

**DALE DRY LAKE - NEW CLASSIFICATION, REVISED RECOVERY INFORMATION.** R. S. Verish<sup>1</sup>, <sup>1</sup>Meteorite Recovery Foundation, P.O. Box 237, Sunland, CA 91041.

**Introduction:** This paper reports on a recent characterization of the Dale Dry Lake meteorite by researchers at UCLA. This stone is now classified as an unequilibrated chondrite. This paper proposes the following revisions to the Catalogue of Meteorites (C.M.) to be posted in the Meteoritical Bulletin:

Dale Dry Lake, new classification          34° 05'N, 115° 47'W [4]  
 (Corrected from: 34° 02'N, 115° 54'W)[2]  
 San Bernardino County, California, USA  
 Found 1957  
 Unequilibrated chondrite (L3.7)  
 (1 stone, 300 grams)

A 0.38g sample from a fragment of this stone in the ASU Collection (#668.1) was obtained from Carleton Moore, and has now been characterized by Alan Rubin (UCLA).

Dale Dry Lake: class, L3.7; shock stage, S3, weathering grade, W2; olivine, Fa15.7±9.2%.

**Recovery Information:** It should be noted that Dale Dry Lake (L3.7) was not found on Dale Dry Lake, but at least 8km southwest of that dry lake, and within the Dale Mining District (\*). According to the Catalogue of Meteorites, it was found "about 2 miles N of the Virginia Dale Mine", as stated in the referenced paper [5].

Also, the catalogued find location coordinates can't be correct. If they were, it would place the find location 11km to the southwest from the described location, and just over the county line into Riverside County. The coordinates in the C.M. are per those called out in the referenced document, so that makes the coordinates in the referenced document (*Minerals of California*) as being incorrect [5]. The source for these coordinates comes from the appendix of *Meteorites* (1962) by B. Mason [1]. The source for the coordinates in that appendix is not known. But field notes by H.H. Nininger, predating all of the above references, are included as attachments in his 1966 letter to Carleton Moore. His interview of the finder, Alice Zimmerman, confirms the location as "about 2 miles west and N of the old Virginia Dale Mine" (app. 34° 05.8'N, 115° 47.2'W) [4].

In addition, it should be noted that the Zulu Queen (L3) and Dale Dry Lake (L3.7) find locations are within 15 km of each other (\*). Zulu Queen: class, L3; shock stage, S3; weathering grade, W?; Fa 15-27 peak@25%. These two meteorites are VERY LIKELY paired.

(\* In the above explanation, the distance from the Dale Dry Lake find location to the actual dry lake, as well as, to the Zulu Queen (L3) find location, are in reference to that spot as stated in the finders description, that being "2 miles west and N of the old Virginia Dale Mine" [4].

**Conclusion:** The new characterization of the Dale Dry Lake meteorite by Alan Rubin (UCLA) should be incorporated in the Catalogue of Meteorites, and these proposed revisions should be posted in the Meteoritical Bulletin as " Dale Dry Lake, new classification". The location coordinates should be revised, as well.

**References:** [1] Mason B. 1962, *Meteorites*, p229. [2] Mason B. 1963, *GCA*, 27, p1022. [3] Butler C. P. (1966) *Calif. Div. of Mines and Geology, Mineral Information Services, vol.19, no.7* "The Meteorites of California" p105. [4] Nininger H.H. letter (dated 1966) to Carleton Moore. [5] Murdoch J. and Webb R. W. (1966) *Calif. Div. of Mines and Geology, Bulletin 189, "Minerals of California"* p232. [6] Pemberton H. (1983) *Minerals of Calif.*, p57.