

MARC T. ECKELS

February 26, 2018
Via Email

Mike McKee, Executive Director
Seven County Infrastructure Coalition
10849 N 7750E
Tridell, UT 84076

Re: Response to Request for Qualifications for Waxy Crude Consultant

Dear Mr. McKee,

As you know, I was retained as a technical consultant to the Duchesne County Commission in January 2015, when the effort to find a route to alternative markets for Uinta Basin waxy crude oil was commenced by Duchesne County and Carbon County. The initial effort was directed at moving the crude by pipeline from the Uinta Basin to a railhead in Carbon County, from which it could be sent to Salt Lake City refineries or to refineries or blending facilities in alternate markets.

I made a transition to working for the Seven County Infrastructure Coalition on this project when it was moved to the SCIC by the two counties. I have enjoyed my involvement in this process and working with the people who have come together to pursue the objective. I am a firm believer in the need for a solution to the "stranded oil" issue that has long resulted in a discounted price for Uinta Basin waxy crude to the detriment of the producing counties, the Ute Indian Tribe, SITLA, the State of Utah, the federal government, the CIB, private mineral owners, and of course the oil producers themselves.

I am a geologist, trained at Dartmouth College, from which I graduated in 1973. I started working almost exclusively in the Uinta Basin in 1983, conducting exploratory drilling programs, completing wells, operating oil and gas wells and marketing produced oil and gas. In 2000, I conceived and shot the first exploratory 3D seismic survey in the Uinta Basin on Ute Tribal lands as Chief Operating Officer and a Director of Wind River Resources. We went on to make significant discoveries and to build pipelines, a compressor station and other infrastructure for this project. Although I left my position at Wind River in 2013, I continue to own an interest in the company and perform consulting work for it.

I am an expert on Uinta Basin oil and gas exploration, production and operations. In 1986, I moved from Denver to Roosevelt, where I lived with my family for

twenty years. I operated wells on federal, tribal, state and fee (private) leases and drilled wells in the Altamont-Bluebell field, the Pariette Bench area, the Flat Rock field and the Rock Spring Unit. I am in my second term as a director of the Utah Geological Survey and currently serve as the chairman of its board. I have good relationships with the oil companies operating in the Basin.

During my years working and living in the Basin, I developed good working relationships with the landowners whose lands we leased and with the regulatory authorities responsible for overseeing those activities. This includes the US Bureau of Land Management in the Vernal District and in the State Office, the Ute Indian Tribe, the Bureau of Indian Affairs at Ft. Duchesne, SITLA, and the Utah Division of Oil, Gas & Mining, among others. I will leave it to you to decide if those relationships have been useful to the effort at hand.

The transportation of Uinta Basin waxy crude oil to the most favorable markets is a technically and economically complex subject. The five SLC refineries have for many years applied a significant discount to the value of this oil compared to the US onshore bench mark price for West Texas Intermediate crude. That discount damages the royalty recipients and the taxing authorities by reducing their revenue from the sale of this oil. Beyond that issue is the capacity of the SLC refineries to refine the oil. Their capacity was exceeded during 2014, when some oil was trucked over US 191 to Carbon County and delivered by rail to buyers in Oklahoma and the Gulf Coast areas. Recent discussions with the largest producers in the Basin indicate an interest in increasing production over the next several years, so the capacity limitations in SLC will act to constrain that development.

There are two problems to be solved: the first is to eliminate or significantly reduce the discount, and the second is to provide outlets for the crude that will allow production increases. The initial effort was directed at getting a pipeline built from the Basin to the Price area. Now the oil producers have expressed an interest in seeing a railroad built into the Basin because it would reduce the handling issues of oil transportation, and would allow inbound freight in the form of frac sand, oil field tubular goods (steel), cement, chemicals, etc. Such a railway could also provide export opportunities for other industries in the Basin, including agriculture.

At this point, the focus of the SCIC effort is shifting from the pipeline to a rail line, although it is not yet clear that there will not be a future need for a pipeline. I was intimately involved in the pipeline studies, including managing HDR Engineering's "Uinta Basin Pipeline Study (September 2017)" on behalf of the SCIC. There was always a crude-by-rail component associated with that effort. As the SCIC transitions to an emphasis on crude-by-rail originating in the Uinta Basin, I am confident that I have useful contributions to make to the SCIC's project, including familiarity with the routes likely to be investigated.

I would very much like to continue to work for the SCIC on this effort. I have been in the oil and gas business for more than forty years and have a breadth of knowledge that is rare in this day of specialization. I am one of the few people left who can pick a place to drill a well, permit the operation, drill the well, complete the well, build the required facilities for production, manage production operations and negotiate contracts for the sale of oil and gas.

I am a student of the history of the oil and gas business and have spent a great deal of time and effort writing a history of the industry in Utah. I keep abreast of daily developments in the oil and gas business in the Uinta Basin, in Utah, in the US, and throughout the world. In the course of my work for the SCIC I have consistently shared items that might be of interest to the others on the team at no cost to the SCIC.

I have attached my full resume, which includes a list of my publications on Uinta Basin oil and gas. I would be happy to provide annotated references upon request.

My hourly rate for this work will be \$200/hour, plus mileage and pre-approved expenses. I will not charge mileage for short trips (i.e. from my house in Park City to meetings in SLC), nor will I charge for incidental copying or any other office charges or meals. As in the previous engagement, I will not charge for brief incidental phone calls or emails.

I have appreciated working with you and the others involved in the SCIC oil transport effort. It is my hope that we can continue this work together and solve a decades old problem for the Uinta Basin.

Sincerely,

Marc T. Eckels

Cc – Eric Johnson
Attachment - Resume