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**SECRETARY, BOARD OF
OIL, GAS & MINING**

**BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH**

IN THE MATTER OF THE REQUEST FOR AGENCY ACTION OF HEAVY SWEET OIL, LLC AND AC OIL, LLC FOR AN ORDER ESTABLISHING THE ASPHALT RIDGE ENHANCED RECOVERY UNIT FOR THE INSITU PRODUCTION OF HEAVY OIL FROM SANDS WITHIN THE RIMROCK AND ASPHALT RIDGE DEPOSITS IN SECTIONS 22 AND 23, TOWNSHIP 4 SOUTH, RANGE 20 EAST, UINTAH COUNTY, UTAH.,

DIVISION'S RESPONSE TO REQUEST FOR AGENCY ACTION

Docket No. 2024-040

Cause No. 471-04

The Utah Division of Oil, Gas and Mining (“**Division**”), by and through counsel, hereby files this Response in the above captioned matter. The Division has reviewed the Request for Agency Action (“**RAA**”) filed by Heavy Sweet Oil, LLC (“**HSO**”) and AC Oil, LLC (“**AC Oil**”) (collectively, “**Petitioners**”). The Board of Oil Gas and Mining (“**Board**”) has jurisdiction over Petitioner’s request pursuant to Utah Code Ann. §40-6-5(3) (Board’s authority to regulate operations to increase ultimate recovery), Utah Code Ann. §40-6-7 (Board’s ability to approve a development and operation plan for a pool), Utah Code Ann. §40-6-8 (Board’s ability to make an Order for unit operations of a pool), and pursuant to Utah Code Ann. §40-6-5(5) (Board’s exclusive jurisdiction over Class II Injections Wells). Based on a review and evaluation of the RAA, the

Division is not opposed to the Petitioner's RAA.

I. Introduction

The Board in its Order entered December 8, 2022, in Cause No. 471-02 (“**471-02 Order**”), conditionally granted the Petitioners’ request to conduct an enhanced recovery operations to extract oil from heavy oil sands using a well located in each of the four quart-quarter sections located within the SW/4NW/4, SW/4NE/4, and SE/4NE/4 of Section 22, and the NW/4SE/4 of 23, Township 4 South, Range 20 East, SLM, Uintah County, Utah. These wells were to be completed in the Rimrock and Asphalt Ridge members of the Uinta (Mesaverde) Formation. The order was conditioned upon the technical review of the Division and final approval of the four Class II Underground Injection Control (“**UIC**”) wells.

Subsequently, the Board in its Order entered June 20, 2024, in Cause No. 471-03 (“**471-03 Order**”), denied without prejudice the Petitioner’s request to establish the Asphalt Ridge Enhanced Recovery Unit (“**ERU**”) for in-situ production of heavy oil sands, which unit comprised the following described lands (“**Subject Lands**”):

Township 4 South, Range 20 East, SLM, Uintah County, Utah

Section 22: ALL

Section 23: W/2, S/2NE/4, N/2SE/4

The hearing was contested by Hoodoo Mining & Production Company, LLC (“**Hoodoo**”), which presented evidence challenging the existence of a pool for the establishment of the ERU. The Board indicated that the Petitioner’s had not established that the proposed unit constituted a “pool” as defined in Utah Code Ann. 40-6-2(21), and without the ability to describe the precise nature of the pool an order prescribing a plan of operations cannot be entered.

On June 10, 2024, Petitioners filed the subject RAA again requesting that the Board issue an order to establish the ERU for in-situ production of heavy oil sands in the Subject Lands. Specifically, the Petitioners are requesting an order: 1) Establishing and approving a plan of unit operations for enhanced recovery to recover oil from heavy oil sands in the Rimrock and Asphalt Ridge Formations (“**Target Formations**”) pursuant to Utah Code Ann. §§40-6-7 and 40-6-8; 2) Suspend the general well location and siting rules in Utah Admin. Code Rule R649-3-2 and R649-3-3 to the extent they are inconsistent with the pattern of injection and production wells proposed by the Petitioners in the ERU; and 3) Designate Valkor Oil & Gas, LLC (“Valkor”) as the unit operator and provide for allocation of costs and proceeds to separate tracts in the unit as indicated in the RAA.

The recovery of oil from heavy sands by the injection of steam is still a relatively new method for the Division to permit. Therefore, the Division files this Response to give a background to the regulatory and legal issues involved in the establishing of the proposed ERU.

