

APEGA Discipline Committee Decision

Date: May 15, 2014 Case No.: 13-001-FH

IN THE MATTER OF THE ENGINEERING AND GEOSCIENCE PROFESSIONS ACT AND IN THE MATTER OF THE CONDUCT OF [PROFESSIONAL GEOLOGIST A] AND PENN WEST PETROLEUM LTD.

Editor's Note: *The PEG* publishes all APEGA Discipline Committee decisions that include findings against Members. Names and other identifying information are included unless the decision recommends otherwise. Decisions are published almost verbatim; they are reproductions of regulatory records and therefore subject to only minor editing.

These matters came up for hearing before a panel of the Discipline Committee (the Panel) on February 25, 2014 at the offices of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) in Calgary, Alberta. Both the Investigative Committee and [PROFESSIONAL GEOLOGIST A] /Penn West Petroleum Ltd. ("Penn West") were represented by counsel.

CHARGES

The charges that have been brought by the Investigative Committee against [PROFESSIONAL GEOLOGIST A] and Penn West, as contained in the formal notice of hearing, are as follows:

1. That on or about September 7, 2010 to November 16, 2011 [PROFESSIONAL GEOLOGIST A] gave sworn evidence before the Court regarding the calculation of the drainage area of a natural gas well as a factor in determining natural gas royalties when he knew or ought to have known that his evidence was erroneous or misleading in one or more of the following respects:
 - a. It ignored available wellhead data;
 - b. It ignored the dynamic reservoir conditions;
 - c. It ignored the permeability of the surrounding media;
 - d. It ignored pressure gradients throughout the drainage area;
 - e. It ignored drainage area boundary conditions;
 - f. It ignored variability in the spatial distribution of fugacious substances including natural gas throughout the drainage area;
 - g. It ignored variability in the gas recovery factor with the distance from the well bore; and
 - h. It ignored variability in the gas recovery factor between early stages of production with radial gas flow to the well bore and later stages of production without radial gas flow to the well bore.
2. That on or about September 7, 2010 to November 16, 2011 [PROFESSIONAL GEOLOGIST A] gave sworn testimony before the Court regarding the calculation of the drainage area of a natural gas well as a factor in determining natural gas royalties notwithstanding that he lacked expertise in that field of practice, contrary to Code of Ethics Rule of Conduct #2.
3. That on or about September 7, 2010 to November 16, 2011 Penn West Petroleum Ltd. called sworn evidence before the Court regarding the calculation of the drainage area of a natural gas well as a factor in determining natural gas royalties when it knew or ought to have known that this evidence was erroneous or misleading in one or more of the following respects:
 - a. It ignored available wellhead data;
 - b. It ignored the dynamic reservoir conditions;
 - c. It ignored the permeability of the surrounding media;
 - d. It ignored pressure gradients throughout the drainage area;
 - e. It ignored drainage area boundary conditions;
 - f. It ignored variability in the spatial distribution of fugacious substances including natural gas throughout the drainage area;
 - g. It ignored variability in the gas recovery factor with the distance from the well bore; and
 - h. It ignored variability in the gas recovery factor between early stages of production with radial gas flow to the well bore and later stages of production without radial gas flow to the well bore.
4. That on or about 2004 to 2012 Penn West Petroleum Ltd.:
 - a. submitted Permit to Practice Reports to APEGA in which Penn West Petroleum Ltd. undertook to ensure that the Practice of the Professions within the organization was managed by a written Professional Practice Management Plan, and then failed to comply with the undertakings provided; and
 - b. failed to have in place and/or to follow a Professional Practice Management Plan appropriate to its professional practice, contrary to s. 48 of the *Engineering, Geological and Geophysical Professions Act* and/or the *Guideline for Professional Practice Management Plans*.

IT IS FURTHER ALLEGED that the conduct described above constitutes unprofessional conduct and/or unskilled practice as defined in s. 44 of the *Engineering, Geological and Geophysical Professions Act*.

