

Horizontal Wells 2021

Online
24 - 28 May 2021

ISBN: 978-1-7138-3575-2

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2021) by the European Association of Geoscientists & Engineers (EAGE)
All rights reserved.

Printed with permission by Curran Associates, Inc. (2021)

For permission requests, please contact by the European Association of Geoscientists & Engineers (EAGE)
at the address below.

European Association of Geoscientists & Engineers (EAGE)
PO Box 59
3990 DB Houten
The Netherlands

Phone: +31 88 995 5055
Fax: +31 30 634 3524

eage@eage.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

3D MODELING OF MULTILATERAL WELL (FISHBONE) JUNCTION STABILITY IN DEVELOPMENT CONDITIONS OF THE YAMAL-NENETS AUTONOMOUS DISTRICT OIL FIELD.....	1
<i>A.V. Seryakov, M.Yu. Podberezheny</i>	
PECULIARITIES OF GROUND MICROSEISMIC MONITORING OF HF WITH PARTIAL DEEPENING OF SENSORS UNDER THE LOW VELOCITY ZONE AND ASSESSMENT OF THE RELIABILITY OF THE RESULTS OBTAINED FOR THE WELL OF LUKOIL-PERM LTD	6
<i>I.R. Sharapov, V.A. Ryzhov, S.A. Feofilov, A.Y. Milin, I.A. Chernykh, A.V. Rastegaev, I.N. Ponomareva</i>	
INTEGRATED APPROACH TO WELL TEST AND PRODUCTION LOG ANALYSIS INTERPRETATION OF MULTIPLE HYDRAULICALLY FRACTURED HORIZONTAL WELLS IN LOW PERMEABILITY HETEROGENEOUS FORMATION.....	11
<i>E.I. Grishina, M.I. Kremenetsky</i>	
TECHNOLOGIES OF GEOPHYSICAL MONITORING OF WELL OPERATION WITH EXTENDED HORIZONTAL COMPLETION.....	16
<i>I.N.Tikhonov, A.S. Valiullin, M.S.Valiullin, A.R. Bilalov, R.K Yarullin, A.R. Yarullin</i>	
EXPERIENCE IN DRILLING MULTILATERAL WELLS AT THE FIELDS OF JSC TOMSKNEFT	24
<i>V.V. Stotsky, A.S. Aleshkin, A.V. Kuznetsov, P.V. Molodykh</i>	
SEISMIC FACIES ANALYSIS OF THE NEOCOMIAN SEDIMENTS OF THE RAKUSHECHNO-SHIROTNAYA UPLIFT ZONE OIL FIELD (CASPIAN) AS A TOOL TO IMPROVE THE EFFICIENCY OF HORIZONTAL WELLS GEOSTEERING	29
<i>A.V. Gorban, I. N. Kerusov, I.S.Timofeeva</i>	
INVESTIGATION OF STATE OF THE GAS PIPELINE PART UNDER THE VYM RIVER	34
<i>V.V. Noskevich, V.Y. Gorshkov</i>	
THE APPROACH FOR ANOMALOUS PERMEABLE ZONES DETECTION IN THE SEDIMENTARY COVER BASED ON GEOMORPHOLOGICAL ANALYSIS AND GRAVIMETRIC DATA	39
<i>D.I. Khasanov, J.V. Gubaidullina, K.V. Rodionov, I.I. Bagmanov, D.K. Nurgaliev, A.A. Lutfullin</i>	
GEOCHEMICAL MONITORING OF OIL MOLECULAR COMPOSITION DURING FIELD DEVELOPMENT FOR GEOLOGICAL MODEL UPDATING AND OPTIMIZATION OF HORIZONTAL WELLS PERFORMANCE.....	45
<i>A.Y. Kuklinsky, S.Y. Shtun, A.V. Ermolovsky, Y.S. Tarasova, M.A. Nevestenko, E.V. Zubareva, M.V. Sadmanova</i>	
THE ACCUMULATED EXPERIENCE OF PLANNING AND GEOLOGICAL MONITORING THE DRILLING PROCESS OF HORIZONTAL WELLS INTO THE CENOMANIAN STRATA OF THE KHARAMPURSKOE FIELD	51
<i>R.S. Shekhonin, A.A. Orlov, I.A. Kunakkuzhin, V.S. Abdullin, A.P. Popruzhuik</i>	
TAKING PARAMETERS OF HORIZONTAL WELLS INTO ACCOUNT DURING RESERVE ESTIMATION.....	56
<i>E.F. Koshkarova</i>	

