



**GEO PARK**



**GHG Emissions Report**  
**2021**



This report describes the results obtained in the greenhouse gas (GHG) inventory calculation exercise for GeoPark Limited, hereinafter GeoPark, for the year 2021. The report was developed in accordance with the ISO 14064-1:2018 reporting standard.

### General Information

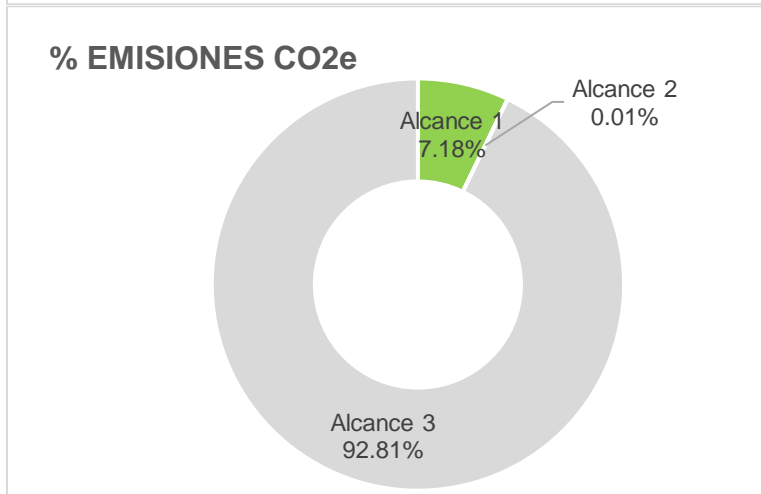
- **Reporting period:** January 1, 2021 and December 31, 2021.
- **Consolidation Approach:** operational control. Those blocks, locations and sources, whose operation and functioning was controlled by GeoPark were considered, despite the fact that they were not 100% owned by the company.
- **Assets considered:** Llanos 34 and Platanillo and the administrative headquarters in Colombia, the Fell block and the administrative headquarters of Punta Arenas in Chile, the Aguada Baguales, El Porvenir and Puesto Touquet blocks and the administrative headquarters of Neuquén and Buenos Aires in Argentina and the Espejo block in Ecuador.
- **Quantified categories:**
  - Indirect emissions associated with the use of GeoPark products: Final use of products sold (category with the highest number of emissions for referenced companies) and processing of products sold (second category with the most emissions for referenced companies).
  - Indirect emissions from transportation: Internal logistics services contracted to third parties (with high emission potential according to internal experts), personnel transportation for corporate purposes (relevant in the report of peer companies) and transportation of hydrocarbons until delivery to the client (category with high emission potential).
  - Indirect emissions from products used by GeoPark: Fuel consumption during drilling services contracted by GeoPark (with high emission potential according to internal experts), production of inputs purchased by GeoPark (category with high emission potential) and disposal of waste derived from production (relevant due to its management in GeoPark ).
- **Base Line:** 2020 was selected as the base year for the GHG Inventory, since it is the year for which the organization has the largest amount of information supported under the scope considered, which is verifiable, consistent and can be used as a reference for comparisons in subsequent years. Furthermore, it was considered that GeoPark defined its decarbonization strategy towards 2050 in 2021 with emission intensity reduction goals vs. 2020 as another argument to change the baseline year of the GHG emissions reporting exercises.
- The uncertainty of the calculation of the direct and indirect sources for energy imports of the presented inventory is +/-10.3%. Which is qualified as a "good" precision according to the tool provided by the GHG Protocol for this measurement.

