STATE OF NEVADA
COMMISSION ON MINERAL RESOURCES
DIVISION OF MINERALS
400 W. King Street, Suite 106
Carson City, Nevada 89703
(775) 684-7040 | Fax (775) 684-7052
http://minerals.nv.gov

Date Received 6/04/2025
County Esmeralda
NDOM Permit Number W0053
FOR DIVISION USE ONLY

DISSOLVED MINERAL RESOURCE EXPLORATION WELL PERMIT APPLICATION

Applicant/Operator Name: Norte Geothermal, LLC
Street Address: 701 S Carson St. Ste 200
City: Carson City State/Prov.: NV
Country: USA Zip Code: 89701
hereby makes application for a dissolved mineral resource exploration well permit.

(if applicant is a corporation, show state and date of incorporation; if a partnership, list names of partners.)

Norte Geothermal, LLC was incorporated in the state of Nevada on 5/18/2023.

Well Name New:BGS_29-67_Core Old: NV-BGS-CorLi-WS-006

This application is for a: ☉ New Exploration Well ○ Borehole to Well Conversion
○ Permit Extension (NDOM Permit #) (Indicate below any changes to original permit)
Permit Extension Reason:

Applicant is: ○ Land Owner ☉ Lease/Claim Holder

Land Status (choose one):

☉ Federal *(BLM, USFS, etc…)*
Mining Claim: NMC# N/A
Project Name: Big Smoky Mineral Exploration NVN# 106713113

○ Non Federal
APN#: Land Owner:
Bond Type: Issued by:
Amount: Number:

Groundwater Basin Name and Number	Area With Limitations?
Big Smoky Valley Basin #137A	☉ Y ○ N

(Well proposed to be drilled within areas with limitations may require Blowout Prevention Equipment, per NAC 534B)

Location of Well:

County: Esmeralda

SW ¼ of the SE ¼ of 29 Sec., Township 03 ☉N ○S, Range 40 E

UTM East: ~~455336~~ 455769 or Longitude:
UTM North: ~~4214498.81~~ 4215007 Latitude:
☉ NAD83 ○ WGS84 *M.D.B.& M.*

Drilling Contractor (if known): Major Drilling

Address: 2200 S 4000 W

City, State Zip: Salt Lake City, UT 84101

Purpose of Well: Lithium Mineral Exploration

Drill Rig Type: Core Rig

Surface Hole Diameter: 9.875"

Expected Total Depth: 3000'

Casing Size/Length: 7"/80' , 4.5"/400', 2.375"/3000'

Casing Weight/Gauge: 23#/ 12# /4.65#

Casing Schedule/Grade K-55/L-80/J55

Blowout Prevention Equipment Rating: ☐ None ☐ 2000 psi ☐ 3000 psi ☐ 5000 psi

1000 BOPE, Exception Letter Attached

Fluid Management Plan - NAC 534B.140(1)(C):

See attached Section A.

(Describe Here or Attach Additional Pages)

Contamination Prevention/Cementing Plan - NAC 534B.140(1)(D):

See attached Section B.

(Describe Here or Attach Additional Pages, must include Well Schematic)

Flow Monitoring and Plugging Plan - NAC 534B.140(1)(E) / NAC 534B.180:

See attached section C.

(Describe Here or Attach Additional Pages)

Drilling will commence approximately on: 7/1/2025

Signature of Applicant/Agent:

Printed Name/Title: Gina Lozoya/ Landman

Date: 6/3/2025

An application submitted without a signature and date will not be considered for approval.

- - - - -Attach $1,000.00 Application Fee Per NAC 534B - - - - -

***** TO BE COMPLETED BY DIVISION *****

CONDITIONS OF PERMIT

1. **All permittees must comply with appropriate sections of the Dissolved Mineral Resource Regulations of the Division of Minerals and with applicable rules and regulations of state and federal agencies.**

2. **For a well located on non-federal land, a bond in an amount determined by the Division to be necessary to properly plug the well in accordance with NAC 534B must be included.**

3. **Well Permit Expires two (2) years from date of approval.**

4. **See attached Conditions of Approval.**

5. **Send any required reports to: ..... dholcomb@minerals.nv.gov**

6. **Additional Conditions/Comments**

A.	**All changes to the drilling plan must be submitted to and approved by NDOM** **See attached Conditions of Approval .**
B.	**Administrator waiver granted for use of non- API BOPE .**
C.	**Geothermal Lease NVNV106320628.**

This permit does not extend the permittee the right of ingress and egress on public, private or corporate lands.

The issuance of this permit does not waive the requirements that the permit holder obtain other permits from State, Federal, and local agencies.