INFORMATIVNOST` DANNY`KH GTI PRI BURENII GORIZONTAL`NY`KH SKVAZHIN. PROBLEMA OCENKI KACHESTVA	61
<i>S. Nikiforov, D. Kim</i>	
QUANTITATIVE INTERPRETATION OF DATA FROM FLOWMETRIC STUDIES OF HORIZONTAL WELLS: PROBLEMS AND OPPORTUNITIES.....	65
<i>R.F. Sharafutdinov, R.A. Valiullin, R.K. Yarullin, T.R. Khabirov, A.S. Valiullin, I.N. Tikhonov</i>	
REAL-TIME LWD INTERPRETATION.....	70
<i>A.S. Romantsov, A.M. Galechyan, V.E. Kovalchuk, V.V. Kapsenkov</i>	
IMPROVING DEVELOPMENT EFFICIENCY OF HARD-TO-RECOVER RESERVES OF TYUMEN FORMATION (JK2-9) AT KRASNOLENINSKY FIELD	75
<i>S.A. Moiseev, Yu.A. Plitkina, D.P. Patrakov, A.S. Glebov</i>	
ESTIMATION OF THE NUMBER OF STAGES OF HYDRAULIC FRACTURING IN HORIZONTAL WELLS IN VARIOUS GEOLOGICAL CONDITIONS	80
<i>E.O. Sazonov, A.A. Suleimanov, A.I. Ganeev, A.N. Nugaeva</i>	
GEOCHEMICAL APPROACH FOR IDENTIFICATION OF HYDRAULIC FRACTURE VERTICAL DISTRIBUTION IN RESERVOIR SIMULATION MODEL BASING ON MICROCOMPONENT STUDY OF OIL PRODUCED.....	91
<i>M. Shipaeva, D. Nurgaliev, V. Sudakov, S. Usmanov, R. Safina, R. Salimova</i>	
FORECAST OF PRODUCTIVITY IN THE DESIGN OF THE FIELD DEVELOPMENT SCHEME WITH HORIZONTAL WELLS BASED ON THE USE OF NEW METHODS OF SEISMIC DATA PROCESSING.....	96
<i>E. Anokhina, G. Erokhin</i>	
EXPERIENCE IN THE DEVELOPMENT OF OIL AND OIL AND GAS DEPOSITS USING HORIZONTAL AND MULTILATERAL WELLS.....	101
<i>M.G. Mavletdinov</i>	
INTEGRATION OF GEOMECHANICAL AND SEISMIC DATA FOR LOSSES PREDICTIONS WHILE DRILLING HORIZONTAL WELLS.....	106
<i>D. V. Malyutin, O. V. Grachev, A. V. Bekmachev, A.S. Puchkov, Ya. N. Smyshlyaev, I. A. Oparin</i>	
MONITORING OF HORIZONTAL WELLS OPERATION, USING TRACER PROFILING OF THE INFLOW, AT THE RUSSIAN FIELD	111
<i>D. Orlov</i>	
AN AUTOMATE APPROACH OF OPTIMAL PAD ARRANGEMENT FOR HORIZONTAL WELLS IN BITUMEN DEPOSITS.....	116
<i>T.A. Murtazin, A.D. Yarullin, V.A. Sudakov, V.K. Gataullin</i>	
ELABORATION OF CRITERIA FOR LAYING WELLS OF THE OPERATING STOCK OF THE RIPHEAN CARBONATE RESERVOIR IN THE CENTRAL PART OF THE KAMOVSKY ARCH OF THE BAIKIT ANTECLISE BASED ON 3D SEISMIC DATA.....	121
<i>S.S. Soshnikov, E.N. Cherepanov</i>	
NEW PROSPECTS OF SAP INVESTIGATION USING MULTISENSORY PASSIVE SPECTRAL ACOUSTICS.....	126
<i>A.A. Senkov, O.I. Abramenko, V.M. Nagimov, A.V. Trusov</i>	

