

ION GEOPHYSICAL CORP
Form S-4
February 25, 2014
Table of Contents

As filed with the Securities and Exchange Commission on February 24, 2014

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-4

REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

ION Geophysical Corporation*

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

1382
(Primary Standard Industrial
Classification Code Number)

22-2286646
(I.R.S. Employer
Identification Number)

2105 CityWest Blvd., Suite 400

Houston, Texas 77042-2839

(281) 933-3339

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

David L. Roland

Senior Vice President, General Counsel and Corporate Secretary

ION Geophysical Corporation

2105 CityWest Blvd., Suite 400

Houston, Texas 77042-2839

(281) 933-3339

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

Marc H. Folladori

Jeff M. Dobbs

Mayer Brown LLP

700 Louisiana St., Suite 3400

Houston, Texas 77002

(713) 238-3000

Approximate date of commencement of proposed sale of the securities to the public:

As soon as practicable after the effective date of this registration statement.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the Securities Act), check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer (do not check if a smaller reporting company)	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issue Tender Offer)	<input type="checkbox"/>
Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)	<input type="checkbox"/>

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Unit (1)	Proposed Maximum Aggregate Offering Price (1)	Amount of Registration Fee

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(f)(2) under the Securities Act of 1933, as amended.

(2) The guarantees are the full and unconditional guarantee of ION Geophysical Corporation's obligations under the 8.125% Senior Secured Second Priority Notes due 2018 by the subsidiary guarantors of ION Geophysical Corporation listed below under the caption Table of Additional Registrants. No separate consideration will be received for the guarantees. No additional registration fee is payable with respect to the guarantees pursuant to Rule 457(n) under the Securities Act of 1933.

Each registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

*The co-registrants listed below on the next page are included in this registration statement as Additional Registrants.

Table of Contents

TABLE OF ADDITIONAL REGISTRANTS

Exact Name of Additional Registrant as Specified in its Charter(1)	State or Other Jurisdiction of Incorporation or Organization	I.R.S. Employee Identification No.
GX Technology Corporation	Texas	76-0450115
ION Exploration Products (U.S.A.), Inc.	Delaware	76-0491394
I/O Marine Systems, Inc.	Louisiana	72-0733230

(1)The address for each Additional Registrant is 2105 CityWest Blvd., Suite 400, Houston, Texas 77042-2839, and the telephone number for each Additional Registrant is (281) 933-3339. The Primary Standard Industrial Classification Code Number for each Additional Registrant is 1382.

Table of Contents

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED February 24, 2014

PRELIMINARY PROSPECTUS

ION Geophysical Corporation

EXCHANGE OFFER FOR

\$175,000,000

8.125% SENIOR SECURED SECOND PRIORITY NOTES DUE 2018

AND RELATED GUARANTEES

The exchange offer will expire at 5:00 p.m., New York City time, on _____, 2014 (the expiration date), unless we extend the exchange offer in our sole and absolute discretion.

We are offering to exchange up to \$175.0 million aggregate principal amount of our 8.125% senior secured second priority notes due 2018 (the Exchange Notes), the issuance of each of which has been registered under the Securities Act of 1933, as amended (the Securities Act), for up to \$175.0 million aggregate principal amount of our outstanding 8.125% senior secured second priority notes due 2018 (the Restricted Notes, and together with the Exchange Notes, the notes) that have not been registered under the Securities Act. We are offering to exchange the Exchange Notes for the Restricted Notes in order to satisfy our obligations under the registration rights agreement that we entered into when the Restricted Notes were issued and sold in a transaction exempt from registration under the Securities Act.

Material Terms of the Exchange Offer:

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

- The form and terms of the Exchange Notes are substantially the same as the form and terms of the Restricted Notes, except that the Exchange Notes to be issued in the exchange offer have been registered under the Securities Act and will not bear legends restricting their transfer or contain special interest provisions.
 - The exchange offer is subject to customary conditions discussed under The Exchange Offer Conditions to the Exchange Offer.
 - We will exchange all outstanding Restricted Notes that are validly tendered and not withdrawn prior to the expiration or termination of the exchange offer for an equal principal amount of Exchange Notes.
 - You may withdraw tenders of Restricted Notes at any time prior to the expiration or termination of the exchange offer.
 - Restricted Notes may be tendered only in minimum denominations of \$2,000 and any integral multiple of \$1,000 in excess thereof.
-

Table of Contents

- We will not receive any cash proceeds from the exchange offer or the issuance of the Exchange Notes. Accordingly, neither the exchange offer nor the issuance of the Exchange Notes will result in any increase in our outstanding indebtedness or change in our capitalization.
- There is no existing public market for the Restricted Notes or the Exchange Notes offered hereby.
- We do not intend to list the Exchange Notes on any securities exchange or seek approval for quotation through any automated trading system.

Results of the Exchange Offer:

- The Exchange Notes may be sold in the over-the-counter market, in negotiated transactions or through a combination of such methods.
- All outstanding Restricted Notes not tendered will continue to be subject to the restrictions on transfer set forth in the outstanding Restricted Notes and the indenture governing the notes. In general, outstanding Restricted Notes may not be offered or sold, unless registered under the Securities Act, except pursuant to an exemption from, or in a transaction not subject to, the Securities Act and applicable state securities laws.
- Other than in connection with the exchange offer, we do not plan to register the outstanding Restricted Notes under the Securities Act.

Each broker-dealer that receives Exchange Notes for its own account in exchange for Restricted Notes that were acquired by it as a result of market-making activities or other trading activities must acknowledge that it will deliver a prospectus in connection with any resale of the Exchange Notes. The letter of transmittal states that by so acknowledging and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an underwriter within the meaning of the Securities Act. This prospectus, as it may be amended or supplemented from time to time, may be used by a broker-dealer in connection with resales of Exchange Notes received in exchange for Restricted Notes that were acquired by the broker-dealer as a result of market-making activities or other trading activities. We have agreed that, for a period ending on the earlier of the expiration of the 270th day after the exchange offer has been completed or such time as such participating broker-dealers no longer hold Restricted Notes, we will keep the exchange offer registration statement effective and will make this prospectus, as amended or supplemented, available to any broker-dealer for use in connection with any such resale. See Plan of Distribution.

See Risk Factors beginning on page 13 of this prospectus for a discussion of certain risks that you should consider before participating in the exchange offer.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2014.

Table of Contents

TABLE OF CONTENTS

	Page
<u>INDUSTRY AND MARKET DATA</u>	ii
<u>TRADEMARKS</u>	ii
<u>CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS</u>	iii
<u>PROSPECTUS SUMMARY</u>	1
<u>RISK FACTORS</u>	13
<u>RATIO OF EARNINGS TO FIXED CHARGES</u>	24
<u>THE EXCHANGE OFFER</u>	24
<u>USE OF PROCEEDS</u>	36
<u>CAPITALIZATION</u>	36
<u>DESCRIPTION OF THE EXCHANGE NOTES</u>	37
<u>DESCRIPTION OF CERTAIN INDEBTEDNESS</u>	106
<u>MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS</u>	107
<u>CERTAIN CONSIDERATIONS FOR ERISA AND OTHER U.S. EMPLOYEE BENEFIT PLANS</u>	108
<u>PLAN OF DISTRIBUTION</u>	109
<u>LEGAL MATTERS</u>	110
<u>EXPERTS</u>	110
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	110
<u>INCORPORATION BY REFERENCE</u>	111

Unless we have indicated, or the context otherwise requires, references in this prospectus to ION Geophysical, ION, the Company, we, our, and us refer to ION Geophysical Corporation and its consolidated subsidiaries. References to INOVA or INOVA Geophysical refer to INOVA Geophysical Equipment Limited, a joint venture in which we own a 49% equity interest. References to OceanGeo refer to OceanGeo B.V. (formerly GeoRXT B.V.), a joint venture in which we own a 70% equity interest. References to guarantors refer to our subsidiaries, GX Technology Corporation, ION Exploration Products (U.S.A.), Inc. and I/O Marine Systems, Inc., which have fully and unconditionally guaranteed, jointly and severally, ION's obligations under the notes. References to the subsidiary guarantees refer to the guarantees by each guarantor of our obligations under the notes. References to Commission or SEC refer to the U.S. Securities and Exchange Commission.

This prospectus incorporates important business and financial information about us that is not included or delivered with this prospectus. Such information is available without charge to holders of the Restricted Notes upon written or oral request made to ION Geophysical Corporation, 2105 CityWest Blvd., Suite 400, Houston, Texas 77042-2839 (Telephone: (281) 933-3339). To obtain timely delivery of any requested information, holders of the Restricted Notes must make any request no later than five (5) business days prior to the expiration of the exchange offer.

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell or a solicitation of an offer to buy securities anywhere or to anyone where or to whom we are not permitted to offer or sell securities under applicable law. The delivery of this prospectus does not, under any circumstances, mean that there has not been a change in our affairs since the date of this prospectus. You should assume that the information appearing in this prospectus and any other document incorporated by reference is accurate only as of their respective dates, and in the event any previously disclosed information is updated, amended or supplemented in this prospectus or any of the documents incorporated by reference herein, you should rely on the most

recent disclosure contained in this

Table of Contents

prospectus or any of the documents incorporated by reference herein. Our business, financial condition, results of operations and prospects may have changed since those dates.

Prospective participants should not construe anything in this prospectus as legal, business or tax advice. Each prospective participant should consult its own advisors as needed to determine whether it is legally permitted to participate in the exchange offer under applicable legal investment or similar laws or regulations.

The communication of any documents or materials relating to the exchange offer is not being made, and such documents and/or materials have not been approved by an authorised person for the purposes of section 21 of the U.K. Financial Services and Markets Act 2000, as amended (the FSM). Accordingly, such documents and/or materials are not being distributed to, and must not be passed on to, the general public in the United Kingdom. The communication of such documents and/or materials as a financial promotion is only being made to those persons in the United Kingdom falling within the definition of investment professionals (as defined in Article 19(5) of the FSM (Financial Promotion) Order 2005 (the Order)) or any other persons to whom it may otherwise lawfully be made under the Order. All applicable provisions of the FSM must be complied with in respect of anything done in relation to the notes in, from or otherwise involving or having an effect in the United Kingdom.

INDUSTRY AND MARKET DATA

We have obtained the industry and market-share data used in this prospectus from third-party sources that we believe are reliable. In many cases, however, we have made statements in this prospectus (or in documents incorporated by reference in this prospectus) regarding our industry and our position in the industry based on estimates made from our experience in the industry and our own investigation of market conditions. We believe these estimates to be accurate as of the date of this prospectus. However, this information may prove to be inaccurate because of the method by which we obtained some of the data for our estimates or because this information cannot always be verified with complete certainty due to the limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties. As a result, you should be aware that the industry and market data included or incorporated by reference in this prospectus, and estimates and beliefs based on that data, may not be reliable. We cannot guarantee the accuracy or completeness of any such information.

TRADEMARKS

The information contained in this prospectus contains references to trademarks, service marks and registered marks of ION and our subsidiaries, as indicated. Except where stated otherwise or unless the context otherwise requires, the terms GeoVentures, VectorSeis, ARIES II, DigiSHOT, DigiFIN, XVib, DigiCOURSE, Gator, Spectra, Orca, Sprint, Scorpion, Reflex, G3i Calypso and UNIVIB refer to the VECTORSEIS®, ARIES® II, DIGISHOT®, DIGIFIN®, XVIB®, DIGICOURSE®, GATOR®, SPECTRA®, ORCA®, SPRINT®, SCORPION®, REFLEX®, G3i®, Calypso® and UNIVIB® registered marks owned by ION or INOVA Geophysical, and the terms AZIM, BasinSPAN, DigiSTREAMER, AHV-IV, Vib Pro, Shot Pro, Optimiser, ResSCAN, Hawk, Connex, WiBand, Narwhal and AccuSOUND are trademarks and service marks owned by ION or INOVA Geophysical. Solely for convenience, the trademarks, service marks and trade names referred to in this prospectus may appear without the ®, TM or SM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these trademarks, service marks and trade names. This prospectus may also contain trademarks, service marks and trade names of third parties. Our use or display of third parties

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

trademarks, service marks, trade names or products in this prospectus is not intended to, and does not imply a relationship with, or endorsement or sponsorship by us. Other trademarks and trade names used in this prospectus or incorporated by reference herein are the property of their respective owners.

Table of Contents

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains or incorporates by reference statements concerning our future results and performance and other matters that are forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities and Exchange Act of 1934, as amended (the Exchange Act). These statements involve known and unknown risks, uncertainties and other factors that may cause our or our industry's results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements express or implied by such forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as may, will, would, should, intend, expect, plan, anticipate, believe, estimate, predict, p the negative of such terms or other comparable terminology. Examples of other forward-looking statements contained or incorporated by reference in this prospectus include statements regarding:

- the expected outcome of the WesternGeco litigation (see Item 1.A. Risk Factors An unfavorable judgment in our pending litigation matter with WesternGeco could have a materially adverse effect on our financial results and liquidity in our Annual Report on Form 10-K for the year ended December 31, 2013) and future potential adverse effects on our liquidity in the event that we must post and collateralize an appeal bond for the full amount of damages entered in a judgment or are unsuccessful in our appeal of an adverse judgment in this matter;
- predictions of future industry-wide increases or decreases in capital expenditures for seismic activities;
- the timing of anticipated revenues and the recognition of those revenues for financial accounting purposes;
- future levels of spending by our customers;
- the effects of current and future unrest in the Middle East, North Africa and other regions;
- the effects of current and future worldwide economic conditions (particularly in developing countries) and demand for oil and natural gas and seismic equipment and services;
- the effects of ongoing and future industry consolidation, including, in particular, the effects of consolidation and vertical integration in the towed-marine-seismic-streamers market;
- future oil and gas commodity prices;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

- the timing of future revenue realization of anticipated orders for multi-client seismic-survey projects and data processing work in our Solutions segment;
- future levels of our capital expenditures;
- expected net revenues, income from operations and net income;
- expected gross margins for our products and services;
- future benefits to be derived from our INOVA Geophysical and OceanGeo joint ventures;
- future seismic industry fundamentals, including future demand for seismic services and equipment;
- future benefits to our customers to be derived from new products and services;
- future benefits to be derived from our investments in technologies, joint ventures and acquired companies;
- future growth rates for our products and services;
- the degree and rate of future market acceptance of our new products and services;
- expectations regarding oil and gas exploration and production (E&P) companies and seismic contractor end-users purchasing our more technologically-advanced products and services;

Table of Contents

- anticipated timing and success of commercialization and capabilities of products and services under development and start-up costs associated with their development;
- future cash needs and future availability of cash to fund our operations and pay our obligations;
- potential future acquisitions;
- future opportunities for new products and projected research and development expenses;
- expected continued compliance with our debt financial covenants;
- expectations regarding realization of deferred tax assets;
- anticipated results with respect to certain estimates we make for financial accounting purposes; and
- the other factors identified under the caption **Risk Factors** in this prospectus.

These forward-looking statements reflect our best judgment about future events and trends based on the information currently available to us. Our results of operations can be affected by inaccurate assumptions we make or by risks and uncertainties known or unknown to us. Therefore, we cannot guarantee the accuracy of the forward-looking statements. Actual events and results of operations may vary materially from our current expectations and assumptions. These and other risks are detailed in this prospectus and the documents that we incorporate by reference into this prospectus and in other documents that we file with the SEC. See **Risk Factors**, **Where You Can Find More Information** and **Incorporation by Reference** below.

Table of Contents

PROSPECTUS SUMMARY

This summary highlights some of the information contained in this prospectus and does not contain all of the information that may be important to you. This summary is not complete and does not contain all of the information that you should consider before deciding whether to exchange your Restricted Notes for Exchange Notes. For a more complete understanding of ION and this exchange offer, we encourage you to read this entire document, including the section entitled Risk Factors and the financial and other information included or incorporated by reference in this prospectus, the section entitled Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2013, and the other documents to which we have referred.

Our Business

We are a global, technology-focused company that provides geophysical technology, services and solutions to the global oil & gas industry. Our offerings are designed to allow E&P companies to obtain higher resolution images of the earth's subsurface during exploration, exploitation and production operations to reduce the risk in exploration and reservoir development, and to enable seismic contractors to acquire geophysical data safely and efficiently. We acquire and process seismic data from seismic surveys in regional data programs, which then become part of our seismic data library. The seismic surveys for our data library business are pre-funded, or underwritten, in part by our customers, and, with the exception of our new seabed acquisition joint venture, OceanGeo, we contract with third-party seismic-data-acquisition companies to shoot and acquire the seismic data, all of which is intended to minimize our risk exposure in offshore and onshore operations around the world. We serve customers in all major energy producing regions of the world from strategically located offices in 21 cities on six continents.

Seismic imaging plays a fundamental role in hydrocarbon exploration and reservoir development by delineating structures, rock types and fluid locations in the subsurface. Our services, technologies and products are used by E&P companies and seismic-acquisition contractors to generate high-resolution images of the Earth's subsurface to identify sources of hydrocarbons and pinpoint drilling locations for wells, which can be costly and involve high risk.

We provide our services and products through three business segments - Solutions, Systems and Software. In addition, we have a 49% ownership interest in our INOVA Geophysical joint venture and an ownership interest in our OceanGeo joint venture, which we increased from 30% to 70% in January 2014.

For over 45 years we have been engaged in providing innovative seismic-data-acquisition technology, such as full-wave imaging capability with VectorSeis® products, the ability to record seismic data from basins that underlie ice fields in polar regions and cableless seismic techniques. The advanced technologies we currently offer include Orca®, our WiBand data processing technology, Calypso®, Narwhal and INOVA Geophysical's cableless Hawk land system and new G3i@cabled system, and other technologies, each of which is designed to deliver improvements in both image quality and productivity. We have over 550 patents and pending patent applications in various countries around the world, approximately 51% of our employees are involved in technical roles and approximately 22% of our employees have advanced degrees.

Corporate Information

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

The following diagram depicts our organizational structure as of February 24, 2014. ION Geophysical Corporation is the issuer of the notes and the borrower under that certain credit agreement, dated as of March 25, 2010, as amended (the senior secured credit facility) by and among ION Geophysical Corporation, as borrower, the guarantors party thereto, the lenders party thereto and China Merchants Bank Co., Ltd., New York Branch (CMB). The notes are fully and unconditionally guaranteed, jointly and severally, on a senior-secured basis by each of our material domestic subsidiaries.

In 2013, ION Geophysical Corporation and the guarantors had total net revenues of approximately \$337.6 million, or 61.5% of our total consolidated revenues, excluding intercompany revenues. At December 31, 2013, ION Geophysical Corporation and the guarantors had total assets of approximately \$668.9 million, or approximately 77.4% of our total consolidated assets, excluding intercompany investments and receivables. Our senior secured

Table of Contents

credit facility is guaranteed by a standby letter of credit issued by CMB on behalf of INOVA Geophysical. The notes will not receive the benefit of this letter of credit or the related guarantee.

Our executive headquarters are located at 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839. Our telephone number is (281) 933-3339, and our website is *www.iongeo.com*. We make our website content available for information purposes only. Our website should not be relied upon for investment purposes, and it is not incorporated by reference in this prospectus.

Summary of Risk Factors

Participation in this exchange offer involves risks. You should carefully consider all the information contained and incorporated by reference in this prospectus and, in particular, should evaluate the specific factors set forth under the Risk Factors section of this prospectus and the Risk Factors section of our Annual Report on Form 10-K for the year ended December 31, 2013, together with all of the other information included or incorporated by reference in this prospectus, and, to the extent applicable, any subsequently filed reports.

Table of Contents

Summary of the Terms of the Exchange Offer

On May 13, 2013, we completed the private offering of \$175.0 million aggregate principal amount of our Restricted Notes. In connection with the offering of the Restricted Notes, we entered into a registration rights agreement in which we agreed, among other things, to deliver this prospectus and to use commercially reasonable efforts to consummate an exchange offer for the Restricted Notes. The following is a summary of the exchange offer.

Registration Rights Agreement

Under the registration rights agreement, we are obligated to offer to exchange the Restricted Notes for Exchange Notes with substantially identical terms. The exchange offer is intended to satisfy that obligation. After the exchange offer is complete, holders of the Restricted Notes will no longer be entitled to any exchange or registration rights with respect to their Restricted Notes.

Restricted Notes

8.125% senior secured second priority notes due 2018, which were issued on May 13, 2013.

Exchange Notes

8.125% senior secured second priority notes due 2018. The form and terms of the Exchange Notes are substantially the same as the form and terms of the Restricted Notes, except that the Exchange Notes to be issued in the exchange offer have been registered under the Securities Act and will not bear legends restricting their transfer or contain special interest provisions. The Exchange Notes will evidence the same debt as the Restricted Notes and will be issued under and entitled to the benefits of the same indenture as the Restricted Notes. See *The Exchange Offer* and *Description of the Exchange Notes*.

Exchange Offer

We are offering to exchange up to \$175.0 million aggregate principal amount of our Exchange Notes, which will be registered under the Securities Act, for a like principal amount of our Restricted Notes, which have not been registered under the Securities Act. We are offering to exchange the Exchange Notes for the Restricted Notes in order to satisfy our obligations under the registration rights agreement that we entered into when the Restricted Notes were issued and sold in transactions exempt from registration under the Securities Act.

If we fail to satisfy our registration obligations under the registration rights agreement, including, if required, our obligation to have an effective shelf registration statement for the Restricted Notes, we may be required to pay special interest to the holders of the Restricted Notes, up to a maximum of 1.00% per year. See *The Exchange Offer* *Interest and Special Interest*.

In order to be exchanged, Restricted Notes must be properly tendered and accepted. All Restricted Notes that are validly tendered and not validly withdrawn will be accepted and exchanged. If all outstanding Restricted Notes are tendered for exchange, there will be \$175.0 million principal amount of Exchange Notes outstanding.

We will issue the Exchange Notes promptly after the expiration of the exchange offer.

Resale of Exchange Notes

We believe that the Exchange Notes to be issued in the exchange offer may be offered for resale, resold and otherwise transferred by you without compliance with the registration and prospectus delivery provisions of the Securities Act. This interpretation, however, is based on your representation to us that:

Table of Contents

- any Exchange Notes to be issued in the exchange offer that will be received by you will be acquired in the ordinary course of your business;
- at the time of the commencement and consummation of the exchange offer, you have not entered into any arrangement or understanding with any person to participate in any distribution (within the meaning of the Securities Act) of the Exchange Notes in violation of the provisions of the Securities Act;
- you are not an affiliate of the Company within the meaning of Rule 405 of the Securities Act;
- you are not engaging in, and do not intend to engage in, a distribution of the Exchange Notes to be issued to you in the exchange offer; and
- if you are a broker-dealer that will receive Exchange Notes for your own account in exchange for Restricted Notes that were acquired by you as a result of market-making or other trading activities, you will deliver a prospectus in connection with any resale of the Exchange Notes.

Our belief is based on interpretations by the staff of the SEC, as set forth in no-action letters issued to third parties unrelated to us. The staff of the SEC has not considered the exchange offer in the context of a no-action letter, and we cannot assure you that the staff of the Commission would make a similar determination with respect to the exchange offer.

If you do not meet the above conditions, you may not participate in the exchange offer or sell, transfer or otherwise dispose of any Restricted Notes unless (i) they have been registered for resale by you under the Securities Act and you deliver a resale prospectus meeting the requirements of the Securities Act or (ii) you sell, transfer or otherwise dispose of the Exchange Notes in accordance with an applicable exemption from the registration requirements of the Securities Act.

Each broker-dealer that received Exchange Notes in the exchange offer for its own account in exchange for Restricted Notes that were acquired by that broker-dealer as a result of market-making activities or other trading activities must acknowledge that it will deliver a prospectus meeting the requirements of the Securities Act in connection with any of its resales of those Exchange Notes. A broker-dealer may use this prospectus to offer to sell, resell or otherwise transfer those Exchange Notes. See Plan of Distribution.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

We have agreed that, for a period ending on the earlier of (i) the expiration of the 270th day after the exchange offer has been completed and (ii) such time as such participating broker-dealers no longer hold Restricted Notes, we will keep the exchange offer registration statement effective and will make this prospectus, as amended or supplemented, available to any broker-dealer for use in connection with any such resale. See Plan of Distribution.

Table of Contents

Expiration Date

The exchange offer will expire at 5:00 p.m., New York City time, on _____, 2014, unless we extend the exchange offer in our sole and absolute discretion. We do not intend to extend the exchange offer, although we reserve the right to do so.

If we make any material amendment to the terms of the exchange offer or waive any material condition, we will keep the exchange offer open for at least five (5) business days after we notify you of such change or waiver. If we make a material change to the terms of the exchange offer, it may be necessary for us to provide you with an amendment to this prospectus reflecting that change. We may only delay, terminate or amend the offer prior to its expiration.

Procedures for Tendering Restricted Notes

The Restricted Notes were issued as global securities in fully registered form without interest coupons. Beneficial interests in the Restricted Notes that are held by direct or indirect participants in The Depository Trust Company (DTC) through certificateless depository interests are shown on, and transfers of the Restricted Notes can be made only through, records maintained in book-entry form by DTC with respect to its participants.

If you are a holder of a Restricted Note held in the form of a book-entry interest and you wish to tender your Restricted Note for exchange pursuant to the exchange offer, you must transmit to Wilmington Trust, National Association, as exchange agent, on or prior to the expiration of the exchange offer either:

- a written or facsimile copy of a properly completed and executed letter of transmittal and all other required documents to the address set forth on the cover page of the letter of transmittal; or
- a computer-generated message transmitted by means of DTC's Automated Tender Offer Program (ATOP) system and forming a part of a confirmation of book-entry transfer in which you acknowledge and agree to be bound by the terms of the letter of transmittal.

The exchange agent must also receive on or prior to the expiration of the exchange offer either:

- a timely confirmation of book-entry transfer of your original notes into the exchange agent's account at DTC, in accordance with the procedure for book-entry transfers described in this prospectus under the heading "The Exchange Offer Book-Entry Transfers"; or

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

- the documents necessary for compliance with the guaranteed delivery procedures described below.

A form of letter of transmittal accompanies this prospectus. Under the registration rights agreement, we may require, as a condition of your participation in the exchange offer, that you make the representations described above regarding resale of the Exchange Notes and such other representations as may be required by applicable law or any applicable interpretation of the SEC.

See The Exchange Offer Procedures for Tendering Restricted Notes.

Table of Contents

Special Procedures for Beneficial Owners

If you are the beneficial owner of Restricted Notes and they are registered in the name of a broker, dealer, commercial bank, trust company or other nominee, and you wish to tender your Restricted Notes, you should promptly contact the person in whose name your Restricted Notes are registered and instruct that person to tender on your behalf. Any registered holder that is a participant in DTC's book-entry transfer facility system may make book-entry delivery of the Restricted Notes by causing DTC to transfer the Restricted Notes into the exchange agent's account. If you wish to tender on your own behalf, you must, prior to completing and executing the letter of transmittal for your Restricted Notes and delivering your Restricted Notes, either make appropriate arrangements to register ownership of the Restricted Notes in your name or obtain a properly completed bond power from the person in whose name your Restricted Notes are registered. The transfer of registered ownership may take considerable time.

Acceptance of Restricted Notes and Delivery of Exchange Notes

Except under the circumstances referred to below under "Conditions to the Exchange Offer," we will accept for exchange any and all Restricted Notes that are properly tendered in the exchange offer prior to 5:00 p.m., New York City time, on the expiration date. The Exchange Notes to be issued to you in the exchange offer will be delivered promptly following the expiration date. See "The Exchange Offer" Terms of the Exchange Offer.

Guaranteed Delivery Procedures

If you wish to tender your Restricted Notes and:

- they are not immediately available;
- time will not permit your Restricted Notes or other required documents to reach the exchange agent before the expiration of the exchange offer; or
- you cannot complete the procedure for book-entry transfer on a timely basis,

you may tender your Restricted Notes in accordance with the guaranteed delivery procedures set forth in "The Exchange Offer" Procedures for Tendering Restricted Notes.

Withdrawal Rights

You may withdraw any Restricted Notes tendered in the exchange offer at any time prior to 5:00 p.m., New York City time, on _____, 2014. If we decide for any reason not to accept any Restricted Notes tendered for exchange, the Restricted Notes will be returned to the registered holder at our expense promptly after the expiration or termination of the exchange offer. For further information regarding the withdrawal of tendered Restricted Notes, please read "The Exchange Offer" Withdrawal Rights.

Conditions to the Exchange Offer

The exchange offer is subject to certain customary conditions, which we may waive. The registration rights agreement does not require us to accept Restricted Notes for exchange if the exchange offer or the making of any exchange by a holder of the Restricted Notes would violate any applicable law or interpretation of the staff of the SEC. A minimum aggregate principal

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

amount of Restricted Notes being tendered is not a condition to the exchange offer.

There are no dissenters' rights of appraisal applicable to this exchange offer.

Table of Contents

Other than compliance with the Securities Act and qualification of the indenture governing the notes under the Trust Indenture Act of 1939, as amended (the "TIA"), there are no federal or state regulatory requirements that must be complied with or approvals that must be obtained in connection with the exchange offer.

See "The Exchange Offer" Conditions to the Exchange Offer.

Exchange Agent

We have appointed Wilmington Trust, National Association as exchange agent for the exchange offer. You should direct questions and requests for assistance, requests for additional copies of this prospectus or the letter of transmittal to the exchange agent addressed as follows: Wilmington Trust, National Association, Rodney Square North, 1100 N. Market Street, Wilmington, DE 19890-1626, Attention: Workflow Management 5th Floor. Eligible institutions may make requests by facsimile at (302) 636-4139 and may confirm facsimile delivery by email at the following address: DTC2@wilmingtontrust.com.

United States Federal Income Tax Consequences

The exchange of the Restricted Notes for Exchange Notes in the exchange offer will not be a taxable event for United States federal income tax purposes. See the discussion under the caption "Material United States Federal Income Tax Considerations" for more information regarding the tax consequences to you of the exchange offer.

Use of Proceeds

The exchange offer is intended to satisfy our obligations under the registration rights agreement. We will not receive any cash proceeds from the exchange offer or the issuance of the Exchange Notes. Accordingly, neither the exchange offer nor the issuance of the Exchange Notes will result in any increase in our outstanding indebtedness or change in our capitalization. See "Use of Proceeds."

Fees and Expenses

We will bear certain fees and expenses incident to the exchange offer. For further information regarding the payment of fees and expenses, please read "The Exchange Offer" Fees and Expenses.

Consequences of Failing to Exchange Restricted Notes

If you do not participate in the exchange offer, your Restricted Notes will continue to be subject to the restrictions on transfer currently applicable to the Restricted Notes and, upon completion of the exchange offer, the liquidity of the market for your Restricted Notes could be adversely affected. See "The Exchange Offer" Consequences of Failing to Exchange Restricted Notes.

Table of Contents

Terms of the Exchange Notes

The form and terms of the Exchange Notes are substantially the same as the form and terms of the Restricted Notes, except that the Exchange Notes to be issued in the exchange offer have been registered under the Securities Act and will not bear legends restricting their transfer or contain special interest provisions. The Exchange Notes will evidence the same debt as the Restricted Notes and will be issued under, and entitled to the benefits of, the same indenture that governs the Restricted Notes.

The following is a summary of the terms of the Exchange Notes. It may not contain all the information that is important to you. The Description of the Exchange Notes section of this prospectus contains a more detailed description of the terms and conditions of the Exchange Notes.

Issuer	ION Geophysical Corporation
Notes Offered	\$175.0 million aggregate principal amount of 8.125% senior secured second priority notes due 2018, the issuance of each of which has been registered under the Securities Act.
Maturity Date	May 15, 2018
Interest Rate	8.125% per year, payable semi-annually in arrears. Interest on the Exchange Notes will accrue from the last interest payment due date on which interest was paid on the Restricted Notes surrendered in exchange therefor or, if no interest has been paid on the Restricted Notes, from May 13, 2013, the date of original issue of the Restricted Notes.
Interest Payment Dates	Each May 15 and November 15, beginning on November 15, 2013.
Guarantees	The payment of the Exchange Notes will initially be fully and unconditionally guaranteed, jointly and severally, by GX Technology Corporation, ION Exploration Products (U.S.A.), Inc. and I/O Marine Systems, Inc., our material domestic subsidiaries.

As of December 31, 2013:

- ION and the guarantors had approximately \$8.4 million in equipment capital lease obligations outstanding (which are generally secured by liens on the assets being leased), which constitute senior indebtedness; and
- our subsidiaries that are not guarantors had indebtedness and other liabilities outstanding (excluding intercompany liabilities) equal to approximately \$36.0 million, consisting of approximately \$25.1 million of trade payables and other accrued expenses including deferred revenues, approximately \$1.5 million of indebtedness related to our facility lease obligations and approximately \$0.3 million of equipment capital lease obligations outstanding (which capital leases are generally secured by liens on the assets being leased).

As of December 31, 2013, the aggregate assets of our non-guarantor subsidiaries totalled approximately \$195.8 million, representing 22.6% of our total consolidated assets, excluding intercompany investments and receivables. In 2013, our non-guarantor subsidiaries represented

Table of Contents

approximately \$211.6 million, or 38.5%, of our total consolidated revenues, excluding intercompany revenues.

Our senior secured credit facility is guaranteed by a standby letter of credit issued by CMB on behalf of INOVA Geophysical. The notes will not receive the benefit of this letter of credit or the related guaranty.

Subject to complying with the covenants in our senior secured credit facility and the indenture governing the notes, we will be able to incur additional debt, including debt secured by liens prior to the liens securing the notes. See Description of the Exchange Notes Brief Description of the Notes and the Note Guarantees.

Security

The Exchange Notes and the related subsidiary guarantees will be secured on a second-priority basis by liens, subject to certain exceptions and permitted liens, on substantially all of our personal property and the personal property of the guarantors and proceeds thereof, including liens on our and our subsidiary guarantors seismic equipment and proprietary data libraries, to the extent such assets constitute collateral under our senior secured credit facility. Pursuant to the terms of the intercreditor agreement, the liens on the assets securing the Exchange Notes and the subsidiary guarantees will be contractually subordinated and junior to liens securing our senior secured credit facility, additional permitted first lien indebtedness and future indebtedness incurred to replace or refinance our senior secured credit facility and such other indebtedness. See Description of the Exchange Notes Security, Description of the Exchange Notes Intercreditor Agreement, Risk Factors Risks Related to the Exchange Offer, the Exchange Notes and Our Indebtedness Indebtedness under our senior secured credit facility will be effectively senior to the notes to the extent of the value of the collateral securing such indebtedness and Risk Factors Risks Related to the Notes and Our Indebtedness The indenture permits additional notes to be issued under the debt incurrence covenant to be secured by an equal and ratable lien on the collateral. The value of your rights to the collateral would be reduced by any increase in the indebtedness secured by the collateral.

Ranking

The Exchange Notes and the related subsidiary guarantees will be our and the guarantors senior secured obligations. Accordingly, they will be:

- equal in right of payment with all of our and the guarantors existing and future unsubordinated indebtedness, and effectively senior to any unsecured indebtedness to the extent of the value of the collateral;
- senior in right of payment to all of our and the guarantors existing and future subordinated indebtedness;
- effectively subordinated to our and the guarantors obligations under our senior secured credit facility and any other obligations that are secured by first priority liens on the collateral securing the notes or that are secured by a lien on assets that are not part of the collateral securing the notes, in each case, to the extent of the value of such collateral or assets;

and

- structurally junior to any indebtedness and other liabilities (including trade payables) of any of our subsidiaries that are not guarantors.

Table of Contents

Intercreditor Agreement

The trustee, the collateral agent appointed under the indenture and the collateral agent under our senior secured credit facility entered into an intercreditor agreement on May 13, 2013, which, among other things, defines the relative priorities of their respective security interests in the assets securing the notes and the obligations under our senior secured credit facility (and any future indebtedness incurred to replace or refinance such indebtedness) and certain other matters relating to the administration of security interests, exercise of remedies, certain bankruptcy-related provisions and other intercreditor matters. The intercreditor agreement also provides that in the event of a foreclosure on the collateral or of insolvency proceedings, the holders of the notes and any other *pari passu* indebtedness will receive proceeds from the collateral only after obligations under our senior secured credit facility (and any future indebtedness incurred to replace or refinance such indebtedness) have been paid in full. See Description of the Exchange Notes Intercreditor Agreement.

Optional Redemption

We may, at our option, redeem all or part of the notes on or after May 15, 2015, at fixed redemption prices, as described under Description of the Exchange Notes Optional Redemption. Also, prior to May 15, 2015, we may, at our option, redeem the notes, in whole or in part, at the make-whole redemption price described elsewhere in this prospectus, together with accrued and unpaid interest, if any, to the date of redemption. In addition, prior to May 15, 2015, we may, at our option, redeem up to 35% of the aggregate principal amount of the notes using the net proceeds of certain equity offerings at a price equal to 108.125% of the aggregate principal amount thereof, plus accrued and unpaid interest, if any, to the date of redemption; provided that, following any and all such redemptions, at least 65% of the aggregate principal amount of notes originally issued under the indenture remain outstanding and the redemption occurs within 90 days of the closing of such equity offering.

Change of Control

Upon the occurrence of a change of control, the holders of the notes will have the right to require us to make an offer to repurchase each holder's notes at a repurchase price equal to 101% of their aggregate principal amount, plus accrued and unpaid interest, if any, to the date of repurchase. See Description of the Exchange Notes Repurchase at the Option of Holders Change of Control.

Asset Sales

Upon certain asset sales, we may be required to use the net proceeds therefrom to purchase the notes at an offer price in cash equal to 100% of the aggregate principal amount thereof, plus accrued and unpaid interest, if any, to the date of purchase.

Certain Covenants

The indenture governing the Exchange Notes contains covenants that, among other things, limit our ability and the ability of our restricted subsidiaries to:

- incur additional debt or issue certain preferred stock;

- make certain investments or pay dividends or distributions on our capital stock, purchase or redeem or retire capital stock or make other restricted payments;

Table of Contents

- sell assets, including capital stock of our restricted subsidiaries;
- restrict dividends or other payments by restricted subsidiaries;
- create liens;
- create unrestricted subsidiaries;
- enter into transactions with affiliates; and
- merge or consolidate with another company.

These covenants are subject to a number of important limitations and exceptions that are described elsewhere in this prospectus under the caption Description of the Exchange Notes Certain Covenants.

Trustee

Wilmington Trust, National Association

Form and Denomination of the Exchange Notes

The Exchange Notes will be book-entry only and registered in the name of DTC or its nominee. The Exchange Notes will be issuable in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof.

Absence of an Established Trading Market

No established trading market currently exists for the Exchange Notes. We do not intend to list the Exchange Notes on any national securities exchange or seek their quotation on any automated quotation system. We cannot assure you that any active or liquid market for the exchange notes will develop or be maintained.

Table of Contents**Summary Consolidated Historical Financial Data**

The following table should be read together with, and is qualified in its entirety by reference to, the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in our Annual Report on Form 10-K for the year ended December 31, 2013, and our consolidated financial statements and the related notes incorporated by reference in this prospectus. We have derived the selected financial data set forth in the table for each of the years ended December 31, 2013, 2012 and 2011 from our audited consolidated financial statements incorporated by reference in this prospectus. We derived the financial data for the years ended December 31, 2010 and 2009 from our audited consolidated financial statements not included or incorporated by reference in this prospectus.

	Years Ended December 31,				
	2013	2012	2011	2010	2009
	(In thousands, except for per share data)				
Statement of Operations Data:					
Net revenues	\$ 549,167	\$ 526,317	\$ 454,621	\$ 444,322	\$ 419,781
Gross profit	159,313	215,801	173,445	165,733	132,138
Income (loss) from operations	16,396	74,527	66,795	52,847	(58,216)
Net income (loss) applicable to common shares	(251,874)	61,963	23,422	(38,774)	(113,559)
Net income (loss) per basic share	\$ (1.59)	\$ 0.40	\$ 0.15	\$ (0.27)	\$ (1.03)
Net income (loss) per diluted share	\$ (1.59)	\$ 0.39	\$ 0.15	\$ (0.27)	\$ (1.03)
Weighted average number of common shares outstanding	158,506	155,801	154,811	144,278	110,516
Weighted average number of diluted shares outstanding	158,506	162,765	156,090	144,278	110,516
Balance Sheet Data (end of year):					
Working capital(1)	\$ 248,857	\$ 164,693	\$ 163,677	\$ 171,851	\$ (59,018)
Total assets	864,671	820,583	674,058	631,857	748,186
Notes payable and long-term debt	220,152	105,328	105,112	108,660	277,381
Total equity	257,885	499,019	425,812	380,447	282,468
Other Data:					
Investment in multi-client library	\$ 114,582	\$ 145,627	\$ 143,782	\$ 64,426	\$ 89,635
Capital expenditures	16,914	16,650	11,060	7,372	2,966
Depreciation and amortization (other than multi-client library)	18,158	16,202	13,917	24,795	47,911
Amortization of multi-client library	86,716	89,080	77,317	85,940	48,449

(1) The negative working capital position as of December 31, 2009, shown above was the result of the re-classification of the majority of our then outstanding long-term debt as current and as a result of the fair value of a warrant associated with our prior bridge financing arrangements.

Table of Contents

RISK FACTORS

Participation in the exchange offer and an investment in the notes involve a high degree of risk. You should carefully consider the risks described below, together with the other information included or incorporated by reference in this prospectus, before making your decision to participate in the exchange offer. In addition, you should read the section entitled Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2013, together with all of the other information included or incorporated by reference in this prospectus and, to the extent applicable, any subsequently filed reports.

We are subject to certain risks and hazards due to the nature of the business activities we conduct. The risks discussed below and incorporated by reference, any of which could materially and adversely affect our business, financial condition, cash flows and results of operations, are not the only risks we face. We may experience additional risks and uncertainties not currently known to us; or, as a result of developments occurring in the future, conditions that we currently deem to be immaterial may also materially and adversely affect our business, financial condition, cash flows and results of operations.

Risks Related to the Exchange Offer, the Exchange Notes and our Indebtedness

If you do not properly tender your Restricted Notes, you will continue to hold unregistered outstanding notes, and your ability to transfer outstanding notes will be adversely affected.

We will only issue Exchange Notes in exchange for Restricted Notes that you timely and properly tender. Therefore, you should allow sufficient time to ensure timely delivery of the Restricted Notes, and you should carefully follow the instructions on how to tender your Restricted Notes. Neither we nor the exchange agent is required to tell you of any defects or irregularities with respect to your tender of Restricted Notes. See The Exchange Offer Procedures for Tendering Restricted Notes.

If you do not exchange your Restricted Notes for Exchange Notes in the exchange offer, you will continue to be subject to the restrictions on transfer of your Restricted Notes described in the legend on the certificates for your Restricted Notes. In general, you may only offer or sell the Restricted Notes if they are registered under the Securities Act and applicable state securities laws, or offered and sold under an exemption from these requirements. We do not plan to register any sale of the Restricted Notes under the Securities Act. For further information regarding the consequences of failing to properly tender your Restricted Notes in the exchange offer, please read The Exchange Offer Consequences of Failing to Exchange Restricted Notes.

You may find it difficult to sell your Exchange Notes.

The Exchange Notes are a new issue of securities; and, although the Exchange Notes will be registered under the Securities Act, the Exchange Notes will not be listed on any securities exchange. Because there is no public market for the Exchange Notes, you may not be able to resell them.

We cannot assure you that an active market will develop for the Exchange Notes or that any trading market that does develop will be liquid. If an active market does not develop or is not maintained, the market price and liquidity of our Exchange Notes may be adversely affected. If a market for the Exchange Notes develops, they may trade at a discount from their initial offering price. The trading market for the Exchange Notes may be adversely affected by:

- changes in the overall market for similar securities;
- changes in our financial performance or prospects;
- the financial performance or prospects for companies in our industry generally;
- the number of holders of the notes;

Table of Contents

- our ability to complete the exchange offer;
- the interest of securities dealers in making a market for the notes; and
- prevailing interest rates and general economic conditions.

Historically, the market for non-investment grade debt has been subject to substantial volatility in prices. The market for the Exchange Notes, if any, may be subject to similar volatility. Prospective participants in the Exchange Notes should be aware that they may be required to bear the financial risks of such investment for an indefinite period of time.

There can be no assurance that an active trading market will exist for the exchange notes or that any trading market that does develop will be liquid or sustained.

The issuance of the Exchange Notes may adversely affect the market for the Restricted Notes.

To the extent the Restricted Notes are tendered and accepted in the exchange offer, the trading market for the untendered and tendered but unaccepted Restricted Notes could be adversely affected. Because we anticipate that most holders of the Restricted Notes will elect to exchange their Restricted Notes for Exchange Notes due to the absence of restrictions on the resale of exchange notes under the Securities Act, we anticipate that the liquidity of the market for any Restricted Notes remaining after the completion of this exchange offer may be substantially limited. Please refer to the section in this prospectus entitled "The Exchange Offer."

Some holders who exchange Restricted Notes may be deemed to be underwriters.

If you exchange your Restricted Notes in the exchange offer for the purpose of participating in a distribution of the Exchange Notes, you may be deemed to have received restricted securities and, if so, will be required to comply with the registration and prospectus delivery requirements of the Securities Act in connection with any resale transaction.

We cannot assure you that we will be able to file, cause to be declared effective or keep effective this registration statement relating to the exchange offer, and, if we fail to do so, your investment will be less liquid and the trading price may decline.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

We have agreed to file this registration statement with the SEC relating to this exchange offer. The SEC, however, generally has broad discretion as to whether it declares a registration statement effective and may delay, defer or suspend the effectiveness of any registration statement for a variety of reasons, and therefore we cannot assure you that a registration statement will become or remain effective.

Our leverage and debt service obligations may adversely affect our financial condition, results of operations, business prospects and our ability to make payments on the notes.

