

PROPOSED CHANGES TO NRS 534A TO ALLOW FOR PERMITTING AND REGULATION OF DISSOLVED MINERAL BRINE EXPLORATION AND PRODUCTION WELLS BY THE NEVADA DIVISION OF MINERALS

Explanation, Need and Proposed Fix: Assembly Bill (AB) 52

Mineral exploration for lithium brine resources in Nevada has experienced significant activity in the past few years. Over 10,000 unpatented placer mining claims have been staked for lithium brine exploration on Federal lands in seventeen separate basins in Nevada by over 25 exploration entities. Nevada has the only lithium brine mine operation in the U.S., near Silver Peak in Esmeralda County, which has operated since 1966, so there is an established geologic model and method for exploration in our State.

The only statutory reference to "dissolved or entrained minerals" is in Nevada Revised Statute (NRS) 534A.010, the geothermal resources chapter, where dissolved or entrained mineral recovery is allowed from geothermal brines. Lithium brine exploration typically requires a completed well to be drilled so multiple brine aquifers can be sampled using specialized well tests. In current statutes and code, this can only be done by permitting a well, which requires a water right through the Division of Water Resources (NDWR), or acquiring a geothermal lease from the Bureau of Land Management (BLM) and permits for the drilling and recovery of geothermal heat from both BLM and the Nevada Division of Minerals (NDOM).

There needs to be a permitting process which would allow an operator to drill and complete specialized wells to sample brine aquifers, much like what is done for sampling geothermal resources. Industry representatives have approached NDOM with concerns that they can only permit an exploration well through the water appropriation process, which adds time and expense, even though little water is used in sampling the dissolved mineral brines, or by obtaining a geothermal lease on Federal lands. Minor language changes to the geothermal statutes would allow for permitting of dissolved mineral wells which can be sampled to determine if lithium is present in brines in the playa basins where exploration is occurring.

A legislative change to NRS 534A (Geothermal Resources) would enable NDOM and NDWR to then update code in NAC 534A to allow: these wells to be drilled and sampled without a water right or geothermal lease, provide a well permitting process that would ensure protection of any fresh water aquifers, and require plugging and abandonment of unused wells. The analog to this already exists in the geothermal code, NAC 534A, which allows for permitting and operation of geothermal observation and production wells.

If a dissolved mineral resource was identified through exploration and consumptive use of water was required in the process of extraction, the operator would then go through the appropriation process to acquire a water right through the NDWR, and any permits for surface disturbance, processing, underground injection and reclamation through the Nevada Division of Environmental Protection (NDEP). Both NDWR and NDEP are supportive of this approach to allow for dissolved mineral resource (lithium brine) exploration and production. This change would not apply to hard-rock lithium exploration or production, only to exploration and production of dissolved minerals in brines.

ASSEMBLY BILL NO. 52—COMMITTEE
ON GOVERNMENT AFFAIRS

(ON BEHALF OF THE COMMISSION ON MINERAL RESOURCES)

PREFILED NOVEMBER 17, 2016

Referred to Committee on Government Affairs

SUMMARY—Revises provisions relating to dissolved mineral resources. (BDR 48-258)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State: Executive Budget.

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EXPLANATION – Matter in ***bolded italics*** is new; matter between brackets ~~omitted material~~ is material to be omitted.

AN ACT relating to water; defining the term “dissolved mineral resource”; setting forth certain provisions relating to drilling and operation of a dissolved mineral well and the operation of a dissolved mineral resource project; requiring the Commission on Mineral Resources to impose a fee for the issuance of a permit to drill or operate a dissolved mineral well; requiring the Commission and the Division of Water Resources of the State Department of Conservation and Natural Resources to adopt certain regulations; and providing other matters properly relating thereto.

Legislative Counsel’s Digest:

1 Existing law sets forth provisions governing exploration for and the ownership
2 and use of geothermal resources, including, without limitation, the permitting of
3 geothermal wells by the Administrator of the Division of Minerals of the
4 Commission on Mineral Resources. (Chapter 534A of NRS) **Section 3** of this bill
5 defines the term “dissolved mineral resource.” **Sections 6-10** of this bill provide for
6 the issuance by the Administrator of a permit to drill a dissolved mineral well or
7 operate a dissolved mineral resource project in the same manner as such permits are
8 issued for geothermal wells and geothermal resource projects. **Section 11** of this
9 bill requires the Commission, in coordination with the Division of Water Resources
10 of the State Department of Conservation and Natural Resources, to adopt
11 regulations to carry out a program for regulating the drilling of dissolved mineral
12 resource wells.



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THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN
SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 534A of NRS is hereby amended by adding thereto the provisions set forth as sections 2, 3 and 4 of this act.

Sec. 2. *“Administrator” means the Administrator of the Division of Minerals of the Commission on Mineral Resources.*

Sec. 3. *“Dissolved mineral resource” means all dissolved or entrained minerals that may be obtained from the medium or brine in which they are found and which are not used for purposes of recovering heat from the medium or brine, but excluding hydrocarbons and helium.*

Sec. 4. *“Geothermal resource” means the natural heat of the earth and the energy associated with that natural heat, pressure and all dissolved or entrained minerals that may be obtained from the medium used to transfer that heat, but excluding hydrocarbons and helium.*

Sec. 5. NRS 534A.010 is hereby amended to read as follows:
534A.010 As used in this chapter, unless the context otherwise requires, ~~“geothermal resource” means the natural heat of the earth and the energy associated with that natural heat, pressure and all dissolved or entrained minerals that may be obtained from the medium used to transfer that heat, but excluding hydrocarbons and helium.~~ *the words and terms defined in sections 2, 3 and 4 of this act have the meaning ascribed to them in those sections.*

Sec. 6. NRS 534A.031 is hereby amended to read as follows:
534A.031 1. Any exploration and subsurface information obtained as a result of a geothermal *or dissolved mineral resource* project must be filed with the Division of Minerals of the Commission on Mineral Resources within 30 days after it is accumulated. The information is confidential for 5 years after the date of filing and may not be disclosed during that time without the express written consent of the operator of the project, except that it must be made available by the Division to the State Engineer or any other agency of the State upon request. The State Engineer or other agency shall keep the information confidential.