AN INTEGRATED APPROACH FOR APPLICATION AND OPERATION EVALUATION OF AUTONOMOUS INFLOW CONTROL DEVICES IN HORIZONTAL AND MULTILATERAL WELLS.....	132
<i>T. Solovyev</i>	
KEY PERFORMANCE INDICATORS OF GEOMECHANICAL MODELLING	137
<i>P.V. Iastrebov, A.I. Arhipov</i>	
[1] PODHODY` , IDEI I RESHENIIA, KOTORY`E POZVOLIAIUT PROVODIT` GEONAVIGATCIU BOLEE 3000 GORIZONTAL`NY` KH STVOLOV V GOD	142
<i>A. Enin</i>	
LABORATORY STUDIES APPLICATION FOR MINERAL-GEOCHEMICAL CHARACTERISTICS OF THE BAZHENOV FORMATION OF HORIZONTAL WELLS.....	148
<i>E.A. Vtorushina, E.S. Pivovarova, I.V. Afonin, A.E. Gavrilov, M.N. Vtorushin</i>	
MULTILATERAL WELLS AS THE WAY TO INCREASE PROFITABILITY OF VIKULSKAYA FORMATION DEVELOPMENT	153
<i>A.V. Iakovenko, D.S. Lachugin, A.K Maltsev, T.Y Dolgushin, N.V.Kudlaeva, J.J.Polushina</i>	
MODELING THE SEDIMENTATION RATE OF MECHANICAL IMPURITIES IN THE HORIZONTAL WELLBORE.....	158
<i>M.F. Zakirov, R.F.Sharafutdinov, R.A.Valiullin, I.G.Nizaeva</i>	
TRUE STRATIGRAPHIC THICKNESSES CALCULATION AND FAULT THROW EVALUATION BASED ON IMAGE LOG INTERPRETATION DURING GEOSTEERING ON HORIZONTAL WELL OF Y.KORCHAGIN FIELD (CASPIAN SEA)	163
<i>S.Y. Shtun, M.Y. Golenkin, M.V. Rakitin, D.V. Shtepin, A.F. Islamov, N.R. Shaymardanov, N.V. Ivanova, V.R. Kuzakov</i>	
THE IMPORTANCE OF PINPOINT HORIZONTAL WELL LANDING.....	169
<i>N.R. Shaymardanov</i>	
EVALUATION OF MULTILATERAL WELLS EFFICIENCY IN THE FIELDS OF VANKORSKY CLUSTER IN DIFFERENT GEOLOGICAL ENVIRONMENTS	175
<i>A.A. Zernin</i>	
APPROACHES TO DETAILED CORRELATION AND INTEGRATION OF HORIZONTAL WELLS TO 3D GEOLOGICAL MODELS.....	181
<i>V.S. Vorobyev</i>	
COMBINATION OF STRAT-BASED MODELING & DISTANCE TO BOUNDARY (INVERSION) METHODS IMPLEMENTATION IN GEOLOGICALLY COMPLEX FORMATION K1NE-2 OF BALGIMBAEV OIL FIELD, KAZAKHSTAN	186
<i>L.O. Verbitskaya, Y.R. Shafikova, E.M. Mukanov, I.V. Chzen, E.Z. Kurmanbaiev, A.R. Tagirov, N. Zaripov, G. Utegulov</i>	
MARKER-BASED LONG-TERM PRODUCTION PROFILING SURVEILLANCE IN HORIZONTAL WELLS IN THE NORTHERN CASPIAN SEA	192
<i>E.A. Malyavko, S.Y. Shtun, A.A. Senkov, O.I. Abramenko, A.V. Buyanov, D.A. Lysova, E.V. Potapova</i>	
SEPARATE PRODUCTION METERING FROM EACH FORMATION WHEN INTEGRATING TAML-1 WELL CONSTRUCTION TECHNOLOGY WITH QUANTUM PLT AT THE NOVOPORTOVSKOYE FIELD	197
<i>I.L. Novikov, A.A. Alekseev, M.V. Zimoglyad, L.R. Samigullin, V.M. Nagovitsyn, A.Y. Bydzan, D.A. Vasechkin</i>	