As of February 24, 2014, our outstanding indebtedness was approximately \$235.2 million, and we had additional borrowing capacity of \$125.0 million under our senior secured credit facility. We may also incur additional indebtedness in the future. Our level of indebtedness could affect our operations in several ways, including the following, by:

- requiring us to dedicate a substantial portion of our cash flow from operations to service our existing indebtedness, thereby reducing the cash available to finance our operations and other business activities and could limit our flexibility in planning for or reacting to changes in our business and the industry in which we operate;
- increasing our vulnerability to economic downturns and adverse developments in our business;

Table of Contents

- limiting our ability to access the capital markets to raise capital on favorable terms or to obtain additional financing for working capital, capital expenditures or acquisitions or to refinance existing indebtedness;
- placing restrictions on our ability to obtain additional financing, make investments, lease equipment, sell assets and engage in business combinations;
- placing us at a competitive disadvantage relative to competitors with lower levels of indebtedness in relation to their overall size or less restrictive terms governing their indebtedness; and
- making it more difficult for us to satisfy our obligations under the notes or other indebtedness and increase the risk that we may default on our debt obligations.

Our ability to meet our expenses and debt obligations will depend on our future performance, which will be affected by financial, business, economic, regulatory and other factors. We will not be able to control many of these factors, such as economic conditions and governmental regulation. We will depend on our senior secured credit facility for future capital needs because we use operating cash flows for investing activities and borrow as needed. We cannot be certain that our cash flow will be sufficient to allow us to pay the principal and interest on our indebtedness, including the notes, and meet our other obligations. If we do not have enough money, we may be required to refinance all or part of our existing indebtedness, including the notes, sell assets, borrow more money or raise equity. We may not be able to refinance our indebtedness, sell assets, borrow more money or raise equity on terms acceptable to us, if at all. Our ability to comply with the financial and other restrictive covenants in our indebtedness will be affected by the levels of cash flow from our operations and future events and circumstances beyond our control. Failure to comply with these covenants would result in an event of default under our indebtedness, and such an event of default could adversely affect our business, results of operations, financial condition and ability to service the notes.

We may not be able to generate enough cash flow to meet our debt obligations.

We expect our earnings and cash flow to vary significantly from year to year due to the cyclical nature of our industry. As a result, the amount of debt that we can service in some periods may not be appropriate for us in other periods. Additionally, our future cash flow may be insufficient to meet our debt obligations and commitments, including the notes. Any insufficiency could negatively impact our business. A range of economic, competitive, business and industry factors will affect our future financial performance, and, as a result, our ability to generate cash flow from operations and to pay our debt, including the notes. Many of these factors, such as oil and natural gas prices, economic and financial conditions in our industry and the global economy or competitive initiatives of our competitors, are beyond our control.

If we do not generate enough cash flow from operations to satisfy our debt obligations, we may have to undertake alternative financing plans, such as:

- refinancing or restructuring our debt;

- selling assets;
- reducing or delaying capital investments; or
- seeking to raise additional capital.

However, we cannot assure you that undertaking alternative financing plans, if necessary, would allow us to meet our debt obligations. Our inability to generate sufficient cash flow to satisfy our debt obligations, including our obligations under the notes, or to obtain alternative financing, could materially and adversely affect our ability to make payments on the notes and our business, financial condition and results of operations.

Table of Contents

Indebtedness under our senior secured credit facility is effectively senior to the notes to the extent of the value of the collateral securing such indebtedness.

Our senior secured credit facility has a first priority lien on all of the assets of our company and our guarantor subsidiaries, with certain exceptions. The notes have a second priority lien on all of the assets of our company and our guarantor subsidiaries, with certain exceptions, to the extent such assets are collateral securing our senior secured credit facility. Under the intercreditor agreement among the lender under our senior secured credit facility, the trustee under the notes and the notes collateral agent, following an event of default any proceeds received upon liquidation of the collateral will be distributed first to the lenders under our senior secured credit facility to be applied first to the costs and expenses incurred with such realization, and second to any other amounts outstanding under the senior secured credit facility, until such priority bank debt is paid in full, before any amounts will be available to pay the holders of the notes. Accordingly, holders of indebtedness representing priority bank debt under our senior secured credit facility will be entitled to receive proceeds from the realization of value of such collateral to repay such indebtedness in full before the holders of the notes will be entitled to any recovery from such collateral. As a result, holders of the notes will only be entitled to receive proceeds from the realization of collateral after all indebtedness and other obligations under our senior secured credit facility are repaid in full. The notes are effectively junior in right of payment to indebtedness under our senior secured credit facility to the extent of the realizable value of such collateral.

The value of the collateral securing the notes may not be sufficient to satisfy our obligations under the notes.

The notes and the related subsidiary guarantees are secured, subject to permitted liens, by a second priority lien in the collateral that secures our senior secured credit facility. The notes and the related subsidiary guarantees will not be secured by certain excluded assets described in Description of the Exchange Notes Security and the assets of our non-guarantor subsidiaries. The indenture governing the notes permits us to incur additional indebtedness secured by a lien that ranks equally with or prior to the notes. Any such indebtedness may further limit the recovery from the realization of the value of such collateral available to satisfy holders of the notes.

No appraisal of the value of the collateral has been made in connection with the exchange offer, and in the event of a liquidation, the value of the collateral securing our obligations under our senior secured credit facility and the notes will depend on market and economic conditions, the availability of buyers and other factors. Furthermore, by its nature some or all of the collateral may be illiquid and have no readily ascertainable market value. The book value of the collateral should not be relied on as a measure of realizable value for such assets. We cannot assure you that the collateral can be sold in a short period of time or at all, or that the proceeds from the sale or sales of all of such collateral would be sufficient to satisfy the amounts outstanding under the notes and all of the obligations under our senior secured credit facility. If these proceeds are not sufficient to repay amounts outstanding under the notes, then holders of the notes, to the extent not repaid from the proceeds of the sale of the collateral, would only have unsecured claims against our remaining assets, which claims would rank equally with all of our general unsecured indebtedness and obligations, including trade payables.

To the extent that liens securing obligations under our senior secured credit facility representing priority bank debt, pre-existing liens and other permitted liens encumber any of the collateral securing the notes and the subsidiary guarantees, the parties having the benefit of those liens have or may exercise rights and remedies with respect to the collateral that could adversely affect the value of the collateral and the ability of the notes collateral agent, the trustee under the indenture or the holders of the notes to realize or foreclose on the collateral.

There may not be sufficient collateral to pay off the notes and additional indebtedness that we may incur that would be secured on the same basis as the notes. Liquidating the collateral securing the notes may not result in proceeds in an amount sufficient to pay any amounts due under the notes after satisfying the obligations to pay any creditors with prior liens. If the proceeds of any sale of collateral are not sufficient to repay all

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

amounts due on the notes, the holders of the notes (to the extent not repaid from the proceeds of the sale of the collateral) would have only an unsecured claim against our and the subsidiary guarantors' remaining assets ranking equally in right of payment with all our other unsecured unsubordinated indebtedness, including trade payables.

Table of Contents

The right of holders of the notes to exercise remedies with respect to the collateral is extremely limited, even during an event of default under the indenture governing the notes.

Any actions that may be taken in respect of any of the collateral, including the ability to cause the commencement of enforcement proceedings against the collateral and to control the conduct of such proceedings, will be controlled and directed by holders of the first priority indebtedness. See Description of the Exchange Notes Intercreditor Agreement. In those circumstances, the notes collateral agent, on behalf of itself, the notes trustee and the holders of the notes, will not have the ability to control or direct such actions, even if an event of default under the indenture governing the notes has occurred or if the rights of the notes trustee, the notes collateral agent or the holders of the notes are or may be adversely affected. The first-priority collateral agent and holders of the first-priority indebtedness are under no obligation to take into account the interests of the notes trustee, the notes collateral agent or the holders of the notes when determining whether and how to exercise their rights with respect to the collateral, and their interests and rights may be significantly different from or adverse to those of the holders of the notes. To the extent that collateral is released from the first-priority liens in connection with an exercise of remedies, subject to certain conditions, the second-priority liens securing the notes and the subsidiary guarantees related thereto will also automatically be released without any consent of or notice to the notes collateral agent, except that such release will not occur upon the release of collateral in connection with the full repayment of our obligations under the first-priority indebtedness and the termination of the commitments related thereto. See Description of the Exchange Notes Intercreditor Agreement.

The notes are effectively subordinated to the liabilities of our subsidiaries that do not guarantee the notes and the assets of such non-guarantor subsidiaries will not be available as security for the notes.

Certain of our subsidiaries will not guarantee the notes, and the assets of these non-guarantor subsidiaries will not be available as security for the notes. In addition, although INOVA will not guarantee the notes or otherwise provide any direct credit support, INOVA has caused a standby letter of credit to be issued for the benefit of lenders under our senior secured credit facility. Likewise, OceanGeo will not guarantee the notes or otherwise provide any direct credit support. To the extent that any of our subsidiaries and joint ventures do not guarantee the notes, the notes will be structurally subordinated to all existing and future obligations, including indebtedness, of such non-guarantor entities. As a result, the claims of creditors of the non-guarantor entities, including trade creditors, will have priority as to the assets of those entities. At December 31, 2013, our subsidiaries that are not guaranteeing the notes had indebtedness and other liabilities outstanding (excluding intercompany liabilities) equal to approximately \$36.0 million, consisting of approximately \$25.1 million of trade payables and other accrued expenses including deferred revenues, approximately \$1.5 million of indebtedness related to our facility lease obligations and approximately \$0.3 million of outstanding equipment capital lease obligations (which are generally secured by liens on the assets being leased). At December 31, 2013, our subsidiaries that are not guaranteeing the notes had aggregate net revenues of approximately \$211.6 million, or 38.5% of our consolidated 2013 net revenues, excluding intercompany revenues, and, at December 31, 2013, had total assets of approximately \$195.8 million, or approximately 22.6% of our total consolidated assets, excluding intercompany investments and receivables.

Our variable rate indebtedness subjects us to interest rate risk, which could cause our debt service obligations to increase significantly.

Borrowings under our senior secured credit facility bear interest at variable rates and expose us to interest-rate risk. If interest rates increase and we are unable to effectively hedge our interest-rate risk, our debt-service obligations on the variable-rate indebtedness would increase even if the amount borrowed remained the same, and our net income and cash available for servicing our other indebtedness would decrease. A 1% increase in interest rates on the indebtedness outstanding under our senior secured credit facility as of December 31, 2013 would have cost us approximately \$0.4 million in additional annual interest expense.

Despite our current level of indebtedness, we may still be able to incur substantially more debt.

We may be able to incur substantial additional indebtedness in the future, subject to certain limitations, including under our senior secured credit facility and under the indenture governing the notes. If new indebtedness is added to our current debt levels, the related risks that we now face could increase. Our level of indebtedness could, for instance, prevent us from engaging in transactions that might otherwise be beneficial to us or from making desirable capital expenditures. This could put us at a competitive disadvantage relative to other less leveraged

Table of Contents

competitors that have more cash flow to devote to their operations. In addition, the incurrence of additional indebtedness could make it more difficult to satisfy our existing financial obligations, including those relating to the notes. Furthermore, if we incur any additional indebtedness that ranks equal to the notes, the holders of that indebtedness will be entitled to share ratably with you in any proceeds distributed in connection with any insolvency, liquidation, reorganization, dissolution or other winding up of our company.

Our senior secured credit facility and the indenture governing the notes contain a number of restrictive covenants that limit our ability to finance future operations or capital needs or engage in other business activities that may be in our interest.

Our senior secured credit facility and the indenture governing the notes impose, and the terms of any future indebtedness may impose, operating and other restrictions on us and our subsidiaries. Such restrictions affect or will affect, and in many respects limit or prohibit, among other things, our ability and the ability of our restricted subsidiaries to:

- incur additional indebtedness (including certain capital lease obligations), grant or incur additional liens on our properties, pledge shares of our subsidiaries, enter into certain merger or other change-in-control transactions, enter into certain transactions with our affiliates, make certain sales or other dispositions of assets, make certain investments and acquire other businesses;
- pay cash dividends on our common stock; and
- repurchase and acquire our capital stock.

Our senior secured credit facility contains other restrictions and covenants and requires us to achieve certain financial and operating results and maintain compliance with specified financial ratios. Our ability to comply with these ratios may be affected by events beyond our control. We cannot assure you that we will be able to maintain compliance with these covenants in the future and, if we fail to do so, that we will be able to obtain waivers from the lenders and/or amend the covenants.

The restrictions contained in our senior secured credit facility and the indenture could:

- limit our ability to plan for or react to market or economic conditions or meet capital needs or otherwise restrict our activities or business plans; and
- adversely affect our ability to finance our operations or other capital needs or to engage in other business activities that would be in our interest.

A failure to comply with the restrictions in our senior secured credit facility or the indenture governing the notes could result in an event of default under the indenture. Our future operating results may not be sufficient to enable compliance with the covenants in our senior secured credit facility or the indenture governing the notes or to remedy any such default. In addition, in the event of an acceleration, we may not have or be able to obtain sufficient funds to refinance our indebtedness or make any accelerated payments, including those under our senior secured credit facility or the notes. Also, we may not be able to obtain new financing. Even if we were able to obtain new financing, we cannot guarantee that the new financing will be on commercially reasonable terms or terms that are acceptable to us. If we default on our indebtedness, our business, financial condition or results of operations could be materially and adversely affected. Please refer to the section in this prospectus entitled Description of Certain Indebtedness.

Table of Contents

INOVA Geophysical has caused a standby letter of credit to be issued in support of our obligations under our senior secured credit facility. In the event INOVA is dissolved or the administrative agent under our senior secured credit facility determines in good faith that INOVA is unable to perform its obligations under its guaranty, the maturity date of our senior secured credit facility could be accelerated.

Our senior secured credit facility is guaranteed by a \$175.0 million standby letter of credit issued by China Merchant Bank, Tianjin Branch, on behalf of INOVA Geophysical (the INOVA LC). The agent under our senior secured credit facility, CMB, may draw on the INOVA LC to pay unpaid amounts due to CMB under our senior secured credit facility. We have also entered into a credit support agreement with INOVA Geophysical whereby we have agreed to indemnify INOVA Geophysical for any and all losses sustained by INOVA Geophysical that arise out of or are a result of the enforcement of the INOVA LC. Our senior secured credit facility provides that in the event that INOVA is dissolved or the agent determines in good faith that INOVA is unable to perform its obligations under its guaranty, the maturity date of the indebtedness would be accelerated to that date which is 18 months after such dissolution or determination.

The indenture permits additional notes to be issued under the debt incurrence covenant to be secured by an equal and ratable lien on the collateral. The value of your rights to the collateral would be reduced by any increase in the indebtedness secured by the collateral.

We are permitted to issue additional notes under the indenture secured by an equal and ratable lien on the collateral. The value of your rights to the collateral would be reduced by any increase in the indebtedness secured by the collateral. The value of the collateral and the amount to be received upon a sale of such collateral will depend upon many factors, including, among others, the condition of the collateral, the ability to sell the collateral in an orderly sale, the condition of international, national and local economies and of our industry more generally, the availability of buyers and similar factors. No appraisal has been obtained in respect of the collateral in connection with the notes offering, and you should not rely upon the book value of the collateral as a measure of realizable value for such assets. By their nature, portions of the collateral may be illiquid and may have no readily ascertainable market value. In addition, a significant portion of the collateral includes assets that may only be usable, and thus retain value, as part of our existing operating businesses.

Accordingly, any such sale of the collateral separate from the sale of certain operating businesses may not be feasible or of significant value. To the extent that holders of other secured indebtedness or other third parties hold liens (including statutory liens), whether or not permitted by the indenture governing the notes, such holders or other third parties may have rights and remedies with respect to the collateral securing the notes that, if exercised, could reduce the proceeds available to satisfy the obligations under the notes.

Bankruptcy laws may significantly impair your rights to repossess and dispose of collateral securing the notes.

If a bankruptcy case were commenced by or against us prior to the repossession and disposition of collateral, the right of the notes collateral agent or the trustee to repossess and dispose of the collateral upon the occurrence of an event of default under the indenture is likely to be significantly impaired by applicable bankruptcy law. A voluntary bankruptcy case may be commenced by us or an involuntary bankruptcy case may be instituted against us by unsecured creditors.

The automatic stay under applicable bankruptcy law prohibits secured creditors, such as the holders of the notes and the lender under our senior secured credit facility, from repossessing their security from a debtor in a bankruptcy case, or from disposing of collateral in their possession, without bankruptcy-court approval. Moreover, applicable bankruptcy law permits the debtor to retain and use the collateral even though the

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

debtor is in default under the applicable debt instruments, provided that the secured creditor is given adequate protection.

The meaning of the term adequate protection may vary according to circumstances, but it is generally intended to protect the value of the secured creditor's interest in the collateral from diminution as a result of the automatic stay during the pendency of the bankruptcy case. Adequate protection may include cash payments or the granting of additional security or replacement liens of such type, at such time and in such amounts as the bankruptcy court may determine.

Table of Contents

In view of the lack of a precise definition of the term adequate protection, the broad discretionary powers of a bankruptcy court and the possible complexity of valuation issues, it is impossible to predict how long payments under the notes could be delayed following commencement of a bankruptcy case, whether or when the collateral agent or the trustee could repossess or dispose of the collateral or whether or to what extent, through the requirement of adequate protection, the holders of the notes would be compensated for any delay in payment or loss of value of the collateral.

Further, the holders of the notes may receive in exchange for their claims a recovery that could be substantially less than the amount of their claims (potentially even nothing), and any such recovery could be in the form of cash, new debt instruments or some other security. Furthermore, in the event the bankruptcy court determines that the value of the collateral is not sufficient to repay all amounts due on the notes, the holders of the notes would have undersecured claims as to the difference. Applicable federal bankruptcy laws do not permit the payment or accrual of post-petition interest, costs and attorneys fees for undersecured claims during the debtor's bankruptcy case.

In addition, the collateral agent or the trustee's ability to foreclose on the collateral on behalf of the holders of the notes may be subject to lack of perfection, the consent of third parties, other liens, contractual restrictions, priority issues, state law requirements and practical problems associated with the enforcement of the collateral agent or the trustee's security interest in the collateral securing the notes.

Factors that might bear on the recovery by the holders of the notes in these circumstances, among others, would include:

- a debtor in a bankruptcy case does not have the ability to compel performance of a financial accommodation ;
- lenders with higher priority liens may seek, and perhaps receive, relief from the automatic stay to foreclose their respective liens; and
- the cost and delay of developing a confirmed Chapter 11 plan could reduce the present value of revenues.

Contract rights under agreements serving as collateral for the notes may be rejected in bankruptcy.

Among other things, contract rights under certain of our agreements serve as collateral for the notes. If a bankruptcy case were to be commenced by or against any counterparty to any of these agreements, it is possible that such agreement could be rejected by such counterparty (or a trustee appointed in such counterparty's bankruptcy case) pursuant to section 365 or section 1123 of the United States Bankruptcy Code and thus not be enforceable. Additionally, to the extent any rejected agreement constitutes a lease of real property where we are the lessor, our resulting claim for damages resulting from termination of such lease may be capped pursuant to section 502(b)(6) of the bankruptcy code.

In addition, in a bankruptcy proceeding, the court would have broad discretion to order or approve transactions or acts that could disadvantage the holders of the notes. For example, under certain circumstances, a bankruptcy court could approve, on terms unfavorable to us, third parties

motions for sales of collateral and require you to accept subordinated or other securities in exchange for the notes. Regardless of the ultimate disposition of any of these or other motions or claims, we cannot assure you that during litigation of these issues our payments on the notes would be paid in full or on time.

Federal and state statutes allow courts, under specific circumstances, to avoid guarantees and the liens securing such guarantees and to require noteholders to return payments received from us or the guarantors.

Our creditors or the creditors of our guarantors could challenge the subsidiary guarantees and the liens securing those subsidiary guarantees as fraudulent conveyances or on other grounds. Under the federal bankruptcy laws and comparable provisions of state fraudulent-transfer laws, the delivery of the subsidiary guarantees and the

Table of Contents

grant of the liens securing the subsidiary guarantees could be avoided as fraudulent transfers if a court determined that the applicable guarantor, at the time it incurred the indebtedness evidenced by its guarantee or granted its lien:

- delivered the guarantee or granted the lien with the intent to hinder, delay or defraud its existing or future creditors; or

- received less than reasonably equivalent value or did not receive fair consideration for the delivery of the guarantee and the incurrence of the lien, and that such guarantor:
 - (1) was insolvent or rendered insolvent at the time it delivered the guarantee or granted the lien;

 - (2) was engaged in a business or transaction for which such guarantor's remaining assets constituted unreasonably small capital; or

 - (3) intended to incur, or believed that it would incur, debts beyond its ability to pay such debts as they mature.

If the subsidiary guarantees were avoided or limited under fraudulent transfer or other laws, any claim you may make against us for amounts payable on the notes would be effectively subordinated to all of the indebtedness and other obligations of our guarantors, including trade payables and any subordinated indebtedness. If the granting of liens to secure the subsidiary guarantees were avoided or limited under fraudulent transfer or other laws, the subsidiary guarantees could become unsecured claims to the extent of the avoidance or limitation, ranking equally with all general unsecured claims of the guarantors, or be voided altogether.

The measures of insolvency for purposes of these fraudulent transfer laws will vary depending upon the law applied in any proceeding to determine whether a fraudulent transfer has occurred. Generally, however, a guarantor would be considered insolvent if:

- the sum of its debts, including contingent liabilities, was greater than the fair saleable value of all of its assets;

- the present fair saleable value of its assets was less than the amount that would be required to pay its probable liability on its existing debts, including contingent liabilities, as they became absolute and matured; or

- it could not pay its debts as they became due.

We cannot be sure what standard a court would apply in making these determinations or, regardless of the standard, that a court would not void the subsidiary guarantees or that any subsidiary guarantee would not be subordinated to a guarantor's other indebtedness.

Any additional guarantees or liens on collateral provided after the notes are issued could also be voided as preferential transfers.

The indenture governing the notes provides that certain future domestic restricted subsidiaries will guarantee the notes and secure their guarantees with liens on their assets. The indenture also requires us to grant liens on certain assets that we and the existing guarantors acquire after the notes are issued. If we or the guarantors provided new collateral for the notes, and were insolvent at the time the lien was granted or commenced a bankruptcy within 90 days after the lien was granted, the lien could be voided as a preferential transfer.

Table of Contents

We are permitted to create unrestricted subsidiaries, which are not subject to any of the covenants in the indenture, and we may not be able to rely on the cash flows or assets of those unrestricted subsidiaries to pay our indebtedness.

Unrestricted subsidiaries are not subject to the covenants under the indenture governing the notes, and their assets are not available to pledge as security for the notes. Unrestricted subsidiaries may enter into financing arrangements that limit their ability to make loans or other payments to fund payments in respect of the notes, and the sale of our equity interests in an unrestricted subsidiary will not constitute an Asset Sale under the terms of the indenture. Accordingly, we may not be able to rely on the cash flows or assets of unrestricted subsidiaries to pay any of our indebtedness, including the notes.

We may not be able to fulfill our repurchase obligations with respect to the notes upon a change of control.

If we experience certain specific change-of-control events, we will be required to offer to repurchase all of our outstanding notes at a price equal to 101% of the aggregate principal amount of such notes, plus accrued and unpaid interest to the date of repurchase. We cannot assure you that we will have available funds sufficient to pay the change-of-control purchase price for any or all of the notes that might be tendered in the change-of-control offer.

The definition of change of control in the indenture governing the notes includes a phrase relating to the direct or indirect sale, transfer, conveyance or other disposition of all or substantially all of our and our restricted subsidiaries' assets, taken as a whole. Although there is a limited body of case law interpreting the phrase substantially all, there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a holder of notes to require us to repurchase such notes as a result of a sale, transfer, conveyance or other disposition of less than all of our and our restricted subsidiaries' assets taken as a whole to another person or group may be uncertain.

In addition, our senior secured credit facility agreement contains, and any future credit agreement likely will contain, restrictions or prohibitions on our ability to repurchase the notes under certain circumstances. If these change-of-control events occur at a time when we are prohibited from repurchasing the notes, we may seek the consent of our lenders to purchase the notes or could attempt to refinance the borrowings that contain these prohibitions or restrictions. If we do not obtain our lenders' consent or refinance these borrowings, we will not be able to repurchase the notes. Accordingly, the holders of the notes may not receive the change-of-control purchase price for their notes in the event of a sale or other change of control, which will give the trustee and the holders of the notes the right to declare an event of default and accelerate the repayment of the notes. See Description of the Exchange Notes Repurchase at the Option of Holders Change of Control.

A Delaware court has held that a provision similar to the change-of-control put right in the indenture for the notes may not be enforceable if it is used to improperly limit the ability of equity owners to effect a change of control.

The Chancery Court of Delaware has held in a published opinion that a provision in an indenture requiring a majority of the directors of the company issuing the notes be continuing directors could breach the fiduciary duties of the directors and be unenforceable if improperly used to prevent shareholders from effecting a change of control of the company. Under the continuing-director provision of the indenture for the notes, a majority of our board of directors must be continuing directors defined as either (i) a director on the date of the indenture or (ii) a director whose nomination for election, or whose election, to the board of directors was approved by a majority of the continuing directors who were members of the board of directors at the time of nomination or election. Under the court's decision, a decision by a board of directors not to approve

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

dissident shareholder nominees as continuing directors and to allow a change of control to occur would be subject to enhanced fiduciary duties typically applied in corporate change-of-control disputes. If the directors do not properly discharge those fiduciary duties, the change-of-control put right could be unenforceable by the holders of the notes. As a result, the ability of the holders of notes to enforce the continuing-director provision in situations in which the provision acted to impede a change of control would be subject to the enhanced judicial scrutiny of the actions by our directors not to approve the director nominees whose election caused the provision to be invoked.

Table of Contents

There are circumstances other than repayment or discharge of the notes under which the collateral securing the notes will be released automatically, without your consent or the consent of the notes collateral agent or the trustee.

Under various circumstances, collateral securing the notes will be released automatically, including:

- a sale, transfer or other disposal of such collateral in a transaction not prohibited under the indenture and the collateral documents, including the intercreditor agreement;
- with respect to collateral that is capital stock, upon the dissolution of the issuer of that capital stock in accordance with the indenture;
- unless there is a continuing default and the notes collateral agent shall have received notice to the contrary, upon withdrawal from any accounts by any obligor in accordance with the applicable collateral document;
- with respect to amounts distributed by the notes collateral agent pursuant to, and in accordance with the provisions of the intercreditor agreement, upon such distribution; and
- with respect to collateral held by a guarantor, upon the release of the guarantor from its guarantee in accordance with the indenture or any collateral document.

In addition, the guarantee of a subsidiary guarantor will be automatically released in connection with a sale of that subsidiary guarantor if the sale is in accordance with the indenture and the obligations of the subsidiary guarantor under our senior secured credit facility and any of our other indebtedness terminate upon that sale.

The indenture also permits us to designate one or more of our restricted subsidiaries that is a guarantor of the notes as an unrestricted subsidiary. If we designate a subsidiary guarantor as an unrestricted subsidiary for purposes of the indenture, all of the liens on any collateral owned by that subsidiary or any of its subsidiaries and any guarantees of the notes by that subsidiary or any of its subsidiaries will be released under the indenture.

Rights of holders of notes in the collateral may be adversely affected by the failure to perfect security interests in collateral.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Applicable law requires that a security interest in certain tangible and intangible assets can only be properly perfected and its priority retained through certain actions undertaken by the secured party. The liens on the collateral securing the notes may not be perfected with respect to the claims of the notes if the notes collateral agent or the trustee is not able to or does not take the actions necessary to perfect any of such liens. For example, liens on our U.S. patents and trademarks may not be perfected because there have not been and there will not be any filings made with respect to such intellectual property with the U.S. Patent and Trademark Office due to the fact that the lenders under our senior secured credit facility have not made such filings and will not permit such filings to be made on behalf of the noteholders. In addition, applicable law requires that certain property and rights acquired after the grant of a general security interest can only be perfected at the time such property and rights are acquired and identified. There can be no assurance that the notes collateral agent or the trustee will monitor, or that we will inform the notes collateral agent or the trustee of, the future acquisition of property and rights that constitute collateral, and that the necessary action will be taken to properly perfect the security interest in such after-acquired collateral. The notes collateral agent and the trustee have no obligation to identify or take actions necessary to perfect liens or to monitor the acquisition of additional property or rights that constitute collateral or the perfection of any security interest. Such failure may result in the loss of the security interest in the collateral or the priority of the security interest in favor of the notes against third parties. To the extent that the security interests created by the security documents with respect to any collateral are not perfected, the notes collateral agent's rights will be equal to the rights of general unsecured creditors in the event of a bankruptcy.

Table of Contents

The collateral is subject to casualty risks and insurance proceeds received, if any, may be insufficient to satisfy all of our secured obligations.

We will be obligated to maintain insurance pursuant to the terms of the indenture and the collateral documents. However, there are certain losses that may be either uninsurable or not economically insurable, in whole or in part, or against which we may not obtain adequate insurance. As a result, it is possible that insurance proceeds will not compensate us fully for our losses. If there is a total or partial loss of any of the collateral, we cannot assure you that any insurance proceeds received by us will be sufficient to satisfy all of our secured obligations, including the notes.

An adverse rating of the notes may cause their trading price to fall.

If a rating agency rates the notes, it may assign a rating that is lower than the rating expected by the noteholders. Ratings agencies also may lower ratings on the notes or any of our other debt in the future. If rating agencies assign a lower-than-expected rating or reduce, or indicate that they may reduce, their ratings of our debt in the future, the trading price of the notes could significantly decline.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges, or the deficiency of earnings available to cover fixed charges, as appropriate, for each of the periods indicated.

	Years Ended December 31,			
2013	2012	2011	2010	2009
Ratio of Earnings to Fixed Charges	9.0x	5.7x	1.4x	

For purposes of calculating these ratios, earnings is defined as pre-tax income from continuing operations before adjustment for income or loss from equity investees plus fixed charges. Fixed charges consist of interest on all indebtedness plus amortization of debt issuance costs and the portion of rental expense that we believe is representative of the interest component of rental expense. For the fiscal years ended December 31, 2009 and 2013, earnings were insufficient to cover fixed charges by \$130.0 million and \$178.5 million, respectively.

THE EXCHANGE OFFER

Purpose and Effect

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

We issued and sold the Restricted Notes on May 13, 2013, in a transaction not registered under the Securities Act in reliance upon the exemption provided by Section 4(2) of the Securities Act. The concurrent sale of the Restricted Notes by the initial purchasers to investors was done in reliance upon the exemptions from registration provided by Rule 144A and Regulation S of the Securities Act. In connection with the issuance of the Restricted Notes, the Company and the guarantors entered into a registration rights agreement with the initial purchasers of the notes. Under that agreement, we agreed to use commercially reasonable efforts to file a registration statement related to the exchange of Restricted Notes for Exchange Notes with the SEC, to cause the registration statement to become effective under the Securities Act, to issue Exchange Notes on or prior to 30 business days, or longer, if required by applicable securities laws, after the date on which the exchange offer registration statement is declared effective, and to consummate the exchange offer by no later than the 365th day after May 13, 2013, the issue date of the Restricted Notes.

Upon the effectiveness of the registration statement, we are to offer you the opportunity to exchange your Restricted Notes for a like principal amount of Exchange Notes. If we fail to satisfy our registration obligations under the registration rights agreement, including, if required, our obligation to have an effective shelf registration statement covering resales of the Restricted Notes, we will be required to pay special interest to the holders of the

Table of Contents

Restricted Notes, in an amount equal to 0.25% per year and an additional 0.25% per year for each subsequent 90-day period until effectiveness, up to a maximum of 1.00% per year. For more information on when and under what conditions special interest would come due, see Interest and Special Interest below.

Except as set forth below, these Exchange Notes will be issued without a restrictive legend or special interest provisions and, we believe, may be reoffered and resold by you without registration under the Securities Act. After we complete the exchange offer, our obligations with respect to the registration of the Restricted Notes and the Exchange Notes will terminate. Notwithstanding anything to the contrary set forth in this prospectus, the exchange offer is not being made to you, and you may not participate in the exchange offer, if (a) you are our affiliate within the meaning of Rule 405 of the Securities Act or (b) you are a broker-dealer that acquired Restricted Notes directly from us.

Based on interpretations by the staff of the SEC set forth in no-action letters issued to third parties unrelated to us, we believe that the Exchange Notes to be issued to you in the exchange offer may be offered for resale, resold and otherwise transferred by you, without compliance with the registration and prospectus delivery provisions of the Securities Act so long as:

- any Exchange Notes to be issued in the exchange offer that will be received by you will be acquired in the ordinary course of your business;
- at the time of the commencement and consummation of the exchange offer, you have not entered into any arrangement or understanding with any person to participate in any distribution (within the meaning of the Securities Act) of the Exchange Notes in violation of the provisions of the Securities Act;
- you are not an affiliate of the Company within the meaning of Rule 405 of the Securities Act;
- you are not engaging in, and do not intend to engage in, a distribution of the Exchange Notes to be issued to you in the exchange offer; and
- if you are a broker-dealer that will receive Exchange Notes for your own account in exchange for Restricted Notes that were acquired by you as a result of market-making or other trading activities, you will deliver a prospectus in connection with any resale of the Exchange Notes.

If you have any of the disqualifications described above or cannot make each of the representations set forth above, you may not rely on the interpretations by the staff of the SEC referred to above. Under those circumstances, you must comply with the registration and prospectus-delivery requirements of the Securities Act in connection with a sale, transfer or other disposition of any Exchange Notes unless you are able to utilize an applicable exemption from all of those requirements. In addition, each broker-dealer that receives Exchange Notes in the exchange offer for its own account in exchange for Restricted Notes that were acquired by the broker-dealer as a result of market-making activities or other trading activities, must acknowledge that it will deliver a prospectus meeting the requirements of the Securities Act in

connection with any resales of those Exchange Notes. See Plan of Distribution.

Terms of the Exchange Offer

Upon the terms and subject to the conditions set forth in this prospectus and in the letter of transmittal, we will accept any and all Restricted Notes validly tendered and not withdrawn prior to 5:00 p.m., New York City time, on _____, 2014. You may tender some or all of your Restricted Notes pursuant to the exchange offer. However, Restricted Notes may be tendered only in minimum denominations of \$2,000 and any integral multiple of \$1,000 in excess thereof.

The form and terms of the Exchange Notes are substantially the same as the form and terms of the Restricted Notes, except that the Exchange Notes to be issued in the exchange offer have been registered under the Securities Act and will not bear legends restricting their transfer or contain special interest provisions. The Exchange

Table of Contents

Notes will evidence the same debt as the Restricted Notes and will be issued under, and entitled to the benefits of, the same indenture as the Restricted Notes.

As of the date of this prospectus, \$175.0 million aggregate principal amount of Restricted Notes are outstanding. This prospectus, together with the letter of transmittal (attached hereto as Exhibit 99.1) and related documents, is being sent to all registered holders and to others believed to have beneficial interests in the Restricted Notes. We intend to conduct the exchange offer in accordance with the applicable requirements of the Exchange Act and the rules and regulations of the SEC promulgated under the Exchange Act.

As soon as practicable after the close of the exchange offer, we will accept for exchange all Restricted Notes validly tendered and not withdrawn. We will then deliver all of the Restricted Notes accepted for exchange to the Trustee for cancellation. The Trustee and no one else can cancel the Restricted Notes tendered by you for exchange. Upon authenticating the Restricted Notes, the Trustee will deliver promptly to you Exchange Notes equal in principal amount to the Restricted Notes. The Trustee will destroy the canceled Restricted Notes (subject to the record-retention requirements of the Exchange Act). Certification of the destruction of all canceled Restricted Notes will then be delivered to the Company.

We will be deemed to have accepted validly tendered Restricted Notes when, as and if we have given oral or written notice of our acceptance to the exchange agent. The exchange agent will act as our agent for the tendering holders for the purpose of receiving the Exchange Notes from us. Any Restricted Notes not accepted for exchange for any reason will be returned without expense to an account maintained with DTC promptly after the expiration or termination of the exchange offer.

You will not be required to pay brokerage commissions or fees or, except as set forth below under **Transfer Taxes**, transfer taxes or similar governmental charges with respect to the exchange of your Restricted Notes in the exchange offer. We will pay all charges and expenses, other than applicable taxes, in connection with the exchange offer. See **Fees and Expenses** below.

Interest and Special Interest

Interest on the Exchange Notes will accrue from the last interest payment due date on which interest was paid on the Restricted Notes surrendered in exchange therefor or, if no interest has been paid on the Restricted Notes, from the date of original issue of the Restricted Notes. Each Exchange Note shall bear interest at the rate set forth thereon; *provided*, that interest with respect to the period prior to the issuance thereof shall accrue at the rate or rates borne by the Restricted Notes from time to time during such period.

If we fail to satisfy our registration obligations under the registration rights agreement, including, if required, our obligation to have an effective shelf registration statement covering resales of the Restricted Notes, we will be required to pay special interest to the holders of the Restricted Notes, in an amount equal to 0.25% per year and an additional 0.25% per year for each subsequent 90-day period until effectiveness, up to a maximum of 1.00% per year.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Pursuant to the registration rights agreement, we will pay special interest under the circumstances and to the extent set forth below (each, a Registration Default, each of which shall be given independent effect) commencing on the first day on which the first Registration Default shall have occurred:

(i) if (A) neither an exchange offer registration statement nor an initial shelf registration is declared effective on or prior to May 13, 2014 (the 365th day after May 13, 2013, the closing date of the Restricted Notes sales), or (B) notwithstanding that we have consummated or will consummate an exchange offer, we are required to file a shelf registration statement and such shelf registration statement is not declared effective on or prior to the date required by the registration rights agreement;

(ii) if we (and any subsidiary guarantor) have not exchanged Exchange Notes for all Restrictive Notes validly tendered in accordance with the terms of the exchange offer on or prior to 30 business days after May 13, 2014 (the 365th day after May 13, 2013, the closing date of the sale of the Restricted Notes); or

Table of Contents

(iii) if a exchange offer registration statement or, if applicable, a shelf registration statement, has been declared effective and such registration statement ceases to be effective or usable in connection with resales of Restricted Notes, other than during any period that the exchange offer registration statement or shelf registration statement is unusable as a result of (A) action reasonably taken by us or any of the subsidiary guarantors required by applicable law or (B) the pending announcement of a material corporate transaction for which we have issued a written notice pursuant to Section 5(e)(iv) or (v) of the registration rights agreement (the Blackout Period), provided that the Blackout Period shall not exceed 45 days in any three-month period, or 90 days in any 12-month period.

We will notify the Trustee within three business days after each and every date on which an event occurs in respect of which special interest is required to be paid. Upon the effectiveness of the exchange offer registration statement or initial shelf registration (in the case of (i) above), upon the exchange of Exchange Notes for all Restricted Notes tendered (in the case of (ii) above), or upon the effectiveness of the exchange offer registration statement or shelf registration statement that had ceased to remain effective (in the case of (iii) above), special interest on the Restricted Notes shall cease to accrue.

Any amounts of special interest due will be payable in cash, on the dates and in the manner provided in the indenture and whether or not any cash interest would then be payable on such date, commencing with the first such semi-annual date occurring after any such special interest commences to accrue. The amount of special interest will be determined by multiplying the applicable special interest rate by the principal amount of the Restricted Notes, multiplied by a fraction, the numerator of which is the number of days such special interest rate was applicable during such period (determined on the basis of a 360-day year comprised of twelve 30-day months and, in the case of a partial month, the actual number of days elapsed), and the denominator of which is 360.

Expiration Date; Amendments

The exchange offer will expire at 5:00 p.m., New York City time, on _____, 2014 unless we determine, in our sole discretion, to extend the exchange offer, in which case it will expire at the later date and time to which it is extended. We do not intend to extend the exchange offer, although we reserve the right to do so. If we extend or terminate the exchange offer, we will give oral or written notice of the extension to the exchange agent and give each registered holder notice by means of a press release or other public announcement of any extension prior to 9:00 a.m., New York City time, on the next business day after the scheduled expiration date. If we determine to extend the exchange offer, we do not intend to extend it beyond _____, 2014.

We also reserve the right, in our sole discretion,

(i) to delay accepting any Restricted Notes, in a manner compliant with Rule 14e-1(c) of the Exchange Act, in the event the exchange offer is extended;

(ii) subject to applicable law and by complying with Rule 14e-1(d) under the Exchange Act to the extent that rule applies, to extend the exchange offer or, if any of the conditions set forth below under Conditions to the Exchange Offer have not been satisfied or waived, to terminate the exchange offer by giving oral or written notice of the delay or termination to the exchange agent; or

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(iii) to amend the terms of the exchange offer in any manner, by complying with Rule 14e-1(d) under the Exchange Act to the extent that rule applies. If we make any material amendment to the terms of the exchange offer or waive any material condition, we will keep the exchange offer open for at least five (5) business days after we notify you of such change or waiver. If we make a material change to the terms of the exchange offer, it may be necessary for us to provide you with an amendment to this prospectus reflecting that change. We may only delay, terminate or amend the offer prior to its expiration.

We acknowledge and undertake to comply with the provisions of Rule 14e-1(c) under the Exchange Act, which requires us to return the Restricted Notes tendered for exchange promptly after the termination or withdrawal of the exchange offer. We will notify you as promptly as we can of any extension, termination or amendment.

Table of Contents

Procedures for Tendering Restricted Notes

The Restricted Notes were issued as global notes in fully registered form without interest coupons. Beneficial interests in the global notes held by direct or indirect participants in DTC are shown on, and transfers of these interests are effected only through, records maintained in book-entry form by DTC with respect to its participants. You may only tender your Restricted Notes by book-entry transfer of the Restricted Notes into the exchange agent's account at DTC. The tender to us of Restricted Notes by you, as set forth below, and our acceptance of the Restricted Notes will constitute a binding agreement between us and you, upon the terms and subject to the conditions set forth in this prospectus. Except as set forth below, to tender Restricted Notes for exchange pursuant to the exchange offer, you must transmit to Wilmington Trust, National Association, as exchange agent, on or prior to the time of expiration either:

(i) a written or facsimile copy of a properly completed and duly executed letter of transmittal for your Restricted Notes, including all other documents required by the letter of transmittal, to the exchange agent at the address set forth on the cover page of the letter of transmittal; or

(ii) a computer-generated message transmitted by means of DTC's ATOP system and received by the exchange agent and forming a part of a confirmation of book-entry transfer, in which you acknowledge and agree to be bound by the terms of the letter of transmittal for your notes.

In addition, on or prior to the expiration date:

(i) the exchange agent must receive a timely confirmation of book-entry transfer (a "book-entry confirmation") of the Restricted Notes into the exchange agent's account at DTC; or

(ii) you must comply with the guaranteed delivery procedures described below.

If you are a beneficial owner whose Restricted Notes are registered in the name of a broker, dealer, commercial bank, trust company or other nominee, and wish to tender, you should promptly instruct the registered holder to tender on your behalf. Any registered holder that is a participant in DTC's book-entry transfer facility system may make book-entry delivery of the Restricted Notes by causing DTC to transfer the Restricted Notes into the exchange agent's account. If you wish to tender on your own behalf, you must, prior to completing and executing the letter of transmittal for your Restricted Notes and delivering your Restricted Notes, either make appropriate arrangements to register ownership of the Restricted Notes in your name or obtain a properly completed bond power from the registered holder. The transfer of registered ownership may take considerable time.

Signatures on a letter of transmittal or a notice of withdrawal must be guaranteed by an eligible institution unless:

- Restricted Notes tendered in the exchange offer are tendered either:

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

- by a registered holder who has not completed the box entitled Special Issuance Instructions or Special Delivery Instructions on the letter of transmittal, or
- for the account of an eligible institution; and
- the box entitled Special Registration Instructions on the letter of transmittal has not been completed.

If signatures on a letter of transmittal or a notice of withdrawal are required to be guaranteed, the guarantee must be by a financial institution, which includes most banks, savings and loan associations and brokerage houses, that is a participant in the Securities Transfer Agents Medallion Program, the New York Stock Exchange Medallion Program or the Stock Exchanges Medallion Program. If the letter of transmittal is signed by a person other than you, your Restricted Notes must be endorsed or accompanied by a properly completed bond power and signed by you as your name appears on those Restricted Notes.

Table of Contents

If the letter of transmittal or any Restricted Notes or bond powers are signed by trustees, executors, administrators, guardians, attorneys in-fact, officers of corporations, or others acting in a fiduciary or representative capacity, those persons should so indicate when signing. Unless we waive this requirement, in this instance you must submit with the letter of transmittal proper evidence satisfactory to us of their authority to act on your behalf.

We, in our sole discretion, will make a final and binding determination on all questions as to the validity, form, eligibility (including time of receipt) and acceptance of Restricted Notes tendered for exchange. We reserve the absolute right to reject any and all tenders not properly tendered or to not accept any tender which acceptance might, in our judgment or our counsel's judgment, be unlawful. We also reserve the absolute right to waive any defects or irregularities or conditions of the exchange offer as to any individual tender before the expiration date (including the right to waive the ineligibility of any holder who seeks to tender Restricted Notes in the exchange offer). Our interpretation of the terms and conditions of the exchange offer as to any particular tender either before or after the expiration date will be final and binding on all parties. Unless waived, any defects or irregularities in connection with tenders of Restricted Notes for exchange must be cured within a reasonable period of time, as we may determine. We are not, nor is the exchange agent or any other person, under any duty to notify you of any defect or irregularity with respect to your tender of Restricted Notes for exchange, and no one shall be liable for failing to provide such notification.

