



NZGW 2015 Programme

Wednesday 18th November			
8.30am	Housekeeping		
8.40am	Welcome & Opening		
9.20am	Keynote 1: Manuel Ogena "The Growth of Philippine Geothermal Energy Development". Chair: Rosalind Archer		
10.00am	Morning Tea		
	Technical Session 1A: Reservoir Engineering/Modelling Karapiti Room. Chair: John O'Sullivan	Technical Session 1B: Above Ground Graham Room 1. Chair: Brian Carey	Technical Session 1C: Dick Glover Memorial Session on Geochemistry Heritage Room. Chair: Ed Mroczek
10.30am	71: Geothermal Supermodels Project: an Update on Flow Simulator Development (Croucher)	Introduction to Direct Use Initiative by Brian Carey	161: Geochemical Response of the Rotokawa Reservoir to the First 5 Years of Nga Awa Purua (Addison)
10.50am	48: Paiwera – a Robust Wellbore Simulator for Geothermal Applications (Franz)	53: Aerodynamic Design of Radial Inflow Turbine for Medium Scale Organic Rankine Cycle System (Chen)	76: Use of Isotopic Analysis to Distinguish Between Biological and Geothermal Soil CO ₂ Flux at Tauhara and Te Mihi Geothermal Areas (Harvey)
11.10am	89: Numerical Model of the Deep Hydrothermal Convection in the Taupo Volcanic Zone, New Zealand (Kaya)	126: The Conceptual Development of an Expert Process Design Tool for Above Ground Power Generation Technologies (Habib)	162: Rotokawa Reservoir Tracer Test History (Addison)
11.30am	47: Probabilistic Resource Assessment Using the Ngatamariki Numerical Model Through Experimental Design and Response Surface Methods (ED and RSM) (Quinao)	141: Mineral Extraction From New Zealand's Geothermal Brines: Where to Next? (Climo)	116: Borehole Testing of Calcite Dispersion and Dissolution Chemicals at Tauhara Geothermal Field, Taupo, New Zealand (Seastres)
11.50am	120: Numerical Experiments With Computer Models of Geysers (O'Sullivan, M)	110: Development of a Field-based Materials Test-rig (Heinzel)	135: Modeling of Alcohol Tracer Test in Vapor-dominated Geothermal Reservoir (Adrianto)
12.10pm	Lunch and Poster Session 12. A Monitoring of Hot Spring Aquifer Using Repeated Microgravity Measurements in the Northern Part of Beppu, Japan (Naritomi) 99. A Re-evaluation of Gravity Changes in the Early Stages of Exploitation at the Yanaizu-nishiyama Geothermal Field, Japan (Sugihara) 102. Implementation of the "new Tariff" for Geothermal Energy Development in Indonesia (Purwaningsih) 103. Characteristics of Geothermal Manifestations In/around the Buyan-bratan Caldera, Central Bali, Indonesia (Okamura) 132. Infrastructure Preparation of Geothermal Energy Development in Indonesia (Arifianto)		
1.10pm	Keynote 2: Pri Utami "The Growth of Philippine Geothermal Energy Development". Chair: Juliet Newson		



