



May 2, 2007

BY EDGAR AND OVERNIGHT COURIER

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Mail Stop 7010
Washington, D.C. 20549
Attention: Tracie Towner

Re: Helix Energy Solutions Group, Inc.
Annual Report on Form 10-K for the fiscal year ended December 31, 2006
Filed March 1, 2007
File No. 1-32936

Dear Ms. Towner:

In its letter dated April 18, 2007, the staff ("Staff") of the Securities and Exchange Commission ("SEC") provided to Helix Energy Solutions Group, Inc. ("Registrant") comments with respect to our Annual Report on Form 10-K for the fiscal year ended December 31, 2006 (the "Comments").

Set forth below are the responses of the Registrant to such Comments after discussions with the Registrant's independent registered public accountants and our independent petroleum engineers. The following numbered paragraphs repeat the comments for your convenience, followed by our responses to those comments.

Form 10-K for the Fiscal Year Ended December 31, 2006

Note 3 — Initial Public Offering of Cal Dive International, Inc., page 85

1. *We note that you reported a gain in your 2006 Statements of Operations of \$223 million in connection with proceeds received from the initial public offering of common stock by your subsidiary, Cal Dive International, Inc., also taking into account borrowing under a revolving credit facility. We understand from your disclosure on page 83 that you have adopted the income statement approach as your policy for recognizing gains on issuances of stock by subsidiaries, as described in IRQ 5 of SAB Topic 5:H.*

Please submit your underlying gain computations, indicating the book values of assets and liabilities conveyed, and showing how proceeds from both the stock issuances and credit

facilities factored into your result. Explain your rationale for recording gain in conjunction with your receipt of borrowings by the consolidated entity.

Response: In response to the Staff's comment, the total pre-tax gain of \$223.1 million (\$96.5 million after-tax) recorded by the Registrant resulted from three dividends as a result of the carve-out initial public offering ("IPO") of Cal Dive. First, we contributed certain assets and liabilities to Cal Dive. The assets and liabilities contributed to Cal Dive had a net book basis of \$355.7 million (i.e., our investment balance in Cal Dive). After the contribution of assets to Cal Dive, a \$78 million distribution (dividend 1) was paid to us to reimburse us for our debt incurred to acquire a significant portion of the Cal Dive assets which debt was legally prohibited from being contributed to Cal Dive with the assets. Immediately prior to the IPO, Cal Dive declared a \$122 million dividend (dividend 2) to us. The payment of the \$122 million dividend was made after the IPO. Both of these dividends were ultimately paid and funded from a new \$250 million Cal Dive credit facility which is non-recourse to us. As a result, these dividends reduced Cal Dive's net asset balance (and our investment balance) to \$155.7 million (\$355.7 million — \$78 million — \$122 million). Further, in December 2006 Cal Dive completed a carve-out IPO selling 26.5% of its outstanding shares for net proceeds of \$264.4 million. The IPO dividend was declared by Cal Dive prior to the IPO and the proceeds were then distributed to us as a dividend (dividend 3). This meant effectively we sold 26.5% of our investment in Cal Dive, which carried a book basis of \$41.3 million (26.5% X \$155.7 million) for \$264.4 million in proceeds resulting in a pre-tax book gain of \$223.1 million (\$264.4 million — \$41.3 million).

In summary, the declaration of the \$264.4 million dividend from Cal Dive reduced our investment in Cal Dive to negative \$108.7 million (\$155.7 million — \$264.4 million). Immediately after the IPO, Cal Dive had a book net asset balance of \$155.7 million, which required our investment balance to be adjusted to \$114.5 million (73.5%). As the Cal Dive IPO was, and is, not part of a broader corporate reorganization contemplated by us, we elected the income statement approach, in accordance with SAB Topic 5:H. The entry to adjust the investment balance resulted in a pre-tax gain of \$223.1 million (\$114.4 million — negative \$108.7 million).

