
LignoTech Developments Limited

Independent advisers report on the merits of the proposed transaction with KAAPA

*LignoTech
Developments Limited*

31 March 2014

STATEMENT OF INDEPENDENCE

PricewaterhouseCoopers confirms that it:

- (a) has no conflict of interest that could affect its ability to provide an unbiased report; and
- (b) has no direct or indirect pecuniary or other interest in the proposed transaction considered in this report, including any success or contingency fee or remuneration, other than to receive the cash fee for providing this report.

PricewaterhouseCoopers has satisfied the Takeovers Panel, on the basis of the material provided to the Panel, that it is independent under the Takeovers Code for the purposes of preparing this report.



Private & Confidential

The Shareholders
C/-LignoTech Developments Limited
PO Box 11
Ashburton
New Zealand

31 March 2014

Dear Sirs

In accordance with the terms of our engagement letter dated 11 February 2014, we are pleased to attach our independent adviser's report on the merits of the proposed transaction with KAAPA.

If you require any clarification or further information, please do not hesitate to contact us.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Justin Liddell', written in a cursive style.

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1. Introduction

Background

- 1.1. LignoTech Developments Limited (LDL or LignoTech) is a New Zealand registered company that has over the last 12 years researched, tested and developed technology which can utilise a variety of cellulosic feed stocks to produce a lightweight, highly engineered bio-filler. This organic filler can be used as an alternative to traditional calcium carbonate fillers and also to displace light weight glass spheres used in thermoset plastic applications.
- 1.2. In December 2012, LDL's New Zealand based research and production facility burnt down. The board of LignoTech made a strategic decision to establish new manufacturing capability closer to its potential customers, feedstock from ethanol plants and manufacturers (primarily the automotive market).
- 1.3. The ethanol industry is primarily located in the Midwest of the United States of America (USA or the US).
- 1.4. To fund the construction of a US based research and production facility, LignoTech is considering entering into a capital raising arrangement with KAAPA Investments LLC (KAAPA). Five funds (the Funds) have been established by KAAPA to purchase shares in LDL. It is envisaged \$8.4m of equity in conjunction with US\$3.3m of bank debt will be required to fund the new facility. The facility will be built in Kearney, Nebraska, USA.
- 1.5. The subscription price to be paid by the five KAAPA funds ranges from US\$4.18 per share to US\$4.45 per share.
- 1.6. Although the Funds are separate legal entities from the current KAAPA shareholder, we understand your legal advisor has confirmed that they should be viewed as one shareholder.
- 1.7. KAAPA currently holds a 5.1% shareholding in LDL.
- 1.8. The proposed capital raising is expected to result in the allotment of shares to the Funds which would result in KAAPA holding greater than 20% (but less than 50%) of the share capital of LDL.
- 1.9. Given LDL has over 50 shareholders; it is covered by The Takeover Code 2000 (the Code). This independent report is prepared on the merits of the proposed allotment under rule 18 of the Code.

Scope of our work

- 1.10. Rule 18 of the Code requires the directors of a code company to obtain an Independent Adviser's Report on the merits of the proposed capital raising.
- 1.11. The term 'merits' has no definition either in the Takeovers Code itself or in any statute dealing with securities or commercial law in New Zealand. While the Takeovers Code does not define the term 'merit', guidance provided indicates it includes assessing both positive and negative aspects of the proposed transaction.
- 1.12. In this independent report we:
 - a) Summarise the proposed capital raising;
 - b) Assess both the monetary and non-monetary aspects of the proposed capital raising; and
 - c) Explain the likely counter-factual scenario, i.e. where the capital raising does not occur with KAAPA.

2. Overview of LignoTech

Summary

- 2.1. LDL was started by a steam engineer in the 1990s. A group of investors introduced capital to advance the research project in late 1990s with further capital infusions along the way. In early 2002 LignoTech was formed involving three shareholder companies.
- 2.2. LignoTech has spent the last 12 years developing technology which utilises a variety of feedstocks to produce highly engineered, lightweight, fillers. LDL has two approved patents and a number of provisional patents, as well as other intellectual property in relation to the process for producing bio-fillers.
- 2.3. During the research and development (R&D) phase LignoTech successfully conducted evaluation tests and trials on a variety of feedstock materials including saw dust, wood shavings, wheat straw, distillers dried grains, soluble corn hulls, sugar beet pulp shreds and soy flake feedstock.
- 2.4. LignoTech has engaged Scion research, a New Zealand Government research entity with expertise in biomaterials, as its research partner and continues to work closely with them on resolving technical matters in addition to assisting with product development.
- 2.5. Given the fillers developed are lighter and stronger than current fillers being used in the plastic filler market, it is envisaged that there will be strong demand from the automotive industry. However, LignoTech has not produced commercial quantities of its unique filler, nor has it secured any confirmed customer orders.
- 2.6. LDL's research facility (based in Ashburton) was extensively damaged in a fire in December 2012. The board of LignoTech made a strategic decision that their next facility must be based closer to ethanol plants and the end users of LignoTech's thermoset materials (likely to be the automotive market).
- 2.7. Xylemer BioProducts Inc (a 100% subsidiary of LignoTech), has been established to build and manage a USA based production and testing facility.
- 2.8. LignoTech has entered into negotiations with KAAPA to assist in the development and building of a plant in the USA. It is envisaged that this plant would have the capacity to produce 8 million pounds of the bio-filler product per annum. This will be sufficient to not only to provide samples to a number of potential manufacturers, but also to provide a base volume of the bio-filler material to enable one or more manufacturers, i.e. an automotive manufacturer, to commence production using the bio-filler.

