

**STATE OF NEW MEXICO
BEFORE THE SECRETARY OF ENVIRONMENT**



**IN THE MATTER OF:)
THE APPLICATION OF)
NEW MEXICO COPPER CORPORATION)
FOR A GROUNDWATER DISCHARGE)
PERMIT FOR THE COPPER FLAT MINE)
(DP-1840).)**

Docket No. GWB-18-06 (P)

**TURNER RANCH PROPERTIES, L.P.
AND HILLSBORO PITCHFORK RANCH, LLC
JOINT COMMENTS ON THE HEARING OFFICER'S REPORT**

Pursuant to the New Mexico Environment Department Permit Procedures, 20.1.4.500.C(2) NMAC, and the Environment Department Secretary's Order on Comments on Hearing Officers Report, dated December 3, 2018, Turner Ranch Properties, L.P. and Hillsboro Pitchfork Ranch, LLC (the "Ranches") hereby respectfully submit their comments on the Hearing Officer's Report, and attached Proposed Findings of Fact and Conclusions of Law, dated December 3, 2018 ("Report" or "Hearing Officer's Report" in citations).

This proceeding results from the application that New Mexico Copper Corporation ("N.M. Copper Corp.") submitted to the New Mexico Environment Department for a groundwater discharge permit (DP-1840) for the Copper Flat Mine in Sierra County, New Mexico. The permit application is governed by the New Mexico Water Quality Act, NMSA 1978, §§ 74-6-1 to 74-6-17 (1993), and two sets of implementing regulations, the Water Quality Regulations, 20.6.2 NMAC, and the Copper Mine Rule, 20.6.7 NMAC, both adopted by the New Mexico Water Quality Control Commission. The Environment Department held a five-day public hearing on the proposed discharge permit from September 24 through September 28, 2018. N.M.

Copper Corp., the Environment Department, the Ranches, and Elephant Butte Irrigation District participated as parties in the hearing. On November 19, 2018, the Ranches submitted written closing arguments and proposed findings of fact and conclusions of law, as did the other parties. Joint Closing Arguments by Turner Ranch Properties, L.P. and Hillsboro Pitchfork Ranch, LLC (Nov. 19, 2018) (“Ranches Closing Argument”); Joint Proposed Findings of Fact and Conclusions of Law by Turner Ranch Properties, L.P. and Hillsboro Pitchfork Ranch, LLC (Nov. 19, 2018) (“Ranches Proposed Findings & Conclusions”). On December 3, 2018, the Hearing Officer issued her Report. By order of the Secretary, comments on the Report are due on December 13, 2018.

The Ranches generally oppose issuance of the discharge permit because it would not adequately protect groundwater; because it does not meet the requirements of the Copper Mine Rule; because it would result in exceedance of New Mexico surface water standards; and because it would pose undue risk to property. Alternatively, if the permit is issued, the Ranches propose more stringent permit conditions to protect groundwater and to lessen the risk to property.

In reviewing these comments, the Secretary should keep in mind the standards for review of discharge permit applications. Those standards are set forth in the Ranches’ closing arguments, and will not be repeated here. Ranches Closing Argument at 14-15. In addition, if the Secretary’s final decision is upheld by the Water Quality Control Commission and subsequently appealed to the courts, it can be reversed if it is arbitrary, capricious, an abuse of discretion, not supported by substantial evidence in the record, or otherwise not in accordance with law. NMSA 1978, § 74-6-7(B).

Pursuant to the Permit Procedures at section 20.1.4.500.C(3) NMAC, the Ranches request oral argument on the Hearing Officer's Report.

1. Inadequate Characterization of Andesite Bedrock

As stated in the Report, the Ranches have, throughout this proceeding, asserted that the andesite bedrock beneath the location of the proposed waste rock piles has not been adequately characterized. Hearing Off'r Rep't at 6-7; *see, e.g.*, Ranches Ex. 2 at 11-12 (AR-17699 to AR-17700), Ranches Ex. 23 at 5-8 (AR-17946 to AR-17949); Myers Test. Tr. vol. 4, p. 1181, line 15 to p. 1182, line 20; Ranches Closing Argument at 15-18. As an extrusive igneous rock, the andesite is likely to be fractured, and fractures can act as conduits for the transport of mine-influenced water and contaminants, potentially off the mine site. The andesite bedrock therefore needs to be carefully characterized, in particular, to determine the extent that the andesite has been fractured and the potential for fractures to facilitate the transport of contaminants into and through the aquifer. N.M. Copper Corp. claims that the andesite has a very low hydraulic conductivity, 1×10^{-6} centimeters per second. Yet this estimate is based on only three data points from two borings deep in the bedrock (GWQ-5R and GWQ96-22A and B). *See* Ranches Closing Argument at 17.

