

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**NOTICE**

Karst Potential Occurrence Zones

**Effective December 1, 2024**

The New Mexico Oil Conservation Division (“OCD”) is announcing the release of its updated guidance on karst potential occurrence zones. This update will bring consistency and align with other agencies’ practices that are already being required. OCD will take into consideration these practices when reviewing the following forms: C-137, C-141, C-144, and C-147. OCD reserves the right, at its sole discretion, to make or allow modifications when circumstances warrant for situations which have unique project conditions.

Associated regulations:

19.15.2.7 DEFINITIONS: These definitions apply to 19.15.2 NMAC through 19.15.39 NMAC.

U. (6) “Unstable area” means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all a division-approved facility’s structural components. Examples of unstable areas are areas of poor foundation conditions, areas susceptible to mass earth movements and **karst** terrain areas where **karst** topography is developed because of dissolution of limestone, dolomite or other soluble rock. Characteristic physiographic features of karst terrain include sinkholes, sinking streams, caves, large springs and blind valleys.

19.15.29.12 REMEDIATION AND CLOSURE:

(4) If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to ground water in Table I of

19.15.29.12 NMAC:

(g) within an unstable area;

\*This guidance is intended to consolidate current practices to ensure karst considerations are applied uniformly state-wide.

- BLM Karst Potential Occurrences Zones Map:
  - The BLM Karst Potential Occurrence Zones map is a tool and is a general guide used to aid in decision-making about surface disturbing activities, determining impact of proposed actions, and applying stipulations and conditions of approval to proposed projects.
    - This map provides general areas with a higher potential for karst features but is not site specific. Additional surveys may be necessary as karst occurrences may exist beyond the mapped boundaries. It's important to note that a low karst designation on this map does not guarantee the absence of karst features.
  - Karst surveys will need to be conducted by a karst expert listed on the *BLM Carlsbad Field Office Approved Third-Party Cave/Karst Contractors* list.
    - OCD accepts BLM's review of karst expert qualifications. If a qualified geologist has not obtained recognition as a karst expert through the BLM, a CV can be sent to OCD's Environmental Bureau Chief for review prior to any survey submissions to OCD. No submissions will be reviewed prior to evaluation of karst qualifications.
  - Karst surveys are valid for a 3-year period due to the unpredictability of the development and changes in karst areas. At OCD's discretion more frequent surveys may be required.

### Karst Guidance associated with Releases (19.15.29 NMAC)

- Critical/High/Medium Karst Potential Occurrence Zones:
  - The potential effects of a release in medium karst occurrence zones (MKOZ) can be the same as in critical karst occurrence zones (CKOZ) or high karst occurrence zones (HKOZ). As such, MKOZ will initially be treated the same as CKOZ/HKOZ and will be required to be remediated to the most stringent closure criteria (as if depth to groundwater is less than 50 feet) found in Table I of 19.15.29 NMAC unless granted an alternative by the OCD.
  - If a site is in one of these mapped occurrence zones it will be the responsibility of the operator/responsible party to provide verification that the site is not "unstable" if an alternative is being pursued
    - For releases: any deviation from the most stringent closure criteria in critical/high/medium karst potential occurrence zones, will require additional surveys. As part of OCD's approval process the operator will need to provide to the OCD a demonstration a review of the area and also received approval from any applicable Federal or State land management agency, such as BLM or SLO. If the applicable surface management agency does not approve of the operator's request it will be denied by the OCD and will need to meet the most stringent closure criteria.

- Low Karst Potential Occurrence Zones:
  - The remediation closure requirements for low karst potential occurrence zones (LKOZ) will not change unless karst features are encountered during construction/remediation activities. If karst features are encountered, the Operator must:
    - Inform the OCD and the Federal or State land managing agency that potential karst features have been encountered.
    - Pause all activities until a karst survey is performed and completed at the site.

Karst Guidance pursuant to Construction (19.15.17 NMAC, 19.15.34 NMAC, and 19.15.36 NMAC)

- Critical/High/Medium Karst Potential Occurrence Zones:
  - OCD considers CKOZ, HKOZ, and MKOZ as unstable areas. The operator will need to commission a karst study if construction activities are located within one of these areas.
    - Karst surveys must be included when submitting a C-144, C-137, or C-147 applications.
      - Geophysical surveys must be submitted when located in CKOZ/HKOZ areas in order to verify the presence or absence of hypogene karst features.
      - All karst surveys will be required to start with an aerial survey in MKOZ areas. Additional information may be required by the OCD or based on the results of the aerial survey.

Any questions regarding these changes, e-mail: [OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)