AMERICULTURE

EXHIBIT

14

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division

September 5, 2012

Mr. Damon E. Seawright, President
AmeriCulture
25 Tilapia Trail
Animas, NM 88020

Re: **OCD REVIEW OF LETTER Lightning Dock Geothermal No. 1 (HI-01) Discharge Permit (GTHT-001) Well 45-7, Hidalgo County, New Mexico**

Dear Mr. Seawright:

The Oil Conservation Division (OCD) has completed its review of AmeriCulture letters (letters) dated August 9, and 31, 2012, which address the G-112 Application by Los Lobos Renewable Power, LLC (Los Lobos) to use well LDG 45-7 as an injection well.

OCD requested that Los Lobos respond to the August 9 letter and to specifically address AmeriCulture's wells within the Area of Review (AOR) submitted with its G-104 submittal to the OCD. Los Lobos responded on August 23, 2012. The OCD allowed AmeriCulture to respond to the Los Lobos letter by August 31st.

Based on a review of the letters and institutional working knowledge of the application and project, OCD has identified the following issues and is providing AmeriCulture with its observations and conclusions.

AmeriCulture Letters:

1) The Permittee (Los Lobos) must ensure that all discharges shall be consistent with the terms and conditions of the WQCC Permit.
2) The letter refers to the Water Quality Control Commission (WQCC) discharge permit (GTHT-001) conditions and associated (WQCC) regulations. AmeriCulture states that those regulations prevent the discharge of poorer quality water into a higher quality water reservoir.
3) AmeriCulture's letter does not acknowledge the fact that the Discharge Permit may be modified following WQCC regulations. Modifications may occur to change the permit from the original terms and conditions.
4) OCD is tasked with protecting all ground water with an existing concentration of 10,000 mg/L or less Total Dissolved Solids by ensuring that Los Lobos' discharge does not exceed WQCC ground water standards or background, whichever concentration is greater, at any place of withdrawal.
5) The water quality table that AmeriCulture presented does not provide dates and times of sample collection; however, water quality appears to be very good with some natural background exceptions.
6) AmeriCulture refers to two different aquifer systems, but did not provide OCD with any research reports that document the two aquifer system(s) in the Animas Valley. OCD is aware of one report that refers to a deeper thermal reservoir that upwells into the shallow reservoir via faults/fractures.

7) The OCD agrees with AmeriCulture's statement: "stratigraphic sections show that the deeper geothermal reservoir in 55-7 is in mid Tertiary rhyolite ash-flow tuff and Bisbee Group from "approximately 1,200 to 1,800 feet below ground surface" and not in "Tertiary volcaniclastic rocks and Horquilla Formation".

Los Lobos Letter:

1) Los Lobos indicates that it did assess background ground water quality concentrations in the project area, although background concentrations at depth have not been determined.
2) Los Lobos uses the term "geothermal fluid flow interval" to describe a fracture zone transecting permeable and impermeable rock formations where preferential flow is occurring in the project area.
3) Los Lobos submitted geologic lith-logs and geophysical cross-sections to OCD that document that well 45-7 is structurally lower relative to well 55-7.
4) Los Lobos' letter did not address the water quality and temperature affect(s) that may occur during the well test and/or under full-scale operational conditions. OCD required Los Lobos to conduct an Area of Review to identify any uncemented and/or perforated wells within the injection interval that may require corrective action(s) before injection may be allowed or if problems arise from injection.
5) On May 20, 2012, Los Lobos opted to proceed with geothermal exploration and well testing under the OCD Geothermal Regulations (regulations). These regulations do not supersede any applicable federal, state and/or local regulations. Los Lobos must also comply with WQCC injection and/or other applicable regulations under its WQCC Discharge Permit.

