

536

REPORT OF GEOPHYSICAL AND GEOLOGICAL SURVEYS.

KEN #2, #3, and #4 CLAIMS.

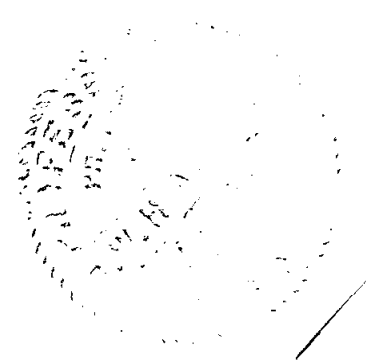
LIARD MINING DIVISION

By: G. C. Gutrath, D.Sc., U.D.C.

and

Dr. G. W. H. Norman, P. Eng.

July and August, 1963.



CONTENTS.

Introduction 1

Location 1

Work Performed 1

Magnetometer Survey 2

Geological Survey 3

Magnetic Contour Map 1" = 200' In Folder 1

Outcrop Geology Map 1" = 200' In Folder 2

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 536 MAP

REPORT OF GEOPHYSICAL AND GEOLOGICAL SURVEYS.

KEN #2, #3, and #4 CLAIMS.

LIARD MINING DIVISION.

By : G. C. Gutrath, B.Sc. and Dr. G. W. H. Norman, P. Eng.

For: Newmont Mining Corporation of Canada Limited.

JULY 24 - AUGUST 3, 1963.

INTRODUCTION

This report presents the results of a Magnetometer and Geological survey carried out on the Ken Claim Group during July and August, 1963.

Location

The Ken group of claims is located between the elevation of 4500 ft. and 6000 ft. on the divide between the headwaters of Forrest Kerr Creek and the southward flowing tributaries of the Iskut River.

The claim group is 12 miles N.E. of the Verrett River - Iskut River junction, and 14 miles N.W. of the Forrest Kerr Creek - Iskut River junction.

WORK PERFORMED

General Statement

The personnel employed for the work on the Ken claim groups were as follows:

G. C. Gutrath, B.Sc., U.B.C.
Adrian Hankey, B.Sc., U.B.C.
John Burwash

Party Chief
Geophysicist
Line Cutter

Craig Stevenson
Robin Mason
Dr. G. W. H. Norman, P. Eng.
G. W. Wieduwilt

Line Cutter
Line Cutter
District Chief
Consulting
Geophysicist

Mr. A. Hankey, employed to run the magnetometer survey, had three years previous experience with magnetic ground survey methods. Mr. G. Wieduwilt is a consulting geophysicist with 15 years experience and is employed by Newmont Mining Exploration Limited. He spent one day assisting Mr. Hankey in the correlation and interpretation of data.

A total of 54,200 feet of cross lines were cut and marked at 100 foot intervals along a 6000' base line.

The lines were surveyed by Askania Magnetometer by Mr. A. Hankey and the outcrop geology mapped by Mr. G. Gutrath.

MAGNETOMETER SURVEY

Instrument

The magnetometer used for the ground survey work was an Askania-Werke torsion bar type with a rated scale value of 224.0 gammas per degree. Each degree is graduated into ten divisions and in reading the instrument it is possible to estimate to a tenth of the graduated division.

Method Employed

To obtain the diurnal variation, or the presence of magnetic storms, readings were taken at a base station in camp and a local base in the field. It was found that the diurnal changes were too small to affect the overall pattern of the readings.

The readings were plotted in the field and were read to one hundredth of a degree. For conversion to gammas, the degree readings were multiplied by 224.0.

