DAWSON GEOPHYSICAL COMPANY

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January 23, 2009

VIA FACSIMILE AND EDGAR TRANSMISSION

Memorandum for Securities and Exchange Commission 100 F. Street, N.E. Washington, D.C. 20549

Re: Dawson Geophysical Company
Form 10-K for the Fiscal Year Ended September 30, 2008
Filed December 9, 2008
File No. 0-10144

This memorandum sets forth the responses of Dawson Geophysical Company (the "Company") to the comments provided by the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") in its comment letter dated January 13, 2009 (the "Comment Letter") with respect to the Company's annual report on Form 10-K for the Fiscal Year Ended September 30, 2008 (File No. 0-10144) (the "Registration Statement"). As requested by the Staff, the Company will address the Staff's comments in this response letter and on an ongoing basis in our future annual and quarterly reports and in our next proxy statement. For your convenience, we have repeated each comment of the Staff in bold type face exactly as given in the Comment Letter and set forth below such comment is our response. In each case below where we have proposed amending the Company's disclosure in response to the Staff's comments, we have underlined new text and struck out old text.

Disclosure Regarding Forward-Looking Statements, page 2

 Please confirm to us in writing that, in future filings, you will revise your introductory paragraph to limit your forward looking statements language. To say that all statements other than those of historical fact are forward-looking statements is overly broad. We direct your attention to Section 21E(i)(1) of the Exchange Act.

The Company confirms that in all future filings it will amend the first sentence of the introductory paragraph to its forward-looking statements language to read as follows:

"All statements other than statements of historical fact included in this Form 10-K that relate to forecasts, estimates or other expectations regarding future events, including without limitation statements under "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business" regarding technological advancements and our financial position, business strategy and plans and objectives of our management for future operations, are

may be deemed to be forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act")."

Clients, page 5

2. We note that Chesapeake Energy Corporation and SandRidge Energy, Inc., represented 36% and 20% of your revenues, respectively. Please file the master service agreements that you have with these customers as exhibits. In this regard, we note that you have already filed a form agreement as exhibit 10.10.

The Company intends to file the Company's Master Service Agreements with Chesapeake Energy Corporation and SandRidge Energy, Inc. as exhibits to its Quarterly Report on Form 10-Q for the quarter ended December 31, 2008, to be filed on or before February 9, 2009. The Company has also provided a copy of these agreements on a supplemental basis for the Commission's information.

Preliminary Proxy Statement on Schedule 14A

3. Please confirm in writing that you will comply with the following comments in all future filings. Provide us also with an example of the disclosure you intend to use in each case. After our review of your responses, we may raise additional comments.

The Company confirms that it will comply with the Staff's comments in all applicable future filings.

Competitive Considerations, page 6

4. We note your statement that "[b]oth our Compensation Committee and Chief Executive Officer ("CEO") consider known information regarding the compensation practices of likely competitors when reviewing and setting the compensation of all our officers, including the Named Executive Officers." Please explain to us on a supplemental basis whether you benchmark compensation to comparator companies. See Item 402(b)(2)(xiv) of Regulation S-K and Regulation S-K Compliance and Disclosure Interpretation Question 118.05. To the extent you benchmark compensation, please specify how each element of compensation relates to the data you analyzed from the comparator companies. Include a discussion of where you target each element of compensation against the peer companies and where actual payments fall within targeted parameters. To the extent actual compensation fell outside a targeted percentile range, please explain why.

The Company, including the Compensation Committee, does not formally benchmark its officer compensation against any peer group or against comparator companies. However, when making compensation decisions, Company management does seek, on an informal basis, to understand the general compensation practices of its likely competitors to the extent that such information is available from public sources.

In response to the Staff's comment, the Company will revise its disclosure in future filings to make clear that it does not formally benchmark compensation. The new disclosure would read generally as follows:

"We believe the competition for talented employees goes well beyond the seismic industry to include oil and gas exploration <u>companies</u>, <u>and</u>development companies and oilfield service companies. Many of the companies with whom we compete for top level talent are larger and have more financial resources than we do. Both our Compensation Committee and Chief Executive Officer ("CEO") consider known information regarding the compensation practices of likely competitors, to the extent that such information is available from <u>public sources</u>, to form a general understanding of our <u>competitors</u> current <u>compensation practices</u> when reviewing and setting the compensation of all our officers, including the Named Executive Officers. <u>In past years</u>, however, the <u>Compensation Committee</u> and the CEO have not formally benchmarked officer compensation against any peer group, and they do not directly base their <u>compensation decisions on any peer group or component company information</u>."