The inadequate characterization of the andesite does not meet the requirements of the Copper Mine Rule. These regulations require that for new waste rock piles located outside the so-called "open pit surface drainage area," an applicant must submit a design report that includes "[a]n aquifer evaluation to determine the potential nature and extent of impacts to ground water from the waste rock stockpile." 20.6.7.21B(1)(d)(vi) NMAC. The aquifer evaluation must include a "complete description of aquifer characteristics . . .

based on actual field data.” *Id.* Because the andesite has not been well-characterized, this requirement of the Copper Mine Rule has not been met. Because this requirement has not been met, the Secretary must deny the discharge permit. *See* 20.6.7.10.J NMAC (“The [S]ecretary shall approve a discharge permit provided that . . . the requirements of the copper mine rule are met.”). Moreover, N.M. Copper Corp. has not met its burden of demonstrating that the discharge permit should be issued. *See* 20.1.4.400.A(1) NMAC.

Accordingly, the Ranches maintain that the discharge permit should be denied. Ranches Closing Argument at 18. Alternatively, the permit should be amended to require adequate characterization of the andesite bedrock. *Id.*; Ranches Ex. 30; Myers Test. Tr. p. 1182, line 22 to p. 1183, line 14.

In her Report, the Hearing Officer did not recommend adopting the Ranches’ proposed findings and conclusions on characterization of the andesite, and she did not recommend further evaluation of the andesite. Hearing Off’r Rep’t at 7-9. Citing, in particular, the rebuttal testimony of Steven Finch, the Report states that the low estimated conductivity of the andesite is “not based merely on two borings.” Hearing Off’r Rep’t at 7. However, Mr. Finch’s rebuttal testimony offers scant evidence other than the two borings, and little additional data, to support the estimated low conductivity of the andesite.

In his rebuttal testimony, Mr. Finch discusses seven technical reports that purportedly support the low estimated conductivity of the andesite. *See* N.M. Copper Corp. Ex. 108 (listing the technical reports). He first references a 1993 report from John Shomaker. According to Mr. Finch, Dr. Shomaker concluded that the andesite is low-permeability based on “local geology, mining workings and results of dewatering

efforts,” as well as “hand-dug wells and things and mine shafts.” Finch Test. Tr. vol. 5, p. 1606, lines 12-19. These bases are so vague as to be almost meaningless, and Mr. Finch provides no actual data from the report. Further, although it is referenced in other reports, the 1993 Shomaker report is not in the administrative record. Finch Test. Tr. vol. 5, p. 1621, lines 5-7. Thus, the report itself should not be a basis for the Secretary’s decision. See 20.6.2.3109.A, B NMAC (the Secretary shall review and approve or disapprove the application for a discharge permit based on the information in the administrative record.) Moreover, in a later report¹ Dr. Shomaker qualified this conclusion, stating that the slug test analysis conducted on one well completed in the andesite estimates an extremely low range of hydraulic conductivity for the “*unfractured* andesite . . . rocks.” Abatement Plan Amend. 2011 at 9 (AR-02206) (emphasis added). The Ranches do not contest that the unfractured andesite has a low conductivity; but it is the fractures in the andesite that would conduct contaminants.

Mr. Finch next references a 1996 report by Adrian Brown, who conducted the slug test. Finch Test. Tr. vol. 5, p. 1606, lines 20-25; N.M. Copper Corp. Ex. 108. But this slug test, which was conducted in the andesite (another slug test was conducted in quartz monzonite), represents two of the three data points. Moreover, this report also is not part of the administrative record. Finch Test. Tr. vol. 5, p. 1621, lines 5-7.

Next, Mr. Finch states that in 1997 SRK did an “independent analysis” of the andesite conductivity, with the same results. Finch Test. Tr. vol. 5 p. 1607, lines 1-2. But the SRK analysis merely reviewed the same data, as Mr. Finch acknowledged. Finch Test. Tr. vol. 5, p. 1622, line 24 to p. 1623, line 5. The SRK report, moreover, also is not

¹ John Shomaker & Associates, Inc., Amendment to the Stage 1 Abatement Plan Proposal for the Copper Flat Mine (Oct. 14, 2011) (“JSAI Abatement Plan Amend. 2011”) (AR-02192 to AR-02257).