As a condition of your participation in the exchange offer, we require that you make the following representations:

- any Exchange Notes to be issued in the exchange offer that will be received by you will be acquired in the ordinary course of your business;
- at the time of the commencement and consummation of the exchange offer, you have not entered into any arrangement or understanding with any person to participate in any distribution (within the meaning of the Securities Act) of the Exchange Notes in violation of the provisions of the Securities Act;
- you are not an affiliate of the Company within the meaning of Rule 405 of the Securities Act;
- you are not engaging in, and do not intend to engage in, a distribution of the Exchange Notes to be issued to you in the exchange offer;
- either (1) you are not acquiring or holding the Exchange Notes with the assets of (A) an employee benefit plan (as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (ERISA)) that is subject to Title I of ERISA, (B) a plan described in and subject to Section 4975 of the Internal Revenue Code of 1986, as amended (the Code), (C) any entity deemed to hold plan assets of any of the foregoing by reason of an employee benefit plan's or plan's investment in such entity, or (D) a governmental, non-U.S. or other plan subject to applicable law that is substantially similar to the fiduciary-responsibility or prohibited-transaction provisions of ERISA or Section 4975 of the Code (Similar Law); or (2) the acquisition and holding of such Exchange Notes by you, throughout the period that you hold such Exchange Notes, do not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code or violate any provisions of Similar Law, as applicable; and

- if you are a broker-dealer that will receive Exchange Notes for your own account in exchange for Restricted Notes that were acquired by you as a result of market-making or other trading activities, you will deliver a prospectus in connection with any resale of the Exchange Notes.

BY TENDERING YOUR RESTRICTED NOTES YOU ARE DEEMED TO HAVE MADE THE FOREGOING REPRESENTATIONS.

For further information regarding resales of the Exchange Notes by participating broker-dealers, see the discussion under the caption Plan of Distribution.

Table of Contents

If any holder or other person is an affiliate of ours, as defined under Rule 405 of the Securities Act, or is engaged in, or intends to engage in, or has an arrangement or understanding with any person to participate in, a distribution of the Exchange Notes, or is not acquiring the Exchange Notes in the ordinary course of its business, that holder or other person cannot rely on the applicable interpretations of the staff of the SEC, may not tender its Restricted Notes in the exchange offer and must comply with the registration and prospectus delivery requirements of the Securities Act in connection with a secondary resale transaction.

Each broker-dealer that receives Exchange Notes for its own account in exchange for Restricted Notes that were acquired by it as a result of market-making activities or other trading activities, must acknowledge that it will deliver a prospectus that meets the requirements of the Securities Act in connection with any resale of the Exchange Notes. By so acknowledging and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an underwriter within the meaning of the Securities Act. See Plan of Distribution.

Furthermore, any broker-dealer that acquired any of its Restricted Notes directly from us:

- may not rely on the applicable interpretation of the staff of the SEC's position contained in Exxon Capital Holdings Corp., SEC no-action letter (April 13, 1988), Morgan, Stanley & Co. Inc., SEC no-action letter (June 5, 1991) and Shearman & Sterling, SEC no-action letter (July 2, 1993); and
- must also be named as a selling securityholder in connection with the registration and prospectus delivery requirements of the Securities Act relating to any resale transaction.

By delivering an agent's message, a beneficial owner (whose Restricted Notes are registered in the name of a broker, dealer, commercial bank, trust company or other nominee) or holder will be deemed to have irrevocably appointed the exchange agent as its agent and attorney-in-fact (with full knowledge that the exchange agent is also acting as an agent for us in connection with the exchange offer) with respect to the Restricted Notes, with full power of substitution (such power of attorney being deemed to be an irrevocable power coupled with an interest subject only to the right of withdrawal described in this prospectus), to receive for our account all benefits and otherwise exercise all rights of beneficial ownership of such Restricted Notes, in accordance with the terms and conditions of the exchange offer.

Each beneficial owner or holder will also be deemed to have represented and warranted to us that it has authority to tender, exchange, sell, assign and transfer the Restricted Notes it tenders and that, when the same are accepted for exchange, we will acquire good, marketable and unencumbered title to such Restricted Notes, free and clear of all liens, restrictions, charges and encumbrances, and that the Restricted Notes tendered are not subject to any adverse claims or proxies. Each beneficial owner and holder, by tendering its Restricted Notes, also agrees that it will comply with its obligations under the registration rights agreement.

Acceptance of Restricted Notes for Exchange; Delivery of Exchange Notes

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Upon satisfaction or waiver of all of the conditions to the exchange offer, we will accept, promptly after the expiration date, all Restricted Notes properly tendered and will issue the Exchange Notes promptly after acceptance of the Restricted Notes. See Conditions to the Exchange Offer. For purposes of the exchange offer, we will be deemed to have accepted properly tendered Restricted Notes for exchange if and when we give oral (confirmed in writing) or written notice to the exchange agent.

The holder of each Restricted Note accepted for exchange will receive an Exchange Note in the amount equal to the surrendered Restricted Note. Holders of Exchange Notes on the relevant record date for the first interest payment date following the consummation of the exchange offer will receive interest accruing from the most recent date to which interest has been paid on the Restricted Notes or, if no interest has been paid, from May 13, 2013, the issue date of the Restricted Notes. Holders of Restricted Notes that are accepted by us for exchange will not receive any accrued or unpaid interest on such Restricted Notes at the time of tender. Rather, than interest will be payable on the Exchange Notes delivered in exchange for the Restricted Notes on the first payment date after the expiration date of the exchange offer.

Table of Contents

In all cases, issuance of Exchange Notes for Restricted Notes that are accepted for exchange will be made only after timely receipt by the exchange agent of an agent's message and a timely confirmation of book-entry transfer of the Restricted Notes into the exchange agent's account at DTC.

If any tendered Restricted Notes are not accepted for any reason set forth in the terms and conditions of the exchange offer or if Restricted Notes are submitted for a greater principal amount than the holder desires to exchange, such unaccepted or non-exchanged Restricted Notes will be returned without expense to an account maintained with DTC promptly after the expiration or termination of the exchange offer.

Guaranteed Delivery Procedures

If you desire to tender your Restricted Notes and your Restricted Notes are not immediately available, time will not permit your Restricted Notes or other required documents to reach the exchange agent before the time of expiration or you cannot complete the procedure for book-entry on a timely basis, you may tender if:

- you tender through an eligible financial institution;
- on or prior to 5:00 p.m., New York City time, on the expiration date, the exchange agent receives from an eligible institution, a written or facsimile copy of a properly completed and duly executed letter of transmittal and notice of guaranteed delivery, substantially in the form provided by us; and
- a book-entry confirmation, and all other documents required by the letter of transmittal, are received by the exchange agent within three New York Stock Exchange trading days after the date of execution of the notice of guaranteed delivery.

The notice of guaranteed delivery may be sent by facsimile transmission, mail or hand delivery. The notice of guaranteed delivery must set forth:

- your name and address;
- the aggregate principal amount of Restricted Notes you are tendering; and
- a statement that your tender is being made by the notice of guaranteed delivery and that you guarantee that within three New York Stock Exchange trading days after the execution of the notice of guaranteed delivery, the eligible institution will deliver the following

documents to the exchange agent:

- a book-entry confirmation of tender;
- a written or facsimile copy of the letter of transmittal, or a book-entry confirmation instead of the letter of transmittal; and
- any other documents required by the letter of transmittal.

Book-Entry Transfers

The exchange agent will make a request to establish an account for the Restricted Notes at DTC for purposes of the exchange offer within two business days after the date of this registration statement. Any financial institution that is a participant in DTC's systems must make book-entry delivery of Restricted Notes by causing DTC to transfer those Restricted Notes into the exchange agent's account at DTC in accordance with DTC's procedures for transfer. This participant should transmit its acceptance to DTC on or prior to the expiration date. DTC will verify this acceptance, execute a book-entry transfer of the tendered Restricted Notes into the exchange agent's account at DTC and then send to the exchange agent confirmation of this book-entry transfer. The transmission of the Restricted Notes and agent's message to DTC and delivery by DTC to and receipt by the exchange agent of the related agent's message will be deemed to be a valid tender.

Table of Contents

If one of the following situations occurs:

- you cannot deliver a book-entry confirmation of book-entry delivery of your book-entry interests into the relevant account of the exchange agent at DTC; or
- you cannot deliver all other documents required by the letter of transmittal to the exchange agent prior to the time of expiration,

then you must tender your book-entry interests according to the guaranteed delivery procedures discussed above.

Withdrawal Rights

You may withdraw your tender of Restricted Notes at any time prior to the expiration date. To be effective, a written notice of withdrawal must be received by the exchange agent at the address set forth under Exchange Agent. This notice must specify:

- the name of the person having tendered the Restricted Notes to be withdrawn;
- the Restricted Notes to be withdrawn (including the principal amount of such Restricted Notes); and
- where certificates for Restricted Notes have been transmitted, the name in which such Restricted Notes are registered, if different from that of the withdrawing holder.

If certificates for Restricted Notes have been delivered or otherwise identified to the exchange agent, then, prior to the release of such certificates, the withdrawing holder must also submit the serial numbers of the particular certificates to be withdrawn and a signed notice of withdrawal with signatures guaranteed by an eligible institution, unless such holder is an eligible institution. If Restricted Notes have been tendered pursuant to the procedure for book-entry transfer described above, any notice of withdrawal must specify the name and number of the account at DTC to be credited with the withdrawn Restricted Notes and otherwise comply with the procedures of DTC.

We or the exchange agent will make a final and binding determination on all questions as to the validity, form and eligibility (including time of receipt) of such notices. Any Restricted Notes so withdrawn will be deemed not to have been validly tendered for exchange for purposes of the exchange offer for the notes. Any Restricted Notes tendered for exchange but not exchanged for any reason will be returned to the holder without cost to such holder (or, in the case of Restricted Notes tendered by book-entry transfer into the exchange agent's account at DTC

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

pursuant to the book-entry transfer procedures described above, such Restricted Notes will be credited to an account maintained with DTC for the Restricted Notes as soon as practicable after withdrawal, rejection of tender or termination of the exchange offer). Properly withdrawn Restricted Notes may be retendered by following one of the procedures described above at any time on or prior to the expiration date.

Conditions to the Exchange Offer

Notwithstanding any other provision of the exchange offer and subject to our obligations under the registration rights agreement, we will not be required to accept for exchange, or to issue Exchange Notes in exchange for, any Restricted Notes and may terminate or amend the exchange offer, if any of the following events occurs prior to acceptance of such Restricted Notes:

- (1) the exchange offer violates any applicable law or applicable interpretation of the staff of the SEC;
- (2) there is threatened, instituted or pending any action or proceeding before, or any injunction, order or decree has been issued by, any court or governmental agency or other governmental regulatory or administrative agency or commission,

Table of Contents

- seeking to restrain or prohibit the making or consummation of the exchange offer or any other transaction contemplated by the exchange offer, or
- assessing or seeking any damages as a result thereof, or resulting in a material delay in our ability to accept for exchange or exchange some or all of the Restricted Notes pursuant to the exchange offer;

(3) any statute, rule, regulation, order or injunction has been sought, proposed, introduced, enacted, promulgated or deemed applicable to the exchange offer or any of the transactions contemplated by the exchange offer by any government or governmental authority, domestic or foreign, or any action has been taken, proposed or threatened, by any government, governmental authority, agency or court, domestic or foreign, that in our sole judgment might, directly or indirectly, result in any of the consequences referred to in clauses (1) or (2) above or, in our reasonable judgment, might result in the holders of Exchange Notes having obligations with respect to resales and transfers of Exchange Notes that are greater than those described in the interpretation of the SEC referred to on the cover page of this prospectus, or would otherwise make it inadvisable to proceed with the exchange offer; or

(4) there has occurred:

- any general suspension of or general limitation on prices for, or trading in, our securities on any national securities exchange or in the over-the-counter market,
- any limitation by a governmental agency or authority that may adversely affect our ability to complete the transactions contemplated by the exchange offer,
- a declaration of a banking moratorium or any suspension of payments in respect of banks in the United States or any limitation by any governmental agency or authority that adversely affects the extension of credit, or
- a commencement of a war, armed hostilities or other similar international calamity directly or indirectly involving the United States, or, in the case of any of the foregoing existing at the time of the commencement of the exchange offer, a material acceleration or worsening thereof;

which in our reasonable judgment in any case, and regardless of the circumstances (including any action by us) giving rise to any such condition, makes it inadvisable to proceed with the exchange offer and/or with such acceptance for exchange or with such exchange.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

In addition, we will not be obligated to accept for exchange the Restricted Notes of any holder that has not made to us the representations described under Purpose and Effect, Procedures for Tendering Restricted Notes and Plan of Distribution and such other representations as may be reasonably required under applicable SEC rules, regulations or interpretations in order to allow us to use an appropriate form to register the issuance of the Exchange Notes under the Securities Act.

These conditions are for our sole benefit, and we may assert them regardless of the circumstances giving rise to them, subject to applicable law. We also may waive in whole or in part at any time and from time to time any particular condition in our sole discretion. If we waive a condition, in order to comply with applicable securities laws, we may be required to extend the expiration date of the exchange offer. Our failure at any time to exercise any of the foregoing rights will not be deemed a waiver of these rights, and these rights will be deemed ongoing rights that may be asserted at any time (in the case of any condition involving governmental approvals necessary to the consummation of the exchange offer) and from time to time prior to the time of expiration (in the case of all other conditions). There are no dissenters' rights of appraisal applicable to this exchange offer.

In addition, we will not accept for exchange any Restricted Notes tendered, and no Exchange Notes will be issued in exchange for any of those Restricted Notes, if at the time the notes are tendered any stop order is

Table of Contents

threatened by the SEC or in effect with respect to the registration statement of which this prospectus is a part or the qualification of the indenture under the TIA. The exchange offer is not conditioned on any minimum principal amount of Restricted Notes being tendered for exchange.

Exchange Agent

We have appointed Wilmington Trust, National Association as the exchange agent for the exchange offer. All executed letters of transmittal should be directed to the exchange agent at the address set forth below. Questions and requests for assistance, requests for additional copies of this prospectus or of the letter of transmittal should be directed to the exchange agent addressed as follows:

By Mail, Hand or Overnight Delivery:

Wilmington Trust, National Association

Rodney Square North

1100 North Market Street

Wilmington, DE19890

Attention: Workflow Management 5th Floor

Facsimile No.: (302) 636-4139

For Information or Confirmation by Email: DTC2@wilmingtontrust.com

DELIVERY OF THE LETTER OF TRANSMITTAL TO AN ADDRESS OTHER THAN AS SET FORTH ABOVE OR TRANSMISSION OF SUCH LETTER OF TRANSMITTAL VIA FACSIMILE OTHER THAN AS SET FORTH ABOVE DOES NOT CONSTITUTE A VALID DELIVERY OF THE LETTER OF TRANSMITTAL.

Fees and Expenses

The principal solicitation is being made through DTC by Wilmington Trust, National Association, as exchange agent. We will pay the trustee and exchange agent customary fees for their services, reimburse the exchange agent for its reasonable out-of-pocket expenses incurred in connection with the provision of these services and pay other registration expenses, including registration and filing fees, fees and expenses of compliance with federal securities and state blue-sky securities laws, printing expenses, messenger and delivery services and telephone, fees and disbursements to our counsel, application and filing fees and any fees and disbursements to our independent registered public accounting firm. We will not make any payment to brokers, dealers or others soliciting acceptances of the exchange offer. We will pay the estimated cash expenses to be incurred in connection with the exchange offer.

We will reimburse any beneficial holders of the Restricted Notes for the reasonable fees and disbursements of not more than one counsel chosen by the beneficial holders of a majority in aggregate principal amount of the Restricted Notes to be included in this registration statement. We shall pay all documentary, stamp, transfer or other transactional taxes attributable to the issuance or delivery of the Exchange Notes in exchange for the Restricted Notes; *provided* that the Company shall not be required to pay taxes payable in respect of any transfer involved in the issuance or delivery of any Exchange Note in a name other than that of the holder of the Restricted Note in respect of which such Exchange Note is being issued.

Additional solicitation may be made by telephone, facsimile or in person by our and our affiliates officers and regular employees and by persons so engaged by the exchange agent.

Accounting Treatment

We will record the Exchange Notes at the same carrying value as the Restricted Notes, as reflected in our accounting records on the date of the exchange. Accordingly, we will not recognize any gain or loss for accounting purposes. The expenses of the exchange offer will be expensed as incurred.

Table of Contents

Transfer Taxes

No service charge will be made to a holder of Restricted Notes, but we may require payment of a sum sufficient to cover any transfer tax or similar governmental charge payable in connection with the exchange offer. If satisfactory evidence of payment of such taxes is not submitted with the letter of transmittal, the amount of such transfer taxes will be billed to that tendering holder.

Consequences of Failing to Exchange Restricted Notes

If you do not exchange your Restricted Notes for Exchange Notes in the exchange offer or qualify to elect to have your Restricted Notes registered in a shelf registration form, your Restricted Notes will continue to be subject to the provisions of the indenture regarding transfer and exchange of the Restricted Notes and the restrictions on transfer of the Restricted Notes imposed by the Securities Act and state securities law. These transfer restrictions are required because the Restricted Notes were issued under an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and applicable state securities laws. In general, the Restricted Notes may not be offered or sold unless registered under the Securities Act, except under an exemption from, or in a transaction not subject to, the Securities Act and applicable state securities laws. We do not plan to register the Restricted Notes under the Securities Act other than as described herein.

If you do not exchange your Restricted Notes for Exchange Notes in the exchange offer or qualify to elect to have your Restricted Notes registered in a shelf registration form, you will continue to be entitled to all the rights and limitations applicable to the Restricted Notes as set forth in the indenture, but we will not have any further obligation to you to provide for the exchange and registration of the Restricted Notes under the registration rights agreement other than as set forth above under Purpose and Effect. Therefore, the liquidity of the market for your Restricted Notes could be adversely affected upon completion of the exchange offer if you do not participate in the exchange offer.

Participating Broker-Dealers

Each broker-dealer that receives Exchange Notes for its own account in exchange for Restricted Notes, where such Restricted Notes were acquired by such broker-dealer as a result of market-making activities or other trading activities, must acknowledge that it will deliver a prospectus in connection with any resale of such Exchange Notes. See Plan of Distribution.

Shelf Registration

The registration rights agreement also requires that we promptly deliver to the holders of the Restricted Securities and the trustee notice (Shelf Notice) that we intend to file a shelf registration statement and then file an initial shelf registration if:

(i) the Company and the guarantors are not:

(A) required to file the exchange offer registration statement; or

(B) permitted to consummate the exchange offer because the Company determines in good faith after consultation with its counsel that the exchange offer is not permitted by applicable law or SEC policy; or

(ii) any holder of the Restricted Notes notifies the Company prior to the 20th business day following consummation of the exchange offer that:

(A) it is prohibited by law or SEC policy from participating in the Exchange Offer;

(B) it may not resell the Exchange Notes acquired by it in the exchange offer to the public without delivering a prospectus and the prospectus contained in the exchange offer registration statement is not appropriate or available for such resales; or

Table of Contents

(C) it is a broker-dealer and owns notes acquired directly from the Company or an affiliate of the Company and as a result may not participate in the exchange offer.

If obligated to file the shelf registration statement, ION and the guarantors will:

(i) file the shelf registration statement within the time periods specified in the registration rights agreement;

(ii) cause the shelf registration statement to be declared effective under the Securities Act within the time periods specified in the registration rights agreement; and

(iii) keep the shelf registration statement effective for one year or such shorter period that will terminate when (a) all of the notes covered by the shelf registration statement have been sold pursuant to the shelf registration statement, (b) we file a subsequent shelf registration statement that has been declared effective or (c) there ceases to be any outstanding Restricted Notes.

Other than as set forth in this section, you will not have the right to require us to register your Restricted Notes under the Securities Act. See Procedures for Tendering Restricted Notes above.

Other

Participation in this exchange offer is voluntary, and you should carefully consider whether to accept. You are urged to consult your financial and tax advisors in making your own decision on what action to take.

USE OF PROCEEDS

The exchange offer is intended to satisfy our obligations under the registration rights agreement. We will not receive any cash proceeds from the exchange offer or the issuance of the Exchange Notes. Accordingly, neither the exchange offer nor the issuance of the Exchange Notes will result in any increase in our outstanding indebtedness or change in our capitalization.

We will bear certain fees and expenses incident to the exchange offer. See The Exchange Offer Fees and Expenses.

CAPITALIZATION

The following table presents our cash and cash equivalents and our consolidated capitalization at December 31, 2013.

You should read the following table in conjunction with (i) the section entitled Summary Summary Consolidated Historical Financial Data included elsewhere in this prospectus and (ii) the section entitled Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our Annual Report on Form 10-K for the year ended December 31, 2013 and our consolidated financial statements and the related notes, incorporated by reference into this prospectus.

As of December 31, 2013
(in thousands)

Cash and cash equivalents	\$	148,056
Notes	\$	175,000
Senior secured credit facility		35,000
Facility lease obligations		1,501
Equipment capital leases		8,651
Total debt	\$	220,152
Total equity	\$	257,885
Total capitalization	\$	478,037

Table of Contents

DESCRIPTION OF THE EXCHANGE NOTES

You can find the definitions of certain terms used in this description under the subheading **Certain Definitions**. In this description, the word **ION** refers only to ION Geophysical Corporation and not to any of its Subsidiaries.

We are offering to exchange up to \$175.0 million aggregate principal amount of our 8.125% senior secured second priority notes due 2018 (which we refer to as the **Exchange Notes**), the issuance of each of which has been registered under the Securities Act, for up to \$175.0 million aggregate principal amount of our outstanding 8.125% senior secured second priority notes due 2018 (which we refer to as the **Restricted Notes**). ION issued the Restricted Notes on May 13, 2013 under an indenture among itself, the Guarantors and Wilmington Trust, National Association, as trustee, in a private transaction not subject to the registration requirements of the Securities Act. We will issue the Exchange Notes under the same indenture under which we issued the Restricted Notes, and the Exchange Notes will represent the same debt as Restricted Notes for which they are exchanged.

The Exchange Notes will be subject to and governed by the TIA. The terms of the Exchange Notes will include those stated in the indenture and those made part of the indenture by reference to the TIA. The registration rights agreement referred to under the caption **Registration Rights** sets forth the rights holders of the Restricted Notes have to require us to register their notes with the SEC.

The Restricted Notes that remain outstanding after the completion of the exchange offer, together with the Exchange Notes, will be treated as a single class of securities under the indenture. Otherwise unqualified references herein to **notes** shall, unless the context requires otherwise, include the Restricted Notes and the Exchange Notes, and all references to specified percentages in aggregate principal amount of the notes shall be deemed to mean, at any time after the exchange offer are completed, such percentage in aggregate principal amount of the Restricted Notes and the Exchange Notes then outstanding.

The terms of the Exchange Notes will be substantially identical to the terms of the Restricted Notes, except that the Exchange Notes:

- will have been registered under the Securities Act;
- will not be subject to transfer restrictions applicable to the Restricted Notes; and
- will not have the benefit of the registration rights agreement applicable to the Restricted Notes, including provisions for payment of special interest.

The following description is a summary of the material provisions of the indenture and the Security Documents. It does not restate those agreements in their entirety. We urge you to read the indenture and the Security Documents because they, and not this description, define your

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

rights as holders of the notes. Copies of the indenture and the Security Documents are available as set forth below under [Additional Information](#). Certain defined terms used in this description but not defined below under [Certain Definitions](#) have the meanings assigned to them in the indenture and the Security Documents.

The registered holder of a note will be treated as the owner of it for all purposes. Only registered holders have rights under the indenture.

Brief Description of the Notes and the Note Guarantees

The notes:

- [Notes](#) are general obligations of ION;

Table of Contents

- are secured on a second-priority basis, equally and ratably with all obligations of ION under any Parity Lien Debt, by Liens on all of the assets of ION other than the Excluded Assets, subject to the Liens securing ION's obligations under the Credit Agreement and any other Priority Lien Debt and other Permitted Prior Liens;
- are effectively junior, to the extent of the value of the Collateral, to ION's obligations under the Credit Agreement and any other Priority Lien Debt, which are secured on a first-priority basis by the same assets of ION that secure the notes;
- are effectively junior to any Permitted Prior Liens, to the extent of the value of the assets of ION subject to those Permitted Prior Liens;
- are pari passu in right of payment with all other unsecured senior Indebtedness of ION, including Indebtedness under the Credit Agreement;
- are senior in right of payment to any subordinated Indebtedness of ION, if any;
- are unconditionally guaranteed by the Guarantors; and
- are structurally subordinated to all existing and future Indebtedness, claims of holders of preferred stock and other liabilities of Subsidiaries of ION that do not guarantee the notes.

Each guarantee of the notes:

- is the general obligation of each Guarantor;
- is secured on a second-priority basis, equally and ratably with all obligations of that Guarantor under any other Parity Lien Debt, by Liens on all of the assets of that Guarantor other than the Excluded Assets, subject to the Liens securing that Guarantor's guarantee of the Credit Agreement obligations and any other Priority Lien Debt and other Permitted Prior Liens;
- is effectively junior, to the extent of the value of the Collateral, to that Guarantor's guarantee of the Credit Agreement and any other Priority Lien Debt, which is secured on a first-priority basis by the same assets of that Guarantor that secure the notes;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

- is effectively junior to any Permitted Prior Liens, to the extent of the value of the assets of that Guarantor subject to those Permitted Prior Liens;
- is pari passu in right of payment with all other senior Indebtedness of that Guarantor, including its guarantee of Indebtedness under the Credit Agreement and any Restricted Notes that are not exchanged for Exchange Notes; and
- is senior in right of payment to any subordinated Indebtedness of that Guarantor, if any.

Pursuant to the indenture, ION is permitted to designate additional Indebtedness as Priority Lien Debt, subject to the Priority Lien Cap. ION is also permitted to incur additional Indebtedness as Parity Lien Debt subject to the covenants described below under Covenants Incurrence of Indebtedness and Issuance of Preferred Stock and Covenants Liens. As of February 24, 2014, ION had \$50.0 million in Priority Lien Debt outstanding.

Not all of our Subsidiaries guarantee the notes. The notes are effectively subordinated in right of payment to all Indebtedness and other liabilities and commitments (including trade payables and lease obligations) of ION's non-guarantor Subsidiaries. Any right of ION to receive assets of any of its non-guarantor Subsidiaries upon such Subsidiary's liquidation or reorganization (and the consequent right of the holders of the notes to participate in those assets) is effectively subordinated to the claims of such Subsidiary's creditors, except to the extent that ION is itself recognized as a creditor of such Subsidiary, in which case the claims of ION would still be subordinate in right of

Table of Contents

payment to any security in the assets of such Subsidiary and any Indebtedness of such Subsidiary senior to that held by ION. As of December 31, 2013, our non-guarantor subsidiaries had approximately \$195.8 million of assets, or approximately 22.6% of our total consolidated assets, excluding intercompany investments and receivables. In 2013, our non-guarantor Subsidiaries had revenues of approximately \$211.6 million, or approximately 38.5% of our total consolidated revenues, excluding intercompany revenues.

As of December 31, 2013, all of our Subsidiaries are Restricted Subsidiaries. However, under the circumstances described below under the caption Certain Covenants Designation of Restricted and Unrestricted Subsidiaries, we are permitted to designate certain of our Subsidiaries as Unrestricted Subsidiaries. Our Unrestricted Subsidiaries will not be subject to many of the restrictive covenants in the indenture. Our Unrestricted Subsidiaries will not guarantee the notes.

Principal, Maturity and Interest

ION issued \$175.0 million in aggregate principal amount of notes in the initial offering on May 13, 2013. ION may issue additional notes under the indenture (Additional Notes) from time to time after the initial offering. Any issuance of Additional Notes is subject to all of the covenants in the indenture, including the covenants described below under the captions Certain Covenants Incurrence of Indebtedness and Issuance of Preferred Stock and Certain Covenants Liens. The notes and any Additional Notes subsequently issued under the indenture will be treated as a single class for all purposes under the indenture, including, without limitation, waivers, amendments, redemptions and offers to purchase. ION will issue Exchange Notes in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess of \$2,000. The notes will mature on May 15, 2018.

Interest on the notes accrues at the rate of 8.125% per annum and will be payable semi-annually in arrears on May 15 and November 15, commencing on November 15, 2013. In addition, Special Interest may accrue on the Restricted Notes in the circumstances described below under Registration Rights; Special Interest. Interest on overdue principal, interest and Special Interest, if any, will accrue at a rate that is 1% higher than the then-applicable interest rate on the notes. ION will make each interest payment to the holders of record on the immediately preceding May 1 and November 1.

Interest on the notes will accrue from the date of original issuance or, if interest has already been paid, from the date it was most recently paid. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months.

If an interest-payment date falls on a day that is not a business day, the interest payment to be made on such interest-payment date will be made on the next succeeding business day with the same force and effect as if made on such interest-payment date, and no additional interest will accrue solely as a result of such delayed payment.

Methods of Receiving Payments on the Notes

If a holder of notes has given wire transfer instructions to ION, ION will pay all principal of, premium on, if any, interest and Special Interest, if any, on, that holder's notes in accordance with those instructions. All other payments on the notes will be made at the office or agency of the

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

paying agent and registrar unless ION elects to make interest payments by check mailed to the noteholders at their address set forth in the register of holders.

Paying Agent and Registrar for the Notes

The Trustee currently acts as paying agent and registrar. ION may change the paying agent or registrar without prior notice to the holders of the notes, and ION or any of its Subsidiaries may act as paying agent or registrar.

Transfer and Exchange

A holder may transfer or exchange notes in accordance with the provisions of the indenture. The registrar and the Trustee may require a holder, among other things, to furnish appropriate endorsements and transfer

Table of Contents

documents in connection with a transfer of notes. Holders will be required to pay all taxes due on transfer. ION will not be required to transfer or exchange any note selected for redemption. Also, ION will not be required to transfer or exchange any note for a period of 15 days before a selection of notes to be redeemed.

Note Guarantees

The Restricted Notes are, and the Exchange Notes will be, guaranteed by each of ION's Domestic Subsidiaries, excluding the Existing Immaterial Domestic Subsidiaries. These Note Guarantees are joint and several obligations of the Guarantors. The obligations of each Guarantor under its Note Guarantee are limited as necessary to prevent that Note Guarantee from constituting a fraudulent conveyance under applicable law. See Risk Factors Risks Related to the Exchange Offer, the Exchange Notes and Our Indebtedness Federal and state statutes allow courts, under specific circumstances, to avoid guarantees and the liens securing such guarantees and to require noteholders to return payments received from us or the guarantors.

A Guarantor may not sell or otherwise dispose of all or substantially all of its assets to, or consolidate with or merge with or into (whether or not such Guarantor is the surviving Person) another Person, other than ION or another Guarantor, unless:

- (1) immediately after giving effect to such transaction, no Default or Event of Default exists; and
- (2) either:
 - (a) the Person acquiring the property in any such sale or disposition or the Person formed by or surviving any such consolidation or merger becomes a Guarantor under the indenture and the Security Documents pursuant to a supplemental indenture and appropriate security documents satisfactory to the Trustee; or
 - (b) the Net Proceeds of such sale or other disposition are applied in accordance with the applicable provisions of the indenture.

The Note Guarantee of a Guarantor will automatically be released:

- (1) in connection with any sale or other disposition of all or substantially all of the assets of that Guarantor, by way of merger, consolidation or otherwise, to a Person that is not (either before or after giving effect to such transaction) ION or a Restricted Subsidiary of ION, if the sale or other disposition does not violate the provisions described below under the caption Repurchases at the Option of Holders Asset Sales ;

(2) in connection with any sale or other disposition of Capital Stock of that Guarantor by way of merger, consolidation or otherwise to a Person that is not (either before or after giving effect to such transaction) ION or a Restricted Subsidiary of ION, if the sale or other disposition does not violate the provisions described below under the caption Asset Sale provisions of the indenture and the Guarantor ceases to be a Restricted Subsidiary of ION as a result of the sale or other disposition;

(3) if ION designates any Restricted Subsidiary that is a Guarantor to be an Unrestricted Subsidiary in accordance with the applicable provisions of the indenture;

(4) upon legal defeasance, covenant defeasance or satisfaction and discharge of the indenture as provided below under the captions Legal Defeasance and Covenant Defeasance and Satisfaction and Discharge ;

(5) upon the liquidation or dissolution of such Guarantor provided no Default or Event of Default has occurred or is continuing; or

Table of Contents

(6) if consent to such release has been given by an Act of Supermajority Debtholders.

See Repurchase at the Option of Holders Asset Sales.

Security

The obligations of ION with respect to the notes, the obligations of the Guarantors under the guarantees, all other Parity Lien Obligations and the performance of all other obligations of ION, the Guarantors and ION's other Restricted Subsidiaries under the Note Documents are secured equally and ratably by second-priority Liens in the Collateral granted to the Collateral Agent for the benefit of the Parity Lien Secured Parties. These Liens are junior in priority to the Liens securing Priority Lien Obligations and to all other Permitted Prior Liens. The Liens securing Priority Lien Obligations are held by the Priority Lien Collateral Agent. The Collateral comprises all of the assets of ION and the Guarantors, other than the Excluded Assets.

Limitations on Collateral in the Form of Securities

Rule 3-16 of Regulation S-X, promulgated pursuant to the Securities Act (as currently enacted and as it may be amended or modified,

Rule 3-16) requires the presentation of a company's stand-alone, audited financial statements if that company's capital stock or other securities are pledged to secure the securities of another issuer, and the greatest of the principal amount, par value, book value and market value of the pledged stock or securities equals or exceeds 20% of the principal amount of the securities secured by such pledge. The indenture provides that the Capital Stock and other securities of a Subsidiary that are owned by ION and the Guarantors will constitute Collateral only if all such Capital Stock or other securities can secure the notes or any Note Guarantee without Rule 3-16 or any other law, rule or regulation requiring separate financial statements of such Subsidiary to be filed with the SEC (or any other U.S. federal governmental agency).

In the event that Rule 3-16 of Regulation S-X under the Securities Act requires (or is replaced with another rule or regulation, or any other law, rule or regulation is adopted, which would require) the filing with the SEC (or any governmental agency) of separate audited financial statements of any affiliate of ION due to the fact that such affiliate's capital stock or other securities secure the notes, then the capital stock or other securities of such affiliate will automatically be deemed released and to not be and to not have been part of the Collateral but only to the extent necessary to not be subject to such requirement. In such event, the Security Documents may be amended or modified, without the consent of any holder of the notes, to the extent necessary to evidence the release of the Liens on the shares of capital stock or other securities that are so deemed to no longer constitute part of the Collateral.

In addition, the indenture and the Security Documents provide that if the Capital Stock or other securities of any Subsidiary of ION are held by ION or any Guarantor, are not part of the Collateral and may be pledged without causing separate financial statements of such Subsidiary to be filed with the SEC (or any other U.S. federal governmental agency) pursuant to Rule 3-16 or any other law, rule or regulation as a result of such pledge, then the Capital Stock or other securities of such Subsidiary shall be required to become part of the Collateral (except to the extent constituting Excluded Assets) and ION shall promptly cause such Capital Stock to be pledged in accordance with the covenant described below under the captions Certain Covenants Additional Note Guarantees and Certain Covenants After-Acquired Property.

Intercreditor Agreement

ION and the Guarantors have entered into an Intercreditor Agreement with the Priority Lien Collateral Agent, the Priority Lien Credit Agreement Agent, the Collateral Agent and the Trustee. The Intercreditor Agreement sets forth the terms of the relationship between the holders of Priority Liens and the holders of Parity Liens.

The following is a summary of certain provisions of the Intercreditor Agreement. This description is only a summary of the terms of the Intercreditor Agreement. The following summary does not purport to be complete, but does discuss the provisions that are material for investors in the notes, and are subject to, and qualified in their entirety by reference to, all of the provisions of the Intercreditor Agreement.

Table of Contents

Lien Priorities

Notwithstanding the date, time, method, manner or order of grant, attachment or perfection of any Liens securing the Parity Lien Obligations granted on the Collateral or of any Liens securing the Priority Lien Obligations granted on the Collateral and notwithstanding any provision of the UCC, or any other applicable law or the Note Documents or any defect or deficiencies in, or failure to perfect or lapse in perfection of, or avoidance as a fraudulent conveyance or otherwise of, the Liens securing the Priority Lien Obligations, the subordination of such Liens to any other Liens, or any other circumstance whatsoever, whether or not any insolvency or liquidation proceeding has been commenced by or against ION or any Guarantor, (i) any Lien on the Collateral securing any Priority Lien Obligations now or hereafter held by or on behalf of any Priority Lien Representative, any Priority Lien Collateral Agent or any holders of Priority Lien Debt or any agent or trustee therefor, regardless of how acquired, whether by grant, possession, statute, operation of law, subrogation or otherwise, shall be senior in all respects and prior to any Lien on the Collateral securing any Parity Lien Obligations; (ii) any Lien on the Collateral securing any Parity Lien Obligations now or hereafter held by or on behalf of the Trustee, the Collateral Agent, any holders of Parity Lien Debt or any agent or trustee therefor regardless of how acquired, whether by grant, possession, statute, operation of law, subrogation or otherwise, shall be junior and subordinate in all respects to all Liens on the Collateral securing any Priority Lien Obligations; and (iii) any Lien on the Collateral securing any Excess Priority Lien Obligations now or hereafter held by or on behalf of any Priority Lien Representative, any Priority Lien Collateral Agent, any holder of Priority Lien Debt or any agent or trustee therefor, regardless of how acquired, whether by grant, possession, statute, operation of law, subrogation or otherwise, shall be junior and subordinate in all respects to any Lien on the Collateral securing any Parity Lien Obligations.

Prohibition on Contesting Liens

Each of the Trustee and the Collateral Agent, for itself and on behalf of the holders of the notes, and each Priority Lien Representative and each Priority Lien Collateral Agent, for itself and on behalf of each holder of Priority Lien Debt represented by it, agrees that it will not (and will waive the right to) directly or indirectly contest or support any other Person in contesting, in any proceeding (including any insolvency or liquidation proceeding), the priority, validity, perfection, extent or enforceability of a Lien held, or purported to be held, by or on behalf of any holder of Priority Lien Debt in the Collateral or by or on behalf of any holder of Parity Lien Debt in the Collateral, as the case may be, or the provisions of the Intercreditor Agreement. Each of the Trustee and the Collateral Agent, for itself and on behalf of the holders of the notes, agrees that it (i) will not take or cause to be taken any action the purpose or effect of which is, or could be, to make any Liens pari passu with, or to give any holder of the notes any preference or priority relative to, any Lien securing the Priority Lien Obligations with respect to the Collateral or any part thereof, (ii) will not challenge or question in any proceeding the validity or enforceability of any Priority Lien Obligations or Priority Lien Document, or the validity or enforceability of the priorities, rights or duties established by the provisions of the Intercreditor Agreement, (iii) will not take or cause to be taken any action the purpose or effect of which is, or could be, to interfere, hinder or delay, in any manner, whether by judicial proceedings or otherwise, any sale, transfer or other disposition of the Collateral permitted under the Priority Lien Documents and the Intercreditor Agreement by any Priority Lien Secured Party or the Priority Lien Collateral Agent acting on their behalf, (iv) shall have no right to (A) direct the Priority Lien Collateral Agent or any other holder of Priority Lien Debt to exercise any right, remedy or power with respect to any Collateral or (B) consent to the exercise by the Priority Lien Collateral Agent or any holder of Priority Lien Debt of any right, remedy or power with respect to any Collateral, (v) except as permitted by the Intercreditor Agreement, will not institute any suit or assert in any suit or insolvency or liquidation proceeding any claim against the Priority Lien Collateral Agent or other holder of Priority Lien Debt seeking damages from or other relief by way of specific performance, instructions or otherwise with respect to, and neither the Priority Lien Collateral Agent nor holder of Priority Lien Debt shall be liable for, any action taken or omitted to be taken by the Priority Lien Collateral Agent or other holder of Priority Lien Debt with respect to any Collateral, (vi) will not attempt, directly or indirectly, whether by judicial proceedings or otherwise, to challenge the enforceability of any provision of the Intercreditor Agreement, (vii) will not object to forbearance by the Priority Lien Collateral Agent or any holder of Priority Lien Debt, and (viii) until the Discharge of Priority Lien Obligations, will not assert, and will waive, to the fullest extent permitted by law, any right to demand, request, plead or otherwise assert or claim the benefit of any marshaling, appraisal, valuation or other similar right that may be available under applicable law with respect to the Collateral or any similar rights a junior secured creditor may have under applicable law.

Table of Contents

Restrictions on Enforcement of Parity Liens

Until the Discharge of Priority Lien Obligations has occurred, whether or not any insolvency or liquidation proceeding has been commenced by or against ION or any Guarantor, the Trustee, the Collateral Agent and the holders of the notes: (a) will not commence or maintain, or seek to commence or maintain, any Enforcement Action or otherwise exercise any rights or remedies with respect to the Collateral; (b) will not contest, protest or object to any foreclosure proceeding or action brought by any Priority Lien Representative, any Priority Lien Collateral Agent or any holder of Priority Lien Debt or any other exercise by any of them of any rights and remedies relating to the Collateral under the Priority Lien Documents or otherwise; and (c) will not object to (and will waive any and all claims with respect to) the forbearance by any Priority Lien Representative, any Priority Lien Collateral Agent or the holders of any Priority Lien Debt from bringing or pursuing any foreclosure proceeding or action or any other exercise of any rights or remedies relating to the Collateral.

Until the Discharge of Priority Lien Obligations has occurred, whether or not any insolvency or liquidation proceeding has been commenced by or against ION or any Guarantor, subject to the preceding paragraph, the Priority Lien Representative, the Priority Lien Collateral Agent and the holders of Priority Lien Debt shall have the exclusive right to commence and maintain an Enforcement Action or otherwise enforce rights, exercise remedies (including set-off, recoupment and the right to credit bid their debt (including debt related to any DIP Financing as defined below) in any sale, except that the Trustee shall have the credit bid rights discussed below) and make determinations regarding the release, disposition, or restrictions with respect to the Collateral without any consultation with or the consent of the Trustee, the Collateral Agent or any holder of notes; provided that any proceeds received by any Priority Lien Representative in excess of those necessary to achieve a Discharge of any Priority Lien Obligations are distributed in accordance with the provisions discussed below under Order of Application . In commencing or maintaining any Enforcement Action or otherwise exercising rights and remedies with respect to the Collateral, the Priority Lien Representative, the Priority Lien Collateral Agent and holders of Priority Lien Debt may enforce the provisions of the Priority Lien Documents and exercise remedies thereunder, all in such order and in such manner as they may determine in the exercise of their sole discretion in compliance with any applicable law and without consultation with the Trustee, the Collateral Agent or any holder of the notes and regardless of whether any such exercise is adverse to the interest of any holder of the notes.

Notwithstanding the foregoing, the Trustee, the Collateral Agent and any holder of notes may: (i) file a claim or statement of interest with respect to the Parity Lien Obligations; provided that an insolvency or liquidation proceeding has been commenced by or against ION or any Guarantor; (ii) take any action (not adverse to the priority status of the Liens on the Collateral securing the Priority Lien Obligations, or the rights of any Priority Lien Representative, any Priority Lien Collateral Agent or the holders of Priority Lien Debt to exercise remedies in respect thereof) in order to create, perfect, preserve or protect its Lien on the Collateral; (iii) file any necessary responsive or defensive pleadings in opposition to any motion, claim, adversary proceeding or other pleading made by any person objecting to or otherwise seeking the disallowance of the claims of the holders of the notes, including any claims secured by the Collateral, if any, in each case in accordance with the terms of the Intercreditor Agreement; (iv) except as set forth below under Bankruptcy Matters, vote on any plan of reorganization, arrangement, compromise or liquidation, file any proof of claim, make other filings and make any arguments and motions that are, in each case, in accordance with the terms of the Intercreditor Agreement, with respect to the Parity Lien Obligations and the Collateral; provided that no filing of any claim or vote, or pleading related to such claim or vote, to accept or reject a disclosure statement, plan of reorganization, arrangement, compromise or liquidation, or any other document, agreement or proposal similar to the foregoing by the Trustee, the Collateral Agent or any holder of the notes may be inconsistent with the provisions of the Intercreditor Agreement; (v) bid for or purchase Collateral at any public, private or judicial foreclosure upon such Collateral initiated by any Priority Lien Representative, any Priority Lien Collateral Agent or any other Priority Lien Secured Party, or any sale of Collateral during an insolvency or liquidation proceeding; provided that such bid may not include a credit bid in respect of any Parity Lien Obligations unless the cash proceeds of such bid are otherwise sufficient to cause the Discharge of Priority Lien Obligations; and (vi) object to any proposed acceptance of Collateral by a Priority Lien Representative, a Priority Lien Collateral Agent or Priority Lien Secured Party pursuant to Section 9-620 of the UCC.

The Trustee and the Collateral Agent, on behalf of itself and the holders of the notes, agree that it will not take or receive any Collateral or any proceeds of Collateral in connection with the exercise of any right or remedy (including set-off and recoupment) with respect to any Collateral in its capacity as a creditor, unless and until the

Table of Contents

Discharge of Priority Lien Obligations has occurred, except in connection with any foreclosure expressly permitted by the Intercreditor Agreement. Without limiting the generality of the foregoing, unless and until the Discharge of Priority Lien Obligations has occurred, except as expressly provided in the Intercreditor Agreement, the sole right of the Trustee, the Collateral Agent and the holders of the notes with respect to the Collateral is to hold a Lien on the Collateral pursuant to the Note Documents for the period and to the extent granted therein and to receive a share of the proceeds thereof, if any, after the Discharge of Priority Lien Obligations has occurred.

Subject to the terms of the Intercreditor Agreement, the Trustee and the Collateral Agent, for itself and on behalf of the holders of the notes, (i) agree that none of the Trustee, the Collateral Agent nor the holders of the notes will take any action that would hinder any exercise of remedies under the Priority Lien Documents or that is otherwise prohibited by the Intercreditor Agreement, including any sale, lease, exchange, transfer or other disposition of the Collateral, whether by foreclosure or otherwise; (ii) waive any and all rights it may have as a junior lien creditor or otherwise to object to the manner in which any Priority Lien Representative, any Priority Lien Collateral Agent or other Priority Secured Party seeks to enforce or collect the Priority Lien Obligations or Liens securing the Priority Lien Obligations granted in any of the Collateral, regardless of whether any action or failure to act by or on behalf of any Priority Lien Representative, any Priority Lien Collateral Agent or other Priority Lien Secured Party is adverse to the interest of any of them; and (iii) acknowledge and agree that no covenant, agreement or restriction contained in any Note Document (other than the Intercreditor Agreement) shall be deemed to restrict in any way the rights and remedies of any Priority Lien Representative, any Priority Lien Collateral Agent or any other Priority Lien Secured Party with respect to the Collateral.

