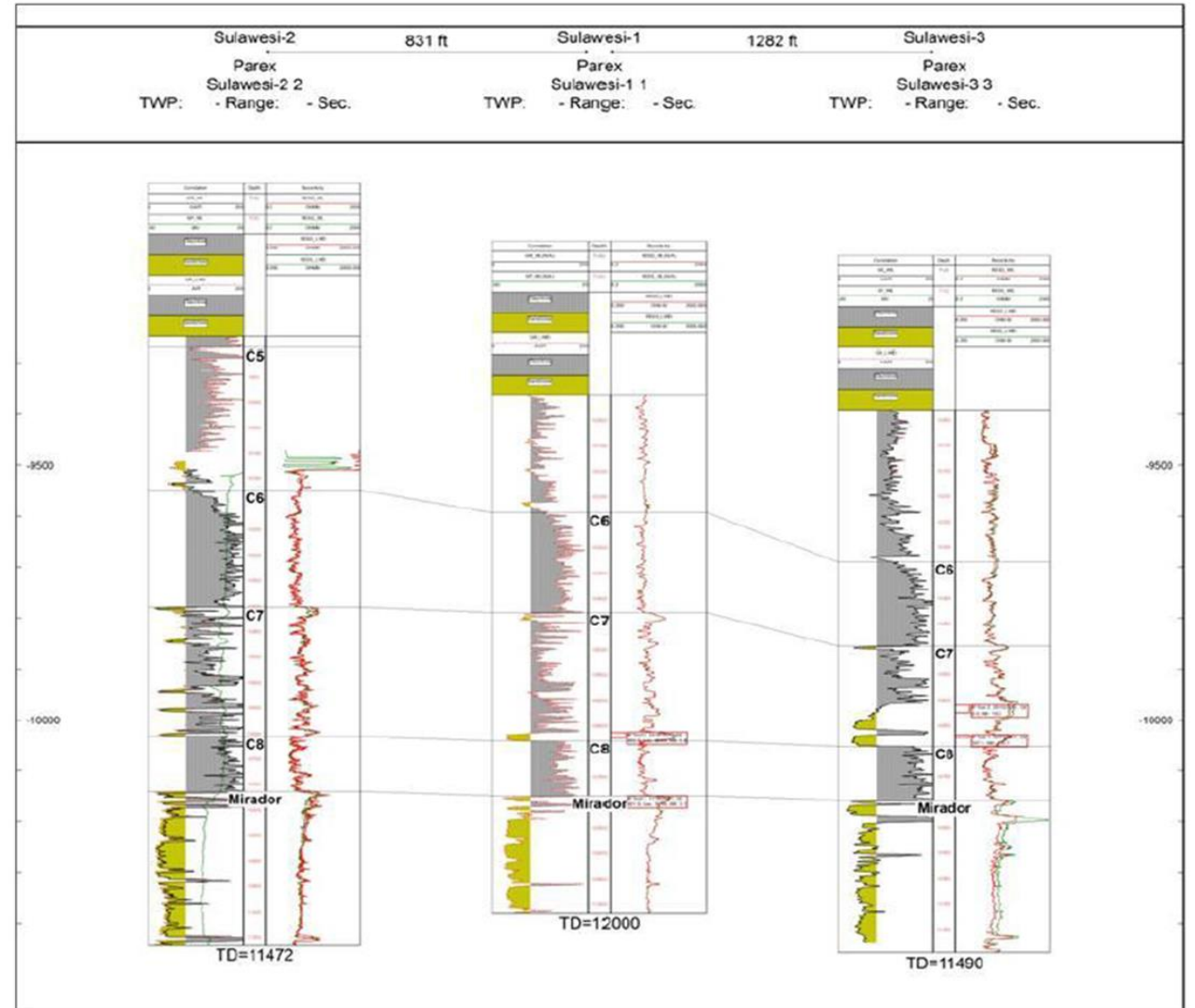
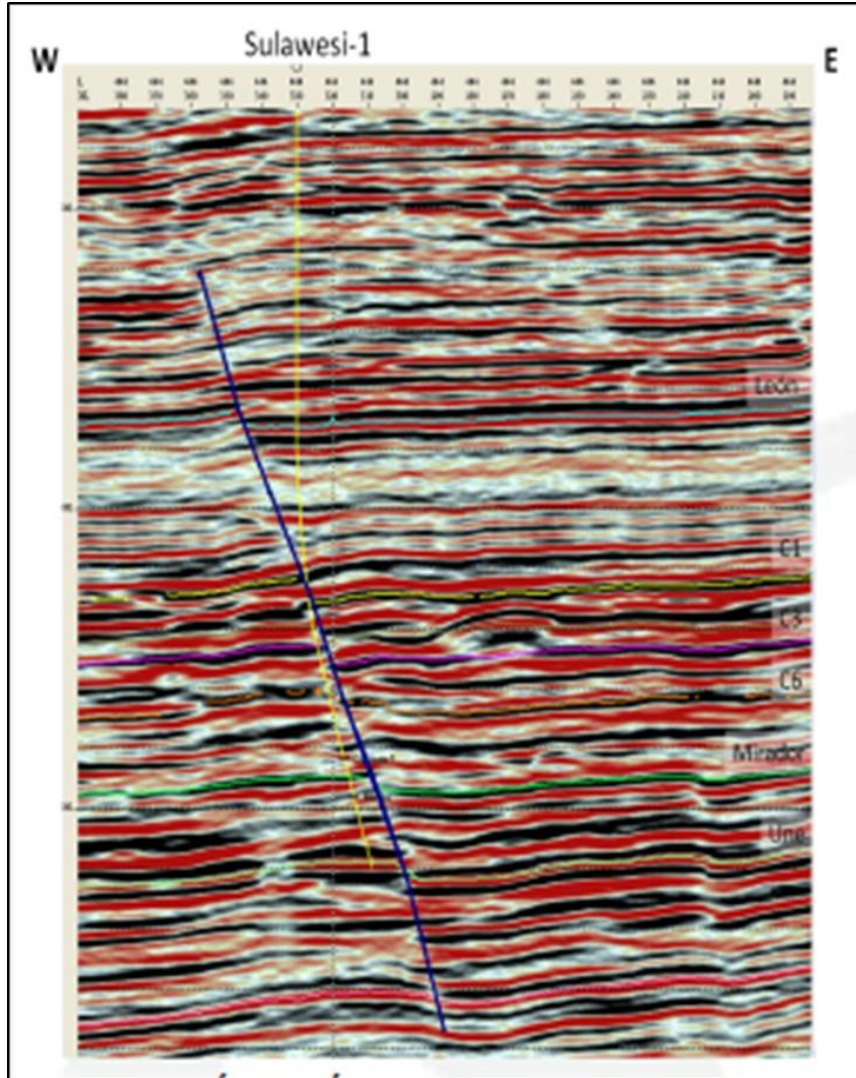
Tabla 5.3. Tabla de Reservas Contrato E&P Llanos 16 – Campo Java

