

New Zealand Geothermal Workshop 2021 Virtual Programme

Tuesday 1 February

17:00	Virtual Platform Open
Wednesday 2 February	
8:30	Welcome & Mihi Rosalind Archer
9:00	Keynote Speaker Gioia Falcone, Rankine Chair, Professor of Energy Engineering, University of Glasgow, Scotland
9:45	MB CENTURY INDUSTRY UPDATE Ben Rasdall
10:00	Morning Tea Social Time

10:25	Session 1.1 - Industry Update 1	Session 1.2 - Social & Community	Session 1.3 - Reservoir Modelling 1	Session 1.4 - Geochemistry, & direct use
	Stream 1	Stream 2	Stream 3	Stream 4
	Chair Katie McLean	Chair Rosalind Archer	Chair Angus Yeh	Chair Bridget Lynne
10:30	SCHLUMBERGER INDUSTRY UPDATE James Bayley	36 REGIONAL GOVERNMENT STRATEGY FOR THE SUSTAINABLE USE AND DEVELOPMENT OF THE KAWERAU GEOTHERMAL FIELD BY MULTI-TAPPERS IN NEW ZEALAND - Jason Laurent	69 COMPARISONS OF AUTOUGH2 AND WAIWERA ON REAL GEOTHERMAL FIELDS - John O'Sullivan	17 GEOTHERMAL PROSPECTIVITY OF THE TARANAKI SEDIMENTARY BASIN - Agnes Reyes
10:45	AECOM INDUSTRY UPDATE Peter Geoghengan	45 RESIDENTIAL HEATING FROM LOW GEOTHERMAL TEMPERATURES - Celia Wells	113 PRACTICAL WORKFLOW FOR TRAINING IN GEOTHERMAL RESERVOIR MODELLING - Théo Renaud	5 EXPERIMENTAL STUDY ON RARE EARTH ELEMENT MOBILITY DURING GREYWACKE - WATER INTERACTIONS - Lucjan Sajkowski
11:00	SOLENIS INDUSTRY UPDATE Peter Slijp	9 PRODUCTIVE AND ALLOCATIVE EFFICIENCY - ROTORUA GEOTHERMAL FIELD - Mariana Zuquim	82 MODELLING TRACER BREAKDOWN UNDER GEOTHERMAL CONDITIONS - John Burnell	51 COFFEE DRYING SYSTEM DESIGN FOR GEOTHERMAL DIRECT USE APPLICATION IN FLORES ISLAND - Pradana Vian Prasetyo
11:15	TESLA CONSULTANTS INDUSTRY UPDATE Mark Mullins	73 NEW ZEALAND'S ROLE IN GEOTHERMAL DEVELOPMENT IN EAST AFRICA - Jane Brotheridge	80 THE RESERVOIR EFFECTS OF PASSIVE NCG REINJECTION AT TE HUKA GEOTHERMAL BINARY POWER PLANT - Nataly Castillo Ruiz	
11:30	MITCHELL DAYSH INDUSTRY UPDATE Richard Matthews	70 CHALLENGES OF GEOTHERMAL DEVELOPMENT IN SMALL ISLAND DEVELOPING STATES - Alastair Brookes	63 MODELLING TRACERS USING THE WAIWERA GEOTHERMAL FLOW SIMULATOR - Adrian Croucher	
11:45	GOETHERMAL NEW ZEALAND INDUSTRY UPDATE Mike Allen	93 THE POTENTIAL AND SOCIOECONOMICS IMPACTS OF GEOTHERMAL DIRECT-USE ON IMATALOKO, FLORES ISLAND, NUSA TENGGARA TIMUR, INDONESIA - Fikha Fininda	12 PERFORMANCE OF A GEOTHERMAL SYSTEM IN PETROLEUM FIELDS OF THE TARANAKI REGION, NEW ZEALAND - Rohit Duggal	