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	Technical Session 2A: GRN Karapiti Room. Chair: Bruce Mountain	Technical Session 2B: Above Ground Graham Room 1. Chair: Boaz Habib	Technical Session 2C: Environmental Issues Heritage Room. Chair: Kerin Brockbank
1.50pm	30: A 3-D Geological Model of the Rotorua Geothermal Field (Alcaraz)	42: Measurement of Two Phase Flows in Geothermal Pipelines Using Load-cells: Field Trials Results (Sisler)	160: Personal Gas Detection Selection and Operation for Geothermal Power at Mighty River Power (Addison)
2.10pm	142: Monitoring and Quantifying Heat-loss from Significant Geothermal Areas via Remote-Sensing (Bromley)	41: Measurement of Two Phase Flows in Geothermal Pipelines using Radio Frequency (RF) Power Measurements: Experimental Results (Sisler)	43: Development of a Geothermal Resource Policy for Papua New Guinea (Chrisp)
2.30pm	17: An Integrated Approach to Geological and Fluid Flow Modeling: from a 3D Geological Model to TOUGH2 (Milicich)	137: Design of Heat Exchangers – a CFD Approach (Siwach)	68: Effective Environmental Decision Making in the Pacific – Takara Geothermal Project, Efate, Vanuatu (Daysh)
2.50pm	67: Experimental Simulation of Re-injection of Non-condensable Gases Into Geothermal Reservoirs: Greywacke-fluid Interaction (Passarella)	158: Moisture Removal System in Geothermal Steam Plants (Zarrouk)	133: The Emissions Trading Scheme: Challenges and Future Impacts for Geothermal Power Plants (Lawson)
3.10pm	80: Toward Magmatic Source Models for Ngakuru Graben, Taupo Rift, New Zealand (Kissling)	159: Scrubbing Lines in Geothermal Power Generation Systems (Zarrouk)	109: Onekeneke Stream, Taupo: Historical Changes and Their Causes (Luketina)
3.30pm	Afternoon Tea		
	Technical Session 3A: GRN Karapiti Room. Chair: Bruce Mountain	Technical Session 3B: Above Ground (Binary - ORC) Graham Room 1. Chair: Lei Chen	
4.00pm	83: Electro-Fenton and Electrocoagulation for Small Scale Removal of H ₂ S from Geothermal Gas Streams (Mroczek)	88: Turboden ORC – Latest Technology for Large-scale Binary Power Plants, With Relevance to New Zealand Applications (Minini)	
4.20pm	70: Using Radiometric Dating Techniques to Constrain the Age and Duration of Geothermal Activity at the Extinct Ohakuri Hydrothermal System, Taupo Volcanic Zone, New Zealand (Rae)	61: Methodology of Pre-feasibility Study for a Binary Geothermal Power Plant Utilizing Low-Moderate Temperature Heat Sources (Budisulistyo)	
4.40pm	82: Geothermal Systems and Epithermal Deposits of New Zealand: a Fluid Chemistry Comparison (Simpson)	23: Effect of Organic Rankine Cycle Modification to System Performance (Hasan Baragbah)	
5.00pm	65: Geological Structures of the Okauia Low-T Geothermal System (Hauraki Rift Zone, New Zealand) Investigated Using Gravity Data and Digital Topographic Model (Soengkono)	156: Development and Validation of Annular Finned Tubes Evaporator for Cross-Flow Co-current Exhaust Gas - R245fa ORC System (Abbas)	
5.20pm	Workshop Reception in association with Geothermal Resources New Zealand		



