

INFORME DE ASISTENCIA A:

*Annual Meeting, Geothermal Energy
2008,*

*Conference and Expo
"Geothermal-Gaining Steam"*

*Reno, Nevada – USA
Del 03 al 08 de octubre del 2008-10-28*

Organizado por:



GEOHERMAL RESOURCES COUNCIL

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Dirección de Laboratorios

San Borja, 30 de Octubre del 2008

Annual Meeting, Geothermal Energy 2008, Conference and Expo “Geothermal-Gaining Steam”

OBJETIVOS

Difundir entre los participantes nuevos conocimientos sobre metodologías de exploración (geofísica, geoquímica, geológica) geotérmica, perforación de pozos de exploración y de producción operación de plantas geotérmicas, uso de la energía geotérmica a través del intercambio de experiencias, cuidados medioambientales, legislación actual sobre geotermia. Así mismo, tuvo como objetivo incentivar a los diferentes participantes de los diferente países del mundo a desarrollara investigación y exploración de los recursos geotérmicos. Además el evento tiene tuvo como objetivo reunir a diversas empresas que se mantienen a la vanguardia en la tecnología de la industria geotermal en Estados Unidos y el mundo.

ANTECEDENTES

Geothermal Resources Council, organiza anualmente y de manera consecutiva reuniones, siendo la del 2008 su trigésimo segunda edición, donde es el punto de encuentro para personas que desarrollan recursos geotermiales en el mundo, exploradores e investigadores; así mismo es la más grande reunión del mundo donde se reúnen empresarios que proporcionan servicios y apoyan a la industria geotérmica, siendo una oportunidad única para entrar en contacto con ellos e intercambiar ideas y experiencias.

PARTICIPANTES

Participaron en el evento profesionales de diversos países involucrados en el mundo de la geotermia. Cabe resaltar que de América del Sur sólo tuvieron representantes Chile y Perú (INGEMMET).

AGENDA

“Workshop: Evaluación de Reservorios Geotermiales”

*Viernes 03 y sábado 04 de octubre del 2008
Peppermill Resort & Spa, Reno, NV*

El workshop realizado ha cubierto temas de investigación geológica, geofísica y geoquímica usados en la exploración de recursos geotermiales, mostrando información sobre técnicas de exploración y describe la síntesis e interpretación de los datos para poder construir el modelo geológico y localizar los flancos para pruebas de producción del reservorio. Así mismos las pruebas de los sondeos son descritas para evaluar el potencial del reserorio para el desarrollo comercial

Lista de presentadores

Paul Brophy - EGS, Inc. Santa Rosa, California

Ernie Majer- Lawrence Berkeley National Laboratory, California

Paul Hirtz - Thermochem Inc., Santa Rosa, California

Programa

- *Viernes 03 de octubre*
 - Reviewing Exploration Data and Selecting Geologic Models (Overview)
 - Drilling and Interpreting Results from Deep Slim Holes and Full Diameter Wells
 - Logging and Interpretation of PTS Surveys, Flow Testing
 - Vertical Seismic Profiling for Reservoir Structure

- *Sábado 04 de octubre*
 - Effectiveness of Geophysical Logging
 - Reservoir Chemistry, Process Engineering and Materials
 - Initial Reservoir Model and Estimation of Reservoir Potencial
 - Selection of Power Plant Design
 - Panel Discusión

Annual Meeting: Geothermal Energy 2008

- Sesión de Apertura

Lunes 06 de octubre del 2008. 8:30 – 12:00

Peppermill Resort & Spa, Reno, NV

Introducción

- Paul Thomsen – Invited Speaker Chairman
- Lisa Shevenell – 2008 Conference Chairman
- Curt Robinson – GRC Executive Director
- Confirmed Speakers include:
 - Barry Andrew, Vice President Chevron
 - Gerald Doucet, World Energy Council
 - Mr. Suryadarma, Indonesia Geothermal Energy Association
- Invited Speakers include:
 - Senator Reid (D-NV)
 - Senator Ensign (R-NV)
 - Senator Feinstein (D-NV)
 - Senator Boxer (D-NV)
 - Congressman Heller (R-NV)
 - Congresswoman Berkley (D-NV)
 - Governor Jim Gibbons (R-NV)
 - Governor Schwarzenegger (R-CA)
 - Speaker Buckley (State Speaker D-NV)
 - State Senator Ducheny (D-CA imperial Valley)
 - State Senator Townsend (R-NV Chairman Commerce and Labor)
 - DOE Assistant Secretary Karsner
 - DOE Deputy Assistant Secretary Chalk
 - Google
 - Dan Yergin, CERA

