



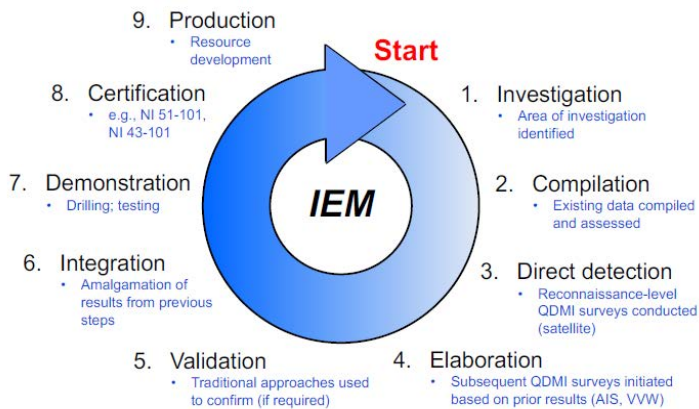
# Integrative Technologies International Inc. (ITI)

*“Sensing the Earth for all its Worth”*

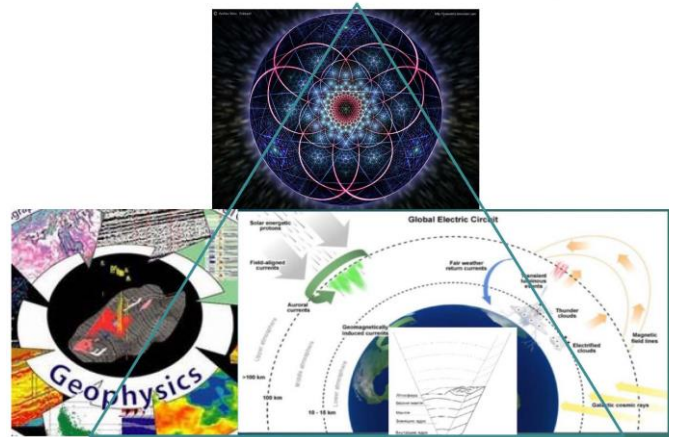
ITI is a natural resource evaluation service company that finds and develops natural resources more efficiently, effectively and economically than traditional exploration technologies alone, with little to no environmental impact.



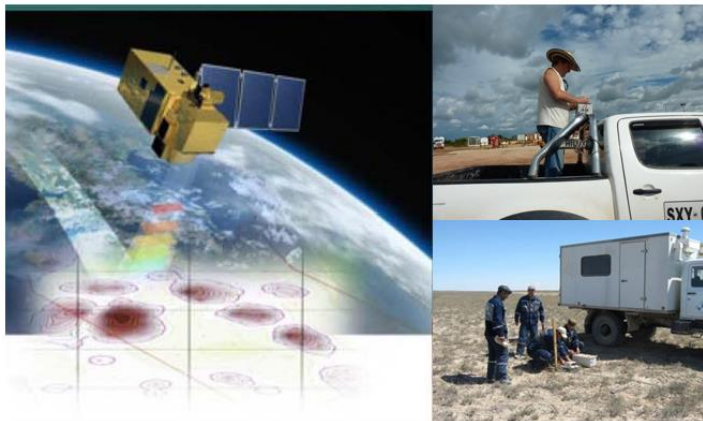
## Integrative Exploration Model (IEM) Methodology



## Quantum Geoelectrophysics Traditional, Atmospheric, & Quantum Physics



## Quantum DMI Satellite, Area Intensity and Vertical Virtual Well Surveys



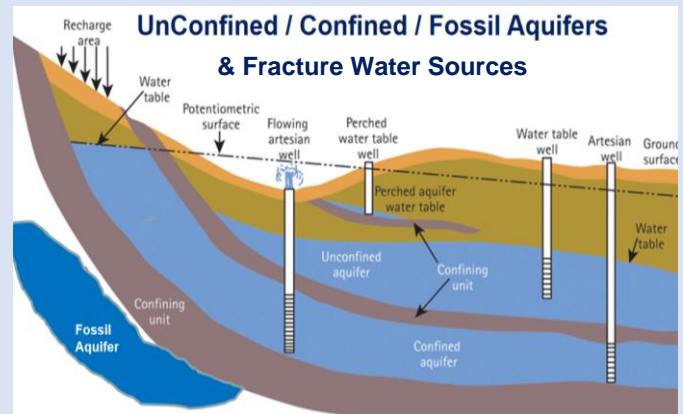
Using IEM together with the QDMI applications of Satellite, Area Intensity and Vertical Virtual Well Surveys of Quantum Geoelectrophysics (QGEP), ITI can accurately determine the volume of natural resources (hydrocarbons, minerals, water and geothermal sources) that are in place before a physical well is drilled or an excavation is made. Application of this evaluation process and QDMI Technology significantly increases the probability of success of natural resource exploration.