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Thursday 19 November 2015			
8.50am	Housekeeping		
9.00am	Keynote 3: Greg Ussher. Chair: Manfred Hochstein		
	Technical Session 4A: Reservoir Engineering/Modelling Karapiti Room. Chair: Mike O'Sullivan	Technical Session 4B: Reservoir Engineering/Drilling Graham Room 1. Chair: Andy Bloomer	Technical Session 4C: Geothermal Geology Heritage Room. Chair: Andrew Rae
9.40am	51: Recent Developments in the PyTOUGH Scripting Library for TOUGH2 Simulations (Croucher)	10: Well Examination in New Zealand (Finnegan)	165: Relict and Modern Epidote: Lessons From Rantau Dedap, Sumatera (White)
10.00am	96: Predictive Uncertainty Estimates in Geothermal Reservoir Model by Linear Analysis (Omagbon)	140: Application of Coiled Tubing for Live Well Workovers (Aranas)	22: Trace Metals and Volatiles 3D Zoning in Active Geothermal Systems (Chambefort)
10.20am	Morning Tea		
	Technical Session 5A: Reservoir Engineering/Modelling Karapiti Room. Chair: David Dempsey	Technical Session 5B: Reservoir Engineering/Drilling Graham Room 1. Chair: Hagen Hole	Technical Session 5C: Next 10,000MW Heritage Room. Chair: Phil White
10.50am	122: Numerical Simulations of Hypothetical Enhanced Geothermal Systems (O'Sullivan, M)	78: Durability of the Cement in Geothermal Wells (Milestone)	54: Obstacles and Strategies of Achieving Geothermal Energy Target of 1000 MW in Ecuador: a Techno-Political Overview (Moya)
11.10am	121: Reservoir Modelling of the Geothermal System in Lahendong (O'Sullivan, J)	66: Optimising Silica Additions in a Durable Geothermal Cementing Formulation (Sharp)	91: Surface Exploration at Grenada Geothermal Field (Urzua)
11.30am	147: Hybrid Search of Global Solutions for Highly Non-linear Problems Using Treed Gaussian Process and Adaptive Sampling (Vidal)	27: Surface Analysis of Carbon Steel and Corrosion-Resistant Alloys Exposed to Acid-SO4= Chloride Type Geothermal Fluid (Zarrouk)	90: Results of Geothermal Surface Exploration of the Island of Grande Comore, Union of Comoros (Brotheridge)
11.50am	86: Modelling Fluid Flow Through Fractured Rock: Examples Using TVZ Geothermal Reservoirs (Kissling)	79: Slimhole Drilling: Maricaban Island (Tingloy) Low-enthalpy Geothermal Prospect (Halcon)	154: Kaitiakitanga and The Next 10,000 Megawatts (Bradshaw)
12.10pm	115: Improved Sensitivity Calculations (Bjarkason)		153: Exploration of Strato-Volcanic Geothermal Systems (Paradigms) (Hochstein)
12.30pm	Lunch		



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	Technical Session 6A: Reservoir Engineering/Well Testing Karapiti Room. Chair: Sadiq Zarrouk	Technical Session 6B: Geothermal Geophysics Graham Room 1. Chair: Alan Lucas	Technical Session 6C: Next 10,000MW Heritage Room. Chair: Mike O'Sullivan
1.30pm	112: Standardised Reservoir Model Design for Simulating Pressure Transients in Geothermal Wells (McLean)	95: Separating Intrinsic From Scattering Seismic Wave Attenuation From Full Waveform Sonic Logs in a Geothermal Field (Durán)	9: UNFC-2009 and Geothermal Resource Classification (Grant)
1.50pm	113: Impact of Cold Water Injection on Geothermal Pressure Transient Analysis: a Reservoir Modelling Assessment (McLean)	72: Thermal Infrared Cameras and Drones: a Match Made in Heaven for Cost-effective Geothermal Exploration, Monitoring and Development (Harvey)	143: Global Deployment Projections of Sustainable & Renewable Geothermal Energy - the Good, the Bad and the Monstrous – an IEA-Geothermal Perspective (Bromley)
2.10pm	114: Linear Impermeable Boundary in Geothermal Pressure Transient Analysis: a Reservoir Modelling Assessment (McLean)	136: Data Analyses of the Airborne Survey to Clarify the Geothermal Structure and to Evaluate the Geothermal Potential (Tosha)	20: Initiating the Development of the Lahendong Geothermal Education Park, North Sulawesi, Through Student Community Empowerment Program (Utami)
2.30pm	Afternoon Tea		
	Technical Session 7A: Reservoir Engineering/Production Karapiti Room. Chair: Sadiq Zarrouk	Technical Session 7B: Reservoir Engineering/Modelling Graham Room 1. Chair: Adrian Croucher	
3.00pm	11: Turbine Scaling (Morris)	149: Using ABAQUS to Simulate the Triaxial Stress Strain Behavior of Core Samples from the Wairakei Geothermal Field (Pogacnik)	
3.20pm	111: Instrumentation for Geothermal Water and Steam Measurement – Ultrasonic, Vortex, & Radar Level (Pearl)	57: Variability of Geotechnical Properties of Materials Within Wairakei Subsidence Bowl (Koros)	
3.40pm	146: Selection of Candidate Geothermal Wells for Deflagration (Dimabayao)	87: Injection of CO ₂ into Liquid Dominated Two-phase Geothermal Reservoirs (Kaya)	
4.00pm	40: Optimizing Hybrid Noncondensable Gas Removal Systems for Flash Steam Geothermal Power Plants (Richardson)	168: Study of Production-Injection Strategies of Geothermal Reservoir Liquid-Dominated With Numerical Simulation for Sustainable Production (Berian)	
4.20pm	NZGA Annual General Meeting		
5.45pm	Workshop Dinner (Buses depart Wairakei Resort to Huka Prawn Park)		



