Ormat Technologies, Inc.

3D Geologic Modeling Improves Well Targeting in Glass Buttes, Oregon

Presented to GSA Annual Meeting
October 9, 2011
Patrick Walsh

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We will not update these forward-looking statements, even though our situation will change in the future.

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Ormat Technologies, Inc.

110 MW geothermal Combined Cycle Plant, New Zealand

10 MW Geothermal modular binary unit, San Miguel Island

145 MW of REG power plants in North America

- A pioneer and world leader in Organic Ranking Cycle (ORC) technology, with a focus on Geothermal and Recovered Energy Generation REG® power applications
- Listed on the New York Stock Exchange (NYSE: ORA)
  - Market cap: UPDATE
  - Sales 2010: UPDATE
  - Over 1,150 employees worldwide (~ 500 in U.S.)
- Supplied 1,370 MW of geothermal and recovered energy power plants in 24 countries, owns and operates 553 MW generation worldwide
- Vertically integrated
- R&D, engineering, manufacturing, installation, support & O&M
- Equipment Supply, EPC, BOT or IPP

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Project Objectives

- Combine a suite of high-resolution geophysical and geochemical techniques to reduce exploration risk by characterizing hydrothermal alteration, fault geometries and relationships
- Combine geologic observation, modern remote sensing and geophysical techniques to analyze and structurally model this area prior to siting and drilling

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Ormat-DOE Joint Project

- Principal invesigator

  Patrick Walsh (Ormat)
- Co-investigators
  - John Dilles (OSU)
  - Ian Madin (DOGAMI)
  - Brigette Martini (Ormat)
  - Paul Spielman (Ormat)
  - Ezra Zemach (Ormat)
- DOE
  - GTP - DOE Golden Office

Acknowledgment: "This material is based upon work supported by the Department of Energy under Award Number 10EE0002836."

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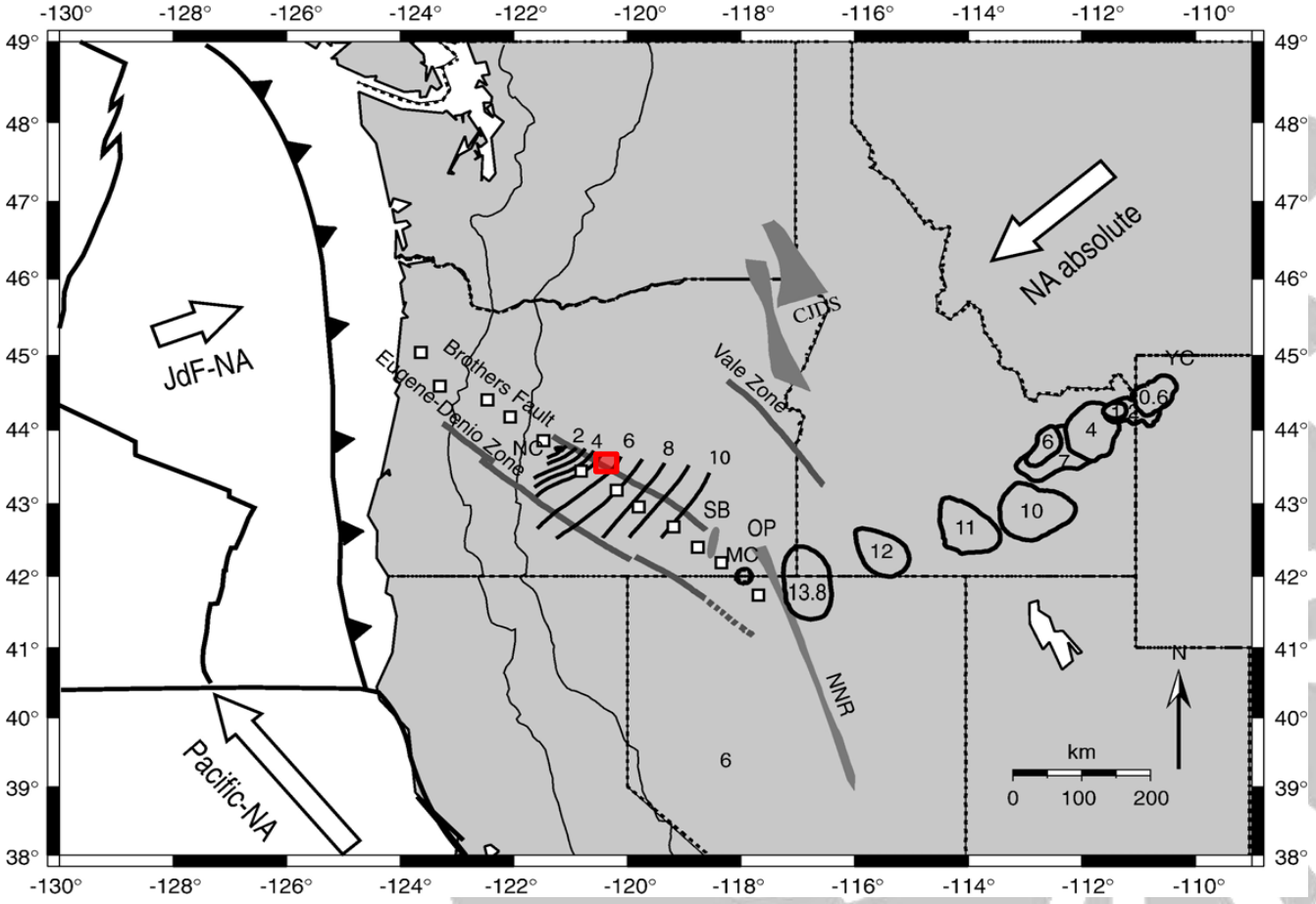
Glass Buttes, OR