**Hydrocarbons**



**Minerals**



**Water and Geothermal Sources**

# Quantum Direct Matter Indicator (QDMI) Technologies and Integrative Exploration Model (IEM) Methodologies

## Executive Summary

### Abstract:

Geoelectrophysics based Quantum DMI Technologies (QDMI), Integrative Exploration Model (IEM) Methodologies and ITI Project Implementation Strategies are more efficient (less time), effective (accurate results), economical (less cost), and environmentally friendly relative to current traditional resource exploration technologies alone. The integration of IEM, QDMI and ITI Project Implementation Strategies lead to a higher probability of success for; hydrocarbons (both onshore and offshore); minerals, metals and coal; water and geothermal sources; and special QDMI Services (civil, environmental, other).

QDMI Technologies and IEM Methodologies Relative to Traditional Resource Exploration Technologies	
<b>Efficient</b>	<i>...a fraction of the time; investigation - weeks, certification - months</i>
<b>Effective</b>	<i>...accurate with no cultural, geological, or geophysical constraints</i>
<b>Economic</b>	<i>...low relative cost from inception to certification</i>
<b>Eco-friendly</b>	<i>...little to no environmental, ecological, or cultural impact</i>

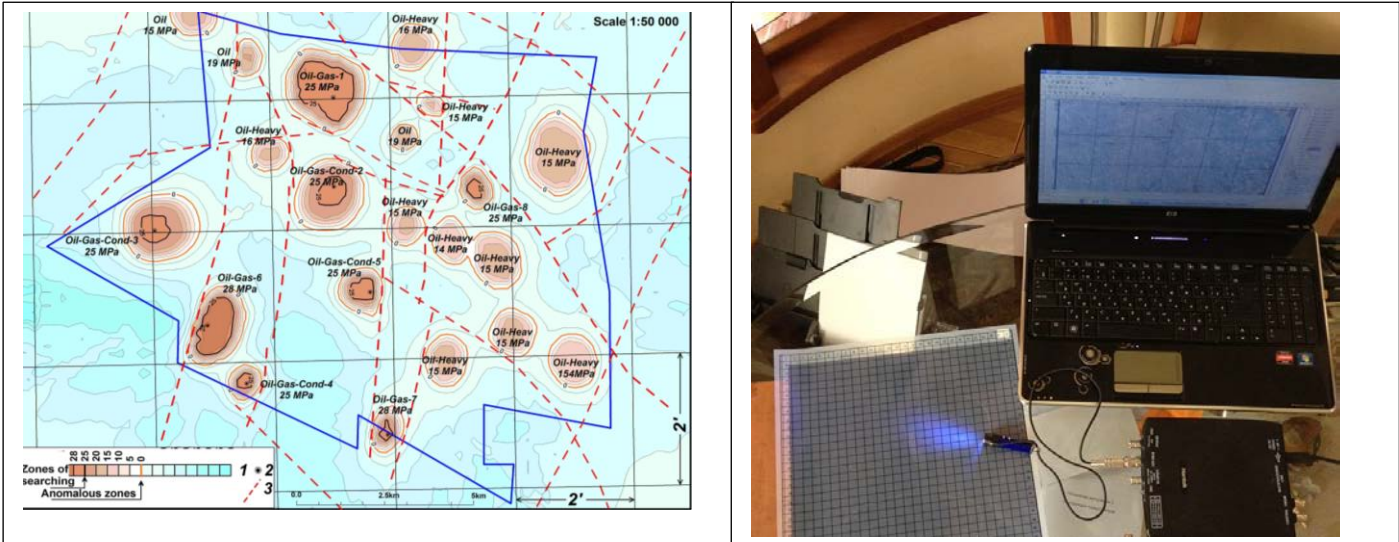
**Background:** Quantum Geoelectrophysics (QGEP) is an emerging field of non-classical and non-seismic geophysical theory and practice that combines classical physics, atmospheric physics, and quantum physics.

The three geophysical survey methods arising from QGEP, ITI refer to as **Quantum Direct Matter Indicator (QDMI) Technologies**. The integration, comparison, correlation and application of traditional and conventional methods and technologies with quantum resource anomalies, ITI describe this process as the **Integrative Exploration Model (IEM) Methodologies**.

