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PAS 2060 Qualifying Explanatory Statement

Saudi Aramco Arabian Light

Pilot for offset Arab Light (1st shipment)

1st Application Period: 01 October 2022 - 30 September 2023

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The subject includes the offsetting of over 95 % of the carbon dioxide, methane and nitrous oxide emissions from upstream production and transport (excluding exploration before and during well development) of Arabian Light product using a cradle-to-gate emissions measurement approach during the first pilot shipment, from the production stage at Ghawar Plants, KSA to port at Galveston, Texas (USA), including the transportation and voyage stages, being sold by Saudi Aramco to Motiva Refinery via Saudi Refining Incorporated, in accordance with PAS 2060:2014 on 30 September 2023, with ambition to maintain to 30 September 2024 for the period commencing 01 October 2023, verified by LRQA.

Musaab Mulla

Signed: Musaab M. Mulla, VP Energy & Economic Insights

Issue date: 27 05 2024

This Qualifying Explanatory Statement (QES) contains information on the potential of offsetting of over 95 % of the carbon dioxide, methane and nitrous oxide emissions from upstream production and transport (excluding exploration before and during well development) of Arabian Light product using a cradle-to-gate emissions measurement approach during the first pilot shipment, from the production stage at Ghawar Plants, KSA to port at Galveston, Texas (USA) including the transportation and voyage stages, being sold by Saudi Aramco to Motiva Refinery via Saudi Refining Incorporated ('the Subject'). All the information provided within this report has been reviewed by a third party and is believed to be correct. Should any information be provided which affects the validity of the statements within this document, a revised version of the document will be issued subsequently. This report is made available to the public based on the requirements set by PAS 2060:2014.

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Future Application Period:	01 October 2023 – 30 September 2024

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Terms and definitions

AL	Arabian Light
AXL	Arabian Super Light
Carbon	Carbon is used as shorthand for aggregated GHG emissions, reported as carbon dioxide equivalents (CO _{2e}). Throughout the report, the full term (CO _{2e}) is employed.
Carbon Credits	Carbon credits are tradeable instruments representing the avoidance or removal of one tonne of CO ₂ or equivalent GHG (tCO _{2e}) from the atmosphere. It is a generic term to assign a value to the carbon offset. Carbon Credits are used to offset emissions based on the principles of the emissions avoidance or removal being real, measurable, permanent, additional, independently verified, and unique.
Carbon Offsets	Discrete reductions in greenhouse gas (GHG) emissions not arising from the defined Subject, made available in the form of a carbon credit meeting the requirements of section 9.1.2 of PAS 2060:2014 and used to counteract emissions from the production and transportation of the defined Subject. PAS 2060:2014 specifies that carbon offsets are acquired to compensate for greenhouse gas emissions arising from a defined Subject. Offsets are calculated relative to a baseline that represents a hypothetical scenario for what emissions would have been in the absence of the mitigation project that generates the offsets.
Components involved in the current footprint boundary	Arabian Light (AL), Arabian Super Light (AXL), Arabian Medium (AM), Arabian Heavy (AH), Gas Condensate (GC), Natural Gas Liquids (NGL) and Natural Gas (Gas)
GC	Gas Condensate
Impact category	Class representing environmental issues of concern to which life cycle inventory analysis results may be assigned
ISO 14067:2018	Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification
MTBE	Methyl Tert Butyl Ether
PAS 2060:2014	Publicly available Specification for the Demonstration of Carbon Neutrality. PAS 2060:2014 refers to the latest 2014 version of the document
PAS 2060 Carbon Neutral*	Condition in which during a specified period there has been no net increase in the global emission of greenhouse gases to the atmosphere resulting from the greenhouse gas emissions associated with the Subject during the same period
Product greenhouse gas emissions footprint ('product GHG emissions footprint')	Based on ISO14067, the GHG emissions footprint of a product is defined as the sum of GHG emissions and GHG removals in a product system, expressed as CO ₂ equivalents and based on a life cycle assessment using the single impact category of climate change
Partial GHG emissions footprint of a product	Based on ISO14067, a partial GHG emissions footprint of a product is defined as the sum of GHG emissions and GHG removals of one or more selected process(es) in a product system, expressed as CO ₂ equivalents and based on the selected stages or processes within the life cycle
QES	Qualifying Explanatory Statement (QES) is the collation of evidence in support of the declaration of a commitment to carbon neutrality and/or the declaration of achievement of carbon neutrality, in compliance with PAS 2060:2014.
Scope 1 emissions*	Greenhouse gas emission from sources that are owned or controlled by the entity (described as direct emissions)

Scope 2 emissions*	Greenhouse gas emissions from the generation of energy utilized in direct connection to the activities of a particular entity but occurring at sources owned or controlled by another entity.
Scope 3 emissions*	Greenhouse gas emissions that are a consequence of the activities of an Entity but occur at sources owned or controlled by another entity (third-party entity) and which are not classified as Scope 2 emissions.
Subject	Subject defined specifically for PAS 2060 in relation to the product GHG emissions footprint boundary

*Definitions in accordance with PAS 2060:2014

1. Introduction

1.1. Foreword

This QES is intended to explain how Saudi Aramco has offset over 95% of the carbon dioxide, methane and nitrous oxide emissions from upstream production and transport (excluding exploration before and during well development) of Arabian Light product using a cradle-to-gate emissions measurement approach of one Arabian Light shipment during the first pilot shipment from the production stage at Ghawar Plants, KSA to port at Galveston, Texas (USA), including the transportation and voyage stages. This QES is in accordance with PAS 2060:2014. PAS 2060 is a British Standards Institution standard.

Annex A provides a checklist of information required and the respective location within the QES.

1.2. General information

Table 1.1 PAS 2060:2014 requirements

PAS 2060:2014 information requirement	Information as it relates to Saudi Aramco
Entity making PAS 2060:2014 declaration	Saudi Aramco Oil Company
Individuals responsible for the evaluation and provision of data necessary for the substantiation of the declaration including that of preparing, substantiating, communicating, and maintaining the declaration	Name: Musaab Mulla Title: VP, Strategy & Markets Analysis Department, Saudi Aramco Oil Company Email: cosmdcontractmanagement@aramco.com
Subject of the PAS 2060:2014 declaration	The Subject reflects the Arabian Light product actual flows, during the pilot cargo from Aramco's gas oil separation plants inKSA including upstream production up to the title transfer in the port at Galveston, USA including the transportation and voyage stages, being sold by Saudi Aramco to Motiva Refinery via Saudi Refining Incorporated. Note: Arabian Light gravity ranges from 32° to 34° with an average of 33°. A summary of the Subject Arabian Light pilot cargo shipment, showcasing the loading port, discharge port, and corresponding timeframe is showcased in Table 2.2.
Rationale for selection of the Subject	The footprint boundary of this QES starts from the production header, enters the gas oil separation plant followed by pumping and pipeline transportation to the stabilization plant and is referenced in figure 1.1. Based on the cradle to gate boundary for a partial life cycle analysis, the emissions beyond the title transfer are not included, including Scope 3 emissions, whether upstream and downstream. This is consistent with the operational control approach chosen by Saudi Aramco for the calculation methodology.
Control Approach	Cradle-to-gate for the Subject. The scope includes certain scope 1 and 2 carbon dioxide, methane and nitrous oxide emissions across