Financial Overview

- 2.9. As shown on the following page, LDL's revenue has historically been derived only from either New Zealand Trade and Enterprise grants or interest income from funds held in trading banks. LDL, as yet, has not made any operating income from either the licence or sale of its bio-filler technology.
- 2.10. Costs have been driven by research and development expenses, management fees and administration costs.
- 2.11. As a result of the relatively fixed cost base, LDL has historically incurred operating losses and negative cashflows. These losses have been funded by share capital issues. Furthermore, the plant fire in December 2012 resulted in insurance proceeds of \$812k being received by LDL.
- 2.12. Although losses are not unusual for an entity at this early stage of development, it indicates that it may be a number of years before shareholders receive dividend payments (if at all), that there is no proven business model as yet and therefore the operational risks are material. However we note LDL are forecasting sufficient free cashflows for either repayment of bank debt or dividends from FY15.

LDL Profit and Loss

| NZ\$ | 12 months ending 31-Mar-12 | 12 months ending 31-Mar-13 | 5 months ending 31-Aug-13 |
|---------------------------|-------------------------------|-------------------------------|------------------------------|
| NZTE Funding | 34,687 | - | - |
| Exchange Rate Gain/(Loss) | 965 | (3,406) | (1,353) |
| Processing Plant hire | - | 1,630 | - |
| Insurance Proceeds | - | 812,000 | - |
| Other/Sundry Income | - | - | 2,058 |
| Total | 35,652 | 810,224 | 705 |
| Management Fees | (240,000) | (240,000) | (100,000) |
| Research and Development | (195,105) | (450,302) | (220,290) |
| Repairs and Maintenance | (28,360) | (45,042) | (1,578) |
| Other Expenses | (162,863) | (289,866) | (84,749) |
| Total | (626,328) | (1,025,210) | (406,617) |
| EBTDA | (590,676) | (214,986) | (405,912) |
| Depreciation & impairment | (74,846) | (54,883) | (1,038) |
| Loss on Sale of Assets | - | (11,590) | (2,863) |
| Assets Destroyed by Fire | - | (777,246) | - |
| Total | (74,846) | (843,719) | (3,901) |
| EBIT | (665,522) | (1,058,705) | (409,813) |
| Interest received | 12,297 | 5,881 | 7,670 |
| NPBT | (653,225) | (1,052,824) | (402,143) |

LDL Statement of Financial Position

| NZ\$ | As at 31-Mar-12 | As at 31-Mar-13 | As at 31-Aug-13 |
|-------------------------------------|--------------------|--------------------|--------------------|
| Current assets | | | |
| Cash | - | 100 | 100 |
| Receivables | 58,572 | 735,675 | - |
| Other | 431,908 | 389,161 | 429,450 |
| Total | 490,480 | 1,124,936 | 429,550 |
| Non-current assets | | | |
| PPE, Furniture and fittings | 423,259 | 15,047 | 5,372 |
| Production plant engineering design | - | 61,734 | 209,808 |
| Intangibles | 615,423 | 626,573 | 643,871 |
| Other | 15,344 | 2,980 | 2,699 |
| Total | 1,054,026 | 706,334 | 861,750 |
| Total assets | 1,544,506 | 1,831,270 | 1,291,300 |
| Liabilities | | | |
| Payables | 39,765 | 94,178 | 35,854 |
| Other | - | 88,514 | - |
| Total | 39,765 | 182,692 | 35,854 |
| Equity | | | |
| Share capital | 6,290,108 | 7,488,393 | 7,497,404 |
| Retained earnings | (4,785,367) | (5,839,815) | (6,241,958) |
| Total | 1,504,741 | 1,648,578 | 1,255,446 |
| Liabilities plus equity | 1,544,506 | 1,831,270 | 1,291,300 |

