

## MR METEORITE 2014

## NEW TEXAS IRON METEORITE, "LLANO RIVER"

Reprinted from the Meteoritical Bulletin (<http://www.lpi.usra.edu/meteor/index.php?sea=Llano+River&sfor=names&ants=&falls=&valids=&stype=contains&lrec=50&map=ge&browse=&country=All&srt=name&categ=All&mblist=All&rect=&phot=&snew=0&pnt=Nor>)

**Llano River** 30°31.328'N, 99°44.219'W

Texas, Kimble County, United States

Found: 1975

Classification: Iron meteorite (IIIAB)

**History:** A single 4318 g mass (weight after small piece cut off end) was found by Thomas Hobbs in 1975 while he was searching for meteorites with a metal detector around a "meteor crater" just north of Junction, Texas. Mr. and Mrs. Hobbs kept the mass until their curiosity was piqued after watching a television show on meteorites in early 2010. A small end piece was sent to *ASU* and confirmed to be a meteorite.

**Physical characteristics:** Slightly elongated cuboid stone. Surface moderately weathered with small patches of corroded fusion crust. A few broad regmaglypts cover half the stone, the other side being smoother.

**Petrography** (L. Garvie, *ASU*): Etched sections show a medium Widmanstätten structure. Kamacite lamellae display numerous subboundaries. Neumann bands are well developed and in several places deformed. A few black taenite wedges are present. Displays well-developed open-meshed, comb and net plessite. Inclusions are rare - the 6 × 7 cm slice contains three 1-mm rounded troilite and rare schreibersite. A heat-affected zone is up to 2 mm thick on one side of the stone.

**Geochemistry:** Bulk composition: INAA data (Activation Laboratories - Ancaster, Ontario): Co 5.1 mg/g, Ni 76 mg/g, Ga 17.0 µg/g, Ir 9.7 µg/g, and Au 0.54 µg/g.

**Classification:** Iron meteorite, IIIAB, medium octahedrite, moderately shocked. Compositionally and structurally similar to San Angelo (<http://www.lpi.usra.edu/meteor/metbull.php?code=23117>).

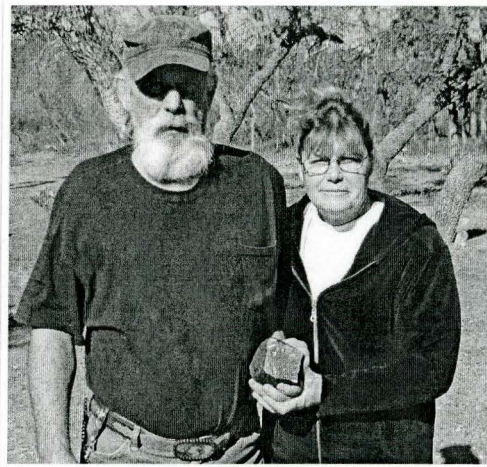
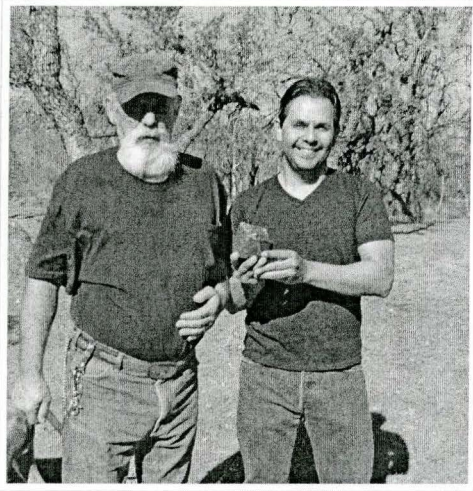
**Specimens:** Type specimens, 105.3 g slice, 16.3 g slice, end piece 13.8 and 6.8 g, and 9.78 g of fragments are on deposit at *ASU*.



