

**WRITTEN STATEMENT OF ROBERT CUNNINGHAM  
Hillsboro Pitchfork Ranch, LC**

**Before the Mining and Minerals Division of the  
New Mexico Energy, Minerals & Natural Resources Department**

**Permit Application to Operate the Copper Flat Mine in Sierra County,  
New Mexico**

**October 23-24, 2018**

**I. INTRODUCTION AND QUALIFICATIONS**

Good day, my name is Bob Cunningham. With my sister, Kathy McKinney, I am the co-owner and manager of the Hillsboro Pitchfork Ranch L.L.C., owned by our family since 1906. Kathy and I are the 4<sup>th</sup> generation of the family to have ownership and responsibility for our family ranching legacy. Our family ranch will be passed along to a 5<sup>th</sup> generation of the family in the future days.

I will present my statement through oral testimony during the hearing to be held on October 23 and 24, 2018 in Truth or Consequences, New Mexico. My Written Statement to the appropriate authorities will be provided by our Attorney of Record for this matter. My slides for this presentation are Ranches **Exhibit 4**.

Let me begin by providing you with a brief background of my qualifications and experience. I have a Bachelor of Science in General Studies from the University of New Mexico, in Albuquerque. I might add I

began my education in a two-room school house in Hillsboro, New Mexico and completed grades 1 through 6 at the community school. This unique beginning to my education fostered my interest and understanding of the history, cultural diversity, economic basis, and ecology of the Hillsboro, New Mexico area.

I worked for the United States Forest Service for 34 years, retiring in September of 2007 as a Supervisory Fire Management Technician. During my employment with the US Forest Service I had the following responsibilities:

***Forest management:*** I participated in NEPA<sup>1</sup> planning efforts and fuel management activities as a fire management specialist.

***Fire management:*** I worked as a line firefighter, as a Helitack and Hotshot crewmember and spent 22 years as a Smokejumper.

***Aviation management:*** I managed complex aviation operations, to include over 80 large wildland fire incidents in the United States. I have also managed complex aviation operations on All Hazard incidents, the most noteworthy are, FEMA's response the 9/11 Twin Towers attack in New York City, Hurricane Opra, Hurricane Katrina, and Hurricane Rita.

***Wildland Fire and Incident Management Training:*** I managed an

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<sup>1</sup> The National Environmental Policy Act. (1969).

Interagency Wildland Fire and Incident Command System (ICS) training program in the Northwestern United States. I was responsible for a staff that developed and delivered Wildland Fire and ICS training to an interagency audience.

A copy of my resume is Ranches **Exhibit 5**. It is current and up to date.

## **II. MY TIME AND EXPERIENCE ON THE FAMILY RANCH**

I grew up on the family ranch, learned to ride, rope, brand, fix windmills and fences. In general, I learned about cattle and to care for and improve the land. When working for the Forest Service I returned to the ranch often to assist my father in running the ranch. Upon the death of my father in 2003 my sister and I became the 4<sup>th</sup> generation owners and caretakers of our family's ranch and legacy.

Specific responsibilities I have regarding the family ranch include: business and financial management, care and improvement of the land, cattle and game management, hunt guiding, wildlife habitat improvement, and facilities management.

So, in regard to business our family conducts I am personally involved. I negotiate leases, maintain and upgrade facilities, maintain financial documents, pay the bills and taxes. My sister and I have been

personally involved in the hunting and guiding aspect of the ranch business for 30 years. Again, as I stated earlier we are actively involved in the cattle ranching aspect of the ranch business. All in all, I have spent over 30 years on our family ranch.

Without question, the one fundamental principal my time and experience on the ranch has taught me is this: The primary responsibility of any ranching family is to understand, monitor, and foster the ecology of the land in its care. An understanding of the native vegetation, including grasses such as black grama, side oats, and vine mesquite, shrubs such as sumac and mountain mahogany, and tree species such as Rio Grande cottonwood and black walnut, is key to the successful stewardship of the land. Subsequent ranching economic success comes from care and improvement of the land.

### **III. RESEARCH AS TO THE PROPOSED DEVELOPMENT OF THE NEW MEXICO COPPER CORPORATION COPPER FLAT MINE**

Having spent considerable time on the family ranch during the late 1970's and early 1980's, I observed firsthand the initial development of the mine. I saw with my own eyes the negative environmental effect on the Grayback Canyon ecosystem brought about by development and abandonment of the Copper Flat Mine site by the failed Quintana Mining Company.

When the New Mexico Copper Corporation (NMCC) first proposed to re-open the Copper Flat Mine, approximately 9 years ago, maps and documents from various State and Federal agencies, as well as from THEMAC (NMCC's parent company), became available. At that time, I began to research how the proposed Copper Flat Mine project might affect our family ranch.

As such I have reviewed in detail the various documents and maps associated with the proposed mine. I have primarily reviewed documents and maps from the draft Environmental Impact Statement (EIS), prepared by the Bureau of Land Management, dated November 2015. In addition, I have reviewed administrative filings by NMCC, the State of New Mexico, the State of Texas, Elephant Butte Irrigation District (EBID), and the BLM. I have reviewed the draft EIS very thoroughly. As a result, we submitted 50 pages of comments to the BLM regarding the draft EIS. As of this date the BLM has not issued a final EIS regarding the Copper Flat Mine project.

