INSTRUCTIONS TO AUTHORS AND GUIDELINES FOR MANUSCRIPT PREPARATION

(Revised April 2018)

POLICY

Petrophysics publishes original contributions on theoretical and applied aspects of petrophysics and formation evaluation, including both openhole and cased-hole well logging as well as core analysis. Case histories and interpretation papers are of special interest. Contributions may be in the form of Articles, Reports, Notes, Review Papers, Tutorials, and Discussions or Replies. They are accepted on the basis of quality, originality, and significance of subject matter, clarity of expression, and compliance with *Petrophysics* guidelines.

Note: The statements and opinions expressed in *Petrophysics* are those of the authors and should not be construed as an official action or opinion of the SPWLA.

MANUSCRIPT SUBMISSION

1. Submit only papers written in English. Although the membership of the SPWLA is international, *Petrophysics* is an English-language journal. Papers should be written clearly and concisely.
2. Submit papers that are not under consideration for publication elsewhere. Papers that have appeared in the SPWLA *Transactions* or proceedings of other meetings are acceptable. Papers that have been refereed and published elsewhere are not acceptable unless invited by the Editor.
3. Identify the date and location of papers presented orally or published in non-refereed venues.
4. Submit the manuscript to *Petrophysics* via the web-based Editorial Manager software. Text and figure captions should be together in one file and figures in a separate file. Instructions for online Manuscript Submission can be found below.
5. Provide the email address, regular mailing address, and telephone number for the corresponding author.

FORMAT

Initial submissions may be made in any format but single-column and double-space submissions are preferred. Once accepted for review, the following criteria apply the submitted manuscript:

1. Text files with embedded graphics may be sent for review but are not acceptable for publication.
2. Reviews benefit if the text (including footnotes and references), tables, and figure captions are placed in one file (preferably in Microsoft Word) with pages numbered consecutively from Abstract to References. Figures must be numbered.
3. All digital images should have a resolution of at least 300 dpi to produce a high-quality print resolution.
4. Line art must be at least 600 dpi (1,200 preferred).
5. Illustrations originally prepared for oral presentation should simplified: remove colored backgrounds and unnecessary detail or other decoration.
6. The style, font, and format used in the illustrations should be consistent throughout the manuscript.
7. Graphs should have a white background and the axis labels and units should be legible.
8. Equations should be typeset using Times New Roman 10.5 point size, when possible. These are scanned, therefore we can't change the font from the original file.

REVIEW PROCESS

1. If the manuscript complies with *Petrophysics* guide lines, the Editor will send it out for review by an Associate Editor and selected reviewers.
2. Based on the reviews, the Editor and the Associate Editor will recommend that the manuscript be accepted, revised, or rejected. The objective of the review process is, first, to ascertain the quality of the author's work and its relevance to SPWLA members and, second, to help improve the clarity of expression so that the author's ideas are concise and easily understood. Final acceptance of a manuscript is the sole responsibility of the Editor. Review of manuscripts that do not comply with the *Petrophysics* guidelines will be delayed, and manuscripts may be returned for corrections prior to review.
3. If accepted, manuscripts will be reviewed by a minimum of two reviewers and their comments will accompany the Editor's notification to the author.
4. After required or elective changes made by the author have been accepted the manuscript is sent to the Managing Editor to prepare page proofs.
5. The corresponding author will receive one set of page proofs to check for typographic errors and to answer queries from the Managing Editor or Publications Manager.
6. The corresponding author should keep corrections in the proof to a minimum; authors may be charged for excessive page-proof corrections that differ from their accepted manuscript.
7. Return page proofs to the Publication Manager within 48 hours of receipt; tardiness results in the delay of the publication.
8. Complete and return the reprint order form, sent to authors with page proofs, with the corrected page proofs.

COPYRIGHT TRANSFER

Copyright law requires a copyright transfer be obtained from authors of papers published in *Petrophysics*. Copyright forms must be signed and returned by the corresponding author before publication is scheduled.

PAGE CHARGES AND COLOR CHARGES

Proofs are generated in color (figures and photos) for review by the corresponding author. SPWLA does not require page charges for publication of figures and photos in black and white. However, there is a mandatory charge to print in color: US $1,050 for an article up to 8 pages; US $2,100 for an article up to 16 pages; and US $3,150 for an article up to 24 pages. Authors can request to have figures reduced in size to decrease the overall length of the paper. If the corresponding author declines to pay the color charges he/she must submit high-resolution versions of figures that have been optimized for printing in black and white and not simply converted from color figures. Figures not meeting this requirement may be returned, thereby delaying publication. Online publication will be in color regardless of whether or not the author accepts color print charges. Billing will take place after composition of the paper is complete. No charges are assessed if a submitted manuscript is not published.