	the Subject boundaries, which excludes exploration before and during well development and goes to title transfer / off-loading at customer refinery. This approach allows the entities at certain stages of production and transport to consider the carbon dioxide, methane and nitrous oxide emissions under their interest/operational control.
Conformity assessment type	I3P-3 Independent third-party certification – Unified The potential of offsetting over 95% of Scope 1 and Scope 2 carbon dioxide, methane and nitrous oxide emissions from the upstream production and transport (excluding exploration before and during well development) of one Arabian Light shipment during the pilot shipment of the Subject by Saudi Aramco in accordance with PAS 2060 on 30 September 2023 with ambition to maintain to 30 September 2024 for the period commencing 01 October 2023, and LRQA verified.
Purpose, objective and functionality of the subject	Drive the maturity of the Subject in the period as indicated in Table 3.1, in addition to 1 st QES which is prepared in line with PAS2060:2014 and referring to ISO 14067:2018. With the increase in the number of cargoes, the methodology of Saudi Aramco is to mature towards utilization of an ISO 14067:2018 verified product level basis of reporting and potential utilization of different loading and discharge ports.
Baseline date Date of first application period	01 October 2022 – 30 September 2023
Achievement period Offset of baseline/previous application period	01 October 2022 – 30 September 2023
Future period that may be applicable	01 October 2023 – 30 September 2024

1.3. Boundaries of the Subject

The subject boundaries include exploration after well development, pipeline movements, production and shipping until title transfer as indicated in Figure 2.1. The model of the product constitutes of Business to Customer in line with the commercial Incoterms, whereby the title transfer occurs as reflected in Figure 1.1 and the boundary of the Subject is limited to the exploration after well development, production and transportation stages outlined in Figure 1.1.

Based on these processes, it is practical to conduct ‘cradle-to-gate’ or partial life cycle analysis in accordance with GHG Product Life Cycle Accounting and Reporting Standard. Cradle is defined to start after the well development of the exploration stage. Whereas gate is defined based on the Incoterms of the product sales contract.

The production and shipment are based on the information indicated in Table 2.2.

Table 1.2 Arab light production unit, transportation route and shipment schedule for baseline period (Saudi Aramco boundary)

Cargo	VLCC carrying capacity (bbl)	Production plants (Saudi Aramco)	Loading port	Loading date	Discharge port	Discharge date
1	2,057,385	Ghawar	Ras Tanura and Juaymah, KSA	30 June 2023	Galveston, USA	02 September 2023

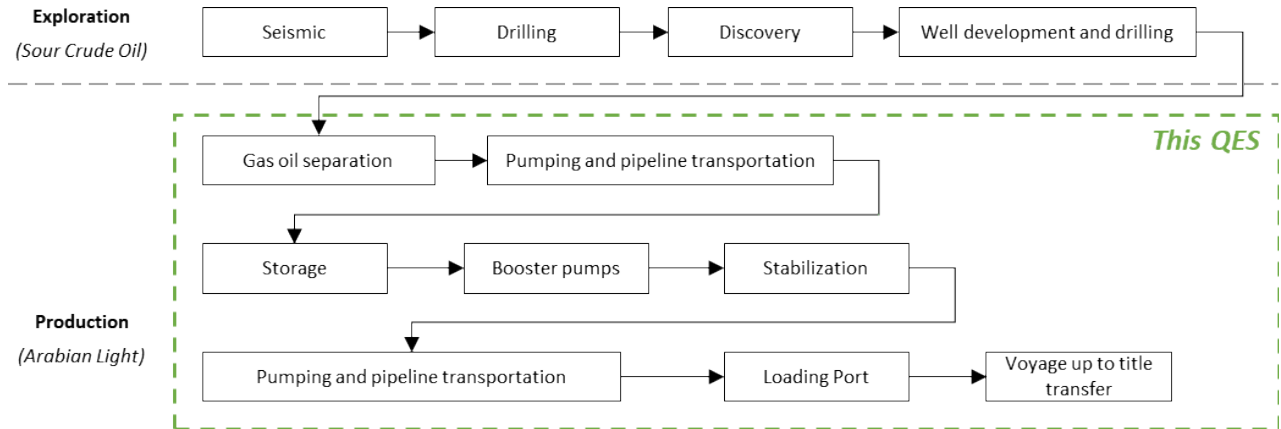


Figure 1.1 Complete life cycle of the Subject highlighting the stages covered within this QES

The footprint boundary of this QES starts from the production header, enters the gas oil separation plant followed by pumping and pipeline transportation to the production plant. At this stage the oil is collected from various wells and stored in tanks or underground storage facilities. Pipeline transportation is done over long distances with booster pumping stations along the route. Stabilization is carried out to remove volatile components, such as light hydrocarbons, gases and water, from the crude oil to meet the specific quality and safety standards for transportation, storage, and refining. The crude is then transported to the loading port via crude pumping station.

