



NXT ENERGY SOLUTIONS INC

As at and for three and nine months ended September 30, 2009

MANAGEMENT'S DISCUSSION AND ANALYSIS

As used in this MD&A, the terms "we", "us", "our", "NXT" and "company" mean NXT Energy Solutions Inc.

Our reporting currency is the Canadian dollar. All references to "dollars" in this MD&A refer to Canadian or Cdn. dollars unless specific reference is made to United States or U.S. dollars.

Forward-Looking Statements

Certain statements in this document may constitute "forward-looking statements". These forward-looking statements can generally be identified as such because of the context of the statements including words such as "believes", "anticipates", "expects", "plans", "estimates" or words of a similar nature.

These forward-looking statements are based on current expectations and are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Except as required by law, the company assumes no obligation to update forward-looking statements should circumstances or the company's estimates or opinions change.

Description of Business

NXT is a Calgary based company providing airborne hydrocarbon detection solutions that enable our clients to focus their exploration decisions concerning land commitments, data acquisition expenditures or prospect prioritization onto the areas with the greatest hydrocarbon potential. Utilizing its proprietary airborne Stress Field Detection ("SFD™") survey system, NXT provides a unique survey method that is environmentally noninvasive and unaffected by ground security issues or difficult terrain. Additionally, surveys can generally be conducted year round and are effective both onshore and offshore. The advantage to NXT's clients is an efficient and reliable method to explore for hydrocarbons.

On September 22, 2008 the company changed its name from Energy Exploration Technologies Inc to NXT Energy Solutions Inc. This change was approved by shareholders at the November 29, 2007 Annual General Meeting. The name change was implemented to better reflect our principal activities and now aligns with the NXT trademark. SFD and NXT in Canada are the registered trademarks of NXT Energy Solutions Inc.

Overall Performance

Discussion of Business

NXT has confirmed in 2009 that Colombia offers significant revenue opportunities for our services. Encouraged by the success of one completed contract and a recently announced second Colombian contract, NXT has ramped up Colombian activities. Throughout the third quarter we have been active in pursuing sales opportunities and see the potential for additional contract awards both within Colombia and other Latin American markets.

We are pleased with the successful completion of our first U.S. \$2,300,000 SFD™ survey in June. The results of the first contract, and its follow up by a respected industry client in October, confirmed our ability to provide benefits for Colombian clients. In October we announced the award of a new survey contract valued at U.S. \$576,000 which includes a client option for an additional U.S. \$360,000 survey. The new contract, including the optional portion if requested, is scheduled for completion prior to the end of the year.

Based upon our sales efforts within Colombia we are confident that NXT will be awarded more contracts in the region. Beginning in August, following the engagement of our Bogota market development representative, we have held multiple sales and marketing meetings with a wide number of Colombian exploration companies as well as the ANH, Colombia's national hydrocarbon regulatory body. NXT's management team has invested substantial time in Colombia conducting meetings in conjunction with our Bogota representative. Additionally, in September our Chief Operating Officer made an SFD™ technical presentation to a meeting of the Colombian Association of Geologists and Geophysical of Petroleum (ACGGP). As a result of these sales and marketing activities we have developed a solid prospect list.

To further develop markets for our SFD™ surveys, we conducted test surveys during November in both Colombia and over the Gulf of Mexico. These tests are building the body of evidence that supports the company's assertions of the effectiveness of SFD™ surveys over various onshore and offshore geological formations. The test flight data is used to correlate SFD™ signal responses to data obtained related to known producing geological formations including publicly available geological maps and, when available, other geophysical data and well logs. By so doing, NXT continues to document case studies that support the effectiveness of SFD™ surveys over differing geological plays, such as sub-salt, that in turn build potentially new market applications for our survey system.

Over the next several quarters the company shall continue to expand our business presence in Colombia. In due course we plan to expand into other Latin American markets. We are well advanced in the process of registering a permanent branch in Bogota. The formation of a branch is a logical and necessary step to gain legitimacy in the market and to comply with Colombian laws. This proposed new legal status in Colombia will work in conjunction with our Bogota based business development representative. We anticipate that our Colombian revenue base will grow in 2010 and we see the possibility for earning revenue in adjoining Latin American countries as well. Our sales and marketing activities have indicated that several Colombian based companies are experiencing exploration survey problems in adjoining Latin American countries such as Peru, Equator and Brazil that can be solved with SFD™. Several companies have initiated preliminary discussions with NXT about the use of SFD™ surveys to solve their exploration survey challenges in these adjoining markets where they are encountering land access problems related to security, indigenous communities or environmental concerns.