COMMERCIALISM

The purpose of your paper is to inform the readers of new technology, techniques, and methods, or new applications of existing technology, not to promote a specific service. In general, the use of or reference to trademarks, commercial service names and names of employers should be avoided. At most, a single reference to a specific tool or service name is acceptable; however, the discussion and descriptions thereafter should be in generic terms.

MANUSCRIPT ORGANIZATION AND STYLE

Title

The title should tell your readers what your work is about in a single line. Try to be both brief and complete. Indicate the professional affiliation for each author under the title.

Layout

Organize the paper as listed here.

Abstract: This is perhaps the most read component of a paper. Required for articles, but *not* for Notes, Discussions, or Replies. Abstracts are informative statements of the essential ideas, methods, and results contained a paper; they are not lists of the subjects covered in or descriptions of the paper contents. The abstract for the published paper should not be the same as the conference abstract because the paper contains concrete results.

These are the questions that you should answer in the abstract:

- What is the subject matter? What is the problem that you are approaching in this paper (introduction)?
- Why is the stated problem an important technical/scientific effort that warrants the writing of a paper (introduction)?
- How did you approach and solve the problem (methodology)?
- What are the assumptions and limitations of your methodology?
- What are the most important conclusions of your work? State the conclusions as quantitatively as possibly. Never state vague conclusions or conclusions that are not supported by the material that you are presenting in the paper

The phrases “is discussed”, “is shown”, or “is presented” should not be used. The abstract must stand alone as a short version of the paper. Abstracts should not exceed 400 words. Craft it carefully, because most readers will only read the abstract and skim the figures.

Body of Text:

- *Introduction* – This section is a statement of why the work contained in the paper was undertaken, describes the problem and/or research objectives, and provides essential background information, e.g., previous work in the field, for understanding the rest of the paper. Authors should clearly indicate whether they are building on previous work or developing a completely new methodology to achieve the stated objectives. The introduction should clearly state the assumptions and limitations of your work.
- *Methodology* – This section contains a systematic and logical description of the methods or techniques used to carry out the work discussed in the paper. If an original method is being presented it should be described in detail and applications should be provided to verify value or usefulness. In instances where the method used is not original per se, but was used to obtain a new result, details should be provided in an appendix. The description should contain sufficient detail to be repeated by a competent reader.
- *Examples of Application* – This section is used to describe results from the processing of field data, simulation examples etc. Pertinent variables and details about the field data should be organized in tables. For examples about estimation or inversion, measures of uncertainty, reliability, and accuracy

should be provided. This section should also emphasize and justify why a particular example or model was chosen to test the technical components described in the Methodology section.

- *Interpretation or Discussion (optional)* – This section is used to convey the significance of your results synthesizing and amalgamating the material presented in the Examples section. In many cases, the Discussion section is used to provide physical insights about the results. You can also use this section to detail predictions that stem from the work reported in the paper. Speculative statements not supported by the material presented in the paper should be avoided.
- *Results* – Explain your results fully. Results are often summarized graphically or in tables and these should be supported with sufficient text to explain their content and significance.
- *Conclusions* – The conclusion section should answer the following questions:
    - What did I find from this work?
    - What should the reader take away after reading the paper?

  This section may begin with a paragraph summarizing your work; it is for readers who will sample only the Introduction and the Conclusions before deciding whether to read the entire paper. The summary should not duplicate the abstract. Discuss whether there are logical conclusions, new problems that have arisen as a result of your study, and future work that might be undertaken to advance understanding and development in your topic of study. All conclusions should be fully supported by the material presented in the paper.

Abbreviations and Nomenclature: Abbreviations, acronyms, or symbols should be defined the first time they are used in the text. Extensive use of nomenclature should be explained in a separate section at the end of the paper. Avoid extensive use of abbreviations or commercial acronyms.

Equations: Use equations only when absolutely necessary. Describe all the variables involved in the equation, and the assumptions behind them. Use an equation editor to generate them, e.g., Microsoft Word. Assume that the copyeditor and typesetter are not familiar with mathematics and equations—you must leave no doubt as to how your equations should look.

1. The symbols used in the equation should be defined either just prior to, or following the text of the equation.
2. Inline equations, such S_w, are best generated using symbol font.
3. Parameters are given as a single character, with a suffix, if required. Example, S_{wor} and not SWOR.

Acknowledgments: Briefly cite or acknowledge special assistance from individuals or organizations.