1.4. Process description

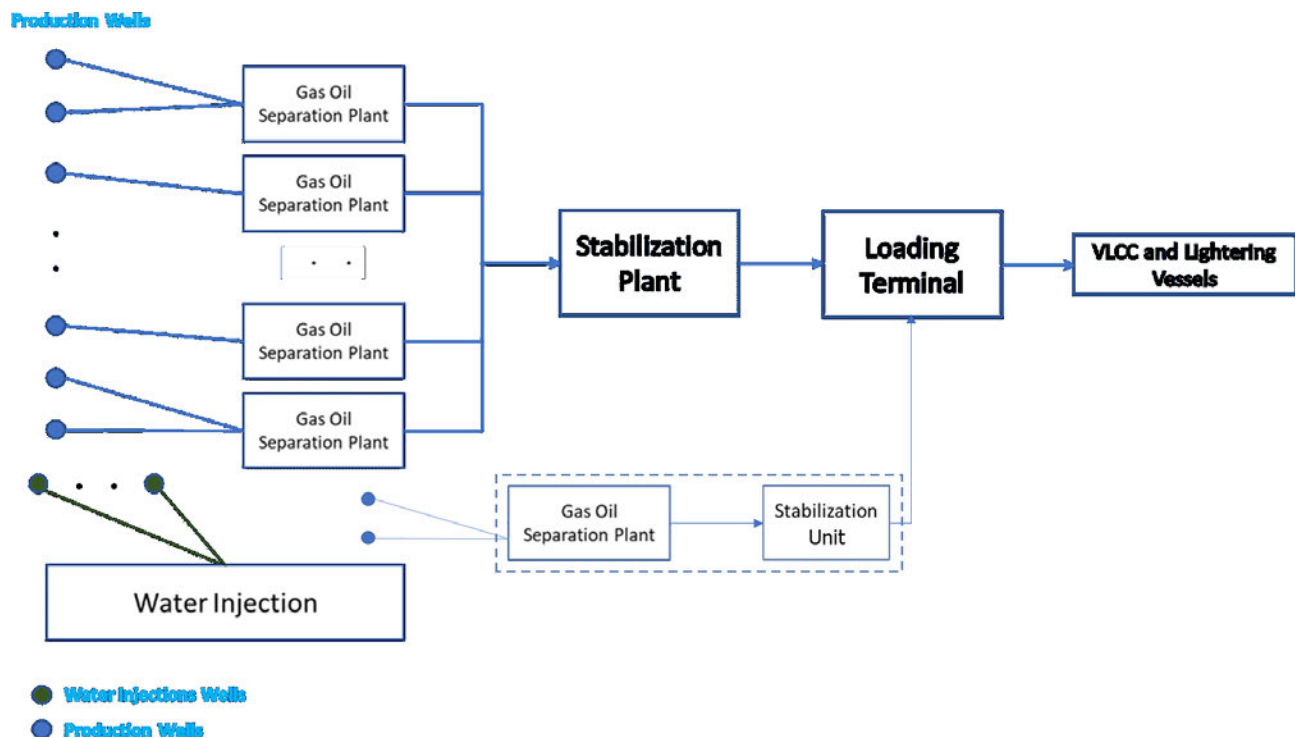


Figure 1.2 Process description of the considered boundary

Multiple production facilities are considered within the current boundary, including Gas Oil Separation Plants (GOSP), water injection, stabilization, and the loading terminal. Each GOSP consists of high-pressure production trap (HPPT), low-pressure production trap (LPPT), a dehydrator, desalter vessels, and water oil separation (WOSEP). Within the GOSP, well fluids are separated into gas, oil, and water. Subsequent processing of production takes place at the stabilization plant of the Subject of this QES, where the Arab Light stream is separately utilized for producing Arab Light crude grade.

Arab Light is sent to different customers. The route considered in this report is through Ras Tanura and Juaymah loading terminals. The transport segments included in the voyage of a Very Large Crude Carrier (VLCC) and Lightering Vessels to ultimate title transfer to the refinery customer under the agreed Incoterms.

1.5. PAS 2060 options

A product level greenhouse gas emissions management plan and offset options are developed as summarized in Section 3 of this report.

This baseline period refers to when the upstream production (excluding exploration before and during well development) and transport footprint for the Subject first determined in accordance with PAS 2060:2014. Following this period, the application period involves the footprint reassessment at the end of each application period to verify that the product level greenhouse gas emissions management plan has achieved

a reduction and to reconcile volumes from the previous application period. The QES is officially released to the public after the independent third-party assurance of the assessment of the Subject. This requires revisions to reflect any changes and actions that could affect the validity of the declaration.

A product level greenhouse gas emissions management plan has been developed and implementation has been initiated. Carbon credits in an amount equal to 100% of the Scope 1 and 2 carbon dioxide, methane and nitrous oxide emissions for upstream production and transport (excluding exploration before and during well development) of one Arabian Light product shipment during the pilot shipments baseline period have been purchased and retired. See Table 3.6 for details on the projects associated with these carbon credits and the amounts that have been purchased and retired. It is important to note that this market is in early stages of development, and projects generating credits require careful consideration and should include robust methods for addressing integrity concerns.

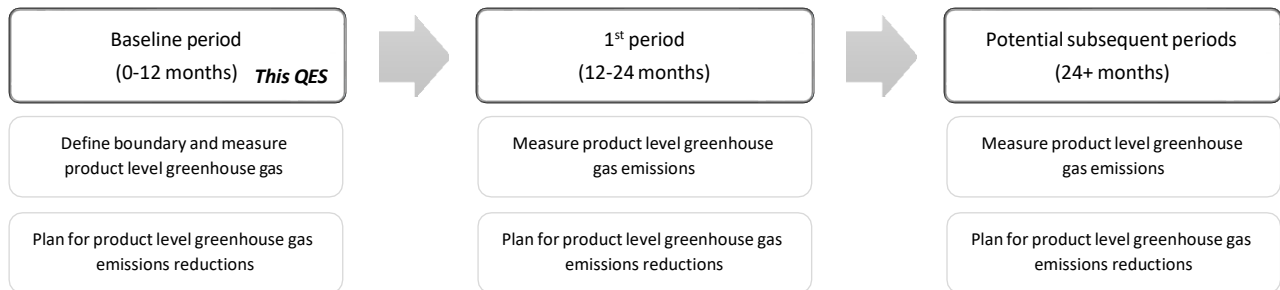


Figure 1.3 Timeline of PAS 2060:2014 process

2. Quantification of the product GHG emissions footprint

2.1. GHG emissions of the Subject

In line with Saudi Aramco's Basis of Reporting, Saudi Aramco reports emissions for three out of the six GHGs listed on Annex A of the Kyoto Protocol – carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Saudi Aramco does not report emissions for the remaining greenhouse gases listed on Annex A of the Kyoto Protocol.

This QES covers the direct (Scope 1) and indirect (Scope 2) emission sources from Arabian Light operations, including the in-Kingdom transportation up to loading at Ras Tanura and Juaymah Terminals and voyage up to title transfer under DAP incoterms. Based on the cradle to gate boundary for a partial life cycle analysis, the emissions beyond the title transfer are not included (including Scope 3 emissions).

Scope 1, or direct emissions, are emissions from sources within assets under Saudi Aramco's Operational Control. Direct emissions include the following types of emission sources:

- Fuels combusted in stationary sources on-site
- Flaring
- Burn pits
- Process vents
- Fugitives

Scope 2, or indirect emissions, accounts for GHG emissions from the generation of purchased electricity and steam consumed by Saudi Aramco. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organizational boundary.

Table 2.1 GHG inventory corporate level carbon emissions (tCO_{2e}) for reporting period (1 January – 31 December 2022)

GHG emissions (tCO _{2e})	
Scope 1	4,633,365
Scope 2	1,852,572
Total GHG emissions	6,485,937

Table 2.2 GHG inventory product level carbon intensity (kgCO_{2e}/boe) for baseline period (01 October 2022 – 30 September 2023)

Stage	Carbon intensity
Production & Loading	2.42
Voyage - VLCC	3.54
Voyage - Lightering Vessels	0.43
Total product carbon intensity	6.39

Table 2.3 Total GHG inventory product level carbon emissions (kgCO_{2e}) for baseline period (01 October 2022 – 30 September 2023)

Parameter	Value
Total product delivered – Arab Light (boe)	2,057,385
Total product carbon intensity (kgCO _{2e} /boe)	6.39
Total emissions (kgCO _{2e})	13,139,559

Table 2.1 represents the organizational footprint baseline in 2022 which is based on the latest available verified and published emissions data. Accordingly, the product footprint intensity is presented in Table 2.2 which is determined to be from 01 October 2022 to 30 September 2023 and is calculated based on the latest verified data. Based on the total product delivered and product carbon intensity, the total product carbon emissions are 13,139,559 kgCO_{2e} as represented in Table 2.3.

