

FILED / PRODUIT

Date: June 14, 2019

CT- 2019-002

Geneviève Bruneau for / pour
REGISTRAR / REGISTRAIRE

OTTAWA, ONT.

#1

THE COMPETITION TRIBUNAL

CT-2019-

BETWEEN:

COMMISSIONER OF COMPETITION

Applicant

– and –

THOMA BRAVO, LLC

Respondent

NOTICE OF APPLICATION

TAKE NOTICE that the Commissioner of Competition (“**Commissioner**”) will make an application to the Competition Tribunal (“**Tribunal**”), on a day and place to be determined by the Tribunal, pursuant to section 92 of the *Competition Act*, RSC 1985, c C-34 (“**Act**”) for:

- a. an order requiring Thoma Bravo, LLC (“**Thoma Bravo**”) to dispose of such assets or shares as required to ensure the acquisition of Wrangler Holdings, Inc. (“**Wrangler**”) by Thoma Bravo (the “**Acquisition**”) does not or is not likely to lessen competition substantially. In particular, this application seeks an order requiring Thoma Bravo, in a manner directed by the Tribunal, to divest all of its interests in one of its reserve valuation and reporting software (“**Reserves Software**”) businesses and all related assets, or to effect any appropriate divestitures that it considers necessary to ensure that competition is not likely to be lessened substantially;
- b. the Commissioner’s costs; and
- c. such further and other relief as the Commissioner may request and the Tribunal may consider appropriate.

AND TAKE NOTICE that if you do not file a response with the Registrar of the Tribunal within 45 days of the date upon which this Application is served upon you, the Tribunal may, upon application by the Commissioner and without further notice, make such order or orders as it may consider just, including the orders sought in this Application.

AND TAKE FURTHER NOTICE that the Commissioner will rely on the Statement of Grounds and Material Facts below in support of this Application and on such further or other material as counsel may advise and the Tribunal may permit.

AND TAKE FURTHER NOTICE that a concise statement of economic theory of the case is attached hereto as Schedule "A".

THE ADDRESSES FOR SERVICE ARE:

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The Commissioner proposes that the hearing of this matter be held in the City of Ottawa, Ontario and be heard in English. The Commissioner proposes that documents be filed electronically.

STATEMENT OF GROUNDS AND MATERIAL FACTS

I. OVERVIEW

1. The Acquisition is a merger to monopoly and is likely to create, maintain or enhance the market power of Thoma Bravo in the relevant market.
2. Reserves Software is business-critical software for medium and large oil and gas producers in Canada (“**Producers**”). Canada has a complex tax, royalty and disclosure regime that differs from those applicable in other jurisdictions, such as the United States. Reserves Software provides Producers and their investors, lenders and consultants with key information that is central to their strategic decision-making and compliance with regulatory requirements.
3. Before the merger that is subject of this Application, two Reserves Software had come to dominate in Canada with respect to Producers. These are the Reserves Software that are now owned by the Respondent – Entero MOSAIC (“**MOSAIC**”), owned by Quorum Business Solutions, Inc. (“**Quorum**”) and Value Navigator (“**Val Nav**”), owned by 3ES Innovation Inc., carrying on business under the trade name Aucerna (“**Aucerna**”). Virtually all Producers use the MOSAIC or Val Nav Reserves Software by licensing the Reserves Software directly or relying on services of consultants who licence these Reserves Software.
4. Producers benefited from vigorous competition between Quorum and Aucerna whose rivalry fostered price and non-price benefits, including in the development, supply and service of business-critical Reserves Software, among other things. Producers leveraged Quorum and Aucerna’s Reserves Software against each other to achieve better prices, greater functionality and better customer service. Competition drove Quorum and Aucerna to provide cost-effective, innovative solutions for Producers largely due to the threat of losing customers to each other.

5. The Acquisition puts an end to the rivalry between Quorum and Aucerna and the benefits their competition delivered to the Canadian economy. Thoma Bravo, through the Acquisition, will control the strategic decisions relating to MOSAIC and Val Nav and has the ability and incentive to eliminate the competitive rivalry that previously existed between the suppliers of MOSAIC and Val Nav. Further, Producers have lost their ability to leverage the MOSAIC and Val Nav offerings against one another.
6. There are no close substitutes to Reserves Software or effective remaining competitors. The market for Reserves Software in Canada is relatively modest and mature. Barriers to entry or expansion into Canada are substantial.
7. The likely anti-competitive effects include the unilateral exercise of market power through higher prices, lower quality of service, and reduced innovation and enhancement of product quality.
8. The Commissioner therefore seeks an order requiring Thoma Bravo to divest itself of such assets or shares as required to ensure that the Acquisition does not or is not likely to lessen competition substantially.