#### **IV. GEOGRAPHIC RELATIONSHIP OF THE HILLSBORO PITCHFORK RANCH TO THE PROPOSED COPPER FLAT MINE**

(SLIDE A). The Ranch is to the west of the Mine Area, adjacent to the west property boundary of the proposed Copper Flat Mine. The physical distance from the ranch property boundary to the existing mine pit lake is approximately 1,680 feet.

(SLIDE B). Now I will describe Grayback Canyon, a principal pasture of the ranch, and where it is in relationship to the Hillsboro Pitchfork Ranch and the proposed Copper Flat Mine.

Grayback Canyon is located on the eastern portion of the Hillsboro Pitchfork Ranch. The canyon is bounded on the north by the Ladder Ranch and on the east by Copper Flat Mine. The head waters of Grayback Canyon are primarily on lands owned by the Hillsboro Pitchfork Ranch. The drainage area of Grayback Canyon owned by the ranch is indicated by the aqua-colored area on the slide. The drainage area of Grayback Canyon leased from the BLM by the ranch is indicated by the green-colored area on the slide.

I have personally spent much time in Grayback Canyon. I have ridden horseback, walked on foot, and ridden in vehicles in the Grayback Canyon area. I have worked cattle, hunted and guided, improved wildlife habitat, built fences, and installed solar powered water pumping systems, drinking troughs, and water pipelines in Grayback Canyon.

There are natural sources of water in Grayback Canyon. These are intermittent streams, springs, and seeps in the canyon system. They do not flow all the time. Commonly, they flow after a rainstorm, or other significant precipitation event. These intermittent water sources within the

Grayback Canyon help to support native vegetation for wildlife and livestock forage and provide a supplemental source of drinking water for wildlife and livestock.

## **V. HYDROLOGIC RELATION OF THE HILLSBORO PITCHFORK RANCH TO THE PROPOSED COPPER FLAT MINE**

The Hillsboro Pitchfork Ranch relies on groundwater sources along the eastern property boundary of the ranch to maintain its economic viability and to maintain the ecosystem of our family land and adjacent private and public lands.

The Pitchfork Ranch owns and operates two groundwater wells near our eastern property boundary.

(SLIDE C) and (Slide CA). The first well is the Rodgers well, operated by an old wooden windmill known as Rodgers Mill. Based on historic records we believe this well was developed around 1900. The depth of the well is 150 feet below the ground surface. The well provides drinking water to livestock and wildlife.

(SLIDE D) and (Slide DA). The second well is the Grayback well. It was originally developed in 1950. Its depth is 200 feet below the ground surface. The Grayback well utilizes a solar power pumping system. Numerous water lines, storage tanks, and water drinking troughs have been installed to supply water to remote areas of the Grayback drainage. This

water source is used for drinking water for livestock and wildlife.

(SLIDE E). Now I will show the proximity of the Rodgers well and Grayback well to the existing and proposed Copper Flat Mine pit lake. The Rodgers well is approximately 3,270 linear feet up gradient from the proposed Copper Flat Mine pit lake. The Grayback well is approximately 8,074 linear feet up-gradient from the proposed pit lake. It is also illustrated in this slide.

(SLIDE F) The existing open pit lake is immediately to the east north-east of Grayback Canyon on the ranch. I believe it important for you Mr. Director Martinez and the audience to understand where Grayback Canyon is located at its termination from its natural channel to the mine diversion channel and to the existing pit lake. The estimated distance is 1,768 linear feet.

## **VI. CONSEQUENCES OF MINE DEVELOPMENT TO PRIVATE AND PUBLIC LANDS IN THE GRAYBACK CANYON AREA**

### **Hydrologic Consequences**

The proposed open pit at the Copper Flat Mine will be hydrologically immediately downgradient of the Grayback Canyon area of the Hillsboro Pitchfork Ranch, and public lands administered by the BLM.

(SLIDE G). This slide provides information on well depths, in relationship to the bottom of the proposed mine pit, for the previously



described Rodgers and Grayback wells. I will describe the contents of this slide in some detail.

Given the groundwater gradient and given the proximity of the Pitchfork Ranch to the proposed open pit, groundwater from beneath the Grayback Canyon system will be drawn into the hydrologic sink and pit lake, associated with the Copper Flat Mine development, lowering the water table. Our ranch wells may produce less water, or they may go dry. The intermittent springs and seeps in Grayback Canyon will most certainly be affected. Their flow will be reduced; they may dry up.

Without a plentiful supply of water, the ecology of Grayback Canyon will be harmed. Vegetation will change. Less water will be available for game and livestock for forage and drinking purposes. We will be forced to reduce our cattle numbers. Wildlife including game species will become less abundant.