Except as specifically set forth in the Intercreditor Agreement, the Trustee, the Collateral Agent and the holders of the notes may exercise rights and remedies as unsecured creditors against ION or any Guarantor that has guaranteed or granted Liens to secure the Parity Lien Obligations in accordance with the terms of the Note Documents and applicable law (other than initiating or joining in an involuntary case or proceeding under any insolvency or liquidation proceeding with respect to ION or any Guarantor); provided that in the event that any of the Trustee, the Collateral Agent or the holders of the notes becomes a judgment Lien creditor in respect of Collateral as a result of its enforcement of its rights as an unsecured creditor with respect to the Parity Lien Obligations, such judgment Lien shall be subject to the terms of the Intercreditor Agreement for all purposes.

Order of Application

So long as the Discharge of Priority Lien Obligations has not occurred, whether or not any insolvency or liquidation proceeding has been commenced by or against ION or any Guarantor, any Collateral or any proceeds thereof received in connection with any Enforcement Action or other exercise of remedies by any Priority Lien Representative, any Priority Lien Collateral Agent or any Priority Lien Secured Party shall be applied by the Priority Lien Collateral Agent or the Priority Lien Representative, as applicable, to the Priority Lien Obligations in such order as specified in the relevant Priority Lien Documents; provided that any non-cash Collateral or non-cash proceeds may be held by the applicable Priority Lien Collateral Agent, in its discretion, as Collateral. Upon the Discharge of Priority Lien Obligations, each Priority Lien Collateral Agent shall (x) unless the Discharge of Parity Lien Obligations has already occurred, deliver any proceeds of Collateral held by it to the Collateral Agent, to be applied by the Collateral Agent and the Trustee, as applicable, to the Parity Lien Obligations in such order as specified in the Note Documents, (y) if the Discharge of Parity Lien Obligations has already occurred, apply such proceeds of Collateral to any Excess Priority Lien Obligations in such order as specified in the relevant Priority Lien Documents, and (z) if there are no Excess Priority Lien Obligations, deliver such proceeds of Collateral to ION, its successors or assigns, or to whomever may be lawfully entitled to receive the same. Without limiting the obligations of the Parity Lien Secured Parties under the next paragraph, after the Discharge of Priority Lien Obligations has occurred, upon the Discharge of Parity Lien Obligations, the Collateral Agent shall deliver any proceeds of Collateral held by it, (x) if there are any Excess Priority Lien Obligations, to the Priority Lien Collateral Agent, for application by the Priority Lien Collateral Agent to the Excess Priority Lien Obligations in such order as specified in the relevant Priority Lien Documents until the payment in full in cash of all Excess Priority Lien Obligations, and (y) if there are no such Excess Priority Lien Obligations, to ION or to whomever may be lawfully entitled to receive the same.

So long as the Discharge of Priority Lien Obligations has not occurred, whether or not any insolvency or liquidation proceeding has been commenced by or against ION or any Guarantor, any Collateral or any proceeds

Table of Contents

thereof received by the Trustee, Collateral Agent or any other Parity Secured Party in connection with any Enforcement Action or other exercise of any right or remedy relating to the Collateral in contravention of the Intercreditor Agreement in all cases shall be segregated and held in trust and forthwith paid over to the Priority Lien Collateral Agent for the benefit of the Priority Lien Secured Parties in the same form as received, with any necessary endorsements or as a court of competent jurisdiction may otherwise direct. So long as the Discharge of Priority Lien Obligations has not occurred, if the Trustee, the Collateral Agent or any other Parity Lien Secured Party shall receive Collateral or any distribution of money or other property in respect of the Collateral (including any assets or proceeds subject to Liens that have been avoided or otherwise invalidated) such money or other property shall be segregated and held in trust and forthwith paid over to the Priority Lien Collateral Agent for the benefit of the Priority Lien Secured Parties in the same form as received, with any necessary endorsements. Any Lien received by the Trustee, the Collateral Agent or any other Parity Lien Secured Party in respect of any of the Parity Lien Obligations in any insolvency or liquidation proceeding shall be subject to the terms of the Intercreditor Agreement.

Release of Liens on Collateral

If in connection with any Enforcement Action by any Priority Lien Representative or any Priority Lien Collateral Agent or any other exercise of any Priority Lien Representative's or any Priority Lien Collateral Agent's remedies in respect of the Collateral, in each case prior to the Discharge of Priority Lien Obligations, such Priority Lien Collateral Agent, for itself or on behalf of any of the Priority Lien Secured Parties, releases any of its Liens on any part of the Collateral or such Priority Lien Representative, for itself or on behalf of any of the Priority Lien Secured Parties releases any Guarantor from its obligations under its guaranty of the Priority Lien Obligations, then the Liens, if any, of the Collateral Agent, for itself or for the benefit of the holders of the notes, on such Collateral, and the obligations of such Guarantor under its guaranty of the notes, shall be automatically, unconditionally and simultaneously released. If in connection with any Enforcement Action or other exercise of rights and remedies by any Priority Lien Representative or any Priority Lien Collateral Agent, in each case prior to the Discharge of Priority Lien Obligations, the equity interests of any Person are foreclosed upon or otherwise disposed of and such Priority Lien Collateral Agent releases its Lien on the property or assets of such Person then the Liens of the Collateral Agent with respect to the property or assets of such Person will be automatically released to the same extent as the Liens of such Priority Lien Collateral Agent.

If any Priority Lien Collateral Agent, for itself or on behalf of any of the Priority Lien Secured Parties represented by it, releases any of its Liens on any part of the Collateral, or any Priority Lien Representative, for itself or on behalf of any of the Priority Lien Secured Parties represented by it, releases any Guarantor from its obligations under its guaranty of the Priority Lien Obligations, (including, without limitation) in connection with any sale, lease, exchange, transfer or other disposition of any Collateral by any Guarantor (collectively, a Disposition) permitted under the terms of the Priority Lien Documents and not expressly prohibited under the terms of the Note Documents (other than in connection with an Enforcement Action or other exercise of any Priority Lien Representative's and/or Priority Lien Collateral Agent's remedies in respect of the Collateral, which shall be governed by the previous paragraph), in each case other than in connection with, or following, the Discharge of Priority Lien Obligations, then the Liens, if any, of the Collateral Agent, for itself or for the benefit of the holders of the notes, on such Collateral, and the obligations of such Guarantor under its guaranty of the notes, shall be automatically, unconditionally and simultaneously released.

Until the Discharge of Priority Lien Obligations occurs, to the extent that any Priority Lien Collateral Agent, any Priority Lien Representative or Priority Lien Secured Parties (i) have released any Lien on Collateral or any Guarantor from its obligation under its guaranty and any such Liens or guaranty are later reinstated or (ii) obtain any new liens or additional guarantees from any Guarantor, then the Collateral Agent, for itself and the Parity Lien Secured Parties, shall be granted a Lien on any such Collateral, subject to the lien subordination provisions of the Intercreditor Agreement, and the Trustee, for itself and for the holders of the notes, shall be granted an additional guaranty, as the case may be.

In the event of a Discharge of the Priority Lien Obligations or a voluntary release of Liens securing the Priority Lien Obligations by the Priority Lien Secured Parties on all or substantially all of the Collateral (other than when such release occurs in connection with the Priority Lien

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Secured Parties foreclosure upon or other exercise of rights and remedies with respect to such Collateral), no release of the Liens on such Collateral securing the notes shall be made unless (A) consent to the release of such Liens securing the notes has been given by the requisite

Table of Contents

percentage or number of the holders of notes at the time outstanding as provided for in the Note Documents and (B) ION has delivered an officers' certificate to the Priority Lien Collateral Agent, the Trustee and the Collateral Agent certifying that all such consents have been obtained.

Release of Liens in Respect of Notes

The indenture provides that the Collateral Agent's Parity Liens upon the Collateral will no longer secure the notes outstanding under the indenture or any other Obligations under the indenture, and the right of the holders of the notes and such Obligations to the benefits and proceeds of the Collateral Agent's Parity Liens on the Collateral will terminate and be discharged:

- (1) upon satisfaction and discharge of the indenture as set forth under the caption Satisfaction and Discharge ;
- (2) upon a Legal Defeasance or Covenant Defeasance of the notes as set forth under the caption Legal Defeasance and Covenant Defeasance ;
- (3) upon payment in full and discharge of all notes outstanding under the indenture and all Obligations that are outstanding, due and payable under the indenture at the time the notes are paid in full and discharged;
- (4) in whole or in part, with the consent of the holders of the requisite percentage of notes in accordance with the provisions described below under the caption Amendment, Supplement and Waiver ; or
- (5) after the satisfaction of the Lien Release Conditions, on the date the notes are rated Investment Grade and no Default or Event of Default shall have occurred and be continuing.

Bankruptcy Matters

Until the Discharge of Priority Lien Obligations has occurred, if ION or any Guarantor shall be subject to any insolvency or liquidation proceeding and any Priority Lien Representative shall desire to permit the use of Cash Collateral (as such term is defined in Section 363(a) of the Bankruptcy Code), on which such Priority Lien Representative, such Priority Lien Collateral Agent or any other creditor has a Lien or to permit ION or any Guarantor to obtain financing, whether from the Priority Lien Secured Parties or any other Person under Section 364 of the Bankruptcy Code or any similar bankruptcy law (DIP Financing), then the Trustee and the Collateral Agent, on behalf of itself and the holders of the notes, will not object to such Cash Collateral use or DIP Financing, including any proposed orders for such Cash Collateral use and/or DIP Financing which are acceptable to any Priority Lien Representative) and to the extent the Liens securing the Priority Lien Obligations are

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

discharged, subordinated to or pari passu with such DIP Financing, the Collateral Agent will subordinate its Liens in the Collateral to the Liens securing such DIP Financing (and all Obligations relating thereto) and the Trustee and the Collateral Agent, on behalf of itself and the holders of the notes, will not request adequate protection or any other relief in connection therewith (except as expressly agreed by the Priority Lien Representative); provided that the aggregate principal amount of the DIP Financing, when taken together with any remaining Priority Lien Obligations, shall not exceed an amount equal to 115% of the aggregate principal amount of Priority Lien Obligations outstanding immediately prior to the commencement of such insolvency or liquidation proceeding, and the Trustee and the holders of the notes retain the right to object to any ancillary agreements or arrangements regarding Cash Collateral use or the DIP Financing that are materially prejudicial to their interests. No holder of notes may provide DIP Financing to ION or any Guarantor secured by Liens equal or senior in priority to the Liens securing any Priority Lien Obligations. The Trustee and the Collateral Agent, for itself and on behalf of the holders of the notes, agrees that it will not seek consultation rights in connection with, and it will not object to or oppose, a motion to sell, liquidate or otherwise dispose of Collateral under Section 363 of the Bankruptcy Code if the requisite Priority Lien Secured Parties have consented to such sale, liquidation or other disposition. The Trustee and the Collateral Agent, for itself and on behalf of the holders of the notes, further agrees that it will not directly or indirectly oppose or impede entry of any order in connection with such sale, liquidation or other disposition, including orders to retain professionals or set bid procedures in connection with such sale, liquidation or disposition, if the requisite Priority Lien Secured Parties have consented to (i) such retention of professionals and bid procedures in connection with

Table of Contents

such sale, liquidation or disposition of such assets and (ii) the sale, liquidation or disposition of such assets, in which event the holders of the notes will be deemed to have consented to the sale or disposition of Collateral pursuant to Section 363(f) of the Bankruptcy Code and such motion does not impair the rights of the holders of the notes under Section 363(k) of the Bankruptcy Code.

The Trustee, for itself and on behalf of the holders of the notes, agrees that in any insolvency or liquidation proceeding, neither the Trustee nor the holders of the notes shall propose, support or vote for any plan of reorganization or disclosure statement of ION or any other Guarantor unless such plan is accepted by the class of Priority Lien Secured Parties in accordance with Section 1126(c) of the U.S. Bankruptcy Code or otherwise provides for the payment in full in case of all Priority Lien Obligations (including all post-petition interest, fees and expenses) on the effective date of such plan of reorganization.

So long as the Discharge of Priority Lien Obligations has not occurred, without the express written consent of the Priority Lien Collateral Agent, neither the Collateral Agent nor any holder of the notes shall (or shall join with or support any third party in opposing, objecting to or contesting, as the case may be), in any insolvency or liquidation proceeding involving ION or any Guarantor, (i) oppose, object to or contest the determination of the extent of any Liens held by any of the Priority Lien Secured Parties or the value of any claims of any such holder under Section 506(a) of the Bankruptcy Code or (ii) oppose the payment to the Priority Lien Secured Parties of interest, fees or expenses under Section 506(b) of the U.S. Bankruptcy Code.

Until the Discharge of Priority Lien Obligations has occurred, the Trustee and the Collateral Agent, for itself and on behalf of the holders of the notes, agrees that none of them shall: (i) seek (or support any other Person seeking) relief from the automatic stay or any other stay in any insolvency or liquidation proceeding in respect of the Collateral, without the prior written consent of the Priority Lien Representatives or (ii) oppose (or support any other Person in opposing) any request by any Priority Lien Representative or Priority Lien Collateral Agent for relief from such stay.

The Trustee and the Collateral Agent, for itself and on behalf of the holders of the notes, agrees that neither it nor any holders of the notes will file or prosecute in any insolvency or liquidation proceeding any motion for adequate protection (or any comparable request for relief) based upon their interest in the Collateral, nor object to, oppose or contest (or join with or support any third party objecting to, opposing or contesting):

(1) any request by any Priority Lien Representative, any Priority Lien Collateral Agent or other Priority Lien Secured Party for adequate protection under any bankruptcy law; or

(2) any objection by any Priority Lien Representative, any Priority Lien Collateral Agent or other Priority Lien Secured Party to any motion, relief, action or proceeding based on a claim of a lack of adequate protection.

Notwithstanding the foregoing, in any insolvency or liquidation proceeding: (i) if the Priority Lien Secured Parties (or any subset thereof) are granted adequate protection in the form of additional collateral in connection with any DIP Financing or use of cash collateral under Section 363 or Section 364 of Title 11 of the United States Code or any similar bankruptcy law, then the Trustee, for itself and on behalf of the Parity Lien Secured Parties, (A) may seek or request adequate protection in the form of a replacement Lien on such additional collateral, which Lien will be subordinated to the Liens securing the Priority Lien Debt and such DIP Financing (and all Obligations relating thereto) on the same basis as the Liens securing the notes are so subordinated to the Liens securing Priority Lien Obligations under the Intercreditor Agreement and (B) agrees

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

that it will not seek or request, and will not accept, adequate protection in any other form; and (ii) in the event the Trustee, on behalf of itself or the holders of the notes, seeks or requests adequate protection and such adequate protection is granted in the form of additional collateral, then the Trustee, on behalf of itself or such holders of the notes, agrees that the Priority Lien Representative shall also be granted a senior Lien on such additional collateral as security for the applicable Priority Lien Debt and any such DIP Financing and that any Lien on such additional collateral securing the Parity Lien Debt shall be subordinated to the Liens on such collateral securing the Priority Lien Debt and any such DIP Financing (and all Obligations relating thereto) and any other Liens granted to the Priority Lien Secured Parties as adequate protection on the same basis as the other Liens securing the Parity Lien Debt are subordinated to such Liens securing the Priority Lien Debt under the Intercreditor Agreement.

Table of Contents

Amendment of Priority Lien Documents and Note Documents

Subject to the next succeeding paragraph, the Priority Lien Documents may be amended, supplemented or otherwise modified in accordance with their terms and the Priority Lien Debt may be Refinanced, in each case, without notice to, or the consent of, the Trustee, the Collateral Agent or the holders of the notes, all without affecting the lien subordination or other provisions of the Intercreditor Agreement; provided that any such amendment, supplement or modification or Refinancing is not inconsistent with the terms of the Intercreditor Agreement. The Note Documents may be amended, supplemented or otherwise modified in accordance with their terms, in each case, without notice to, or the consent of, any Priority Lien Representative, any Priority Lien Collateral Agent or any other Priority Lien Secured Party, all without affecting the lien subordination or other provisions of the Intercreditor Agreement, to the extent the terms and conditions of such amendment, supplement, modification meet any applicable requirements set forth in the Priority Lien Documents; provided that any such amendment, supplement or modification is not inconsistent with the terms of the Intercreditor Agreement, as certified by ION in an officer's certificate delivered to the Trustee and the Collateral Agent.

In the event any Priority Lien Collateral Agent or the applicable Priority Lien Secured Parties and ION or the Guarantors enter into any amendment, waiver or consent in respect of any of the Priority Lien Security Documents for the purpose of adding to, or deleting from, or waiving or consenting to any departures from any provisions of, any Priority Lien Security Document or changing in any manner the rights of the applicable Priority Lien Collateral Agent, such Priority Lien Secured Parties, ION or any Guarantor thereunder, then such amendment, waiver or consent shall apply automatically to any comparable provision of a Parity Lien Security Document without the consent of the Trustee, Collateral Agent or the holders of the notes and without any action by the Trustee, the Collateral Agent, the holders of the notes, ION or any Guarantor; provided that:

- (1) no such amendment, waiver or consent shall have the effect of:
 - (a) removing assets subject to the Lien of the Parity Lien Security Documents, except to the extent that a release of such Lien is permitted or required by the Intercreditor Agreement and provided that there is a corresponding release of the Liens securing the Priority Lien Obligations;
 - (b) imposing duties on, or adversely affecting rights, protections and limitations of liability of the Collateral Agent or the Trustee without its prior written consent;
 - (c) permitting other Liens on the Collateral not permitted under the terms of the Note Documents or the Intercreditor Agreement; or
 - (d) being prejudicial to the interests of the holders of the notes to a greater extent than the Priority Lien Secured Parties (other than by virtue of their relative priority and the rights and obligations under the Intercreditor Agreement); and

(2) notice of such amendment, waiver or consent will be given to the Collateral Agent by the Priority Lien Collateral Agent no later than 30 days after its effectiveness, provided that the failure to give such notice will not affect the effectiveness and validity thereof nor create any liability of the Priority Lien Collateral Agent.

Compliance with Trust Indenture Act

The indenture provides that ION will comply with the provisions of TIA §314. To the extent applicable, ION will cause TIA §313(b), relating to reports, and TIA §314(d), relating to the release of property or securities subject to the Lien of the Security Documents, to be complied with. Any certificate or opinion required by TIA §314(d) may be made by an Officer of ION except in cases where TIA §314(d) requires that such certificate or opinion be made by an independent Person, which Person will be an independent engineer, appraiser or other expert selected by or reasonably satisfactory to the Trustee. Notwithstanding anything to the contrary in this paragraph, ION will not be required to comply with all or any portion of TIA §314(d) if it determines, in good faith based on advice of counsel, that under the terms of TIA §314(d) and/or any interpretation or guidance as to the meaning

Table of Contents

thereof of the SEC and its staff, including no action letters or exemptive orders, all or any portion of TIA §314(d) is inapplicable to one or a series of released Collateral.

Further Assurances; Insurance

The indenture provides that ION and each of the other Guarantors will do or cause to be done all acts and things that may be required, or that the Collateral Agent from time to time may reasonably request, to assure and confirm that the Collateral Agent holds, for the benefit of the Parity Lien Secured Parties, duly created and enforceable and perfected Parity Liens upon the Collateral (including any property or assets that are acquired or otherwise become Collateral after the notes are issued), in each case, as contemplated by, and with the Lien priority required under, the Parity Lien Documents.

Upon the request of the Collateral Agent or any Parity Lien Representative at any time and from time to time, ION and each of the other Guarantors will promptly execute, acknowledge and deliver such security documents, instruments, certificates, notices and other documents, and take such other actions as shall be reasonably required to create, perfect, protect, assure or enforce the Liens and benefits intended to be conferred, in each case as contemplated by the Parity Lien Documents for the benefit of the holders of Parity Lien Obligations.

ION and the other Guarantors will:

- (1) keep their properties adequately insured at all times by financially sound and reputable insurers;
- (2) maintain such other insurance, to such extent and against such risks (and with such deductibles, retentions and exclusions), including fire and other risks insured against by extended coverage and coverage for acts of terrorism, as is customary with companies in the same or similar businesses operating in the same or similar locations, including public liability insurance against claims for personal injury or death or property damage occurring upon, in, about or in connection with the use of any properties owned, occupied or controlled by them;
- (3) maintain such other insurance as may be required by law; and
- (4) maintain such other insurance as may be required by the Security Documents.

Upon the request of the Collateral Agent, ION and the other Guarantors will furnish to the Collateral Agent full information as to their property and liability insurance carriers, certified as true and correct. Holders of Parity Lien Obligations, as a class, are named as additional insureds, with a waiver of subrogation, on all insurance policies of ION and the other Guarantors covering the Collateral and the Collateral Agent is named as loss payee, with 30 days notice of cancellation or material change, on all property and casualty insurance policies of ION and the other Guarantors covering the Collateral.

Optional Redemption

At any time prior to May 15, 2015, ION may on any one or more occasions redeem up to 35% of the aggregate principal amount of notes issued under the indenture, upon not less than 30 nor more than 60 days' notice, at a redemption price equal to 108.125% of the principal amount of the notes redeemed, plus accrued and unpaid interest and Special Interest, if any, to the date of redemption (subject to the rights of holders of notes on the relevant record date to receive interest on the relevant interest payment date), in an amount not to exceed the net cash proceeds from an Equity Offering by ION; provided that:

- (1) at least 65% of the aggregate principal amount of notes originally issued under the indenture (excluding notes held by ION and its Subsidiaries) remains outstanding immediately after the occurrence of such redemption; and
- (2) the redemption occurs within 90 days of the date of the closing of such Equity Offering.

Table of Contents

At any time prior to May 15, 2015, ION may on any one or more occasions redeem all or a part of the notes, upon not less than 30 nor more than 60 days' notice, at a redemption price equal to 100% of the principal amount of the notes redeemed, plus the Applicable Premium as of, and accrued and unpaid interest and Special Interest, if any, to the date of redemption, subject to the rights of holders of notes on the relevant record date to receive interest due on the relevant interest payment date.

Except pursuant to the preceding paragraphs and the final paragraph under "Repurchase at the Option of Holders - Change of Control," the notes will not be redeemable at ION's option prior to May 15, 2015.

On or after May 15, 2015, ION may on any one or more occasions redeem all or a part of the notes, upon not less than 30 nor more than 60 days' notice, at the redemption prices (expressed as percentages of principal amount) set forth below, plus accrued and unpaid interest and Special Interest, if any, on the notes redeemed, to the applicable date of redemption, if redeemed during the twelve-month period beginning on May 15 of the years indicated below, subject to the rights of holders of notes on the relevant record date to receive interest on the relevant interest payment date:

Year	Percentage
2015	104.063%
2016	102.031%
2017 and thereafter	100.000%

Unless ION defaults in the payment of the redemption price, interest will cease to accrue on the notes or portions thereof called for redemption on the applicable redemption date.

Mandatory Redemption

Except as set forth below under "Repurchase at the Option of Holders," ION is not required to make mandatory redemption or sinking fund payments with respect to the notes or to repurchase the notes at the option of holders of the notes.

Repurchase at the Option of Holders

Change of Control

If a Change of Control occurs, each holder of notes will have the right to require ION to repurchase all or any part (equal to \$2,000 or an integral multiple of \$1,000 in excess thereof) of that holder's notes pursuant to a Change of Control Offer on the terms set forth in the indenture. In the Change of Control Offer, ION will offer a Change of Control Payment in cash equal to 101% of the aggregate principal amount of notes repurchased, plus accrued and unpaid interest and Special Interest, if any, on the notes repurchased to the date of purchase (the "Change of Control Purchase Date"), subject to the rights of holders of notes on the relevant record date to receive interest due on the relevant interest

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

payment date. Within ten days following any Change of Control, ION will mail a notice to each holder describing the transaction or transactions that constitute the Change of Control and offering to repurchase notes properly tendered prior to the expiration date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is mailed, pursuant to the procedures required by the indenture and described in such notice. ION will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a Change of Control. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control provisions of the indenture, ION will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Change of Control provisions of the indenture by virtue of such compliance.

Promptly following the expiration of the Change of Control Offer, ION will, to the extent lawful, accept for payment all notes or portions of notes properly tendered pursuant to the Change of Control Offer. Promptly after such acceptance, ION will, on the Change of Control Purchase Date:

Table of Contents

(1) deposit with the paying agent an amount equal to the Change of Control Payment in respect of all notes or portions of notes properly tendered; and

(2) deliver or cause to be delivered to the Trustee the notes properly accepted together with an officers certificate stating the aggregate principal amount of notes or portions of notes being purchased by ION.

The paying agent will promptly mail to each holder of notes properly tendered the Change of Control Payment for such notes (or, if all the notes are then in global form, make such payment through the facilities of DTC), and the Trustee will promptly authenticate and mail (or cause to be transferred by book entry) to each holder a new note equal in principal amount to any unpurchased portion of the notes surrendered, if any. ION will publicly announce the results of the Change of Control Offer on or as soon as practicable after the Change of Control Purchase Date.

The provisions described above that require ION to make a Change of Control Offer following a Change of Control will be applicable whether or not any other provisions of the indenture are applicable. Except as described above with respect to a Change of Control, the indenture does not contain provisions that permit the holders of the notes to require that ION repurchase or redeem the notes in the event of a takeover, recapitalization or similar transaction.

ION will not be required to make a Change of Control Offer upon a Change of Control if (1) a third party makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in the indenture applicable to a Change of Control Offer made by ION and purchases all notes properly tendered and not withdrawn under the Change of Control Offer, (2) notice of redemption has been given pursuant to the indenture as described above under the caption Optional Redemption and all conditions precedent to such redemption have been satisfied or waived, unless and until there is a default in payment of the applicable redemption price or (3) in connection with or in contemplation of any Change of Control, ION has made an offer to purchase (an Alternate Offer) any and all notes validly tendered at a cash price equal to or higher than the Change of Control Payment and has purchased all notes properly tendered in accordance with the terms of such Alternate Offer. Notwithstanding anything to the contrary contained herein, a Change of Control Offer or Alternate Offer may be made in advance of a Change of Control, conditioned upon the consummation of such Change of Control, if a definitive agreement is in place for the Change of Control at the time the Change of Control Offer or Alternate Offer is made.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of all or substantially all of the properties or assets of ION and its Subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase substantially all, there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a holder of notes to require ION to repurchase its notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of ION and its Subsidiaries taken as a whole to another Person or group may be uncertain.

In the event that holders of not less than 90% in aggregate principal amount of the outstanding notes accept a Change of Control Offer or Alternate Offer and ION (or any third party making such Change of Control Offer or Alternate Offer in lieu of ION as described above) purchases all of the notes held by such holders, ION will have the right, upon not less than 30 nor more than 60 days prior notice, given not more than 30 days following the purchase pursuant to the Change of Control Offer or Alternate Offer described above, to redeem all of the notes that remain outstanding following such purchase at a redemption price equal to the Change of Control Payment plus, to the extent not included in the Change of Control Payment, accrued and unpaid interest and Special Interest, if any, on the notes that remain outstanding, to the date of redemption (subject to the right of holders of record on the relevant record date to receive interest due on an interest payment date that is on or prior to the redemption date).

Asset Sales

ION will not, and will not permit any of its Restricted Subsidiaries to, consummate an Asset Sale unless:

Table of Contents

- (1) ION or any of its Restricted Subsidiaries receives consideration at the time of the Asset Sale at least equal to the Fair Market Value (measured as of the date of the definitive agreement with respect to such Asset Sale) of the assets or Equity Interests issued or sold or otherwise disposed of; and
- (2) at least 75% of the consideration received in the Asset Sale by ION or such Restricted Subsidiaries (measured as of the date of the definitive agreement with respect to such Asset Sale) and all other Asset Sales since the date of the indenture is in the form of cash or Cash Equivalents. For purposes of this provision, each of the following will be deemed to be cash:
- (a) any liabilities, as shown on ION's most recent consolidated balance sheet, of ION or any Restricted Subsidiary (other than contingent liabilities and liabilities that are by their terms subordinated to the notes or any Note Guarantee) that are forgiven or assumed by the transferee of any such assets pursuant to a customary novation or indemnity agreement that releases ION or such Restricted Subsidiary or indemnifies against further liability;
- (b) any securities, notes or other obligations received by ION or any such Restricted Subsidiary from such transferee that are, within 90 days after the Asset Sale, converted by ION or such Restricted Subsidiary into cash, to the extent of the cash received in that conversion;
- (c) any stock or assets of the kind referred to in clauses (2) or (4) of the next paragraph of this covenant;
- (d) accounts receivable of a business retained by ION or any of its Restricted Subsidiaries, as the case may be, following the sale of such business, provided that such accounts receivable do not have a payment date greater than 90 days from the date of the invoices creating such accounts receivable and are not past due; and
- (e) Indebtedness (other than contingent liabilities and liabilities that are by their terms subordinated to the notes or a Note Guarantee) of any Restricted Subsidiary that is no longer a Restricted Subsidiary as a result of such Asset Sale; provided that ION and each other Restricted Subsidiary are released from any Guarantee of such Indebtedness in connection with such Asset Sale;

provided that in the case of any Asset Sale pursuant to a condemnation, appropriation or similar taking, including by deed in lieu of condemnation, such Asset Sale shall not be required to satisfy the requirements of items (1) and (2) above. Notwithstanding the preceding, the 75% limitation referred to above shall be deemed satisfied with respect to any Asset Sale in which the cash or Cash Equivalents portions of the consideration received therefrom, determined in accordance with the preceding provision on an after-tax basis, is equal to or greater than what the after-tax proceeds would have been had such Asset Sale complied with the aforementioned 75% limitation.

Within 365 days after the receipt of any Net Proceeds from an Asset Sale, other than a Sale of Collateral, ION or one or more of its Restricted Subsidiaries may at its option apply cash in an amount equal to the amount of such Net Proceeds to any combination of the following:

(1) to repay (or cash collateralize) Priority Lien Debt and, to the extent required by the documents governing such Indebtedness, Indebtedness permitted to be incurred pursuant to clause (4) of the second paragraph under the caption described below Certain Covenants Incurrence of Indebtedness and Issuance of Preferred Stock ; provided that such Indebtedness was incurred for the purpose of financing all or part of the purchase price or cost of the design, construction, installation or improvement of such assets;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Table of Contents

- (2) to acquire all or substantially all of the assets of, or any Capital Stock of, another Permitted Business, if, after giving effect to any such acquisition of Capital Stock, the Permitted Business is or becomes a Restricted Subsidiary of ION;
- (3) to make capital expenditures in the Permitted Business, including investments in multi-client data libraries; or
- (4) to acquire other assets that are not classified as current assets under GAAP and that are used or useful in a Permitted Business.

The requirement of clause (2) or (4) of the immediately preceding paragraph shall be deemed to be satisfied if a bona fide binding contract committing to make the investment referred to therein is entered into by ION or any of its Restricted Subsidiaries with a Person other than an Affiliate of ION within the time period specified in the preceding paragraph and such Net Proceeds are subsequently applied in accordance with such contract within 180 days following the date such agreement is entered into. Pending the final application of any Net Proceeds, ION (or any Restricted Subsidiary) may invest the Net Proceeds in any manner that is not prohibited by the indenture.

Within 365 days after the receipt of any Net Proceeds from an Asset Sale that constitutes a Sale of Collateral, ION (or the Restricted Subsidiary that owned those assets, as the case may be) may at its option apply cash in an amount equal to the amount of such Net Proceeds to any combination of the following: (1) to purchase or invest in other long-term assets that would constitute Collateral; (2) to repay (or cash collateralize) Priority Lien Debt or (3) to make capital expenditures in the Permitted Business, including investments in multi-client data libraries.

If the Net Proceeds exceed the aggregate amount applied or invested as provided in the second paragraph of this covenant within the time period, such excess amount will constitute Excess Proceeds. When the aggregate amount of Excess Proceeds exceeds \$15.0 million, within five days thereof, ION will, to the extent permitted by the Intercreditor Agreement, make an offer (an Asset Sale Offer) to all holders of notes and all holders of Parity Lien Debt containing provisions similar to those set forth in the indenture with respect to offers to purchase, prepay or redeem with the proceeds of sales of assets to purchase, prepay or redeem the maximum principal amount of notes and such other Parity Lien Debt (plus all accrued interest on the Indebtedness and the amount of all fees and expenses, including premiums, incurred in connection therewith) that may be purchased, prepaid or redeemed out of the Excess Proceeds. The offer price in any Asset Sale Offer will be equal to 100% of the principal amount, plus accrued and unpaid interest and Special Interest, if any, to the date of purchase, prepayment or redemption, subject to the rights of holders of notes on the relevant record date to receive interest due on the relevant interest payment date, and will be payable in cash. If any Excess Proceeds remain after consummation of an Asset Sale Offer, ION may use those Excess Proceeds for any purpose not otherwise prohibited by the indenture. If the aggregate principal amount of notes and other Parity Lien Debt tendered in (or required to be prepaid or redeemed in connection with) such Asset Sale Offer exceeds the amount of Excess Proceeds, the Trustee will select the notes and such other Parity Lien Debt to be purchased on a pro rata basis (except that any notes represented by a note in global form will be selected by such method as DTC or its nominee or successor may require or, where such nominee or successor is the trustee, a method that most nearly approximates pro rata selection as the trustee deems fair and appropriate unless otherwise required by law), based on the amounts tendered or required to be prepaid or redeemed (with such adjustments as may be deemed appropriate by ION so that only notes in denominations of \$2,000, or an integral multiple of \$1,000 in excess thereof, will be purchased). Upon completion of each Asset Sale Offer, the amount of Excess Proceeds will be reset at zero.

ION will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with each repurchase of notes pursuant to a Change of Control Offer or an Asset

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Sale Offer. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control or Asset Sale provisions of the indenture, ION will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Change of Control or Asset Sale provisions of the indenture by virtue of such compliance.

The agreements governing ION's other Indebtedness (including the Credit Agreement) contain, and future agreements may contain, prohibitions of certain events, including events that would constitute a Change of Control or an Asset Sale and including repurchases of or other prepayments in respect of the notes. The exercise by the holders of notes of their right to require ION to repurchase the notes upon a Change of Control or an Asset Sale

Table of Contents

could cause a default under these other agreements, even if the Change of Control or Asset Sale itself does not, due to the financial effect of such repurchases on ION. In the event a Change of Control or Asset Sale occurs at a time when ION is prohibited from purchasing notes, ION could seek the consent of its senior lenders to the purchase of notes or could attempt to refinance the borrowings that contain such prohibition. If ION does not obtain a consent or repay those borrowings, ION will remain prohibited from purchasing notes. In that case, ION's failure to purchase tendered notes would constitute an Event of Default under the indenture which could, in turn, constitute a default under the other indebtedness. Finally, ION's ability to pay cash to the holders of notes upon a repurchase may be limited by ION's then existing financial resources. See Risk Factors Risks Related to the Exchange Offer, the Exchange Notes and Our Indebtedness We may not be able to fulfill our repurchase obligations with respect to the notes upon a change of control.

Selection and Notice

If less than all of the notes are to be redeemed at any time, the Trustee will select notes for redemption on a pro rata basis, or, in the case of notes issued in global form as discussed below under the caption Book-Entry, Delivery and Form, based on a method as DTC may require unless otherwise required by law or applicable stock exchange or depositary requirements.

No notes of \$2,000 or less can be redeemed in part. Notices of redemption will be mailed by first class mail at least 30 but not more than 60 days before the redemption date to each holder of notes to be redeemed at its registered address, except that redemption notices may be mailed more than 60 days prior to a redemption date if the notice is issued in connection with a defeasance of the notes or a satisfaction and discharge of the indenture. Notice of any redemption, including, without limitation, upon an Equity Offering, may, at ION's discretion, be subject to one or more conditions precedent, including, but not limited to, completion of the related Equity Offering.

If any note is to be redeemed in part only, the notice of redemption that relates to that note will state the portion of the principal amount of that note that is to be redeemed. A new note in principal amount equal to the unredeemed portion of the original note will be issued in the name of the holder of notes upon cancellation of the original note. Notes called for redemption become due on the date fixed for redemption, unless the redemption is subject to a condition precedent that is not satisfied or waived. On and after the redemption date, interest ceases to accrue on notes or portions of notes called for redemption.

Certain Covenants

Changes in Covenants When Notes Rated Investment Grade

If on any date following the date of the indenture:

(1) the notes are rated Baa3 or better by Moody's and BBB- or better by S&P (or, if either such entity ceases to rate the notes for reasons outside of the control of ION, the equivalent investment grade credit rating from any other nationally recognized statistical rating organization registered under Section 15E of the Exchange Act selected by ION as a replacement agency) (Investment Grade); and

(2) no Default or Event of Default shall have occurred and be continuing,

then, beginning on that day and subject to the provisions of the following paragraph, the covenants specifically listed under the following captions in this prospectus will be suspended:

(1) Repurchase at the Option of Holders Asset Sales ; provided that those provisions relating to the Sale of Collateral and the application of the proceeds therefrom will remain in full force and effect and will not be suspended;

(2) Restricted Payments ;

Table of Contents

- (3) Incurrence of Indebtedness and Issuance of Preferred Stock ;
- (4) Dividend and Other Payment Restrictions Affecting Restricted Subsidiaries ;
- (5) Designation of Restricted and Unrestricted Subsidiaries ;
- (6) Transactions with Affiliates ; and
- (7) clause (4)(a) of the covenant described below under the caption Merger, Consolidation or Sale of Assets.

During any period that the foregoing covenants have been suspended, ION's Board of Directors may not designate any of its Subsidiaries as Unrestricted Subsidiaries pursuant to the covenant described below under the caption Designation of Restricted and Unrestricted Subsidiaries or the second paragraph of the definition of Unrestricted Subsidiary.

Notwithstanding the foregoing, if on any subsequent date, the notes cease to maintain ratings of at least Baa3 and BBB- from Moody's and S&P, respectively, the foregoing covenants will be reinstated as of and from the date of such rating decline. Calculations under the reinstated Restricted Payments covenant will be made as if the Restricted Payments covenant had been in effect since the date of the indenture except that no default will be deemed to have occurred solely by reason of a Restricted Payment made while that covenant was suspended.

There can be no assurance that the notes will ever achieve an investment grade rating or that any such rating will be maintained.

Restricted Payments

ION will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly:

- (1) declare or pay any dividend or make any other payment or distribution on account of ION's or any of its Restricted Subsidiaries' Equity Interests (including, without limitation, any payment in connection with any merger or consolidation involving ION or any of its Restricted Subsidiaries) or to the direct or indirect holders of ION's or any of its Restricted Subsidiaries' Equity Interests in their capacity as such (other than dividends or distributions payable in Equity Interests (other than Disqualified Stock) of ION and other than dividends or distributions payable to ION or a Restricted Subsidiary of ION);

(2) purchase, redeem or otherwise acquire or retire for value (including, without limitation, in connection with any merger or consolidation involving ION) any Equity Interests of ION or any direct or indirect parent of ION;

(3) make any payment on or with respect to, or purchase, redeem, defease or otherwise acquire or retire for value any Indebtedness of ION or any Guarantor that is contractually subordinated to the notes or to any Note Guarantee (excluding (a) any intercompany Indebtedness between or among ION and any of its Restricted Subsidiaries, (b) the purchase, redemption, defeasance, repurchase or other acquisition or retirement for value of Indebtedness that is subordinated in right of payment to the notes or the Note Guarantees purchased, redeemed, defeased or otherwise acquired or retired for value in anticipation of satisfying a sinking fund obligation, principal installment or final maturity, in each case due within one year of the date of purchase, repurchase, redemption, defeasance or other acquisition or retirement for value, and (c) a payment of interest or principal at the Stated Maturity thereof); or

(4) make any Restricted Investment

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Table of Contents

(all such payments and other actions set forth in these clauses (1) through (4) above being collectively referred to as Restricted Payments),

unless, at the time of and after giving effect to such Restricted Payment:

(a) no Default or Event of Default has occurred and is continuing or would occur as a consequence of such Restricted Payment;

(b) ION would, at the time of such Restricted Payment and after giving pro forma effect thereto as if such Restricted Payment had been made at the beginning of the applicable four-quarter period, have been permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the first paragraph of the covenant described below under the caption Incurrence of Indebtedness and Issuance of Preferred Stock ; and

(c) such Restricted Payment, together with the aggregate amount of all other Restricted Payments made by ION and its Restricted Subsidiaries since the date of the indenture (excluding Restricted Payments permitted by clauses (2) through (4) of the next succeeding paragraph), is less than the sum, without duplication, of:

(1) 50% of the Consolidated Net Income of ION for the period (taken as one accounting period and without duplication of amounts used in the calculation of clause (15) of the definition of Permitted Investments) from April 1, 2013, to the last day of ION's last fiscal quarter ending prior to the Restricted Payment for which internal financial statements are in existence at the time of such Restricted Payment (or, if such Consolidated Net Income for such period is a deficit, less 100% of such deficit); plus

(2) 100% of the aggregate net cash proceeds and the Fair Market Value of any Capital Stock of Persons engaged in a Permitted Business or any other assets that are used or useful in a Permitted Business in each case received by ION after the date of the indenture as a contribution to its common equity capital or from the issue or sale of Equity Interests of ION (other than Disqualified Stock); plus

(3) (a) to the extent that any Restricted Investment that was made after the date of the indenture is sold for cash (other than to ION or any of its Restricted Subsidiaries) or otherwise cancelled, liquidated or repaid for cash, the cash return of capital to ION or any of its Restricted Subsidiaries with respect to such Restricted Investment resulting from such sale, liquidation or repayment (less the out-of-pocket cost of any such disposition, if any) and (b) the net reduction in Restricted Investments resulting from repayments of loans or advances or other transfers of assets in each case to ION or any Restricted Subsidiary from any Person (including without limitation, Unrestricted Subsidiaries) and any dividends received in cash by ION or a Restricted Subsidiary of ION from an Unrestricted Subsidiary of ION (to the extent that such dividends were not otherwise included in the Consolidated Net Income of ION for such period); plus

(4) the amount by which Indebtedness of ION or its Restricted Subsidiaries is reduced on ION's balance sheet upon the conversion or exchange (other than by a Subsidiary of ION) subsequent to the date of the indenture of any such Indebtedness of ION or its

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Restricted Subsidiaries into or for Equity Interests (other than Disqualified Stock) of ION (less the amount of any cash, or the Fair market Value of any other property (other than such Equity Interests), distributed by ION upon such conversion or exchange and excluding the net cash proceeds from the conversion or exchange financed, directly or indirectly, using funds borrowed from ION or any Subsidiary), together with the net proceeds, if any, received by ION or any of its Restricted Subsidiaries upon such conversion or exchange; plus

Table of Contents

(5) to the extent that any Unrestricted Subsidiary of ION designated as such after the date of the indenture is redesignated as a Restricted Subsidiary pursuant to the terms of the indenture or is merged or consolidated with or into, or transfers or otherwise disposes of all or substantially all of its properties or assets to or is liquidated into, ION or a Restricted Subsidiary after the date of the indenture, the Fair Market Value of ION's Restricted Investment in such Subsidiary (or of the properties or assets disposed of, as applicable) as of the date of such redesignation, merger, consolidation, transfer, disposition or liquidation.

