

January 12, 2005

via U.S. mail

Mr. L. Decker Dawson
Chief Executive Officer
Dawson Geophysical Company
508 West Wall, Suite 800
Midland, Texas 79701

Re: Dawson Geophysical Company
Form S-3 filed December 14, 2004
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

Dear Mr. Dawson:

We have reviewed your filings and have the following comments. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. Because some of our comments might apply to disclosure that appears in more than one place, please make corresponding changes to all affected disclosure, wherever it appears in your documents. For example, make corresponding revisions to the Risk Factors disclosure that appears in your Form 10-K.
2. You frequently use industry or technical terms without explaining the terms to the reader. Whenever possible, provide disclosure regarding your business that will be comprehensible to those without industry expertise. For example, at page 19 of the prospectus, you refer without explanation to "vibrator energy sources" and also indicate:

"Shear waves are another type of seismic energy propagation, analysis of which may allow for a more detailed picture of the earth's subsurface. Our equipment includes energy sources and geophones capable of generating and recording shear waves."

Form S-3

General

3. Fill in blanks, provide updated and current disclosure and supply all omitted exhibits. For example, we refer you to pages 1 (new crew scheduled for January 2005), page 8 (proceeds), page 23 (five year experience with titles or positions held by Mr. Nelson), page II-1 (estimated amounts), as well as exhibits 1.1 and 5.1. We may have additional comments once you provide this information. If any of this information might change prior to effectiveness of the registration statement, you may include brackets or other means to make this clear.

Table of Contents, page ii

4. The first and last sentences in the paragraph following the table are inappropriate. For example, you incorporate information by reference yet suggest that readers may only rely on the prospectus. Another example of inappropriate language is the suggestion at page 24 that the descriptions of your stock and corporate documents are incomplete, rather than making clear that you have summarized accurately the material provisions in each case. Please revise accordingly.

Prospectus Summary, page 1

5. You include assertions at pages 1, 2 and 13 regarding your status as "the" leading provider, although the disclosure at page 13 includes an additional limitation on the assertion. Provide us with independent supplemental support for these assertions, and revise the disclosure as appropriate. For example, clarify whether your leadership status is based upon total revenues, market share or some other criteria. We may have additional comments.

6. Because you need to include a discussion of all material risk factors in your Risk Factors section, revise the disclosure at page 2 to eliminate the suggestion that the reader might need to read through all the materials in order to find this information.

Risk Factors, page 5

7. Eliminate language that tends to mitigate the risk you discuss. Examples include "[h]owever, we have attempted to reduce," "we have not suffered any material losses of equipment," "[w]e have not experienced any material loss," we carry "adequate insurance" and "[a]lthough such expenditures historically have not been material." Also, rather than indicating that there is no "assurance" or that you "cannot assure" a particular outcome, instead focus on the potential harm to you or the investor.

8. Focus your subheadings and text to identify the risk and potential harm concisely and precisely. You provide excess detail in the first risk factor, for example. Several captions merely state facts and fail to describe the risk that follows, including without limitation, "Our business is dependent on prices for oil and gas," "We face intense competition in our business," "Capital requirements for our operations are large and our ability to finance these requirements could be affected" and "Certain provisions of our charter and bylaws and our shareholder rights plan may make it difficult."

9. We note as a part of your operations you must obtain right of way usage from both public and private land and/or mineral owners. Please

supplementally tell us how you account for the acquired rights of way usage and how they are presented in the financial statements.

We may be unable to attract and retain key employees, page 6

10. Disclose if any of your "key personnel" are not under contract, and make clear how many employees you consider to be "key." If you do not have "key person" insurance for these individuals, so indicate.

Selected Financial Data, page 11

11. Indicate the information you are presenting is a summary of the selected financial data required by Item 301 of Regulation S-K, or alternatively, include selected financial data for the two years preceding September 30, 2002.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 13

Fiscal Year Ended September 30, 2004 Versus Fiscal Year Ended September 30, 2003, page 13

12. Your discussion provides limited insight into the underlying reasons for the variances depicted in your results of operations. Therefore, the extent to which your financial information is indicative of expected future results is unclear. Your disclosures should provide information about the quality and potential variability of earnings and cash flow, so that readers may ascertain the likelihood that past performance is indicative of future performance.

Please revise your results of operations discussion to include the facts and circumstances underlying material trends, uncertainties, demands, events and commitments. Please refer to Instructions 3 and 4 to Paragraph (a) of Item 303 of Regulation S-K, and FRC Section 501.12.b.4 for further guidance.

Additionally, when you attribute changes in significant items to more than one factor or element, breakdown and quantify the impact of each factor or element. Please refer to FRC Section 501.04 for further guidance.

Liquidity and Capital Resources, page 15

13. The discussion of your operating and investing activities appears to be brief and focuses on changes that are evident in your consolidated statements of cash flows. For example, your discussion of cash provided by operating activities, activities in the short-term investment portfolio and capital expenditures essentially reiterates the basic changes depicted in your consolidated statements of cash flows. Because you provide only limited insight into the reasons underlying the variances identified, the indicative value of your reported results is unclear. You provide no or limited discussion of the underlying drivers (e.g., cash receipts from the sale of goods and services and cash payments to acquire materials or labor). Please refer to the guidance in FRC Section 501.13, and revise your disclosure accordingly.