The resulting loss of income will result in less money available to maintain and improve the ranch and its lands. This will result in less revenue to local, state, and federal governments in tax revenue, loss to local businesses in gross revenue receipts, and a loss of income to those employees and contractors we utilize for ranch operations. My sister Kathy

McKinney will provide further information on economic impacts in her presentation.

### **Consequences of Noise Pollution**

Noise pollution generated by the proposed Copper Flat Mine can affect wildlife and livestock operations of the ranch. Game animals are public property in New Mexico, and as such public property should be considered in any permitting decisions related to the Copper Flat Mine.

In general noise acts as a signal to wildlife. An unusual noise is perceived by a mule deer and other wildlife species to be a sign of danger, signaling for example, the approach of a predator. Studies show that each time a mule deer hears an unusual noise, it ceases feeding until it can identify the noise as non-threatening. Mule deer, being a small ungulate, must feed constantly and consume high quality browse to maintain their health. Repeated noises can greatly affect mule deer feeding success.

Given the Copper Flat Mine operation would require hundreds if not thousands of explosive detonations over a period of 10 to 15 years, the effects on the mule deer and elk populations in the Grayback Canyon system would be profound. These detonations can exceed peak pressure levels of

140 decibels (dB). Several hundred charges would be detonated each year.<sup>2</sup> To put this in perspective, 140 dB is about the noise level of an active aircraft carrier flight deck. A 30-dB level is considered normal for a quite rural area.<sup>3</sup>

(SLIDE H) Here is table 3-47, taken from the draft EIS, which describes “Closest Noise-Sensitive Areas” to the proposed mine area. Note this table does not identify a category for areas, such as ranch private lands, public lands, and wildlife habitat that exist adjacent to the propose mine. The table only identifies the town of Hillsboro, New Mexico and residential areas.

As I stated previously a “Quite Rural Area” is an identified noise level descriptor and 30-dB level is considered normal for a quite rural area.<sup>4</sup>

(SLIDE I) Here I have developed a table to include a category for a “Quite Rural Area.” The “Quite Rural Area” category provides a more accepted numeric value of 30-dB, for the natural background noise of rural lands, than those found in Table 3-47 of the draft EIS.

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<sup>2</sup> Reference: Draft BLM EIS 3.21 Noise and Vibrations, 3.21.2 Environmental Effects, 3.21.2.1.1 Noise from Mine Development and Operation, Noise from Blasting: Page 3-228, Paragraph 2, Page 3-229, Paragraph 1.

<sup>3</sup> IAC Acoustical Library “Comparative Examples of Noise Levels.”

<sup>4</sup> IAC Acoustical Library “Comparative Examples of Noise Levels.”

(SLIDE J) Now I will review the table of “Risk of Noise Concern and Complaints from Blasting.” Note it describes human noise concerns; it does not address livestock or wildlife reactions to loud or sustained noise. It also uses “Peak Noise Levels” as a descriptor of noise produced.

(SLIDE K) Now let’s compare the information provided in the previous slide, Slide J to this slide. This slide shows a map of “Operational Noise Contours” at the proposed mine. This map shows contours for Day Night Sound Level (DNL). This map does not include an analysis of peak noise levels (peak db), as depicted in the previous slide, or how far that noise might be transmitted. It omits the effect of mine noise on livestock and wildlife on the adjoining private and public lands.

To summarize, slides H, J, and K, describe how blasting or other mine generated noise, affect people and some types of infrastructure. Each Table in the draft EIS uses different metrics to describe noise generated by mining activities. These Tables do not provide an accurate overview to the public or permitting agencies, as to how loud or how far these noises may travel. The Tables are silent on affects to livestock and public wildlife by mine generated noise.

An analysis of how noise affect livestock and wildlife is missing in the draft EIS and other documents I have reviewed. I believe this is an

omission in the draft EIS and should be addressed by MMD prior to issuing any Copper Flat Mine permit.

I believe that over time public wildlife, to include the mule deer population in the Grayback Canyon area will be greatly reduced by development of the mine. This decrease will be caused by a reduction in surface and ground water as well as adverse effects of noise. I also believe that livestock in the area will be adversely affected for the same reasons. Not only will this affect the economic condition of the Hillsboro Pitchfork ranch but also the value of adjoining private and public lands and wildlife in the Grayback Canyon area.

## **VII. CONCLUSION**


I believe the development of the Copper Flat Mine would have a profound negative ecological and economic impact to the Hillsboro Pitchfork Ranch. In addition, I believe these impacts will extend to other private and public lands in the Grayback Canyon system to the west of the proposed mine.

I respectfully request that MMD not issue a permit for the Copper Flat Mine. Granting the permit would have serious negative consequences to adjacent public and private lands. If MMD nevertheless issues the permit, I respectfully request that MMD place conditions in the permit to protect

water resources, livestock, wildlife, and the environment. The conditions should restrict blasting at the mine. They should limit light and dust. Any permit issued should ensure existing ground and surface water resources in the Grayback Canyon system, will not be impacted by mine development.

Thank you

I declare under penalty of perjury that the foregoing is true and correct

  
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Bob Cunningham  
Hillsboro Pitchfork Ranch, LP