The preceding provisions will not prohibit:

(1) the payment of any dividend or the consummation of any irrevocable redemption within 60 days after the date of declaration of the dividend or giving of the redemption notice, as the case may be, if at the date of declaration or notice, the dividend or redemption payment would have complied with the provisions of the indenture;

(2) the making of any Restricted Payment in exchange for, or out of or with the net cash proceeds of the substantially concurrent sale (other than to a Restricted Subsidiary of ION) of, Equity Interests of ION (other than Disqualified Stock) or from the substantially concurrent contribution of common equity capital to ION; provided that the amount of any such net cash proceeds that are utilized for any such Restricted Payment will be excluded from clause (c)(2) of the preceding paragraph and will not be considered to be net cash proceeds from an Equity Offering for purposes of the Optional Redemption provisions of the indenture;

(3) the payment of any dividend (or, in the case of any partnership or limited liability company, any similar distribution) by a Restricted Subsidiary of ION to the holders of its Equity Interests on a pro rata basis or on a basis more favorable to ION or a Restricted Subsidiary;

(4) the repurchase, redemption, defeasance or other acquisition or retirement for value of Indebtedness of ION or any Guarantor that is contractually subordinated to the notes or to any Note Guarantee with the net cash proceeds from a substantially concurrent incurrence of Permitted Refinancing Indebtedness;

(5) so long as no Default (other than a Reporting Default) or Event of Default has occurred and is continuing, the repurchase, redemption or other acquisition or retirement for value of any Equity Interests of ION or any Restricted Subsidiary of ION held by any current or former officer, director or employee of ION or any of its Restricted Subsidiaries pursuant to any equity subscription agreement, stock option agreement, shareholders' agreement or similar agreement; provided that the aggregate price paid for all such repurchased, redeemed, acquired or retired Equity Interests may not exceed \$5.0 million in any twelve-month period; provided, further, that ION may carry over and make in subsequent twelve-month periods, in addition to the amounts permitted for such twelve-month period, up to \$5.0 million of unutilized capacity under this clause (5) attributable to the immediately preceding twelve-month period; provided, further, that such amount in any twelve-month period may be increased by an amount not to exceed:

(a) the cash proceeds from the sale of Equity Interests of ION and, to the extent contributed to ION as common equity capital, the cash proceeds from the sale of Equity Interests of any of ION's direct or indirect parent companies, in each case to members of management, directors or consultants of ION, any of its Subsidiaries or any of its direct or indirect parent companies that occurs after the date of the indenture

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

to the extent the cash proceeds from the sale of Equity Interests have not otherwise been applied to the making of Restricted Payments pursuant to clause (c)(2) of the preceding paragraph or clause (2) of this paragraph or to an optional redemption of notes pursuant to the Optional Redemption provisions of the indenture; plus

Table of Contents

(b) the cash proceeds of key man life insurance policies received by ION or its Restricted Subsidiaries after the date of the indenture; and

in addition, cancellation of Indebtedness owing to ION from any current or former officer, director or employee (or any permitted transferees thereof) of ION or any of its Restricted Subsidiaries (or any direct or indirect parent company thereof), in connection with a repurchase of Equity Interests of ION from such Persons will not be deemed to constitute a Restricted Payment for purposes of this covenant or any other provisions of the indenture;

(6) the repurchase of Equity Interests deemed to occur upon the exercise of stock or other equity options to the extent such Equity Interests represent a portion of the exercise price of those stock or other equity options and any repurchase or other acquisition of Equity Interests made in lieu of withholding taxes in connection with any exercise or exchange of stock options, warrants, incentives or other rights to acquire Equity Interests;

(7) so long as no Default or Event of Default has occurred and is continuing, the declaration and payment of regularly scheduled or accrued dividends to holders of any class or series of Disqualified Stock of ION, or any preferred stock of any Restricted Subsidiary of ION issued on or after the date of the indenture in accordance with the Fixed Charge Coverage Ratio test described below under the caption Incurrence of Indebtedness and Issuance of Preferred Stock ;

(8) payments of cash, dividends, distributions, advances or other Restricted Payments by ION or any of its Restricted Subsidiaries to allow the payment of cash in lieu of the issuance of fractional shares upon (i) the exercise of options or warrants or (ii) the conversion or exchange of Capital Stock of any such Person;

(9) repurchases of Indebtedness that is subordinated in right of payment to the notes or a Note Guarantee at a purchase price not greater than (i) 101% of the principal amount of such subordinated Indebtedness in the event of a Change of Control or (ii) 100% of the principal amount of such subordinated Indebtedness in the event of an Asset Sale, in each case plus accrued and unpaid interest thereon, in connection with any change of control offer or asset sale offer required by the terms of such Indebtedness, but only if:

(a) in the case of a Change of Control, ION has first complied with and fully satisfied its obligations under the provisions described under Repurchase at the Option of Holders Change of Control ; or

(b) in the case of an Asset Sale, ION has complied with and fully satisfied its obligations in accordance with the covenant under the heading, Repurchase at the Option of Holders Asset Sales ;

(10) so long as no Default (other than a Reporting Default) or Event of Default has occurred and is continuing, the payment to the holder(s) of shares of Series D Preferred Stock outstanding on the date of the indenture in a total amount of up to \$10.0 million in connection

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

with the conversion or repurchase of the shares of Series D Preferred Stock outstanding on such date and the payment of dividends thereon;

(11) any distributions or payments to dissenting stockholders in connection with a consolidation, merger or transfer of assets in connection with a transaction that is not prohibited by the indenture, in an amount not to exceed \$5.0 million;

(12) the distribution, as a dividend or otherwise, of shares of Capital Stock of, or Indebtedness owed to ION or a Restricted Subsidiary by, Unrestricted Subsidiaries (other than Unrestricted Subsidiaries, the primary assets of which are cash and Cash Equivalents);

Table of Contents

(13) declaration and payment of distributions effecting poison pill rights plans provided that any securities or rights so distributed have a nominal fair market value at the time of declaration; and

(14) so long as no Default (other than a Reporting Default) or Event of Default shall have occurred and be continuing or would be caused thereby, other Restricted Payments in an aggregate amount not to exceed at any one time outstanding \$25.0 million (after giving effect to any dividends, interest payments, return of capital and subsequent reduction in the amount of any Investments made pursuant to this clause as a result of the repayment or other disposition thereof, in an amount not to exceed the amount of such Investments previously made pursuant to in this clause); provided, however, that if this clause (14) is used to make an Investment in any Person that is not a Restricted Subsidiary of ION at the date of the making of such Investment and such Person becomes a Restricted Subsidiary of ION after such date, such Investment shall thereafter be deemed to have been made pursuant to clause (1) of the definition of Permitted Investments and shall cease to have been made pursuant to this clause (14) for so long as such Person continues to be a Restricted Subsidiary.

The amount of all Restricted Payments (other than cash) will be the Fair Market Value on the date of the Restricted Payment of the asset(s) or securities proposed to be transferred or issued by ION or such Restricted Subsidiary, as the case may be, pursuant to the Restricted Payment. The Fair Market Value of any assets or securities that are required to be valued by this covenant will be determined, in the case of amounts in excess of \$40 million, by the Board of Directors of ION whose resolution with respect thereto will be delivered to the Trustee.

For purposes of this covenant, a contribution, sale or incurrence will be deemed to be substantially concurrent if effected within 120 days before or after such contribution, sale or incurrence, as the case may be.

For purposes of determining compliance with this Restricted Payments covenant, (x) in the event that a Restricted Payment meets the criteria of more than one of the categories of Restricted Payments described in the preceding clauses (1) through (14), or as a Permitted Investment or is entitled to be made pursuant to the first paragraph above, ION will be permitted to divide or classify (or later divide, classify or reclassify in whole or in part in its sole discretion) such Restricted Payment in any manner that complies with this covenant.

Incurrence of Indebtedness and Issuance of Preferred Stock

ION will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, create, incur, issue, assume, guarantee or otherwise become directly or indirectly liable, contingently or otherwise, with respect to (collectively, incur) any Indebtedness (including Acquired Debt), and ION will not issue any Disqualified Stock and will not permit any of its Restricted Subsidiaries to issue any shares of preferred stock; provided, however, that ION may incur Indebtedness (including Acquired Debt) or issue Disqualified Stock, and the Guarantors may incur Indebtedness (including Acquired Debt) or issue preferred stock, if the Fixed Charge Coverage Ratio for ION's most recently ended four full fiscal quarters for which internal financial statements are available immediately preceding the date on which such additional Indebtedness is incurred or such Disqualified Stock or such preferred stock is issued, as the case may be, would have been at least 2.0 to 1.0, determined on a pro forma basis (including a pro forma application of the net proceeds therefrom), as if the additional Indebtedness had been incurred or the Disqualified Stock or the preferred stock had been issued, as the case may be, at the beginning of such four-quarter period.

The first paragraph of this covenant will not prohibit the incurrence of any of the following items of Indebtedness (collectively, Permitted Debt):

(1) the incurrence by ION and any Guarantor of additional Indebtedness and letters of credit under one or more Credit Facilities in an aggregate principal amount at any one time outstanding under this clause (1) (with letters of credit being deemed to have a principal amount equal to the maximum potential liability of ION and any Guarantor thereunder) not to exceed the greater of (a) \$175.0 million and (b) an amount equal to 20.0% of ION's Consolidated Net Tangible Assets;

(2) the incurrence by ION and its Restricted Subsidiaries of the Existing Indebtedness;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Table of Contents

(3) the incurrence by ION and the Guarantors of Indebtedness represented by (a) the notes and the related Note Guarantees that were issued on the date of the indenture and the exchange notes and the related Note Guarantees to be issued pursuant to the registration rights agreement and (b) any Additional Notes and related Note Guarantees and any related exchange notes and related Note Guarantees, in aggregate principal amount, including all Permitted Refinancing Indebtedness incurred to renew, refund, refinance, replace, defease or discharge any Indebtedness incurred pursuant to this clause (3), at any time outstanding under clauses (a) and (b) of this clause (3), not to exceed \$275.0 million;

(4) the incurrence by ION or any of its Restricted Subsidiaries of Indebtedness represented by Capital Lease Obligations (other than Deemed Capitalized Leases), mortgage financings or purchase money obligations, in each case, incurred for the purpose of financing all or any part of the purchase price or cost of design, construction, installation or improvement of property, plant or equipment used in the business of ION or any of its Restricted Subsidiaries (whether through (a) the direct purchase of such assets or (b) the purchase of the Capital Stock of a Person owning such assets (but no other material assets) the result of which is that such Person becomes a Subsidiary of ION or another Restricted Subsidiary) and related financing costs, in an aggregate principal amount, including all Permitted Refinancing Indebtedness incurred to renew, refund, refinance, replace, defease or discharge any Indebtedness incurred pursuant to this clause (4), not to exceed \$25.0 million at any time outstanding;

(5) the incurrence by ION or any of its Restricted Subsidiaries of Permitted Refinancing Indebtedness in exchange for, or the net proceeds of which are used to renew, refund, refinance, replace, defease or discharge any Indebtedness (other than intercompany Indebtedness) that was permitted by the indenture to be incurred under the first paragraph of this covenant or clauses (2), (3), (4), (5) or (12) of this paragraph;

(6) the incurrence by ION or any of its Restricted Subsidiaries of intercompany Indebtedness between or among ION and any of its Restricted Subsidiaries; provided, however, that:

(a) if ION or any Guarantor is the obligor on such Indebtedness and the payee is not ION or a Guarantor, such Indebtedness must be unsecured and expressly subordinated to the prior payment in full in cash of all Obligations then due with respect to the notes, in the case of ION, or the Note Guarantee, in the case of a Guarantor; and

(b) (i) any subsequent issuance or transfer of Equity Interests that results in any such Indebtedness being held by a Person other than ION or a Restricted Subsidiary of ION and (ii) any sale or other transfer of any such Indebtedness to a Person that is not either ION or a Restricted Subsidiary of ION,

will be deemed, in each case, to constitute an incurrence of such Indebtedness by ION or such Restricted Subsidiary, as the case may be, that was not permitted by this clause (6);

(7) the issuance by any of ION's Restricted Subsidiaries to ION or to any of its Restricted Subsidiaries of shares of preferred stock; provided, however, that:

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(a) any subsequent issuance or transfer of Equity Interests that results in any such preferred stock being held by a Person other than ION or a Restricted Subsidiary of ION; and

(b) any sale or other transfer of any such preferred stock to a Person that is not either ION or a Restricted Subsidiary of ION,

will be deemed, in each case, to constitute an issuance of such preferred stock by such Restricted Subsidiary that was not permitted by this clause (7);

(8) the incurrence by ION or any of its Restricted Subsidiaries of Hedging Obligations in the ordinary course of business;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Table of Contents

- (9) the guarantee by ION or any of the Guarantors of Indebtedness of ION or a Restricted Subsidiary of ION and the guarantee by any Foreign Subsidiary of Indebtedness of another Foreign Subsidiary, in each case, to the extent that the guaranteed Indebtedness was permitted to be incurred by another provision of this covenant; provided that if the Indebtedness being guaranteed is subordinated to or pari passu with the notes, then the Note Guarantee must be subordinated or pari passu, as applicable, to the same extent as the Indebtedness guaranteed;
- (10) the incurrence by ION or any of its Restricted Subsidiaries of Indebtedness in respect of workers' compensation claims, self-insurance obligations and bankers' acceptances in the ordinary course of business;
- (11) the incurrence by ION or any of its Restricted Subsidiaries of Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument inadvertently drawn against insufficient funds, so long as such Indebtedness is covered within five business days;
- (12) the incurrence by ION or any of the Restricted Subsidiaries of Permitted Acquisition Indebtedness;
- (13) the incurrence by ION or any of its Restricted Subsidiaries of Indebtedness arising from agreements of ION or any Restricted Subsidiary of ION providing for indemnification, adjustment of purchase price, earn outs, or similar obligations, in each case, incurred or assumed in connection with the disposition or acquisition of any business, assets or Capital Stock of a Subsidiary in a transaction permitted by the indenture, other than guarantees of Indebtedness incurred or assumed by any Person acquiring all or any portion of such business, assets or Subsidiary for the purpose of financing such acquisition;
- (14) the incurrence by ION or any Restricted Subsidiary of Indebtedness provided that sufficient net proceeds thereof are promptly deposited to defease or satisfy all of the notes as described below under Legal Defeasance and Covenant Defeasance or Satisfaction and Discharge ;
- (15) the incurrence by ION or its Restricted Subsidiaries of Indebtedness consisting of the financing of insurance premiums in customary amounts consistent with the operations and business of ION and the Restricted Subsidiaries;
- (16) intercompany Indebtedness between or among ION and any of its Restricted Subsidiaries incurred in the ordinary course of business in connection with cash pooling or other cash management arrangements;
- (17) the incurrence by ION or any of its Restricted Subsidiaries of Indebtedness in respect of bid, performance, surety, appeal, reimbursement and similar bonds issued for the account of ION and any of its Restricted Subsidiaries in the ordinary course of business, including guarantees and obligations of ION or any of its Restricted Subsidiaries with respect to letters of credit supporting such obligations (in each case other than an obligation for borrowed money);

(18) the incurrence of Indebtedness by ION in respect of guarantees of Indebtedness of joint ventures permitted under clause (15) of the definition of Permitted Investments ;

(19) letters of credit and/or bank guarantees issued in the ordinary course of business by a financial institution other than a lender or Affiliate of a lender under the Credit Agreement if ION has reasonably determined that neither such lender or Affiliate is able to issue such letter of credit or bank guaranty, up to a maximum total for all such letters of credit of \$10.0 million at any one time outstanding; and

Table of Contents

(20) the incurrence by ION or any of its Restricted Subsidiaries of additional Indebtedness or the issuance by ION of additional Disqualified Stock in an aggregate principal amount (or accreted value, as applicable) at any time outstanding, including all Permitted Refinancing Indebtedness incurred to renew, refund, refinance, replace, defease or discharge any Indebtedness incurred pursuant to this clause (20), not to exceed the greater of (a) \$25.0 million and (b) and amount equal to 5.0% of ION's Consolidated Net Tangible Assets determined as of the date of such issuance or incurrence.

ION will not incur, and will not permit any Guarantor to incur, any Indebtedness (including Permitted Debt) that is contractually subordinated in right of payment to any other Indebtedness of ION or such Guarantor unless such Indebtedness is also contractually subordinated in right of payment to the notes and the applicable Note Guarantee on substantially identical terms; provided, however, that no Indebtedness will be deemed to be contractually subordinated in right of payment to any other Indebtedness of ION solely by virtue of being unsecured or by virtue of being secured on a junior priority basis.

For purposes of determining compliance with this Incurrence of Indebtedness and Issuance of Preferred Stock covenant, in the event that an item of Indebtedness meets the criteria of more than one of the categories of Permitted Debt described in clauses (1) through (20) above, or is entitled to be incurred pursuant to the first paragraph of this covenant, ION will be permitted to divide, classify and reclassify such item of Indebtedness on the date of its incurrence, or later redivide or reclassify all or a portion of such item of Indebtedness, in any manner that complies with this covenant. Indebtedness under Credit Facilities outstanding on the date on which notes are first issued and authenticated under the indenture is deemed to have been incurred on such date in reliance on the exception provided by clause (1) of the definition of Permitted Debt. The accrual of interest or preferred stock dividends, the accretion or amortization of original issue discount, the payment of interest on any Indebtedness in the form of additional Indebtedness with the same terms, the reclassification of preferred stock as Indebtedness due to a change in accounting principles, and the payment of dividends on preferred stock or Disqualified Stock in the form of additional shares of the same class of preferred stock or Disqualified Stock is not deemed to be an incurrence of Indebtedness or an issuance of preferred stock or Disqualified Stock for purposes of this covenant; provided, in each such case, that the amount thereof is included in Fixed Charges of ION as accrued. For purposes of determining compliance with any U.S. dollar-denominated restriction on the incurrence of Indebtedness, the U.S. dollar-equivalent principal amount of Indebtedness denominated in a foreign currency shall be utilized, calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was incurred. Notwithstanding any other provision of this covenant, the maximum amount of Indebtedness that ION or any Restricted Subsidiary may incur pursuant to this covenant shall not be deemed to be exceeded solely as a result of fluctuations in exchange rates or currency values.

The amount of any Indebtedness outstanding as of any date will be:

- (1) the accreted value of the Indebtedness, in the case of any Indebtedness issued with original issue discount;
- (2) the principal amount of the Indebtedness, in the case of any other Indebtedness; and
- (3) in respect of Indebtedness of another Person secured by a Lien on the assets of the specified Person, the lesser of:
 - (a) the Fair Market Value of such assets at the date of determination; and

(b) the amount of the Indebtedness of the other Person.

Liens

ION will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, create, incur, assume or suffer to exist any Lien of any kind securing Indebtedness, Attributable Debt or trade payables on any asset now owned or hereafter acquired, except Permitted Liens.

Table of Contents

Dividend and Other Payment Restrictions Affecting Restricted Subsidiaries

ION will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, create or permit to exist or become effective any consensual encumbrance or restriction on the ability of any Restricted Subsidiary to:

- (1) pay dividends or make any other distributions on its Capital Stock to ION or any of its Restricted Subsidiaries, or with respect to any other interest or participation in, or measured by, its profits, or pay any indebtedness owed to ION or any of its Restricted Subsidiaries; provided that the priority that any series of preferred stock of a Restricted Subsidiary has in receiving dividends, distributions or liquidating distributions before dividends, distributions or liquidating distributions are paid in respect of common stock of such Restricted Subsidiary shall not constitute a restriction on the ability to make dividends or distributions on Capital Stock for purposes of this covenant;
- (2) make loans or advances to ION or any of its Restricted Subsidiaries (it being understood that the subordination of loans or advances made to ION or any of its Restricted Subsidiaries to other Indebtedness incurred by ION or any of its Restricted Subsidiaries shall not be deemed a restriction on the ability to make loans or advances); or
- (3) sell, lease or transfer any of its properties or assets to ION or any of its Restricted Subsidiaries.

However, the preceding restrictions will not apply to encumbrances or restrictions existing under or by reason of:

- (1) agreements governing Existing Indebtedness and Credit Facilities as in effect on the date of the indenture and any amendments, restatements, modifications, renewals, supplements, refundings, replacements or refinancings of those agreements; provided that the amendments, restatements, modifications, renewals, supplements, refundings, replacements or refinancings are not materially more restrictive, taken as a whole, with respect to such dividend and other payment restrictions than those contained in those agreements on the date of the indenture;
- (2) the indenture, the notes, the Note Guarantees and the Security Documents;
- (3) agreements governing other Indebtedness permitted to be incurred by ION or any Guarantor under the provisions of the covenant described above under the caption **Incurrence of Indebtedness and Issuance of Preferred Stock** and any amendments, restatements, modifications, renewals, supplements, refundings, replacements or refinancings of those agreements; provided that the encumbrances or restrictions contained therein are not, in the reasonable good faith judgment of the Chief Executive Officer and the Chief Financial Officer of ION, materially more restrictive, taken as a whole, than those contained in the indenture, the notes and the Note Guarantees;

(4) applicable law, rule, regulation or order;

(5) any instrument governing Indebtedness or Capital Stock of a Person acquired by ION or any of its Restricted Subsidiaries as in effect at the time of such acquisition (except to the extent such Indebtedness or Capital Stock was incurred in connection with or in contemplation of such acquisition), which encumbrance or restriction is not applicable to any Person, or the properties or assets of any Person, other than the Person, or the property or assets or Subsidiaries of the Person, so acquired (plus improvements and accessions to, such property or proceeds or distributions thereof) and any amendments, restatements, modifications, renewals, extensions, supplements, increases, refundings, replacements or refinancings thereof; provided that the encumbrances and restrictions in any such amendments, restatements, modifications, renewals, extensions, supplements, increases, refundings, replacements or refinancings are, in the reasonable good faith judgment of the Chief Executive Officer and Chief Financial Officer of ION, no more restrictive, taken as a whole, than those in effect on the date of the acquisition; provided, further, that in the

Table of Contents

case of Indebtedness, such Indebtedness was permitted by the terms of the indenture to be incurred;

(6) customary non-assignment provisions in contracts and licenses entered into in the ordinary course of business;

(7) purchase money obligations and mortgage financings for property acquired in the ordinary course of business and Capital Lease Obligations that impose restrictions on the property purchased or leased of the nature described in clause (3) of the preceding paragraph;

(8) any agreement for the sale or other disposition of a Restricted Subsidiary that restricts distributions by that Restricted Subsidiary pending its sale or other disposition;

(9) Permitted Refinancing Indebtedness; provided that the restrictions contained in the agreements governing such Permitted Refinancing Indebtedness are not materially more restrictive, taken as a whole, than those contained in the agreements governing the Indebtedness being refinanced;

(10) Liens permitted to be incurred under the provisions of the covenant described above under the caption "Liens" that limit the right of the debtor to dispose of the assets subject to such Liens;

(11) provisions limiting the disposition or distribution of assets or property in joint venture agreements, asset sale agreements, sale-leaseback agreements, stock sale agreements and other similar agreements (including agreements entered into in connection with a Restricted Investment) entered into with the approval of ION's Board of Directors, which limitation is applicable only to the assets that are the subject of such agreements;

(12) restrictions on cash or other deposits or net worth imposed by customers under contracts entered into in the ordinary course of business;

(13) any agreement or instrument relating to any property or assets acquired after the date of the indenture, so long as such encumbrance or restriction relates only to the property or assets so acquired (plus improvements and accessions to, such property or proceeds or distributions thereof) and is not and was not created in anticipation of such acquisition; and

(14) existing under, by reason of or with respect to provisions with respect to any Indebtedness incurred by a Restricted Subsidiary in compliance with the covenant described above under the caption "Incurrence of Indebtedness and Issuance of Preferred Stock," or any agreement pursuant to which such Indebtedness is issued, if the encumbrance or restriction is not materially more disadvantageous to the holders

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

of the notes than is customary in comparable financings (as determined by the Board of Directors of ION) and the Board of Directors of ION determines that any such encumbrance or restriction will not materially affect ION's ability to pay interest or principal on the notes.

Merger, Consolidation or Sale of Assets

ION will not, directly or indirectly: (1) consolidate or merge with or into another Person (whether or not ION is the surviving corporation), or (2) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of ION and its Restricted Subsidiaries taken as a whole, in one or more related transactions, to another Person, unless:

(1) either: (a) ION is the surviving corporation; or (b) the Person formed by or surviving any such consolidation or merger (if other than ION) or to which such sale, assignment, transfer, conveyance or other disposition has been made is an entity organized or existing under the laws of the United States, any state of the United States or the District of Columbia; and, if such entity is

Table of Contents

not a corporation, a co-obligor of the notes is a corporation organized or existing under any such laws;

(2) the Person formed by or surviving any such consolidation or merger (if other than ION) or the Person to which such sale, assignment, transfer, conveyance or other disposition has been made assumes all the obligations of ION under the notes, the indenture and the Security Documents pursuant to a supplemental indenture and such joinders to the Security Documents as may be reasonably necessary;

(3) immediately after such transaction, no Default or Event of Default exists; and

(4) ION or the Person formed by or surviving any such consolidation or merger (if other than ION), or to which such sale, assignment, transfer, conveyance or other disposition has been made would, on the date of such transaction after giving pro forma effect thereto and any related financing transactions as if the same had occurred at the beginning of the applicable four-quarter period (a) be permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the first paragraph of the covenant described above under the caption Incurrence of Indebtedness and Issuance of Preferred Stock or (b) have had a Fixed Charge Coverage Ratio equal to or greater than the actual Fixed Charge Coverage Ratio for ION for such four-quarter period.

In addition, ION will not, directly or indirectly, lease all or substantially all of the properties and assets of it and its Restricted Subsidiaries taken as a whole, in one or more related transactions, to any other Person.

This Merger, Consolidation or Sale of Assets covenant will not apply to any sale, assignment, transfer, conveyance, lease or other disposition of assets between or among ION and its Restricted Subsidiaries or to the merger or consolidation of any Restricted Subsidiary with or into ION or another Restricted Subsidiary. Clauses (3) and (4) of the first paragraph of this covenant will not apply to any merger or consolidation of ION (1) with or into one of its Restricted Subsidiaries for any purpose or (2) with or into an Affiliate solely for the purpose of reincorporating ION in another jurisdiction.

Transactions with Affiliates

ION will not, and will not permit any of its Restricted Subsidiaries to, make any payment to or sell, lease, transfer or otherwise dispose of any of its properties or assets to, or purchase any property or assets from, or enter into or make or amend any transaction, contract, agreement, understanding, loan, advance or guarantee with, or for the benefit of, any Affiliate of ION (each, an Affiliate Transaction) involving aggregate payments or consideration in excess of \$1.0 million, unless:

(1) the Affiliate Transaction is on terms that are no less favorable to ION or the relevant Restricted Subsidiary than those that could have been obtained in a comparable transaction by ION or such Restricted Subsidiary with an unrelated Person or, if in the good faith judgment of ION's Board of Directors, no comparable transaction is available with which to compare such Affiliate Transaction, such Affiliate Transaction is otherwise fair to ION or the relevant Restricted Subsidiary from a financial point of view; and

(2) ION delivers to the Trustee:

(a) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of \$20.0 million, an officers certificate certifying that such Affiliate Transaction or series of related Affiliate Transactions complies with this covenant; and

(b) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of \$40.0 million, a resolution of the Board of

Table of Contents

Directors of ION set forth in an officers certificate certifying that such Affiliate Transaction or series of related Affiliated Transactions complies with this covenant and that such Affiliate Transaction or series of related Affiliated Transactions has been approved by a majority of the disinterested members of the Board of Directors of ION.

The following items will not be deemed to be Affiliate Transactions and, therefore, will not be subject to the provisions of the prior paragraph:

- (1) any employment agreement or arrangement, equity award, equity option or equity appreciation agreement or plan, employee benefit plan, officer or director indemnification agreement, severance agreement or any similar arrangement entered into by ION or any of its Restricted Subsidiaries in the ordinary course of business and payments, awards, grants or issuances pursuant thereto;
- (2) transactions between or among ION and/or its Restricted Subsidiaries (or an entity that becomes a Restricted Subsidiary as a result of such transactions);
- (3) transactions with a Person (other than an Unrestricted Subsidiary of ION) that is an Affiliate of ION solely because ION owns, directly or through a Restricted Subsidiary, an Equity Interest in, or controls, such Person;
- (4) payment of reasonable and customary fees and reimbursements of expenses (pursuant to indemnity arrangements or otherwise) of officers, directors, employees or consultants of ION or any of its Restricted Subsidiaries;
- (5) any issuance, dividend or distribution of Equity Interests (other than Disqualified Stock) of ION to, or receipt of capital contributions from, Affiliates of ION and the granting of registration rights and other customary rights in connection therewith;
- (6) Permitted Investments and Restricted Payments that do not violate the provisions of the indenture described above under the caption Restricted Payments ;
- (7) payments to an Affiliate in respect of the notes or any other Indebtedness of ION or any Restricted Subsidiary on the same basis as concurrent payments made or offered to be made in respect thereof to non-Affiliates;
- (8) any transaction in which ION or any of its Restricted Subsidiaries, as the case may be, delivers to the Trustee a letter from an accounting, appraisal, advisory or investment banking firm of national standing stating that such transaction is fair to ION or such Restricted Subsidiary from a financial point of view or that such transaction meets the requirements of clause (1) of the preceding paragraph;

(9) loans or advances to employees in the ordinary course of business not to exceed \$5.0 million in the aggregate at any one time outstanding;

(10) transactions with Unrestricted Subsidiaries, joint ventures, customers, clients, suppliers or purchasers or sellers of goods or services, or lessors or lessees of property, in each case in the ordinary course of business and otherwise in compliance with the terms of the indenture which are, in the aggregate (taking into account all the costs and benefits associated with such transactions), not materially less favorable to ION and its Restricted Subsidiaries than those that would have been obtained in a comparable transaction by ION or such Restricted Subsidiary with an unrelated person, in the good faith determination of ION's Board of Directors or any Officer of ION involved in or otherwise familiar with such transaction, or are on terms at least as favorable as might reasonably have been obtained at such time from an unaffiliated party;

Table of Contents

(11) transactions between ION or any of its Restricted Subsidiaries and any Person that would not otherwise constitute an Affiliate Transaction except for the fact that one director of such other Person is also a director of ION or such Restricted Subsidiary, as applicable; provided that such director abstains from voting as a director of ION or such Restricted Subsidiary, as applicable, on any matter involving such other Person;

(12) the existence of, and the performance of obligations of ION or any of its Restricted Subsidiaries under the terms of, any written agreement to which ION or any of its Restricted Subsidiaries is a party on the date of the indenture, as these agreements may be amended, modified or supplemented from time to time; provided, however, that any amendment, modification or supplement entered into after the date of the indenture will be permitted to the extent that its terms are not materially more disadvantageous, taken as a whole, to the holders of the notes than the terms of the agreements in effect on the date of the indenture (as conclusively evidenced by a resolution of the Board of Directors of ION);

(13) transactions entered into by a Person prior to the time such Person becomes a Restricted Subsidiary or is merged or consolidated into ION or a Restricted Subsidiary (provided that such transaction is not entered into in contemplation of such merger or consolidation);

(14) dividends and distributions to ION and its Restricted Subsidiaries by any Unrestricted Subsidiary or joint venture;

(15) any transaction where the only consideration paid by ION or Restricted Subsidiary is Equity Interests of ION (other than Disqualified Stock); and

(16) (a) guarantees by ION or any of its Restricted Subsidiaries of performance of obligations of ION's Unrestricted Subsidiaries or joint ventures in the ordinary course of business, except for guarantees of Indebtedness of Unrestricted Subsidiaries in respect of borrowed money, and (b) pledges by ION or any Restricted Subsidiary of ION of Equity Interests in Unrestricted Subsidiaries or joint ventures for the benefit of lenders or other creditors of ION's Unrestricted Subsidiaries or joint ventures, in each case as permitted by the terms of the indenture.

Additional Note Guarantees

If ION or any of its Restricted Subsidiaries acquires or creates another Domestic Subsidiary (other than an Immaterial Subsidiary) or any other Restricted Subsidiary guarantees Indebtedness of ION or any Domestic Subsidiary in excess of a De Minimum Guaranteed Amount, then such Subsidiary will become a Guarantor and execute a supplemental indenture and deliver an Opinion of Counsel satisfactory to the Trustee within 30 business days of the date on which it was acquired or created.

Designation of Restricted and Unrestricted Subsidiaries

The Board of Directors of ION may designate any Restricted Subsidiary to be an Unrestricted Subsidiary if that designation would not cause a Default. If a Restricted Subsidiary is designated as an Unrestricted Subsidiary, the aggregate Fair Market Value of all outstanding Investments owned by ION and its Restricted Subsidiaries in the Subsidiary designated as Unrestricted will be deemed to be an Investment made as of the time of the designation and will reduce the amount available for Restricted Payments under the covenant described above under the caption

Restricted Payments or under one or more clauses of the definition of Permitted Investments, as determined by ION. That designation will only be permitted if the Investment would be permitted at that time and if the Restricted Subsidiary otherwise meets the definition of an Unrestricted Subsidiary. The Board of Directors of ION may redesignate any Unrestricted Subsidiary to be a Restricted Subsidiary if that redesignation would not cause a Default.

Any designation of a Subsidiary of ION as an Unrestricted Subsidiary will be evidenced to the Trustee by filing with the Trustee a certified copy of a resolution of the Board of Directors giving effect to such designation and

Table of Contents

an officers certificate certifying that such designation complied with the preceding conditions and was permitted by the covenant described above under the caption Restricted Payments. In the case of any designation by ION of a Person as an Unrestricted Subsidiary on the first day that such Person is a Subsidiary of ION in accordance with the provisions of the indenture, such designation shall be deemed to have occurred for all purposes of the indenture simultaneously with, and automatically upon, such Person becoming a Subsidiary. If, at any time, any Unrestricted Subsidiary would fail to meet the preceding requirements as an Unrestricted Subsidiary, it will thereafter cease to be an Unrestricted Subsidiary for purposes of the indenture and any Indebtedness of such Subsidiary will be deemed to be incurred by a Restricted Subsidiary of ION as of such date and, if such Indebtedness is not permitted to be incurred as of such date under the covenant described under the caption Incurrence of Indebtedness and Issuance of Preferred Stock, ION will be in default of such covenant. The Board of Directors of ION may at any time designate any Unrestricted Subsidiary to be a Restricted Subsidiary of ION; provided that such designation will be deemed to be an incurrence of Indebtedness by a Restricted Subsidiary of ION of any outstanding Indebtedness of such Unrestricted Subsidiary, and such designation will only be permitted if (1) such Indebtedness is permitted under the covenant described under the caption Incurrence of Indebtedness and Issuance of Preferred Stock, calculated on a pro forma basis as if such designation had occurred at the beginning of the applicable reference period; and (2) no Default or Event of Default would be in existence following such designation.

Impairment of Security Interest

Except as permitted by the Intercreditor Agreement, ION will not, and will not permit any of its Restricted Subsidiaries to, take or knowingly or negligently omit to take, any action which action or omission might or would have the result of materially impairing the security interest with respect to the Collateral for the benefit of the Trustee and the holders of the notes, and ION will not, and will not permit any of the Restricted Subsidiaries to, except as permitted under the terms of the indenture, grant to any Person other than the Collateral Agent, for the benefit of the Trustee and the holders of the notes and the other beneficiaries described in the Security Documents, any interest whatsoever in any of the Collateral.

After-Acquired Property

Promptly following the acquisition by ION or any Guarantor of any After-Acquired Property, ION or such Guarantor shall promptly execute and deliver such mortgages, deeds of trust, security instruments, financing statements and certificates and Opinions of Counsel as shall be reasonably necessary to vest in the Collateral Agent a perfected second priority security interest in such After-Acquired Property and to have such After-Acquired Property added to the Collateral and thereupon all provisions of the indenture relating to the Collateral shall be deemed to relate to such After-Acquired Property to the same extent and with the same force and effect.

Reports

Whether or not required by the rules and regulations of the SEC, so long as any notes are outstanding, ION will furnish to the holders of notes or cause the Trustee to furnish to the holders of notes (or file with the SEC for public availability), within the time periods specified in the SEC's rules and regulations:

(1) all quarterly and annual reports that would be required to be filed with the SEC on Forms 10-Q and 10-K if ION were required to file such reports, including a section entitled Management's Discussion and Analysis of Financial Condition and Results of

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Operations and, with respect to the annual information only, a report thereon by ION's certified independent accountants; and

(2) all current reports that would be required to be filed with the SEC on Form 8-K if ION were required to file such reports.

All such reports will be prepared in all material respects in accordance with all of the rules and regulations applicable to such reports. In addition, ION will file a copy of each of the reports referred to in clauses (1) and (2) above with the SEC for public availability within the time periods specified in the rules and regulations applicable to such reports (unless the SEC will not accept such a filing) and will post the reports on its website within those time periods. ION will at all times comply with TIA §314(a).

Table of Contents

If, at any time, ION is no longer subject to the periodic reporting requirements of the Exchange Act for any reason, ION will nevertheless continue filing the reports specified in the preceding paragraphs of this covenant with the SEC within the time periods specified above unless the SEC will not accept such a filing. ION will not take any action for the purpose of causing the SEC not to accept any such filings. If, notwithstanding the foregoing, the SEC will not accept ION's filings for any reason, ION will post the reports referred to in the preceding paragraphs on its website within the time periods that would apply if ION were required to file those reports with the SEC.

If ION has designated any of its Subsidiaries as Unrestricted Subsidiaries, then the quarterly and annual financial information required by the preceding paragraphs will include a reasonably detailed presentation, either on the face of the financial statements or in the footnotes thereto, and in Management's Discussion and Analysis of Financial Condition and Results of Operations, of the financial condition and results of operations of ION and its Restricted Subsidiaries separate from the financial condition and results of operations of the Unrestricted Subsidiaries of ION.

In addition, ION and the Guarantors agreed that, for so long as any notes remain outstanding, if at any time they are not required to file with the SEC the reports required by the preceding paragraphs, they will furnish to the holders of notes and to securities analysts and prospective investors, upon their request, the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act.

Events of Default and Remedies

Each of the following is an Event of Default :

- (1) default for 30 days in the payment when due of interest and Special Interest, if any, on the notes;
- (2) default in the payment when due (at maturity, upon redemption or otherwise) of the principal of, or premium, if any, on, the notes;
- (3) failure by ION or any of its Restricted Subsidiaries to comply with the provisions described under the captions Repurchase at the Option of Holders Change of Control, Repurchase at the Option of Holders Asset Sales, Certain Covenants Restricted Payments, Covenants Incurrence of Indebtedness and Issuance of Preferred Stock or Certain Covenants Merger, Consolidation or Sale of Assets ;
- (4) (A) failure by ION or any of its Restricted Subsidiaries for 60 days after notice to ION by the Trustee or the holders of at least 25% in aggregate principal amount of the notes then outstanding voting as a single class to comply with any of the other agreements in the indenture or the Security Documents or (B) failure by ION for 180 days after notice from the Trustee or holders of at least 25% in aggregate principal amount of the notes then outstanding to comply with the provisions described above under the caption Certain Covenants Reports ;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(5) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by ION or any of its Restricted Subsidiaries (or the payment of which is guaranteed by ION or any of its Restricted Subsidiaries), whether such Indebtedness or Guarantee now exists, or is created after the date of the indenture, if that default:

(a) is caused by a failure to pay principal of, premium on, if any, or interest, if any, on, such Indebtedness prior to the expiration of the grace period provided in such Indebtedness on the date of such default (a Payment Default); or

(b) results in the acceleration of such Indebtedness prior to its Stated Maturity,

and, in each case, the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a Payment Default or

Table of Contents

the maturity of which has been so accelerated, aggregates \$20.0 million or more; provided, however, if, prior to any acceleration of the notes, (i) any such Payment Default is cured or waived, (ii) any such acceleration is rescinded, or (iii) such Indebtedness is repaid during the 10 business day period commencing upon the end of any applicable grace period for such Payment Default or the occurrence of such acceleration, as the case may be, any Default or Event of Default (but not any acceleration of the notes) caused by such Payment Default or acceleration shall be automatically rescinded, so long as such rescission does not conflict with any judgment, decree or applicable law;

(6) failure by ION or any of its Restricted Subsidiaries to pay final judgments entered by a court or courts of competent jurisdiction aggregating in excess of \$20.0 million (to the extent not covered by insurance by a reputable and creditworthy insurer as to which the insurer has not disclaimed coverage), which judgments are not paid, discharged or stayed, for a period of 60 days;

(7) the occurrence of any of the following:

(a) except as permitted by the indenture, any security document ceases for any reason to be fully enforceable; provided that it will not be an Event of Default under this clause (7)(a) if the sole result of the failure of one or more security documents to be fully enforceable is that any Parity Lien purported to be granted under such security documents on Collateral, individually or in the aggregate, having a Fair Market Value of not more than \$15.0 million ceases to be an enforceable and perfected second-priority Lien, subject only to Permitted Prior Liens;

(b) any Parity Lien purported to be granted under any security document on Collateral, individually or in the aggregate, having a Fair Market Value in excess of \$15.0 million ceases to be an enforceable and perfected second-priority Lien, subject only to Permitted Prior Liens; or

(c) ION or any other Guarantor, or any Person acting on behalf of any of them, denies or disaffirms, in writing, any obligation of ION or any other Guarantor set forth in or arising under any security document;

(8) except as permitted by the indenture, any Note Guarantee is held in any judicial proceeding to be unenforceable or invalid or ceases for any reason to be in full force and effect, or any Guarantor, or any Person acting on behalf of any Guarantor, denies or disaffirms its obligations under its Note Guarantee; and

(9) certain events of bankruptcy or insolvency described in the indenture with respect to ION or any of its Restricted Subsidiaries that is a Significant Subsidiary or any group of its Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary.

In the case of an Event of Default arising from certain events of bankruptcy or insolvency, with respect to ION, any Restricted Subsidiary of ION that is a Significant Subsidiary or any group of Restricted Subsidiaries of ION that, taken together, would constitute a Significant

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Subsidiary, all outstanding notes will become due and payable immediately without further action or notice. If any other Event of Default occurs and is continuing, the Trustee or the holders of at least 25% in aggregate principal amount of the then outstanding notes may declare all the notes to be due and payable immediately.

Subject to certain limitations, holders of a majority in aggregate principal amount of the then outstanding notes may direct the Trustee in its exercise of any trust or power. The Trustee may withhold from holders of the notes notice of any continuing Default or Event of Default if it determines that withholding notice is in their interest, except a Default or Event of Default relating to the payment of principal of, premium on, if any, interest and Special Interest, if any.

Table of Contents

Subject to the provisions of the indenture relating to the duties of the Trustee, in case an Event of Default occurs and is continuing, the Trustee will be under no obligation to exercise any of the rights or powers under the indenture at the request or direction of any holders of notes unless such holders have offered to the Trustee indemnity or security satisfactory to it against any loss, liability or expense. Except to enforce the right to receive payment of principal, premium, if any, interest or Special Interest, if any, when due, no holder of a note may pursue any remedy with respect to the indenture or the notes unless:

- (1) such holder has previously given the Trustee written notice that an Event of Default is continuing;
- (2) holders of at least 25% in aggregate principal amount of the then outstanding notes make a written request to the Trustee to pursue the remedy;
- (3) such holder or holders offer and, if requested, provide to the Trustee security or indemnity satisfactory to the Trustee against any loss, liability or expense;
- (4) the Trustee does not comply with such request within 60 days after receipt of the request and the offer of security or indemnity; and
- (5) during such 60-day period, holders of a majority in aggregate principal amount of the then outstanding notes do not give the Trustee a direction inconsistent with such request.

The holders of a majority in aggregate principal amount of the then outstanding notes by written notice to the Trustee may, on behalf of the holders of all of the notes, rescind an acceleration or waive any existing Default or Event of Default and its consequences under the indenture, if the rescission would not conflict with any judgment or decree, except a continuing Default or Event of Default in the payment of principal of, premium on, if any, interest or Special Interest, if any, on, the notes.

ION is required to deliver to the Trustee annually a statement regarding compliance with the indenture. Upon becoming aware of any Default or Event of Default, ION is required to deliver to the Trustee a statement specifying such Default or Event of Default.

No Personal Liability of Directors, Officers, Employees and Stockholders

No director, officer, employee, incorporator or other owner of Capital Stock of ION or any Guarantor, as such, will have any liability for any obligations of ION or the Guarantors under the notes, the indenture, the Note Guarantees, the Note Documents or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder of notes by accepting a note waives and releases all such liability. The

waiver and release are part of the consideration for issuance of the notes. The waiver may not be effective to waive liabilities under the federal securities laws.

Legal Defeasance and Covenant Defeasance

ION may at any time, at the option of its Board of Directors evidenced by a resolution set forth in an officers certificate, elect to have all of its obligations discharged with respect to the outstanding notes and all obligations of the Guarantors discharged with respect to their Note Guarantees (Legal Defeasance) except for:

(1) the rights of holders of outstanding notes to receive payments in respect of the principal of, premium on, if any, or interest, if any, on, such notes when such payments are due from the trust referred to below;

(2) ION s obligations with respect to the notes concerning issuing temporary notes, registration of notes, mutilated, destroyed, lost or stolen notes and the maintenance of an office or agency for payment and money for security payments held in trust;

Table of Contents

(3) the rights, powers, trusts, duties and immunities of the Trustee under the indenture, and ION's and the Guarantors obligations in connection therewith; and

(4) the Legal Defeasance and Covenant Defeasance provisions of the indenture.

In addition, ION may, at its option and at any time, elect to have the obligations of ION and the Guarantors released with respect to certain covenants (including its obligation to make Change of Control Offers and Asset Sale Offers) that are described in the indenture (Covenant Defeasance) and thereafter any omission to comply with those covenants will not constitute a Default or Event of Default with respect to the notes. In the event Covenant Defeasance occurs, all Events of Default described under Events of Default and Remedies (except those relating to payments on the notes or bankruptcy, receivership, rehabilitation or insolvency events) will no longer constitute an Event of Default with respect to the notes.

In order to exercise either Legal Defeasance or Covenant Defeasance:

(1) ION must irrevocably deposit with the Trustee, in trust, for the benefit of the holders of the notes, cash in U.S. dollars, non-callable Government Securities, or a combination thereof, in amounts as will be sufficient, in the opinion of a nationally recognized investment bank, appraisal firm or firm of independent public accountants, to pay the principal of, premium on, if any, interest, on, the outstanding notes on the stated date for payment thereof or on the applicable redemption date, as the case may be, and ION must specify whether the notes are being defeased to such stated date for payment or to a particular redemption date;

(2) in the case of Legal Defeasance, ION must deliver to the Trustee an Opinion of Counsel reasonably acceptable to the Trustee confirming that (a) ION has received from, or there has been published by, the Internal Revenue Service a ruling or (b) since the date of the indenture, there has been a change in the applicable federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel will confirm that, the holders of the outstanding notes will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;

(3) in the case of Covenant Defeasance, ION must deliver to the Trustee an Opinion of Counsel reasonably acceptable to the Trustee confirming that the holders of the outstanding notes will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

(4) no Default or Event of Default has occurred and is continuing on the date of such deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit (and any similar concurrent deposit relating to other Indebtedness), and the granting of Liens to secure such borrowings);

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(5) such Legal Defeasance or Covenant Defeasance will not result in a breach or violation of, or constitute a default under, any material agreement or instrument (other than the indenture and the agreements governing any other Indebtedness being defeased, discharged or replaced) to which ION or any of its Restricted Subsidiaries is a party or by which ION or any of its Restricted Subsidiaries is bound;

(6) ION must deliver to the Trustee an officers certificate stating that the deposit was not made by ION with the intent of preferring the holders of notes over the other creditors of ION with the intent of defeating, hindering, delaying or defrauding any creditors of ION or others; and

Table of Contents

(7) ION must deliver to the Trustee an officers certificate and an Opinion of Counsel, each stating that all conditions precedent relating to the Legal Defeasance or the Covenant Defeasance have been complied with.

The Collateral will be released from the Lien securing the notes and the other Note Documents, as provided above under the caption Intercreditor Agreement Release of Liens in Respect of Notes, upon a Legal Defeasance or Covenant Defeasance in accordance with the provisions described above.