2.2. Standards chosen and emission sources

This QES is in line with Saudi Aramco's 2022 Basis of Preparation and GHG Inventory Management Plan. This includes the GHG data utilized for the subject as verified by the 3rd party which is developed in line with the requirements of the GHG protocol. The QES refers to quantification of these GHG emissions in accordance with the provisions and the principles set out in PAS 2060:2014. Saudi Aramco aims to also utilize the requirements of ISO14067:2018, which shall be reflected for the second QES achievement period and onwards. This method was chosen as it provides an internationally recognized approach to the calculation of CO_{2e} and meets the requirements of PAS 2060:2014 for the substantiation of GHG emissions (PAS 2060:2014 5.2.2 to 5.2.4). The CO_{2e} were verified by a third party, LRQA.

2.3. Quantification methodology overview

The boundary of the Subject for the baseline period is calculated using Saudi Aramco's product level Basis of Reporting. This utilizes data from Saudi Aramco's operations, along with publicly and commercially available data, to determine the pathways included in the operational boundary of Saudi Aramco for the Subject.

Saudi Aramco has chosen the functional unit of carbon intensity kgCO_{2e} per boe delivered, as this would allow for the methodology to cater and compare intensities of the cargoes delivered from various loading ports to various discharge ports. This is in line with Saudi Aramco's product level Basis of Reporting.

The allocation is based on the heat content of the products (AL, AXL, GC, Gas) as this simplifies the product allocation. During the calculations, the emissions abated are deducted at the appropriate stage. Similarly, the calculations deduct any emissions offset through carbon credits. The offsets are not embedded in the individual pathways and instead are included in the final calculations.

2.4. Data sources and detailed methodology

In data processing for the subsequent sections of production stage to voyage stage, reference equations for GHG accounting are based on Saudi Aramco's Basis of Preparation, Version 1, 2022 and calculation approach in line GHG Inventory Management Plan. These documents provide an overview of the reporting boundaries, basic definitions, the basis of calculations, period of reporting, base year, de minimis, and the processes flow, intended to be used for 2022 GHG emissions reporting purposes.

The purpose of utilizing this document as the basis for calculations is in line with the purpose of the document itself, i.e., to provide an overview of Saudi Aramco's GHG emissions reporting processes, to ensure consistency across the organization, alignment with industry best practice and support internal and external reporting.

The Sphera Essential Suite, Air Module application herein known as Emission Management System (EMS) was selected by Saudi Aramco as the enterprise environmental reporting platform for GHG emissions in

2020 and this was also used of the year 2022 reporting. In cases, where required, excel sheets are used to complement the EMS following the same API Compendium methodologies.

The current methodologies available for GHG reporting include the EMS (source with PI configurations and manual bulk import of datasets) and manual data uploads (primarily Scope 2 and fugitive emissions) using excel template sheets. Both systems utilize equations and emissions factors from the API compendium. However, the EMS is considered the primary reporting process tool, where availability of source equipment PI tags such as, fuel amount, composition etc. are used for GHG calculations coupled with manual import data (where no PI configuration exist). In all data processing, reference equations for GHG accounting are based on API Compendium.

2.4.1. Production stage

2.4.1.1. Data sources

Plant operations data is sourced from both primary and secondary sources. The primary source is the actual plant operations data from the GHG emissions inventory for scope 1 and 2 carbon dioxide, methane and nitrous oxide emissions, dated January 1 to December 31, 2022. This includes data for assets including blowdown, intermittent burn pits, scope 2 imported, boilers, combined cycle gas turbines, fugitives, flaring and pipeline-based emissions.

The actual emission flows for the stacks include scope 1 emissions for routine and non-routine flaring, fugitives and the headers.

The heat content values are taken from the laboratory sampling dated 2022.

For the cases where the primary data is unavailable, the secondary source data is utilized based on the design values of the assets including charge pumps, saltwater reinjection pumps, shipper pumps, HPPT and LPPT compressors, booster pumps, stabilizers, coolers, reboilers and compressors for the production boundary. The relevant equipment machinery includes electric motors, well as high- and low-pressure steam and gas turbine. The design values are primarily utilized to allocate emissions across various assets in the facility.

2.4.1.2. Calculation methodology

Carbon intensity of production stage emissions is calculated via total emissions for facilities and total oil heat content/ actual flow of oil across all the facilities. For each facility, the total carbon dioxide, methane and nitrous oxide emissions are calculated via scope 1 and scope 2 emissions associated with the facility. The emissions for each component including gas and oil for the stack including scope 1 and water energy are calculated via allocation and total emissions. The allocation for each component is measured based on the material flowrates of the total flowrate. The material flows of the streams for each component including gas and oil are calculated using the actual flow and heating value. The scope 2 stream emissions are based upon the emission of the associated assets and the allocation of the asset's power utilization. The actual power is defined via number of assets running and the design power of the asset. Scope 2 total emissions are calculated via steam and imported power on annual operational hours basis and emission factors. For scope 2 of crude and gas components, the allocation for each component is calculated based on the emissions of the scope 2 and water energy streams and scope 2 total emissions.

For the primary data, considering the aggregated facility level emissions data, the emissions for each component are calculated via allocation and total emissions. The allocation for each component is calculated based on the material flowrates of the total flowrate. The material flows of the streams for each component including AL, AXL, GC, NGL and Gas are calculated using the actual flow and heating value.

For the secondary data, the emissions for the assets including boilers, Scope 2 and Cogen are calculated based on the design values of the relevant operating equipment including booster pumps, stabilizers, coolers, reboilers and compressors for the components including AL, AXL, GC, NGL and Gas and mixture components including AXL/GC and NGL/Gas. Total emissions for component including AL, AXL, GC, NGL and Gas are calculated by the summation of total emissions of the asset with component and stack emissions. Total facility emissions are the summation of all the total emissions for components.

2.4.2. Port stage

2.4.2.1. Data sources

The port data is collected from GHG emissions inventory system for the loading facility. This includes mainly the scope 2 data, dated 2022.

Material streams in the loading terminal include crude export for AL, AXL, AM, AH, refined product.

2.4.2.2. Calculation methodology

Carbon intensity of port stage carbon dioxide, methane and nitrous oxide emissions is calculated via total port emissions and the flow of Arabian Light via the loading terminal.

The total port carbon dioxide, methane and nitrous oxide emissions are the summation of all the material stream flowrates. The weight factor is then measured for each stream using the material stream flowrate and the total port carbon dioxide, methane and nitrous oxide emissions. The GHG attributed to the material streams are calculated via the associated weight factor of the streams and the total loading terminal flows.

2.4.3. Voyage stage (VLCC)

2.4.3.1. Data sources

The fuel consumption data, distance and speed for the voyage is taken from the shipping operators' vessels noon reports. The fuels used for the voyage are Low Sulfur Marine Gas Oil (LSMGO) and Very Low Sulfur Fuel Oil (VLSFO) and their emission factors are sourced from MEPC 66 as provided by the shipping operators.

2.4.3.2. Calculation methodology

Carbon intensity of voyage stage (VLCC) carbon dioxide emissions is calculated via cargo voyage emissions and the flow of Arabian Light via Ras Tanura and Juaymah Terminals. Total CO₂ emissions of the voyage are calculated using carbon intensity of the fuel and total fuel consumption.

