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Supplement of

Investigating ultra high-enthalpy geothermal systems: a collaborative initiative to promote scientific opportunities

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Appendix A: List of Attendees

Dennis L. Nielson	DOSECC Exploration Services, USA
Edward Bertrand	GNS Science, New Zealand
Hiroshi Asanuma	GSI/AIST, Japan
Peter Schiffman	University of California, Davis, USA
Flavio Poletto	OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale), Italy
Viacheslav Spichak	Geoelectromagnetic Research Centre IPE RAS, Russia
Andrew Fowler	University of California, Davis, USA
William L. Osborn	Geothermal Resource Group Inc, USA
Phil Wannamaker	University of Utah/EGI, USA
Mark H. Reed	University of Oregon, USA
Sabodh K. Garg	LEIDOS, San Diego, USA
Georgina Izquierdo M.	Instituto de Investigaciones Electricas, Mexico
Rosalind Archer	University of Auckland, New Zealand
Lilja Magnúsdóttir	ISOR (Iceland Geosurvey) Iceland, (visiting LBL)
Heber Didier Diez L.	Comision Federal de Electricidad (CFE), Mexico
Marie Jackson	University of California, Berkeley, USA
Alexander Schriener Jr.	CalEnergy Operating Corp, USA
Louis Capuano Jr.	Capuano Engineering Company, USA
Mitchel Stark	Chevron / Philippine Geothermal, Philippines
William Rickard	Geothermal Resource Group, USA
Michelle Sulera	Geothermal Resource Group, USA
John W. Shervais	Utah State University, USA
Paul von Hirtz	Thermochem, Santa Rosa, USA
Randy Norman	Permaworks, USA
Robert A. Zierenberg	University of California, Davis, USA
Elizabeth Easley	Thermochem, Santa Rosa, USA
Jonathan Hernandez	Geothermal Resource Group, USA
Osinachi Ajou (Student)	University of California, Riverside, USA
Rainer Luptowitz (Student)	University of California, Riverside, USA
Wilfred A Elders (Convenor)	University of California, Riverside, USA

Appendix B: Program of the Workshop.

Session 1 : Introduction to high-enthalpy and supercritical geothermal resources

1. Wilfred Elders (UCR) "The concept of the Iceland Deep Drilling Project".
2. Hiroshi Asanuma (AIST, Japan) - The Japan Beyond the Brittle Project (JBBP)."
3. Ted Bertrand (GNS,NZ) "Hotter and Deeper Exploration Science in New Zealand (HADES).
4. Rosalind Archer (U of A, NZ) - "Fluid flow models at a grand scale".
5. Falvio Poletto (OGS, Italy) –"Use of seismic exploration methods while drilling."
6. Heber Diez (CFE, Mexico) "Development of high-enthalpy geothermal resources in Mexico."
7. Georgina Izquierdo (IIE, Mexico) "Los Humeros geothermal field, Mexico."
8. Viascheslav Spichak(Moscow, Russia) "Electromagnetic sounding for geothermal exploration."
9. Alex Schriener (CalEnergy, USA) " Drilling to 500 C: Thoughts from a development geologist."
10. Mark Reed (U. of Oregon) "Potential sources of high-enthalpy geothermal fluids".
11. Dennis Nielson (DOSECC drilling)- "Higher enthalpy geothermal systems."
12. Lilja Magnusdottir (Iceland/LBL) "Modeling the deep roots of geothermal systems."
13. Sabodh Garg (Leidos)- "Modeling of high-enthalpy geothermal systems."

Session 2. Related scientific studies.

14. John Shervais (USU) " Mountain Home Geothermal System: mafic sill complexes in a sedimentary basin." .
15. Peter Schiffman (UCD) "Studies of the contact zone of the intrusion in well IDDP-2. Iceland." .
16. Robert Zierenberg (UCD) "Geochemistry of sulfur in high-enthalpy geothermal systems."

Session 3: Technical challenges to drilling, completing and sampling high-enthalpy wells

17. William Rickard (Geothermal Resources Group) "High Temperature Well Drilling and Completion Challenges."
18. Louis Capuano (GRC & Capuano Drilling) – "The challenge of drilling deep and hot."
19. Paul von Hirtz (ThermoChem) "Downhole fluid sampling."
20. Paul von Hirtz (ThermoChem) "Corrosive Superheated steam."
21. Randy Norman (Permaworks) "New approaches to high temperature logging."

Session 4: Studies of Specific High-enthalpy Systems

22. Phil Wannamaker (UU/EGI) – "Magmatic-hydrothermal transitions in extensional regimes of USA."
23. Mitch Stark (Chevron) "The Geysers high-temperature zone."
24. Marie Jackson (UCB) "Mineralogical analyses of altered tephros."

Session 5: Break Out Panels leading to writing a white paper

- Breakout Panel 1 – "Scientific Goals and Site Selection."
Breakout Panel 2 – "Technical challenges."
Breakout Panel 3 – "Strategies for organization and funding."

Session 5: Plenary Session – Reports from the Breakout Panels

Discussions of the way forward.