The following table illustrates the effect of the dividend declarations on our investment in Cal Dive:

	(in millions)	
Net assets contributed to Cal Dive	\$ 355,741	
Dividend 1(a)	(78,000)	
Dividend 2(a)	(122,000)	
	155,741	
Dividend 3(b)	(264,401)	
Investment account prior to IPO(c)	(108,660)	
Cal Dive equity- post IPO	155,741	100.0%
Helix share of Cal Dive equity post IPO(d)	114,474	73.5%
Cal Dive equity sold in IPO	41,267	26.5%
Pre-tax gain ((d)-(c))	<u>\$ 223,134</u>	

(a) Cal Dive paid Helix the dividends declared with proceeds from the drawdown of its revolving credit facility.

(b) Cal Dive paid the dividends declared with the net proceeds from the initial public offering.

Engineering Comments

Risk Factors, page 18

Risk Relating to our Oil and Gas Operations, page 20

Estimates of our oil and gas reserves, future cash flows and abandonment costs may be significantly incorrect, page 21

2. We note your disclosure stating that your reserves may be "significantly incorrect," making it unclear as to whether you possess the geological and engineering data necessary to demonstrate with reasonable certainty that you would be able to recover the proved reserves that you report in the filing under existing economic and operating conditions. If you believe the reserves may be significantly incorrect, unless you can also show how this view would be consistent with having concluded that recovery is reasonably certain, as would be required under the definition set forth in Rule 4-10(a)(2) of Regulation S-X, revise the reserves to a volume you are reasonably certain of recovering. Otherwise, if you are reasonably certain of recovering the reserves you disclose as proved, then please revise your risk factor to not state that they may be significantly incorrect.

Response: We are reasonably certain that we will be able to recover the proved reserves set forth in our filing under existing economic and operating conditions. We propose that in our Annual Report on Form 10-K for the year ending December 31, 2007 ("2007 Form 10-K"), we will update our disclosure by deleting the word "substantially" from the fifth sentence of the applicable revised risk factor as shown below and revising the risk factor heading to now read:

Estimates of crude oil and natural gas reserves depend on many factors and assumptions, including various assumptions that are based on conditions in existence as of the dates of the estimates. Any material changes in those conditions, or other factors affecting those assumptions, could impair the quantity and value of our crude oil and natural gas reserves.

This Annual Report contains estimates of our proved oil and gas reserves and the estimated future net cash flows therefrom based upon reports for the years ended December 31, 2006 and 2005, audited by our independent petroleum engineers. These reports rely upon various assumptions, including assumptions required by the Securities and Exchange Commission, as to oil and gas prices, drilling and operating expenses, capital expenditures, abandonment costs, taxes and availability of funds. The process of estimating oil and gas reserves is complex, requiring significant decisions and assumptions in the evaluation of available geological, geophysical, engineering and economic data for each reservoir. As a result, these estimates are inherently imprecise. Actual future production, cash flows, development expenditures, operating and abandonment expenses and quantities of recoverable oil and gas reserves may vary from those estimated in these reports. Any significant variance in these assumptions could materially affect the estimated quantity and value of our proved reserves. You should not assume that the present value of future net cash flows from our proved reserves referred to in this Annual Report is the current market value of our estimated oil and gas reserves. In accordance with Securities and Exchange Commission requirements, we base the estimated discounted future net cash flows from our proved reserves on prices and costs on the date of the estimate. Actual future prices and costs may differ materially from those used in the net present value estimate. In addition, if costs of abandonment are materially greater than our estimates, they could have an adverse effect on financial position, cash flows and results of operations.

3. Please provide us with a copy of your reserve report as of December 31, 2006 on electronic format, if possible.

Response: We have supplementally provided to the Staff under separate cover an electronic copy of our reserve report as of January 1, 2007 by Huddleston & Co., Inc. Our reserve report is used to provide information both for SEC filings and for internal analysis of proved reserves.

4. Please expand your disclosure to include the information required for extractive enterprises pertaining to your principal fields to comply with Instruction 3 to Item 102 of Regulation S-K.

Response: We supplementally advise you of the following information on our most significant properties as of December 31, 2006:

Of our year-end proved reserves, ninety-one percent (91%) of the proved reserve value (based upon discounted future net revenues, or "DFNR") is located in the offshore regions of the United States Gulf of Mexico ("GOM"), five percent (5%) is located in the onshore Gulf Coast regions of the United States, and four percent (4%) is located in the offshore regions of the United Kingdom. Thirty-three percent (33%) of our total DFNR is attributable to the following United States fields: East Cameron Block 346, Garden Banks Blocks 625, 667, 668, 669 (Gunnison), Green Canyon Blocks 236, 237, 238, 282 (Phoenix), West Cameron Block 170 (each of which is an offshore GOM field) and Parker Creek Field (located in the onshore Gulf Coast region). Our working interests in these five fields range from 19% to 100%. These fields comprise approximately twenty-nine percent (29%) of our 2006 oil and gas production. The remaining sixty-seven percent (67%) of our DFNR is in numerous other fields with no such field exceeding four percent (4%) of the total DFNR.

