

## AGIS VII – PROGRAM

<i>22<sup>nd</sup> May 2018 (AGIS VII Reception Dinner)</i>		
19:00-22:30	<b>AGIS VII Reception Dinner (Sponsored by Gas Liquids Engineering)</b>	
<i>23<sup>rd</sup> May 2018 (AGIS VII Day1)</i>		
08:00-08:15		<i>Welcome to AGIS VII</i> Ying (Alice) Wu, Sphere Technology Connection, Calgary, Canada
08:15-09:00	Keynote	<i>Acid Gas Injection – A Very Dynamic Process</i> James Maddocks, Gas Liquids Engineering, Calgary, Alberta, Canada
09:00-09:30	Paper 1	<i>Densities and Phase Behavior involving Dense-Phase Propane Impurities</i> J.A. Commodore, C.E. Deering and R.A. Marriott, University of Calgary, Calgary, Alberta Canada
0930-1000	Paper 2	<i>Reasonable Soaking Duration of CO<sub>2</sub> Huff and Puff in Tight Oil Reservoirs</i> Qin Yong, PetroChina, Beijing, China
10:00-10:30		COFFEE BREAK (Sponsored by Corrosion Resistant Alloys)
10:30-11:00	Paper 3	<i>Prediction of Thermodynamic Properties of Acid Gas Mixtures in the Near Critical Region</i> William Tomcej <sup>1</sup> and Ray Tomcej <sup>2</sup> , (1) Spartan Controls, Calgary, Alberta, Canada and (2) Tomcej Engineering Inc., Edmonton, Alberta, Canada
11:00-11:30	Paper 4	<i>The Microscopic Characteristic of Residual Oil in Dead-end Pores Flooded by Supercritical CO<sub>2</sub></i> Yu Hongwei, Chen Xinglong, Li Shi and Han Haishui, PetroChina, Beijing, China
11:30-12:00	Paper 5	<i>3D Seismic Analysis to Evaluate AGI Feasibility of Carbonate Reservoirs</i> Alberto A. Gutierrez, Jasha Cultreri; and Lou Mazzullo, GEOLEX, Albuquerque, New Mexico, USA
12:00-13:00		LUNCH (Sponsored by LEWA-Creating Fluid Solutions)
13:00-14:30	Workshop 1	<i>Reservoir Engineering Aspects of Acid Gas Injection</i> Liaqat Ali, XHorizons, Houston, USA
14:30-15:00		COFFEE BREAK (Sponsored by Geolex Inc.)
15:00-17:0	Workshop 1	<i>Reservoir Engineering Aspects of Acid Gas Injection (cont.)</i> Liaqat Ali, XHorizons, Houston, USA
<i>24<sup>th</sup> May 2018 (AGIS VII Day 2)</i>		
08:00-08:30	Paper 6	Carbon Dioxide Flooding and Storage Potential in China Yongle Hu <sup>1</sup> , Hao Mingqiang Hao <sup>1</sup> , and Wang Chao <sup>2</sup> , (1) PetroChina, Beijing, China, and (2) China University of Geosciences, Beijing, China
08:30-09:00	Paper 7	<i>High Pressure H<sub>2</sub>S Oxidation in CO<sub>2</sub></i> S. Lee and R.A. Marriott, University of Calgary, Calgary, Alberta Canada
09:00-09:30	Paper 8	<i>Benefits of Diaphragm Pumps for the Compression of Acid Gas</i> Anke-Dorothee Wöhr, LEWA GmbH, Leonberg, Germany