Programa técnico

Lunes 06 de octubre del 2008. 12:00 – 17:00

Peppermill Resort & Spa, Reno, NV

12:00 – 1:30 Lunch

SESSION: Exploration/Resource Assessment I

Session Chair: A. Sabin

- 1:30 Mapping Geothermal Potential in the Western United States, *Williams, Colin F. & DeAngelo, Jacob*
- 1:50 Our Evolving Knowledge of Nevada's Geothermal Resource Potential, *Shevenell, Lisa & Coolbaugh, Mark & Sladek, Chris & Zehner, Rick & Knatt, Chris & Faulds, James & Penfield, Robin*
- 2:10 2007-8 Drilling and Exploration Results: U.S. Navy's Geothermal Program Office, *Sabin, A. & Bjornstad, S. & Meade, D. & Luzzaro, M. & Page, C. & Huang, W.C. & Bonin, K.*
- 2:30 The Important Role of Grass-Roots Exploration in Expanding the Use of Geothermal Energy in the Great Basin, USA, *Coolbaugh, Mark*
- 2:50 A New Gold Pan for the West: Discovering Blind Geothermal Systems with Shallow Temperature Surveys, *Knatt, Christopher & Coolbaugh, Mark & Sladek, Chris & Zehner, Rick & Penfield, Robin*

3:10 – 3:40 Break

SESSION: Heat Pump

Session Chair: A. Chiasson

- 3:40 Geothermal Heating of Gas Pressure Reduction Station, *Toth, Aniko & Bobok, Elemer*
- 4:00 HYY Ground Energy Heat Pump System Used in Waterscape of National Center for the Performing Arts, *Xu, Shengheng & Ling, Renbin & He, Yongping & Lu, Diatong*
- 4:20 Issues on Wells for Ground Water Heat Pump, *Zheng, Xiuhua & Xu, Bairu & Yao, Erchang & Yao, Binke & Liu, Sha*
- 4:40 Classification of Shallow and Deep Geothermal Energy, *Dai, Chuanshan & Chen, Yan*

12:00 – 1:30 Lunch

SESSION: Utility

Session Chair: J. Lovekin

- 1:30 Utility Geothermal Working Group Update, *Nelson, Gary*
- 1:50 Emerging Markets for Geothermal Energy in the Western United States: An Industry Perspective on Project Initiation Within Current Market Trends, *Fleischmann, Daniel J.*
- 2:10 The Sacramento Municipal Utility District: Transmission Activities Connecting to Renewable Resources, *Sison-Lebrilla, Elaine*
- 2:30 Discovering and Connecting to the Right Customer for Your Power, *Piszczalski, Martin*

3:10 – 3:40 Break

SESSION: Mineral Extraction

Session Chair:

- 3:40 Mineral Extraction-Result Studies of World Bank, *Bloomquist, Dr. Gordon R. & Potarov, Dr. Konstantin O.*
- 4:00 Gold, Silver and Other Metals in Scale – Puna Geothermal Venture, Hawaii, *Fitch, David & Matlick, Skip*
- 4:20 A Proposed New Geothermal Power Classification System, *Erdiac, Jr., Richard J. & Gross, Peter & McDonald, Edward*

12:00 – 1:30 Lunch

SESSION: Power

Session Chair:

- 1:30 Solar Steam Booster in the Ahuachapan Geothermal Field, *Handal, Salvador & Alvaranga, Yohabno & Rectinos, Maxirano*
- 1:50 Introduction Of MHI Geothermal Power Plant, *Mizuno, Shinichi*
- 2:10 Assessment of Traditional and Novel Membrane Processes for Recovery of Cooling Tower Water in Geothermal Power Plants, *Cath, Tzahi Y. & Walker, Nathan & Childress, Amy E. & Weinberg, Assaf*
- 2:30 Advantages of Using Radial Inflow Turbines for Kalina and Organic Rankine Cycles, *Marcuccioli, Frederic*
- 2:50 Application of Recent Developments in Kalina Cycle Technology to the Utilization of High Temperature Geothermal Sources, *Kalina, Alexander*

