

OIL GEOPHYSICAL PROSPECTING

Vol. 33 No. 1~6 1998

CONTENTS

No. 1

- Finite-difference numerical modeling of any even order accuracy *Liu Yang* et al (1)
Phase shift migration in transversely isotropic medium *Wang Yong* et al (11)
Parallel f - k migration *Li Jiakang* (17)
Surface-consistent deconvolution using variable prediction step, and
suppression of sand dune ringing *Ling Yun* et al (23)
Researches on propagation characteristics of cross-borehole Love wave
..... *Xie Haibing* et al (32)
Reservoir parameter inversion using seismic and log data *Fan Zhenxiang* et al (38)
Segmentally-iterative ray tracing method for any interface *Gao Ergen* et al (54)
Multiscale boundary detection of reflection seismogram *Zhong Sen* (61)
Relation between attenuation and frequency of vibration in fluid-saturated
porous sandstone *Xi Daoying* et al (66)
Compressional and shear waves in fluid-filled borehole *Fu Dandan* et al (71)
Research on joint inversion of 1-D magnetotelluric and seismic data
..... *Yang Zhenwu* et al (78)

• EXPERIENCE •

- Incomplete Cholesky conjugate gradient method and its application in geoelectric
field computation *Wu Xiaoping* et al (89)
Prediction noise elimination in F -XYZ domain *Su Guishi* et al (95)
A new method of nonlinear filtering noise removal *Yan Yousheng* (104)
Fracture detection using three-component VSP data of P-wave source
..... *Gao Xiqin* et al (109)
3-D visualization of seismic horizon informations *Zhang Jianqiu* et al (119)
Application of interpolation-cut method for magnetic anomaly division
to igneous mass investigation *Duan Benchun* et al (125)

• EDITOR WRITER READER •

- A guidance to writers (132)

• CONTENTS OF OTHER GEOPHYSICAL JOURNALS •

- Geophysics*, Vol. 62, No. 3, 4, 1997 (136)
Geophysical Prospecting, Vol. 44, No. 6, 1996 (137)
Geophysical Prospecting for Petroleum, Vol. 36, No. 2, 3, 1997 (137)

• PERSONAGE •

- Geophysicist Yang Huizhu (insert 1)

• NEWS •

- CNPC, symposium of exploration engineering techniques, Beijing (88)
Xi'an Petroleum Exploration Instrument Complex used its own instruments to
finish a successful crossborehole seismic investigation (108)
67th SEG Annual Meeting, Dallas (118)

Contributors	(138)
--------------------	-------

No. 2

Free surface effect in seismic exploration	Wang Weijia(139)
Wave impedance inversion using multihole restriction and random inverse method	Liang Guanghe(151)
Elastic wave in transverse isotropic media with dipping symmetric axis	Liu Yang et al(161)
Three dimensional one-pass migration using paraxial approximate equation with optimized coefficients	Wang Huazhong et al(170)
Fracture-dependent extensive dilatancy anisotropy in three-component data	Wang Hejie and Dong Minyu(185)
Vector convolution model and shear-wave splitting algorithm in anisotropic media	Zeng Xinwu and C. MacBeth(191)
Separating shear wave from compressional wave by considering both free-interface effect and polarization character	Yao Dezhong(198)
Thin-layer thickness estimation using wavelet transform and maximum entropy method	Shao Zhilong et al(204)
Estimation and correction of mixed-phase wavelet phase	Guo Xiangyu et al(214)
VSP data reflection image using constraint-weighted Kirchhoff method	Huang Xinwu et al(222)
Oscillation mechanism of potential field downward continuation in frequency domain and its elimination	Mao Xiaoping et al(230)
Extracting useful reflection signals from electromagnetic field by making maximum entropy prediction	Song Weiqi et al(238)
LSQR iterative multigrid method for secondary hydrocarbon migration and its application	Liu Yike et al(244)
Inversion structure and structural evolution in Zhoukou depression	Sun Ziming(251)

• EXPERIENCE •

Seismic wave impedance inversion using improved hereditary algorithm	Wang Baozhen and Yang Wencai(258)
Converted-wave DMO using inclination decomposition	Sun Peiyong et al(265)
Application of lateral differential velocity ratio method to Tarim basin hydrocarbon exploration	Ni Yi et al(272)
Forward computation of high order derivative of gravity anomaly relating to complex geologic body	Yang Hui and Wang Yichang(278)

• PERSONAGE •

Geophysicist Zhang Shulun	(insert 2)
---------------------------------	------------

• NEWS •

Beijing office of SEG, last academic meeting in 1997	(283)
Contributors	(284)