Results

The objective of the magnetometer survey was to locate on the ground an anomaly found by airborne magnetometer work the previous year. The survey revealed a well defined anomalous zone on the Ken #2 claim (cross lines 19.5 XL-W and 18 XL-W at station 1400 South) with a high positive reading of 43,578 gammas and a low negative reading of 23,620 gammas. The contoured anomalous zone indicates a magnetic, lenticular shaped body dipping at approximately 45° to the S.W. and having a strike length of approximately 400'. Another well defined anomalous zone was located on the Ken #3 claim (cross lines 24 XL-W and 22.5 XL-W station 17 South to station 21 South) with a high positive reading of 32,850 gammas and a low negative reading of 20,120 gammas. The contoured anomalous zone indicates a magnetic body dipping to the east and having a strike length of approximately 700 feet. The rock underlying these magnetic highs are magnetite rich skarn zones. The other anomalies found had much lower gamma values and were related to the andesitic flows.

GEOLOGICAL SURVEY

General

The outcrop geology of the Ken #2, #3, and #4 is shown on the enclosed map. The outcrops were located by traversing on enlarged aerial photographs and by mapping the lines laid out for the geophysical survey. The claim area mapped is on the rounded dome of a large snowfield. The few outcrops exposed are on the edge of the snowfield and on a prominent central ridge running approximately north-south across the snowfield.

Rock Units

The greater part of the rocks on the claims are interbedded, silicified, crystall tuffs, volcanic fragmentals, andesitic flows and minor interbedded tuffs and argillites.

Within the volcanic series there are some limey members that have been altered to mineralized skarn zones.

To the east and west of the Ken Claims there are extensive outcroppings of grey, crystalline limestone. This limestone overlaps the volcanic member in which the mineralized skarn zones are found.

Structure

The general trend of the volcanic and sedimentary belt in the Forrest Kerr-Iskut River divide area is N.E. This trend has been complicated in the area of the Ken Claim group by a strong N.E. trending fault zone and a series of folds which have given rise to a local easterly trend.

Mineralization.

The mineralization occurs in a garnet, epidote skarn. The skarn has been localized along favourable limey beds in the volcanic series and is not related to any exposed intrusive contacts. To determine the extent of the mineralized skarn zones it would be necessary to diamond drill the property.

G. G. Cutrath
G. Cutrath, B. Sc.

G. W. H. Norman
G. W. H. Norman, P. Eng.

October 10, 1963.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 536 MAP 1 (KEN NOS. 2, 3 AND 4)

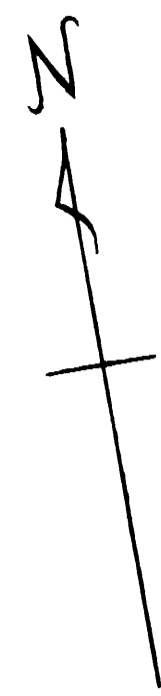
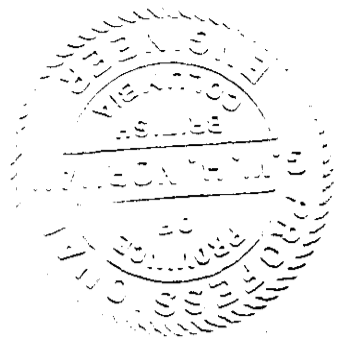
MAGNETOMETER SURVEY