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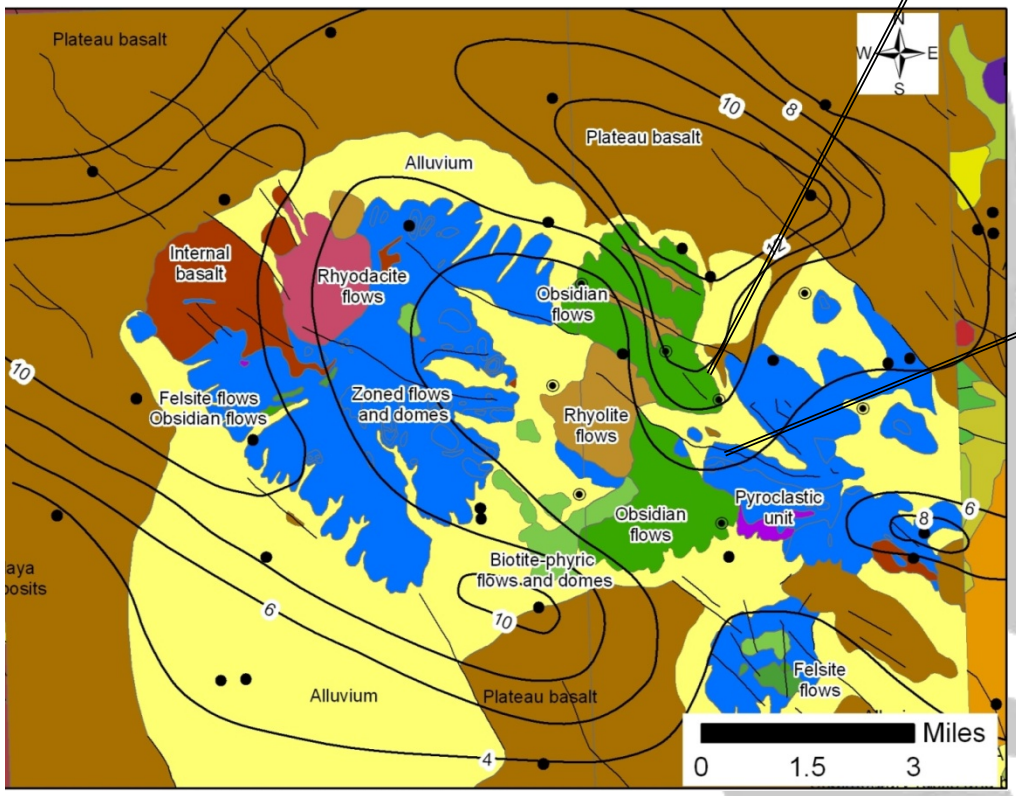
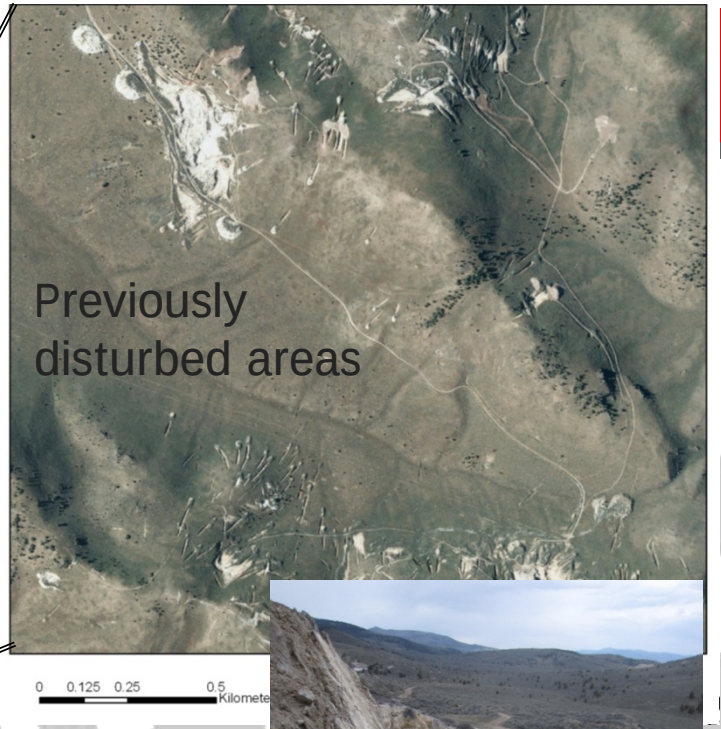
Geologic Field Work