Amendment, Supplement and Waiver

Except as provided in the next three succeeding paragraphs, the indenture or the notes or the Note Guarantees may be amended or supplemented with the consent of the holders of at least a majority in aggregate principal amount of the then outstanding notes (including, without limitation, Additional Notes, if any) voting as a single class (including, without limitation, consents obtained in connection with a tender offer or exchange offer for, or purchase of, the notes), and any existing Default or Event of Default (other than a Default or Event of Default in the payment of the principal of, premium on, if any, interest or Special Interest, if any, on, the notes, except a payment default resulting from an acceleration that has been rescinded) or compliance with any provision of the indenture or the notes or the Note Guarantees may be waived with the consent of the holders of a majority in aggregate principal amount of the then outstanding notes (including, without limitation, Additional Notes, if any) voting as a single class (including, without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for, notes).

Without the consent of each holder of notes affected, an amendment, supplement or waiver may not (with respect to any notes held by a non-consenting holder):

- (1) reduce the principal amount of notes whose holders must consent to an amendment, supplement or waiver;
- (2) reduce the principal of or change the fixed maturity of any note or alter or waive any of the provisions with respect to the redemption or repurchase of the notes (except those provisions relating to the covenants described above under the caption Repurchase at the Option of Holders);
- (3) reduce the rate of or change the time for payment of interest, including default interest, on any note;
- (4) waive a Default or Event of Default in the payment of principal of, premium on, if any, interest or Special Interest, if any, on, the notes (except a rescission of acceleration of the notes by the holders of at least a majority in aggregate principal amount of the then outstanding notes and a waiver of the payment default that resulted from such acceleration);

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

- (5) make any note payable in money other than that stated in the notes;
- (6) make any change in the provisions of the indenture relating to waivers of past Defaults or the rights of holders of notes to receive payments of principal of, premium on, if any, interest or Special Interest, if any, on, the notes (other than as permitted by clause (7) below);
- (7) waive a redemption payment with respect to any note (other than a payment required by one of the covenants described above under the caption "Repurchase at the Option of Holders");
- (8) release any Guarantor from any of its obligations under its Note Guarantee or the indenture, except in accordance with the terms of the indenture; or
- (9) make any change in the preceding amendment and waiver provisions.

Table of Contents

In addition, any amendment to, or waiver of, the provisions of the indenture or any security document that has the effect of releasing all or substantially all of the Collateral from the Liens securing the notes will require the consent of the holders of at least 66 $\frac{2}{3}$ % in aggregate principal amount of the notes then outstanding.

Notwithstanding the preceding, without the consent of any holder of notes, ION, the Guarantors and the Trustee may amend or supplement the indenture, the notes or the Note Guarantees:

- (1) to cure any ambiguity, defect or inconsistency;
- (2) to provide for uncertificated notes in addition to or in place of certificated notes;
- (3) to provide for the assumption of ION's or a Guarantor's obligations to holders of notes and Note Guarantees in the case of a merger or consolidation or sale of all or substantially all of ION's or such Guarantor's assets, as applicable;
- (4) to make any change that would provide any additional rights or benefits to the holders of notes or that does not adversely affect the legal rights under the indenture of any holder;
- (5) to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the TIA;
- (6) to conform the text of the indenture, the notes, the Note Guarantees or the Security Documents to any provision of this Prospectus to the extent that such provision in this Prospectus was intended to be a verbatim recitation of a provision of the indenture, the notes, the Note Guarantees or the Security Documents, which intent shall be evidenced by an officers' certificate to that effect;
- (7) to enter into additional or supplemental Security Documents;
- (8) to make, complete or confirm any grant of Collateral permitted or required by the indenture or any of the Security Documents or any release of Collateral that becomes effective as set forth in the indenture or any of the Security Documents;
- (9) to provide for the issuance of Additional Notes in accordance with the limitations set forth in the indenture as of the date of the indenture; or

- (10) to allow any Guarantor to execute a supplemental indenture and/or a Note Guarantee with respect to the notes.

Satisfaction and Discharge

The indenture will be discharged and will cease to be of further effect as to all notes issued thereunder (except as to surviving rights of registration, of transfer or exchange of the notes and as otherwise specified in the indenture), when:

- (1) either:

(a) all notes that have been authenticated, except lost, stolen or destroyed notes that have been replaced or paid and notes for whose payment money has been deposited in trust and thereafter repaid to ION, have been delivered to the Trustee for cancellation; or

(b) all notes that have not been delivered to the Trustee for cancellation have become due and payable by reason of the mailing of a notice of redemption or otherwise or will become due and payable within one year and ION or any Guarantor has irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust solely for the benefit of the holders, cash in U.S. dollars, non-callable Government Securities, or a combination thereof, in amounts as will be sufficient, without consideration of any reinvestment of interest, to pay and discharge the entire Indebtedness on the notes not

Table of Contents

delivered to the Trustee for cancellation for principal of, premium on, if any, interest, on, the notes to the date of maturity or redemption;

(2) in respect of clause 1(b), no Default or Event of Default has occurred and is continuing on the date of the deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit and any similar deposit relating to other Indebtedness and, in each case, the granting of Liens to secure such borrowings) and the deposit will not result in a breach or violation of, or constitute a default under, any other instrument to which ION or any Guarantor is a party or by which ION or any Guarantor is bound (other than with respect to the borrowing of funds to be applied concurrently to make the deposit required to effect such satisfaction and discharge and any similar concurrent deposit relating to other Indebtedness, and in each case the granting of Liens to secure such borrowings);

(3) ION or any Guarantor has paid or caused to be paid all sums payable by it under the indenture; and

(4) ION has delivered irrevocable instructions to the Trustee to apply the deposited money toward the payment of the notes at maturity or on the redemption date, as the case may be.

In addition, ION must deliver an officers certificate and an Opinion of Counsel to the Trustee stating that all conditions precedent to satisfaction and discharge have been satisfied.

The Collateral will be released from the Lien securing the notes and the other Note Documents, as provided above under the caption

Intercreditor Agreement Release of Liens in Respect of Notes, upon a satisfaction and discharge in accordance with the provisions described above.

Concerning the Trustee

If the Trustee becomes a creditor of ION or any Guarantor, the indenture limits the right of the Trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The Trustee will be permitted to engage in other transactions; however, if it acquires any conflicting interest (as defined in the TIA) it must eliminate such conflict within 90 days, apply to the SEC for permission to continue as trustee (if the indenture has been qualified under the TIA) or resign.

The holders of a majority in aggregate principal amount of the then outstanding notes will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy available to the Trustee, subject to certain exceptions. The indenture provides that in case an Event of Default has occurred and is continuing, the Trustee will be required, in the exercise of its power, to use the degree of care of a prudent man in the conduct of his own affairs. Subject to such provisions, the Trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of notes, unless such holder has offered to the Trustee indemnity or security satisfactory to it against any loss, liability or expense.

Governing Law

The indenture, the notes and the Note Guarantees are governed by, and will be construed in accordance with, the laws of the State of New York.

Additional Information

Anyone who receives this prospectus may obtain a copy of the indenture, the registration rights agreement, the Intercreditor Agreement and security documents without charge by writing to ION Geophysical Corporation, 2105 City West Boulevard, Suite 400, Houston, Texas 77042-2839, Attention: General Counsel.

Table of Contents

Book-Entry, Delivery and Form

The Exchange Notes will be issued initially only in the form of one or more global notes (collectively, the Global Notes). The Global Notes will be deposited upon issuance with the trustee as custodian for The Depository Trust Company (DTC), in New York, New York, and registered in the name of DTC or its nominee, in each case, for credit to an account of a direct or indirect participant in DTC as described below. Beneficial interests in the Global Notes may be held only through the Euroclear System (Euroclear) and Clearstream Banking, S.A. (Clearstream) (as indirect participants in DTC), unless transferred to a person that takes delivery through a Global Note in accordance with the certification requirements described below.

Except as set forth below, the Global Notes may be transferred, in whole and not in part, only to another nominee of DTC or to a successor of DTC or its nominee. Beneficial interests in the Global Notes may not be exchanged for definitive notes in registered certificated form (Certificated Notes) except in the limited circumstances described below. See Exchange of Global Notes for Certificated Notes. Except in the limited circumstances described below, owners of beneficial interests in the Global Notes will not be entitled to receive physical delivery of notes in certificated form.

In addition, transfers of beneficial interests in the Global Notes will be subject to the applicable rules and procedures of DTC and its direct or indirect participants (including, if applicable, those of Euroclear and Clearstream), which may change from time to time.

Depository Procedures

The following description of the operations and procedures of DTC, Euroclear and Clearstream are provided solely as a matter of convenience. These operations and procedures are solely within the control of the respective settlement systems and are subject to changes by them. ION takes no responsibility for these operations and procedures and urges investors to contact the system or their participants directly to discuss these matters.

DTC has advised ION that DTC is a limited-purpose trust company created to hold securities for its participating organizations (collectively, the Participants) and to facilitate the clearance and settlement of transactions in those securities between the Participants through electronic book-entry changes in accounts of its Participants. The Participants include securities brokers and dealers (including the initial purchasers), banks, trust companies, clearing corporations and certain other organizations. Access to DTC 's system is also available to other entities such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Participant, either directly or indirectly (collectively, the Indirect Participants). Persons who are not Participants may beneficially own securities held by or on behalf of DTC only through the Participants or the Indirect Participants. The ownership interests in, and transfers of ownership interests in, each security held by or on behalf of DTC are recorded on the records of the Participants and Indirect Participants.

DTC has also advised ION that, pursuant to procedures established by it:

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(1) upon deposit of the Global Notes, DTC will credit the accounts of the Participants designated by the initial purchasers with portions of the principal amount of the Global Notes; and

(2) ownership of these interests in the Global Notes will be shown on, and the transfer of ownership of these interests will be effected only through, records maintained by DTC (with respect to the Participants) or by the Participants and the Indirect Participants (with respect to other owners of beneficial interest in the Global Notes).

Investors in the Global Notes who are Participants may hold their interests therein directly through DTC. Investors in the Global Notes who are not Participants may hold their interests therein indirectly through organizations (including Euroclear and Clearstream) which are Participants. Euroclear and Clearstream will hold interests in the Global Notes on behalf of their participants through customers' securities accounts in their respective names on the books of their respective depositories, which are Euroclear Bank S.A./N.V., as operator of Euroclear, and Citibank, N.A., as operator of Clearstream. All interests in a Global Note, including those held through Euroclear or Clearstream, may be subject to the procedures and requirements of DTC. Those interests held through Euroclear or Clearstream may also be subject to the procedures and requirements of such systems. The laws of some

Table of Contents

jurisdictions may require that certain Persons take physical delivery in definitive form of securities that they own. Consequently, the ability to transfer beneficial interests in a Global Note to such Persons will be limited to that extent. Because DTC can act only on behalf of the Participants, which in turn act on behalf of the Indirect Participants, the ability of a Person having beneficial interests in a Global Note to pledge such interests to Persons that do not participate in the DTC system, or otherwise take actions in respect of such interests, may be affected by the lack of a physical certificate evidencing such interests.

Except as described below, owners of interests in the Global Notes will not have notes registered in their names, will not receive physical delivery of notes in certificated form and will not be considered the registered owners or holders thereof under the indenture for any purpose.

Payments in respect of the principal of, premium on, if any, interest and Special Interest, if any, on, a Global Note registered in the name of DTC or its nominee will be payable to DTC in its capacity as the registered holder under the indenture. Under the terms of the indenture, ION and the Trustee will treat the Persons in whose names the notes, including the Global Notes, are registered as the owners of the notes for the purpose of receiving payments and for all other purposes. Consequently, neither ION, the Trustee nor any agent of ION or the Trustee has or will have any responsibility or liability for:

- (1) any aspect of DTC's records or any Participant's or Indirect Participant's records relating to or payments made on account of beneficial ownership interest in the Global Notes or for maintaining, supervising or reviewing any of DTC's records or any Participant's or Indirect Participant's records relating to the beneficial ownership interests in the Global Notes; or
- (2) any other matter relating to the actions and practices of DTC or any of its Participants or Indirect Participants.

DTC has advised ION that its current practice, upon receipt of any payment in respect of securities such as the notes (including principal and interest), is to credit the accounts of the relevant Participants with the payment on the payment date unless DTC has reason to believe that it will not receive payment on such payment date. Each relevant Participant is credited with an amount proportionate to its beneficial ownership of an interest in the principal amount of the relevant security as shown on the records of DTC. Payments by the Participants and the Indirect Participants to the beneficial owners of notes will be governed by standing instructions and customary practices and will be the responsibility of the Participants or the Indirect Participants and will not be the responsibility of DTC, the Trustee or ION. Neither ION nor the Trustee will be liable for any delay by DTC or any of the Participants or the Indirect Participants in identifying the beneficial owners of the notes, and ION and the Trustee may conclusively rely on and will be protected in relying on instructions from DTC or its nominee for all purposes.

Transfers between the Participants will be effected in accordance with DTC's procedures, and will be settled in same-day funds, and transfers between participants in Euroclear and Clearstream will be effected in accordance with their respective rules and operating procedures.

Cross-market transfers between the Participants, on the one hand, and Euroclear or Clearstream participants, on the other hand, will be effected through DTC in accordance with DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by their respective depositaries; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (Brussels time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its respective

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

depository to take action to effect final settlement on its behalf by delivering or receiving interests in the relevant Global Note in DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Euroclear participants and Clearstream participants may not deliver instructions directly to the depositories for Euroclear or Clearstream.

DTC has advised ION that it will take any action permitted to be taken by a holder of notes only at the direction of one or more Participants to whose account DTC has credited the interests in the Global Notes and only in respect of such portion of the aggregate principal amount of the notes as to which such Participant or Participants

Table of Contents

has or have given such direction. However, if there is an Event of Default under the notes, DTC reserves the right to exchange the Global Notes for legended notes in certificated form, and to distribute such notes to its Participants.

Although DTC, Euroclear and Clearstream have agreed to the foregoing procedures to facilitate transfers of interests in the Global Notes among participants in DTC, Euroclear and Clearstream, they are under no obligation to perform or to continue to perform such procedures, and may discontinue such procedures at any time. None of ION, the Trustee and any of their respective agents will have any responsibility for the performance by DTC, Euroclear or Clearstream or their respective participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

Exchange of Global Notes for Certificated Notes

A Global Note is exchangeable for Certificated Notes if:

- (1) DTC (a) notifies ION that it is unwilling or unable to continue as depository for the Global Notes or (b) has ceased to be a clearing agency registered under the Exchange Act and, in either case, ION fails to appoint a successor depository;
- (2) ION, at its option, notifies the Trustee in writing that it elects to cause the issuance of the Certificated Notes; or
- (3) there has occurred and is continuing a Default or Event of Default with respect to the notes.

In addition, beneficial interests in a Global Note may be exchanged for Certificated Notes upon prior written notice given to the Trustee by or on behalf of DTC in accordance with the indenture. In all cases, Certificated Notes delivered in exchange for any Global Note or beneficial interests in Global Notes will be registered in the names, and issued in any approved denominations, requested by or on behalf of the depository (in accordance with its customary procedures).

Exchange of Certificated Notes for Global Notes

Certificated Notes may not be exchanged for beneficial interests in any Global Note except in the limited circumstances provided in the indenture.

Same Day Settlement and Payment

ION will make payments in respect of the notes represented by the Global Notes, including principal, premium, if any, interest and Special Interest, if any, by wire transfer of immediately available funds to the accounts specified by DTC or its nominee. ION will make all payments of principal, premium, if any, interest and Special Interest, if any, with respect to Certificated Notes by wire transfer of immediately available funds to the accounts specified by the holders of the Certificated Notes or, if no such account is specified, by mailing a check to each such holder's registered address. The notes represented by the Global Notes are expected to be eligible to trade in DTC's Same-Day Funds Settlement System, and any permitted secondary market trading activity in such notes will, therefore, be required by DTC to be settled in immediately available funds. ION expects that secondary trading in any Certificated Notes will also be settled in immediately available funds.

Because of time zone differences, the securities account of a Euroclear or Clearstream participant purchasing an interest in a Global Note from a Participant will be credited, and any such crediting will be reported to the relevant Euroclear or Clearstream participant, during the securities settlement processing day (which must be a business day for Euroclear and Clearstream) immediately following the settlement date of DTC. DTC has advised ION that cash received in Euroclear or Clearstream as a result of sales of interests in a Global Note by or through a Euroclear or Clearstream participant to a Participant will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

Table of Contents

Registration Rights; Special Interest

The following description is a summary of the material provisions of the registration rights agreement applicable to the Restricted Notes. It does not restate that agreement in its entirety. We urge you to read the registration rights agreement in its entirety because it, and not this description, defines the registration rights of holders of the Restricted Notes. See Additional Information.

On May 13, 2013, ION, the Guarantors and the representatives of the initial purchasers named therein entered into the registration rights agreement. Pursuant to the registration rights agreement, ION and the Guarantors agreed to file with the SEC the Exchange Offer Registration Statement (as defined in the registration rights agreement) on the appropriate form under the Securities Act with respect to the notes. However, if any holder of Transfer Restricted Securities notifies ION prior to the 20th business day following consummation of the Exchange Offer that (A) it is prohibited by law or SEC policy from participating in the Exchange Offer; (B) it may not resell the exchange notes acquired by it in the Exchange Offer to the public without delivering a prospectus and the prospectus contained in the Exchange Offer Registration Statement is not appropriate or available for such resales; or (C) it is a broker-dealer and owns notes acquired directly from ION or an affiliate of ION, ION and the Guarantors will file with the SEC a Shelf Registration Statement (as defined in the registration rights agreement) to cover resales of the notes by the holders of the notes who satisfy certain conditions relating to the provision of information in connection with the Shelf Registration Statement.

For purposes of the preceding, Transfer Restricted Securities means each note until the earliest to occur of (1) the date on which such note has been exchanged by a Person other than a broker-dealer for an Exchange Note in the Exchange Offer; (2) following the exchange by a broker-dealer in the Exchange Offer of a note for an Exchange Note, the date on which such Exchange Note is sold to a purchaser who receives from such broker-dealer on or prior to the date of such sale a copy of the prospectus contained in the Exchange Offer Registration Statement; (3) the date on which such note has been effectively registered under the Securities Act and disposed of in accordance with the Shelf Registration Statement; (4) the date on which such note is actually sold pursuant to Rule 144 under the Securities Act; provided that a note will not cease to be a Transfer Restricted Security for purposes of the Exchange Offer by virtue of this clause (4); and (5) the date on which such note ceases to be outstanding.

The registration rights agreement provides that if obligated to file the Shelf Registration Statement, ION and the Guarantors will (1) file the Shelf Registration Statement with the SEC within the time periods specified in the registration rights agreement, (2) cause the Shelf Registration to be declared effective by the SEC within the time periods specified in the registration rights agreement and (3) keep the Shelf Registration Statement effective for one year or such shorter period as specified in the registration rights agreement. If the Shelf Registration Statement or the Exchange Offer Registration Statement is declared effective but thereafter ceases to be effective or usable (subject to customary exceptions) in connection with resales of Transfer Restricted Securities during the periods specified in the registration rights agreement (a Registration Default), then ION and the Guarantors will pay Special Interest to each holder of Transfer Restricted Securities until all Registration Defaults have been cured.

With respect to the first 90-day period immediately following the occurrence of the first Registration Default, Special Interest will be paid in an amount equal to 0.25% per annum of the principal amount of Transfer Restricted Securities outstanding. The amount of the Special Interest will increase by an additional 0.25% per annum with respect to each subsequent 90-day period until all Registration Defaults have been cured, up to a maximum amount of Special Interest for all Registration Defaults of 1.0% per annum of the principal amount of the Transfer Restricted Securities outstanding. All accrued Special Interest will be paid by ION and the Guarantors on the next scheduled interest payment date to DTC or its nominee by wire transfer of immediately available funds or by federal funds check and to holders of Certificated Notes by wire transfer to the accounts specified by them or by mailing checks to their registered addresses if no such accounts have been specified.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Holders of Restricted Notes will be required to make certain representations to ION (as described in the registration rights agreement) in order to participate in the Exchange Offer and will be required to deliver certain information to be used in connection with the Shelf Registration Statement and to provide comments on the Shelf Registration Statement within the time periods set forth in the registration rights agreement in order to have their notes included in the Shelf Registration Statement and benefit from the provisions regarding Special Interest set

Table of Contents

forth above. By acquiring Transfer Restricted Securities, a holder will be deemed to have agreed to indemnify ION and the Guarantors against certain losses arising out of information furnished by such holder in writing for inclusion in any Shelf Registration Statement. Holders of notes will also be required to suspend their use of the prospectus included in the Shelf Registration Statement under certain circumstances upon receipt of written notice to that effect from ION.

Certain Definitions

Set forth below are certain defined terms used in the indenture. Reference is made to the indenture for a full disclosure of all defined terms used therein, as well as any other capitalized terms used herein for which no definition is provided.

Acquired Debt means, with respect to any specified Person:

- (1) Indebtedness of any other Person existing at the time such other Person is merged with or into or became a Subsidiary of such specified Person, whether or not such Indebtedness is incurred in connection with, or in contemplation of, such other Person merging with or into, or becoming a Restricted Subsidiary of, such specified Person; and
- (2) Indebtedness secured by a Lien encumbering any asset acquired by such specified Person.

Act of Supermajority of Debtholders means, as to any matter at any time:

- (1) prior to the Discharge of Priority Lien Obligations, a direction in writing delivered to the Priority Lien Collateral Agent by or with the written consent of the holders of more than 66 $\frac{2}{3}$ % of the sum of:
 - (a) the aggregate outstanding principal amount of Priority Lien Debt (including outstanding letters of credit whether or not then available or drawn); and
 - (b) other than in connection with the exercise of remedies, the aggregate unfunded commitments to extend credit which, when funded, would constitute Priority Lien Debt; and
- (2) at any time after the Discharge of Priority Lien Obligations, a direction in writing delivered to the Collateral Agent by or with the written consent of the holders of at least 66 $\frac{2}{3}$ % in aggregate principal amount of the notes (including any Additional Notes) then

outstanding.

Affiliate of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, control, as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise; provided that beneficial ownership of 10% or more of the Voting Stock of a Person will be deemed to be control. For purposes of this definition, the terms controlling, controlled by and under common control with have correlative meanings.

After-Acquired Property means any and all assets or property acquired after the date of the indenture, including any property or assets acquired by ION or a Guarantor from another Guarantor, which in each case constitutes Collateral.

Applicable Premium means, with respect to any note on any redemption date, the greater of:

(1) 1.0% of the principal amount of the note; or

(2) the excess of:

Table of Contents

(a) the present value at such redemption date of (i) the redemption price of the note at May 15, 2015 (such redemption price being set forth in the table appearing above under the caption "Optional Redemption") plus (ii) all required interest payments due on the note through May 15, 2015 (excluding accrued but unpaid interest to the redemption date), computed using a discount rate equal to the Treasury Rate as of such redemption date plus 50 basis points; over

(b) the principal amount of the note.

Asset Sale means:

(1) the sale, lease, conveyance or other disposition of any assets or rights by ION or any of ION's Restricted Subsidiaries; provided that the sale, lease, conveyance or other disposition of all or substantially all of the assets of ION and its Restricted Subsidiaries taken as a whole will be governed by the provisions of the indenture described above under the caption "Repurchase at the Option of Holders Change of Control" and/or the provisions described above under the caption "Certain Covenants Merger, Consolidation or Sale of Assets" and not by the provisions of the Asset Sale covenant; and

(2) the issuance of Equity Interests by any of ION's Restricted Subsidiaries or the sale by ION or any of ION's Restricted Subsidiaries of Equity Interests in any of ION's Subsidiaries (other than directors' qualifying shares or shares required by applicable law to be held by a Person other than ION or a Restricted Subsidiary).

Notwithstanding the preceding, none of the following items will be deemed to be an Asset Sale:

(1) any single transaction or series of related transactions that involves assets having a Fair Market Value of no more than \$25.0 million since the date of the indenture;

(2) a transfer of assets between or among ION and its Restricted Subsidiaries;

(3) an issuance of Equity Interests by a Restricted Subsidiary of ION to ION or to a Restricted Subsidiary of ION;

(4) the sale, lease, license, sublicense or other transfer of assets, services or accounts receivable in the ordinary course of business and any sale or other disposition of damaged, worn-out or obsolete assets in the ordinary course of business (including the abandonment or other disposition of intellectual property that is, in the reasonable judgment of ION, no longer economically practicable to maintain or useful in the conduct of the business of ION and its Restricted Subsidiaries taken as whole);

- (5) licenses and sublicenses by ION or any of its Restricted Subsidiaries of software or intellectual property in the ordinary course of business;
- (6) any surrender or waiver of contract rights or settlement, release, recovery on or surrender of contract, tort or other claims in the ordinary course of business;
- (7) the granting of Liens not prohibited by the covenant described above under the caption Liens and the sale or other disposition pursuant to foreclosure of the assets subject to such Lien;
- (8) the sale or other disposition of cash, Cash Equivalents, Hedging Obligations or other financial instruments;
- (9) any sale of Capital Stock, Indebtedness or other securities, of an Unrestricted Subsidiary; and

Table of Contents

(10) a Restricted Payment that does not violate the covenant described above under the caption Certain Covenants Restricted Payments or a Permitted Investment (or a disposition that would constitute a Restricted Payment but for the exclusion from the definition thereof).

Asset Sale Offer has the meaning assigned to that term in the indenture governing the notes.

Attributable Debt in respect of a sale and leaseback transaction means, at the time of determination, the present value of the obligation of the lessee for net rental payments during the remaining term of the lease included in such sale and leaseback transaction including any period for which such lease has been extended or may, at the option of the lessor, be extended. Such present value shall be calculated using a discount rate equal to the rate of interest implicit in such transaction, determined in accordance with GAAP; provided, however, that if such sale and leaseback transaction results in a Capital Lease Obligation, the amount of Indebtedness represented thereby will be determined in accordance with the definition of Capital Lease Obligation.

Beneficial Owner has the meaning assigned to such term in Rule 13d-3 and Rule 13d-5 under the Exchange Act, except that in calculating the beneficial ownership of any particular person (as that term is used in Section 13(d)(3) of the Exchange Act), such person will be deemed to have beneficial ownership of all securities that such person has the right to acquire by conversion or exercise of other securities, whether such right is currently exercisable or is exercisable only after the passage of time. The terms Beneficially Owns and Beneficially Owned have a corresponding meaning.

Board of Directors means:

(1) with respect to a corporation, the board of directors of the corporation or any committee thereof duly authorized to act on behalf of such board;

(2) with respect to a partnership, the Board of Directors of the general partner of the partnership;

(3) with respect to a limited liability company, the managing member or members or any controlling committee of managing members thereof; and

(4) with respect to any other Person, the board or committee of such Person serving a similar function.

Capital Lease Obligation means, at the time any determination is to be made, the amount of the liability in respect of a capital lease that would at that time be required to be capitalized on a balance sheet prepared in accordance with GAAP, and the Stated Maturity thereof shall be the date of

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

the last payment of rent or any other amount due under such lease prior to the first date upon which such lease may be prepaid by the lessee without payment of a penalty. Notwithstanding the foregoing, any lease (whether entered into before or after the date of the indenture) that would have been classified as an operating lease pursuant to GAAP as in effect on the date of the indenture will be deemed not to represent a Capital Lease Obligation.

Capital Stock means:

- (1) in the case of a corporation, corporate stock;
- (2) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock;
- (3) in the case of a partnership or limited liability company, partnership interests (whether general or limited) or membership interests; and
- (4) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing Person, but excluding from all of the foregoing any debt securities convertible into Capital Stock, whether or not such debt securities include any right of participation with Capital Stock.

Table of Contents

Cash Equivalents means:

- (1) United States dollars;
- (2) securities issued or directly and fully guaranteed or insured by the United States government or any agency or instrumentality of the United States government (provided that the full faith and credit of the United States is pledged in support of those securities) having maturities of not more than six months from the date of acquisition;
- (3) certificates of deposit and eurodollar time deposits with maturities of six months or less from the date of acquisition, bankers acceptances with maturities not exceeding six months and overnight bank deposits, in each case, with any lender party to the Credit Agreement or with any domestic commercial bank having capital and surplus in excess of \$500.0 million and a Thomson Bank Watch Rating of B or better;
- (4) repurchase obligations with a term of not more than thirty days for underlying securities of the types described in clauses (2) and (3) above entered into with any financial institution meeting the qualifications specified in clause (3) above;
- (5) commercial paper having one of the two highest ratings obtainable from Moody's or S&P and, in each case, maturing within one year after the date of acquisition;
- (6) money market funds at least 95% of the assets of which constitute Cash Equivalents of the kinds described in clauses (1) through (5) of this definition;
- (7) money market funds that (i) comply with the criteria set forth in Securities and Exchange Commission Rule 2a-7 under the Investment Company Act of 1940, (ii) are rated or invest solely in the assets described in clauses (1) through (6) above and (iii) have portfolio assets of at least \$500.0 million;
- (8) marketable direct obligations issued by any state of the United States of America or any political subdivision of any such state or any public instrumentality thereof, in each case maturing within one year after the date of acquisition and having, at such date, the highest rating obtainable from either S&P or Moody's;
- (9) any interest bearing account at, or certificate of deposit maturing not more than one year after such time issued by, a U.S. savings and loan association which has a rating of A- or better from S&P or a rating of A3 or better from Moody's on its long term unsecured

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

debt and which has combined capital and surplus and undivided profits of not less than \$500.0 million;

(10) any interest bearing account at, or certificate of deposit maturing not more than one year after such time, payable in United States dollars and issued by, (i) a foreign banking institution or foreign branch of a U.S. banking institution, which banking institution has a rating of A- or better from S&P or a rating of A3 or better from Moody's on its long-term unsecured debt and combined capital and surplus and undivided profits of not less than \$500.0 million, or (ii) any foreign subsidiary of a U.S. banking institution, which U.S. banking institution has a rating of A- or better from S&P or a rating of A3 or better from Moody's and which subsidiary has combined capital and surplus and undivided profits of not less than \$500.0 million;

(11) any evidence of Indebtedness (including variable rate demand notes), maturing not more than one year after such time, issued by any State of the United States, by any county or municipality organized or incorporated under the laws of any State of the United States or by any agency or subdivision of any of the foregoing, in each case rated A- or better by S&P or rated A3 or better by Moody's;

Table of Contents

(12) any preferred securities issued by domestic or foreign corporations, municipalities, or closed-end management investment companies and are designed as short term money market instruments rated A- or better by S&P or rated A3 or better by Moody's, provided that such Investment will not result in any violation of F.R.S. Board Regulation U and further provided that ION's aggregate ownership interest of all of the Guarantors does not exceed (and is not convertible into shares which exceed) 5% of the issuer's outstanding shares entitled to vote unless such ownership interest is acquired pursuant to a merger agreement between or among ION and/or one or more Guarantors and such issuer);

(13) any mutual funds or similar investment vehicles investing primarily in Investments of the types set forth in the foregoing clauses (1) through (12), provided that ratings requirements shall be applicable to the mutual fund rather than the underlying Investments, as follows: such mutual funds shall, in each case, have a rating of A- or better from S&P or a rating of A3 from Moody's, provided, however, that it is agreed that (i) any Investment which when made complies with the requirements of any of the foregoing clauses (7), (8), (9), (10), (11) or (12) may continue to be held notwithstanding that such Investment if made thereafter would not comply with such requirements; and (ii) no Investment otherwise permitted by clauses (12) or (13) shall be permitted to be made directly or indirectly through a mutual fund if, immediately before or after giving effect thereto, any Default shall have occurred and be continuing; and

(14) with respect to the Subsidiaries that are not Domestic Subsidiaries only, any Investments outside of the United States that are the functional foreign equivalents in all material respects to the investments described in the foregoing clauses (1) through (13) of this definition.

Change of Control means the occurrence of any of the following:

(1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of ION and its Subsidiaries taken as a whole to any Person (including any person (as that term is used in Section 13(d)(3) of the Exchange Act));

(2) the adoption of a plan relating to the liquidation or dissolution of ION;

(3) the consummation of any transaction (including, without limitation, any merger or consolidation), the result of which is that any Person (including any person (as defined above) becomes the Beneficial Owner, directly or indirectly, of more than 50% of the Voting Stock of ION, measured by voting power rather than number of shares; or

(4) the first day on which a majority of the members of the Board of Directors of ION are not Continuing Directors.

Notwithstanding the preceding, the conversion of ION from a corporation to a limited liability company, limited partnership or other form of entity or an exchange of all of the outstanding Equity Interests in one form of entity for Equity Interests in another form of entity shall not constitute a Change of Control, so long as such transaction otherwise complies with the terms of the indenture and following such conversion or exchange the persons (as that term is used in Section 13(d)(3) of the Exchange Act) who Beneficially Owned the Capital Stock of ION

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

immediately prior to such transactions continue to Beneficially Own in the aggregate more than 50% of the Voting Stock of ION, or continue to Beneficially Own sufficient Equity Interests in such entity to elect a majority of its directors, managers, trustees or other persons serving in a similar capacity for such entity or its general partner, as applicable, and, in either case no person Beneficially Owns more than 50% of the Voting Stock of such entity or its general partner, as applicable.

Change of Control Offer has the meaning assigned to that term in the indenture governing the notes.

Table of Contents

Class means (1) in the case of Parity Lien Debt, all Parity Lien Debt, taken together, and (2) in the case of Priority Lien Debt, every Series of Priority Lien Debt, taken together.

Collateral means all properties and assets at any time owned or acquired by ION or any of the other Guarantors, except:

(1) Excluded Assets;

(2) any properties and assets in which the Collateral Agent is required to release its Liens pursuant to the provisions described above under the caption Intercreditor Agreement Release of Liens on Collateral ; and

(3) any properties and assets that no longer secure the notes or any Obligations in respect thereof pursuant to the provisions described above under the caption Intercreditor Agreement Release of Liens in Respect of Notes,

provided that in the case of clauses (2) and (3), if such Liens are required to be released as a result of the sale, transfer or other disposition of any properties or assets of ION or any other Guarantor, such assets or properties will cease to be excluded from the Collateral if ION or any other Guarantor thereafter acquires or reacquires such assets or properties.

Collateral Agent means U.S. Bank National Association, in its capacity as collateral agent under the Security Documents, together with its successors in such capacity.

Consolidated EBITDA means, with respect to any specified Person for any period, the Consolidated Net Income of such Person for such period plus, without duplication:

(1) an amount equal to any extraordinary loss plus any net loss realized by such Person or any of its Restricted Subsidiaries in connection with an Asset Sale, to the extent such losses were deducted in computing such Consolidated Net Income; plus

(2) provision for taxes based on income or profits of such Person and its Restricted Subsidiaries for such period, to the extent that such provision for taxes was deducted in computing such Consolidated Net Income; plus

(3) the Fixed Charges of such Person and its Restricted Subsidiaries for such period, to the extent that such Fixed Charges were deducted in computing such Consolidated Net Income; plus

(4) any foreign currency translation losses (including losses related to currency remeasurements of Indebtedness) of such Person and its Restricted Subsidiaries for such period, to the extent that such losses were taken into account in computing such Consolidated Net Income; plus

(5) the aggregate reserves established by ION with respect to the WesternGeco L.L.C. v. ION Geophysical Corporation litigation, plus

(6) depreciation, amortization (including amortization of intangibles but excluding amortization of prepaid cash expenses that were paid in a prior period) and other non-cash charges and expenses (excluding any such non-cash charge or expense to the extent that it represents an accrual of or reserve for cash charges or expenses in any future period or amortization of a prepaid cash charge or expense that was paid in a prior period) of such Person and its Restricted Subsidiaries for such period to the extent that such depreciation, amortization and other non-cash charges or expenses were deducted in computing such Consolidated Net Income; minus

Table of Contents

(7) any foreign currency translation gains (including gains related to currency remeasurements of Indebtedness) of such Person and its Restricted Subsidiaries for such period, to the extent that such gains were taken into account in computing such Consolidated Net Income; minus

(8) non-cash items increasing such Consolidated Net Income for such period, other than the accrual of revenue in the ordinary course of business;

in each case, on a consolidated basis and determined in accordance with GAAP.

Notwithstanding the preceding, the provision for taxes based on the income or profits of, and the depreciation and amortization and other non-cash expenses of, a Restricted Subsidiary of ION will be added to Consolidated Net Income to compute Consolidated EBITDA of ION only to the extent that a corresponding amount would be permitted at the date of determination to be dividended to ION by such Restricted Subsidiary without prior governmental approval (that has not been obtained), and without direct or indirect restriction pursuant to the terms of its charter and all agreements, instruments, judgments, decrees, orders, statutes, rules and governmental regulations applicable to that Restricted Subsidiary or its stockholders.

Consolidated Indebtedness means, as of any date of determination, an amount equal to the aggregate principal amount of Indebtedness of ION and its Restricted Subsidiaries outstanding on such date, determined on a consolidated basis in accordance with GAAP.

Consolidated Net Income means, with respect to any specified Person for any period, the aggregate net income (loss) of such Person and its Restricted Subsidiaries for such period, on a consolidated basis, determined in accordance with GAAP and without any reduction in respect of preferred stock dividends; provided that:

(1) all extraordinary gains and losses and all gains and losses realized in connection with any Asset Sale or the disposition of securities or the early extinguishment of Indebtedness, together with any related provision for taxes on any such gain, will be excluded;

(2) the net income of any Person that is not a Restricted Subsidiary or that is accounted for by the equity method of accounting will be included only to the extent of the amount of dividends or similar distributions paid in cash to the specified Person or a Restricted Subsidiary of the Person;

(3) the net income (but not loss) of any Restricted Subsidiary other than a Guarantor will be excluded to the extent that the declaration or payment of dividends or similar distributions by that Restricted Subsidiary of that net income is not at the date of determination permitted without any prior governmental approval (that has not been obtained) or, directly or indirectly, by operation of the terms of its charter or any agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to that Restricted Subsidiary or its stockholders;

(4) the cumulative effect of a change in accounting principles will be excluded; and

(5) non-cash gains and losses attributable to movement in the mark-to-market valuation of Hedging Obligations pursuant to Financial Accounting Standards Board Accounting Standards Codification 815 (ASC 815) will be excluded.

Consolidated Net Tangible Assets means, with respect to any specified Person as of any date of determination, the consolidated total assets of such Person and its Restricted Subsidiaries determined in accordance with GAAP as of the end of the Person's most recent fiscal quarter for which internal financial statements are available, less the sum of (1) all current liabilities and current liability items, and (2) all goodwill, trade names, trademarks, patents, organization expense, unamortized debt discount and expense and other similar intangibles properly classified as intangibles in accordance with GAAP.

continuing means, with respect to any Default or Event of Default, that such Default or Event of Default has not been cured or waived.

Table of Contents

Continuing Directors means, as of any date of determination, any member of the Board of Directors of ION who:

- (1) was a member of such Board of Directors on the date of the indenture; or
- (2) was nominated for election or elected to such Board of Directors with the approval of a majority of the Continuing Directors who were members of such Board of Directors at the time of such nomination or election.

Credit Agreement means that certain Credit Agreement, dated as of March 25, 2010, by and among ION and China Merchants Bank Co., Ltd., New York Branch, as administrative agent and lender, as amended, including any related notes, Guarantees, collateral documents, instruments and agreements executed in connection therewith, and, in each case, as further amended, restated, modified, renewed, refunded, replaced in any manner (whether upon or after termination or otherwise) or refinanced (including by means of sales of debt securities to institutional investors) in whole or in part from time to time.

Credit Agreement Agent means, at any time, the Person serving at such time as the Agent or Administrative Agent under the Credit Agreement or any other representative then most recently designated in accordance with the applicable provisions of the Credit Agreement, together with its successors in such capacity.

Credit Facilities means, one or more debt facilities (including, without limitation, any Credit Agreement), indentures, commercial paper facilities or secured or unsecured capital market financing, in each case, with banks or other institutional lenders or institutional investors providing for revolving credit loans, term loans, term debt, debt securities, receivables financing (including through the sale of receivables to such lenders or to special purpose entities formed to borrow from such lenders against such receivables) or letters of credit, in each case, as amended, restated, modified, renewed, extended, increased, refunded, replaced in any manner (whether upon or after termination or otherwise) or refinanced (including by means of sales of debt securities to institutional investors) in whole or in part from time to time.

Customary Resource Exceptions means, with respect to any Non-Recourse Debt of an Unrestricted Subsidiary, exclusions from the exculpation provisions with respect to such Non-Recourse Debt for the voluntary bankruptcy of such Unrestricted Subsidiary, fraud, misapplication of cash, environmental claims, waste, willful destruction and other circumstances customarily excluded by lenders from exculpation provisions or included in separate indemnification agreements in non-recourse financings.

Deemed Capitalized Leases means obligations of ION or any Restricted Subsidiary of ION that are classified as capital lease obligations under GAAP due to the application of ASC Topic 840 or any subsequent pronouncement having similar effect and, except for such regulation or pronouncement, such obligation would not constitute a Capital Lease Obligation.

Default means any event that is, or with the passage of time or the giving of notice or both would be, an Event of Default.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

De Minimis Guaranteed Amount means a principal amount of Indebtedness that does not exceed \$5.0 million.

Discharge of Parity Lien Obligations has the meaning given to the term Discharge of Second Lien Obligations in the Intercreditor Agreement.

Discharge of Priority Lien Obligations has the meaning given to the term Discharge of First Lien Obligations in the Intercreditor Agreement.

Disqualified Stock means any Capital Stock that, by its terms (or by the terms of any security into which it is convertible, or for which it is exchangeable, in each case, at the option of the holder of the Capital Stock), or upon the happening of any event, matures or is mandatorily redeemable, pursuant to a sinking fund obligation or

Table of Contents

otherwise, or redeemable at the option of the holder of the Capital Stock, in whole or in part, on or prior to the date that is 91 days after the date on which the notes mature; provided, however, that any class of Capital Stock of such Person that by its terms authorizes such Person to satisfy in full its obligations with respect to the payment of dividends or upon maturity, redemption (pursuant to a sinking fund or otherwise) or repurchase thereof or otherwise by the delivery of Capital Stock that is not Disqualified Stock, and that is not convertible, puttable or exchangeable for Disqualified Stock so long as such Person satisfies its obligations with respect thereto solely by the delivery of Capital Stock that is not Disqualified Stock. Notwithstanding the preceding sentence, any Capital Stock that would constitute Disqualified Stock solely because the holders of the Capital Stock have the right to require ION to repurchase such Capital Stock upon the occurrence of a change of control or an asset sale will not constitute Disqualified Stock if the terms of such Capital Stock provide that ION may not repurchase or redeem any such Capital Stock pursuant to such provisions unless such repurchase or redemption complies with the covenant described above under the caption Certain Covenants Restricted Payments. The amount of Disqualified Stock deemed to be outstanding at any time for purposes of the indenture will be the maximum amount that ION and its Restricted Subsidiaries may become obligated to pay upon the maturity of, or pursuant to any mandatory redemption provisions of, such Disqualified Stock, exclusive of accrued dividends.

Domestic Subsidiary means any Restricted Subsidiary of ION that was formed under the laws of the United States or any state of the United States or the District of Columbia or that guarantees or otherwise provides direct credit support for any Indebtedness of ION.

Enforcement Action shall have the meaning set forth in the Intercreditor Agreement.

equally and ratably means, in reference to sharing of Liens or proceeds thereof as between holders of Secured Obligations within the same Class, that such Liens or proceeds:

(1) will be allocated and distributed first to the Secured Debt Representative for each outstanding Series of Secured Debt within that Class, for the account of the holders of such Series of Secured Debt, ratably in proportion to the principal of, and interest and premium (if any) and reimbursement obligations (contingent or otherwise) with respect to letters of credit, if any, outstanding (whether or not drawings have been made under such letters of credit) on each outstanding Series of Secured Debt within that Class when the allocation or distribution is made, and thereafter

(2) will be allocated and distributed (if any remain after payment in full of all of the principal of, and interest and premium (if any) and reimbursement obligations (contingent or otherwise) with respect to letters of credit, if any, outstanding (whether or not drawings have been made on such letters of credit) on all outstanding Secured Obligations within that Class) to the Secured Debt Representative for each outstanding Series of Secured Obligations within that Class, for the account of the holders of any remaining Secured Obligations within that Class, ratably in proportion to the aggregate unpaid amount of such remaining Secured Obligations within that Class due and demanded (with written notice to the applicable Secured Debt Representative, the Priority Lien Collateral Agent and the Collateral Agent) prior to the date such distribution is made.

Equity Interests means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock).

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Equity Offering means a public or private sale of Equity Interests of ION by ION (other than Disqualified Stock and other than to a Subsidiary of ION) made on a primary basis by ION after the date of the indenture.

Excess Priority Lien Obligations shall have the meaning set forth in the Intercreditor Agreement.