3:10 – 3:40 Break

SESSION: Environmental/Development

Session Chair: C. Wardlaw

- 3:40 Geothermal Site Acquisition and Early Development: Key Legal Issues and Emerging Strategies, *Mostow, Peter*
- 4:00 A Natural History of Hot Springs, *Himuaui, Nancy & McCarthy, Kevin*
- 4:20 How Geothermal Potential Becomes a Project at Enx, *Saemundsdottir, Thorbjorg & Tryggvadottir, Lilja*
- 4:40 A View on Geothermal Development in the World, *Eliasson, Larus & Tryggvadottir, Lilja*

<p>SESSION: Geothermal Development Session Chair:</p> <p>8:00 USGS 2006 Geothermal Resource Evaluation, Williams, Colin</p> <p>8:50 – 9:10 Break</p> <p>9:10 Cartographic Services at NBM&G, Hastings, Jordan</p> <p>10:00 – 10:20 Break</p>	<p>SESSION: Geochemistry I Session Chair: M. Kennedy</p> <p>8:00 Field Testing of Geogard 8822 Corrosion Inhibitor in Acid-Treated Geothermal Brine, Remoraza, Alvin & Mejorada, Arnel & Salazar, Allan Troy</p> <p>8:20 Formation and Neutralization of Corrosive Fluids in the Shallow Injection Aquifer, Rotokawa Geothermal Field, Botzler, Deborah & Bignall, Greg & Hunt, Trevor</p> <p>8:40 F3680 Silica Inhibitor Testing in Botong Sector, Bacon-Manito Geothermal Production Field, Philippines, Panopio, Anna cristeta R.</p> <p>9:00 Numerical Simulation of Calcite Scale Removal by Chelating Agents Around a Geothermal Injection Well, Xu, Tianfu & Rose, Peter & Pruess, Karsten</p> <p>9:20 Analysis of Risk for the Fluid Collection and Disposal System: A Trial for Berlin Geothermal Field, El Salvador, Henriquez, Jose Luis & Henriquez, Elizabeth Torio</p> <p>9:40 – 10:10 Break</p>	<p>SESSION: Resource Management I Session Chair: S. Garg</p> <p>8:00 Thermal-Water Discharge From Steamboat Hills Geothermal System, Sorey, Michael L. & Spiehlment, Paul</p> <p>8:20 The Los Azufres III (75MW) Expansion Project in the Los Azufres Geothermal Field, Mexico, Torres-Rodriguez, Marco A. & Flores-Armenta, Magaly & Mendoza-Covarrubias, Alfredo</p> <p>8:40 The Momotombo Reservoir Performance Upon 25 Years of Exploitation, Fornas, Enrique A.</p> <p>9:00 Make-up Well Selection at Darajat Geothermal Field, West Java, Indonesia, Rejeki, Sri & Rohrs, Dave & Pasaribu, Ferunado</p> <p>9:40 – 10:10 Break</p>
<p>10:20 The Joint Geothermal Energy Programmatic EIS for the Public Lands And National Forest System Lands of the Western United States, Peterson, Jack & Egger, Anne & Ponce, David</p>	<p>SESSION: Geochemistry II Session Chair:</p> <p>10:10 Physical Processes Related to Exploitation at Cerro Prieto IV (Mexico) Indicated by Chemical and Wellhead Production Data, Barragan Reyes, Rosa Maria & Arellano Gomez, Victor Manuel & Aguilar, Alfonso Aragon & Marin, Enrique Portugal & Vizar, Jesus De Leon & Rodriguez Rodriguez, Marco Helio</p> <p>10:30 Evidence for a Crustal Heat Source for Low-Temperature Geothermal Systems in the Central Alaskan Hot Springs Belt, Kolker, Amanda & Kennedy, B. Mack & Newberry, Rainer</p> <p>10:50 Reactive Silica Transport in Hot Porolastic Rock and Its Effects on Fracture Aperture, Razaol, C. & Ghassemi, A.</p> <p>11:10 A Three-Dimensional Poroeleastic Analysis of Fracture Slip, Zhou, X. & Ghassemi, A.</p> <p>11:30 Scale Control in Geothermal Brines – New Inhibitors for Calcium Carbonate and Silica Control, Gill, J.</p>	<p>SESSION: Resource Management II Session Chair: J. Pritchett</p> <p>10:10 A New Understanding of Deliverability of Dry Steam Wells, Acosta, Jorge</p> <p>10:30 Thermal Fracturing of Well H-40 Los Humeros Geothermal Field, Armenta, Magaly Flores & Aguado, Rigoberto Toax</p> <p>10:50 Implications of Temporal Changes in Solute Concentrations for the Mass Balance of the Berlin Geothermal Reservoir, Lopez, Dina L. & Matus, Antonio & Castro, Marlon & Magana, Maria Ines & Sullivan, Michael</p> <p>11:10 Numerical Simulation of the Anomalous Solute Transport in the Fractured Porous Aquifer, Chiba, Ryuchi & Okaze, Takashi & Fomin, Sergei & Chugunov, Vladimir & Niibori, Yuichi & Fukusaga, Hisao & Hashida, Toshiyuki</p> <p>11:30 Numerical Modeling of the Ogiri Geothermal System, Kyushu, Japan, Kiamamoto, Yurie & Horne, Roland N. & Itoi, Ryuchi & Hazama, Yukio</p>