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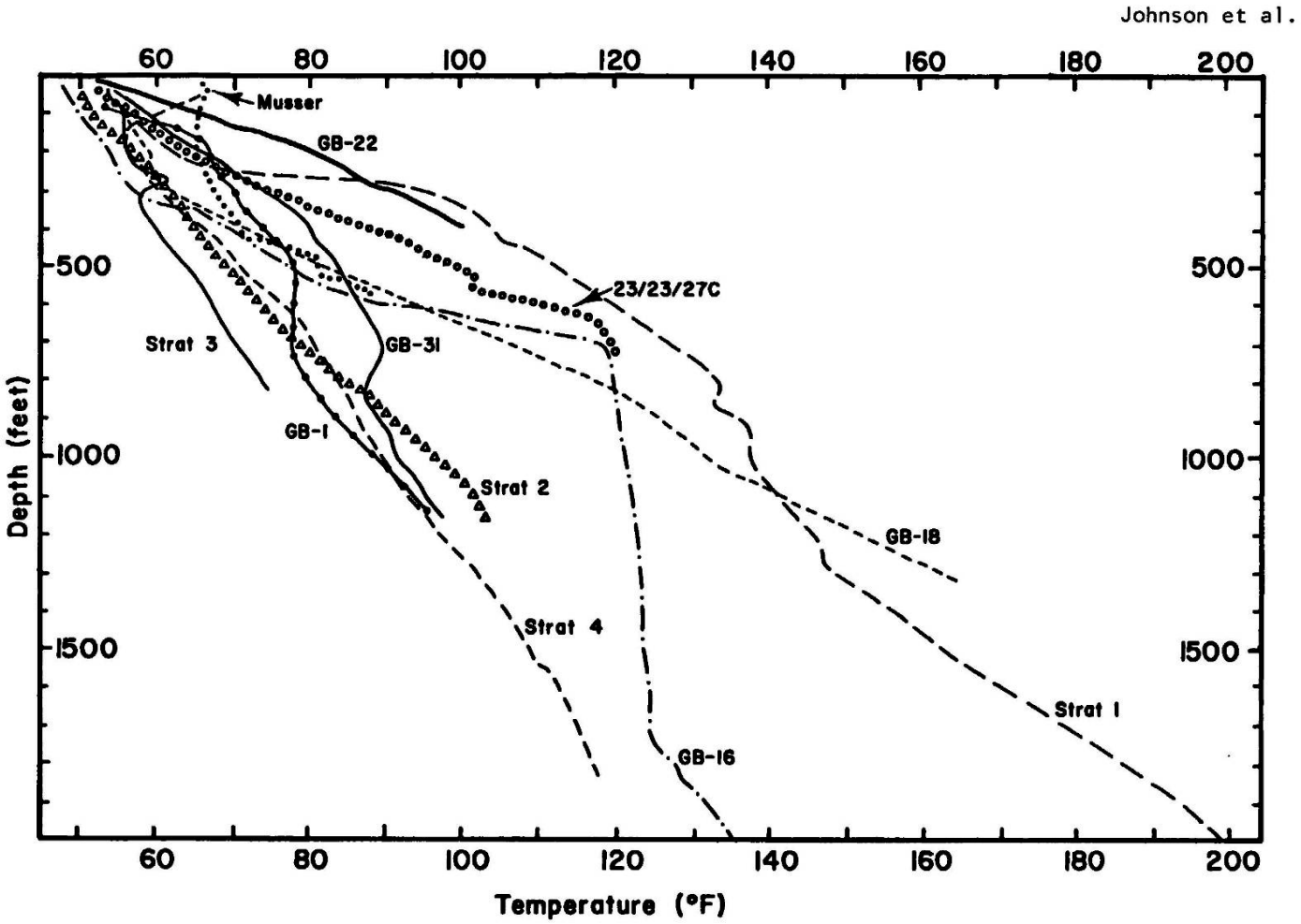
Temperature Logs