SEEING FRACTURES UNDER A MICROSCOPE - THE FIRST APPLICATION OF THE NEW MICROIMAGER WHILE DRILLING IN WBM IN RUSSIA	203
<i>S.A. Nazarov, V.V. Slyusarev, A.F. Islamov</i>	
VERIFICATION OF THE POLYGONAL APPROXIMATION OF AN INDUCTION SOURCE IN ELECTROMAGNETIC LOGGING OF HORIZONTAL WELLS	208
<i>P.A. Domnikov, Y.I. Koshkina, M.V. Ivanov</i>	
LOSSES RISK MINIMIZATION WHILE PREDRILL STAGE AND REALTIME DRILLING GEOMECHANICS SUPPORT ON THE NORTH PART OF CASPIAN SEA	213
<i>M.U. Topolyan, G.A. Chikhanov, P.S. Bak, A.S. Kuznetsov, R.V. Golubtsov, V.R. Kuzakov</i>	
THE ASSESSMENT OF THE PROSPECTS FOR SUB-HORIZONTAL WELLS BASED ON THE EXPERIENCE OF THE ACHIMOV DEPOSITS DEVELOPMENT IN THE URENGOY OIL AND GAS COMPLEX.....	218
<i>I. O. Maltseva, V.A. Guznenko</i>	
DRILLING AND WELL PLACEMENT OF UPRISING HORIZONTAL WELLS IN MULTIZONE RESERVOIRS OF TURONIAN FORMATION IN WESTERN SIBERIA.....	223
<i>Vorobev Vladislav, Dubnitsky Ivan, Mukhametshin Ilkam, Ilya Shmarin, Yuriy Mishin, Kramar Vladimir, Valiakhmetov Artur, Maksim Medvedev</i>	
MACHINE LEARNING METHODS FOR GEOLOGICAL SUPPORT IN GEOSTEERING.....	227
<i>M.S. Pospelkov, E.V. Shkunov, A.V. Belousov, D.P. Proshutinsky, N.K. Kayurov, V.U. Ulyanov</i>	
MODEL OF INFLUENCE OF HYDRAULIC DROP ALONG HORIZONTAL WELL ON GAS WELL PRODUCTIVITY	232
<i>D.A. Samolovov, R.T. Apasov, I.V. Perevozkin, S.V. Kuznetsov</i>	
MULTISTAGE HYDRAULIC FRACTURING'S TAILPIPE WITH ADDITIONAL ELEMENTS FOR THE POSSIBILITY OF RE-FRACTURING OPERATIONS IN HORIZONTAL WELLS	236
<i>A.R. Gayfullin, A.V. Ivshin, A.G. Kudiarov, A.V. Churakov, I.G. Fayzullin</i>	
CONSTRUCTION OF EXTENDED-REACH WELLS (BOTTOMHOLE MORE THAN 6000 M) IN THE NORTH OF THE PERM REGION.....	241
<i>K.A. Meshcheryakov, Yu.V. Fefelov, A.V. Shirokov</i>	
SYSTEMATIC APPROACH TO SELECTING CANDIDATES FOR MULTISTAGE REPEATED HYDRAULIC FRACTURING IN HORIZONTAL WELLS OF RN-U VATNEFTEGAZ	246
<i>R.A. Gatiyatullin, R.R. Baisov, V.T. Kirshin</i>	
KEY FOR TURON: AN EXAMPLE OF PETROPHYSICAL MODELING TAKING INTO ACCOUNT FIELD DEVELOPMENT WITH HORIZONTAL WELLS	251
<i>A.Y. Bokarev, D.M. Ezersky</i>	
GAS-DYNAMIC METHODS OF WELL RESEARCH AS A TOOL FOR COMPLEX IMPROVEMENT OF THE EFFICIENCY OF GAS RE-INJECTION INTO THE GAS CAP OF THE NOVOPORTOVSKOE OIL AND GAS CONDENSATE FIELD.....	256
<i>Y.A. Podchualova, I.L. Chameev, E.A. Sherstoboev, E.P. Borisov, V.N. Grischuk</i>	
IMPROVING THE DEVELOPMENT EFFICIENCY OF LOW-PERMEABILITY RESERVOIRS AND HARD-TO-RECOVER RESERVES WITH THE INTRODUCTION OF RECOVERABLE LINERS TECHNOLOGY IN HORIZONTAL WELLS WITH MULTI-STAGE HYDRAULIC FRACTURING	261
<i>A.M. Ishkinov, I.N. Esipenok, A.F. Mingazov</i>	

