

# NOTICE OF DEPARTMENTAL RECOMMENDATION

Application # L.E.-1565-G

Conference # PREV 26-02-IC

- Permit
- Revision
- Renewal
- Amendment

Concerning the application of **Covia Solutions, LLC**, Applicant, for an amended application to add 380 acres to their existing mining permit in an area of 1,441 acres of the following parcels of land Sections 18, 19, 20, 29, and 30, Township 2 North, Range 5 East, Pontotoc County, Oklahoma, Section 13, Township 1 North, Range 4 East, Pontotoc County, Oklahoma, Sections 13 and 24, Township 2 North, Range 4 East, Pontotoc County, Oklahoma, Section 18, Township 1 North, Range 5 East, Pontotoc County, Oklahoma, Section 36, Township 2 North, Range 4 East, Pontotoc County, Oklahoma, and Sections 1 and 12, Township 1 North, Range 4 East, Murray County, Oklahoma. Recommendation is hereby made to the Director of the Oklahoma Department of Mines (“ODM”) that said application:

- be approved
- be approved as conditioned
- be denied

The reason for approval with conditions is based on review of the information contained in the permit amendment application and information presented during Conference No. **PREV 26-02-IC**:

An informal conference was held on February 13, 2026, to provide citizens with a forum to discuss their concerns with the issuance of an expansion to ODM Permit #L.E.-1565-G. There were several concerns brought up by citizens at the informal conference. The following discusses how ODM monitors and regulates these areas of concern.

1. **House Bill 2471 Mining Moratorium (Oklahoma Statutes Titles 27A, 45, and 82)** – The Oklahoma Department of Mines has reviewed the applicability of HB 2471 and Titles 27A, 45, and 82 of the Oklahoma Statutes to the requested permit amendment for the Covia Solutions, LLC Roff Mine (“Roff Mine”) expansion and concludes that the requested expansion is not prohibited by, and is exempt from, the moratorium provisions established therein.

HB 2471 is codified in multiple sections of the Oklahoma Statutes, including Section 1 in Title 27A pertaining to the Department of Environmental Quality, Section 2 in Title 45, Section 950 pertaining to the Department of Mines, and Section 3 in Title 82 pertaining to the Oklahoma Water Resources Board.

Pursuant to HB 2471, Section 2, Subsection A (Title 45 O.S. § 950), the moratorium provisions apply only to a “subject mine,” defined as a mine proposed for a location overlying a sensitive sole source groundwater basin or subbasin. However, Paragraph 1 of Subsection A expressly excludes from the definition of “subject mine” any mine that, “[a]s of November 1, 2019, is engaged in the permitted extraction of minerals from natural deposits.”

ODM finds that the Roff Mine has continuously engaged in the permitted extraction of mineral deposits prior to November 1, 2019. The mine has operated since approximately 1913 and has maintained permits and bonding through ODM since the 1980s in accordance with the Oklahoma Mining Lands Reclamation Act. Accordingly, ODM concludes that the Roff Mine does not constitute a “subject mine” under HB 2471 (Title 45 O.S. § 950), and therefore the statutory moratorium does not apply to the requested permit amendment.

Additionally, HB 2471, Section 2, Subsection B, Paragraph 2 (Title 45 O.S. § 950) establishes a moratorium on amendments or revisions to existing mining permits covering additional land where such revision would increase the permitted acreage for the mine location by more than one hundred percent (100%) or four hundred (400) acres, whichever is less, as compared to the acreage permitted prior to the effective date of the Act.

Because the requested expansion is less than four hundred (400) acres and does not exceed one hundred percent (100%) of the previously permitted acreage, the requested amendment does not trigger the moratorium established in Subsection B.

Further, HB 2471, Section 2, Subsection C (Title 45 O.S. § 950) expressly provides that, notwithstanding the moratorium provisions of Paragraph 2 of Subsection B, “nothing in paragraph 2 of subsection B of this section shall preclude the Department of Mines from issuing an amendment or revision to cover additional land . . . under a permit issued prior to the effective date of this act, nor shall any permit amendment or revision issued pursuant to this section be deemed to render the permitted mine a ‘subject mine’ for the purposes of Title 27A, 45 or 82 of the Oklahoma Statutes.”