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Exploration Program

- **Phase I – Exploration**
  - Characterize fault geometries and relationships
  - Characterize mineral assemblages (indicating hydrothermal alteration)
  - Geologic field work
  - Geophysics
    - Gravity
    - High resolution aeromagnetic
  - Remote sensing
    - LiDAR (Light Detection and Ranging)
    - Hyperspectral
  - **3D geologic model** to site slim wells

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Exploration Program

- **Phase II & III– Drilling & Flow Testing**
  - 2 slim holes ~3500 feet
  - 1 production well ~5000 feet
  - Wells Flow test
  - Reservoir properties (permeability, temperature)
  - Project economics
  - Power plant estimation
- Evaluation of methodology

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Progress

- Geologic field work (OSU) ~ 90% complete
- Widely spaced gravity (~700 m) with 3 dense lines (200m)
- Hyperspectral data
- Aeromagnetic data
- LiDAR
- MT (~ 1 km spacing)
- 3D model – 75% complete
- Well permitting in progress

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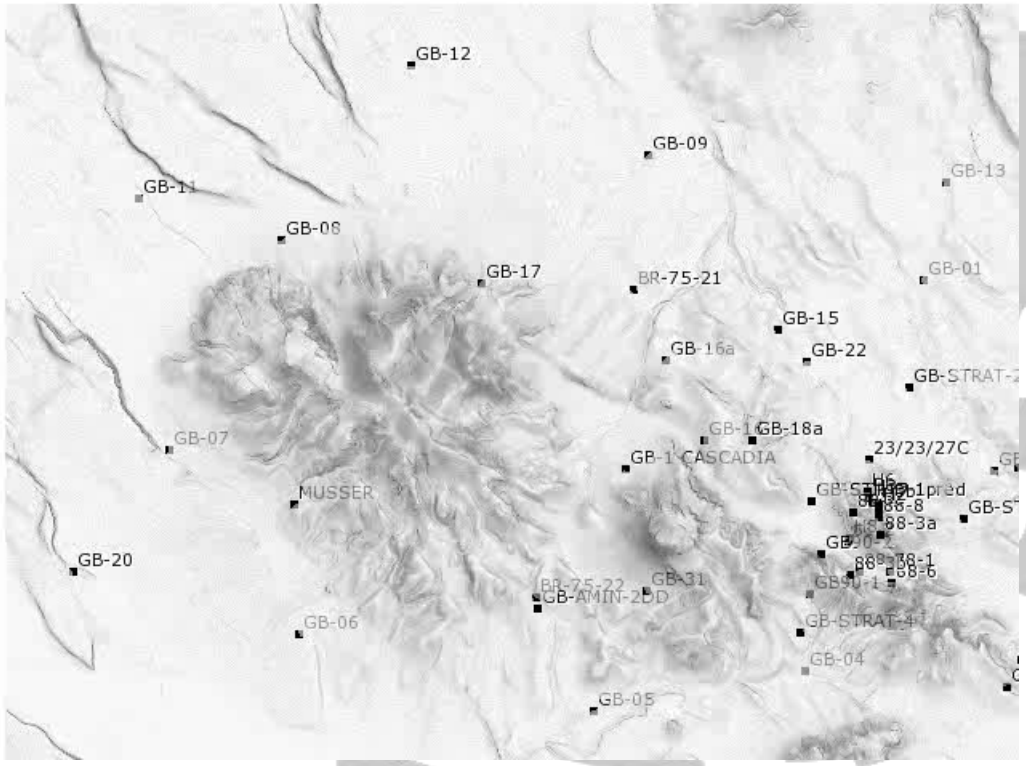