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Friday 20 November 2015

8.50am	Housekeeping	
9.00am	Keynote 4: Isabelle Chambefort "The Magmatic-Hydrothermal Transition of The Taupo Volcanic Zone, New Zealand". Chair: Kevin Brown	
	Technical Session 8A: Geology Karapiti Room. Chair: Paul Bixley (TBC)	Technical Session 8B: Reservoir Engineering/Production Graham Room 1. Chair: Thomas Ratouis
9.40am	73: Three Dimensional Conceptual Model of Orakeikorako and Te Kopia Geothermal Fields, Taupo Volcanic Zone, New Zealand (Alcaraz)	58: Adapting Surface Facilities to Changes in Rotokawa Reservoir in the First 5 Years of Nga Awa Purua (Hoepfinger)
10.00am	100: Subsidence at Kawerau Geothermal Field, New Zealand (Kelly)	36: Rotokawa: Reservoir Response of 172 MW Geothermal Operation (Hernandez)
10.20am	Morning Tea	
	Technical Session 9A: Geology Karapiti Room. Chair: Bridget Lynne	Technical Session 9B: Reservoir Engineering/Production Graham Room 1. Chair: Justin Pogacnik
10.50am	13: The Waitoa Low Enthalpy Geothermal System, New Zealand (Luketina)	7: Reservoir Tracer Test at the Ngatamariki Geothermal Field (Buscarlet)
11.10am	8: Computerised Tomography (Ct) Scanning of Core From Tauhara Geothermal Field, New Zealand: a Pilot Study (Lynne)	152: Foam Slurry for Cementing Casing in Geothermal Wells (Perez)
11.30am	98: Rotokawa Conceptual Model Update 5 Years After Commissioning of the 138 MWe NAP Plant (Sewell)	52: Perspectives on Geothermal Permeability (Wallis)
11.50am	157: Geological Agency of Indonesia's Exploration Strategy on Non Volcanic Geothermal Areas (Wahyuningsih)	169: Catchments of Groundwater and Geothermal Systems in the Upper Waikato Area, Taupo Volcanic Zone, New Zealand (White, Paul)
12.10pm	Lunch	
	NZGA Industry Updates	
1.10pm	Contact Energy – Mike Dunstall or Ted Montague	
1.20pm	Mighty River Power – Paul Ware	
1.30pm	Eastland Group – Ben Gibson	
1.40pm	Ngati Tuwharetoa Geothermal Assets – Daniel Britten	
1.50pm	WinG - Sue King	



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2.00pm	Waikato Regional Council – Katherine Luketina
2.10pm	Bay of Plenty Regional Council – Penny Doorman
2.20pm	Hawkins - Bernard Hill
2.30pm	MB Century – Marcel Manders
2.40pm	Geothermal New Zealand – Mike Allen
2.50pm	NZGW Committee
3.10pm	Afternoon Tea
	NZGA Industry Updates
3.40pm	AECOM – Warwick Cutfield
3.50pm	Jacobs – Tracy Mills
4.00pm	Thorndon Cook – Roger Hudson
4.10pm	University of Auckland – Rosalind Archer
4.20pm	GNS Science – Greg Bignall
4.30pm	MBIE - Kennie Tsui
4.40pm	Paper awards and closure - Sadiq Zarrouk
5.00pm	Finish