12:00	Lunch and Poster Session
	24 Distributed temperature measurements at an active plate-bounding fault using fiber optic sensors - Haneef
	60 Experimental Studies of Supercritical Fluid-Rock Interactions Geothermal: The Next Generation - Rendel
	89 Porous Materials for CO2 and H2S capture in geothermal systems - Fernandez
	96 Geothermal Well Control Equipment Application for Mining Drilling in Geothermal Environment - Irwansyah
	101 Selecting the Most Potential Geothermal Direct Use in Eastern Indonesia, Flores Island, Mataloko- Rachmadani
	102 Integrated geotourism in Dieng - Putri
	103 Geothermal Drilling Performance Improvement through a Comprehensive Non-Productive Time Analysis - Putri
	105 One sheet program for Integrated Project Services at Laguna Colorada Geothermal Field - Aparicio

12:55	Welcome Back John O'Sullivan		
13:00	Keynote Speaker Jacqui Nelson - Chief Generation Officer, Contact Energy Ltd, New Zealand		
13:55	Session 2.1 - Industry Update 2	Session 2.2 - Drilling & Well Testing 1	Session 2.3 - Production & Management 1
	Stream 1	Stream 2	Stream 3
	Chair Mike Allen	Chair Sadiq Zarruk	Chair Ru Nicholson
14:00	GNS INDUSTRY UPDATE John Burnell		
14:15	NGAWHA GENERATION INDUSTRY UPDATE Fabian Hanik	98 DE-RISKING GEOTHERMAL PROJECTS BY RE-THINKING WELL DESIGN AND CONSTRUCTION MINDSET - Fabio Rosas Gutterres	91 ASSESSING THE VIABILITY OF GEOTHERMAL PROJECTS USING PUMPED WELLS - Greg Ussher
14:30	WESTERN ENERGY INDUSTRY UPDATE Karl Spinks	53 LESSONS LEARNT IN THE USAGE OF PRESSURE WHILE DRILLING (PWD) TO JUSTIFY DRILLING DECISIONS - Olivia Goh	46 NGAWHA OEC4 GEOTHERMAL FLUID SEPARATION - HORIZONTAL SEPARATOR SELECTION AND PERFORMANCE - Michael Rock
14:45	MERCURY ENERGY INDUSTRY UPDATE Phil Gibson	81 THE USE OF HIGH RESOLUTION ULTRASONIC WELL LOGGING TOOLS TO ENHANCE WELL INTEGRITY MANAGEMENT - Mark James	107 THE USE OF VENTURI DURING BINARY PLANT PENTANE EVACUATION - Fabian Hanik
15:00	EASTLAND GENERATION INDUSTRY UPDATE Ben Gibson	14 LESSONS LEARNED AND PERFORMANCE IMPROVEMENT: DRILLING CASE STUDY FROM SARULLA GEOTHERMAL OPERATION, NORTH SUMATRA - Hadi Permana	