# SULAWESI AREA

# SULAWESI AREA



# SULAWESI AREA

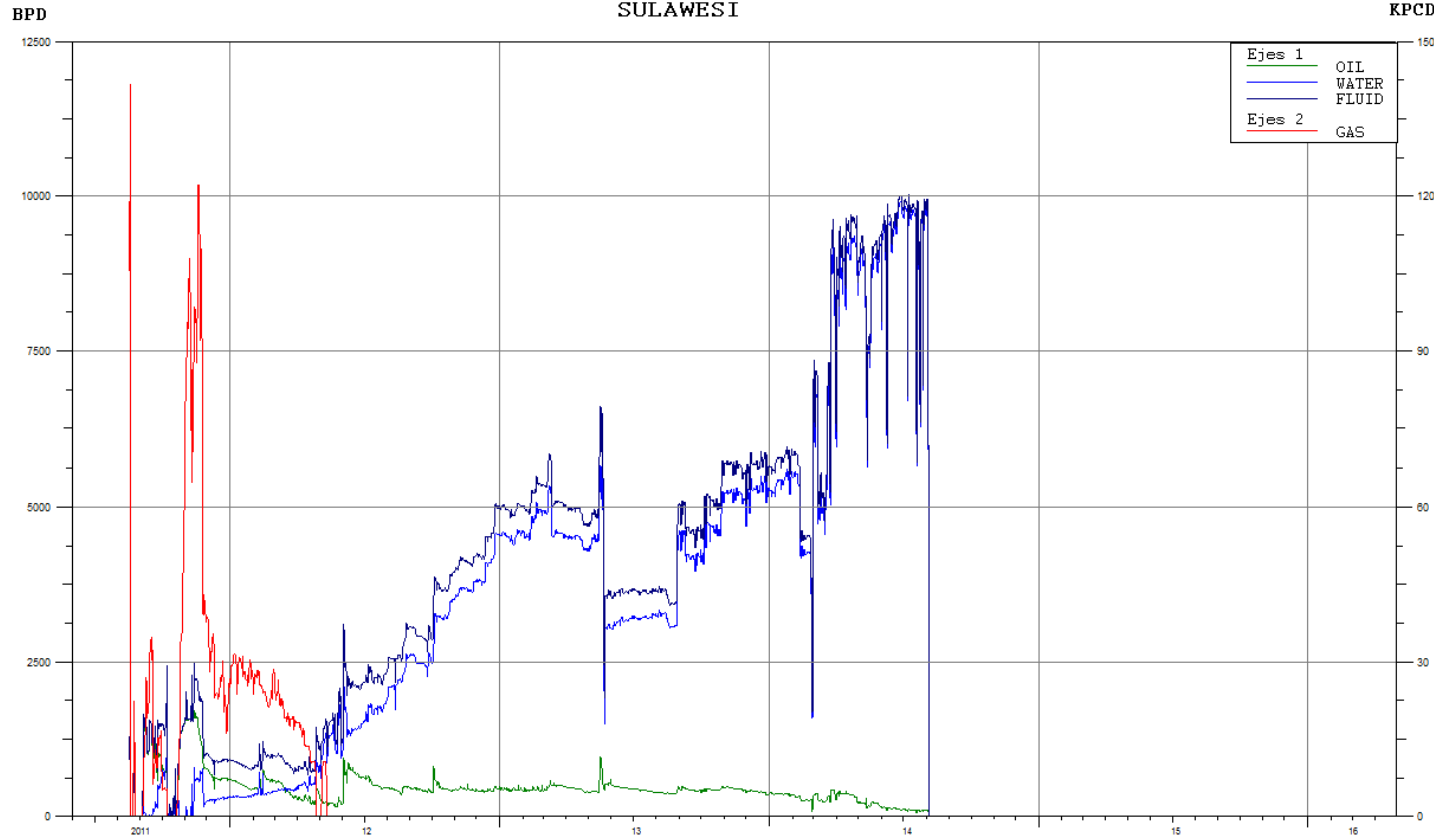




# SULAWESI AREA

## DAILY PRODUCTION

### SULAWESI



The cumulative production of the Sulawesi field during 2014 was 52000 barrels of oil.

PRODUCCION ACUMULADA AÑO 2014 POR POZO			
Pozo	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Sulawesi 1	41.87	1338.094	0
Sulawesi 2	7.459	151.258	0
Sulawesi 3	2.832	124.383	0
Sulawesi 4	0	0	0
<b>Total</b>	<b>52.161</b>	<b>1613.735</b>	<b>0</b>

PRODUCCION ACUMULADA TOTAL POR POZO			
Pozo	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Sulawesi 1	390.015	3169.28	7.056
Sulawesi 2	79.14	384.055	0
Sulawesi 3	15.704	292.785	0.038
Sulawesi 4	4.135	28.979	0
<b>Total</b>	<b>488.994</b>	<b>3875.099</b>	<b>7.094</b>

PRODUCCION ACUMULADA AÑO 2014 POR FORMACIÓN			
Formación	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Carbonera	52.161	1613.735	0
Gacheta	0	0	0
Mirador	0	0	0
<b>Total</b>	<b>52.161</b>	<b>1613.735</b>	<b>0</b>

PRODUCCION ACUMULADA TOTAL POR FORMACIÓN			
Formación	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Carbonera	370.226	3784.053	0.594
Gacheta	4.135	28.979	0
Mirador	114.633	62.067	6.5
<b>Total</b>	<b>488.994</b>	<b>3875.099</b>	<b>7.094</b>

POZOS	TVD	FECHA	ESTADO	FORMACIÓN
Sulawesi-1	11081	14/08/2011	Productor	Carbonera C7/ Mirador
Sulawesi-2	11115	27/01/2012	Productor	Carbonera C7/ Mirador
Sulawesi-3	11104,2	30/09/2011	Productor	Carbonera C7/ Mirador
Sulawesi-4	12280,5	15/02/2012	Inyector	Gacheta sup e inf.

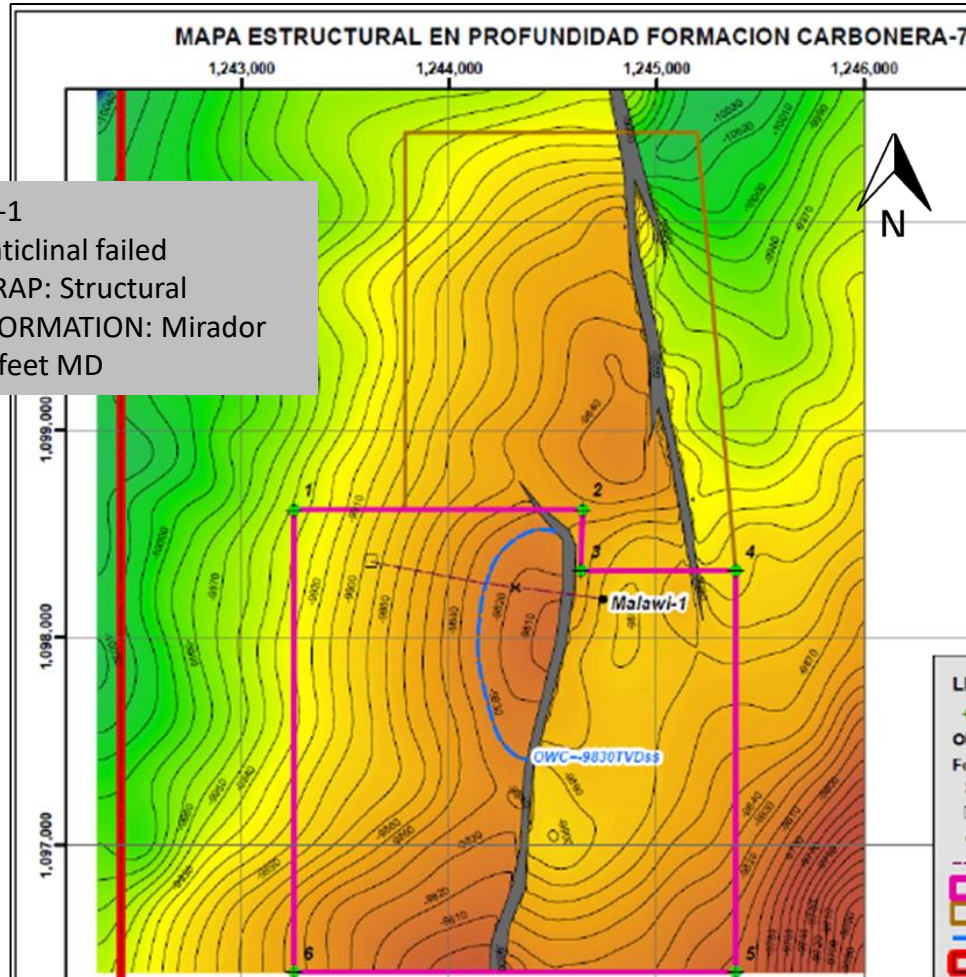
# SULAWESI AREA

Tabla de Reservas Contrato E&P LLA-16										
Área en particular	Producción (Miles de barriles)	Producción acumulada (Miles de barriles)	Reservas Probadas Remanentes (Miles de barriles)						Reservas Probables	Reservas Posibles
			2012	2013	31-dic-14				(Miles de barriles)	
					Desarrolladas		No Desarrolladas	Total	2013	2013
					Produciendo	No Produciendo				
Sulawesi	52.161	488.994	173.000	159.000	106.839	0.000	0.000	106.839	96.000	47.000
<b>Total</b>	<b>52.161</b>	<b>488.994</b>	<b>173.000</b>	<b>159.000</b>	<b>106.839</b>	<b>0.000</b>	<b>0.000</b>	<b>106.839</b>	<b>96.000</b>	<b>47.000</b>

