



42A06SE0013 63.248 CARMAN

010

CARMAN-LANGMUIR ASBESTOPORCUPINE MINING DIVISION, ONTARIOINTRODUCTION

Six claims, four in Carman Township and two in Langmuir Township form the claim block. The claims lie east of the 2 mile post on the township line and can be reached most conveniently from a trail leading west from the west shore of Carman Bay.

Previous work on the claims include lines cut at 400 foot intervals, north and south, dip needle readings at 100 foot intervals along these lines and some geological mapping. This report summarizes the findings from detailed geological mapping, surface trenching and blasting and a ground magnetometer survey carried on at the property from May 7th to May 24th, 1951.

GEOLOGY

The area was mapped by traversing along picket lines spaced at 200 foot intervals. The rocks on the claims can be divided into three main divisions. The southern and northern part of the claim group is underlain by acidic, basic and intermediate composition lava with some interbeds of tuffaceous material. Specimens 11, 12, 13 and 2 illustrate the various rock types that occur along the belts of volcanic rocks.

Immediately north of the south belt of volcanic rock is a band of highly fractured dark greenish weathering rock that varies in width from 1000 feet at the western part of the claims to about one half mile near the eastern end of the claims. Along this zone there is evidence of pillow structures and the rock is considered to be a highly altered serpentized lava. The greater portion of the asbestos fibre found to date on the claims occurs along this belt and it will be referred to later in this report.

To the north of the main asbestos-bearing zone is a belt about 1600 feet wide of white weathering highly serpentized peridotite. The rock along the southern margin of this belt is highly serpentized and the outlines of the olivine crystals destroyed. Shallow pits, at various places, along the highly serpentized band showed closely spaced fracturing with numerous thread-like veinlets of white material, probably carbonate material and only a small amount of asbestos fibre. Along such a highly altered and bleached zone it is impossible without blasting to form any idea of the asbestos content. The limited amount of work that could be done on this zone in the period devoted to the claim group did not indicate asbestos in commercial amounts. Asbestos fibre was found at several places while traversing across the belt but was not exposed by blasting. Specimens 6, 7 and 8 show the extremely altered character of the rock and specimen 14 shows magnetite stringers cutting the highly serpentized rock.

The rock along the northern contact of the serpentized zone is not as intensely altered and hand specimens show evidence of brecciated olivine crystals and segregations and veinlets of magnetite. Asbestos fibre was not

noted in this type of serpentized peridotite. Specimen 1 illustrates the least altered portion of the serpentine belt.

Two dike-like bodies of brownish weathering rock, classed as feldspar porphyry with a northwesterly trend cut the main asbestos zone on claims 36091 and 36096. Specimen 9 is from one of the dike-like masses in the southeasterly corner of claim 36091.

The serpentine belt is thought to occupy a synclinal position with a northeasterly strike and to be flanked on the north and south by older lavas. The only evidence of faulting is a series of slickensides with a southwesterly dip, along the face of an escarpment in the central part of claim 36094. Evidence of considerable shearing and carbonatization was also observed on an exposure in the northeasterly part of claim 36094.

ASBESTOS SHOWINGS

Prior to doing detailed geological work the drilling and blasting was done at points where asbestos fibre was noted along the highly serpentized zone in the northwesterly corner of claim 36094 and at a few points to the southwest in claim 36091. Work at these points did not uncover interesting conditions for the occurrence of asbestos. Geological work showed that the belt of greenish weathering olivine-rich rock south of the main serpentine belt held more promise for asbestos and work was concentrated on this zone. Three more trenches and several shallow pits were put down on this zone.

TRENCH NO. 1

Located 600 feet south on O+00 picket from iron peg 420 feet east of No. 4 post of claim 36094. Trench strikes 145 degrees and is 29 feet in length. The most prominent set of fractures strike between 165 and 170 degrees and dip 60 degrees northeast. This set of joints divide the rock into blocks or layers with a true width of three feet. Other fractures strike 235 degrees, dip 80 degrees southeast, 140 degrees and dip 87 degrees northeast. The parallel fractures or furrows with asbestos veinlets rarely up to 1/4 inch in width in general strike N 65 degrees E and dip 75 degrees southeast.