12:00 – 1:30 Lunch

SESSION: EGS
Session Chair: S. Petty

- 1:30 Reality Check: EGS: Can We Really Get to 20% of Total U.S. Generation from Geothermal Energy by 2030?, Petty, Susan & Baris, Roy
- 1:50 A Review of Some Oilfield Technologies Available for EGS Projects, Delhomme, Jean-Pierre & Pajot D. & Gibaud, J. Ph.
- 2:10 Interpretation of Reservoir Structure from Super-Resolution Mapping of Microseismic Multiplets from Stimulation at Basel, Switzerland in 2006, Asanuma, Hiroshi & Kumano, Yusuke & Niitsuma, Hiroaki & Schwarz, Ulrich & Haring, Markus
- 2:30 Characterization of Microseismic Events with Larger Magnitude Collected at Basel, Switzerland in 2006, Mukashira, Yusuke & Asanuma, Hiroshi & Niitsuma, Hiroaki & Schwarz, Ulrich & Haring, Markus
- 2:50 Enhanced Geothermal Resources in NE Deccan Province, Chandrasekhar, Varun & Chandrasekharan, D
- 3:10 An Innovative Reservoir Simulator Can Help Evaluate Hot Water Production for Economic Development of Australian Geothermal Reservoirs, Raoof, Shuk A. & Tran, Dr. Nam H. & Aghighi, Mohammad Ali & Rahman, Sheik S.
- 3:30 Status of Geothermal Exploration and Research in Australia, Goldstein, Barry & Hill, Tony

4:00 – 6:00 Poster Session

12:00 – 1:30 Lunch

SESSION: International
Session Chair:

- 1:30 Mighty River Power's Geothermal Development Program in the Taupo Volcanic Zone of New Zealand, Hoyer, Dan & Sprinks, Karl & Powell, Tom
- 1:50 Pre-competitive Geoscience for Geothermal Exploration and Development in Australia: Geoscience Australia's Onshore Energy Security Program and the Geothermal Energy Project, Budd, Anthony R. & Holgate, Fiona L. & Gerner, Edward & Ayling, Bridget F.
- 2:10 Results from ENGINE (ENhanced Geothermal Innovative Network For Europe), Calogno, Philippe & Genter, Albert & Huenges, Ernst & Kaltschmitt, Martin & Kerytsas, Constantine & Kohl, Thomas & Lebrun, Patrick & Manzella, Adele & Thorhalsson, Sverrir & Van Wees, Jan-Dieterik
- 2:30 Kenya's Geothermal Expansion Strategy for Developing 1260MW by 2018, Sibiyu, Silas M.
- 2:50 Hydraulic Model and Flow Simulation of the Los Azufres Geothermal Field Steam Pipeline Network, Garcia-Gutierrez, Alfonso & Martinez-Estrella, Juan I. & Hernandez-Ochoa, Abel F. & Verma, Mahendra P. & Mendoza-Covarrubias, Alfredo & Ruiz-Lemus, Alejandro
- 3:10 Geothermal Resource Potential in Canada, Dixon, Craig