We will include a similar description of our most significant properties in our 2007 Form 10-K and future filings.

Summary of Natural Gas and Oil Reserve Data, page 30

5. We note that you say your reserve estimates have been audited by Huddleston & Co., Inc. (similar references appear on pages 59 and 115), and that you provided a consent from that firm indicating you have incorporated by reference its report letter dated February 14, 2007. Tell us whether you have in fact incorporated that report into your filing; and if so, where the reference appears and where the report has been filed. Otherwise, submit the report for review. Please expand your disclosure to address the following points.

Response: We have not incorporated the report into our filing. We have supplementally provided to the Staff under separate cover an electronic copy of our reserve report as of January 1, 2007 by Huddleston & Co., Inc.

- Describe the nature and scope of the audit procedures that were performed and identify any limitations imposed by you or encountered by the auditing engineers.

Response: We propose that disclosure substantially similar to the following be included in our 2007 Form 10-K and future filings:

We employ full-time experienced reserve engineers and geologists who are responsible for determining proved reserves in conformance with SEC guidelines. Engineering reserve estimates were prepared by us on the basis of production performance data, sub-surface information derived from the drilling of existing wells, and the interpretation thereof. The engineering audit by our independent petroleum engineers (Huddleston & Co., Inc.) included 100% of the producing properties together with a percentage of the non-producing and undeveloped properties such that the total percentage of DFNR in the United States subject to the engineering audit was 83%. Our independent petroleum engineers also reviewed the methodologies utilized by us in the preparation of all of the estimated reserves and revenues. Such engineers have stated that they believe these methodologies are consistent with the methodologies required by the SEC, Society of Petroleum Engineers ("SPE") and Financial Accounting Standards Board ("FASB"). There were no limitations imposed by us on the independent petroleum engineers' engineering audit or encountered by the independent petroleum engineers.

- *With regard to your disclosure identifying the properties subject to audit as "...83% of our most significant U.S. proved reserves on a discounted future net revenue basis," indicate the portion of the U.S. reserves you consider to be significant, and to include the percentage of total reserves subject to audit, using both significant and non-significant reserves in making the calculation, based on discounted future net revenues. Also disclose the percentages of reserves subject to audit, based only on the disclosed quantities of proved developed reserves, proved undeveloped reserves, and both of these categories combined.*

Response: We propose that disclosure substantially similar to the following be included in our 2007 Form 10-K and future filings:

Our internal reservoir engineers and independent petroleum engineers review 100% of our United States oil and gas fields on an annual basis. Of the 140 fields reviewed, we consider any field with DFNR of 1% or greater of the total DFNR to be significant. Eight-one percent (81%) of the total United States reserve base was subject to audit representing eight-three percent (83%) based on DFNR.

Our independent petroleum engineers audited approximately eighty-one percent (81%) of the total reserve base in the United States, including what was deemed to be the most valuable properties. Such independent petroleum engineers audited seventy-six percent (76%) of proved developed reserves and eighty-five percent (85%) of the proved undeveloped reserves totaling eighty-one percent (81%) of both categories combined.

- *Explain who selected the properties for review and the basis on which those selections were made. Identify any major properties that were not subject to third party audit and state the reasons.*
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Response: We propose that disclosure substantially similar to the following be included in our 2007 Form 10-K and future filings:

Properties for review were selected by us and the independent petroleum engineers based on DFNR. All of our significant properties were included in the engineering audit and such properties constituted 83% of the DFNR.