Due to the amount of jointing in many directions it was impossible to get a clear surface for fibre determination. To get a more reliable idea of the fibre content and quality, a fairly large sample was chipped off along the face of the trench and shipped to the Asbestos Corporation of Canada, Thetford, Quebec. The sample was labelled No. 1.

Rock similarly fractures to the exposed in trench No. 1 can be traced across a width of 100 feet. The fractures are too widely spaced in sections across the zone to make interesting asbestos-bearing rock. This belt can be investigated after the results of the test sample is shown. I do not consider there is enough asbestos fibre to make commercial ore and the fibre feels talcy. The asbestos fibre is only confined to one set of fractures.

TRENCH NO. 2

Trench is located 200 feet north 43 degrees east from trench No. 1. The trench strikes 305 degrees and is 21 feet in length. The rock in this

trench is similar to what was uncovered in trench No. 1. The main fractures strike north 50 degrees east and dip 85 degrees southeast. The fibre width varies from 1/16 inch to 1/4 inch and is confined to only one set of fractures with a general north 50 degree east strike. The fractures appear to be too widely spaced to make a grade of more than 2 or 3 per cent asbestos. Sample No. 2 sent to Asbestos Corporation of Canada came from rock blasted from this trench. This trench is near the north contact of the interesting zone. North of this trench the rock weathers brownish and is not as highly fractured and causes less asbestos.

TRENCH NO. 3

Located 130 feet southwest from trench 2. Trench strikes south 30 degrees west and is 23 feet in length. The rock exposed in this trench is similar to that met in trenches 1 and 2, except that it is not as intensely fractured. Asbestos fibre up to about 1/4 inch in width is fairly abundant and has a general northeasterly trend. There are no horizontal fracture fillings with asbestos and from an estimation asbestos would average less than 2 per cent. To check on the percentage of asbestos fibre a sample, (No. 3) was sent to Asbestos Corporation of Canada.

CONCLUSIONS

The work on the Carman-Langmuir claim group outlined a zone about 200 feet wide of serpentinized basic rock carrying a variable asbestos content. The rock in this zone is fairly well fractured and the asbestos veinlets varying from 1/16 to 1/4 inch in width are confined to the northwesterly trending fractures. Asbestos fibre does not occur in the flat-lying fractures.

Even if the results of the samples being tested do not indicate commercial grade of asbestos, it is recommended that more trenching be done along the zone as only a small part of it was investigated. Asbestos fibre was noted at several places in the belt of highly serpentinized peridotite north of the zone investigated. It is recommended that more trenching be done in selected sections along this belt before the asbestos possibilities can be determined.

Respectfully submitted,

(s) Dr. J. D. Wright.

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June 9, 1951.



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DOMINION GULF COMPANY
GROUND MAGNETOMETER SURVEY
CARMAN-LANGMUIR CLAIMS GROUP I
FORCUPINE MINING DIVISION, ONTARIO

GROUND MAGNETOMETER SURVEY
GARMAN-LANCMUIR CLAIMS GROUP I
PORCUPINE MINING DIVISION, ONTARIO

INTRODUCTION

During the period May 7, to May 24, 1951, a ground magnetometer survey was carried out on this group of 6 claims in conjunction with a detailed geology program.

Picket lines were cut at 200-foot intervals, a total of 50,875 feet of chained picket line being available for the survey. A Schmidt-type vertical component magnetic balance constructed by Ruska was used to obtain the local variations in magnetic intensity. Stations were read at 100-foot intervals along the picket lines. Fill-in stations at 50-foot intervals were added where steep magnetic gradients were encountered. In all, some 690 stations were read.

SUMMARY

Ground magnetics suggest that future exploration work on this property be confined to trenching in the vicinity of local magnetic anomalies in the serpentinized lava band. Further ground magnetics are not recommended unless trenching shows a body of commercial-grade ore.