II. THE PARTIES

9. The Commissioner is an officer appointed by the Governor in Council pursuant to section 7 of the Act and is responsible for the administration and enforcement of the Act.
10. Thoma Bravo is an American private equity investment firm with head offices in San Francisco, California. Thoma Bravo operates several software companies, including Quorum, which engages in research, development, marketing, maintenance and supply of Reserves Software in Canada. Quorum's Reserves Software is MOSAIC.
11. Wrangler is a holding company for businesses including 3ES Innovation Inc., carrying on business under the trade name Aucerna. Aucerna is a Calgary-

based company that provides oil and gas software solutions, including the provision of Reserves Software in Canada. Aucerna's Reserves Software is Val Nav.

III. THE ACQUISITION

12. Alpha One Acquireco B.C. Ltd. ("**Alpha One**") is a wholly owned subsidiary of Thoma Bravo that was incorporated for the purpose of acquiring Wrangler.
13. Pursuant to a share purchase agreement dated January 28, 2019, Alpha One agreed to acquire all of the issued and outstanding common shares of Wrangler. The Acquisition closed on May 13, 2019.
14. The Acquisition results in MOSAIC and Val Nav being under common control and ownership and is a merger within the meaning of section 91 of the Act.

IV. RESERVES SOFTWARE

15. Both MOSAIC and Val Nav are software that provide the technical, economic and budgeting functions required to properly evaluate and monitor reserves under Canada's complex regulatory, royalty and tax regimes.
16. Reserves Software monitors and evaluates estimated reserves of oil and gas wells. Accurate and complete information about the value of reserves is critical for Producers to make strategic production decisions, acquire and dispose of assets, take out loans and file annual disclosures in accordance with relevant securities legislation and regulations.
17. All Producers with stock traded on a Canadian public exchange must comply with National Instrument 51-101 ("**NI 51-101**"), which requires, among other things, annual estimates of the value of their reserves and an annual report on its reserves, contingent resources, and prospective resources by an independent qualified reserves evaluator and auditor.

18. Reserves Software is jurisdiction specific, as its calculations depend on local royalty and tax regimes.
19. Reserves Software takes technical data associated with each well, estimates the future output and current reserve value of a well, and allows software users to estimate the economic value of a portfolio of production assets. The software must be continuously updated to accurately determine amounts owing to federal, provincial and territorial governments and Indigenous groups in respect of royalties, taxes and other payments associated with the wells and their products.
20. The main functions of Reserves Software include conducting (a) decline curve analysis and reserves forecast and (b) complex tax/royalty calculations required for regulatory reporting and dynamic decision-making, as well as financial projections. Certain types of wells, such as horizontal wells and offshore wells, may not be analyzed using Reserves Software.
21. Reserves Software is used to produce high quality and reliable valuations, forecasts and reports that inform critical business decisions by Producers. Suppliers of Reserves Software continuously improve the functionality and service associated with their products through regular updates and upgrades. Suppliers are receptive to feedback from Producers in terms of what more they could offer, and pay attention to what their Reserves Software competitors are offering.
22. Notwithstanding the complexity of reserves estimation in respect of Producers, the size of the market for Reserves Software in Canada is relatively modest. Revenue suppliers obtain from Reserves Software used in Canada is in the tens of millions annually. Further, the market for Reserves Software in Canada is mature, and most users of Reserves Software in Canada are very familiar with one or both of Val Nav or MOSAIC. Producers rely on Reserves Software either through using it directly or through retaining a third party consultant that uses Reserves Software to provide advice and recommendations.

V. THE RELEVANT MARKET

23. The relevant market is the development, service and supply of Reserves Software in Canada (the “**Relevant Market**”).

A. Product Market

24. The relevant product market for assessing the likely effects of the Acquisition is the development, service and supply of Reserves Software for use by Producers with wells of varying characteristics, including product type, well type, well location and age.
25. There are no close substitutes for Reserves Software for Producers. General business software as well as internally developed solutions are not viable substitutes to Reserves Software for Producers.

B. Geographic Market

26. The relevant geographic market for assessing the likely effects of the Acquisition is no broader than Canada.
27. The business needs of Producers are distinct from those of oil and gas producers in other jurisdictions with respect to the valuation of oil and gas reserves. Producers rely on information generated by Canada-specific Reserves Software to make payments to federal, provincial and territorial governments in respect of taxes, royalties and other payment obligations based on formulas and platforms unique to Canada.
28. Producers must also account for other payments obligations, including under benefit agreements with Canada’s Indigenous groups. Producers with stock traded on a Canadian public exchange must also report proved and probable reserves in accordance with standards of disclosure for oil and gas activities established by Canadian Securities Administrators, as enforced by securities regulators from each province and territory.