Excluded Assets means each of the following:

- (1) any asset or property right of ION or any Guarantor of any nature:

Table of Contents

- (a) if the grant of a security interest shall constitute or result in (i) the abandonment, invalidation or unenforceability of such asset or property right or ION's or any Guarantor's loss of use of such asset or property right or (ii) a breach, termination or default under any lease, license, contract or agreement (other than to the extent that any such term would be rendered ineffective pursuant to Sections 9-406, 9-407, 9-408 or 9-409 of the UCC (or any successor provision or provisions) of any relevant jurisdiction or any other applicable law (including the United States Bankruptcy Code) or principles of equity) to which ION or such Guarantor is party; and
- (b) to the extent that any applicable law or regulation prohibits the creation of a security interest thereon (other than to the extent that any such term would be rendered ineffective pursuant to any applicable law or principles of equity);
- (2) Capital Stock of any Foreign Subsidiary that is directly owned by ION or any Guarantor, and any disregarded entity owner (direct or indirect through one or more other disregarded entities) of such Foreign Subsidiary, other than Voting Stock in ION International Holdings L.P. solely to the extent representing in excess of 65% of the total voting power of all outstanding Voting Stock of such Foreign Subsidiary or such disregarded entity owner and all Capital Stock of Foreign Subsidiaries not directly owned by any Person that is ION or a Guarantor;
- (3) any applications for trademarks or service marks filed in the United States Patent and Trademark Office (the "PTO") pursuant to 15 U.S.C. § 1051 Section 1(b) unless and until evidence of use of the mark in interstate commerce is submitted to the PTO pursuant to 15 U.S.C. § 1051 Section 1(c) or Section 1(d);
- (4) fixed or capital assets owned by ION or any Guarantor that is subject to a capital lease or purchase money obligations, in each case permitted to be incurred pursuant to the covenants described above under the captions "Certain Covenants - Incurrence of Indebtedness and Issuance of Preferred Stock" and "Certain Covenants - Liens" if the contract or other agreement in which such Lien is granted prohibits the creation of any other Lien on such fixed or capital assets, but only for so long as such prohibition is in effect and only with respect to the portion of such fixed or capital assets as to which such other Lien attaches and such prohibition applies;
- (5) motor vehicles;
- (6) any Capital Stock of any Subsidiary to the extent (and only to the extent) that in the reasonable judgment of ION, if such Capital Stock were not excluded from the Collateral then Rule 3-16 or Rule 3-10 of Regulation S-X under the Securities Act would require the filing of separate financial statements of such Subsidiary with the SEC (or any other governmental agency) in connection with a registration of the notes under the Securities Act;
- (7) de minimis or immaterial assets for which perfection of the security could not be obtained without unreasonable cost and expense or under applicable law;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(8) unless such real property and fixtures (x) secure the Credit Agreement and (y) have a fair market value in excess of \$10.0 million, real property and any fixtures owned or leased by ION or any other Guarantor;

(9) the INOVA Letter of Credit;

(10) unless such Equity Interests secure the Credit Agreement, Equity Interests in any Person other than (x) a Guarantor, to the extent such Person is at such time a Guarantor, and (y) as provided in item (2) above

Table of Contents

(11) any account (and any cash, Cash Equivalents or other investments deposited therein) securing Indebtedness described in clause (20) of the second paragraph of the covenant described above under the caption Certain Covenants Incurrence of Indebtedness and Issuance of Preferred Stock ; and

(12) prior to the Discharge of Priority Lien Obligations, any property not subject to a Lien securing the Credit Agreement.

Existing Immaterial Domestic Subsidiaries means GMG/Axis, Inc. and IPOP Management, Inc.

Existing Indebtedness means all Indebtedness of ION and its Subsidiaries (other than Indebtedness under the Credit Agreement) in existence on the date of the indenture, until such amounts are repaid.

Existing Priority Lien Security Agreement means that certain Security and Pledge Agreement (Domestic Indebtedness) dated as of March 25, 2010, among ION, the Guarantors and China Merchants Bank Co., Ltd., New York Branch.

Fair Market Value means the value that would be paid by a willing buyer to an unaffiliated willing seller in a transaction not involving distress or necessity of either party, determined in good faith by the Board of Directors of ION in the case of amounts of \$40 million or more and otherwise by an officer of ION (unless otherwise provided in the indenture).

Fixed Charge Coverage Ratio means with respect to any specified Person for any period, the ratio of the Consolidated EBITDA of such Person for such period to the Fixed Charges of such Person for such period. In the event that the specified Person or any of its Restricted Subsidiaries incurs, assumes, guarantees, repays, repurchases, redeems, defeases or otherwise discharges any Indebtedness (other than ordinary working capital borrowings) or issues, repurchases or redeems preferred stock subsequent to the commencement of the period for which the Fixed Charge Coverage Ratio is being calculated and on or prior to the date on which the event for which the calculation of the Fixed Charge Coverage Ratio is made (the Calculation Date), then the Fixed Charge Coverage Ratio will be calculated giving pro forma effect to such incurrence, assumption, Guarantee, repayment, repurchase, redemption, defeasance or other discharge of Indebtedness, or such issuance, repurchase or redemption of preferred stock, and the use of the proceeds therefrom, as if the same had occurred at the beginning of the applicable four-quarter reference period.

In addition, for purposes of calculating the Fixed Charge Coverage Ratio:

(1) acquisitions that have been made by the specified Person or any of its Restricted Subsidiaries, including through mergers or consolidations, or any Person or any of its Restricted Subsidiaries acquired by the specified Person or any of its Restricted Subsidiaries, and including all related financing transactions and including increases in ownership of Restricted Subsidiaries, during the four-quarter reference period or subsequent to such reference period and on or prior to the Calculation Date, or that are to be made on the Calculation Date, will be given pro forma effect as if they had occurred on the first day of the four-quarter reference period;

(2) the Consolidated EBITDA attributable to discontinued operations, as determined in accordance with GAAP, and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded;

(3) the Fixed Charges attributable to discontinued operations, as determined in accordance with GAAP, and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded, but only to the extent that the obligations giving rise to such Fixed Charges will not be obligations of the specified Person or any of its Restricted Subsidiaries following the Calculation Date;

Table of Contents

(4) any Person that is a Restricted Subsidiary on the Calculation Date will be deemed to have been a Restricted Subsidiary at all times during such four-quarter period;

(5) any Person that is not a Restricted Subsidiary on the Calculation Date will be deemed not to have been a Restricted Subsidiary at any time during such four-quarter period; and

(6) if any Indebtedness bears a floating rate of interest, the interest expense on such Indebtedness will be calculated as if the rate in effect on the Calculation Date had been the applicable rate for the entire period (taking into account any Hedging Obligation applicable to such Indebtedness if such Hedging Obligation has a remaining term as at the Calculation Date in excess of 12 months).

For purposes of this definition, whenever pro forma effect is to be given to any calculation under this definition, the pro forma calculations will be determined in good faith by a responsible financial or accounting Officer of ION, which determination shall be conclusive for all purposes under the indenture; provided that such Officer may in such Officer's discretion include any reasonably identifiable and factually supportable pro forma changes to Consolidated Cash Flow or Fixed Charges, including any pro forma expense and cost reductions or synergies that have occurred or are reasonably expected to occur within the 12 months immediately following the Calculation Date and are either (i) prepared and calculated in accordance with Regulation S-X under the Securities Act (Regulation S-X) or (ii) set forth in an officers' certificate signed by the chief financial or accounting officer that states (a) the amount of each such adjustment and (b) that such adjustments are based on the reasonable good faith belief of the Officers executing such officers' certificate at the time of such execution and the factual basis on which such good faith belief is based.

Fixed Charges means, with respect to any specified Person for any period, the sum, without duplication, of:

(1) the consolidated interest expense of such Person and its Restricted Subsidiaries for such period, whether paid or accrued, including, without limitation, amortization of debt issuance costs and original issue discount, non-cash interest payments, the interest component of any deferred payment obligations, the interest component of all payments associated with Capital Lease Obligations (but excluding any interest expense attributable to Deemed Capitalized Leases), imputed interest with respect to Attributable Debt, commissions, discounts and other fees and charges incurred in respect of letter of credit or bankers' acceptance financings, and net of the effect of all payments made or received pursuant to Hedging Obligations in respect of interest rates; plus

(2) the consolidated interest expense of such Person and its Restricted Subsidiaries that was capitalized during such period; plus

(3) any interest on Indebtedness of another Person that is guaranteed by such Person or one of its Restricted Subsidiaries or secured by a Lien on assets of such Person or one of its Restricted Subsidiaries, to the extent such Guarantee or Lien is called upon (other than a Lien of the type described in clause (9) of the definition of Permitted Liens); plus

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(4) all dividends, whether paid or accrued and whether or not in cash, on any series of preferred stock of such Person or any of its Restricted Subsidiaries, other than dividends on Equity Interests payable solely in Equity Interests of ION (other than Disqualified Stock) or to ION or a Restricted Subsidiary of ION.

Foreign Subsidiary means any Restricted Subsidiary of ION that is not a Domestic Subsidiary.

GAAP means generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as

Table of Contents

have been approved by a significant segment of the accounting profession, which were in effect on the date of the indenture.

Guarantee means a guarantee other than by endorsement of negotiable instruments for collection in the ordinary course of business, direct or indirect, in any manner including, without limitation, by way of a pledge of assets or through letters of credit or reimbursement agreements in respect thereof, of all or any part of any Indebtedness (whether arising by virtue of partnership arrangements, or by agreements to keep-well, to purchase assets, goods, securities or services, to take or pay or to maintain financial statement conditions or otherwise) (other than a Lien of the type described in clause (9) of the definition of Permitted Liens).

Guarantors means any Subsidiary of ION that executes a Note Guarantee in accordance with the provisions of the indenture, and their respective successors and assigns, in each case, until the Note Guarantee of such Person has been released in accordance with the provisions of the indenture.

Hedging Obligations means, with respect to any specified Person, the obligations of such Person under:

- (1) interest rate swap agreements (whether from fixed to floating or from floating to fixed), interest rate cap agreements and interest rate collar agreements;
- (2) other agreements or arrangements designed to manage interest rates or interest rate risk; and
- (3) other agreements or arrangements designed to protect such Person against fluctuations in currency exchange rates or commodity prices.

Immaterial Subsidiary means, as of any date, any Restricted Subsidiary whose total assets (other than Equity Interests in any other Subsidiary), as of that date, are less than \$50.0 million in book value

Indebtedness means, with respect to any specified Person, any indebtedness of such Person (excluding accrued expenses and trade payables), whether or not contingent:

- (1) in respect of borrowed money;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(2) evidenced by or issued in exchange for bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof) but excluding (i) bid, performance, surety and appeal bonds to the extent such bonds are undrawn upon and (ii) obligations with respect to letters of credit securing obligations (other than obligations described in clauses (1), (4) and (5) entered into in the ordinary course of business of such Person to the extent such letters of credit are not drawn upon or, if and to the extent drawn upon, such drawing is reimbursed within ten business days of payment on such letter of credit;

(3) in respect of banker's acceptances;

(4) representing Capital Lease Obligations or Attributable Debt in respect of sale and leaseback transactions;

(5) representing the balance deferred and unpaid of the purchase price of any property or services due more than six months after such property is acquired or such services are completed; or

(6) representing any Hedging Obligations,

if and to the extent any of the preceding items (other than letters of credit, Attributable Debt and Hedging Obligations) would appear as a liability upon a balance sheet of the specified Person prepared in accordance with GAAP, but excluding Deemed Capitalized Leases. In addition, the term Indebtedness includes all Indebtedness of others secured by a Lien on any asset of the specified Person (whether or not such Indebtedness is assumed by the specified Person) and, to the extent not otherwise included, the Guarantee by the specified Person of any

Table of Contents

Indebtedness of any other Person. Indebtedness shall be calculated without giving effect to the effects of ASC 815 and related interpretations to the extent such effects would otherwise increase or decrease an amount of Indebtedness for any purpose under the indenture as a result of accounting for any embedded derivatives created by the terms of such Indebtedness.

Notwithstanding the preceding, Indebtedness of a Person shall not include:

- (1) any indebtedness that has been defeased in accordance with GAAP or defeased pursuant to the deposit of cash or Cash Equivalents (in an amount sufficient to satisfy all such indebtedness obligations at maturity or redemption, as applicable, and all payments of interest and premium, if any) in a trust or account created or pledged for the sole benefit of the holders of such indebtedness, and subject to no other Liens;
- (2) any repayment or reimbursement obligation of such Person or any of its Restricted Subsidiaries with respect to Customary Recourse Exceptions, unless and until an event or circumstance occurs that triggers the Person's or such Restricted Subsidiary's direct repayment or reimbursement obligation (as opposed to contingent or performance obligations) to the lender or other Person to whom such obligation is actually owed, in which case the amount of such direct payment or reimbursement obligation shall constitute Indebtedness; and
- (3) a Lien of the type described in clause (9) of the definition of Permitted Liens.

INOVA means INOVA Geophysical Equipment Limited, a limited liability company organized under the laws of the People's Republic of China or any successor or substitute entity thereof (whether by reincorporation, transfer, merger, amalgamation, conversion or any other entity transaction) in the same or a different jurisdiction and whether known by the same or a different name.

INOVA Letter of Credit means that certain letter of credit issued for the account of INOVA Geophysical Equipment Limited in favor of China Merchants Bank Co. Ltd., New York Branch.

insolvency or liquidation proceeding means:

- (1) any case commenced by or against ION or any other Guarantor under Title 11, U.S. Code or any similar federal or state law for the relief of debtors, any other proceeding for the reorganization, recapitalization or adjustment or marshalling of the assets or liabilities of ION or any other Guarantor, any receivership or assignment for the benefit of creditors relating to ION or any other Guarantor or any similar case or proceeding relative to ION or any other Guarantor or its creditors, as such, in each case whether or not voluntary;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(2) any liquidation, dissolution, marshalling of assets or liabilities or other winding up of or relating to ION or any other Guarantor, in each case whether or not voluntary and whether or not involving bankruptcy or insolvency; or

(3) any other proceeding of any type or nature in which substantially all claims of creditors of ION or any other Guarantor are determined and any payment or distribution is or may be made on account of such claims.

Intercreditor Agreement means the Intercreditor Agreement, dated as of the date of the indenture, among the Guarantors, the Priority Lien Credit Agreement Agent, the Priority Lien Collateral Agent, the Trustee and the Collateral Agent, as amended, supplemented or otherwise modified from time to time.

Investment Grade has the meaning set forth in the first paragraph of Certain Covenants Changes in Covenants When Notes Rated Investment Grade.

Table of Contents

Investments means, with respect to any Person, all direct or indirect investments by such Person in other Persons (including Affiliates) in the forms of loans (including Guarantees or other obligations), advances or capital contributions (excluding commission, travel and similar advances to officers and employees made in the ordinary course of business), purchases or other acquisitions for consideration of Indebtedness, Equity Interests or other securities, together with all items that are or would be classified as investments on a balance sheet prepared in accordance with GAAP. If ION or any Restricted Subsidiary of ION sells or otherwise disposes of any Equity Interests of any direct or indirect Restricted Subsidiary of ION such that, after giving effect to any such sale or disposition, such Person is no longer a Restricted Subsidiary of ION, ION will be deemed to have made an Investment on the date of any such sale or disposition equal to the Fair Market Value of ION's Investments in such Subsidiary that were not sold or disposed of in an amount determined as provided in the final paragraph of the covenant described above under the caption **Certain Covenants Restricted Payments**. The acquisition by ION or any Restricted Subsidiary of ION of a Person that holds an Investment in a third Person will be deemed to be an Investment by ION or such Restricted Subsidiary in such third Person in an amount equal to the Fair Market Value of the Investments held by the acquired Person in such third Person in an amount determined as provided in the antepenultimate paragraph of the covenant described above under the caption **Certain Covenants Restricted Payments**. Except as otherwise provided in the indenture, the amount of an Investment will be determined at the time the Investment is made and without giving effect to subsequent changes in value.

Lien means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law, including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent statutes) of any jurisdiction.

Lien Release Conditions means (a) the Discharge of Priority Lien Obligations and (b) the settlement, abandonment or dismissal with prejudice of the WesternGeco L.L.C. vs. ION Geophysical Corporation litigation.

Lien Sharing and Priority Confirmation means as to any Series of Priority Lien Debt, the written agreement of the holders of such Series of Priority Lien Debt, as set forth in the credit agreement or other agreement governing such Series of Priority Lien Debt, for the enforceable benefit of all holders of Parity Lien Debt, each Parity Lien Representative and each existing and future holder of Permitted Prior Liens:

(a) that all Priority Lien Obligations will be and are secured equally and ratably by all Priority Liens at any time granted by ION or any other Guarantor to secure any Obligations in respect of such Series of Priority Lien Debt, whether or not upon property otherwise constituting collateral for such Series of Priority Lien Debt, and that all such Priority Liens will be enforceable by the Priority Lien Collateral Agent for the benefit of all holders of Priority Lien Obligations equally and ratably;

(b) that the holders of Obligations in respect of such Series of Priority Lien Debt are bound by the provisions of the Intercreditor Agreement, including the provisions relating to the ranking of Priority Liens and the order of application of proceeds from enforcement of Priority Liens; and

(c) consenting to and directing the Priority Lien Collateral Agent to perform its obligations under the Intercreditor Agreement and the other Priority Lien Security Documents.

Moody's means Moody's Investors Service, Inc.

Net Proceeds means the aggregate amount of cash proceeds and Cash Equivalents received by ION or any of its Restricted Subsidiaries in respect of any Asset Sale (including, without limitation, any cash or Cash Equivalents received upon the sale or other disposition of any non-cash consideration received in any Asset Sale but excluding any non-cash consideration deemed to be cash for the purpose of the Asset Sales provisions of the indenture) net of the direct costs relating to such Asset Sale, including, without limitation, legal, accounting and investment banking fees, and sales commissions, and any relocation expenses incurred as a result of the Asset Sale, taxes paid or payable as a result of the Asset Sale, in each case, after taking into account any available tax credits or deductions and any tax sharing arrangements and amounts required to be applied to the repayment of Indebtedness

Table of Contents

secured by a Lien on the properties or assets that were the subject of such Asset Sale, or which must by its terms, or in order to obtain a necessary consent to such Asset Sale or by applicable law, be repaid out of the proceeds from such Asset Sale, all distributions and other payments required to be made to minority interest holders in Restricted Subsidiaries or joint ventures as a result of such Asset Sale, and any reserve for adjustment or indemnification obligations in respect of the sale price of such asset or assets established in accordance with GAAP.

Non-Recourse Debt means Indebtedness:

(1) as to which neither ION nor any of its Restricted Subsidiaries (a) provides credit support of any kind (including any undertaking, agreement or instrument that would constitute Indebtedness) or (b) is directly or indirectly liable as a guarantor or otherwise, except for Customary Recourse Exceptions;

(2) as to which the lenders have been notified in writing that they will not have any recourse to the stock or assets of ION or any of its Restricted Subsidiaries (other than as permitted in clause (3) below); and

(3) as to which the lenders have been notified in writing that they will not have any recourse to the Capital Stock or assets of ION or any of its Restricted Subsidiaries except (a) as contemplated by clause (9) of the definition of Permitted Liens and (b) except for Customary Recourse Exceptions.

Note Documents means the indenture, the notes and the Security Documents.

Note Guarantee means the Guarantee by each Guarantor of ION's obligations under the indenture and the notes, executed pursuant to the provisions of the indenture.

Obligations means any principal (including reimbursement obligations with respect to letters of credit whether or not drawn), interest (including, to the extent legally permitted, all interest accrued thereon after the commencement of any insolvency or liquidation proceeding at the rate, including any applicable post-default rate, specified in the Priority Lien Documents, even if such interest is not enforceable, allowable or allowed as a claim in such proceeding), premium (if any), fees, indemnifications, reimbursements, expenses and other liabilities payable under the documentation governing any Indebtedness.

Officer means, with respect to any Person, the Chairman of the Board, the Chief Executive Officer, the President, the Chief Operating Officer, the Chief Financial Officer, the Chief Accounting Officer, the Treasurer, any Assistant Treasurer, the Controller, the Secretary, any Assistant Secretary or any Vice President of such Person (or, if such Person is a limited partnership, the Chairman of the Board, the Chief Executive Officer, the President, the Chief Operating Officer, the Chief Financial Officer, the Chief Accounting Officer, the Treasurer, any Assistant Treasurer, the Controller, the Secretary, any Assistant Secretary or any Vice President of such Person's general partner).

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Opinion of Counsel means a written opinion from legal counsel who is reasonably acceptable to the Trustee. The counsel may be an employee of or counsel to ION.

Parity Lien means a Lien granted by a Security Document to the Collateral Agent for the benefit of the Parity Lien Secured Parties, at any time, upon any property of ION or any other Guarantor to secure Parity Lien Obligations.

Parity Lien Debt means the notes issued on the date of the indenture and any Additional Notes, if any, incurred under clause (3) of the definition of Permitted Indebtedness (in each case, including any related exchange notes).

Parity Lien Documents means, collectively, the Note Documents and the Security Documents (other than any security documents that do not secure Parity Lien Obligations).

Table of Contents

Parity Lien Obligations means Parity Lien Debt and all other Obligations in respect thereof.

Parity Lien Representative means the Trustee.

Parity Lien Secured Party means the holders of the notes and the Trustee.

Permitted Acquisition Indebtedness means Indebtedness or Disqualified Stock of ION or any of its Restricted Subsidiaries to the extent such Indebtedness or Disqualified Stock was Indebtedness or Disqualified Stock of any other Person existing at the time (a) such Person became a Restricted Subsidiary of ION or (b) such Person was merged or consolidated with or into ION or any of its Restricted Subsidiaries or (c) assets of such Person were acquired by ION or any of its Restricted Subsidiaries and such Indebtedness was assumed in connection therewith (excluding any such Indebtedness that is repaid contemporaneously with such event); provided that on the date such Person became a Restricted Subsidiary of ION or the date such Person was merged or consolidated with or into ION or any of its Restricted Subsidiaries or on the date of such asset acquisition, as applicable, either:

(1) immediately after giving effect to such transaction on a pro forma basis as if the same had occurred at the beginning of the applicable four-quarter period, ION or such Restricted Subsidiary, as applicable, would be permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the first paragraph of the covenant described above under the caption Certain Covenants Incurrence of Indebtedness and Issuance of Preferred Stock, or

(2) immediately after giving effect to such transaction on a pro forma basis as if the same had occurred at the beginning of the applicable four-quarter period, the Fixed Charge Coverage Ratio of ION would be equal to or greater than the Fixed Charge Coverage Ratio of ION immediately prior to such transaction.

Permitted Business means any business that is the same as, or reasonably related, ancillary or complementary to, any of the businesses in which ION and its Restricted Subsidiaries are engaged on the date of the indenture.

Permitted Debt has the meaning set forth in the second paragraph of the covenant described above under the caption Certain Covenants Incurrence of Indebtedness and Issuance of Preferred Stock.

Permitted Investments means:

(1) any Investment in ION or in a Restricted Subsidiary of ION;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

- (2) any Investment in Cash Equivalents;
- (3) any Investment by ION or any Restricted Subsidiary of ION in a Person, if as a result of such Investment:
 - (a) such Person becomes a Restricted Subsidiary of ION; or
 - (b) such Person is merged, consolidated or amalgamated with or into, or transfers or conveys substantially all of its assets to, or is liquidated into, ION or a Restricted Subsidiary of ION;
- (4) any Investment made as a result of the receipt of non-cash consideration from an Asset Sale that was made pursuant to and in compliance with the covenant described above under the caption Repurchase at the Option of Holders Asset Sales ;
- (5) an acquisition of assets or Capital Stock in any Person solely in exchange for the issuance of Equity Interests (other than Disqualified Stock) of ION;

Table of Contents

- (6) any Investments received in compromise or resolution of (a) obligations of trade creditors or customers that were incurred in the ordinary course of business of ION or any of its Restricted Subsidiaries, including pursuant to any plan of reorganization or similar arrangement upon the bankruptcy or insolvency of any trade creditor or customer or (b) litigation, arbitration or other disputes;
- (7) Investments represented by Hedging Obligations;
- (8) loans or advances to employees made in the ordinary course of business of ION or any Restricted Subsidiary of ION in an aggregate principal amount not to exceed \$5.0 million at any one time outstanding;
- (9) Investments in any Person to the extent such Investments consist of prepaid expenses, negotiable instruments held for collection and lease, utility and workers' compensation, performance and other similar deposits made in the ordinary course of business by ION or any of its Restricted Subsidiaries;
- (10) any guarantee of Indebtedness permitted to be incurred by the covenant entitled "Certain Covenants - Incurrence of Indebtedness and Issuance of Preferred Stock" other than a guarantee of Indebtedness of an Affiliate of ION that is not a Restricted Subsidiary of ION;
- (11) any Investment existing on, or made pursuant to binding commitments existing on, the date of the indenture and any Investment consisting of an extension, modification or renewal of any Investment existing on, or made pursuant to a binding commitment existing on, the date of the indenture; provided that the amount of any such Investment may be increased (a) as required by the terms of such Investment as in existence on the date of the indenture or (b) as otherwise permitted under the indenture;
- (12) Investments acquired after the date of the indenture as a result of the acquisition by ION or any Restricted Subsidiary of ION of another Person, including by way of a merger, amalgamation or consolidation with or into ION or any of its Restricted Subsidiaries, or all or substantially all of the assets of another Person, in each case, in a transaction that is not prohibited by the covenant described above under the caption "Merger, Consolidation or Sale of Assets" after the date of the indenture to the extent that such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisition, merger, amalgamation or consolidation;
- (13) repurchase of the notes;
- (14) Liens of the type described in clause (9) of the definition of Permitted Liens;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(15) Investments in INOVA and/or the Seabed J.V. having an aggregate Fair Market Value (measured on the date each such Investment was made and without giving effect to subsequent changes in value), when taken together with all other Investments made pursuant to this clause (15) that are at the time outstanding, not to exceed the sum of (a) \$60.0 million and (b) the gross profits realized by ION or any Restricted Subsidiary from services provided or products sold to INOVA and/or the Seabed J.V., since the date of the indenture;

(16) the Investments described under the caption "Use of Proceeds" elsewhere in this prospectus; and

(17) other Investments in any Person having an aggregate Fair Market Value (measured on the date each such Investment was made and without giving effect to subsequent changes in value), when taken together with all other Investments made pursuant to this clause (17) that are at the time outstanding not to exceed the greater of (a) \$25.0 million and (b) an amount equal to 10.0% of ION's Consolidated Net Tangible Assets determined at the time of such Investment (this clause)

Table of Contents

(after giving effect to any dividends, interest payments, return of capital and subsequent reduction in the amount of any Investments made pursuant to this clause as a result of the repayment or other disposition thereof, in an amount not to exceed the amount of such Investments previously made pursuant to in this clause); provided, however, that if any Investment pursuant to this clause (17) is made in any Person that is not a Restricted Subsidiary of ION at the date of the making of such Investment and such Person becomes a Restricted Subsidiary of ION after such date, such Investment shall thereafter be deemed to have been made pursuant to clause (1) above and shall cease to have been made pursuant to this clause (17) for so long as such Person continues to be a Restricted Subsidiary.

With respect to any Permitted Investment, ION may, in its sole discretion, allocate all or any portion of any Permitted Investment and later re-allocate all or any portion of any Permitted Investment to one or more of the above clauses (1) through (17) so that the entire Permitted Investment would be a Permitted Investment. Amounts permitted under clauses (15), (16) and (17) shall be measured after giving effect to any dividends, interest payments, return of capital and subsequent reduction in the amount of any Permitted Investment made pursuant to such clause as a result of the repayment or other disposition thereof, in an amount not to exceed the amount of such Permitted Investment previously made pursuant to such clause.

Permitted Joint Venture means any entity characterized as a joint venture, however structured, engaged in a Permitted Business in which ION or any Restricted Subsidiary has an ownership interest; provided that such joint venture is not a Subsidiary of ION.

Permitted Liens means:

- (1) Liens held by the Priority Lien Collateral Agent securing (a) Priority Lien Debt in an aggregate principal amount not exceeding the Priority Lien Cap and (b) all related Priority Lien Obligations;
- (2) Liens to secure the notes and the Note Guarantees issued on the date of the indenture and any obligations owing to the Trustee or the Collateral Agent under the indenture, the Security Documents or the Intercreditor Agreement;
- (3) Liens to secure Hedging Obligations so long as such Hedging Obligations are permitted to be incurred under the indenture;
- (4) Liens on property of a Person existing at the time such Person becomes a Restricted Subsidiary of ION or is merged with or into or consolidated with ION or any Restricted Subsidiary of ION; provided that such Liens were in existence prior to the contemplation of such Person becoming a Restricted Subsidiary of ION or such merger or consolidation and do not extend to any assets other than those of the Person that becomes a Restricted Subsidiary of ION or is merged with or into or consolidated with ION or any Restricted Subsidiary of ION (plus improvements and accessions to such property or proceeds or distributions thereof);
- (5) Liens on property (including Capital Stock) existing at the time of acquisition of the property by ION or any Subsidiary of ION; provided that such Liens were in existence prior to such acquisition and not incurred in contemplation of, such acquisition;

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(6) Liens on cash and Cash Equivalents to secure the performance of statutory obligations, insurance, surety or appeal bonds, workers compensation obligations, performance bonds or other obligations of a like nature incurred in the ordinary course of business (including Liens to secure letters of credit issued to assure payment of such obligations) and including any bonds issued in connection with the WesternGeco L.L.C. vs. ION Geophysical Corporation litigation;

(7) Liens to secure Indebtedness (including Capital Lease Obligations) permitted by clause (4) of the second paragraph of the covenant entitled Certain Covenants Incurrence of Indebtedness and Issuance of Preferred Stock covering only the assets acquired with or financed by such

Table of Contents

Indebtedness (plus improvements and accessions to such property or proceeds or distributions thereof);

(8) Liens to secure Indebtedness of Foreign Subsidiaries permitted to be incurred under the indenture, to the extent such Liens relate only to assets and properties of Foreign Subsidiaries;

(9) Liens on the Capital Stock of any Unrestricted Subsidiary or any Permitted Joint Venture granted by ION or any Restricted Subsidiary to the extent securing Non-Recourse Debt of such Unrestricted Subsidiary or Permitted Joint Venture;

(10) Liens existing on the date of the indenture, other than Liens securing Indebtedness and other obligations incurred pursuant to clause (1) of the second paragraph of the covenant entitled Certain Covenants Incurrence of Indebtedness and Issuance of Preferred Stock ;

(11) Liens for taxes, assessments or governmental charges or claims that are not yet delinquent by more than 60 days or that are being contested in good faith by appropriate proceedings promptly instituted and diligently concluded; provided that any reserve or other appropriate provision as is required in conformity with GAAP has been made therefor;

(12) Liens imposed by law, such as carriers , warehousemen s, landlord s and mechanics Liens, in each case, incurred in the ordinary course of business;

(13) survey exceptions, easements or reservations of, or rights of others for, licenses, rights-of-way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning or other restrictions as to the use of real property that were not incurred in connection with Indebtedness and that do not in the aggregate materially adversely affect the value of said properties or materially impair their use in the operation of the business of such Person;

(14) Liens created for the benefit of (or to secure) the notes or the Note Guarantees;

(15) Liens to secure any Permitted Refinancing Indebtedness permitted to be incurred under the indenture; provided, however, that:

(a) the new Lien is limited to all or part of the same property and assets that secured or, under the written agreements pursuant to which the original Lien arose, could secure the original Lien (plus improvements and accessions to, such property or proceeds or distributions thereof); and

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(b) the Indebtedness secured by the new Lien is not increased to any amount greater than the sum of (x) the outstanding principal amount, or, if greater, committed amount, of the Indebtedness renewed, refunded, refinanced, replaced, defeased or discharged with such Permitted Refinancing Indebtedness and (y) an amount necessary to pay any fees and expenses, including premiums, related to such renewal, refunding, refinancing, replacement, defeasance or discharge;

(16) Liens on insurance policies and proceeds thereof, or other deposits, to secure insurance premium financings;

(17) filing of Uniform Commercial Code financing statements as a precautionary measure in connection with operating leases;

(18) bankers Liens, rights of setoff, Liens arising out of judgments or awards not constituting an Event of Default and notices of lis pendens and associated rights related to litigation being contested in good faith by appropriate proceedings and for which adequate reserves have been made;

Table of Contents

- (19) Liens on cash, Cash Equivalents or other property arising in connection with the defeasance, discharge or redemption of Indebtedness;
- (20) Liens on specific items of inventory or other goods (and the proceeds thereof) of any Person securing such Person's obligations in respect of bankers' acceptances issued or created in the ordinary course of business for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;
- (21) grants of software and other technology and intellectual property licenses in the ordinary course of business;
- (22) Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into in the ordinary course of business;
- (23) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods;
- (24) Liens in favor of ION or any of the Guarantors;
- (25) Liens on cash collateral or Cash Equivalents for letters of credit and/or bank guarantees permitted under clause (20) of the second paragraph of the covenant entitled "Certain Covenants - Incurrence of Indebtedness and Issuance of Preferred Stock," not to exceed 105% of the face amount thereof; provided that the aggregate book value of the assets encumbered by all Liens permitted by this clause (25) shall not exceed \$10.0 million in the aggregate at any one time outstanding;
- (26) Liens arising under the indenture in favor of the Trustee for its own benefit and similar Lien in favor of other trustees, agents and representatives arising under instruments governing Indebtedness permitted to be incurred under the indenture; provided, however, that such Liens are solely for the benefit of the trustees, agents or representatives in their capacities as such and not for the benefit of the holders of such Indebtedness;
- (27) Liens to secure Parity Lien Debt permitted to be incurred under clause (3) of the covenant described above under "Certain Covenants - Incurrence of Indebtedness and Issuance of Preferred Stock"; and
- (28) Liens to secure Parity Lien Debt permitted to be incurred under the covenant described above under "Certain Covenants - Incurrence of Indebtedness and Issuance of Preferred Stock" not exceed \$15.0 million at any one time outstanding.

Permitted Prior Liens means:

- (1) Liens described in clause (1) of the definition of Permitted Liens ;
- (2) Liens described in clauses (4), (5), (7), (10), (16), (18), (19), (20) and (26) of the definition of Permitted Liens ; and
- (3) Permitted Liens that arise by operation of law and are not voluntarily granted, to the extent entitled by law to priority over the Liens created by the Priority Lien Security Documents or the Security Documents.

Permitted Refinancing Indebtedness means any Indebtedness of ION or any of its Restricted Subsidiaries or any Disqualified Stock of ION incurred or issued in exchange for, or the net proceeds of which are used to extend, refinance, renew, replace, defease, discharge, refund or otherwise retire for value, in whole or in part, any other Indebtedness of ION or any of its Restricted Subsidiaries (other than intercompany Indebtedness) or any Disqualified Stock of ION (the Refinanced Indebtedness), provided that:

Table of Contents

- (1) the principal amount, or in the case of Disqualified Stock, the amount thereof as determined in accordance with the definition of Disqualified Stock, of such Permitted Refinancing Indebtedness does not exceed the principal amount of the Refinanced Indebtedness (plus all accrued and unpaid interest on or accrued and unpaid dividends on the Refinanced Indebtedness, as the case may be, and the amount of all fees, expenses and premiums incurred in connection therewith) (or, if such Permitted Refinancing Indebtedness refinances Indebtedness under a revolving credit facility or other agreement providing for a commitment for subsequent borrowings, with a maximum commitment not to exceed the maximum commitment under such revolving credit facility or other agreement);
- (2) such Permitted Refinancing Indebtedness has a final maturity date or redemption date, as applicable, later than or equal to the shorter of (a) 91 days following the Stated Maturity or (b) the final maturity or redemption date as applicable, of the Refinanced Indebtedness;
- (3) such Permitted Refinancing Indebtedness has a Weighted Average Life to Maturity at the time such Permitted Refinancing Indebtedness is incurred that is no shorter than the Weighted Average Life to Maturity of the portion of the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged;
- (4) if the Refinanced Indebtedness is contractually subordinated or otherwise junior in right of payment to the notes or the Note Guarantees, such Permitted Refinancing Indebtedness is contractually subordinated or otherwise junior in right of payment to the notes or the Note Guarantees on terms at least as favorable to the holders of notes as those contained in the documentation governing the Refinanced Indebtedness;
- (5) such Indebtedness is incurred either by ION or by the Restricted Subsidiary of ION that was the obligor on the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged and is guaranteed only by Persons who were obligors on the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged (or by any Person that was required by the documents governing such Indebtedness to guarantee such Indebtedness); and
- (6) the proceeds of the Permitted Refinancing Indebtedness shall be used substantially concurrently with the incurrence thereof to redeem, refinance, replace, defease, discharge, refund or otherwise retire for value the Refinanced Indebtedness, unless the Refinanced Indebtedness is not then due and is not redeemable or prepayable at the option of the obligor thereof or is redeemable or prepayable only with notice, in which case such proceeds shall be held in a segregated account of the obligor of the Refinanced Indebtedness until the Refinanced Indebtedness becomes due or redeemable or prepayable or such notice period lapses and then shall be used to refinance the Refinanced Indebtedness; provided that in any event the Refinanced Indebtedness shall be redeemed, refinanced replaced, defeased, discharged, refunded or otherwise retired for value within 120 days of the incurrence of the Permitted Refinancing Indebtedness.

Notwithstanding the foregoing, any indebtedness incurred under Credit Facilities shall be subject to the refinancing provision of the definition of Credit Facilities and not pursuant to the requirements set forth in this definition of Permitted Refinancing Indebtedness.

Person means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, limited liability company or government or other entity.

Priority Lien means a Lien granted by a Priority Lien Security Document to the Priority Lien Collateral Agent, at any time, upon any property of ION or any other Guarantor to secure Priority Lien Obligations.

Priority Lien Cap means, as of any date, the principal amount outstanding under the Credit Agreement and/or the Indebtedness outstanding under any other Credit Facility, in an aggregate principal amount not to exceed the sum of the amount provided by clause (1) of the definition of Permitted Debt, as of any date, less the amount of Parity Lien Debt incurred after the date of the indenture the net proceeds of which are used to repay Priority Lien

Table of Contents

Debt. For purposes of this definition, all letters of credit will be valued at the face amount thereof, whether or not drawn and all Hedging Obligations will be valued at zero.

Priority Lien Collateral Agent means China Merchants Bank Co. Ltd. New York Branch, in its capacity as collateral agent under the Priority Lien Security Documents, together with its successors in such capacity.

Priority Lien Debt means:

- (1) Indebtedness of ION under the Credit Agreement that was permitted to be incurred and secured under each applicable Secured Debt Document (or as to which the lenders under the Credit Agreement obtained an officers' certificate at the time of incurrence to the effect that such Indebtedness was permitted to be incurred and secured by all applicable Secured Debt Documents);
- (2) Indebtedness of ION under any other Credit Facility that is secured equally and ratably with the Credit Agreement by a Priority Lien that was permitted to be incurred and so secured under each applicable Secured Debt Document; provided, in the case of any Indebtedness referred to in this clause (2), that:
 - (a) on or before the date on which such Indebtedness is incurred by ION, such Indebtedness is designated by ION, in an officers' certificate delivered to each Priority Lien Representative, the Priority Lien Collateral Agent and the Collateral Agent, as Priority Lien Debt for the purposes of the Secured Debt Documents; provided that no Series of Secured Debt may be designated as both Parity Lien Debt and Priority Lien Debt;
 - (b) such Indebtedness is governed by a credit agreement or other agreement that includes a Lien Sharing and Priority Confirmation; and
 - (c) all requirements set forth in the Intercreditor Agreement as to the confirmation, grant or perfection of the Priority Lien Collateral Agent's Lien to secure such Indebtedness or Obligations in respect thereof are satisfied (and the satisfaction of such requirements and the other provisions of this clause (c) will be conclusively established if ION delivers to the Priority Lien Collateral Agent and the Collateral Agent an officers' certificate stating that such requirements and other provisions have been satisfied and that such Indebtedness is Priority Lien Debt); and
- (3) Hedging Obligations of ION incurred to hedge or manage interest rate risk with respect to Priority Lien Debt; provided that:

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

(a) such Hedging Obligations are secured by a Priority Lien on all of the assets and properties that secure Indebtedness under the Credit Facility in respect of which such Hedging Obligations are incurred; and

(b) such Priority Lien is senior to or on a parity with the Priority Liens securing Indebtedness under the Credit Facility in respect of which such Hedging Obligations are incurred.

Priority Lien Documents means the Credit Agreement and any other Credit Facility pursuant to which any Priority Lien Debt is incurred and the Priority Lien Security Documents.

Priority Lien Obligations means the Priority Lien Debt and all other Obligations in respect of Priority Lien Debt, including without limitation the Secured Obligations as such term is defined in the Existing Priority Lien Security Agreement as of the date of the indenture.

Priority Lien Representative means (1) the Credit Agreement Agent or (2) in the case of any other Series of Priority Lien Debt, the trustee, agent or representative of the holders of such Series of Priority Lien Debt who

Table of Contents

maintains the transfer register for such Series of Priority Lien Debt and is appointed as a representative of the Priority Lien Debt (for purposes related to the administration of the Priority Lien Security Documents) pursuant to the credit agreement or other agreement governing such Series of Priority Lien Debt and who has become a party to the Intercreditor Agreement by executing a joinder in the form required under the Intercreditor Agreement.

Priority Lien Security Documents means the Intercreditor Agreement, each Lien Sharing and Priority Confirmation, and all security documents, pledge agreements, collateral assignments, mortgages, deeds of trust, collateral agency agreements, control agreements or other grants or transfers for security executed and delivered by ION or any other Guarantor creating (or purporting to create) a Priority Lien upon collateral in favor of the Priority Lien Collateral Agent, in each case, as amended, modified, renewed, restated or replaced, in whole or in part, from time to time, in accordance with its terms.

Priority Lien Secured Parties means the Secured Parties as defined in the Priority Lien Documents.

Reporting Default means a Default described in clause (4)(B) under Events of Default and Remedies.

Restricted Investment means an Investment other than a Permitted Investment.

Restricted Subsidiary of a Person means any Subsidiary of the referent Person that is not an Unrestricted Subsidiary.

S&P means Standard & Poor's Ratings Group.

Sale of Collateral means any Asset Sale involving a sale or other disposition of Collateral.

Seabed J.V. means OceanGeo B.V. (formerly GeoRXT B.V.), a Netherlands entity, or any successor or substitute entity thereof (whether by reincorporation, transfer, merger, amalgamation, conversion or any other entity transaction) in the same or a different jurisdiction and whether known by the same or a different name.

SEC means the Securities and Exchange Commission.

Secured Debt means Parity Lien Debt and Priority Lien Debt.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Secured Debt Documents means the Parity Lien Documents and the Priority Lien Documents.

Secured Debt Representative means the Parity Lien Representative and each Priority Lien Representative.

Secured Obligations means Parity Lien Obligations and Priority Lien Obligations.

Security Documents means the Intercreditor Agreement, each Lien Sharing and Priority Confirmation, and all security documents, pledge agreements, collateral assignments, mortgages, deeds of trust, collateral agency agreements, control agreements or other grants or transfers for security executed and delivered by ION or any Guarantor creating (or purporting to create) a Parity Lien upon Collateral in favor of the Collateral Agent for the benefit of the Parity Lien Secured Parties, in each case, as amended, modified, renewed, restated or replaced, in whole or in part, from time to time, in accordance with its terms and the provisions described above under the caption Intercreditor Agreement Amendment of Security Documents.

Series D Preferred Stock means shares of ION s (a) Series D-1 Cumulative Convertible Preferred Stock, the terms of which are governed by that certain Certificate of Rights and Preferences of Series D-1 Cumulative Convertible Preferred Stock of Input/Output, Inc., dated February 16, 2005, and (b) Series D-2 Cumulative Convertible Preferred Stock, the terms of which are governed by that certain Certificate of Rights and Preferences of Series D-2 Cumulative Convertible Preferred Stock of ION Geophysical Corporation, dated December 6, 2007, that are outstanding as of the date of the indenture.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Table of Contents

Series of Priority Lien Debt means, severally, the Indebtedness outstanding under the Credit Agreement and any other Credit Facility that constitutes Priority Lien Debt.

Series of Secured Debt means Parity Lien Debt and each Series of Priority Lien Debt.

Significant Subsidiary means any Restricted Subsidiary that would be a significant subsidiary as defined in Article 1, Rule 1-02 of Regulation S-X, promulgated pursuant to the Securities Act, as such Regulation is in effect on the date of the indenture.

Stated Maturity means, with respect to any installment of interest or principal on any series of Indebtedness, the date on which the payment of interest or principal was scheduled to be paid in the documentation governing such Indebtedness as of the first date it was incurred in compliance with the terms of the indenture, and will not include any contingent obligations to repay, redeem or repurchase any such interest or principal prior to the date originally scheduled for the payment thereof; provided that, in the case of debt securities that are by their terms convertible into Capital Stock (or cash or a combination of cash and Capital Stock based on the value of the Capital Stock) of ION, any obligation to offer to repurchase such debt securities on a date(s) specified in the original terms of such securities, which obligation is not subject to any condition or contingency, will be treated as a Stated Maturity date of such convertible debt securities.

Subsidiary means, with respect to any specified Person:

(1) any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency and after giving effect to any voting agreement or stockholders' agreement that effectively transfers voting power) to vote in the election of directors, managers or trustees of the corporation, association or other business entity is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person (or a combination thereof); and

(2) any partnership or limited liability company of which (a) more than 50% of the capital accounts, distribution rights, total equity and voting interests or general and limited partnership interests, as applicable, are owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, whether in the form of membership, general, special or limited partnership interests or otherwise, and (b) such Person or any Subsidiary of such Person is a controlling general partner or otherwise controls such entity.

Treasury Rate means, as of any redemption date, the yield to maturity as of the earlier of (a) such redemption date or (b) the date on which such notes are defeased or satisfied and discharged, of the most recently issued United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519) that has become publicly available at least two business days prior to such date (or, if such Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the period from the redemption date to May 15, 2015; provided, however, that if the period from the redemption date to May 15, 2015, is less than one year, the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year will be used. Any such Treasury Rate shall be obtained by ION.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Unrestricted Subsidiary means any Subsidiary of ION that is designated by the Board of Directors of ION as an Unrestricted Subsidiary pursuant to a resolution of the Board of Directors, but only to the extent that such Subsidiary:

- (1) has no Indebtedness other than Non-Recourse Debt;

- (2) except as permitted by the covenant described above under the caption Certain Covenants Transactions with Affiliates, is not party to any agreement, contract, arrangement or understanding with ION or any Restricted Subsidiary of ION unless the terms of any such agreement, contract, arrangement or understanding are no less favorable to ION or such Restricted

Table of Contents

Subsidiary than those that might be obtained at the time from Persons who are not Affiliates of ION;

(3) is a Person with respect to which neither ION nor any of its Restricted Subsidiaries has any direct or indirect obligation (a) to subscribe for additional Equity Interests or (b) to maintain or preserve such Person's financial condition or to cause such Person to achieve any specified levels of operating results; and

(4) has not guaranteed or otherwise directly or indirectly provided credit support for any Indebtedness of ION or any of its Restricted Subsidiaries (except (a) to the extent such guarantee or credit support would be released upon such designation and (b) for Liens of the type described in clause (9) of the definition of Permitted Liens).

All Subsidiaries of an Unrestricted Subsidiary shall also be Unrestricted Subsidiaries.