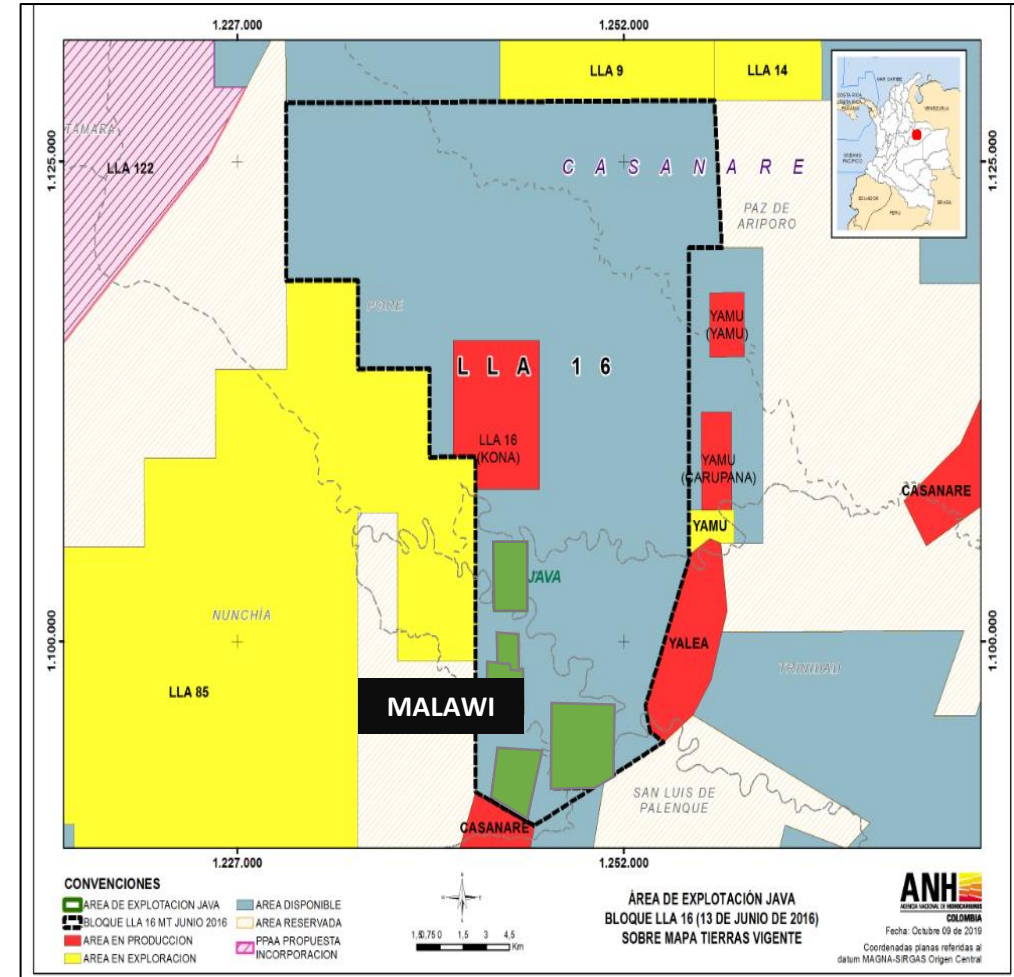
Tabla de Reservas Contrato E&P LLA-16										
Área en particular	Producción (Miles de pies cúbicos)	Producción acumulada (Miles de pies cúbicos)	Reservas Probadas Remanentes (Miles de pies cúbicos)						Reservas Probables	Reservas Posibles
			2012	2013	31-dic-14				(Miles de pies cúbicos)	
					Desarrolladas		No Desarrolladas	Total	2013	2013
					Produciendo	No Produciendo				
Sulawesi										
<b>Total</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

# MALAWI AREA

# MALAWI AREA

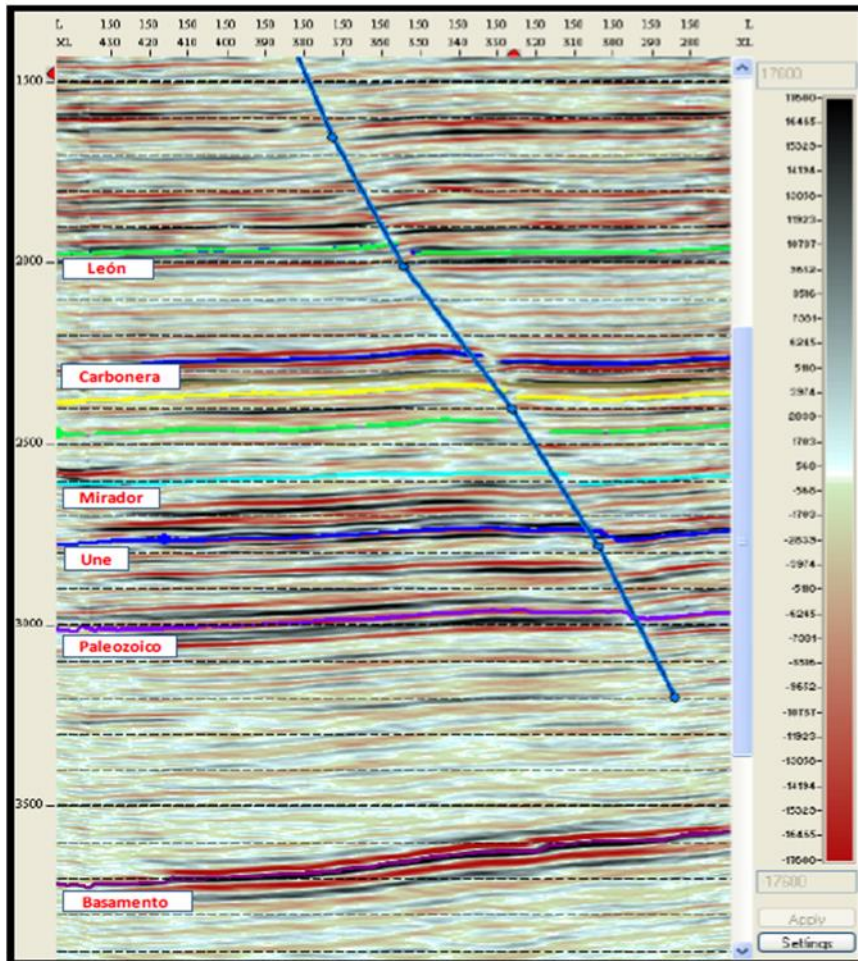


WELL: MALAWI-1  
STRUCTURE: Anticlinal failed  
STRUCTURAL TRAP: Structural  
PRODUCTION FORMATION: Mirador  
DEPTH: 13,170 feet MD

