

Lewis A. Smith

Subject: Mine Visit and Conference - Chris J. Hall (In charge of field operations) 2/4/65

ACCESS: Travel 26 miles along the Hassayampa - Salome County road to where the Mary E. Ranch road joins it. Here turn north for 9 miles to the mine headquarters (This road had been graded, but it is now rough). (The road from Hassayampa is paved to the Mary E junction, but is 3 miles longer).

WORK: This is described in previous reports, except that the present water hole is now at 575 feet and has a set of tools stuck in it. Water in both holes was encountered at about 200' below the collar, according to Hall. At this well a fence has been erected for a storage yard and the proposed plant. A pile of tarred power poles was stored here. Later this will be used to build a power line 8 miles to Public Service lines on the Salome highway. The rerun on the samples from the 36" holes shows considerable recoverable gold. (The concentrates, according to Frank Broes, show up to \$30-\$35 of gold per ton or rough \$1-\$1.25 per ton of gravel, and 4 1/2-5 percent of magnetite (up to 6 percent). He stated that the Japanese checked this gold figure, and it was their report that caused L.J.C. to make the rerun for gold. The 34 holes (36 inches in diameter) showed reasonable consistency in magnetite content as did 45-2" holes (30 feet deep).

GEOLOGY: The magnetite placer occupies an amphitheatre that is roughly half of a circle, surrounded on the east and north by volcanic flow rocks lying on granite gneiss (and probably some schist). These in order are andesite, rhyolite and rhyolitic tuff, and capping the ridges, is a flow of basalt that is largely small remnants. Each of the three groups of flows is separated from the other by erosional unconformities. The andesite is somewhat basic in places. The magnetite may have weathered out of the basalt and the andesites. The Tiger and other small gold properties lie N and NE and lie, in the main, in the andesites and the underlying granite gneiss. This sort of mineralization could also have yielded the gold found in the placer. Comparing the thick flows of the Plomosa Mountains andesites (Kofa Series) (possibly 2,000 feet thick) with what remains of the Big Horn andesites, it is evident that an erosion of the latter has been extensive. It is also probably that the granitic rocks may be in part basic (diorite or hornblendite) as is the case in the Little Harquahala Mountains to the NW of this area. (These rocks formed the Bauer magnetite placer). In the manganese bearing area immediately north of this area the remaining andesites were locally very thin, and indicating extensive erosion. To the northwest gneissic granitic rocks predominate. A few small granite and gneissic granite remnants project upward out of the gravels and out from under the andesite flows, around the east and north perimeter of these gravels. The 800-foot water hole, ending in coarse gravel, show that a considerable volume of gravels lies in the amphitheatre. The cobbles, pebbles and sand around the camp consist of andesite, rhyolite, basalt and granitic rocks, at or near the surface of the gravels. The sand is largely of granitic origin.

The drill rig is a Walker-Neer Model S-32. The casing in the collar of the 575 foot hole is in 12" diameter. Recently two diesel motor-driven generators (125 KW) were placed on the ground for standby power. They are Ready Power units manufactured in Detroit, Mich.

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Phoenix, Arizona
June 29, 1975

Mr. Charley Hayashida
P. O. Box 126
Ft. Garland, Colorado 81133

Dear Charley:

In response to your request for further information on the mining property, I contacted the Arizona Department of Mineral Resources and discovered they have two files on the property. One is on the Brown Magnetite (Fred Brown was the original locator, with others, who transferred the property to Frank Broes) and the other is on LJC Mining Company, one of Broes' corporations.

I reviewed both files and made copies of the enclosed :

Report of Lewis A. Smith on Brown Magnetite,
dated 8-25-60.

Excerpt from Bureau of Mines Circular No. 8236-1964

Report of Lewis A. Smith dated 2-4-65

Report of Lewis A. Smith dated 6-18-64

These are copies of copies given to me by the department. They would not copy the headings or captions, thus my printed or typed headings or references to dates and Lewis A. Smith. The latter is the old friend of mine who I spoke to you about who confirmed to me the exploration activities that had taken place out there. I believe his written reports more or less substantiate what he told me with the exception of the extent of the total drilling program. They do confirm that the magnetic yield is 5% or better and that concentrates of magnetite will yield 60-70% iron.

You may use your own judgment as to whether to forward this material to your prospects. My personal feeling is that they should be helpfull, particularly as to the geology of the area and to show that there has been considerable interest in the area previously.

