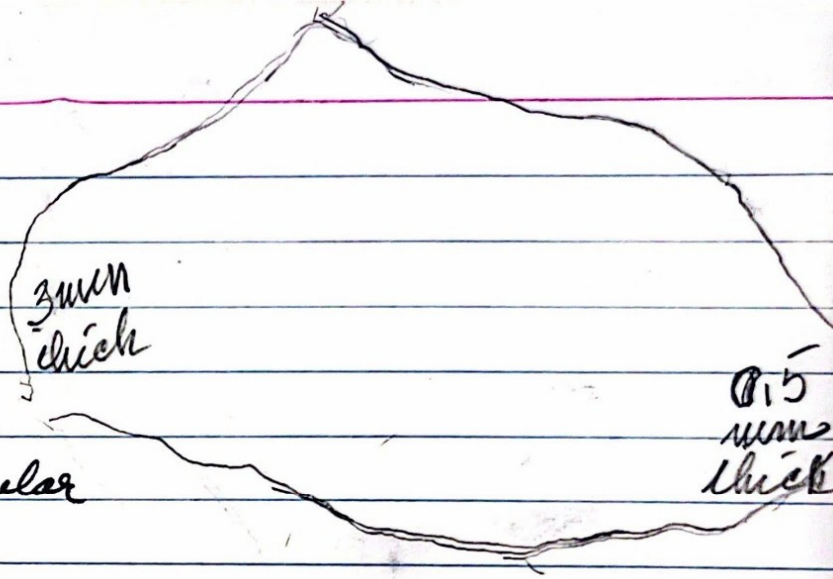
ASM 009 = NWA 4708 from Birdsell
JTW 21 Feb 07



This is a medium octahedrite with remarkably few inclusions. My guess is that it is low-Ni IIIAB.

The kam. bandwidth is ~ 0.85 ± 0.15.

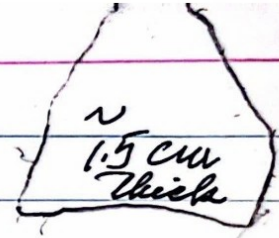
I see one round troilite with a diameter of 0.9 mm and another roughly rectangular 0.4 × ~0.8 mm.

There is no heat altered zone.

Weathering is minor to negligible. There is a small (0.2×0.8) dark opaque associated with an FeS that has a similar area (~0.15×1.0 mm) (on edge of)

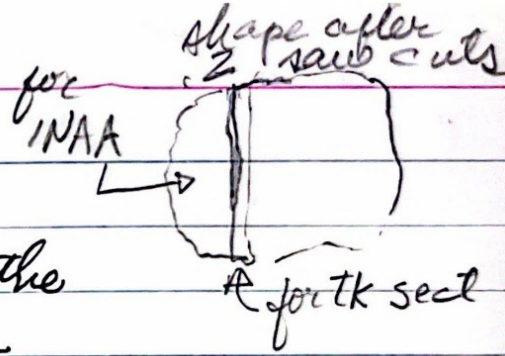
ASM 005 = NWA 4720

21 g end mass



Med. oct, bandwidth 0.70 ± 0.10. Bands are short, swollen, but no inclusions visible in the centers. I see no FeS and no schreibersite that is clearly identifiable. The sample is crossed by small cracks showing oxidation (very minor) at edges. Plessite, mostly dark gray or finely banded, is abundant, ~ 30 to 35% of the area. No heat altered zone.

ASM 003 NWA 4702.
JTW 19 Feb 2007



This sample is an end section of a meteorite with total mass 123 g. Although the sawed face of the received mass had been polished and etched, the structure is essentially nondescript under the binocular scope. We will prepare a polished thick section to obtain more details. The structure is gray (no C particles, as in a carbon steel) but I worry that it might be terrestrial. There are fine "microrehabdite" linear features.

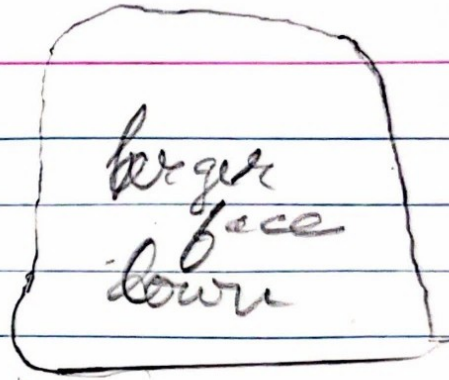
ASM 011 IN1945
JTW 15 Feb 2007

Very beautiful fine octahedrite; bandwidth ~ 0.4 ± 0.1 mm. Structure essentially the same as ASM 007.

Much plessite in the interiors of grains; almost every widmanstätten has small plessites with sizes of ~0.1-0.2 × 0.2 to 0.4. Some have one or two facets.

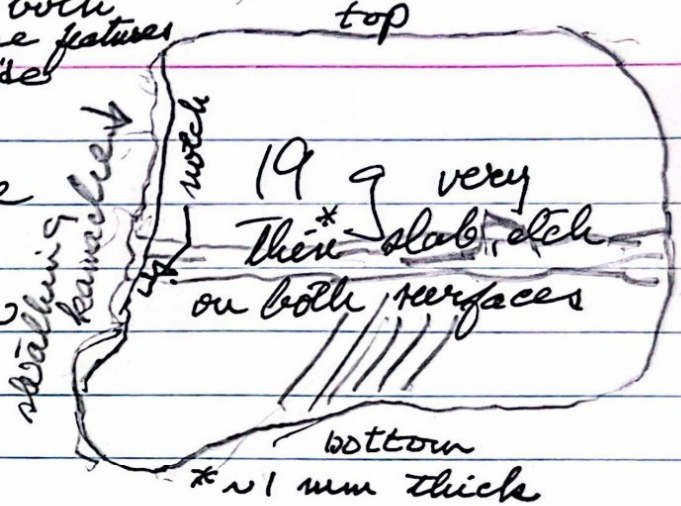
No FeS was observed.

No heat-altered zone.



ASM012 = NWA 4711 JTW Apr 07

Etched on both sides. Same features on each side



Med. octahedrite; bandwidth difficult to define, 0.8 ± 0.2. The structure is strange. There is a cluster of bands running up the center of the specimen, dividing it into two "halves". I show this in pencil on the sketch.

On the bottom side nearly all the bands are parallel in the direction shown on sketch.

On the top side of this septum the Widmanstätten pattern is more conventional, with 4 sets of bands.

The sample contains lots of plessite with a range of bandwidths in most octahedral orientation. I would guess that it contains 40% plessite.

I see no FeS and no firmly identified schreibersite.

However, at various locations in the central septum are what appear to be silicates. My first guess is that they are tridymite; my second guess is olivine. Typical sizes are 0.5 × 1.0 mm up to 1.0 × 2.0 mm. They appear to have been angular or faceted before a late shock event reduced the grain size and caused the faces to be slightly irregular. At the left end of

over