Over the next several months management will continue to monitor our opportunities in the region and will make decisions on personnel to realize on these opportunities. Should new contracts be awarded as anticipated, decisions will be made concerning increasing the company's capacity by building upon the core team with additional industry technical professionals.

Our success in Colombia and surrounding Latin American markets will not preclude NXT from pursuing opportunities in other international regions. NXT will develop marketing strategies for other regions and will act upon them as market conditions dictate.

Results of Operations

The company reported a loss of \$969,591 and \$1,733,667 for the three and nine months ended September 30, 2009 respectively.

Revenue

	For the three months ended Sep. 30,		For the nine months ended Sep. 30,	
	2009	2008	2009	2008
SFD™ survey revenue	\$ -	\$ 1,200,000	\$ 2,638,560	\$ 2,944,470
Oil & gas revenue	447	(6,750)	874	4,439
Total revenue	\$ 447	\$ 1,193,250	\$ 2,639,434	\$ 2,948,909

SFD™ Survey Revenue

In the first nine months of 2009 the company recognized \$2,638,560 of SFD™ survey revenue related to one contract for an international client (for the nine months ended September 30, 2008 - \$2,944,470 relating to two contracts). In October 2009 the company executed an additional contract with a new client, a Colombia-based international oil and gas company, to conduct an SFD™ survey in Colombia. The contract calls for NXT to complete a U.S. \$576,000 survey and to provide the client an option to receive a second survey for an additional U.S. \$360,000. In addition, the client will pay a fee for the mobilization of the aircraft. The survey commenced during first week of November and is scheduled to complete in 2009.

Income from Operations

We had a loss from operations of \$1,082,275 for the three months ended September 30, 2009 (2008 - loss of \$71,659) with an operating loss of \$1,673,403 for the nine months ended September 30, 2009 (2008 - operating loss of \$140,707) representing an overall decrease in earnings of \$1,010,616 and a decrease of \$1,532,696 respectively for the same periods last year. The decreases are primarily the result of the increases of expenses associated with operating internationally in 2009 as compared to operating domestically in 2008.

Expenses

	For the three months ended Sep. 30,		For the nine months ended Sep. 30,	
	2009	2008	2009	2008
SFD™ survey cost	\$ (26,888)	\$ 68,803	\$ 1,078,812	\$ 211,084
Oil and natural gas operating expenses	-	11,568	6,818	12,564
Administrative	1,064,739	1,137,645	3,096,660	2,739,441
Depletion of oil and natural gas properties	-	-	-	4,372
Amortization and depreciation	44,871	46,893	130,547	122,155
	\$ 1,082,722	\$ 1,264,909	\$ 4,312,837	\$ 3,089,616

Expenses - for the three months and nine months ended September 30, 2009 and 2008

- To date in 2009 we have had survey costs of \$1,078,812 (\$211,084 - 2008) which includes commissions on sales of \$127,032 (Nil - 2008). The higher costs of the 2009 SFD™ survey was the result of it being the company's first international survey whereas the 2008 SFD™ survey was domestic.
- The administrative cost increase of \$357,219 for the first nine months of 2009 (Q3 2009 - \$72,906) in comparison to the first nine months of 2008 relates to hiring additional staff and increased costs associated with symposiums, conferences and travel for marketing and sales in international markets.
- The company sold the last of its working interest in wells in 2008 and therefore will no longer have depletion of oil and natural gas properties.

Other Expense (Income)

	For the three months ended Sep. 30,		For the nine months ended Sep. 30,	
	2009	2008	2009	2008
Interest income	(8,953)	(52,779)	(78,177)	(176,856)
Loss (gain) on foreign exchange	158,588	(6,727)	132,817	(26,115)
Gain on sale of property	(21)	-	(1,037)	(20,325)
Other	-	90,000	-	90,000
Abandonment	1,558	188,486	6,661	188,486
Other expense (income)	\$ 151,172	\$ 218,980	\$ 60,264	\$ 55,190

- Interest income was offset by interest expense resulting in \$8,953 net income in Q3 2009 (cumulative \$78,177) as compared to \$52,779 net income in Q3 2008 (cumulative \$176,856). The 2009 decrease in income is due to lower interest rates earned in 2009 when compared with 2008 on cash investments.
- In the third quarter of 2008 the company paid out \$90,000 to settle a Statement of Claim that was outstanding since 2002. The plaintiff was a past president and director of NXT.
- Management conducted a review in 2008 of all wells for which NXT had a historical participation and determined a net 1.1 (8 actual) wells drilled from 2000 through 2004 that still require abandonment. Management determined the asset retirement obligation based upon estimates of the costs to remediate, reclaim and abandon the wells and the estimated timing of the costs to be incurred. These obligations are estimated to be settled in five years. In 2008 the company recorded an obligation of \$160,148 in respect to a well drilled in 2000 and abandoned in 2008 for which no previous abandonment obligation had been anticipated.