ODM additionally notes that the legislative structure and exemptions contained within HB 2471 reflect the Legislature’s recognition of the operational realities of surface mining and the necessity for existing mining operations to periodically access additional reserves as previously permitted reserves are depleted. ODM believes the Legislature intentionally provided limited exemptions and acreage thresholds in order to afford existing mine operators reasonable operational flexibility during the interim period in which state agencies conduct studies and promulgate rules contemplated under HB 2471.

2. **Impact on the Arbuckle Simpson Aquifer and water security** – ODM has the responsibility to ensure that permits contain plans to “safeguard environmental resources” (Oklahoma Administrative Code Title 460:12-1-7). The Arbuckle Simpson Aquifer (ASA) is the primary source of clean public drinking water to over 39,000 people in Ada alone (OWRB). The ASA is a karst aquifer comprised of limestone, dolomite and gypsum. True to common karst features, the ASA is complex, difficult to model and has been classified by USGS as vulnerable to contamination (OWRB). OWRB found that most water in the ASA is considered “modern” indicating that water circulates relatively rapidly, in less than 60 years, which implies that it is more susceptible to contamination from human made contaminants in the 20<sup>th</sup> century (Christenson et al., 2009). The area of highest concern on this site is along the fault zone due to its composition of mixed fractured rock and clay, which is at higher risk for preferential flow and hydraulic connectivity (Zhao et al. 2019). In order to establish a baseline and a method for continuous monitoring, ODM has recommended several permit conditions be added.
3. **Blasting Operations** – On the current Covia mining permit, blasting operations are used sparingly. In the past 12 months, only 2 blasts have been detonated on the permit. Both of these were stripping shots, meaning Covia is blasting the overburden lying above the sand deposit. One of the blasts did not result in enough ground vibration to trigger the seismograph located 3,136 feet from the blast. The other blast resulted in a max peak particle velocity (PPV) of 0.2656 inches per second on the vertical plane at the seismograph located 3,513 feet from the blast. The ODM limit on PPV for quarry blasting is 1.0 inch per second at the nearest, uncontrolled structure to the blast. Based on past monitoring of blasting operations at Covia, ODM does not anticipate any negative effects on the ASA resulting from blasting operations. In order to better monitor any potential subsurface ground vibration effects, ODM will require the installation of a borehole geophone at a suitable location to monitor ground vibration near the fault.

After reviewing the information gathered during the informal conference, it is recommended ODM Permit L.E. 1565-G be issued with the following conditions:

**\*\*The fault zone discussed below refers to the fault zone depicted in Figure 1 in the Hydro-Geological Considerations and Life of Mine Memo (Attachment E) in Covia's application.**

**Conditions to be met prior to any disturbance on the expansion acreage**

1. The operator must install seven additional (not including the two already installed) monitoring wells. At minimum, three transects, each with three monitoring wells will be installed across the fault zone with a shallow well extending just below the water table (depth during dry season), an intermediate depth well straddling the fault zone, and a deeper well deep enough to monitor the ASA directly on the northernmost point. The transects should be evenly spaced from East to West. The two existing wells along the fault will be included in one of the three transects. After the slug tests and initial pumping tests are complete, if any concerns arise indicating connectivity, additional transects (each with three monitoring wells in the same design) must be installed to further pinpoint the fractures and allow for quantification of the extent of the fracture or leak.
  - a. Slug testing must be conducted across the monitoring well network at each well.
  - b. Pump testing must be conducted across the monitoring well network at each transect. One well must be pumped from each of the three zones (aquifer side, fault zone, and mining area) for each transect. The center most well in the network (in the fault zone) must be pumped and all the surrounding wells observed.
  - c. Baseline water quality and level ranges must be established by measuring pH, water level depth, dissolved oxygen, oxidation-reduction potential, specific conductivity, calcium, magnesium, sodium, potassium, chloride, sulfate, bicarbonate, dissolved iron, dissolved manganese, total dissolved solids, and turbidity. These tests must be done monthly for one year. Each well will have its own recorded baseline range.
2. The operator must fully characterize the fault zone. Characterization of the fault zone indicates that the geologic features are documented (fracture mapping and logs, and stratigraphic context).
3. In order to monitor any potential ground vibration effects on the Arbuckle Simpson Aquifer (ASA) resulting from blasting operations, the permittee must install a borehole geophone in a suitable location approved by ODM.
4. The operator must provide data stating the thickness of the Joins Formation at this site location.
5. All data, including baseline data, must be sent to ODM for review. Buffer zones or other limitations may be required based on this review.
6. The operator must provide a comprehensive monitoring plan.
7. The operator must provide an action plan in the event of seismic activity causing a new condition in the fault zone.

