# Surface Casing Vent Flow Source Identification CNL-TriDent – Noise-Temperature – Sector Bond

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## ABSTRACT

As of March 2003, there were 6493 reported Surface Casing Vent Flows in the province of Alberta. To prevent cross-flow between zones and contamination of ground water EUB regulations state the Vent Flow must be shut off at the source. If the source is NOT properly identified re-entry to repair may be required. A combination of traditional log methods and tools used with the CNL-TriDent (through casing neutron-density) creates a powerful source identifier.

The CNL-TriDent is a 1 11/16" thermal neutron - density device. From the resulting through casing neutron porosity and normalized formation density responses, both formation and annular gas can be identified. Used in combination with the Noise, Temperature and Sector Bond logs, the exact source of a surface casing vent flow is quickly and accurately determined.

CNL-TriDent, Noise-Temperature and Sector Bond have been logged in combination on over two hundred wells to locate surface casing vent flows. The success rate on the 1st remedial repair has been reported to be near 90%, vs an industry standard of approximately 40%. Examples will be shown and discussed.