I have met with our Tucson group and they are standing by to go out to the mine to open up some of our sampling pits as soon as I receive word from you as to when we can expect the representative of International Minerals to arrive.

Kindest personal regards.

Respectfully,



Walter W. McMillen

PROPERTY: A large number of association placer claims and leases covering 800-1000 square miles south of Hwy 60-70 and south to the Big Horn Mountains. (A brochure will be sent to the Department on this).

OFFICERS: Frank Broes, 2809 W. Adams, Phoenix (273-7151).
James S. Hubble, 500 W. Clarendon (265-2455).
Blanton C. Dick, 1623 N. 26th Pl. (Brother of School Supt., Skipper Dick.)

MINERALS: Magnetite iron, titanium.

WORK: (1) 37 two-inch sample holes, 40-100 feet deep.
(2) 1 36" hole, now 600 feet deep.
(3) Several 36" holes, to various shallower depths are contemplated.
(4) Several bulldozer trenches, and test pits.

The 600-foot hole, according to Broes, contained consistent values all the way down.

RESERVES: A very large reserve of magnetite sands is estimated and, from tests so far run these reserves appear to have a grade of about 5 per cent magnetite and minus 1 per cent titanium. The magnetite concentrates run 67 to 70 per cent iron.

PLANS: According to Broes, the Company plans to be mining within 5 or 6 months to supply a contract with the Japanese that would require delivery of 2,000,000 or more, tons of magnetite concentrates per year. The Japs did not object to the titanium. (Most magnetite placers carry more than 1 per cent titanium, principally as illmenite).

NOTE: The L. J. C. Iron Company and the Calizona Mining Companies are intertwined.

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DEPT OF INT. BUREAU OF MINES CIRC 8236-1964
(S.M. HARRIS - PATENT) RECOR. OF IRON
RESOURCES IN ARIZ.

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MAKES NO REPRESENTATION AS TO THE ACCURACY
OR COMPLETENESS OF THESE DOCUMENTS.

Big Horn District (Fred Brown) Magnetitic Alluvium
Approximately 6,000 acres of alluvial plain have been located by Fred R. Brown of Picacho as a large magnetite placer deposit in the Big Horn Mountains area (49, fig. 1) and mining district. The alluvial area comprises parts of secs 9, 10, 14, 15, 16, 17, 19, 20, 21, 22, 23, 27, 28, 29, 30, and 32, T 4 N, R 9 W, Gila and Salt River meridian and baseline. The magnetite placer area starts about 17 miles south of Aguila, just east of the Aguila-Tonopah road.

Titaniferous magnetite occurs in alluvium and stream gravels reportedly ranging in thickness from a few feet to more than 100 feet. The magnetite with minor amounts of ilmenite makes up 3 to 7 percent of the alluvium; parts of the deposit contain as much as 10 percent magnetite.

Beneficiation tests made by lessees in 1961, including screening and magnetic separation, yielded concentrates containing 65 to 69 percent iron and 0.3 to 0.8 percent titania. The area has been prospected by scattered pits 10 to 15 feet deep.

Bilge Pump, New Year, Toro Hematite, Coethite Turgite

Hematite, goethite, and turgite occur as scattered clusters and color prominent northeast-trending quartzite ledges and crinkle folded jasper about 0.2 mile north of the Bards-Little Grand Canyon Ranch road (51, fig. 1) on the Toro, Bilge Pump, and New Year's limonite groups of claims located in 1956-59 by T. Collins, M. W. Rollins, and others. The deposits are in secs 32 and 33, T 4 N, R 2 E, north of the Big Boulder magnetite taconite deposit. The quartzite-jasper beds are about 50 feet thick and can be traced for almost 2 miles. Dips range from 50° N to vertical.