OF THE

KEN CLAIM GROUP

LIARD MINING DIVISION

JULY-AUG 1963



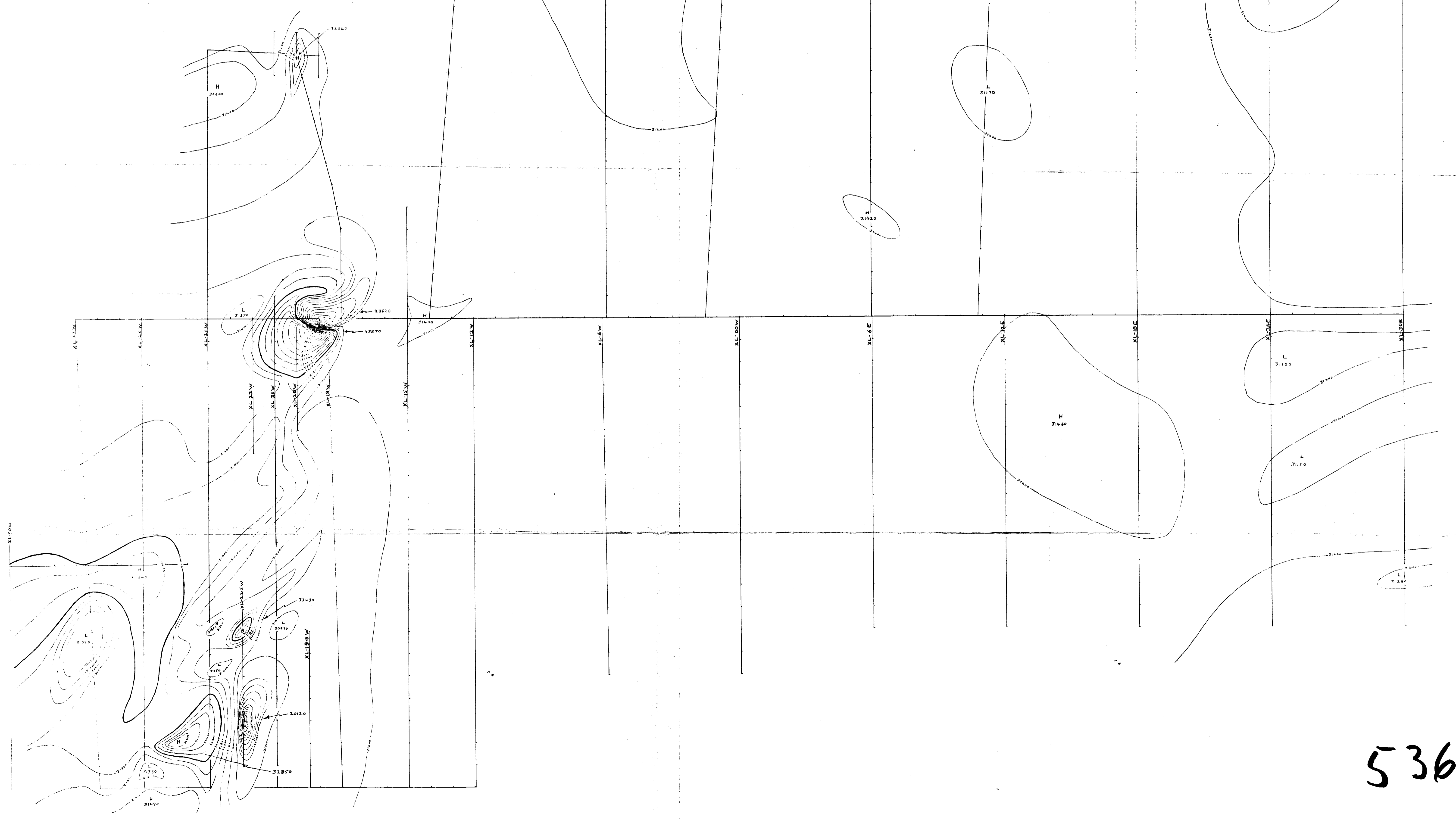
LEGEND

SCALE 1 in. = 200 ft.

- GRID LINE with stations at 100 ft. intervals
- ISOGAMS - at 1000 γ interval on steep gradient
- at 200 γ interval on slight gradient

OPERATED & DRAWN by A.A. HANKEY
SUPERVISED by G. GUTRATH & G.W.H. NORMAN p. eng.