Loss (Gain) on Foreign Exchange

Loss or gain on foreign exchange is caused by changes in the relative exchange values of the U.S. and Canadian dollars. For example when the Canadian dollar trades higher relative to the U.S. dollar, cash held in U.S. dollars will decline in value and this decline will be reflected as a foreign exchange loss in a period. The company holds nearly all cash and investments in Canadian dollars to reduce the impact caused by market volatility.

The equivalent Canadian dollars for a U.S. dollar changed from \$1.2107 on January 1, 2009 to \$1.0722 as at September 30, 2009 resulting in a loss of \$132,817 to date in 2009; whereas the change was from \$1.1625 as at June 30, 2009 to \$1.0722 as at September 30, 2009 (\$1.0599 as at September 30, 2008) resulting in a third quarter 2009 loss of \$158,588. The loss in the third quarter of 2009 is largely due to a U.S. \$2,300,000 accounts receivable balance valued as at June 30, 2009 at an exchange rate of \$1.1625 and then valued at 1.0902 when received based upon actual exchange rates in the third quarter of 2009.

Summary of Quarterly Results

	Sep 30, 2009	Jun 30, 2009	Mar 31, 2009	Dec 31, 2008
Revenue	\$ 447	\$ 2,638,759	\$ 228	\$ 6,153
Net income (loss)	(969,591)	283,005	(1,047,081)	(945,394)
Basic earnings (loss) per share	(0.03)	0.01	(0.03)	(0.04)
Diluted earnings (loss) per share	\$ (0.03)	\$ 0.01	\$ (0.03)	\$ (0.04)
	Sep 30, 2008	Jun 30, 2008	Mar 31, 2008	Dec 31, 2007
Revenue	\$ 1,193,250	\$ 1,749,076	\$ 6,583	\$ 2,350,497
Net income (loss)	(290,639)	806,619	(711,877)	208,308
Basic earnings (loss) per share	(0.01)	0.03	(0.02)	0.01
Diluted earnings (loss) per share	\$ (0.01)	\$ 0.02	\$ (0.02)	\$ 0.01

In the second quarter of 2009 the company determined that in the first quarter of 2009 it had incorrectly accounted for the company's common stock options issued to contractors and the adoption of EITF 07-5 "Determining Whether an Instrument is Indexed to an Entity's Own Stock". The net result of this error was a \$14,056 overstatement of net loss for the first quarter 2009. The impact of the error on opening contributed capital, deficit and liabilities was \$108,779, \$67,364 and \$41,415 respectively for fiscal 2009. The company has concluded that these adjustments are not material to the financial statements for the first quarter of 2009.

The company recorded these immaterial corrections to its previously issued first quarter 2009 financial statements. The company has reflected these immaterial adjustments within the consolidated statement of income (loss) and consolidated statements of shareholders' equity for the six months ended June 30, 2009.

In comparing Q3 2009 to Q2 2009; the net loss in Q3 is due to the company recognizing no survey revenue in Q3 (\$2,638,560 - Q2). In addition, our expenses are higher in Q3 than in Q2 due to our continuing marketing and sales focus in international markets.

In comparing Q2 2009 to Q1 2009; the company recognized \$2,638,560 in survey revenue in Q2 (nil - Q1) for one completed international survey contract resulting in net income. Our expenses in the second quarter are higher due to the ramp up required for executing an international survey contract as well as increased costs as we pursue marketing to foreign markets.

In comparing Q1 2009 to Q4 2008; the increased net loss in Q1 2009 over Q4 2008 of \$115,744 is due to additional salary costs incurred with the hiring of a Chief Operating Office to augment our senior management staff, fees for a geosciences consultant, higher stock-based compensation costs and costs incurred for the NAPE conference in Houston, Texas.

In comparing Q4 2008 to Q3 2008; the company recognized nil in survey revenue in Q4 (\$1,200,000 in Q3 from one completed survey contract) and recognized \$207,457 in stock-based compensation expense (\$144,843 - Q3).

