



OIL AND NATURAL GAS INDUSTRY

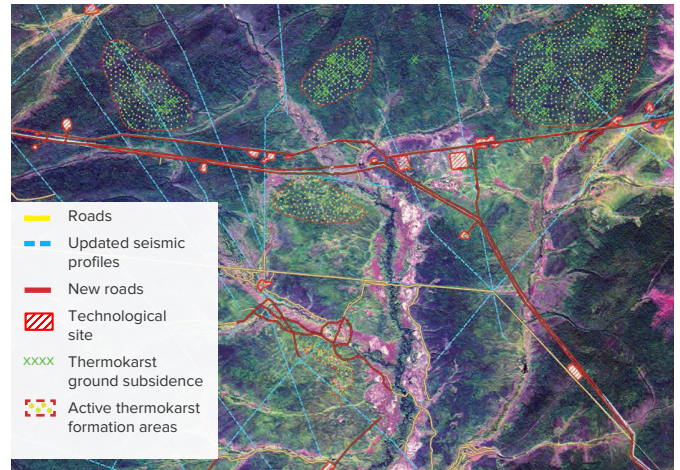
Industries involved in extraction, transportation and storage of energy commodities benefit from ERS services and applications in a number of ways. These services are aimed to provide companies with impartial, systematic, near real-time information relating to:

- extraction and transportation facilities infrastructure monitoring
- area monitoring (geological survey and ecological monitoring)
- near real-time analytics
- facilities infrastructure inventory
- emergency (forecast and risk assessment, analysis of development paces, rapid data collection).

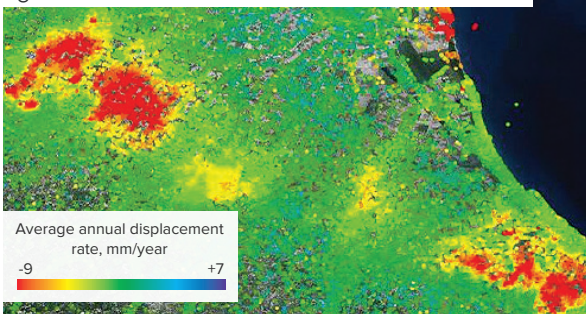


Survey

- exploration and assessment of prospecting well site conditions, assessment of an initial natural environment conditions
- assessment of transport accessibility and logistics in undeveloped areas
- development of site plans and maps
- monitoring and evaluation of seismic and drilling operations.



Map of ground surface displacements in a natural gas field area



Extraction

- monitoring and supervision of construction works, monitoring reservoirs and pits, verification of boundaries compliance with the land allotments
- assessment of man-made area disturbances, oil spills detection
- monitoring vertical displacements of land surface.



Processing and transportation

- detection of associated petroleum gas popping sites, determination of popping volumes, assessment of heat impact area
- inventory of pipelines
- detection of potential corrosion sites
- monitoring repair and construction works.

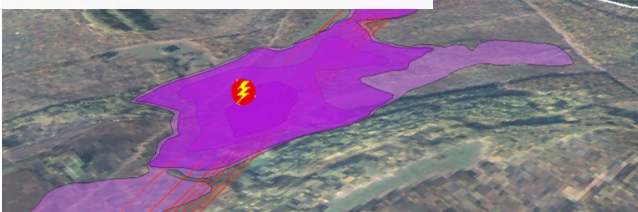
Assessment of heat impact area



Spill 1 hour after an emergency
Area of 1.1 hectares



Spill 10 hours after an emergency
Area of 15 hectares



Remediation

- monitoring oil pollution remediation
- assessment of changes in environmental components
- monitoring emergency aftermaths
- improvement of emergency prevention measures, forecasting and simulation of emergency aftermaths.

Simulation of emergency aftermaths based on digital elevation models (DEM)

3D visualization