part of the administrative record. Finch Test. Tr. vol. 5, p. 1621, lines 5-7; N.M. Copper Corp. Ex. 108. Mr. Finch also references the 2011 JSAI Abatement Plan Amendment, which, as he correctly states, recognizes the low permeability of the andesite from “the previous work.” Finch Test. Tr. vol. 5, p. 1607, lines 3-9; *see* JSAI Abatement Plan Amend. at 8-10 (AR-02205 to AR-02207). Mr. Finch next references the INTERA baseline data report,² which he says reviewed the data “independently.” Finch Test. Tr. vol. 5, p. 1607, lines 10-11. But, again, INTERA reviewed the same limited slug test and pump test data. INTERA Baseline Data Rep’t at 8-35 (AR-02797). Next, Mr. Finch references the 2014 JSAI Stage 1 Abatement Report.³ Finch Test. Tr. vol. 5, p. 1607, lines 3-9. Again, this report relies on the same data from the same two wells. JSAI Abatement Rep’t 2014 at 18-20 (AR-09606 to AR-09608).⁴ Finally, Mr. Finch references the JSAI model report.⁵ Finch Test. Tr. vol. 5, p. 1607, lines 17-21. The report relies mostly on the same data, particularly the pressure test conducted on one andesite well (GWQ-5R), although it also briefly references the pumping rate for dewatering the Quintana open pit in 1982. JSAI Model Rep’t 2014 at 22-23, 43 (AR-10000-10001, AR-10021). Thus, the seven technical reports that Mr. Finch references repeat, over and over again, the same data from the same two borings.

2 INTERA, Baseline Data Characterization Report for Copper Flat Mine, Sierra County, New Mexico (June 2012) (“INTERA Baseline Data Rep’t 2012”) (AR-02500 to AR-02795).

3 John Shomaker & Associates, Inc., Results from the First Year of Stage 1 Abatement Investigation at the Copper Flat Mine Site Near Hillsboro, New Mexico (May 2014) (“JSAI Abatement Rep’t 2014”) (AR-09579 to AR-09915).

4 Table 12 of the report inaccurately lists well GWQ96-23 as drilled in andesite. JSAI Abatement Rept. 2014 at 20 (AR-09608). While the surface formation at the well location is andesite, both well screens are completed in monzonite. Ranches Ex. 39; JSAI Abatement Rep’t 2014, Fig. A2 (AR-09655).

5 John Shomaker & Associates, Inc., Model of Groundwater Flow in the Animas Uplift and Palomas Basin, Copper Flat Project, Sierra County, New Mexico (2014) (“JSAI Model Rep’t 2014”) (AR-09969 to AR-10385).

Turning to another point, during the hearing, the Ranches noted that one of the technical reports listed several water supply wells that are completed in the andesite. Ranches Ex. 40. Yet if the andesite has as low a conductivity as N.M. Copper Corp. estimates, successful water supply wells would be most unlikely. Myers Test. Tr. vol. 4, p. 1249, lines 15-25. The Report discounts this evidence, citing Mr. Finch's testimony that the "supply wells completed in the andesite are mostly hand-dug in drainages, with a water chemistry that resembles surface water." Hearing Off'r Rep't at 7-8. Yet on cross-examination, Mr. Finch acknowledged that of the seven wells listed as supply wells completed in andesite, four of them were indeed hand-dug (GWQ-6(S), Pague, Delores, and Paxton), two of those being mine shafts (Delores and Paxton), but three of the wells were drilled into the andesite (GWQ-6(N), LRG-4156, and LRG-4159). Finch Test. Tr. vol. 5, p. 1625, line 13 to p. 2627, line 1. Thus, three apparently successful supply wells have been completed in the andesite. The Ranches' evidence on this point should not be so easily discounted.

The next point the Report makes is Mr. Finch's testimony that during the abatement monitoring the sampling crew "rarely got any more than a single well volume" of purge water when sampling wells completed in the andesite. Hearing Off'r Rep't at 8; *see* Finch Test. Tr. vol. 5, p. 1611, lines 12-16; N.M. Copper Corp. Ex. 112. However, the only well completed in andesite that is listed in N.M. Copper Corp. Exhibit 112 is the same well that provided the slug test data (Well GWQ96-22A and B), which is also the same well that Dr. Shomaker described as in "unfractured" andesite. JSAI Abatement Plan Amend. 2011 at 9 (AR-02206). The well purge data is thus derived from one of the same two borings that produced the earlier data. Derived from the same well as the slug

test, which was completed deep in unfractured andesite, this well purge data is neither remarkable nor particularly helpful; it adds little to our understanding of the conductivity of the andesite bedrock. As a point of clarification, note that the other wells listed in N.M. Copper Corp. Ex. 112 are all completed either in monzonite (Well GWQ96-23, Well GWQ11-24, and Well GWQ11-25) or in alluvium (Well GWQ11-26). See JSAI Abatement Rep't 2014, Fig. A2 (AR-09655); Fig. A3 (AR-09656), Fig. A4 (AR-09657), Fig. A5 (AR-09658).