## Summary of results

### Total GHG emissions

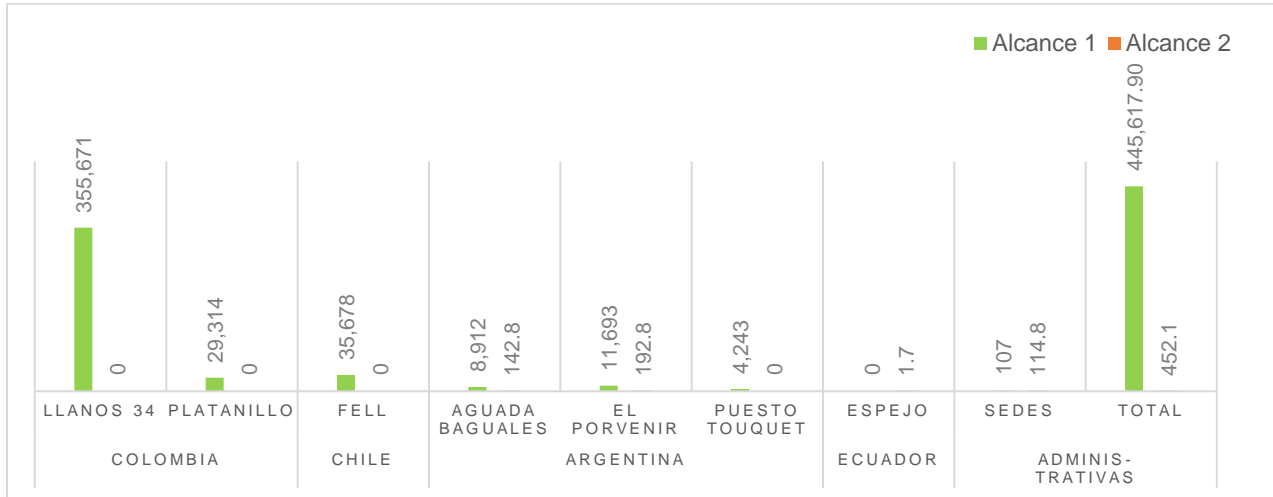
Below are the results of the calculation of emissions for each GHG, according to scope and subcategory considered in the emissions inventory with a total of **6,205,882.70 tCO<sub>2</sub>e**:

		<b>TOTAL EMISIONES CO<sub>2</sub>e</b>	
Alcance 3	Procesamiento de productos	458,679.63	
	Uso final de productos		5,253,970.05
	Disposición de residuos	1,591.57	
	Consumo combustibles servicios terceros	14,688.82	
	Producción de insumos	15,185.02	
	Transporte personas	1,106.26	
	Servicios contratados de logística interna	2,879.58	
	Transporte hidrocarburos	11,711.83	
Alcance 2	Energía Contratada	452.09	
Alcance 1	Emissiones no controladas - Fugas	72,878.94	
	Emissiones controladas - Ventiladas	9,877.38	
	Quema de gas	6,463.23	
	Actividades de transporte	636.32	
	Motores	7,139.46	
	Calderas	38,272.35	
	Generadores	310,350.20	



The main source of indirect emissions from the use of GeoPark products in 2021 is the final combustion of fuels derived from hydrocarbons with a total of **5,253,970 tCO<sub>2</sub>e** (91.97% of the calculated total), followed by the main source of direct emissions corresponding to the fixed combustion of fuels for power generation in the field with a total of **310,350 tCO<sub>2</sub>e** (69.64% of the calculated total).

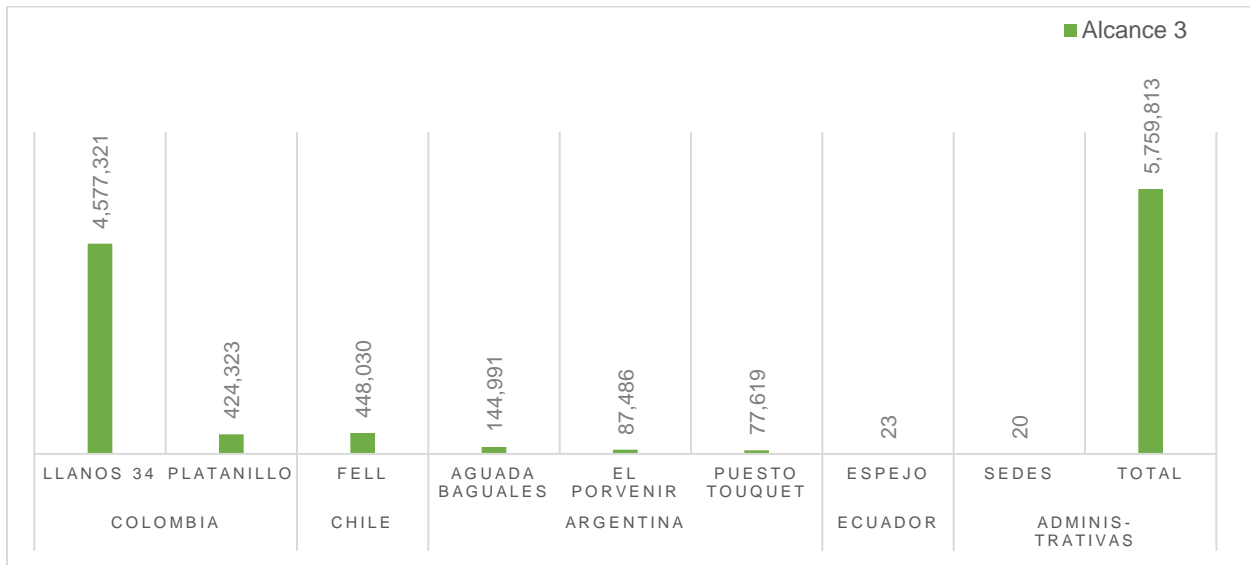
**Direct and indirect GHG emissions (scope 1, 2) (Ton CO2 e) per asset**