In comparing Q3 2008 to Q2 2008; the company recognized \$1,200,000 in SFD™ survey revenue for one completed survey contract in the third quarter (\$1,744,470 in Q2) resulting in net income. We settled a Statement of Claim from 2002 for \$90,000 wherein the plaintiff was a past president and director. Management conducted a review in 2008 of all wells for which NXT had a historical participation and determined a net 1.1 (8 actual) wells drilled from 2000 through 2004 that still require abandonment. The asset retirement obligation is based upon estimates of the costs to remediate, reclaim and abandon the wells and the estimated timing of the costs to be incurred. The abandonment expense recorded in Q3 2008 is \$28,338. In addition, the company recorded an obligation of \$160,148 in respect to a well drilled in 2000 and abandoned in 2008 for which no previous abandonment obligation had been anticipated.

In comparing Q2 2008 to Q1 2008; the company recognized \$1,744,470 in SFD™ survey revenue for one completed survey contract in the second quarter (nil in Q1) resulting in net income. We sold our producing well for net proceeds of \$47,400 which generated a gain on disposal of \$20,325.

In comparing Q1 2008 to Q4 2007; there is no survey revenue recognized in the first quarter of 2008 (Q4 2007 - \$2,344,812 for two surveys). \$1,220,940 of invoiced services was recorded as unearned revenue at March 31, 2008 and was recognized as revenue in Q2 2008 in addition to the final invoice of \$523,530 that was billed in Q2 2008.

Liquidity and Capital Resources

The company's cash position in Q3 2009 continues to be healthy. Our cash and equivalents and short term investments held on account as of November 25, 2009 is \$5,013,931.

With cash and short term investments and the proceeds from the U.S. \$576,000 SFD™ survey contract that will complete in the fourth quarter of 2009, we forecast having the required cash to operate for over one year without any additional sources of cash. However, our ability to continue as a going concern will ultimately be dependent upon our ability to sustain positive cash flow from operations and/or obtain additional financing. The outcome of these matters cannot be predicted with certainty at this time. The contract calls for NXT to complete a U.S. \$576,000 survey and to provide the client an option to receive a second survey for an additional U.S. \$360,000. In addition, the client shall pay a fee for the mobilization of the aircraft. The survey commenced the first week of November and is scheduled to complete in 2009.

The following table summarizes the change in cash flow for the three and nine months ended September 30, 2009 and 2008:

	For the three months ended Sep. 30,		For the nine months ended Sep. 30,	
	2009	2008	2009	2008
Cash generated (used) in operating activities	\$ 959,366	\$ 444,931	\$ (1,116,501)	\$ (676,565)
Cash generated by financing activities	(2,015)	22,824	44,320	1,300,941
Cash used in investing activities	819,527	(1,367,026)	6,596,081	(2,282,721)
	\$ 1,776,878	\$ (899,271)	\$ 5,523,900	\$ (1,658,345)

Operating Activities

Q3 2009 - the \$959,366 cash balance generated in operating activities reflects our net loss of \$969,591 adjusted for \$157,829 of non-cash deductions and a \$1,771,128 net increase in non-cash working capital. For the first nine months of 2009 the \$1,116,501 cash balance used reflects a net loss of \$1,733,667 adjusted for \$616,402 of non-cash deductions and a change of \$764 in non-cash working capital.

Financing Activities

Q3 2009 - \$2,015 was paid on our capital lease (\$5,919 paid on capital lease in the first nine months of 2009). In the first nine months of 2009 \$50,239 was provided through the issuance of a private placement, net of issue costs (first nine months of 2008 - \$1,484,919 provided through the exercise of options and warrants).

Investing Activities

Q3 2009 - we decreased our short term investments by \$848,003 (first nine months of 2009 - \$6,748,105); due to lower interest rates maturing short term investments were re-invested into premium money market accounts that are secured by a major Canadian financial institution.

Contractual Commitments

The company has an office lease until October 31, 2012 which requires minimum monthly lease payments of \$29,023.

On May 8, 2009 the company executed an aircraft charter agreement with a Calgary based aircraft charter company to provide aircraft, crew and maintenance services for SFD™ survey operations utilizing a fleet of Cessna Citation 560 series jet aircraft. NXT's minimum aircraft charter commitment under this agreement is Cdn. \$396,250 prior to the anniversary date of the agreement. Through October 31, 2009 we have consumed 70% of the hours committed to in the agreement.

Transactions with Related Parties

150,000 incentive options were issued in the first quarter of 2009 to an officer of the company and 100,000 options were issued in the second quarter of 2009 to two directors of the company.

In the second quarter of 2009 a private placement for 25,000 common shares was issued to an officer of the company to fulfill an obligation.