The Report also notes that Mr. Finch, in his direct testimony, stated that fractures in the andesite had been filled in by soluble silicate and calcite minerals. Hearing Off'r Rep't at 8; see Finch Test. Tr. vol. 1, p. 99, lines 4-10. But Mr. Finch cites no support for this statement. Without a much more thorough characterization of the andesite the correctness of this premise cannot be verified.

Significantly, the Report itself seems to acknowledge the possibility that contaminants could flow through fractures in the andesite bedrock. The Report notes that "Dr. Myers' interpretive model showed the potential for contaminants to move beneath the Ladder Ranch, particularly the Avant Pasture." The Report further notes that despite the generally eastward groundwater flow, "fractures or groundwater mounding could cause contaminated groundwater to move northward, toward the Ladder Ranch." Hearing Off'r Rep't at 25-26 (citing Myers Test. Tr. vol. 4, pp.1208-1228, 1284-1285).

The Report includes three proposed findings of fact relating to the hydraulic conductivity of the andesite. Hearing Off'r Rep't at 31 (Proposed Findings 188-190). In particular, the Report states that, "Groundwater in the andesite is very immobilized because the hydraulic conductivity of the andesite is 0 to 0.0027 feet per day." Hearing

Off'r Rep't, attachment at 31 (Proposed Finding 188). These proposed findings are not supported by substantial evidence in the administrative record. If the Secretary adopts these proposed findings in his final decision, the lack of support for the findings would be grounds for reversal. *See* NMSA 1978, § 74-6-7(B)(2) (the court shall set aside a decision of the Commission if it is "not supported by substantial evidence in the record.").

Nevertheless, the Report notes that the Environment Department does not oppose more thorough characterization of the andesite bedrock. The Report invites the Secretary to add a condition to the discharge permit requiring additional evaluation of the andesite. Hearing Off'r Rep't at 31. The Ranches urge the Secretary to adopt such a condition. *See* Ranches Ex. 30.

2. Pit Lake Is a Water of the State

After mining at the Copper Flat Mine ceases, the open pit will fill with water, forming a large pit lake. Water in the pit lake will exceed New Mexico surface water standards for several contaminants, as stated in the Report. Hearing Off'r Rep't at 18. It will exceed the surface water quality standard for mercury for protection of wildlife, the surface water quality standard for selenium for protection of wildlife, and the surface water quality standard for vanadium for livestock watering. *Id.*; *see* AR-07969 to AR-07970, AR-07976.

Moreover, as the Ranches have maintained, the future pit lake will be a surface water of the state. The New Mexico water quality regulations define the term "surface water of the state" broadly to include "all surface waters situated wholly or partly within or bordering upon the state, including lakes, rivers, streams (including intermittent

streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, reservoirs or natural ponds,” as well as “all tributaries of such waters.” 20.6.7.S(5) NMAC. While broadly defined, the term “surface waters of the state” contains an exception; the term “does not include private waters that do not combine with other surface or subsurface water.” *Id.*

The future pit lake at the Copper Flat Mine will meet the definition of “surface water of the state” under the water quality regulations – and it will not be covered by the private waters exception – for two reasons. First, the pit lake will likely not be entirely on private property, but will likely encroach on federal land. Second, the pit lake will “combine with other water.” *See Ranches Closing Argument at 37-41.*

In the Report, the Hearing Officer does not recommend that the Secretary adopt the Ranches’ proposed finding that the pit lake will encroach on private land. Hearing Officer Report at 20. Rather, the Report finds that a January 2018 letter from N.M. Copper Corp. sufficiently demonstrates that the future pit lake water body would remain wholly on private land. *Id.*, attachment at 77 (Proposed Finding 489). The Ranches dispute this finding for the reasons set forth in the closing arguments. *Ranches Closing Argument at 39-40.*

Moreover, the Report does not at all address the Ranches’ contention that the water in the pit lake – both present and future – is subject to appropriation for beneficial use. As explained in the Ranches’ closing arguments, N.M. Copper Corp. has claimed the open pit was a groundwater point of diversion with an attendant vested water right as declared by its predecessors. *Ranches Closing Argument at 41.* In a recent order, the New Mexico District Court, Third Judicial District, determined that N.M. Copper Corp.

owns certain water rights in the Lower Rio Grande Underground Basin. According to the order, the rights have a point of diversion at the proposed open pit. Ranches Ex. 38. Under the New Mexico water code, water in designated underground basins “is declared to belong to the *public* and is subject to appropriation for beneficial use.” NMSA 1978, § 72-12-1 (emphasis added). Although the validity of those rights has been appealed, N.M. Copper Corp.’s claim in the water rights proceeding – and the water rights proceeding itself – indicate that the pit water is public water, not private water.