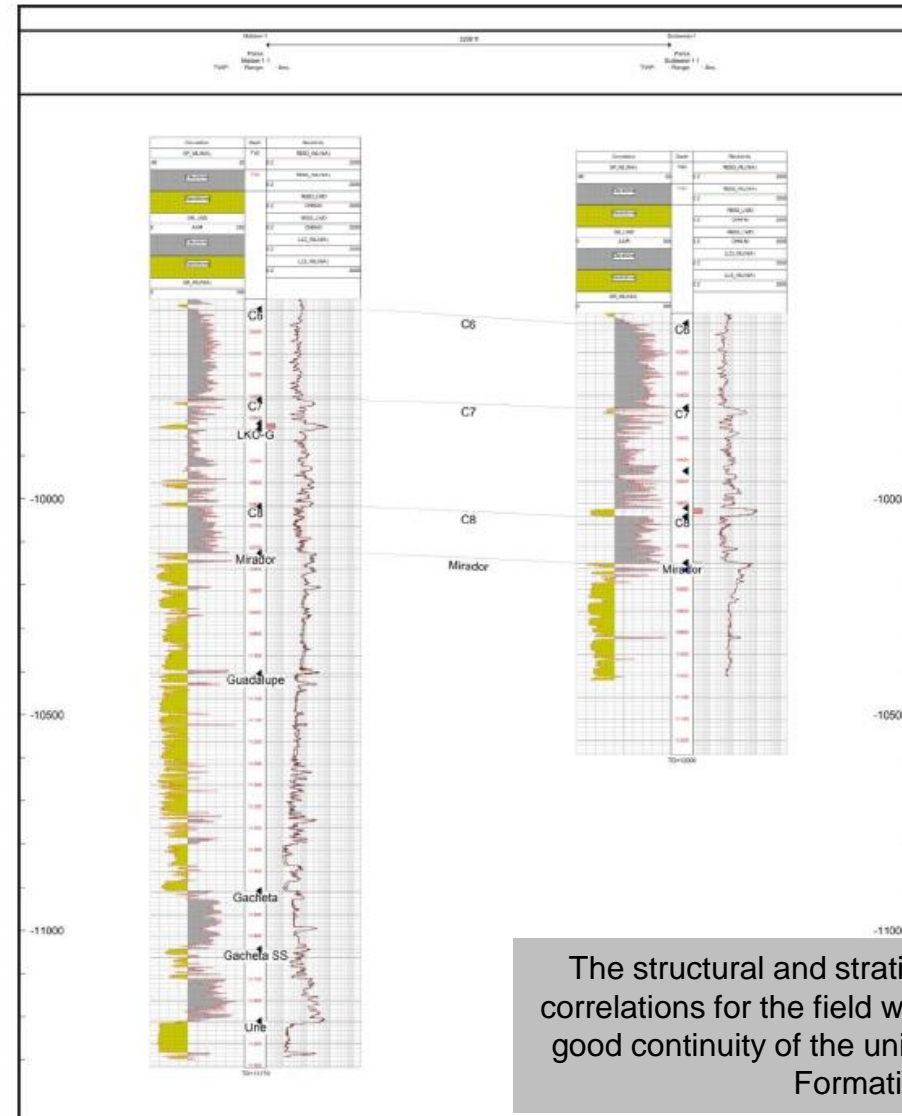


# MALAWI AREA

W



E



The structural and stratigraphic schematic correlations for the field where we can see the good continuity of the units of the Carbonera Formation

<b>Swab Report Interval (11569'- 11578') Mirador Formation</b>			
Well Name:	MALAWI 1		
Location:	WALAWI	Report Date:	06/06/12
		Page:	1
Cumulative Fluid Production:	293,47	Objective:	Swab Induce Flow Mirador Formation (11569' - 11578')
Cumulative Water Production:	274,30		
Cumulative Oil / Condensate Production:	19,17	Load Fluid:	67,25
		Supervisor:	Ing. Felix Kondo.

**Tabla 2A.** Resultados prueba de producción Formación Mirador

*Resultados de la prueba en flujo natural en la formación Carbonera C7 intervalo (11188'- 11200').*

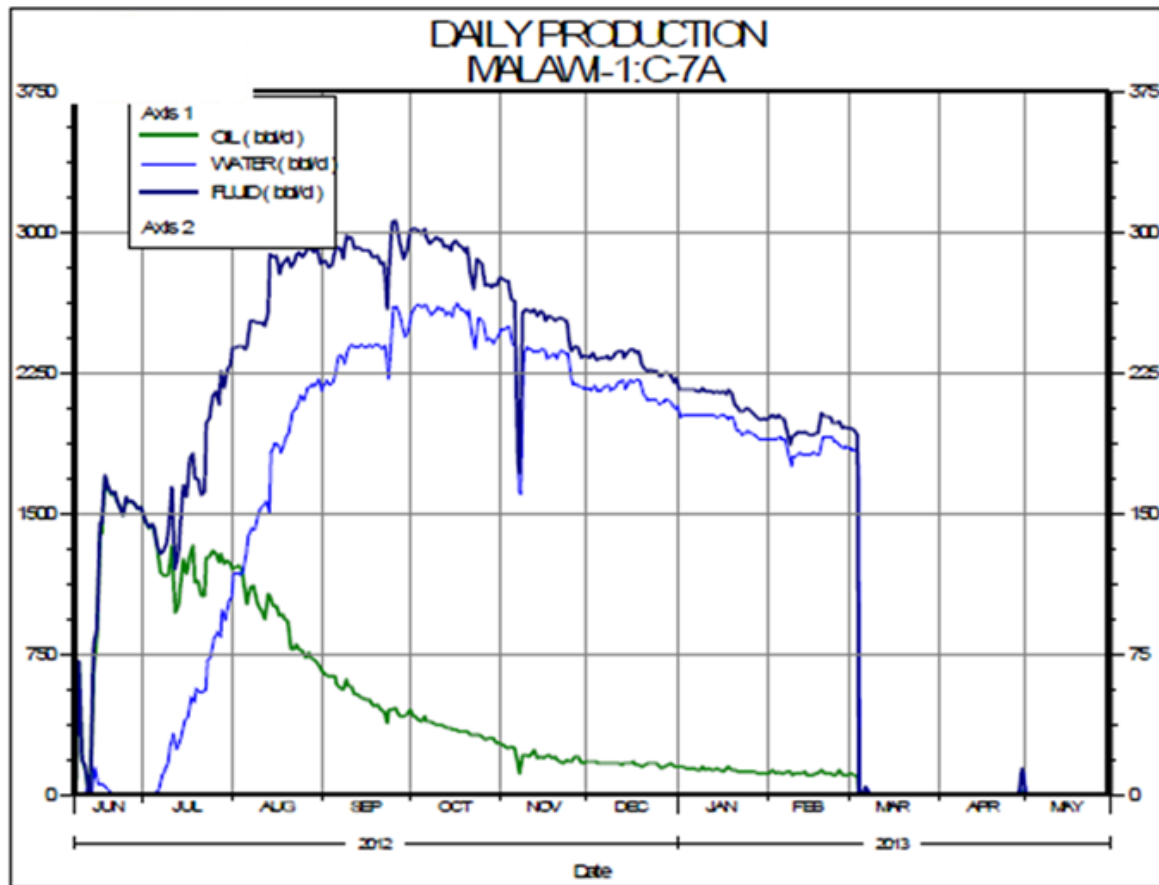
Choque (/64)	WHP (psi)	Fluido Total (Bbls)	Crudo (Bbls)	Agua (Bbls)	Gas (MSCFD)	°API	BSW (%)
64	14	144	40.59	19.30	N/R	-	32
32	35	277.75	272.74	5.01	N/R	-	1.8
24	40	134.37	133.83	0.54	N/R	31.7	0.4
18	37	574.99	573.63	1.33	N/R	31.9	0.3

Choque (/64)	WHP (psi)	BFPD	BOPD	BWPD	QPD (mscfd)	GOR
64	14	1916.42	1298.95	617.47	-	-
32	35	1777.58	1745.55	32.03	-	-
24	40	1612.38	1605.93	6.45	-	-
18	37	1455.91	1452.24	3.67	-	-