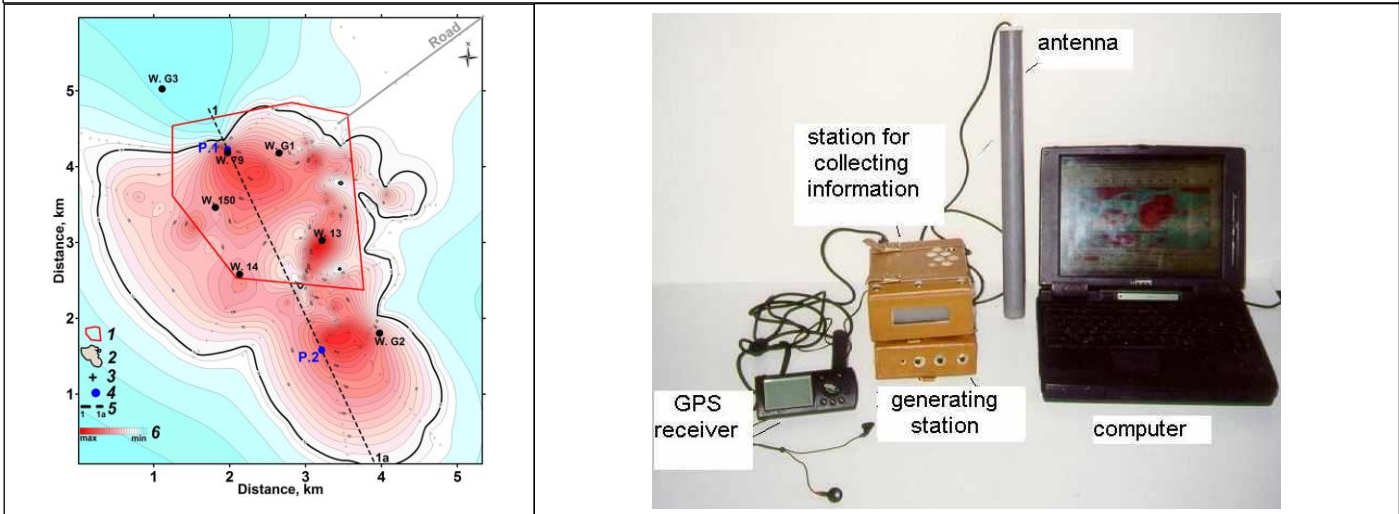
QDMI Technologies, via satellite (space based) or Earth based (area intensity surveys (AIS) and vertical virtual well (VWV) surveys) and IEM Methodologies have been researched, developed, field tested and applied over the past twenty years. Using QDMI Technologies to detect the target substance electromagnetic resonant frequency (EMRF) on the surface, and sub-surface of the earth, hydrocarbon reservoirs, mineral deposits, aquifers and geothermal sources are detected with accuracy. The application of IEM and QDMI provides a three-dimensional perspective of the reservoirs, deposits, aquifers or geothermal sources that enables estimation of the natural resource in place before a physical well is drilled or an excavation is made. QDMI Technologies can be applied onshore and offshore with the ability to detect target natural resource substances over difficult terrains such as deserts, snow, ice-fields, mountains, within hard rock for minerals, and within or below salt, basalt, granite and metamorphic rock.

**QDMI Technologies and IEM Methodologies:** All matter, all elements and all substances have a unique electromagnetic resonant frequency (EMRF). There are three ways to determine EMRF: laboratory analysis of the substance; calibration locations; and a library of EMRF signatures for over 100 primary elements and substances that have been empirically determined and are utilized in all three applications of QDMI Technologies: satellite, area intensity and vertical surveys.