Voting Stock of any specified Person as of any date means the Capital Stock of such Person entitling the holder thereof (whether at all time or only so long as no senior class of Capital Stock has voting power by reason of any contingency) that is at the time entitled to vote in the election of the Board of Directors of such Person.

Weighted Average Life to Maturity means, when applied to any Indebtedness at any date, the number of years obtained by dividing:

(1) the sum of the products obtained by multiplying (a) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect of the Indebtedness, by (b) the number of years (calculated to the nearest one-twelfth) that will elapse between such date and the making of such payment; by

(2) the then outstanding principal amount of such Indebtedness.

Table of Contents

DESCRIPTION OF CERTAIN INDEBTEDNESS

Senior Secured Credit Facility

On May 29, 2012, we amended the terms of our senior secured credit facility with CMB, as administrative agent and lender (the First Amendment). The First Amendment to the senior secured credit facility and the related loan documents modified certain provisions of our senior credit agreement with CMB that we had entered into on March 25, 2010. The maturity date of any outstanding debt under the senior secured credit facility remains March 24, 2015.

As amended by the First Amendment, the senior secured credit facility provides that we may make revolving credit borrowings in U.S. Dollars, Euros, British Pounds Sterling or Canadian Dollars up to an amount not to exceed the U.S. Dollar equivalent of \$175.0 million. We also agreed that no additional borrowings may be made at any time at which the outstanding indebtedness under the revolving line of credit (principal, accrued interest and fees) exceeds the U.S. Dollar equivalent of \$175.0 million. The First Amendment eliminated sub-facility limits under the senior secured credit facility.

Our obligations under the senior secured credit facility continue to be guaranteed by certain of our material U.S. subsidiaries that remain as parties to the senior secured credit facility. In addition, INOVA Geophysical continues to provide a bank stand-by letter of credit as credit support for our obligations under the senior secured credit facility. We also entered into a credit support agreement with INOVA Geophysical whereby we have agreed to indemnify INOVA Geophysical for any and all losses sustained by INOVA Geophysical that arise out of or are a result of the enforcement of INOVA Geophysical's guarantee.

As amended by the First Amendment, the interest rates per annum on borrowings under the senior secured credit facility are, at our option:

- an alternate base rate equal to the sum of (i) the greatest of (a) the prime rate of CMB, (b) a federal funds effective rate plus 0.50%, or (c) an adjusted LIBOR-based rate plus 1.0%, and (ii) an applicable interest margin of 1.4% (reduced from 2.5%); or
- for eurodollar borrowings and borrowings in Euros, Pounds Sterling or Canadian Dollars, the sum of (i) an adjusted LIBOR-based rate, and (ii) an applicable interest margin of 2.4% (reduced from 3.5%).

As of December 31, 2013, there was \$35.0 million in outstanding revolving loan indebtedness under the Credit Facility that accrued interest at a rate of 2.57% per annum. The senior secured credit facility contains covenants that restrict us, subject to certain exceptions, from:

- incurring additional indebtedness (including certain capital lease obligations), granting or incurring additional liens on our properties, pledging shares of our subsidiaries, entering into certain merger or other change-in-control transactions, entering into certain

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

transactions with our affiliates, making certain sales or other dispositions of assets, making certain investments, acquiring other businesses and entering into sale-leaseback transactions with respect to our properties;

- paying cash dividends on our common stock; and
- repurchasing and acquiring our capital stock, unless there is no event of default under the senior secured credit facility and the amount of such repurchases does not exceed an amount equal to (i) 25% of our consolidated net income for the prior fiscal year, less (ii) the amount of any cash dividends paid on our common stock.

The senior secured credit facility requires compliance with certain financial covenants, including the following:

- maintain a minimum fixed charge coverage ratio, as defined, in an amount equal to at least 1.125 to 1;

Table of Contents

- not exceed a maximum leverage ratio, as defined, of 3.25 to 1; and
- maintain a minimum tangible net worth of at least 60% of the Company's tangible net worth as of March 31, 2010, as defined.

The fixed charge coverage ratio is defined as the ratio of (i) our consolidated EBITDA, as defined in the senior secured credit facility, less cash income tax expense, non-financed capital expenditures and capitalized research and development costs to (ii) the sum of scheduled payments of lease payments and payments of principal indebtedness, interest expense actually paid and cash dividends, in each case for the four consecutive fiscal quarters most recently ended. The leverage ratio is defined as the ratio of (x) total funded consolidated debt, capital lease obligations and issued letters of credit (net of cash collateral) to (y) our consolidated EBITDA for the four consecutive fiscal quarters most recently ended.

The senior secured credit facility contains customary event of default provisions, including a change of control event, the occurrence of which could lead to an acceleration of our obligations under the senior secured credit facility. The senior secured credit facility also provides that certain acts of bankruptcy, insolvency or liquidation of INOVA Geophysical or BGP would constitute additional events of default under the senior secured credit facility.

As of December 31, 2013, we were in compliance with these financial covenants and the Company expects to remain in compliance with these financial covenants for at least the next 12 months.

In connection with our offering of the Restricted Notes, we, the notes guarantors and CMB, as administrative agent and lender under the senior secured credit facility, entered into a consent agreement related to the senior secured credit facility that permitted us and the notes guarantors to, among other things, (i) issue the notes and related guarantees and (ii) invest a cumulative aggregate amount of up to \$100 million in OceanGeo from and after February 26, 2013.

Capital Lease Obligations

Our capital lease obligations include a lease relating to one of our facilities and leases for financing the purchase of computer equipment. As of December 31, 2013, we had \$8.7 million of outstanding indebtedness under capital leases. See Note 4 to our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2013.

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of the material U.S. federal income tax considerations relating to the exchange of Restricted Notes for Exchange Notes in the exchange offer. It does not contain a complete analysis of all the potential tax considerations relating to the exchange. This summary is limited to holders of Restricted Notes that hold the Restricted Notes as capital assets (in general, assets held for investment).

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Additionally, this summary does not deal with special situations. For example, this summary does not address tax considerations to holders who may be subject to special tax treatment, such as dealers in securities or currencies; brokers; financial institutions or financial service entities ; tax-exempt entities; traders in securities that elect to use a mark-to-market method of accounting for their securities holdings; regulated investment companies; real estate investment trusts; controlled foreign corporations; passive foreign investment companies; insurance companies; retirement plans; former citizens or long-term residents of the United States; partnerships, S corporations or other pass-through entities for U.S. federal income tax purposes or investors in such partnerships, S corporations or other pass-through entities; persons holding new notes as part of a straddle, hedging, integrated, constructive sale or conversion transaction; and U.S. persons whose functional currency is not the U.S. dollar. This summary also does not consider the effect of any applicable foreign, state, local or other tax laws, alternative minimum tax considerations, or any U.S. federal tax laws other than income tax laws (such as estate or gift tax laws or the Medicare tax on certain investment income) for any holders.

Table of Contents

The discussion below is based upon the provisions of the Code, the Treasury regulations promulgated thereunder, and administrative and judicial interpretations of the foregoing, all as in effect as of the date hereof and all of which are subject to change, possibly on a retroactive basis.

Consequences of Tendering Notes

The exchange of the Restricted Notes for the Exchange Notes in the exchange offer will not constitute a taxable exchange. As a result, you will not recognize taxable gain or loss as a result of such exchange, the holding period of the Exchange Notes you receive will include the holding period of the Restricted Notes you exchange and the adjusted tax basis of the Exchange Notes you receive will be the same as the adjusted tax basis of the Restricted Notes you exchange.

The preceding discussion of certain material U.S. federal income tax consequences is for general information only and is not tax advice. Accordingly, each investor should consult its own tax advisor as to the particular tax consequences to it of exchanging Restricted Notes for Exchange Notes, including the applicability and effect of any U.S. federal, state, local or foreign tax laws, and of any proposed changes in applicable laws.

CERTAIN CONSIDERATIONS FOR ERISA AND OTHER U.S. EMPLOYEE BENEFIT PLANS

Subject to the following discussion, the Exchange Notes may be acquired with assets of pension, profit-sharing or other employee benefit plans, as well as individual retirement accounts, Keogh plans and other plans and retirement arrangements, and any entity deemed to hold plan assets of the foregoing (each, a Plan). Section 406 of ERISA and Section 4975 of the Code prohibit a Plan subject to those provisions (each, a Benefit Plan Investor) from engaging in certain transactions with persons that are parties in interest under ERISA or disqualified persons under the Code with respect to such Benefit Plan Investor. A violation of these prohibited transaction rules may result in an excise tax or other penalties and liabilities under ERISA and the Code for such persons or the fiduciaries of such Benefit Plan Investor. In addition, Title I of ERISA requires fiduciaries of a Benefit Plan Investor subject to ERISA to make investments that are prudent, diversified and in accordance with the governing plan documents. Employee benefit plans that are governmental plans (as defined in Section 3(32) of ERISA), certain church plans (as defined in Section 3(33) of ERISA) and non-U.S. plans are not subject to the fiduciary and prohibited transaction provisions of ERISA or Section 4975 of the Code; however, such plans may be subject to Similar Law.

The acquisition and holding of Exchange Notes by or on behalf of a Benefit Plan Investor could give rise to a prohibited transaction if the Company is a party in interest or a disqualified person with respect to such Benefit Plan Investor. Certain exemptions from the prohibited transaction rules could be applicable to an investment in the Exchange Notes by a Benefit Plan Investor depending upon the type and circumstances of the plan fiduciary making the decision to acquire such investment and the relationship of the party in interest to the Benefit Plan Investor. Included among these exemptions are: Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code for certain transactions between a Benefit Plan Investor and non-fiduciary service providers to the Benefit Plan Investor; Prohibited Transaction Class Exemption (PTCE) 96-23, regarding transactions effected by in-house asset managers; PTCE 95-60, regarding investments by insurance company general accounts; PTCE 91-38, regarding investments by bank collective investment funds; PTCE 90-1, regarding investments by insurance company pooled separate accounts; and PTCE 84-14, regarding transactions effected by qualified professional asset managers. Even if the conditions specified in one or more of these exemptions are met, the scope of the relief provided by these exemptions might or might not cover all acts that might be construed as prohibited transactions. There can be no assurance that any of these, or any other exemption, will be available with respect to any particular transaction involving the Exchange Notes, and prospective investors that are Benefit Plan Investors and other Plans should consult with their legal advisors regarding the applicability of any such exemption and other applicable legal requirements.

By acquiring an Exchange Note (or a beneficial interest therein), each purchaser will represent and warrant that either: (i) the purchaser is not acquiring or holding such Exchange Note with the assets of a Benefit Plan Investor or a governmental plan, church, non-U.S. or other plan subject to Similar Law, or (ii) the acquisition and

Table of Contents

holding of such Exchange Note by the purchaser, throughout the period it holds such Exchange Note, does not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code or violate any provisions of Similar Law, as applicable.

PLAN OF DISTRIBUTION

Each broker-dealer that receives Exchange Notes for its own account in exchange for Restricted Notes acquired by it as a result of market-making activities or other trading activities must acknowledge that it will deliver a prospectus in connection with any resale of the Exchange Notes, as such broker-dealer may be deemed an underwriter within the meaning of the Securities Act. This prospectus, as it may be amended or supplemented from time to time, may be used by a broker-dealer in connection with resales of Exchange Notes received in exchange for Restricted Notes, if the Restricted Notes were acquired by the broker-dealer as a result of market-making activities or other trading activities. We have agreed that, for a period ending on the earlier of the expiration of the 270th day after the exchange offer has been completed or such time as such participating broker-dealers no longer hold Restricted Notes, we will keep the exchange offer registration statement effective and will make this prospectus, as amended or supplemented, available to any such broker-dealer for use in connection with any such resale. In addition, until the date that is 90 days from the date of this prospectus, all dealers effecting transactions in the Exchange Notes may be required to deliver a prospectus.

We will not receive any proceeds from any sale of the Exchange Notes by broker-dealers. Exchange Notes received by broker-dealers for their own account pursuant to the exchange offer may be sold from time to time in one or more transactions:

- in the over-the-counter market;
- in negotiated transactions;
- through the writing of options on the Exchange Notes; or
- a combination of such methods of resale, at market prices prevailing at the time of resale, at prices related to such prevailing market prices or negotiated prices.

Any such resale may be made directly to purchasers or to or through brokers or dealers who may receive compensation in the form of commissions or concessions from any such broker-dealer or the purchasers of any such Exchange Notes. Any broker-dealer that resells Exchange Notes that were received by it for its own account pursuant to the exchange offer and any broker or dealer that participates in a distribution of such Exchange Notes may be deemed to be an underwriter within the meaning of the Securities Act and any profit on any such resale of Exchange Notes and any commission or concessions received by any such persons may be deemed to be underwriting compensation under the Securities Act. The accompanying letter of transmittal states that, by acknowledging that it will deliver and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an underwriter within the meaning of the Securities Act.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

For a period of 270 days after the consummation of the exchange offer (or such shorter period, as provided above), we will promptly send additional copies of this prospectus and any amendment or supplement to this prospectus to any broker-dealer that requests such documents as provided in the enclosed letter of transmittal. We have agreed to bear certain fees and expenses incident to the exchange offer (including the expenses of one counsel for the holders of the notes) other than commissions or concessions of any brokers or dealers, and will indemnify the holders of the notes (including any broker-dealers) against certain liabilities, including liabilities under the Securities Act, as well as contribute to payments that they may be required to make in request thereof.

Prior to the exchange offer, there has not been any public market for the Restricted Notes. The Restricted Notes have not been registered under the Securities Act and will be subject to restrictions on transferability to the extent that they are not exchanged for Exchange Notes by holders who are entitled to participate in the exchange offer. The holders of Restricted Notes, other than any holder that is our affiliate within the meaning of Rule 405 under the Securities Act, who are not eligible to participate in the exchange offer are entitled to certain registration

Table of Contents

rights, and we may be required to file a shelf registration statement with respect to their Restricted Notes. The Exchange Notes will constitute a new issue of securities with no established trading market. We do not intend to list the Exchange Notes on any national securities exchange or to seek the admission thereof to trading in the National Association of Securities Dealers Automated Quotation System. No assurance can be given that an active public or other market will develop for the Exchange Notes or as to the liquidity of the trading market for the Exchange Notes. If a trading market does not develop or is not maintained, holders of the Exchange Notes may experience difficulty in reselling the Exchange Notes or may be unable to sell them at all. If a market for the Exchange Notes develops, any such market may be discontinued at any time.

LEGAL MATTERS

Mayer Brown LLP, Houston, Texas, has passed upon the validity of the Exchange Notes, the related guarantees and certain other legal matters on behalf of the registrant. Liskow & Lewis, Plc will pass upon certain legal matters of law of the State of Louisiana relating to the guarantee by I/O Marine Systems, Inc., a Louisiana corporation.

EXPERTS

The consolidated financial statements of ION Geophysical Corporation and subsidiaries appearing in our Annual Report (Form 10-K) for the year ended December 31, 2013 (including the schedule appearing therein), and the effectiveness of ION Geophysical Corporation and its subsidiaries' internal control over financial reporting as of December 31, 2013, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of INOVA Geophysical Equipment Limited and its subsidiaries as of December 31, 2012 and for the year then ended, appearing in the Form 10-K/A Amendment No. 1 to Annual Report on Form 10-K of ION Geophysical Corporation for the year ended December 31, 2012, have been audited by Ernst & Young LLP, independent auditors, as set forth in their reports thereon included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of INOVA Geophysical Equipment Limited and its subsidiaries as of December 31, 2011 and for the year then ended and for the period from March 26, 2010 to December 31, 2010 appearing in the Form 10-K/A Amendment No. 1 to Annual Report on Form 10-K of ION Geophysical Corporation for the year ended December 31, 2012 have been audited by Ernst & Young LLP, chartered accountants, as set forth in their reports thereon included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

We are currently subject to the periodic reporting and other informational requirements of the Exchange Act, and, in accordance therewith, file annual, quarterly and current reports, proxy statements and other information with the SEC. Such reports and other information are available to the public and can be inspected and copied at the Public Reference Room of the SEC located at Room 1580, 100 F Street, N.E., Washington D.C. 20549. Copies of such materials, including copies of all or any portion of the registration statement, can be obtained from the Public Reference Room of the SEC at prescribed rates. You can call the SEC at 1-800-SEC-0330 to obtain information on the operation of the Public Reference Room. Such materials may also be accessed electronically by means of the SEC's home page on the Internet (<http://www.sec.gov>).

Table of Contents

This prospectus contains summaries of certain agreements, including, among other agreements, the indenture and the registration rights agreement. The descriptions contained in this prospectus of these agreements do not purport to be complete and are subject to, or qualified in their entirety by reference to, the definitive agreements. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for all purposes to the extent that a statement contained in this prospectus or any other subsequently filed document which is also incorporated or deemed to be incorporated by reference, modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide, without charge, to each person to whom a copy of this prospectus has been delivered, upon written or oral request of such person, a copy of any or all of the documents incorporated by reference herein (other than certain exhibits to such documents not specifically incorporated by reference). Requests for such copies should be directed to:

ION Geophysical Corporation

2105 CityWest Blvd., Suite 400

Houston, Texas 77042-2839

Telephone: (281) 933-3339

Attention: General Counsel

We make our website content available for information purposes only. Our website should not be relied upon for investment purposes, and it is not incorporated by reference into this prospectus.

Reports and other information concerning us can also be inspected at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005. Our common stock is listed and traded on the New York Stock Exchange under the trading symbol IO.

INCORPORATION BY REFERENCE

We incorporate by reference information into this prospectus. This means that we are disclosing important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus, except for any information superseded by information contained expressly in this prospectus, and the information we later file with the SEC will automatically supersede this information.

Except as described below, we incorporate by reference the documents, or portions of the documents as listed below, and all documents subsequently filed with the SEC pursuant to Section 13(a), 13(c), 14, or 15(d) of the Exchange Act, including all such documents we may file with the SEC after the initial date of the initial registration statement and prior to the effectiveness of the registration statement, prior to the termination of the offering under this prospectus:

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

- Our Annual Report on Form 10-K for our fiscal year ended December 31, 2013 filed with the SEC on February 24, 2014; and
- Our Current Reports on Form 8-K filed with the SEC on January 29, 2014 and February 13, 2014, to the extent filed and not furnished, pursuant to Section 13(a) of the Exchange Act.

The INOVA Geophysical audited financial statements as of December 31, 2012 and 2011, and for the years ended December 31, 2012 and 2011, and the period from March 26, 2010 (date of inception), to December 31, 2010, and the Reports of Independent Auditors, are incorporated herein by reference to Exhibit 99.1 and are included as financial statement schedules in Item 15 Exhibits and Financial Statement Schedules of our Form 10-K/A filed with the SEC on April 17, 2013.

Table of Contents

No person has been authorized to give any information or to make any representations other than those contained in this prospectus, and, if given or made, such information and representation must not be relied upon as having been authorized. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities to which it relates or any offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. Neither the delivery of this prospectus nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of ION Geophysical Corporation since the date hereof or that the information contained in this prospectus is correct as of any time subsequent to its date.

ION Geophysical Corporation

EXCHANGE OFFER FOR

\$175,000,000

8.125% SENIOR SECURED SECOND PRIORITY NOTES DUE 2018

AND RELATED GUARANTEES

PRELIMINARY PROSPECTUS

, 2014

Prospectus Delivery Obligation

Until the date that is 90 days from the date of this prospectus, all dealers that effect transactions in the Restricted Notes or the Exchange Notes, whether or not participating in the exchange offer, may be required to deliver a prospectus. This is in addition to the dealers obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Table of Contents

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 20. Indemnification of Directors and Officers.

The following summaries are qualified in their entirety by reference to the complete text of any statutes referred to below and the organizational documents of each registrant guarantor.

Indemnification of Directors and Officers of ION Geophysical Corporation

The General Corporation Law of the State of Delaware (the "DGCL") permits ION and its stockholders to limit directors' exposure to liability for certain breaches of the directors' fiduciary duties, either in a lawsuit on behalf of the registrant or in an action by stockholders of the registrant. The Restated Certificate of Incorporation of ION Geophysical Corporation provides that a director of the Company shall not be personally liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Company or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL or (iv) for any transaction from which the director derived an improper personal benefit.

The Amended and Restated Bylaws (the "Bylaws") of the ION Geophysical Corporation provide that the Company shall, to the full extent permitted by applicable laws (including the DGCL), indemnify its directors, officers, employees and agents with respect to expenses (including counsel fees), judgments, fines, penalties, other liabilities and amounts incurred by any such person in connection with any threatened, pending or completed action, suit or proceeding to which such person is or was a party, or is or was threatened to be made a party, by reason of the fact that such person is or was serving as a director, officer, employee or agent of the registrant or any of its subsidiaries, or is or was serving at the request of the Company or any of its subsidiaries as a director, officer, employee, agent or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise. The Bylaws provide that the indemnification provided pursuant to the Bylaws is not exclusive of any other rights to which those seeking indemnification may be entitled under any provision of law, the certificate of incorporation, bylaws, governing documents, any agreement, any vote of stockholders or disinterested directors or otherwise.

The Company maintains an officers' and directors' liability insurance policy that provides coverage to the officers and directors of the Company for certain losses, damages, claims, liabilities and expenses, including certain liabilities that may arise out of this registration statement.

Indemnification of Directors and Officers of Registrant Guarantors

Delaware

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

ION Exploration Products (U.S.A.), Inc. is a Delaware corporation.

The indemnification provisions of the DGCL described in *Indemnification of Directors and Officers of ION Geophysical Corporation* above also relate to the directors and officers of ION Exploration Products (U.S.A.), Inc.

The bylaws of ION Exploration Products (U.S.A.), Inc. provide that no director of the corporation will be liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law (iii) under Section 174 of the DGCL or (iv) for any transaction from which the director derived an improper personal benefit.

The bylaws of ION Exploration Products (U.S.A.), Inc. provide that it will indemnify to the full extent authorized or permitted by Section 145 of the DGCL any person (his heirs, executors and administrators) made, or threatened to be made, a party to any action, suit or proceeding (whether civil, criminal, administrative or investigative) by reason of the fact that he is or was a director or officer of the corporation or by reason of the fact that as such director or officer, at the request of the corporation, is or was serving any other corporation, partnership,

Table of Contents

joint venture, trust, employee benefit plan or other enterprise, in any capacity. The bylaws of I/O Exploration Products (U.S.A.), Inc. provide that nothing contained in such bylaws affect any rights to indemnification to which employees and agents of the corporation other than directors and officers may be entitled by law.

The bylaws of ION Exploration Products (U.S.A.), Inc. provide that the corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise against any liability asserted against him and incurred by him in any such capacity, arising out of his status as such, whether or not the corporation would have the power to indemnify him against such liability under the provisions of such amended and restated bylaws.

Louisiana

I/O Marine Systems, Inc. is a Louisiana corporation.

Section 83 of the Louisiana Business Corporation Law (LBCL) governs the indemnification of officers and directors of Louisiana corporations.

In accordance with Section 83 of the LBCL, the bylaws of I/O Marine Systems, Inc. provide that it will indemnify any director, officer, employee or agent of the corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with any action, suit or proceeding to which he is or was a party or is threatened to be made a party (including any action by or in the right of the corporation), if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

The bylaws specify detailed procedures and requirements for indemnification in accordance with Section 83 of the LBCL. Moreover, the bylaws provide additional protection for the officers and directors as the bylaws specify that indemnitees are presumed to be entitled to indemnification and I/O Marine Systems, Inc. has the burden of proof in proving that the indemnitee is not entitled to indemnification.

In addition, the articles of incorporation and bylaws of I/O Marine Systems, Inc. purport to limit the liability of directors and officers (directors only under the articles) for monetary damages for breach of fiduciary duty, providing that no director or officer shall be liable for monetary damages for breach of fiduciary duty as a director or officer, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) under Section 12:92(D) of the LBCL or (iv) for any transaction from which the director derived an improper personal benefit.

Texas

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

GX Technology Corporation is a Texas corporation.

The provisions of Chapter 8 of the Texas Business Organizations Code (TBOC) on indemnification are equally applicable to all Texas business organizations or enterprises.

Sections 8.101 and 8.102 of the TBOC provide that any governing person, former governing person or delegate of a Texas enterprise may be indemnified against judgments and reasonable expenses actually incurred by the person in connection with a proceeding, in which he was, is, or is threatened to be made a respondent in a proceeding if it is determined, in accordance with Section 8.103 of the TBOC, that: (i) he acted in good faith, (ii) he reasonably believed (a) in the case of conduct in the person's official capacity, that the person's conduct was in the enterprise's best interests or (b) in any other case, that the person's conduct was not opposed to the enterprise's best interests, and (iii) in the case of a criminal proceeding, he did not have a reasonable cause to believe that his conduct was unlawful. Section 8.103 of the TBOC provides that the determination as to whether indemnification should be paid must be made by disinterested members of the governing authority of the enterprise, special legal counsel selected by the governing authority, or the owners or members of the enterprise. If the person is wholly successful in

Table of Contents

the defense of the proceeding, on the merits or otherwise, or a court determines that the person is entitled to indemnification, such indemnification is mandatory in accordance with Section 8.051 of the TBOC. In connection with any proceeding in which the person is (x) found liable because the person improperly received a personal benefit or (y) found liable to the enterprise, indemnification is limited to reasonable expenses actually incurred by the person in connection with the proceeding and will not include a judgment, penalty, fine, or an excise or similar tax. Indemnification may not be made in relation to a proceeding in which the person has been found liable for willful or intentional misconduct in the performance of the person's duty to the enterprise, breach of the person's duty of loyalty owed to the enterprise or an act or omission not committed in good faith that constitutes a breach of a duty owed by the person to the enterprise. To limit indemnification, liability must be established by an order and all appeals of the order must be exhausted or foreclosed by law.

The articles of incorporation of GX Technology Corporation provide that no director of the corporation will be liable to the corporation or its shareholders for monetary damages for an act or omission in the director's capacity as a director, except for liability of a director for (i) a breach of a director's duty of loyalty to the corporation or its shareholders, (ii) an act or omission not in good faith that constitutes a breach of duty of the directors to the corporation or an act or omission that involves intentional misconduct or a knowing violation of the law, (iii) a transaction from which a director received an improper benefit, whether or not the benefit resulted from an action taken within the scope of the director's office, or (iv) an act or omission for which the liability of a director is expressly provided for by an applicable statute.

The amended and restated bylaws of GX Technology Corporation provide that it will indemnify and advance expenses to all directors, advisory directors, officers, employees and agents of the corporation, and to all persons who are or were serving at the request of the corporation as a director, advisory director, officer, partner, venturer, proprietor, trustee, employee, agent or similar functionary of another corporation, partnership, joint venture, sole proprietorship, trust, employee benefit plan or other enterprise, to the maximum extent allowed by applicable law

Reference is made to Item 22 for our undertakings with respect to indemnification for liabilities arising under the Securities Act.

Table of Contents

Item 21. Exhibit and Financial Statement Schedules.

- (a) Exhibits. See the Exhibit Index following the signature pages hereto.

Item 22. Undertakings.

Each undersigned registrant hereby undertakes:

1. To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

2. That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

3. To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

4. That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, if such registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

5. That, for the purpose of determining liability of the undersigned registrants under the Securities Act to any purchaser in the initial distribution of the securities, in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to the purchaser:

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned

Table of Contents

registrant or used or referred to by the undersigned registrant;

(iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

6. That, for purposes of determining any liability under the Securities Act of 1933, each filing of a registrant annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

7. To respond to requests for information that is incorporated by reference into the prospectus pursuant to Items 4, 10(b), 11, or 13 of this Form, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.

8. To supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

9. Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers and controlling persons of the registrant, we have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on February 24, 2014.

ION GEOPHYSICAL CORPORATION

By: /s/ R. BRIAN HANSON
R. Brian Hanson
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints R. Brian Hanson and David L. Roland and each of them, as his or her true and lawful attorneys-in-fact and agents with full power of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement on Form S-4, and to file the same with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, or with any other regulatory authority, and hereby grants unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement on Form S-4 has been signed by the following persons in the capacities indicated below on February 24, 2014.

Name	Capacities	Date
/S/ R. BRIAN HANSON R. Brian Hanson	President, Chief Executive Officer and Director (Principal Executive Officer)	February 24, 2014
/S/ GREGORY J. HEINLEIN Gregory J. Heinlein	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 24, 2014
/S/ SCOTT SCHWAUSCH Scott Schwausch	Vice President and Corporate Controller (Principal Accounting Officer)	February 24, 2014
/S/ JAMES M. LAPEYRE, JR. James M. Lapeyre, Jr.	Chairman of the Board of Directors and Director	February 24, 2014

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

/S/ DAVID H. BARR
David H. Barr

Director

February 24, 2014

/S/ HAO HUIMIN
Hao Huimin

Director

February 24, 2014

II-6

Table of Contents

Name	Capacities	Date
/S/ MICHAEL C. JENNINGS Michael C. Jennings	Director	February 24, 2014
/S/ FRANKLIN MYERS Franklin Myers	Director	February 24, 2014
/S/ S. JAMES NELSON, JR. S. James Nelson, Jr.	Director	February 24, 2014
/S/ JOHN N. SEITZ John N. Seitz	Director	February 24, 2014

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on February 24, 2014.

GX TECHNOLOGY CORPORATION

By: /s/ R. BRIAN HANSON
R. Brian Hanson
President and Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints R. Brian Hanson and David L. Roland and each of them, as his or her true and lawful attorneys-in-fact and agents with full power of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement on Form S-4, and to file the same with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, or with any other regulatory authority, and hereby grants unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement on Form S-4 has been signed by the following persons in the capacities indicated below on February 24, 2014.

Name	Capacities	Date
/S/ R. BRIAN HANSON R. Brian Hanson	President and Director (Principal Executive Officer)	February 24, 2014
/S/ GREGORY J. HEINLEIN Gregory J. Heinlein	Senior Vice President and Director (Principal Financial Officer, Principal Accounting Officer)	February 24, 2014
/S/ DAVID L. ROLAND David L. Roland	Senior Vice President, Secretary and Director	February 24, 2014

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on February 24, 2014.

ION EXPLORATION PRODUCTS (U.S.A.), INC.

By: /S/ R. BRIAN HANSON
R. Brian Hanson
President and Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints R. Brian Hanson and David L. Roland and each of them, as his or her true and lawful attorneys-in-fact and agents with full power of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement on Form S-4, and to file the same with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, or with any other regulatory authority, and hereby grants unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement on Form S-4 has been signed by the following persons in the capacities indicated below on February [●], 2014.

Name	Capacities	Date
/S/ R. BRIAN HANSON R. Brian Hanson	President and Director (Principal Executive Officer)	February 24, 2014
/S/ GREGORY J. HEINLEIN Gregory J. Heinlein	Vice President and Director (Principal Financial Officer, Principal Accounting Officer)	February 24, 2014
/S/ DAVID L. ROLAND David L. Roland	Senior Vice President, Secretary and Director	February 24, 2014

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on February 24, 2014.

I/O MARINE SYSTEMS, INC.

By: /S/ R. BRIAN HANSON
R. Brian Hanson
President and Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints R. Brian Hanson and David L. Roland and each of them, as his or her true and lawful attorneys-in-fact and agents with full power of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement on Form S-4, and to file the same with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, or with any other regulatory authority, and hereby grants unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement on Form S-4 has been signed by the following persons in the capacities indicated below on February 24, 2014.

Name	Capacities	Date
/S/ R. BRIAN HANSON R. Brian Hanson	President and Director (Principal Executive Officer)	February 24, 2014
/S/ GREGORY J. HEINLEIN Gregory J. Heinlein	Vice President and Director (Principal Financial Officer)	February 24, 2014
/S/ DAVID L. ROLAND David L. Roland	Director	February 24, 2014
/S/ STEVE BATE Steve Bate	Vice President and Director	February 24, 2014

Table of Contents

EXHIBIT INDEX

The following are exhibits to this Form S-4 and, if incorporated by reference, we have indicated the document previously filed with the SEC in which the exhibit was included.

Exhibit Number	Description
3.1	Restated Certificate of Incorporation of ION Geophysical Corporation dated September 24, 2007, filed on September 24, 2007, as Exhibit 3.4 to our Current Report on Form 8-K and incorporated herein by reference.
3.2	Amended and Restated Bylaws of ION Geophysical Corporation filed on September 24, 2007 as Exhibit 3.5 to our Current Report on Form 8-K and incorporated herein by reference.
3.3	Certificate of Ownership and Merger merging ION Geophysical Corporation with and into Input/Output, Inc. dated September 21, 2007, filed on September 24, 2007, as Exhibit 3.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
4.1	Indenture for 8.125% Senior Secured Second Priority Notes due 2018 dated May 13, 2013, filed on May 13, 2013, as Exhibit 4.1 to our Current Report on Form 8-K and incorporated herein by reference.
4.2	Registration rights agreement, dated as of May 13, 2013, among the Company, the guarantors and the other parties named on the signature pages thereof, filed on May 13, 2013, as Exhibit 4.2 to our Current Report on Form 8-K and incorporated herein by reference.
4.3	Certificate of Rights and Designations of Series D-1 Cumulative Convertible Preferred Stock, dated February 16, 2005, filed on February 17, 2005, as Exhibit 3.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
4.4	Certificate of Elimination of Series B Preferred Stock dated September 24, 2007, filed on September 24, 2007, as Exhibit 3.2 to the Company's Current Report on Form 8-K and incorporated herein by reference.
4.5	Certificate of Elimination of Series C Preferred Stock dated September 24, 2007, filed on September 24, 2007, as Exhibit 3.3 to the Company's Current Report on Form 8-K and incorporated herein by reference.
4.6	Certificate of Designation of Series D-2 Cumulative Convertible Preferred Stock dated December 6, 2007, filed on December 6, 2007, as Exhibit 3.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
4.7	Certificate of Designations of Series A Junior Participating Preferred Stock of ION Geophysical Corporation effective as of December 31, 2008, filed on January 5, 2009, as Exhibit 3.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
4.8	Certificate of Elimination of Series A Junior Participating Preferred Stock dated February 10, 2012, filed on February 13, 2012, as Exhibit 3.1 to the Registrant's Current Report on Form 8-K and incorporated herein by reference.
4.9	Certificate of Elimination of Series D-1 Cumulative Convertible Preferred Stock dated September 30, 2013, filed on September 30, 2013, as Exhibit 3.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
4.10	Certificate of Elimination of Series D-2 Cumulative Convertible Preferred Stock dated September 30, 2013, filed on September 30, 2013, as Exhibit 3.2 to the Company's Current Report on Form 8-K and

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Table of Contents

Exhibit Number	Description
	incorporated herein by reference.
5.1*	Opinion of Mayer Brown LLP.
5.2*	Opinion of Liskow & Lewis, Plc.
10.1**	Amended and Restated 1990 Stock Option Plan, filed on June 9, 1999, as Exhibit 4.2 to the Company's Registration Statement on Form S-8 (Registration No. 333-80299), and incorporated herein by reference.
10.2	Office and Industrial/Commercial Lease dated June 2005 by and between Stafford Office Park II, LP as Landlord and Input/Output, Inc. as Tenant, filed on March 31, 2006, as Exhibit 10.2 to the Company's Annual Report on Form 10-K for the year ended December 31, 2005, and incorporated herein by reference.
10.3	Office and Industrial/Commercial Lease dated June 2005 by and between Stafford Office Park District as Landlord and Input/Output, Inc. as Tenant, filed on March 31, 2006, as Exhibit 10.3 to the Company's Annual Report on Form 10-K for the year ended December 31, 2005, and incorporated herein by reference.
10.4**	Input/Output, Inc. Amended and Restated 1996 Non-Employee Director Stock Option Plan, filed on June 9, 1999, as Exhibit 4.3 to the Company's Registration Statement on Form S-8 (Registration No. 333-80299), and incorporated herein by reference.
10.5**	Amendment No. 1 to the Input/Output, Inc. Amended and Restated 1996 Non-Employee Director Stock Option Plan dated September 13, 1999, filed on November 14, 1999, as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended August 31, 1999, and incorporated herein by reference.
10.6**	Input/Output, Inc. Employee Stock Purchase Plan, filed on March 28, 1997, as Exhibit 4.4 to the Company's Registration Statement on Form S-8 (Registration No. 333-24125), and incorporated herein by reference.
10.7**	Fifth Amended and Restated - 2004 Long-Term Incentive Plan, filed as Appendix A to the definitive proxy statement for the 2010 Annual Meeting of Stockholders of ION Geophysical Corporation, filed on April 21, 2010, and incorporated herein by reference.
10.8	Registration Rights Agreement dated as of November 16, 1998, by and among the Company and The Laitram Corporation, filed on March 12, 2004, as Exhibit 10.7 to the Company's Annual Report on Form 10-K for the year ended December 31, 2003, and incorporated herein by reference.
10.9**	Input/Output, Inc. 1998 Restricted Stock Plan dated as of June 1, 1998, filed on June 9, 1999, as Exhibit 4.7 to the Company's Registration Statement on S-8 (Registration No. 333-80297), and incorporated herein by reference.
10.10**	Input/Output Inc. Non-qualified Deferred Compensation Plan, filed on April 1, 2002, as Exhibit 10.14 to the Company's Annual Report on Form 10-K for the year ended December 31, 2001, and incorporated herein by reference.
10.11**	Input/Output, Inc. 2000 Restricted Stock Plan, effective as of March 13, 2000, filed on August 17, 2000, as Exhibit 10.27 to the Company's Annual Report on Form 10-K for the fiscal year ended May 31, 2000, and incorporated herein by reference.
10.12**	Input/Output, Inc. 2000 Long-Term Incentive Plan, filed on November 6, 2000, as Exhibit 4.7 to the

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Table of Contents

Exhibit Number	Description
	Company's Registration Statement on Form S-8 (Registration No. 333-49382), and incorporated by reference herein.
10.13**	Employment Agreement dated effective as of March 31, 2003, by and between the Company and Robert P. Peebler, filed on March 31, 2003, as Exhibit 10.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
10.14**	First Amendment to Employment Agreement dated September 6, 2006, between Input/Output, Inc. and Robert P. Peebler, filed on September 7, 2006, as Exhibit 10.1 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.15**	Second Amendment to Employment Agreement dated February 16, 2007, between Input/Output, Inc. and Robert P. Peebler, filed on February 16, 2007, as Exhibit 10.1 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.16**	Third Amendment to Employment Agreement dated as of August 20, 2007, between Input/Output, Inc. and Robert P. Peebler, filed on August 21, 2007, as Exhibit 10.2 to the Company's Current Report on Form 8-K and incorporated herein by reference.
10.17**	Fourth Amendment to Employment Agreement, dated as of January 26, 2009, between ION Geophysical Corporation and Robert P. Peebler, filed on January 29, 2009, as Exhibit 10.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
10.18**	Employment Agreement dated effective as of June 15, 2004, by and between the Company and David L. Roland, filed on August 9, 2004, as Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004, and incorporated herein by reference.
10.19**	GX Technology Corporation Employee Stock Option Plan, filed on August 9, 2004, as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004, and incorporated herein by reference.
10.20	Concept Systems Holdings Limited Share Acquisition Agreement dated February 23, 2004, filed on March 5, 2004, as Exhibit 2.1 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.21	Registration Rights Agreement by and between ION Geophysical Corporation and 1236929 Alberta Ltd. dated September 18, 2008, filed on November 7, 2008, as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q and incorporated herein by reference.
10.22**	Form of Employment Inducement Stock Option Agreement for the Input/Output, Inc. Concept Systems Employment Inducement Stock Option Program, filed on July 27, 2004, as Exhibit 4.1 to the Company's Registration Statement on Form S-8 (Reg. No. 333-117716), and incorporated herein by reference.
10.23**	Form of Employee Stock Option Award Agreement for ARAM Systems Employee Inducement Stock Option Program, filed on November 14, 2008, as Exhibit 4.4 to the Company's Registration Statement on Form S-8 (Registration No. 333-155378) and incorporated herein by reference.
10.24	Agreement dated as of February 15, 2005, between Input/Output, Inc. and Fletcher International, Ltd., filed on February 17, 2005, as Exhibit 10.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
10.25	First Amendment to Agreement, dated as of May 6, 2005, between the Company and Fletcher International, Ltd., filed on May 10, 2005, as Exhibit 10.2 to the Company's Current Report on Form 8-

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Table of Contents

Exhibit Number	Description
	K, and incorporated herein by reference.
10.26**	Input/Output, Inc. 2003 Stock Option Plan, dated March 27, 2003, filed as Appendix B of the Company's definitive proxy statement filed with the SEC on April 30, 2003, and incorporated herein by reference.
10.27**	Form of Employment Inducement Stock Option Agreement for the Input/Output, Inc. GX Technology Corporation Employment Inducement Stock Option Program, filed on April 4, 2005, as Exhibit 4.1 to the Company's Registration Statement on Form S-8 (Reg. No. 333-123831), and incorporated herein by reference.
10.28**	ION Stock Appreciation Rights Plan dated November 17, 2008, filed as Exhibit 10.47 to the Company's Annual Report on Form 10-K for the year ended December 31, 2008, and incorporated herein by reference.
10.29	Canadian Master Loan and Security Agreement dated as of June 29, 2009, by and among ICON ION, LLC, as lender, ION Geophysical Corporation and ARAM Rentals Corporation, a Nova Scotia corporation, filed on August 6, 2009, as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and incorporated herein by reference.
10.30	Master Loan and Security Agreement (U.S.) dated as of June 29, 2009 by and among ICON ION, LLC, as lender, ION Geophysical Corporation and ARAM Seismic Rentals, Inc., a Texas corporation, filed on August 6, 2009, as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and incorporated herein by reference.
10.31	Registration Rights Agreement dated as of October 23, 2009, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation filed on March 1, 2010, as Exhibit 10.54 to the Company's Annual Report on Form 10-K for the year ended December 31, 2009, and incorporated herein by reference.
10.32	Stock Purchase Agreement dated as of March 19, 2010, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010, as Exhibit 10.1 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.33	Investor Rights Agreement dated as of March 25, 2010, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010, as Exhibit 10.2 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.34	Share Purchase Agreement dated as of March 24, 2010, by and among ION Geophysical Corporation, INOVA Geophysical Equipment Limited and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010, as Exhibit 10.3 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.35	Joint Venture Agreement dated as of March 24, 2010, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010, as Exhibit 10.4 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.36	Credit Agreement dated as of March 25, 2010, by and among ION Geophysical Corporation, ION International S.À R.L. and China Merchants Bank Co., Ltd., New York Branch, as administrative agent and lender, filed on March 31, 2010, as Exhibit 10.5 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.37**	Fifth Amendment to Employment Agreement dated June 1, 2010, between ION Geophysical Corporation and Robert P. Peebler, filed on June 1, 2010, as Exhibit 10.1 to the Company's Current

Edgar Filing: ION GEOPHYSICAL CORP - Form S-4

Table of Contents

Exhibit Number	Description
	Report on Form 8-K, and incorporated herein by reference.
10.38**	Employment Agreement dated August 2, 2011, effective as of January 1, 2012, between ION Geophysical Corporation and R. Brian Hanson, filed on November 3, 2011, as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2011, and incorporated herein by reference.
10.39**	Employment Agreement dated effective as of November 28, 2011, between ION Geophysical Corporation and Gregory J. Heinlein, filed on December 1, 2011, as Exhibit 10.1 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.40	First Amendment to Credit Agreement and Loan Documents dated May 29, 2012, filed on May 29, 2012, as Exhibit 10.1 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.41**	Consulting Services Agreement dated January 1, 2013, between ION Geophysical Corporation and The Peebler Group LLC, filed on January 4, 2013, as Exhibit 10.1 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
10.42**	2013 Long-Term Incentive Plan, filed as Exhibit 1 to the definitive proxy statement for the 2013 Annual Meeting of Stockholders of ION Geophysical Corporation, filed on April 16, 2013, and incorporated herein by reference.
10.43	Purchase Agreement, dated May 8, 2013, among ION Geophysical Corporation, the subsidiary guarantors named therein and Citigroup Global Markets Inc. and Wells Fargo Securities, LLC, as representatives of the initial purchasers named therein, filed on May 13, 2013, as Exhibit 10.1 to our Current Report on Form 8-K and incorporated herein by reference.
10.44	Second Lien Intercreditor Agreement by and among China Merchants Bank Co., Ltd., New York Branch, as administrative agent, first lien representative for the first lien secured parties and collateral agent for the first lien secured parties, Wilmington Trust Company, National Association, as trustee and second lien representative for the second lien secured parties, and U.S. Bank National Association, as collateral agent for the second lien secured parties, and acknowledged and agreed to by ION Geophysical Corporation and the other grantors named therein, filed on May 13, 2013, as Exhibit 10.2 to our Current Report on Form 8-K and incorporated herein by reference.
12.1*	Statement Regarding the Computation of Ratio of Earnings to Fixed Charges.
21.1	Subsidiaries of ION Geophysical Corporation, filed on February 24, 2014, as Exhibit 21.1 to our Annual Report on Form 10-K for the year ended December 31, 2013, and incorporated herein by reference.
23.1*	Consent of Independent Registered Public Accounting Firm (from Ernst & Young LLP).
23.2*	Consent of Independent Auditors (from Ernst & Young LLP, Calgary, Alberta).
23.3*	Consent of Independent Auditors (from Ernst & Young LLP).
23.4*	Consent of Mayer Brown LLP (included in its opinion filed herewith as Exhibit 5.1).
23.5*	Consent of Liskow & Lewis, Plc (included in its opinion filed herewith as Exhibit 5.2).
24.1*	Powers of Attorney (included on the signature page hereto).

Table of Contents

Exhibit Number	Description
25.1*	Form T-1 Statement of Eligibility and Qualification under the Trust Indenture Act of 1939 of Wilmington Trust, National Association to act as trustee under the Indenture.
99.1*	Form of Letter of Transmittal.
99.2*	Form of Notice of Guaranteed Delivery.

* Indicates exhibits filed herewith.

** Indicates management contract or compensatory plan or arrangement.
