(283) Item 7

UNIVERSITY OF NEVADA
NEVADA BUREAU OF MINES AND GEOLOGY
RENO, NEVADA 89507

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REPORT FOR MINERALS DEVELOPMENT COMPANY ON
IRON ORE PROSPECTING IN THE BUENA VISTA HILLS,
PERSHING COUNTY, NEVADA.
by E. L. Stephenson (March 1958)

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REPORT FOR MINERALS DEVELOPMENT COMPANY ON IRON ORE PROSPECTING IN THE BUENA VISTA HILLS PERSHING COUNTY, NEVADA

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INTRODUCTION

In March 1958 certain magnetic tests and other observations were made for Minerals Development Company on iron ore claims in the Buena Vista Hills, Pershing County, Nevada. The claims, part of which were known originally as the Stoker-Marker holdings, are located in Sections 16 and 22, T. 25 N., R. 34 E. In 1951 and 1952 the writer made magnetometer measurements for American Ore Company on a series of small grids on the Stoker-Marker claims, and two reports were prepared. Later, independent magnetometer measurements were made on the near-by Lahontan and Apache groups, which had been located by the writer and Mr. Wayne Stoker. American Ore Company produced and shipped a relatively small tonnage of high-grade iron ore from the Stoker-Marker claims, and diamond drilling and bulldozer stripping and trenching also were done by that company and by Parker Bros.

Minerals Development Company now plans additional prospecting and evaluation by diamond drilling on the Stoker-Marker claims and probably on the Apache and Lahontan claims, some of which have been relocated and renamed. The present field work included (1) marking of new drill hole sites on the ground by relocating some of

the old grids and the magnetic anomalies therein, (2) additional magnetometer measurements in old Grid No. 1 to check the new hole locations, and (3) magnetometer measurements to extend old Grid No. 5 to the southeast. As drilling is now under way and as the chief areas to be tested already have been marked on the ground, this brief report merely summarizes the work for the record.

GRID NO. 1 AREA

The accompanying sheet of magnetic profiles shows the new magnetic data in Grid No. 1 without specific reference to the earlier traverses, which could not be reestablished exactly because of extensive dozer stripping. New diamond drill hole No. 1 was collared near the crest of the knob to test the main north positive anomaly. The location for diamond drill hole No. 2 is a short distance to the west in the same zone. One magnetometer traverse was run through this latter location and a parallel traverse was run 50 feet to the west. The curves are essentially the same as those of the earlier survey, but as a result of the closer spacing of the lines it now is shown that the western negative split extends farther eastward into the positive anomaly and that the positive area south of the negative is the more important. The two drill holes will test this part of the north anomaly, which, as has been stated before, may be caused largely by submarginal concentrations of magnetite in the diorite.

In the area of the southwest positive anomaly mapped by the earlier survey four new traverses were run at a 50-foot spacing instead of the earlier 100-foot spacing. The curves show that the magnetic zone is weak and very narrow at the west end (0 line), but that very strong positive peaks of 25- to 75-foot widths occur on the 100E and 150E lines. This may be the most favorable place in the Grid No. 1 area for possible development of high-grade iron ore at shallow depth. It is recommended that at least one hole be drilled in this area, to test the positive anomaly between the 100E and 150E lines. The location already has been marked on the ground.

GRID NO. 5 AREA

Grid No. 5 traced a rather strong magnetic zone for 1000 feet southeastward from the northwest corner of Section 22 and showed several positive centers, but the zone was not closed off on the southeast, where the 900E and 1000E lines showed a large positive area. In the present work, therefore, five additional north-south traverses were run at 100-foot intervals to further check this zone to the southeast. The accompanying map of Grid No. 5 Extension shows the plan of the new grid, the relationship to the old grid, and the magnetic results.