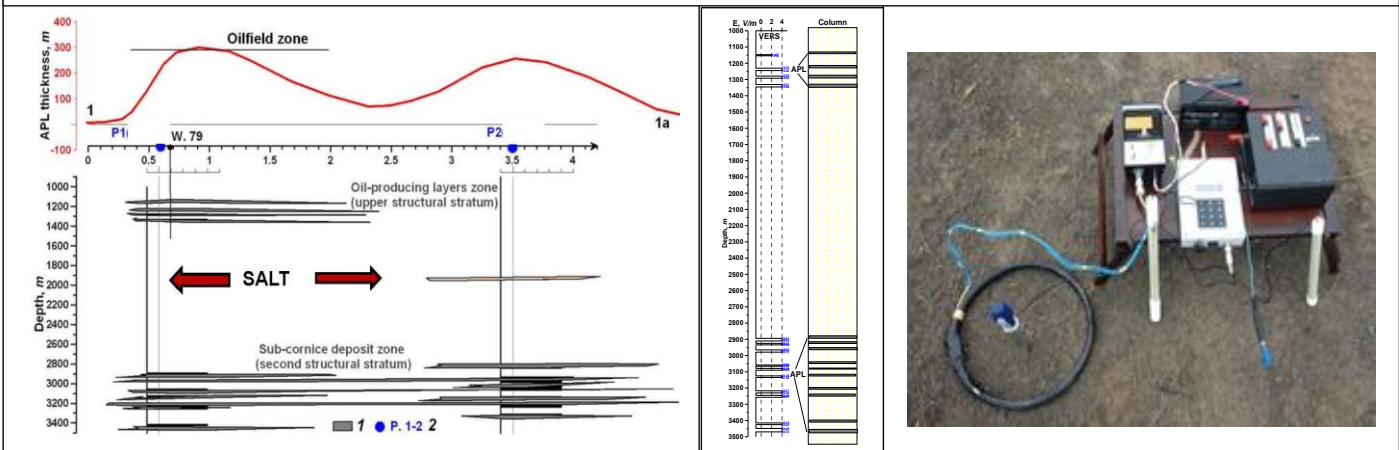
1. **QDMI Satellite Surveys:** The EMRF emissions from a target substance are detected and measured from satellite multi-spectral data then processed, filtered, decoded and analyzed for target substance EMRF emissions. The interpreted results are presented as a 2D map showing the quantum natural resource anomaly; type of substance (hydrocarbons, minerals, water); areal extent (km<sup>2</sup>); intensity (EmV) or concentration, maximum reservoir pressure (MPa), temperature, lithology (if required) and tectonic faults and fractures within a specified area and depth of investigation. Vertical Scanning Simple (VSS) and Vertical Scanning Detailed (VSD) methods can be applied to the quantum anomalies to yield the approximate depth and thickness of the sub-surface formations from where the cumulative intensity level is originating at a point on the surface. QDMI Satellite Surveys are conducted from 1:200,000 to 1: 1,000 scale or larger depending on the client specifications and resolution required to accurately detect the natural resource geologic anomaly. (See Figure 1)
2. **QDMI Area Intensity Surveys:** Area Intensity Surveys (AIS) are conducted from an aircraft, vehicle, vessel or on foot usually by a 3-6 person field team. Whereas Satellite Surveys yield the relative quantum anomaly intensities, Earth based “ground truthing” AIS provide measurement of the absolute value of the target substance EMRF field intensity, as well as positioning the quantum anomaly, with a high degree of accuracy, on the earth or sea. Rapid electromagnetic pulses are emitted to stimulate the Earth’s electric field, and the resulting target substance resonant response is measured. The result is an area intensity contour map showing the locations of the highest target substance EMRF intensities. (See Figure 2).
3. **QDMI Vertical Surveys:** Vertical Virtual Well (VWV) Surveys use the generation of rapid EM bursts into the near-earth electric field and measure the resonant response for the target substance on the surface. This type of survey provides data for determination of the depth, thickness, intensity and if applicable, pressures and temperatures vertically. The VWV survey is an electromagnetically acquired log of the station on the surface of the Earth. The VWV survey can discretely detect 1 m of natural resource zone in a 5,000 m well depth. VWV Surveys are also usually conducted with a 3-6 person field team (See Figure 3).



**Figure 1: QDMI Resonant Frequency Remote Sensing (RFRS):** On the left is an example of a hydrocarbon RFRS Survey at 1:50,000 scale. On the right is the equipment utilized for raw satellite data EMRF processing, analysis, interpretation and presentation.



**Figure 2: QDMI Area Intensity Surveys (AIS):** On the left is an example of a hydrocarbon area intensity contour map of the EMRF of an oil reservoir produced from AIS data. On the right is the equipment used in field data acquisition, analysis and interpretation.

