

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

---

**CLEANUP AND ABATEMENT ORDER NO. R5-2014-XXXX**

**ATLANTIC RICHFIELD COMPANY  
UNITED STATES DEPARTMENT OF AGRICULTURE,  
UNITED STATES FOREST SERVICE**

**WALKER MINE TAILINGS  
PLUMAS COUNTY**

---

**CLEANUP AND ABATEMENT ORDER NO. R5-2014-YYYY**

**ATLANTIC RICHFIELD COMPANY**

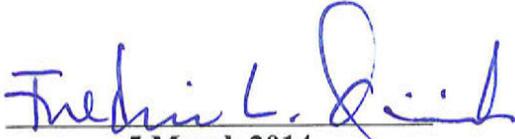
**WALKER MINE  
PLUMAS COUNTY**

---

**EXPERT REBUTTAL STATEMENT**

**of**

**FREDRIC L. QUIVIK, PhD.**

  
5 March 2014

## SUMMARY OF OPINIONS

The purpose of this rebuttal report is to direct the Central Valley Water Board's attention toward the bases for my opinions that employees of the Anaconda Copper Mining Company (ACM) and International Smelting and Refining Company directed, managed and conducted mining operations, development and other activities at the Walker mine facility. Atlantic Richfield's (ARCO's) Prehearing Brief has misconstrued my expert witness statement as focusing on ACM's management of Walker Mining Company's corporate affairs, and ARCO's Prehearing Motion No. 9 seeks to exclude portions of my testimony on similar grounds.

At the heart of my set of opinions—that ACM/International employees directed, managed and conducted operations of the Walker Mining Company, including specific mining, development, and other activities at the Walker Mine facility—is the organizational chart of the Walker Mining Company. I elaborated in my earlier expert witness statement on what I would have expected that organization to have been, had the Walker Company been the sole manager of the Walker Mine facility. To summarize, each facet of the operations at the mine would have been managed and directed by a professional, superintendent, or foreman, such as a geologist or mining engineer, who had been had hired by the Walker Mining Company's manager and who was answerable to him. The manager, in turn, would have been hired by the officers and board of directors of the Walker Mining Company and have been answerable to them. I have attached to this report an illustrative exhibit (figure 1) that shows how the Walker Mining Company's management of the mine would have been organized had the ACM not managed facets of operations at the Walker mine. Representatives of the ACM/International would have had positions on the Walker Mining Company's board of directors and would even have served as officers, but the Walker Mining Company's manager would have directed operations at the mine and mill, and the company's staff would have answered to him. Such an oversight and management structure would have been in line with ACM/International's status as an investor in Walker Mining Company.

There is ample evidence in the historical record, which I cited in my expert witness statement, that ACM/International employees directly managed facets of specific operations at the Walker mine facility. Because of the nature of the documents that are available, in the records of the ACM's geological department at the University of Wyoming, the most historical detail showing ACM/International management of Walker operations concerns geology and mine development. But several documents within the University of Wyoming archives demonstrate that ACM/International employees also directly managed mining, metallurgy, and other operations at the Walker Mine facility. In the episodes I narrate in my statement, ACM/International officials initiated management of geology and mine development at the Walker mine, providing direction directly to the Walker geologist/mining engineer without communicating through the manager of the Walker Mining Company or through the International official, J.O. Elton, who also had the position of vice president on the Walker board. In other episodes, the Walker geologist sought direction from ACM/International geologists and mining engineers who had no positions in the Walker organization, either in the management of operations or in the corporate hierarchy. And in some of those episodes, the Walker geologist went beyond seeking direction; he sought approval or authorization before

taking action in the exploration and development of the mine. Had operations at the Walker mine been free of ACM/International management, the Walker geologist may have sought advice from the ACM/International experts, but he would have sought approval or authorization from the Walker manager. Offering this opinion, based on the historical record, is not to suggest that the ACM/International officials committed fraud or acted against the interests of the Walker Mining Company and its minority stockholders.