The Report also concludes that the future pit lake will not be a surface water of the state because it does not combine with other water. Hearing Off’r Rep’t at 21, 22; *see also id.*, attachment at 93 (Proposed Conclusion 56). The Report further concludes that the future pit lake will not be subject to New Mexico surface water standards. *Id.* In support of these conclusions, the Report rather curiously cites the Copper Mine Rule. Hearing Off’r Rep’t at 21, 22. For the reasons discussed below, these conclusions are incorrect as a matter of law.

First, the conclusion that the pit lake will not be a “surface water of the state” is at odds with the plain wording of the definition of that term. The primary indication of the meaning of a statute or regulation is its plain language. *Smith v. Bernalillo County Bd. of Comm’rs*, 2005-NMSC-012, ¶ 18, 137 N.M. 280, 285 110 P.3d 496, 501. By its plain wording, the definition states that the exception for so-called private waters applies only if the surface waters “do not combine with other surface or subsurface water.” But the future pit lake will indeed combine with other subsurface water. During proposed operation of the Copper Flat Mine, the open pit will be dewatered, expanded, and deepened. AR-12438. As a consequence, after five years of mining operations, the

groundwater table will drop substantially for a distance around the open pit. AR-13543; AR-13811; Myers Test. Tr. vol. 4, p. 1235, lines 10-25. Expanding and dewatering the open pit, and thus lowering the water table, will draw groundwater into the pit from the surrounding area. As an Environment Department witness acknowledged, the open pit will affect groundwater much like a huge well, creating a cone of depression and drawing water into it. Vollbrecht Test. Tr. vol. 2, p. 566, lines 6-11. The clean water thus drawn into the open pit will combine with the polluted water already in the pit lake. Hence, the exemption will not apply.

Second, the conclusion that the pit lake will not be a surface water of the state is inconsistent with the Department's prior interpretation of the exception for so-called private water. In the October 2003 hearing on the discharge permit for the Phelps Dodge Tyrone Mine, Marcy Leavitt, then Chief of the Environment Department's Surface Water Quality Bureau, testified under oath that the phrase "combines with other surface or subsurface waters" applies when water flows "from areas where water is clean to areas where water is contaminated and vice-versa." Ranches Ex. 41, p. 867. An Environment Department witness conceded at the September 2018 hearing that Ms. Leavitt's statements were contrary to the Department's recent position. Vollbrecht Test. Tr. vol. 2, p. 571, lines 6-18. The witness also agreed that he gives Ms. Leavitt's interpretation of New Mexico water quality regulations a high degree of respect. Vollbrecht Test. Tr. vol. 2, p. 570, line 23 to p. 571, line 1.

Third, the conclusion that the pit lake will not be a surface water of the state represents an inappropriately narrow interpretation of the water quality regulations. Our Supreme Court has made clear that the Environment Department "has a duty to interpret

the regulations liberally in order to realize the purposes of the Act.” *Colonias Dev. Council v. Rhino Envtl. Servs.*, 2005-NMSC-024, ¶ 34, 138 N.M. 133, 142, 117 P.3d 939, 948. Indeed, the Report itself adopted this holding as a proposed conclusion of law. Hearing Off’r Rep’t, attachment at 93 (Proposed Conclusion 64). Conversely, an exclusion or exemption in the regulations should be interpreted narrowly. During her 2003 testimony, Marcy Leavitt wisely counseled that the “private waters” exclusion is a “very limited” one. *Ranches Ex. 41*, p. 866. But the interpretation of the definition of “surface water of the state” inherent in the Report’s conclusions is perversely restrictive; it assumes that the phrase “does not combine with other . . . waters” refers only to water flowing out of a polluted water body into surrounding water, and does not refer to surrounding clean water flowing into the polluted water body. Yet the definition makes no such distinction. Indeed, the Report itself acknowledges that it views the definition of surface water of the state “from a narrow lens.” Hearing Off’r Rep’t at 21. This interpretation would frustrate the purpose of the Water Quality Act both by allowing clean water to become polluted, and by allowing a surface water body to exceed state surface water standards. Such a narrow interpretation defies the mandate of the *Rhino* decision.