The action plan must include the following upper prediction limit analysis for water quality and level metrics. The following refers to each well separately and not averages across the monitoring well network.

- a. One-sided 95% upper prediction limit (UPL) must be developed for chloride, sulfates, and conductivity and must be calculated using the baseline data. Exceedance requires notification to ODM within 24 hours and evaluation.
- b. Two-sided 95% UPL must be developed for groundwater elevation and must be calculated using the baseline data. Exceedance requires notification to ODM within 24 hours and evaluation.

**Conditions to be met during mining operations**

- 8. The operator must not mine or blast within 75 feet of the southern edge of the fault zone.
- 9. The operator may not mine below the seasonal high-water table, the capillary fringe of the seasonal high-water table, and a safety buffer of 10 feet above the capillary fringe.
- 10. The operator may not mine within the Joins Formation, the capillary fringe of the Joins Formation, and a safety buffer of 10 feet above the capillary fringe.
- 11. The operator must monitor water level depth, pH, dissolved oxygen, oxidation-reduction potential, specific conductivity, calcium, magnesium, sodium, potassium, potassium, chloride, sulfate, bicarbonate, dissolved iron, dissolved manganese, total dissolved solids, and turbidity on a quarterly basis and the results sent to ODM within 30 days following the end of the quarter. As sampling continues during active mining, non-outlier data may be included along with baseline data for future calculations for the UPL.
- 12. For every blast within 500 feet of the fault zone, the permittee must submit the shot report, including the borehole geophone readings, to ODM within 48 hours of the shot.
- 13. For every blast within 500 feet of the fault zone, the permittee must conduct a pump test on the nearest transect within the following timeframes of the blast. The results of such test must be submitted to ODM within 24 hours of the completion of the test.

<b>Distance to fault zone</b>	75 - 200 feet	200-500 feet
<b>Time</b>	2-4 weeks	1-3 weeks

Covia Solutions, LLC has submitted a complete permit amendment application that meets all requirements provided by law and therefore, ODM recommends the permit application be approved as conditioned above.

This notice is provided in accordance with Title 45 Oklahoma Statutes, §724 (H)(6).

OAC 460:10-17-15 provides that within thirty (30) days of receipt of this notice, any person with an interest which is or may be adversely affected may request a formal hearing on this decision. Requests for hearing must be filed with the Department in writing. If no request is received, the decision of the Department will become final.

Done this 12th day of May, 2026.



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Travis Shore, Chief of Minerals Operations

Citations:

Christenson, S., Hunt, A. G., & Parkhurst, D. L. (2009). *Geochemical investigation of the Arbuckle-Simpson aquifer, south-central Oklahoma, 2004–06* (U.S. Geological Survey Scientific Investigations Report 2009–5036). U.S. Geological Survey.

[https://www.owrb.ok.gov/studies/groundwater/arbuckle\\_simpson/pdf/usgs\\_arbuckle\\_geochem.pdf](https://www.owrb.ok.gov/studies/groundwater/arbuckle_simpson/pdf/usgs_arbuckle_geochem.pdf)

Okla. Admin. Code § 460:12-1-7 (2021). <https://rules.ok.gov/code>

Oklahoma Water Resources Board. (n.d.). *Arbuckle-Simpson aquifer fact sheet*.

<https://oklahoma.gov/content/dam/ok/en/owrb/documents/science-and-research/hydrologic-investigations/arbuckle-simpson-fact-sheet.pdf>

Zhao, H., Luo, N., & Illman, W. A. (2021). The importance of fracture geometry and matrix data on transient hydraulic tomography in fractured rocks: Analysis of synthetic and laboratory rock block experiments. *Journal of Hydrology*, 601, 126700. <https://doi.org/10.1016/j.jhydrol.2021.126700>