2.4.4. Voyage stage (Lightering Vessels)

2.4.4.1. Data sources

The fuel consumption data, distance, and speed for the five lightering vessels is taken from the shipping operators' logbook and ship dopplers log. The fuels used for the vessels include LSMGO and Liquefied Natural Gas (LNG).

2.4.4.2. Calculation methodology

Carbon intensity of voyage stage (lightering vessels) carbon dioxide emissions is calculated via total emissions of the vessel and Arab Light volume delivered by the vessel. Total emissions of the vessel are calculated based on the emissions of each stage at the loading port and discharge port including Notice of Readiness (NOR), commence cargo, complete cargo, Dropping Outward Pilot (DOP) and during the voyage at sea. Emissions at each stage are calculated using carbon intensity of the fuel and total fuel consumption. Total fuel consumption is measured using daily fuel consumption and number of voyage days. Whereby, number of voyage-days is calculated via actual timestamp duration of the voyage.

2.5. Data quality

All primary data points used in the calculation were assessed for data quality by respective departments within the organization. Further, a scenario analysis was performed on certain assumptions related to allocation of emissions. The assumptions used in the calculation are detailed below.

2.6. Assumptions and estimations

All assumptions made in the quantification of GHG emissions of the Subject are reviewed during the third-party verification process. The most significant assumptions made during the assessment are described below:

	Assumptions	Related process equipment/material/stage
1	Annual operations assumed to be for 8760 hours	Overall process
2	Identical equipment is running at a fixed rate (evenly)	All Identical running equipment
3	Multiple operation units for certain process is represented as one in the drawings	Process streams
4	It is assumed that power is imported mainly from the national grid	Overall process
5	Scope 2 is estimated based on the actual imported power rate	Overall process
6	Equipment capacity and weight distribution is based on the actual design	Overall process
7	Scope 1 data is extracted from the corporate emissions management platform	Overall process
8	The heating values are assumed to be fixed across the product chain	Overall process
9	The emissions in Ras Tanura and Juaymah Terminals are calculated based on the loading/unloading volumes	Loading Terminal
10	The heating content is used to allocate the emissions for the different products in case they share the same operation unit	Overall process
11	Two GOSPs were used to develop Scope 2 allocation factors for the remaining GOSPs	Gas Oil Separation Plant
12	Emissions from the overall site (i.e., flaring, fugitives, etc.) are allocated for the products based on the heating contents	Overall process

13	Emissions from pumps that are pumping water into the fields are allocated for the products based on the heating contents	Overall process
14	The life cycle only includes Scope 1 & 2 for processing the AL crude and starts from the GOSPs inlet up to the terminal outlet	Overall process
15	Heating value of fuels used in the voyage are considered from MEPC66 ¹	Voyage

2.7. Exclusions and uncertainties

Scenarios are studied to determine the uncertainties associated within the control boundary of the subject including production and voyage stage.

Sources excluded remain beneath the 1% de minimis threshold for a given source as per Saudi Aramco's 2022 Basis of Preparation and GHG Inventory Management Plan. Collectively, all de minimis sources are below 5% of the overall GHG emissions inventory. Hence, the quantified GHG emissions footprint of the subject covers at least 95% of the emissions from the subject.

¹ Marine Environment Protection Committee

3. Carbon management plan

3.1. Ambitions

Saudi Aramco's ambitions with respect to the Subject for the period of 01 October 2023 to 30 September 2024 in accordance with PAS 2060:2014 can be broken down as follows:

- Offset actual volumes for achievement period of 01 October 2023 to 30 September 2024.
- A management plan to achieve reductions during the future application period through improved measurements and initiatives. As part of this plan, Saudi Aramco will reassess the emission profile at the end of the period.
- An offset program for the remaining carbon dioxide, methane and nitrous oxide emissions in line with PAS 2060:2014.
- Drive the maturity of the Subject in the period as indicated in Table 3.1. With the increase in the number of cargoes, the methodology of Saudi Aramco is to mature towards utilization of an ISO 14067:2018 verified product level basis of reporting as well as potential utilization of different loading and discharge ports.

Table 3.1 Maturity for period including Arab Light production units, transportation routes and shipment schedules for period (Saudi Aramco boundary)

QES	Cargo	VLCC carrying capacity (bbl)	Footprint boundary		Footprint methodology* (excluding exploration before and during well development)				Production plants (Saudi Aramco)	Loading port	Loading date	Discharge port	Discharge date
			Saudi Aramco – Exploration (excluding exploration before and during well development), Production Scope 1, 2	Voyage emissions up to title transfer	Production		Transportation						
					Product level methodology	ISO 14067 verified methodology	Product level methodology	ISO 14067 verified methodology					
Achieved	1	1 x 2,057,385	✓	✓	✓				Ghawar	Ras Tanura and Juaymah, KSA	30 June 2023	Galveston, Texas, USA	02 September 2023
Ambition	2	1 x 2,000,000	✓	✓					Ghawar				
	3	1 x 2,000,000	✓	✓					Ghawar				
	4	1 x 2,000,000	✓	✓		✓		✓	Ghawar				
	5	1 x 2,000,000	✓	✓					Ghawar				
	6	1 x 2,000,000	✓	✓					Ghawar				

3.2. Focus Areas and Emissions Reduction Plan

Saudi Aramco has four framework focus areas represented in Table 3.2.

The Company has the ambition to achieve net-zero Scope 1 and Scope 2 greenhouse gas emissions across its wholly-owned operated assets by 2050 and 2035 GHG emissions reduction targets.

Our corporate strategy is based on producing crude oil at lower upstream production costs and with lower upstream carbon intensity and supporting a global orderly energy transition towards a lower carbon emissions future through investing in technologies and offering lower carbon products and solutions across the energy, chemicals and materials sector.

Table 3.2 Saudi Aramco's framework focus areas

Differentiate
GHG emissions management
Flaring and methane reduction
Energy management
In-Company renewables

In recent years, we have made progress toward achieving our emissions reduction ambitions across our five identified levers: energy efficiency, reduced methane and flaring, increased renewables, CCS, and offsets to address emissions we cannot reduce or capture.

Saudi Aramco has the following initiatives underway, which relate to the Subject and to corporate level.