Forecast Financial Information

- 2.13. The Company in conjunction with its advisors has produced forecast profit and loss statements. LDL is expecting to produce a positive EBITDA in FY15 (12 months ending 31 March 2015). FY15 is assumed to be a partial year's production, with FY16 producing a full year target of 48 million pounds of commercial production.
- 2.14. These forecasts were prepared on the basis that the Company obtains the necessary funding to develop and build a plant in the USA.
- 2.15. As is typical with any start-up business, there are risks that can have a material impact on the outcome of the forecasted earnings. It is not uncommon for there to be a material increase in earnings forecast as start-up companies reach a critical mass for revenues to exceed costs. Conversely, there can be a material negative variance to earnings if orders are not achieved. As such we highlight to shareholders that LDL is still in the start-up and development phase of a company lifecycle.

Current Shareholding

- 2.16. LignoTech currently has 72 shareholders with Biotech Investment Group holding the largest parcel of shares and options. This entity is owned by Garry Haskett who is a current director of LDL.
- 2.17. Currently KAAPA holds 5.1% of the total ordinary shares and options.

LDL Shareholding

| Shareholder | Shares | Options | Total shares | Shareholding |
|--------------------------|------------------|---------------|------------------|---------------|
| Biotech Investment Group | 493,760 | - | 493,760 | 11.7% |
| Phillip Quaid | 465,898 | - | 465,898 | 11.0% |
| NZ High-Tech Enterprises | 344,786 | - | 344,786 | 8.1% |
| Lignin Group Ltd | 298,931 | - | 298,931 | 7.1% |
| KAAPA Investments LLC | 217,400 | - | 217,400 | 5.1% |
| Other | 2,384,924 | 30,000 | 2,414,924 | 57.0% |
| Total | 4,205,699 | 30,000 | 4,235,699 | 100.0% |

3. Overview of KAAPA

Company structure

- 3.1. KAAPA, short for 'Kearney Area Ag Producers Alliance', is a farmer-owned cooperative with a membership base of over 440 farmers, located primarily in central Nebraska, with 75% of the members being active. One of KAAPA's goals is to find and invest in suitable projects that add value to its members.
- 3.2. Although KAAPA has a 5.1% direct shareholding in LDL, typically it does not directly invest in projects. KAAPA facilitates the investment of its farmer members by establishing funds (generally limited liability companies) into which its members and others can invest. It then aggregates those funds to purchase shares in companies. This is done for a number of reasons, one of which is to have the ability to purchase a larger, single percentage of ownership in the company.
- 3.3. Furthermore creating new entities as investment vehicles enables KAAPA to bring in external capital to 'green field' projects. When KAAPA develops a project on its own, it creates a new entity and launches the company with KAAPA members generally remaining the majority shareholders of the created business.

Business activity

- 3.4 Projects undertaken by KAAPA must be in the agriculture sector and have the potential to benefit KAAPA members through a return on investment, offering a new or expanded market, or by creating efficiency in farming and ranch operations (source: www.kaapacoop.com/index.html).

Examples of such projects include:

- new or specialty crops,
- fuel-reduction applications for irrigation motors or farm equipment,
- double crop opportunities,
- regional and/or international trade of farm commodities,
- sustainable agriculture practices,
- innovative technologies,
- renewable energy and energy efficiencies,
- utilisation of agriculture residue and co-products from the processing of crops,
- and special or unique processing of commodities such as soy bean oil, specialty wheat flours and others

- 3.5 KAAPA's philosophy is to assess the future prospects of the agricultural industry as it continues to develop with new technologies, markets and other innovations. Consequently, KAAPA has a focus on technology and research based investments.

Successful examples of this include:

- KAAPA Ethanol, and
- KAAPA Aqua Ventures Alliance.

- 3.6 In addition to the above mentioned projects, KAAPA also conducts its activities through the member subsidiaries of:

- KAAPA Investments
- KAAPA Investments II, and
- KAAPA Country-Adventures.

KAAPA Ethanol

- 3.7 KAAPA Ethanol is located between Minden and Axtell in south-central Nebraska and is considered one of the USA's most successful ethanol plants. The US\$52 million KAAPA Ethanol plant began production in 2003. In 2010, KAAPA Ethanol purchased the facility in Elm Creek that is operated as KAAPA Grains. (Source:2014 Factiva, Inc)
- 3.8 KAAPA Ethanol now operates as a stand-alone entity.
- 3.9 KAAPA Ethanol produces 55 million gallons annually, pays its suppliers an average of US\$0.05 to US\$0.10 more than the general market price on bushels of corn and has expanded its original operation to include its own rail bay for unit trains. KAAPA Ethanol has been a financial success, returning its original investors their investment many times over. (Source: KAAPA Cooperative, Projects Report 1996-2012).
- 3.10 Other investments of KAAPA Ethanol include an ownership share in a North Dakota ethanol plant, and part ownership of plants in Lima, Ohio, and Janesville, Minnesota.