INTERPRETATION

The magnetic picture is highly complicated. Geological mapping has shown that the claim group is composed of a peridotite mass intruding a belt of intermediate-to-basic lavas. The south contact of the peridotite with the lavas is characterized by a zone 1,000 feet wide, of highly serpentinized, and fractured lava. The north contact is fairly sharp.

The high degree of serpentinization in the peridotite and lava has apparently developed a great deal of secondary magnetite, causing many sharp, local, magnetic anomalies. These anomalies tend to mask the major structural features and make interpretation exceedingly difficult.

The serpentinized area has been outlined on the interpretation overlay, through a combination of geology and magnetics. Within the serpentinized band local magnetic anomalies have been indicated. It is extremely doubtful that the local anomalies as sketched on the overlay, indicate magnetite masses of corresponding shapes. What is more probable, is that each of the indicated anomalies are, in fact, caused by several individual magnetite stringers, whose dimensions are much smaller than the station spacing.

A system of trends may be developed in a direction North 50° East. Such a direction is consistent with the strike of some fractures occurring in the serpentinized lavas. There is, therefore, some slight magnetic evidence to postulate the existence of a fracture system in that direction.

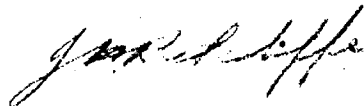
The abundance of outcrop and the small local anomalies in drift-covered areas indicate that bedrock is very close to surface throughout the claim group, except possibly between Anomalies 6 and 16, where moderate depths might be expected. In addition, the local anomalies indicate the areas of greatest serpentinization.

One fault and one shear zone have been mapped geologically, but neither these nor any others can be interpreted from the magnetic data.

CONCLUSIONS

In a situation of this kind geophysical methods are sharply limited. Only the magnetic method is of any use and its use is governed by the station spacing relative to the dimensions of the causative bodies. Unless very, very close station spacing (5 feet or less) is contemplated, it is suggested that future work on the property be devoted to trenching, particularly in the vicinity of the sharp, local, magnetic anomalies in the serpentinized lava belt.