15:15	Afternoon tea Social Time			
15:40	Session 3.1 - Industry Update 3	Session 3.2 - Geothermal Geology	Session 3.3 - Reservoir Modelling 2	Session 3.4 - Mātauranga Māori, & Environmental
	Stream 1	Stream 2	Stream 3	Stream 4
	Chair Brian White	Chair Sadiq Zarruk	Chair John O'Sullivan	Chair Rosalind Archer
15:45	SEEQUENT INDUSTRY UPDATE Jeremy O'Brien	38 INVESTIGATING CONTROLS ON GEOTHERMAL UPFLOW BENEATH THE ROTORUA LAKES - Sophie Pearson-Grant	55 NUMERICAL MODELLING OF FLUID FLOW AND HEAT TRANSFER IN A DUAL-POROSITY DOMAIN IN THE SHALLOW ZONE AT NESJAVELLIR GEOTHERMAL SYSTEM - Esteban Gomez-Diaz	15:45-16:05: 119 NGĀ WAI ARIKI O ROTORUA:HE KOHIKOHINGA (A HAU KAINGA PERSPECTIVE ON ROTORUA GEOTHERMAL) - Lani Kereopa
16:00	JACOBS INDUSTRY UPDATE Alex Batten	116 WHANGAIROROEA GEOTHERMAL AREA AND THE DEMISE OF A HIGH TEMPERATURE TVZ GEOTHERMAL SYSTEM - Andrew Rae	6 VOLSUNG: INVERSE MODELLING AND UNCERTAINTY ANALYSIS USING PEST - Peter Franz	
16:15	CONTRACT RESOURCES INDUSTRY UPDATE Jeffrey Kerferd & Mark Geldenhuys	86 HYDROTHERMAL ALTERATION AND EVOLUTION OF THE ROTOKAWA GEOTHERMAL SYSTEM - Mark Simpson	43 A NEW NUMERICAL MODEL OF THE OHAAKI GEOTHERMAL FIELD - Michael O'Sullivan	16:05-16:25: 118 A SUPERCRITICAL JOURNEY INTO TE AO MĀORI - Andy Blair
16:30	HALLIBURTON INDUSTRY UPDATE Nick King	4 SINTER MORPHOLOGY AND THERMAL INFRARED IMAGERY: A DUAL APPROACH TO TRACKING HYDROTHERMAL CHANGES AROUND OLD FAITHFUL GEYSER, YELLOWSTONE, USA - Bridget Lynne	90 TESTING SPATIALLY FLEXIBLE BOTTOM BOUNDARY PARAMETER SCHEMES AND PRIORS FOR GEOTHERMAL RESERVOIR MODELS - Elvar Bjarkason	16:25-16:45: 122 EMPOWERING INDIGENOUS EPISTEMOLOGIES IN GEOTHERMAL DEVELOPMENT - Te Kipe Kēpa Morgan
16:45	THORNDON COOK INDUSTRY UPDATE Roger Hudson	11 TECTONIC OF MINAHASA DISTRICT: AN UPDATE FROM LOCAL TOMPASO GEOTHERMAL FIELD DATA - Muhammad Ikhwani	78 DATA-SPACE INVERSION FOR EFFICIENT GEOTHERMAL RESERVOIR MODEL PREDICTIONS AND UNCERTAINTY QUANTIFICATION - Andrew Power, Daniel Wong	42 A REVIEW OF GEOTHERMAL RESOURCE MANAGEMENT UNDER THE RMA 1991 WITH A VIEW TO THE FUTURE - Penny Doorman
17:00	MTL INDUSTRY UPDATE Chris Mann	83 AN INSIGHT OF THE SUBSURFACE THROUGH BOREHOLE IMAGES CASE STUDY OF MW-34 MENENGAI GEOTHERMAL FIELD, KENYA - Marietta Mutonga	26 MODELLING DISCHARGE STIMULATION USING A TRANSIENT WELLBORE SIMULATOR WITH AN AIR-WATER EQUATION OF STATE - Ryan Tonkin	111 GEOTHERMAL GREENHOUSE GAS EMISSIONS IN NEW ZEALAND IN 2020: LIFECYCLE AND OPERATIONAL EMISSIONS - Katie Mclean
17:15	NZGA INDUSTRY UPDATE Kennie Tsui	67 LINEAMENT EXTRACTION AND ANALYSIS USING REMOTE SENSING IN NORD-GHOUBBET GEOTHERMAL FIELD, DJIBOUTI - Samod Youssouf Hassan	59 DATA-WORTH ANALYSIS: DESIGNING A MONITORING PLAN FOR ROTORUA THAT REDUCES UNCERTAINTY - Ken Dekkers	39 NUMERICAL MODELLING FOR CARBON ACCOUNTING FROM GEOTHERMAL POWER - Michael Gravatt

