



Executive Summary

Company Name	SLB
Submission Point of Contact	John Tang, Dr. Johanna Eidmann
Product Name	SOOFIE Emissions Monitoring System
Technology Type	Periodic Screening
Target Applicability	Broadly applicable across the sector
Target Emission Leak Rate Thresholds	5, 10, and 15 kg/hr

Summary Description of Technology

The SOOFIE emissions monitoring system is an advanced solution for detecting, localizing, and quantifying methane emissions across the oil and gas sector and other industries. It comprises a network of solar-powered, pole-mounted devices equipped with metal-oxide semiconductor (MOS) sensors that measure methane concentrations at multiple points. By integrating wind data from on-site sonic anemometers with environmental and methane readings, SOOFIE accurately determines emission rates across a site.

With thousands of units deployed across the U.S. and internationally, the SOOFIE emissions monitoring system has demonstrated exceptional reliability and durability in rugged environments. It operates effectively in harsh weather, across wide temperature ranges, and is unaffected by cloud cover — making it suitable for diverse geographies and facility types. Its scalable design and proven performance position the SOOFIE emissions monitoring system as a versatile and trusted solution for continuous methane monitoring.

Updates to the Application

Date	Description
March 14, 2025	ALTTECH-96 (1 Kg/hr)
March 14, 2025	ALTTECH-97 (2 Kg/hr)
March 14, 2025	ALTTECH-98 (5 Kg/hr)
March 14, 2025	ALTTECH-99 (10 Kg/hr)
March 14, 2025	ALTTECH-100 (15 Kg/hr)
August 28, 2025	Initial submission of periodic screening application

List of Documents Submitted in Application

Summary of documents submitted:

Document name(s) with extension	Document Description
SOOFIE Alt Tech – Description of Measurement Technology	Description of the measurement technology including scientific background, working principle, conversion of concentration data to mass emission rate, data collection, handling, and storage

Supporting documents:

Document name(s) with extension	Document Description
SOOFIE Install guide.pdf	SOOFIE install guide
SOOFIE – Datasheet	SOOFIE datasheet

Alt test method:

Document name(s) with extension	Document Description
SLB SOOFIE Alternative Test Method (MATM-013).docx	Alternative Technology Formatted Method Including the Siting Procedure

CBI submitted Documents:

Document name(s) with extension	Document Description
AI Anomaly Detection_v2_04_24_2025.pdf	In-depth description of the automated detection of anomalous events.
Calculation of Wind Direction Standard Deviation Across Longer Timeframes.pdf	Description of method used to calculate wind variability over longer time periods.
MOS Sensor Lifetime Correspondence.pdf	Correspondence with MOS sensor manufacturer about sensor performance.
Section 11 Analytical Procedure (reserved).pdf	CBI section that details the analytical and quantitative procedure performed in the method.
Section 15 Data Security and Recordkeeping (reserved).pdf	CBI section that details data security and recordkeeping.
SensorPlacement_UserManual_PeriodicScreening.pdf	CBI section that details the workflow and calculations.
MOS_Sensor_LongTermStability.pdf	A document provided by the manufacturer of the MOS sensor demonstrating long-term stability of the methane sensor.
The SOOFIE Calibration Framework_v8.pdf	In-depth description of the calibration framework used for MOS sensors to produce reliable methane concentration data.