Fourth, the conclusion that the pit lake will not be subject to surface water standards finds no support in the Copper Mine Rule. The Report references the Copper Mine Rule only generally, stating that the Report’s conclusion “is in alignment” with the Copper Mine Rule in that the rule “grants a variance by rule from groundwater standards within the area of open pit hydrologic containment.” Hearing Off’r Rep’t at 21. The Report provides no specific reference and no analysis to support this unlikely premise.

The Copper Mine Rule addresses groundwater standards, not surface water standards. It is inapposite. For open pit copper mines, for example, the Copper Mine Rule relaxes the water quality standards in section 20.6.2.3103 NMAC within the area of open pit hydrologic containment. 20.6.7.33.D(1) NMAC. These standards are *groundwater* quality standards. See 20.6.2.3103 NMAC (Standards for Ground Water of 10,000 mg/L TDS Concentration or Less). Surface water standards are not mentioned. See 20.6.7.33.D(1) NMAC. There is nothing in the Copper Mine Rule to suggest any deviation from surface water standards is intended.

Perhaps tellingly, the Environment Department has never advanced this argument – not through the Ground Water Quality Bureau and not through the Surface Water Quality Bureau. The October 21, 2016 letter from Shelly Lemon of the Surface Water Quality Bureau to Jeff Smith of N.M. Copper Corp., which sets out the Department’s conclusion that the pit lake will not be a surface water of the state, does not mention the Copper Mine Rule. AR-13891 to AR-13892. Likely, the Department staff fears that if the Copper Mine Rule nullifies surface water standards in a pit lake that combines with other waters, the rule would likewise nullify surface water standards in a pit lake that is partially on public land. The Secretary should heed this caution.

If the Secretary issues the proposed discharge permit as written, allowing surface water standards to be exceeded in the future pit lake, his action would violate the Water Quality Act. See NMSA 1978, § 74-6-5(E) (the Secretary must deny any discharge permit application if “the discharge would cause or contribute to water contaminant levels in excess of any state or federal standard.”). Further, if the Secretary concludes as a matter of law that the future pit lake will not be a surface water of the state, and will not

be subject to surface water standards, the decision would be subject to reversal for the reasons described above. *See* NMSA 1978, § 74-6-7(B)(3) (the court shall set aside a decision of the Commission if it is “not in accordance with law.”).

3. Inadequacy of the Groundwater Monitoring System

As the Report recognizes, the Ranches have maintained that the proposed groundwater monitoring system for the Copper Flat Mine is not adequate because it does not include a sufficient number of monitoring wells. Hearing Off'r Rep't at 12; *see, e.g.*, Ranches Ex. 2 at 15 (AR-17703), Ranches Ex. 23 at 15-17 (AR-17956 to AR-17958); Myers Test. Tr. vol. 4, p. 1223, line 19 to p. 1224, line 16; Ranches Closing Argument at 20-22. The Ranches' expert hydrologist-hydrogeologist, Dr. Tom Myers, concluded that the proposed groundwater monitoring wells are not spaced closely enough and, in some cases, a plume of groundwater contamination could easily pass between the monitoring wells undetected. Myers Test. Tr. vol. 4, p. 1220, line 21 to p. 1221, line 8. Dr. Myers' testimony is discussed in greater detail in the closing arguments. Ranches' Closing Arguments at 21-22; *see also* Ranches Ex. 24.

The inadequate groundwater monitoring system does not meet the requirements of the Copper Mine Rule. The regulations require an applicant for a discharge permit to submit to the Department a groundwater monitoring plan showing the location of proposed monitoring wells. 20.6.7.28.A NMAC. Monitoring wells must be spaced “as close as practicable around the perimeter and downgradient of” each specified mine facility, including open pits, waste rock piles, and tailings impoundments. 20.6.7.28.B NMAC. The regulations further specify that the monitoring wells must be located to detect an exceedance, or a trend towards exceedance, of the applicable standards at the

earliest possible occurrence. *Id.* Because the proposed groundwater monitoring system at the Copper Flat Mine is deficient – and particularly because the proposed wells are not spaced closely enough – these requirements of the Copper Mine Rule have not been met. The Secretary should therefore deny the discharge permit. *See* 20.6.7.10.J NMAC (“The [S]ecretary shall approve a discharge permit provided that . . . the requirements of the copper mine rule are met.”). Moreover, N.M. Copper Corp. has not met its burden of demonstrating that the discharge permit should be issued. *See* 20.1.4.400.A(1) NMAC.