4. The proposed transaction

Terms of the offer

- 4.1. KAAPA is a farmer-owned cooperative with a membership base of over 440 farmers, located primarily in central Nebraska, USA. They facilitate investments for its farmer members by establishing funds (generally limited liability companies) into which its members and others can invest.
- 4.2. In this proposed investment, KAAPA has set up five separate funds to invest in LignoTech.
- 4.3. As shown below, each fund has varying conditions. However key conditions include:
 - a) LDL must raise a total of US\$8.4m in equity on or before 31 March 2014;
 - b) Included in the US\$8.4m noted above are 227,272 shares that may be issued to any other party selected by LDL at an average price of US\$4.40 share (total proceeds US\$999,967);
 - c) US\$1.6m of debt must be secured on or before 31 March 2014;
 - d) Funds 2 and 4 have the ability to appoint directors to the board of LDL;
 - e) Except for Fund 1 (which are preference shares in Xylemer BioProducts Inc that convert to ordinary shares in LDL), all shares are ordinary shares; and
 - f) LDL must receive from a company an intention to purchase at least 100,000 lbs of LignoTech product following the commission of the plant;

- 4.4. We understand all of the funds have now closed.
- 4.5. A total of US\$7.4m has been raised (including Fund 1's convertible note which converts into 227,273 ordinary shares).
- 4.6. The agreements allows LDL to issue a further 160,000 shares without triggering the pre-emptive KAAPA rights, including up to 58,352 ordinary shares to KAAPA. We understand that the 58,352 shares have been agreed in lieu of a capital raising fee. For the calculations shown below, we have assumed 58,352 shares will be issued to KAAPA.
- 4.7. The price per share varies from US\$4.18 (Fund 2 and Fund 3) to US\$4.40 (Fund 1, 4 and 5).
- 4.8. As shown below and based on an exchange rate of 0.82 (NZ\$/US\$), the price per share ranges from NZ\$5.10 to NZ\$5.37 per share, with a weighted average price of US\$4.16 per share (including the 58,352 capital fee shares)

KAAPA Fund Pricing

| Fund | US\$ | FX Rate Assumed | NZ\$ |
|-------------------------|---------|--------------------|---------|
| Fund 1 | \$ 4.40 | 0.8200 | \$ 5.37 |
| Fund 2 | \$ 4.18 | 0.8200 | \$ 5.10 |
| Fund 3 | \$ 4.18 | 0.8200 | \$ 5.10 |
| Fund 4 | \$ 4.40 | 0.8200 | \$ 5.37 |
| Fund 5 | \$ 4.40 | 0.8200 | \$ 5.37 |
| Capital fee | \$ - | n/a | \$ - |
| Weighted Average Price* | \$ 4.16 | 0.8200 | \$ 5.07 |

- 4.9. Total proceeds will be US\$7.4m (average price per share of US\$4.30 excluding the capital fee) for an additional 28.5 percent of LDL. This implies a pro rata value for 100% of LDL's equity of US\$25.9m or NZ\$31.7m.
- 4.10. Post subscription KAAPA related entities would have 32.0% of the shares and voting rights.

Potential Shareholding Summary

| | |
|---|------------------|
| Existing shares on issue | 4,205,699 |
| Existing options on issue | 30,000 |
| Total existing shares & options | 4,235,699 |
| Plus shares issued to the Funds | 1,718,228 |
| Plus shares issued to KAAPA or the Funds for capital fee | 58,352 |
| Plus shares issued to non-associated investors | 227,272 |
| Total new shares | 6,239,551 |
| Existing KAAPA shares | 217,400 |
| Plus shares issued to the Funds (incl capital fee shares) | 1,776,580 |
| Total KAAPA and Fund shares | 1,993,980 |

| | |
|--|--------------|
| KAAPA and the Funds percentage of total shares (post capital raising) | 32.0% |
|--|--------------|

- 4.11. Although KAAPA and the Funds would have board representation and the ability to block special resolutions such as major transactions (due to their greater than 25% shareholding) they would not have control of LDL. Post this proposed transaction; the non-KAAPA related shareholders' shareholding would be diluted from 94.9% to 68.0%. This would result in non KAAPA shareholders, acting in concert, relinquishing the ability to pass special resolutions, albeit no one shareholder would have effective control of LDL post the proposed equity raise.
- 4.12. Given the widely held nature of the non-KAAPA shareholdings, we do not consider the issue of shares to the Funds would materially impact upon the individual non-KAAPA shareholders level of control.

- 4.13. As shown below, in the period FY12 through to as recently as 9 January 2014, shares and options have been issued at NZ\$2.30 each.