**Tabla 2B.** Resultados prueba de producción Formación Carbonera C7

According to the tests carried out and the results obtained in the Malawi 1 well, the Carbonera C7 formation showed good results in production rates and low %BSW percentage

# MALAWI AREA



PRODUCCIÓN ACUMULADA AÑO 2013 POR POZO				PRODUCCIÓN ACUMULADA TOTAL POR POZO (MBO)			
Pozo	Aceite (MBO)	Agua (MBW)	Gas (MMPC)	Pozo	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Malawi-1	7,4	123,2	0,0	Malawi-1	137,2	476,0	0,0
<b>Total</b>	<b>7,4</b>	<b>123,2</b>	<b>0,0</b>	<b>Total</b>	<b>137,2</b>	<b>476,0</b>	<b>0,0</b>

PRODUCCIÓN ACUMULADA AÑO 2013 POR FORMACIÓN				PRODUCCIÓN ACUMULADA TOTAL POR FORMACIÓN			
Formación	Aceite (MBO)	Agua (MBW)	Gas (MMPC)	Formación	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Carbonera C7	7,4	123,2	0,0	Carbonera C7	137,2	475,9	0,0
Mirador	0,0	0,0	0,0	Mirador	0,0	0,1	0,0
<b>Total</b>	<b>7,4</b>	<b>123,2</b>	<b>0,0</b>	<b>Total</b>	<b>137,2</b>	<b>476,0</b>	<b>0,0</b>

The cumulative production of the field as of December 30, 2013 was 137,230 million barrels of oil.

The well suffers a mechanical problem (collapse of the lining), so it is intervened on and abandoned in 2013.

The Mirador (11,569' – 11,578' MD) and Carbonera C7 (11,188' – 11,200' MD) formations were tested with oil production of 34.82 and 29 API.

# MALAWI AREA

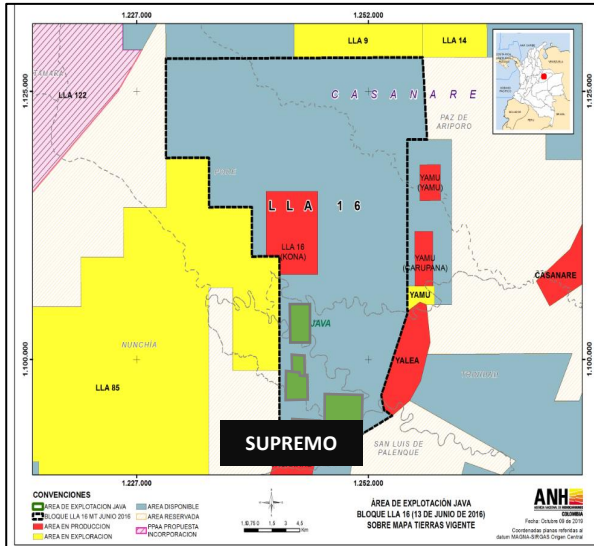
Tabla de Reservas Contrato E&amp;P Llanos 16

Campo o Pozo	Producción (Miles de barriles)	Producción acumulada (Miles de barriles)	Reservas Probadas Remanentes (Miles de Barriles)						Reservas Probables	Reservas Posibles
			2010	2011	2012			(Miles de barriles)		
					Desarrolladas		No Desarrolladas	Total	2012	2012
					Produciendo	No produciendo				
2013	30/06/2013									
Malawi	7,385	137,230	-	-	25,173	-	-	25,173	5,000	5,000
<b>Total</b>	<b>7,385</b>	<b>137,230</b>			<b>25,173</b>	<b>0,000</b>		<b>25,173</b>	<b>5,000</b>	<b>5,000</b>

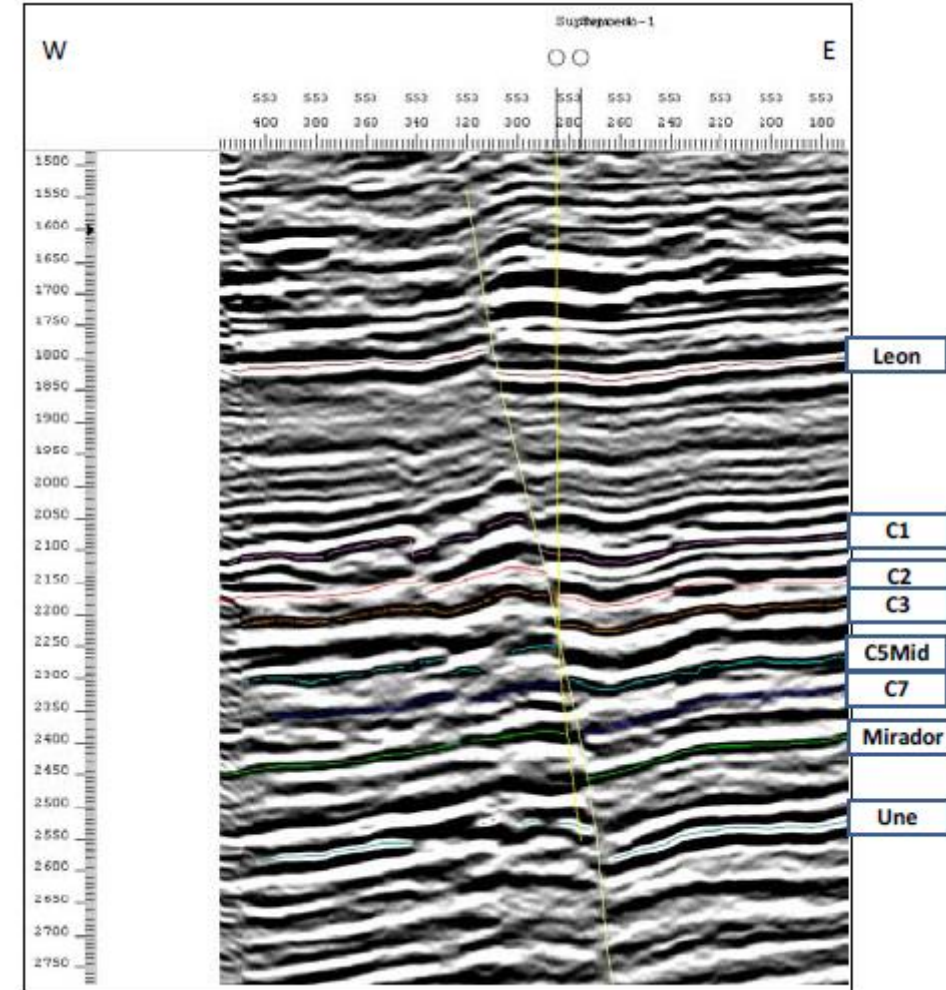
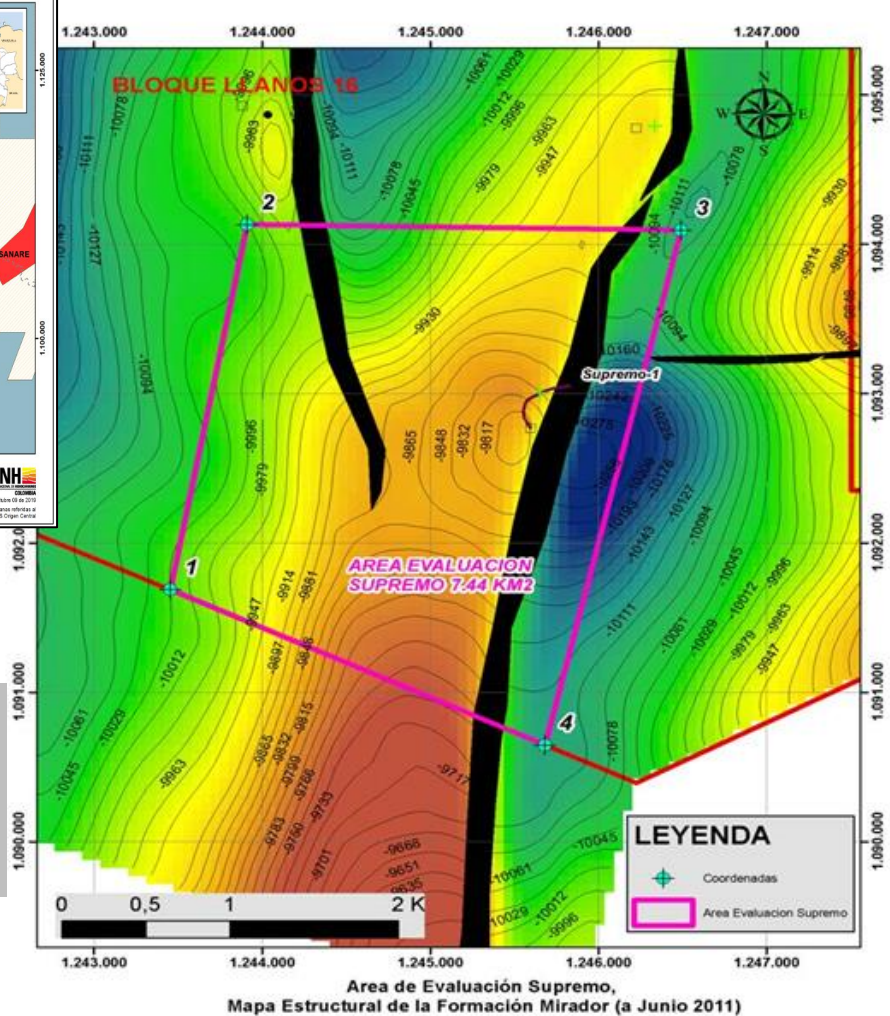