Table 3.3 Initiatives for 2035 by Saudi Aramco

Initiative Name	Initiative objective
Energy efficiency	<ul style="list-style-type: none"> • Continue to sustain /improve energy intensity • Optimize co-generation and steam systems • Expand utilization and application of the energy efficiency digital solutions initiative, including gas turbine upgrades, boiler and fired heater efficiency improvements
Flaring and methane	<ul style="list-style-type: none"> • The company is a signatory to the OGCI near zero upstream methane intensity by 2030 and the World Bank's "Zero Routine Flaring by 2030" initiatives • Further enhance Leak Detection and Repair (LDAR) program
Renewables	<ul style="list-style-type: none"> • Commitment to invest in 12 GW of solar and wind energy by 2030 for our business and also in support of the Kingdom's National Renewable Program
CCS	<ul style="list-style-type: none"> • Jubail CCS hub to capture up to 11 MMtpa by 2035 – contributing towards the Kingdom reaching its goal of 44 MMtpa of CCUS by 2035 Jubail Hub targeted to store 9 MMtpa with Phase 1 capturing around 6 MMtpa by 2027 from gas plants at Wasit, Fadhili and Khursaniyah, plus circa 3 MMtpa from other industry sources • Phase 2 aims to capture around 5 MMtpa and may include CO₂ from other facilities
Offsets	<ul style="list-style-type: none"> • Develop carbon offsets from natural climate solutions • Ambition to plant 300 million mangroves in Saudi Arabia and 350 million mangroves outside the Kingdom by 2035 – expected to remove and offset an estimated 16 MMtCO_{2e} by 2035

	<ul style="list-style-type: none"> Assist in developing a credible and functioning carbon credit market in the Kingdom for carbon offsets and credits produced in the MENA region
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3.3. Offset program

3.3.1. Offset program for 1st application period

Carbon credits used to offset emissions calculated for the 1st application period covering 01 October 2022 to 30 September 2023 were purchased and retired based on actual tCO_{2e} of 13,139.559 during this period. It is important to note that this market is in its early stages of development, and projects generating credits require careful consideration and should include robust methods for addressing integrity concerns. An additional 30% of tCO_{2e} of carbon credits were retired to account for the potential risk that carbon benefits generated through projects are not fully realized, or that the emissions generated through the project were greater than those calculated as part of the footprint. All Verified Carbon Units (VCU) were purchased and retired from the Verified Carbon Standard (VCS) registry. The offsets meet the following criteria:

- The offsets purchased represent genuine, additional GHG emissions reductions; and
- The projects involved in delivering offsets meet the criteria of additionality, permanence, leakage, and double counting

The VCS issued carbon credits were verified by an independent third party. These offsets are supported by publicly available project documentation, references for which are provided in Table 3.5 and are stored and retired in an independent and credible registry (VCS).

Table 3.4 Total carbon offsets retired during baseline period to offset the Subject's residual GHG emissions

Cargo	Subject GHG emissions during baseline period (tCO _{2e})	Carbon credits retired (tCO _{2e})	Percentage excess credits retired (%)	Carbon data used to offset	
				Production	Transportation
Achieved	13,139.559	17,082	30%	Actual	Actual

The carbon credits were retired within 12 months from the date of the declaration of the achievement of this QES' Subject.

The quality of the carbon offsets retired for the Subject was assessed against the following criteria:

- Robust determination of GHG emissions impact (including additionality)
- Avoid double counting
- Address non-permanence
- Environmental and social impacts
- Strong institutional arrangements
- Host Country Ambition
- Facilitate a transition towards net zero emissions
- CORSIA Pilot Phase compliant

Saudi Aramco purchased and retired the VCS-certified offsets as per Table 3.6.

Table 3.5 Carbon credits retired in the baseline period

Project ID	Project name	Country	Project Type	Vintage	Quantity of VCUs	Purchase date	Retirement date	Reference no. and link	Reference Link
2007	Benban Solar PV Project (Plot 43_4)	Egypt	Energy industries (renewable/non-renewable sources)	2020	4,161	14-Jun-23	21-Nov-23	12652-422975480-422979640-VCS-VCU-842-VER-EG-1-2007-01012020-31122020-0	https://registry.terra.org/mymodule/rpt/CertificateInfo.asp?b=1&rhid=172929
2008	Benban Solar PV Project Plot (42_4)	Egypt	Energy industries (renewable/non-renewable sources)	2019	59	14-Jun-23	21-Nov-23	12654-423053475-423053533-VCS-VCU-842-VER-EG-1-2008-20082019-31122019-0	https://registry.terra.org/mymodule/rpt/CertificateInfo.asp?b=1&rhid=172882
2008	Benban Solar PV Project Plot (42_4)	Egypt	Energy industries (renewable/non-renewable sources)	2019	4,209	14-Jun-23	21-Nov-23	12654-423053609-423057817-VCS-VCU-842-VER-EG-1-2008-20082019-31122019-0	https://registry.terra.org/mymodule/rpt/CertificateInfo.asp?b=1&rhid=172692
2008	Benban Solar PV Project Plot (42_4)	Egypt	Energy industries (renewable/non-renewable sources)	2019	140	14-Jun-23	21-Nov-23	12654-423053156-423053295-VCS-VCU-842-VER-EG-1-2008-20082019-31122019-0	https://registry.terra.org/mymodule/rpt/CertificateInfo.asp?b=1&rhid=163495
2008	Benban Solar PV Project Plot (42_4)	Egypt	Energy industries (renewable/non-renewable sources)	2020	8513	14-Jun-23	21-Nov-23	12655-423063392-423073275-VCS-VCU-842-VER-EG-1-2008-01012020-31122020-0	https://registry.terra.org/mymodule/rpt/CertificateInfo.asp?b=1&rhid=163496
				Total:	17,082				

3.3.2. Offsets in future application periods

As part of its engagement in global and regional voluntary carbon markets, Saudi Aramco has procured offsets issued by the Verified Carbon Standard from sources that align with recognized quality criteria highlighted in section 3.3.1.

For the remaining pilot shipments of Arabian Light crude, Saudi Aramco aims to retire carbon credits from the Verified Carbon Standard to align with PAS 2060 requirements.

In the longer term, Saudi Aramco is in the process of building a portfolio of carbon offsets either purchased through voluntary carbon markets or generated through one of its own projects. Credits from Saudi Aramco's own projects (including natural climate solutions and engineered atmospheric carbon dioxide removals) may be used to offset emissions. It is important to note that this market is in early stages of development, and projects generating credits require careful consideration and should include robust methods for addressing integrity concerns.

4. Annexes

4.1. Annex A: Qualifying Explanatory Statement (QES) checklist

The following table has been extracted from PAS 2060:2014. It provides a checklist of information that should be included in the commitment (Table A1) and achievement (Table A2) to carbon neutrality, as well as identification of where this information is located.