The characteristic magnetic reversal, including a broad negative zone on the northeast and a rather variable positive zone on the southwest, continues across Grid No. 5 Extension. On the 500E line the negative zone swings sharply southward, but this may be simply a local reentrant similar to those noted in Grid No. 5. In any event, the magnetic data now strongly indicate the presence of a structural and mineralized zone of southeasterly trend that may continue southeastward to include the anomaly zones in old Grid No. 6 and Grid No. 7. If additional magnetic prospecting is undertaken at a later date, this part of Section 22 should receive further investigation.

Within Grid No. 5 Extension the general zone includes two rather small, strongly positive areas similar to those mapped in Grid No. 5. A strong peak on the 300E line reaches a maximum value of 16,000 gammas, but the strike length is small. A related peak

of short strike length on the 400E line reaches a maximum value of a little over 9,000 gammas. These anomalies indicate local concentrations of magnetite, some of which may be of shipping grade. The tonnage of such material probably is relatively small.

These findings are similar to the earlier ones, with all data indicating a mineralized zone within which there are relatively small masses of higher grade. In the present program, if drilling is undertaken in the northwest part of Section 22 for the purpose of developing shallow high-grade ore, there is little magnetic choice between the central anomaly in old Grid No. 5 and the new anomaly in Grid No. 5 Extension, but as the former may have greater strike length it probably should be drilled first.

OTHER AREAS

Other areas under consideration for drilling in the present program are old Grid No. 3 on the Iron Queen No. 1 claim and the Apache and Lahontan claim groups. The present operators are in possession of the writer's earlier magnetic maps of all of those areas, and the locations of the principal anomalies already have been marked on the ground.

As to order of procedure, the very high magnetic values of the chief positive anomalies in Grid No. 3 suggest that this area may be the most favorable for development of shallow high-grade ore. It would seem best to drill at least one hole here in the main anomaly immediately following the drilling in Grid No. 1. Although the magnetic curves, as noted in an earlier report, are complex and indicate the presence of splits and horses of country rock or strong faulting, or both, a considerable tonnage of mineable high-grade ore might be developed.

The anomalies in the Apache group are broader but of lower magnetic intensity, thus suggesting lower grade or greater depth, or both. Only drilling will determine depth and grade, however, and in view of the possible size of the bodies it would seem best to drill at least one hole to a reasonable depth in the best anomaly.

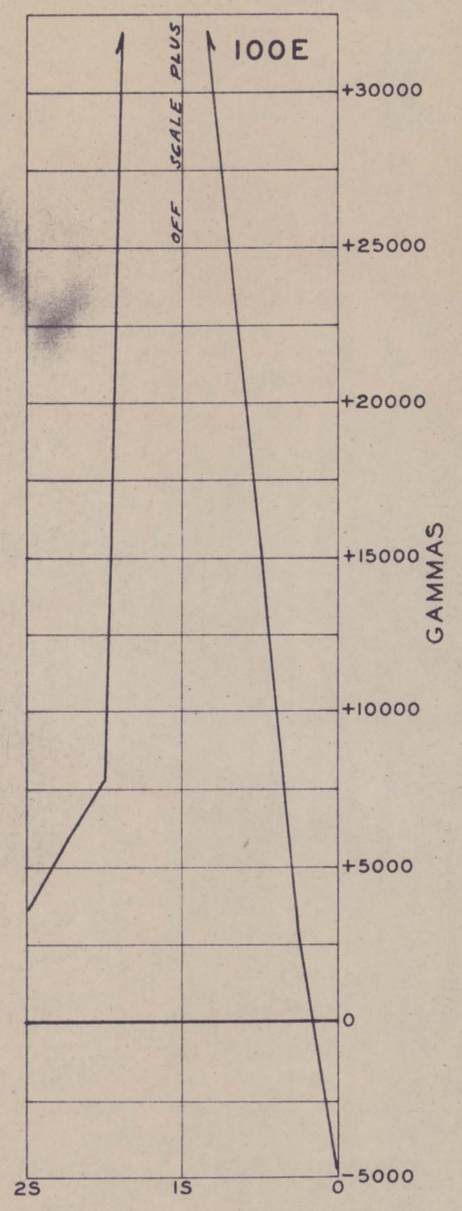
The former Lahontan claims, now renamed, are on a high gravel bench in the north central part of Section 16, where there is a magnetic zone of long strike length. The zone contains at least one positive anomaly of moderate strength, and only this