No. 3

Adaptive unrestricted inversion of reflection coefficients	Liu Qiyang(285)
Seismic wavelet extrapolation with constraint of log data	Liang Guanghe(296)
Inversive prediction filtering and operator extrapolation	Xiong Chuanfeng(305)
Pseudo-spectral forward modeling in 2-D transversally isotropic medium	

.....	<i>Zhang Wensheng and He Qiaodeng</i>	(310)
Fast forward modeling of ordinary resistivity log in layered anisotropic medium and its application	<i>Wang Hongnian et al</i>	(320)
Defining and identifying thin interbeds by using new MT apparent resistivity	<i>Wu Xiaoping et al</i>	(328)
Pitfall in channel sand interpretation	<i>Li Qingzhong</i>	(336)
Seismic reflection coefficient inversion using Möbius inversion	<i>Sun Jianguo et al</i>	(342)
Research on the heating activation mechanism of viscoelastic relaxation in fluid-saturated sandstone	<i>Xi Daoying et al</i>	(348)
Relation between wave velocity in sandstone and fluid content in porous medium under high frequency condition	<i>Jiang Lixin and Shi Xingjue</i>	(355)
Laboratorial research on relation between borehole acoustic propagation mode and formation characteristic	<i>Li Changwen et al</i>	(363)

• EXPERIENCE •

Application examples of processing technique for reservoir physical parameters	<i>Zhang Yingbo and Zhang Jidong</i>	(370)
Travel-time tomography of reflector and interval velocity ...	<i>Li Xiangui and Xu Duo</i>	(382)
Prestack coherent noise elimination—a slant filtering method	<i>Lin Sheng et al</i>	(390)
Static correction method in Kumutake desert in Dunhuang basin	<i>Deng Zhiwen et al</i>	(399)
Forward-inversive horizon calibration and wavelet extrapolation in 3-D wide-band restriction inversion	<i>Bian Xiyan and Tang Wenbang</i>	(407)
HYS inversion structure in Tuha basin and its balance evolution	<i>Liu Guangyan</i>	(413)

• DISCUSSION •

Some essential points relating to the discussion on “whether derivation improves the resolution of seismic data”	<i>Cao Yuming</i>	(418)
--	-------------------	-------

• CONTENTS OF OTHER GEOPHYSICAL JOURNALS •

<i>Geophysics</i> , Vol. 62, No. 5, No. 6, 1997	(420)
<i>Geophysical Prospecting for Petroleum</i> , Vol. 36, No. 4, 1997; Vol. 37, No. 1, 1998 ...	(421)

• PERSONAGE •

Geophysicist Chai Yupu	(insert 2)
Contributors	(422)

No. 4

On strategy of seismic restricted inversion	<i>Li Qingzhong</i>	(423)
Solving a seismic trace inversion problem by using generalized conjugate gradient algorithm	<i>Zhou Zhusheng et al</i>	(439)
Multi-trace inversion without borehole data	<i>Lin Xiaozhu et al</i>	(448)
Pseudo-true 3-D projective migration	<i>Xu Jixiang and Wu Lü</i>	(453)
3-D data prestack migration using constant velocity	<i>Yang Haisheng et al</i>	(467)
One-step wave equation depth migration using 3-D mixed continuation	<i>Xiong Gaojun et al</i>	(477)
Application of shift sampling theory to magnetic anomaly reduction-to-the-pole	<i>Chai Yupu and Jia Jijun</i>	(486)
Basement density inversion using gravimetric and seismic data, and the integrative interpretation	<i>Yang Hui</i>	(496)

