GHGSat™

In proud partnership with GHGSAT

OUR REMOTE SENSING TECHNOLOGY USES INDUSTRY LEADING SATELLITE TECHNOLOGY TO MONITOR GREENHOUSE GAS (GHG) EMISSIONS FROM INDIVIDUAL FACILITIES, ANYWHERE IN THE WORLD.

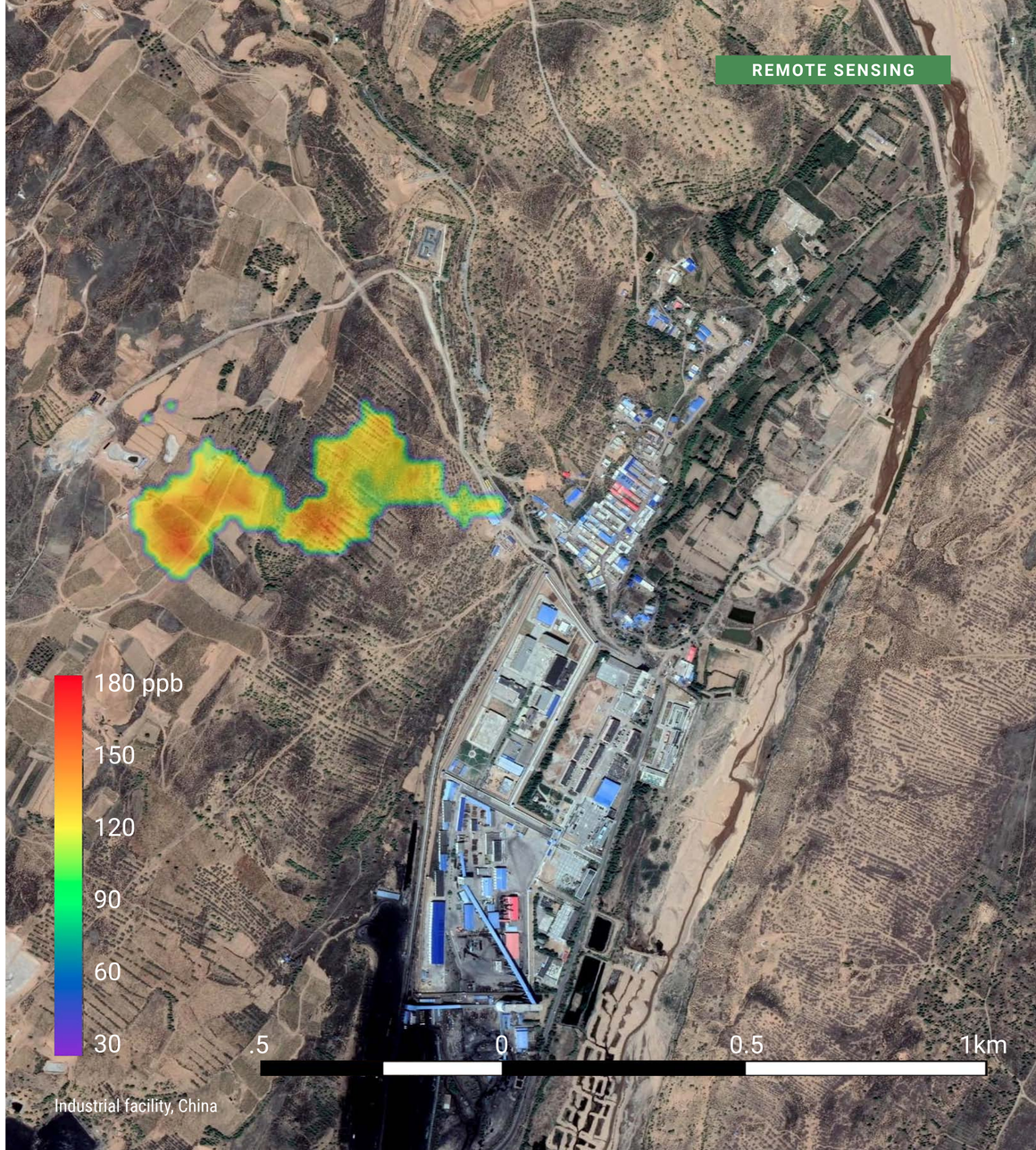
Monitoring GHG emissions from facilities is becoming increasingly valuable across multiple business sectors. These include but are not limited to agriculture, mining, oil & gas, power generation and waste management. Stantec uses GHGSat's patented satellite and aircraft instruments that provide the world's only high-resolution gas emissions monitoring services from air and space. We offer the ability to monitor emissions and detect a wide range of air quality and other trace gases from anthropogenic and natural resources, such as methane, from industrial point sources at unsurpassed image fidelity and frequency anywhere around the world.

Multi-national and local operators benefit from obtaining cost-effective data and meaningful interpretations of results. Each atmospheric gas absorbs light at different wavelengths, creating a unique spectral footprint in the electromagnetic spectrum. GHGSat's hyperspectral sensor is engineered to detect the signature of methane from within the atmospheric column.

Our remote sensing scientists utilize GHG data sources for country-wide analysis for focused industrial analyses. Analytics collected from GHGSat's satellite and aircraft provide us with the ability to deliver unique insights to efficiently monitor and effectively interpret facility-level emissions anywhere in the world at a fraction of the cost of alternative technologies.