Thursday 3 February

MORNING MINGLE				
10:10	Session 4.1 - Industry Update 4	Session 4.2 - Production and Management 2	Session 4.3 - Geophysics	Session 4.4: Drilling & Well Testing 2
	Stream 1	Stream 2	Stream 3	Stream 4
	Chair Kennie Tsui	Chair Eylem Kaya	Chair Bridget Lynne	Chair Adrian Croucher
10:15	WAIKATO REGIONAL COUNCIL INDUSTRY UPDATE Katherine Luketina	65 ANALYSIS OF THE IMPACT OF THE REINJECTION OF GASES ON THE MASS FLOW RATE FROM PRODUCTION WELLS IN GEOTHERMAL SYSTEMS - Anu Choudhary	75 DISTRIBUTED TEMPERATURE SENSING IN FRACTURED LOW ENTHALPY RESERVOIRS - LESSONS LEARNED IN NEW ZEALAND AND CENTRAL EUROPE - Lucie Janku-Capova	20 THEORETICAL MODELS OF MAGMA ASCENT IN A GEOTHERMAL BOREHOLE - David Dempsey
10:30	BAY OF PLENTY REGIONAL COUNCIL INDUSTRY UPDATE Penny Doorman	23 ACCURACY AND RELIABILITY ANALYSIS OF TRACER FLOW TESTING IN GEOTHERMAL SYSTEMS - Zhilin James Dong	97 ANISOTROPIC GEOTHERMAL HOST ROCK? CASE STUDY OF NEVADO DEL RUIZ, COLOMBIA - Pablo Aguilera Bustos	44 USING ELECTROMAGNETIC TELEMETRY FOR ABANDONMENT CEMENT SLURRY DESIGN ON COILED TUBING - Josh Anderson
10:45	UPFLOW INDUSTRY UPDATE Andy Blair	61 MODELLING AND OPTIMIZATION OF A BINARY POWER PLANT UTILISING A LOW TO MEDIUM TEMPERATURE GEOTHERMAL RESOURCE - Brent Young	10 HEAT FLUX DYNAMICS THROUGH THE CLAY CAP IN THE WAIKATO TAUHARA GEOTHERMAL FIELD QUANTIFY BY MAGNETOTELLURIC, METHYLENE BLUE, AND TEMPERATURE DATA - Alberto Ardid	108 COILED TUBING LIVE WELL CLEANOUTS - Daniel Wilson
11:00	GEOTHERMAL INSTITUTE INDUSTRY UPDATE Rosalind Archer	3 INVESTIGATION OF COOLING WATER CHEMICAL DOSING: THE OHAAKI GEOTHERMAL POWER STATION COOLING TOWER - Morris Young	58 MACHINE LEARNING INVESTIGATION OF INJECTION-SEISMICITY IN ROTOKAWA GEOTHERMAL FIELD - Pengliang Yu	99 COMPARISON OF GEOTHERMAL WELL COST FOR SLIMHOLE EXPLORATION VERSUS BIGHOLE EXPLORATION - Vicki Agustino
11:15	GEOTHERMAL INSTITUTE INDUSTRY UPDATE Sadiq Zarruk	56 TECHNO-ECONOMIC ESTIMATION OF THE GEOTHERMAL POTENTIAL OF EXISTING COLUMBIAN OILFIELD PRODUCTION WELLS - Isaac Severinsen	2 NEAR-SURFACE GEOTHERMAL MAPPING - TESTING THE ITEM GEOPHYSICAL TECHNIQUE IN THE ROTORUA GEOTHERMAL FIELD - Rob Reeves	16 LOW-TEMPERATURE THIXOTROPIC CEMENT DESIGN OVERCOMES SURFACE SECTION DRILLING CHALLENGES - GEOTHERMAL EXPLORATION PROJECT, CENTRAL JAVA - Hadi Permana
11:30	GEOTHERMAL INSTITUTE INDUSTRY UPDATE John O'Sullivan	33 STEAM PURITY TROUBLESHOOTING: THE BERLIN STEAM FIELD, EL SALVADOR - Cristo Umanzor	29 PHYSICAL, GEOCHEMICAL AND MINERALOGICAL CHARACTERISTICS OF THE ALTERATION AND DEFORMATION HALO ABOVE THE DIORITE-TONALITE INTRUSIVE AT NGATAMARIKI - Steven Sewell	94 HYDRAULIC RIG AND ITS CHALLENGE TO CONDUCT SLIMHOLE GEOTHERMAL EXPLORATION DRILLING - Hafni Wiharlan

