



VALUE CREATION INC.



Value Chain Solutions Inc.

March 23, 2023

Wajeeha Siddiqui, Project Manager, Prairie and Northern Region
Impact Assessment Agency of Canada

Re: Value Chain Solutions – Heartland Complex (“VCS-H”) - Expansion Withdrawal from Impact Assessment Process (IAP)

Dear Ms. Siddiqui,

This letter is to formally update Impact Assessment Agency of Canada regarding the Value Chain Solutions – Heartland Complex (“VCS-H”) Expansion application.

In Q4 2019, Value Chain Solutions Inc. (“VCS”) announced the intention to start the Impact Assessment Process (IAP) of the Expansion of VCS-H Project from full approved processing capacity of 29,890 m³/day diluted bitumen (188,000 barrels per day, bpd) to total 119,240 m³/day or 750,000 bpd (“VCS-H Expansion”).

With the much-enhanced focus on climate changes, rapid shift to renewable energy signaling peak fuel demands, VCI/VCS has adjusted its business focus to maximize the unique enabling capability of key upgrading technology (Selective DeCarbonization, SDC™) with removal of the Clean Oil Refining (thermal cracking and hydroprocessing) units and associated supporting units. Therefore, the VCS-H Project will revert to initially approved capacity of 41,400 m³/day (260,000 bpd) before 2018 pending Alberta Energy Regulator approval. See appendix for reasons behind proposed changes.

We are planning to revise the Expansion to underground salt cavern development (477,000 m³ or ~3 million barrels) integrated with SDC™ upgrading (up to 20,600 m³/day or 129,600 bpd) to be approved by AER. As the Impact Assessment Provisions (SOR/2019-285) do not apply to the revised Expansion scope screened by IAAC, it is evident that further IAP regarding our previously planned Expansion application (Commencement of IAP June 25, 2021) won't be necessary and will be withdrawn.

VCS-H and its amended expansion will be the first step towards a Clean Oil Corridor (targeting 1+ million bpd of Premium Clean Crudes, with Dominant Competitiveness). The Clean Oil Corridor would include VCS's parent company Value Creation Inc. (VCI)'s future resource development in the Athabasca region, and a potential integrated SDC complex near the SAGD producers hub, leveraged on VCI's proprietary technologies, to bring a major step-change in capital cost and GHG emissions reduction. If coupled with Small Modular Nuclear Reactor in new projects, in situ/SDC™ could produce Carbon Neutral Oils profitably. VCI/VCS is actively pursuing alliance with potential industry strategic partners, governments, Indigenous groups and financial institutions to actualize our shared Vision / Mission.

We appreciate IAAC's effort and support regarding our planned Expansion application.

Sincerely,

<Original signed by>

Cindy-Xing Yin, P.Eng.
VCS-H Regulatory Applications, Coordinator
Value Creation Group of Companies

Cc: Iva Georgieva, VCG-Government, Regulatory & Stakeholders Relations
Susan Tiege, Impact Assessment Agency of Canada
Paul Aguas, Alberta Energy Regulator

APPENDIX

Letter from CEO Dr. Columba Yeung, Value Creation Group of Companies

In the PAST, we aimed to use 3 proprietary technologies to produce highest quality fuel products at lowest cost ... to maximize margin per barrel oil processed.

Global responses to Climate Changes have led to rapid replacement of Internal Combustion Engine by Electric Vehicle ... mobile fuel demands will peak (faster than we originally expected).

As well, GHG Emissions Reduction will be increasingly important. Oil Sands will face **severe head winds**.

Industry needs **Disruptive Transformation** to survive and **PROSPER**.

The **culprits** for the woe of bitumen are the Carbonaceous Micro-solids in colloidal solution. Industry has “tolerated” these culprits with ingenious “brute force” **capital intensive** high severity technologies, with resultant high emissions and wastes – to be reckoned with.

It is **Clear Logic** (albeit counter-current-practice) to **Very Selectively Remove the Culprits**, drastically **Simplifying the Life Cycle** **costly Process Complexity of Oil Sands Development**.

VCI has focused on the **Logical Solution** and **Disruptive Transformation**.

SDC™ (Selective Decarbonization) process can directly process SAGD Emulsion or Emulsified Bitumen, and (with modifications) Mining – Extraction Froth, **very selectively removing the Carbonaceous Contaminants**, and recovering **Maximum Possible Yield** of High Value Hydrocarbons ... producing a **Highly Refine-able Crude** - at **[85+%] Reduction** in **Costs and GHG Emission** vs Upgrading.

The Product Oil (without Conventional Upgrading) can be blended with Synthetic Crude to produce **Premium Crude Blends** – **outperforming Conventional Crudes** .

We have decided to leverage this **Unique Profitable Cleantech**, to **Catalyze** Oil Sands Industry, for

-> **PROFITABLE Transition** to **[Carbon – Neutral Clean Oils]** .

VCI is actively pursuing **[Strategic Industry – Government – FN – Finance] Alliance** to **Actualize our Shared Vision / Mission**.

Specific to **Heartland**, we intend to transform it to a major **Selective Decarbonization Complex**, **servicing bitumen producers** .

We intend to work with Regulatory Authorities to amend the Approved Project (plus Expansion), together with application for a Unique **Cavern - Processing** project, to enable Industry to **Harvest Differential Volatilities with No risks**.

Hope this explains our changes both in strategic rationale and in contents.