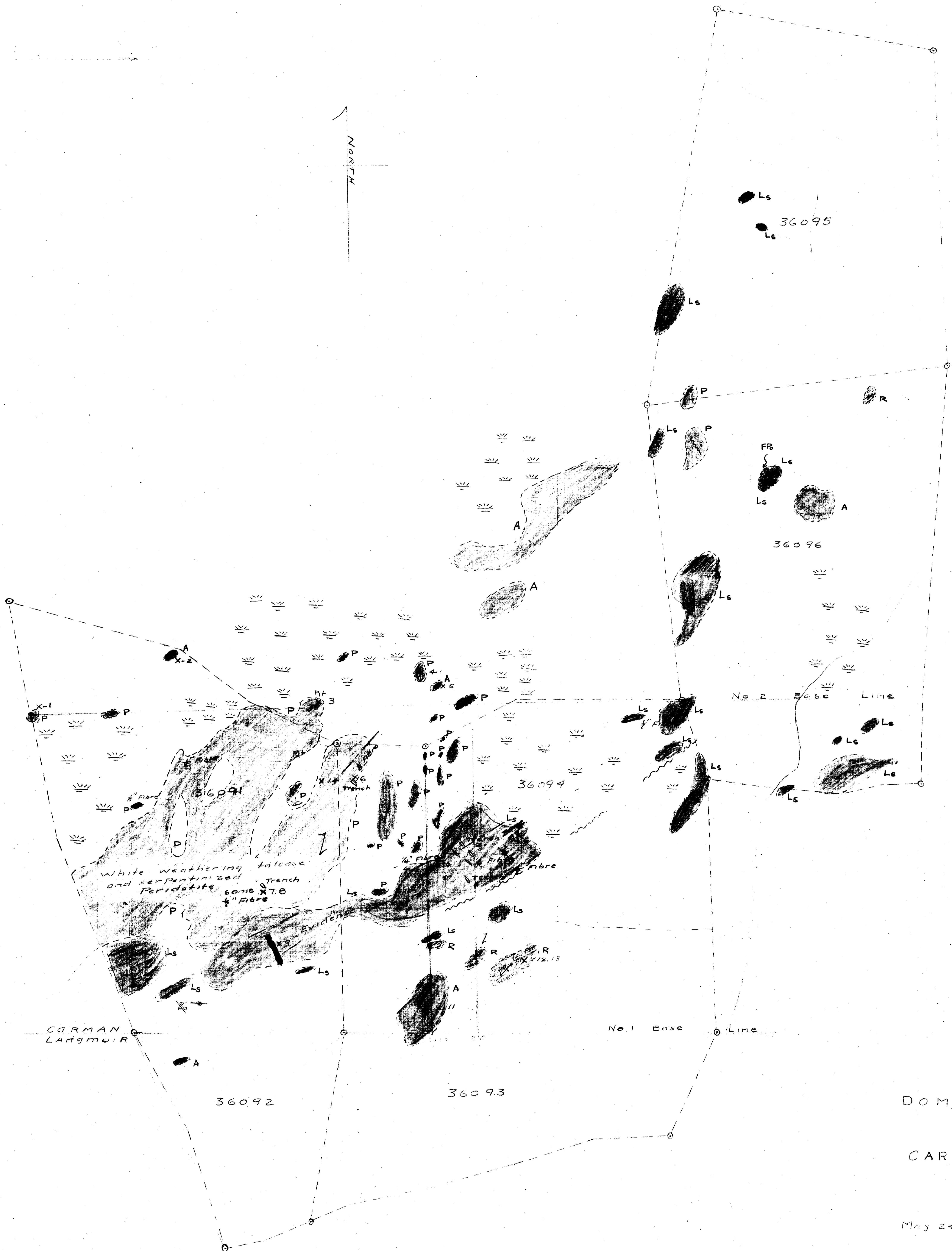
Respectfully submitted,



J. H. Ratcliffe

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July 5, 1951



DOMINION
 GEOL
 CARMAN-LAN
 GROUP

May 24, 1951



TIE-Line # 1 (From 0100 to 31194)
Overlaid on intersection of the
E-W line and Line 12E.

BASELINE # 2 (From 0100 to 11906)

CARMAN TWP.
LANGMUIR TWP.

P-36092

P-36092

P-36095

P-36096

DOMINION GULF COMPANY
GROUND MAGNETOMETER SURVEY
CARMAN-LANGMUIR TWP. CLAIMS
GROUP 1

CARMAN-LANGMUIR TWP., PROV. OF ONT.

SCALE: 1" = 200'

DATE: JUNE 16, 1951

CONTOUR INTERVAL - 500'

CONTOURED BY J. WILSON



424858013 83 241 CARMAN

TIE-Line # 1 (From 0100 to 3100)
 Cross Point of intersection of this
 E/W Line and Line 12E.

BASELINE # 2 (From 0100 to 11500)

CARMAN TWP.

LANGMUIR TWP.

LEGEND

--- SERPENTINIZATION CONTACT

--- ANOMALY OUTLINE

7 ANOMALY NUMBER



DOMINION GULF COMPANY
 INTERPRETATION OVERLAY
 CARMAN - LANGMUIR TWPS. CLAIMS
 GROUP 1
 CARMAN - LANGMUIR TWPS. - PROV. OF ONT.
 SCALE : 1" = 200' DATE : JUNE 18, 1951.



LEGEND

- FB Feldspar porphyry
- P Altered peridotite, some asbestos
- Ls Serpentinized lava with asbestos
- R Rhyolite, agglomerate
- A Andesite, dacite

Symbols

- Claim post
- Claim boundary
- Outline of outcrops
- Shear
- Foliation
- Trench
- Specimen location and number
- Swamp
- Joints
- Trend of asbestos veinlets

DOMINION GULF CO.
 GEOLOGY
 CARMAN-LANGMUIR TWPS
 GROUP No. 1

May 24, 1951 Scale 1" = 200'