Sr. No.	Checklist element	Status
	A1. Checklist for QES supporting declaration of commitment to carbon neutrality	✓
1	Identify the individual responsible for the evaluation and provision of data necessary for the substantiation of the declaration including that of preparing, substantiating, communicating and maintaining the declaration.	✓
2	Identify the entity responsible for making the declaration.	✓
3	Identify the Subject of the declaration.	✓
4	Explain the rationale for the selection of the Subject.	✓
5	Define the boundaries of the Subject.	✓
6	Identify all characteristics (purposes, objectives or functionality) inherent to that Subject.	✓
7	Identify and take into consideration all activities material to the fulfilment, achievement or delivery of the purposes, objectives or functionality of the Subject.	✓
8	Select which of the 3 options within PAS 2060 you intend to follow.	✓
9	Identify the date by which the entity plans to achieve the status of 'carbon neutrality' of the Subject and specify the period for which the entity intends to maintain that status.	✓
10	Select an appropriate standard and methodology for defining the Subject, the GHG emissions associated with that Subject and the calculation of the carbon footprint for the defined Subject.	✓
11	Provide justification for the selection of the methodology chosen. (The methodology employed shall minimize uncertainty and yield accurate, consistent and reproducible results.)	✓
12	Confirm that the selected methodology was applied in accordance with its provisions and the principles set out in PAS 2060.	✓
13	Describe the actual types of GHG emissions, classification of emissions (Scope 1, 2 or 3) and size of carbon footprint of the Subject exclusive of any purchases of carbon offsets:	✓
	a) All greenhouse gases shall be included and converted to tCO _{2e} .	✓
	b) 100% Scope 1 (direct) emissions relevant to the Subject shall be included when determining the carbon footprint.	✓
	c) 100% Scope 2 (indirect) emissions relevant to the Subject shall be included with determining the carbon footprint.	✓
	d) Where estimates of GHG emissions are used in the quantification of the Subject carbon footprint (particularly when associated with Scope 3 emissions) these shall be determined in a manner that precludes underestimation.	✓
	e) Scope 1, 2 or 3 emission sources estimated to be more than 1% of the total carbon footprint shall be taken into consideration unless evidence can be provided to demonstrate that such quantification would not be technically feasible or cost effective. (Emissions sources estimated to constitute less than 1% may be excluded on that basis alone.)	✓
	f) The quantified carbon footprint shall cover at least 95% of the emissions from the Subject.	✓
	g) Where a single source contributes more than 50% of the total emissions, the 95% threshold applies to the remaining sources of emissions.	✓
	h) Any exclusion and the reason for that exclusion shall be documented.	✓
14	Where the Subject is an organization/ company or part thereof, ensure that:	N.A.

	a) Boundaries are a true and fair representation of the organization's GHG emissions (i.e., shall include GHG emissions relating to core operations including subsidiaries owned and operated by the organization). It will be important to ensure claims are credible – so if an entity chooses a very narrow Subject and excludes its carbon intensive activities or it if outsources its carbon intensive activities, then this needs to be documented.	-
	b) Either the equity share or control approach has been used to define which GHG emissions are included. Under the equity share approach, the entity accounts for GHG emissions from the Subject according to its share of equity in the Subject. Under the control approach, the entity shall account for 100% of the GHG emissions over which it has financial and/or operational control.	-
15	Identify if the Subject is part of an organization or a specific site or location and treat as a discrete operation with its own purpose, objectives and functionality.	✓
16	Where the Subject is a product or service, include all Scope 3 emissions (as the life cycle of the product/ service needs to be taken into consideration).	✓
17	Describe the actual methods used to quantify GHG emissions (e.g., use of primary or secondary data), the measurement unit(s) applied, the period of application and the size of the resulting carbon footprint. (The carbon footprint shall be based as far as possible on primary activity data.) Where quantification is based on calculations (e.g., GHG activity data multiplied by greenhouse gas emission factors or the use of mass balance/ life cycle models) then GHG emissions shall be calculated using emissions factors from national (Government) publications. Where such factors are not available, international or industry guidelines shall be used. In all cases the sources of such data shall be identified.	✓
18	Provide details of, and explanation for, the exclusion of any Scope 3 emissions.	✓
19	Document all assumptions and calculations made in quantifying GHG emissions and in the selection or development of greenhouse gas emissions factors. (Emission factors used shall be appropriate to the activity concerned and current at the time of quantification.)	✓
20	Document your assessments of uncertainty and variability associated with defining boundaries and quantifying GHG emissions including the positive tolerances adopted in association with emissions estimates. (The statement could take the form of a qualitative description regarding the uncertainty of the results, or a quantitative assessment of uncertainty if available (e.g., carbon footprint based on 95% of likely greenhouse gas emissions; primary sources are Subject to variation over time; footprint is best estimate based on reasonable costs of evaluation)).	✓
21	Document Carbon Footprint Management Plan:	✓
	a) Make a statement of commitment to carbon neutrality for the defined Subject.	✓
	b) Set timescales for achieving carbon neutrality for the defined Subject.	✓
	c) Specify targets for GHG reduction for the defined Subject appropriate to the timescale for achieving carbon neutrality including the baseline date, the first qualification date and the first application period.	✓
	d) Document the planned means of achieving and maintaining GHG emissions reductions including assumptions made and any justification of the techniques and measures to be employed to reduce GHG emissions.	✓
	e) Specify the offset strategy including an estimate of the quantity of GHG emissions to be offset, the nature of the offsets and the likely number and type of credits.	✓
22	Implement a process for undertaking periodic assessments of performance against the Plan and for implementing corrective action to ensure targets are achieved. The frequency of assessing performance against the Plan should be commensurate with the timescale for achieving carbon neutrality.	✓
23	Where the Subject is a non-recurring event, such as weddings or a concert, identify ways of reducing GHG emissions to the maximum extent commensurate with enabling the event to meet its intended objectives before the event takes place and include 'post event review' to determine whether or not the expected minimization in emissions has been achieved.	N.A.

24	Any reductions in the GHG emissions from the defined Subject delivered in the three years prior to the baseline date and not otherwise considered in any GHG emissions quantification have been made in accordance with this PAS.	N.A.
25	Record the number of times that the declaration of commitment has been renewed without declaration of achievement.	N.A.
26	Specify the type of conformity assessment:	
	a) independent third-party certification	✓
	b) other party validation	N.A.
	c) self-validation	N.A.
27	Include statements of validation where declarations of commitment to carbon neutrality are validated by a third- party certifier or second party organizations.	✓
28	Date the QES and have signed by the senior representative of the entity concerned (e.g., CEO of a corporation; Divisional Director, where the Subject is a division of a larger entity; the Chairman of a town council or the head of the household for a family group).	
29	Make the QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g., via websites).	
30	Update the QES to reflect changes and actions that could affect the validity of the declaration of commitment to carbon neutrality.	N.A.
	A2. Checklist for QES supporting declaration of achievement of carbon neutrality	
1	Define standard and methodology to use to determine its GHG emissions reduction.	✓
2	Confirm that the methodology used was applied in accordance with its provisions and the principles set out in PAS 2060 were met.	✓
3	Provide justification for the selection of the methodologies chosen to quantify reductions in the carbon footprint, including all assumptions and calculations made and any assessments of uncertainty. (The methodology employed to quantify reductions shall be the same as that used to quantify the original carbon footprint. Should an alternative methodology be available that would reduce uncertainty and yield more accurate, consistent and reproducible results, then this may be used provided the original carbon footprint is re-qualified to the same methodology, for comparison purposes. Recalculated carbon footprints shall use the most recently available emission factors, ensuring that for purposes of comparison with the original calculation, any change in the factors used is considered.)	✓
4	Describe the means by which reductions have been achieved and any applicable assumptions or justifications.	The first QES refers to 100% offsetting.
5	Ensure that there has been no change to the definition of the Subject. (The entity shall ensure that the definition of the Subject remains unchanged through each stage of the methodology. If material change to the Subject occurs, the sequence shall be re-started based on a newly defined Subject.)	✓
6	Describe the actual reductions achieved in absolute and intensity terms and as a percentage of the original carbon footprint. (Quantified GHG emissions reductions shall be expressed in absolute terms and shall relate to the application period selected and/or shall be expressed in emission intensity terms (e.g., per specified unit of product or instance of service).)	✓
7	State the baseline/ qualification date.	✓
8	Record the percentage economic growth rate for the given application period used as a threshold for recognizing reductions in intensity terms.	N.A.
9	Provide an explanation for circumstances where a GHG reduction in intensity terms is accompanied by an increase in absolute terms for the determined Subject.	✓
10	Select and document the standard and methodology used to achieve carbon offset.	✓
11	Confirm that:	✓