Accordingly, the Ranches maintain that the discharge permit should be denied. Ranches Closing Argument at 22. Alternatively, the final permit should include a condition requiring wells to be spaced more closely. Ranches Ex. 34; Myers Test. Tr. vol. 4, p. 1223, line 19 to p. 1224, line 16. In addition, to address the potential for fracture flow, the final permit should include a condition requiring N.M. Copper Corp. to conduct an investigation to locate fractures in the andesite bedrock that could transport contaminants. If such fracture zones are discovered, additional monitoring wells should be installed in the fracture zones. Ranches Ex. 24, p. 39; Myers Test. Tr. vol. 4, p. 1223, lines 10-15.

The Report does not recommend that the Secretary adopt the Ranches’ proposed findings and conclusions on the inadequacy of the groundwater monitoring system. Hearing Off’r Rep’t at 14. The Report references the testimony of Steven Finch on behalf of N.M. Copper Corp. and Dr. Joseph Marcoline on behalf of the Environment Department generally opining that the proposed groundwater monitoring system is adequate. Hearing Off’r Rep’t at 14. The Report goes on to find that the groundwater monitoring system meets the requirements of the Copper Mine Rule. Hearing Off’r

Rep't, attachment at 71 (Proposed Findings 449-454), 90 (Proposed Conclusion 36). The Ranches dispute these findings for the reasons stated in their closing arguments. Ranches Closing Argument at 20-22.

Nevertheless, again the Report notes that the Environment Department does not oppose the inclusion of additional wells in the groundwater monitoring system. The Report invites the Secretary to add a condition to the discharge permit requiring the installation of additional monitoring wells. Hearing Off'r Rep't at 14. The Ranches urge the Secretary to adopt such a condition. *See* Ranches Ex. 34.

4. Inadequacy of Financial Assurance

The Ranches contend that the financial assurance N.M. Copper Corp. has proposed is inadequate. Hearing Off'r Rep't at 14; *see, e.g.*, Kuipers Test. Tr. vol. 3, p. 1029, line 9 to p. 1059, line 14; Ranches Closing Argument at 22-27. Financial assurance is particularly important in this case considering the history of the Copper Flat Mine. One company stopped production after only three months. Another company went into bankruptcy. Several others considered reopening the mine, but ultimately did not. The mine has been abandoned repeatedly. The profitability of the ore body is marginal. Hearing Off'r Rep't, attachment at 17-23 (proposed Findings 98-137). This history renders the company's "best case" projections especially doubtful. Moreover, the current owner and operator of the mine, N.M. Copper Corp., holds no assets other than the mine itself. Smith Test. Tr. vol. 1, p. 63, lines 1-16. It is a wholly-owned subsidiary of a Canadian corporation. If the financial assurance that N.M. Copper Corp. ultimately obtains is inadequate because, for example, the cost estimate is too low, and the company goes into bankruptcy before completing closure, the State of New Mexico will have little

recourse. The State, and ultimately its taxpayers, will bear the additional costs of closure. Vollbrecht Test. Tr. vol. 2, p. 548, line 9 to p. 549, line 1.

The financial assurance proposal submitted on behalf of N.M. Copper Corp. is both substantively and procedurally defective. The financial assurance proposal is substantively defective because it is based on the assumption that the Copper Flat Mine will need monitoring and maintenance activities for only 25 years after mining operations cease. Moreover, it fails to account for many necessary cost items. The financial assurance proposal is procedurally defective because the public has not been allowed the opportunity to review and comment on a complete proposal. This problem has been compounded by the Environment Department's failure to include the financial assurance proposal in the administrative record. The defects in the financial assurance proposal are discussed in greater detail in our closing arguments. Ranches Closing Argument at 22-27.

The financial assurance proposal does not meet the requirements of the Copper Mine Rule. The Copper Mine Rule provides that an application for a permit "shall include a proposal for financial assurance for those portions of a copper mine facility to be reclaimed in accordance with a closure plan." 20.6.7.11.U NMAC. The financial assurance proposal fails to meet this requirement.

Because the financial assurance proposal is inadequate, N.M. Copper Corp. has not met its burden of proving that the permit should be issued. *See* 20.1.4.400.A(1) NMAC. For this reason, the Ranches maintain that the discharge permit should be denied. Ranches Closing Argument at 25.