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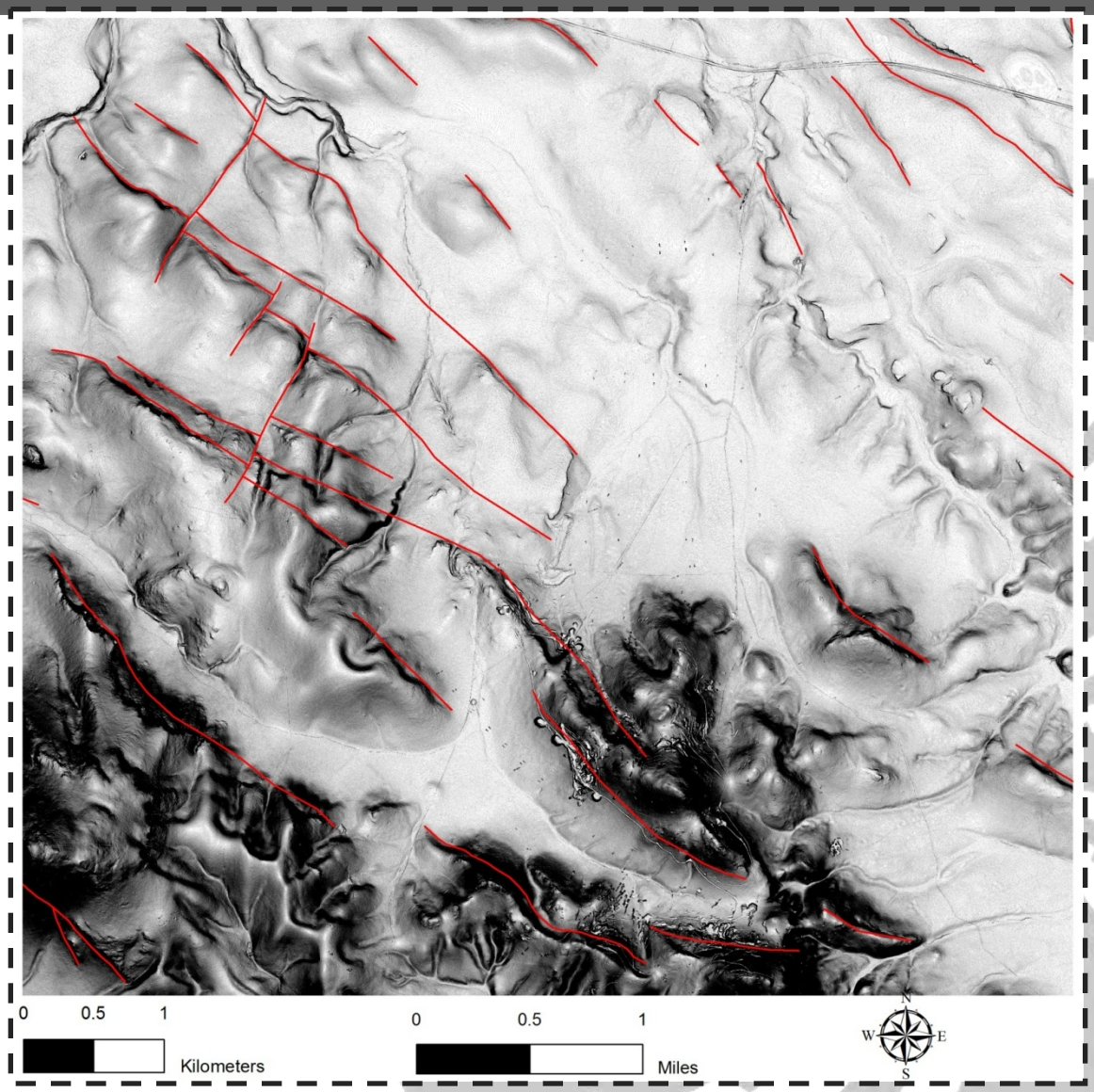
Midnight Point LiDAR Slope Shade with Interpreted Faults



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