PERMIT APPROVAL

Approved 7/2/2025 with the conditions noted above.
Date

Permit Number W0053

Garrett Wake Digitally signed by Garrett Wake Date: 2025.07.02 15:37:17 -07'00'

Administrator
Division of Minerals

Joe Lombardo
Governor

STATE OF NEVADA
COMMISSION ON MINERAL RESOURCES
DIVISION OF MINERALS
400 W. King Street, Suite 106
Carson City, Nevada 89703
(775) 684-7040 • Fax (775) 684-7052
http://minerals.nv.gov/

Las Vegas Office: 375 E. Warm Springs Rd. #205, Las Vegas, NV 89119
Phone: (702) 486-4343; Fax: (702) 486-4345

Robert Ghiglieri
Administrator

DISSOLVED MINERAL RESOURCE EXPLORATION WELL CONDITIONS OF APPROVAL

Operator: Norte Geothermal, LLC.
Project Name: Big Smokey Valley Mineral Exploration
Wells: BGS 32-44 Core, BGS 32-18 Core, BGS 29-67-Core
Permits: W0051, W0052, W0053

Submit forms and correspondence to: Nevada Division of Minerals
400 West King Street
Suite 106
Carson City, NV 89703

Communications with the Division shall be directed to:

Robert Ghiglieri, Division Administrator
Office 775-684-7048 Email rghiglieri@minerals.nv.gov
Cell 775-721-7625

Dustin Holcomb, Fluid Mineral Program Manager
Office 775-684-7045 Email dholcomb@minerals.nv.gov
Cell 775-721-2726

Voicemail is available on all cell phones and office phones. Please leave a message if you are unable to speak to someone and we will return your call as quickly as possible.

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YOUR APPLICATIONS TO DRILL BGS 32-44, 32-18, and 29-67 CORE EXPLORATION WELLS ARE APPROVED SUBJECT TO THE FOLLOWING PERMIT CONDITIONS

1. These conditions of approval (COA's) and the minimum Blowout Prevention Equipment (BOPE) requirements, if required by the Division of Minerals (The Division) or utilized, shall be posted at the well site and read by all company personnel associated with the subject well.

2. If the well is located within a boundary designated by the Division as an "area with limitations" as delineated on the map maintained by the Division and titled, "Oil, Gas, and Geothermal Resources and Groundwater Basins with High Temperature Gradients" it must:
   (a) Not be drilled to a depth greater than 3,000 feet without the use of blowout prevention equipment meeting the requirements discussed below;
   (b) Have the temperature of the mud that is returned up the hole monitored continuously by the operator during the drilling of the well whenever temperatures of the drilling fluids at the surface reach 125 degrees Fahrenheit. The temperature of the mud must be recorded by the well driller after each joint of the pipe is drilled; and
   (c) Be designed, drilled and operated so as not to degrade an aquifer, or an oil, gas or geothermal resource.

3. The operator shall ensure that blowout prevention equipment is installed on any dissolved mineral resource exploration well where temperatures may exceed 200 degrees Fahrenheit. An operator and well driller shall take all necessary precautions to keep a dissolved mineral resource exploration well under control and operating safely at all times. Well control and wellhead assemblies used in any dissolved mineral resource exploration well must meet the minimum specifications for assemblies prescribed by the American Petroleum Institute, or its successor organization, in Standard 53, "Well Control Equipment Systems for Drilling Wells," or as may be otherwise prescribed by the Administrator. The most current edition is available from API, www.api.org. Blowout prevention equipment capable of shutting in a dissolved mineral resource exploration well during any operation must be installed on the surface casing and be maintained in good operating condition at all times. Such equipment must have a rating for pressure greater than the maximum anticipated pressure at the wellhead. **API Standard 53 requirements modified by the Administrator**

4. An operator shall:
   (a) Test the blowout prevention equipment under pressure. The results of each test must be recorded by the well driller in the well log.
   (b) Submit, on a form designated by the Division, the pressure data and supporting information for the blowout prevention equipment as soon as practicable after the conclusion of the test conducted pursuant to paragraph (a).
   (c) A 24-hour notification is required prior to testing BOPE. The 24-hour BOPE notification may be made by telephone or email to the Fluid Minerals Program Manager. Please refer to the contacts list on page one of this notice. Operator must have access to email or fax in order to receive the Division's BOPE Test Form that will be sent to the operator within this 24-hour period.

5. When drilling a dissolved mineral resource exploration well, a well driller shall:
   (a) Isolate zones of varying water quality to prevent the migration of fluids between aquifers;
   (b) Prevent the contamination or waste of groundwater; and
   (c) Minimize damage to the environment, ground and surface waters, property and any known oil, gas or geothermal resources.