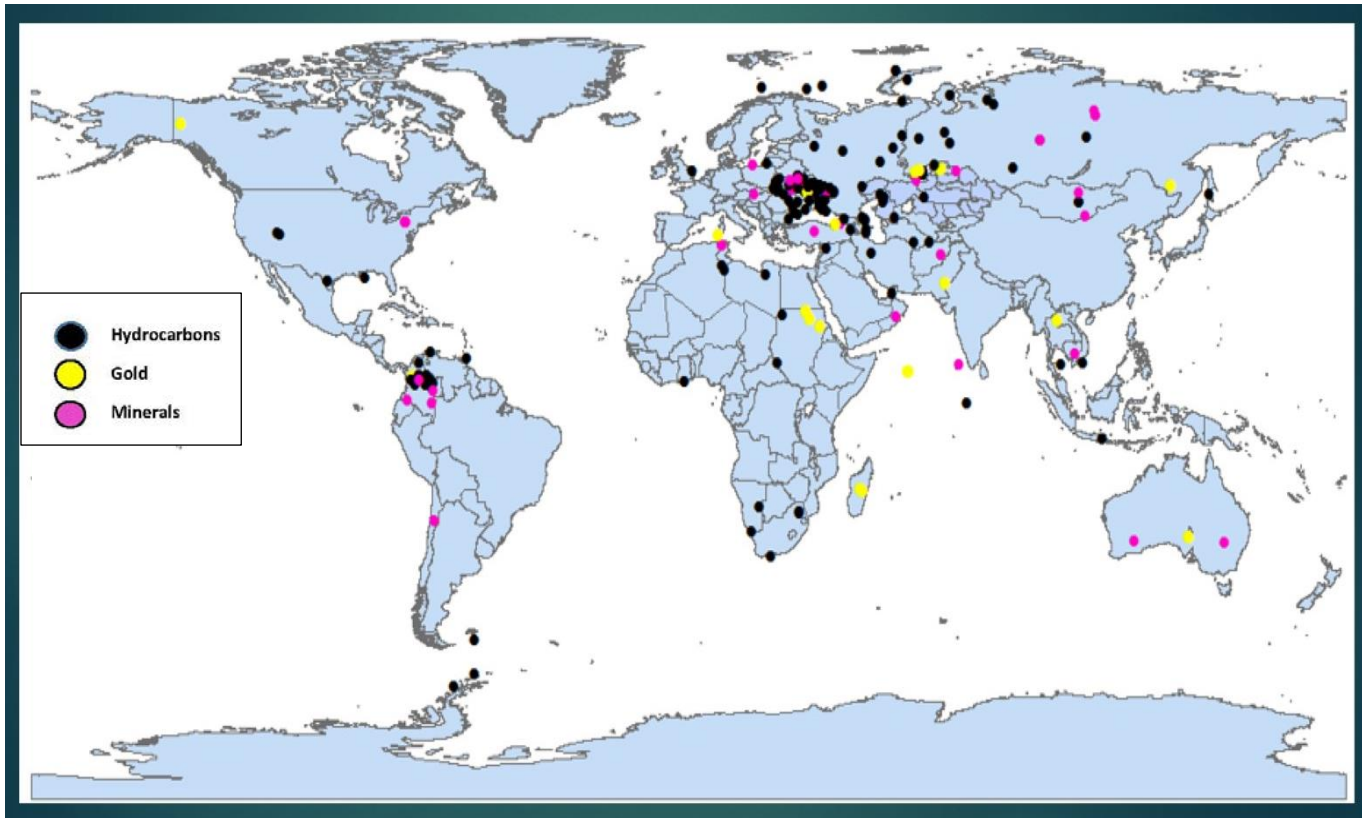


**Figure 3: QDMI Vertical Virtual Well (VW) Surveys:** On the left is an illustration of the meters of thickness of the hydrocarbon zones produced from a VW survey. In the center is the VW survey results associated with P1. On the right, is the field equipment used for data acquisition; source of an EM Pulse, antenna for capturing the response, generators, and flux field analyzer.

## Who is ITI?

**Integrative Technologies International Inc. (ITI)** is a Management and Business Advisory, Consulting, Technical Services and Project Implementation Service Company focused on all aspects of natural resource (hydrocarbon, minerals and metals, water, geothermal sources) and engineering (environmental, civil, others) evaluations, exploration, development and exploitation. ITI's team has significant experience in domestic and international natural resources evaluation projects.

**ITI**, with its strategic partners, relationships and associates, brings a combined management, technical capability and capacity of a team of highly trained geoscientists, hydrogeologists, mineralogists, engineers, technologists, technicians and project managers to enable ITI to engage in areas of natural resource investigation of properties, companies, and communities.



**Where has ITI worked?** ITI, with its strategic partners, has successfully conducted resource evaluation projects throughout the world.

**For more information, questions, or to receive an ITI Natural Resource Evaluation Proposal, please contact us:**



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*Sensing the Earth for all its Worth*

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