AGREED STATEMENT OF FACTS AND ADMISSION OF UNPROFESSIONAL CONDUCT OR UNSKILLED PRACTICE

At the outset of the hearing, the Investigative Committee and [PROFESSIONAL GEOLOGIST A]/Penn West jointly submitted an Agreed Statement of Facts and Admission of Unprofessional Conduct or Unskilled Practice, attached to this decision as Schedule A.

FINDINGS AND REASONS

Having heard from counsel for the parties, and having had the opportunity to further consider the agreed statement and admission, the Panel finds that [PROFESSIONAL GEOLOGIST A]'s conduct constituted unskilled practice and unprofessional conduct with respect to charges 1 and 2. The Panel also finds that Penn West's conduct constituted unprofessional conduct with respect to charge 3 and charge 4a. Herein are the Panel's reasons for the findings.

Charges 1 and 2

Charge #1 states: "That on or about September 7, 2010 to November 16, 2011 [PROFESSIONAL GEOLOGIST A] gave sworn evidence before the Court regarding the calculation of the drainage area of a natural gas well as a factor in determining natural gas royalties when he knew or ought to have known that his evidence was erroneous or misleading in one or more respects". (see Charges above)

Charge #2 states: "That on or about September 7, 2010 to November 16, 2011, [PROFESSIONAL GEOLOGIST A] gave sworn testimony before the court regarding the calculation drainage area of a natural gas well as a factor in determining natural gas royalties notwithstanding that he lacked expertise in the field of practice, contrary to Code of Ethics Rule of Conduct #2

[PROFESSIONAL GEOLOGIST A] utilized a simplified volumetric method for estimating drainage radius that failed to account for the physics of radial flow through permeable media under dynamic conditions. The volumetric method used is less accurate and not commonly used in the Industry to determine drainage radius for operating wells. The result was an

erroneous calculation of drainage radius. It was also noted that [PROFESSIONAL GEOLOGIST A] is not a Professional Engineer and from his curriculum vitae. . .there is no mention of expertise in determining well drainage areas. Failure to utilize the appropriate calculation method for determining well drainage area in a case involving offset compensation, combined with [PROFESSIONAL GEOLOGIST A]'s technical background and admission of unskilled practice are the key factors that support the charge of unskilled practice.

As outlined above [PROFESSIONAL GEOLOGIST A] was not experienced in the determination of well drainage area under radial flow conditions. Notwithstanding his lack of expertise [PROFESSIONAL GEOLOGIST A] agreed to act as an expert witness and gave sworn evidence in Court that his simplified method for determining drainage area was appropriate and that his results would be similar to what others would conclude, within a few percent. Further, in his Court testimony, while [PROFESSIONAL GEOLOGIST A] advised that his method of calculation was very basic, he failed to explain that his assumptions disregarded the physics of radial fluid flow and that a more accurate method was available. These factors when combined with [PROFESSIONAL GEOLOGIST A]'s admission of unprofessional conduct supports the charge of unprofessional conduct.

Taken together, these actions contravene s. 44 of the *Engineering and Geoscience Professions Act*.

Charge 3

Charge 3 states: "That on or about September 7, 2010 to November 16, 2011 Penn West Petroleum Ltd., called sworn evidence before the Court regarding the calculation of the drainage area of a natural gas well as a factor in determining natural gas royalties when it knew or ought to have known that the evidence was erroneous or misleading in one or more respects". (see Charges above)

According to the agreed joint statement of facts, Penn West requested and reviewed [PROFESSIONAL GEOLOGIST A]'s expert witness statement and called him as a witness to give testimony explaining

his expert witness statement and his determination of well drainage area. As an APEGA Permit Holder, Penn West should have known the limitations of [PROFESSIONAL GEOLOGIST A]'s expertise in reservoir engineering calculations and limited his testimony to that of a petroleum geologist, which was the basis on which [PROFESSIONAL GEOLOGIST A] was qualified as an expert witness. Additionally, Penn West failed to advise the Court, through [PROFESSIONAL GEOLOGIST A]'s testimony or elsewhere, that more accurate methods of determining drainage radius were available. For these reasons and Penn West's acknowledgement that its actions constituted unprofessional conduct and/or unskilled practice the Panel agrees with the charge of unprofessional conduct within the meaning of s. 44 of the *Engineering and Geoscience Professions Act*.