GeoPark's main block in terms of direct GHG emissions for 2021 was Llanos 34, where a total of **355,671 tCO<sub>2</sub>e** (79.82% of the calculated total), followed by Fell with **35,678 tCO<sub>2</sub>e** (8.01%) and Platanillo with **29,314 tCO<sub>2</sub>e** (6.58%). The fields in Argentina and the consumption of gas in administrative offices add up to the rest of the emissions with **24,954 tCO<sub>2</sub>e** (5.60%).

These results are consistent with production volumes for GeoPark: Llanos 34 concentrates 89.7% of the production (20,443,451 barrels of 22,790,448 equivalent barrels produced by the company in 2021).

**Indirect GHG emissions (scope 3) (Ton CO2 e) per asset**

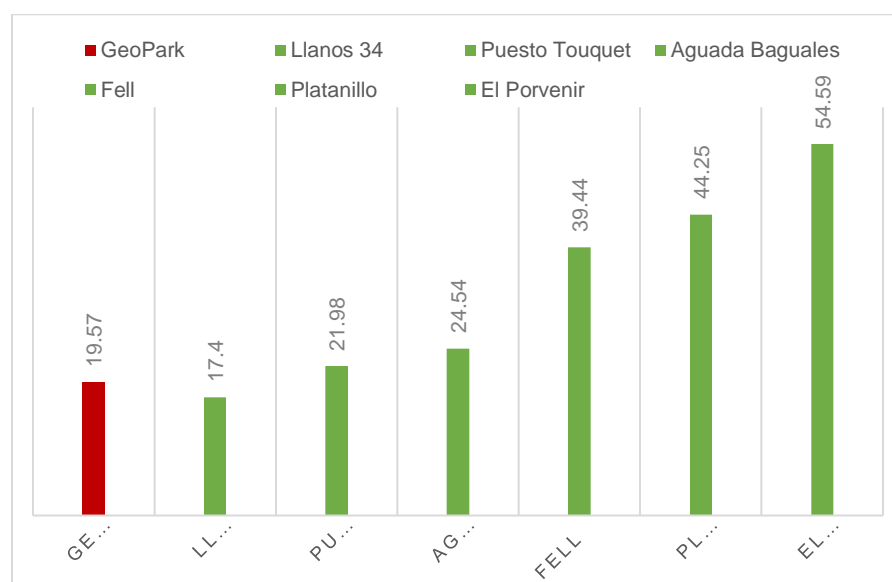


The end use of GeoPark products is the most significant source of emissions for all blocks, averaging 92.7% of total emissions per block. The exception to this case is Fell, where the proportion is even higher - 99.1% - given that most

of its production is natural gas directed to the production of methanol by the firm Methanex, assuming a lower rate of gas treatment before its final sale.

### Emissions intensity and production by block- GeoPark 2021

(kg CO<sub>2</sub>e per barrel of crude oil equivalent and thousands of barrels of oil equivalent produced in 2021)



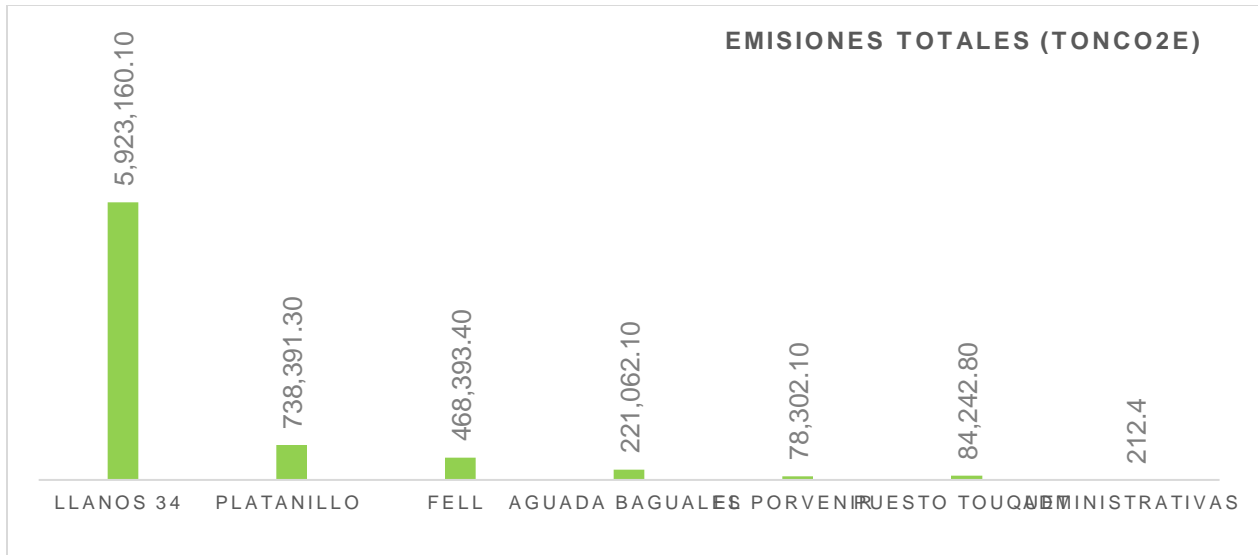
GeoPark's emissions intensity for 2021 is **19.57 kgCO<sub>2</sub>e/boe**, being Llanos 34, which in average emitted **17.4 kgCO<sub>2</sub>e** to produce a barrel of crude oil equivalent in 2021, the block with the greatest influence on intensity by bringing together the bulk of the company's emissions and production.

