State Department of Geology and Mineral Industries

1069 State Office Building
Portland 1, Oregon

Malheur County

LA RAE #1 (Magnetite)

Owner: Joe E. Gosmeyer, Federal-State Inspection Station, Ontario, Oregon. Another notice of location, post-dating that of Gosmeyer's was posted by a Bretney J. Nolan.

Location: One lode claim was located by Gosmeyer on April 21, 1956, in sec. 4 (?), T. 16 S., R. 41 E., southeast of Juniper Mountain. The area is unmapped other than by county survey.

The property may be reached by traveling 8 miles west of Brogan on the Brogan-Unity Highway. Five miles south of this point on the Juniper Mountain Ranch road (sign on highway) is an abandoned cabin and corral. Just north of the cabin a dim road passable only to a pickup or Jeep leads eastward 1.2 miles to where it is washed out near the mouth of a north-sloping canyon. The prospect lies near creek level about three-quarters of a mile up this canyon.

Development: One pit 8 feet deep was dug to expose a vein or pod of massive magnetite 6 feet wide.

History: There is no record of previous development on the subject La Rae claim, but other occurrences have been found in the vicinity. One of these, the Iron Hill claim discovered in 1952, lies in secs. 9 - 10, T. 16 S., R. 41 E., southeast of the Gosmeyer prospect. Several bulldozer trenches were cut to expose the deposit, and as reported by N. S. Wagner (5-8-53), the magnetite occurs both in massive and disseminated bodies in greenstone. The prospect has no production record.

Geology: The area enclosing the exposed magnetite body is composed chiefly of a hornblende-rich dioritic rock containing well-formed feldspars up to one-half inch in length. Diorite in outcrops and heavy float was observed along the east side of the canyon for over 2000 feet north of the prospect pit and is in contact with limestone near the mouth of the canyon.

No attempt was made to locate the eastern and southern limits of the exposure. A small isolated outcrop of basalt, presumably a local remnant of an intracanyon flow, overlies the diorite slightly above creek level and a few hundred feet south of the prospect pit. From distant observation, it is believed that basalt caps the ridge about one-half mile to the south of and a few hundred feet above the prospect pit. Possibly it also caps the ridge a comparable distance to the east.

The canyon which slopes roughly N 15° E appears to have been cut along the contact between the diorite to the east and a relatively fresh rhyolite to the west. Much of the rhyolite is porphyritic containing large phenocrysts of colorless and fractured quartz.

The before mentioned limestone occurring near the mouth of the canyon is in contact with the rhyolite on the west flank and with the diorite on the east flank. The limestone is exposed for at least one-quarter mile both east and west of the canyon mouth and is over 400 feet wide. Altered limestone forms a part of one wall of the magnetite body and possibly local limestone remnants exist at other places within the diorite.

Massive magnetite occurs in a nearly vertical vein-like structure

6 feet wide striking approximately N 80° W. The vein or pod is exposed to a depth of 8 feet on the east side of the creek. No further trenching was done to determine the extent of the body and no natural exposure or float was observed elsewhere in the immediate area. Overburden, however, is probably several feet thick as few extensive outcrops of the host diorite were observed.

The contacts on either side of the magnetite body are sharp and no apparent dissemination of the magnetite has occurred. Traces of sulphides were seen in conjunction with the magnetite; but their quantity, as observed, may be insufficient to be detrimental. The origin of the magnetite is obscure and could not be determined in the time allowed on the property. In view of the limited presence of limestone near one contact of the body, it is possible that the magnetite was formed as a metasomatic replacement along the contact between limestone and the diorite. If such be true, however, it seems likely that the contacts would be gradual rather than sharp as is apparent.

Economics: One sample of the magnetite (QB-44) submitted by Mr. Gosmeyer, assayed 59.80 percent iron. The sulphur and phosphorous content of this sample was not determined. Mr. Gosmeyer reports that an analysis of the magnetite by a commercial laboratory shows negligible sulphur and phosphorous.

Although the magnetite appears to be of good quality over its exposed width, surface observations do not indicate the presence of a minable

quantity of ore. It must be admitted, however, that development work has been almost nil and further appraisal of the deposit is contingent upon additional exploration.

Report by: Howard C. Brooks

Date of Examination: July 17, 1956

Date of Report: July 30, 1956

Informants: Joe E. Gosmeyer

References: Iron Hill Claim — H. S. Wagner, 5-8-53

LA RAE #1 — NAME

OLD NAMES

Magnetite — PRINCIPAL ORE

MINOR MINERALS

16 S. (T) 41 E. (R) 4 (?) (S)

PUBLISHED REFERENCES

Malheur ..... COUNTY

..... AREA

..... ELEVATION

MISCELLANEOUS RECORDS

Brogan-Unity Highway ..... ROAD OR HIGHWAY
8 miles west of Brogan

..... DISTANCE TO SHIPPING POINT

PRESENT LEGAL OWNER (S) Joe E. Gosmeyer ..... Address Federal-State Inspection Station, Ontario, Ore.

.....

.....

.....

OPERATOR .....

Name of claims	Area	Pat.	Unpat.

Name of claims	Area	Pat.	Unpat.

EQUIPMENT ON PROPERTY

MI-21