OCD Observations:

1) The aquifer and/or thermal reservoir system(s) where Los Lobos is conducting exploration drilling and well completions appear to be fresh water and are surrounded by nearby water supply wells.
2) Los Lobos has yet to propose ground water treatment before discharge or direct injection into the fresh aquifer system(s) in writing. OCD also notices that Los Lobos desires to inject produced fluids mixed with drill cuttings from wells (wells) being drilled under construction and well completion back into the wells without any treatment and/or filtration. Los Lobos indicates that the water quality of the extracted ground water will likely change somewhat while stored within the centralized pond before reinjection due to oxygenation, aeration, evaporation, etc. This appears to be due to the lack of evaporation pond area(s) and/or containment. Based on the extremely large geothermal fluid production volumes associated with geothermal production plants, it appears that an NPDES Permit will eventually be required to discharge large volumes of fresh produced geothermal fluids into "Waters of the State" to recharge the aquifer system(s), since containment would likely be impossible to provide by an operator.
3) During the hearing, OCD discussed exploration issues that may require Los Lobos to modify its Discharge Permit.
4) Los Lobos' Discharge Permit requires it to determine the background water quality of the extracted ground water through monitoring before injecting the extracted ground water when it begins full-scale operations to produce geothermal power.
5) Los Lobos has submitted cross-sections and seismic sections, supporting its interpretation that the extracted ground water will be produced and injected into the same stratigraphic interval.
6) The ASTM sample method provides more reliable water quality results for pH and carbonate in ground water, but does not affect monitoring for other chemicals of concern, i.e., chlorides, fluorides, & sulfates.

OCD Conclusions:

1) Los Lobos did not address and/or propose any corrective actions for any uncemented wells and/or perforated wells within the Area of Review. Los Lobos must demonstrate that its geothermal power operations will not adversely affect the AmeriCulture wells during well testing and throughout its operations. Los Lobos must be ready to undertake contingency measures and/or corrective action(s) to prevent any adverse effect to AmeriCulture's wells. OCD permitting does not insulate Los Lobos from civil liability in the event of any damage to neighboring wells. Los Lobos must also address water draw-down and/or state water diversion regulations and/or federal regulations on federal lands with mineral interest or estate.
2) AmeriCulture is a pre-existing aquaculture business relying on the natural water quality and thermal extraction of heat to economically operate its business.
3) AmeriCulture and OCD must allow Los Lobos the opportunity to demonstrate during well exploration, well testing, and throughout its operations that it is not adversely affecting fresh water supply wells within one-half mile of any injection well or the correlative rights of other geothermal leaseholders.
4) The water quality data indicate that the water quality is very good with TDS generally less than 1,500 ppm. Los Lobos' well testing to date appears to address internal engineering requirements but does not adequately address all state regulatory requirements.
5) OCD accepts Los Lobos' structural, but not stratigraphic interpretations. Well testing to date has identified a geothermal reservoir system(s) created by faulting/fracturing throughout permeable and impermeable rock formations.
6) The data depicts a geothermal reservoir system with well-developed permeability that occurs within and at the contact between two different formations, i.e., the lower Tertiary Volcaniclastic and upper Horquilla Formations as explained by Los Lobos. The Volcaniclastics identified by Los Lobos appears to be a clastic breccia and/or conglomerate consisting of alluvium and volcanics. However, the Horquilla Formation is known to exist at greater depth within the Animas Valley and not at the shallow depth described by Los Lobos. The geothermal reservoir system has been described as a semi-confined aquifer system (OSE Report). There also appears to be an upper geothermal reservoir indicating that a water table aquifer system (SWL: ~ 75 – 85 ft. bgl) is present and is documented to be in connection with the semi-confined aquifer or reservoir system via faults/fractures with an upwelling thermal plume between reservoirs at the project location.
7) OCD cannot copy AmeriCulture on any future documentation and correspondence in the possession of the OCD pertaining to Los Lobos' operations. However, AmeriCulture may periodically request that information under New Mexico's Inspection of Public Records Act (IPRA). This also applies to AmeriCulture's last paragraph of the letter concerning notifications, deviations from permit conditions, etc.

Please contact Mr. Carl Chavez of my staff at (505) 476-3490 or CarlJ.Chavez@state.nm.us if AmeriCulture has questions.

Sincerely,

Daniel Sanchez
UIC Director

DS/cjc

cc: GTHT-001 Well File "General Correspondence"
OCD District Office
David Janney- Los Lobos