	a) Offsets purchased or allowance credits surrendered represent genuine, additional GHG emission reductions elsewhere	✓
	b) Projects involved in delivering offsets meet the criteria of additionality, permanence, leakage and double counting. (See WRI Greenhouse Gas Protocol for definitions of additionality, permanence, leakage and double counting.)	✓
	c) Carbon offsets are verified by an independent third-party verifier	✓
	d) Credits from carbon offset projects are only issued after the emission reduction has taken place	✓
	e) Credits from carbon offset projects are retired within 12 months from the date of the declaration of achievement	✓
	f) Credits from carbon offset projects are supported by publicly available project documentation on a registry which shall provide information about the offset project, quantification methodology and validation and verification procedures	✓
	g) Credits from carbon offset projects are stored and retired in an independent and credible registry	✓
12	Document the quantity of GHG emissions offset and the type and nature of offsets purchased including the number and type of credits used and the time period over which credits were generated including:	✓
	a) Which GHG emissions have been offset	✓
	b) The actual amount of carbon offset	✓
	c) The type of offset and projects involved	✓
	d) The number and type of carbon offset credits used and the time period over which the credits have been generated	✓
	e) Information regarding the retirement/ cancellation of carbon offset credits to prevent their use by others including a link to the registry where the offset has been retired.	✓
13	Specify the type of conformity assessment:	
	a) independent third-party certification	✓
	b) other party validation	N.A.
	c) self-validation	N.A.
14	Include statements of validation where declarations of achievement of carbon neutrality are validated by a third-party certifier or second party organizations.	N.A.
15	Date the QES and have it signed by the senior representative of the entity concerned (e.g., CEO of a corporation; Divisional Director, where the Subject is a division of a larger entity; the Chairman of a town council or the head of the household for a family group).	
16	Make the QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g., via websites).	

4.2. Annex B: Assurance statement



LRQA Independent Assurance Statement

Relating to the assurance engagement of Saudi Aramco Oil Company's declaration on Carbon Neutrality of Arab Light crude (pilot) cargo

This Assurance Statement has been prepared for Aramco Trading Singapore Pte. Ltd. in accordance with our contract.

Terms of Engagement

LRQA Limited was commissioned by Aramco Trading Singapore Pte Ltd. (Aramco) to provide independent assurance of its declaration on achievement of carbon neutrality related to its Arab Light crude (pilot) cargo as detailed within Aramco's Qualifying Explanatory Statement (QES) dated 19 March 2024. Our assurance engagement was conducted to a Limited Level of Assurance and materiality of the professional judgement of the verifier using LRQA's verification procedure. LRQA's verification procedure is based on current best practise and is in accordance with ISAE 3000 and ISAE 3410.

Subject: Arabian Light crude (pilot) cargo from production at Ghawar plants including gas oil separation in Saudi Arabia Aramco to the title transfer to Motiva Refinery in Galveston, USA using a cradle to gate approach.

Reporting period: 01 October 2022 to 30 September 2023.

Inclusions:

- Production Header from Ghawar oil fields to Gas oil separation plant
- pumping and pipeline transportation to the underground storage facilities and stabilization plant.
- transportation to the loading port (Juaymah) via crude pumping station.
- Transportation via VLCC and Lightering vessels until reaching port of Galveston, Texas, USA.

Exclusions:

- Exploration before and during well development
- Pumping and transport from Galveston, USA to Motiva Refinery.

Our engagement with Aramco specifically covered the following:

- Verifying conformance with:
 - Saudi Aramco's 2022 Basis of Preparation and GHG Inventory Management Plan.
 - World Resources Institute / World Business Council for Sustainable Development Greenhouse Gas Protocol: A corporate accounting and reporting standard, revised edition (otherwise referred to as the WRI/WBCSD GHG Protocol) for the GHG data¹.
 - PAS 2060:2014 – Specification for demonstration of carbon neutrality
- Evaluating the accuracy and reliability of data and information presented with respect of its carbon neutrality achievement declaration and carbon neutrality declarations in accordance with the GHG Product Life Cycle Accounting and Reporting Standard.

¹ <http://www.ghgprotocol.org/>



Management Responsibility

Aramco management was responsible for the Qualifying Explanatory Statement related to carbon neutrality of the pilot AL cargo transfer including internal controls over the data and information disclosed. LRQA's responsibility was to carry out an assurance engagement on the aforementioned claim of conformity with PAS2060, in accordance with our contract with Aramco.

LRQA's Approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks were undertaken as part of the evidence gathering process for this assurance engagement:

- Reviewing processes related to the collection, collation and calculation of GHG emissions intensity;
- Interviewing (remotely) relevant staff of the organization responsible for managing related to GHG emissions data and records;
- Reviewing activity data related to volume flows, energy data and conversions, emission factors, allocations and calculations used in determining facility level emission intensities;
- Verifying credit offsets retired towards the subject emissions.

Level of Assurance and Materiality

The opinion expressed in this Assurance Statement has been formed on the basis of a limited level of assurance and at the professional judgment of the verifier.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that *Aramco* has not, in all material respects:

- Met the requirements of the criteria listed above; and
- Disclosed accurate and reliable performance data and information as summarized in Table 1 and Table 2 below.

The opinion expressed is formed on the basis of a limited level of assurance² and at the materiality of the professional judgement of the verifier.

Table 1. Summary of Aramco's GHG Emissions for the subject:

Scope of GHG emissions	Tonnes CO ₂ e
Total GHG emissions (Scope 1 and Scope 2)	13,140

² The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.



Table 2. Summary of Aramco’s Carbon credits retired for the subject:

Carbon credits	Tonnes CO ₂ e
Carbon credits retired for the subject	17,082
Notes: Credits from carbon offset projects were retired within 12 months of the date of the declaration of achievement.	

LRQA’s Standards, Competence and Independence

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 *Greenhouse gases-Requirements for greenhouse gas validation and verification bodies for use in accreditation* that are at least as demanding as the requirements of the International Standard on Quality Control and comply with the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants.

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

LRQA does not provide *Aramco* with any other certification or training services related to management systems. The verification is the only work undertaken by LRQA for *Aramco* and as such does not compromise our independence or impartiality.

Signed

Dated: 17th April 2024

Ketan Deshmukh
LRQA Lead Verifier
On behalf of LRQA Limited.
One Central, The Office 3, Level 3,
World Trade Centre, P. O. Box 9573, Dubai, United Arab Emirates.

LRQA reference: DQA00000745

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