To correct the procedural defects with the financial assurance proposal, the Secretary should reopen the hearing record for the limited purpose of establishing the record on financial assurance. The Secretary should allow N.M. Copper Corp. to submit an adequate and complete financial assurance proposal, and allow the public an opportunity to review, comment on, and request a hearing on that proposal.

The Report does not recommend that the Secretary adopt the Ranches' proposed findings and conclusions on financial assurance. Hearing Off'r Rep't at 17-18. The Report states that the preliminary financial assurance proposal was available during the hearing. *Id.* at 18. The Report further states that the final proposal will be available for public comment at the New Mexico Mining Commission hearing. *Id.* The Report goes on to recommend a finding of fact that the financial assurance requirements of the proposed discharge permit meet the requirements of the Copper Mine Rule. *Id.*, attachment at 74-75 (Finding 338). The Report also recommends a number of findings of fact addressing the level of cooperation among the three agencies requiring financial assurance for the Copper Flat Mine: the Environment Department, the New Mexico Energy, Minerals and Natural Resources Department, and the United States Bureau of Land Management. *Id.*, attachment at 74-75 (Findings 468-479). The Ranches oppose any findings or conclusions that the proposed financial assurance meets the requirements of the Copper Mine Rule for the reasons set forth above and in our closing arguments. Ranches Closing Argument at 22-27.

5. Undue Risk to Property

As discussed in the Report, the Ranches maintain that issuing the discharge permit for the Copper Flat Mine, as the permit is currently written, would create an undue

risk to property. Hearing Off'r Rep't at 25-26; *see* Ranches Closing Argument at 27-37. There are two facets to the risk to property. First, permitting the Copper Flat Mine could cause surface water or groundwater contamination at the Ladder Ranch, which is adjacent to the mine to the north and east. The Avant Pasture is particularly vulnerable. Water contamination could have a devastating effect on the bison ranching, hunting expedition, and ecotourism businesses, as well as wildlife restoration projects, at the Ladder Ranch. Ranches Closing Argument at 32-34. Second, permitting the Copper Flat Mine will cause the groundwater to be lowered beneath both the Ladder Ranch and the Hillsboro Pitchfork Ranch, which is adjacent to the mine to the west. Water depletion could likewise have a devastating effect on the businesses and wildlife programs at the Ladder Ranch, and on the cattle ranching and hunting trip businesses, and wildlife programs, at the Hillsboro Pitchfork Ranch. *Id.* at 35-36. The Elephant Butte Irrigation District likewise contends that permitting the Copper Flat Mine, and depleting water resources, could have a detrimental effect on Coballo Reservoir and the Rio Grande. Hearing Off'r Rep't at 26.

The Report reiterates many of the Ranches' points. It states that the concerns expressed by the Ranches, the District, and members of the public over water contamination and water depletion are "understandable" and "compelling." *Id.* at 28. Ultimately, the Hearing Officer, in the Report, makes no recommendation and proposes no findings or conclusions on the question of undue risk to property. Instead, taking an unusual tack, the Report requests guidance from the Secretary. *Id.* at 38.

The Secretary should heed the uncharacteristic caution of the Hearing Officer, as well as the requirements of the Copper Mine Rule, and deny the discharge permit because

it would create an undue risk to property. *See* 20.6.7.10.J NMAC (the Environment Department Secretary can approve a discharge permit for a copper mine only if the permit does not pose undue risk to property); *see also* 20.6.2.3109.C NMAC (similar provision not specific to copper mines).

6. Conclusion

For the following reasons, as further discussed above and in the Ranches' closing arguments, the Secretary should deny the groundwater discharge permit for the Copper Flat Mine: 1) N.M. Copper Corp. has not met its burden of proving that the permit should be approved under section 20.1.4.400.A(1) NMAC; 2) the permit application does not meet the requirements of the Copper Mine Rule under section 20.6.7.10.J NMAC; 3) the proposed discharge would cause or contribute to water contaminant levels in excess of a state or federal standard under the Water Quality Act, NMSA 1978, § 74-6-5(E); 4) the discharge permit would pose undue risk to property under section 20.6.7.10.J NMAC and section 20.6.2.3109.C NMAC.

December 13, 2018

Respectfully submitted,


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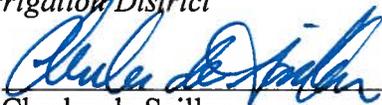
CERTIFICATE OF SERVICE

I hereby certify that on this 13th day of December 2018, a copy of the foregoing Turner Ranch Properties, L.P. and Hillsboro Pitchfork Ranch, LLC Joint Comments on the Hearing Officer's Report was sent by first class mail, postage prepaid, or electronic mail to:

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