Charge 4a

Charge 4a states: "That on or about 2004 to 2012 Penn West Petroleum Ltd. submitted Permit to Practice Reports to APEGA in which Penn West Petroleum Ltd. undertook to ensure that the Practice of the Professions within the organization was managed by a written Professional Practice Management Plan, and then failed to comply with the undertakings provided."

Since Penn West was unable to produce a Professional Practice Management Plan (PPMP) for the period in question the Panel agrees with charge 4a as stated above and that these actions constituted unprofessional conduct within the meaning of s. 44 of the *Engineering and Geoscience Professions Act*.

It was noted in the agreed statement of facts that Penn West has since prepared a PPMP.

Charge 4b

The Investigative Committee in the course of the hearing withdrew charge 4b. This action is consistent with a similar decision by the Discipline Committee Panel in Case 11-008-FH and thus this Panel concurs with the action of the Investigative Committee.

Although the Investigative Committee withdrew charge 4b against Penn West, the Panel has decided to provide more generic

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comment on the topic of a Professional Practice Management Plan (PPMP). The PPMP is one part of an APEGA Permit Holder’s management system designed to ensure that appropriate standards of professional practice are maintained. If such management systems are missing or not followed, not only is the risk of regulatory non-compliance increased, but also the risk of lower quality technical work products. This increased risk could have an impact on the public’s safety, business performance and the individual conducting the work. And while the charges against [PROFESSIONAL GEOLOGIST A] were not attributed to the absence of a PPMP, this component of Penn West’s management systems might have proven beneficial.

ORDERS

After receiving the Panel’s oral findings regarding the charges, counsel for the parties submitted a Joint Submission on Penalty (Sanctions), attached as Schedule B. Sanction (c), against [PROFESSIONAL GEOLOGIST A], was withdrawn by the parties after the Panel requested additional information to support the sanction, as

worded. In particular, the Panel was concerned that the sanction implied that [PROFESSIONAL GEOLOGIST A] would be permitted to practice in the field of reservoir engineering despite not being qualified to do so. The Panel referenced s. 2 of the *Engineering and Geoscience Professions Act* which states in part “Except as otherwise provided in this Act, no individual ... except a professional engineer ... shall engage in the practice of engineering.” The parties did not offer any exceptions, permitted under the Act, which might apply to [PROFESSIONAL GEOLOGIST A].

Having carefully considered the joint submission and associated changes made by the parties during the course of the Hearing, the Panel provides the following orders:

As against [PROFESSIONAL GEOLOGIST A]:

1. [PROFESSIONAL GEOLOGIST A] shall pay a fine in the amount of \$2,500.00 within 60 days of the date of this decision;
2. Within 12 months of the date of this decision, [PROFESSIONAL GEOLOGIST A] shall successfully complete an APEGA Professional Practice Examination;

3. [PROFESSIONAL GEOLOGIST A] shall pay \$14,689.92, which represents 50% of the costs of the Discipline Committee hearing in accordance with APEGA bylaw 36. This amount shall be paid within 60 days of the date of this decision;
4. Details of this matter will be published in *The PEG* magazine without identifying [PROFESSIONAL GEOLOGIST A].

As against Penn West Petroleum Ltd.:

1. Penn West Petroleum Ltd. shall pay a fine in the amount of \$10,000.00 within 60 days of the date of this decision;
2. Penn West Petroleum Ltd. shall pay \$14,689.92, which represents 50% of the costs of the Discipline Committee hearing in accordance with APEGA bylaw 36. This amount shall be paid within 60 days of the date of this decision;
3. Details of this matter will be published in *The PEG* magazine with Penn West Petroleum Ltd. identified by name.

Dated this 15th day of May 2014

RICHARD RODGERS, P.ENG.
Discipline Committee Panel Chair