14. Please include a tabular disclosure of your contractual obligations, such as your operating lease and other obligations. Please refer to Instruction 5 to Paragraph (a) of Item 303 of Regulation S-K.

15. The disclosures of your critical accounting policies appear to be more descriptive of the accounting policies utilized, rather than any specific uncertainties underlying your estimates. These critical accounting policies appear to have critical judgment and estimation attributes, but the disclosures you provide do not sufficiently address these attributes.

Please revise your disclosures to address the material implications of the uncertainties that are associated with the methods, assumptions and estimates underlying your critical accounting estimates. Specifically, you should provide the following:

(a) An analysis of the uncertainties involved in applying the principle and the variability that is reasonably likely to result from its application.

(b) An analysis of how you arrived at the measure and how accurate the estimate or underlying assumptions have been in the past.

(c) An analysis of your specific sensitivity to change based on outcomes that are reasonably likely to occur and have a material effect.

Please refer to FRC Section 501.14 for further guidance.

16. In addition, it would appear you should address in your critical accounting policies discussion the estimates, variables and assumptions you utilize to determine your income tax provision. In this regard, we note a change in these attributes resulted in the elimination of your valuation allowance in 2004.

Underwriting, page 26

17. You include a number of statements purporting to limit or qualify the obligation of your underwriter to purchase shares, including reference to approval by "its counsel," and you indicate it might reject an order in whole or in part. Revise to make clear that you will amend the disclosure as necessary to reflect any material changes to the arrangements you describe. Also describe in necessary detail any provisions that are not commonly found in underwriting agreements. In the alternative, eliminate any potential for the reader to infer that the underwriter might not be fully committed once the agreement has been signed.

Electronic Distribution, page 28

18. The second paragraph includes internally inconsistent and inappropriate disclosure. For example, you suggest that, among other things, "the information on the underwriter's website ... has not been approved or endorsed by us or the underwriter ... and should not be relied upon...." Please revise accordingly.

Financial Statements, page F-1

Note 1 - Summary of Significant Accounting Policies, page F-7

Revenue Recognition, page F-8

19. On page 20 you indicate you provide services under either a turnkey agreement or a term agreement. Tell us and disclose in further detail how you recognize revenue under each of these types of contracts.

Note 3 - Property, Plant and Equipment, page F-10

20. Tell us what the property, plant and equipment amount you refer to as "Energy sources" represents.

Note 8 - Major Customers, page F-13

21. Disclose the total amount of revenues from each major customer as required by paragraph 39 of SFAS 131.

Exhibits and Financial Statement Schedules, page II-2

22. To the extent that you incorporate any exhibits by reference from previously filed documents with the Commission, identify the filing date of the document from which you are incorporating by reference.

Form 10-K for the period ended September 30, 2004

Exhibits, Financial Statement Schedules and Reports on Form 8-K, page 12

23. Please include a schedule of the valuation and qualifying account for the accounts receivable valuation allowance and other accounts that would qualify. Refer to Rules 5-04(c) and 12-09 of Regulation S-X.

24. File as exhibits all employment and other agreements with any of your executive officers, as Item 601(b)(10) of Regulation S-K requires. Ensure that you discuss all of the material terms of any employment agreements you have with executive officers. Also, if there have been any material changes to the form of "master geophysical data acquisition agreement" that you filed as an exhibit more than a year ago, please file the new agreement as an exhibit rather than incorporating by reference the outdated version.

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

Security Ownership, page 9

25. If known or readily ascertainable, disclose the natural person(s) who exercise voting and/or investment power with respect to each of the entities you list in the table. Include appropriate entries in the table, with explanatory notes if appropriate. See Exchange Act Rule 13d-3.

Closing Comments

Please amend your registration statement and those documents incorporated by reference in response to these comments. You may wish to provide us with a marked copy of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that

- * should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- * the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- * the company may not assert this action as defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

No other review of the registration statement has been made. All persons who are by statute responsible for the adequacy and accuracy of the registration statement are urged to be certain that all information required under the Securities Act of 1933 has been included. You are also reminded to consider applicable requirements regarding distribution of the preliminary prospectus.

Please direct questions regarding accounting issues and related disclosures to Yong Choi at (202) 942-5682 or, in his absence, to Jennifer Gallagher, at (202) 942-1923. Direct questions relating to all other disclosure issues to Jason Wynn, at (202) 824-5665 or, in his absence, to Timothy Levenberg, Special Counsel, at (202) 942-1896. Direct all correspondence to the following ZIP code: 20549-0405.

Sincerely,

H. Roger Schwall
Assistant Director

cc: Y. Choi

J. Gallagher
J. Wynn
T. Levenberg

via facsimile

Neel Lemon
Sarah Rechter
Baker Botts LLP
(214) 953-6503

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Dawson Geophysical Company
January 12, 2005
page 1

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-0405

DIVISION OF
CORPORATION FINANCE