OCTOBER 10th 1963



H12

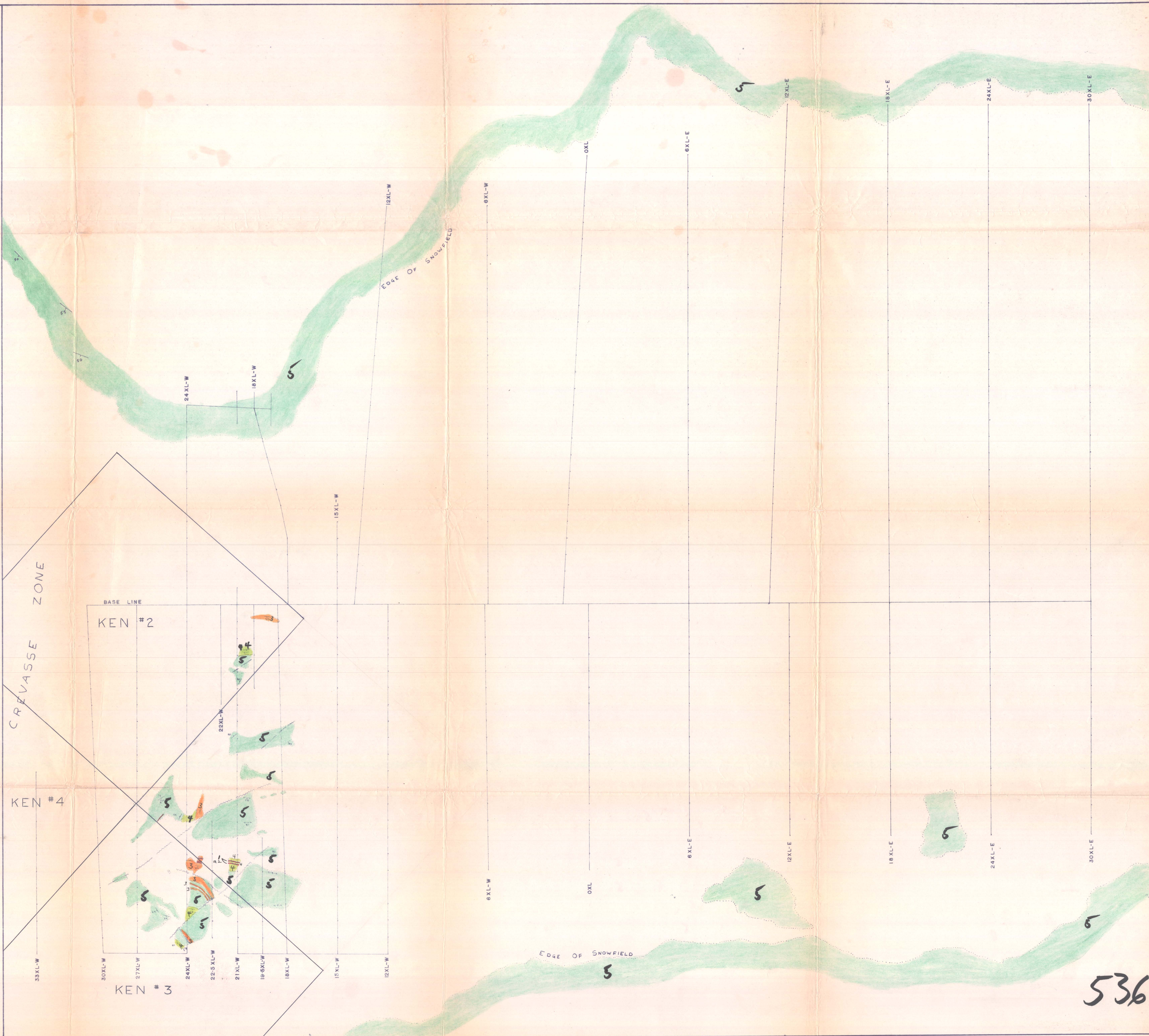
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 536 MAP 2

OUTCROP GEOLOGY
OF THE
KEN CLAIM GROUP
(KEN #2, #3, and #4)
LIARD. MINING DIVISION
JULY - AUGUST, 1963



EXPLANATION

- Volcanic fragmentals, andesitic flows, and minor interbedded tuffs and argillites █ 6
- Silicified, bedded, crystal tuffs █ 4
- Garnet, epidote skarn █ 3
- Hornblende - feldspar porphyry dike █ 2
- Quartz porphyry dike █ 1
- Bedding plane
- Shearing plane
- Fault
- Fold axis
- Outline of outcrops
- Grid lines
- Geological contacts



SCALE: 1 inch = 200 feet

October 10th., 1963 G.Gutrath
Supervised by G.W.H. Norman P.Eng.

536