6. The following standards apply to the construction of a dissolved mineral resource exploration well:
   (a) The top of the casing must be at least 18 inches above the surface of the ground;
   (b) The surface casing must:
      (1) Provide for the control of formation fluids and protection of groundwater, including, without limitation, setting sufficient casing to reach a depth below all known or reasonably estimated levels of good quality water to protect the aquifer and prevent blowouts or uncontrolled flows; and
      (2) Provide a minimum 2-inch annular space;
   (c) There must be a minimum 50-foot surface seal using neat cement;
   (d) If an intermediate string of casing is used which does not extend to the surface, the top of the liner must overlap the bottom of the surface casing by at least 100 feet; and
   (e) If thermoplastic casing is used:
      (1) The thermoplastic casing must be clearly marked as well casing.
      (2) The thermoplastic casing must comply with the standards adopted by ASTM International, designated as ASTM F480-14 for polyvinyl chloride casing and F2686-14 for glass fiber reinforced casing or the current designation at the time of installation. These publications are hereby adopted by reference. A copy of the standards may be obtained by mail from ASTM International at 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959, by telephone at (610) 832-9585 or at the Internet address http://www.astm.org.
      (3) The differential pressures and temperatures that may occur during the installation of the casing, the development of the well and the operation of the well must be considered by the well driller and the person responsible for designing the well.
      (4) The joint couplings must form a watertight seal.
      (5) For polyvinyl chloride casing, in each case, the standard dimension ratio must equal the outside diameter divided by the wall thickness and the wall thickness must:
         (I) For nominal diameters that are 6 inches or less, conform to a rating of schedule 40 or heavier; and
         (II) For nominal diameters that are more than 6 inches, conform to an ASTM International standard dimension ratio of schedule 21 or heavier.

7. If an artesian condition is encountered in a dissolved mineral resource exploration well, such that water is flowing at the surface, the well driller shall ensure that an unperforated casing extends through the confining strata above the artesian zone. The annular space between the casing and the walls of the well bore must be sealed by placing neat cement, cement grout or bentonite chips by tremie pipe in an upward direction from the top of the artesian zone to the level necessary to prevent the leakage of artesian water above or below the surface.

8. Any flow of artesian water must be stopped completely using any necessary valves, plugs or other appliances to prevent or control the flow of water from the dissolved mineral resource exploration well and prevent the loss of groundwater above or below the ground surface before the drill rig is removed from the drill site.

9. The operator of a dissolved mineral resource exploration well shall:
   (a) Install a water meter capable of measuring the total withdrawal of water from the dissolved mineral resource exploration well.
   (b) Maintain an accurate record of meter readings, including the serial number of the meter.
   (c) Submit to the Division, on a form designated by the Division, a quarterly report which includes the serial number of the meter and the meter readings from the dissolved mineral resource exploration well. The quarterly report:
      (1) Is required for each month beginning with the commencement of drilling operations until the later of the expiration of the permit or until the dissolved mineral resource exploration well is plugged; and
      (2) Must be filed with the Division on or before the last day of the month following the quarter of the year.
   (d) Ensure the total withdrawal of water from the dissolved mineral resource exploration well project does not exceed 5 acre-feet.
   (e) Comply with the appropriation procedures of chapters 533 and 534 of NRS if water is pumped from the dissolved mineral resource exploration project in excess of 5 acre-feet.

10. The well driller shall:
   (a) Keep a record of the depth, thickness and character of the different strata penetrated and the location of the water-bearing strata;
   (b) Keep an accurate record of the work, including, without limitation:
      (1) A statement of the date that work begins;
      (2) The date of completion of the dissolved mineral resource exploration well;
      (3) The name and the type of machine used to drill;
      (4) The length, size and weight of the casing and how it is placed, including, without limitation, a description of any perforations;
      (5) The size of the hole that is drilled for the dissolved mineral resource exploration well;
      (6) Identification of the water-bearing strata;
      (7) The maximum temperature of the water in the dissolved mineral resource exploration well measured in degrees Fahrenheit; and
      (8) If a seal was installed, the interval sealed off and the type of seal; and
   (c) Submit a report of the record of the work to the Administrator on a form designated by the Division. The report must be provided by the well driller to the Administrator for every dissolved mineral resource exploration well that is drilled not later than 30 days after the well is completed.