### Baseline and intensity of GHG emissions

The results of the GHG emissions recalculation exercise yielded a total of **7,513,764 tCO<sub>2</sub>e**.

Table 1: Baseline recalculation results

2020 baseline recalculation						
Block	Direct emissions (TCO <sub>2</sub> e)	Indirect emissions from imported energy (TCO <sub>2</sub> e)	Indirect for the use of GeoPark products (TonCO <sub>2</sub> e)	Indirect due to transportation activities (TonCO <sub>2</sub> e)	Indirect for the use of GeoPark inputs (TonCO <sub>2</sub> e)	Total emissions (TonCO <sub>2</sub> e)
	292,518	-	5,603,669.84	17,987.3	8,984.8	5,923,160.1
Platanillo	26,466	-	711,529.43	245.9	150.3	738,391.3
Fell	30,882	-	436,112.35	395.8	1,003.1	468,393.4
Aguada Baguales	14,829	302	205,648.51	65.8	216.2	221,062.1
El Porvenir	8,112	247	69,816.48	46.7	80.4	78,302.1
Puesto Touquet	4,286	-	79,790.09	69.4	96.9	84,242.8
Administrative	80	113	-	19.9	-	212.4
GeoPark	377,173	662	7,106,567	18,831	10,532	7,513,764.1