2. If any information made confidential by subsection 1 is submitted to any other state or local governmental entity in connection with an application for a special use permit or any other license, permit or similar approval, the entity shall keep the information confidential during the period the information is confidential pursuant to subsection 1.



1 **Sec. 7.** NRS 534A.040 is hereby amended to read as follows:

2 534A.040 A consumptive use of water brought to the surface
3 outside of a geothermal well *or dissolved mineral well* is subject to
4 the appropriation procedures of chapters 533 and 534 of NRS,
5 except for:

6 1. Water that is removed from an aquifer or geothermal
7 reservoir to develop and obtain geothermal resources *or dissolved*
8 *mineral resources* if the water is returned to or reinjected into the
9 same aquifer or reservoir; or

10 2. The reasonable loss of water:

11 (a) During a test of a geothermal well ~~H~~ *or dissolved mineral*
12 *well*; or

13 (b) From the temporary failure of all or part of a system that
14 removes water from an aquifer or geothermal reservoir, transfers the
15 heat from that water and reinjects that water into the same aquifer or
16 reservoir.

17 **Sec. 8.** NRS 534A.060 is hereby amended to read as follows:

18 534A.060 1. A person may not drill or operate a geothermal
19 well *or dissolved mineral well* or drill an exploratory well without
20 obtaining a permit from the Administrator ~~{of the Division of~~
21 ~~Minerals of the Commission on Mineral Resources}~~ and complying
22 with the conditions of the permit.

23 2. An application must set forth such information as the
24 Administrator requires by regulation.

25 **Sec. 9.** NRS 534A.070 is hereby amended to read as follows:

26 534A.070 1. The Administrator ~~{of the Division of Minerals~~
27 ~~of the Commission on Mineral Resources}~~ shall approve or reject an
28 application for a permit to drill an exploratory well within 10 days
29 after the Administrator receives the application in proper form. The
30 permit must not be effective for more than 2 years, but may be
31 extended by the Administrator.

32 2. Upon receipt of an application for a permit to drill or operate
33 a geothermal well ~~H~~ *or dissolved mineral well*, the Administrator of
34 the Division of Minerals shall transmit copies of the application to
35 the State Engineer, the Administrator of the Division of
36 Environmental Protection of the State Department of Conservation
37 and Natural Resources, and the Director of the Department of
38 Wildlife. After consultation with the State Engineer, the
39 Administrator of the Division of Environmental Protection, and the
40 Director of the Department of Wildlife, the Administrator of the
41 Division of Minerals may issue a permit to drill or operate a
42 geothermal well *or dissolved mineral well* if it is determined that
43 issuance of a permit is consistent with:

44 (a) The policies specified in NRS 445A.305 and 445B.100;

45 (b) The purposes of chapters 533 and 534 of NRS; and



(c) The purposes specified in chapter 501 of NRS.

3. The Administrator ~~{of the Division of Minerals}~~ shall approve or reject the application to drill or operate a geothermal well *or dissolved mineral well* within 90 days after the Administrator receives it in proper form, unless it is determined that a conflict exists pursuant to subsection 2 or a public hearing is necessary pursuant to subsection 4. Notice of the conflict or need for a public hearing must be provided to the applicant within the 90-day period.

4. The State Engineer and the Administrator ~~{of the Division of Minerals}~~ may hold public hearings jointly or separately to gather such evidence or information as they deem necessary for a full understanding of all the rights involved and to guard properly the public interest.

5. A permit issued pursuant to this section must include any conditions:

(a) Deemed necessary by the Administrator ~~{of the Division of Minerals}~~ to carry out the purposes of this section; and

(b) Imposed by the State Engineer consistent with the provisions of chapters 533 and 534 of NRS.

Sec. 10. NRS 534A.080 is hereby amended to read as follows:

534A.080 1. The Commission on Mineral Resources shall impose and collect a fee for examining and filing an application for a permit to drill or operate a geothermal well *or dissolved mineral well* or to drill an exploratory well. The fee must be deposited with the State Treasurer, for credit to the Account for the Division of Minerals created in the State General Fund pursuant to NRS 513.103.

2. The fee may be based in part on the number of acres of land being used by the person who holds the permit.

3. The Commission and the Division of Minerals may use the money deposited in the Account for the Division of Minerals pursuant to this section to administer the provisions of this chapter.

Sec. 11. NRS 534A.090 is hereby amended to read as follows:

534A.090 The Commission on Mineral Resources ~~{may}~~ :

1. Shall, in coordination with the Division of Water Resources of the State Department of Conservation and Natural Resources, adopt regulations to carry out a program for regulating the drilling of exploration and production wells for dissolved mineral resources; and

2. May adopt any other regulations necessary for carrying out the provisions of this chapter.

Sec. 12. This act becomes effective on July 1, 2017.