4:00 – 6:00 Poster Session

12:00 – 1:30 Lunch

SESSION: Drilling
Session Chair: J. Snow

- 1:30 Introduction of an Automated Vertical Drilling System to Improve Drilling Performance on Deep Geothermal Wells, Menge, Mathias & Spielman, Paul & Nickels, Nic & Pöhler, Mark
- 1:50 Geothermal Well Cost Analyses 2008, Masure, A.J. & Blankenship, D.A.
- 2:10 Estimation of Static Formation Temperatures in Geothermal and Oil Well by Inversion of Logged Temperatures, Olan-Gonzalez, Ulises & Garcia-Gutierrez, Alfonso
- 2:30 Blue Mountain Step-out Drilling Results, Casteel, John & Melosh, Glenn & Niggerman, Kim & Fairbank, Brian
- 2:50 Aerated Drilling Experience of Icelandic Geothermal Wells, Gislason, Thor
- 3:10 Drilling of Vertical, Ground-Coupled Heat Exchangers for Geothermal Heat Pump Systems, Geyer, John D.

4:00 – 6:00 Poster Session

SESSION: Exploration/Resource Assessment II Session Chair: Sabin	SESSION: Direct-Use Session Chair: T. Boyd	SESSION: Geology and Geophysics Session Chair:
8:00 Downhole Enthalpy Measurement with Fiber Optics in Geothermal Wells, <i>Atalay, Nülfér & Horne, Roland N. & Sautler, Joel A. & Li, Kewen</i>	8:00 Use of Promoter Pipe with Downhole Heat Exchangers in Klamath Falls, Oregon, <i>Lund, John W. & Boyd, Tonya & Hackman, Bill & Huffman, Bruce</i>	8:00 Lithological and Structural Controls on Fluid Flow and Hydrothermal Alteration in the Western Ohaaki Geothermal Field (New Zealand) – Insights from Recent Deep Drilling, <i>Milicich, Sarah & Raz, Andrew & Rosenberg, Michael & Bignall, Greg</i>
8:20 Brawley – Resurrection of a Previously Developed Geothermal Field, <i>Matlick, Skip & Jayne, Tim</i>	8:20 Field Performance Assessment of Downhole Heat Exchangers in Puna District, Hawaii, <i>Chiasson, Andrew D. & Gill, Andrea T.</i>	8:20 A Preliminary Structural Model for the Blue Mountain Geothermal Field, Humboldt County, Nevada, <i>Faulds, James E. & Melosh, Glenn</i>
8:40 Buried Piedmont Faults at Pumpemickel Valley, Nevada, <i>Melosh, Glenn</i>	8:40 Economics of Geothermal Heat Pumps, <i>Geyer, John D.</i>	8:40 Structural Controls of Allen Springs and Lee Hot Springs, Southern Churchill County, Western Nevada: A Right Step in a Northwest-Striking Dextral Strike-Slip Fault Zone at the Northern Margin of the central Walker Lane, <i>Hinz, Nicholas H. & Faulds, James E. & Oppinger, Gary L.</i>
9:00 Structural Control of Hotsprings in a Developing Basin and Range Setting, Surprise Valley, California, Northwestern Great Basin, <i>Glen, Jonathan M.G. & Egger, Anne E. & Ponce, David A.</i>	9:00 Economic Analysis of Greenhouse Heating with Hot Waste Water from Oil Field, <i>Serpen, Ibrahim & Babalik, Kerem</i>	9:00 Isotopic Constraints on the Origins and Evolution of Geothermal Fluids, Long Valley, CA, <i>Brown, Shaun & Kennedy, Mack & DePaolo, Donald & Evans, William</i>
9:20 Exploring for 'Wet' Geothermal Exploration Target in Australia, India and the Kyrgyz Republic (a Company Presentation), <i>Graaf, DR. Bertus de</i>	9:20 Calcite Scaling in Slightly Saline Geothermal Water at Keldunes, Iceland, <i>Kristnaveisdottir, Hrefna & Bjornsson, Axel</i>	9:20 Injection Induced Microearthquakes at the Rotokawa Geothermal Field, New Zealand, <i>Barrister, Stephen & Sherburn, Steve & Powell, Tom & Bouyer, Deborah</i>
9:40 – 10:10 Break	9:40 General Guidelines in Heating System Design in China, <i>Jialing, Zhu & Yilun, Cai & Shenghua, Chen</i>	9:40 A Preliminary Site Assessment of the Redfield Campus, Reno, NV, <i>Oppinger, Gary & Sherwell, Lisa & Coolbaugh, Mark</i>
SESSION: Exploration Resource Assessment III Session Chair:		
10:10 Establishing Major Permeability Controls in the Mak-Ban Geothermal Field, Philippines, <i>Vicco, Ronald & Strnac, James & Capuno, Vilma & Lowenstern, Jacob</i>		
10:30 The European I-GET Project on Integrated Geophysical Exploration for Geothermal Systems, <i>Brubin, David</i>		
10:50 Assessment of Thermal Resources in Gu'an County, Niutuozen Geothermal Field, North China Basin, <i>Xiulan, Yin & Tingshan, Tian & Ying, Dong & Wenqi, Huang</i>		