Short-Term Incentive Compensation, page 8

5. For each Named Executive Officer, provide the disclosure required by Item 402(b)(1)(v) of Regulation S-K with regard to the discretionary cash bonuses awarded in fiscal 2007. Explain how the amount awarded was determined and if a formula was used.

In response to the Staff's comment, the Company will revise its disclosure in future proxy statements generally as follows:

"The Named Executive Officers participate in our profit sharing program, along with all other eligible employees. The profit sharing program is designed to award our employees for the financial success of the Company. With respect to each fiscal year, our Board of Directors, acting on the recommendation of our Compensation Committee, determines a pool amount available to be allocated in the first quarter of the following fiscal year to all eligible employees, including the Named Executive Officers. For both fiscal 2008 and fiscal 2007, our Board of Directors set the pool at 5% of our pre-tax net income for the applicable fiscal 2008 year. The distribution of the pool to eligible employees is based upon a variety of factors including formula consisting of base salary, seniority and an internal value of the position and seniority, or "position code." The position code starts at 1 for all employees and increases pursuant to internal value of the position up to 1.25 for senior officers. The bonus pool is then allocated to each eligible employee on a pro rata basis according to the formula. The fiscal 2008 and fiscal 2007 profit sharing awards paid to our Named Executive Officers are included in the Summary Compensation Table on page 12. In September 2008, our Board of Directors preliminarily set the fiscal 2009 allocation for the profit sharing plan at 5% of our pre-tax net income for fiscal 2009.

We also use Based upon the Company's financial results, the Board of Directors may approve an additional cash bonus is disbursed to employees along with the profit sharing program. We believe this additional short-term incentive compensation enables us to maintain our flexibility to meet market and competitive demands. Accordingly, eligible employees, including each Named

Executive Officer, were awarded discretionary cash bonuses in November 2008 and December 2007. Bonus amounts were For fiscal 2008, this bonus pool was approximately \$600,000 and for fiscal 2007, the bonus pool was approximately \$500,000. Management awards bonuses out of the available pool based upon a variety of factors including perceived competitive pressures, base salary, internal value of the position and seniority; however, management does not use a set formula for distribution. In fiscal 2008, these discretionary bonuses ranged from \$5,000 to \$40,000 and were distributed to over 50 employees ranging from the Named Executive Officers to field management. In fiscal 2007, these discretionary bonuses ranged from \$2,500 to \$40,000 and were distributed to over 47 employees. The fiscal 2008 and fiscal 2007 bonus amounts paid to our Named Executive Officers are included in the Summary Compensation Table on page 12."

Long-term Equity Incentive Compensation, page 8

6. For each Named Executive Officer, provide the disclosure required by Item 402(b)(1)(v) of Regulation S-K with regard to the Long-Term Equity Incentive Compensation for fiscal 2007. Explain how the amount awarded was determined and if a formula was used.

In response to the Staff's comment, the Company will revise its disclosure in future proxy statements generally as follows:

"Our Compensation Committee recommends to our Board of Directors the equity awards to be made to each Named Executive Officer prior to the grant of such equity awards by the Board of Directors. Although the Compensation Committee does not use a set formula to make these grants, the Compensation Committee generally determines awards based on a number of factors, including the current price of our stock, individual merit, the Company's overall performance, and the size of the individual's overall compensation package. The Company's ultimate goal with any equity award is to align executive interests with Company interests, to reward long-term achievement and to promote retention. Grants of equity may be made at any time during the year, although typically an award is made to each Named Executive Officer at the beginning of each fiscal year. We do not time the release of material non-public information with the purpose of affecting the value of executive compensation."

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As requested by the Commission, the Company hereby acknowledges:

- It is responsible for the adequacy and accuracy of the disclosure in its filings;
- Staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing;
- It may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you have any questions or comments regarding this memorandum, please contact Sarah Rechter of Baker Botts L.L.P. at (214) 953-6419 or, in her absence, Neel Lemon of Baker Botts L.L.P. at (214) 953-6954.

Dawson Geophysical Company

/s/ Christina W. Hagan

Christina W. Hagan Executive Vice President, Secretary and Chief Financial Officer

cc: Sean Donahue John Madison Securities and Exchange Commission

> Stephen C. Jumper Dawson Geophysical Company

Sarah Rechter Baker Botts L.L.P.