

Isotopes Canada's tracers are a cost-effective service for evaluating well integrity and managing abandonment liability. Our tracers can be injected with water, gas, or steam or other injection streams to provide improved understanding of fluid movement. Then samples of water or gas can be used to detect tracer movement and analyzed in our Calgary laboratory. Our exclusive Isotopes Canada tracers are unaffected by the chemical environment, reservoir temperatures or pressures. Custom designed sample schedules are created per the customer's needs, yielding precise quantitative information.

FAQ'S

How is the tracer injected?

Injected directly into a wellhead or fluid system – depends on site specific well configuration and purpose of test.

Can the tracers identify flow direction and velocity?

Yes, depending on location of sampling points which is critical part of test design.

Can the tracers help identify the source of fluid or gas to surface?

Yes, the tracer can help to locate or eliminate a source.

How are samples obtained for testing?

Fluid or gas samples are collected from the wellhead, production wells, separation facility, or other sample point – obtained by operator or Isotopes Canada.

What is the sample testing frequency?

Frequency depends on case by case – typically starting at higher frequency and over time moving to lower frequency, with ability to store samples for future analysis.

What are samples collected in?

Sample containers for water need to be clean and properly labeled, they can be plastic or glass. The sample volumes can be as low as 10ml to 1L.

Where are the samples processed?

The laboratory analysis is conducted at our Calgary lab.

What is the timeline for completion of testing and providing results?

From time of sample arrival to completion is approximately 5-7 business days.

Solutions

Isotopes Canada tracers help determine from point of injection to collection where fluids or gases are moving, communication time, and presence of unexpected subsurface impairments.

This data contributes to critical decision-making about:

- Determining surface vent flow sources
- Determine inter-well communication
- Assessing well integrity and fluid flow behind pipe
- Assess connection to other sources
- Evaluate flow out of zone



Isotopes Canada tracers provide accurate data about injection travel time, direction and influences, while identifying potential subsurface anomalies, heterogeneity and interconnectivity.

Workflow

- Clients provide initial data for tracer program design.
- Program design and cost proposal prepared.
- Field execution plan is finalized.
- Administer tracer injection as per plan.
- Sample protocol executed.
- Samples sent by courier to Isotopes Canada, Calgary laboratory.
- Samples are evaluated and results sent to client.

Previous Experience

- In business since 1981, completing over 500+ jobs with many repeat clients.
- Have conducted tracer programs for waterfloods for over 30 operators in Western Canada and internationally.
- Heavy Oil & Oilsands – Completed tracer programs for over 6 operators in the Cold Lake and Athabasca regions.
- Core tracing services for over 300 locations for exploration and production companies.

HSE

- Isotopes Canada has a proven track record of safe and reliable services for almost 40 years.
- Our employees and contractors meet HSE industry training requirements
- We are committed to services that ensure the safety and health of our employees, contractors, clients, and other stakeholders.
- Isotopes Canada is compliant with the Canadian Nuclear Safety Commission for our in-house tracer formulations and maintains a rigorous audit process.
- At all levels of our organization, we commit to safe operations and protection of the environment.