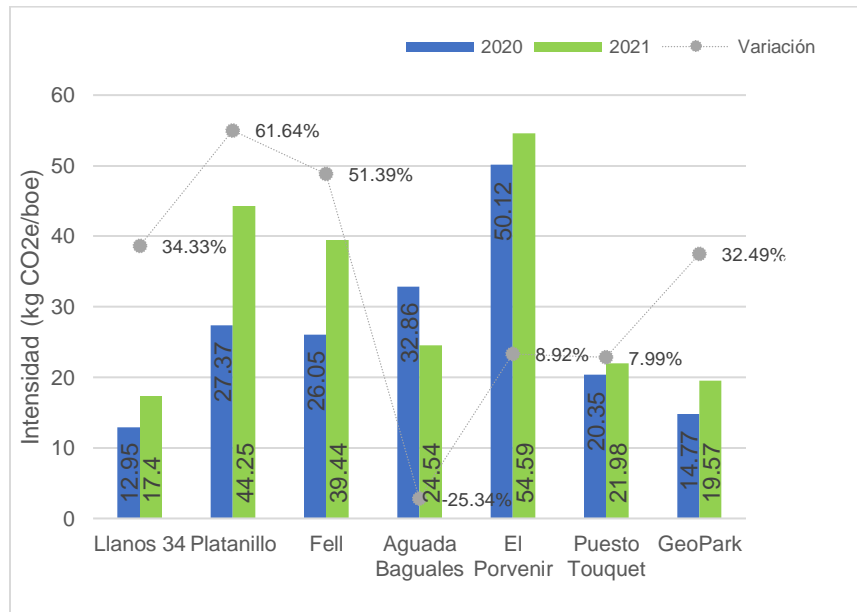


Performance indicators and comparison with baseline

Emissions intensity - 2020 vs 2021

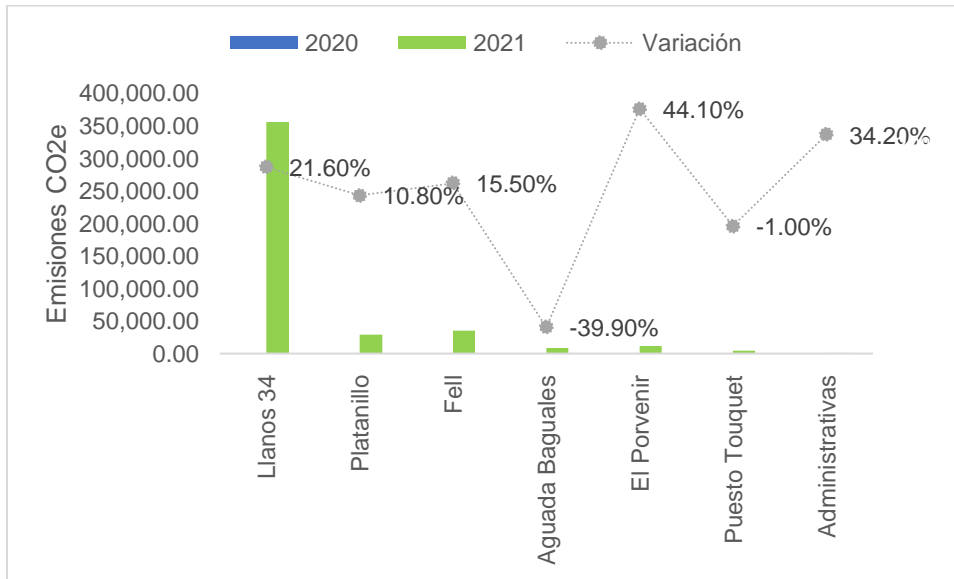
GeoPark calculates the carbon footprint using an indicator that matches direct and indirect greenhouse gas (GHG) emissions from energy imports for the period described to crude oil production in the same period.

The indicator increases by **32.49%** when compared to 2020.



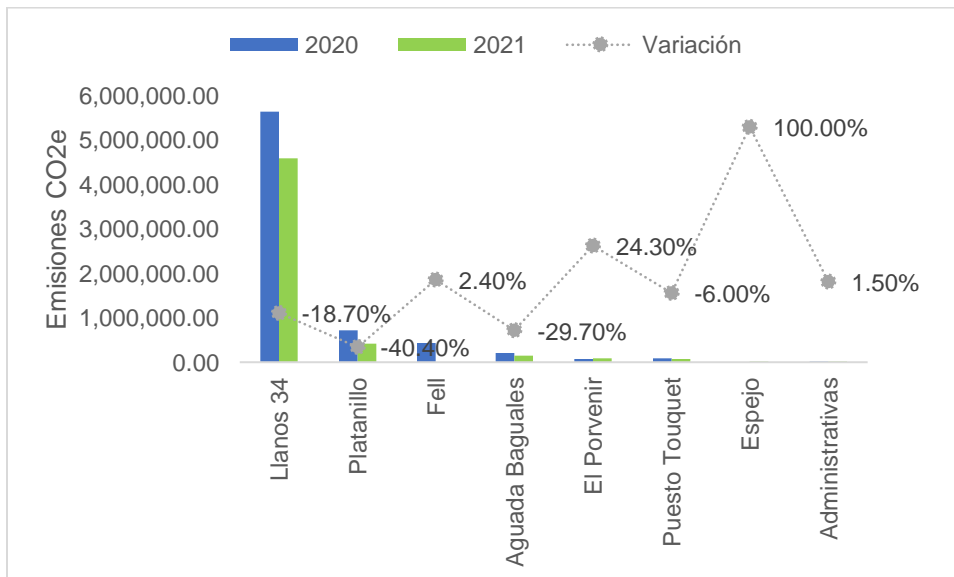
**Direct tCO<sub>2</sub>e emissions**

Direct emissions in 2021 increased by **18.1%**, for the operated blocks in Colombia, Chile and the El Porvenir block in Argentina compared to the 2020 baseline.



The increase in GHG emissions is associated with the profile of the fields operated by GeoPark, where a general increase was reported in water production (**68,347 vs. 105,253** MBBL). Given a greater volume of fluid, it was necessary to increase the amount of fuel used to operate the lifting systems, increasing the amount of total emissions.

**Indirect tCO<sub>2</sub>e emissions**



GeoPark's indirect emissions decreased by **-19.3%** when compared to baseline. The main explanation for this is the drop in GeoPark's total hydrocarbon production in 2021 when compared to the baseline (22,790,448 vs 25,576,514 barrels equivalent), which significantly reduces the amount of emissions from the final burning of products derived from Geopark's production.