# SUPREMO AREA

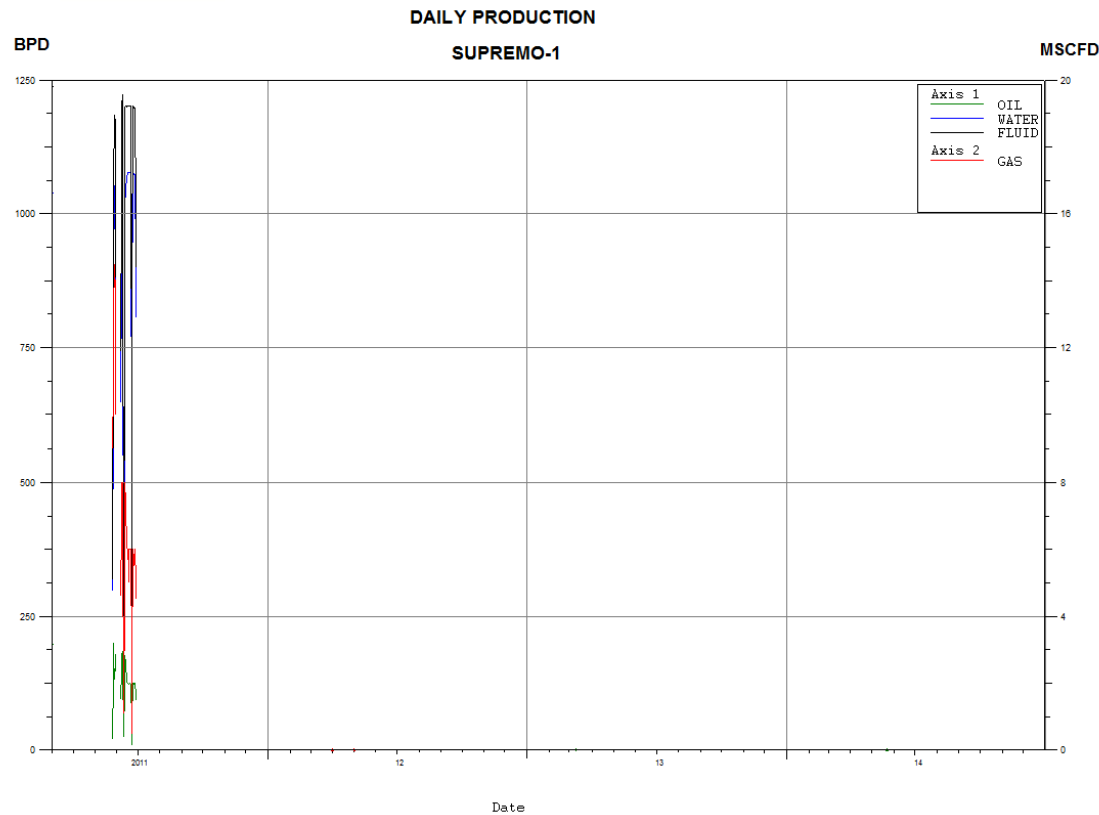
# SUPREMO AREA



WELL: SUPREMO-1  
STRUCTURE: Anticlinal failed  
STRUCTURAL TRAP: Structural  
PRODUCTION FORMATION: Mirador  
DEPTH: 13,040 feet MD