LDL Share Issues

| | FY12 | FY13 | YTD14 |
|-------------------------|---------|-----------|-----------|
| Number of shares issues | 181,971 | 521,003 | 687,613 |
| Price per share | \$ 2.30 | \$ 2.30 | \$ 2.30 |
| Total Proceeds | 418,533 | 1,198,307 | 1,581,510 |

- 4.14. Given LDL is at an early stage of its business cycle, we have not valued the company as a whole as the likely result would be a very wide range in values. We understand the subscription price per share offered to the Funds was based on negotiation between LDL management and KAAPA, with no formal valuation of LDL being conducted, albeit LDL's business plans and financial forecasts formed part of the negotiations between the parties.
- 4.15. The proposed transaction with KAAPA is an important development for LDL which may have a significant impact upon the future market value of the Company. If LDL's financial forecasts are achieved then it is reasonable to expect that the market value will increase very significantly above the issue price of the shares to the Funds. There is, however, significant risk surrounding these forecasts given the early stage nature of the business. These risks include technological risks and commercial risks. Capital is required to fund the proposed development and it is possible that further funding may be required to complete the development if the development progress differently from that forecast. Depending upon the progress of the development, any future capital raise may be at a share price higher or lower than the proposed issues prior to the Funds.
- 4.16. As compared with not proceeding with the proposed transaction, the proposed transaction should enhance the value of the non-associated shareholders' shareholdings as it introduces new capital necessary to fund future developments at an average price of US\$4.30 per share. This is a material increase in average price per share in comparison to recent share transactions.

5. Merits of the proposed transaction

What does LDL need?

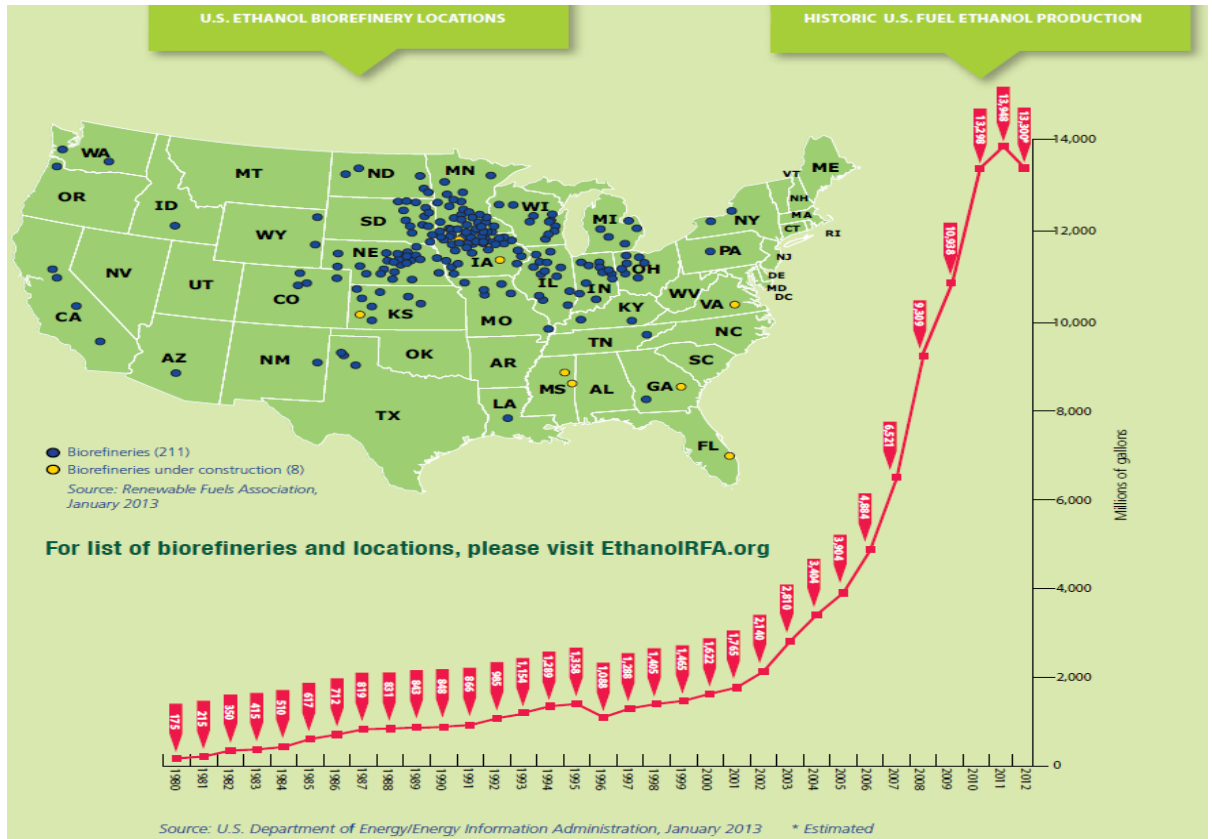
- 5.1. As mentioned previously in Section 2: Overview of LDL, to move their strategy forward, LDL needs more than simply access to capital. While capital will be important to move the Company forward, at the current business life-cycle stage that LDL is at, LDL is seeking investors that can bring a mix of non-financial attributes in addition to capital. Some key 'success factors' include:
 - Access to raw materials and relationships with key stakeholders such as crop farmers
 - Operating proximity to, and relationships with, ethanol producers
 - A commercial scale processing plant to prove the technology, and
 - Ethanol market experience and expertise.
- 5.2. Set out below, we discuss the merits of the Proposed Transaction, with a focus on how it contributes to the above critical success factors.