29. The reporting requirements in Canada for proved and probable reserves are more extensive than in other jurisdictions outside Canada where just proved reserves are required. Both MOSAIC and Val Nav were built and developed in Canada for the Canadian market and are continuously updated and supported to reflect current Canadian regulatory requirements, and tax and royalty schemes.

VI. THE ACQUISITION IS LIKELY TO SUBSTANTIALLY LESSEN COMPETITION

30. The Acquisition is likely to create, maintain or enhance the market power of Thoma Bravo in the Relevant Market. Quorum and Aucerna were each other's closest competitors in the supply of Reserves Software in Canada, with Mosaic and Val Nav each accounting for approximately half of the market. The Acquisition is a merger to monopoly in the research, development, maintenance and supply of Reserves Software in Canada. As described below, several factors demonstrate that, post-Acquisition, Thoma Bravo will not be constrained in the exercise of its market power.
31. Before the Acquisition, Quorum and Aucerna competed most closely with each other with respect to Reserves Software not only in terms of price but also in terms of product innovation.
32. Customer switching is rare. Where it has occurred, it has most frequently occurred between MOSAIC and Val Nav, and not to other Reserves Software from MOSAIC or Val Nav.
33. Producers have used the threat of switching from MOSAIC to Val Nav or vice versa in their negotiations in order to benefit from better terms and conditions driven by the rivalry between MOSAIC and Val Nav.
34. Producers expect that Reserves Software vendors will add functionalities, fix errors and update the software continuously for any changes to regulations, or royalty and tax regimes. Prior to the Acquisition, Quorum and Aucerna

monitored the developments and pace of innovative change between each other most closely. Such rivalry led to investments by both in research and development efforts to enhance the capability of Reserves Software through software updates and releases.

35. The Acquisition will result in anti-competitive effects. In particular, the merged entity will have the ability and incentive to unilaterally exercise market power in the Relevant Market to the detriment of Producers, including through:
- a. increased prices or the provision of lower quality services; and
 - b. reduced innovation and product quality enhancement through decreased incentives to invest in research and development of enhanced software capability.

VII. SUMMARY OF SECTION 93 FACTORS REGARDING THE LIKELY SUBSTANTIAL LESSENING OF COMPETITION

36. Several factors pursuant to section 93 of the Act support the conclusion that the Acquisition lessens or is likely to lessen competition substantially in the market for the supply of Reserves Software in Canada, including the following:
- a. **No foreign competition:** No other software company outside of Canada imposes a credible constraint on Val Nav and MOSAIC, given the lack of a competitive presence in Canada;
 - i. Other competitors to MOSAIC and Val Nav in the supply of Reserves Software in other countries, such as the United States, do not actively compete in Canada with the full functionality of MOSAIC and Val Nav, or are absent from Canada.
 - ii. Reserves Software that have a strong presence in foreign jurisdictions, such as Schlumberger's Merak PEEP and Halliburton's ARIES software, are not adapted or sufficiently adapted for use in

Canada. They do not effectively compete for new customers in Canada.

- b. **High barriers to entry:** Entry into the Relevant Market is costly, difficult and time consuming. Barriers to entry and expansion into the supply of Reserves Software in Canada are high;
- i. For a greenfield entrant, significant sunk costs are required for Reserves Software with respect to the lengthy time periods and millions of dollars that must be invested to develop and commercialize a Reserves Software for use in Canada;
 - ii. for a Reserves Software to expand into Canada, significant time, resources and expertise is required to layer on the Canada-specific tax and royalty schemes for federal, provincial and territorial governments and Indigenous groups associated with the wells and their production;
 - iii. the size of the market for Reserves Software in Canada limits the opportunities for a new entrant to recoup the significant sunk costs associated with developing and commercializing a Reserves Software in Canada; and
 - iv. the Relevant Market is mature and is characterized by customer stickiness, which limits both the desire and ability of Producers to switch away from established products that they trust and rely on to support the financial underpinnings of their business. Where customer switching has occurred, it has most frequently occurred between MOSAIC and Val Nav, and not to other Reserves Software from either MOSAIC or Val Nav.
- c. **No effective remaining competition:** There are no effective competitors to Val Nav and MOSAIC that are able to constrain the ability of Thoma Bravo to exercise market power in the Relevant Market;