# SUPREMO AREA



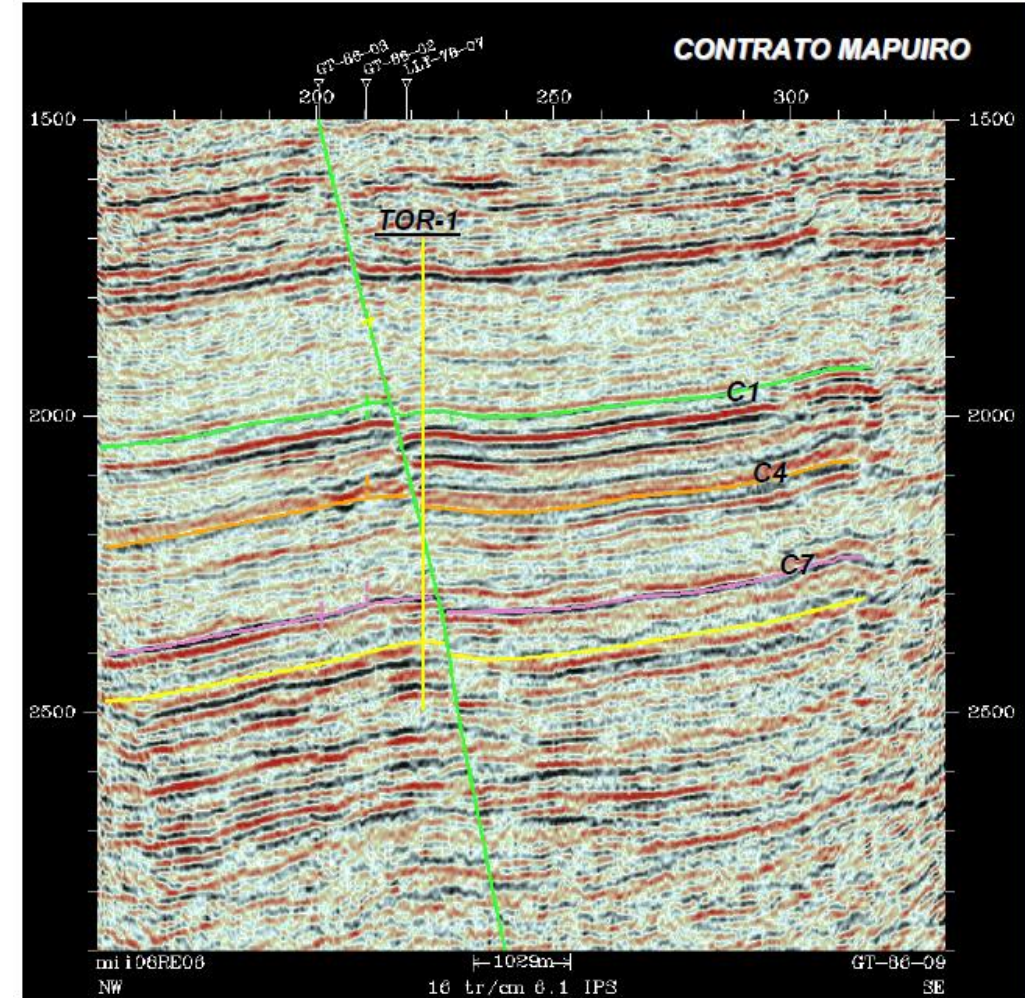
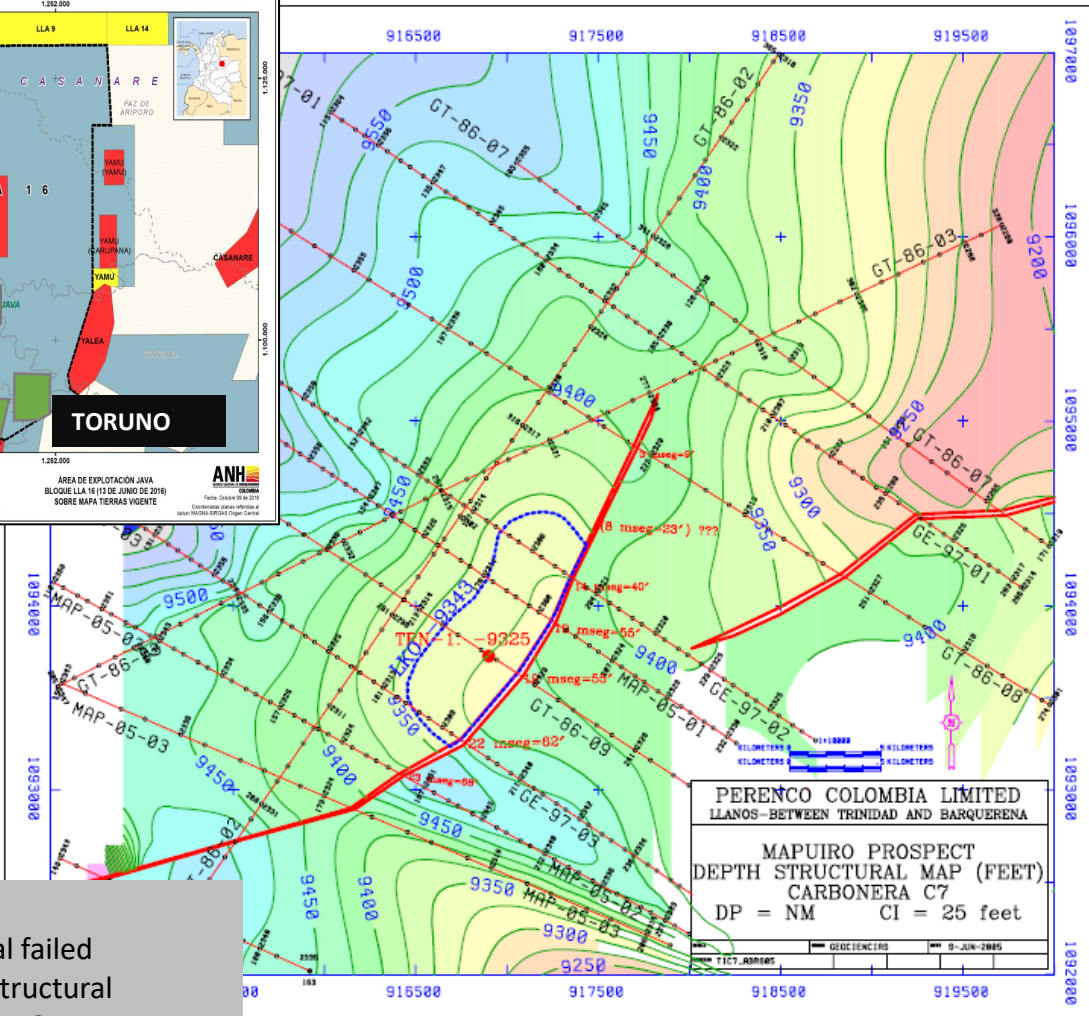
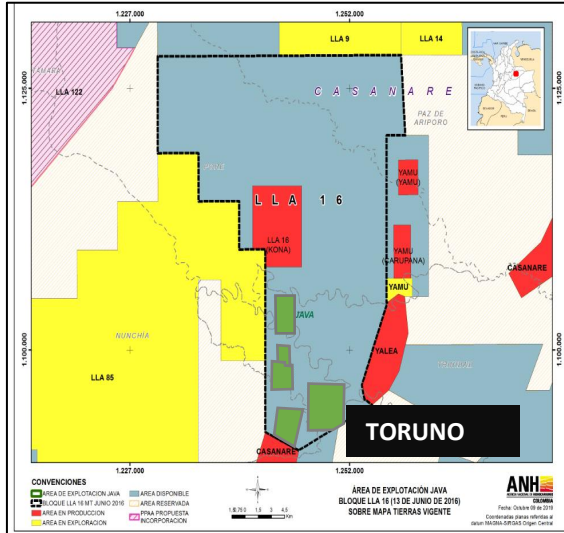
PRODUCCION ACUMULADA TOTAL POR POZO			
Pozo	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Supremo 1	4.296	29.402	0.274
<b>Total</b>	<b>4.296</b>	<b>29.402</b>	<b>0.274</b>

PRODUCCION ACUMULADA TOTAL POR POZO			
Formación	Aceite (MBO)	Agua (MBW)	Gas (MMPC)
Mirador	4.296	29.402	0.274
<b>Total</b>	<b>4.296</b>	<b>29.402</b>	<b>0.274</b>

The completion was carried out in the Une formation (11791.5' - 11811.5') producing 100% water and later in the Mirador Formation (10620'-10625') with crude oil production of 31 degrees API and 80% BSW, by swabbing.

# TORUNO AREA

# TORUNO AREA



WELL: TORUNO-1  
STRUCTURE: Anticlinal failed  
STRUCTURAL TRAP: Structural  
PRODUCTION FORMATION: c7  
DEPTH: 11,021 feet MD

# TORUNO AREA

Figura 4. Producción y Reservas Pozo Toruno-1. Formación Carbonera C7 Superior.