Relationships with raw material providers

- 5.3. KAAPA has developed a trusted standing in its community, with suppliers and end users. This strong network of interrelated parties is a key benefit of being in a cooperative business model such as KAAPA. KAAPA also has standing and past relationships with grant and funding organisations within the US agricultural, primary and processing industries.
- 5.4. We understand KAAPA's current executive director (Marge Lauer), has resigned to take up the role of CEO of Xylemer BioProducts Inc (LDL's US subsidiary). Given her long relationship with KAAPA and its suppliers, this is likely to give LignoTech an advantage with its potential suppliers.

Proximity to ethanol producers

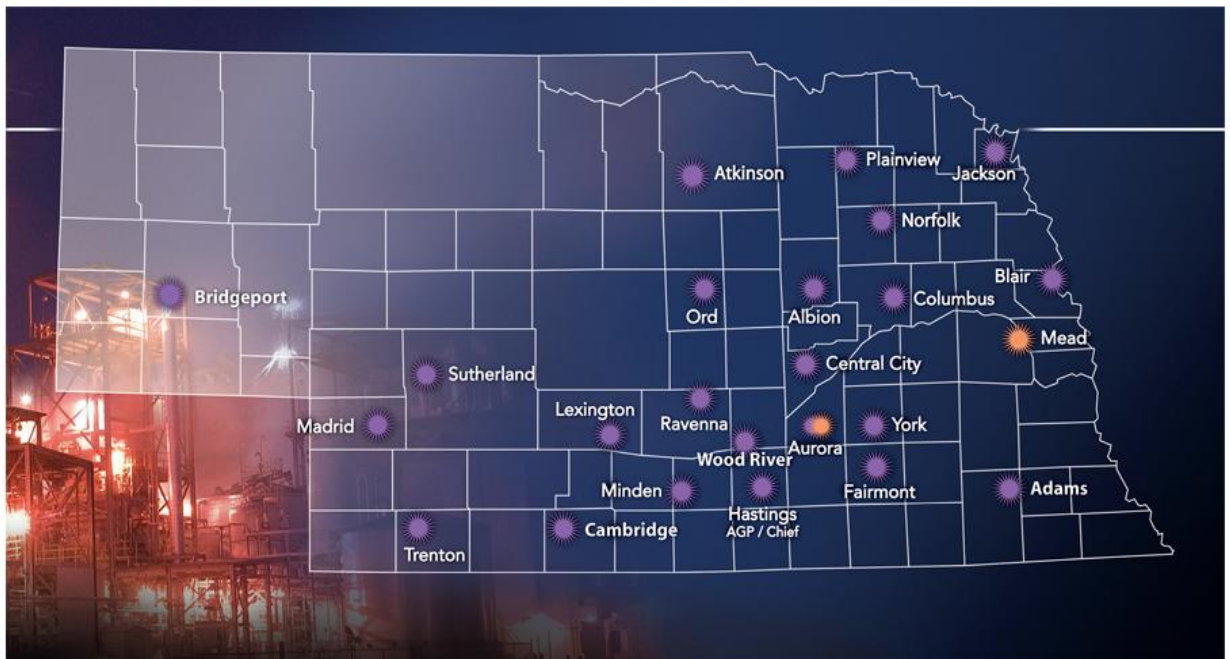
- 5.5. The primary suppliers in the LDL strategy are ethanol production plants, who as well may buy a license from LDL, will also supply the ethanol by-product to LDL to on sell to the market. The USA is one of the largest ethanol producers in the world and has experienced significant growth in domestic production in the last decade. The figure set out below, taken from the Renewable Fuels Association '2013 Ethanol Industry Outlook', graphically demonstrates both the growth in ethanol production and the geographic concentration of the USA's ethanol production plants.
- 5.6. Given it is envisaged LignoTech will enter into off-take agreements to purchase Xylemer material produced by the ethanol plants, it is imperative they are located in close proximity to this market.