- *State whether the outside engineering firm determined that your reserve estimates were reasonable or fairly stated, relative to the criteria of “reasonable certainty,” as it pertains to expectations about the recoverability of reserves in future years, under existing economic and operating conditions; consistent with the definition in Rule 4-10(a)(2) of Regulation S-X.*

Response: Our independent petroleum engineers determined that our reserve estimates were reasonable or fairly stated as they pertain to expectation about the recoverability of reserves in future years under existing economic and operating conditions. We propose that disclosure substantially similar to the following be included in our 2007 Form 10-K and future filings:

The estimated reserve and revenue projections in our reserve report have been prepared in accordance with our understanding of all applicable SEC, SPE, and FASB regulations and requirements.

- *If the auditing engineers qualified their opinion by stating that your reserve quantities were within a certain range of what they considered to be reasonable, based on their own estimates, disclose the quantity and percentage variances between the reserve estimates you prepared and those of the outside engineering firm, in the aggregate and for individual properties that are material. Under this scenario, also include the percentage of wells having estimates deviating beyond the variance disclosed for reserves in the aggregate, and the percentage of total proved reserves associated with such wells.*

Response: There were no such qualifications or variances. In the event that our independent petroleum engineers qualify their opinion in the future, we will include disclosure regarding such qualification in our future filings.

- *Clarify that your use of the term engineering audit is intended only to refer to the procedures outlined in your disclosure, and that it may be defined and used differently by other companies.*

Response: In future filings, we will define “engineering audit” to reflect the SPE definition of the term “audit” as follows:

“An engineering audit is an examination of reserve information that is conducted for the purpose of expressing an opinion as to whether such reserve information, in the aggregate, is reasonable and has been presented in conformity with generally accepted petroleum engineering and evaluation principles.”

We believe the above information would be meaningfully situated in a separate subsection within your discussion of properties or reserves. Any mention of the independent engineering audits appearing outside of this section should include a cross reference to these disclosures for information about the scope and limitations of the procedures performed.

Response: We acknowledge the above suggestion and will comply with such request in our 2007 Form 10-K and future filings.

Management’s Discussion and Analysis, page 41

Results of Operations, page 42

Comparison of Years Ended 2006 and 2005, page 43

6. *Please disclose the extent to which the production expenses you disclose in the tables on pages 45 and 49 include production taxes.*

Response: Production taxes were included in the caption “Direct Operating Expenses” on both pages 45 and 49 for the years presented. Production tax expense (credit) amounts totaled \$625,000, \$37,000 and \$(16,000) for 2006, 2005 and 2004, respectively. These amounts represented 1.2%, 0.1% and (0.08)% of Direct Operating Expenses in 2006, 2005 and 2004, respectively, which we deemed immaterial for purposes of separate disclosure. In future filings, we propose that a notation be added to the “Direct Operating Expenses” caption to denote that said amounts include production taxes, without separate disclosure of actual amounts due to immateriality.

Standardized Measure of Discounted Future Net Cash Flows, page 118

7. *Your 10% discount of \$426,648 thousand in the Standardized Measure appears low, given that 56% of your reserves were undeveloped as of December 31, 2006. Please tell us how this was calculated. Submit the underlying chart, showing the time horizons over which development and production were scheduled, and the related undiscounted revenues and costs associated with these activities for each period.*

Response: The discount was calculated by applying a 10% discount rate to the projected future net revenues from our properties. The combination of the high initial production rates and the near term conversion of several proved undeveloped properties resulted in a \$426,648 thousand discounted value. The projections regarding the timing of development and production are set forth in the reserve report submitted under separate cover on the pages stamped 0016 and 0017.

In connection with responding to the Comments of the Staff above, we acknowledge that:

- we are responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff Comments or changes to disclosure in response to Staff Comments do not foreclose the SEC from taking any action with respect to the filing; and
- we may not assert Staff Comments as a defense in any proceeding initiated by the SEC or any person under the federal securities laws of the United States.

If any member of the Staff has any questions concerning these matters or needs additional information or clarification, he or she should contact the undersigned at (281) 848-6555.

Very truly yours,

/s/ Michael Overman

Michael Overman, Deputy General Counsel

cc: Karl Hiller (Branch Chief-Securities and Exchange Commission)
Jim Murphy (Petroleum Engineer — Securities and Exchange Commission)
A. Wade Pursell (Helix)
Robert Murphy (Helix)
Johnny Edwards (Helix)
Alisa Johnson (Helix)
Lloyd Hajdik (Helix)
Jane Trapp (Helix)