Sesión de Pósters

Martes 07 de octubre del 2008. 16:00 – 18:00

Peppermill Resort & Spa, Reno, NV

Direct Use

- * General Guidelines in Heating System Design in China, *Jialing Zhu & Jingshen Qi & Zhang Wei*

Drilling

- * Blue Mountain Step-out Drilling Results, *Casteel John & Melosh Glenn & Niggeman Kim & Fairbank Brian*
- * Geothermal Well Cost Analyses 2008, *Mansure A.J. & Blankenship D.A.*

EGS

- * A Review of Some Oilfield Technologies Available for EGS Projects, *Delhomme Jean-Pierre & Pajot D. & Gibaud J. Ph.*

Environmental/Development

- * Brawley – Resurrection of a Previously Developed Geothermal Field, *Mattick Skip & Jayne Tim*

Exploration/Resource Assessment

Lester Meadow, Washington, A Geothermal Anomaly, *Vice Daniel*

Origin and Characterization of Geothermal Waters at Desert Queen, Nevada, *Garcia Laura & Arehart Greg*

- * The European I-GET Project on Integrated Geophysical Exploration for Geothermal Systems, *Bruhn David*
- * A New Gold Pan for the West: Discovering Blind Geothermal Systems with Shallow Temperature Surveys, *Kratt Christopher & Coolbaugh Mark & Sladek Chris & Zehner Rick & Penfield Robin*
- * A Preliminary Site Assessment of the Redfield Campus, Reno, NV, *Oppiger Gary & Shevenell Lisa & Coolbaugh Mark*

Geology/Geophysics

Structural Localization of Two Low Temperature Geothermal Systems Within the Gravity Defined Linkage Between Dixie Valley and Fairview Valley, Nevada, USA., *Mankienthong Niti & Oppiger Gary & Aslett Zan*

Regional Resource Area Mapping in Nevada Using the USArray Seismic Network, *Biasi G. & Tibuleac T. & Preston L.*

- * Buried Piedmont Faults at Pumpenückel Valley, Nevada, *Melosh Glenn*

Structural Control of Hotsprings in a Developing Basin and Range Setting, Surprise Valley, California, Northwestern Great Basin, *Glen Jonathan M.G. & Egger Anne E. & Ponce David A.*

Geochemistry

Hydrogen from Magma Chemistry, *Kezar Chuck*

Hydrothermal Mineralogy As a Tool to Define the Thermal Aquifer of the Los Humeros Geothermal Field, Mexico, *Montalvo Georgina Izquierdo & Marin Enrique Portugal & Aguilar Alfonso Aragon & Gomez Victor Arellano*

Geochemistry (continued)