Source: Renewable Fuels Association - 2013 Ethanol Industry Outlook (<http://ethanolrfa.org/page/-/PDFs/RFA%202013%20Ethanol%20Industry%20Outlook.pdf?nocdn=1>)

5.7. KAAPA is based in Nebraska, close to the geographic centre of ethanol plants and containing over 20 ethanol production plants itself. The map below shows the approximate location of the state's plants. KAAPA Ethanol owns the plant at Minden as well as shares in 7 other plants in separate states.

Map of Nebraska Ethanol Plants



Source: Nebraska Ethanol Board (<http://www.ne-ethanol.org/?page=industry>)

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- 5.8. KAAPA has a strong advantage in its proximity to the target market of LDL – ethanol production plants. Further, as they are already active in the ethanol production sector, KAAPA has a number of existing relationships that can be leveraged to gain entry for LDL to the sector.

Commercial scale

- 5.9. To earn an appropriate return on the investment in its technology, LDL considers that it requires its technology to be applied with significant scale. As outlined above, KAAPA is located in a region with a high level of ethanol production. This means that KAAPA has access to production plants with considerably larger scales of production than LDL would be able to achieve with a New Zealand based processing facility. To put this scale difference into context, the state of Nebraska produces 1.29 billion to 1.57 billion bushels of corn a year compared to approximately 8 million a year in New Zealand.

Ethanol market experience and expertise

- 5.10. KAAPA has nearly 20 years of experience doing project work and investments in the corn sector and related industries. Through KAAPA Ethanol, KAAPA has previous experience in large scale plant construction and servicing, having previously built ethanol plants, therefore bringing these construction and development relationships with it. As a cooperative company focussed on adding value, they have embraced the value prospects of expanding their involvement in the ethanol production sector. This means that KAAPA has a strong base of experience and expertise in the ethanol production marketplace, a critical element that LDL will need to implement their strategy.
- 5.11. We note this and other commentary is based on our understanding of KAAPA, discussions with LDL and publically available information on KAAPA.

Complementary philosophy

- 5.12. KAAPA has a history of investing in R&D based projects. KAAPA has previously researched into advanced polymer opportunities through their Rivas Technologies project. Their base philosophy of embracing value-adding technologies and practices is well aligned with the philosophy and objectives of LDL. This is an important factor in any cornerstone investor-investee relationship if they are to have a positive experience, working together to implement the company strategy.
- 5.13. Another fortunate consequence of their progressive technological focus is that they have experience forming a relationship with primary industry government funding agencies in the USA.

Capital and investment

- 5.14. Finally, KAAPA provides an opportunity to LDL through their ability to access further capital in the USA. Through corporate investment, as well as member investment, KAAPA has the ability to raise the initial investment funds for set up and working capital requirements that would serve LDL's current needs. These same sources can be further utilised to raise additional capital for future expansion.
- 5.15. Any further capital raise from cooperative members and/or external investors is likely to be significantly easier with a trusted, local (American) company rather than a foreign company.
- 5.16. Also, as briefly mentioned above, KAAPA's prior experience with US government funding agencies may be able to be leveraged for future investment in R&D projects in the USA.
- 5.17. As discussed earlier there are risks associated with LignoTech's business. LDL does not make positive operating cashflow nor has it sold any commercial quantities of its bio filler. Given the new facility is to be funded primarily by new equity, in the event the facility costs more than is budgeted for, additional equity may have to be raised. Those shareholders that cannot participate in any additional capital raisings will be diluted to a lesser shareholding. That being said, given KAAPA's financial diversification and size, it is likely they would have the financial capacity to further invest in LignoTech.

6. Consideration of alternatives

- 6.1. It is important that the shareholders of LDL consider not just the merits of the proposed capital raising, but also the implications of not proceeding with the capital raising. This is commonly referred to as the 'counterfactual' scenario.
- 6.2. To achieve its strategy, LDL will have the same critical success factors:
 - Access to raw materials and relationships with key stakeholders such as crop farmers
 - Operating proximity to, and relationships with, ethanol producers
 - A commercial scale processing plant to prove the technology, and
- 6.3. If the proposed capital raising is not approved, LDL will still need to:
 - Establish a base with close proximity to farmers and ethanol production plants
 - Target a geographical area with a high volume of ethanol production to achieve scale and close to the likely end user, (the automotive industry); the most likely choice would be the USA.
 - Find an appropriate partner or invest in organically growing expertise in the ethanol production sector
 - Engage a financial advisor to assist in the preparation of a detailed information memorandum, with a view to conducting a 'road show' to raise sufficient capital to fund the development of a commercial plant and associated working capital requirements, and
 - Develop relationships with key parties in the ethanol production sector.
- 6.4. Given LDL's existing relationship with KAAPA we understand LDL has not conducted any market testing for an alternative industry or equity partner. However we understand LDL management have discussed opportunities on an ad hoc basis with financial investors. It is therefore unclear if there are alternative investors with the same credentials as KAAPA.
- 6.5. As noted in Section 2 of this report, LDL has historically incurred operating losses and negative cashflows. In the event this capital raise is not approved by the shareholders, based on historical operating losses, alternative equity sources will need to be sourced. If alternative sources are not secured and changes are not made to the current operating losses, LDL will continue to experience cashflow shortfalls and may ultimately experience solvency issues.

