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ISOPE-2011

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Application of Digital Image Correlation in Testing of Weldments

MA Verstraete, W De Waele, RM Denys, S Herteli, Univ of Gent, Belgium

Effects of Cross-sectional Strain Distribution on the Critical Buckling Strain of Energy Pipelines

A Fathi, JJR Cheng, Univ of Alberta, Canada

Advanced Continuum Modeling to Determine Offshore Arctic Pipeline Strain Demand Due to Ice-Gouging

SP Lele, JM Hamilton, M Panico, H Arslan, ExxonMobil Upstream Research, USA

Shear Generated Fracture in Predicting Oil Leak in the BP Accident

KN Kofiani, T Wierzbicki, K Evangelos, MIT, USA

55. SBD III: Full Scale Testing in SBD (V. 4)

Tuesday June 21 14:00 Room 7

Chair: E Østby, SINTEF, Norway

Co-Chair: B Newbury, ExxonMobil Development Co, USA

Full Scale Bend Testing of Strain Based Designed High Grade Buried Gas Pipeline

G Mannucci, A Lucci, Centro Sviluppo Materials; CM Spinelli, ENI Gas & Power; A Baldi, G Mascia, Univ of Cagliari, Italy

Material Guideline on Turning Point between Wrinkle and Rupture Developed under Bending

E Tsuru, Y Shinohara, Y Nagata, J Agata, Nippon Steel, Japan

Tensile Strain Capacity of 48" OD X80 Pipeline in Full-scale Bending Test with High Internal Pressure

S Igi, T Sakimoto, N Suzuki, R Muraoka, JFE Steel, Japan

Full-Scale Bending Test of 48" X80 Line Pipes

H Tajika, N Suzuki, JFE Steel, Japan

Full-scale Test Protocol for Measurement of Tensile Strain Capacity of Welded Pipelines

S Kibey, SF Lele, M Macia, DP Fairchild, WT Cheng, ExxonMobil Upstream Research; WC Kan, MF Cook, R Noecker, B Newbury, ExxonMobil Development, USA

Effect of Full Scale Pipe Bending Test Method on Deformability Results of SAW Pipes

H Shitamoto, M Hamada, Y Nishi, I Takeuchi, Sumitomo Metal Industries, Japan

65. SBD IV: Fracture Mechanics in SBD (V. 4)

Tuesday June 21 16:20 Room 7

Chair: E Tsuru, Nippon Steel Corp, USA

Co-Chair: D McColskey, NIST, USA

Strain Rate Effect on Upper-Shelf Toughness for Pipeline Strain-Based Design

L De Pari, WH Van Geertruyden, N Zettlemoyer, ExxonMobil Development, USA

Evaluation for Fracture Toughness in Welded X80 Linepipes

Y Shinohara, E Tsuru, T Hara, Nippon Steel, Japan

Constraint-Based Assessment of CTOD Toughness Requirement for High-Strain Line

F Minami, Y Takashima, M Ohata, Osaka Univ, Japan

A New Assessment Approach for ECA of Clad and Lined Pipes Based on Shell and Line-Spring Finite Elements

E Oslø, SINTEF; E Berg, LINKfr; B Nyhus, SINTEF; C Thaulow, NTNU; E Østby, SINTEF

DNV's Strain-Based Fracture Assessment Approach for Pipeline Girth Welds

SL Bjerke, S Wastberg, Det Norske Veritas, Norway

A Multi-Tiered Procedure for Engineering Critical Assessment of Strain-Based Pipelines

DP Fairchild, M Macia, S Kibey, V Krishnan, F Bardi, H Tang, ExxonMobil Upstream Research, USA

Crystal Plasticity Modeling of the Local Crack Tip Stress Field

A Kane, E Østby, SINTEF Materials and Chemistry, Norway