References: All published work cited in the text must be listed in the References section. Do not cite internal or proprietary documents that cannot be obtained or accessed by the reader. Personal communications can be referred to in a reference. When citing references in the text, list them chronologically: (Smith, 1987; Jones et al., 1988; Jones, 1989).

The List of References section must be alphabetical by first author and then chronological; where there are two or more papers by the same author(s) in the same year, add lowercase letters after the year, e.g., Jones (1989a), (Jones, 1989b). In the list of references use the following format: author, year, title, volume, number, and page range. Follow these guidelines: All fields are separated by commas; no quotes around titles; names of journals, books, reports, and theses are in italics; do not use abbreviations in journal or proceedings/transactions titles; journal volume in bold, issue number in parentheses; DOI number (whenever available). Refer to the following examples:

Journals

Neinast, G. and Knox, C., 1974, Normalization of Well Log Data, *The Log Analyst*, **15**(2), 18–25.

Journel, A.G., 2002, Combining Knowledge From Diverse Sources: An Alternative to Traditional Data Independence Hypotheses, *Mathematical Geology*, **34**(5), 573–596.

Conference Papers

White, C.D., and Horne, R.N., 1987, Computing Absolute Transmissibility in the Presence of Fine-Scale Heterogeneity, Paper SPE-16011, presented at the SPE Symposium on Reservoir Simulation, San Antonio, Texas, USA, 1–4 February.

Meeting Paper Included in a Printed Proceedings Volume

Priest, J., Frost, E., and Quinn, T., 2010, Short-Time-Span Petrophysical and Formation Properties Variation, Paper VV, *Transactions, SPWLA 51st Annual Logging Symposium*, Perth, Australia, 19–23 June.

Wang, H., Wu, P., Rosthal, R., Minerbo, G., and Barber, T., 2008, Modeling and Understanding the Triaxial Induction Logging in Borehole Environment with Dip Anisotropic Formation, *SEG International Exhibition and Annual Meeting Technical Program Expanded Abstracts*, 309–313.

Books, Ph.D. Theses, and Reports

Lake, L., 1989, *Enhanced Oil Recovery*, Prentice Hall, Englewood Cliffs, New Jersey.

Chapter in a Book
Somasundaran, P., 1975, Interfacial Chemistry of Particulate Flotation, Chapter 1, *in* Somasundaran, P., and Grieves, R.B., editors, *Advances in Interfacial Phenomena of Particulate/Solution/Gas Systems*, 1–15, Symposium Series, AIChE, New York City.

Appendices: Use appendices for mathematical derivations and supporting material too detailed to be included in the body of the paper. The use of appendices avoids unnecessary digressions in the main flow of the arguments leading to the examples and conclusions.

Figures: Together with their captions, figures should be self-explanatory, that is, understandable without reference to the text. In well logs and crossplot displays, each axis should be clearly labeled and include the corresponding measurement units. Legends should also include the corresponding measurement units.

Tables: Tables are used to summarize or described data, models, measurements, and simulation variables.

Figure Captions and Table Titles: Figures have captions that appear beneath the figure and are concise descriptions of what is shown in the figure. These are in sentence format. Tables have titles in capitals that appear above the table. They should describe the contents concisely. Notes pertaining to table contents will appear below the table.

About the Author(s): This section provides a brief outline of the education, career accomplishments and contributions, professional affiliation and position, and work on current projects. Brief paragraphs about the author(s), with the inclusion of a portrait-type photograph of each author showing head and shoulders can be included as well; scanned photos are not acceptable.

Measurement Units: SPWLA prefers metric units but accepts either English or metric units. When using English units, provide conversions to metric units in parentheses.

Bullets and Item Numbering: Avoid using bullets even though they are now very common in presentations. The paper is a narrative and you should not attempt to make your point in a single abbreviated line of text.

Topic and Subtopic Headings: Headings should be followed by some amount of discussion. If you find that each of your headings merits only a sentence or two, this is an indication that you are merely enumerating items with headings; consider a table instead.

Style Guides: The SPE style guide (2015–2016), available from Society of Petroleum Engineers (http://www.spe.org/authors/docs/SPE-Style-Guide-2015-16.pdf) is a good summary of style, nomenclature, abbreviations and spelling for the oil industry.

MANUSCRIPT SUBMISSION INSTRUCTIONS

Registration and Login

To register with the peer review system, go to http://www.editorialmanager.com/spwla. Click on **Register Now** and follow the instructions. You will receive an email notifying you of your registration, Login ID, and password.