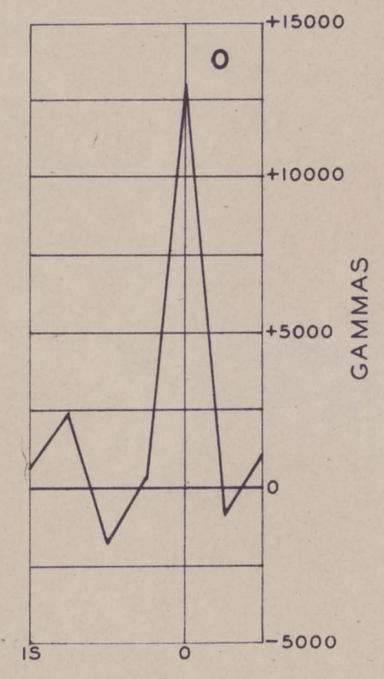
anomaly has been mapped in detail to date. Bedrock is covered by a very considerable thickness of gravel, and because of this unknown depth factor the true significance of the magnetic anomaly is difficult to evaluate. It very well may indicate only submarginal mineralization along a structural zone, but in view of the relatively long strike length a drill hole is justified if any longer range development is contemplated. The proper site for a first test hole is marked on the ground.

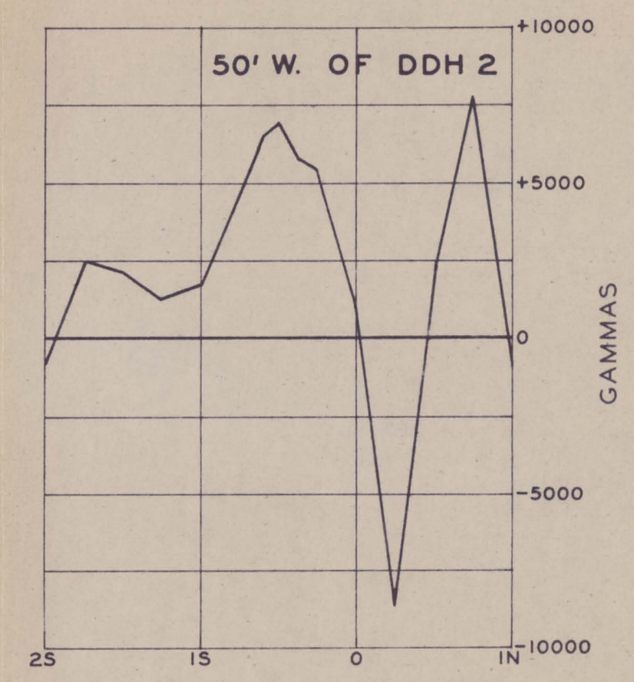
Reno, Nevada
March 26, 1958

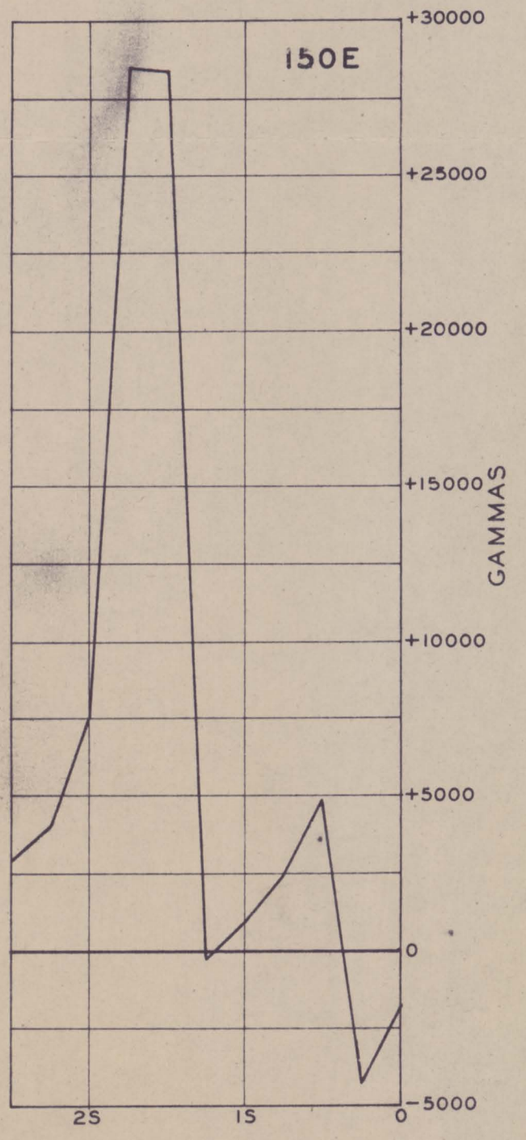
E. L. Stephenson
Consulting Geophysicist

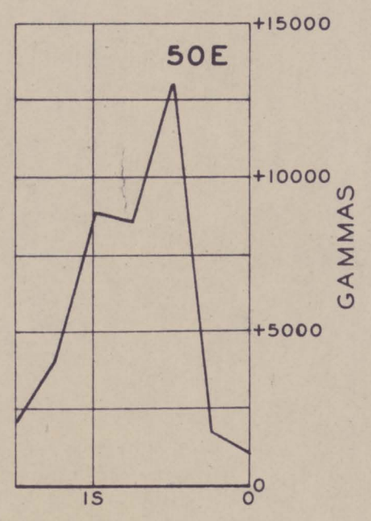
MINERALS DEVELOPMENT COMPANY

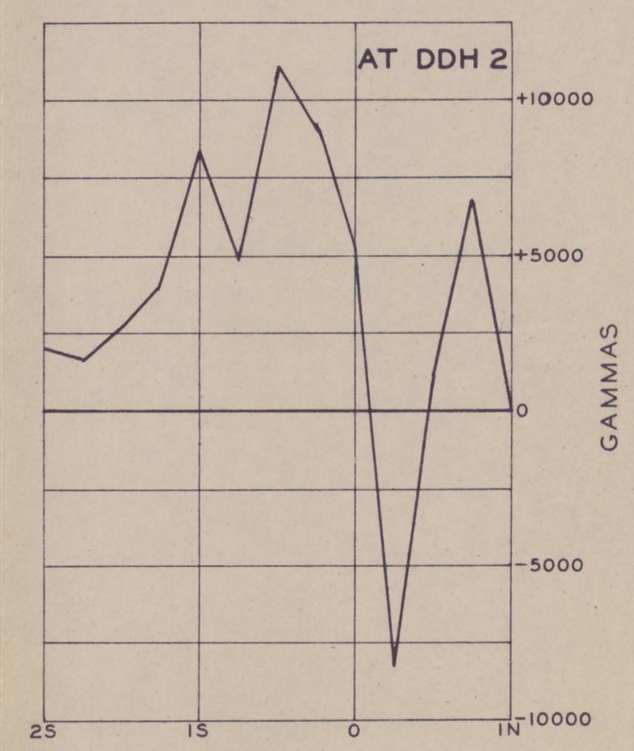












SOUTHWEST AREA
1" = 100'

D.D.H. NO. 2 AREA
1" = 100'

SURVEY BY E. L. STEPHENSON 1958

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MAGNETIC PROFILES IN GRID NO. 1, SECTION 16, T. 25 N., R. 34 E., PERSHING CO., NEVADA