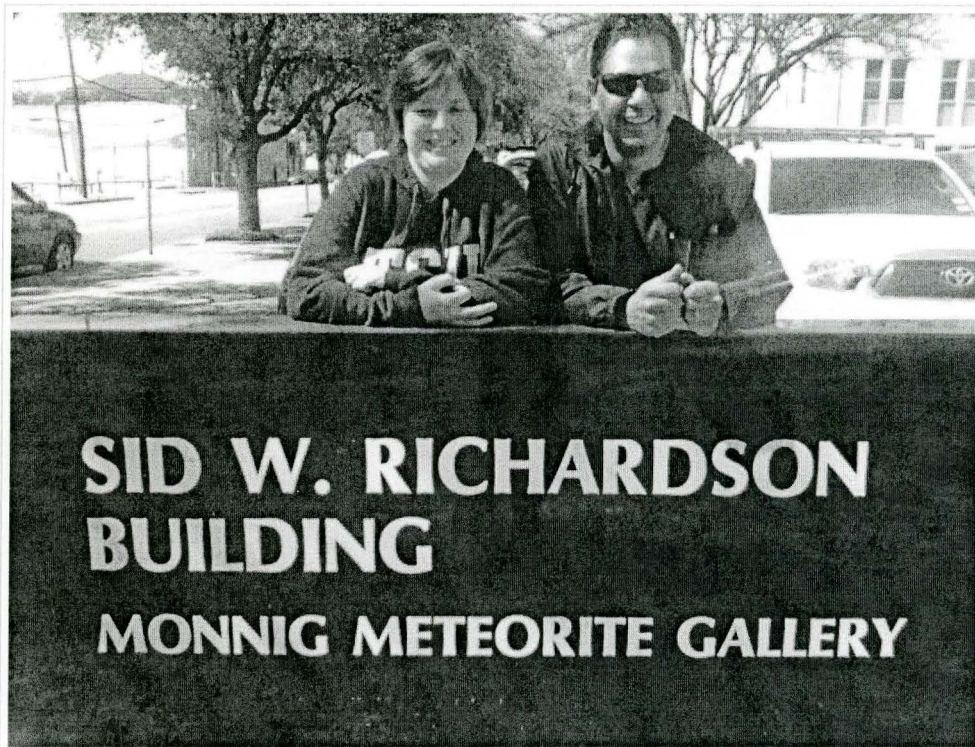
Thomas Hobbs (Finder) with Ruben Garcia

Thomas and Rhonda Hobbs



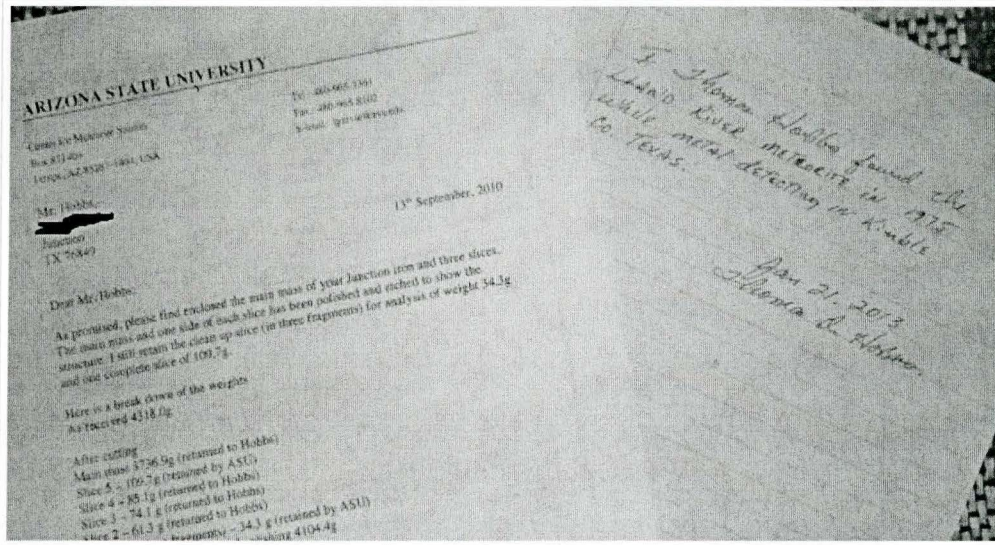


The Iron Meteorite has finally made it to Fort Worth where it is now part of the TCU Monnig Meteorite Collection

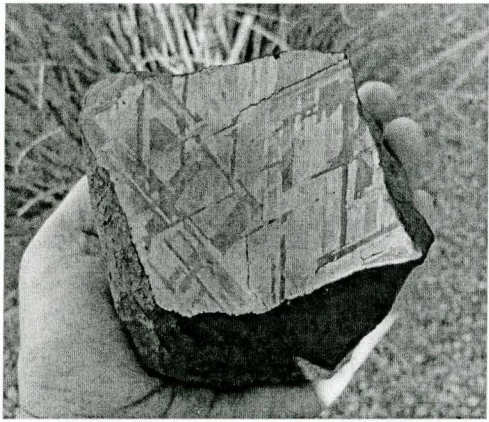


Below: Paperwork that includes correspondence between ASU and the Hobbs family, including a handwritten note from Thomas Hobbs.

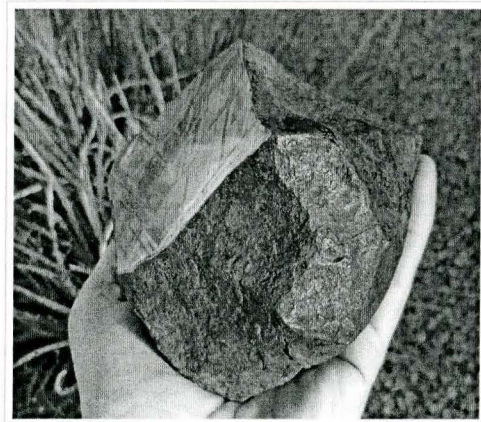




Click on any of the photos below to see a larger image of Llano River

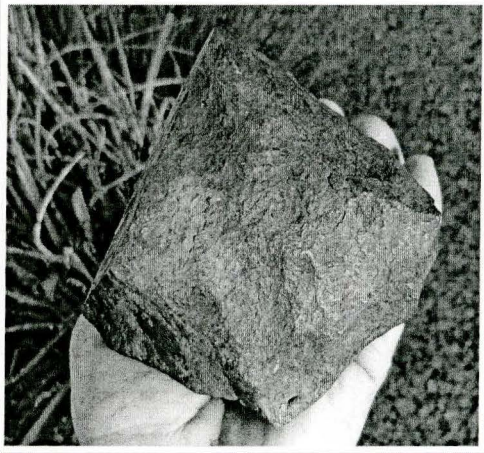


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