

Isotopes Canada tracer services provide a cost-effective method for evaluation of process equipment retention time and mixing calibration. A challenge in operating facilities is optimizing maintenance scheduling with operating efficiency and up-time. Our tracer services can aid in enhanced profitability and improved process efficiency. Our exclusive Isotopes Canada tracers are unaffected by the chemical environment, process temperatures or pressures. The formulations are aqueous based and stable, easily added to the process system based on the customer needs. Custom designed sample schedules are created on case by case basis, yielding quantitative information about the flow process.

FAQ'S

How is the tracer injected?

Injected directly into the flow system as defined by customer to match pressure conditions.

Do the tracers work in pressurized vessels?

The tracers are not affected by pressure or temperature and will remain stable, following the phases of the water phase.

Are the tracers compatible with process chemicals?

Yes, our portfolio of tracer formulations will be compatible, but may require further investigation and confirmation.

What happens to tracer recycle through the facility?

Tracer follows the water phase.

Will the tracers scale or impair flow in the vessels or piping?

Our tracer formulations will not scale or leave deposits in the system.

How are samples obtained for testing?

Fluid samples are collected from sample points as determined by customer, typically 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.

What are samples collected in?

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

How many formulations do you have?

We have a portfolio of many tracer formulations with ongoing work to expand our product line.

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

From time of sample arrival at our Calgary lab to results reported to customer is approximately 5-7 business days.

Solutions

Isotopes Canada tracers help verify from point of injection to collection the flow parameters including time and quantity.

The test provides:

- Direct measurement of the residence/contact time in processing equipment to confirm the real equipment performance against the equipment design basis.



- Test the performance of existing or new designs for mixing elements and internals. Could be part of pilot scale testing for new equipment designs.
- Justify design changes to existing mixing elements and internals.
- Check for damage to existing mixing elements and internals without requiring a production outage or a vessel/tank entry and inspection.
- Type of equipment this can be used for:
 - Oil/Water Separation
 - Free Water Knockouts (FWKO)
 - Treaters
 - Produced Water De-oiling
 - Induced Gas Flotation (IGF)
 - Skim Tanks
 - API Separators
 - Water Treating
 - Hot Lime Softeners (HLS)
 - Warm Lime Softeners (WLS)
 - Clarifiers
 - Sand Bed Filters
 - Ion Exchange Resin Beds

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.
- 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.