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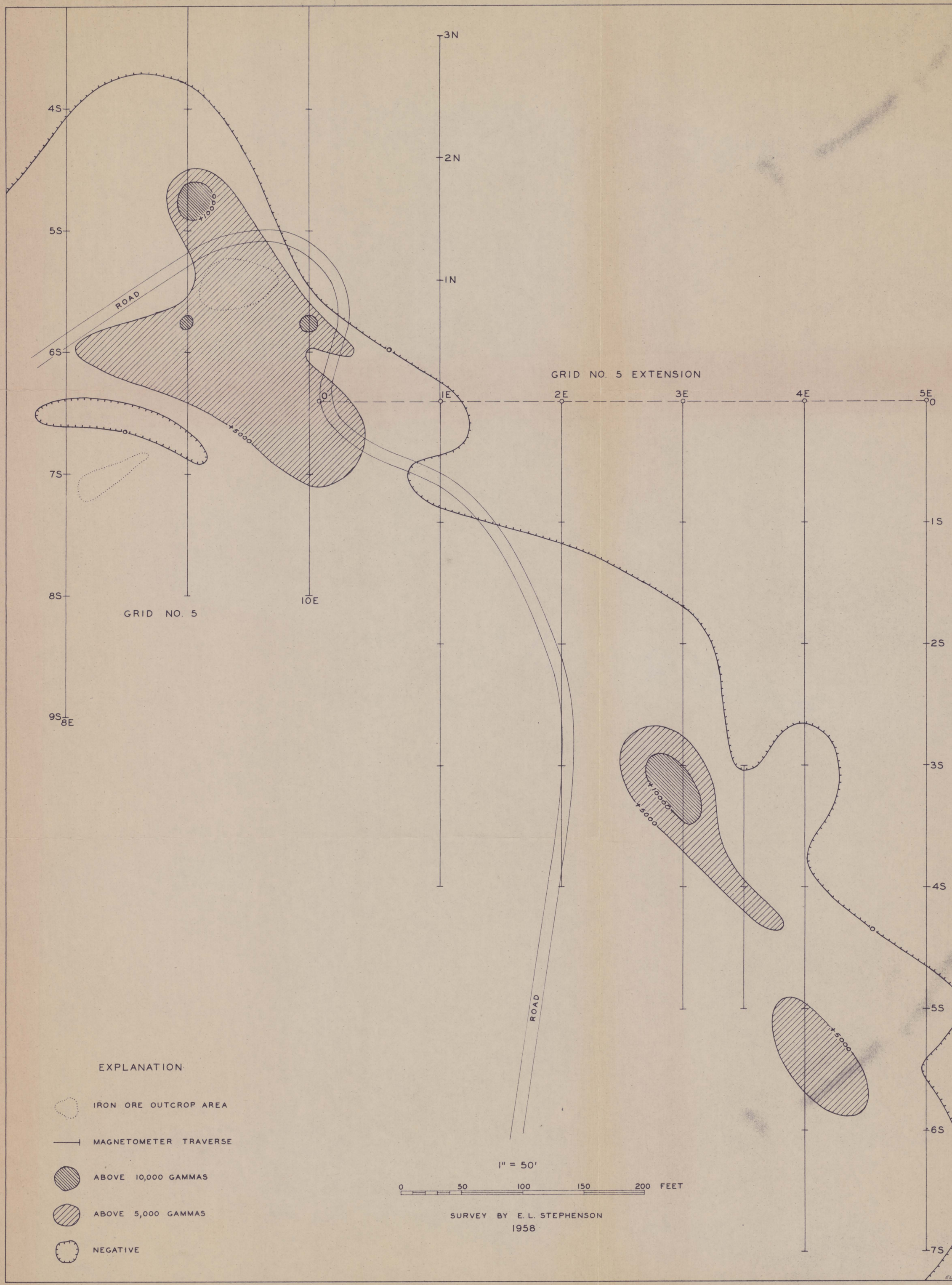

MAGNETIC ANOMALIES IN GRID NO. 5 EXTENSION, SEC. 22, T. 25 N., R. 34 E., PERSHING CO., NEVADA

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