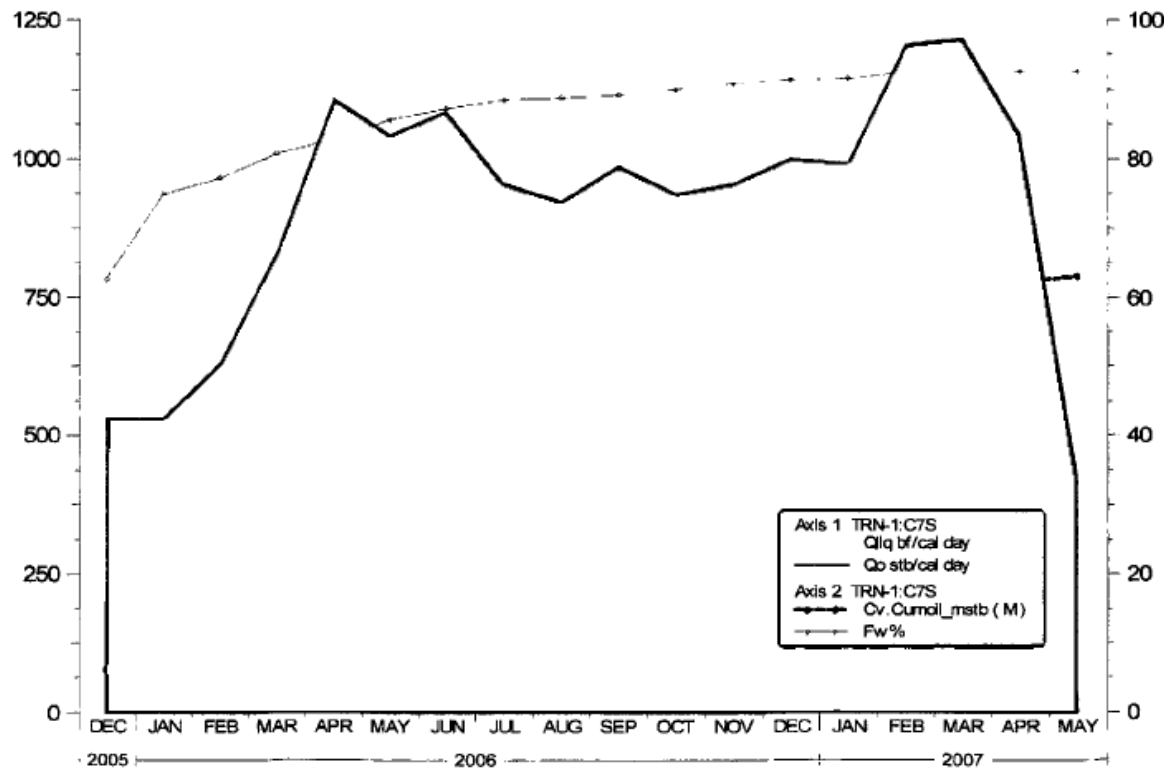
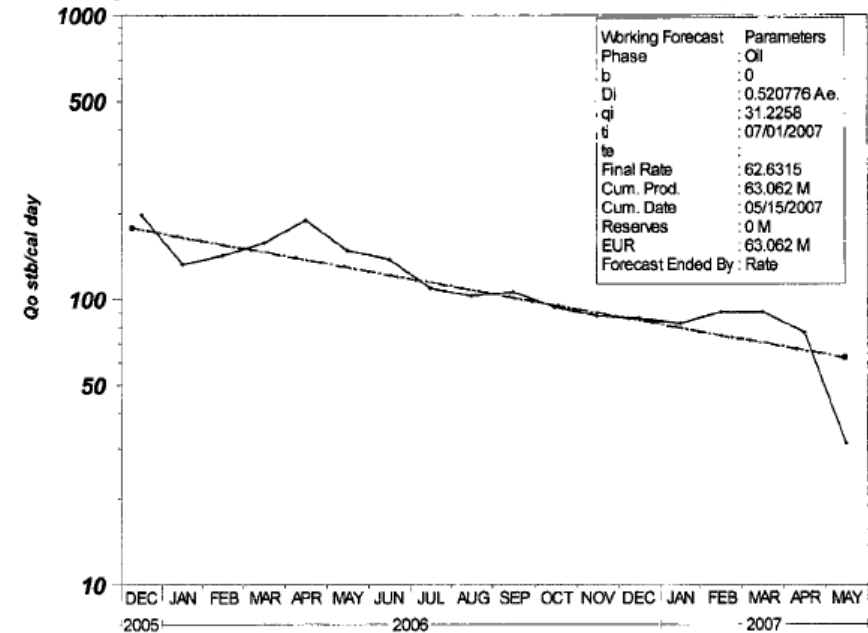


Figura 5. Declinación y Reservas Pozo Toruno-1. Formación Carbonera C7 Superior.

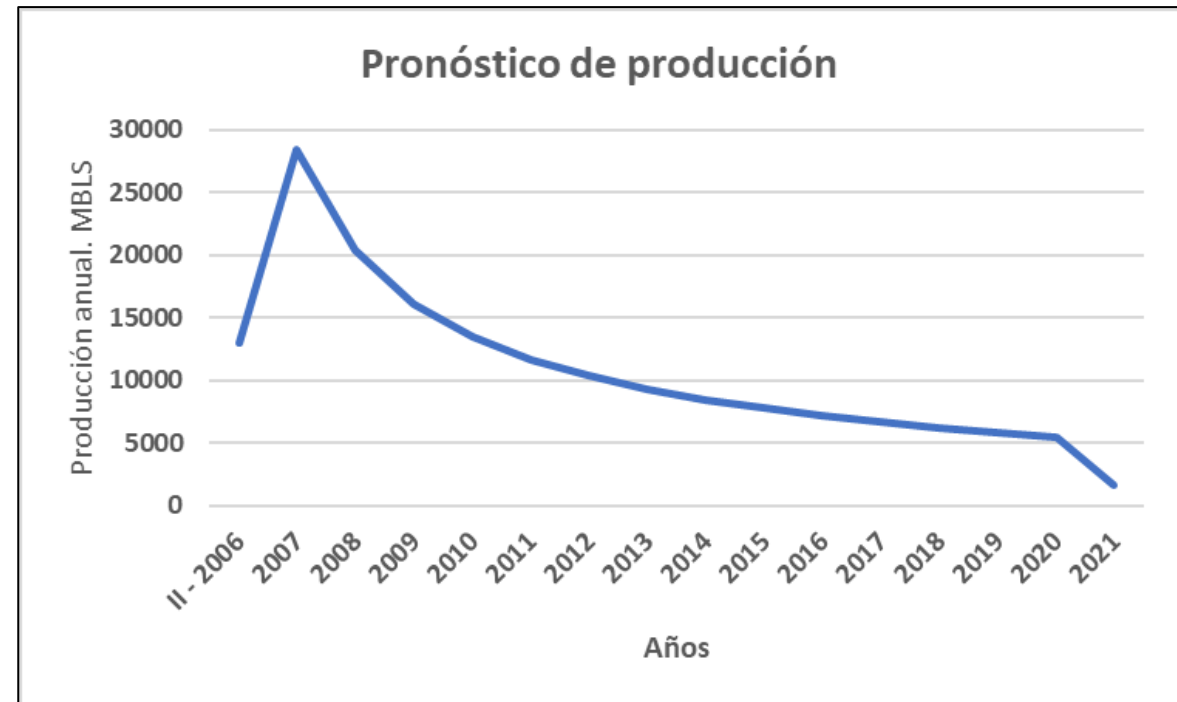


The Toruno well began production in December of 2005 from the C7 Carbonera Formation. Initial production was 462 bopd of 28.5 API.

The average production potential from January to mid-May 2007 was 850 to 1300bopd, with a water cut of 92% approx.

# TORUNO AREA

Año	Producción de aceite	
	BPD	Barriles
II-2006	109	13021
2007	45	28390
2008	56	20353
2009	44	16054
2010	37	13430
2011	32	11628
2012	28	10336
2013	25	9280
2014	23	8445
2015	21	7759
2016	20	7200
2017	18	6674
2018	17	6228
2019	16	5830
2020	15	5491
2021	14	1629
<b>Total</b>		<b>217825</b>



Based on a simulation model it was concluded that the OOIP is around 1.16 Million Barrels of Oil, with estimated recoverable reserves of 208,000 barrels.

## SUMMARY

- In the area, 5 fields associated with antithetical normal faults were found (Sulawesi, Malawi, Supremo, Java and Toruno), which produced from the hanging walls of the fault associated with monoclinals generating structural closures against these faults.
- The type of play in the area is of structural type, associated with the hanging wall of antithetical faults.
- The Java well allowed the discovery of hydrocarbons in the Carbonera Formation C7 with an API gravity of 28, presented failures in the bottom equipment so it was abandoned and plugged.
- The Sulawesi Field was declared as commercial in 2013, with production until 2014, subsequent decision of the Operator to proceed with the return of the Field based on the economic efficiency.



## SUMMARY

- The Malawi well produced until 2013, the following year the operating company decided not to produce the field, so it chose not to declare the commerciality of the field and proceeded with the abandonment of the well.
- The Supremo -1 well tested hydrocarbons of 31 degrees API in the Mirador Formation. The area was suspended and subsequently abandoned by the Operator.
- The Toruno-1 well tested hydrocarbons in the 28.5 API Upper C7 Carbonera Formation.
- **According ANH the contingent resources in the area are around 1,4 million barrels.**
- It is recommended to economically evaluate the opportunities according to the current oil price.