11. Samples of cuttings or splits of core shall be collected and submitted to the Nevada Bureau of Mines and Geology (NBMG). Division conditions of approval further require a minimum

of 30-foot intervals from surface to the total depth, unless otherwise approved in the permit. Core shall be submitted in skeletonized format.

a. TWO separate sets of cuttings, and one split of core, are to be sent prepaid to the Great Basin Science Sample and Records Library, Nevada Bureau of Mines and Geology, 2175 Raggio Parkway, Reno, Nevada 89512. For more information phone 775-682-8766 or e-mail nbmg@unr.edu.

b. EACH SET of cuttings is to consist of at least 15 milliliters of cuttings per sampling interval that must be cleaned, dried, and placed into 3"x5" sample envelopes. The envelopes are to be placed in order by interval into common drill cutting boxes with approximate dimensions of 3"x5"x20". The envelopes are to be identified by the Division permit number, well name/number as noted on the DMRE Well Permit Application, and interval.

c. The samples are to be PROPERLY IDENTIFIED as follows: Each box is to have legibly written on one end the name of the operator and well, as noted on the DMRE Well Permit Application, Division permit number, total interval (missing intervals noted), and set number.

d. NOTE: the samples are not to be sent to the Division of Minerals, rather they should be sent directly to the NBMG. **The samples are due within 30 days of completion of the well**. The operator will be responsible for the cost of any further handling of your samples by the NBMG required to meet the standards set out in this permit condition.

12. Drilling Reports - The Division should be included on the daily operational report distribution list during the drilling/completion of the well, starting on spud date and through date of drill rig release, or date of completion rig and/or completion equipment release, whichever occurs last. The operational morning report is to be emailed to Fluid Minerals Distribution List (fluids@minerals.nv.gov)

13. Two copies of all well logs run are required, including lithological and electrical, neutron-gamma, or similar, must filed with the Division. Computed results in LAS format must also be submitted to the Division for each electric log run. Electronic files are to be provided by email or on a USB drive. These logs are to be submitted within 30 days of the completion of the well.

14. A dissolved mineral resource exploration well must be plugged by:
    (a) A well driller before the expiration of the permit, unless a waiver or permit is issued by the State Engineer to change the status of the dissolved mineral resource exploration well.
    (b) Placing neat cement, cement grout or bentonite grout by tremie pipe in an upward direction from the bottom of the well to 100 feet above the uppermost perforated casing or to the surface of the dissolved mineral resource exploration well.
    (c) Removing the pump and any debris from the well bore with appropriate equipment.
    (d) Cement plugs must:

(1) Be placed in the uncased portion of all dissolved mineral resource exploration wells to protect all subsurface resources.

(2) Extend a minimum of 100 lineal feet above the producing formations and 100 lineal feet below the producing formations or to the total depth drilled, whichever is less.

(3) Be placed to isolate formations and to protect the fluids in those formations from interzonal migration.

(e) A well driller may use uncontaminated fill from the top of the plug installed in accordance with subsection 1 to within 20 feet of the surface of the dissolved mineral resource exploration well. The well driller shall place a surface plug in the dissolved mineral resource exploration well consisting of neat cement, cement grout or concrete grout from a depth of at least 20 feet to the surface of the dissolved mineral resource exploration well.

(f) All casing strings must be cut off below ground level and the casing stub must be permanently capped.

(g) The surface must be restored as near as practicable to its original condition.

(h) If conditions are encountered which prevent compliance with this section, the operator or well driller must submit an alternative plugging plan to the Division for the approval of the Division.

(i) The operator or well driller shall file a plugging report to the Division on a form designated by the Division and available on the website of the Division. The report must be signed by the well driller documenting proper plugging of the dissolved mineral resource exploration well not later than 30 days after completion of the work.

(j) The owner and lessor of the land on which the dissolved mineral resource exploration well is located, the operator and the well driller are jointly and severally responsible for plugging the dissolved mineral resource exploration well pursuant to this chapter.

(k) Comply with the appropriation procedures of chapters 533 and 534 of the NRS if water is pumped from the dissolved mineral resource exploration project in excess of 5 acre-feet.

15. A permit to drill a dissolved mineral resource exploration well may be modified, suspended or revoked in whole or in part for any violation of this chapter and may be grounds for an action for enforcement. Any person who willfully violates any provision of this permit or an order of the Division issued pursuant to this permit is subject to a penalty of not more than $1,000 for each act or violation and for each day that the violation continues.

16. A permit to drill a dissolved mineral resource exploration well expires 2 years after the date on which it was issued. If requested in writing by the operator, on a form designated by the Division, the permit may be extended once for an additional 2 years by the Administrator if the permit is determined to be in compliance with the provisions of chapter 534B. An application for an extension must be filed not later than 60 days before the expiration of the permit. A permit to drill a dissolved mineral resource exploration well may be assigned, subject to the conditions of the permit, upon the written approval of the Administrator.