II. Ownership of Oil Sands in Subject Lands

Petitioners’ RAA indicates that the right to produce heavy oil sands in the Subject Lands are owned by the Petitioners. The oil sands in all of the subject Section 22 are leased from the Utah School and Institutional Trust Lands (“SITLA”) under Utah State Mineral Lease for Bituminous Asphaltic Sands, ML-53831, and the oil sands in the W/2 of the subject Section 23 are leased from SITLA under Utah State Lease for Bituminous Asphaltic Sands ML-53832 (collectively, “**SITLA Leases**”). *See* RAA ¶ 11 & 12, at Page 3. HSO and Valkor Energy Holdings, LLC (“**Valkor**”) hold the operating rights to the SITLA Leases. *Id.* The rights to the tar sands in the S/2NE/4 and N/2SE/4 of the subject Section 23 are leased from Tar Sands Holdings II, LLC by AC Oil. *See*

RAA ¶ 15, at Page 3. Hoodoo, the contesting party in the 471-03 Order, owns leasehold rights to the liquid hydrocarbons in the Subject Lands covered by the SITLA Leases.

Petitioners' RAA indicates that, subsequent to the hearing on the 471-03 Order, SITLA has issued a Terms and Conditions of MMDA dated January 12, 2024, covering the Subject Lands to address points of contention between development of HSO's and Hodoo's leases. *See* RAA ¶ 18, at Page 4. It is the Division's understanding that the terms and conditions of the MMDA will allow for the Petitioners to conduct their proposed operations in the ERU subject to any subsequent limitations imposed by SITLA. It is noted that SITLA determined that the lessee under the SITLA Leases has the right to remove, by any means or method, any oil or gas resulting from transformation of the solid asphaltic sands-bituminous sands by the artificial introduction of heat. *See* Petitioner's Exhibit "G-3".

The Division is unaware of any party filing an objection to the Petitioners' RAA at the time of the filing of this Response. Therefore, subject to the subsequent filing of any objections and the testimony presented to the Board by the Petitioners at the hearing, the Division is satisfied as to the Petitioners' rights to conduct their proposed production operations in the ERU in the Subject Lands

III. Establishment of a Pool

Utah Code Ann. §40-6-7(2) indicates that a plan for the development and operation of a pool shall be presented to the Board and may be approved after notice and hearing. Utah Code Ann. §40-6-2(21) defines a pool to mean "an underground reservoir containing a common accumulation of oil or gas or both. Each zone of a general structure that is completely separated from any other zone in the structure is a separate pool". The term "common source of supply" and

“reservoir” are synonymous with “pool”. *See id.*

Petitioners’ RAA indicates that well logs and core samples from recently drilled wells in the Subject Lands demonstrate that the Target Formations is a common source of supply in the ERU that constitutes a pool. *See* RAA ¶ 29 & 32, at Pages 5 & 6. It is further indicated by the Petitioners that through their exhibits and testimony presented at the hearing they will establish that the Target Formations constitute a common source of supply for heavy oil sands in the Subject Lands. *See* RAA ¶ 37, at Page 7. The Division has conducted a preliminary review of the exhibits filed by the Petitioners with this RAA and has no initial opposition to the Petitioners’ claim that the Target Formations constitute a pool for heavy oil sands within the ERU. Nevertheless, the Division reserves the right to examine and cross-examine witnesses, introduce evidence and make arguments, based on the testimony offered at the hearing in regard to the geologic evidence offered in support of the establishment of a pool. *See* Utah Admin. Code R641-101-200. (Rights of Parties).

IV. Approving a Plan for Unit Operations

As indicated above, the Board has jurisdiction over a plan for the development and operation of a pool. Utah Code Ann. §40-6-8(2) allows the Board to make an order for the unit operation of a pool if it finds that the operation is reasonably necessary and the value of the estimated additional recovery of oil substantially exceeds the estimated additional cost incident to conducting such operations. Utah Code Ann. §40-6-8(3) sets forth those provisions that a plan for unit operation should include. The plan for unit operation of a pool shall not be effective until approved in writing by owners required to pay 70% of the costs of the unit operations and by the owners of 70% of the production proceeds. *See* Utah Code Ann. §40-6-8(4).