11:45	WING INDUSTRY UPDATE Nataly Castillo Ruiz		30 IMAGING THE ALTERATION AND DEFORMATION HALO ABOVE THE DIORITE-TONALITE INTRUSIVE AT THE NGATAMARIKI GEOTHERMAL FIELD - Steven Sewell	62 EVOLUTION OF GEOTHERMAL DIRECTIONAL DRILLING IN INDONESIA THROUGH FIT-FOR-PURPOSE ENGINEERING WORKFLOWS AND TECHNOLOGY MAPPING - Agus Ziyad Kurnia, Michael Ari Dhanto
12:00	Lunch Social Hour			
12:50	Welcome Back Sadiq Zarrouk			
12:55	Keynote Speaker Chris Bromley, GNS New Zealand			
13:40	Session 5.1 - Industry Update 5	Session 5.2 - Reservoir Modelling 3 & Future	Session 5.3 - Scaling and Corrosion	Session 5.4 - Production and Management 3
	Stream 1	Stream 2	Stream 3	Stream 4
	Chair Scott Henderson	Chair Jeremy O'Brien	Chair Brent Young	Chair Ru Nicholson
13:45	NZTE INDUSTRY UPDATE - Indonesia Putri Wuningsari & Sanusi Satar	25 NUMERICAL INVESTIGATION OF COUNTER-FLOW PROCESSES IN GEOTHERMAL WELLS - Ryan Tonkin	109 ONLINE RECOVERY OF GEOTHERMAL REINJECTION WELLS: REMOVAL OF SILICA-BASED FORMATION SCALE AND STIMULATION - Dan Wilson	120 STEAM SEPARATOR SELECTION FOR A GEOTHERMAL POWER STATION - Leigh McLellan, Kevin Koorey
14:00	NZTE INDUSTRY UPDATE - Philippines Maricon Popanes-Lim	18 CARBON NEGATIVE GEOTHERMAL: THEORETICAL COMBINED GEOTHERMAL-BIOMASS CO2 INJECTION CYCLE - Karan Titus	110 CHEMICAL REMOVAL OF FORMATION SCALE IN GEOTHERMAL PRODUCTION WELLS - Katie Mclean	121 LOST IN THE JUNGLE - A REVIEW OF THE STILL-RADICAL GEOTHERMAL DEVELOPMENT AT KIABUKWA, DR CONGO - Brian White
14:15	NZTE INDUSTRY UPDATE - Japan Yoshifumi Imamura	64 NEW ZEALAND'S PATHWAY TO SUPERCRITICAL GEOTHERMAL ENERGY USE: MOVING FORWARD TO EXPLORATION DRILLING - Brian Carey	28 TURNING THE PRESSURE ON FOR THE NANO-STRUCTURED CALCIUM SILICATE HYDRATE (CASIL) SOLUTION TO SILICA SCALING - Thomas Borrmann	92 GENERATOR, TURBINE AND THERMAL EFFICIENCY OF LUMUT BALAI GEOTHERMAL POWER PLANT - Erwandi Yanto
14:30		54 SYNERGIES BETWEEN GEOTHERMAL AND SOLAR PV GENERATION: AN EXAMPLE BUSINESS CASE - Alex Batten	13 RECOVERY OF REINJECTION WELL CAPACITY USING ONLINE SCALE DISSOLUTION - Fritz Earwin Monterozo	32 DEI, DOUBLE ENERGY INPUT. UNDERGROUND MODEL - Daniel Ramirez
14:45		84 GEOTHERMAL AND HYDROGEN: COULD HYDROGEN MAKE SOME GEOTHERMAL PROJECTS VIABLE? - Greg Usher	47 CORROSION RATE ESTIMATION OF CR CASING STEELS AT HIGH TEMPERATURE ACID CONDITIONS - Norio Yanagisawa	
15:05	Workshop awards and close Sadiq Zarrouk Leighton Taylor Ted Montague John O'Sullivan			