Discussion on taking remanent magnetic inclination anomaly as reference frame for locating hydrocarbon microseepage zone	<i>Guo Youzhao et al</i> (503)
A method for deriving abnormal gas concentration in barrier from acoustic transit time data, and its application	<i>Fu Guang and Zhang Faqiang</i> (511)
Response of direct current circle in a cased borehole and its application research	<i>Liu Diren and Xu Jianhua</i> (519)
Multi-subject integration in reservoir description	<i>Wang Kangli</i> (525)
• EXPERIENCE •	
Application condition of balanced-section technique and the case analysis	<i>Zhang Mingshan and Chen Fajing</i> (532)
Application of sequence stratigraphy in Biyang fault basin	<i>Hu Shouquan</i> (541)
Near-source multiple elimination with amplitude preserved	<i>Xu Changlian et al</i> (553)
Seismic noise suppression using wavelet packet method	<i>Wu Aidi et al</i> (558)
Multitrace wave impedance inversion using wavelet transform.....	<i>Zhang Huiyan et al</i> (563)
• CONTENTS OF OTHER GEOPHYSICAL JOURNALS •	
<i>Geophysics</i> , Vol. 63, No. 1, No. 2, 1998	(570)
• PERSONAGE •	
Geophysicist <i>Liu Yang</i>	(insert 1)
• NEWS •	
SEG/CPS/EAGE Beijing '98 International Geophysical Conference and Exposition in China World Hotel	(596)
Contributors	(572)
No. 5	
A new overall optimization algorithm used in background velocity estimation	<i>Yu Jianhua et al</i> (573)
Wave-equation common-shot seismogram forward simulation with multi-reflection wave constrained	<i>Xiong Gaojun et al</i> (583)
A fast recursive algorithm of discrete Hartley transform	<i>Yu Pinneng et al</i> (591)
Along-layer fixed-point velocity analysis technique	<i>Wang Youxin et al</i> (597)
Constrained first-arrival pickup and first-break residual static correction	<i>Liu Liansheng</i> (604)
Wave field separation by linear Radon transform after coordinate stretch	<i>Li Yanpeng et al</i> (611)
The application results of electro-magnetic array profiling in Liupan Mountain basin	<i>Zheng Li et al</i> (616)
The applications and effects of comprehensive non-seismic geophysical and geochemical exploration techniques	<i>Jia Jindou et al</i> (625)
The frequency dispersions of Rayleigh waves and 3-D velocity structures in Himalayan collision orogenic zone and Qiangtang basin	<i>Teng Jiwen et al</i> (632)
• EXPERIENCE •	
The application of fault sealing analysis technique in petrogeological exploration	<i>Zhou Ying et al</i> (649)
Lattice gas automata model—A new method for seismic data forward simulation	<i>Liu Shukao et al</i> (658)
The preliminary application of multiwave and multicomponent seismic explorations	

in Songliao basin	<i>Yi Weiqi</i> et al(663)
Non-linear acoustic porosity model and its application	<i>Zhang Songyang</i> et al(671)
Wave field separation method for suppressing surface wave	<i>Li Weizhong</i> et al(679)
•SUMMARIZATION•	
The reasonable application of seismic technique	<i>Li Songquan</i> et al(691)
On the method and technology of hydrocarbon exploration in Chinese marine-facies carbonate rock area	<i>Wang Qingyi</i> et al(695)
•PERSONAGE•	
Geophysicist Xu Guoming	(insert 1)
•NEWS•	
Beijing office of SEG,second academic meeting in 1998	(700)
Contributors	(706)
No. 6	
Four-dimensional seismic reservoir monitoring technique and its application	<i>Chen Xiaohong</i> and <i>Mou Yongguang</i> (707)
Holographic characteristic of seismic trace	<i>Cao Yuming</i> (716)
Geometric nonlinear effect of spherical seismic wavelet	<i>Xiao Jianhua</i> et al(723)
Analysis of velocity variation with offset	<i>Xu Changlian</i> et al(733)
Improved positioning principle of forward modeling	<i>Xiong Gaojun</i> et al(742)
Cross-borehole seismic probing in JL oil field and the velocity tomography of compressional and shear waves	<i>Yan Yousheng</i> et al(749)
Homotopic neural optimization theory and its application to seismic inversion	<i>Liu Shukao</i> et al(758)
Adaptive method for separating out shear wave in long-spaced acoustilog data processing	<i>Yang Xuanhui</i> et al(769)
Automatic logging data correlation based on stratum consistency check	<i>Chen Ximin</i> et al(775)
Frequency dispersion of rock resistivity and its influence on Archie parameters	<i>Deng Shaogui</i> et al(782)
•EXPERIENCE•	
Some suggestions on the application of three-dimensional seismic observation ways	<i>Yan Shixin</i> and <i>Xie Wendao</i> (787)
Analysis of wide-azimuthal seismic data acquisition in Bohai basin	<i>Zhang Qinghuai</i> et al(796)
Application of comprehensive seismic interpretation technique in oil field exploration	<i>Fu Jinping</i> (803)
A method for analysing the palaeo-pressure sealing ability of poorly compacted shale barrier with the use of acoustic logging data	<i>Fu Guang</i> and <i>Zhang Faqiang</i> (812)
•CONTENTS OF OTHER GEOPHYSICAL JOURNALS•	
<i>Geophysics</i> , Vol. 63, No. 3, No. 4, 1998	(821)
<i>Geophysical Prospecting for Petroleum</i> , Vol. 37, No. 2, No. 3, 1998	(822)
•PERSONAGE•	
Geophysicist Guo Jiuying	(insert2)
Contributors	(824)
Contents, Vol. 33, No. 1~6, 1998	