MANAGEMENT OF THE DEVELOPMENT OF THE TAZOVSKY OIL AND GAS CONDENSATE FIELD WITH A THIN OIL RIM OF HIGH-VISCOSITY OIL WITH A MASSIVE GAS CAP.....	266
<i>G. T. Apasov, D. A. Borisov, E. V. Voevoda, M. Y. Gvozdev, V. A. Griбанov, A.V. Yelesin, D. S. Loginova, D. A. Reshetnikov</i>	
HORIZONTAL WELLS OF CONSIDERABLE LENGTH AS THE ONLY POSSIBLE SOLUTION FOR THE COST-EFFECTIVE INVOLVEMENT OF HIGH-VISCOSITY OIL RESERVES IN THE DEVELOPMENT OF THE THIN OIL RIM OF THE TAZOVSKOYE FIELD PK FORMATION.....	271
<i>A. A. Kuteev, R. N. Baraev, D. A. Borisov, E. V. Voevoda, V. A. Griбанov, R. F. Islamgaliev, D. A. Reshetnikov</i>	
AUTOMATION OF THE CONSTRUCTION OF GEOSTEERING MODELS ADAPTED FOR LWD DATA.....	275
<i>N.A. Palchikovskaya, A.S. Trushin, N.S. Ismagilov, E.V. Varzegov</i>	
GOOMECHANICS AS PART OF INTEGRATED APPROACH OF HW DRILLING.....	280
<i>R.V. Mukhamadiev</i>	
FEASIBILITY STUDY FOR OPTIMIZING THE DESIGN OF DOUBLE-BARREL WELLS OF THE D33 FIELD ON THE BALTIC SEA SHELF.....	286
<i>N.V. Krivosheeva, N.N. Krivosheeva, R.A. Shadchnev, D.N. Sharapov</i>	
APPLICATION OF THE CONTROLLED RADIAL DRILLING TECHNOLOGY IN THE TOURNAISIAN RESERVOIR AT PJSC «TATNEFT»	296
<i>I.Z. Farkhutdinov, A.I. Bashirov, A.K. Abdullin, V.A. Makarenko, I.R. Galas</i>	
DEVELOPMENT OF AN APPROACH FOR HYDRAULIC FRACTURING OPERATIONS AND A DECISION-MAKING METHODOLOGY IN THE SREDNE-NAZYMSKOYE FIELD.....	302
<i>A.M. Yanaev, A.I. Lisitsyn, P.V. Lupanov, D.A. Korobitsyn, V.B. Karpov, N.V. Parshin</i>	
ANALIZ AKTIVNOSTI RAZRYVNYKH NARUSHENII DLIA SNIZHENIIA RISKOV POGLOSHCHENIIA PRI BURENII GORIZONTAL'NYKH SKVAZHIN	307
<i>N. Ilmukov</i>	
COMPLEX CROSS-SEGMENT MODELLING APPROACH APPLYING FOR PRODUCTIVE INCREASE OF HORIZONTAL WELLS WITH MULTI-STAGE HYDRAULIC FRACTURING IN ACHIMOV FORMATION CONDITIONS.....	312
<i>D.I. Torba, A.I. Lisitsyn, A.K. Gula, A.V. Bochkarev, A.E. Glazyrina, Yu.S. Berezovskiy, D.V. Metelkin</i>	
POSTROENIE GEOMECHANICHESKOI MODELII DLIA UVELICHENIE PROGNOZNOI SPOSOBNOSTI DIZAINA GRP.....	317
<i>R. Vorobyev</i>	
QUALITY CONTROL AND CORRECTION OF MAGNETIC DIRECTIONAL MEASUREMENTS WHILE DRILLING HORIZONTAL WELLS	322
<i>A. Kashirin, T. Bataev</i>	
APPLICATION OF GEOMECHANICAL MODELING TOOLS TO CREATE A RESERVOIR PRESSURE MODEL AND REDUCE DRILLING ACCIDENTS AT A OILFIELD IN THE NORTHERN PART OF THE YAMAL-NENETS AUTONOMOUS DISTRICT	327
<i>A.E. Melkov, A.E. Glazyrina, A.K. Gula, Yu.V. Ovcharenko, A.V. Bochkarev</i>	