Main Menu

Once you have registered and signed in, you will be directed to the **Main Menu**. There will be three boxes in your main menu: *New Submissions*, *Revisions*, and *Completed*. From these boxes you can perform the following tasks:

New Submissions:
- Submit manuscripts
- Check submission status
- Check status of submissions

Revisions:
- Check for required revisions
- Submit revisions
- Check status of revisions

Completed:
- Check for decisions

Submitting a Manuscript

As a corresponding Author, your role in the review process begins when you submit (or are requested to submit) a manuscript. Click on the link in your email or login directly and select **Submit New Manuscript** from the *New Submissions* box. This will take you to the *New Submission* screen.

Title

Select article type and click **Next** to move to the *Title* page. Enter a full title (watch for word limits) in the box provided.

Contributing Authors

Click **Next** to move to the *Add, Edit* or *Remove Authors* screen. On this screen you may
- provide information on contributing authors by clicking “Add Author”,

- assign a corresponding author by checking the box,
- or move on to the *Abstract* screen by clicking click **Next**.

After you have entered the information for a Contributing Author, click **Add Author** to clear fields to add another author.

Abstract

On the *Abstract* screen you can either type in the abstract or use cut-and-paste the manuscript abstract (250 word limit). Click **Next** at the bottom of the screen to continue to the *Classifications* screen.

Classifications

On the *Classifications* screen you may choose classifications (limit to 5) for your manuscript by selecting **Select Classifications**. Click **Next**.

Additional Information

This takes you to an *Additional Information* screen. Questions requiring a response will show "Answer Required" in the left margin. Answer all required questions and provide the required information before clicking **Next** at the bottom of the screen.

Building Your Manuscript

You are now ready to attach the files for your manuscript. On the *Attach Files* screen select the item for each attachment from the drop-down menu at the top of the screen. Type a name for each file in the "Description" window (the default will be the item selected). Enter the file name or use the "Browse" button to locate and select the file. Click **Attach This File** to add the file to your manuscript. You can change the order of the files before you proceed by numbering them sequentially and clicking on **Update File Order**.

After you have added all files and placed them in the correct order, click **Next** to build your PDF file. Make sure that all files are accounted for in the table and click **Build PDF for my Approval. Please Note: You are not finished with submission process.**

Approve Submission

Click on **Submissions Waiting for Author's Approval** to ensure the PDF file has been built. You will be taken to the *Submissions Waiting for Approval by Author* screen. You cannot check or approve your submission until Action Links appears. If the action column is blank, please wait until Action Links appears before continuing.

The **Action Links** drop-down menu allows you to view, edit, approve and/or remove your submission. You must first view the submission. Select **View Submission** to open your files, view them for accuracy and to verify that they appear as you want them.

Select **Edit Submission** to return to the *New Submission* screen. Select the area of your submission you would like to edit from the categories on the left. Clicking on the Approve Submission in the Action Links will bring up a confirmation box. Click "Ok" to go to the *Author's Confirmation* page.

Submitting Revisions

You will receive an email if the Editorial Staff determines that your manuscript requires revisions (major or minor) before further consideration for publication. Resubmit the revised manuscript will restart the review process.

To make revisions, access the manuscript using the link in the notification email or by direct login to Editorial Manager and clicking on **Submissions Needing Revision** in the *Revisions* box on your Main Menu.

Select **Revise Submission** from the Action Links on the *Submissions Needing Revision* screen. This will bring up a confirmation pane. Click "OK" to proceed. You will be directed to a *Revised Submission* screen where you will resubmit your revised manuscript. Tracking information and identification (such as Manuscript Number) will be carried over from the initial submission.

During the review process you will have the opportunity to include additional comments and to *Respond to Reviewers* (optional). These comments and responses will be viewed by the Editorial Staff and Reviewers, but will not appear in your manuscript.

Original files can be included or excluded by using the check boxes at the bottom of the screen. New files are added via the *Attach Files* screen in the same manner as in the original submission. Select item type from the dropdown menu. Provide a description or name for the file. Browse to locate and identify the file and attach it.

At the bottom of the *Please Attach Files* screen you will see an inventory. If you rearrange the files click **Update File Order**. Click **Next** to proceed to the *Summary* screen.

Verify that all of your files are included and click **Build PDF for my Approval**. After the PDF file is built, check and approve it. This will initiate the process for *Submission and Revisions*.

Check Status and Revisions

After the revised manuscript has been submitted it will appear in the *Revisions* box on your Main Menu under *Revisions Being Processed*. The following Action Links are available: **View Revision**, **View Invitation Letter**, and **Send Email**. Click on **Send Email** to send a request for a Deadline Extension on a revision.