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 (BAKER BOTTS LLP LOGO)

February 28, 2005

VIA EDGAR TRANSMISSION

U.S. Securities and Exchange Commission
Division of Corporate Finance
450 Fifth Street, N.W.
Mail Stop 0405
Washington, D.C. 20549

Re: **Dawson Geophysical Company**
Registration Statement on Form S-3
File No. 333-121236

Form 10-K for the year ended September 30, 2004
Filed December 10, 2004
File No. 0-10144

Definitive Proxy Statement on Schedule 14A
Filed December 10, 2004

Ladies and Gentlemen:

You have asked that the Staff be supplementally informed whether the statements attributed to Mr. Decker Dawson, the Chairman and Chief Executive Officer of Dawson Geophysical Company (the "Company") as set forth in the Dow-Jones News Service article of February 25, 2005 (the "Article") are consistent with statements in the above-referenced Registration Statement and the Company's other periodic reports filed with the Commission. As set forth further below, the Company has informed us that they do believe that all such statements attributable to the Company in such Article are fully consistent with the Registration Statement, the prospectus contained therein and in the other reports filed by the Company with the Commission.

Factual Background

The Company has confirmed to us that it is aware of its legal obligations during the registration process and has put in place measures to ensure that officers, directors and other employees of the Company understand these obligations and do not

talk to the press and others during registration. Prior to the filing of the initial Registration Statement, the Company circulated a memorandum stating that no person was to talk to the press or others during the registration process without prior approval.

Although it is fair to say that the process was not followed to the letter in this case, neither the Company nor Mr. Dawson sought out the publicity. According to Mr. Dawson, this was a routine press inquiry which was received sometime during the past two to three weeks. During his more than fifty year tenure at the Company which he founded, Mr. Dawson has received many such calls as a routine matter. At the time he spoke to the reporter, Mr. Dawson was unaware that his responses were to be part of a article.

The Statements in the Press Release

The following are the statements attributed to Mr. Dawson in the article and the portions of the prospectus and other disclosure documents which cover the same topic.

- Statement No. 1.: “We’ve just been expanding like crazy”

Throughout the prospectus the Company has disclosed the fact of its rapid recent growth as a result of the increase in demand for its services. The third paragraph of the Summary states: “With increasing demand for our services we have expanded our business from six seismic data acquisition crews in 2000 with approximately 20,000 recording channels to the current configuration of ten crews with more than 46,000 channels.” Additional disclosure in the prospectus regarding the Company’s rapid growth can be found in “Summary—Recent Developments,” the MD&A (specifically in “—Overview,” “—Highlights of the Quarter Ended December 31, 2004” and “—Fiscal 2004 Highlights”) and in Business—General. Identical disclosure has also been made by the Company in its most recent Form 10-K and Form 10-Q.

- Statement No. 2: Dawson clients are “really looking hard” for the compound [natural gas].

The Company has disclosed that the level of domestic exploration and development of its clients and the industry generally has increased significantly in its prospectus. In the prospectus, the disclosure states that “higher commodity prices have lead to a significant increase in the level of spending for the domestic exploration and development of oil and gas reserves.” (Prospectus, page 3). This disclosure is repeated throughout the prospectus, including in Risk Factors (the first risk factor), MD&A (specifically in “—Overview,” “—Highlights of the Quarter Ended December 31, 2004” and “—Fiscal 2004 Highlights”) and Business—General. Identical disclosure has also been made by the Company in its most recent Form 10-K and Form 10-Q.

- Statement No. 3: “We just start working real hard on the business it left behind,” Dawson said of Western Geophysical. “We’re now the No. 1 operator in the lower 48 states. This is something new for us to be a leader.”
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The Company has disclosed in its prospectus that its market position has improved, in part, as a result of the departure of its principal competitor, Western GECO, from the Company's market in 2003. This fact is disclosed in the "Recent Developments" section of the prospectus Summary (on pages 1-2) and in "Business — Competition" (page 26). In addition, the Company has disclosed on pages 1, 15 and 23 of the prospectus that it is the leading provider of onshore seismic data acquisition services. Identical disclosure for both of these items is also included in the Company's most recent 10-K.

- Statement No. 4: "We're spending money faster than we can make it"

This statement refers to the fact that, because of the Company's rapid growth, the Company's cash generated from operations (its traditional source of funds for capital expenditures) is not sufficient to provide for its near-term capital expenditures. This fact is well disclosed in the Liquidity and Capital Resources section of the prospectus (pages 18-20). That section discusses at length the Company's capital requirements, the Company's tapping of various financing sources, including the offering and a new credit facility for its capital requirements, and the Company's need to tap sources other than cash generated from operations to continue its capital expansion. Finally, the Company has disclosed in Risk Factors (the eighth Risk Factor) that its capital requirements are large and potentially subject to uncertainty. Virtually identical disclosure is also found in the Company's most recent Form 10-K.

- Statement No. 5: "We're scouring the world for equipment"

The Company has disclosed in the prospectus that it is expanding (see the discussion of Statement No. 1, above) and throughout the prospectus has disclosed that it is continually in the market for more and better equipment, particularly increased channel count. See the Prospectus Summary ("—Business Strategy" (last bullet) and"—Recent Developments"), MD&A—Overview and Business ("—General","—Business Strategy","—Data Acquisition" and"—Equipment Acquisition and Capital Expenditures").

We also note that there are a number of other general statements about Dawson in the article which were not attributed to Mr. Dawson and which he did not supply. The statements that the Company has (i) added three seismic data crews during 2004 and an additional crew, its tenth, in January, (ii) sufficient orders to sustain operations at full capacity well into fiscal 2005 and (iii) board approval for additional capital expenditures and to field a new crew are taken directly from the prospectus and can be found on pages 2, 15 and 19, respectively, of the prospectus.

Conclusion

Once again, the Company has confirmed to us that it understands its obligations during the registration process, including the quiet period and that it will

take steps to ensure that all of its officers, directors and employees are aware of these obligations and follow the prescribed procedures in the future.

Please do not hesitate to contact me at 214.953.6419, or my partner Neel Lemon at 214.953.6954, if we can be of any further assistance in this matter.

Very truly yours,

/s/ Sarah Rechter

Sarah M. Rechter

cc: L. Decker Dawson
Stephen C. Jumper
Christina W. Hagan
Nicholas C. Taylor, Esq.
Thomas P. Mason, Esq.
Neel Lemon, Esq.