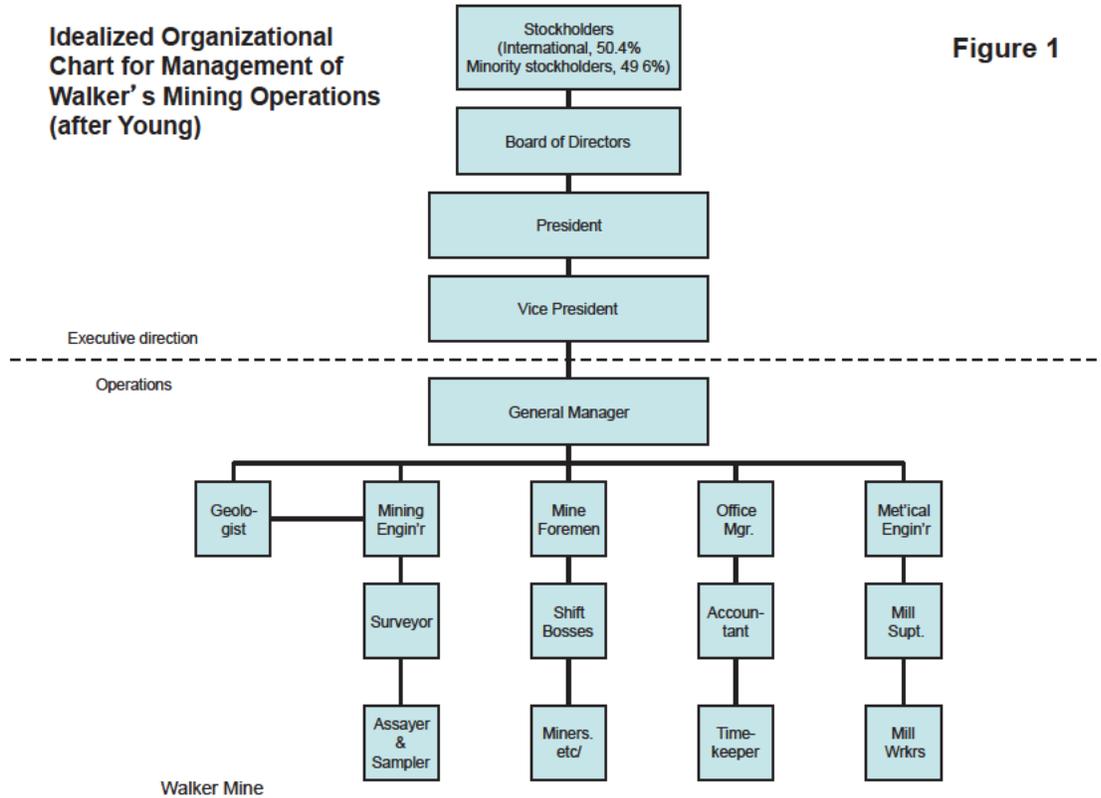
As my January expert witness statement makes clear, ACM/International management of geology and mine development activities at the Walker mine facility was pervasive; it even included the hiring of staff who would serve under the Walker geologist. Had operations at the Walker mine facility been free of ACM/International management, the Walker manager would have hired the geologist's staff, or the geologist, with authorization of the manager, would have hired the people who worked for him. Documents in the University of Wyoming collection show, however, that the ACM's geology department at Butte selected, trained, and hired assistants for the Walker geologist, setting the assistants' salary, and placing them on the Walker payroll.

Design and construction of the Walker mill also shows the ACM's management. ACM officials made the design decisions, and an ACM employee superintended construction of the mill.

I have attached to this rebuttal report another illustrative exhibit (figure 2) that shows graphically how ACM and International officials bypassed the Walker Mining Company's organization structure to directly manage the activities of the Walker geologist/mining engineer, who was responsible for exploration and mine development at the Walker mine facility. This figure shows how ACM/International's management of the Walker mine facility went beyond the parent's status as an investor in the Walker Mining Company.

**Idealized Organizational Chart for Management of Walker's Mining Operations (after Young)**

**Figure 1**



**Actual Organizational Chart for Management of Walker's Mining Operations**

**Figure 2**