Additional Disclosures

Outstanding share data

	As at November 25, 2009	As at December 31, 2008
Outstanding securities		
Common shares	30,701,796	30,676,796
Preferred shares	10,000,000	10,000,000
Options	2,420,204	2,270,204
Warrants	150,000	150,000
Total	43,272,000	43,097,000

Critical Accounting Estimates

Factors are substantially unchanged; refer to annual MD&A as at December 31, 2008.

Change in Accounting Policies Including Initial Adoption

Effective for the company's year end commencing January 1, 2009, the FASB issued new standards relating to business combinations and non-controlling interest. The requirements of these standards will be applied to business combinations subsequent to December 31, 2008.

The FASB issued new guidance on accounting for derivative instruments and hedging activities which requires companies with derivative instruments to disclose information about how and why a company uses derivative instruments, how derivative instruments and related hedged items are accounted for and how derivative instruments and related hedged items affect a company's financial position, financial performance, and cash flows. The required disclosures under this new guidance include the fair value of derivative instruments and their gains or losses in tabular format, information about credit-risk-related contingent features in derivative agreements, counterparty credit risk, and the company's strategies and objectives for using derivative instruments. This standard is effective prospectively for periods beginning on or after November 15, 2008. It does not impact our financial statements as we do not have any derivative instruments or hedging activities except discussed below.

In June 2008, the FASB issued new guidance in assessing whether an equity-linked financial instrument (or embedded feature) is indexed to an entity's own stock for purposes of determining whether the instrument falls outside the scope of the FASB's standard for accounting for derivative instruments. This EITF became effective for all fiscal year ends beginning after December 15, 2008 and required the cumulative effect in the account principle to be recognized as an adjustment to the opening balance of retained earnings.

The adoption of this policy resulted in the company reducing contributed capital by \$108,779, representing the historical value attributed to certain derivative instruments and then recording these instruments as a derivative liability at their fair market value of \$41,415. The cumulative effect of this change in accounting principle of \$67,364 was recognized as a reduction to the opening balance of Accumulated Loss for the year ended December 31, 2008. These options will be revalued to market at each reporting period and the change in the liability value will be charged or credited to the Statement of Income (Loss).

In May 2009, the FASB issued a new standard, which establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. This new standard became effective for the company's interim reporting at June 30, 2009 and did not have a material impact on the company's disclosures.

In June 2009, the FASB issued a revised hierarchy of generally accepted accounting principles which became the source of authoritative GAAP recognized by the FASB to be applied by nongovernmental entities effective for the company's interim reporting period ending September 30, 2009. The adoption of this standard had no material impact on disclosures or amounts recorded in the company's financial statements.

Disclosure Controls, Procedures and Internal Controls over Financial Reporting

The company's Chief Executive Officer and Chief Financial Officer (the "Responsible Officers") are responsible for establishing and maintaining disclosure controls and procedures, or causing them to be designed under their supervision, for the company to provide reasonable assurance that material information relating to the company is made known to the Responsible Officers by others within the organization, particularly during the period in which the company's quarterly and year-end financial statements and MD&A are being prepared. However, any internal control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

Disclosure controls and other procedures are designed to ensure that information required to be disclosed in reports filed or submitted is recorded, processed, summarized and reported within the time periods specified by the relevant security authority in either Canada or the United States of America. Disclosure controls and procedures include controls and procedures designed to ensure that information required to be disclosed in our reports is accumulated and communicated to management, including our Responsible Officers, to allow timely decisions regarding required disclosure.

As of September 30, 2009 an evaluation was carried out under the supervision of, and with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness of the company's disclosure controls and procedures as defined under the rules adopted by the Canadian securities regulatory authorities and by the SEC. Based on this evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the company's disclosure controls and procedures were effective as at September 30, 2009.

During the quarter ended September 30, 2009 there have been no changes in the company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the company's internal control over financial reporting.

We continue to monitor the following areas that we believe are most susceptible to control weaknesses common to many companies of our size:

- Due to the limited number of staff at the company it is not feasible to achieve complete segregation of incompatible duties. The company has mitigated this concern in controls by adding management review procedures of the areas where segregation is an issue; and
- The company does not retain staff with specialized and current income tax, financial reporting and complex accounting expertise. The company prepares their best estimate of complex accounting calculations and relies on reviews by management, external consultants and the audit committee for quality assurance.

Notwithstanding the foregoing, all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

For additional information on NXT Energy Solutions Inc. please consult our web page at www.nxtenergy.com, or the SEDAR webpage at <http://www.sedar.com>.