200,000+

atmospheric measurements in seconds



> ***The level of accuracy and precision GHGSat provides is an industry game changer. Our clients can monitor large-scale assets with unprecedented resolution and frequency"***
>
> GRANT WISEMAN
> *REMOTE SENSING SCIENTIST*

STANTEC IS LEADING THE WAY IN METHANE EMISSION MANAGEMENT

Our GHGSat services offer methane emission imagery at a 25-meter by 25-meter resolution. Other GHG emission readings imagery available from organizations such as NASA, and the European Space Agency (ESA), can only provide multiple-kilometer-by -multiple-kilometer resolution. GHGSat captures an array of over 200,000 measurements around industrial facilities in only a few seconds. These readings, along with local weather conditions at the time of data acquisition, are processed to produce a vertically-integrated isoconcentration map of methane abundance from infrastructure sources. (see Figure 1).

Why monitor emissions from air & space?

- Measure any site in the world every 5-6 days
- Methane readings can be acquired within days of request, as often as needed, with no deployment cost
- Detect and quantify emissions more precisely across vast regions
- Our monitoring services are reliable and consistent; the same method is used for all sites
- Work toward reducing carbon footprint and provide data inputs to Carbon Disclosure requirements

Monitor GHG emissions everywhere, anytime

- Monitor your sites remotely, more frequently and without field visits
- Use unique analytics to augment datasets and gain actionable insights along with methane hotspots, flaring detection, and flaring activity from third party satellites
- Measure your facility-level methane emissions on a regular basis
- Find up to 90% of methane emissions by volume with our aircraft surveys

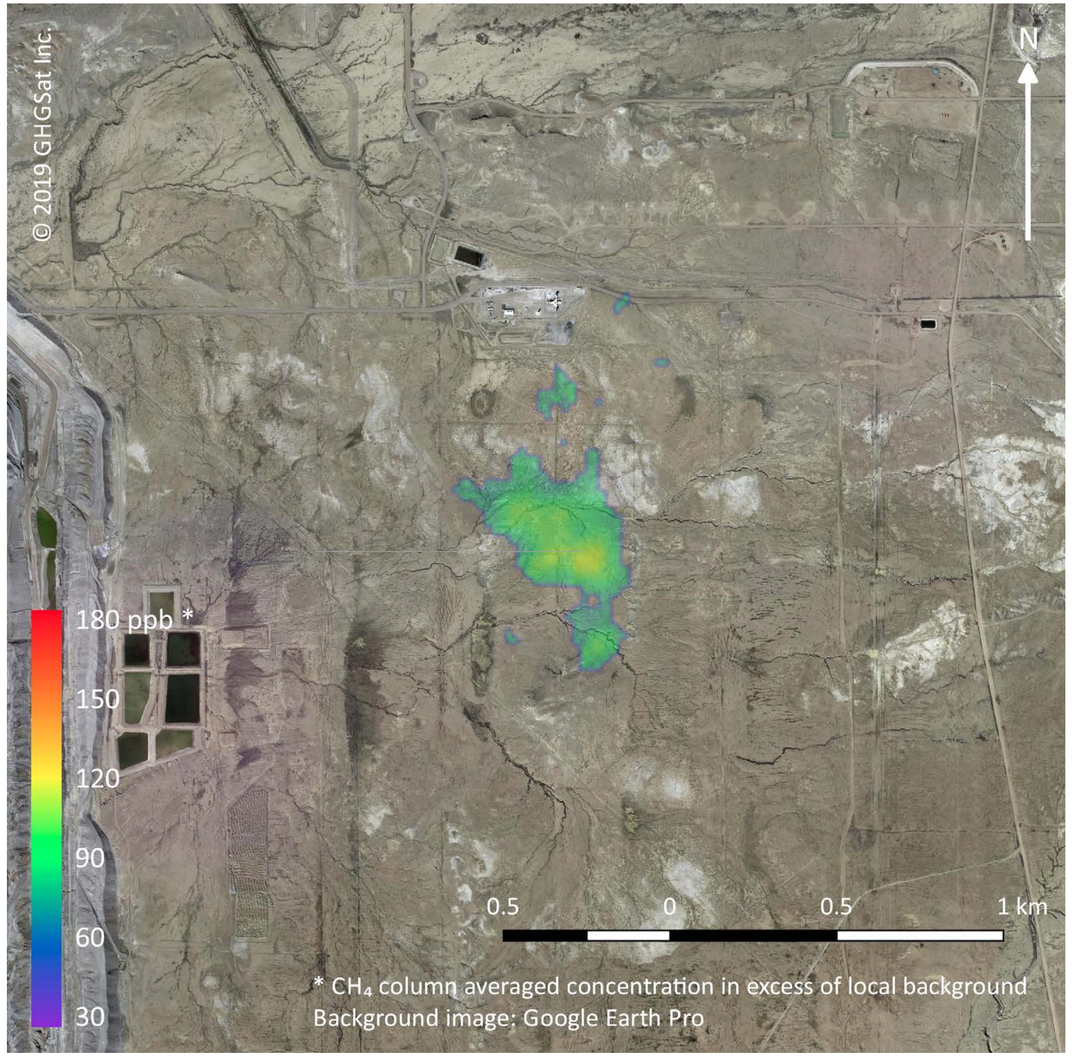


Figure 1. GHGSat's methane emission detection of an industrial facility in Southwest USA from 2019. Methane is identified in a heat map in parts per billion (ppb).

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CONTACT US

Send us an email at remotesensing@stantec.com to learn more about remote sensing.

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