- i. No effective competitors in the Relevant Market remain following the Acquisition. Other competitors to MOSAIC and Val Nav in the supply of Reserves Software in other countries, such as the United States, do not actively compete for new customers in Canada with the full functionality of MOSAIC and Val Nav, or are absent from Canada. There has been no effective entry to compete with MOSAIC and Val Nav in the Relevant Market.
 - ii. General business software, such as Microsoft Excel, does not have the necessary functionality when it comes to reserves estimation in the Relevant Market, and self-supply of Reserves Software is not a viable option for Producers.
 - iii. Other companies that produce software targeted towards oil and gas producers, such as IHS Markit, Kappa and P2, are supplying complementary products to Reserves Software that are not effective constraints on the exercise of market power by Thoma Bravo in the Relevant Market.
 - iv. Third party consultancies do not operate as a constraint to MOSAIC and Val Nav. Almost every Producer uses one or both of the MOSAIC and Val Nav either directly or through third party consultants. Use of MOSAIC and Val Nav is ubiquitous amongst consultants providing reserves estimation services to Producers, which is a service all publicly traded Producers require to be compliant with NI 51-101.
- d. **Removal of Vigorous and Effective Competitor:** The Acquisition eliminates the incentive for current and future competition between Quorum and Aucerna's Reserves Software, whose rivalry included competition in price, service and innovation in the Relevant Market; and

- e. **Negative Impact on Change and Innovation:** The Acquisition reduces the incentive of Quorum and Aucerna to continue developing and enhancing their Reserves Software to the benefit of the Canadian economy and Producers. Prior to the Acquisition, Quorum and Aucerna monitored the developments and pace of innovative change between each other with respect to Reserves Software in Canada most closely. Such rivalry led to investments by both in research and development to enhance the quality and capability of each of the Reserves Software in Canada through software updates and releases.

37. As of the date of this application, Thoma Bravo has not identified any efficiencies resulting from the Acquisition.

VIII. RELIEF SOUGHT

38. The Commissioner therefore seeks:

- a. an order requiring Thoma Bravo to dispose of such assets or shares as required to ensure the acquisition of Wrangler by Thoma Bravo does not or is not likely to lessen competition substantially;
- b. the Commissioner's costs; and
- c. such further and other relief as the Commissioner may request and the Tribunal may consider appropriate.

DATED AT Gatineau, Quebec, this 14th day of June, 2019.

“Original signed by”

Matthew Boswell
Commissioner of Competition

SCHEDULE “A”

CONCISE STATEMENT OF ECONOMIC THEORY

1. Quorum and Aucerna each provide Reserves Software that assists Producers in making strategic business decisions and meeting Canadian reserve valuation and reporting requirements.
2. Reserves Software is used to estimate oil and gas reserves (barrels of oil or equivalent in the ground) for a given well and then forecast future production and corresponding cash flows at an individual well level and at a consolidated level for all wells for the primary purpose of asset valuation. Asset valuation is required for the budgeting and capital planning decisions for Producers including acquisitions and divestitures. This process is therefore used for internal reporting to management and executives and for external reporting to shareholders, investors and regulators on the financial position of the Producers.
3. The relevant product market is the development, service and supply of Reserves Software for use by Producers. Reserves Software incorporates information on Canadian regulations, royalties and tax regimes which is essential for the software to assist Producers to meet Canadian regulatory and reporting requirements. A hypothetical monopolist of Reserves Software would profitably impose a small but significant and non-transitory price increase.
4. The relevant geographic market is no broader than Canada. Producers purchase the software to assist them with strategic financial decisions and in meeting Canadian regulatory and reporting requirements. A hypothetical monopolist of Reserves Software would profitably impose a small but significant and non-transitory price increase to Producers who need to meet Canadian regulatory and reporting requirements.
5. The Acquisition will likely result in the loss of competition in two ways:
 - a. First, the Acquisition will likely harm competition through unilateral price and non-price effects. Currently, each party to the Acquisition constrains the ability of the other to raise prices or decrease functionality or service quality; following the Acquisition that constraint would be lost and prices would rise or functionality or service quality would decrease. Specifically, Quorum and Aucerna would find it profitable to increase their prices or decrease functionality or service quality following the Acquisition because some of the sales that would have been lost prior to the merger will be diverted to the other party. This diversion would make increasing prices or decreasing functionality or

service quality profitable when it would not have been profitable prior to the Acquisition.

- b. Second, the Acquisition will likely reduce innovation in the development of Reserves Software in Canada. Quorum and Aucerna each provide periodic updates to their Reserves Software to improve its functionality, usability and other features. These updates are valued by customers. Quorum and Aucerna each provide an incentive for the other to innovate and match or improve quality levels in order to maintain its existing customer base and win customers from its rival. Post-Acquisition this incentive would be lost and software updates along with their associated benefits would be diminished.
6. No effective competitors remain in the relevant market post-Acquisition.
 7. Entry, expansion, or repositioning by competitors is unlikely to occur in a timely and sufficient manner in this market in order to prevent the likely anticompetitive effects of the Acquisition.