



FIGURE - Geologic map showing anomalously high radiometric readings of the of the Tajo granite (Precambrian), Socorro County, New Mexico.

BH 207, 208, 209

A generalized summary of the drill hole lithologies follows:

## ARCH - 1

<u>Footage</u>	<u>Description</u>
0-130	Granite, very pale orange, medium to coarse grained quartz, plagioclase, potassium feldspar, biotite and muscovite. Trace of fluorite and uranothorite. Highly argillized with intense limonitic veins. Green chromian mica coating fractures.
130-135	Zone of intense hematization with fault breccia and re-crystallization. Trace pyrite, fluorite veins. (100 ppm uranium)
135-195	Granite, pale yellowish orange. More pervasive hematite and limonite grading outward from veins. More quartz and fluorite veins. Some manganese coating fractures.
195-230	Granite, as above. Fresher with limonite and hematite highly localized within veins. Less argillization.

FootageDescription

230-305	Granite, moderate reddish orange. More argil- lization with chloritization. Alternating zones of highly pervasive hematite and limonite stain- ing. Only minor veining.
305-315	Granite grayish orange. Much fresher with specularite veining.
315-405	Granite, moderate reddish orange, well argil- lized with more alternating pervasive zones of hematite and limonite.
405-430	Granite grayish orange. Very fresh only minor veining.
430-510	Granite moderate reddish orange to dark yellowish orange. Alternating zones of pervasive hematite and limonite. Some large veins filled with man- ganese.
510-520	Large breccia zone (8 feet of open space) filled otherwise with manganese and white clay gouge. Recrystallization.

Footage

Description

520-583

Granite, grayish orange. Relatively fresh with minor argillization. Occasional zones with no limonite and a greenish cast to the feldspars.

TOTAL DEPTH 583'

(Hole was terminated due to drilling difficulties)

## ARCH-2

(Core)

<u>Footage</u>	<u>Description</u>
0-85	Santa Fe Formation, conglomerate, gray red, rounded granitic and volcanic pebbles, red clay matrix.
85-116	Fault breccia, dark red brown, highly silicified with hematite, quartz, barite and fluorite veins.
116-124	Alternating fault breccia and granite with banded chert.
124-159	Granite, light brown, medium grained, moderately argillized. Minor hematite-quartz veins with adjacent seritization. Trace of pyrite on 3-4 fractures.
159-200	Granite, moderate reddish orange, strong veining of quartz, hematite, green fluorite, and barite.
200-313	Granite, gray red, zones of pervasive hematite with minor quartz hematite veins.
313-353	Granite, yellow gray, argillized with quartz-chlorite stringers containing minor pyrite.
353-357	Granite, gray orange, moderately argillized with veins of purple fluorite. Increased density of quartz-chlorite stringers.

<u>Footage</u>	<u>Description</u>
357-410	Granite, gray red, highly argillized with strong quartz-hematite and quartz-chlorite veining. Local seritization and increasing pyrite on fractures.
410-414	Fault breccia, dark red brown, quartz-hematite matrix with manganese coating on fractures.
414-450	Granite, pale red, moderately argillized with quartz-chlorite stringers. Minor pyrite.
450-511	Granite, grayish red, pervasive hematite with quartz-chlorite stringers. Increase chloritization.
511-562	Granite, pale red, moderately argillized with alternating bands of pervasive hematite and chlorite. Quartz-chlorite stringers with pyrite and a trace of molybdenite.
562-599	Granite, medium red, pervasive hematite, quartz-chlorite stringers. Local seritization.
599-629	Granite, alternating zones of pale red (argillized with pervasive hematite) and olive gray (pervasive chlorite). Very minor pyrite.
629	Total Depth.

## ARCH-3

(Core)

<u>Footage</u>	<u>Description</u>
0-102	Granite, pale red, pervasive sericitization, moderate argillization. Orange chert stringers. Local zones of strong pervasive hematite. Limonite coating on fractures.
102-230	Granite, pale red, pervasive hematite and increasing pervasive chlorite.
230-262	Granite, light brown, argillized with local sericitization and chloritization. Veins of green and purple fluorite. Heavy manganese coatings on fractures.
262-349	Granite, pale red, argillized with more pervasive sericite, chlorite. Red chert stringers and limonite coating on fractures.
349-442	Granite, gray red, alternating zones of strong argillization and pervasive hematite. Moderately chloritized. Occasional stringers of red chert.
442-490	Granite, pale red, intensely argillized with local zones of pervasive hematite. Silica flooding.
490-550	Granite, pale red brown, highly silicious. Fresh biotite, minor chloritization.

Footage

Description

550-600

Granite, pale red, fresh biotite with minor hematite-quartz-chlorite stringers. Trace of pyrite on a fracture.

600

Total Depth.