IMPLEMENTATION OF THE TECHNOLOGY OF CHROMATE DESORPTION SYSTEMS TO OPTIMIZE THE POSITION OF THE WELL RELATIVE TO THE CONTACT BOUNDARIES IN THE DEVELOPMENT OF OIL RIMS	332
<i>P. Lyutov, D. Kuznetsov, I. Nikishin, I. Platonov, M. Nukhaev. V. Kabanov</i>	
RESULTS OF PILOT TESTING OF TECHNOLOGY FOR MONITORING GAS AND WATER BREAKTHROUGH INTERVALS USING CHROMATE DESORPTION SYSTEMS IN THE DEVELOPMENT OF FIELDS IN THE CASPIAN SEA.....	337
<i>A. Senkov, O. Abramenko, I. Nikishin, I. Platonov, M. Nukhaev. V. Kabanov</i>	
UNCONVENTIONAL RESERVOIRS BRITTLENESS PREDICTION FOR IMPROVING MULTISTAGE HYDRAULIC FRACTURING EFFICIENCY IN HORIZONTAL WELLS	342
<i>I.Z. Karimov, B.S. Plotnikov, R.P. Volkov, D.S. Ignatova</i>	
PERFORMANCE OF CASING CONNECTION FOR HORIZONTAL OIL WELLS.....	347
<i>A. Agishev, A. Nurgaliev</i>	
IMPROVING THE EFFICIENCY OF HORIZONTAL WELLS RESEARCH ON THE EXAMPLE OF A HORIZONTAL EXPLORATION WELL AT ONE OF THE EXPLORATION PROJECTS OF GPN-GEO	351
<i>V. Bakhurskiy, V.Vorobiev, M. Podberezheny</i>	
THE TECHNOLOGY OF A MODERN APPROACH TO THE CALCULATION OF HYDROCARBON RESERVES AND RISK ASSESSMENT WHEN DRILLING HORIZONTAL WELLS USING ALL GEOLOGICAL AND GEOPHYSICAL INFORMATION	355
<i>E.E. Radionova, A.G. Alekseev</i>	

Author Index