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09:30-10:00	Paper 9	<i>A Dynamic Simulation to Aid Design of Shell CCS Quest Project Multi Stage Compressor Shutdown System</i> William Acevedo <sup>1</sup> , Chris Arthur <sup>2</sup> , and James van der Lee <sup>2</sup> , (1) Shell Canada, Calgary, Alberta, Canada and (2) Virtual Materials Group (VMG), Calgary, Alberta, Canada
10:00-10:30		COFFEE BREAK (Sponsored by Corrosion Resistant Alloys)
10:30-11:00	Paper 10	<i>Tomakomai CCS Demonstration Project of Japan, CO<sub>2</sub> Injection in Progress</i> Yoshihiro Sawada, Jiro Tanaka, Yutaka Tanaka, Daiji Tanase, and Hideki Imai, Japan CCS Co., Ltd, Tokyo, Japan
11:00-11:30	Paper 11	<i>Molecular Simulation of pK Values and CO<sub>2</sub> Reactive Absorption Prediction</i> Javad Noroozi and William R. Smith, University of Guelph, Guelph Ontario, Canada and University of Waterloo, Waterloo, ON, Canada
11:30-12:00	Paper 12	<i>Absorption of CO<sub>2</sub> in Amine-Water Mixtures: Quantitative Description of the Amine-Water And Amine-CO<sub>2</sub> Interactions Using Molecular Simulation</i> Florent Goujon, Johann Coulier, Jean-Yves Coxam, and Karine Ballerat-Busserolles, Université Clermont Auvergne, Clermont-Ferrand, France
12:00-13:00		LUNCH (Sponsored by LEWA-Creating Fluid Solutions)
13:00-14:30	Workshop 2	<i>Acid Gas Compressors and Compression</i> Randy Franiel, Compass Compression, Calgary, Canada
14:30-15:00		COFFEE BREAK (Sponsored by Virtual Material Group Inc.)
15:00-17:00	Workshop 2	<i>Acid Gas Compressors and Compression (cont.)</i> Randy Franiel, Compass Compression, Calgary, Canada
<b>25<sup>th</sup> May 2018 (AGIS VII Day 3)</b>		
08:00-08:30	Paper 13	<i>Research on Steady-State Productivity Model for Volume Fracturing Horizontal Well of Gas-Water Two Phase in Tight Gas Reservoir</i> Weiyao Zhu, Yuwei Liu, and Wenchao Liu, University of Science and Technology Beijing, Beijing, China
08:30-09:00	Paper 14	<i>Emergency Response Planning for Acid Gas Injection Wells</i> Ray Mireault, Independent Consultant, Calgary, Alberta, Canada
09:00-09:30	Paper 15	<i>Computation of Phase Equilibrium for Acid Gas Mixtures Containing H<sub>2</sub>S using the CPA Equation of State</i> H.M. Tu <sup>1</sup> , P. Guo <sup>1</sup> , and N.Jia <sup>2</sup> , (1) Southwest Petroleum University, Chengdu, China and (2) University of Regina, Regina, Saskatchewan, Canada
09:30-10:00	Paper 16	<i>Dynamic Solubility of Acid Gases in a Deep Brine Aquifer</i> Liaqat Ali <sup>1</sup> and Russell Bentley <sup>2</sup> , (1) XHorizons, Houston, Texas, USA, (2) WSP USA, Houston, Texas, USA
10:00-10:30		COFFEE BREAK (Sponsored by Corrosion Resistant Alloys)
10:30-11:00	Paper 17	<i>Solubility of CO<sub>2</sub> in Two [Tf2N] based Ionic Liquids</i> Devjyoti Nath and Amr Henni, University of Regina, Regina, Saskatchewan, Canada

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11:00-11:30	Paper 18	<i>Calorimetric and Densimetric Data to Help the Simulation of the Impact of Annex Gases Co-injected with CO<sub>2</sub> During its Geological Storage.</i> Fernando Hevia de los Mozos, Karine Ballerat-Busserolles, Barbara Liborio, Yohann Coulier, Jean-Yves Coxam, Université Clermont Auvergne, Clermont-Ferrand, France
11:30-12:00	Paper 19	<i>Acid Gas Injection: Days of Future Passed</i> John Carroll, Gas Liquids Engineering, Calgary, Alberta, Canada
12:00-12:30		LUNCH (Sponsored by LEWA-Creating Fluid Solutions)

### Poster Section Sponsored by WSP/Parsons Brinckerhoff (WSP)

1. *A History of AGIS*

Ying (Alice) Wu, Sphere Technology Connection, Calgary, Alberta, Canada

2. *Water Content of Carbon Dioxide – A Review*

Eugene Grynia, Gas Liquids Engineering, Calgary, Alberta, Canada and Bogdan Ambrożek, West Pomeranian University of Technology, Szczecin, Poland

3. *Research on Steady-State Productivity Model for Volume Fracturing Horizontal Well of Gas-Water Two Phase in Tight Gas Reservoir*

Weiyao Zhu, Yuwei Liu, and Wenchao Liu, University of Science and Technology Beijing, Beijing, China

4. *Research on Effect of Stress Sensitivity on Seepage Characteristics in Water-Bearing Tight Gas Reservoir*

Guodong Zou, Weiyao Zhu, and Dongxv Ma, University of Science and Technology Beijing, China

5. *Experimental Study on the Water Lock Starting Pressure Gradient of Tight Core*

Xiyi Yang, Zhiyong Song, and Wenchao Liu, University of Science and Technology Beijing, China

6. *Reaction Kinetics of CO<sub>2</sub> in Aqueous 2-(Diisopropylamino)ethanol, N,n,n',n'-tetrakis (2-hydroxypropyl) ethylenediamine, Tris[2-(2-methoxyethoxy) ethyl]amine, and N-(2-hydroxyethyl)aniline Solutions Using the Stopped-Flow Technique*

Ali Tagiuri and Amr Henni, University of Regina, Regina, Saskatchewan, Canada

7. *Carbon Dioxide Flooding and Storage Potential in China*

Yongle Hu<sup>1</sup>, Hao Mingqiang Hao<sup>1</sup>, and Wang Chao<sup>2</sup>, (1) PetroChina, Beijing, China, and (2) China University of Geosciences, Beijing, China

8. *The Features and Cost Analysis of CCUS Industry in China*

Mingqiang Hao<sup>1</sup>, Hu Yongle Hu<sup>1</sup>, Wang Shiyu<sup>2</sup>, (1) PetroChina, Beijing, China, and (2) China University of Geosciences, Beijing, China

9. *Reasonable Soaking Duration of CO<sub>2</sub> Huff and Puff in Tight Oil Reservoirs*

Qin Yong, PetroChina, Beijing, China