7. Summary

Summary

- 7.1. LDL's New Zealand based research facility was extensively damaged in a fire in late 2012. The board of LDL made the strategic decision that their next research and production facility must be based closer to ethanol plants and likely the end users of LignoTech's thermoset materials (primarily the automotive market).
- 7.2. Given KAAPA (a USA based agricultural investment cooperative) were already a 5.1% shareholder of LDL, negotiations occurred where KAAPA agreed to purchase additional capital at between US\$4.18 and US\$4.40 per share. This capital, in conjunction with an estimated US\$3.1m of bank debt (a minimum of US\$1.6m) is required to fund the new US\$10.7m facility which will be built in Kearney, Nebraska, USA.
- 7.3. For the past three years, LDL has raised capital at a price of NZ\$2.30 per share, with options being exercised at NZ\$2.30 per share. The weighted average price of the price per share being offered to KAAPA is NZ\$5.07 (US\$4.16).
- 7.4. In addition to the over 100% increase in the issue price per share, there are a number of benefits that KAAPA can provide LDL as a shareholder that are non-monetary. These include:
 - a) KAAPA Ethanol own (or part own) eight ethanol plants, as such have existing knowledge in LDL's technology;
 - b) KAAPA has previously built production facilities in Nebraska and have had prior dealings with construction contractors and related counter parties associated with the building of a facility;
 - c) Their current CEO (Marge Lauer), has resigned to take up the role of CEO of Xylemer BioProducts Inc (a 100% subsidiary of LDL);
 - d) KAAPA is one of the largest corn (raw materials for ethanol production) suppliers in Nebraska, and therefore can create greater influence over the supply of ethanol by product for LignoTech;
- 7.5. Other factors that the shareholders should consider when assessing this proposed issue of shares to KAAPA include the:
 - a) Key business relationships and experience KAAPA has in Nebraska;
 - b) The fact that KAAPA will not have control of LignoTech, albeit they may have influence;
 - c) The ability of KAAPA to fund further expansion or cost over runs; and
 - d) In the event shareholders do not approve this share allotment, alternative source of funding will be required as LDL may experience cashflow shortfalls and may ultimately experience solvency issues

Appendix A – Restrictions

This report (or extracts from it) is not intended for general circulation, distribution or publication nor is it to be reproduced or used for any other purpose other than to provide the shareholders of LignoTech with a report on the merits of the proposed transaction with KAAPA, without our written permission in each specific instance.

In providing our advice we have relied solely on the financial information and explanations provided to us. We will not conduct anything in the nature of an audit of the information and explanations provided. Accordingly, we will not seek to verify any of the information presented or explanations made to us and upon which we will rely.

We have used historical and forecast information provided by the Company but have not audited or verified this information. We do not therefore accept any responsibility for any errors contained in the information provided.

We do not assume any responsibility or liability for losses suffered by the Company, or any unauthorised user as a result of the circulation, publication, production or use of this report contrary to the provisions set out in this Appendix.

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This report has been prepared by PricewaterhouseCoopers with care and diligence, and statements and opinions are given in good faith and in the belief on reasonable grounds that such statements and opinions are not false or misleading. No responsibility arising in any way whatever for errors or omissions (including responsibility to any person for the negligence) is assumed by PricewaterhouseCoopers or any of its partners or employees for the preparation of this report to the extent that such errors or omissions result from PricewaterhouseCoopers' reasonable reliance on information provided by others or assumptions disclosed in this report or assumptions reasonably taken as implicit.

We reserve the right (but will be under no obligation) to review our analysis and if we consider it necessary, to revise our opinion in the light of any information existing at the date of this report which becomes known to us after that date.

Appendix B – Statement of Qualifications

This Independent Report has been prepared by the Corporate Finance division of PricewaterhouseCoopers (“PwC”), which provides advice on mergers, acquisitions and divestments, valuations, independent expert’s reports and appraisals, financial investigations and strategic corporate advice.

The Partners responsible for this Independent Report are Justin Liddell B.Com, LLB, CA and Craig Armitage B.Com, CA, both of whom have extensive experience in relation to the preparation of independent expert’s reports for the benefit of investors.