- * Field Testing of Geogard 8822 Corrosion Inhibitor in Acid-Treated Geothermal Brine, Remorosa, *Alvin & Mejorada Arnel & Salazar Allan Troy*
- * Isotopic Constraints on the Origins and Evolution of Geothermal Fluids, Long Valley, CA, *Brown Shaun & Kozlowski Mack & DePaolo Donald & Evans William*

International

- * Results From ENGINE (Enhanced Geothermal Innovative Network For Europe), Calcagno, *Philippe & Genter Albert & Huenes Ernst & Kaltschmitt Martin & Karytsas Constantine & Kohl Thomas & Leirni Patrick & Manzella Adele & Thorulsson Steinar & Van Wees Jan-Diederik*

Mineral Extraction

Precipitation of Silica Minerals by Hydrothermal Flow-Through Experiments at 200-430° C, 30 Mpa, *Okamoto Atsushi & Saitoh Haruo & Hirano Nobuo & Watanabe Noriaki & Tsuchiya Noriyoshi*

Power

- Foundation Fieldbus for Geothermal Steamfield Applications – Control in the Field, *McAuliffe Tom*
- * Solar Steam Booster in the Ahuachapan Geothermal Field, *Hualda Salvador & Alvarado Yohadno & Recinos Maximiano*
- * Application of Recent Developments in Kalina Cycle Technology to the Utilization of High Temperature Geothermal Sources, *Kalina Alexander*
- * Assessment of Traditional and Novel Membrane Processes for Recovery of Cooling Tower Water in Geothermal Power Plants, *Cath Tzahi Y. & Walker Nathan & Childress Amy E. & Weinberg Assaf*
- * Physical Processes Related to Exploitation at Cerro Prieto IV (Mexico) Indicated by Chemical and Wellhead Production Data, *Barragan Reyes Rosa Maria & Arellano Gomez Victor Manuel & Aguilar Alfonso Aragon & Marin Enrique Portugal & Vivar Jesus De Leon & Rodriguez Rodriguez Marco Helio*

Resource Management

The Damage Effect Determined from Inflow Type-Curves, and its Relation with Production Decline, *Aragon A. A. & Izquierdo M.G. & Portugal E. & Arellano G.V.*

Relationship Between Rate of Aperture Reduction and Contact Pressure of Fracture in Granite Under Hydrothermal Condition, *Watanabe Noriaki & Iijima Hiroshi & Hirano Nobuo & Tsuchiya Noriyoshi*

Study of the Optimal Exploitation & Reirjection in the Dongying Reservoir in Tianjin Binhai New Area, *Haiyan Lei & Jialing Zhu*

- * Oral Presentation during Technical Program

CONCLUSIONES

- La participación en este evento importante, ha permitido incrementar mis conocimientos en temas y técnicas de exploración geoquímica de fluidos geotermales, las cuales se verá reflejada en el proyecto de investigación GA-21 “Evaluación del Potencial Geotérmico del Perú” de la Dirección de Geología Ambiental y Riesgo Geológico, contemplado en el Plan Operativo Institucional -2008 del cual soy participe. También he podido conocer sobre nuevas metodologías de exploración geotérmica aplicando metodologías de exploración geológica y geofísica.
- La energía geotérmica es limpia que no contamina el medio ambiente, prueba de ello es que se observa una planta geotérmica en Reno, localizado a menos de 100 m de una zona urbana, asimismo se localizan fuentes termales cerca de la planta que se usan con fines balneológicos.
- Existen diversas herramientas para exploración geotermal que podemos implementar en INGEMMET, siendo una de ellas el desarrollar un equipo para medir anomalías térmicas en la corteza terrestre, este equipo lo han inventado y desarrollado en la Universidad de Nevada, por Dr. Chris Sladek, el cual esta dispuesto a asesorarnos en replicar esta experiencia en Perú.
- El desarrollo de la energía geotérmica en el Perú se encuentra en sus primeras etapas, por lo cual es importante difundir nuestro potencial para poder atraer inversiones que nos ayuden a desarrollar esta fuente de energía importante y tan necesaria para el país.
- El Perú, al igual que Chile, Bolivia y Ecuador son los países que con mayor potencial geotérmico a nivel de Sudamérica, por lo que es importante contribuir al desarrollo, desde INGEMMET, de ésta energía.