Petitioners' RAA contains a Plan of Development and Operations (“**Plan**”) for the ERU. *See* Petitioner’s Exhibit “I”. Sections 4.5 and 4.6 of the Plan contain cost assumptions and an economic analysis of operations for the ERU. The plan is dated May 2023, and it is unclear to the Division if the economics used by the Petitioners are still current. Nevertheless, the Division has no opposition to the Petitioners’ economic analysis in as much as the testimony at the hearing can confirm to the Board that the value of the recovered oil substantially exceeds the estimated additional cost of operations.

Additionally, the Petitioners’ RAA contains a proposed Unit Agreement (“**Agreement**”) for the ERU. *See* Petitioner’s Exhibit “J”. This Agreement sets out the rights of the parties to the ERU operations. A Board order for unit operations should include provisions related to: allocation of production in the unit; adjustment of the owners investment in equipment and services attributable to the unit; how costs of unit operations shall be charged to the separate tracts; financing carried owners; supervision and conduct of unit operations; the time of commencement and termination of unit operations; and the designation of a unit operator. *See* Utah Code Ann. §40-6-8(3). The Division has no opposition to the Petitioners’ Agreement in as much as they can demonstrate to the Board that it satisfies the provisions required under in Utah Code Ann. §40-6-8(3) and has, or will be, approved in writing by the necessary parties identified in Utah Code Ann. §40-6-8(4).

V. Division Technical Review and UIC Process

Utah Admin. Code R649-1-1 defines an “Enhanced Recovery Project” as “the injection of liquids ... directly into a reservoir for the purpose of ... changing the reservoir conditions to increase the recoverable oil, gas, or oil and gas through the joint use of two or more well bores”.

Operations to increase ultimate recovery through the introduction of substances into a reservoir for the purposes of enhanced recovery shall only be permitted by order of the board after notice and hearing. *See* Utah Admin. Code R649-5-1(1).

Utah Admin. Code R649-5 *et. seq.* includes rules for the permitting process of Class II UIC injection wells. The permitting process for a Class II UIC well requires specific technical data, notice periods, and testing to be carried out before a permit for injection can be approved by the Division. The Division takes its responsibility to administer the UIC program and protect underground sources of drinking water very seriously. The Division would like to emphasize that any Order issued by the Board regarding the Petitioners' RAA will be subject to the Division's technical review and UIC permitting process for each injection well in the ERU. Therefore, similar to the 471-02 Order, any order issued by the Board should be conditioned upon the technical review of the Division and final permit approval of the Class II UIC wells.

VI. Safety Considerations

Utah Admin. Code R649-3-15 indicates that an owner or operator shall carry operations and maintain the property at any time in a safe manner having due regard for the preservation and conservation of the property and for the health and safety of employees and people. The Division would like the Board to consider that the recovery of oil through the injection of steam and the associated facilities may come with additional safety considerations. One such consideration indicated in the Petitioners' RAA is the use of super-heated steam. *See* Petitioner's Exhibit "I" at page 6 and Figure 6 at page 12. It appears that steam will be super-heated to increase the injection temperature as part of the oil recovery process. The Petitioners will need to work with the Division to help them understand the additional safety concerns at their operations and facilities and allow

the Division to co-ordinate with any other governmental agencies the require oversight of these processes.

VII. No Enhanced Recovery Project Certification

Utah Admin. Code R649-3-37 sets forth the requirements of an enhanced recovery project to qualify for a severance tax rate reduction under Utah Code Ann. §59-5-102(9). The Petitioners' RAA has not requested enhanced recovery project certification. Therefore, the Division offers no response to the qualifications of this certification.

VIII. Conclusion

Based on the Division's review of Petitioner's RAA and corresponding exhibits, and subject to the presentation of satisfactory testimony presented to the Board, the Division does not oppose the Board issuing an order establishing establish the Asphalt Ridge Enhanced Recovery Unit for the recovery of oil from heavy oil sands in the Rimrock and Asphalt Ridge Formations in the Subject Lands. If, upon an evidentiary showing at the Board hearing on July 31, 2024, the Board finds that the Petitioner's proposed RAA will be in the public interest, promotes conservation, increases ultimate recovery, prevents waste of oil or gas, and protects the correlative rights of each owner or producer, *see* Utah Code Ann. §40-6-7(1), the Board should grant Petitioner's Request.

DATED this 10th day of July, 2024.

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CERTIFICATE OF SERVICE

I hereby certify that on 10th day of July, 2024, I caused a true and correct copy of the foregoing DIVISION’S RESPONSE TO REQUEST FOR AGENCY ACTION to be mailed to the following:

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