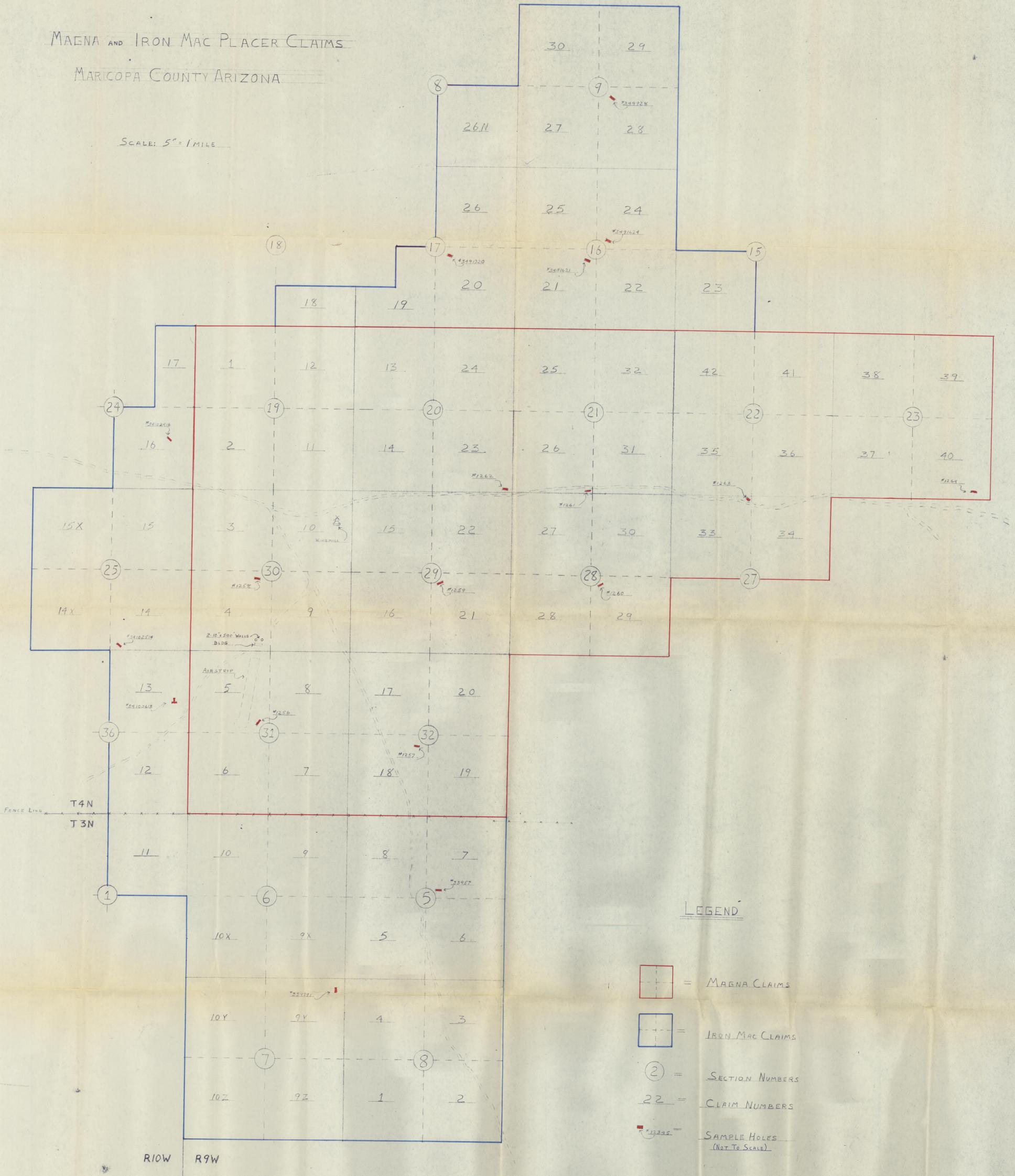
Gold placer-mining operations in the Wickenburg district indicate the presence of abundant magnetite and some hematite, ilmenite, and zircon in parts of the area (17, pp. 1180-1181).

Phoenix Mountains Magnetite

Some hematite and magnetite and some hematite (52, fig. 1) occur parallel to

MAGNA AND IRON MAC PLACER CLAIMS
 MARICOPA COUNTY ARIZONA

SCALE: 5" = 1 MILE



LEGEND

- = MAGNA CLAIMS
- = IRON MAC CLAIMS
- 2 = SECTION NUMBERS
- 22 = CLAIM NUMBERS
- #1258 = SAMPLE HOLES (NOT TO SCALE)

PREPARED BY: W.W. McMILLEN
 MARCH 14, 1975

About this issue and the next: North American Iron Ore is big and growing bigger. In fact, the subject couldn't be contained in a single issue—so it will be presented in two issues. This month E/MJ defines dimensions of the industry, discusses trends, takes a look at resources, and profiles major US and Mexican mines. In December, E/MJ will review Canadian mines and take a look at technology and transportation.

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Fri Feb 6
3:09 PM

Charlie Hayashida

re: deposit of
magnetite in

Arizona

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